

November 22, 2017

CITY OF UNALASKA - REQUEST FOR PROPOSALS

DEPARTMENT OF PUBLIC WORKS – FACILITIES MAINTENANCE DIVISION

DOMESTIC WATER SYSTEM

ANNUAL BACKFLOW PREVENTION ASSEMBLY TESTING AND REPAIR - 3-YEAR MAINTENANCE
CONTRACT

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I. REQUEST FOR PROPOSALS

The City of Unalaska (the City), Department of Public Utilities, Water Division, is requesting Proposals for the **DOMESTIC WATER SYSTEM ANNUAL BACKFLOW PREVENTION ASSEMBLY TESTING AND REPAIR - 3-YEAR MAINTENANCE CONTRACT** (the Work). The Work includes testing and certifying 62 backflow preventers on an annual basis with up to two (2) one-year renewals and providing maintenance work and upgrades as necessary to maintain fully functional systems meeting regulatory requirements.

II. DESCRIPTION

A. General

1. Regulations mandate that City Utilities and Water Districts throughout Alaska must protect their water distribution systems from possible contamination by identifying systems that pose a potential risk to drinking water quality. The City of Unalaska Water Utility has chosen is to mandate service isolation by the installation of Backflow Preventers (BFP's) on all commercial buildings, fire systems and multi-family residential buildings of three units or greater. The City requires the proper backflow prevention assembly to be installed and maintained. Annual inspections of these backflow assemblies are required to ensure the assembly is working properly and the water system is adequately protected.

B. Qualifications

1. The Prime Contractor shall have a State of Alaska Mechanical Administrator license assignee appropriate for the types of work to be performed who is a direct employee of the prime contractor. Proof of this is required at Bid time.
2. The Prime Contractor shall have or employ a company with qualifications designing, installing, testing, or maintaining fire alarm signaling systems, or automatic fire suppression systems that must employ sufficient personnel who hold valid permits in the appropriate classifications as required under *Alaska Fire System Permits* to provide direct oversight and supervision of work being performed on the fire systems.
3. All Work on backflow assemblies and on Fire Sprinkler Systems shall be provided by workers that have current certifications in University of Southern California Foundation for Cross-Connection Control and Hydraulic Research in Cross Connection Specialist Certification and Backflow Assembly Tester Certification.
4. All Work on backflow assemblies and on Fire Sprinkler Systems shall be provided by workers that are registered and certified to legally provide that work.

C. Background

1. In 2016, the City instituted a program and had the following Work performed:
 - a. Rehabilitate reduced Pressure Backflow Assemblies (RPBA) in vaults, including demolition and replacement of appurtenances and drain lines;
 - b. Furnish and Install Tideflex Valves at terminus of drain lines in Tidal Zones;
 - c. Construct new backflow assemblies in building locations;

- d. Test and certify all City backflow assemblies.
2. The assemblies were updated and certified to comply with current standards and regulations. There were approximately 62 individual systems that were inspected, tested and certified. There are 62 required as part of this contract.
3. Information including a spreadsheet tabulating existing installations and the plan set from the 2016 work are included in **Attachment B** of these documents. The 2016 plan set is for work constructed in 2016 and is attached for informational purposes only. The spreadsheet has been revised for this contract to reflect only the current work and it identifies systems requiring inspection/certification as part of this work.

D. Scope of Work

1. Perform all work in conformance to the requirements included in these documents, including Appendix 1.
2. Inspect and test scheduled backflow assemblies and complete Backflow Assembly Field Test Forms for each of the installations tabulated in **Attachment B**. Individual inspection sheets are required for each BFP. Certify that assemblies comply with City requirements or identify systems or components having deficiencies. The City will arrange to provide access to all of the affected sites. The contractor will coordinate with the City to provide access, however sites denoted as "subsurface vaults" may require labor and/or equipment to expose. The Contractor shall make their own provisions for vault access.
3. Install inspection tags on inspected valves/components with appropriate information including Inspectors Certification Number, Signature, Dates, Test Results, and other information as required.
4. Identify deficiencies and define the scope of work/repairs required to bring system(s) in conformance with City requirements. Notify City while still in Unalaska regarding noted deficiencies in an attempt to make repairs while still locally available. Provide a scope and cost estimate for identified repairs. The City will authorize repair work on an individual basis prior to repairs being made.
5. Organize and sort Field Test Forms to coordinate with scheduled list of installations. Identify and list outstanding deficiencies noted during inspections and certifications. Provide information consolidated into a single pdf document for submittal to the City.

E. Payment

1. Payment for annual Mobilization/Demobilization and for each annual inspection/certification effort for the backflow preventers identified in these documents will be made on a lump sum basis. Payment for the entire lump sum bid price will be made annually after completion of the work. Work includes installation of inspection tags and submittal of the report including certifications and the list of identified deficiencies.

The successful bidder will ultimately be required to provide a schedule of values that breaks down their lump sum bid price in accordance with the installations tabulated in **Attachment B**. The Excel spreadsheet file will be made available for this purpose.

5. Payment for additional work required as the result of deficiencies identified during the initial inspection/certification effort will be made on a unit cost basis as directed by the City. Pay items for extra work are identified in the bid form. Items 2 through 5 are for extra work and not work

associated with the annual inspections/certifications. Items 2 through 5 will be used at the City's discretion for repairs of identified deficiencies. Written approval will be required by the City for any and all repairs.

The per hour cost for Labor is for all workers, foreman, supervision, mobilization, office management, overhead and markup required to complete miscellaneous repair services work for the Work. Only one hourly labor rate will be charged to the City for miscellaneous repair services work (i.e. different rates will not be charged for different levels of workers such as laborer vs. foreman, etc.). Contractor is to extend the per hour cost of Labor for each category of work assuming that 100 hours of Labor will be required. This extension is for comparison purposes only. The City will pay by the hour for labor performed. The number of workers required for each work order shall be approved by the City prior to the Contractor's mobilization of the workers. The cost for travel time shall be included in the cost bid by the Contractor for Travel.

Travel Costs (Airfare and Travel Time) are the costs the City will be charged by Contractor for bringing persons out to Unalaska to complete miscellaneous repair services work. Contractor is to extend the Travel Costs for each category of work assuming that 2 round trips will be required. This extension is for comparison purposes only. The City will pay for the actual round trips required at the Travel Cost quoted by Contractor.

Per Diem and Lodging are the costs the City will be charged by Contractor for food, expenses, ground transportation, lodging, and other incidental expense for one of Contractor's personnel required to complete miscellaneous repair services work for the work while in Unalaska. Contractor is to extend the Per Diem and Lodging costs for each category of work assuming that one of its personnel will be required to be in Unalaska for 10 days. This extension is for comparison purposes only. The City will pay for the actual number of days and number of personnel that are required at the Per Diem and Lodging cost quoted by Contractor.

Materials Purchased are the cost the City will be charged by Contractor for materials used in accomplishing miscellaneous repair services work. The quote form provides for a \$7,000 allowance. This allowance is for comparison purposes only. The City will pay for the actual cost of materials. A 15% markup is allowed only for materials purchased by Contractor that are authorized by the City, in advance of the work and prior to the Contractor purchasing them. The 15% markup will NOT be allowed for any other items such as: hourly rate bid for labor, travel costs, transportation, per diem, and lodging, etc. In addition, no compensation will be paid to the Contractor for tools required for the work. All work shall be completed by licensed and qualified individuals only. All materials shall be approved by the City prior to the Contractor purchasing them.

III. INSTRUCTIONS

A. Examination of Contract Documents.

1. Before submitting a Proposal:
 - a. Thoroughly examine the Request for Proposals;
 - b. Consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work;
 - c. Promptly notify the City of all conflicts, errors, ambiguities or discrepancies discovered in the Request for Proposals; and

- d. Review applicability of City sales tax to any purchases of materials or services related to the Work.
2. The submission of a Proposal will constitute an incontrovertible representation of understanding of this Request for Proposals; that, without exception, the Proposal is premised upon performing and furnishing the Work required therein; that written notice of all conflicts, errors, ambiguities, and discrepancies discovered in the Request for Proposals and the written resolution thereof by the City is acceptable; and that the Request for Proposals is generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

C. Interpretations and Addenda.

1. All questions about the meaning or intent of the Request for Proposals are to be directed to the City. Interpretations or clarifications considered necessary by the City in response to such questions will be issued by Addenda emailed or delivered to all parties recorded by the City as having received the Request for Proposals. Questions received less than 6 days prior to the due date for Proposals may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Direct all questions and requests for site visits to:

City of Unalaska – Department of Public Works
Robert Lund, P.E., City Engineer
rlund@ci.unalaska.ak.us
P.O. Box 610, Unalaska, Alaska 99685
Tel. 907-581-1260

2. Addenda may also be issued to modify the Request for Proposals as deemed advisable by the City. Addenda will be posted on the City website:

<http://ci.unalaska.ak.us/rfps>

E. Proposal Form.

1. All blanks on the Proposal Form must be completed.
2. Include copies of the following forms with the Proposal:
 - a. Contractors Business License
 - b. Contractors Assignee Mechanical Administrator License

F. Submission of Proposals.

1. **Proposals must be received no later than 2:00 PM on December 15, 2017.** Send Proposals electronically in PDF format by email. The email header must read "**DOMESTIC WATER SYSTEM BACKFLOW CERTIFICATION AND TESTING - 3-YEAR MAINTENANCE CONTRACT PROPOSAL**". Email Proposals to:

G. Modifications and Withdrawal of Proposals.

1. Prior to the time and date designated for receipt of Proposals any Proposal may be withdrawn.
2. Proposals that are modified must be reissued in their entirety. The email should clearly state that the submission is a revision that supersedes the previously submitted Proposal. Modifications must be received before the date and time set for receipt of Proposals.

H. Opening of Proposals.

City Ordinance does not require a 30-day sealed bid process for construction under \$100,000. Proposals will be forwarded by the Office of the Clerk to the City Engineer for evaluation after the specified time for receipt of Proposals has expired.

I. Proposals to Remain Subject to Acceptance.

All Proposals will remain subject to acceptance for 90 days after the day of the Proposal due date, but the City may, in its sole discretion, release any Proposal prior to that date.

J. Award of Contract.

1. The City reserves the right to reject any or all Proposals, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Proposals, and to reject any Proposal the City believes would not be in the best interest of the City to accept, whether because the Proposal is not responsive or the submitter is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the City. The City also reserves the right to waive all informalities not involving price, time, or changes in the material specifications and to negotiate Contract terms with the successful Proposer. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
2. In evaluating Proposals, the City will consider the qualifications of the Proposer, whether or not the Proposals comply with the Request for Proposals.
3. In the event of failure of the most responsive Proposer to sign the Contract, the Owner may award the Contract to the next most responsive Proposer. Such award, if made, will be made within 90 days after the opening of Proposals.
4. If, at the time this Contract is to be awarded, the total of the lowest acceptable Proposal exceeds the funds then estimated by the City as available, the City may reject all Proposals or take such other action as best serves the City's interests.
5. If the Contract is to be awarded, it will be awarded to lowest responsive, responsible Bidder, whose evaluation by the City indicates to the City that the award will be in the best interests of the Project.

K. Signing of Agreement.

When the City gives a Notice of Award to the successful Proposer, it will be accompanied by the required number of unsigned counterparts of the Agreement, with all other written Contract Documents attached. Within 10 days thereafter, contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to the City with the required Bonds (if applicable). Within 10 days thereafter, the City shall deliver one fully signed counterpart to Contractor and issue a Notice to Proceed.

IV. TIME OF COMPLETION

- A. Final Completion within **90 days** of a Notice to Proceed for each year's annual inspection/certification Work.

V. ADDITIONAL TERMS

- A. Contract: The Contract a successful Proposer will be required to execute is included with this packet as **Attachment C**. Recipients are advised that the Contract contains additional specifications and terms that apply to how Work must be performed. Responses to this Request for Proposals must be based on the Contract requirements in addition to those requirements set out in this Request for Proposals.
- B. Licensing: Contractors responding to this Request for Quotations must be licensed to do business in the State of Alaska. Evidence of subcontractor's compliance with the above must be submitted to the City prior to the subcontractor beginning work. The Contractor and their subcontractors must obtain a City of Unalaska Business License prior to commencement of the Work.
- C. Insurance: The Contractor awarded the Work will be required to provide the certificates of insurance specified in the General Conditions.
- D. Bonding: The Contractor must provide performance and payment bonds with necessary power of attorney forms if the Proposal exceeds \$50,000.
- D. Wages: If the Proposal or the actual Work exceeds \$25,000 all workers must be paid prevailing wage rates as described in the State of Alaska LABORERS' AND MECHANICS' MINIMUM RATES OF PAY, Title 36, Public Contracts, AS 36.05 & AS 35.10 Wage and Hour Administration Pamphlet No. 600 – Latest revision.

**ATTACHMENT A
PROPOSAL FORM**

ATTACHMENT A - PROPOSAL FORM
CITY OF UNALASKA - DOMESTIC WATER SYSTEM BACKFLOW CERTIFICATION AND TESTING - 3-YEAR MAINTENANCE
CONTRACT

ITEM NO.	EST. QUANT.	UNIT	DESCRIPTION (Write Unit Bid Price in Words)	UNIT PRICE	TOTAL PRICE
1	1	each	Mobilization/ Demobilization, Inspection and Certification of all Listed Backflow Preventers _____ per lump sum		
2	2	each	Airfare and Travel Time to/from Dutch Harbor _____ per each		
3	100	Hour	Labor for Repairs (Regular and Overtime) _____ per man hour		
4	10	\$/day	Per Diem and Lodging per Day per Worker _____ per man day		
5	All	Allow- ance	Material/Subcontractor Allowance _____ per allowance	\$7,000.	\$20,000.

Total Price Proposal: \$ _____

Total Price Proposal: _____

(In Words)

Proposing Company: _____

Authorized Agent: _____

Signature: _____

Date: _____

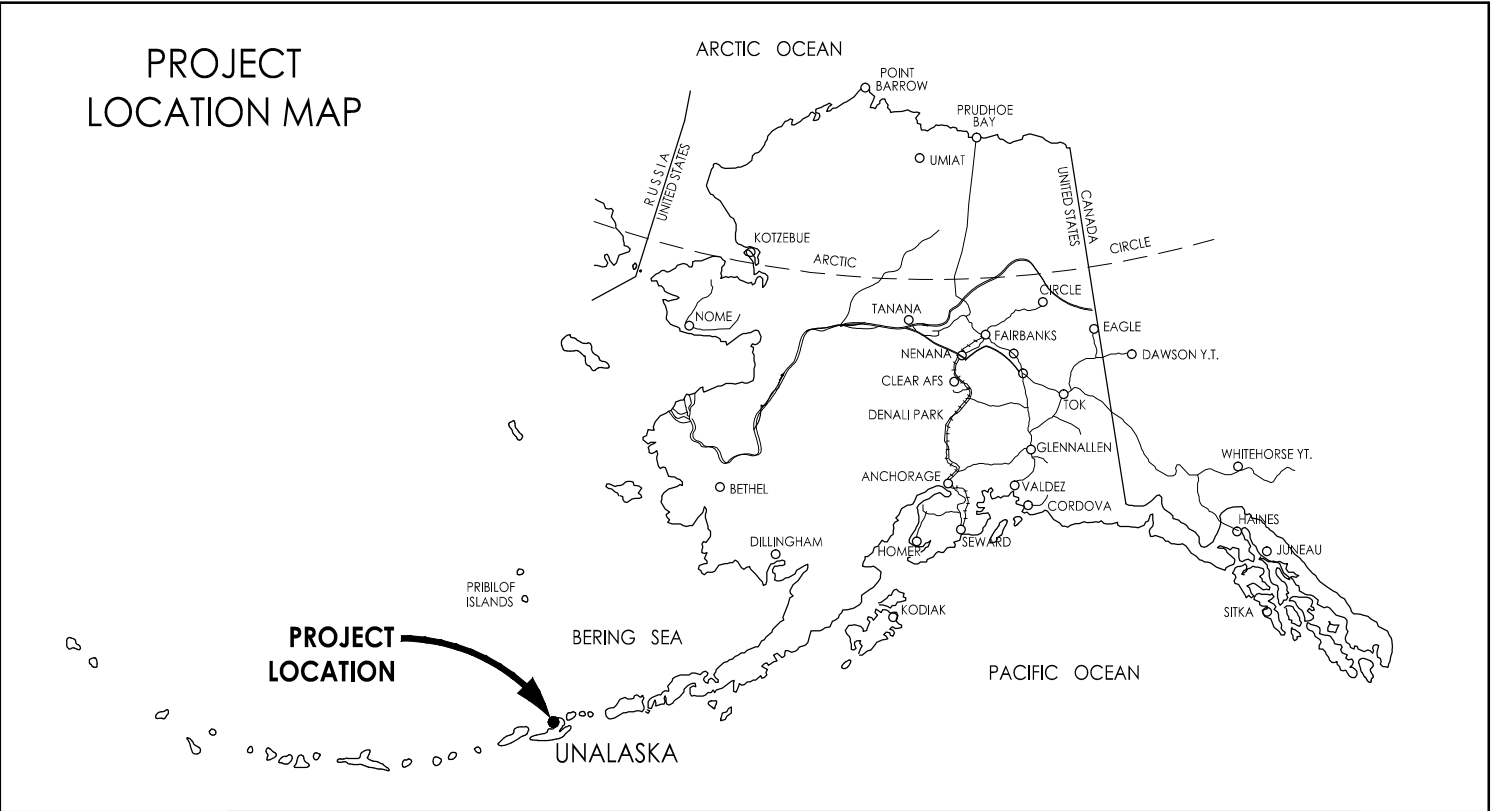
State of Alaska Contractor's License No.: _____

Acknowledge Addenda _____ through _____ inclusive

Note: Include copies of the Contractors Business License and Contractors Mechanical Administrator Assignee License with the Proposal Form.

ATTACHMENT B
PLANS AND SUPPLEMENTAL INFORMATION

Enumeration of Required Device Tests														
Fund	Division	Facility Plans	Drawing No.	Street Address	Enclosure	Domestic/Fire	Device Type	Device Size	Category		Division	Name	Title	Phone #
Public Utilities	Water	WELL HOUSE 1		1062 East Broadway	Building	Fire	DCVA	1 1/4	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Water	WELL HOUSE 2		1352 East Broadway	Building	Fire	DCVA	1 1/2	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Water	WELL HOUSE 3		1354 East Broadway	Building	Fire	DCVA	1	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Water	PYRAMID WATER TREATMENT PLANT		1300 Pyramid Creek Road	Building	Fire	DCVA	4	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Water	UPCH		1057 East Broadway	Building	Fire	DCVA	2	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Landfill	LANDFILL – BAY VIEW AVE. VAULT	3.04	Near King St and Summer Bay Ro	Subsurface Vault	Domestic	RPBA	10	Device certification	1	Public Utilities	Clint Huling	Water Supervisor	581-1260
Public Utilities	Landfill	CITY BALER FACILITY - DOMESTIC	5.16	1156 Summer Bay Road	Building	Domestic	RPBA	2	Device certification	1	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757
Public Utilities	Landfill	CITY BALER FACILITY - FIRE	5.16	1156 Summer Bay Road	Building	Fire	DCVA	6	Device certification	1	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757
Public Utilities	Landfill	LANDFILL - LEACHATE TANK		1156 Summer Bay Road	Building	Domestic	RPBA	3/4	Device certification	1	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757
Public Utilities	Electric	NEW POWER HOUSE - DOMESTIC	5.22	1700 East Point Road	Building	Domestic	RPBA	2	Device certification	1	Public Utilities	Andy McCracken	Power House Supervisor	581-1831
Public Utilities	Electric	NEW POWER HOUSE - FIRE		1700 East Point Road	Building	Fire	DCVA	4	Device certification	1	Public Utilities	Andy McCracken	Power House Supervisor	581-1831
Public Utilities	Electric	OLD POWER HOUSE	5.23	1732 East Point Road	Building	Domestic	RPBA	1	Device certification	1	Public Utilities	Andy McCracken	Power House Supervisor	581-1831
Public Utilities	Electric	OLD POWER HOUSE		1732 East Point Road	Building	Domestic	RPBA	2	Device certification	1	Public Utilities	Andy McCracken	Power House Supervisor	581-1831
Public Utilities	Wastewater	WASTEWATER TREATMENT PLANT - DOMESTIC		19 Gilman Road	Building	Domestic	RPBA	2	Device certification	1	Public Utilities	Don Lane	Wastewater Supervisor	581-1693
Public Utilities	Wastewater	WASTEWATER TREATMENT PLANT - FIRE		19 Gilman Road	Building	Fire	DCVA	4	Device certification	1	Public Utilities	Don Lane	Wastewater Supervisor	581-1693
Public Utilities	Wastewater	WASTEWATER COLLECTION - MOBILE RPBA		19 Gilman Road	Portable	Domestic	RPBA	2	Device certification	1	Public Utilities	Don Lane	Wastewater Supervisor	581-1693
General Fund	Public Safety	PUBLIC SAFETY – DOMESTIC	5.17	29 Safety Way	Building	Domestic	RPBA	2	Device certification	1	Public Safety	Mike Holman	Director of Public Safety	581-1233
General Fund	Public Safety	PUBLIC SAFETY – FIRE	5.18	29 Safety Way	Building	Fire	DCVA	4	Device certification	1	Public Safety	Mike Holman	Director of Public Safety	581-1233
General Fund	Public Safety	AMAKNAK FIRE HALL - DOMESTIC	5.11	2713 Airport Beach Road	Building	Domestic	RPBA	3/4	Device certification	1	Public Safety	Mike Holman	Director of Public Safety	581-1233
General Fund	Public Safety	AMAKNAK FIRE HALL - FIRE		2713 Airport Beach Road	Building	Fire	DCVA	3	Device certification	1	Public Safety	Mike Holman	Director of Public Safety	581-1233
General Fund	PCR	SITKA SPRUCE PARK	5.04	180 Biorka Drive	Building	Domestic	RPBA	1	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	TUTIAKOFF FIELD	5.05	33 King Street	Building	Domestic	RPBA	3/4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	PCR COMMUNITY CENTER - DOMESTIC	5.03	13 5th Street	Building	Domestic	RPBA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	PCR COMMUNITY CENTER - FIRE		13 5th Street	Building	Fire	DCVA	4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	MULTI-PURPOSE COURT	3.01	1750 E Broadway	Enclosure	Domestic	RPBA	3/4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	BURMA ROAD CHAPEL	5.01	28 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	PCR	KELTY FIELD	5.02	1588 E Broadway	Building	Domestic	RPBA	1-1/2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	City Library	CITY LIBRARY – DOMESTIC	5.13	64 Elenor Drive	Building	Domestic	RPBA	1-1/2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	City Library	CITY LIBRARY – FIRE	5.14	64 Elenor Drive	Building	Fire	DCVA	4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	City Hall	CITY HALL - DOMESTIC	5.12	43 Raven Way	Building	Domestic	RPBA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	City Hall	CITY HALL - FIRE		43 Raven Way	Building	Fire	DCVA	4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Museum of the Aleutians	MUSEUM OF THE ALEUTIANS – DOMESTIC	5.15	314 Salmon Way	Building	Domestic	RPBA	1-1/2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Museum of the Aleutians	MUSEUM OF THE ALEUTIANS – FIRE		314 Salmon Way	Building	Fire	DCVA	4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Public Works Utilities Building	PUBLIC WORKS UPCH – POST HYDRANT	4.01, 4.02	1057 E Broadway	Enclosure	Domestic	RPBA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - DOMESTIC	5.24	1035 E Broadway	Building	Domestic	RPBA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - FIRE		1035 E Broadway	Building	Fire	DCVA	4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - WASH BAY		997 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
General Fund	Eagles Elementary School	EAGLE'S ELEMENTARY SCHOOL - DOMESTIC	5.06	501 E Broadway	Building	Domestic	RPBA	2	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
General Fund	Eagles Elementary School	EAGLE'S ELEMENTARY SCHOOL - FIRE		501 E Broadway	Building	Fire	DCVA	4	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
General Fund	High School	HIGH SCHOOL ALTERNATIVE BUILDING	5.07	55 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
General Fund	High School	HIGH SCHOOL WOODSHOP BUILDING	5.08	14 Mission Ave	Building	Domestic	RPBA	3/4	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
General Fund	High School	HIGH SCHOOL – DOMESTIC	5.09	55 E Broadway	Building	Domestic	RPBA	3	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
General Fund	High School	HIGH SCHOOL – FIRE	5.10	55 E Broadway	Building	Fire	DCVA	4	Device certification	1	Public Schools	Holly Holman	Business Manager	581-3151
Ports	Bobby Storrs Small Boat Harbor	BOBBY STORRS SMALL BOAT HARBOR – A&B FLOAT	3.02	22 PaceSetter Way	Subsurface Vault	Domestic	RPBA	1-1/2	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Bobby Storrs Small Boat Harbor	BOBBY STORRS SMALL BOAT HARBOR – C FLOAT		22 S PaceSetter Way	Subsurface Vault	Domestic	RPBA	2	Device Certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Unalaska Marine Center	US COAST GUARD SHACK	3.03	939 Ballyhoo Road	Building	Domestic	RPBA	3/4, 3, 4 and 4	Device certification	4	Ports	John Days	Harbor Master	581-1254
Ports	Unalaska Marine Center	UMC DOCK POSITION 6,7,8		655 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	6	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Unalaska Marine Center	UMC DOCK POSITION 4,5		731 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	4	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Light Cargo Dock	LIGHT CARGO DOCK		2481 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Carl E. Moses Boat Harbor	CARL E. MOSES BOAT HARBOR – SHOP & SHOWER	5.21	570 Henry Swanson	Building	Domestic	RPBA	2	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Carl E. Moses Boat Harbor	CEM A FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Carl E. Moses Boat Harbor	CEM B FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Carl E. Moses Boat Harbor	CEM C FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	John Days	Harbor Master	581-1254
Ports	Spit Dock	SPIT DOCK		2633 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	John Days	Harbor Master	581-1254
Airport	Airport Terminal	AIRPORT TERMINAL - DOMESTIC	5.20	105 Terminal Drive	Building	Domestic	RPBA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
Airport	Airport Terminal	AIRPORT TERMINAL - FIRE		105 Terminal Drive	Building	Fire	DCVA	6	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
Housing	School 4 Plex	SCHOOL 4 PLEX	5.19	63 Loop Road	Building/Basement	Domestic	DCVA	1-1/4	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
Housing	8plex	CITY 8PLEX - DOMESTIC		18 Ptarmigan Road	Building	Domestic	DCVA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260
Housing	8plex	CITY 8PLEX - FIRE		18 Ptarmigan Road	Building	Fire	DCVA	2	Device certification	1	Public Works	Gary Jirschele	Facilities Chief	581-1260



CITY OF UNALASKA

BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet List Table	
SHEET NUMBER	SHEET TITLE
1.01	COVER SHEET AND DRAWING INDEX
1.02	LOCATION AND KEY MAP
1.03	LEGEND & ABBREVIATIONS
1.04	SURVEY CONTROL
2.01	TIDEFLEX LOCATION MAP
2.02	TIDEFLEX SITE PLANS
3.01	MULTI-PURPOSE COURT
3.02	BOBBY STORRS SMALL BOAT HARBOR - A&B FLOAT
3.03	US COAST GUARD SHACK
3.04	LANDFILL - BAY VIEW AVE. VAULT
4.01	PUBLIC WORKS UPCH - POST HYDRANT DEMOLITION
4.02	PUBLIC WORKS UPCH - POST HYDRANT NEW WORK
5.01	BURMA ROAD CHAPEL
5.02	KELTY FIELD
5.03	PCR COMMUNITY CENTER
5.04	SITKA SPRUCE PARK
5.05	TUTIAKOFF FIELD
5.06	EAGLE'S ELEMENTARY SCHOOL
5.07	HIGH SCHOOL ALTERNATIVE BUILDING
5.08	HIGH SCHOOL WOODSHOP BUILDING
5.09	HIGH SCHOOL - DOMESTIC
5.10	HIGH SCHOOL - FIRE
5.11	AMAKNAK FIRE HALL
5.12	CITY HALL
5.13	CITY LIBRARY - DOMESTIC
5.14	CITY LIBRARY - FIRE
5.15	MUSEUM OF THE ALEUTIANS
5.16	CITY BALER FACILITY
5.17	PUBLIC SAFETY - DOMESTIC
5.18	PUBLIC SAFETY - FIRE
5.19	SCHOOL 4 PLEX
5.20	AIRPORT TERMINAL
5.21	CARL E. MOSES BOAT HARBOR - SHOP & SHOWER
5.22	NEW POWER HOUSE
5.23	OLD POWER HOUSE
5.24	PUBLIC WORKS UTILITIES BUILDING
6.01	DETAILS
6.02	DETAILS
6.03	DETAILS

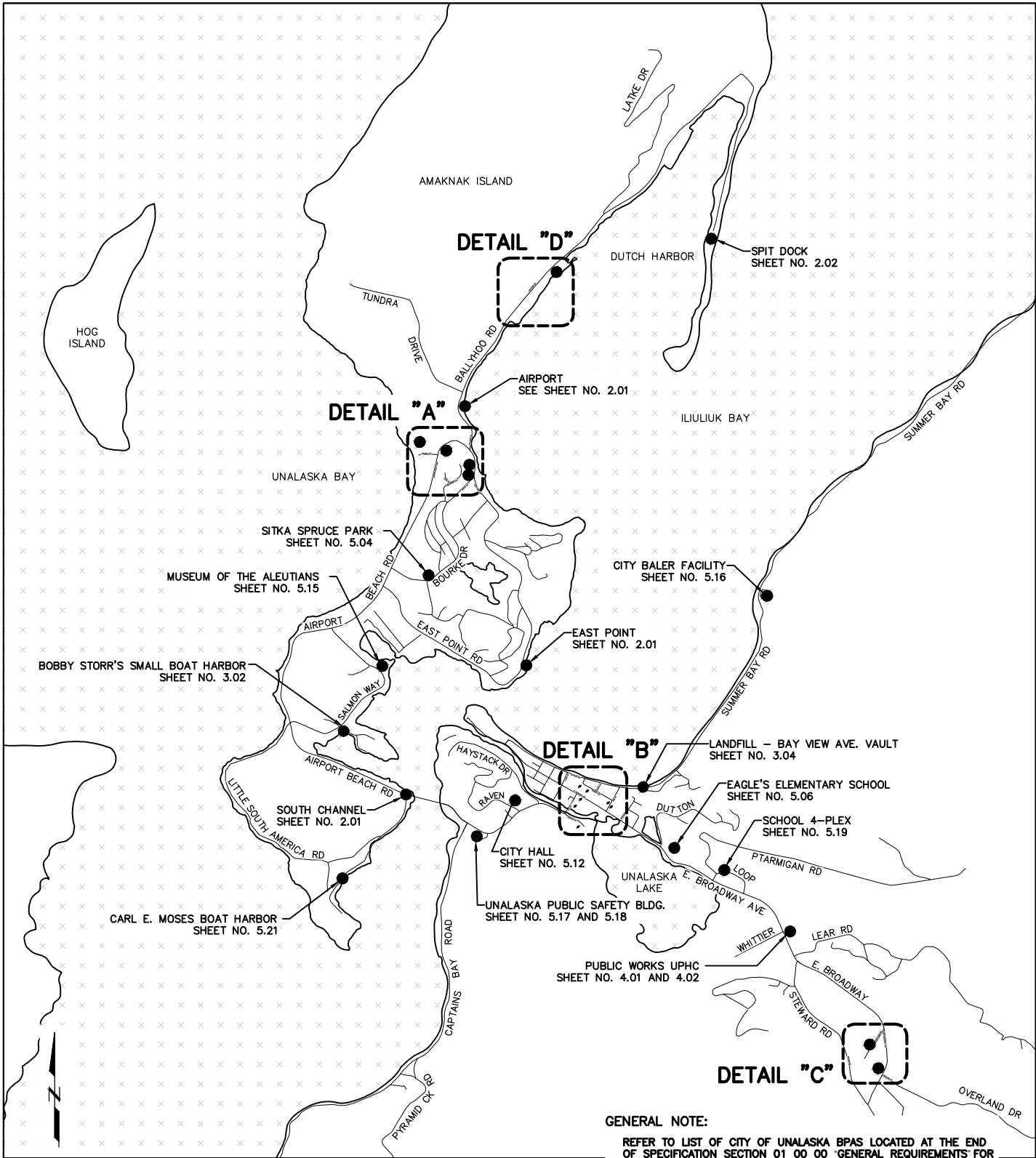
JUNE 2017
PROJECT NUMBER: 2046051500
RECORD DOCUMENTS

Record Drawing

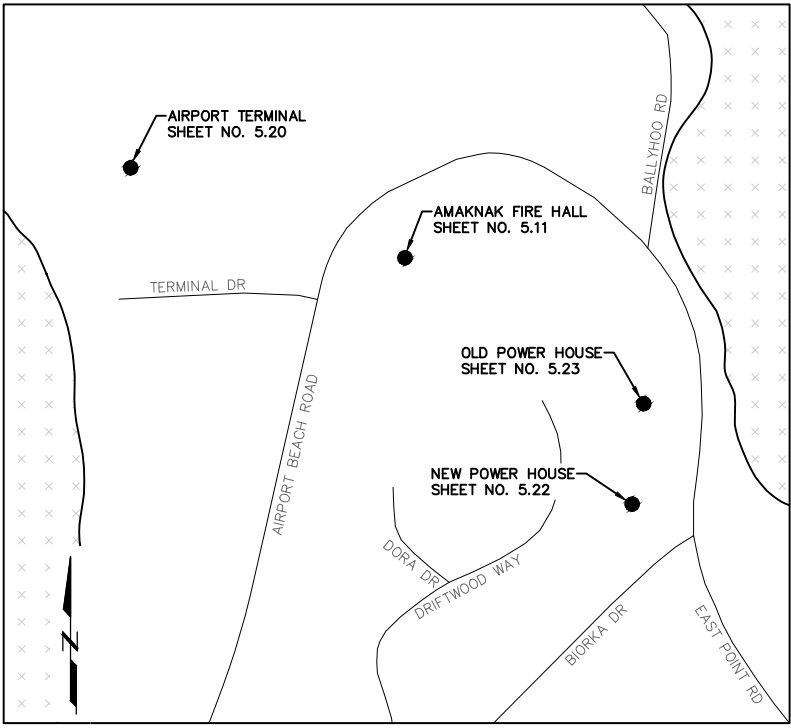
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Project No.
2046051500
RECORD DOCUMENTS

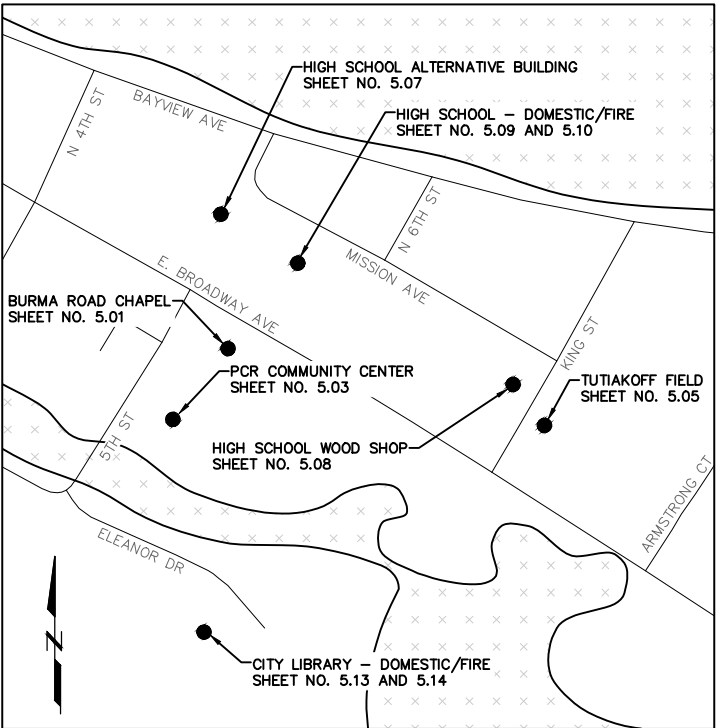
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Drawing No.



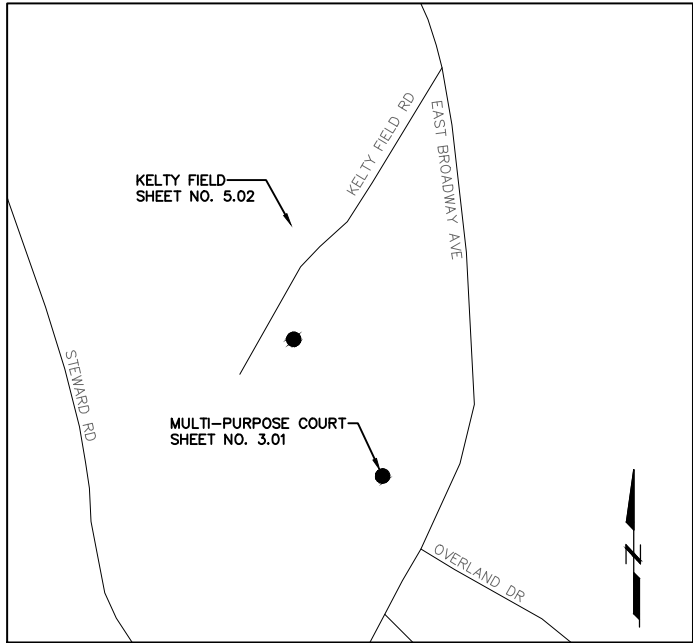
1 LOCATION MAP
1.02 SCALE: 1" = 1500'



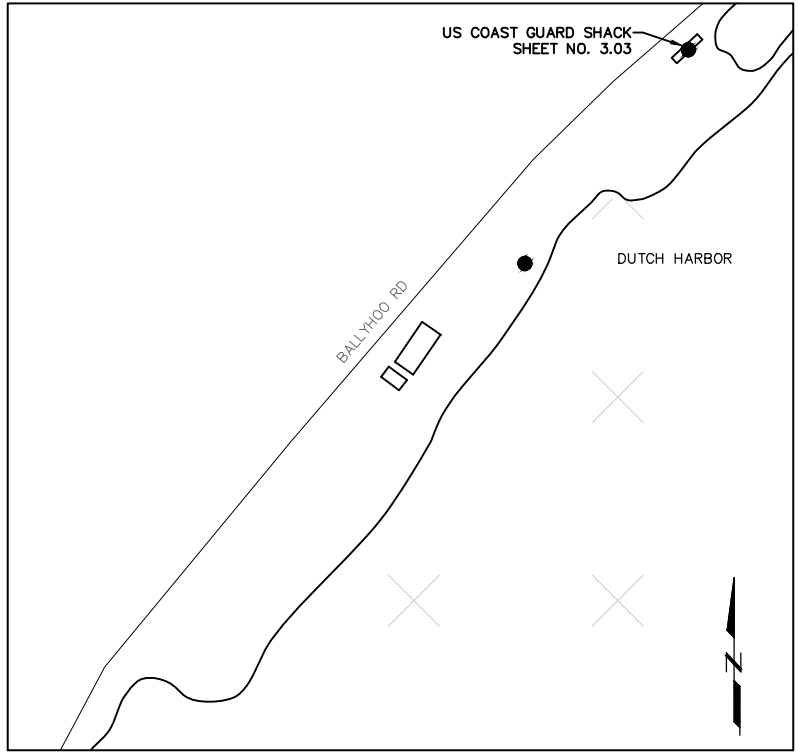
2 DETAIL A
1.02 SCALE: 1" = 200'



3 DETAIL B
1.02 SCALE: 1" = 200'



4 DETAIL C
1.02 SCALE: 1" = 200'



5 DETAIL D
1.02 SCALE: 1" = 200'

GENERAL NOTE:
REFER TO LIST OF CITY OF UNALASKA BPAS LOCATED AT THE END OF SPECIFICATION SECTION 01 00 00 GENERAL REQUIREMENTS FOR LOCATIONS OF ADDITIONAL BACKFLOW PREVENTION DEVICES NOT SHOWN IN CONTRACT DRAWINGS. THESE DEVICES ARE NOTED AS REQUIRING CERTIFICATION ONLY.

