# M Street and 5th Avenue Sewer Improvements Phase II

## INVITATION TO BID NO. 2023C015

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

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II


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

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## MASTER INDEX



The most current version of the Municipality of Anchorage Standard Specifications (M.A.S.S.) 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

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

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

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION I

## INVITATION TO BID

# MUNICIPALITY OF ANCHORAGE
## PURCHASING DEPARTMENT

Invitation to Bid

## No. 2023C015

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:

## M Street and 5th Avenue Sewer Improvements Phase II

The Work that is presented in the Bid Proposal for this Contract consists of the Contractor to furnish and install approximately 155 linear feet of 8-inch PVC pipe, One (1) 4-inch sewer service reconnect, three (3) Type A sanitary sewer manholes, and one (1) existing sewer service to be abandoned/decommissioned. Additionally, the Work includes the restoration of all affected streets and landscaping.

ESTIMATED CONSTRUCTION COST: **Between: $100,001 - $500,000**

**Site Visit:** **N/A**

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

**Questions Due:** **12:00 P.M. Local Time, March 29, 2023**

**Bid Opening:** **3:00 P.M. Local Time, April 12, 2023**

**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 (wwpur@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: 2023C015

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: March 22, 2023

Senior Buyer Assigned to this Project:
Jared Brunelle

Chris Hunter

Chris Hunter
Deputy Purchasing Director

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION II

## SPECIAL PROVISIONS

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## INDEX TO THE SPECIAL PROVISIONS

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

# GENERAL PROVISIONS

## GENERAL STATEMENT AND EXTENT OF WORK

All proposed Work for the M St. and 5th Avenue Sewer Improvements – Phase II is located in Anchorage, 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 the Contractor to furnish and install approximately 155 linear feet of 8-inch PVC pipe, One (1) 4-inch sewer service reconnect, three (3) Type A sanitary sewer manholes, and one (1) existing sewer service to be abandoned/decommissioned. Additionally, the Work includes the restoration of all affected streets and landscaping.

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**, (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.).

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.

## SECTION 10.02 BIDDING REQUIREMENTS AND CONDITIONS

### Article 2.1 Examination of Bidding Documents and Site

*Add the following paragraph to the end of the Article:*

The Anchorage Water and Wastewater Utility performed closed circuit television inspections (CCTV) of the M Street and 5th Avenue Sewer Improvements Phase II Project in February 2021. These inspections were conducted for inspection purposes only. The Condition Assessment of these inspections are included in Section XII of these Specifications.

## SECTION 10.03 AWARD AND EXECUTION OF CONTRACT

### Article 3.7 Contractor's Warranty

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

The Contractor shall warranty all materials and workmanship for two (2) years from the Final Acceptance Date.

## 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. Attendance and participation at the project meetings.
15. Removal and disposal of existing storm drain utilities.
16. Bypass systems for storm drain flows.
17. Locating of existing utilities (i.e. potholes).
18. Coordinating with property owners or residents for work on-property or adjacent to the Project.
19. Adjustment of water valve boxes to finish grade.
20. Adjustment of sewer manholes to finish grade.
21. Removal and disposal of all water/sewer utility amenities to be removed.

22. Sewer Main and/or Sewer Service Flow Control.
23. Connections to existing items specified in the Contract Documents. This includes but not limited to items specified in the Contract Documents as furnish and install pipe connecting to existing pipe, connecting existing pipe to construct sanitary sewer manhole, etc.
24. All Work required to shore, remove, replace, relocate and/or reset light poles, luminaires, pedestal or any other utility asset owned and operated by Chugach Electric Association, GCI, ACS.
25. All Work required to shore, remove, replace, relocate and/or reset any gas utility assets owned and operated by Enstar Natural Gas Company.
26. Protecting trees and/or other landscape items from removal.
27. Removing and resetting gardens, planters, landscaping, retaining walls, play equipment, signs, parking meters and other on property improvements and personal property in all areas disturbed by the Work.
28. Tack Coat
29. Dewatering
30. Other items indicated on the Drawings or in these Specifications, but not specifically listed as a bid item in these Contract Documents.

**Article 4.12 Public Convenience and Access**

*Delete the second sentence of the first paragraph and replace with the following:*
Without prior approval of the Engineer, entrances or driveways of all kinds shall not be blocked for more than eight (8) hours.

**Article 4.13 Traffic Control Plan**

*Replace the paragraphs five (5) and six (6) with the following:*
The Contractor is responsible for obtaining all road closure permits and for complying with all requirements of those permits. Full payment for project traffic control shall be made through bid item entitled “Traffic Maintenance.” No other separate payment shall be made.

*Add the following paragraph to the end of the Article:*

The Contractor shall prepare and submit six (6) copies of an acceptable Traffic Control Plan (TCP) to be employed during construction. The TCP shall be delivered to the Engineer within ten (10) working days of the effective date of the Notice-To-Proceed or five (5) working days before the commencement of Work, whichever is the earlier date. The Engineer will review and accept or reject the plan within five (5) working days of submission. Successive submittals will also be reviewed within five (5) working days. The review by the Engineer is separate from any other agency review.

## 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.

C. Gas

*Add the following paragraph:*

The Contractor shall download and follow the most current construction guidelines published by ENSTAR. Those guidelines can be downloaded from:

https://www.enstarnaturalgas.com/safety-education/natural-gas-safety/safety-for-excavators-contractors/

*Click on the link in the last sentence of the first paragraph.*

D. Electrical and Telecommunications

*Add the following paragraph:*

The Contractor shall download and follow the most current construction guidelines published by Chugach Electric Association. Those guidelines can be downloaded from:

http://www.chugachelectric.com/media-room/publications-request

*Click on the link titled "Electrical facility Clearance Requirements".*

*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) – Shawn Dooley, 564-2786

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 Street and Storm Drain Maintenance, Paul VanLandingham, 343-8372, or 317-7054

Municipal Street Light Maintenance– Kathy Bourque Parker, 343-8242

Municipal Traffic Signals Section – Levi Piehl, 343-8355

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

Matanuska Electric Association (MEA) – Tom O'Hare, 761-9281

Matanuska Telephone Association (MTA) – Robbie Nash, 761-2704

Eagle River Street & Storm Drain Maintenance – Mark Littlefield, 343-1512

Alaska Waste – Josh James, 688-4446

*Add the following new Articles:*

**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 Engineer. 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 5.2 Prosecution of the Work

*Add the following paragraph:*

**Excavation Temporary Fencing Enclosure**

Excavations left overnight or unattended at any time during the Work shall be enclosed with temporary construction fencing. Temporary construction fencing shall be six (6) feet in height and consist of chain-link fencing materials in good condition. Posts shall be steel pipe of diameter to provide rigidity and be suitable for anchoring with base plates or inserting in precast concrete blocks. Fabric shall be woven steel wire mesh provided in continuous lengths and wire tied to pipe-framed fence panels. Gates shall be fabricated of the same material used for fencing and be capable of manual operation by one person. Temporary construction fencing around excavations shall be incidental to the Contract. Temporary fencing around the Williwaw Elementary School will be paid for under bid item 70.12 Traffic Maintenance.

### Article 5.3 Construction Progress Schedule and Schedule of Values

*Add the following paragraphs after the second paragraph:*
*A Schedule of Values for Contract Payments will not be required for this Project.*

### 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 5.22 Time for Completion of Work

*Add the following sentence to the end of the first paragraph:*
The Contractor shall complete all work under this Contract within thirty (30) 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 7.4 Change Order Compensation Adjustments

*Remove and replace the Article in its entirety with the following:*

Each Change Order Proposal shall include a clear summary of the Contract requirements; the reason for the requested change; a description of the change and whether additional time and/or other compensation is requested or credit offered to the Owner. Unless formalized by an executed Change Order, any and all increased costs or delays resulting directly or indirectly from an unapproved Change Order Proposal shall be borne solely by the Contractor.

Any compensation paid in conjunction with the terms of a Change Order shall constitute total compensation due the Contractor for the Work or alteration defined in the Change Order. By signing the Change Order, the Contractor acknowledges that the stipulated compensation includes payment for the Work or alteration plus all payment for the interruption of schedules, extended overhead, delay or any other impact claim or consequential effects and, by such signing, specifically waives any reservation or claim for additional compensation with respect to the subject of the Change Order.

A. Labor

Labor costs shall include the direct hourly cost of labor stated on the certified payroll for each labor classification plus other direct labor costs including, but not limited to, FICA, Workers' Compensation, ESC, and public liability and property damage insurance when premiums are based on a percentage of payroll. The labor costs shall include only those direct labor hours required to perform the changed Work for workers and working foremen. Supervision above the level of working foremen (such as general foremen, superintendents, and project managers, etc.) shall not be included in labor costs and shall be considered to be included in the Overhead and Profit.

B. Materials

Costs for materials and supplies, including freight, shall be based on the net actual cost of the material and supplies required to perform the changed Work, as verified by appropriate vendor and third party invoices. Material costs shall reflect cost reductions

available to the Contractor due to trade discounts, volume rebates, and price reductions for prompt payments, if applicable. Material costs must be itemized to display the unit price for each specific item incorporated into the Work.

C. Equipment

Time for both owned and rented equipment shall be estimated to the nearest one quarter hour for purposes of computing compensation to the Contractor for equipment utilized under these rates. The equipment rates for both owned and rented equipment as determined below shall be full compensation for providing the required equipment and no additional compensation shall be made for other costs such as, but not limited to, fuels, lubricants, replacement parts or maintenance. Cost of repairs, both major and minor, as well as charges for mechanic's time utilized in servicing equipment to ready it for use prior to moving to the project and similar charges shall not be allowed.

When it is necessary to obtain equipment from sources beyond the project limits at the request of Owner exclusively for changed Work, the actual cost of transferring the equipment to the site of the Work and return shall be allowed as an additional item of expense. Where the move is made by common carrier, the move-in allowance shall be limited to the amount of the freight bill or invoice. If the Contractor hauls the equipment with his own forces, the allowance shall be limited to the rental rate for the hauling unit plus operator wages. Move-in allowance shall not be made for equipment brought to the project for changed Work which is subsequently retained on the project and utilized for completion of Contract items.

a. Equipment with a new condition purchase value of over $2,000

For any machinery or special equipment, the Contractor shall include costs for the rental rates in the current edition and appropriate volume of the "Rental Rate Blue Book" (hereinafter referred to as the "Blue Book"), published by EquipmentWatch (http://equipmentwatch.com/) or their successors. Hourly rental rates shall be determined as follows:

i. The established hourly rental rate shall be equal to the monthly rate for the basic equipment plus the monthly rate for applicable attachments as set forth in the “Blue Book”, necessary to perform the Work, both divided by 176, all multiplied by the area adjustment factor, plus the estimated hourly operating costs listed in the Blue Book. The area adjustment factor is to be used.

ii. For Contractor-owned equipment not listed in the “Blue Book”, the Contractor shall receive a rental rate as agreed in writing between the parties before the changed Work is begun. If agreement cannot be reached, the Engineer reserves the right to establish a rate based on similar equipment shown in the “Blue Book” or based on prevailing commercial rates in the area.

b. Small Tools and Equipment with a new condition purchase value of under $2,000

Individual equipment, tools, and other specialty items valued at less than $2,000 are included in Profit and Overhead and no separate payment shall be made.

D. Allowances for Profit and Overhead

Contractor Change Order Proposals for the performance of changed Work shall include all direct costs for labor, materials, and rented equipment as described above. The Engineer shall review the proposals for reasonableness and adequate detail in order to reach agreement with the Contractor before including allowances as described below:

a. In addition to the direct costs of labor, materials and equipment incurred by the Contractor, the Contractor shall be entitled to an allowance for profit and overhead. This allowance shall not exceed twenty percent (20%) of the total direct cost of labor and materials. The overhead and profit rate for equipment is not to exceed fifteen percent (15%).

b. If Work is performed by a subcontractor, the subcontractor actually performing the Work shall be entitled to those allowances for profit and overhead listed above, and each subsequent higher tiered subcontractor or Contractor shall be allowed up to an additional ten percent (10%) markup on the subcontractor's invoice, up to a maximum of two tiers of subcontractors.

   The allowance made in accordance with the terms outlined above shall be complete reimbursement and compensation for all indirect costs associated with changed Work including, but not limited to, job office overhead, home office overhead, project management, superintendents, general foremen, estimating, engineering, detailing, legal, accounting, shop drawings, costs of small tools and small equipment, bond cost, insurance premiums, profits, delay impacts on the rest of the Work and losses of all kinds and other items of cost not specifically designated. No other reimbursement, compensation or payment shall be made for changed Work.

   Any allowance made by the Contractor to a Subcontractor, other than specified herein, shall be at the expense of the Contractor.

E. Negotiated Changes

When extra Work is ordered by the Engineer to be performed on a negotiated unit or lump sum basis, the Contractor shall be required to submit a properly itemized Change Order Proposal covering all the additional Work and/or Work to be deleted. The proposal shall be itemized for the various components of Work and segregated by labor, material, equipment and any tiered subcontractor costs in a format satisfactory to the Engineer.

F. Time and Material Changes

When extra Work is ordered by the Engineer to be performed on a time and materials basis, the Contractor shall be required to perform the extra Work at the actual direct cost for labor, materials and equipment plus allowances for profit and overhead.

In order for payment to occur, the Contractor must document all direct costs in a manner acceptable to the Engineer. At a minimum, Contractor generated documentation will include daily reports generated in the field identifying all labor, equipment, and materials associated with the extra Work. The daily reports are to be signed off by the Engineer and the Contractor or their assigned designees at the end of each shift or the beginning of the next shift to be eligible for payment. A copy of the

signed off daily reports are to be provided to the Engineer within one week of the extra Work being complete to continue eligibility for payment of the extra Work.

The Contractor shall provide daily time sheets with the names of all Contractors employees working on the changed Work, the number of hours each employee works on the changed Work, and a description of the Work performed. In addition, the Contractor shall provide daily records of all equipment used to perform the changed Work showing the number of hours each piece of equipment was used, a description of the Work performed, and the name of the equipment operator. All materials incorporated into the changed Work shall be documented with itemized invoices from vendors and suppliers.

G. Unit Price Changes

When extra Work is ordered by the Engineer to be performed on a unit price basis, payment shall be made for both added quantities and deductive quantities in accordance with those unit prices that have been incorporated into the Contract Documents, unless the Engineer determines there is an alternate method. For changed Work authorized by the Engineer, the Contractor shall submit a Change Order Proposal itemizing the quantities of each item of Work for which there is an applicable unit price. The applicable unit prices shall be applied to the net differences of all quantities of the same item. These unit prices shall be considered to cover all direct and indirect costs of furnishing and installing the item, including all profit and overhead. No additional markup for overhead and profit shall be allowed on unit priced items except where the actual quantity used exceeds one hundred and twenty-five percent (125%) of the estimated quantity. For additional unit price Work performed by subcontractors, each subsequent higher tiered subcontractor or Contractor shall be allowed up to an additional five percent (5%) markup on the subcontractor's direct costs (not including profit and overhead), up to a maximum of two tiers of subcontractors.

H. No Cost Changes

The Engineer shall have authority to order changes in the Work that, at his sole discretion, do not require an adjustment in the Contract amount or an extension of time and are not inconsistent with the intent of the Contract Documents. Such changes shall be affected by written order and shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.

If the Contractor claims that such written instructions or orders involve extra costs or an extension of time, it shall make his claim by following the procedures set forth in Article 5.21 - Claims for Additional Compensation. The Contractor shall proceed with the Work as directed by the Engineer while his claim is being evaluated and shall not delay the Work while waiting for a decision.

## 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.

   l. Progress redlines.

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, the fourth paragraph:*

9. 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).

10. 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.

11. 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 of 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

## SECTION 20.01 GENERAL

### Article 1.6 Subsurface Investigation

*Add the following paragraph to the end of the Article:*
Bore logs are included in Section XII of the Contract Documents.

### Article 1.9 Contaminated Material

*Delete this Article and replace with the following:I*
Contaminated material may be encountered within the project area. Soil excavations and groundwater shall be tested per Division 20, Section 20.31, Contaminated Soil and Ground Water Disposal.

## SECTION 20.09 REMOVAL OF PAVEMENT

### Article 9.2 Construction

*Delete the second paragraph and replace with the following:*
Contractor shall keep pavement that is designated for removal free from objectionable material (concrete, steel, etc.) and shall dispose of pavement designated for removal at the Kloep Maintenance Station, 5701 Northwood Street. Contractor shall coordinate exact location and time of delivery with Paul VanLandingham at 343-8372 or 317-7054 with MOA Street Maintenance. If the removed pavement material under this Section contains objectionable material, as identified by the Engineer, then Contractor shall dispose of this material in accordance with Division 10, Section 10.04, Article 4.9 – Disposal Sites.

## SECTION 20.12 DEWATERING

### Article 12.3 Construction

*Replace the Article in its entirety with the following:*

Excavation dewatering shall be required to protect adjacent utilities and property and to install the new utility lines successfully. Design, installation, and operation of dewatering systems shall comply with current safety and environmental regulations.

The Contractor shall submit its dewatering plan to the Engineer a minimum of seven (7) days prior to beginning dewatering activities. The dewatering plan shall contain copies of all required permits and approvals. Dewatering activities shall not commence until the Engineer has reviewed the dewatering plan and all comments are addressed by the Contractor. Review of the plan does not imply acceptance of the adequacy of the Contractor's plan and means and methods to properly dewater and maintain the trench in a dewatered state.

Review of the Contractor's dewatering plan, by the Engineer, shall not relieve the Contractor of responsibility for the exercise of reasonable precaution, sound engineering judgment, prudent construction practices, overloading or misuse of existing or new

structures, the adequacy and safety of such Works, and potential damage or undermining of existing or completed Work. Additionally, review of the dewatering plan by the Engineer does not relieve the Contractor of the responsibility for providing additional dewatering work if implementation of the dewatering plan does not result in a dry and stable construction environment throughout the project.

The Contractor should review the Contract Documents and complete its own analysis on anticipated groundwater conditions and dewater discharge rates. Water resulting from Contractor's dewatering efforts may not be pumped or otherwise diverted from the excavation onto roadways. Locations available for dewatering disposal on this project include the Anchorage Water & Wastewater Utility sewer system.

AWWU Sanitary Sewer Discharge

The available capacity of the AWWU sanitary sewer system for receiving water from the dewatering system is 200 gallons per minute (gpm) maximum. If the Contractor elects to discharge dewatering into the AWWU sanitary sewer system the Contractor shall acquire and pay for an AWWU Wastewater Discharge Permit. Water discharged into the sanitary sewer system shall meet the requirements of the AWWU Wastewater Discharge Permit and Section 20.31 Contaminated Soil and Groundwater Disposal, as applicable.

All AWWU sanitary sewer manholes used for dewatering will be inspected prior to construction and after the completion of construction. Any additional damage to the manhole or debris located in the manhole will be cleaned and repaired by the Contractor at no cost to the Owner. The Contractor shall periodically monitor downstream sanitary sewer manholes for signs of surcharging during dewatering discharge activities. The Contractor shall immediately decrease the discharge rate upon evidence of surcharging within the downstream sanitary sewer manholes.

Prior to discharging water collected by the dewatering system into the AWWU sanitary sewer system the Contractor shall collect samples for testing in accordance with Section 20.31 Contaminated Soil and Groundwater Disposal. Based upon test results the Contractor may need to install a water treatment system in accordance with Section 20.31 Contaminated Soil and Groundwater Disposal. All work associated with testing and treatment of groundwater shall be paid for under Section 20.31 Contaminated Soil and Groundwater Disposal.

### Article 12.4 Measurement

*Delete this Article and replace with the following:*
No measurement will be made for Work in this Section.

### Article 12.5 Basis of Payment

*Delete this Article and replace with the following:*
No separate payment will be made for Work in this Section. All Work associated with Dewatering will be considered incidental to the Contract.

## SECTION 20.13 TRENCH EXCAVATION AND BACKFILL

### Article 13.2 Trench Excavation and Backfill – Description

*Add the following paragraphs after the fifth paragraph:*
Payment to the Contractor for Work resulting from any excavation required for this project, whether paid for on a cubic yard, ton, or linear foot basis, shall not exceed the following limits:

1. Horizontal pay limits: Horizontal pay limits shall be limited to a maximum of the outside diameter of the pipe, fittings, or other facility under construction, plus an additional 1.5 feet on each side of the facility at the bottom of the trench, to a maximum of 4 feet total bottom width for pipe trench, plus the projected horizontal width of the 1 horizontal to 1.5 vertical side slopes, beginning at the top of the bedding prism as shown on the Drawings.
2. Vertical pay limits: Vertical pay limits shall be limited to the depth from existing grade to the bottom of pipe, fittings, or other facility, plus any excess excavation necessary for bedding material and/or foundation material, as directed by the Engineer.

### Article 13.3 Construction

E. Locator Tape

*Delete the fourth sentence and replace with the following:*
The Contractor shall install the locator tape at least 24 inches but no more than 36 inches above the crown of the pipe.

## SECTION 20.16 FURNISH BEDDING MATERIAL

### Article 16.2 Materials

D. Class “E” Bedding

*Add the following paragraph to the end of the subarticle:*
In addition to the grading limits above, the fraction of materials passing the #200 sieve shall not be greater than 20 percent of that fraction passing the #4 sieve. The material shall not include mechanically fractured materials.

Where groundwater prevents compaction of Class E bedding the contractor is authorized to use E-Chip in place of Class E bedding. E-Chip aggregate shall consist of crushed gravel and shall be sound, durable, free of adherent coatings of clay, dirt, dust, or any other objectionable matter, and shall have a percentage of wear not to exceed forty (40) after five hundred (500) revolutions, as determined by the ASTM C-131. Not less than sixty percent (60%) by weight of crushed gravel shall consist of crushed pieces having two (2) or more faces having freshly fractured face.

Aggregate material shall have the following gradation:

| Sieve Designation | Percentage Passing by Weight |
|---|---|
| ½" | 100 |
| 3/8" | 90-100 |
| No. 4 | 10-30 |
| No. 8 | 0-8 |
| No. 200 | 0-1 |

This material substitution is incidental to the bid item and no separate payment shall be made.

## SECTION 20.27 DISPOSAL OF UNUSABLE OR SURPLUS MATERIAL

### Article 27.1 General

*Delete the first sentence and replace with the following:*
The Work under this Section consists of performing all operations pertaining to the handling, stockpiling, and disposal of unusable or surplus material encountered in the trench excavation in accordance with this section and per Division 20, Section 20.31, Contaminated Soil and Groundwater Management and Disposal.

### Article 27.2 Construction

*Delete the fourth sentence from the first paragraph and replace with the following:*
Payment will not be made for disposal of unusable material unless the material is moved in excess of one (1) mile from the excavation.

*Add the following paragraph to the end of the Article:*
If asbestos-cement pipe is encountered and has to be removed from the trench and disposed of, the Contractor is hereby notified that Federal regulations governing the removal and disposal of asbestos are NESHAP 40 CFR, Part 61, Subpart M, and OSHA 29 CFR 1910. The Alaska Department of Environmental Conservation requirements include, but are not limited to 18 AAC 50, Air Quality Control Regulations, and 18 AAC 60, Solid Waste Management Regulations. The Alaska Department of Labor governing regulations include, but are not limited to Occupational Safety and Health Standard, Subchapter 04.0103: Asbestos; 8 AAC 61.600.790 Article 8; and Alaska Workers Right to Know, AS 18.60. Asbestos-cement pipe removed from the trench must be handled and disposed in accordance with the applicable Federal and State regulations. Asbestos-cement pipe must be disposed of and declared at the Hiland Road Municipal Landfill.

### Article 27.4 Measurement

*Add the following paragraph to the end of the Article:*
No measurement will be made for the removal, handling, and disposal of asbestos-cement pipe.