Record Drawing
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Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
Revision	By	Appd.	YY/MM/DD

Permit-Seal

Client/Project
**CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT**
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
LOCATION AND KEY MAP

Project No.
2046051500
RECORD DOCUMENTS

2046051500_102.DWG
File Name
DGB EFG JLR JAH EFG 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

1.02

Original Sheet Size - 22 x 34

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL PARTS LABOR AND MATERIAL, INCLUDING INCIDENTALS, ARE PROVIDED BY CONTRACTOR. FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS, INCLUDING THOSE FURNISHED BY SUBCONTRACTORS.
2. ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE CODES AND LOCAL REGULATIONS. COORDINATE WITH ALL IMPACTED UTILITIES.
3. LOCATE ALL UTILITIES WHETHER SHOWN HEREIN OR NOT, AND PROTECT FROM DAMAGE. REPAIR OR REPLACE DAMAGED UTILITIES AND OTHER PROPERTY AT NO ADDITIONAL COST USING APPROVED METHODS AND PERSONNEL.
4. WORK INCLUDES ALL EXCAVATION NECESSARY TO COMPLETE THE WORK, AS SHOWN AND INCIDENTAL, REGARDLESS OF THE CHARACTER OF MATERIALS OR OBSTRUCTION ENCOUNTERED. WORK INCLUDES EXCAVATION OF EVERY DESCRIPTION AND MAY INCLUDE OVER EXCAVATION, ROCK EXCAVATION, DEWATERING, OR THE DIVERSION OF WATER. CONTRACT INCLUDES ALL INCIDENTAL LABOR AND MATERIALS.
5. PROVIDE AND MAINTAIN FENCING AND OTHER CONTROLS AS REQUIRED TO LIMIT PUBLIC ACCESS TO WORK AREAS.
6. NO STAGING AREA IS PROVIDED. WORK AREAS ARE TO BE MINIMIZED AND EXTENTS COORDINATED WITH CITY. MAINTAIN ACCESS TO OCCUPIED FACILITIES. CONTINUOUS EMERGENCY ACCESS SHALL BE MAINTAINED THROUGH ALL SITES.
7. RETURN ALL SURFACES TO EXISTING CONDITION UNLESS OTHERWISE NOTED.
8. GRADING AND FINAL ALIGNMENTS MAY BE FIELD ADJUSTED BY CITY. RECORD FINAL VERTICAL AND HORIZONTAL LOCATIONS, AND ALL ENCOUNTERED UTILITIES ON RECORD DRAWINGS.
9. STOCKPILE AND SHAPE ALL EXCAVATED MATERIAL NOT REINCORPORATED INTO THE PROJECT WITHIN SEVEN (7) MILES OF THE PROJECT SITE AT A LOCATION DESIGNATED BY THE CITY.
10. ALL DUCTILE IRON PIPE JOINTS SHALL BE FULLY RESTRAINED MECHANICAL JOINTS, EBBA IRON MEGALUG, ROMAC MEGAGRIP, MUELLER CONDUCTIVE COMPRESSION CONNECTION, OR APPROVED EQUAL. ALL BURIED COPPER PIPE SHALL BE TYPE K SOFT DRAWN.
11. PROJECT AREAS ARE SUBJECT TO TIDAL INFLUENCES WHICH WILL IMPACT EXCAVATIONS. PORTIONS OF THE PROJECT MAY BE BELOW TIDE LEVEL AT VARIOUS TIMES. NOAA TIDE AND BENCH MARK INFORMATION IS AVAILABLE AT [HTTP://TIDESANDCURRENTS.NOAA.GOV/BENCHMARKS.HTML?ID=9462620](http://TIDESANDCURRENTS.NOAA.GOV/BENCHMARKS.HTML?ID=9462620) AND SUMMARIZED BELOW.

TIDAL DATA	
HIGHEST OBSERVED WATER LEVEL	6.70 FEET
MEAN HIGHER-HIGH WATER (MHHW)	3.60 FEET
MEAN HIGH WATER (MHW)	3.31 FEET
MEAN SEA LEVEL (MSL)	2.08 FEET
MEAN LOW WATER (MLW)	0.93 FEET
MEAN LOWER-LOW WATER (MLLW)	0 FEET
LOWEST OBSERVED WATER LEVEL	-2.78 FEET

12. PROJECT INCLUDES WORK IN UNDERGROUND VAULTS. CONFORM TO ALL CONFINED SPACE ENTRY SAFETY PROCEDURES.
13. ALL BACKFLOW ASSEMBLIES MUST BE INSTALLED AND TESTED ACCORDING TO THE USC FCCCHR MANUAL FOR CROSS CONNECTION CONTROL, 10TH EDITION (USC MANUAL). TEST EXISTING BACKFLOW ASSEMBLIES REMAINING IN SERVICE ACCORDING TO USC MANUAL. CONTACT CITY FOR LIST OF CERTIFIED TESTERS AND FORMS. ONLY BACKFLOW TESTS BY CERTIFIED TESTERS WILL BE ACCEPTED. PROVIDE COPY OF BACKFLOW TEST RESULTS TO CITY.
14. AT SOME WORK SITES THE SHUT OFF VALVE AT THE METER WILL REQUIRE REPLACEMENT OR DOES NOT EXIST. CONTRACTOR SHALL DEVELOP A PLAN FOR REVIEW, AND COORDINATE INTERRUPTION AND RESTORATION OF WATER SERVICE WITH THE CITY.
15. ONLY CITY MAY OPERATE SERVICE AND MAINLINE VALVES. COORDINATE OPERATION WITH CITY PROVIDING A MINIMUM OF 48-HOURS NOTICE
16. CONTACT THE CITY TO DISABLE THE METER READER PRIOR TO REMOVING OR DISCONNECTING THE RADIO FROM THE METER. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO RADIOS NOT DISABLED BY CITY.
17. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE NSF 60/61 LISTED FOR THAT PURPOSE.
18. ALL PIPE, FITTING, SOLDER, AND OTHER COMPONENTS USED IN THIS SYSTEM SHALL BE LEAD-FREE.
19. DISINFECT WATER MAINS AND SERVICES PER AWWA C651 AND ADEC REGULATIONS.
20. PROVIDE EROSION AND SEDIMENT CONTROLS AS NECESSARY TO PREVENT DISCHARGE OF POLLUTANTS, INCLUDING SEDIMENTS. CONDUCT ALL WORK SO THAT SEDIMENT IS NOT TRANSPORTED ONTO ROADWAYS OR ADJACENT PROPERTIES. AT A MINIMUM, SWEEP SEDIMENT TRACKED ON PAVED SURFACES WITHIN 24-HOURS OF TRACKING. MEET REQUIREMENTS FOR ADEC GENERAL PERMIT, REGARDLESS OF COVERAGE.

ABBREVIATIONS AND ACRONYMS

AC	ASPHALT PAVEMENT	ID	INSIDE DIAMETER
ADEC	ALASKA DEPARTMENT OF ENVIRONMENT CONSERVATION	INV	INVERT
		LF	LINEAR FEET
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MAX	MAXIMUM
		MID	MIDPOINT
APDES	ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM	MIN	MINIMUM
		MJ	MECHANICAL JOINT
ASSHC	ALASKA DOT/PF STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION	MXU	METER READER
		NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NSF	NATIONAL SANITATION FOUNDATION
AWWA	AMERICAN WATER WORKS ASSOCIATION	OD	OUTSIDE DIAMETER
CI	CAST IRON	OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
CPEP	CORRUGATED POLYETHYLENE PIPE	PC	POINT OF CURVATURE
CU	COPPER	PCR	PARKS, CULTURE, AND RECREATION
CULV	CULVERT		
CY	CUBIC YARD	R	RADIUS
DCVA	DOUBLE CHECK VALVE BACKFLOW ASSEMBLY	REF.	REFERENCE
		RP	RADIUS POINT
DIP	DUCTILE IRON PIPE	RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
DPS	DEPARTMENT OF PUBLIC SAFETY	S	SLOPE
DSO	DOWNSTREAM SHUT OFF	SCVA	SINGLE CHECK VALVE ASSEMBLY
EOP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
FCCCHR	FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH	SIM	SIMILAR
		SWPPP	STORM WATER POLLUTION PREVENTION PLAN
F&I	FURNISH AND INSTALL	TYP	TYPICAL
FL	FLOW LINE	UPCH	UNALASKA PUMP/CONTROL HOUSE
FT	FOOT/FEET	USCG	US COAST GUARD
GALV	GALVANIZED	USO	UPSTREAM SHUTOFF
GB	GRADE BREAK		
HP	HIGH POINT		
IBC	INTERNATIONAL BUILDING CODE		

LEGEND

EXISTING	PROPOSED	
		BOLLARD/POST
		TRAFFIC SIGN
		PRIVATE SIGN
		JUNCTION BOX < 25"x25"
		JUNCTION BOX > 25"x25"
		JUNCTION BOX DUAL TYPE 2S
		ELECTRIC METER
		ELECTRIC MANHOLE (VAULT)
		ELECTRIC MANHOLE (ROUND)
		ELECTRIC PEDESTAL
		ELECTRIC TRANSFORMER
		LIGHT POLE WITH MAST ARM
		SANITARY MANHOLE
		CATCH BASIN (SQUARE)
		CATCH BASIN (ROUND)
		STORM DRAIN MANHOLE
		TELEPHONE PEDESTAL
		TELEPHONE MANHOLE (VAULT)
		TELEPHONE MANHOLE (ROUND)
		WATER SPIGOT
		FIRE HYDRANT
		WATER VAULT/MANHOLE
		WATER METER
		WATER WELL
		WATER VALVE
		UNKNOWN TYPE MANHOLE
		FLOWLINE OF DITCH
		BOTTOM OF DITCH
		CONTOURS
		CENTER OF ROAD
		EDGE OF GRAVEL
		EDGE OF ASPHALT
		GUARDRAIL
		SIDEWALK FRONT/BACK
		FENCE LINE
		WATER LINE/CULVERT
		UNDERGROUND GAS LINE
		UNDERGROUND STORM DRAIN LINE
		UNDERGROUND SANITARY SEWER LINE
		UNDERGROUND ELECTRIC LINE
		UNDERGROUND WATER LINE
		UNDERGROUND CABLE TV LINE
		UNDERGROUND COMMUNICATIONS LINE

ELECTRICAL DRAWING CONVENTION

	NEW OR DEMOLITION ELECTRICAL ITEMS ARE TYPICALLY INDICATED BY SOLID & BOLD LINES, UNLESS OTHERWISE NOTED.
	EXISTING ELECTRICAL ITEMS ARE TYPICALLY INDICATED BY DASHED & LIGHTWEIGHT LINES, UNLESS OTHERWISE NOTED.
	JUNCTION BOX, GRADE OR FLOOR MOUNTED
	METER (V = VOLT, A = AMP, W = WATT, WH = WATT-HOUR)
	SWITCH WITH PILOT LIGHT

MECHANICAL DRAWING CONVENTION

	POINT OF CONNECTION
	WATER METER
	SHUT-OFF VALVE
	DOUBLE CHECK VALVE ASSEMBLY (DCVA)
	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY (RPBA)
	UNION
	VALVE
	EXISTING EQUIPMENT
	NEW WORK
	DEMOLITION

Record Drawing

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CALL BEFORE YOU DIG
907-581-1260

The Contractor shall notify all area utility companies prior to commencement of excavation.

TEL ALASKA 811
CITY 907-581-1260

DELTA WESTERN FUEL 907-581-1293
NORTH PACIFIC FUEL 907-581-1350

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2017/06/05 4:51 PM By: Alexander, Joah

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Revision	By	Appd.	YY/MM/DD



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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

LEGEND & ABBREVIATIONS

2046051500_103.DWG

File Name

DGB

JAR

Dwn.

JLR

SDG

Chkd.

SDG

Dsgn.

16/09/02

YY/MM/DD

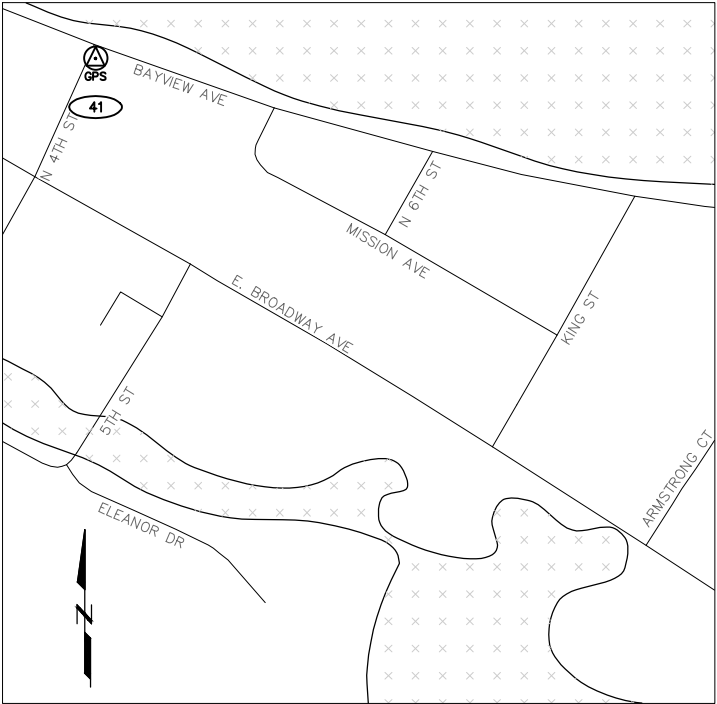
Project No.

2046051500

RECORD DOCUMENTS

1.03

Drawing No.



3
1.04
DETAIL B
SCALE: 1" = 200'

LEGEND	
	POINT NUMBER IDENTIFIER
	PRIMARY GPS CONTROL STATION

HORIZONTAL COORDINATE SYSTEM

THE PROJECT COORDINATE SYSTEM IS THE ALASKA STATE PLANE COORDINATE SYSTEM, ZONE 10, U.S. SURVEY FEET. HORIZONTAL COORDINATES AND DISTANCES ARE GRID.

BASIS OF COORDINATES

THE HORIZONTAL GRID VALUES FOR CONTROL POINTS 3, 13, AND 41 WERE HELD FIXED IN A SIMULTANEOUS LEAST SQUARES ADJUSTMENT, PER THE COORDINATES SHOWN ON THE SURVEY CONTROL SHEET OF THE BALLYHOO ROAD PAVING PROJECT, PRODUCED BY PND ENGINEERS INC., PROJECT NUMBER 12114, DATED 01-07-13 WITH AN AS-BUILT REVISION DATE OF 05-06-14:

"Basis of coordinates for this survey are NAD 83, Alaska State Plane Zone 10 in U.S. Survey Feet and was derived by GPS observation constraining city control point 3 'AP6, TR38' holding coordinates shown on the City of Unalaska Survey Control Sheet as N = 1190566.8330, E = 5315890.7824."

VERTICAL CONTROL

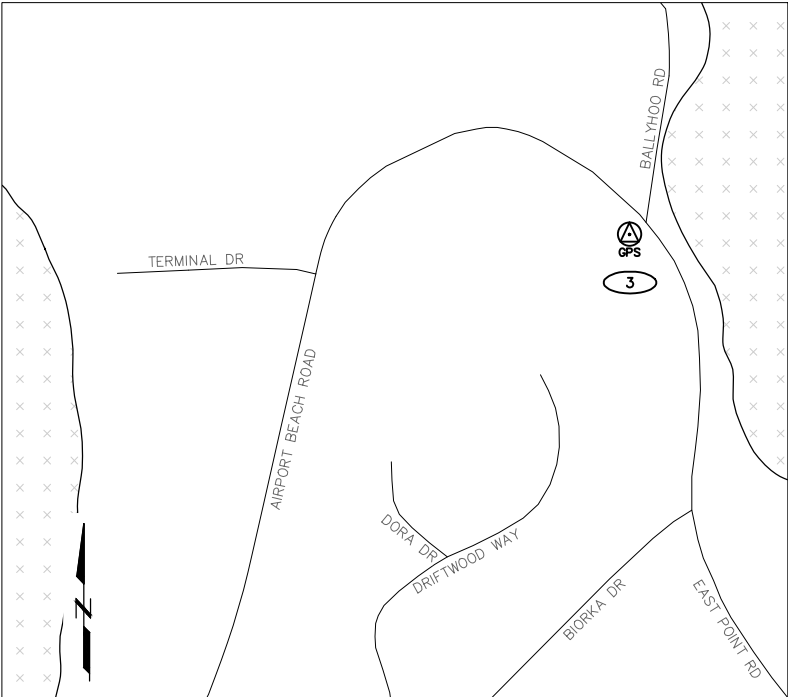
THE PROJECT VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW = 0.00'). HOLDING THE ELEVATION VALUES FOR CONTROL POINTS 3 AND 13 FIXED, PER THE COORDINATES SHOWN ON THE SURVEY CONTROL SHEET OF THE BALLYHOO ROAD PAVING PROJECT, PRODUCED BY PND ENGINEERS INC., PROJECT NUMBER 12114, DATED 01-07-13 WITH AN AS-BUILT REVISION DATE OF 05-06-14:

"Vertical datums for this survey are NAVD 83 and MLLW. Elevation values for control points 3 and 13 were held fixed in a simultaneous least squares adjustment, per the coordinates shown on the City of Unalaska Survey Control Sheet as N = 1190566.8330, E = 5315890.7824. Elevations were established by GPS-RTK observations, holding City Control Point 3, Elev=13.77 MLLW and processed using Alaska Geoid 2012A."

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM PROPERLY REGISTERED AND LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF ALASKA, AND THAT THIS DRAWING REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT THE MONUMENTS SHOWN HEREON ACTUALLY EXIST AS DESCRIBED, AND THAT ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT TO THE EXTENT SHOWN HEREON.

JEREMY A. HURST LS-11796 DATE



2
1.04
DETAIL A
SCALE: 1" = 200'

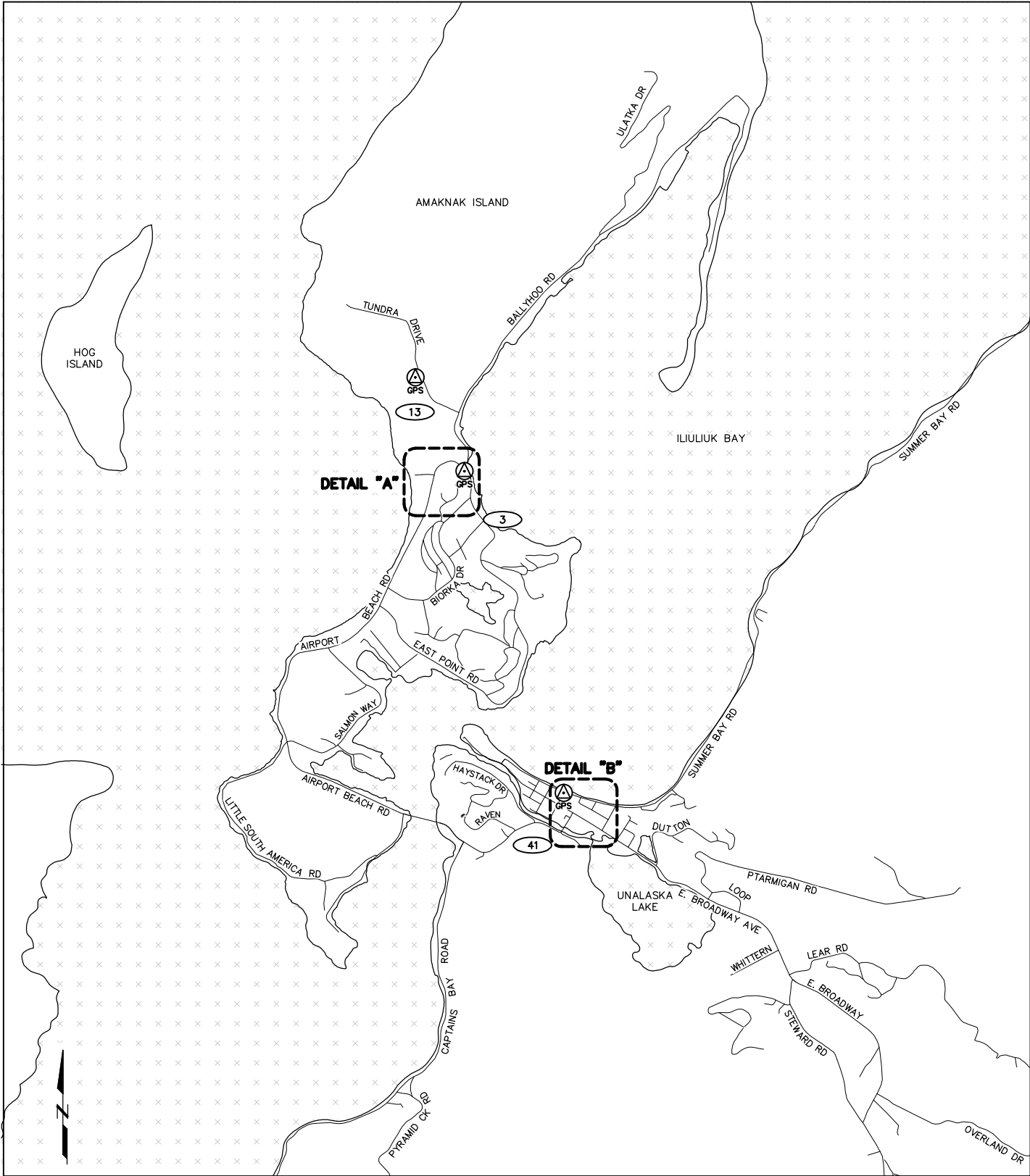
Recovered Control Points				
Point #	Northing	Easting	Elevation	Description
3	1190566.833	5315890.782	13.77	Fnd AC[BLM]: AP5 TR38 *S34 T72S R117W SM
13	1192590.530	5314832.536	92.93	Fnd AC[BLM]: AP5 TR38 *S34 T72S R117W SM
41	1183631.410	5318028.141	20.10	Fnd Spike in Concrete

PROJECT NOTES

- THE INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY STANTEC CONSULTING INC. ON JUNE 24-26, 2015.
- THIS IS NOT A BOUNDARY SURVEY. PROPERTY AND RIGHT-OF-WAY INFORMATION SHOWN HEREON ARE FOR GENERAL REFERENCE ONLY. THIS DRAWING WAS PREPARED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND MAY NOT SHOW EASEMENTS AND OTHER ENCUMBRANCES.
- ALL DIMENSIONS, COORDINATES, AND ELEVATIONS SHOWN ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED. DISTANCES AND COORDINATES ARE GRID VALUES.
- HORIZONTAL CONTROL POINTS SHOWN ON THIS SHEET WERE SURVEYED USING NETWORKED STATIC GNSS TECHNIQUES AND REDUNDANT GNSS-RTK OBSERVATIONS. GNSS MEASUREMENTS WERE PERFORMED USING TRIMBLE R6-3 AND R8-2 GNSS RECEIVERS AND PROCESSED USING TRIMBLE BUSINESS CENTER V3.50 SOFTWARE. CONTRACTOR SHALL VERIFY ALL CONTROL BEFORE BEGINNING WORK.

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1
1.04
LOCATION MAP
SCALE: 1" = 1500'

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_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Issued	By	Appd.	YY/MM/DD
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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

SURVEY CONTROL

2046051500_104.DWG

File Name

DGB JLR
EFG JAH
Dwn. Chkd. Dsgn.

16/09/02

YY/MM/DD

Project No.

2046051500

RECORD DOCUMENTS

1.04

Drawing No.



3 EAST POINT TIDEFLEX
2.01 SCALE: NOT TO SCALE

2 AIRPORT TIDEFLEX
2.01 SCALE: NOT TO SCALE

GENERAL NOTES:

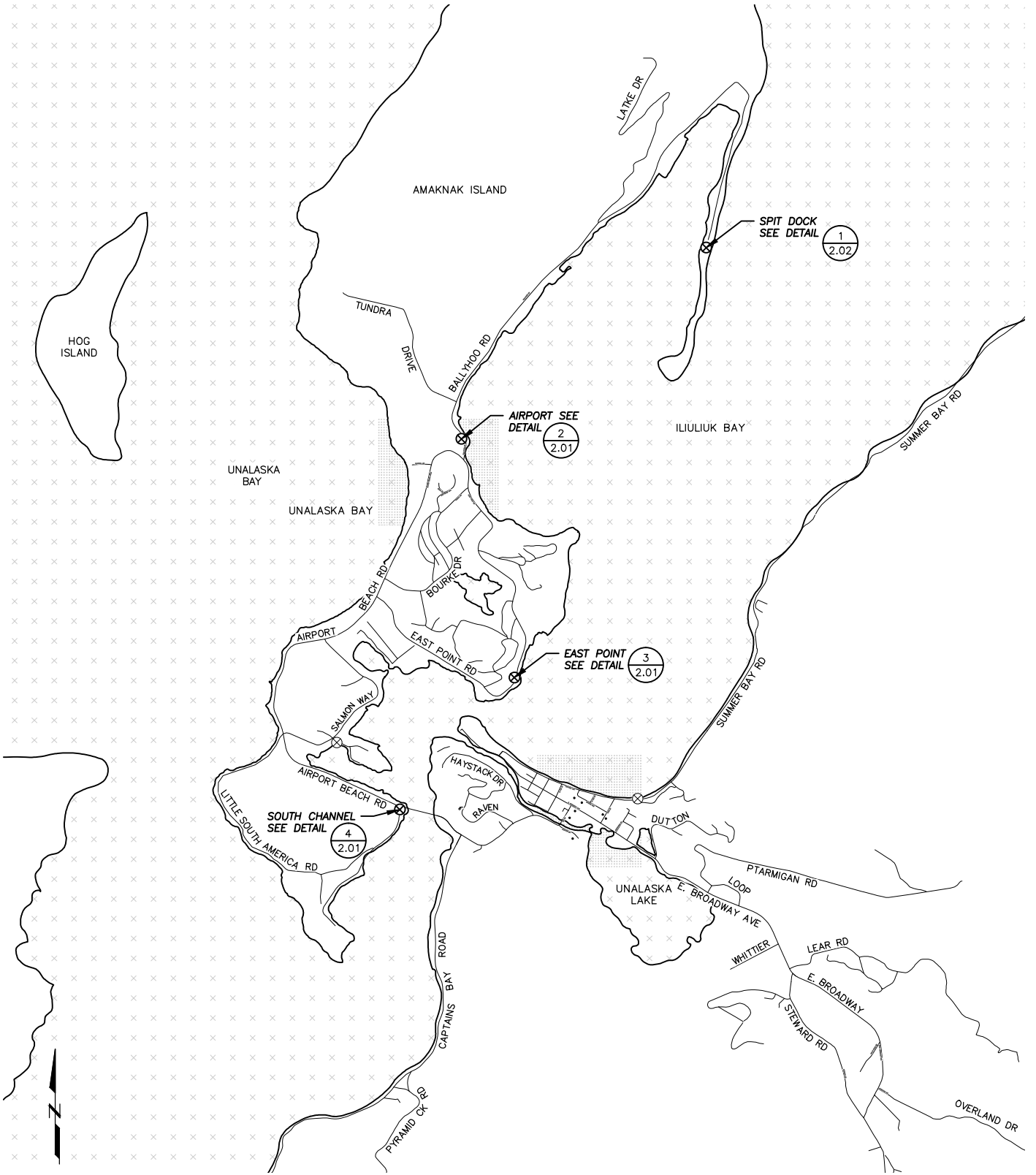
1. CONFIRM TIDEFLEX LOCATIONS WITH CITY PRIOR TO INSTALLATION.
2. CONFIRM DIAMETER OF ALL PIPES PRIOR TO ORDERING TIDEFLEX.
3. REMOVE ROCKS AND DEBRIS FROM OUTFALLS. COORDINATE WITH CITY TO HAVE LINES FLUSHED.
4. BELLS SHALL BE CLEANLY CUT FROM PIPE TO ALLOW INSTALLATION OF TIDEFLEX.
5. SEE CITY STANDARD DETAIL 60-7 FOR TIDEFLEX INSTALLATION.
6. RESTORE ARMOR STONE AFTER INSTALLATION.

Record Drawing

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4 SOUTH CHANNEL TIDEFLEX
2.01 SCALE: NOT TO SCALE



1 LOCATION MAP
2.01 SCALE: 1" = 1500'

_____	_____	_____	_____
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_____	_____	_____	_____
Issued	By	Appd.	YY/MM/DD
_____	_____	_____	_____
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DPW CONTRACT NO. 15401-01

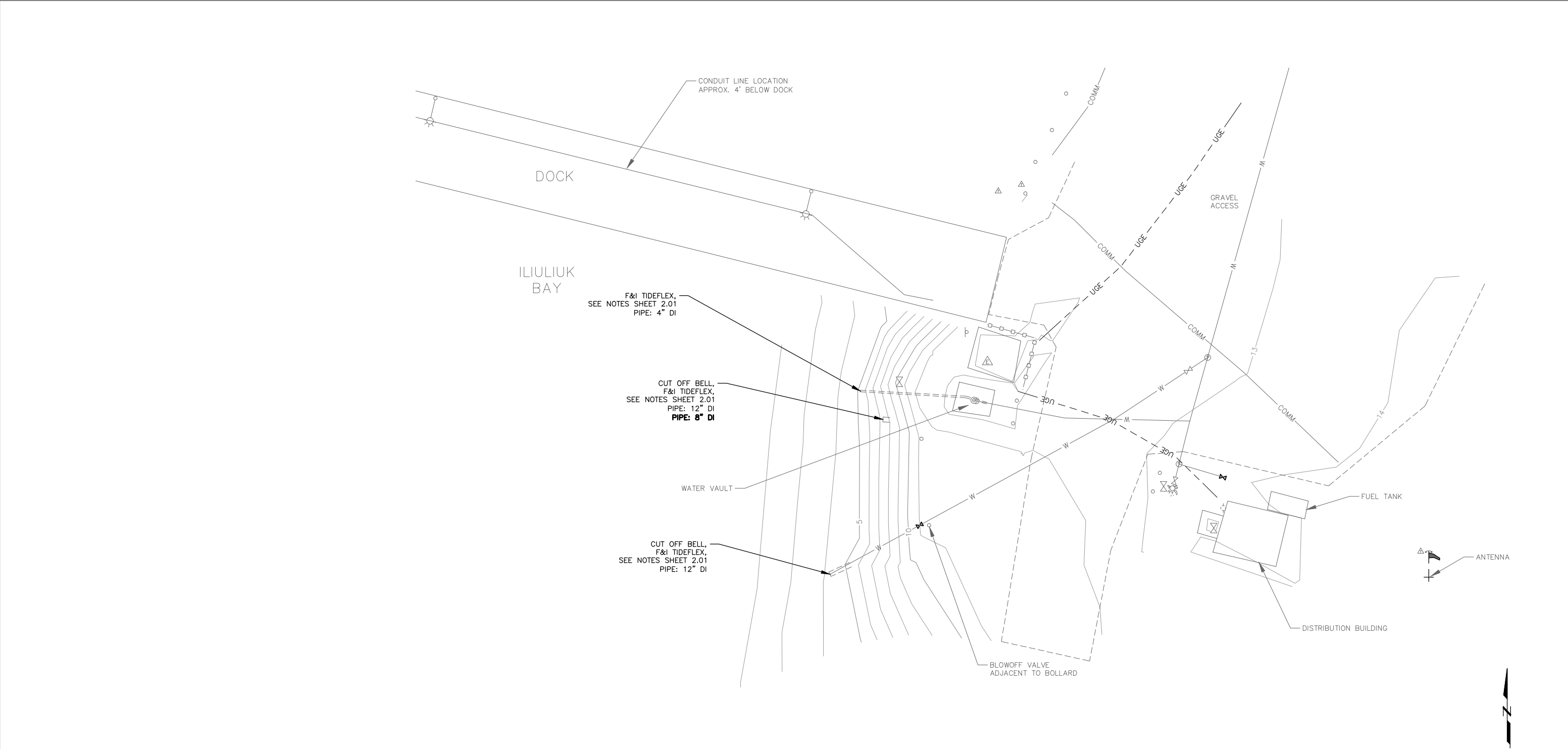
Sheet Title
TIDEFLEX LOCATION MAP

Project No.
2046051500
RECORD DOCUMENTS

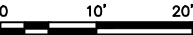
2046051500_201.DWG
File Name
DGB JAR SDG SDG 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

2.01
Drawing No.

Original Sheet Size - 22 x 34



1 SPIT DOCK SITE PLAN
2.02 SCALE: 1" = 10'



Record Drawing
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Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
Revision	By	Appd.	YY/MM/DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
TIDEFLEX SITE PLANS

2046051500_202.DWG
File Name

DGB JLR SDG 16/09/02
JAR SDG SDG
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.
2046051500
RECORD DOCUMENTS

2.02
Drawing No.

EXISTING CONDITIONS:

PIPE MATERIAL: SOFT COPPER, TYPE K
PIPE SIZE: 1-1/2"
TRIM: NONE

DEMOLITION WORK:

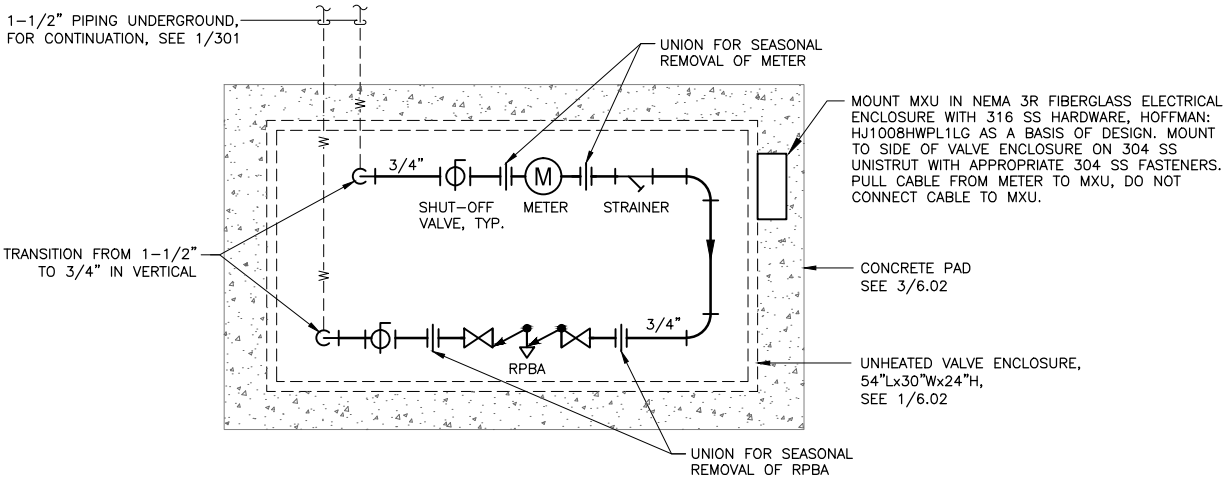
SEE DRAWING 1/3.01

NEW WORK:

INTERCEPT EXISTING WATER LINE, SEE DRAWING 1/3.01. INSTALL NEW WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM.

NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR ADDITIONAL INFORMATION. RPBA TO DISCHARGE TO CONCRETE PAD. FABRICATE AND INSTALL VALVE ENCLOSURE, SEE 1/6.02.

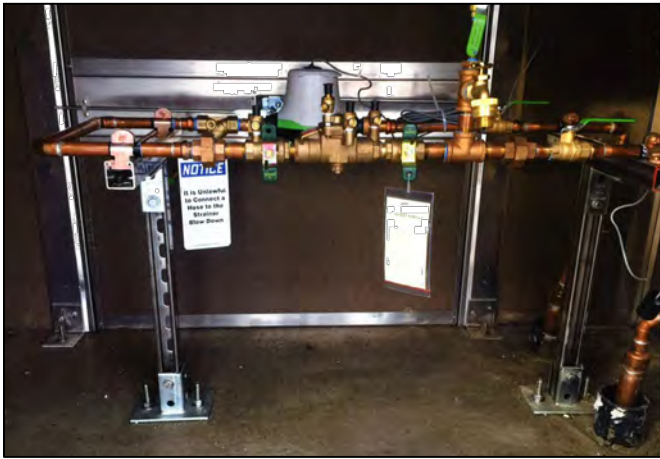
METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA



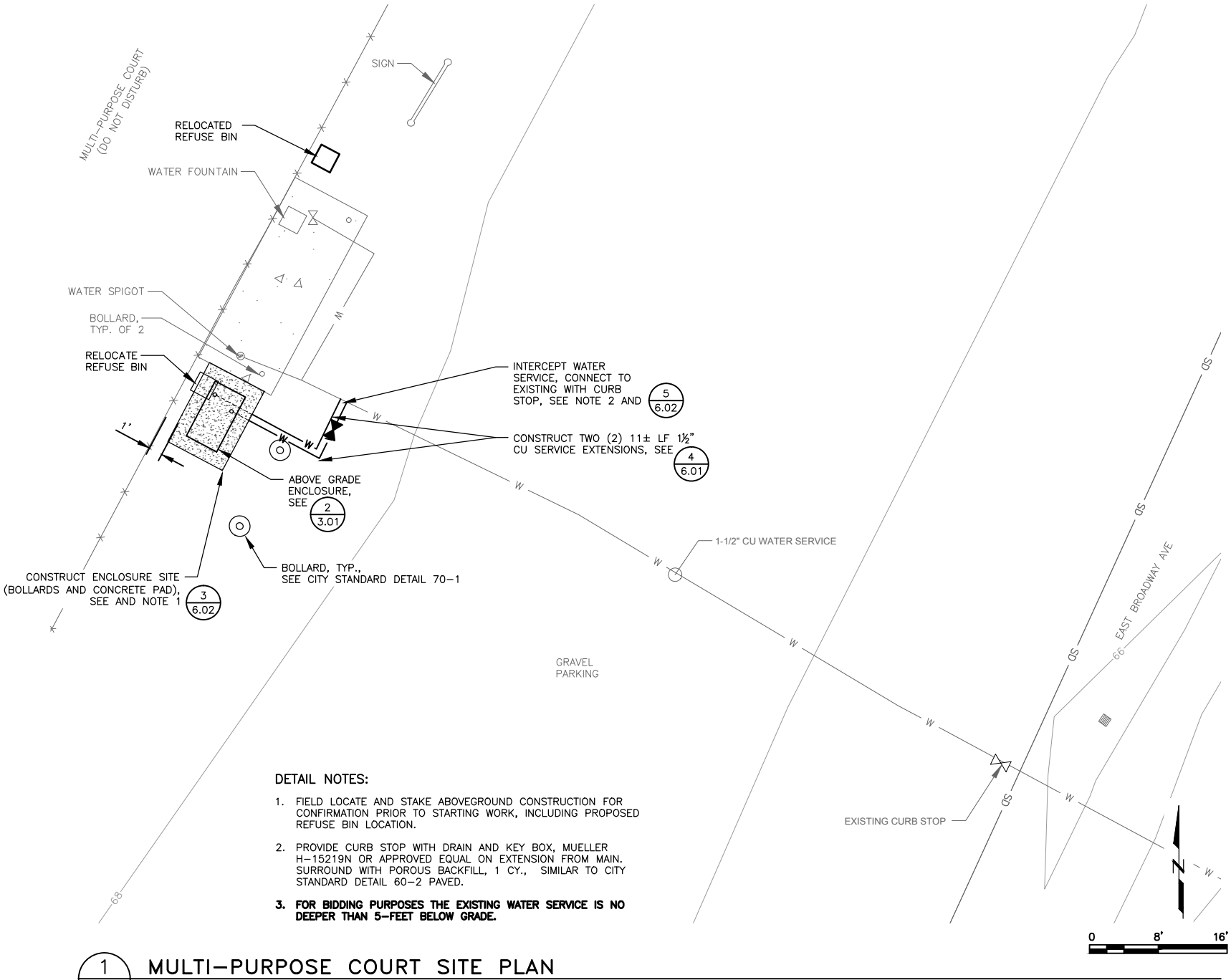
2 METER AND RPBA PIPING DIAGRAM
3.01 NOT TO SCALE



3 NEW ENCLOSURE AREA PHOTO
3.01 NOT TO SCALE



4 PHOTO - ASBUILT
3.01 NOT TO SCALE



DETAIL NOTES:

1. FIELD LOCATE AND STAKE ABOVEGROUND CONSTRUCTION FOR CONFIRMATION PRIOR TO STARTING WORK, INCLUDING PROPOSED REFUSE BIN LOCATION.
2. PROVIDE CURB STOP WITH DRAIN AND KEY BOX, MUELLER H-15219N OR APPROVED EQUAL ON EXTENSION FROM MAIN. SURROUND WITH POROUS BACKFILL, 1 CY., SIMILAR TO CITY STANDARD DETAIL 60-2 PAVED.
3. FOR BIDDING PURPOSES THE EXISTING WATER SERVICE IS NO DEEPER THAN 5-FEET BELOW GRADE.