## SECTION 20.30 SHORING, SHEETING AND BRACING/SHORING AND SHEETING LEFT IN THE TRENCH AND PORTABLE

### Article 30.1 General

*Add the following at the end of the Article:*

The Work under this Section also includes all operations necessary to shore, brace and protect from harm existing utilities located within the project area. Utilities include underground facilities as well as overhead facilities, utility poles, supporting structures and street lights.

It is the Contractor's responsibility to furnish, install, and maintain wood sheeting, steel sheet piling, shoring, planking, and bracing, whether or not indicated on the Drawings, to prevent earth movement which could damage, but not limited to, adjacent structures and/or property, landscaping, obstruct surface drainage channels or waterways, or otherwise impair or delay the work or endanger human life.

Where the centerline of any excavation is within 10 feet of any structure (including but not limited to buildings and retaining walls) in any direction, or the excavation will impact the pressure prism of the adjacent structure foundation, the Contractor shall provide shoring to protect the foundations of the structure.

Where connections of new sewer lines to existing sewer lines are located within 8 feet of the face of the structure, or the excavation will impact the pressure prism of the adjacent structure foundation, provide shoring parallel to the face of the structure over the entire width of the excavation.

Contractor shall be responsible to repair or replace any portion of any, but not limited to, structures and/or property, landscaping, surface drainage channels or waterways damaged during construction.

A. Measurement to Quantify Structure Settlement

Prior to beginning excavation, the Contractor shall obtain horizontal and elevation survey data for all structural foundation corners for structures within 10 feet of excavation. Structural corners shall include all buildings and retaining walls. The Contractor shall also survey an intermediary point when the structure length or the building wall length exceeds 50 feet. The Contractor shall set PK nails (or approved equal) into the structure to conduct the survey. The Contractor shall provide the Engineer with 24 hours of written notice prior to conducting the survey. The Contractor shall remove targets and restore building surface upon written directive from the Engineer.

Repeat measurements before final completion but after substantial completion. Measurements to be on project horizontal and vertical datum, accuracy 0.01 feet (1/8-inch). Provide daily measurements if signs of settlement are identified.

Submit measurements in table form with point designations, initial locations, subsequent measured locations, dates of each measurement, and differential from original measurement. All survey and submittals shall meet the requirements of Section 65.01 and Section 65.02.

### Article 30.3 Construction

*Add the following sentence to the end of the second paragraph:*
No bracing requiring driven or vibratory installation methods shall be used on this Project.

*Add the following to the end of the Article:*
Shoring within the building foundation pressure prism will remain in place to a level one (1) foot above pressure prism. Shoring above this level may be cut off and removed. Do not cut off or remove more shoring than can be completely backfilled within same workday. Bracing may be removed when bracing is not deemed necessary for shoring stability. Ensure bracing removal allows for compaction of soils around bracing. Do not use portable trench to shore building foundations.

The shoring shall be sufficient to avoid impacting areas or facilities outside of the existing ROW, PUEs or TCPs. Methods and materials used to shore or brace utilities shall be reviewed and approved by the affected utility company before it is submitted to the Engineer for approval.

The Contractor shall prepare and submit to the Engineer for approval a Shoring Plan. The Shoring Plan shall be submitted a minimum of three (3) days prior to work involving shoring. The Shoring Plan shall detail the methods and materials to be used for trench shoring as well as utility pole shoring, if necessary. The Plan shall be prepared by and sealed by a Professional Engineer registered in the State of Alaska.

When, in the opinion of the Engineer or affected utility company, shoring is inadequate, improper, or conditions exist such that damage may occur, the Contractor shall be notified in writing by the Engineer. Such notification shall be accompanied by a statement of corrective action. If the Contractor fails to promptly comply with such instruction, the Engineer may suspend any or all Work on the project until satisfactory, corrective action is taken. Notification or lack of notification shall in no way relieve the Contractor of the responsibilities established in Section 10.04 Subsection 4.17 Utilities.

### Article 30.5 Basis of Payment

*Delete the text of this Article and replace with the following:*
NO SEPARATE PAYMENT WILL BE MADE FOR WORK IN THIS SECTION. ANY SINGLE TECHNIQUE OR COMBINATION OF TECHNIQUES USED FOR SHORING, SHEETING, AND BRACING; SHORING AND SHEETING IN THE TRENCH; AND PORTABLE STEEL SHIELD WILL BE CONSIDERED INCIDENTAL TO THE ITEMS IN THE BID PROPOSAL.

## NEW SECTION 20.31 CONTAMINATED SOIL AND GROUND WATER DISPOSAL

### Article 31.1 General

AWWU's Project 6th Avenue and M Street Sewer (WW.00031) (referenced under Section XII) was located approximately one hundred and fifty (150) lineal feet away from proposed excavations and encountered soil and ground water contamination. Since this project is in close vicinity and down gradient of that project there is potential to encounter contamination in this project.

Work under this Section consists of testing, handling, reusing, and disposing of potentially contaminated soils and testing, sampling, and treating potentially contaminated ground water, if encountered during excavations in the project.

## Article 31.2 References

18 AAC 75 Oil and Other Hazardous Substances Pollution Control Regulations

## Article 31.3 Definitions

**Contaminated soil:** "Contaminated soil" means soil containing a concentration of a hazardous substance that exceeds the applicable cleanup level determined under the Alaska Department of Environmental Conservation (ADEC) site cleanup rules as defined in 18 AAC 75.

**Contaminated water**: “Contaminated water" means groundwater containing a concentration of a hazardous substance that exceeds the applicable cleanup level determined under the ADEC site cleanup rules under 18 AAC 75 or concentrations defined in 18 AAC 70, the State of Alaska Surface Water Quality Standards.

**Contractor Prepared Contaminated Soil and Groundwater Workplan**: The workplan for screening and management of contaminated soil and groundwater documents that is prepared by the Contractor.

## Article 31.4 Submittals

Submittals are to be provided to the Engineer for review as stated in Division 10, Section 10.05, Article 5.6 – Product Data.

1. Qualified Environmental Professional: The contractor must provide an ADEC QEP as defined in 18 AAC 75.333. Submit the name, address, and telephone number of the QEP selected to prepare reports, make an interpretation regarding field data, exercise onsite control over all work that requires assessment, investigation, characterization, reporting, or interpretation.

2. Contractor Prepared Contaminated Soil and Groundwater Workplan: The Contractor shall submit a Workplan within 10 days of Contract NTP that describes the methods for testing, sampling, storing, and disposing of contaminated soil and groundwater. The Workplan shall be submitted to the Engineer for review and approval before it is submitted to ADEC. ADEC has up to 30 days to review the plan.

3. Analytical Laboratory: Provide evidence that the laboratory is approved for groundwater analysis by the ADEC.

4. Sampling and Testing Records: Submit ground water and soil sampling, testing, and disposal records prepared during the course of the project.

## Article 31.5 Construction

5.1 GENERAL

A. Work shall be performed in accordance with the requirements of the ADEC approved Contractor Prepared Soil and Groundwater Workplan.

B. Comply with all environmental, health, and safety regulations governing project work including regulations established by the United States Environmental Protection Agency (USEPA), the State of Alaska Department of Environmental Conservation (ADEC), and the Federal Occupational Safety and Health Administration (OSHA). Site conditions may include confined spaces and presence of volatile organic compounds in soil, water, and air.

C. Contractor shall be responsible for all environmental sampling, waste characterization, waste management, and Municipal, State or Federal agency approvals for management of contaminated soils and groundwater that may be generated on the project.

5.2 QUALIFIED PERSON RESPONSIBILITIES

Qualified Person shall prepare reports, make an interpretation regarding field data, exercise onsite control over all work that requires assessment, investigation, characterization, reporting, or interpretation.

The Qualified Person shall implement the ADEC approved Soil Management Plan. At a minimum, the Qualified Person shall be responsible for; screening of excavation soils, soil sampling of excavation soils and stockpiles, documentation of work site and excavation atmospheric conditions relative to worker occupational health and safety regulations, processing of Contractor requests for offsite soil disposal and treatment to ADEC and the company or agency receiving contaminated, maintenance and monitoring for Contractor dewatering permits, verifying adherence to ADEC requirements for stockpile liners and covers, and documenting contaminated soil returned to excavation is returned to approximate position of origin.

5.3 CONTAMINATED SOIL MANAGEMENT

A. Contaminated Ground Water:

Prior to discharge into the AWWU sanitary sewer system, the Contractor shall collect a set of samples from the weir tank or excavation to demonstrate compliance with applicable cleanup level Discharge Limitations. Samples shall be submitted to an approved analytical laboratory for testing. If sample results come in below applicable cleanup level discharge limitations the Contractor can begin discharging into the AWWU sanitary sewer system in accordance with Section 20.12 Dewatering. If samples collected exceed applicable cleanup level limitations, the Contractor shall install a polishing system after the weir tank as follows:

- Bag filtration unit(s) which contain sediment bag filter(s) able to remove sediments down to 5-microns will be installed directly after the weir tank. The Contractor shall determine the flow capacity and number of filtration unit(s) needed to treat the volume of flow being supplied by the Contractor designed dewatering plan.

- Granular activated carbon filtration unit(s) installed directly after the bag filtration unit(s). The granular activated carbon filtration unit(s) will adhere to the following minimum requirements.

    - Granular activated carbon filtration unit(s) will contain 1.5 cubic feet of granular activated carbon (GAC) for each gallon of flow (150 cubic feet for 100 gpm flow).

    - The GAC will be in a container or parallel containers with a positive connection on the top and a gravity discharge on the bottom.

    - A diffuser shall be used to distribute flow across the top of the GAC.

    - The GAC container shall have an aspect ratio such that no more than 2.5 gpm is applied per square foot of surface area of GAC.

After installation of the polishing system a set of samples will be collected at the discharge of the polishing system to demonstrate adherence to applicable cleanup level limitations. The Contractor will not be allowed to discharge to the AWWU sanitary sewer system until acceptable test results are obtained.

If a polishing system is installed the Contractor shall maintain and operate the onsite treatment system to keep it functional and operational to its full capacity. Maintenance shall include periodic cleaning, replacement of work or non-functional parts, and removal of excessive sediment and floatables. Maintenance and operation shall be performed in accordance with the treatment system manufacturer and supplier recommendations. Waste generated from cleaning or maintenance of the onsite treatment system shall be managed and disposed of by the Contractor.

After initial acceptable test results are obtained the Contractor shall collect additional samples after every three (3) days of dewatering operations to demonstrate continued adherence to applicable discharge limitations. If during dewatering activities a sheen is observed in the excavation or weir tank, prior to installation of a polishing system, the Contractor shall collect a set of samples from the excavation or weir tank for testing by an approved analytical laboratory. The Contractor shall also surround the sump(s) and

trench pumping locations with petroleum-absorbent booms. Absorbent pads will also be placed within the weir tank. The Contractor can continue to discharge into the AWWU sanitary sewer system until test results are received.

B. Contaminated Soil:

Contaminated soil that meets the requirements of trench backfill may not be used for trench backfill within two and a half feet of the project finish grade.

Contractor shall screen, sample, and test excavated soil in accordance with the Contractor Prepared Contaminated Soil and Groundwater Workplan to determine if it meets the criteria for contaminated soil. Soil that is not contaminated shall be handled as described in the Contract Documents.

The Contractor shall plan and execute his Work accordingly to reuse suitable contaminated soils. Excavated contaminated soil materials that conform to the specification for trench backfill shall be segregated, salvaged, and stockpiled according to ADEC stockpile management requirements and used for backfill. Contaminated Soil Trench Backfill that is contaminated soil and meets the requirements for trench backfill shall be stored in a separate stockpile in accordance with the Contractor Prepared Contaminated Soil and Groundwater Workplan and used as trench backfill in accordance with these Contract Documents. Contaminated soil that is used as trench backfill will be placed within 100 feet horizontally of the point of origin at the same approximate elevation. Contaminated soil that is used as trench backfill may be temporarily stockpiled within close proximity of the excavation area and within the Work Zone boundary or it may be transported to a Contaminated Soil Storage Area. Payment for excavating, placement, backfill and compaction of Contaminated Soil Trench Backfill shall be included in Section 20.13 TRENCH EXCAVATION AND BACKFILL.

Contaminated soil which does not exceed the applicable ADEC cleanup levels can be reused, with AWWU approval. Stockpiled soil containing DRO, GRO, RRO, and VOC concentrations greater than the applicable ADEC cleanup criteria will require off-site disposal and/or treatment.

Depending upon the contaminant levels, potential disposal facilities include Alaska Soil Recycling (ASR), Anchorage Regional Landfill (ARL), or an out-of-state disposal facility. It is the environmental consultant's responsibility to determine appropriate disposal facility(s). In general ASR can accept petroleum-impacted soil but cannot accept soil impacted with PCE. ARL can accept soil containing less than 0.70 mg/kg PCE. Prior to disposal/treatment, the environmental consultant will provide the selected disposal/treatment facility with the analytical samples results. If the soil samples contain greater than 0.70 mg/kg PCE, it will be necessary for the

environmental consultant to contact alternative disposal facilities, located out-of-state. Depending upon the laboratory results, there is a potential that the material contains hazardous levels of PCE, as defined by the Resource Conservation and Recovery Act (RCRA) and will require disposal as a hazardous waste. It will be the responsibility of the contractor's environmental consultant to evaluate disposal methods in context of RCRA and coordinate with AWWU, the ADEC, and the appropriate disposal/treatment facilities.

Contaminated soil transported off site is to have ADEC approval and be covered during transport.

The Contractor is to provide a stockpile area for the contaminated soil. ADEC requires that contaminated soil stockpiles remain in the immediate area (on site) and be on a 10-mil liner, asphalt, or concrete surface and securely covered with 6-mil HDPE minimum, pursuant to 18 AAC 75.370, to prevent contaminant migration into storm water runoff.

**Article 31.6 Measurement**

Measurement for Contaminated Soil Disposal shall be paid per Contingent Sum in accordance with Section 10.07, Article 7.4, Part F.

Measurement for Contaminated Groundwater Treatment and Laboratory Water Test shall be paid per Contingent Sum in accordance with Section 10.07, Article 7.4, Part F.

**Article 31.7 Basis of Payment**

Payment for this Work includes all labor, tools, equipment, apparatus, and incidentals required to complete the Work described in this Section.

Payment for Contaminated Soil Disposal shall include testing, handling, storing and disposal of contaminated soil that is either unused trench backfill or contaminated soil that does not qualify as trench backfill.

Payment for Contaminated Groundwater Treatment and Laboratory Water Test shall include all labor, equipment and materials associated with the polishing system, as described in this section, and all labor costs associated with setup, operation, maintenance, and removal of the polishing system along with record keeping and reporting. Installation and maintenance of absorbent booms and pads will also be paid for under this item. Laboratory Water Test shall include all labor, equipment, and material costs associated with water sample collection, analysis, and reporting. All water samples submitted for analysis shall be submitted with a rush turnaround time of 3 to 5 days.

Payment shall be made under the following items:

| ITEM | UNIT |
|---|---|
| Contaminated Ground Water Disposal and Laboratory Water Testing | Contingent Sum |
| Contaminated Soil Disposal | Contingent Sum |

## DIVISION 30 PORTLAND CEMENT CONCRETE

## SECTION 30.02 PORTLAND CEMENT CONCRETE, CURB AND GUTTER AND VALLEY GUTTER

### Article 2.3 Construction

*Add the following section after Section E:*
F. Painting
Where existing curb is painted red, new curb shall be painted to match.

### Article 2.4 Measurement

*Add the following after the third paragraph:*

No separate measurement shall be made for painted curb. All painting of new curb to match existing will be considered incidental to the pay item for P.C.C. Curb and Gutter and no separate payment will be made.

## DIVISION 50 SANITARY SEWERS

## SECTION 50.02 FURNISH AND INSTALL PIPE

### Article 2.2 Submittals

*Add the following sentences to the end of this Article:*
The Contractor shall supply a copy of all permissions to the Utility Company prior to starting Work in the affected areas. The Contractor shall obtain the required sanitary sewer connect permits for service disconnections and reconnections. However, the Utility Company will issue the connect permits at no cost to the Contractor.

### Article 2.4 Construction

*Add the following sub articles:*

H. Connection to Existing Sewer Manhole and/or Main

The Contractor shall take all necessary measures to ensure that connection to the existing sewer manhole and/or sewer main does not damage the existing manhole and/or main. The exact connection location shall be determined in the field. Care shall be taken not to damage or move the existing sewer manhole or main while excavating to expose the best connection location.

I. Joint Separation

A minimum of 9' horizontal separation must be maintained between all water and sanitary sewer and storm sewer joints. Any joints before or after water main crossing's and where the Sewer Main parallels a water main with less than 9' of horizontal separation all joints shall be shrink wrapped using raychem wpc65m 8625-17/uni or approved equal and installed per the manufacturer's recommendations.

### Article 2.7 Basis of Payment

*Add the following pay item:*
Payment shall be made under the following unit:

| ITEM | UNIT |
|---|---|
| Furnish and Install 8-inch PVC DR-18 Pipe | Linear Foot |

## SECTION 50.04 SANITARY SEWER PIPE CONNECTIONS AND EXTENSIONS

### Article 4.1 General

*Add the following paragraphs after the list of the first paragraph:*
The Work also includes, but is not limited to, the disconnection of existing Utility Company sewer customers presently served by the affected mains, the removal or abandonment of existing sewer services where required, and the reconnection of existing customers to the new sewer mains and service extensions at the property line.

For all current Utility Company customers affected by the new sewer mains, the Contractor shall replace the existing sewer service between the new main and the property or right-of-way line. This work includes disconnecting the existing sewer services at or near the property line and reconnecting the on-property portion of the existing sewer services to the new main with new service materials. The Contractor shall provide all necessary fittings, adapters, pipe, and other appurtenances to make a complete functioning system.

*Delete the first two sentences of the third paragraph and add the following:*
The actual location, type, and size of the existing sewer service may vary from that shown on the Drawings. The Contractor shall use whatever reasonable means or methods necessary to determine the actual location of the sewer service prior to beginning excavation. All information provided in the Contract Documents has been taken from maintenance records, record drawings, CCTV, or field survey, and represents the best indication of the services location, type, and size.

### Article 4.4 Construction

*Add the following after the first paragraph of the subarticle, A:*
The disconnection, new service materials, and reconnection of the existing sewer service shall be in accordance with this specification and in accordance with the most recent version of the AWWU Design and Construction Practices Manual. The Contractor shall construct the sewer service connection in a straight run to the main whenever possible. If bends are required to install the service connection, install bends less than 45 degrees so that cleanouts are not required in the new section. Pipe used in the new sewer service connection extension shall be installed so that deflections in pipe joints do not exceed 80 percent of the manufacturer's recommended maximum deflection. The new sewer service modification or extension pipe shall be the same diameter as the pipe being modified or extended.

The Contractor shall insulate all service lines less than 5.5 feet and greater than 4.5 feet in depth from the finish ground surface at the property line to 2 feet past the new sanitary

sewer main. Insulation shall be installed per the most current version of the AWWU Design and Construction Practices Manual.

All surface areas disturbed or damaged by the installation of sewer service lines or other related construction activities of the Contractor shall be restored to their original condition. The Contractor shall replace surfacing or cover material with new material in kind.

*Add the following Sub Article:*

F. Connect Sanitary Sewer Service

Contractor shall connect the new sewer service to the new sewer main as indicated in the Drawings and in accordance with MASS Sections 50.02 and 50.04.

**Article 4.5 Measurement**

*Add the following paragraph:*

Connect Sanitary Sewer Service are to be paid for per each.

**Article 4.6 Basis of Payment**

*Add the following paragraph:*

Payment for Connect Sewer Service shall include trench excavation and backfill, pipe, pipe fittings, and labor regardless of the depth of the sewer service.

*Add the following pay items:*

| ITEM | UNIT |
|---|---|
| Connect Sanitary Sewer Service (4”) | EA |

**SECTION 50.05 SANITARY SEWER FLOW CONTROL**

**Article 5.3 Material**

*Add the following paragraphs to the end of sub-article B:*

Pumping and suction equipment shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm.

Flow control system shall be capable of bypassing 50 gallons per minute (gpm).

**Article 5.4 Construction**

*Delete the third paragraph and add the following:*

The Contractor will provide full-time, 24-hour monitoring and observation of the bypass pump when bypass pumping is occurring. Contractor personnel must be onsite while bypass pumping is occurring. Contractor shall conduct periodic inspections of the bypass system every four (4) hours while bypass pumping. These periodic inspections shall be documented on a log made available to the Engineer upon request.

*Add the following paragraphs:*

F. Flow Control of Sewer Services

Flow Control of sewer services shall be accomplished by one of the following methods:

**Method A:** Bypass flows from exterior cleanouts/control manholes for each building.

**Method B:** Accessing the building interior and interior cleanout in the building to bypass the flows.

The Contractor shall determine which method to use for each property. The Flow Control Plan shall indicate which method will be used for each active sewer service.

Sewer flows from service connections shall be controlled during pipe repair and pipe rehabilitation and lining Work. Full-time sewer service to the buildings shall be provided by the Contractor unless prior arrangements between the property owner and the Contractor have been made to allow alternate methods.

The Contractor, at his option, may offer to temporarily relocate the residents to an offsite location while the Work is being performed, if acceptable to the residents. Any agreements between the Contractor and the residents in regard to temporary relocation shall be approved by the Engineer prior to the Work being performed.

If the Contractor is unable to bypass the service and the work results in an interruption of sewer service exceeding 12 hours, the Contractor will relocate the affected resident(s) to a hotel in Anchorage of the resident(s) choice at no additional cost to the Owner.

## NEW SECTION 50.09 ABANDON PIPELINE IN PLACE

### Article 9.1 General:

This work shall include abandoning the existing sewer main and services. Prior to the beginning of construction, Contractor shall submit a written plan for abandoning sewer main and service piping for review and approval by the Engineer. The plan shall detail the following:

1) Method and equipment for placing and measuring the amount of grout required to abandon each length of piping.
2) Location and length of each run of piping to be abandoned and associated volume.
3) Method(s) for plugging the ends of the piping to be abandoned.
4) Number and location of vertical risers or tremie pipes and vent pipes.
5) Mix design and product data for the flowable grout slurry.

### Article 9.2 Material:

Flowable grout shall consist of Portland Cement or Portland Cement and fly ash, water, and admixtures as required to meet these specifications. The grout shall possess good flow characteristics with minimum shrinkage and permit a flow time adequate to complete

the grouting work. The grout shall have the ability to flow freely without stiffening through the entire length of piping being abandoned. The mix shall be designed as follows:

1) Design compressive strength of approximately 300 psi.
2) The grout slurry shall be non-shrink and shall have a slump of approximately 8 to 10 inches.
3) The grout shall have a unit weight of approximately 100 to 120 pounds per cubic foot.
4) The grout shall not bleed or segregate.
5) Aggregate shall be sand and shall have a gradation with 100% passing the 3/8” sieve.

## Article 9.3 Construction:

Wherever existing piping is to be abandoned in place, the Contractor shall empty the piping of all sewage, plug the ends, and fill the pipe full with flowable grout. Placement of the flowable grout shall be by means of a tremie pipe or other method that allows uniform placement of the grout throughout the length of pipe being abandoned. The Contractor shall demonstrate the entire length of pipe to be abandoned has been filled. At a minimum, a vertical riser at the downstream end of the pipe being abandoned shall be installed to visually confirm that grout fills the entire length of pipe. Validation shall include placement of a predetermined volume of flowable grout into the pipe to be abandoned.

The Contractor shall cut and cap all vertical risers, tremie pipes, and vent tubes after flowable grout is installed. The cap shall be located a minimum of twelve inches below finish grade.

Contractor shall abandon sanitary sewer cleanout 1229-101 as part of the pipeline abandonment work. The Contractor shall vacuum excavate to remove the cover from structure 1229-101. The excavation shall be backfilled to existing grade per the trench section in the drawings.

## Article 9.4 Measurement

Measurement of quantities for abandon pipeline in place shall be by cubic yard of flowable grout pumped into the pipe as measured by truck volume.

## Article 9.5 Basis of Payment

Payment for this Work shall be in accordance with Division 10, Section 10.07 – Measurement and Payment, and shall include full payment for all Work described in this Section. No additional payment will be made for abandonment work of structure 1229-101.

Payment shall be made under the following item:

| ITEM | UNIT |
|---|---|
| Abandon Pipeline in Place with Flowable Grout | Cubic Yard |

## DIVISION 65 MUNICIPAL CONSTRUCTION SURVEYS

## SECTION 65.01 GENERAL

### Article 1.1 Scope of Work

*Add the following paragraphs to the end of the Article:*
Contractor shall conduct a pre-construction [and post-construction] survey consisting of profiles and cross sections at a spacing specified herein to include the existing road centerline, left and right edge of pavement, top of curb, gutter invert, the drainage ditch located …, property corners and lines as described as: …, etc. in accordance with MASS Division 65.

Within 5 calendar days from the date of the Notice to Proceed, the Contractor shall submit the survey notes and plotted plan and profile (and cross sections) drawings to the Engineer (and data as specified in Section 65.02, Article 2.13). Plan and profile (and cross sections) drawings shall be submitted on 50-scale plan sheets in standard municipal format in conformance with AWWU Design and Construction Practices Manual and MASS, and shall be stamped by a registered Professional Land Surveyor or Civil Engineer licensed in the State of Alaska. The pre- and post-construction surveys will document that the new grades will closely align with the pre-construction and that there will be no significant deviations unless approved by the Engineer.

This Work shall include surveying the location, size or type, and color of all existing traffic markings that will be disturbed by construction.

Payment for conducting the pre-construction (and post-construction) profile and cross section surveys, plotting the plan and profile (and cross section) drawings, and providing the drawings in AutoCAD or equal format as specified in Article 2.13, and submitting them for approval shall be considered incidental to the bid item “Construction Survey Measurement” and no separate payment shall be made.

## SECTION 65.02 CONSTRUCTION SURVEYING

### Article 2.14 As-built Surveys and Record Drawings

*Add the following after the third sentence of the first paragraph:*
In addition to submitting record drawing redlines, the Contractor shall redline the location of each repaired, relocated or installed water service key box/sewer service, location of water/sewer service tie-in to water/sewer main and other information as required on the Water/Sewer Connect Permit card and approved by the Engineer. The Contractor is to record and transmit to the engineer the location of points in the Work such as but not limited to service connection at the main, connection of the service extension, service length, service invert elevations at the main and property line and distance to nearest

property corner, building corner or other permanently fixed objects. Water service key boxes/sewer services will be located from property corners and/or reference points approved by the Engineer, (minimum two (2) swing ties). Contractor shall also record legal description of property (Lot, Block, and Subdivision) as well as street address and date when work was completed. Information shall be recorded on Water/Sewer Connect Permit Card template provided in Section IV in the Contract Documents.

**Article 2.16 Method of Measurement**

*Add the following paragraph at the end of this article:*
Unless specifically stated for separate payment, payment for the Work, Water/Sewer Connect Permit Redlines, shall be full payment for all labor and materials necessary to acquire, develop and present the information on Water Connect Permit Cards as required and obtain their acceptance by the Engineer.

**Article 2.17 Basis of Payment**

*Add the following at the end of this article:*

| ITEM | UNIT |
|---|---|
| Sewer Connect Permit Redlines | LS |

## DIVISION 70 MISCELLANEOUS

## SECTION 70.01 GENERAL

Add the following new Article:

**Article 1.3 Utility Facilities**

Prior to commencing any Work covered under this division or impacting utility facilities, the Contractor shall contact the Utility and obtain any permits, approvals, or other conditions as required by the Utility to complete any Work on or in the vicinity of their facilities.

## NEW SECTION 70.22 CHUGACH LINE SAFETY WATCH

**Article 22.1 General**

The Work under this section consists of the Contractor entering into an agreement with CHUGACH Electric Association for construction efforts to provide a safety watch for all excavations within two feet of their Utility at STA. 10+00 to 10+84, STA 10+23 to STA 13+30, STA 10+92, and STA. 11+42.

**Article 22.2 Measurement**

Work in this section will be measured based on CHUGACH Time & Materials Invoices plus a 10% Contractor mark-up. All invoices for the Work shall be paid by the Contractor as part of this agreement.

### Article 22.3 Basis of Payment

| ITEM | UNIT |
|---|---|
| CHUGACH Line Safety Watch | Contingent Sum |

## DIVISION 75 LANDSCAPING IMPROVEMENTS

## SECTION 75.02 LANDSCAPING

### Article 2.6 Measurement

*Delete this Article and replace with the following:*
The quantity of plant materials and the area to be landscaped will vary with the extents of the existing vegetated buffer disturbed by the Contractor. Therefore, landscaping shall be measured as a single lump sum per schedule of work regardless of area to be restored, and this lump sum shall include all Work required to provide a complete and restored vegetated buffer constructed in accordance with the Contract Drawings, including all plant materials, all soil amendment, all labor and earthwork, all fencing, and all maintenance. Topsoil applied to a depth of 4 inches and all seeding shall be measured for payment in accordance with Sections 75.04 and 75.05 as amended herein.

### Article 2.7 Basis of Payment

*Delete the existing pay items and replace with the following:*

| ITEM | UNIT |
|---|---|
| Landscaping | Lump Sum |

## SECTION 75.04 SEEDING

### Article 4.1 General

*Add the following paragraph to the end of the Article.*
The Contractor shall submit to the Engineer an analysis of all seed mixes 10 days prior to application. All seeded areas shall be mulched.

### Article 4.2 Materials

E. Mulch:

*Delete this subarticle and replace with the following:*
Mulch material shall consist of one of the following: peat moss or cellulose wood or paper fiber.

Cellulose Wood fiber shall consist of a specially prepared wood fiber processed to contain no growth or germination inhibiting factors. The fiber mulch shall be manufactured and processed in such a manner that the fibers will remain in uniform suspension in water under agitation and will blend with grass seed, fertilizer, and other additives to form a homogeneous slurry. The processed mulch material shall have characteristics to form a blotter-like ground cover on application, having moisture absorption and percolation properties and the ability to cover and hold

grass seed in contact with soil. Mulch shall be applied at a rate of 1,500 pounds per acre.

The cellulose wood fiber shall be shipped in packages of uniform weight (plus or minus 5 percent) and bearing the name of the manufacturer and the air-dry weight content. The wood or cellulose fiber shall be dyed a suitable color to facilitate inspection of the placement of the material.

The Contractor shall use a commercial tackifier that is safe and non-toxic, is compatible with the hydraulic slurry components, and complies with Federal, State, and Local water quality laws and regulations.

## *END OF SPECIAL PROVISIONS*

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION III

## TECHNICAL SPECIFICATIONS

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

# SECTION IV

# SUBMITTAL LIST AND STANDARD FORMS

**Submittal List**

**Submittal Transmittal**

**Certificate of Compliance**

**ADEC Certificate of Construction – Wastewater Only**

**Design Clarification & Verification Request**

**Deviation Request**

**Substitution Request**

**Subcontractor & Supplier List**

**Sewer Connect Permit Cards**

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

Job #: WM.00169 (SWR) Contractor: _____

| Submittal No. | Description | Submittal Schedule |
|---|---|---|
| 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. |
| 10.04.9 | Waste disposal on private property | Prior to construction. |
| 10.04.13 | Traffic Control Plan (TCP) | Within ten (10) days of NTP, or five (5) days before commencement of work, whichever is earlier. |
| 10.04.15<br><br>20.02.4.A | Storm Water Pollution Prevention Plan (SWPPP) | No less than ten (10) business days before commencing any excavation work |
| 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. |
| 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<br>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<br>* 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 | |
| 10.07.7 | Final Payment | Upon completion of the Work and issuance of a certificate of completion by the Engineer. |

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

| | | |
|---|---|---|
| 20.02.4.A | Storm Water Pollution Prevention Plans (SWPPP) | No less than ten (10) business days prior to the beginning of excavation. |
| 20.02.4.B | Hazardous Material Control Plan (HMCP), Spill Prevention, Control, and Countermeasure Plan (SPCC) | No less than ten (10) business days prior to the beginning of excavation. |
| 20.12.3 | Construction Dewatering Plan | No less than seven (7) days prior to the beginning of dewatering activities. |
| 20.30.3 | Excavation, Shoring, and Temporary Material Storage Plan | |
| 30.01.7 | Ready-Mixed Concrete | Prior to unloading the concrete mix at the construction site. |
| 40.06.2.A | Asphalt Concrete Pavement | Prior to paving. |
| 40.06.3.C | Job-Mix | |
| 40.06.5.G | Paving Plan | Minimum of five (5) days prior to commencement of paving. |
| 60.02.4.A | Written Notice of mainline flow interruptions. | Minimum of seventy-two (72) hour and a maximum of one-hundred forty-four (144) hours in advance of interruption. |
| 60.02.5 | Flushing and Testing Schedule and Procedure | Forty-eight (48) hours prior to flushing, testing. |
| 60.07.2 | Temporary Water Systems Plan | Within a reasonable time and in such sequence as to not cause a delay in the Work |
| 65.02.14 | As-built Surveys and Record Drawings | Upon completion of construction activity. |
| 70.12.1 | Traffic Control Plan (TCP) | Prior to commencement of the project. |
| | | |

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

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, Special Provisions, MASS, or as directed by the Engineer. (See Division 10, Section 10.04, Article 4.3.)

# 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:

☐ Original Submittal ☐ 3rd

☐ 2nd ☐ 4th

| | | REVIEW ACTION | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ID. NO. | DETAILED DESCRIPTION (Provide Itemized List of Contents of this Submittal) | COPIES SENT | NO EXCEPTION TAKEN<br>A | MAKE CORRECTIONS AS NOTED<br>B | AMEND AND RESUBMIT<br>C | REJECTED RESUBMIT<br>D | COPIES RETURNED | NOTES ATTACHED |
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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: _____ ENGINEER: _____
(Signature) (Signature)

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

# AWWU SUBMITTAL REVIEW ACTION

PROJECT _____ SUBMITTAL NO. _____

CONTRACTOR _____ CONTRACT NO. _____

ORIGINATOR _____ SPEC. SECTION _____

DATE SUBMITTED _____ DRAWING NO. _____ SHEET _____ OF _____

A-NO EXCEPTION TAKEN
B-MAKE CORRECTIONS AS NOTED
C-AMEND AND RESUBMIT
D-REJECTED RESUBMIT

| REVIEW ACTION | ID. NO. | COMMENT: |
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ENGINEER: _____ DATE: _____

# 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: _____

# STATE OF ALASKA
## DEPARTMENT OF ENVIRONMENTAL CONSERVATION
# CERTIFICATION OF CONSTRUCTION FOR DOMESTIC WASTEWATER SYSTEMS

Instructions: In accordance with 18 AAC 72.235, within 90 days after the completion of the construction, installation, or modification of a project, the owner of the project, the contractor(s) responsible for constructing the project, and the registered professional engineer responsible for construction observation, must complete and sign this form certifying that the project was constructed in accordance with the most recent Department-approved plans, or in accordance with prepared record drawings submitted with this form.

If a project is being completed in phased construction, a site plan shall be attached showing the portion of the project being declared completed on the date stated in Section A – Project Information. Completion of each phase of the project must be declared as it is completed. This form may be downloaded from the Alaska Department of Environmental Conservation (ADEC) Engineering Support and Plan Review (ESPR) website at dec.alaska.gov/water/wastewater/engineering.

**Section A – Project Information**

If project involved a community-wide system or utility extension of a collection system, the property legal description and street address may not be applicable.

| | |
|---|---|
| Project Name: | |
| Property Legal Description (if applicable): | |
| Property Street Address (if applicable): | |
| Plan Tracking No.: | Date Project Completed: |

**Section B – Owner's Section**

The owner signing this form must be the same person who signed the Owner's Statement. If different, submit a new signed Owner's Statement (available on the Department's website).

| |
|---|
| Owner Name: |
| Entity Representing (if applicable): |
| Mailing Address: |
| Email Address: |

I certify that I am the owner of the above-referenced project or property. I further certify that this project was constructed in accordance with the latest plans submitted to and approved by ADEC, or in accordance with the attached record drawings. I understand that I may be required to take remedial measures to correct any construction which was completed without prior ADEC approval, was not constructed in accordance with approved design drawings, and/or is found to be inconsistent with applicable regulations including, but not limited to, Wastewater Disposal Regulations 18 AAC 72.

Signature Date

**Section C – Contractor's Section**

I certify that I, or an individual under my direct supervision, have constructed the project (or portions of the project) referenced in Section A, in accordance with the latest plans submitted to and approved by ADEC, or in accordance with the attached record drawings.

| Printed Name | Signature | Date |
|---|---|---|
| Printed Name | Signature | Date |
| Printed Name | Signature | Date |

**Section D – Engineer's Section**

If the observing engineer is other than the design engineer, attach a letter signed and sealed that documents the scope of construction observation services and identifies each person who contributed to the record documents (18 AAC 72.235(b)(3)).

| |
|---|
| Engineer Name: |
| Engineering Firm: |
| Mailing Address: |
| Email Address: |

I certify that I, or an individual under my direct supervision, have visually observed the quality of construction and materials used so that I, or an individual under my direct supervision, has the information necessary to provide a professional opinion regarding the contractor's conformance to the plans approved by the Department or to the attached record drawings. I further certify that to the best of my knowledge and information available, the project was constructed in accordance with all conditions placed on the construction approval issued by the Department.

Check all that apply:

- ☐ Project was constructed in accordance with the plans received by the Department on _____(date) and approved by the Department on _____(date).
- ☐ Project was constructed in accordance with the attached record drawings.
  - ☐ The observing engineer is the same as the design engineer
  - ☐ Attached is a sealed and signed letter by the observing engineer in accordance with 18 AAC 72.235(b)(3)
- ☐ All conditions placed on the construction approval have been met (attach cover letter)
- ☐ No conditions were placed on the construction approval

| Printed Name | Signature | Registration No. | Date |
|---|---|---|---|

# 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 -**
**Date**_____

**RESPONSE**
**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**

☐ **Disapproved**

**BY** _____
**(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:** _____ | ☐ **Accepted** |
| **Firm:** _____ | ☐ **Accepted as Noted** |
| _____ | ☐ **Not Accepted** |
| **Date:** _____ | ☐ **Received too Late** |
| **Telephone:** _____ | |
| | **By:** _____ |
| **Attachments:** | **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

# WASTEWATER CONNECT PERMIT

S

WATER & WASTEWATER UTILITY
3000 ARCTIC BLVD
PHONE:(907)564-2762

DATE OF APPLICATION: _____

SCHEDULED COMPLETION DATE: _____

BLOCK/LOT/TRACT: _____

SUBDIVISION: _____

_____

- ☐ SINGLE FAMILY
- ☐ MULTI-DWELLING No. APTS
- ☐ COMMERCIAL

TAX CODE: _____ GRID: _____

STREET ADDRESS _____

OWNER: _____ PHONE: _____

MAIL ADDRESS: _____

CONTRACTOR _____

- ☐ Repair Existing Service
- ☐ On Property Only
- ☐ City Tap
- ☐ Hydrant Only
- ☐ Main Tap - To Property Line Only
- ☐ Main Tap & On Property Connect
- ☐ Disconnect
- ☐ R & R - Main Tap Only

Row No. _____

**ASSESSMENTS**

- ☐ Main Line Extension
- ☐ Have Been Levied
- ☐ To Be Levied

Comments:

| Owner | Staff |
|---|---|
| | |

CONNECT SIZE _____

INSPECTION FEE $_____

PERMIT FEE $_____

$_____

DEPOSIT $_____

TOTAL $_____

REIMBURSABLE NUMBER _____

ISSUED _____

- ☐ PAID
- ☐ CASH
- ☐ CHECK # _____
- ☐ OTHER _____

INSPECTED BY _____

DATE

REMARKS

PERMITEE (Please Print) _____ PHONE _____

MAIL ADDRESS _____

SIGNATURE _____

**POST IN A CONSPICUOUS PLACE AT THE JOB SITE**
**INSPECTOR COPY**

DATE SCHEDULED _____ TIME _____ INSPECTOR _____

SUBDIVISION _____ BLOCK/LOT/TRACT _____

INDICATE NORTH

SIZE MAIN: TYPE MAIN: DEPTH AT MAIN: AT PROP. LINE:

CONNECT LOCATION: COMMENTS:

INSEPECTED BY: DATE:

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION V

## CONTRACT AND BID DOCUMENTS

**Contract**

**Bid Bond**

**Performance & Payment Bond**

**Certificate of Insurance**

**Bidder's Checklist**

# *C O N T R A C T*

Invitation to Bid No. **2023C_____**

Contract No. **C-2023_____**

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** |
|---|---|---|---|
| Schedule A | A-1 to A-22 | Sheet 1 to 7 | $ _____ |

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 2023C_____.**

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 2023C_____.**

VI. Specifications consisting of the following:

Supplemental Provisions Section_____consisting of pages, with attachments Exhibit A through F, **as contained in ITB 2023C .**

VII. Equal Opportunity Special Provisions and Forms Section consisting of_____pages, **as contained in ITB 2023C .**

VIII. Disadvantaged/Women-Owned Business Enterprise (DBE/WBE) Specification Section _____ consisting of_____pages, **as contained in ITB 2023C_____.**

IX. The Laborers' and Mechanics' Minimum Rates of Pay dated September 1, 2015 Section _____ consisting of pages, **as contained in ITB 2023C_____.**

X. Submittal List Section consisting of_____page, **as contained in ITB 2023C_____.**

XI. The Drawings consisting of _____ sheets numbered_____, **as contained in ITB 2023C_____.**

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

MUNICIPALITY OF ANCHORAGE, ALASKA

BY _____
Signature

Purchasing Officer or designee
Title

Date of Signature and Contract Date:

_____

VENDOR _____

BY _____
Signature

_____
Printed Name

_____
Title

_____
Date of Signature

# 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.

# 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:

_____ _____
Contractor Name

_____
Contractor Signature

(AFFIX CORPORATE SEAL) _____
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 hereof in _____ _____ original counterparts as of the _____ day of _____, 20_____.

WITNESS AS TO PRINCIPAL:

_____ _____

Principal Name

_____

Principal Signature

(AFFIX CORPORATE SEAL) _____

Corporate Surety

_____

_____

Surety Business Address

(AFFIX SURETY SEAL) BY: _____

(Attorney-In-Fact)

ACORD®

# 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) must 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): |
| | E-MAIL ADDRESS: | |
| | INSURER(S) AFFORDING COVERAGE | NAIC # |
| INSURED | INSURER A : | |
| | INSURER B : | |
| | INSURER C : | |
| | INSURER D : | |
| | INSURER E : | |
| | INSURER F : | |

**COVERAGES** **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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** | | | | | | EACH OCCURRENCE | $ |
| | ☐ COMMERCIAL GENERAL LIABILITY | | | | | | DAMAGE TO RENTED PREMISES (Ea occurrence) | $ |
| | ☐ CLAIMS-MADE ☐ OCCUR | | | | | | MED EXP (Any one person) | $ |
| | | | | | | | PERSONAL & ADV INJURY | $ |
| | | | | | | | GENERAL AGGREGATE | $ |
| | GEN'L AGGREGATE LIMIT APPLIES PER: | | | | | | PRODUCTS - COMP/OP AGG | $ |
| | ☐ POLICY ☐ PRO-JECT ☐ LOC | | | | | | | $ |
| | **AUTOMOBILE LIABILITY** | | | | | | COMBINED SINGLE LIMIT (Ea accident) | $ |
| | ☐ ANY AUTO | | | | | | BODILY INJURY (Per person) | $ |
| | ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS | | | | | | BODILY INJURY (Per accident) | $ |
| | ☐ HIRED AUTOS ☐ NON-OWNED AUTOS | | | | | | PROPERTY DAMAGE (Per accident) | $ |
| | | | | | | | | $ |
| | ☐ **UMBRELLA LIAB** ☐ OCCUR | | | | | | EACH OCCURRENCE | $ |
| | ☐ **EXCESS LIAB** ☐ CLAIMS-MADE | | | | | | AGGREGATE | $ |
| | ☐ DED ☐ RETENTION $ | | | | | | | $ |
| | **WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N | | | | | | ☐ WC STATU-TORY LIMITS ☐ OTH-ER | |
| | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)** | N / A | | | | | E.L. EACH ACCIDENT | $ |
| | If yes, describe under DESCRIPTION OF OPERATIONS below | | | | | | E.L. DISEASE - EA EMPLOYEE | $ |
| | | | | | | | E.L. DISEASE - POLICY LIMIT | $ |
| | | | | | | | | |

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

ADDITIONAL INSURED:

1. ADDITIONAL INSURANCE: The Municipality of Anchorage is an additional insured on all policies, and shall contain a WAIVER OF SUBROGATION against the Municipality except Professional Liability and Worker's Compensation.
2. 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**

**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.**

**AUTHORIZED REPRESENTATIVE**

# BIDDER'S CHECKLIST

## INSTRUCTIONS 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 TO BE SUBMITTED WITH THE 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 (4) pages numbered BP-1 of 4 through BP-4 of 4. Page **BP-2 of 4 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.

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION VI

## BID PROPOSAL

# BID PROPOSAL
# (CERTIFICATION)

TO: MUNICIPALITY OF ANCHORAGE _____, 2023
PURCHASING DEPARTMENT
632 W. 6TH AVENUE, SUITE 520
ANCHORAGE, ALASKA 99501

**SUBJECT: Invitation to Bid No. 2023C015**

**PROJECT TITLE:** M Street and 5th Avenue Sewer Improvements Phase II

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.

**LUMP SUM / ONE BID:** **$** _____

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. 2023C015**

**PROJECT TITLE: M Street and 5th Avenue Sewer Improvements Phase II**

| | |
|---|---|
| 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**
**M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II**
**AWWU Project Number: WM.00169**
**Engineer's Estimate**

**Schedule A: Basic Bid**

| ITEM NO. | SPEC. NO. | WORK DESCRIPTION | ESTIMATED QUANTITY | UNIT BID PRICE | TOTAL BID PRICE |
|---|---|---|---|---|---|
| A-1 | 20.02 | Storm Water Pollution Prevention Plan (Type I) per L.S. | 1 | | |
| A-2 | 20.04 | Clearing and Grubbing per L.S. | 1 | | |
| A-3 | 20.07 | Remove Sidewalk, Concrete Apron, or Driveway per S.Y. | 51 | | |
| A-4 | 20.08 | Remove Curb and Gutter per L.F. | 92 | | |
| A-5 | 20.16 | Bedding Material (Class E) per Ton | 36 | | |
| A-6 | 20.27 | Disposal of Unusable or Surplus Material per CY | 260 | | |
| A-7 | 20.21 | Classified Fill and Backfill (Type IIA) per Ton | 300 | | |
| A-8 | 21.31 | Contaminated Ground Water Disposal and Laboratory Testing per C.S. | 1 | $ 30,000.00 | $ 30,000.00 |
| A-9 | 21.31 | Contaminated Soil Disposal per C.S. | 1 | $ 30,000.00 | $ 30,000.00 |
| A-10 | 30.02 | P.C.C. Curb and Gutter (All Type) per L.F. | 92 | | |
| A-11 | 30.03 | P.C.C. Sidewalk (All Sizes) (Broom Finish) per S.Y. | 51 | | |
| A-12 | 40.11 | Remove & Replace Asphalt Surfacing (Class E) per S.Y. | 429 | | |
| A-13 | 50.02 | Furnish and Install 8-inch PVC DR-18 per L.F. | 155 | | |
| A-14 | 50.03 | Construct Sanitary Sewer Manhole (Type A) per Each | 3 | | |
| A-15 | 50.04 | Connect Sanitary Sewer Service (4") per Each | 1 | | |
| A-16 | 50.09 | Abandon Pipeline in Place with Flowable Grout per CY | 0.35 | | |

**MUNICIPALITY OF ANCHORAGE**
**Anchorage Water and Wastewater Utility**
**M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II**
**AWWU Project Number: WM.00169**
**Engineer's Estimate**

**Schedule A: Basic Bid**

| ITEM NO. | SPEC. NO. | WORK DESCRIPTION | ESTIMATED QUANTITY | UNIT BID PRICE | TOTAL BID PRICE |
|---|---|---|---|---|---|
| A-17 | 55.02 | Furnish and Install Pipe (12", CPEP-S) per L.F. | 10 | | |
| A-18 | 60.02 | Raise or Lower Water Line (1") per Each | 1 | | |
| A-19 | 65.02 | Construction Survey Measurement per L.S. | 1 | | |
| A-20 | 65.02 | Sewer Connect Permit Redlines per L.S. | 1 | | |
| A-21 | 70.12 | Traffic Maintenance per L.S. | 1 | | |
| A-22 | 70.22 | Chugach Line Safety Watch per C.S. | 1 | $ 10,000.00 | $ 10,000.00 |
| A-23 | 75.02 | Landscaping per L.S. | 1 | | |
| A-24 | 75.03 | Topsoil (4" Depth) per M.S.F. | 0.49 | | |
| A-25 | 75.04 | Seeding (Schedule A) per M.S.F. | 0.49 | | |

TOTAL: _____

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION VII

## OTHER UTILITY REQUIREMENTS

**CEA Facility Requirements**

**ENSTAR Safety Requirements**

CHUGACH
POWERING ALASKA'S FUTURE

December 7, 2020

**ELECTRICAL FACILITY CLEARANCE REQUIREMENTS**

Enclosed please find a copy of Chugach Electric Association, Inc.'s (Chugach) Electrical Facility Clearance Requirements policy. Periodically, copies of this policy are mailed out to various companies and agencies whose activities may bring their personnel in close proximity to Chugach's electrical facilities. Chugach distributes copies of this policy in an effort to help minimize and identify potential hazards for construction personnel and the general public. In addition, Chugach is concerned with preventing damage to its electrical facilities and any disruption of electrical service to its customers. Please note that the Electrical Facility Clearance Requirements publication may be found on Chugach's website at: www.chugachelectric.com. Click on the "Member Services" tab and go to "Regulations & Requirements", click on "Electrical Facility Clearance Requirements" (December 7, 2020).