1 MULTI-PURPOSE COURT SITE PLAN
3.01 1'=5'

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

\\net\30401\shared_projects\2046051500\drawing\3046051500_301.dwg
2017/06/05 4:53 PM By: Alexander, Joah

Issued	By	Appd.	YY/MM/DD
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
MULTI-PURPOSE COURT

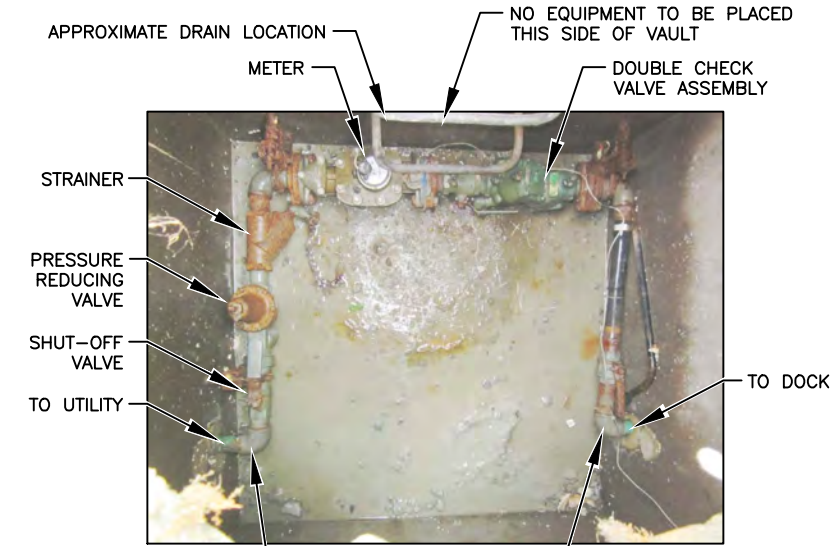
Project No.
2046051500
RECORD DOCUMENTS

2046051500_301.DWG
File Name
DGB JLR JLR
JAR SDG SDG
Dwn. Chkd. Dsgn.
16/09/02
YY/MM/DD

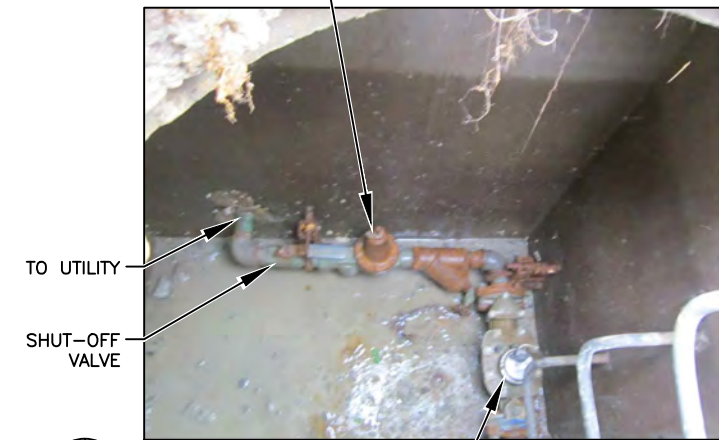
Drawing No.

3.01

Original Sheet Size - 22 x 34



2
3.02
PHOTO
SCALE: NOT TO SCALE
PRESSURE REDUCING VALVE



3
3.02
PHOTO
SCALE: NOT TO SCALE
REMOVE TIRE IRON SHUT-OFF VALVE TO DOCK



4
3.02
PHOTO
SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: STEEL
PIPE SIZE: 1-1/2"
TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE, BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL. COORDINATE SCHEDULE. REMOVE STEEL PIPING FROM VAULT. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVE, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL STRAINER, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL DIELECTRIC ISOLATION BETWEEN EXISTING STEEL PIPE PENETRATING VAULT AND NEW COPPER PIPE WITHIN VAULT.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA



5
3.02
PHOTO - ASBUILT
SCALE: NOT TO SCALE

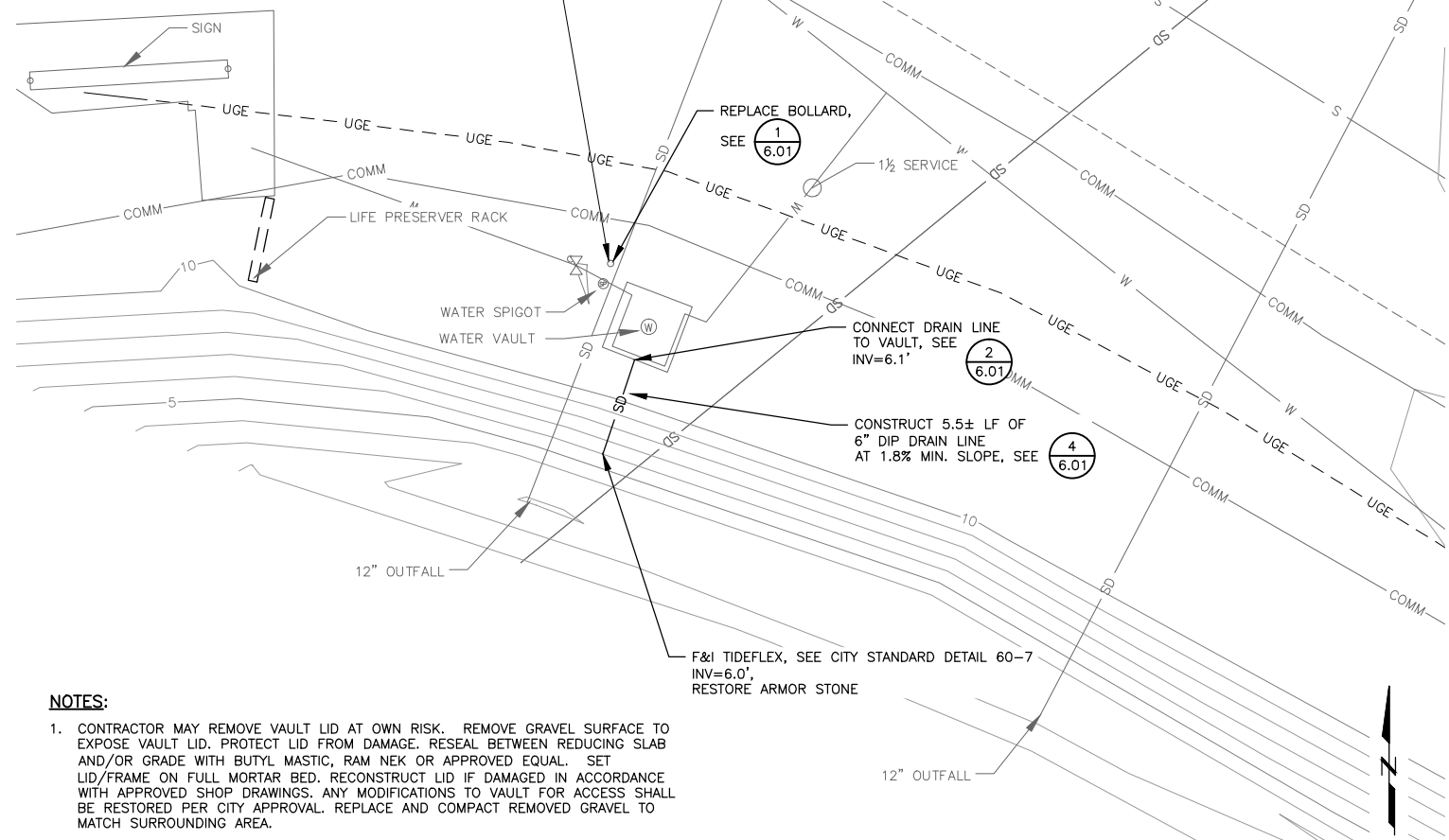
Record Drawing

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MOUNT MXU IN NEMA 3R FIBERGLASS ELECTRICAL ENCLOSURE WITH 316 SS HARDWARE, HOFFMAN: HJ1008HWPL1LG AS A BASIS OF DESIGN. MOUNT ENCLOSURE 36" AFG ON 304 SS UNISTRUT BOLTED TO BOLLARD WITH 304 SS HEX HEAD FASTENERS. ROUTE CONDUIT UNDERGROUND TO VAULT. PULL CABLE FROM METER TO MXU, DO NOT CONNECT CABLE TO MXU.



NOTES:

- CONTRACTOR MAY REMOVE VAULT LID AT OWN RISK. REMOVE GRAVEL SURFACE TO EXPOSE VAULT LID. PROTECT LID FROM DAMAGE. RESEAL BETWEEN REDUCING SLAB AND/OR GRADE WITH BUTYL MASTIC, RAM NEK OR APPROVED EQUAL. SET LID/FRAE ON FULL MORTAR BED. RECONSTRUCT LID IF DAMAGED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. ANY MODIFICATIONS TO VAULT FOR ACCESS SHALL BE RESTORED PER CITY APPROVAL. REPLACE AND COMPACT REMOVED GRAVEL TO MATCH SURROUNDING AREA.

1
3.02
BOBBY STORRS SMALL BOAT HARBOR A&B FLOAT SITE PLAN
SCALE: 1"=5'

0 5' 10'

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RWC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
BOBBY STORRS SMALL BOAT
HARBOR - A&B FLOAT

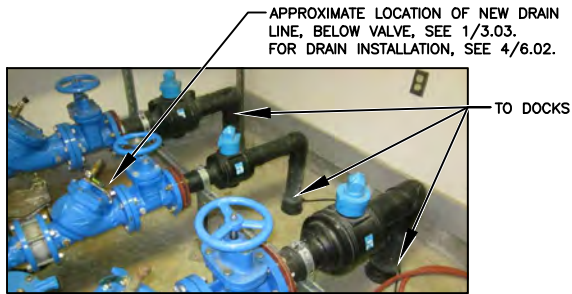
Project No.
2046051500
RECORD DOCUMENTS

2046051500_302.DWG
File Name
DGB JLR
JAR SDG SDG
Dwn. Chkd. Dsgn.
16/09/02
YY/MM/DD

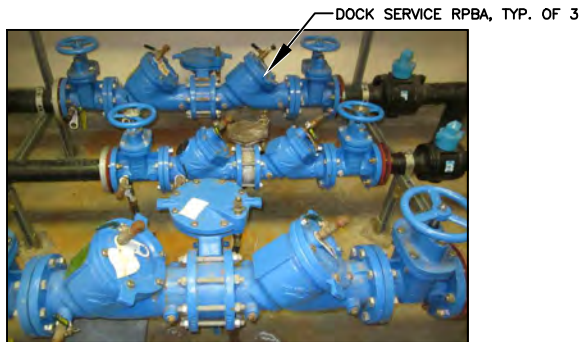
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3.02

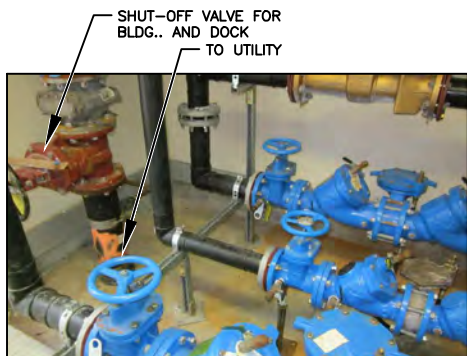
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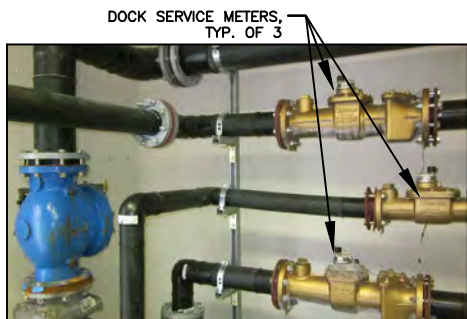
2 PHOTO
3.03 SCALE: NOT TO SCALE



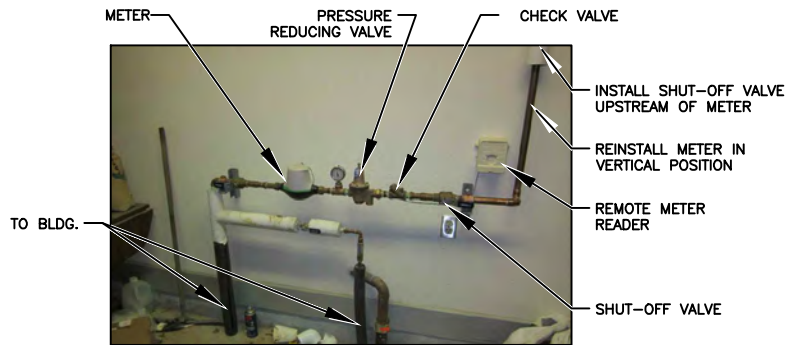
3 PHOTO
3.03 SCALE: NOT TO SCALE



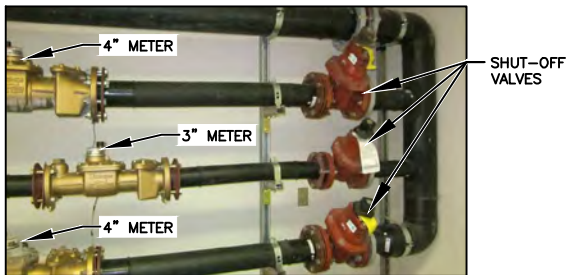
4 PHOTO
3.03 SCALE: NOT TO SCALE



5 PHOTO
3.03 SCALE: NOT TO SCALE



7 PHOTO
3.03 SCALE: NOT TO SCALE



8 PHOTO
3.03 SCALE: NOT TO SCALE



9 PHOTO - ASBUILT
3.03 SCALE: NOT TO SCALE



11 PHOTO - ASBUILT
3.03 SCALE: NOT TO SCALE

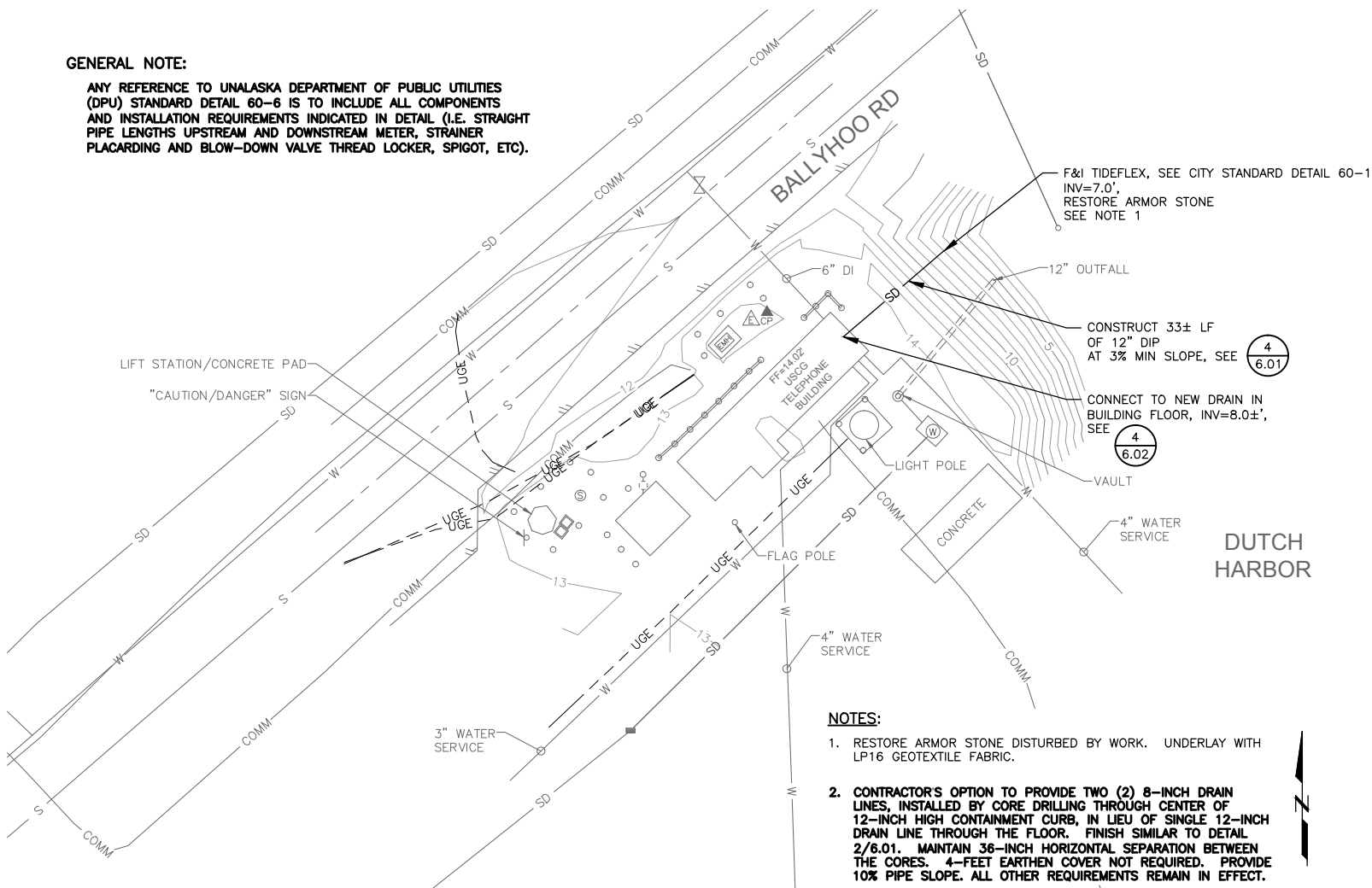


10 PHOTO - ASBUILT
3.03 SCALE: NOT TO SCALE

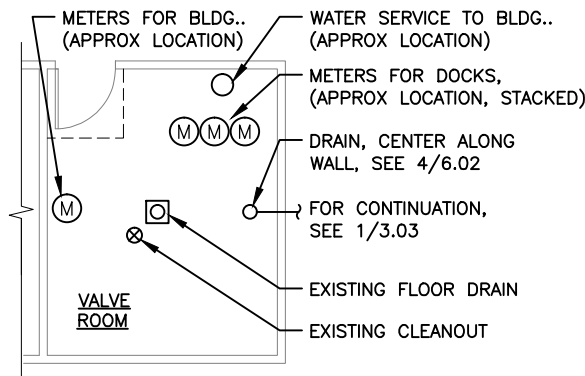


12 PHOTO - ASBUILT
3.03 SCALE: NOT TO SCALE

GENERAL NOTE:
ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).



1 US COAST GUARD SHACK SITE PLAN
3.03 SCALE: 1"=20'



6 PARTIAL FLOOR PLAN
3.03 SCALE: N.T.S.

Record Drawing
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EXISTING CONDITIONS:
COAST GUARD SHACK HAS A TOTAL OF FOUR WATER SERVICES: TWO 4" AND ONE 3/4" SERVING THE DOCKS AND ONE 3/4" SERVING THE BUILDING.
PIPE SIZE AND MATERIAL: 3/4" RIGID COPPER, 3" HDPE, 4" HDPE
TRIM: METER, METER READER, PRESSURE REDUCING VALVE, RPBA'S

DEMOLITION WORK:
3/4" BUILDING SERVICE: REMOVE AND SALVAGE METER, METER READER, PRESSURE REDUCING VALVE, AND PRESSURE GAUGE. REMOVE RPBA'S, AND ADDITIONAL VALVES AND PIPE AS REQUIRED TO INSTALL NEW WORK.
3" AND 4" DOCK SERVICE: REMOVE AND SALVAGE METERS. DEMOLISH HDPE PIPING BETWEEN THE RPBAS AND THE SHUT-OFF VALVES DOWNSTREAM THE METERS. REMOVE RPBAS AND ADDITIONAL PIPING AS REQUIRED TO INSTALL DRAIN; RETAIN FOR REINSTALLATION.

NEW WORK:
3/4" BUILDING SERVICE: REINSTALL METER, METER READER, PRESSURE REDUCING VALVE AND PRESSURE GAUGE. PROVIDE SHUTOFF VALVE, STRAINER, AND BACKFLOW PREVENTER. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR VALVE AND METER CONFIGURATION.
3" AND 4" DOCK SERVICE: INSTALL METERS, FURNISHED BY DPU. INSTALL RIGID COPPER PIPE BETWEEN THE RPBAS AND THE SHUT-OFF VALVES DOWNSTREAM THE METERS.
METER: EXISTING 3/4" SENSUS IPERL WITH REMOTE READING DEVICE. 3" AND 4" METERS SENSUS OMNI C2 WITH REMOTE READING DEVICE.
BACKFLOW PREVENTER: REDUCED PRESSURE ZONE ASSEMBLY (RPBA).
DRAIN: CONSTRUCT AND FLUSH DRAIN LINE, SEE SITE PLAN.
VALVE ROOM: GROUT ALL PENETRATIONS. REMOVE DEBRIS AND PRESSURE WASH AT COMPLETION OF OTHER WORK.

Issued

By

Appd.

YY/MM/DD

ASBUILT

JCA

DJM

17/06/02

ADDENDUM 3

RMC

JLR

16/07/01

ADDENDUM 1

RMC

JLR

16/06/10

Revision

By

Appd.

YY/MM/DD

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Client/Project

CITY OF UNALASKA

BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401

DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

US COAST GUARD SHACK

2046051500_303.DWG

File Name

DGB

JLR

JAR

SDG

SDG

16/09/02

YY/MM/DD

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Chkd.

Dsgn.

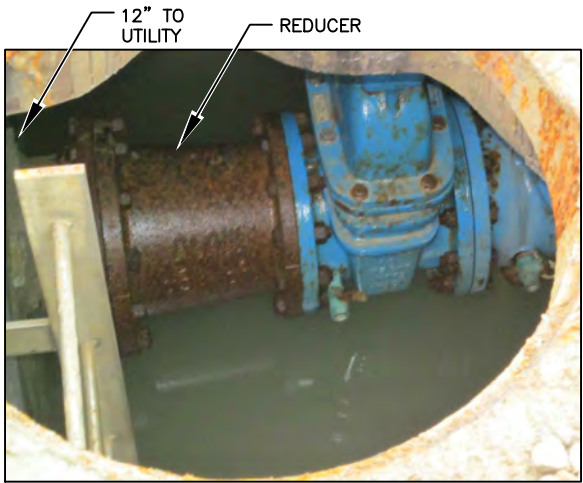
Project No.

2046051500

RECORD DOCUMENTS

3.03

Drawing No.



3 PHOTO
3.04 SCALE: NOT TO SCALE



4 PHOTO
3.04 SCALE: NOT TO SCALE



5 PHOTO
3.04 SCALE: NOT TO SCALE



2 PHOTO
3.04 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: DUCTILE IRON
PIPE SIZE: 10" AND 12"
TRIM: BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE BACKFLOW ASSEMBLY. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

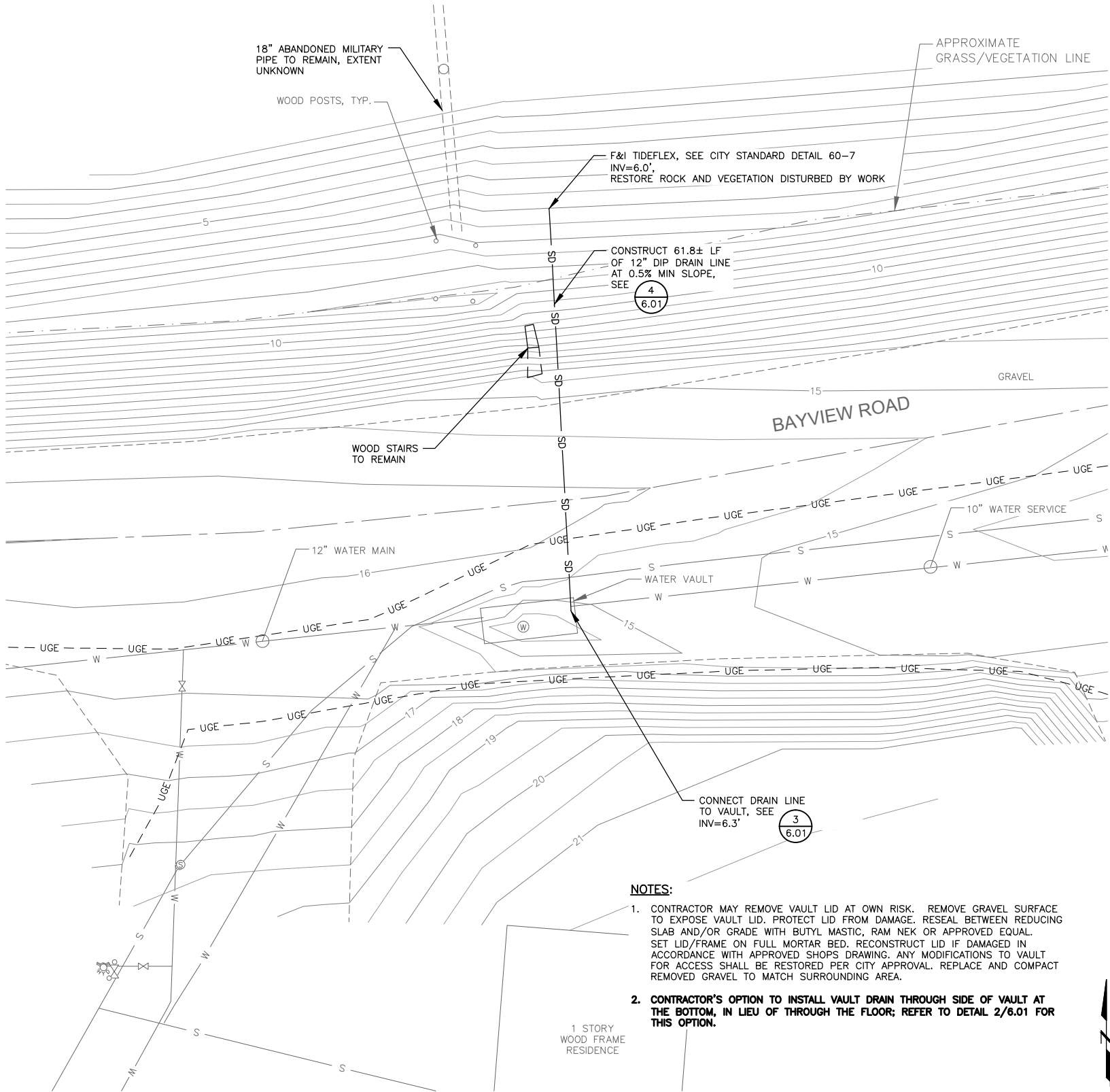
REINSTALL BACKFLOW ASSEMBLY A MINIMUM OF 20 INCHES ABOVE BOTTOM OF VAULT. UNDERGROUND PIPE ELEVATION TO REMAIN AS IS. PROVIDE ELBOWS, FITTINGS, AND PIPE AS REQUIRED TO RAISE RPBA. COORDINATE WATER SHUTDOWN WITH CITY. THIS SERVICE PROVIDES WATER FOR DOMESTIC USE AND FIRE PROTECTION TO THE LANDFILL. A METER IS LOCATED AT THE BALER FACILITY. (PIPE CONNECTIONS TO VAULT TO REMAIN AS IS.)

VAULT DRAIN: CONSTRUCT AND FLUSH DRAIN LINE, SEE SITE PLAN. VAULT: GROUT ALL PENETRATIONS. REMOVE DEBRIS AND PRESSURE WASH AT COMPLETION OF OTHER WORK.

METER MODEL: NOT REQUIRED
BACKFLOW PREVENTER TYPE: EXISTING RPBA

Record Drawing

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1 LANDFILL BAY VIEW AVE VAULT SITE PLAN
3.04 SCALE: 1"=10'

NOTES:

- CONTRACTOR MAY REMOVE VAULT LID AT OWN RISK. REMOVE GRAVEL SURFACE TO EXPOSE VAULT LID. PROTECT LID FROM DAMAGE. RESEAL BETWEEN REDUCING SLAB AND/OR GRADE WITH BUTYL MASTIC, RAM NEK OR APPROVED EQUAL. SET LID/FRAME ON FULL MORTAR BED. RECONSTRUCT LID IF DAMAGED IN ACCORDANCE WITH APPROVED SHOPS DRAWING. ANY MODIFICATIONS TO VAULT FOR ACCESS SHALL BE RESTORED PER CITY APPROVAL. REPLACE AND COMPACT REMOVED GRAVEL TO MATCH SURROUNDING AREA.
- CONTRACTOR'S OPTION TO INSTALL VAULT DRAIN THROUGH SIDE OF VAULT AT THE BOTTOM, IN LIEU OF THROUGH THE FLOOR; REFER TO DETAIL 2/6.01 FOR THIS OPTION.

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2017/06/05 4:53 PM By: Alexander, Jason

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
Revision	By	Appd.	YY/MM/DD



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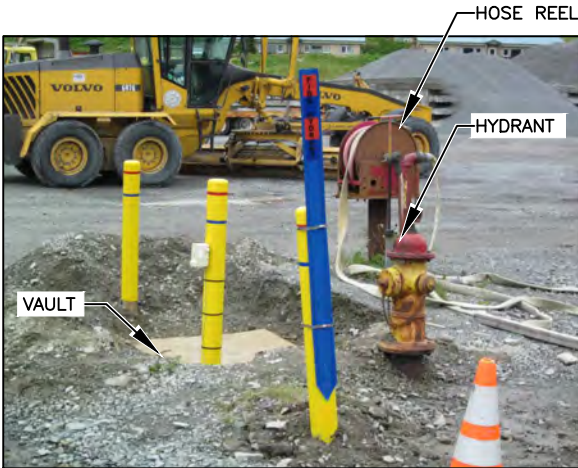
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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
LANDFILL - BAY VIEW AVE. VAULT
2046051500_304.DWG
File Name
DGB JLR JLR
JAR SDG SDG
Dwn. Chkd. Dsgn.
16/09/02
YY/MM/DD

Project No.
2046051500
RECORD DOCUMENTS
3.04
Drawing No.

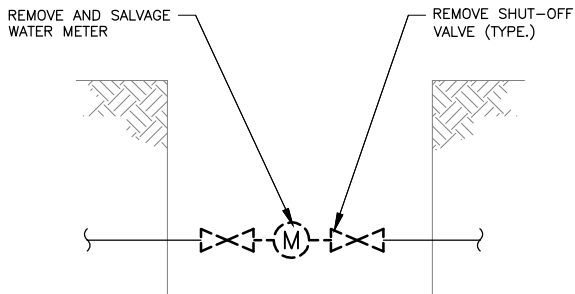
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3 PHOTO
4.01 SCALE: NOT TO SCALE



2 PHOTO
4.01 SCALE: NOT TO SCALE



5 VAULT - DEMOLITION
4.01 SCALE: NOT TO SCALE

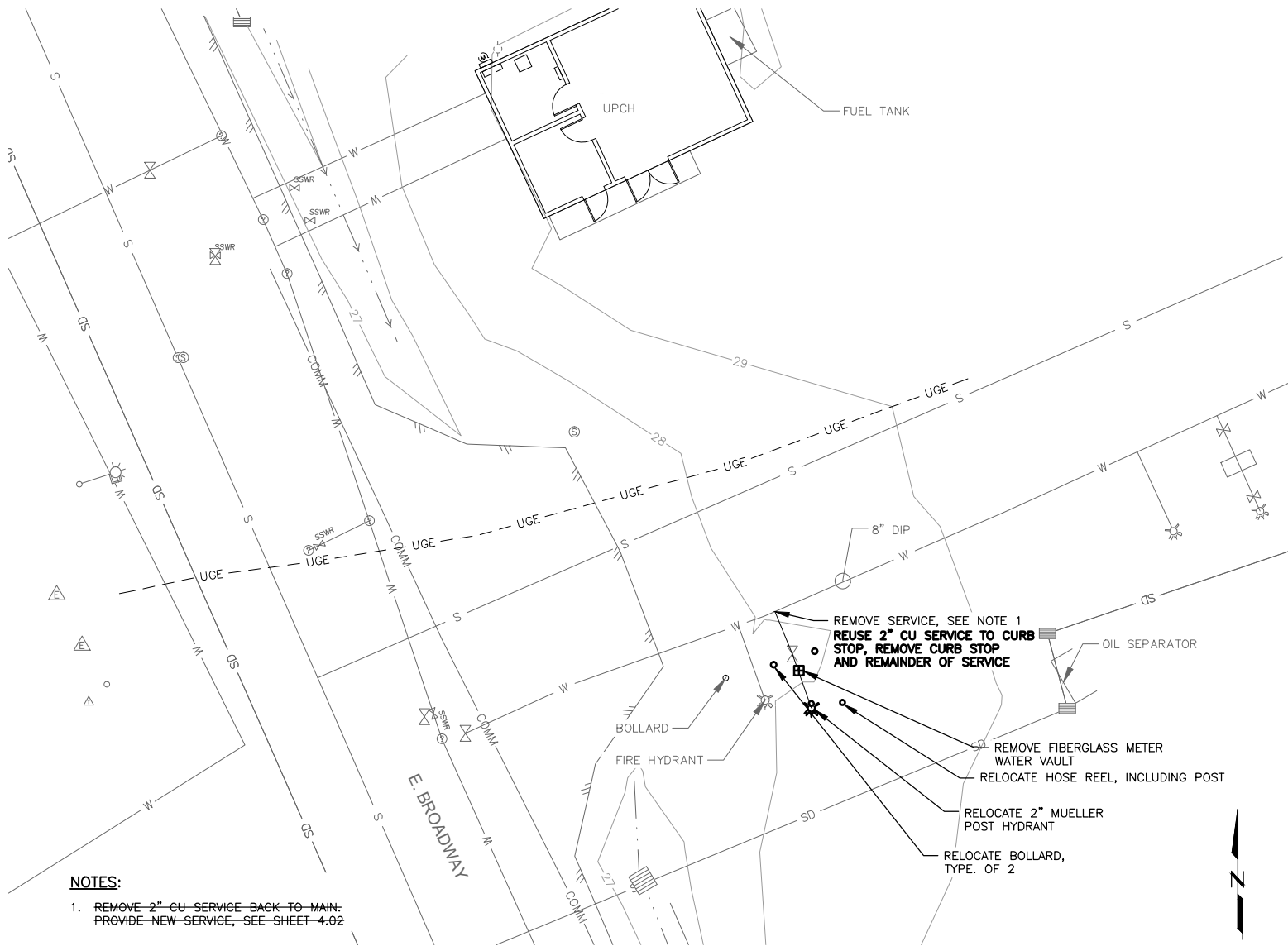


4 PHOTO
4.01 SCALE: NOT TO SCALE



6 PHOTO - ASBUILT
4.01 SCALE: NOT TO SCALE

NEW/DEMOLITION WORK:
REMOVE EXISTING VALVES AND PIPE IN EXISTING VAULT
AND REPLACE WITH SPOOL.



1 PUBLIC WORKS UPCH - POST HYDRANT UPCH DEMOLITION PLAN
4.01 SCALE: 1"=10'

Record Drawing
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2017/06/05 4:55 PM By: Alexander, Joah

Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 4	SDG	RMC	16/07/12
Revision	By	Appd.	YY.MM.DD



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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
PUBLIC WORKS UPCH - POST
HYDRANT DEMOLITION

Project No.
2046051500
RECORD DOCUMENTS

2046051500_401.DWG
File Name
DGB JAR MXS SDG 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

4.01

Original Sheet Size - 22 x 34

PANEL MDP											
CKT	LOAD	BRANCH		CONNECTED KVA			BRANCH		LOAD	CKT	
		BKR	VA	A	B	C	VA	BKR			
1	BYPASS PUMP (25 HP)	60/3	9,418	9.4						2	
			9,418		9.4						
			9,418			9.4					
3				0.0						4	
	BASEBOARD HEAT	20/1	4,432		4.4						
	BASEBOARD HEAT	20/1	4,432			4.4					
5	MAIN BREAKER	225/3		1.7			1,680	40/3	EXISTING PANEL A	6	
					3.9						3,880
						2.0					1,980
CONNECTED LOAD		44.7 KVA	11.1	17.7	15.8	PANEL SPECIFICATIONS					
		54 AMPS	40	64	57	MAINS RATING AMPS – 400					
NEC DEMAND		52.2 KVA				MAIN CIRCUIT BREAKER AMPERES – MCB					
		63 AMPS				CAPACITY THREE-POLE CIRCUITS – 10					
PANEL NOTES					SYSTEM VOLTAGE – 480Y/277						
1.) AS A RESULT OF NEW WORK 1.5 AMPS HAS BEEN ADDED TO THE SERVICE.					PHASE, NO. OF WIRES – 3 PH, 4 W						
					AIC RATING – 25,000						
					MOUNTING – SURFACE						

EXISTING UPCH BUILDING,
FOR LOCATION SEE 1/4.02

MDP
(E)UPCH HOUSE

225A
MCB
480/277
3 ϕ , 4W
30 Ckt

PANEL A
(E)UPCH HOUSE

100A
MCB
208/120
3 ϕ , 4W
30 Ckt

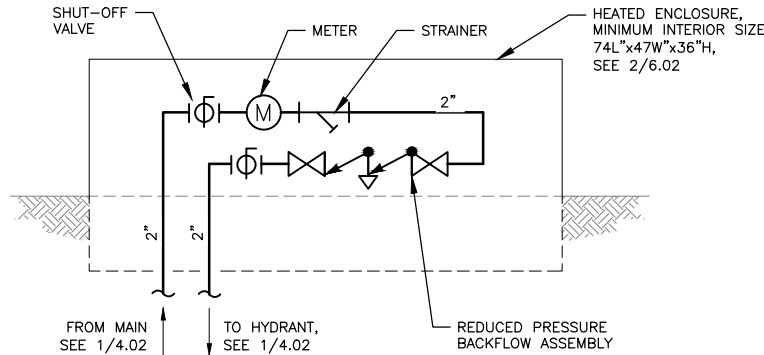
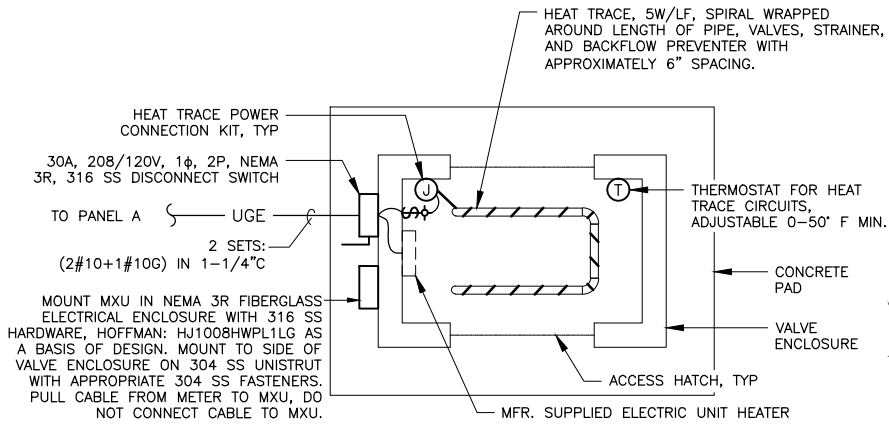
15kVA
XFMR

250A

(M)

(E)UGE

TO VALVE ENCLOSURE



DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), HYDRANT, AND HOSE REEL. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE VALVES AND PIPING FROM VAULT, AND ADDITIONAL PIPING AS REQUIRED FOR NEW WORK, SEE 1/4.02.

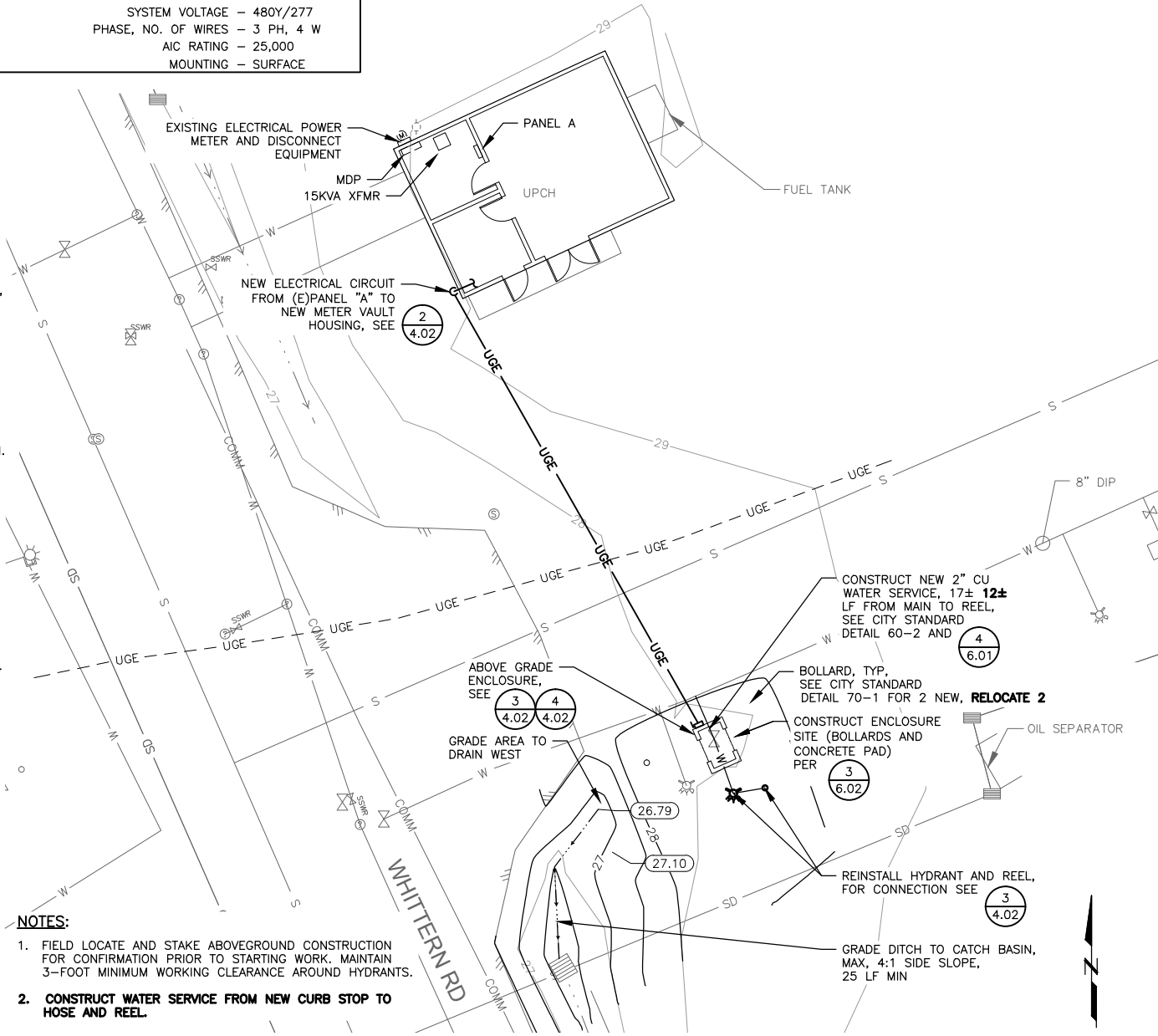
NEW WORK:

SEE 1/4.02 AND 3/4.02. INSTALL NEW WATER SERVICE, WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR A COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL METER AND STRAINER. MAKE FINAL IRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL HOSE REEL AND HYDRANT. INSTALL HEATED ENCLOSURE. SEE 2/6.02. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION **INCLUDING ALL COMPONENTS AND INSTALLATION REQUIREMENTS**

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

These drawings have been prepared based on information provided by others. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.