For your additional information, Alaska State Statute ("AS 42.30.400 " Excavator's Notice of Proposed Excavation") has been included as an attachment.

**Please thoroughly read and understand the entire document. It could save your life or the life of your employees and the public. We request that particular attention be paid to the following provisions**:

(Paragraph B. 2.) "Under no circumstances will Chugach allow any of its underground cable(s) to remain energized after it has been exposed, unless it is protected by supplementary mechanical protection approved by Chugach or unless a *qualified person* is on site at all times".

(Paragraph H. 7.) "Chugach defines a *qualified person* as a journeyman lineman who holds a current Certificate of Fitness in the Journeyman Lineman category issued by the State of Alaska". These two provisions clearly emphasize Chugach's position relating to the exposure and approach to energized facilities.

Chugach strongly recommends that prior coordination takes place between Chugach and the construction entity or contractor , either during the design phase of a project or prior to the start of construction, to help eliminate or minimize conflicts. If you have questions, please contact the Line Operations Division at (907) 762-7679 and your call will be directed to the appropriate department for assistance.

Sincerely,

James Mullican

James Mullican
Senior Manager Line Operations

Enclosures

cc: MOA Development Services; State of Alaska OSHA Inspector; SOA Electrical Inspector; AGC, Cook Inlet Housing, GCI, ACS, Enstar, AWWU, Anchorage Home Builders Association

Chugach Electric Association, Inc.
5601 Electron Drive, P.O. Box 196300, Anchorage, Alaska 99519-6300 • (907) 563-7494 • Fax (907) 562-0027 • (800) 478-7494
www.chugachelectric.com

Issued December 7, 2020

# CHUGACH ELECTRIC ASSOCIATION, INC.

## CLEARANCE REQUIREMENTS FOR CONSTRUCTION OR MAINTENANCE NEAR ELECTRICAL FACILITIES

Chugach's concern for the safety of non-qualified personnel working adjacent to its electrical facilities, its concern for the public in general, and its requirement that only *qualified personnel* under the employ of *qualified electrical contractors* handle electrical facilities such as conductors, cables, poles, transformers, padmounted equipment, etc., is based upon the following considerations:

- The potential for serious injury and resulting liability is extremely high when dealing with all electric utility voltage levels up to 230,000 volts on overhead and underground lines.

- Certain types of equipment, particularly cable, can easily be damaged by improper handling. For example, when cable is hit or improperly suspended (common during excavation adjacent to cables), the scraped, cut, or stressed insulation will almost always result in premature cable failure. The highest risk to unqualified personnel is a cable failure while the cable is being handled during excavation or construction. Undetected cable damage may result in a subsequent cable failure with consumer outages for periods of up to a week's duration during winter conditions.

- The inherent stability of overhead pole lines or padmounted equipment is jeopardized with improper excavation and backfill, often resulting in hazardous voltage exposure to the public and contractors and leads to consumer power outages.

The above concerns can be minimized by the use of properly trained, licensed, and certified electrical outside linework personnel. The National Electrical Safety Code (NESC), the United States Occupational Safety and Health Administration (OSHA) and the Alaska State OSHA support this position as well as the clearances addressed herein.

The NESC, defines *"qualified"* as *"Having been trained in and having demonstrated adequate knowledge of the installation, construction, or operation of lines and equipment and the hazards involved, including identification of and exposure to electric supply and communication lines and equipment in or near the workplace*." Only qualified persons are permitted to handle or work on or adjacent to energized electrical facilities. This includes not only overhead pole lines but also padmounted

and underground facilities. Within the NESC, two rules specifically address the need for qualified persons to perform work on or near energized facilities:

> Rule 420B1 states, *"Employees whose duties require working on or in the vicinity of energized equipment or lines shall perform only those tasks for which they are trained, equipped, authorized, and so directed. Inexperienced employees shall: (a) work under the direction of an experienced and qualified person at the site; and (b) perform only directed tasks."*
>
> Rule 420B4 states, *"Employees who do not normally work on or in the vicinity of electric supply lines and equipment but whose work brings them into these areas for certain tasks shall proceed with this work only when authorized by a qualified person."*

OSHA 29CFR 1910.269 contains the training and documentation requirements for a qualified person.

OSHA 29CFR 1926.1408 addresses equipment operations near electrical lines. If any part of the equipment, when operated up to the equipment's maximum working radius, could get closer than twenty (20) feet to a power line, then the operator must notify the utility, verify line voltage, and implement one of the safety options in OSHA 29CFR 1926.1408.

At no time may equipment violate minimum required clearance to an energized power line: ten (10) feet for lines up to 50 kilovolts (kV), or ten (10) feet plus 0.4 inches per one (1) kV over 50 kV. Minimum clearances are provided below for common Chugach system voltages.

| **CHUGACH SYSTEM VOLTAGES** | |
|---|---|
| **Normal Voltage (Phase-to-Phase)** | **Minimum Clearance Required At All Times** |
| Operations Near High-Voltage Overhead Power Lines to 50 kV | 10 Feet |
| Over 50 kV to 200 kV | 15 Feet |
| Over 200 kV to 350 kV | 20 Feet |

Specifically, 29CFR1926.1408 (b)(4)(ii) requires a "Safety Observer" during equipment operations if the equipment is operating where it is difficult for the operator to maintain twenty (20) feet of clearance to the overhead power line(s) by visual means. Alaska Statutes (AS) Sections 18.60.670 through Section 18.60.695 govern placement and operation of equipment near electrical lines or conductors. 29CFR1926, Subpart P addresses the specific requirements involved with trenching operations. These include prior notice to utility companies, prior location of utility facilities, and proper supports once the facilities are exposed. Furthermore, 29CFR Sections 1910.180; 1910.333; 1926.416; and 1926.651 regulate activities relative to job site electrical facilities.

In summary, Chugach's concern for the safety of all personnel affected by work adjacent to its energized facilities has led to the development of the attached policy.

# ELECTRICAL FACILITY CLEARANCE REQUIREMENTS

The following requirements have been developed to help provide a safer work site to those personnel working adjacent to Chugach's electrical facilities and to protect Chugach facilities that are in proximity to the area of work being done by State or Municipal entities and private construction and maintenance projects.

## A. NOTIFICATION

It is recommended that Chugach be informed of construction/maintenance activities as early as possible in the design process and be included in timely plan reviews. Any work that needs to be performed on Chugach facilities must have prior Chugach approval.

1. Overhead Facilities

Any work in the proximity of overhead power lines shall be preceded by a call to Chugach at (907) 762-7679 , at least 48 hours in advance, as notification of the planned work and compliance with OSHA 29CFR1926 (1408), and AS 18.60.670. If equipment, tools, machinery, or material must work in proximity closer than the minimum clearances outlined in OSHA 29CFR1926 (1408), and AS 18.60.670, the requirements of AS 18.60.680 shall be implemented before work can proceed. All necessary arrangements with Chugach by the requesting party for compliance with AS 18.60.680 shall be arranged in advance of the project start date.

2. Underground Facilities

Alaska Statutes 42.30.400 through 42.30.490, Anchorage Municipal Code, 24.40 and 26.90, and 29CFR1926, Subpart P place requirements on contractors who will be excavating around or adjacent to underground utilities. Advance notification requirements, underground facility locates, and the responsibilities for protection of utility facilities by contractors are specified in these regulations. All requests for locates of Chugach's underground facilities are to be made through the Alaska Digline at 811. Prior to excavation, Chugach's Line Operations Department shall be contacted at (907) 762-7679 a minimum of two (2) business days in advance of construction.

Locate surface markings are only reasonably accurate to +/- two (2) feet. Chugach and State law require hand-digging within two (2) feet of locate marks. In some cases, hand-digging may be required within three (3) or four (4) feet of the markings, depending on the facility involved and field

conditions at the project site. Maintaining locate marks is the responsibility of the party requesting the locate. Chugach may charge for re-locating and re-marking facilities that were previously marked.

## B. UNDERGROUND CABLE EXCAVATION

1. Any excavation which is within a three (3) foot radius of a cable and parallels a cable for a distance greater than twenty (20) feet in length (see Section H.1 below) may require relocation of that cable. Excavations shorter in length and/or closer may also require relocation. At a minimum, cables that will require exposure must be exposed by *hand-digging* only, by a *qualified person* under the employ of a *qualified electrical contractor* (see Section H). See Drawing No. F-062388 attached.

2. Any excavation, such as a trench which crosses cable and/or conduit, shall be limited to twenty (20) feet in width and have provisions for the exposed cable/conduit to be supported every two (2) feet on a Chugach approved support system, to prevent cable damage. The cable support work and excavation within the three (3) foot radius (see Section H-1) shall be performed by a *qualified* person under the employ of a *qualified electrical contractor*.

   NOTE: When excavation must occur within the limits specified in B.1, and B.2, above, reasonable efforts will be made by Chugach to de-energize the cable if system conditions and personnel requirements allow. Even if the cable has been de-energized, a "Cable Watch" by a qualified person under the employ of a qualified contractor is still required. To request the de-energization of the cable, contact the Chugach Line Operations Department at (907) 762-7679 and your call will be directed to the appropriate department for assistance. Requests must be made three (3) business days in advance of the outage date requested. For emergencies, contact Chugach's Dispatch Center at (907) 762-4660.

   **Under no circumstances will Chugach allow any of its underground cable(s) to remain energized after it has been exposed, unless it is protected by supplementary mechanical protection approved by Chugach or unless a qualified person is on site at all times.**

3. Should any cable be exposed by non-qualified personnel, Chugach must be immediately contacted for field investigation before work may resume in the immediate area of such exposed cable.

**Chugach recognizes that reasonable continuation of work may be required around energized underground cables after Chugach inspects the site. When this occurs, it is the responsibility of the construction contractor working at the site to arrange for qualified personnel as well as payment of the costs of said personnel and/or equipment. Chugach will neither arrange for, nor provide qualified personnel to satisfy this requirement unless Chugach determines this course of action is in its best interest, on a case-by-case basis. Where Chugach is otherwise forced to subsequently take steps to ensure the safety of the site, Chugach will advise the construction contractor that Chugach will pass these costs to the construction contractor.**

4. In all cases, a final minimum burial depth of forty (40) to sixty (60) inches for primary-voltage (above 1000 volts) circuits and thirty (30) inches for secondary voltage (480V or below) circuits shall be maintained. If, however, existing Federal, State, or Municipal permit conditions require depths in excess of forty (40) inches, then the cable/conduit shall be buried at the depth required in the permit. The depth is measured from the top of the cable/conduit to final grade at the shallowest depth. Burial shall be in compliance with Chugach Construction Standard SUR 2-3, 5 or 6 (supplied upon request).

5. Projects that will increase final grade to sixty (60) inches or greater above Chugach direct buried cable shall require relocation at the customer's expense. Where cables are in conduit, review and written approval by Chugach is required for proposed grade changes resulting in a burial depth of sixty (60) inches or greater.

6. Projects which propose to modify the grade over Chugach's underground cables/circuits at voltages above 25kV require review and written approval by Chugach in all cases.

7. Excavations near underground cable/circuits energized above 25kV will require the following:

   a) Excavation Adjacent to Cables/Circuits Energized Above 24kV
   Chugach will require its Locate Contractor to notify excavators when a locate request includes the locating of cables are energized above 25kV.

   When excavation is planned that will come within ten (10) feet, expose, parallel, or undermine sections of Chugach's underground cables energized above 25kV, special precaution and safety

consideration must be taken. These distribution and sub-transmission cables operate at voltages of 34.5kV (34,000 volts) and transmission cables operate above 34.5kV up to 230kV (230,000 volts), provide power to tens of thousands of Chugach customers and require extraordinary protection. The following guidelines shall apply:

Chugach Line Operations Department shall be contacted at (907) 762-7679 in advance of the planned excavation a minimum of five (5) business days prior to beginning excavation. Chugach requires that a *qualified person* be on site at all times during excavation activity that comes within ten (10) feet of any circuit cable energized above 24kV. The contractor shall arrange and pay for a *qualified person* from Chugach or, with approval, from one of Chugach's approved and *qualified contractors*. Excavations closer than ten (10) feet shall require exposure of the cables (vac-truck, pot-holing or other approved means) at the intersecting point or at intervals of not less than every twenty-five (25) feet for parallel excavations by *qualified personnel* to determine the exact location of the cable prior to machine excavation.

**Excavations within ten (10) feet of cables energized above 25kV can expose unqualified workers to potentially high fault currents and extremely unsafe conditions. Prior planning by the construction contractor with coordination and approval from Chugach for any excavation projects within ten (10) feet of circuits or cables energized above 25kV is mandatory.**

Chugach may require a special locate utilizing Ground Penetrating Radar to locate critical facilities. "Pothole" locates utilizing vacuum excavation in conjunction with an air-knife tool may be used, with Chugach approval.

## C. STRUCTURE EXCAVATION

1. Equipment Pads or Vaults

Temporary excavation is allowed with a maximum slope of 1:1 beginning three (3) feet from the exterior edge of a concrete pad or vault. The final grade shall consist of a level area radiating out a minimum of four (4) feet, measured from the exterior edge of the pad or vault, and a maximum slope of 2:1 beginning from that four (4) foot distance from the exterior edge of the pad or vault. For both temporary and final grade situations, a level

area extending ten (10) feet out from the edge of the concrete pad in front of equipment doors or access panels is necessary. Refer to Drawing No. F-062388 attached.

If the slope cannot be maintained at the grades specified above, additional protection such as barriers or piling is required. All shoring and excavation (closer than the above limits) shall be done by a qualified person(s) under the employ of a qualified electrical contractor.

2. Concrete-Encased Duct

Excavation wider than five (5) feet under a concrete-encased duct requires a method designed and certified by an Alaska-registered civil engineer and approved by Chugach. Installation of the temporary shoring or bracing shall be done under the supervision of a qualified person under the employ of a qualified electrical contractor.

## D. POLE/GUY ANCHOR EXCAVATION

Excavation beginning no closer than a three (3) foot radius from a pole or guy anchor in stable soil conditions or a ten (10) foot radius from a pole or guy anchor in organic/unstable soil conditions is allowed, provided the slope from that point does not exceed 1:1. Refer to Drawing No. F-062388 attached.

Excavation closer than the limits defined above or within a ten (10) foot radius of more than one consecutive pole where excavation will be open while more than one pole is affected, may require shoring of each pole. Chugach review and approval of a shoring plan is required for all excavations where more than one pole is subject to an open excavation. Pole shoring shall be approved by Chugach for the specific excavation. All work for installing poles must be performed within OSHA guidelines. Shoring by other methods requires prior approval by Chugach on a case-by-case basis. Streetlight poles may be temporarily removed, subject to a written agreement with Chugach, prior to excavation.

Any excavation that may expose the pole butt requires a structural analysis of the pole shoring method. The analysis shall be performed by an Alaska-licensed professional engineer familiar with electrical transmission and distribution design standards in use by Chugach. Chugach also reserves the right, at contractor expense, to have a structural engineer examine any excavation deeper than the pole butt within a fifteen (15) foot radius of the pole.

All shoring and excavation (closer than the above limits) shall be done by a qualified person under the employ of a qualified electrical contractor.

## E. RELOCATION REQUIRED

Where protection of the cable and structures cannot be maintained, as required in Sections A, B, and C, relocation of those facilities will be required prior to the intended work and at the contracting agency's expense.

## F. BACKFILL

Replacement backfill for electrical facilities must be in accordance with Chugach specifications and performed by a qualified person under the employ of a qualified electrical contractor.

**A damaged underground facility may not be reburied until it is repaired or relocated to the satisfaction of Chugach**.

## G. INSPECTION AND APPROVAL

All work on or in the immediate vicinity of Chugach facilities, such as backfilling, temporary support, shoring, and relocations are subject to prior approval and inspection by Chugach. On large projects where inspection time is substantial, all costs for inspection shall be the responsibility of the agency or entity contracting for the work. Reimbursement to Chugach shall be in accordance with Chugach's tariff, Section 8.

For any questions or approvals involving these requirements contact Chugach Line Operations at (907) 762-7679 and your call will be directed to the appropriate department for assistance.

## H. MISCELLANEOUS

1. Depending on the soil type, depth and length of the excavation, type of Chugach facility involved, and the certainty of the cable locate markings, excavations can be approved within a two (2) foot radius of cable on a case-by-case basis.

2. Stable soil conditions are defined as all dry and non-organic. Soil conditions shall be evaluated and approved on a case-by-case basis by Chugach. The evaluation will be done using 29CFR1926, Subpart P, "*Excavations*" as a guide.

3. Excavation, except as noted, shall be defined as mechanically performed by a backhoe, trencher, scraper, grader, auger, or other equipment.

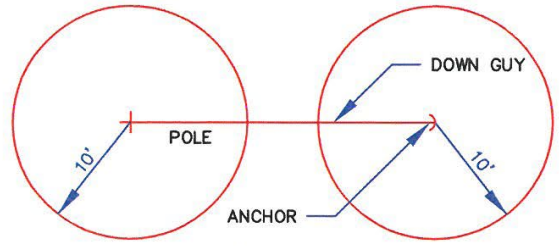
4. Cables are defined as insulated conductors whether buried directly or in conduit. The guidelines for cables also include 600-Volt pedestals and other small electrical apparatus associated with cables but not included under pads or vaults.

5. Spare conduit is not included in these provisions except to the extent of providing temporary support when exposed and inspected by Chugach prior to the placement of proper backfill.

6. Chugach defines a *qualified electrical contractor* as a contractor registered in the State of Alaska who has an Electrical Administrator's License in the Outside Linework category; or who has an employee with an Electrical Administrator's License in the same category registered with the contractor.

7. Chugach defines a *qualified person* as a journeyman lineman who holds a current Certificate of Fitness in the Journeyman Lineman category issued by the State of Alaska.

8. Chugach defines *hand-digging* as the removal of soil with hand tools, an air-knife tool (compressed air jet), or a vacuum truck.

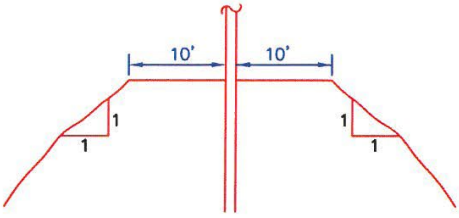


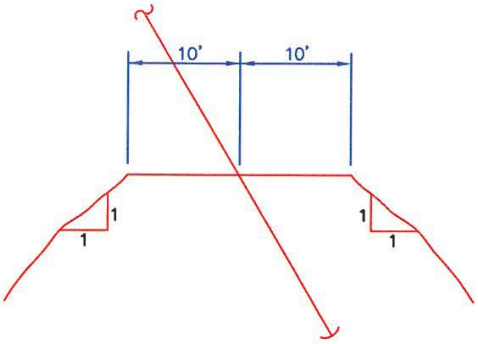

PLAN

(RADIUS OF UNDISTURBED SOIL)

NOTE:

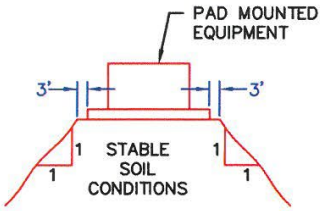
FOR VERY UNSTABLE SOIL CONTACT CHUGACH ELECTRIC.



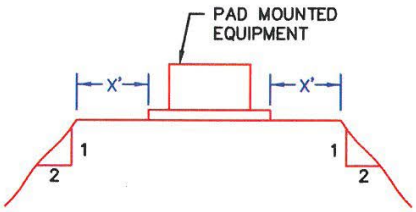

PROFILE

POLES/GUYS



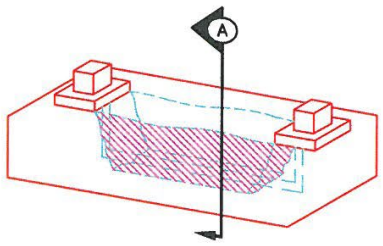

DURING CONSTRUCTION

SUPPLEMENTAL SUPPORT REQUIRED FOR EXCAVATIONS WITHIN 5' OF PADMOUNTED EQUIPMENT LOCATED ON UNSTABLE SOIL CONTACT CHUGACH ELECTRIC

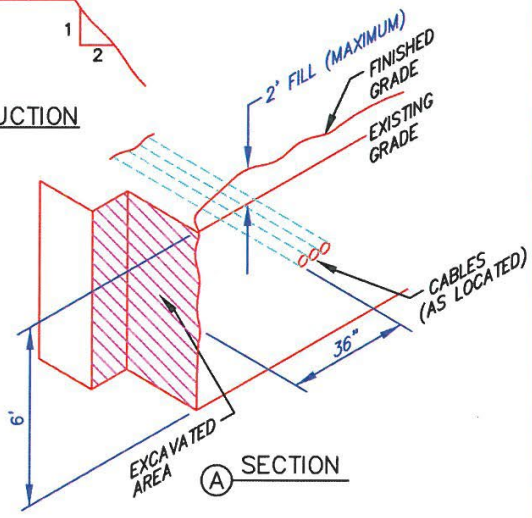



AFTER CONSTRUCTION

X': 10' ON DOOR/ACCESS SIDES. 4' ON OTHER SIDES.




PARALLEL EXCAVATION




SECTION

STRUCTURES/CABLES

REV. NO.: 3 DATE: 1/28/98

Standards Engineer:

Mgr., Dist. Engineering:

Mgr., Const. & Maint.:

Dir., T&D Services Div.:

Chugach Electric Association, Inc.

EXCAVATION LIMITS

DEFINITION OF LIMITS REQUIRING NO ADDITIONAL STRUCTURAL SUPPORT

DRAWING NUMBER F-062388

SHEET 1 OF 1

**Sec. 42.30.450. Waiver of requirements by written agreement.**

An operator and an excavator may, by written agreement, waive the requirements of AS 42.30.400 - 42.30.490 that the excavator notify the operator of planned excavations and that the operator locate underground facilities. The agreement must identify the geographic areas to which the waiver applies and the time period for which the waiver is valid.