1 PUBLIC WORKS UPCH – POST HYDRANT NEW WORK PLAN
4.02 SCALE: 1"=10' 0 10' 20'

Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 4	SDG	RMC	16/07/12
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY.MM.DD



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Permit-Seal	Client/Project	Sheet Title	Project No.			
	CITY OF UNALASKA	PUBLIC WORKS UPCH - POST	2046051500			
	BACKFLOW PREVENTION PROJECT	HYDRANT NEW WORK	RECORD DOCUMENTS			
	DPW PROJECT / FILE NO. 15401					
	DPW CONTRACT NO. 15401-01					
	Original Sheet Size - 22 x 34	2046051500_402.DWG	DGB JAR	JLR GRH	MXS SDG	16/09/02
		File Name	Dwn.	Chkd.	Dsgn.	YY/MM/DD
						Drawing No.
						4.02



3 PHOTO
5.01 SCALE: NOT TO SCALE

SINK
SHUT-OFF VALVE
SOFT COPPER
TO UTILITY
ROUTE RPBA DRAIN BEHIND SINK AND THROUGH EXTERIOR WALL



2 PHOTO
5.01 SCALE: NOT TO SCALE

METER
SINK



1 PHOTO
5.01 SCALE: NOT TO SCALE

SINK



5 PHOTO - ASBUILT
5.01 SCALE: NOT TO SCALE



4 PHOTO
5.01 SCALE: NOT TO SCALE

REMOVE AND REINSTALL SINK AS REQUIRED FOR ACCESS
INSTALL METER AND RPBA IN THIS GENERAL AREA. AREA ABOVE AND TO THE LEFT OF THIS AREA MAY BE USED AS WELL.

EXISTING CONDITIONS:

PIPE MATERIAL: SOFT COPPER, RIGID COPPER, GALVANIZED
PIPE SIZE: 3/4"
TRIM: METER AND METER READER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE PIPE BACK TO SOFT COPPER VALVE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY.

RECONNECT EXISTING GROUNDING CONDUCTOR THAT CROSSES THE EXISTING WATER METER

CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR. CORE DRILL EXTERIOR CONCRETE WALL TO ALLOW INSTALLATION OF DRAIN.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

Record Drawing

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2017/06/05 4:57 PM By: Alexander, Joah

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
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ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

BURMA ROAD CHAPEL

2046051500_501.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.

2046051500
RECORD DOCUMENTS

Drawing No.

5.01



3 PHOTO
5.02 SCALE: NOT TO SCALE



2 PHOTO
5.02 SCALE: NOT TO SCALE



1 PHOTO
5.02 SCALE: NOT TO SCALE



5 PHOTO — ASBUILT
5.02 SCALE: NOT TO SCALE



4 PHOTO
5.02 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 1-1/2"
TRIM: METER, METER READER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE PIPE BACK TO SHUTOFF VALVE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVE, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 3 INCH DRAIN LINE FOR RPBA, SIMILAR TO DETAIL 1/6.03. ROUTE DISCHARGE THROUGH FLOOR.

PROVIDE 1-INCH METER AND REQUIRED TRANSITIONS FROM 1-1/2-INCH PIPING. VALVES, STRAINER, RPBA, PIPING AND APPURTENANCES ARE TO BE 1-1/2-INCH.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).



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ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD

Permit-Seal

Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

KELTY FIELD

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File Name

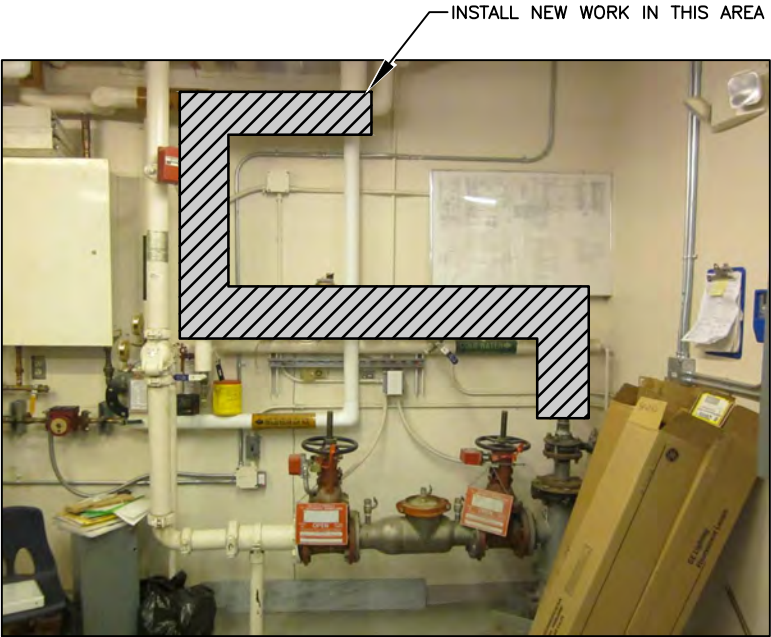
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.

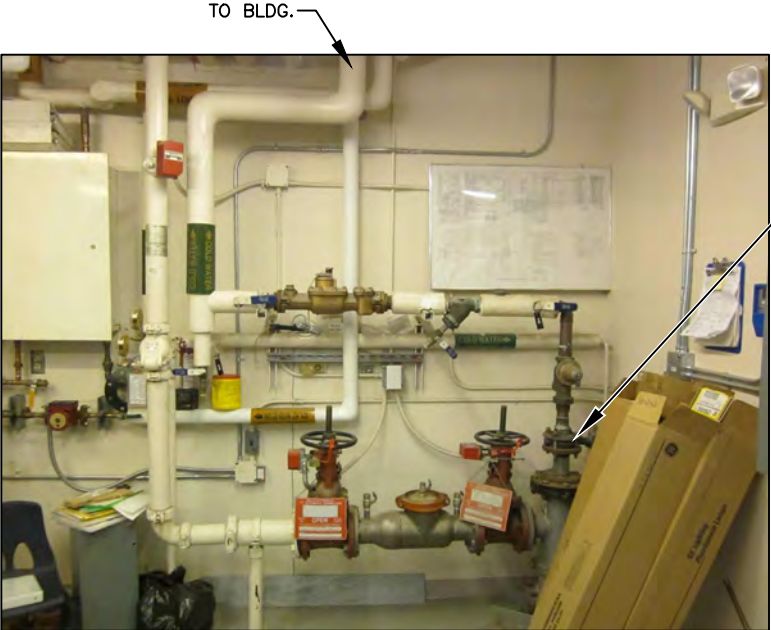
2046051500
RECORD DOCUMENTS

Drawing No.

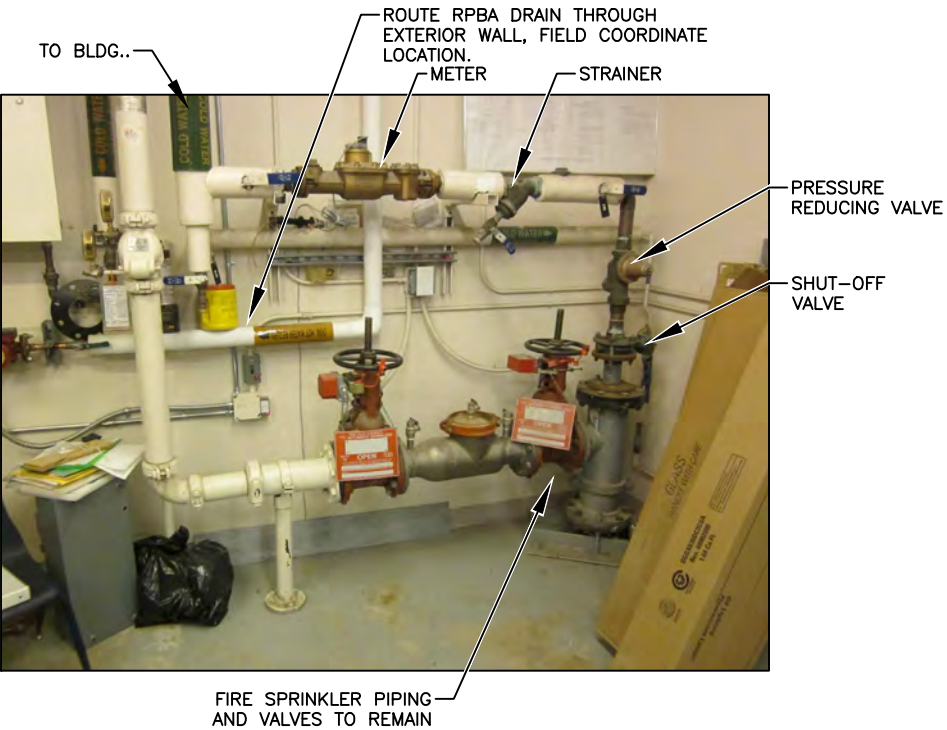
5.02



3 PHOTO
5.03 SCALE: NOT TO SCALE



2 PHOTO
5.03 SCALE: NOT TO SCALE



1 PHOTO
5.03 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 2"
TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE AND RETAIN STRAINER, PRESSURE REDUCING VALVE, AND BALL TYPE SHUT OFF VALVES FOR REINSTALLATION. DEMOLISH PIPING BACK TO AND INCLUDING THE 2-INCH GALVANIZED NIPPLE ABOVE THE FIRE ASSEMBLY TEE, INCLUDING THE BUTTERFLY SHUT-OFF VALVE. REMOVE ADDITIONAL PIPING DOWNSTREAM THE METER AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER (FURNISHED BY CITY), BACKFLOW PREVENTER, PRESSURE GAUGE, SPIGOT, AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. REINSTALL BALL TYPE SHUT-OFF VALVES, STRAINER, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION, INCLUDING ALL COMPONENTS AND INSTALLATION REQUIREMENTS. DPU SHALL INSTALL MXU AND MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. INSTALL 4-INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA



4 PHOTO - ASBUILT
5.03 SCALE: NOT TO SCALE

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

Record Drawing

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2017/06/05 4:38 PM By: Alexander, Joah

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

PCR COMMUNITY CENTER

Project No.

2046051500

RECORD DOCUMENTS

2046051500_503.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

5.03



3
5.04

PHOTO

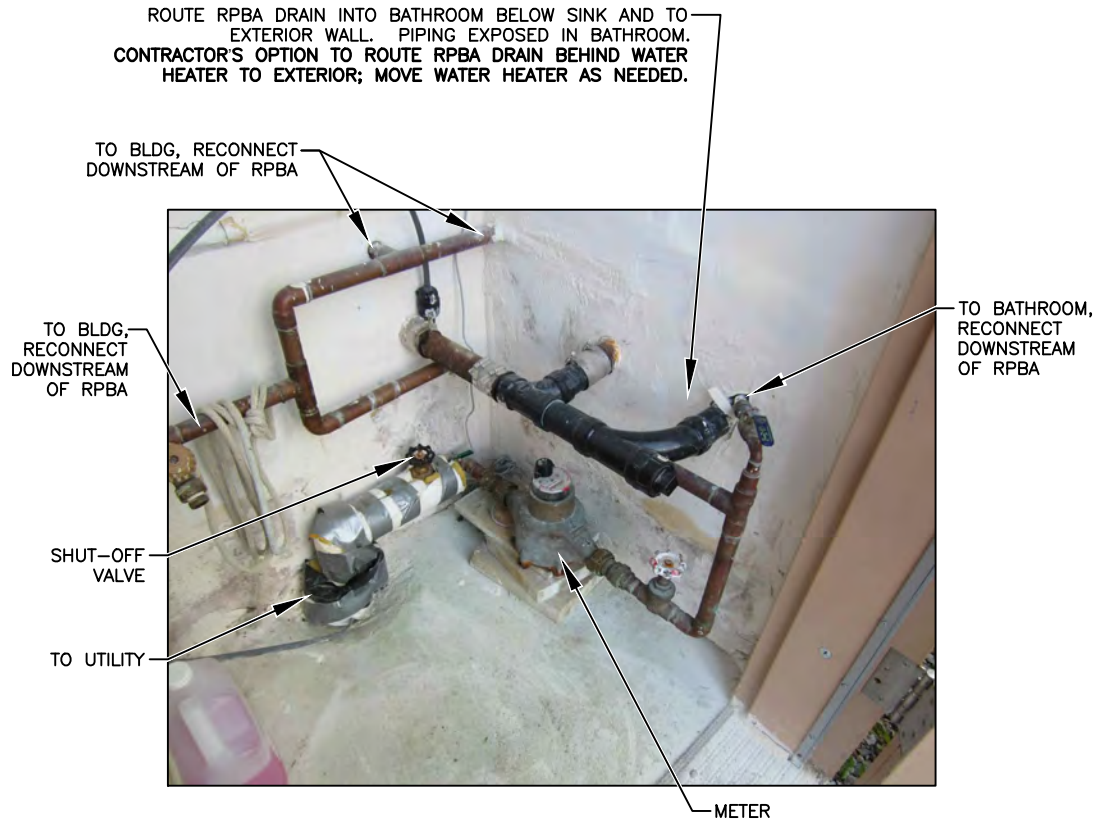
SCALE: NOT TO SCALE



2
5.04

PHOTO

SCALE: NOT TO SCALE



1
5.04

PHOTO

SCALE: NOT TO SCALE



4
5.04

PHOTO — ASBUILT

SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 1"
TRIM: METER AND METER READER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVE, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY.

CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR, SEE PHOTO FOR ADDITIONAL DESCRIPTION.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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GENERAL NOTE:

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2017/06/05 4:08 PM By: Alexander, Joah

Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY.MM.DD



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**CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT**

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

SITKA SPRUCE PARK

2046051500_504.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.

2046051500

RECORD DOCUMENTS

5.04

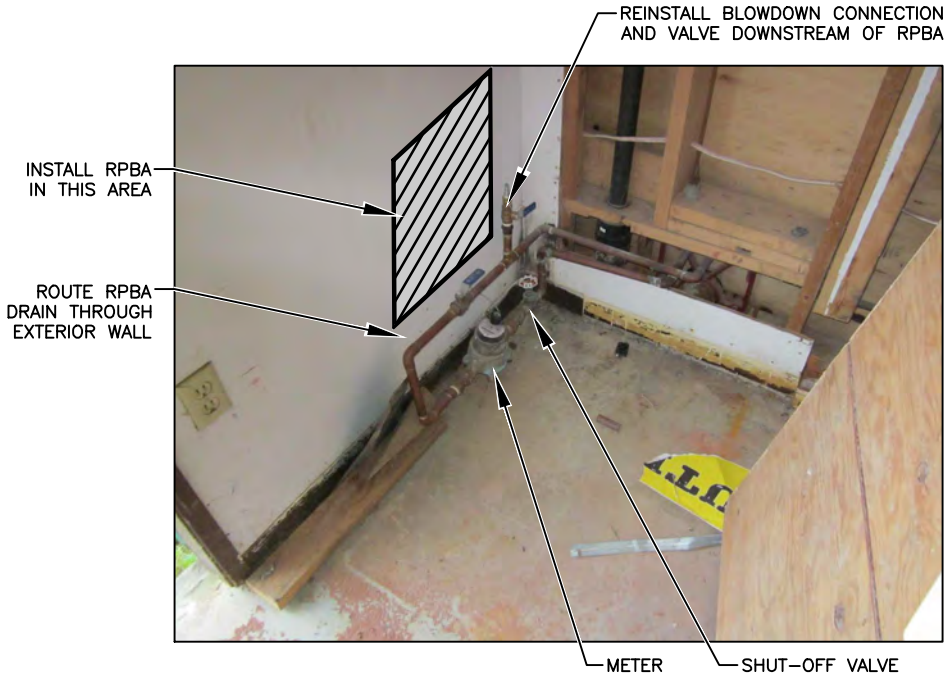
Drawing No.



3 PHOTO
5.05 SCALE: NOT TO SCALE



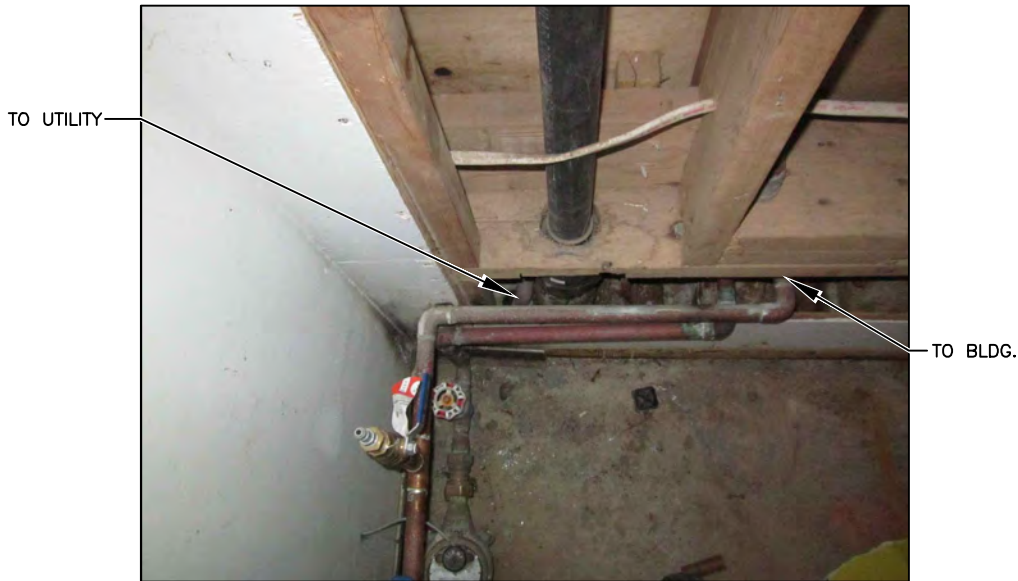
2 PHOTO
5.05 SCALE: NOT TO SCALE



1 PHOTO
5.05 SCALE: NOT TO SCALE



5 PHOTO — ASBUILT
5.05 SCALE: NOT TO SCALE



4 PHOTO
5.05 SCALE: NOT TO SCALE

EXISTING CONDITIONS:
PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 3/4"
TRIM: METER AND METER READER

DEMOLITION WORK:
REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE.
REMOVE PIPE BACK TO SHUTOFF VALVE.
REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:
INSTALL NEW WATER METER, SHUT-OFF VALVE, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU. CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:
ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

Record Drawing
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ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project
**CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT**

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
TUTIAKOFF FIELD

2046051500_505.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.
2046051500
RECORD DOCUMENTS

5.05
Drawing No.



3
5.06

PHOTO — ASBUILT

SCALE: NOT TO SCALE



PRESSURE GAUGE

PRESSURE
REDUCING VALVE

TO
UTILITY

DOUBLE CHECK
VALVE

METER

2
5.06

PHOTO

SCALE: NOT TO SCALE



SHUT-OFF
VALVE

ROUTE RPBA
DRAIN THROUGH
EXTERIOR WALL
NEAR FIRE
SPRINKLER
DRAIN

INSTALL RPBA
THIS AREA,
RAISE PIPE AND
VALVES AS
REQUIRED TO
INSTALL DRAIN.

TO BLDG

1
5.06

PHOTO

SCALE: NOT TO SCALE

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 2"
TRIM: METER, METER READER, PRESSURE REDUCING VALVE, BACKFLOW PREVENTER, PRESSURE GAUGE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, PRESSURE GAUGE, AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL. COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW SHUT-OFF VALVE, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE.

REINSTALL WATER METER, PRESSURE REDUCING VALVE, AND PRESSURE GAUGE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 4 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

EAGLE'S ELEMENTARY SCHOOL

2046051500_506.DWG
File Name

Project No.

2046051500
RECORD DOCUMENTS

5.06

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

\\net\39540\shared_projects\2046051500\drawing\A\Sheet\2046051500_506.dwg
2017/06/05 4:59 PM By: Alexander, Joah



3
5.07

PHOTO — ASBUILT

SCALE: NOT TO SCALE



2
5.07

PHOTO

SCALE: NOT TO SCALE



1
5.07

PHOTO

SCALE: NOT TO SCALE

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 3/4"
TRIM: METER AND METER READER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVE, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR. INSTALL ACCESS DOOR.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

HIGH SCHOOL ALTERNATIVE
BUILDING

2046051500_507.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.

2046051500
RECORD DOCUMENTS

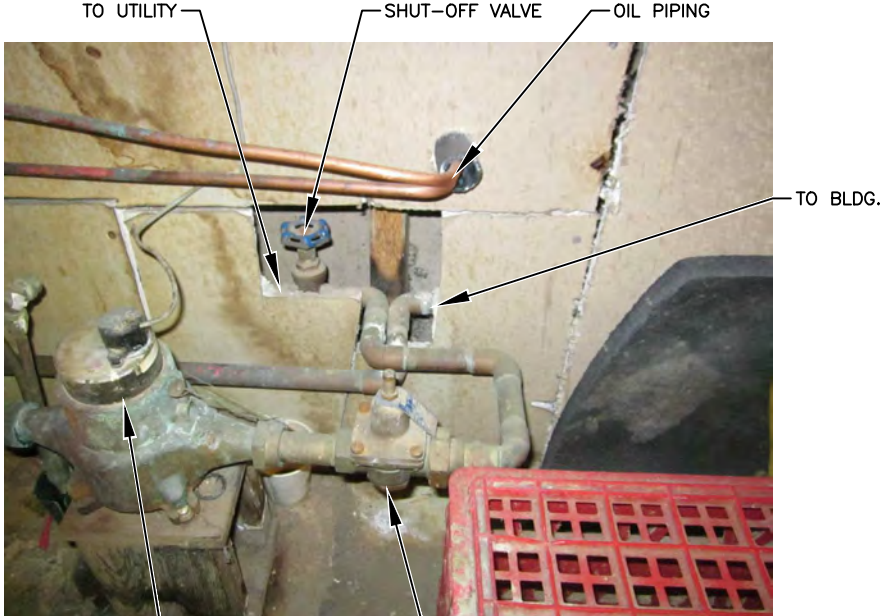
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Drawing No.

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2017/06/05 4:59 PM By: Alexander, Joah



3 PHOTO
5.08 SCALE: NOT TO SCALE



2 PHOTO
5.08 SCALE: NOT TO SCALE



1 PHOTO
5.08 SCALE: NOT TO SCALE



4 PHOTO — ASBUILT
5.08 SCALE: NOT TO SCALE

GENERAL NOTE:
ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:
PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 3/4"
TRIM: METER, METER READER, PRESSURE REDUCING VALVE

DEMOLITION WORK:
REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), AND PRESSURE REDUCING VALVE. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:
INSTALL NEW WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE EXPOSED ON WALL PARALLEL TO FUEL OIL PIPING, APPROX. 25 FEET TO BUILDING EXTERIOR.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing
These drawings have been prepared based on information provided by others. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

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2017/06/05 4:59 PM By: Alexander, Joah

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ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project
**CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT**
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title
**HIGH SCHOOL WOODSHOP
BUILDING**

Project No.
2046051500
RECORD DOCUMENTS

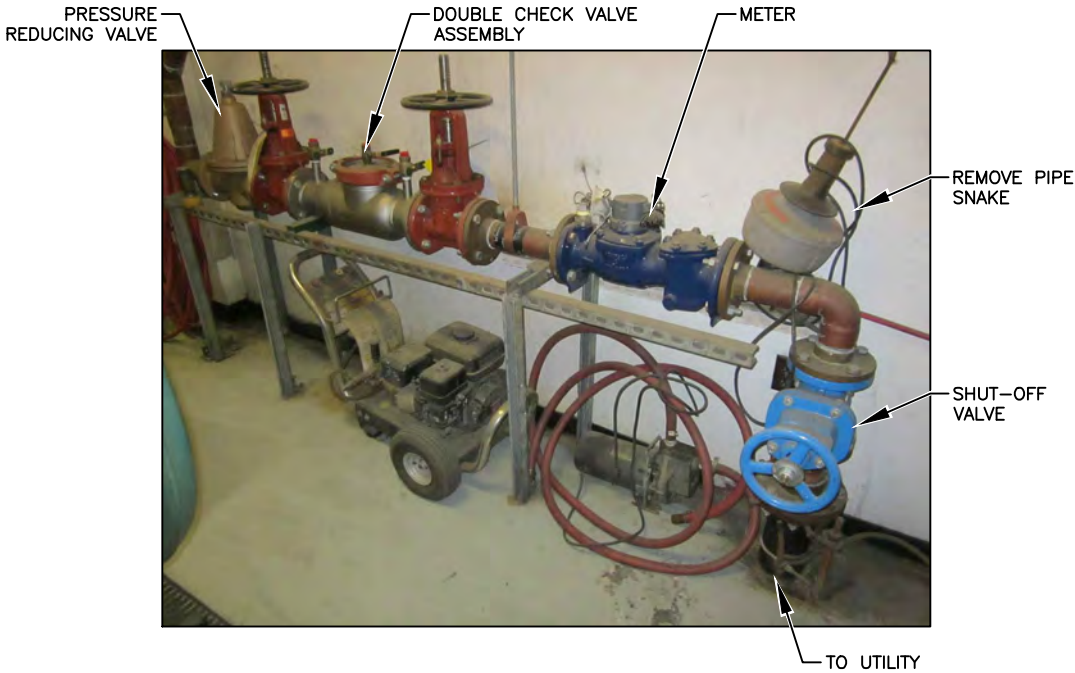
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DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

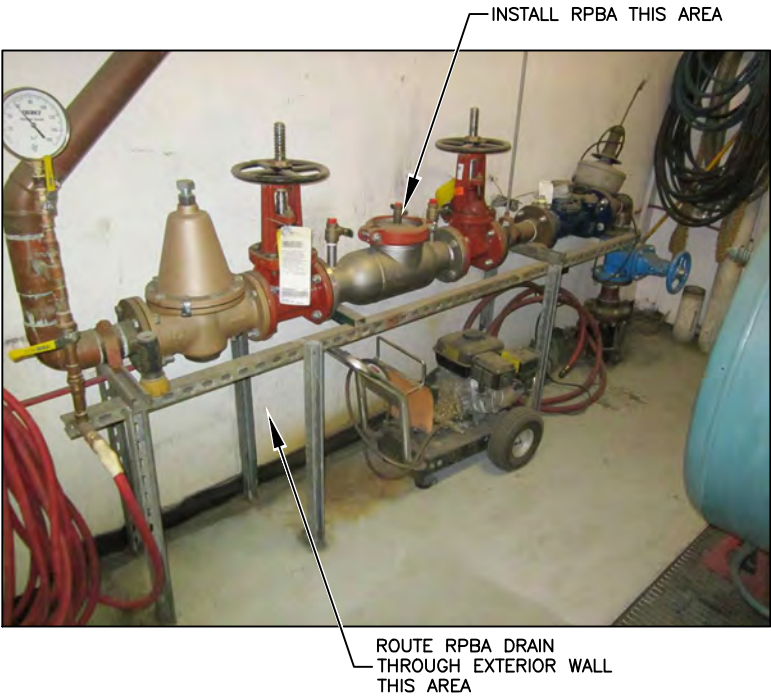
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Original Sheet Size - 22 x 34



2 PHOTO
5.09 SCALE: NOT TO SCALE



1 PHOTO
5.09 SCALE: NOT TO SCALE



3 PHOTO – ASBUILT
5.09 SCALE: NOT TO SCALE

EXISTING CONDITIONS:
PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 3"
TRIM: METER, METER READER, PRESSURE REDUCING VALVE, BACKFLOW PREVENTER

DEMOLITION WORK:
REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, PRESSURE GAUGE, AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:
INSTALL NEW STRAINER, BACKFLOW PREVENTER, SPIGOT, DOWNSTREAM SHUT-OFF VALVE, AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. REINSTALL WATER METER, PRESSURE REDUCING VALVE, AND PRESSURE GAUGE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION, INCLUDING ALL COMPONENTS AND INSTALLATION REQUIREMENTS. DPU SHALL INSTALL MXU AND MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. INSTALL 4-INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:
ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

Record Drawing
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Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY.MM.DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
HIGH SCHOOL - DOMESTIC

Project No.
2046051500
RECORD DOCUMENTS

2046051500_509.DWG
File Name

DGB
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JLR
Chkd.

JLR
Dsgn.

16/09/02
YY/MM/DD

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Drawing No.



3 PHOTO
5.10 SCALE: NOT TO SCALE



2 PHOTO
5.10 SCALE: NOT TO SCALE



1 PHOTO
5.10 SCALE: NOT TO SCALE



4 PHOTO — ASBUILT
5.10 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: STEEL
PIPE SIZE: 4"
TRIM: BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE BACKFLOW ASSEMBLY. REMOVE PIPE AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. COORDINATE SYSTEM SHUT DOWN AND ALARMS WITH FACILITY AND CITY (DPU).

METER: NONE
BACKFLOW PREVENTER: DCVA, FIRE RATED

Record Drawing

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2017/06/05 3:00 PM By: Alexander, Joah

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ASBUILT	JCA	DJM	17/06/02
Revision	By	Appd.	YY.MM.DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
HIGH SCHOOL - FIRE

2046051500_510.DWG
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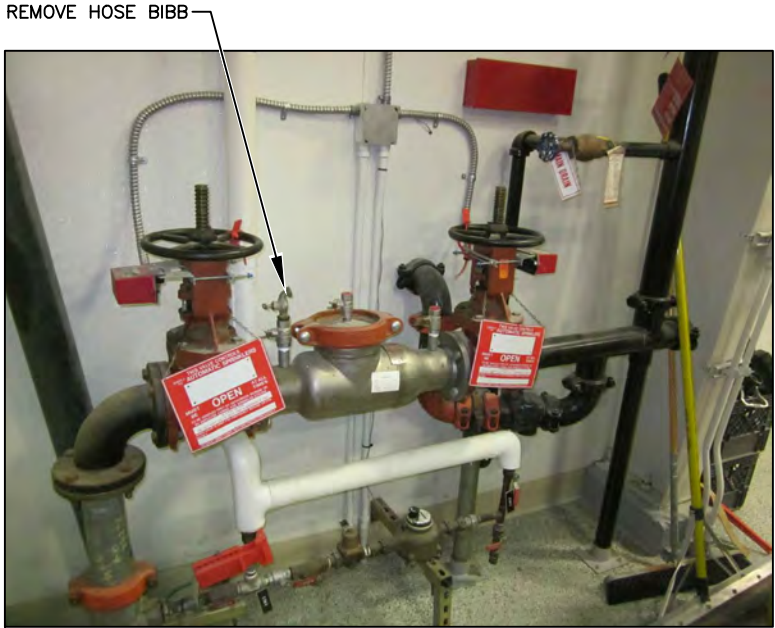
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

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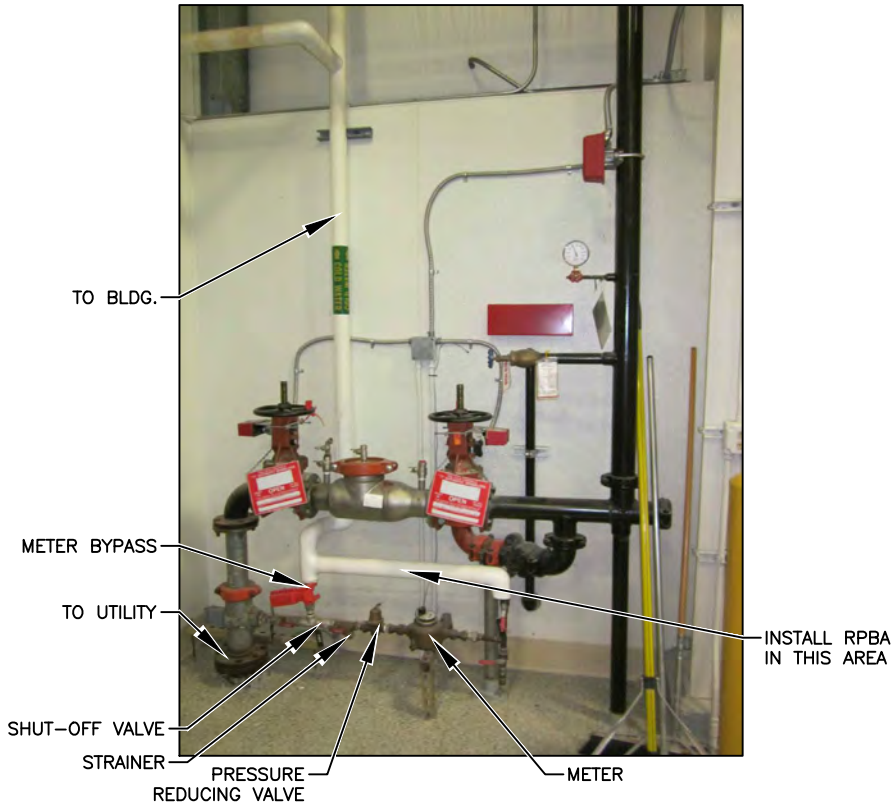
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Drawing No.



3 PHOTO
5.11 SCALE: NOT TO SCALE



2 PHOTO
5.11 SCALE: NOT TO SCALE



1 PHOTO
5.11 SCALE: NOT TO SCALE



4 PHOTO - ASBUILT
5.11 SCALE: NOT TO SCALE

GENERAL NOTE:

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EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 3/4"
TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, AND HOSE BIBB. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE METER BYPASS VALVES AND PIPING. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVES, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL STRAINER, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. RPBA TO DISCHARGE TO FLOOR.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

AMAKNAK FIRE HALL

2046051500_511.DWG
File Name

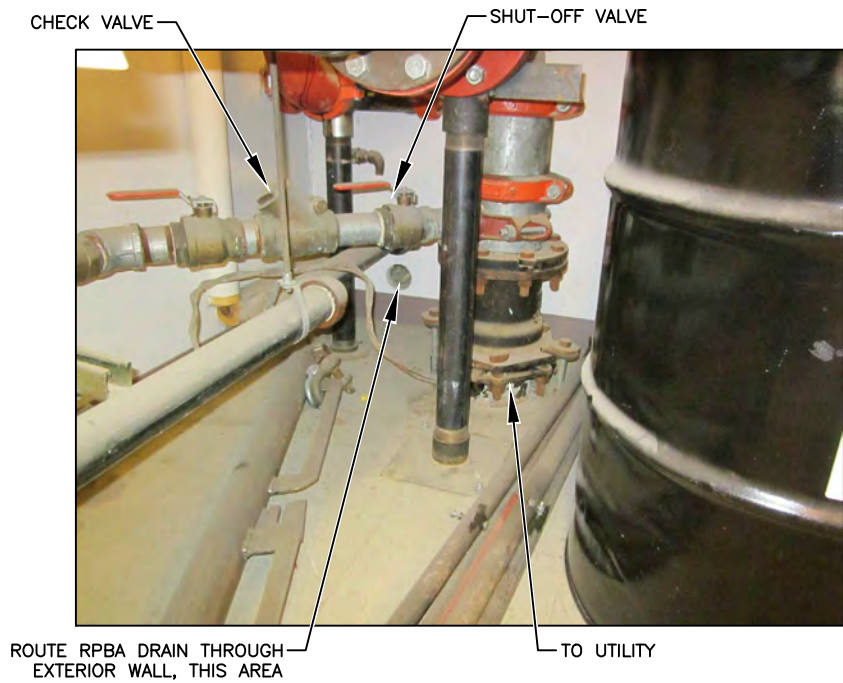
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2046051500
RECORD DOCUMENTS

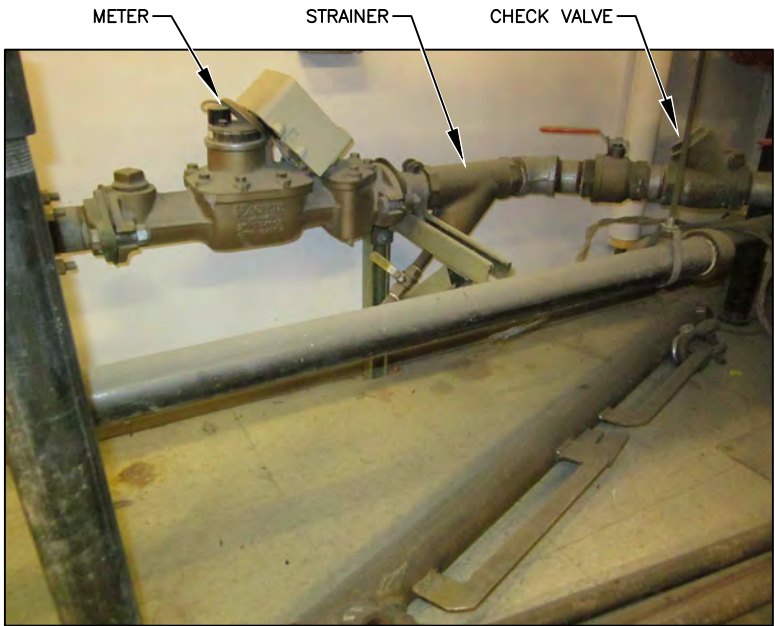
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

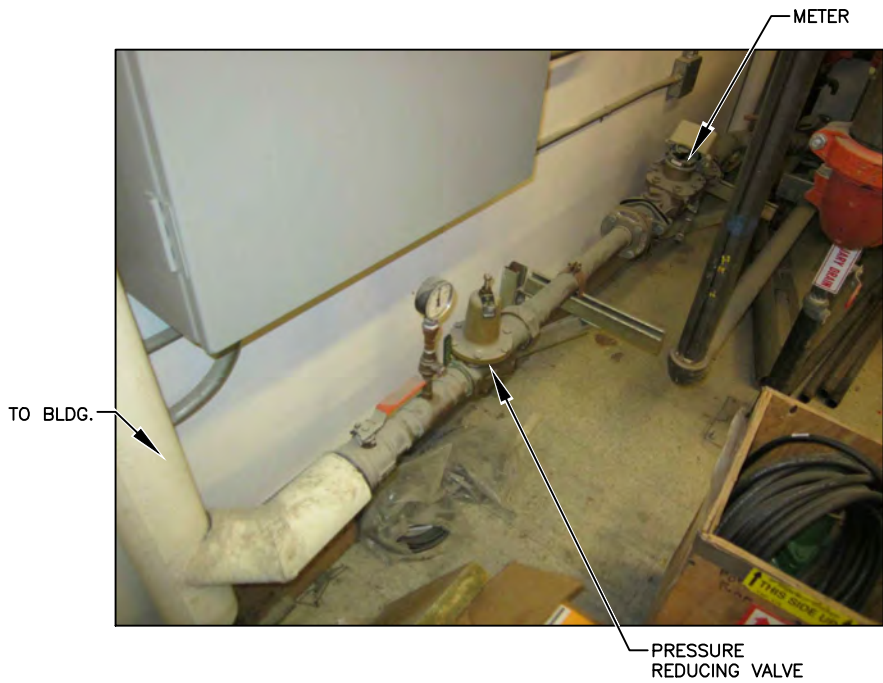
5.11



3 PHOTO
5.12 SCALE: NOT TO SCALE



2 PHOTO
5.12 SCALE: NOT TO SCALE



1 PHOTO
5.12 SCALE: NOT TO SCALE



5 PHOTO – ASBUILT
5.12 SCALE: NOT TO SCALE



4 PHOTO
5.12 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: RIGID COPPER
- PIPE SIZE: 2"
- TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE, PRESSURE GAUGE, CHECK VALVE

DEMOLITION WORK:

- SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, PRESURE GAUGE, CHECK VALVE, AND BACKFLOW ASSEMBLY.
- REMOVE MXU, CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

- INSTALL NEW WATER METER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE.
- REINSTALL STRAINER, PRESSURE GAUGE, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 4 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.
- METER MODEL: SENSUS OMNI C2
- BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

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Record Drawing

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ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD

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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

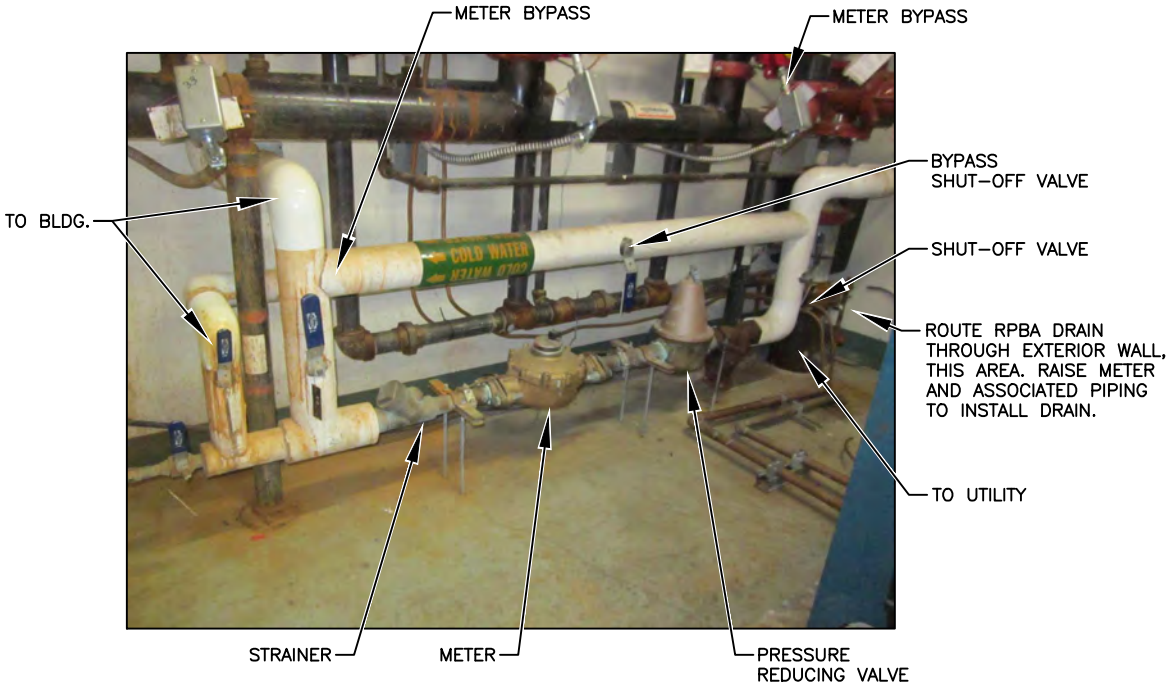
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5.12	Drawing No.

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2017/06/05 3:00 PM By: Alexander, Joahn



2
5.13

PHOTO
SCALE: NOT TO SCALE



1
5.13

PHOTO
SCALE: NOT TO SCALE



3
5.13

PHOTO — ASBUILT
SCALE: NOT TO SCALE

GENERAL NOTE:

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EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 1-1/2"
TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, AND PRESSURE REDUCING VALVE. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE METER BYPASS AND VALVES. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVES, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. **INSTALL NEW STRAINER, AND REINSTALL** PRESSURE REDUCING VALVE.

PROVIDE 1-INCH METER AND REQUIRED TRANSITIONS FROM 1-1/2-INCH PIPING. VALVES, STRAINER, RPBA, PIPING AND APPURTENANCES ARE TO BE 1-1/2-INCH.

SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 3 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

CITY LIBRARY - DOMESTIC

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File Name

Project No.

2046051500
RECORD DOCUMENTS

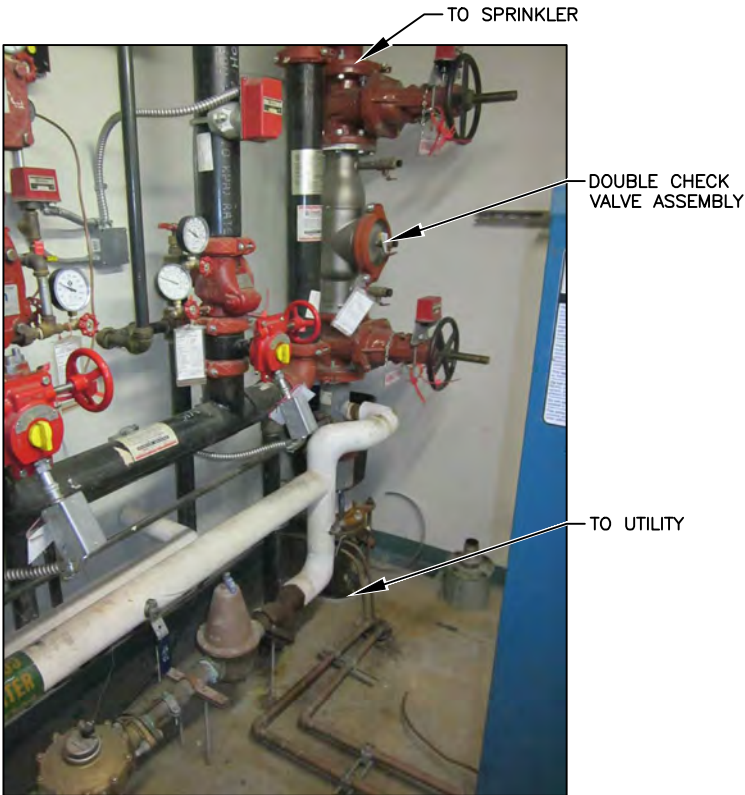
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

5.13



2 PHOTO
5.14 SCALE: NOT TO SCALE



1 PHOTO
5.14 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: STEEL
- PIPE SIZE: 4"
- TRIM: BACKFLOW PREVENTER

DEMOLITION/NEW WORK:

EXISTING BACKFLOW IS INSTALLED IN AN APPROVED ORIENTATION, I.E. VERTICAL WITH UPFLOW. A 1/2" PIPE FROM THE PREACTION CONTROL VALVE CONNECTS UPSTREAM OF THE BACKFLOW DEVICE CREATING A CROSS CONNECTION. RELOCATE 1/2" CONNECTION POINT TO DOWNSTREAM OF BACKFLOW DEVICE AND PERMANENTLY PLUG/CAP UNUSED TEES SO THEY CANNOT BE REUSED. COORDINATE SHUT DOWN AND ALARMS WITH FACILITY AND CITY (DPU).

- METER: NONE
- BACKFLOW PREVENTER: EXISTING DOUBLE CHECK

Record Drawing

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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

CITY LIBRARY - FIRE

Project No.

2046051500

RECORD DOCUMENTS

2046051500_514.DWG

File Name

DGB

JLR

JLR

16/09/02

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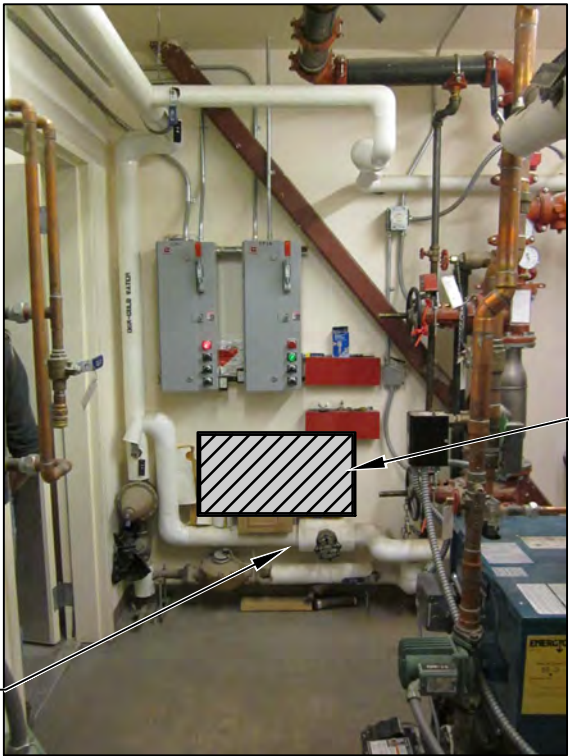
5.14

Drawing No.



STRAINER

3 PHOTO
5.15 SCALE: NOT TO SCALE



INSTALL RPBA
IN THIS AREA

ROUTE RPBA DRAIN THROUGH
EXTERIOR WALL, THIS AREA.
RELOCATE METER AND
VALVES AS REQUIRED TO
INSTALL DRAIN.

2 PHOTO
5.15 SCALE: NOT TO SCALE



PRESSURE
REDUCING VALVE
CHECK VALVE

FIRE DOUBLE CHECK
VALVE ASSEMBLY

TO UTILITY
(BEHIND BOILER)

METER — STRAINER — METER BYPASS
SHUT-OFF VALVE — SHUT-OFF
VALVE

1 PHOTO
5.15 SCALE: NOT TO SCALE



5 PHOTO — ASBUILT
5.15 SCALE: NOT TO SCALE



4 PHOTO
5.15 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: RIGID COPPER
- PIPE SIZE: 1-1/2"
- TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE, CHECK VALVE

DEMOLITION WORK:

- REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE REDUCING VALVE, AND CHECK VALVE. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE.
- REMOVE METER BYPASS AND VALVES
- REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

- INSTALL NEW WATER METER, SHUT-OFF VALVES, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL STRAINER, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 3 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

PROVIDE 1-INCH METER AND REQUIRED TRANSITIONS FROM 1-1/2-INCH PIPING. VALVES, STRAINER, RPBA, PIPING AND APPURTENANCES ARE TO BE 1-1/2-INCH.

- METER MODEL: SENSUS OMNI C2
- BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title

MUSEUM OF THE ALEUTIANS

Project No.

2046051500

RECORD DOCUMENTS

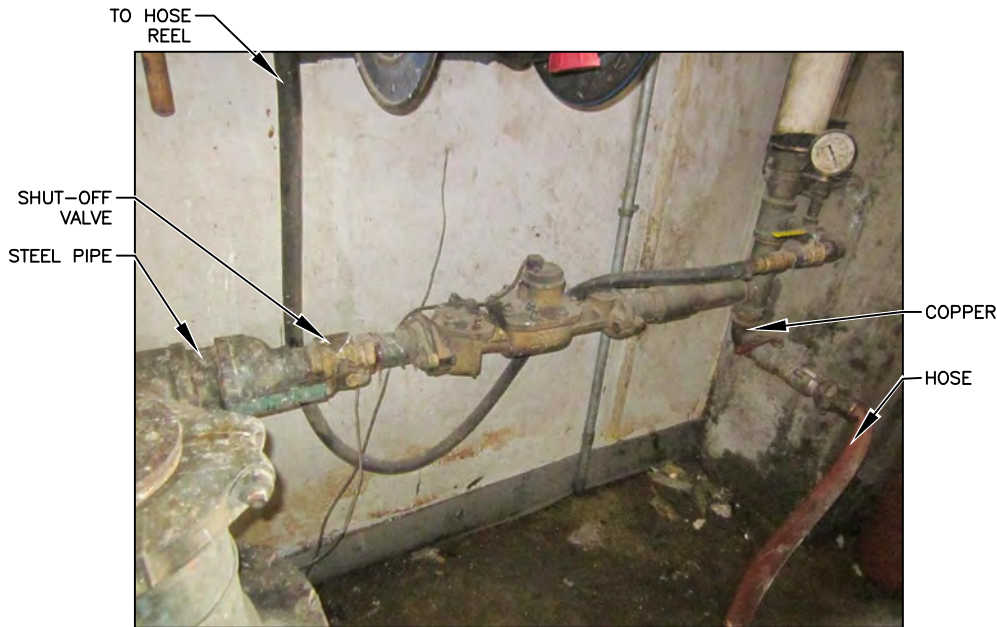
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DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

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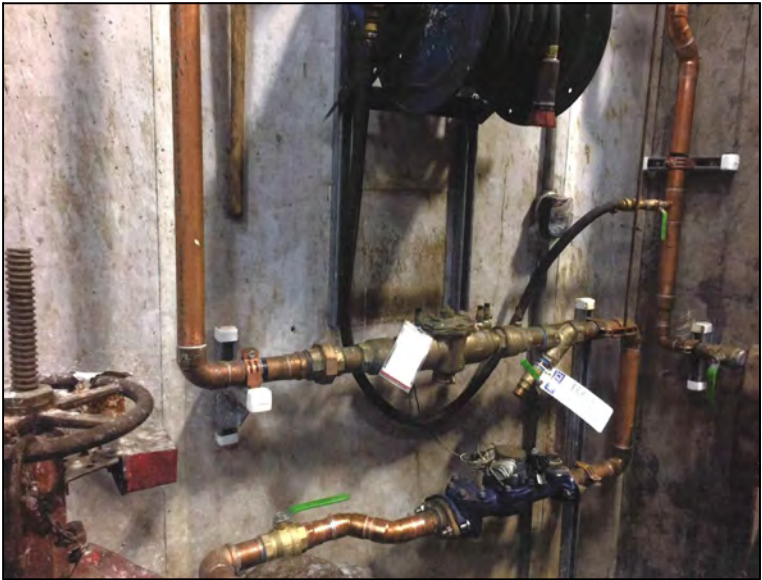
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2 PHOTO
5.16 SCALE: NOT TO SCALE



1 PHOTO
5.16 SCALE: NOT TO SCALE



3 PHOTO – ASBUILT
5.16 SCALE: NOT TO SCALE

GENERAL NOTE:
ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:
PIPE MATERIAL: RIGID COPPER, STEEL
PIPE SIZE: 2"
TRIM: METER, METER READER

DEMOLITION WORK:
REMOVE AND SALVAGE WATER METER, AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK. PIPING IS COVERED IN GUANO AND OTHER DEBRIS AND WILL REQUIRE SURFACE CLEANING TO PERFORM WORK.

NEW WORK:
INSTALL NEW WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. RPBA TO DISCHARGE TO FLOOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing
These drawings have been prepared based on information provided by others. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

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2017/06/05 5:01 PM By: Alexander, Joah

Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY.MM.DD



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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
CITY BALER FACILITY

Project No.
2046051500
RECORD DOCUMENTS

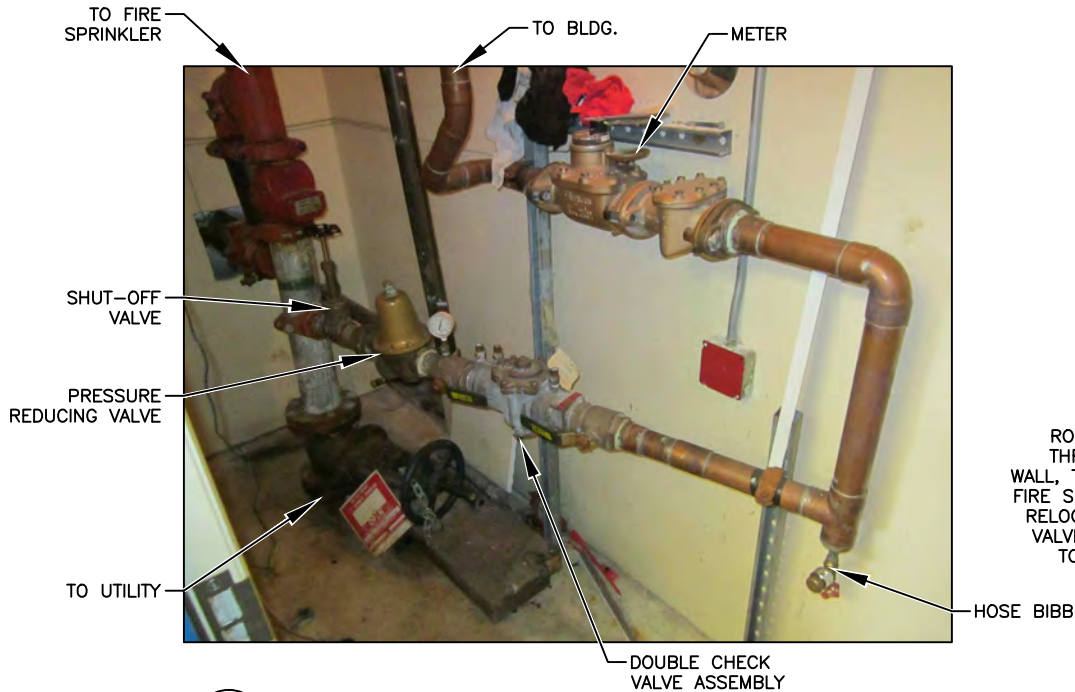
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DGB Dwn. JLR Chkd. JLR Dsgn. 16/09/02 YY/MM/DD

Drawing No.

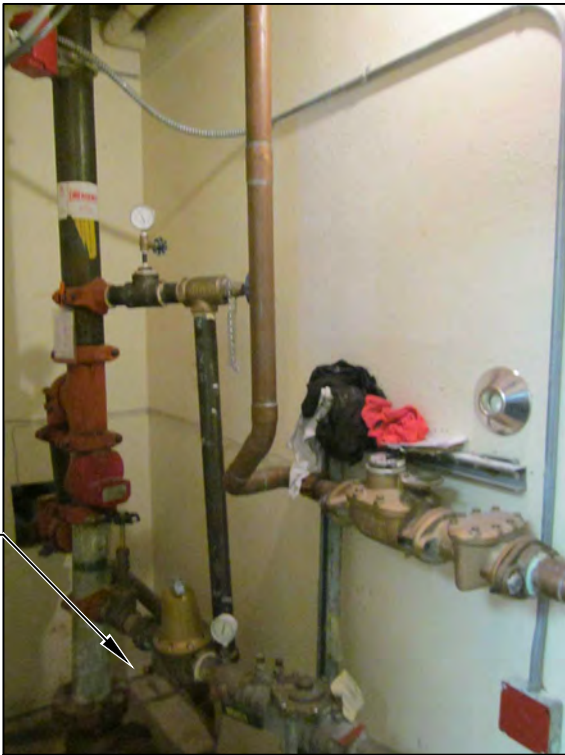
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3 PHOTO
5.17 SCALE: NOT TO SCALE



2 PHOTO
5.17 SCALE: NOT TO SCALE



1 PHOTO
5.17 SCALE: NOT TO SCALE



4 PHOTO — ASBUILT
5.17 SCALE: NOT TO SCALE

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:

PIPE MATERIAL RIGID COPPER

PIPE SIZE: 2"

TRIM: METER, METER READER, PRESSURE REDUCING VALVE, PRESSURE GAUGE, BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), PRESSURE REDUCING VALVE, PRESSURE GAUGE, HOSE BIBB, AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVES AND STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL PRESSURE GAUGE, AND PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. REINSTALL HOSE BIBB DOWNSTREAM OF BACKFLOW PREVENTER. INSTALL 4 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

PUBLIC SAFETY - DOMESTIC

2046051500_517.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Project No.

2046051500

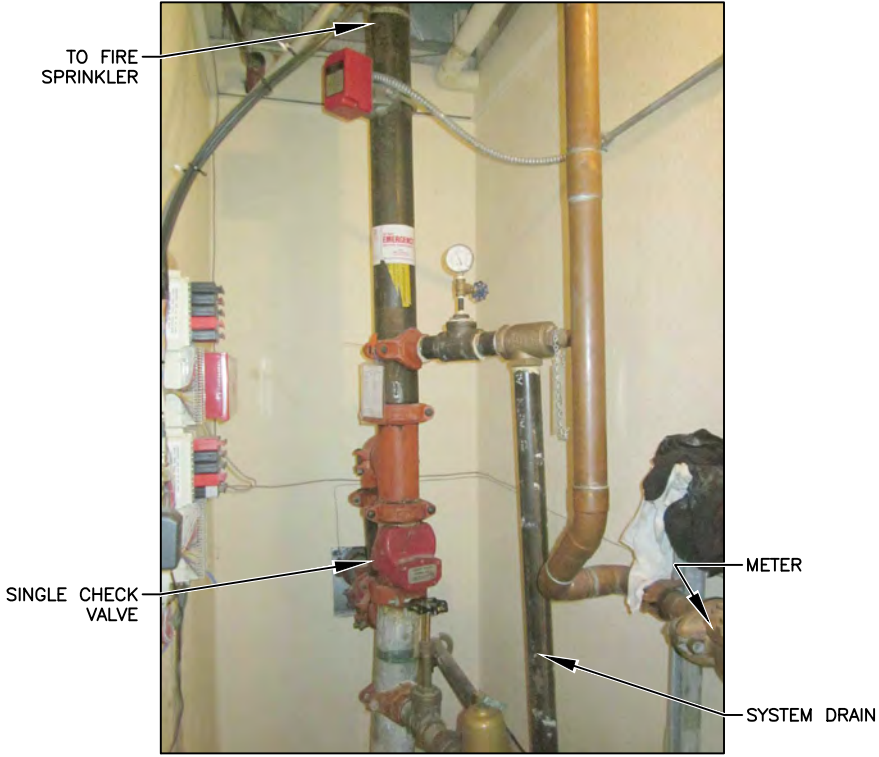
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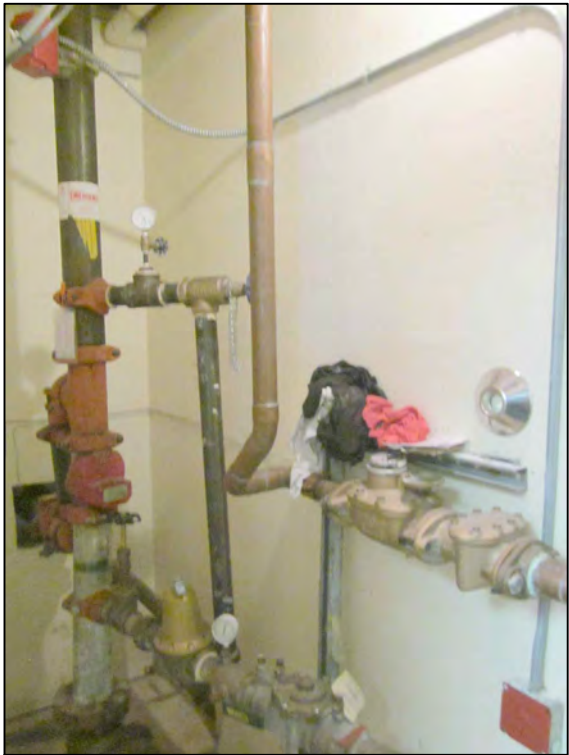
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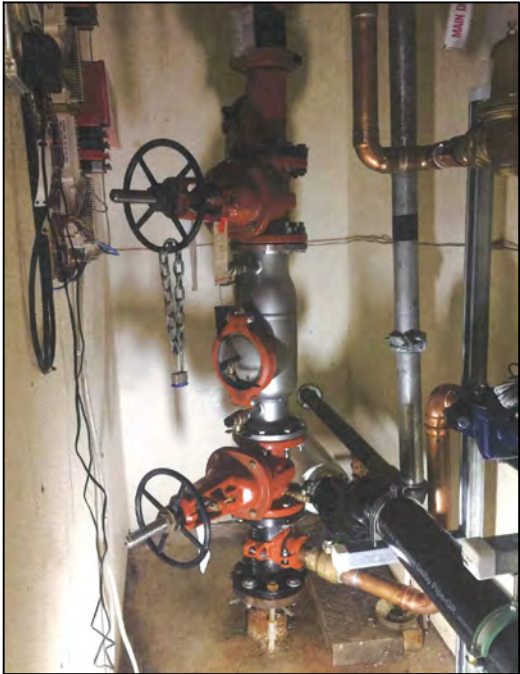
3 PHOTO
5.18 SCALE: NOT TO SCALE



2 PHOTO
5.18 SCALE: NOT TO SCALE



1 PHOTO
5.18 SCALE: NOT TO SCALE



4 PHOTO – ASBUILT
5.18 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL GALVANIZED AND STEEL
PIPE SIZE: 4"
TRIM: BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE BACKFLOW ASSEMBLY (SINGLE CHECK).
REMOVE ADDITIONAL PIPE AS REQUIRED TO INSTALL NEW WORK.
COORDINATE WITH DOMESTIC WATER PIPING WORK, SEE 5.17.
COORDINATE SHUTDOWN AND ALARMS WITH FACILITY AND CITY (DPU).

NEW WORK:

INSTALL BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR A COMPLETE SYSTEM. COORDINATE WITH DOMESTIC WATER PIPING WORK.

METER: NONE
BACKFLOW PREVENTER TYPE: DCVA, FIRE RATED

Record Drawing

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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

PUBLIC SAFETY - FIRE

2046051500_518.DWG
File Name

Project No.

2046051500
RECORD DOCUMENTS

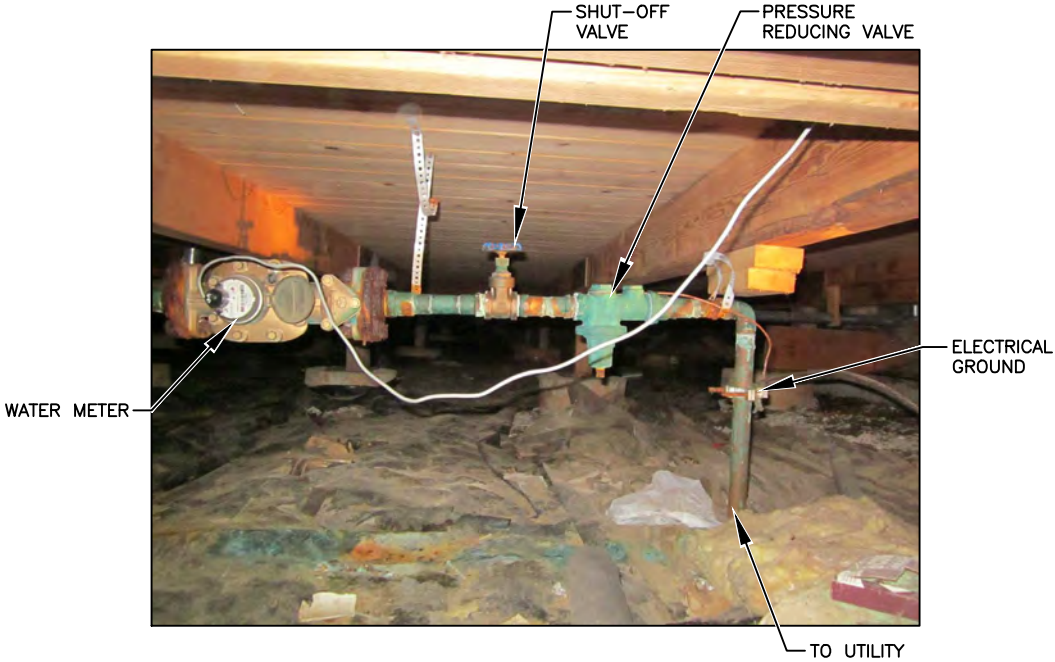
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

5.18



2 PHOTO
5.19 SCALE: NOT TO SCALE



1 PHOTO
5.19 SCALE: NOT TO SCALE



3 PHOTO – ASBUILT
5.19 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: RIGID COPPER,
- PIPE SIZE: 1-1/4"
- TRIM: METER, METER READER, AND PRESSURE REDUCING VALVE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), AND PRESSURE REDUCING VALVE. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER, SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL PRESSURE REDUCING VALVE. PROVIDE ADDITIONAL PIPE SUPPORT AS REQUIRED TO EXISTING PIPING, APPROXIMATELY 50 FEET. REROUTE PIPING SO THAT VALVES AND METER ARE WITHIN THREE FEET OF EXISTING CRAWLSPACE ACCESS DOOR AND EASILY ACCESSIBLE. APPROXIMATELY 30 ADDITIONAL FEET OF 1-1/4" PIPE ARE NEEDED TO RELOCATE METER. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION.

ROUTED 1-1/4-INCH PIPE MAY BE AWWA C904 PEX IN LIEU OF RIGID COPPER.

PROVIDE 1-INCH METER AND REQUIRED TRANSITIONS FROM 1-1/4-INCH PIPING. VALVES, STRAINER, DCVA, PIPING AND APPURTENANCES ARE TO BE 1-1/4-INCH.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: DCVA

GENERAL NOTE:
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Record Drawing
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2017/06/05 5:02 PM By: Alexander, Joah

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
SCHOOL 4 PLEX

2046051500_519.DWG
File Name

DGB	JLR	JLR	16/09/02
Dwn.	Chkd.	Dsgn.	YY/MM/DD

Project No.
2046051500
RECORD DOCUMENTS

5.19
Drawing No.



ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER

PIPE SIZE: 1-1/2" 2-1/2"

TRIM: METER, METER READER, PRESSURE REDUCING VALVE, PRESSURE GAUGE

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER AND REMOTE METER READER (MXU). CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. DEMOLISH PRESSURE REDUCING VALVE, PRESSURE GAUGE, METER BYPASS AND ASSOCIATED VALVES, AND PIPING FROM 6-INCH FLANGE ON THE FIRE SYSTEM BRANCH TO DOMESTIC TO DOWNSTREAM SHUT-OFF VALVE. REMOVE ADDITIONAL PIPING DOWNSTREAM THE SHUT-OFF VALVE AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER (FURNISHED BY CITY), SHUT-OFF VALVES, STRAINER, BACKFLOW PREVENTER, PRESSURE REDUCING VALVE, PRESSURE GAUGE, SPOIGOT, AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW PIPING AND COMPONENTS SHALL BE 2-INCH. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION, INCLUDING ALL COMPONENTS AND INSTALLATION REQUIREMENTS. DPU SHALL INSTALL MXU AND MATE WITH THE WATER METER. LOCATE THE METER, LOCATED INSTANTLY, ANTI-FLOOD SOLENOID VALVE AND SENSOR. LOCATE ANTI-FLOOD VALVE BETWEEN METER AND RPBA. CITY WILL PROVIDE 120V RECEPTACLE.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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Issued	By	Appd.	YY.MM.DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY.MM.DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

AIRPORT TERMINAL

2046051500_520.DWG

File Name

<u>DGB</u>	<u>JLR</u>	<u>JLR</u>	<u>16/09/02</u>
Dwn.	Chkd.	Dsqn.	YY/MM/DD

Project No.

2046051500

RECORD DOCUMENTS

5.20

Drawing No.

\\us1308-01\shared_projects\2046051500\drawing\M\Sheets\2046051500_520.dwg
2017/06/05 5:02 PM By: Alexander, Josiah



3 PHOTO
5.21 SCALE: NOT TO SCALE



2 PHOTO
5.21 SCALE: NOT TO SCALE



1 PHOTO
5.21 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: RIGID COPPER
- PIPE SIZE: 2"
- TRIM: METER, METER READER, BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE METER BYPASS AND VALVES. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW STRAINER, BACKFLOW PREVENTER, AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL WATER METER. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 2 INCH DRAIN LINE FOR RPBA, SIMILAR TO DETAIL 1/6.03. ROUTE DISCHARGE TO EXISTING FLOOR DRAIN, APPROX. 10 FEET FROM EXISTING WATER METER LOCATION.

METER MODEL: SENSUS IPERL
BACKFLOW PREVENTER TYPE: RPBA

Record Drawing

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GENERAL NOTE:

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4 PHOTO — ASBUILT
5.21 SCALE: NOT TO SCALE



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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title

CARL E. MOSES BOAT HARBOR -
SHOP & SHOWER

Project No.

2046051500
RECORD DOCUMENTS

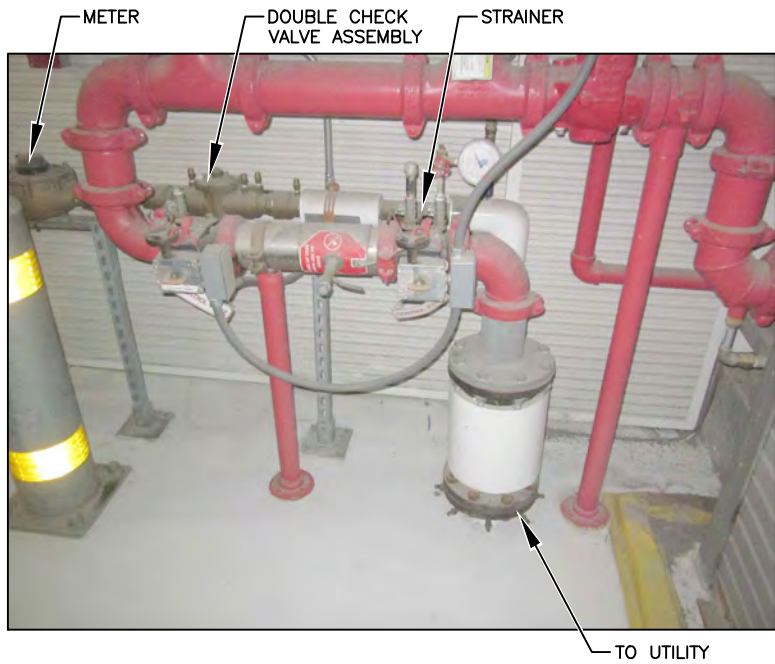
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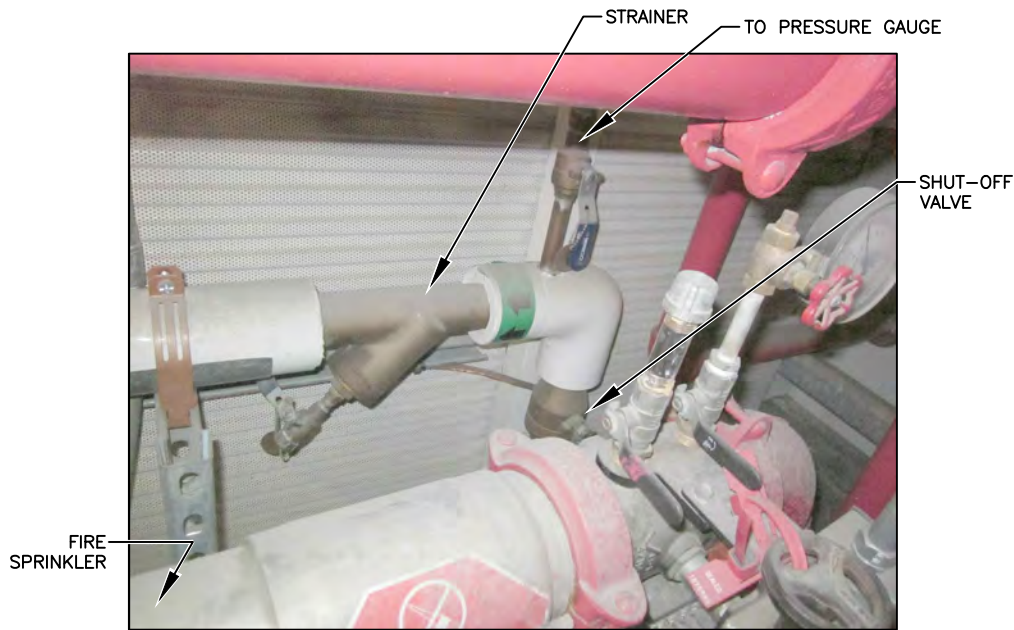
DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

Drawing No.

Original Sheet Size - 22 x 34



3 PHOTO
5.22 SCALE: NOT TO SCALE



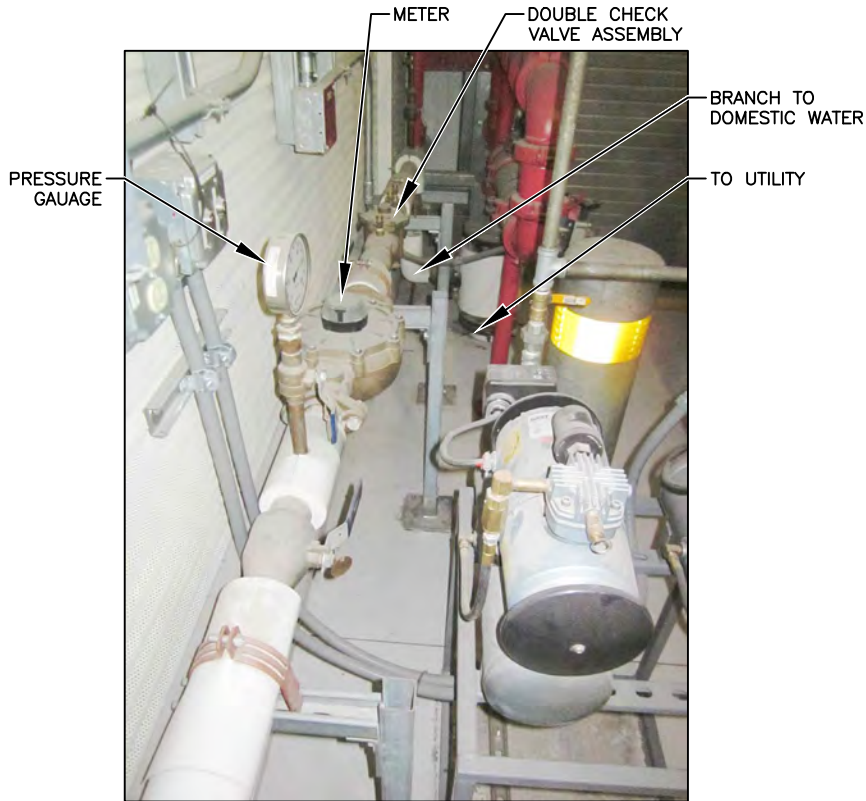
2 PHOTO
5.22 SCALE: NOT TO SCALE



1 PHOTO
5.22 SCALE: NOT TO SCALE



6 PHOTO – ASBUILT
5.22 SCALE: NOT TO SCALE



5 PHOTO
5.22 SCALE: NOT TO SCALE



4 PHOTO
5.22 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

PIPE MATERIAL: RIGID COPPER
PIPE SIZE: 2"
TRIM: METER, METER READER, STRAINER, PRESSURE GAUGES, BACKFLOW PREVENTER

DEMOLITION WORK:

REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), STRAINER, PRESSURE GAUGES, PRESSURE REDUCING VALVE, AND BACKFLOW ASSEMBLY. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

INSTALL NEW WATER METER (FURNISHED BY CITY), SPIGOT, AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. REINSTALL BACKFLOW PREVENTER, STRAINER, BALL TYPE SHUT-OFF VALVES, AND PRESSURE GAUGES. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION, INCLUDING ALL COMPONENTS AND INSTALLATION REQUIREMENTS. DPU SHALL INSTALL MXU AND MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. INSTALL 4-INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.

METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

NEW POWER HOUSE

Project No.

2046051500

RECORD DOCUMENTS

5.22

2046051500_522.DWG
File Name

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

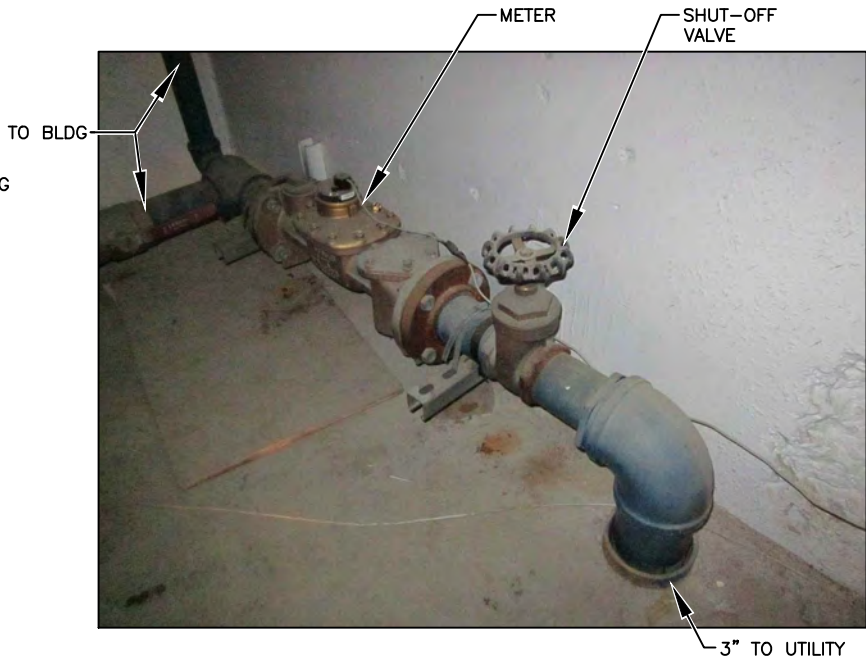
Drawing No.



3 PHOTO
5.23 SCALE: NOT TO SCALE



2 PHOTO
5.23 SCALE: NOT TO SCALE



1 PHOTO
5.23 SCALE: NOT TO SCALE

EXISTING CONDITIONS:

- PIPE MATERIAL: STEEL
- PIPE SIZE: 2-1/2" METER, PIPE SIZES PER PHOTOS
- TRIM: METER, METER READER

DEMOLITION WORK:

- REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU) AND BACKFLOW PREVENTER. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.

NEW WORK:

- INSTALL NEW WATER METER, SHUT-OFF VALVE,S STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU, CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. RECONFIGURE PIPING SO BACKFLOW PREVENTER PROTECTS ALL BRANCH PIPING TO FACILITY. RPBA TO DISCHARGE TO FLOOR LEVEL BELOW METER. INSTALL DIELECTRIC ISOLATION BETWEEN STEEL AND COPPER PIPE AND VALVES.

- VALVES, METER, STRAINER, RPBA, PIPING AND APPURTENANCES PROVIDED TO COMPLY WITH DPU STANDARD DETAIL 60-6 SHALL BE 1-INCH. PROVIDE REQUIRED TRANSITIONS TO RECONNECT TO EXISTING WATER SERVICE AND TO PIPE BRANCHES SERVING BUILDING.