**Sec. 42.30.460. Underground facility owner.**

If the operator of an underground facility is not the owner of the facility and if the operator cannot be identified or has been identified but cannot be reached in a reasonable amount of time, the excavator may give the notice required by AS 42.30.400 - 42.30.490 to the owner of the underground facility and the owner shall assume the duties and responsibilities of the operator under AS 42.30.400 - 42.30.490.

**Sec. 42.30.490. Definitions.**

(1) "damage" means

(A) the substantial weakening of structural or lateral support of an underground facility;

(B) penetration, impairment, or destruction of any underground protective coating, housing, or other protective device; and

(C) the partial or complete severance of an underground facility to the extent that the project owner or facility operator determines that repairs are required;

(2) "emergency" means

(A) a condition that constitutes a clear and present danger to life, health, or property; or

(B) an unplanned service interruption;

(3) "excavation" means

(A) an activity in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means;

(B) road maintenance that changes the original road grade;

(C) demolition or movement of earth by equipment, tools, or explosive device except tilling of the soil less than 12 inches in depth for agricultural purposes;

(4) "excavator" means a person who conducts excavation in the state;

(5) "inaccessible" means impossible or unreasonably difficult to reach due to conditions beyond the control of the underground facility operator;

(6) "notification center" or "center" means a service through which a person is able to call one number to notify member operators of underground facilities that an excavation is proposed and to request the operators to mark facilities located inside of the proposed excavation area;

(7) "operator" means a person who supplies a service for commercial or public use by means of an underground facility;

(8) "person" means any individual, public or private corporation, political subdivision, government agency, municipality, industry, partnership, copartnership, association, firm, trust, estate, or any other entity whatsoever;

(9) "remote" means not accessible by road;

(10) "underground facility" means a pipe, sewer, conduit, cable, valve, line, or wire, including attachments and those parts of poles or anchors that are below ground, for use in connection with the storage or conveyance of water, sewage, telecommunications, cable television, electricity, petroleum, petroleum products, hazardous liquids, or flammable, toxic, or corrosive gas;

(11) "unstaffed" means not normally staffed with employees;

(12) "working day" means a day on which an underground facility operator is open for regular business.

# *ALASKA STATUTES*

# *TITLE 42*

# *PUBLIC UTILITIES & CARRIERS*

**Sec. 42.30.400. Excavator's notice of proposed excavation.**

(a) Before beginning an excavation, an excavator shall give notice of the proposed excavation to each underground facility operator who has an underground facility in the area of the proposed excavation and request the operator to field mark the location of its underground facility. The excavator shall notify an underground facility operator who subscribes to a notification center by giving notice to the center. The excavator shall notify an underground facility operator listed in the applicable telephone directory who is not a subscriber to a notification center by giving notice directly to the operator.

(b) Except in the case of an emergency locate request or a request to locate in a remote, unstaffed, or inaccessible location, the excavator shall notify an underground facility operator who may have a facility in the area of a proposed excavation at least two but not more than 15 working days before the date scheduled for beginning the excavation. In the case of a request to locate in a remote or unstaffed location, the excavator shall notify the operator at least 10 but not more than 20 working days before the scheduled date for beginning excavation.

(c) In an emergency, the excavator shall immediately notify each underground facility operator in the area of the emergency and of the need for the excavation and request prompt location of underground facilities.

**Sec. 42.30.410. Operator's response to request to locate; immunity related to unmarked or inaccurately marked facilities.**

(a) An underground facility operator shall accept requests to locate underground facilities during the operator's regular business hours. An operator who receives a request to locate shall maintain for at least one year an accurate record of the request and responses to the request.

(b) When an underground facility operator receives a request to locate, it shall notify the excavator of the location of the underground facilities that the operator is able to field mark with reasonable accuracy and field mark those facilities. If the operator owns, uses, or operates an underground facility that is identified as being in the area of the proposed excavation but that the operator cannot field mark with reasonable accuracy, the operator shall provide the excavator with the best information available to the operator about its location and shall provide on-site assistance until the facility is located or until the excavator no longer needs assistance in locating that facility.

(c) The field marks for an underground facility buried 10 feet deep or less must be located within 24 horizontal inches of the outside dimensions of the facility. For a facility buried deeper than 10 feet, the operator shall locate the field marks within 30 horizontal inches of the outside dimensions of the facility. The operator shall use stakes, paint, or other clearly identifiable material to show the field location of the underground facility. The marker used to designate the approximate location of an underground facility must follow the current color code standard used by the American Public Works Association.

(d) Except for an underground facility in a remote, unstaffed, or inaccessible location, an underground facility operator shall respond to a request to locate promptly. A response is considered to be prompt if it is made within two working days after the operator receives the request or at a later time so long as the response occurs before the beginning of the excavation. For an underground facility in an accessible remote or unstaffed location, the operator shall respond within 10 working days after the operator receives the request or at a later time so long as the response occurs before the beginning of excavation.

(e) After an operator has field marked an underground facility, the excavator is responsible for maintaining the markings.

(f) An excavator may not begin to excavate until each underground facility has been field marked.

(g) When an operator has field marked an underground facility once at the request of an excavator, the operator has the right to receive compensation from the excavator for costs incurred in responding to subsequent requests to locate the same underground facility during the same excavation project if the excavator failed to maintain the original marking.

(h) If an excavator discovers an underground facility that was not field marked or was inaccurately field marked, the excavator shall immediately stop excavating in the vicinity of the facility and shall notify the operator of the discovery. The excavator may notify the operator by means of a notification center. The operator shall treat the notification as a request to locate in an emergency and shall respond accordingly. An excavator may not be held liable for inadvertent damage caused to an unmarked or an inaccurately marked underground facility.

(i) Unless the request to locate is made in response to an emergency, an underground facility operator has the right to receive compensation for costs incurred in responding to a request to locate that gives the operator less notice than the minimum notice required by this section. This subsection may not be interpreted to require the operator to respond to the request to locate within the time requested in the notice.

**Sec. 42.30.420. Responsibility of construction project owners.**

The owner of a construction project that will require excavation shall indicate in bid documents or contracts for construction the existence of underground facilities that the project owner knows are located inside of the proposed area of excavation. This requirement does not release the excavator from the excavator's responsibility under AS 42.30.400 - 42.30.490.

**Sec. 42.30.430. Obligations concerning the conduct of excavations.**

(a) An excavator shall use reasonable care to avoid damaging an underground facility. The excavator shall

(1) determine, without damage to the facility, the precise location of an underground facility whose location has been marked;

(2) plan the excavation to avoid damage to and minimize interference with an underground facility in or near the excavation area; and

(3) to the extent necessary to protect a facility from damage, provide support for an underground facility in and near the construction area during the excavation.

(b) An excavator who, in the course of excavation, contacts or damages an underground facility shall notify the operator. If the damage causes an emergency, the excavator shall also alert appropriate local public safety agencies and take reasonable steps to ensure public safety. A damaged underground facility may not be reburied until it is repaired or relocated to the satisfaction of the operator. The operator of an underground facility that was damaged during excavation shall arrange for repair or relocation of the facility as soon as practical.

**Sec. 42.30.440. Penalties; injunctive relief.**

(a) In addition to all other remedies provided by law, a person who violates a provision of AS 42.30.400 - 42.30.490 is subject to a civil penalty of not less than $50 nor more than $1,000 for each offense if the violation results in or significantly contributes to damage to an underground facility.

(b) If the court finds that an excavator is violating or threatening to violate a provision of AS 42.30.400 - 42.30.490 and the violation may result in damage to an underground facility, the court may grant injunctive relief to the underground facility operator.

# Safety Requirements For Excavation Adjacent To Natural Gas Pipelines

**ENSTAR Natural Gas Company / Alaska Pipeline Company**

## Safety

ENSTAR Natural Gas Company provides natural gas service through 3,200 miles of gas mains to over 133,000 customers in South Central Alaska. ENSTAR's gas pipeline system is designed, installed, and maintained with the highest regard for safety in compliance with applicable federal, state, and local government statutes and regulations. ENSTAR is regularly inspected to ensure that its operation meets industry standards.

The US Department of Transportation, Pipeline & Hazardous Materials Safety Administration (PHMSA) oversees minimum safety regulations for the transportation of natural gas by pipelines. The DOT safety regulations are currently published in Title 49, Part 190, 191, 192 & 199 of the Code of Federal Regulations (CFR).

As an operator of a natural gas system, ENSTAR is required by the DOT regulations to:

1. Deliver gas safely and reliably to customers.
2. Provide training and written instruction for employees.
3. Establish written procedures to minimize hazards resulting from gas pipeline emergencies.
4. Keep records of inspections and testing.
5. Test employees in safety-sensitive positions for prohibited drugs and alcohol.

## Pipeline Reliability

Safety is and always will be unequivocally the number one priority for the natural gas industry. The industry spends billions of dollars each year to ensure the safety and reliability of the natural gas infrastructure. Natural gas utilities are subject not only to their own stringent internal controls, but also must meet rigorous federal and state oversight. Inspections are performed regularly by PHMSA regulators to ensure that compliance is being met.

Historically, excavation damage is the leading cause of most serious pipeline failures. Over 50% of the 312 damages to ENSTAR's pipelines last year were done by excavators that failed to obtain locates. Call before you dig, it's free and it's the law. Calling for locates is now as simple as dialing **811**. Dialing **811** anywhere in the United States connects you with the Locate Call Center for that area. In Alaska, dialing **811** connects you with Alaska Digline Inc. Alaska Digline Inc. will take your excavation information and notify all affected utilities. Utilities have two business days to mark their utilities after receiving your call.

## Pressure Classification

Natural gas is a potentially dangerous, compressible gas. Gas pipelines with the highest pressure contain the highest stored potential energy and present the greatest risk. Caution is always warranted when working around natural gas facilities. **Extreme caution must be exercised whenever transmission pipelines are encountered. Contact ENSTAR Engineering Dept., (907) 264-3740 for specific instructions before working within 10 feet of any transmission pipeline.**

| Pressure Classification | Pressure Rating Range | Pipeline Material |
|---|---|---|
| Transmission Pressure | Greater than 60 psig | Steel |
| Distribution Pressure | 60 psig or less | Polyethylene, Steel, Copper |

# Recognizing ENSTAR's Pipelines

ENSTAR transmission pipelines are generally marked above ground with pipeline markers similar to the one shown. Transmission pipelines are located in the vicinity of the pipeline markers. Transmission pipelines are steel and range in size from 4" to 20" in diameter. They are typically coated with a protective coating. There is no single color but yellow and black are the predominant color while some are green or brown.

Typical ENSTAR Pipeline Marker


Distribution pipelines are steel, copper or polyethylene with locate wire. These pipelines range in size from ½" diameter to 12" in diameter. Gas "Mains" are typically found in street right-of-ways or utility easements and supply the natural gas to an entire street or subdivision. They are typically steel or polyethylene and range in size from 2" to 12" in diameter.

Natural gas "service lines" are connected to the gas main. Service lines generally serve a single building or small group of buildings on private property. Service lines are typically ½" to 1" in diameter. Service lines can be rigid steel, steel tubing, copper or polyethylene with locate wire. Gas mains and service lines are generally black or yellow in color.

# Excavation Requirements for Natural Gas Pipelines

1 **Line Locating is a Free Service:** To request a locate, dial **811** the new Nationally recognized One-Call number and you will be connected to Alaska Digline Inc. Call at least two but not more than 15 working days before the date scheduled for beginning the excavation. Hand digging is advised when excavating within 2 feet of a marked facility. After ENSTAR has field marked with yellow paint, or flagged the location of an underground facility, the excavator is responsible for maintaining the markings. **Failure to call is a violation of state statutes and could result in fines well in excess of the cost of the damage.**

2 **Support for Steel Line Crossings:** If an excavation below a **steel gas** pipeline leaves the pipeline unsupported for a distance of more than 20 feet, the excavator must provide additional support for the pipeline. Support must be provided in a way as to not damage the pipe or its coating during construction, backfill placement, and compaction. Generally, a support spacing of 5 feet or less will provide the needed bracing. ENSTAR Engineering must approve all excavations crossing steel pipelines above 4-inch diameter. If support is required, ENSTAR engineering written approval is required prior to beginning construction. Call ENSTAR Engineering (907) 264-3740 for further information. Extra care must be taken when geotextile fabric and/or rigid insulation are used. In addition to continuous support under the pipeline, compacted fill material shall be placed between the geotextile fabric/rigid insulation and the pipeline. Care shall be taken to insure stability for the ENSTAR facility. Failure to properly protect ENSTAR's facilities could result in future damage if differential settlement occurs.

3 **Support for Polyethylene Line Crossings:** If an excavation is below a **polyethylene gas pipeline** the excavator must continuously support such pipeline during construction, backfill placement, and compaction. Geotextile fabric and/or rigid insulation shall be sufficiently separated from the polyethylene gas pipeline to prevent undue stress during the compaction/settlement process. (see item 8 clearance)

4 **Excavation Parallel to Pipeline:** When parallel excavations are expected to expose or undermine sections of pipeline, the excavator must notify ENSTAR engineering in advance. Care must be taken not to damage the pipeline, or to induce stresses due to differential settlement following construction**. Long parallel excavations exposing pipelines can be very dangerous if not properly performed and shall not be attempted without prior approval by ENSTAR.** Contact ENSTAR Engineering at 264-3740 for additional information.

5 **Blasting:** All blasting that is to be done within 500' of any Company Facility, shall be reviewed by an ENSTAR engineer, with the person performing the blasting and appropriate measures, (i.e. require minimum distance from facilities, minimize blasting charge intensity, etc.) shall be taken to protect the integrity of the Company's Facilities. A leak survey shall be performed after any blasting activity, which is within 500' of any Company Facility. The leak survey zone shall include all Company Facilities within 500' radius of the blasting.

6 **Trenchless Excavation (Vertical or Horizontal): Whenever a trenchless excavation (horizontal or vertical) is performed within 5 feet of a distribution pressure pipeline and 10 feet of a transmission pressure pipeline, the gas pipeline must be exposed to visually determine the exact location.** If the trenchless excavation is expected to cross the pipeline within the aforementioned distances, the pipeline in question shall be fully exposed to a minimum of 1 foot beneath the pipeline prior to the expected crossing to ensure that the pipeline is not unduly damaged due to ground movement in the immediate vicinity of the pipeline. **When performing a trenchless excavation parallel to a gas pipeline, the gas pipeline must be exposed at intervals of 25 feet or less to visually determine the pipeline's exact location.** Trenchless excavation is defined as drilling, directional drilling, boring, pile installation etc.

7 **Clearance:** Natural Gas pipelines require a **12 inch minimum separation from other underground structures** not associated with ENSTAR's pipeline system. Additional clearance from other underground structures may be required to allow proper maintenance and reduce the possibility of damage due to the proximity of other structures (49 CFR § 192.325.) This clearance requirement includes rigid insulation and geotextile fabrics. **ENSTAR requires a 36-inch minimum separation from certain electrical facilities, including any grounded components i.e. ground rods, non-insulated conductors and associated structures.**

8 **Pipeline Cover:** ENSTAR pipelines in public rights-of-way are generally installed with 36 inches to 48 inches of cover, and in private rights-of-way with 12 inches to 36 inches of cover. Projects that decrease cover or increase cover in excess of 60 inches must receive prior approval from ENSTAR Engineering Department (907) 264-3740**.** ENSTAR has limited ability to prevent the removal of cover over gas pipelines. Increasing pipeline cover more than 5 feet or decreasing pipeline cover to less than 3 feet may be considered a damage that may result in relocation of the gas pipeline at the expense of the Excavator. The depth of cover listed above cannot be assumed after installation. The excavator is responsible for any damage to ENSTAR pipelines regardless of the depth at which they are encountered.

9 **Inspection:** All excavations in the immediate vicinity of ENSTAR Natural Gas facilities (including backfill, compaction, temporary support, and shoring), is subject to prior approval and inspection by ENSTAR personnel. Transmission pipeline inspections are provided whenever an excavator is working within ten feet of a transmission pipeline. If it has been determined that there was excavation either by hand or machinery within 5 ft. of ENSTAR Natural Gas Distribution mains or 10ft. from ENSTAR Natural Gas Transmission mains without either locates or standby (qualified ENSTAR personnel), ENSTAR Natural Gas reserves the right to excavate to determine if there has been any damage to ENSTAR Natural Gas facilities. If damage has occurred ENSTAR Natural Gas has the right to charge the excavator for repairs.

## Pipeline Components

### Pipe Wall Protection

Dents, scrapes, gouges and scratches reduce pipeline wall thickness and affect the safety of the facility in two ways. First, the reduced wall thickness decreases the pressure at which the pipeline can safely operate. Second, the damage serves as a stress concentration that can cause a future brittle failure of the pipeline. **An ENSTAR representative must inspect each dent, scrape, gouge or scratch, no matter how small, before it is reburied.**

### Corrosion Protection

ENSTAR's **steel** pipelines are protected from corrosion by a dielectric coating and an impressed current or galvanic anode cathodic protection system. Direct contact with metallic objects (a short) or removal of the protective coating can compromise this system. Contact the ENSTAR Engineering Department (907) 264-3740, whenever coating damage or a short is encountered. **An ENSTAR representative must inspect each short or section of damaged coating before it is reburied.**

### Locate Wire Protection

ENSTAR's **polyethylene** pipelines are installed with a parallel copper wire, which is used to locate the pipeline. If the locate wire or wire coating is damaged, ENSTAR's ability to properly locate the pipeline may be severely compromised. Electrical continuity must be maintained. **An ENSTAR representative must inspect each possible locate wire damage before it is reburied.**

## Service Line Excess Flow Valves

Excess Flow Valve (EFV) is a safety device installed in a natural gas service line near the gas main that is designed to automatically shut off the flow of natural gas in the event that the service line is broken. Effective February 12, 2010, all gas companies nationwide were required to install an EFV in any newly installed service line that serves one single family dwelling.

ENSTAR will not be installing EFVs on service lines that branch to multiple buildings, multi-family, commercial or industrial structures. ENSTAR will not be installing EFVs on the existing 100,000 service line currently in use.

**What does this mean to you as an Excavator?**

Should you dig into a natural gas service line that has an EFV, the gas will blow for a short duration and shut off automatically if the flow of gas is sufficient to close the EFV. Damages that do not sever the service line completely may not cause the EFV to close and the gas will continue to blow. Regardless, **you must report all damages to ENSTAR immediately**. EFVs are designed to allow a small amount of "bleed-by" so they can be reset without excavating the gas main. Backfilling a damaged service line with gas bleeding underground is extremely dangerous and could fuel an explosion if it is not repaired timely. **Do not assume a damaged service is dead or abandoned if it is not blowing gas**. The EFV may have shut down the flow of gas. Report all damages immediately by calling 277-5551.

Please remember that the vast majority of ENSTAR service lines WILL NOT have an EFV. Should you damage a service line without an EFV, gas will blow at full line pressure until ENSTAR can arrive to shut it off. Your best protection against damaging underground utilities is to call **811** for locates and hand dig within 2 feet of the locate marks.

## What to do if You Damage a Gas Line or Smell Gas

If you damage a pipeline facility, call ENSTAR's 24-hour dispatch number at 277-5551. Call ENSTAR any time a gas line is broken, scraped, pulled, cut or otherwise damaged. **If the damage results in a release of natural gas and there is a danger to life or property, you should call the local Fire Department or 911.** Eliminate all ignition sources and evacuate the area of the damage. Wait for an ENSTAR employee to shut off the flow of gas and make repairs.

Gas lines that have been pulled, stretched, kinked or bent could be damaged underground away from where the line is connected. If you pull or stretch gas lines call ENSTAR at 277-5551 and an ENSTAR Representative will investigate for possible underground leakage.

## Qualified Personnel Requirements

Only qualified individuals meeting all applicable requirements may perform work on ENSTAR Natural Gas Company facilities. At a minimum, such individuals must comply with applicable federal, state and local regulation, statutes, and ordinances.


For further information about ENSTAR, visit our web site @ www.enstarnaturalgas.com

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION VIII

## MINIMUM RATES OF PAY

**State of Alaska Wage Rate**

# Laborers' & Mechanics' Minimum Rates of Pay

Title 36. Public Contracts AS 36.05 & AS 36.10 Wage & Hour Administration Pamphlet No. 600 (Pamphlet 600) is hereby incorporated in its entirety. Pamphlet 600 is available for free download at http://labor.state.ak.us/lss/pamp600.htm.

The Municipality of Anchorage will include a paper copy of the wage rates in the signed Contract.

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION IX

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

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

# 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

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XI

## RECORD DRAWINGS

(Under Separate Cover)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

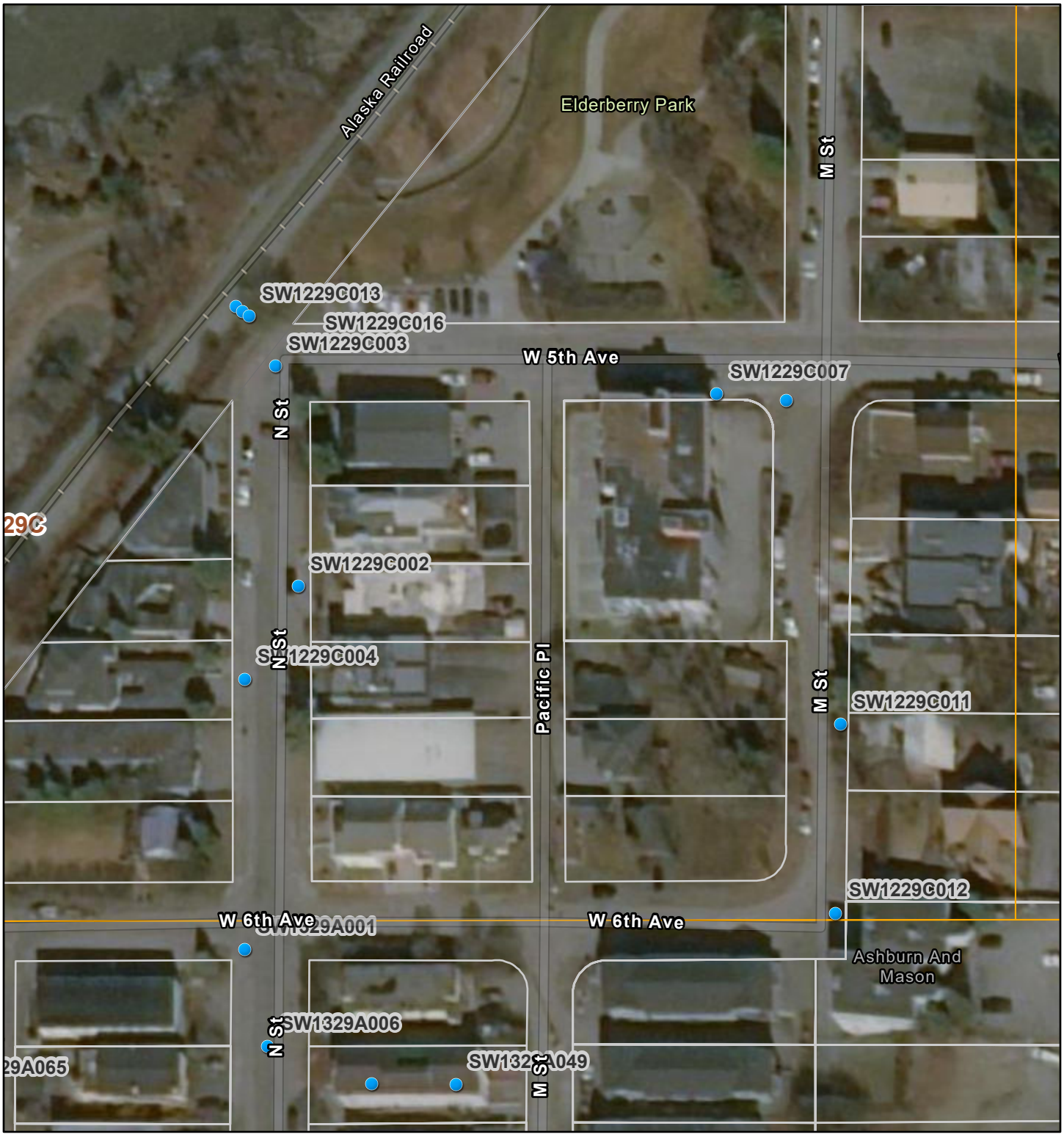
## SECTION XII

## SOIL BORING LOGS

## CLOSED CIRCUIT TELEVISION INSPECTIONS (CCTV)

## SOIL SAMPLING, 6TH AVENUE AND M STREET, AWWU PROJECT WW.00031 (UNDER SEPARATE COVER)

# MOA Soil Boring




1/12/2022, 8:44:00 AM

1:2,257

0 0.01 0.01 0.03 mi

0 0.01 0.03 0.05 km

- Soil Borings
- Subdivisions
- Quarter Grids
- PropertyInformation

Microsoft, Matanuska-Susitna Borough GIS, Municipality of Anchorage, State of Alaska, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Date 11-2-60

City of Anchorage
Office of the City Engineer
Soils Laboratory

Field Auger Log

Contract Number
District (3)

Hale Number

Location 5TH & A/ST.