- METER MODEL: SENSUS OMNI C2
- BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

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5 PHOTO – ASBUILT
5.23 SCALE: NOT TO SCALE



4 PHOTO
5.23 SCALE: NOT TO SCALE

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ADDENDUM 1	RWC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD

Permit-Seal

Client/Project
CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title
OLD POWER HOUSE

Project No.
2046051500
RECORD DOCUMENTS

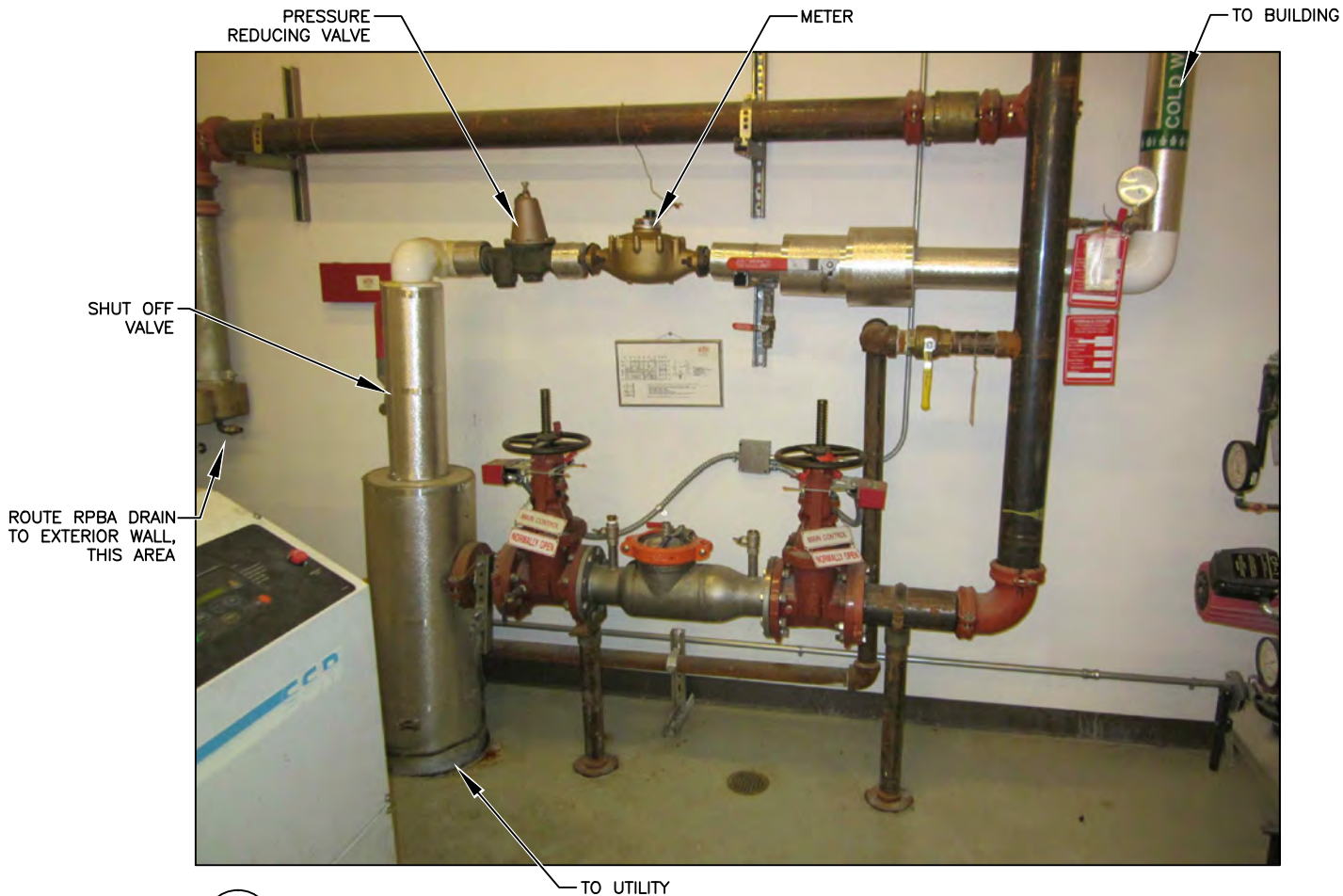
2046051500_523.DWG
File Name
DGB Dwn.
JLR Chkd.
JLR Dsgn.
16/09/02
YY/MM/DD

Drawing No.

5.23



3 PHOTO — ASBUILT
5.24 SCALE: NOT TO SCALE



1 PHOTO
5.24 SCALE: NOT TO SCALE



2 PHOTO
5.24 SCALE: NOT TO SCALE

- EXISTING CONDITIONS:
- PIPE MATERIAL: RIGID COPPER
 - PIPE SIZE: 1-1/2" EXISTING METER IS 1-1/2-INCH; SURROUNDING PIPE AND FITTINGS ARE 2-INCH.
 - TRIM: METER, METER READER, STRAINER, PRESSURE REDUCING VALVE
- DEMOLITION WORK:
- REMOVE AND SALVAGE WATER METER, REMOTE METER READER (MXU), AND, PRESSURE REDUCING VALVE. CITY SHALL DISCONNECT MXU WIRING FROM METER PRIOR TO REMOVAL, COORDINATE SCHEDULE. REMOVE ADDITIONAL PIPING AS REQUIRED TO INSTALL NEW WORK.
- NEW WORK:
- INSTALL NEW WATER METER, STRAINER, BACKFLOW PREVENTER AND PIPE AS REQUIRED FOR COMPLETE SYSTEM. NEW METER FURNISHED BY CITY. CONTRACTOR SHALL INSTALL MXU. CITY SHALL MAKE FINAL WIRING CONNECTION TO METER, COORDINATE SCHEDULE. REINSTALL PRESSURE REDUCING VALVE. SEE UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 FOR METER AND VALVE CONFIGURATION. INSTALL 3 INCH DRAIN LINE FOR RPBA, SEE DETAIL 1/6.03. ROUTE DISCHARGE TO BUILDING EXTERIOR.
- ALL NEW PIPE AND FITTINGS INCLUDING METER ARE 2-INCH.
- METER MODEL: SENSUS OMNI C2
BACKFLOW PREVENTER TYPE: RPBA

GENERAL NOTE:

ANY REFERENCE TO UNALASKA DEPARTMENT OF PUBLIC UTILITIES (DPU) STANDARD DETAIL 60-6 IS TO INCLUDE ALL COMPONENTS AND INSTALLATION REQUIREMENTS INDICATED IN DETAIL (I.E. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM METER, STRAINER PLACARDING AND BLOW-DOWN VALVE THREAD LOCKER, SPIGOT, ETC).

Record Drawing

These drawings have been prepared based on information provided by others. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

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2017/06/05 3:03 PM By: Alexander, Joahn

Issued	By	Appd.	YY/MM/DD
ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
ADDENDUM 1	RMC	JLR	16/06/10
Revision	By	Appd.	YY/MM/DD



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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

PUBLIC WORKS UTILITIES
BUILDING

2046051500_524.DWG
File Name

Project No.

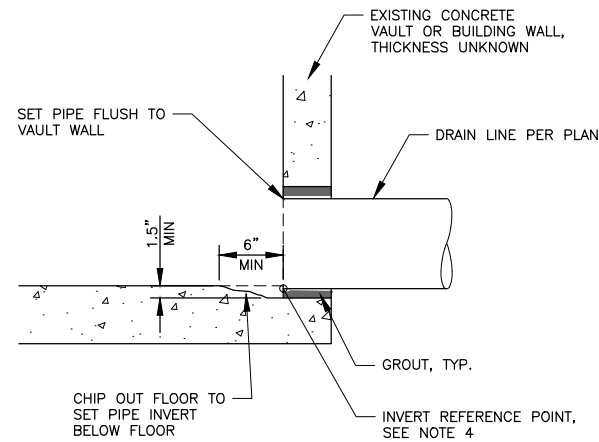
2046051500
RECORD DOCUMENTS

DGB JLR JLR 16/09/02
Dwn. Chkd. Dsgn. YY/MM/DD

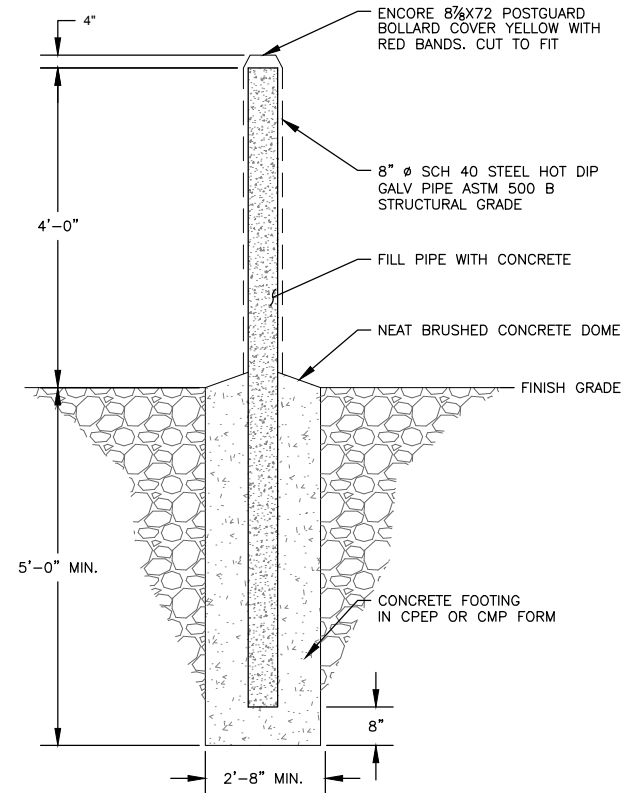
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5.24

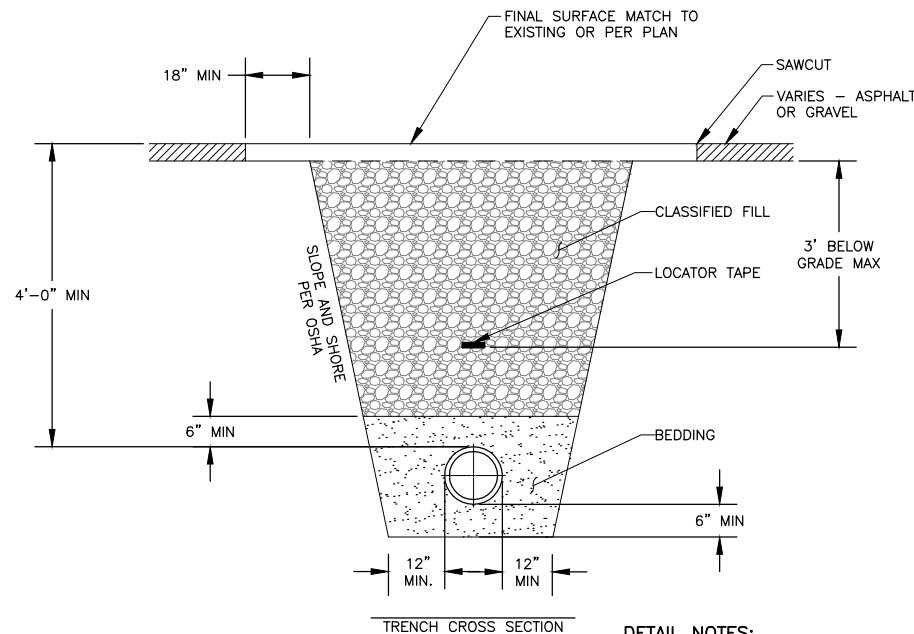
1. EXCAVATE TO EXPOSE WALL. SLOPE AND SHORE PER OSHA.
2. BACKFILL WITH CLASSIFIED FILL OR SUITABLE NATIVE MATERIALS.
3. CONCRETE SHALL BE CORE DRILLED SMOOTH AND SIZED APPROPRIATELY FOR DRAIN LINE TO BE INSTALLED. SEAL PIPE PENETRATION WITH NON-SHRINKABLE GROUT.
4. INVERT REFERENCE POINT AT INTERIOR VAULT WALL, BOTTOM OF PIPE. INVERT SHALL BE AT OR BELOW VAULT BOTTOM. RECORD CONSTRUCTED ELEVATION.



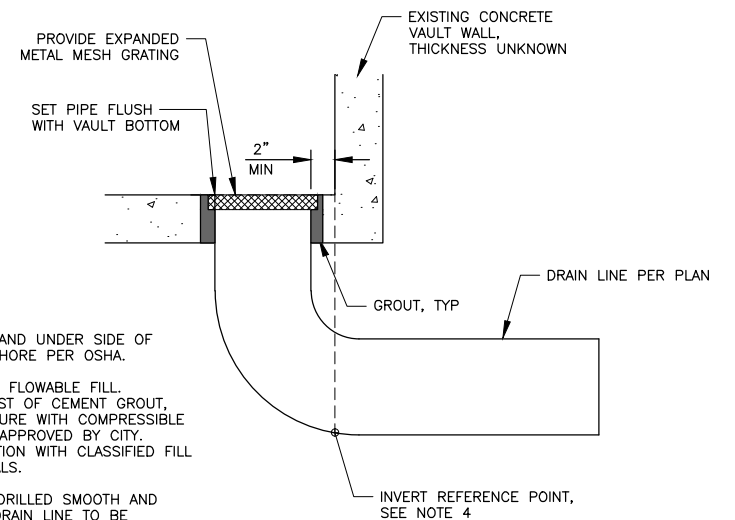
VAULT DRAIN LINE - THRU WALL



HIGH/HEAVY TRAFFIC AREA BOLLARD



UTILITY TRENCH



VAULT DRAIN LINE - THRU BOTTOM

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Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Sheet Title

DETAILS

Project No.

2046051500

RECORD DOCUMENTS

6.01

<u>DGB</u>	<u>JLR</u>	<u>SDG</u>	<u>16/09/02</u>
JAR	SDG	SDG	
Dwn.	Chkd.	Dsgn.	YY/MM/DD

Drawing No.

Original Sheet Size - 22 x 34

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2017/06/05 5:03 PM By: Alexander, Josiah



1. ENCLOSURE SHALL BE SIZED TO ENCLOSE ALL ABOVE GRADE APPURTENANCES AND SHALL HAVE ADEQUATE DRAINAGE TO KEEP BACKFLOW PREVENTER FROM BECOMING SUBMERGED. ENCLOSURE SHALL HAVE LOCKABLE ACCESS DOORS OR REMOVABLE PANELS TO ALLOW FULL WORKING CLEARANCES AROUND EQUIPMENT.

2. FOR CONCRETE PAD AND SITE LAYOUT, SEE DETAIL 3/6.02



1. FABRICATED WELDED ENCLOSURE WITH LOCKABLE HINGED LID FROM 1-1/2" x 1-1/2" ANGLE IRON (FRAME) COVERED AND FLAT EXPANDED METAL (MESH) 3/4" x #13 GAUGE. ENCLOSURE SHALL BE SIZED TO ENCLOSE ALL ABOVE FINISH GRADE APPURTENANCES AND SHALL PROVIDE ADEQUATE DRAINAGE TO KEEP THE BACKFLOW PREVENTER FROM BECOMING SUBMERGED.

2. ALL HARDWARE AND MESH TO BE 304 STAINLESS STEEL.
3. FOR CONCRETE PAD AND SITE LAYOUT, SEE DETAIL 3/6.02



SCALE: NOT TO SCALE



1. UTILITY TRENCH CONSTRUCTION PER DETAIL 4/6.01.
2. DIP SHOWN, FOR COPPER WATER SERVICES PROVIDE FLARE FITTINGS AND COUPLINGS.

INTERCEPT EXISTING SERVICE



1. EXCAVATE TO EXPOSE WALL AND UNDER SIDE OF FOUNDATION. SLOPE AND SHORE PER OSHA AND IBC.
2. BACKFILL UNDER FOUNDATION WITH FLOWABLE FILL. FLOWABLE FILL SHALL CONSIST OF CEMENT GROUT, CONCRETE, OR MORTAR MIXTURE WITH COMPRESSIBLE STRENGTH OF 2500 PSI AS APPROVED BY CITY. BACKFILL REMAINING EXCAVATION WITH CLASSIFIED FILL OR SUITABLE NATIVE MATERIALS.
3. CONCRETE SHALL BE CORE DRILLED SMOOTH AND SIZED APPROPRIATELY FOR DRAIN LINE TO BE INSTALLED. SEAL PIPE PENETRATION WITH NON-SHRINKABLE GROUT.

6.02 SCALE: NOT TO SCALE



4 USC 3024 DRA

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CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT
DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title

DETAILS

2046051500_602.DWG

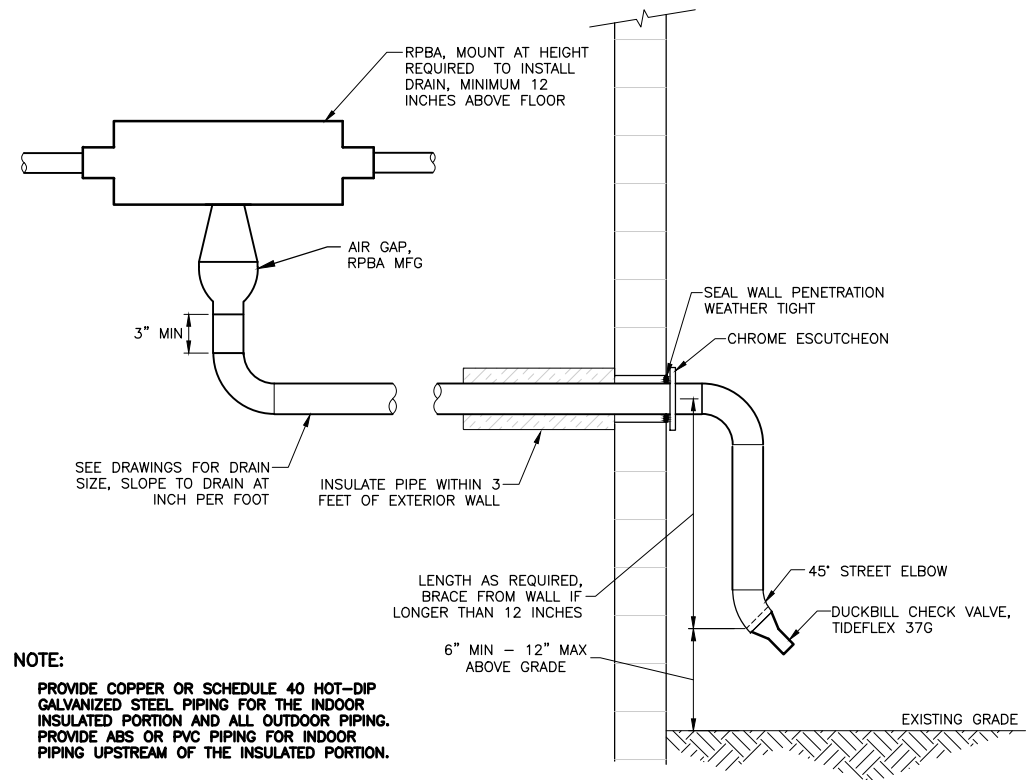
Project No.

2046051500
RECORD DOCUMENTS

6.02

Drawing No.

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2017/06/05 5:04 PM By: Alexander, Joiah



NOTE:
PROVIDE COPPER OR SCHEDULE 40 HOT-DIP GALVANIZED STEEL PIPING FOR THE INDOOR INSULATED PORTION AND ALL OUTDOOR PIPING. PROVIDE ABS OR PVC PIPING FOR INDOOR PIPING UPSTREAM OF THE INSULATED PORTION.

1
6.03
RPBA DRAIN
SCALE: NOT TO SCALE

Record Drawing

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ASBUILT	JCA	DJM	17/06/02
ADDENDUM 3	RMC	JLR	16/07/01
Revision	By	Appd.	YY.MM.DD

Permit-Seal

Client/Project

CITY OF UNALASKA
BACKFLOW PREVENTION PROJECT

DPW PROJECT / FILE NO. 15401
DPW CONTRACT NO. 15401-01

Original Sheet Size - 22 x 34

Sheet Title	Project No.		
DETAILS	2046051500		
	RECORD DOCUMENTS		
2046051500_603.DWG	6.03		
File Name	Drawing No.		
DGB	JLR	SDG	16/09/02
Dwn.	Chkd.	Dsgn.	YY/MM/DD

ATTACHMENT C
STANDARD FORM OF AGREEMENT

**ATTACHMENT C - STANDARD FORM OF AGREEMENT
BETWEEN THE OWNER AND CONTRACTOR**

THIS AGREEMENT is dated as of the _____ day of _____ in the year 20__, by and between the **CITY OF UNALASKA** (hereinafter called "OWNER") and _____ (hereinafter called "CONTRACTOR").

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all work as specified or indicated in the Request for Proposals. The work is generally described as follows:

The work will include, but not be limited to, furnishing all plant, labor, tools, equipment, and materials and performing all operations in connection with the **DOMESTIC WATER SYSTEM ANNUAL BACKFLOW PREVENTION ASSEMBLY TESTING AND REPAIR - 3-YEAR MAINTENANCE CONTRACT**, the Work, includes all work described in the Request for Proposals.

1. Project Location: Unalaska, Alaska 99685
2. Owner: City of Unalaska, Department of Public Utilities, P.O. Box 610, Unalaska, Alaska 99685

The Contract Documents, which comprise the entire agreement between OWNER and CONTRACTOR concerning the WORK, consist of the following:

- Agreement
- Request for Proposals
- Bid Forms
- Performance Bond (if Proposal is over \$50,000)
- Payment Bond (if Proposal is over \$50,000)
- General Conditions
- Supplementary Conditions
- Addenda _____ through _____, inclusive.
- Change Orders which may be delivered or issued after the Effective Date of the Agreement and not attached hereto.

Article 2. CONTRACT TIME

- 2.1 The Final Completion Date shall be **90 days** following the Notice to Proceed for each annual inspection.
- 2.2 Liquidated Damages. The OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the work is not completed within the times specified above, plus any extent thereof allowed in accordance with Article 11 of the General Conditions. These types of losses are difficult to quantify. They include, but are not limited to, increased expenses associated with management, lost efficiency in the movement of City employees and materials, impacts to public health, loss of efficiency and impacts to local businesses, and general inconvenience to the public. They also recognize the delays, and

difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the OWNER if the work is not completed on time. Accordingly, instead of requiring any such proof, the OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay the OWNER, for each project shown above, Two Hundred Fifty Dollars (\$250.00) for each day that expires after the time specified above for Substantial Completion and Two Hundred Fifty Dollars (\$250.00) for each day that expires after the time specified above for Final Completion and readiness for final payment. Should Substantial Completion not be accomplished before the specified Final Completion date, then the combined liquidated damages shall be Two Hundred Fifty Dollars (\$250.00) for each day.

Article 3. RENEWAL OPTION

The Agreement has a renewal option. Renewals will be on an annual basis not to exceed two (2) one-year renewals on the same terms and conditions set forth in the original Agreement subject to mutual agreement on lump sum prices for each renewal period. Exercise of the renewal option will be made at the discretion and election of the OWNER.

Article 4. CONTRACT PRICE

- 4.1 The OWNER shall pay CONTRACTOR for completion of the work in accordance with the Contract Documents an amount equal to the sum of the Unit and Lump Sum prices for each separately identified and selected bid item (herein referred to as the "Contract Sum").
- 4.2 The Contract sum is based upon the Bid Items which are set forth in the Contract Documents and which are hereby accepted by the OWNER.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 13 of the General Conditions. Applications for Payment will be processed by the OWNER as provided in the General Conditions.

- 5.1 Progress Payments. The OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment on or about a day of the month mutually agreeable to the OWNER and CONTRACTOR as agreed to at the preconstruction conference. All progress payments will be on the basis of the progress of the work measured by the actual installed quantity of items, plus allowances for stockpiled materials.
 - 5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as the OWNER shall determine, or the OWNER may withhold, in accordance with Article 13 (paragraph 13.8) of the General Conditions and the Supplemental Conditions.
 - a. Ninety percent of work completed.
 - b. Once 50 percent of the work is complete as determined by the OWNER, and if the character and progress of the work have been satisfactory to the OWNER, the OWNER, may determine that, as long as the character and progress of the work remain satisfactory to them, there will be no additional retainage on account of

work completed; in which case, the remaining progress payments prior to - Substantial Completion will be in an amount equal to 100 percent of the work completed.

- 5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to 95 percent of the Contract Price, less such amounts as the OWNER shall determine, or the OWNER may withhold, in accordance with Article 13 of the General Conditions.
- 5.2 Final Payment. Upon final completion and acceptance of the work in accordance with the General Conditions; Affidavit of Payment of Debts and Claims; Affidavit of Release of Liens; and Receipt of Consent of Surety Company to Final Payment, the OWNER shall pay the remainder of the Contract Price as provided in said Article 13.
 - 5.2.1 Deductions. The City may deduct from the amount of any payment made to Contractor any sums owed to City by Contractor including, but not limited to, past due sales tax, port and harbor fees, property tax, or rent. Before making any such deduction the City shall have provided Contractor written notice of the amount claimed by City to be due and owing from Contractor.

Article 6. INTEREST ON RETAINAGE

All retainage shall bear interest at the rate required by AS 36.90.250, if applicable.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce the OWNER to enter into this agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance, or furnishing of the work.
- 7.2 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports, and studies which pertain to the subsurface or physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance, or furnishing of the work as CONTRACTOR considers necessary for the performance or furnishing of the work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.3 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies, or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the work at the Contract Price, within the Contract Time, and in accordance with the

other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.4 of the General Conditions.

- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given the OWNER written notice of all conflicts, errors, or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by the OWNER is acceptable to CONTRACTOR.

Article 8. MISCELLANEOUS

- 8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 8.2 The CONTRACTOR shall submit the Performance Bond, Labor and Material Payment Bonds, and Certification of Insurance and City of Unalaska business licenses and all Subcontractor City of Unalaska business licenses as required by the Contract Documents, prior to commencement of the Work. The Performance and Material Payment Bonds shall be in the amount of 100% of the contract bid price. **All Work shall be performed in accordance with the Laborers' and Mechanics' Minimum Rates of Pay as required by Title 36 AS 36.05 & AS 36.10 published by the Alaska Department of Labor.**
- 8.3 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 8.4 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, The OWNER and CONTRACTOR have signed all counterparts of this Agreement. All portions of the Contract Documents have been signed or identified by the OWNER and CONTRACTOR.

CONTRACTOR.:

CITY OF UNALASKA.:

BY: _____

BY: _____

City Manager

STATE OF ALASKA)
) ss.

THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged
before me on the ____ day of _____,
by _____,
the _____
of _____, on
behalf of the corporation.

STATE OF ALASKA)
) ss.

THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged
before me on the ____ day of _____, 2017,
by _____, the City Manager
of the City of Unalaska, Alaska, a First Class Alaska
Municipal Corporation, on behalf of the CITY.

Notary Public, State of _____
My Commission Expires: _____

Notary Public, State of Alaska
My Commission Expires: _____

END OF ATTACHMENT C

ATTACHMENT D
GENERAL AND SUPPLEMENTARY CONDITIONS

ATTACHMENT B
PLANS AND SUPPLEMENTAL INFORMATION

Enumeration of Required Device Tests															
Fund	Division	Facility Plans	Drawing No.	Street Address	Enclosure	Domestic/Fire	Device Type	Device Size	Category	# Device Certifications Required - 22 10 00 3.5	Department	Division	Name	Title	Phone # Special Instructions
Public Utilities	Water	WELL HOUSE 1		1062 East Broadway	Building	Fire	DCVA	1 1/4	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Water	WELL HOUSE 2		1352 East Broadway	Building	Fire	DCVA	1 1/2	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Water	WELL HOUSE 3		1354 East Broadway	Building	Fire	DCVA	1	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Water	PYRAMID WATER TREATMENT PLANT		1300 Pyramid Creek Road	Building	Fire	DCVA	4	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Water	UPCH	4.01,2	1057 East Broadway	Building	Fire	DCVA	2	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Landfill	LANDFILL – BAY VIEW AVE. VAULT	3.04	Near King St and Summer Bay Road	Subsurface Vault	Domestic	RPBA	10	Device certification	1	Water Department	Public Utilities	Clint Huling	Water Supervisor	581-1260 None
Public Utilities	Landfill	CITY BALER FACILITY - DOMESTIC	5.16	1156 Summer Bay Road	Building	Domestic	RPBA	2	Device certification	1	Solid Waste	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757 None
Public Utilities	Landfill	CITY BALER FACILITY - FIRE	5.16	1156 Summer Bay Road	Building	Fire	DCVA	6	Device certification	1	Solid Waste	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757 None
Public Utilities	Landfill	LANDFILL - LEACHATE TANK		1156 Summer Bay Road	Building	Domestic	RPBA	3/4	Device certification	1	Solid Waste	Public Utilities	William (BJ) Cross	Solid Waste Supervisor	581-5757 None
Public Utilities	Electric	NEW POWER HOUSE - DOMESTIC	5.22	1700 East Point Road	Building	Domestic	RPBA	2	Device certification	1	Power House	Public Utilities	Andy McCracken	Power House Supervisor	581-1831 None
Public Utilities	Electric	NEW POWER HOUSE - FIRE		1700 East Point Road	Building	Fire	DCVA	4	Device certification	1	Power House	Public Utilities	Andy McCracken	Power House Supervisor	581-1831 None
Public Utilities	Electric	OLD POWER HOUSE	5.23	1732 East Point Road	Building	Domestic	RPBA	1	Device certification	1	Power House	Public Utilities	Andy McCracken	Power House Supervisor	581-1831 None
Public Utilities	Wastewater	WASTEWATER TREATMENT PLANT - DOMESTIC		19 Gilman Road	Building	Domestic	RPBA	2	Device certification	1	Wastewater	Public Utilities	Don Lane	Wastewater Supervisor	581-1693 None
Public Utilities	Wastewater	WASTEWATER TREATMENT PLANT - FIRE		19 Gilman Road	Building	Fire	DCVA	4	Device certification	1	Wastewater	Public Utilities	Don Lane	Wastewater Supervisor	581-1693 None
Public Utilities	Wastewater	WASTEWATER COLLECTION - MOBILE RPBA		19 Gilman Road	Portable	Domestic	RPBA	2	Device certification	1	Wastewater	Public Utilities	Don Lane	Wastewater Supervisor	581-1693 None
General Fund	Public Safety	PUBLIC SAFETY – DOMESTIC	5.17	29 Safety Way	Building	Domestic	RPBA	2	Device certification	1	Fire Department	Public Safety	Mike Holman	Director of Public Safety	581-1233 None
General Fund	Public Safety	PUBLIC SAFETY – FIRE	5.18	29 Safety Way	Building	Fire	DCVA	4	Device certification	1	Fire Department	Public Safety	Mike Holman	Director of Public Safety	581-1233 None
General Fund	Public Safety	AMAKNAK FIRE HALL - DOMESTIC	5.11	2713 Airport Beach Road	Building	Domestic	RPBA	3/4	Device certification	1	Fire Department	Public Safety	Mike Holman	Director of Public Safety	581-1233 None
General Fund	Public Safety	AMAKNAK FIRE HALL - FIRE		2713 Airport Beach Road	Building	Fire	DCVA	3	Device certification	1	Fire Department	Public Safety	Mike Holman	Director of Public Safety	581-1233 None
General Fund	PCR	SITKA SPRUCE PARK	5.04	180 Biorka Drive	Building	Domestic	RPBA	1	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	TUTIAKOFF FIELD	5.05	33 King Street	Building	Domestic	RPBA	3/4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	PCR COMMUNITY CENTER - DOMESTIC	5.03	13 5th Street	Building	Domestic	RPBA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	PCR COMMUNITY CENTER - FIRE		13 5th Street	Building	Fire	DCVA	4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	MULTI-PURPOSE COURT	3.01	1750 E Broadway	Enclosure	Domestic	RPBA	3/4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	BURMA ROAD CHAPEL	5.01	28 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	PCR	KELTY FIELD	5.02	1588 E Broadway	Building	Domestic	RPBA	1-1/2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	City Library	CITY LIBRARY – DOMESTIC	5.13	64 Elenor Drive	Building	Domestic	RPBA	1-1/2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	City Library	CITY LIBRARY – FIRE	5.14	64 Elenor Drive	Building	Fire	DCVA	4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	City Hall	CITY HALL - DOMESTIC	5.12	43 Raven Way	Building	Domestic	RPBA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	City Hall	CITY HALL - FIRE		43 Raven Way	Building	Fire	DCVA	4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Museum of the Aleutians	MUSEUM OF THE ALEUTIANS – DOMESTIC	5.15	314 Salmon Way	Building	Domestic	RPBA	1-1/2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Museum of the Aleutians	MUSEUM OF THE ALEUTIANS – FIRE		314 Salmon Way	Building	Fire	DCVA	4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Public Works Utilities Building	PUBLIC WORKS UPCH – POST HYDRANT	4.01, 4.02	1057 E Broadway	Enclosure	Domestic	RPBA	2	Plumbing outdoor	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - DOMESTIC	5.24	1035 E Broadway	Building	Domestic	RPBA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - FIRE		1035 E Broadway	Building	Fire	DCVA	4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Public Works Utilities Building	PUBLIC WORKS - UTILITIES BUILDING - WASH BAY		997 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
General Fund	Eagles Elementary School	EAGLE'S ELEMENTARY SCHOOL - DOMESTIC	5.06	501 E Broadway	Building	Domestic	RPBA	2	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
General Fund	Eagles Elementary School	EAGLE'S ELEMENTARY SCHOOL - FIRE		501 E Broadway	Building	Fire	DCVA	4	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
General Fund	High School	HIGH SCHOOL ALTERNATIVE BUILDING	5.07	55 E Broadway	Building	Domestic	RPBA	3/4	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
General Fund	High School	HIGH SCHOOL WOODSHOP BUILDING	5.08	14 Mission Ave	Building	Domestic	RPBA	3/4	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
General Fund	High School	HIGH SCHOOL – DOMESTIC	5.09	55 E Broadway	Building	Domestic	RPBA	3	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
General Fund	High School	HIGH SCHOOL – FIRE	5.10	55 E Broadway	Building	Fire	DCVA	4	Device certification	1	Administration	Public Schools	Holly Holman	Business Manager	581-3151 None
Ports	Bobby Storrs Small Boat Harbor	BOBBY STORRS SMALL BOAT HARBOR – A&B FLOAT	3.02	22 PaceSetter Way	Subsurface Vault	Domestic	RPBA	1-1/2	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Bobby Storrs Small Boat Harbor	BOBBY STORRS SMALL BOAT HARBOR – C FLOAT		22 S PaceSetter Way	Subsurface Vault	Domestic	RPBA	2	Device Certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Unalaska Marine Center	US COAST GUARD SHACK	3.03	939 Ballyhoo Road	Building	Domestic	RPBA	3/4, 3, 4 and 4	Device certification	4	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Unalaska Marine Center	UMC Dock 3, Water Service #4 - In Subsurface Vault		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Unalaska Marine Center	UNALASKA MARINE CENTER – DOCK 6, 7 & 8, WATER SERVICE		655 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	6	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Light Cargo Dock	LIGHT CARGO DOCK		2481 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Carl E. Moses Boat Harbor	CARL E. MOSES BOAT HARBOR – SHOP & SHOWER	5.21	570 Henry Swanson	Building	Domestic	RPBA	2	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Carl E. Moses Boat Harbor	CEM A FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Carl E. Moses Boat Harbor	CEM B FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Carl E. Moses Boat Harbor	CEM C FLOAT		570 Henry Swanson Drive	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Ports	Spit Dock	SPIT DOCK		2633 Ballyhoo Road	Subsurface Vault	Domestic	RPBA	3	Device certification	1	Ports	Ports	John Days	Harbor Master	581-1254 None
Airport	Airport Terminal	AIRPORT TERMINAL - DOMESTIC	5.20	105 Terminal Drive	Building	Domestic	RPBA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
Airport	Airport Terminal	AIRPORT TERMINAL - FIRE		105 Terminal Drive	Building	Fire	DCVA	6	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
Housing	School 4 Plex	SCHOOL 4 PLEX	5.19	63 Loop Road	Building/Basement	Domestic	DCVA	1-1/4	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
Housing	8plex	CITY 8PLEX - DOMESTIC		18 Plarmigan Road	Building	Domestic	DCVA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None
Housing	8plex	CITY 8PLEX - FIRE		18 Plarmigan Road	Building	Fire	DCVA	2	Device certification	1	Facilities Maintenance	Public Works	Gary Jirschele	Facilities Chief	581-1260 None

ATTACHMENT C
STANDARD FORM OF AGREEMENT

**ATTACHMENT C - STANDARD FORM OF AGREEMENT
BETWEEN THE OWNER AND CONTRACTOR**

THIS AGREEMENT is dated as of the _____ day of _____ in the year 20__, by and between the **CITY OF UNALASKA** (hereinafter called "OWNER") and _____ (hereinafter called "CONTRACTOR").

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all work as specified or indicated in the Request for Proposals. The work is generally described as follows:

The work will include, but not be limited to, furnishing all plant, labor, tools, equipment, and materials and performing all operations in connection with the **DOMESTIC WATER SYSTEM ANNUAL BACKFLOW PREVENTION ASSEMBLY TESTING AND REPAIR - 3-YEAR MAINTENANCE CONTRACT**, the Work, includes all work described in the Request for Proposals.

1. Project Location: Unalaska, Alaska 99685
2. Owner: City of Unalaska, Department of Public Utilities, P.O. Box 610, Unalaska, Alaska 99685

The Contract Documents, which comprise the entire agreement between OWNER and CONTRACTOR concerning the WORK, consist of the following:

- Agreement
- Request for Proposals
- Bid Forms
- Performance Bond (if Proposal is over \$50,000)
- Payment Bond (if Proposal is over \$50,000)
- General Conditions
- Supplementary Conditions
- Addenda _____ through _____, inclusive.
- Change Orders which may be delivered or issued after the Effective Date of the Agreement and not attached hereto.

Article 2. CONTRACT TIME

- 2.1 The Final Completion Date shall be **90 days** following the Notice to Proceed for each annual inspection.
- 2.2 Liquidated Damages. The OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the work is not completed within the times specified above, plus any extent thereof allowed in accordance with Article 11 of the General Conditions. These types of losses are difficult to quantify. They include, but are not limited to, increased expenses associated with management, lost efficiency in the movement of City employees and materials, impacts to public health, loss of efficiency and impacts to local businesses, and general inconvenience to the public. They also recognize the delays, and

difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the OWNER if the work is not completed on time. Accordingly, instead of requiring any such proof, the OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay the OWNER, for each project shown above, Two Hundred Fifty Dollars (\$250.00) for each day that expires after the time specified above for Substantial Completion and Two Hundred Fifty Dollars (\$250.00) for each day that expires after the time specified above for Final Completion and readiness for final payment. Should Substantial Completion not be accomplished before the specified Final Completion date, then the combined liquidated damages shall be Two Hundred Fifty Dollars (\$250.00) for each day.

Article 3. RENEWAL OPTION

The Agreement has a renewal option. Renewals will be on an annual basis not to exceed two (2) one-year renewals on the same terms and conditions set forth in the original Agreement subject to mutual agreement on lump sum prices for each renewal period. Exercise of the renewal option will be made at the discretion and election of the OWNER.

Article 4. CONTRACT PRICE

- 4.1 The OWNER shall pay CONTRACTOR for completion of the work in accordance with the Contract Documents an amount equal to the sum of the Unit and Lump Sum prices for each separately identified and selected bid item (herein referred to as the "Contract Sum").
- 4.2 The Contract sum is based upon the Bid Items which are set forth in the Contract Documents and which are hereby accepted by the OWNER.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 13 of the General Conditions. Applications for Payment will be processed by the OWNER as provided in the General Conditions.

- 5.1 Progress Payments. The OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment on or about a day of the month mutually agreeable to the OWNER and CONTRACTOR as agreed to at the preconstruction conference. All progress payments will be on the basis of the progress of the work measured by the actual installed quantity of items, plus allowances for stockpiled materials.
 - 5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as the OWNER shall determine, or the OWNER may withhold, in accordance with Article 13 (paragraph 13.8) of the General Conditions and the Supplemental Conditions.
 - a. Ninety percent of work completed.
 - b. Once 50 percent of the work is complete as determined by the OWNER, and if the character and progress of the work have been satisfactory to the OWNER, the OWNER, may determine that, as long as the character and progress of the work remain satisfactory to them, there will be no additional retainage on account of

work completed; in which case, the remaining progress payments prior to - Substantial Completion will be in an amount equal to 100 percent of the work completed.

- 5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to 95 percent of the Contract Price, less such amounts as the OWNER shall determine, or the OWNER may withhold, in accordance with Article 13 of the General Conditions.
- 5.2 Final Payment. Upon final completion and acceptance of the work in accordance with the General Conditions; Affidavit of Payment of Debts and Claims; Affidavit of Release of Liens; and Receipt of Consent of Surety Company to Final Payment, the OWNER shall pay the remainder of the Contract Price as provided in said Article 13.
 - 5.2.1 Deductions. The City may deduct from the amount of any payment made to Contractor any sums owed to City by Contractor including, but not limited to, past due sales tax, port and harbor fees, property tax, or rent. Before making any such deduction the City shall have provided Contractor written notice of the amount claimed by City to be due and owing from Contractor.

Article 6. INTEREST ON RETAINAGE

All retainage shall bear interest at the rate required by AS 36.90.250, if applicable.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce the OWNER to enter into this agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance, or furnishing of the work.
- 7.2 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports, and studies which pertain to the subsurface or physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance, or furnishing of the work as CONTRACTOR considers necessary for the performance or furnishing of the work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.3 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies, or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the work at the Contract Price, within the Contract Time, and in accordance with the

other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.4 of the General Conditions.

- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR has given the OWNER written notice of all conflicts, errors, or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by the OWNER is acceptable to CONTRACTOR.

Article 8. MISCELLANEOUS

- 8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 8.2 The CONTRACTOR shall submit the Performance Bond, Labor and Material Payment Bonds, and Certification of Insurance and City of Unalaska business licenses and all Subcontractor City of Unalaska business licenses as required by the Contract Documents, prior to commencement of the Work. The Performance and Material Payment Bonds shall be in the amount of 100% of the contract bid price. **All Work shall be performed in accordance with the Laborers' and Mechanics' Minimum Rates of Pay as required by Title 36 AS 36.05 & AS 36.10 published by the Alaska Department of Labor.**
- 8.3 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 8.4 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, The OWNER and CONTRACTOR have signed all counterparts of this Agreement. All portions of the Contract Documents have been signed or identified by the OWNER and CONTRACTOR.

CONTRACTOR.:

CITY OF UNALASKA.:

BY: _____

BY: _____

City Manager

STATE OF ALASKA)
) ss.
THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged
before me on the ____ day of _____,
by _____,
the _____
of _____, on
behalf of the corporation.

Notary Public, State of _____
My Commission Expires: _____

STATE OF ALASKA)
) ss.
THIRD JUDICIAL DISTRICT)

The foregoing instrument was acknowledged
before me on the ____ day of _____, 2017,
by _____, the City Manager
of the City of Unalaska, Alaska, a First Class Alaska
Municipal Corporation, on behalf of the CITY.

Notary Public, State of Alaska
My Commission Expires: _____

END OF ATTACHMENT C

ATTACHMENT D
GENERAL AND SUPPLEMENTARY CONDITIONS

GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS

ARTICLE 2 - AUTHORITIES AND LIMITATIONS

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

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

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

ARTICLE 4 - LANDS AND PHYSICAL CONDI- TIONS

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

ARTICLE 5 - BONDS AND INSURANCE AND INDEMNIFICATION

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILI- TIES

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

- 6.15 Structural Loading
- 6.16 Record Documents
- 6.17 Safety and Protection
- 6.18 Safety Representative
- 6.19 Emergencies
- 6.20 Shop Drawings and Samples
- 6.21 Shop Drawings and Sample Review
- 6.22 Maintenance During Construction
- 6.23 Continuing the Work
- 6.24 Consent to Assignment
- 6.25 Use of Explosives
- 6.26 CONTRACTOR's Records

ARTICLE 7 - LAWS AND REGULATIONS

- 7.1 Laws to be Observed
- 7.2 Permits, Licenses, and Taxes
- 7.3 Patented Devices, Materials and Processes
- 7.4 Compliance of Specifications and Drawings
- 7.5 Accident Prevention
- 7.6 Sanitary Provisions
- 7.7 Business Registration
- 7.8 Professional Registration and Certification
- 7.9 Local Building Codes
- 7.10 Air Quality Control
- 7.11 Archaeological or Paleontological Discoveries
- 7.12 Alaska Forest Products
- 7.13 Preferential Employment
- 7.14 Wages and Hours of Labor
- 7.15 Overtime Work Hours and Compensation
- 7.16 Covenant Against Contingent Fees
- 7.17 Officials Not to Benefit
- 7.18 Personal Liability of Public Officials

ARTICLE 8 - OTHER WORK

- 8.1 Related Work at Site
- 8.2 Access, Cutting, and Patching
- 8.3 Defective Work by Others
- 8.4 Coordination

ARTICLE 9 - CHANGES

- 9.1 CITY's Right to Change
- 9.2 Authorization of Changes within the General Scope
- 9.3 Directives
- 9.4 Change Order
- 9.5 Shop Drawing Variations
- 9.6 Changes Outside the General Scope; Supplemental Agreement
- 9.7 Unauthorized Work
- 9.8 Notification of Surety
- 9.9 Differing Site Conditions

ARTICLE 10 - CONTRACT PRICE; COMPUTA- TION AND CHANGE

- 10.1 Contract Price
- 10.2 Claim for Price Change
- 10.3 Change Order Price Determination
- 10.4 Cost of the Work
- 10.5 Excluded Costs
- 10.6 CONTRACTOR's Fee
- 10.7 Cost Breakdown
- 10.8 Cash Allowances
- 10.9 Unit Price Work
- 10.10 Determinations for Unit Prices

ARTICLE 11 - CONTRACT TIME; COMPUTATION AND CHANGE

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

ARTICLE 12 - QUALITY ASSURANCE

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

ARTICLE 13 - PAYMENTS TO CONTRACTOR AND COMPLETION

- 13.1 Schedule of Values
- 13.2 Preliminary Payments
- 13.3 Application for Progress Payment
- 13.4 Review of Applications for Progress Payments
- 13.5 Stored Materials and Equipment
- 13.6 CONTRACTOR's Warranty of Title
- 13.7 Withholding of Payments
- 13.8 Retainage
- 13.9 Request for Release of Funds
- 13.10 Substantial Completion
- 13.11 Access Following Substantial Completion
- 13.12 Final Inspection
- 13.13 Final Application for Payment
- 13.14 Final Payment and Final Completion
- 13.15 Final Acceptance
- 13.16 CONTRACTOR's Continuing Obligation
- 13.17 Waiver of Claims by CONTRACTOR

- 13.18 No Waiver of Legal Rights

ARTICLE 14 - SUSPENSION OF WORK, DEFAULT, AND TERMINATION

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

ARTICLE 15 - CLAIMS AND DISPUTES

- 15.1 Notification
- 15.2 Presenting Claim
- 15.3 Claim Validity, Additional Information & Project Manager's Action
- 15.4 Contracting Officer's Decision
- 15.5 Notice of Appeal
- 15.6 City Manager's Decision

GENERAL CONDITIONS

ACKNOWLEDGMENT

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

The granting of permission by NSPE to allow the State of Alaska to reprint portions of the NSPE document 1910-8, 1983 does not constitute approval of the State of Alaska General Conditions or the subsequently developed City of Unalaska General Conditions.

Insurance requirements were modified March, 2001. Brooks Chandler review comments were incorporated January, 2005 and March, 2008.

ARTICLE 1 - DEFINITIONS

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

The titles and headings of the Sections, Subsections and Articles herein are intended for convenience of reference and shall not be considered as having bearing on their interpretation.

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

Terms not defined below shall have their ordinary accepted meanings within the context in which they are used. "Webster's Third New International Dictionary of the English Language, Unabridged, Copyright 1961", or subsequent revision thereof; shall provide ordinarily accepted meanings. Words which have a well-known technical or trade meaning when used to describe work, materials or equipment shall be interpreted in accordance with such meaning. Words defined in Article 1 are capitalized throughout these General Conditions.

Addenda - All clarifications, corrections, or changes issued graphically or in writing by the CITY after the advertisement but prior to the opening of bids.

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

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

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

A.S. - Initials which stand for Alaska Statute.

Award - The acceptance, by the City, of the successful Bid.

Bid - The offer of a bidder, on the prescribed form to perform the work at the prices quoted.

Bid Bond - A type of bid Guarantee.

Bid Guaranty - The security furnished with a bid to guarantee that the bidder will enter into a contract if his proposal is accepted by the Department.

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

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

Change Order - A written order by the CITY directing changes to the contract, within its general scope.

City - The City of Unalaska, Alaska. References to "owner" or "Contracting Agency" mean the city.

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

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

Contract Documents - The Contract Form, Addenda, the Bidding Requirements and CONTRACTOR's Bid (including all appropriate bid tender forms), the Bonds, the Conditions of the Contract and all other Contract Requirements, the Specifications, and the Drawings furnished by the CITY to the CONTRACTOR, together with all change orders and documents approved by the Contracting Officer for inclusion, modifications and supplements issued on or after the Effective Date of the Contract.

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

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

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

Contract Time - The number of Calendar Days or the date specified in the Construction Contract and authorized time extensions which identify how much time the CONTRACTOR is allowed to achieve Final Completion.

Consultant - A person, firm, agency or corporation retained by the CITY to prepare Contract Documents, perform construction administration services, or other Project related services.

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

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

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

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

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

General Requirements - Sections of Division 1 of the Specifications which contain administrative and procedural requirements as well as requirements for temporary facilities which apply to Specification Divisions 2 through 16.

Holidays - The City of Unalaska recognizes the following holidays:

1. New Years Day - January 1
2. President's Day - Third Monday in February
3. Memorial Day - Last Monday in May
4. Independence Day - July 4
5. Labor Day - First Monday in September
6. Veteran's Day - November 11
7. Thanksgiving Day - Fourth Thursday in November
8. Christmas Day - December 25

If any holiday listed above falls on a Saturday, Saturday and the preceding Friday are both legal holidays. If the holiday should fall on a Sunday, Sunday and the following Monday are both legal holidays.

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

Invitation for Bids or Invitation to Bid - A portion of the Bidding Documents soliciting bids for the Work to be performed.

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

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

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

Performance Bond - The security furnished by the CONTRACTOR and his surety to guarantee performance and completion of the work in accordance with the contract.

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

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

Proposal - The offer of a bidder, on the prescribed form to perform the work at the prices quoted.

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

Regulatory Requirement - Laws, rules, regulations, ordinances, codes and/or orders of the United States, State of Alaska or City of Unalaska to the extent applicable to the Work.

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

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

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

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

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

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

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

Using Agency - The entity who will occupy or use the completed Work.

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

ARTICLE 2 - AUTHORITIES AND LIMITATIONS

2.1 Authorities and Limitations:

- 2.1.1 The Contracting Officer alone, shall have the power to bind the CITY and to exercise the rights, responsibilities, authorities and functions vested in the Contracting Officer by the Contract Documents, except that the Contracting Officer shall have the right to designate in writing authorized representatives to act for him. Wherever any provision of the Contract Documents specifies an individual or organization, whether Governmental or private, to perform any act on behalf of or in the interests of the CITY that individual or organization shall be deemed to be the Contracting Officer's authorized representative under this Contract but only to the extent so specified. The Contracting Officer may, at any time during the performance of this Contract, vest in any such authorized representatives additional power and authority to act for the Contracting Officer or designate additional representatives, specifying the extent of their authority to act for the Contracting Officer; a copy of each document vesting additional authority in or removing that authority from an authorized representative or designating an additional authorized representative shall be furnished to the CONTRACTOR. The City Council reserves the right to appoint a new Contracting Officer without affecting any of the CONTRACTOR's obligations to the CITY under this Contract.
- 2.1.2 The CONTRACTOR shall perform the Work in accordance with any written order (including but not limited to instruction, direction, interpretation or determination) issued by an authorized representative in accordance with the authorized representative's authority to act for the Contracting Officer. The CONTRACTOR assumes all the risk and consequences of performing the Work in accordance with any order (including but not limited to instruction, direction, interpretation or determination) of anyone not authorized to issue such order, and of any order not in writing.
- 2.1.3 Should the Contracting Officer or his authorized representative designate Consultant(s) to act for the CITY as provided for in Paragraph 2.1.1, the performance or nonperformance of the Consultant under such authority to act, shall not give rise to any contractual obligation or duty of the Consultant to the CONTRACTOR, any Subcontractor, any Supplier, or any other organization performing any of the Work or any Surety representing them.
- 2.1.4 The term "Contracting Officer" when used in the text of these General Conditions or other Contract Documents following this section shall also mean any duly authorized representative of the Contracting Officer when authorized in accordance with Paragraph 2.1.1.

2.2 Evaluations by Contracting Officer:

- 2.2.1 The Contracting Officer will decide all questions which may arise as to;
 - a. Quality and acceptability of materials furnished;
 - b. Quality and acceptability of Work performed;
 - c. Compliance with the Schedule of Progress;
 - d. Interpretation of Contract Documents;
 - e. Acceptable fulfillment of the Contract on the part of the CONTRACTOR.
- 2.2.2 In order to avoid cumbersome terms and confusing repetition of expressions in the Contract Documents whenever the terms "as ordered", "as directed", "as required", "as approved", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used it shall be understood as if the expression were followed by the words "the Contracting Officer". When such terms are used to describe a requirement, direction, review or judgment of the Contracting Officer as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise).

- 2.2.3 The use of any such term or adjective shall not be effective to assign to the CITY any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provision of paragraphs 2.3 or 2.4.

2.3 Means & Methods:

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

2.4 Visits to Site:

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

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Incomplete Contract Documents:

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

3.2 Copies of Contract Documents:

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

3.3 Scope of Work:

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

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

3.4 Intent of Contract Documents:

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

or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraphs 2.3 or 2.4.

3.5 Discrepancy in Contract Documents:

3.5.1 Before undertaking the Work, the CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures, and dimensions shown thereon and all applicable field measurements. Work in the area by the CONTRACTOR shall imply verification of figures, dimensions and field measurements. If, during the above study or during the performance of the Work, the CONTRACTOR finds a conflict, error, discrepancy or omission in the Contract Document, or a discrepancy between the Contract Documents and any standard specification, manual, code, or Regulatory Requirement which affects the Work, The CONTRACTOR shall promptly report such discrepancy in writing to the Contracting Officer. The CONTRACTOR shall obtain a written interpretation or clarification from the Contracting Officer before proceeding with any Work affected thereby. Any adjustment made by the CONTRACTOR without this determination shall be at his own risk and expense. However, the CONTRACTOR shall not be liable to the CITY for failure to report any conflict, error or discrepancy in the Contract Documents unless the CONTRACTOR had actual knowledge thereof or should reasonably have knowledge thereof.

3.5.2 Discrepancy - Order of Precedence:

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

Supplementary Conditions

General Conditions

General Requirements

Technical Specifications

Drawings (recorded dimensions will govern over scaled dimensions, large details over small scale, schedules over plans, architectural drawings over structural drawings over mechanical and electrical drawings)

3.6 Clarifications and Interpretations:

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

3.7 Reuse of Documents:

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

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

ARTICLE 4 - LANDS AND PHYSICAL CONDITIONS

4.1 Availability of Lands:

The CITY shall furnish as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for use of the CONTRACTOR in connection with the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the CITY, unless otherwise provided in the Contract Documents. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2 Visit to Site:

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

4.3 Explorations and Reports:

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

4.4 Utilities:

- 4.4.1 The horizontal and vertical locations of known underground utilities as shown or indicated by the Contract Documents are approximate and are based on information and data furnished to the CITY by the owners of such underground utilities.
- 4.4.2 The CONTRACTOR shall have full responsibility for:
 - a. Reviewing and checking all information and data concerning utilities.
 - b. Locating all underground utilities shown or indicated in the Contract Documents which are affected by the Work.
 - c. Coordination of the Work with the owners of all utilities during construction.
 - d. Safety and protection of all utilities as provided in paragraph 6.17.
 - e. Repair of any damage to utilities resulting from the Work in accordance with 4.4.4 and 4.5.
- 4.4.3 If Work is to be performed by any utility owner, the CONTRACTOR shall cooperate with such owners to facilitate the Work.
- 4.4.4 In the event of interruption to any utility service as a result of accidental breakage or as a result of being exposed or unsupported, the CONTRACTOR shall promptly notify the utility owner and the Contracting Officer. If service is interrupted repair work shall be continuous until the service is restored. No Work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

4.5 Damaged Utilities:

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

- a. When the utility is shown or indicated in the Contract Documents.
- b. When the utility has been located by the utility owner.
- c. When no locate was requested by the CONTRACTOR for utilities shown or indicated in the Contract Documents.
- d. All visible utilities.

- e. When the CONTRACTOR could have, otherwise, reasonably been expected to be aware of such utility.

4.6 Utilities Not Shown or indicated.

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

4.7 Survey Control:

The CITY will identify sufficient horizontal and vertical control data to enable the CONTRACTOR to survey and layout the Work. All survey work shall be performed under the direct supervision of a registered Land Surveyor when required by paragraph 7.8.

ARTICLE 5 - BONDS, INSURANCE, AND INDEMNIFICATION

5.1 Delivery of Bonds:

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

5.2 Bonds:

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

5.3 Replacement of Bond and Surety:

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

5.4 Insurance Requirements:

- 5.4.1. The contractor shall carry and maintain throughout the life of this contract, at its own expense, insurance not less than the amounts and coverage herein specified, and the City of Unalaska, its employees and agents shall be named as additional insured under the insurance coverage so specified and where allowed, with respect to the performance of the work. There shall be no right of subrogation against the City or its agents performing work in connection with the work, and this **waiver of subrogation** shall be endorsed upon the policies. Insurance shall be placed with companies acceptable to the City of Unalaska; and these policies providing coverage thereunder shall contain provisions that no cancellation or material changes in the policy relative to this project shall become effective except upon **30 days** prior written notice thereof to the City of Unalaska.

- 5.4.2. Prior to commencement of the work, the contractor shall furnish certificates to the City of Unalaska, in duplicate, evidencing that the Insurance policy provisions required hereunder are in force. Acceptance by the City of Unalaska of deficient evidence does not constitute a waiver of contract requirements.
- 5.4.3. The contractor shall furnish the City of Unalaska with certified copies of policies upon request. The minimum coverages and limits required are as follows:
1. **Workers' Compensation** insurance in accordance with the statutory coverages required by the State of Alaska and **Employers Liability** insurance with limits not less than **\$1,000,000** and, where applicable, insurance in compliance with any other statutory obligations, whether State or Federal, pertaining to the compensation of injured employees assigned to the work, including but not limited to Voluntary Compensation, Federal Longshoremen and Harbor Workers Act, Maritime and the Outer Continental Shelf's Land Act.
 2. **Commercial General Liability** with limits not less than **\$1,000,000** per Occurrence and **\$2,000,000** Aggregate for Bodily Injury and Property Damage, including coverage for Premises and Operations Liability, Products and Completed Operations Liability, Contractual Liability, Broad Form Property Damage Liability and Personal Injury Liability. Coverage shall not contain any exclusion of Explosion, Collapse, or Underground. Coverage is to be endorsed to include a per project aggregate. Additionally, such insurance shall be considered primary to any other insurance carried by the City of Unalaska and the insurer will endorse the policy accordingly.
 3. **Commercial Automobile Liability** on all owned, non-owned, hired and rented vehicles with limits of liability of not less than **\$1,000,000** Combined Single Limit for Bodily Injury and Property Damage per each accident or loss.
 4. If applicable, Contractor's Equipment insurance covering all of the contractor's equipment and machinery to be used in connection with the performance of the work specified in this contract. This coverage requirement may be waived at the discretion of the City of Unalaska if the Contractor self-insures the equipment and will waive all right of recovery against the City of Unalaska in writing.
 5. **Umbrella/Excess Liability** insurance coverage of not less than **\$1,000,000** per occurrence and annual aggregate providing coverage in excess of General Liability, Auto Liability, and Employers Liability.
 6. If work involves use of aircraft, Aircraft Liability insurance covering all owned and non-owned aircraft with a per occurrence limit of not less than \$1,000,000.
 7. If work involves use of watercraft, Protection and Indemnity insurance with limits not less than \$1,000,000 per occurrence. Hull and Machinery coverage is to be carried on the vessel for the full current market value. This coverage requirement may be waived at the discretion of the City of Unalaska if the contractor self-insures the equipment and will waive all rights of recovery against the City of Unalaska in writing.
 8. Where applicable, **Professional Liability** insurance with limits of not less than \$1,000,000 per claim and \$1,000,000 aggregate, subject to a maximum deductible of \$10,000 per claim. The City of Unalaska has the right to negotiate increase of deductibles subject to acceptable financial information of the policyholder.
 9. Where applicable, Pollution Liability insurance with a project limit of not less than \$1,000,000 subject to a maximum deductible of \$10,000 to include coverage for Asbestos, Hazardous Materials, Lead or other related environmental hazards. The City of Unalaska has the right to negotiate increase of deductibles subject to acceptable financial information of the policyholder.

In the event Asbestos, Hazardous Materials, Lead or other related environmental hazards are transported by vehicle and/or marine vessel, the operator of such vehicles and vessels shall provide a Certificate of Insurance for the transportation of such materials (including loading and unloading) with limits of not less than \$1,000,000.

10. **Builder's Risk Insurance:** Coverage shall be provided on an "All Risk" completed value basis and protect the interests of the City, the contractor and his subcontractors. Coverage shall include all materials, equipment and supplies that are intended for specific installation in the project while such materials, supplies and equipment are located at the project site and in transit from port of arrival to job site and while temporarily located away from the project site.
- 5.4.4. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expense.
- 5.4.5. All insurance policies as described above are required to be written on an "occurrence" basis. In the event occurrence coverage is not available, the contractor agrees to maintain "claims made" coverage for a minimum of two years after project completion.
- 5.4.6. If the contractor employs subcontractors to perform any work hereunder, the contractor agrees to require such subcontractors to obtain, carry, maintain, and keep in force during the time in which they are engaged in performing any work hereunder, policies of insurance which comply with the requirements as set forth in this section. This requirement is applicable to subcontractors of any tier.
- 5.4.7. The contractor is required to maintain all certificates of insurance during the course of the project and for a minimum of three (3) years following the completion of such project. It is further agreed, that upon request by the City of Unalaska, the Contractor will provide copies of any and all subcontractor certificates of insurance for review of compliance.
- 5.4.8. Failure by the Contractor to maintain the required insurance coverage or to comply with the above, may, at the option of the City of Unalaska, be deemed Defective Work and remedied in accordance with the contract.
- 5.5 Indemnification:
- 5.5.1 The CONTRACTOR and his Subcontractors will name the owner as "Additional Insured" and will provide a "Waiver of Subrogation" on all required policies of insurance.
- 5.5.2 The CONTRACTOR shall indemnify, save harmless, and defend the CITY and its agents and its employees from any and all claims or actions for injuries or damages sustained by any person or property arising directly or indirectly from the CONTRACTOR's performance of this contract; however, this provision has no effect if, but only if, the sole proximate cause of the injury or damage is the negligence of the City or its agents.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision of Work:

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

6.2 Superintendence by CONTRACTOR:

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

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

6.3 Character of Workers:

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

6.4 CONTRACTOR to Furnish:

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

6.5 Materials and Equipment:

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

6.6 Anticipated Schedules:

6.6.1 Within reasonable time prior to the preconstruction conference the CONTRACTOR shall submit to the Contracting Officer for review an anticipated progress schedule indicating the starting and completion dates of the various stages of the Work.

6.6.2 Within fifteen days after the date of the Notice to Proceed, the CONTRACTOR shall submit to the Contracting Officer for review:

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

6.7 Finalizing Schedules:

Prior to processing the first Application for Payment the Contracting Officer and the CONTRACTOR will finalize schedules required by paragraph 6.6.

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

6.8 Adjusting Schedules:

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

6.9 Substitutes or "Or-Equal" Items:

- 6.9.1 Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by the Contracting Officer only if sufficient information is submitted by the CONTRACTOR which clearly demonstrates to the Contracting Officer that the material or equipment proposed is equivalent or equal in all aspects to that named. The procedure for review by the Contracting Officer will include the following as supplemented in the General Requirements.
- 6.9.2 Requests for review of substitute items of material and equipment will not be accepted by the Contracting Officer from anyone other than the CONTRACTOR.
- 6.9.3 If the CONTRACTOR wishes to furnish or use a substitute item of material or equipment, the CONTRACTOR shall make written application to the Contracting Officer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not delay the CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the CITY for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
- 6.9.4 All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Contracting Officer in evaluating the proposed substitute. The Contracting Officer may require the CONTRACTOR to furnish at the CONTRACTOR's expense additional data about the proposed substitute. The Contracting Officer may reject any substitution request which the Contracting Officer determines is not in the best interest of the CITY.

6.10 Substitute Means and Methods:

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

6.11 Evaluation of Substitution:

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

6.12 Dividing the Work:

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

6.13 Subcontractors:

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

- 6.13.1 The CONTRACTOR shall not award any Work to any Subcontractor without prior written approval of the Contracting Officer. This approval will not be given until the CONTRACTOR submits to the Contracting Officer a written statement concerning the proposed award to the Subcontractor which shall contain required E.E.O. documents, evidence of insurance, and a copy of the proposed subcontract executed by the subcontractor. No acceptance by the Contracting Officer of any such Subcontractor shall constitute a waiver of any right of the CITY to reject Defective Work.
- 6.13.2 The CONTRACTOR shall be fully responsible to the CITY for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions.
- 6.13.3 All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate written agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the CITY and contains waiver provisions as required by paragraph 13.17 and termination provisions as required by Article 14.
- 6.13.4 Nothing in the Contract Documents shall create any contractual relationship between the CITY and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the CITY to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Regulatory Requirements. The CITY will not undertake to settle any differences between or among the CONTRACTOR, Subcontractors, or Suppliers.
- 6.13.5 The CONTRACTOR and Subcontractors shall coordinate their work and facilitate general progress of Work. Each trade shall afford other trades every reasonable opportunity for installation of their work and storage of materials. If cooperative work of one trade must be altered due to lack of proper supervision, or failure to make proper provisions in time by another trade, such conditions shall be remedied by the CONTRACTOR with no change in Contract Price or Contract Time.
- 6.13.6 The CONTRACTOR shall include on his own payrolls any person or persons working on the contract who are not covered by written subcontract, and shall ensure that all Subcontractors include on their payrolls all persons performing work under the direction of the Subcontractor.

6.14 Use of Premises:

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

6.15 Structural Loading:

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

6.16 Record Documents:

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

6.17 Safety and Protection:

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

- 6.17.1 All employees on the Work and other persons and organizations who may be affected thereby;
- 6.17.2 All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 6.17.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.
- 6.17.4 The CONTRACTOR shall comply with all applicable Regulatory Requirements enacted for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The CONTRACTOR shall notify owners of adjacent property and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the CONTRACTOR with no change in Contract Price or Contract Time except as stated in 4.6, except damage or loss attributable to unforeseeable causes beyond the control of and without the fault or negligence of the CONTRACTOR, including but not restricted to acts of God or the public enemy. The CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until Final Acceptance (except as otherwise expressly provided in connection with Substantial Completion).

6.18 Safety Representative:

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

6.19 Emergencies:

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

6.20 Shop Drawings and Samples:

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

6.21 Shop Drawing and Sample Review:

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

CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.20.3.

- 6.21.3 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to the Contracting Officer's review of the pertinent submission will be the sole expense and responsibility of the CONTRACTOR.

6.22 Maintenance During Construction:

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

6.23 Continuing the Work:

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

6.24 Consent to Assignment:

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

6.25 Use of Explosives:

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

6.26 CONTRACTOR's Records:

- 6.26.1 Records of CONTRACTOR and Subcontractors relating to personnel, payrolls, invoices of materials, and any and all other data relevant to the performance of the Contract, must be kept on a generally recognized accounting system. Such records must be available during normal work hours to the Contracting Officer for purposes of investigation to ascertain compliance with Regulatory Requirements and provision of the Contract Documents.
- 6.26.2 Payroll records must contain the name and address of each employee, his correct classification, rate of pay, daily and weekly number of hours of work, deductions made, and actual wages paid. The CONTRACTOR and Subcontractors shall make employment records available for inspection by the Contracting Officer and representatives of the State of Alaska Department of Labor and Workforce Development and will permit such representatives to interview employees during working hours on the Project.
- 6.26.3 Records of all communications between the CITY and the CONTRACTOR and other parties, where such communications affected performance of this Contract, must be kept by the CONTRACTOR and maintained

for a period of three years from Final Acceptance. The CITY or its assigned representative may perform an audit of these records during normal work hours after written notice to the CONTRACTOR.

ARTICLE 7 - LAWS AND REGULATIONS

7.1 Laws to be Observed:

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

7.2 Permits, Licenses, and Taxes:

7.2.1 The CONTRACTOR shall procure all permits and licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work. As a condition of performance of this Contract, the CONTRACTOR shall pay all Federal, State and local taxes incurred by the CONTRACTOR, in the performance of the Contract. Proof of payment of these taxes is a condition precedent to final payment by the CITY under this Contract.

7.2.2 The CONTRACTOR's certification that taxes have been paid (as contained in the Release of Contract) may be verified with the Department of Revenue and Department of Labor and Workforce Development and Unalaska City Clerk, prior to final payment.

7.2.3 If any Federal, State or local tax is imposed, charged, or repealed after the date of Bid opening and is made applicable to and paid by the CONTRACTOR on the articles or supplies herein contracted for, then the Contract shall be increased or decreased accordingly by a Change Order.

7.2.4 The Contractor shall require all Subcontractors to obtain a City of Unalaska Business License.

7.3 Patented Devices, Materials and Processes:

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

7.4 Compliance of Specifications and Drawings:

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

7.5 Accident Prevention:

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

7.6 Sanitary Provisions:

The CONTRACTOR shall provide and maintain in a neat and sanitary condition such accommodations for the use of his employees and CITY representatives as may be necessary to comply with the Regulatory requirements.

7.7 Business Registration:

The Contractor shall comply with AS 08.18.011 which states, as follows: "it is unlawful for a person to submit a bid or work as a contractor until he has been issued a certificate of registration by the Department of Commerce. A partnership or joint venture shall be considered registered if one of the general partners or ventures whose name appears in the name under which the partnership or venture does business is registered." The Contractor shall obtain a City of Unalaska Business License prior to commencement of the Work to the extent required by the City of Unalaska Code of Ordinances section 9.30.101.

7.8 Professional Registration and Certification:

All craft trades, architects, engineers and land surveyors, electrical administrators, explosive handlers, and welders employed under the Contract shall specifically comply with applicable provisions of AS 08.18, 08.48, 08.40, 08.52, and 08.99. Provide copies of individual licenses within seven days following a request from the Contracting Officer.

7.9 Local Building Codes:

The CONTRACTOR shall comply with AS 35.10.025 which requires construction in accordance with applicable local building codes including the obtaining of required permits. City of Unalaska permits required for the work are identified in the Supplemental Conditions.

7.10 Air Quality Control:

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

7.11 Archaeological or Paleontological Discoveries:

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

7.12 Not used.

7.13 Preferential Employment:

To the fullest extent allowed by law, the CONTRACTOR shall comply with AS 36.10, as amended, which provides for preferential employment of Alaska residents.

7.14 Wages and Hours of Labor:

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

7.14.2 The following Labor provisions shall also apply to this Contract:

- a. The CONTRACTOR and his Subcontractors shall pay all employees unconditionally and not less than once a week;
- b. Wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the CONTRACTOR or Subcontractors and laborers, mechanics, or field surveyors;
- c. The scale of wages to be paid shall be posted by the CONTRACTOR in a prominent and easily accessible place at the site of the work;
- d. The CITY shall withhold so much of the accrued payments as is necessary to pay laborers, mechanics, or field surveyors employed by the CONTRACTOR or Subcontractors the difference between
 1. the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work, and
 2. the rates of wages in fact received by laborers, mechanics or field surveyors.

7.15 Overtime Work Hours and Compensation:

Pursuant to 40 U.S.C. 327-330 and AS 23.10.060, the CONTRACTOR shall not require nor permit any laborer or mechanic in any workweek in which he is employed on any work under this Contract to work in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic receives compensation at a rate not less than one and one half times his basic rate of pay for all such hours worked in excess of eight hours in any Calendar Day or in excess of forty hours in such workweek whichever is the greater number of overtime hours. In the event of any violation of this provision, the CONTRACTOR shall be liable to any affected employee for any amounts due and penalties and to the CITY for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of this provision in the sum of \$10.00 for each Calendar Day on which such employee was required or permitted to be employed on such work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by this paragraph.

7.16 Covenant Against Contingent Fees:

The CONTRACTOR warrants that no person or selling agent has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee. For breach or violation of this warranty, the CITY shall have the right to annul this Contract without liability or, in its discretion, to deduct price of consideration from the Contract or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

7.17 Officials Not to Benefit:

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

7.18 Personal Liability of Public Officials:

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

ARTICLE 8 - OTHER WORK

8.1 Related Work at Site:

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

8.2 Access, Cutting, and Patching:

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

8.3 Defective Work by Others:

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

8.4 Coordination:

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

ARTICLE 9 - CHANGES

9.1 CITY's Right to Change:

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

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

9.2 Authorization of Changes within the General Scope:

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

- 9.2.1 Directive (pursuant to paragraph 9.3)
- 9.2.2 A Change Order (pursuant to paragraph 9.5)
- 9.2.3 CITY's acceptance of Shop Drawing variations from the Contract Documents as specifically identified by the CONTRACTOR as required by paragraph 6.20.4.

9.3 Directives:

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

9.4 Change Order:

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

9.5 Shop Drawing Variations:

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

9.6 Changes Outside the General Scope; Supplemental Agreement:

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

9.7 Unauthorized Work:

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

9.8 Notification of Surety:

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

9.9 Differing Site Conditions:

9.9.1 The CONTRACTOR shall promptly, and before such conditions are disturbed (except in an emergency as permitted by paragraph 6.19), notify the Contracting Officer in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in the Contract, and which could not have been discovered by a careful examination of the site, or (2) unknown physical conditions at the site, or an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract. The Contracting Officer shall promptly investigate the conditions, and if the Contracting Officer finds that such conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or time required for, performance of this Contract, an equitable adjustment shall be made and the Contract modified in writing accordingly.

9.9.2 Any claim for additional compensation by the CONTRACTOR under this clause shall be made in accordance with Article 15 and shall not be allowed unless the CONTRACTOR has first given the notice required by this Contract. In the event that the Contracting Officer and the CONTRACTOR are unable to reach an agreement concerning an alleged differing site condition, the CONTRACTOR will be required to keep an accurate and detailed record which will indicate the actual cost of the work done under the alleged differing site condition. Failure to keep such a record shall be a bar to any recovery by reason of such alleged differing site conditions. The Contracting Officer shall be given the opportunity to supervise and check the keeping of such records.

ARTICLE 10 - CONTRACT PRICE; COMPUTATION AND CHANGE

10.1 Contract Price:

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

10.2 Claim for Price Change:

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

10.3 Change Order Price Determination:

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

- 10.3.1 Where the work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraphs 10.9.1
- 10.3.2 By mutual acceptance of a lump sum price which includes overhead and profit.
- 10.3.3 When 10.3.1 and 10.3.2 are inapplicable, on the basis of the Cost of the Work (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTORS's fee for overhead and profit (determined as provided in paragraph 10.6).

10.4 Cost of the Work:

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

- 10.4.1 Payroll costs for employees in the direct employ of the CONTRACTOR in the performance of the work under schedules of job classifications agreed upon by the CITY and the CONTRACTOR. Payroll costs for employees not employed full time on the work shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by the CITY.
- 10.4.2 Cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to the CONTRACTOR unless the CITY deposits funds with the CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to the CITY. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the CITY, and the CONTRACTOR shall make provisions so that they may be obtained.
- 10.4.3 Payments made by the CONTRACTOR to Subcontractors for work performed by Subcontractors. If required by the CITY, CONTRACTOR shall obtain competitive quotes from Subcontractors or Suppliers acceptable to the CONTRACTOR and shall deliver such quotes to the CITY who will then determine which quotes will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as the CONTRACTOR's Cost of Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.
- 10.4.4 Costs of special consultants (including but not limited to engineers, architects, testing laboratories, and surveyors) employed for services necessary for the completion of the work.
- 10.4.5 Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel and subsistence expenses of the CONTRACTOR's employees incurred in discharge of duties connected with the work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the work, and cost less market value of such items used but not consumed which remain the property of the CONTRACTOR.

- c. Rentals of all construction equipment and machinery and the parts thereof whether rented from the CONTRACTOR or others in accordance with rental agreements approved by the CITY and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the work.
- d. Sales, consumer, use or similar taxes related to the work, and for which the CONTRACTOR is liable, imposed by Regulatory Requirements.
- e. Deposits lost for causes other than negligence of the CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by the CONTRACTOR in connection with the performance and furnishing of the Work provided they have resulted from causes other than the negligence of the CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of the CITY. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining the CONTRACTOR's Fee. If, however, any such loss or damage requires reconstruction and the CONTRACTOR is placed in charge thereof, the CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraphs 10.6.2.a and 10.6.2.b.
- g. The cost of utilities, fuel and sanitary facilities at the site.
- h. Minor expenses such as long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the work.
- i. Cost of premiums for additional bonds and insurance required because of changes in the work and premiums for property insurance coverage within the limits of the deductible amounts established by the CITY in accordance with Article 5.

10.5 Excluded Costs:

The term Cost of the Work shall not include any of the following:

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

- 10.5.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 CONTRACTOR's Fee:

The CONTRACTOR's Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

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

10.7 Cost Breakdown:

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

10.8 Cash Allowances:

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

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

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

10.9 Unit Price Work:

- 10.9.1 Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Contract. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by the CONTRACTOR will be made by the CITY in accordance with paragraph 10.9.3.

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

10.10 Determinations for Unit Prices:

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

ARTICLE 11 - CONTRACT TIME; COMPUTATION AND CHANGE

11.1 Commencement of Contract Time; Notice to Proceed:

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

11.2 Starting the Work:

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

11.3 Computation of Contract Time:

- 11.3.1 When the contract time is specified on a calendar days basis, all work under the contract shall be completed within the number of calendar days specified. The count of contract time begins on the day following receipt of the Notice to Proceed by the CONTRACTOR, if no starting day is stipulated therein. Calendar days shall continue to be counted against contract time until and including the date of Final Completion of the Work.
- 11.3.2 When the Contract completion time is specified as a fixed calendar date, it shall be the date of Final Completion.

11.4 Time Change:

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

11.5 Extension Due to Delays:

The right of the CONTRACTOR to proceed shall not be terminated nor the CONTRACTOR charged with liquidated or actual damages because of any delays to the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to the following: acts of God or of the public enemy, acts of the CITY in contractual capacity, acts of another contractor in the performance of a contract with the CITY, floods, fires, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather and delays of Subcontractors or Suppliers due to such causes. Any delay in receipt of materials on the site, caused by other than one of the specifically mentioned occurrences above, does not of itself justify a time extension. Provided, that the CONTRACTOR shall within twenty four (24) hours from the beginning of any such delay (unless the Contracting Officer shall grant a further period of the time prior to the date of final settlement of the Contract) notify the Contracting Officer in writing of the cause of delay. The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the Work when the findings of fact justify such an extension.

11.6 Essence of Contract:

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

11.7 Reasonable Completion Time:

It is expressly understood and agreed by and between the CONTRACTOR and the CITY that the date of beginning and the time for Final Completion of the Work described herein are reasonable times for the completion of the Work.

11.8 Delay Damages:

Whether or not the CONTRACTOR's right to proceed with the Work is terminated, he and his sureties shall be liable for damages resulting from his refusal or failure to complete the Work within the specified time. Liquidated damages for delay shall be paid by the CONTRACTOR or his Surety to the City in the amount as specified in the Agreement or the Supplementary Conditions for each Calendar Day the completion of the Work or any part thereof is delayed beyond the Contract Time required by the Contract, or any extension thereof. If such amount of liquidated damages is not established by the Contract Documents, then the CONTRACTOR and his Surety shall be liable to the City for any actual damages occasioned by such delay. The CONTRACTOR acknowledges that the liquidated damages established herein are not a penalty but rather constitute an estimate of damages that the City will sustain by reason of delayed completion. These liquidated damages are intended as compensation for losses difficult to estimate, and include those items enumerated in the Supplementary Conditions or elsewhere in the Contract Documents. These damages will continue to run both before and after termination in the event of default termination. These liquidated damages do not cover excess costs of completion or the CITY's costs, fees, and charges related to reprocurement. If a default termination occurs, the Contractor or his Surety shall pay in addition to these damages, all excess costs and expenses related to completion as provided by Article 14.2.5.

ARTICLE 12 - QUALITY ASSURANCE

12.1 Warranty and Guaranty:

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

12.2 Access to Work:

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

12.3 Tests and Inspections:

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

12.4 Uncovering Work:

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

12.5 CITY May Stop the Work:

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

12.6 Correction or Removal of Defective Work:

If required by the Contracting Officer, the CONTRACTOR shall promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the Contracting Officer, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. The

CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

12.7 One Year Correction Period:

If within one year after the date of Final Completion or such longer period of time as may be prescribed by Regulatory Requirements or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be Defective, the CONTRACTOR shall promptly, without cost to the CITY and in accordance with the Contracting Officer's written instructions, either correct such Defective Work, or, if it has been rejected by the Contracting Officer, remove it from the site and replace it with conforming Work. If the CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the CITY may have the Defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by the CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service for the benefit of the CITY before Substantial Completion of all the Work, the correction period for the item may begin on an earlier date if so provided in the Specifications or by Change Order. Provisions of this paragraph are not intended to shorten the Statute of Limitations for bringing an action.

12.8 Acceptance of Defective Work:

Instead of requiring correction or removal and replacement of Defective Work, the Contracting Officer may accept Defective Work, the CONTRACTOR shall bear all direct, indirect and consequential costs attributable to the Contracting Officer's evaluation of and determination to accept such Defective Work (costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the CITY shall be entitled to an appropriate decrease in the Contract Price. If the CITY has already made final payment to the CONTRACTOR, an appropriate amount shall be paid by the CONTRACTOR or his Surety to the CITY.