Top Elevation EXISTING GROUND

w = water content
k = coef of permeability

$D_{20}$ = 20% Diameter
c = unit cohesion

o = ∠ of int. Friction
e = void ratio

| Sample | Depth in feet | M.I.T. Classification | Summary of Test Results |
|---|---|---|---|
| | 0 | SANDY GRAVEL | |
| | 1.0 | | |
| | | ORGANIC MATTER | |
| | 2.0 | | |
| | | SANDY GRAVEL 45-60% - #4 | |
| | 3.0 | | |
| | | PEAT | |
| | 4.0 | SAND | HOLE DEPTH 45 |
| | 5.0 | | |
| | 6.0 | | |
| | 7.0 | | |
| | 8.0 | | |
| | 9.0 | | |
| | 10 | | |
| | 11 | | |

32-43
3 of 15

Date 11-3-60

City of Anchorage
Office of the City Engineer
Soils Laboratory

Field Auger Log

Contract Number (2)
District

Hale Number

Location THIRD LOT SOUTH OF 5TH 521 N ST

Top Elevation EXISTING GROUND

w = water content
k = coef of permeability

$D_{20}$ = 20% Diameter
c = unit cohesion

o = ∠ of int. Friction
e = void ratio

| Sample | Depth in feet | M.I.T. Classification | Summary of Test Results |
|---|---|---|---|
| | 0<br>1.0<br>2.0<br>3.0<br>4.0<br>5.0<br>6.0<br>7.0<br>8.0<br>9.0<br>10<br>11 | SANDY GRAVEL BACKFILL FROM WATER LINE DITCH<br>WHEN DITCH WAS DUG THEY HIT PEAT & CLAY.<br>WATER LINE AT APPROX. 10'<br>WATER LINE LAYING IN CLAY | HOLE DEPTH 4'- |

32-43

4 of 15

Date 11-3-60

City of Anchorage
Office of the City Engineer
Soils Laboratory

Field Auger Log

Contract Number
District (4)

Hole Number

Location 505 N ST TO 525 N ST

Top Elevation EXISTING GROUND

w = water content
k = coef of permeability

$D_{20}$ = 20% Diameter
c = unit cohesion

o = ∠ of int. Friction
e = void ratio

| Sample | Depth in feet | M.I.T. Classification | Summary of Test Results |
|---|---|---|---|
| | 0 | SANDY GRAVEL | NOTE THE AREA FROM 5TH TO N ST AND 200' SOUTH IS SO MIXED UP THAT IT IS IMPOSSIBLE TO GIVE ACCURATE SOIL PROFILE. |
| | 1.0 | | |
| | 2.0 | A MIXTURE OF PEAT, SILT, SAND, GRAVEL & CONSIDERABLE AMOUNT OF ORGANIC | |
| | 3.0 | | |
| | 4.0 | | |
| | 5.0 | | HOLE DEPTH 6' |
| | 6.0 | | |
| | 7.0 | | |
| | 8.0 | | |
| | 9.0 | | |
| | 10 | | |
| | 11 | | |

5TH TO 7TH
258, 59
MTD PL. 35-38
32-43
2 OF 25

Date 11-3-60

City of Anchorage
Office of the City Engineer
Soils Laboratory

Field Auger Log

Contract Number
District (1)

Hole Number

Location S.W. Cor. 5TH & M ST

Top Elevation EXISTING GROUND

w = water content
k = coef of permeability

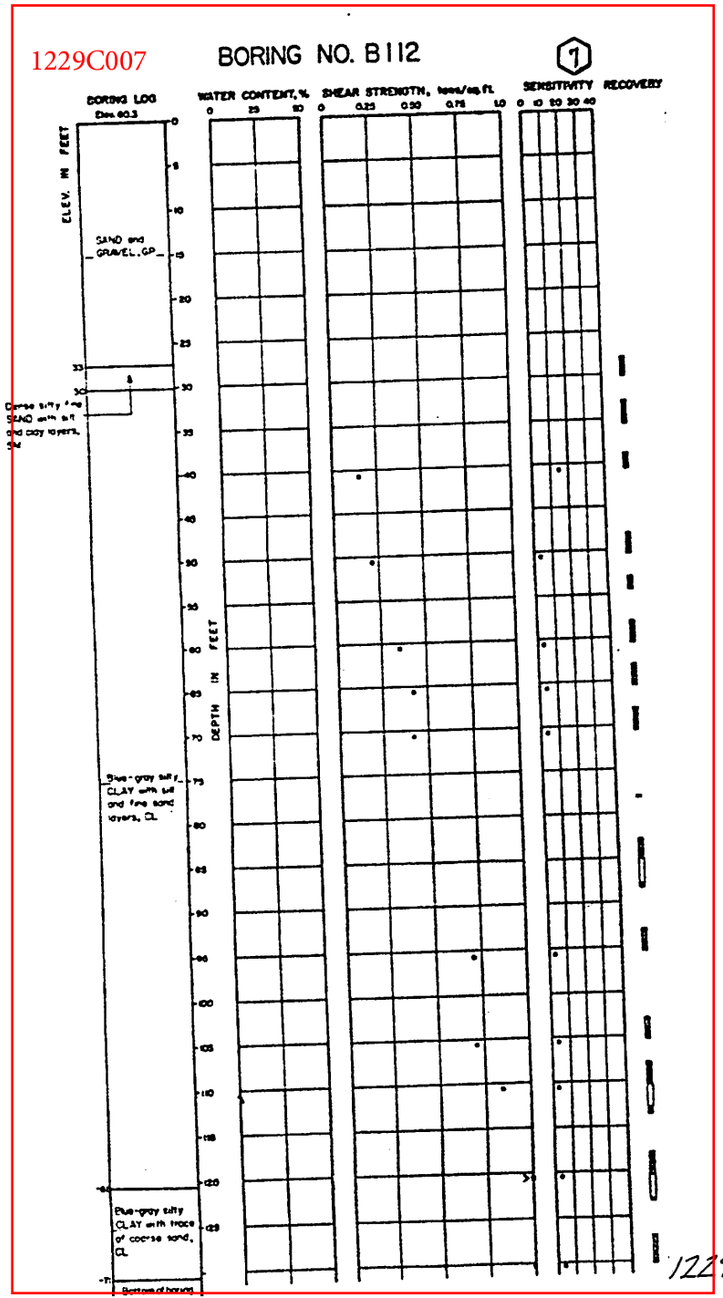
$D_{20}$ = 20% Diameter
c = unit cohesion

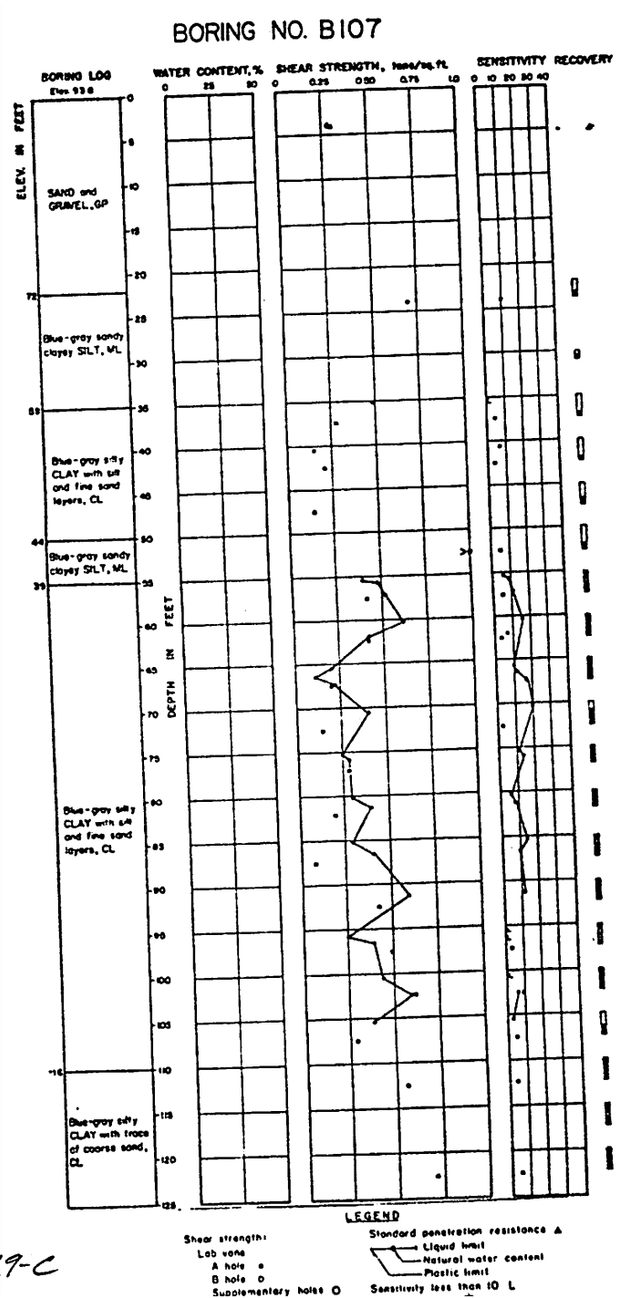
o = ∠ of int. Friction
e = void ratio

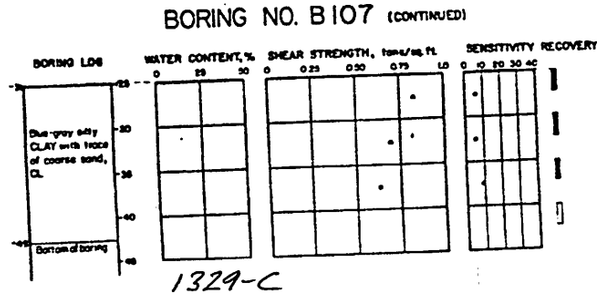
| Sample | Depth in feet | M.I.T. Classification | Summary of Test Results |
|---|---|---|---|
| | 0<br>1.0<br>2.0<br>3.0<br>4.0<br>5.0<br>6.0<br>7.0<br>8.0<br>9.0<br>10<br>11 | SANDY GRAVEL 40-50%-#4<br><br>SAND | NOTE<br>SMALL CHUNKS OF CLAY MIXED WITH SAND STARTING AT 2'<br><br>HOLE DEPTH 4' |

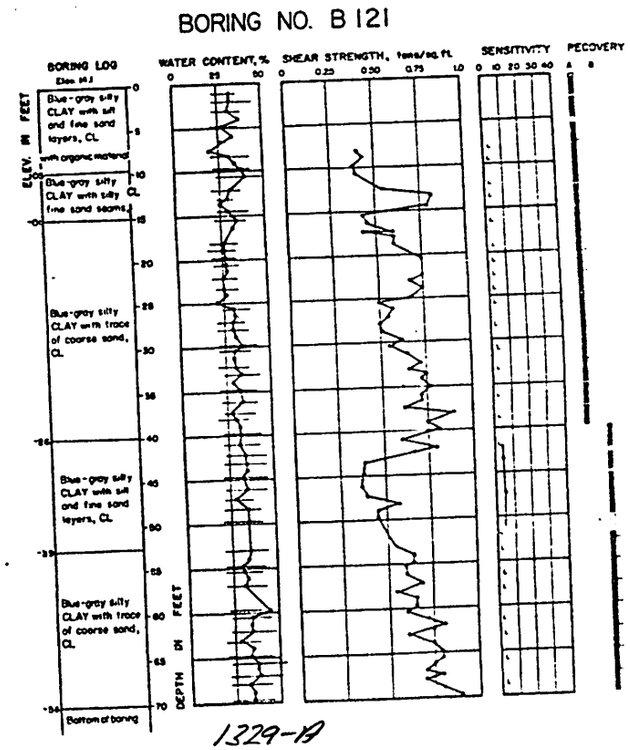
32-43

5 of 5




SHANNON & WILSON, INC.
SOIL MECHANICS AND FOUNDATION ENGINEERS
SEATTLE, WASHINGTON

ANCHORAGE AREA SOILS STUDIES

LOGS FOR BORINGS B107, B112 & B121

SCALE AS SHOWN | DATE AUGUST 29, 1964

PERFORMED UNDER CONTRACT DA 95-507-CIVENG 64-1816 FOR THE ARMY

PLATE A21

1229C011

# MUNICIPALITY OF ANCHORAGE

## DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

## SOILS LOG

(11)

HOLE NO. 1

LOCATION 1982 Small Drainage Projects / 6TH Ave & M St. 12' East of ℄ M St. / 125' North of ℄ W. 6TH Ave

DATE 1/26/83

BY D. Bolles

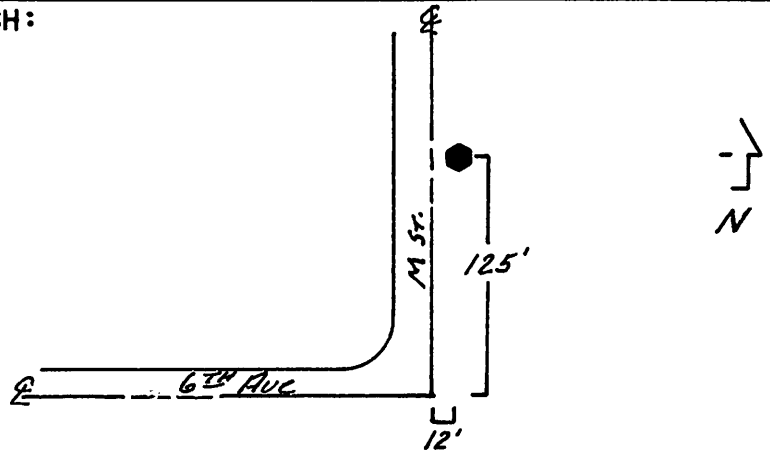
COMMENTS Test hole terminated at -8.5' due to sloughing

DEPTH 8.5'

WATER TABLE None

| | DEPTH | UNIFIED CLASS | FROST GROUP | DESCRIPTION |
|---|---|---|---|---|
| | 0 | | | Existing Grade |
| I-A Ex-75 | 1 | SP-SM | NFS to F-2 | (24%) (68%) (8%) Brown - Gravely - Sand w/ Silt / Moisture = 6% NP / Medium density. |
| | 2 | | | |
| I-B Ex-76 | 3 | SM | F-3 | (21%) (37%) (42%) Brown - Gravely-Silty-Sand / Moisture = 3% NP / Medium density / occasional silt lenses |
| | 4 | | | |
| I-C Ex-77 | 5 | SP | NFS | (91%) (6%) Brown - Sand w/ Gravel / Moisture = 9% Silt = 3% / NP / Moderately low Density. |
| | 6 | | | |
| | 7 | | | Isolated silt lens at -7.5' / Grey - Dense / NP Moist / unable to obtain Sample |
| | 8 | | | |
| | 9 | | | |
| | 10 | | | |
| | 11 | | | |
| | 12 | | | |
| | 13 | | | |
| | 14 | | | |

LOCATION SKETCH:




LEGEND

SYMBOL

- TEST HOLE
- WATER TABLE
- FROZEN MATERIAL (2 3 4 5)

ALL FROST CLASSIFICATION BASED ON THE .02mm = 50% OF THE -#200 UNLESS OTHERWISE NOTED

82-032 (2/81)

GRID NO. 1229

# MUNICIPALITY OF ANCHORAGE

DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

FILE NO. 1229C011

TEST NO. EX-75

PROJECT 6TH & 'C' ST (1982 DRAINAGE PROJ.) DATE 11/26/83

CONTRACTOR

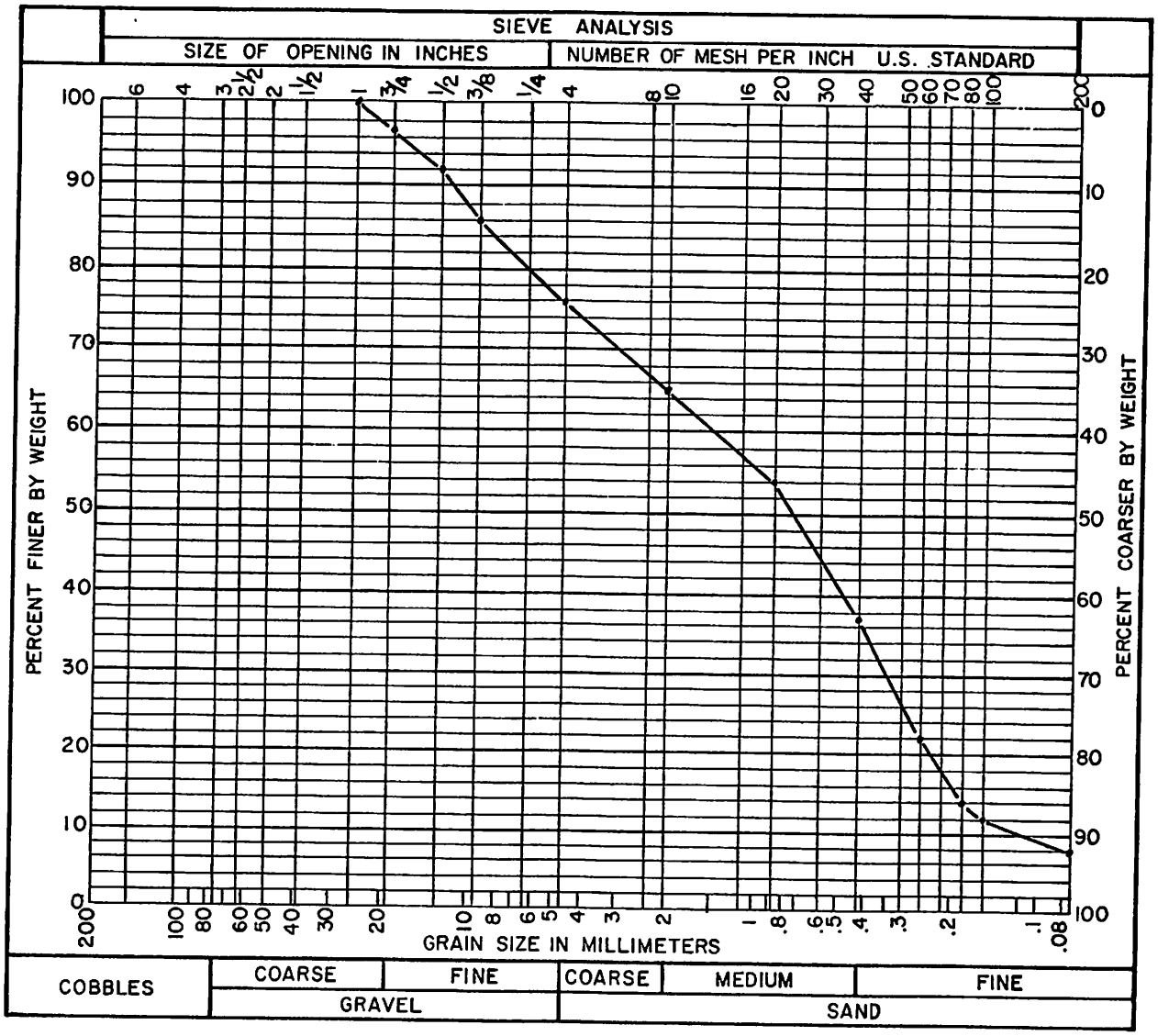
LOCATION SAMPLED 12' E. & OF M ST / 125' N. & OF 6TH AVE. 1-A / 0.G. TO -2.5'

BY D.H. BOLLES

COMMENTS SP-SM / NES TO E-2 / (24%) (68%) (8%) GRAVELLY-SANDY-SILT MOIST. = 6% / GP

REPORTED TO

PLOTTED DS CHECKED BY GD MATERIALS SUPERVISOR L.O. Pennington




INSPECTOR'S COMMENTS

1229C011

# MUNICIPALITY OF ANCHORAGE
## DEPARTMENT OF PUBLIC WORKS
## CONSTRUCTION DIVISION

TEST NO. EX-76

PROJECT 6TH AVE & M ST (1982 SMALL DRAINAGE) DATE 11/26/83

CONTRACTOR

MATERIAL SOURCE 1-B / -25' TO -45'

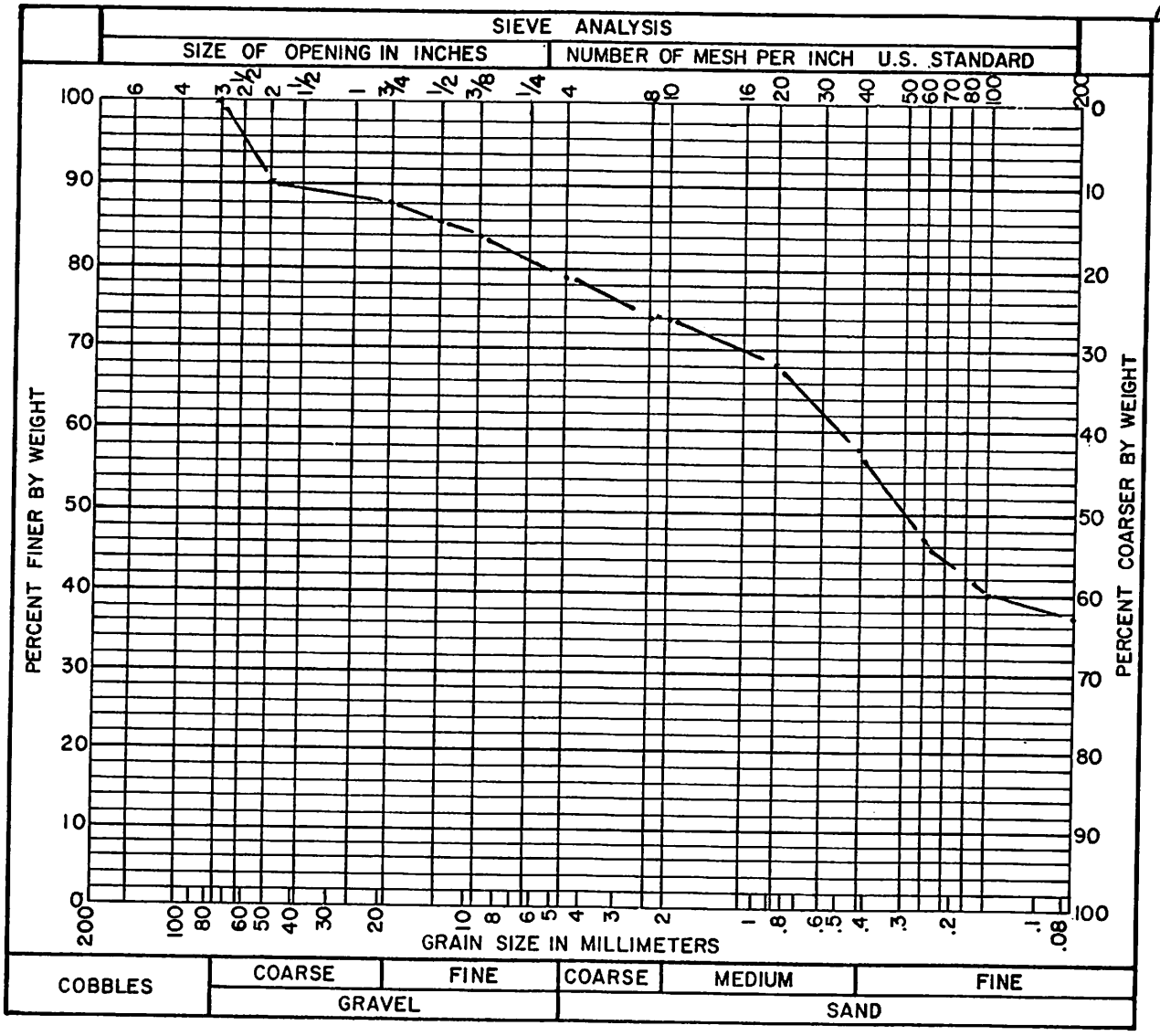
LOCATION SAMPLED 12' E. & SE M ST / 125' N & OF 6TH AVE BY O.H. BOLLES

COMMENTS SM / E-3 / GRAVEL (21%) SILT (37%) SAND (42%) / MOIST. = 3%

HP

REPORTED TO

PLOTTED BY EG CHECKED BY EG MATERIALS SUPERVISOR T.O. Lemmons




INSPECTOR'S COMMENTS

82-009 (2/77)

# MUNICIPALITY OF ANCHORAGE

DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

FILE NO. 1229C011

TEST NO. EX-77

PROJECT 6TH AVE & M ST (1982 SMALL DRAINAGE) DATE 1/26/83

CONTRACTOR

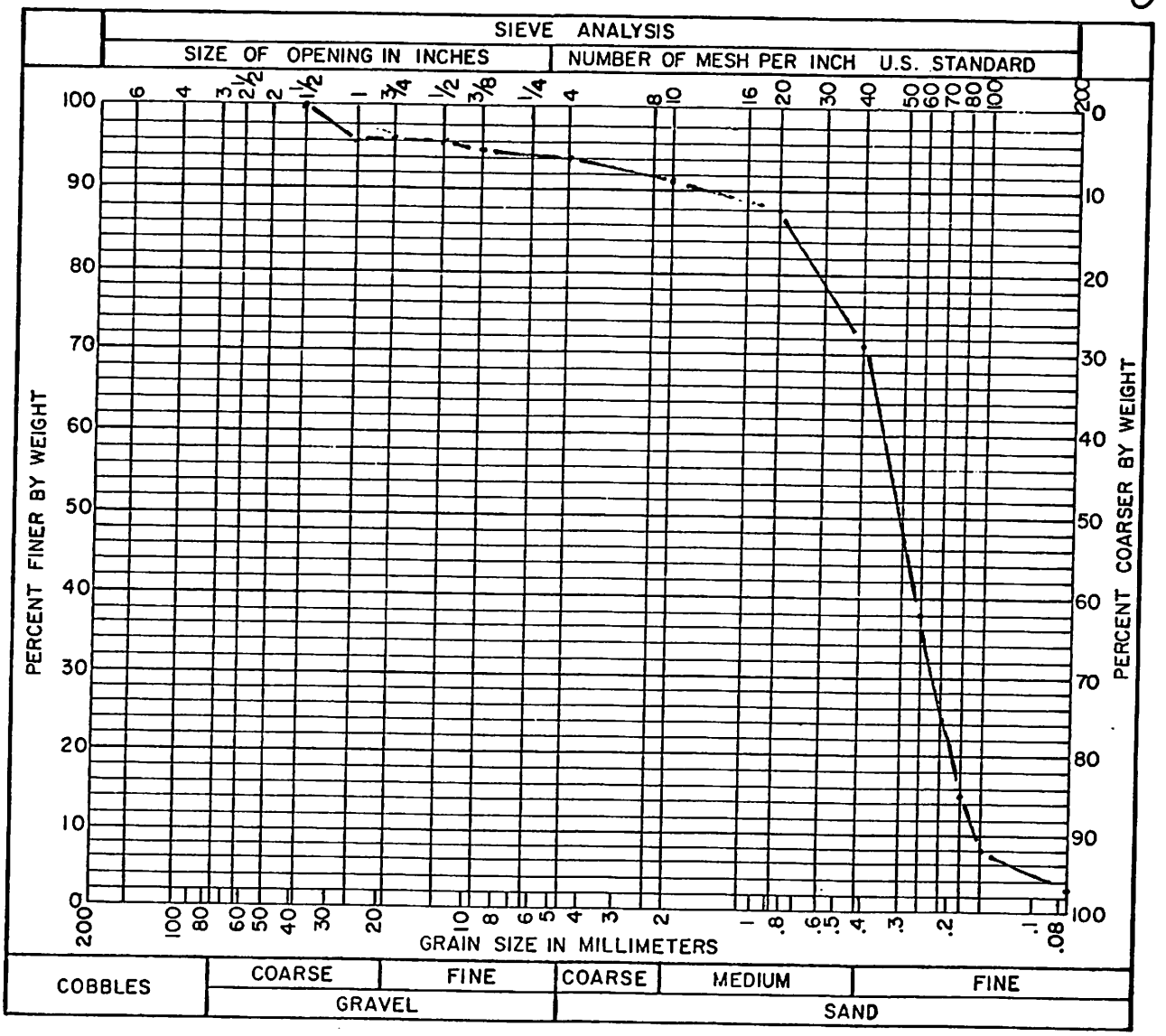
LOCATION SAMPLED 12' E. & OF M ST / 125' N. & OF 6TH AVE. 1-C / -4.5' TO -8.5'

BY D.A. BOLLES

COMMENTS SP / NFS / (91%) SAND W/ (6%) GRAVEL / MOIST. = 9% SILT = 3% / NP

REPORTED TO

PLOTTED EE CHECKED BY CR MATERIALS SUPERVISOR L. D. Lennington




INSPECTOR'S COMMENTS

82-009 (Rev. 1/82)

1229C012

# MUNICIPALITY OF ANCHORAGE

## DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

## SOILS LOG

(12)

HOLE NO. 2

LOCATION 1982 Small Dainage Projects / 6TH Ave & M St. E of W. 6TH Ave / 12' East of E M St.

DATE 1/26/83

BY D. Belles

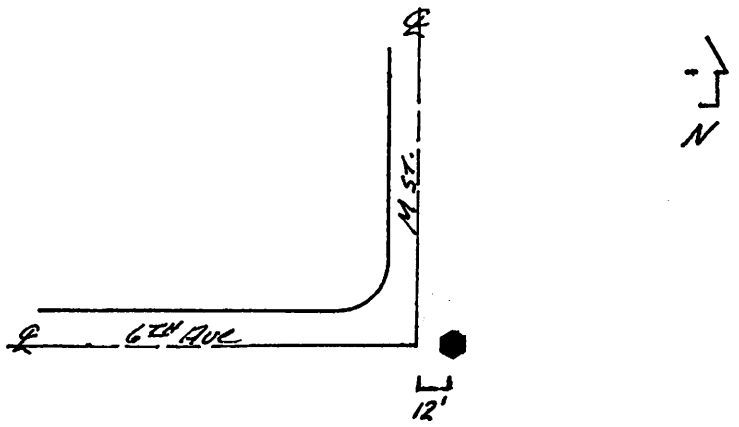
COMMENTS

DEPTH 10.0'

WATER TABLE None

| | DEPTH | UNIFIED CLASS | FROST GROUP | DESCRIPTION |
|---|---|---|---|---|
| | 0 | | | Existing Grade |
| 2-A Ex-78 | 1 | SP-SM | NFS TO F-2 | (25%) (68%) (7%) Brown - Gravely - Sand w/ Silt / Moisture = 9% NP / Moderately High density. |
| | 2 | | | |
| 2-B Ex-79 | 3 | SP-SM | NFS TO F-2 | (20%) (74%) (6%) Brown - Gravely - Sand w/ Silt / Moisture = 5% NP / Low Density / Some debris (Glass, wood, ect) Highly disturbed. |
| | 4 | | | |
| | 5 | | | Red - Silt w/Sand between 5.5'-6.2' unable to sample |
| | 6 | | | |
| 2-C Ex-80 | 7 | SW | NFS | (48%) (49%) Brown - Gravely - Sand / Moisture = 4% Silt = 3% / NP / Medium Density |
| | 8 | | | |
| | 9 | | | (46%) (53%) |
| 2-D Ex-81 | 10 | SP | NFS | Brown - Gravely - Sand / Moisture = 3% Silt = 1% / NP / Moderately Low density |
| | 11 | | | |
| | 12 | | | |
| | 13 | | | |
| | 14 | | | |

LOCATION SKETCH:




LEGEND

SYMBOL

TEST HOLE

WATER TABLE

FROZEN MATERIAL

ALL FROST CLASSIFICATION BASED ON THE .02mm = 50% OF THE -#200 UNLESS OTHERWISE NOTED

82-032 (2/81)

GRID NO. 1229

# MUNICIPALITY OF ANCHORAGE

DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

FILE NO. 1229C012

TEST NO. EX-78

PROJECT 6TH AVE. & M ST (1982 SMALL DRAINAGE) DATE 11/26/82

CONTRACTOR

LOCATION SAMPLED S OF 6TH AVE / 12' E. OF M ST.

2-A / 0.6' TO -2.9'

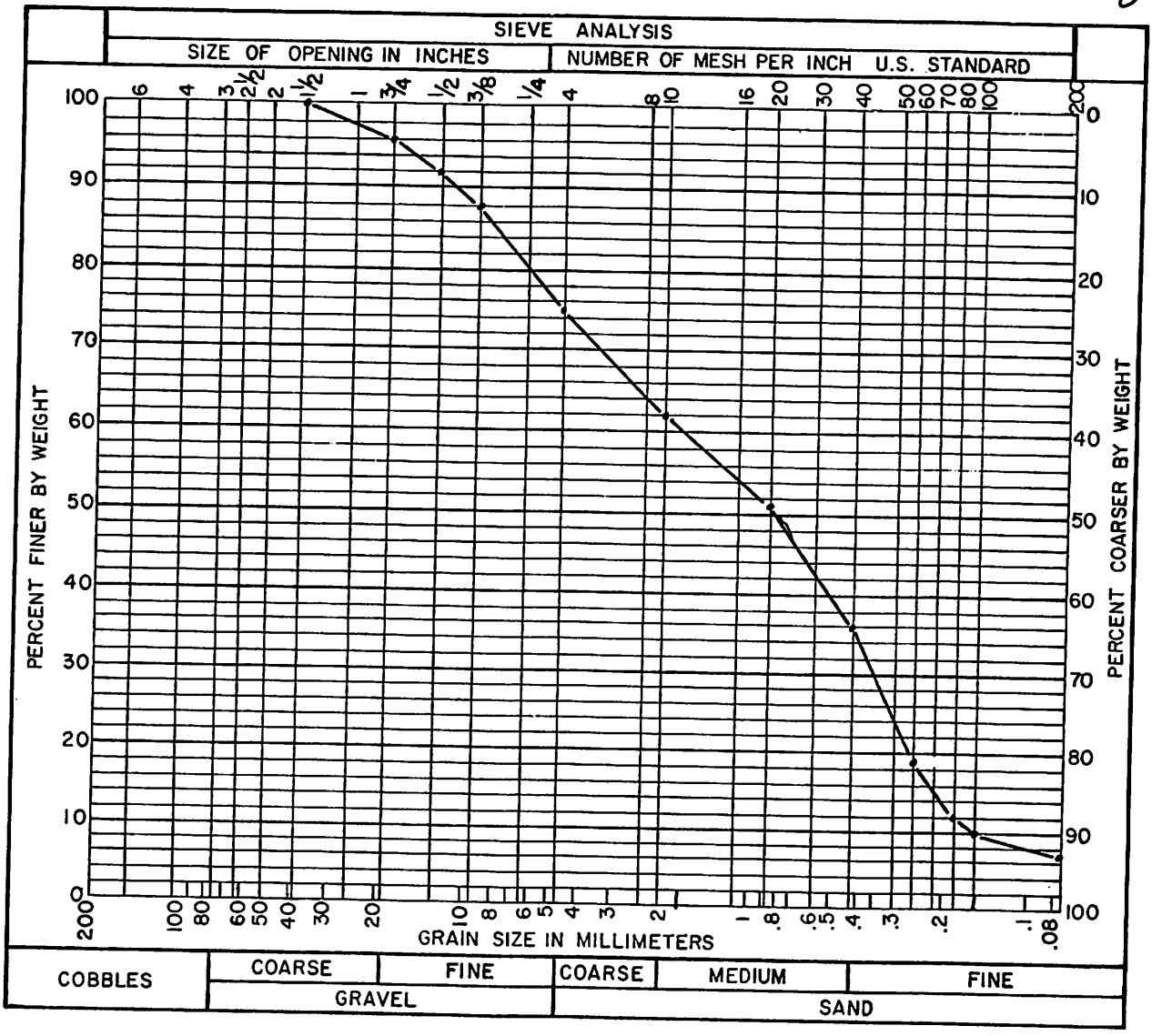
BY D.H. BOLLES

COMMENTS SP-SM / NESTO F-2 / (25%) GRAVEL - SAND (68%) / (7%) SILT

MOIST. = 9% / HP

REPORTED TO

PLOTTED AB CHECKED BY MP MATERIALS SUPERVISOR L.D. Penning




INSPECTOR'S COMMENTS

82-009 (Rev. 1/82)

# MUNICIPALITY OF ANCHORAGE

## DEPARTMENT OF PUBLIC WORKS

## CONSTRUCTION DIVISION

FILE NO. 1229C012

TEST NO. EX-79

PROJECT 6TH AVE & M ST (1982 SMALL DRAINAGE) DATE 11/26/83

CONTRACTOR

LOCATION SAMPLED ℄ OF 6TH AVE / 12' E. ℄ OF M ST

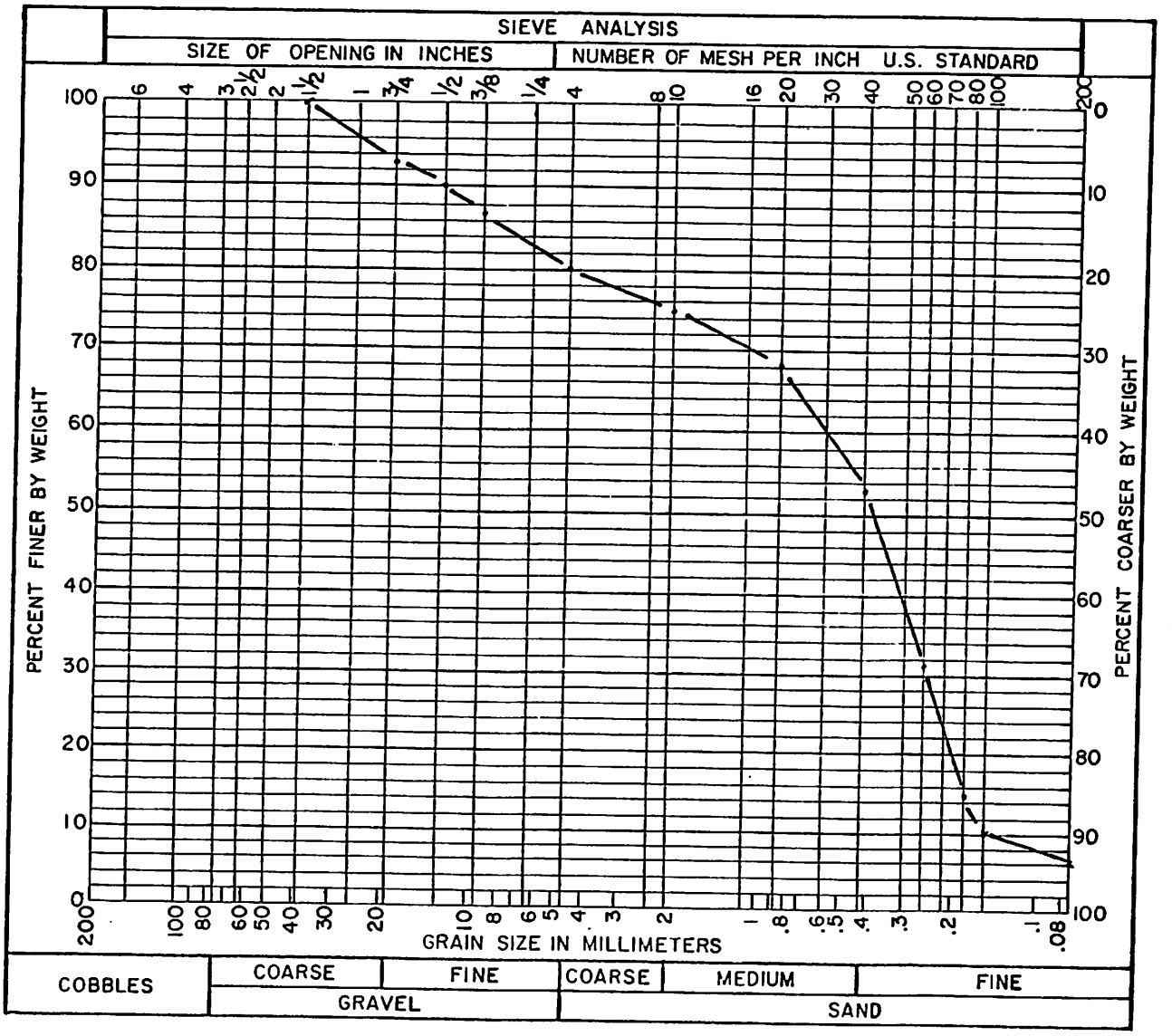
2-B / -2° TO -6°. BY D.A. BOLLES

COMMENTS SP-SM / HES TO F-2 / (20%) GRAV. (74%) SAND (6%) SILT

MOIST. = 5% / NP

REPORTED TO

PLOTTED CHECKED BY MATERIALS SUPERVISOR L.D. Lennon




INSPECTOR'S COMMENTS

82-009 (Rev 1/82)

1229C012

# MUNICIPALITY OF ANCHORAGE
## DEPARTMENT OF PUBLIC WORKS
## CONSTRUCTION DIVISION

TEST NO. EX-80

PROJECT 6TH AVE & M ST (1982 SMALL DRAINAGE) DATE 1/26/83

CONTRACTOR

MATERIAL SOURCE 2-C / -6" TO -8.5'

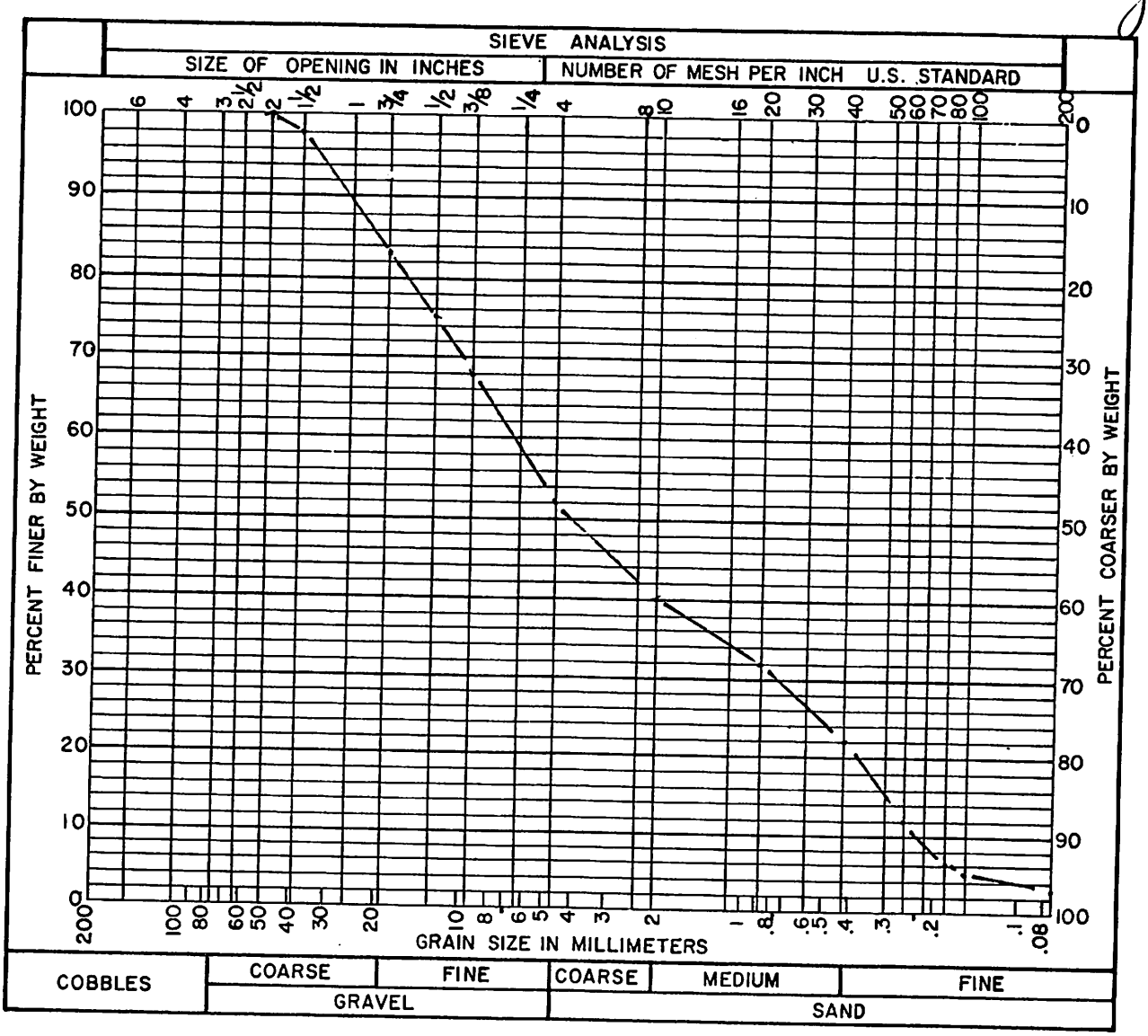
LOCATION SAMPLED N OF 6TH AVE / 10' E.Y. OF M ST BY D.H. BOLLES

COMMENTS SW / MES / (48%) (49%) GRAVEL-SAND / MOIST. = 4%

NP / SILT = 3%

REPORTED TO

PLOTTED BY [illegible] CHECKED BY [illegible] MATERIALS SUPERVISOR [illegible]




INSPECTOR'S COMMENTS

82-009 (2/77)

# MUNICIPALITY OF ANCHORAGE
## DEPARTMENT OF PUBLIC WORKS
## CONSTRUCTION DIVISION

FILE NO. 1229C012

TEST NO. EX-81

PROJECT 6TH AVE. & M ST (1982 SMALL DRAINAGE) DATE 11/26/83

CONTRACTOR

LOCATION SAMPLED S. OF 6TH AVE. / 12' E. OF M ST

2-D / -8.5' TO -10.0'

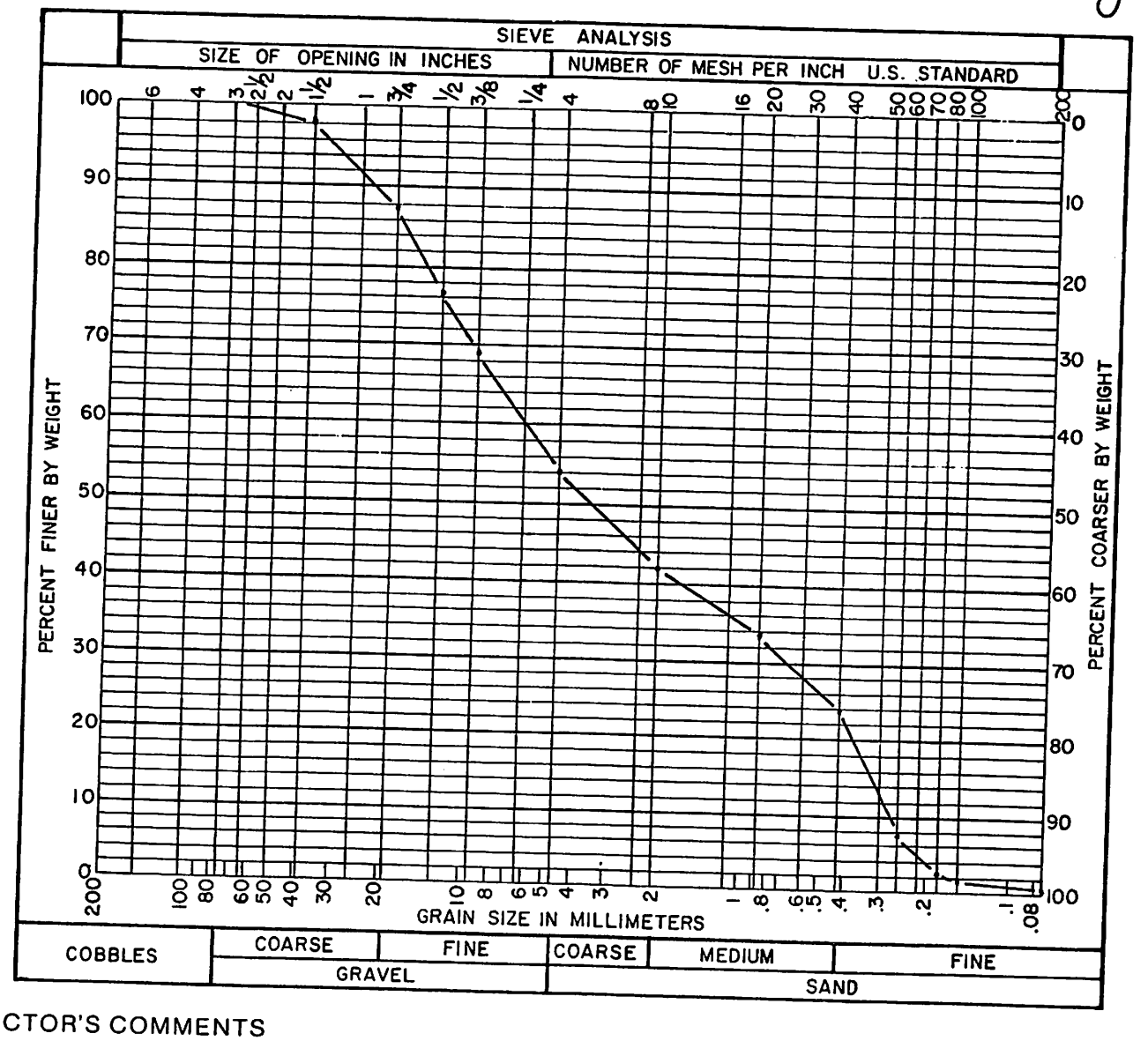
BY D.H. BOLLES

COMMENTS SP / WELL GRADED - SAND / MOIST. = 3%

SILT = 1% / NP

REPORTED TO

PLOTTED _____ CHECKED BY _____ MATERIALS SUPERVISOR T.O. Pennington




INSPECTOR'S COMMENTS

82-009 (Rev. 1/82)

# Municipality of Anchorage

325 E. 94th Court• Anchorage, Alaska 99515-2111 • Telephone (907) 550-5900 • Fax (907) 344-7325
http://www.muni.org • http://www.awwu.biz

*Mayor Ethan Berkowitz*


## Anchorage Water & Wastewater Utility
## Operations and Maintenance Division
## C.C.T.V. Section
## Condition Assessment

Date: 02/25/21
PW# 374823

## Lateral Launch Elderberry Park

**SP3 1229 MH 004-083**

**Overall Assessment:** This CCTV inspection was started from MH083 and headed against the flow to MH004 in grid SW1229. This 8" Concrete pipe is 21' in length, and there are 3 service connections on this pipe run (2 services are past the mainline cleanout). This line has several areas with multiple cracks wit pipe shifting. The main is clear and flowing at this time..

A lateral launch was performed on the last service at the 2 o'clock position @40'from MH 083 (Elderberry park restroom facility). This line has large offsets, which prevented our lateral camera from finishing the inspection. We were unable to get a signal with our ridge locator due to interference from other utilities.

Note** Ground water seems to be entering into our main from the offsets in this service line.



***PACP Certified System's Operator***
***Curlee Robinson***

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XIII

## TEMPORARY CONSTRUCTION PERMITS AND EASEMENTS

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XIV

## PERMITS

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XV

## TRAFFIC CONTROL PLANS

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

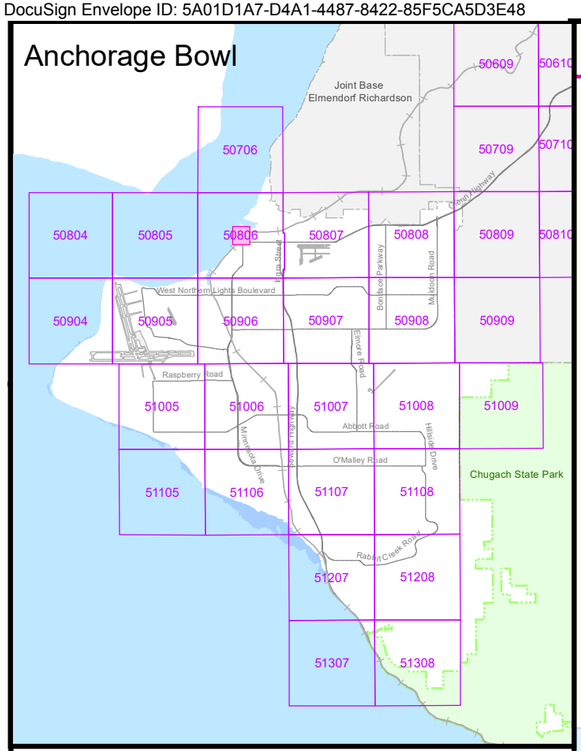
## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XVI

## MAPS

## Anchorage Bowl




## Legend

**All Status (Constructed, Design, Standby)**

- Gate or Butterfly, AWWU
- Gate or Butterfly, nonAWWU
- All Valve Types, All Owners, Closed
- Single, AWWU
- Single, Private
- Single, Unknown Owner
- Double, AWWU
- Double, Private
- Flushing, AWWU
- All Hydrant, Other Utility
- Well, AWWU
- Well, Private

- Administration Facility
- AV Air Vacuum Facility
- B Booster Station Facility
- PV Pressure Reducing Facility
- R Reservoir Facility
- V Valve Facility
- W Well Facility
- WTF Water Treatment Facility

**Constructed Pipe**

- Main, AWWU
- Service Line, Private
- Main, Other Utility
- Casing and Outer Pipe, All Owners

**Design Pipe**

- Main, AWWU
- Service Line, Private

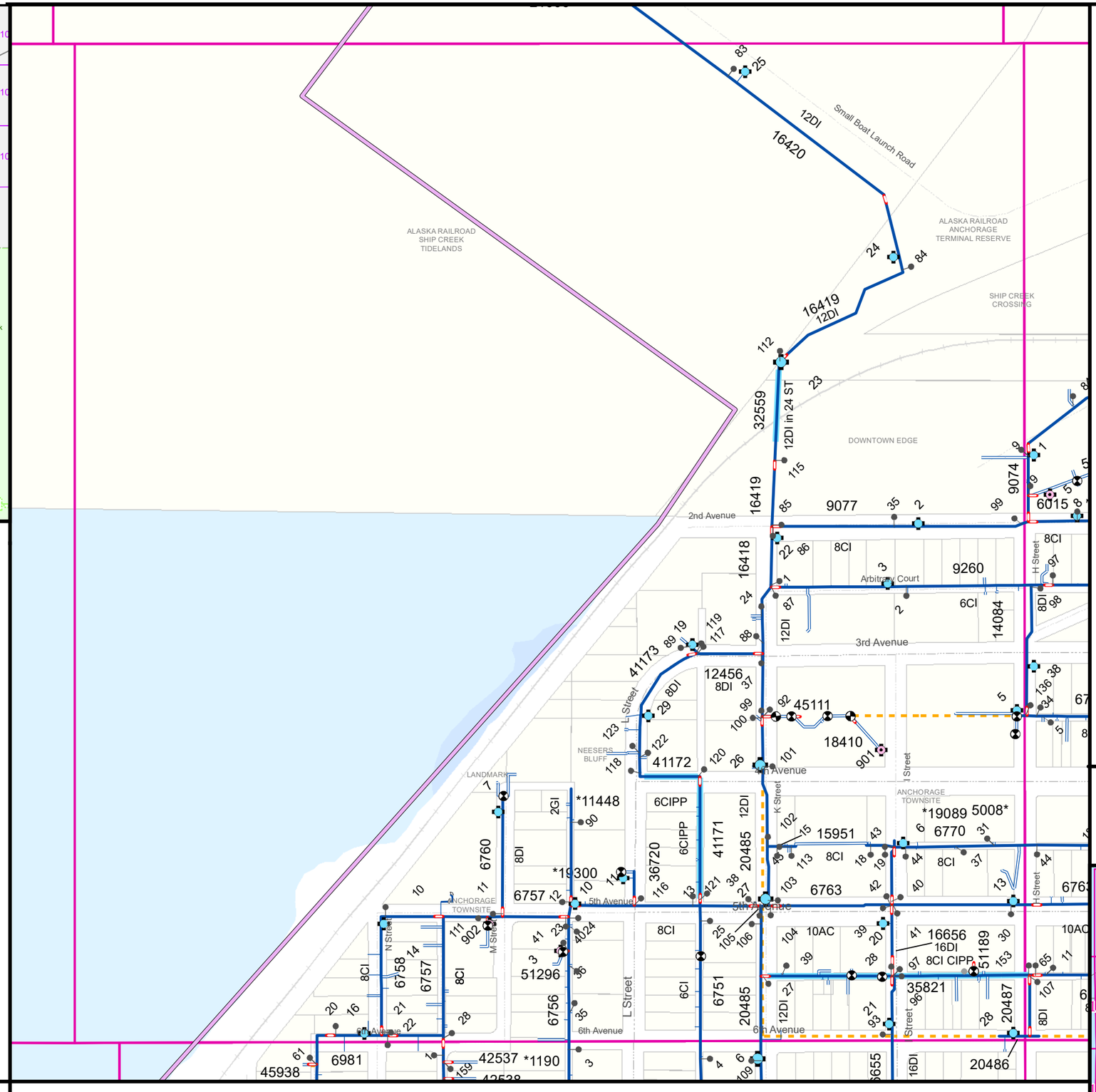
**Retired Pipe**

- Abandoned in Place, All Owners

- Record Drawing Limit
- Other Regulated Utility
- Pressure Zone
- MOA Grid



SW1229 Grid Number




# Water Distribution System

## Municipality of Anchorage

## Pipe Types

| | |
|---|---|
| ABS | Acrylonitrile-Butadiene-Styrene |
| AC | Asbestos Concrete |
| CC | Concrete Cylinder |
| CI | Cast Iron |
| CIPP | Cured In Place Pipe |
| CMP | Corrugated Metal |
| CN | Concrete |
| CU | Copper |
| DI | Ductile Iron |
| FC | Formed Concrete |
| GI | Galvanized Iron |
| HDPE | High Density Polyethylene |
| MLC | Mortar Lined Concrete |
| PE | Polyethylene |
| PVC | Polyvinylchloride |
| RC | Reinforced Concrete |
| ST | Steel |
| TC | Techite |
| UNK | Unknown |
| VC | Vitrified Clay |
| WS | Wood Stave |
| WST | Welded Steel |
| NP | No Print |
| * | Private System |

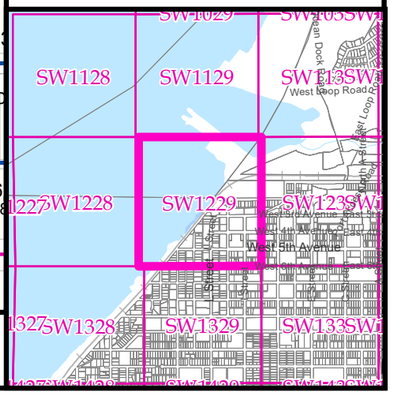
N

0 150 300 600

Feet

Map Created: 12/27/2021

Legal:
NE 1/4 Sec13 T13N R4W



Municipality of Anchorage

## Pipe Types

| | |
|---|---|
| ABS | Acrylonitrile-Butadiene-Styrene |
| AC | Asbestos Concrete |
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| CIPP | Cured In Place Pipe |
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| CN | Concrete |
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| WS | Wood Stave |
| WST | Welded Steel |
| NP | No Print |
| * | Private System |

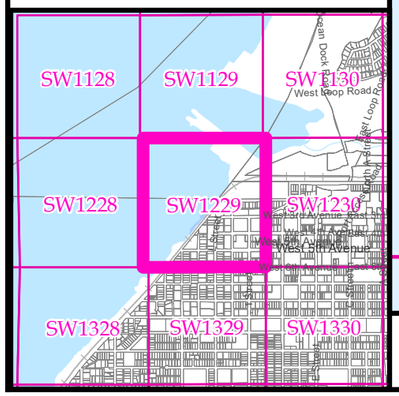
N

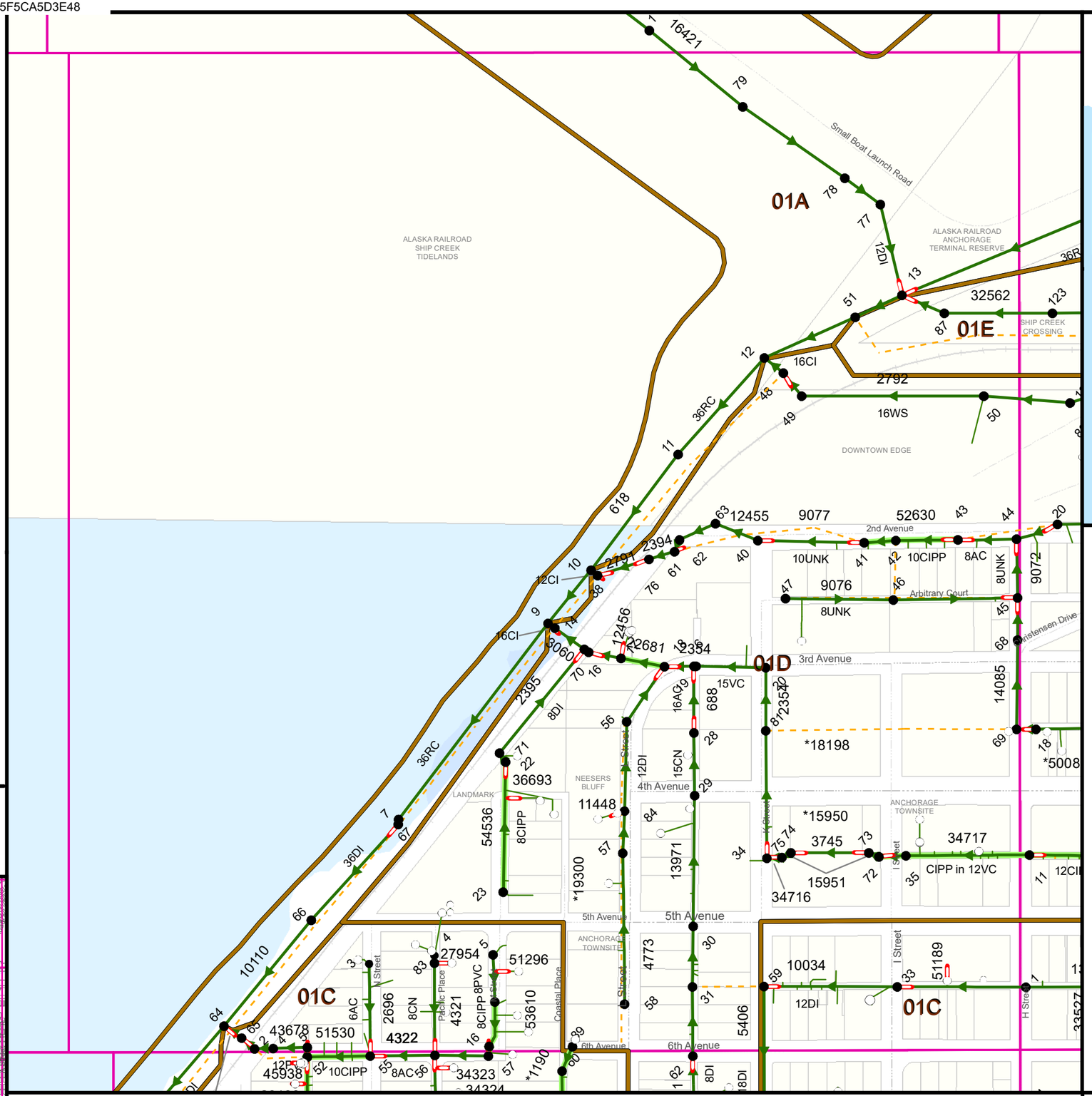
0 150 300 600

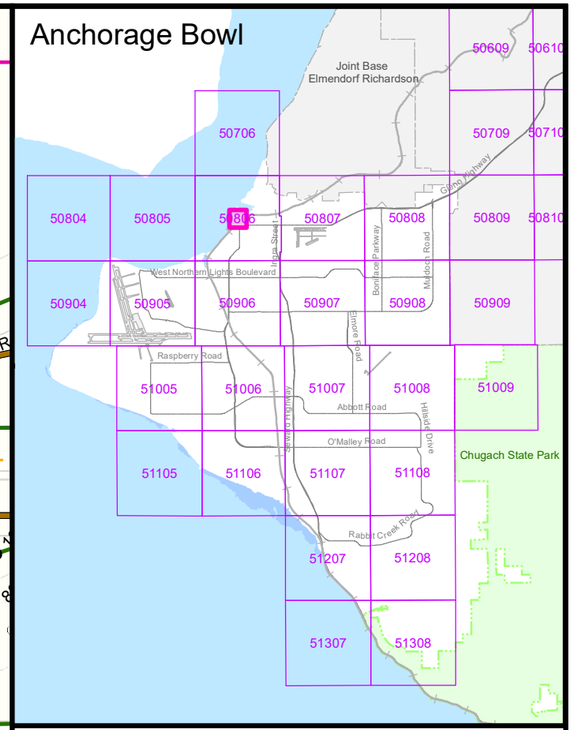
Feet

Map Created: 12/27/2021

Legal:
NE 1/4 Sec13 T13N R4W




## Legend

**Constructed and Design**

- Cleanout, AWWU
- Cleanout, Private
- CleanoutInManhole, AWWU
- Dangerous Manhole
- Access Tee, AWWU
- Manhole, AWWU
- Manhole, Private
- Discharge Point, AWWU
- AirRelief, AWWU
- AirVacuum, AWWU
- Administration Facility
- L Lift/Pump Station
- M Metering Station
- R Septage Receiving Station
- WWTF Treatment Facility

**Constructed Pipe**

- Gravity Main, All Owners
- Service Line, All Owners
- Casing and Outer Pipe, All Owners
- Force Main, AWWU
- Force Main, nonAWWU
- Record Drawing Limit
- Sewer Basin

**Design Pipe**

- Gravity Main, AWWU
- Gravity Main, Private
- Force Main, AWWU
- Force Main, Private

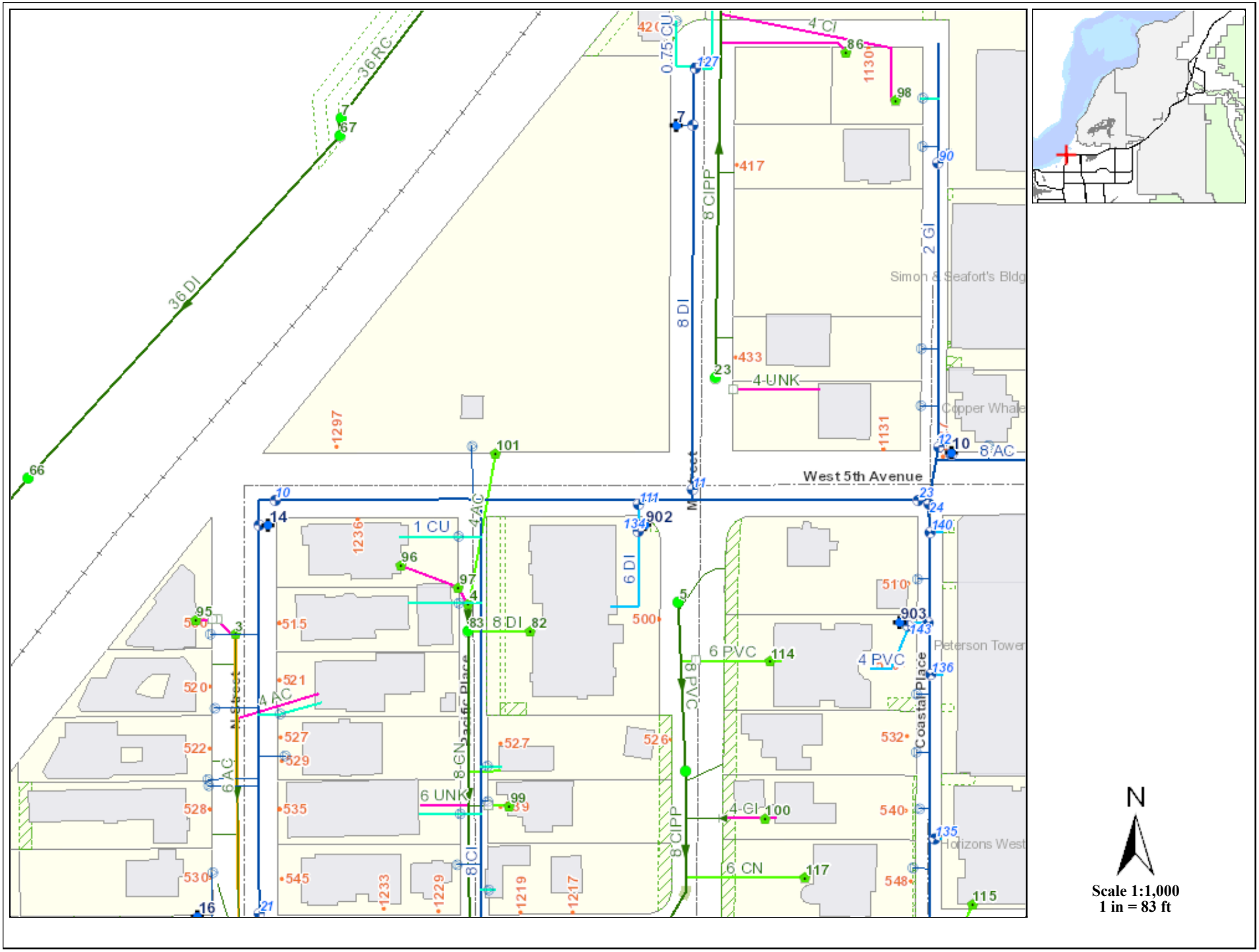
**Retired Pipe**

- Abandoned in Place, All Owners
- MOA Grid



# Wastewater Collection System

Grid Number SW1229



# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XVII

## HAZARDOUS MATERIALS SURVEY REPORT

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XVIII

## MAXIMO ASSET REPORTS

## (NOT USED)

# Municipality of Anchorage

## Anchorage Water and Wastewater Utility

## 2023 WATER/SEWER IMPROVEMENTS

## M STREET AND 5TH AVENUE SEWER IMPROVEMENTS PHASE II

## SECTION XIX

## DRAWINGS (UNDER SEPARATE COVER)