12.9 CITY May Correct Defective Work:

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

ARTICLE 13 - PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values:

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

13.2 Preliminary Payments:

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

13.3 Application for Progress Payment:

The CONTRACTOR shall submit to the Contracting Officer for review an Application for Payment filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents. Progress payments will be made as the Work progresses on a monthly basis or twice a month when requested by the CONTRACTOR, but only when the approved invoice exceeds \$10,000.00.

13.4 Review of Applications for Progress Payments:

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

13.5 Stored Materials and Equipment:

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

13.6 CONTRACTOR's Warranty of Title:

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

13.7 Withholding of Payments:

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

13.7.1 The Work is Defective, or completed Work has been damaged requiring correction or replacement, or has been installed without approval of Shop Drawing, or by an unapproved Subcontractor.

13.7.2 The Contract Price has been reduced by Change Order.

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

13.8 Retainage:

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

13.9 Request for Release of Funds:

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

13.10 Substantial Completion:

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

13.11 Access Following Substantial Completion:

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

13.12 Final Inspection:

Upon written notice from the CONTRACTOR that the entire Work or an agreed portion thereof is complete, the Contracting Officer will make a final inspection with the CONTRACTOR and appropriate Consultants and will notify the CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or Defective.

The CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies. The CONTRACTOR shall pay for all costs incurred by the CITY resulting from re-inspections.

13.13 Final Application for Payment:

After the CONTRACTOR has completed all such corrections to the satisfaction of the Contracting Officer and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of payment to all laborers, Subcontractors and Suppliers, certificates of inspection, marked-up record documents and other documents - all as required by the Contract Documents, and after the Contracting Officer has indicated that the Work is acceptable (subject to the provisions of paragraph 13.17), the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all certificates, warranties, guaranties, releases, affidavits, and other documentation required by the Contract Documents.

13.14 Final Payment and Final Completion:

13.14.1 If on the basis of the Contracting Officer's observation of the Work during construction and final inspection, and the Contracting Officer's review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, the Contracting Officer is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, the CITY will process final Application for Payment. Otherwise, the Contracting Officer will return the Application for Payment to the CONTRACTOR, indicating in writing the reasons for refusing to process final payment, in which case the CONTRACTOR shall make the necessary corrections and resubmit the final Application for Payment.

13.14.2 If, through no fault of the CONTRACTOR, Final Completion of the Work is significantly delayed, the Contracting Officer shall, upon receipt of the CONTRACTOR's final Application for Payment, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by the CITY for Work not fully completed or corrected is less than the retainage provided for in paragraph 13.8, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the CONTRACTOR to the CITY with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

13.14.3 In addition to other requirements, final payment shall not be due until CITY's receipt of verification from the State of Alaska Department of Labor and Workforce Development ("the Department") that (i) Contractor has complied with AS 36.05.045(a) and (ii) the Department is not conducting an investigation and (iii) the Department has not issued a notice of violation of AS 36.05 to Contractor or to any subcontractor.

13.15 Final Acceptance:

Following receipt of the CONTRACTOR's Release with no exceptions, and certification that laborers, Subcontractors and materialmen have been paid, certification of payment of payroll and sales taxes and revenue taxes, and final payment to the CONTRACTOR, the CITY will issue a letter of Final Acceptance, releasing the CONTRACTOR from further obligations under the Contract, except as provided in paragraph 13.16.

13.16 CONTRACTOR's Continuing Obligation:

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

13.17 Waiver of Claims by CONTRACTOR:

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

13.18 No Waiver of Legal Rights:

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

ARTICLE 14 - SUSPENSION OF WORK, DEFAULT AND TERMINATION

14.1 CITY May Suspend Work:

14.1.1 The CITY may, at any time suspend the Work or any portion thereof by notice in writing to the CONTRACTOR. If the Work is suspended without cause the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefor as provided in Article 15. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that suspension is due to the fault or negligence of the CONTRACTOR, or that suspension is necessary for Contract compliance, or that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the CONTRACTOR.

14.1.2 In case of suspension of Work, the CONTRACTOR shall be responsible for preventing damage to or loss of any of the Work already performed and of all materials whether stored on or off the site or approved remote storage sites.

14.2 Default of Contract:

14.2.1 If the CONTRACTOR:

- a. Fails to begin the Work under the Contract within the time specified in the "Proposal", or
- b. Fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workmen or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 6.6 as revised from time to time), or
- c. Performs the Work unsuitably or neglects or refuses to remove materials or to correct Defective Work.
- d. Discontinues the prosecution of the Work, or
- e. Fails to resume Work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency except as prohibited by 11 U.S.C. 363e, or
- g. Allows any final judgment to stand against him unsatisfied for period of 60 days, or
- h. Makes an assignment for the benefit of creditors without the consent of the Contracting Officer, or

- i. Disregards Regulatory Requirements, or
- j. Otherwise violates in any substantial way any provisions of the Contract Documents, or
- k. For any cause whatsoever, fails to carry on the Work in an acceptable manner, the Contracting Officer may give notice in writing to the CONTRACTOR and his Surety of such delay, neglect, or default.

If the CONTRACTOR or Surety, within the time specified in the above Notice of Default, shall not proceed in accordance therewith, then the CITY may, upon written notification from the Contracting Officer of the fact of such delay, neglect or default and the CONTRACTOR's failure to comply with such notice, have full power and authority without violating the Contract, to take the prosecution of the Work out of the hands of the CONTRACTOR. The CITY may terminate the services of the CONTRACTOR, exclude the CONTRACTOR from the site and take possession of the Work and of all the CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by the CONTRACTOR (without liability to the CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which the CITY has paid the CONTRACTOR but which are stored elsewhere, and finish the Work as the CITY may deem expedient. The CITY may enter into an agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods that in the opinion of the Contracting Officer are required for the completion of said Contract in an acceptable manner.

- 14.2.3 The Contracting Officer may, by written notice to the CONTRACTOR and his Surety or his representative, transfer the employment of the Work from the CONTRACTOR to the Surety, or if the CONTRACTOR abandons the Work undertaken under the Contract, the Contracting Officer may, at his option with written notice to the Surety and without any written notice to the CONTRACTOR, transfer the employment for said Work directly to the Surety. The Surety shall submit its plan for completion of the Work, including any contracts or agreements with third parties for such completion, to the CITY for approval prior to beginning completion of the Work. Approval of such contracts shall be in accordance with all applicable requirements and procedures for approval of subcontracts as stated in the Contract Documents.
- 14.2.4 Upon receipt of the notice terminating the services of the CONTRACTOR, the Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the Work included under the Contract and employ by contract or otherwise any person or persons to finish the Work and provide the materials therefor, without termination of the continuing full force and effect of this Contract. In case of such transfer of employment to the Surety, the Surety shall be paid in its own name on estimates covering Work subsequently performed under the terms of the Contract and according to the terms thereof without any right of the CONTRACTOR to make any claim for the same or any part thereof.
- 14.2.5 If the Contract is terminated for default, the CONTRACTOR and the Surety shall be jointly and severally liable for damages for delay as provided by Article 11.8, and for the excess cost of completion, and all costs and expenses incurred by the CITY in completing the Work or arranging for completion of the Work, including but not limited to costs of assessing the Work to be done, costs associated with advertising, soliciting or negotiating for bids or proposals for completion, and other procurement costs. Following termination the CONTRACTOR shall not be entitled to receive any further balance of the amount to be paid under the contract until the work is fully finished and accepted, at which time if the unpaid balance exceeds the amount due the CITY and any amounts due to persons for whose benefit the CITY has withheld funds, such excess shall be paid by the CITY to the CONTRACTOR. If the damages, costs, and expenses due the CITY exceed the unpaid balance, the CONTRACTOR and his Surety shall pay the difference.
- 14.2.6 If, after notice of termination of the CONTRACTOR's right to proceed under the provisions of this clause, it is determined for any reason that the CONTRACTOR was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, or that termination was wrongful, the rights and obligations of the parties shall be determined in accordance with the clause providing for convenience termination.

14.3 Rights or Remedies:

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

14.4 Convenience Termination:

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

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

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

14.4.3 The termination claim shall be submitted promptly, but in no event later than 90 days from the effective date of termination, unless one or more extensions in writing are granted by the Contracting Officer upon request of the CONTRACTOR made in writing within the 90-day period. Upon failure of the CONTRACTOR to submit his termination claim within the time allowed, the Contracting Officer may determine, on the basis of

information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall thereupon pay to the CONTRACTOR so determined.

14.4.4 The CONTRACTOR and the Contracting Officer may agree upon whole or any part of the amount or amounts to be paid to the CONTRACTOR by reason of the total or partial termination of the Work pursuant to this section. The Contract shall be amended accordingly, and the CONTRACTOR shall be paid the agreed amount. In the event of the failure of the CONTRACTOR and the Contracting Officer to agree in whole or in part, as provided heretofore, as to the amounts with respect to costs to be paid to the CONTRACTOR in connection with the termination of the Work the Contracting Officer shall determine, on the basis of information available to him, the amount, if any, due to the CONTRACTOR by reason of the termination and shall pay to the CONTRACTOR the amount determined as follows:

- a. All costs and expenses reimbursable in accordance with the Contract not previously paid to the CONTRACTOR for the performance of the Work prior to the effective date of the Notice of Termination;
- b. So far as not included under "a" above, the cost of settling and paying claims arising out of the termination of the Work under subcontracts or orders which are properly chargeable to the terminated portions of the Contract;
- c. The reasonable costs of settlement with respect to the terminated portion of the Contract heretofore, to the extent that these costs have not been covered under the payment provisions of the Contract.

14.4.5 The CONTRACTOR shall have the right of appeal under the CITY's claim procedures, as defined in Article 15, for any determination made by the Contracting Officer, except if the CONTRACTOR has failed to submit his claim within the time provided and has failed to request extension of such time, CONTRACTOR shall have no such right of appeal. In arriving at the amount due the CONTRACTOR under this section, there shall be deducted:

- a. All previous payments made to the CONTRACTOR for the performance of Work under the Contract prior to termination;
- b. Any claim which the CITY may have against the CONTRACTOR;
- c. The agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the CONTRACTOR or sold pursuant to the provisions of this section and not otherwise recovered by or credited to the CITY; and,
- d. All progress payments made to the CONTRACTOR under the provisions of this section.

14.4.6 Where the Work has been terminated by the CITY said termination shall not affect or terminate any of the rights of the CITY against the CONTRACTOR or his Surety then existing or which may thereafter accrue because of such default. Any retention or payment of monies by the CITY due to the CONTRACTOR under the terms of the Contract shall not release the CONTRACTOR or his Surety from liability. Unless otherwise provided for in the Contract Documents, or by applicable statute, the CONTRACTOR, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the CITY at all reasonable times at the office of the CONTRACTOR, all its books, records, documents, and other evidence bearing on the cost and expenses of the CONTRACTOR under his Contract and relating to the Work terminated hereunder.

ARTICLE 15 - CLAIMS AND DISPUTES

15.1 Notification:

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

Claim, if not resolved, shall be presented to the Project Manager, in writing, within 60 days following receipt of the Intent to Claim. Receipt of the Claim will be acknowledged in writing by the Project Manager. The CONTRACTOR agrees that unless these written notices are provided, the CONTRACTOR will have no entitlement to additional time or compensation for such act, event or condition. The CONTRACTOR shall in any case continue diligent performance of the Contract.

15.2 Presenting Claim:

The Claim shall specifically include the following:

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

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

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

15.4 Contracting Officer's Decision:

The CONTRACTOR will be furnished the Contracting Officer's Decision within the next 90 days, unless additional information is requested by the Contracting Officer. The Contracting Officer's Decision is final and conclusive unless fraudulent as to the Claim.

15.5 Notice of Appeal:

Within 30 days of receipt of the Decision, the CONTRACTOR may deliver a Notice of Appeal to the City Manager of Unalaska, Alaska. The Notice of Appeal shall include specific exceptions to the Contracting Officer's Decision, including specific provisions of the contract, which the CONTRACTOR intends to rely upon in the appeal. General assertions that the Contracting Officer's decision is contrary to law or fact are not sufficient.

15.6 City Manager's Decision:

The decision of the City Manager will be rendered within 120 days of Notice of Appeal. This decision constitutes the exhaustion of contractual and administrative remedies. The time limits given above may only be extended by mutual consent. The decision of the City Manager shall be final and conclusive unless the CONTRACTOR commences action through the court within 120 days from receipt thereof.

**ATTACHMENT D CONTINUED
SUPPLEMENTARY CONDITIONS**

REFERENCE: 1. "GENERAL CONDITIONS OF THE CONTRACT", constitutes the General Conditions of this Contract and is further revised and supplemented by the provisions of these Supplementary Conditions to the Contract, hereinafter called the "Supplementary Conditions." The General Conditions and the Supplementary Conditions are applicable to all of the Work under this Contract and shall apply to the Contractor and all Subcontractors.

SUPPLEMENTS: 2. The following supplements modify, change, delete, or add to the General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, subparagraph or clause thereof is modified, or deleted by these supplements, the unaltered provisions of such article, paragraph, subparagraph or clause shall remain in effect.

SC-1 ARTICLE 1 - DEFINITIONS

Add the following section:

"Bid" and "Bidder" have the same definition as "Proposal" or "Proposer" respectively.

SC-2 ARTICLE 5 – BONDS, INSURANCE, AND INDEMNIFICATION

5.2 Bonds: Add the following sentence:

Performance and Payment Bonds are only required for Contracts over \$50,000.

5.4.3 Insurance Requirements: Add the following section:

11. The following are not required: Builders Risk Insurance, Pollution Liability Insurance, Aircraft and Water Craft Insurance, and Professional Liability Insurance.

SC-3 ARTICLE 11 - CONTRACT TIME; COMPUTATION AND CHANGE

11.5 Extension Due to Delays; Add the following sentence:

"Normal weather in Unalaska shall not be cause for time extension and the CONTRACTOR shall allow ample time in his schedule to accommodate normal weather delays."

SC-4 ARTICLE 13 – PAYMENTS TO CONTRACTOR AND COMPLETION

13.8 Retainage:

"The CITY may retain a maximum amount equal to 10% of the total amount earned on all progress payments. Once 50 percent of the work is complete and if the character and progress of the work have been satisfactory to the City, the City may determine that, as long as the character and progress of the work remain satisfactory to them, there will be no additional retainage on account of work completed; in which case, the remaining progress payments prior to Substantial Completion will be in an amount equal to 100 percent of the work completed. All retainage shall bear interest at the rate required by AS 36.90.250"

SC-5 ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

Add the following sections:

6.15 Use of Premises; Add the following sentence:

“It is the responsibility of the CONTRACTOR to obtain all required staging areas for the project.”

6..17.1 ~~The Contractor is required to submit a copy of the current red-lined as-built construction drawings with each monthly pay application. The City may withhold payment from the Contractor if the submitted as-builts are not current or are not in accordance with the General Notes of the contract drawings and all related contract documents.~~

6.18.4 The CONTRACTOR shall do whatever work is necessary for overall project safety and be solely and completely responsible for affected conditions of the job site, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and is not limited to normal working hours.

Safety provisions shall conform to Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and other applicable federal, state, county, and local laws, ordinances, codes, requirements set forth herein, and regulations that may be specified in other parts of these Contract Documents. Where these are in conflict, the more stringent requirements shall apply. CONTRACTOR shall become thoroughly familiar with governing safety provisions and shall comply with the obligations set forth therein.

The CONTRACTOR shall develop and maintain for the duration of the Contract, a safety program that will effectively incorporate and implement required safety provisions. CONTRACTOR shall appoint a qualified employee who is authorized to supervise and enforce compliance with the safety program.

The Contracting Officer's duty to conduct construction review of the CONTRACTOR's performance does not include a review or approval of the adequacy of CONTRACTOR's safety supervisor, safety program, or safety measures taken in, on, or near the construction site.

As part of safety program, CONTRACTOR shall maintain at its office or other well-known location at the job site, safety equipment applicable to the Work as prescribed by governing safety authorities, and articles necessary for giving first aid to the injured. CONTRACTOR shall establish procedures for the immediate removal to a hospital or a doctor's care of persons who may be injured on the job site.

6.18.6 CONTRACTOR shall do all work necessary to protect the general public from hazards, including but not limited to, surface irregularities, trenches, excavations, traffic control and blasting. Barricades, lanterns, temporary lighting and proper signs shall be furnished in sufficient amount to safeguard the public and the work. CONTRACTOR shall construct and maintain satisfactory and substantial fencing, railings, barricades, or steel plates, as applicable, at all openings, obstructions, or other hazards. Such barricades shall have adequate warning lights as necessary or required for safety.

~~CONTRACTOR shall submit a specific traffic control plan for temporary traffic routing and signage during construction. Traffic control plan shall comply with rules and regulations of the City and state authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by written permission of the proper authority. CONTRACTOR shall assure the least possible obstruction to traffic and normal commercial pursuits.~~

~~CONTRACTOR shall notify the Department of Public Works, and Department of Public Safety before closing any street or portion thereof and notify said departments when the streets are again possible for emergency vehicles. Do not block off emergency vehicle access without written~~

~~permission from the Unalaska fire department.~~ CONTRACTOR shall conduct operations with the least interference to fire equipment access, and at no time prevent such access.

CONTRACTOR shall leave a night emergency telephone number or numbers with the police department, so that contact may be made easily at all times in case of barricade and flare trouble or other emergencies.

6.18.7 The Contractor shall have a site-specific Safety Plan which shall include but not be limited to regulations outlined within the Code of Federal Regulations 29 CFR within Part 1910 Occupational Safety and Health Administration (OSHA) standard number 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) training. The Safety Plan will include all applicable parts of these regulations.

6.23.1 The CONTRACTOR shall assume the responsibility for protection of finished construction and shall repair and restore any and all damage to finished work to its original condition.

In unfinished areas, CONTRACTOR shall leave the site evenly graded as necessary, in a condition that will restore original drainage, and with an appearance equal to or better than original.

6.23.2 Any monument damaged or displaced by the Contractor that is shown on the plans shall be replaced in accordance with the Title 8 of the City of Unalaska Code of Ordinances. The cost of replacing or repairing damaged or displaced monuments that were shown on the plans shall be borne solely by the Contractor.

SC-6 ARTICLE 14 – SUSPENSION OF WORK, DEFAULT AND TERMINATION

Add the following section:

14.4.7 In the event the Work is Terminated for Convenience by the Owner after the Contractor has completed the first year's annual inspection, the owner reserves the right to terminate the Contract for subsequent *Mobilization/Demobilization, Inspection and Certification of all Listed Backflow Preventers* without cause provided the Contractor has not started future Work. Said termination will be made with a written Notice of Termination at least 60-days prior to subsequent annual inspection services. If termination is made between annual inspections as described above, additional payment will not be made for Convenience Termination, including work or materials obtained the previous year for future Work. Each year's annual inspection work should be Bid as stand-alone services so costs do not affect anticipated future services.

-END OF SUPPLEMENTARY CONDITIONS-

-END OF ATTACHMENT D-

ATTACHMENT E
PAYMENT AND PERFORMANCE BONDS (IF PROPOSAL EXCEEDS \$50,000)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

as Principal, hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto

City of Unalaska
(Name of Owner)

PO Box 610, Unalaska, Alaska 99685
(Address of Owner)

as Obligee, hereinafter called Obligee, in the sum of _____

_____ Dollars, (\$ _____) for the
payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Contractor has a written agreement dated _____ day of _____ 20 ____,
entered into a Contract with Owner for the

CITY OF UNALASKA

DOMESTIC WATER SYSTEM BACKFLOW CERTIFICATION AND TESTING - 3-YEAR MAINTENANCE CONTRACT

in accordance with the Specifications prepared by the **City of Unalaska** which Contract is by reference
made a part hereof, and is hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and
faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full
force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default under the Contract, the Owner having performed Owner'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 completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as the Work progresses (even though there should be a default or a succession of defaults under the contract or contracts 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 Owner to the Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of six (6) years from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators, or successors of the Owner.

Signed and Sealed this _____ day of _____ 20__.

(Principal) Seal

(Witness) (Title) Seal

(Surety) Seal

(Witness) (Title) Seal

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor, and
_____ as Surety, are held and firmly bound unto
City of Unalaska hereinafter called "OWNER", in the sum of _____ dollars, for the
payment of which sum, well and truly made, we bind ourselves, our heirs, executors, administrators,
successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said CONTRACTOR has been awarded and is about to enter into the annexed Agreement with
said OWNER to perform the WORK as specified or indicated in the Contract Documents entitled

**CITY OF UNALASKA
DOMESTIC WATER SYSTEM BACKFLOW CERTIFICATION AND TESTING - 3-YEAR MAINTENANCE CONTRACT**

NOW THEREFORE, if said CONTRACTOR, or subcontractor, fails to pay for any materials, equipment, or
other supplies, or for rental of same, used in connection with the performance of work contracted to be
done, or for amounts due under applicable State law for any work or labor thereon, said Surety will pay for
the same in an amount not exceeding the sum specified above, and, in the event suit is brought upon this
bond, a reasonable attorney's fee to be fixed by the court. This bond shall inure to the benefit of any
persons, companies, or corporations entitled to file claims under applicable State law.

PROVIDED, that any alterations in the WORK to be done or the materials to be furnished, or changes in the
time of completion, which may be made pursuant to the terms of said Contract Documents, shall not in any
way release said CONTRACTOR or said surety thereunder, nor shall any extensions of time granted under
the provisions of said Contract Documents release either said CONTRACTOR or said Surety thereunder, nor
shall any extensions of time granted under the provisions of said Contract Documents release either said
CONTRACTOR or said Surety, and notice of such alterations or extensions of the Agreement is hereby
waived by said Surety.

SIGNED AND SEALED, this _____ day of _____, 20____.

(SEAL)

(CONTRACTOR)

(Surety)

By: _____
(Signature)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

.

ATTACHMENT F
CITY REQUIREMENTS

ATTACHMENT F

Water Service Entry Details – 2-Pages

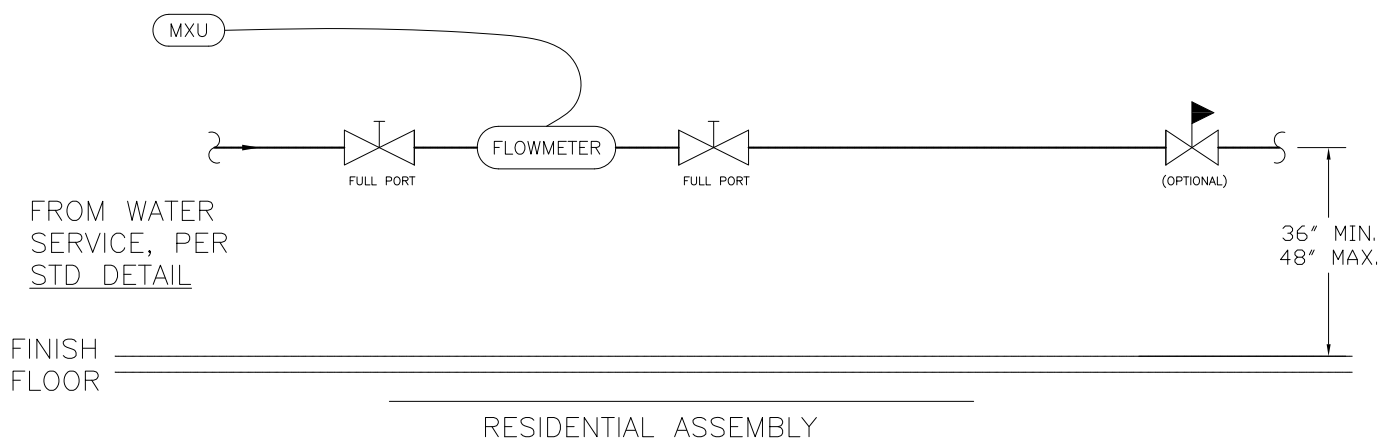
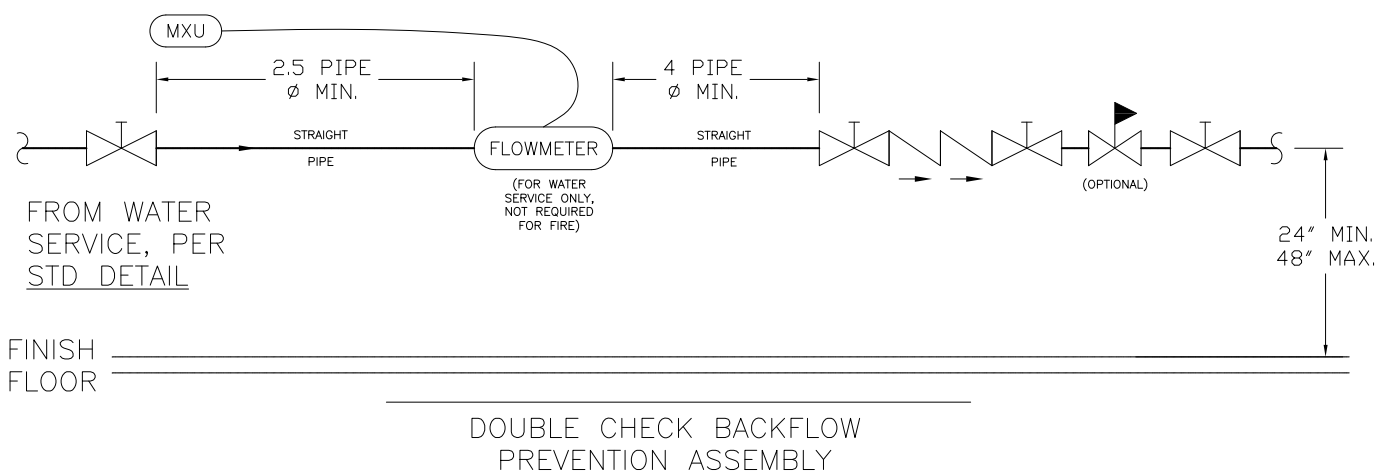
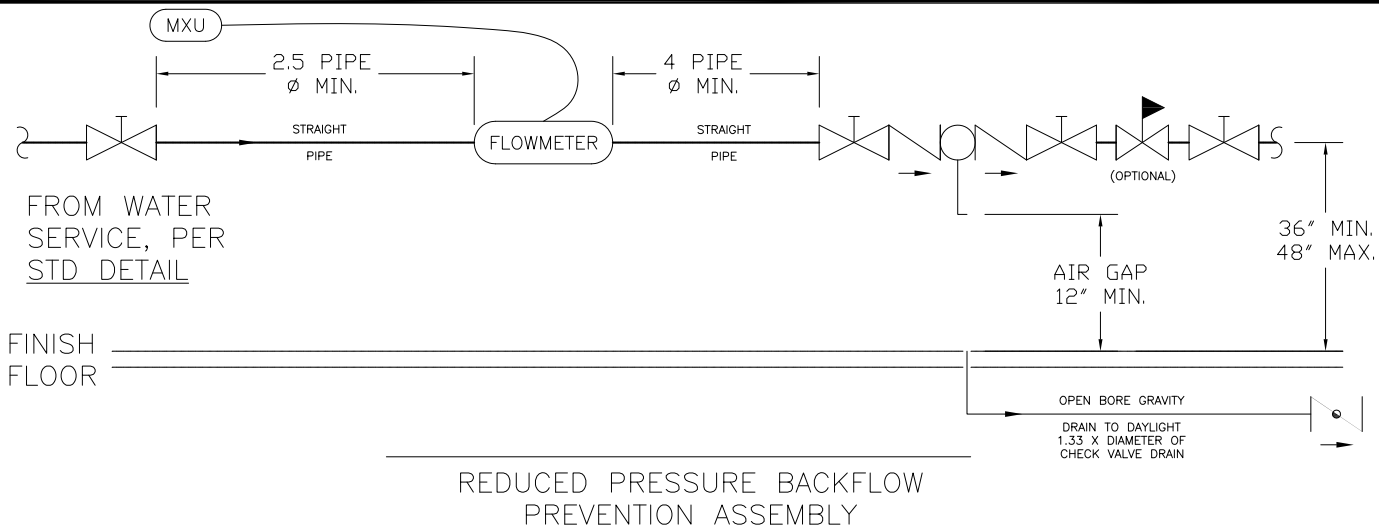
Current Standards for Backflow Prevention Requirements – 1-Page

Backflow Prevention Assembly Installation and Testing Requirements
Definitions and Clarifications – 3-Pages

Backflow Assembly Field Test Form – 2-Pages

Unalaska Code of Ordinances, Chapter 10.12 Water Utility Services – 10-Pages

WATER SERVICE ENTRANCE DETAILS



CITY OF UNALASKA
Department of Public Utilities

WATER SERVICE ENTRANCE

DRAWN BY:
RL

DATE:
7/1/15

APPROVED BY:
CH

SCALE:
N.T.S.

REVISION NO.:
2

PAGES.:
1 of 2

STANDARD DETAIL NO.:
60-6

GENERAL NOTES:

1. THIS DRAWING DEPICTS MINIMUM SPECIFICATIONS REQUIRED BY DPU FOR WATER SERVICE ENTRANCES. THE APPLICANT IS RESPONSIBLE FOR ALL OTHER DESIGN AND CONSTRUCTION REQUIRED BY INDIVIDUAL INSTALLATIONS.
2. THE APPLICANT IS SOLEY RESPONSIBLE TO COORDINATE THE MANDATORY INSPECTIONS WITH DPU PRIOR TO TURNING ON A WATER SERVICE, CONFORMANCE WITH OTHER CURRENT MANUFACTURER/CITY/STATE/FEDERAL REQUIREMENTS, AND PHYSICAL INSTALLATION/MAINTENANCE OF THE WATER SERVICE ENTRANCE.

BACKFLOW PREVENTION:

1. ALL BACKFLOW PREVENTION DEVICES ARE PROVIDED BY THE APPLICANT AND MUST BE CURRENTLY CERTIFIED AND LISTED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
2. COMMERCIAL OR INDUSTRIAL WATER SERVICES REQUIRE A REDUCED PRESSURE BACKFLOW ASSEMBLY.
3. 3+ DWELLING UNIT RESIDENTIAL WATER SERVICES REQUIRE A DOUBLE CHECK BACKFLOW ASSEMBLY.
4. FIRE PROTECTION REQUIRES A DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY BUT NOT A WATER METER.

WATER METERS:

1. THE WATER METER AND REMOTE READING DEVICES SHALL BE PURCHASED BY THE APPLICANT FROM DPU. $\frac{3}{4}$ " TO 1" SENSUS IPERL AND 2" TO 10" SENSUS OMNI C2. THE WATER METER SHALL BE INSTALLED BY THE APPLICANT AND THE REMOTE READING DEVICE BY DPU.
2. ALL PIPE, FITTINGS, AND DEVICES SHALL BE THE SAME DIAMETER AS THE WATER METER EXCEPT WITH SPECIAL APPROVAL BY DPU.
3. PIPE AND FITTINGS 3"Ø AND LARGER SHALL BE DUCTILE IRON WITH FLANGE TYPE CONNECTIONS ABOVE GROUND.

KEY:



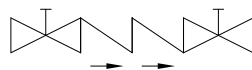
PRESSURE REDUCING VALVE



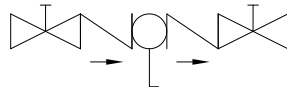
VALVE



TIDEFLEX CHECK VALVE



DOUBLE CHECK BACKFLOW PREVENTOR



REDUCED PRESSURE BACKFLOW PREVENTOR



METER READER

CITY OF UNALASKA

Department of Public Utilities

WATER SERVICE ENTRANCE

DRAWN BY:
RL

DATE:
7/1/15

APPROVED BY:
CH

SCALE:
N.T.S.

REVISION NO.:
2

PAGES.:
2 of 2

STANDARD DETAIL NO.:
60-6



City of Unalaska Water Utility

Cross-Connection Control Program

Current Standards for Backflow Prevention Requirements

Single Family Residence and Residential Duplex

None Required

Multi- Family Housing Units Triplex and Above

Property isolation by Approved **Double Check Valve Assembly (DCVA)** immediately downstream from the City Water Meter. Install per Manufacturer Recommendations.

All Other Metered Services

Property isolation by Approved **Reduced Pressure Backflow Assembly (RPBA)** immediately downstream from the City Water Meter. Install per Manufacturer Recommendations.

Mixed Use Properties

Mixed use properties such as a shop with housing units above served by a single water service will require the higher standard of protection. **(RPBA)**

Fire Suppression Systems

Property isolation by Approved **Double Check Valve Assembly (DCVA)** Installed per Manufacturer Recommendations

NOTE: All new Fire Suppression Systems and any changes to existing Fire Suppression Systems will require the installation of an Approved **Double Check Detector Assembly (DCDA)**

Approved assemblies are those listed on the **current** University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC FCCCHR) approved assemblies list.

All Backflow Assemblies must be installed and tested according to the USC FCCCHR Manual of Cross Connection Control, 10th Edition.



City of Unalaska Water Utility

Cross-Connection Control Program

Backflow Prevention Assembly Installation and Testing Requirements, Definitions and Clarifications

Approved Backflow Prevention Assembly:

A Backflow Prevention Assembly (BPA) which is on the **current** University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC FCCCHR) or (USC) Approved List. The list is free and can be accessed online at <http://www.usc.edu/dept/fccchr/list.html> A BPA which was on the list but has fallen off may continue to be used if it can pass testing (repairs can be made to these units but a pass result is still required.) A fail result means that it must be replaced with one currently on the approved list.

As of January 4th 2014 the EPA has established a lead free standard for all new potable water plumbing installations. The USC list does indicate units which are part of the new lead free standard. All new BPA installations must meet this new EPA requirement.

Backflow Preventer Assembly:

A Backflow Preventer Assembly is a factory engineered and constructed assembly of shut off valves and check valves. A Double Check Valve Assembly (DCBA) consists of two check valves with shut off valves at either end. A Reduced Pressure Zone Assembly (RPBA) is similar to a Double Check Valve Assembly but has the addition of a Reduced Pressure Zone area between the two check valves. The Reduced Pressure Zone offers an extra layer of protection in the event that the downstream check valve fails.

Backflow Assembly Installation:

An assembly must be installed per manufacture specifications and in the USC approved orientation. Assemblies installed above 60 inches require an OSHA approved platform be provided for access. Reduced Pressure Zone Assemblies require at least 12 inches of clearance below the spill valve. An RPBA also requires adequate drainage so that water discharged by the RPBA cannot back up inside the space where it is located, as high as the bottom of the spill valve. All assemblies should have adequate clearance between the assembly and back wall, and at least 30 inches of clearance on the front side for testing and maintenance.



City of Unalaska Water Utility

Cross-Connection Control Program

Strainer Assemblies:

Strainer assemblies may be installed between the water meter and the BPA provided the water meter and BPA are installed in accordance with the manufacturer's recommendations. Water customer Strainer Assemblies may not be installed prior to the Water Meter.

Hose Bibs or other water branch services:

Hose bibs or branch services may only be installed downstream from the Water Meter and BPA. BPA test cocks may not be used for any purpose other than testing the BPA.

Fire Suppression Systems:

Fire Suppression Systems are stand alone and may not be tapped, altered or used for any purpose other than their intended design. No water may be taken from a Fire Suppression System for any use other than fighting a fire.

Backflow Prevention Assembly Test Cocks:

BPA test cocks shall be kept clean and free of paint or other debris. Use of plugs or caps is recommended to protect the Test Cocks.

Order of Installation:

BPAs should be installed directly downstream of the City of Unalaska owned water meter and in accordance with the manufacturer recommendations.

BPAs without proper I.D.:

Backflow Prevention Assemblies without proper identification, i.e., serial numbers and name plates, DO NOT meet compliance with the current University of Southern California (USC) list. These assemblies may be tested; however, if the assemblies do not pass the test, they must be replaced with an assembly that is on the current list. It is not possible to purchase the correct repair parts without the proper I.D.



City of Unalaska Water Utility

Cross-Connection Control Program

By-Passes on Water Meters:

By-Passes may be installed around water meters, but must contain a lockable shut off valve. The shut off valve must be locked out with a lock provided by the City of Unalaska.

By-Passes on Backflow Prevention Assemblies:

By-Passes on Backflow Prevention Assemblies must contain an additional BPA of equal or greater protection.

BPAs in a Vault:

Double Check Assemblies may be installed in underground vaults. Reduced Pressure Zone Assemblies (RPZA) may only be installed in a vault if an open bore drain to daylight of adequate size to handle a full discharge by the RPBA is also installed. Refer to manufacturers flow curves to determine maximum discharge rate based on supply pressure.

Testing:

An install will not be considered complete until the BPA has been tested and passed by a City of Unalaska approved Backflow Assembly Tester (BAT). A list of currently approved testers is attached.

BPAs must be tested annually and a passing report submitted to the City of Unalaska Water Utility by the City approved BAT. Reminder notices may be sent by the City letting water customers know when the annual testing is due to be completed for their BPA units. It is the BPA owner's responsibility to have units tested annually and to forward a copy of those testing results to the City Water Utility.



City of Unalaska Water Utility

Cross-Connection Control Program
Backflow Assembly Field Test Form

Facility Manager Contact Information				
Facility Manager Name:				
Facility Physical Address:				
Facility Manager Phone:				
Backflow Assembly Owner Contact Information				
Owner Name:				
Owner Contact Information (if different from above):				
Owner Mailing Address: _____				
City: _____		Zip Code: _____		
Phone: _____		E-mail: _____		
Cell Phone: _____		Fax: _____		
Backflow Assembly Data				
General and detailed description of the assembly's location (building name, floor, room # etc.)				
Make: _____		Model: _____		
Size: _____		Serial Number: _____		
Assembly Details		Yes	No	N/A
1. Is the assembly listed on the current or prior USC approved assemblies list?				
2. Is the assembly installed in the proper USC approved orientation?				
a) A no answer requires re-plumbing in the correct orientation or replacement with an approved assembly.				
3. Does the assembly appear to have been field modified in any way?				
a) If yes, must be put back to original configuration prior to testing.				
b) If unable to put back to original configuration, assembly must be replaced with a current approved assembly.				
4. Is the assembly readily accessible?				
5. Is the assembly a minimum of 12" and a maximum of 36" above the floor?				
6. If located in a vault, is vault maintained flood-free with open-bore drain to daylight?				

Note: The following tests are to be performed according to the test methods of the USC FCCC HR Manual of Cross Connection Control, 10th Edition.

Field Test Results					
DC/DCDA					
RP/RPDA			PVBA/SVB		
No. 1 Check Valve	No. 2 Check Valve	RP Relief Valve	Air Inlet Valve	Check Valve	
PSID	PSID	Opened @ ____ PSID	Opened @ ____ PSID	Held @ ____ PSID	
Leaked Y / N	Leaked Y / N (RP) Closed Tight Y / N	Did Not Open ____	Opened @ +/- 1.0 PSID or Did Not Open ____	Leaked Y / N	
Cleaned Y / N Repaired Y / N	Cleaned Y / N Repaired Y / N	Cleaned Y / N Repaired Y / N	Cleaned Y / N Repaired Y / N	Cleaned Y / N Repaired Y / N	
PSID	PSID	Opened @ ____ PSID	Opened @ ____ PSID	Held @ ____ PSID	
	(RP) Closed Tight Y / N				
Assembly test cocks capped and sealed? Y / N		Water service restored? Y / N			
Test Comments:					
Tester CBAT ID #		CBAT ID # Exp. Date		Tester Gauge #	
Tester Printed Name			Tester Contract Phone # () -		
By the signature below the tester certifies that all information provided in the above document is current, complete and accurate to the best of their ability.					
Tester Signature			Date:		

Notes:

- For detector devices, please use a second form for the bypass assembly.
- A copy of all test results must be filed with the City of Unalaska Water Utility within 10 days of test completion.

Unalaska, Alaska Code of Ordinances

CHAPTER 10.12: WATER UTILITY SERVICES

Section

- 10.12.010 Definitions
- 10.12.015 Facility Description
- 10.12.020 Service conditions and requirements
- 10.12.030 Special provisions
- 10.12.035 Service Classifications
- 10.12.050 Penalty

§ 10.12.010 DEFINITIONS.

For the purpose of this Chapter, unless the context otherwise requires, the following words and phrases shall have the meanings defined herein.

(A) “AIR GAP” means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture, receptor, or other assembly and the flood level rim of the receptacle. These vertical, physical separations must be at least twice the diameter of the water supply outlet or at least two (2) inches, whichever is greater.

(B) “APPROVED” means accepted by the City of Unalaska.

(C) “AUXILLIARY WATER SUPPLY” means any water supply on or available to the premises other than the City’s approved public water supply. These auxilliary waters may include water from another public potable water supply or any natural source(s), such as a well, spring, river, stream, harbor, and so forth, used waters, or industrial fluids. These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the City’s public water system does not have sanitary control.

(D) "BACKFLOW" means the undesirable reversal of flow from back siphonage or backpressure in a potable water distribution system as a result of a cross connection.

(E) “BACKPRESSURE” means a pressure, higher than the supply pressure, caused by a pump, elevated tank, boiler, or any other means that may cause backflow.

(F) “BACKSIPHONAGE” means backflow caused by negative or reduced pressure in the supply piping.

(G) “BACKFLOW PREVENTER” means an assembly or means designed to prevent backflow.

(H) “CONTAMINATION” means an impairment of a potable water supply by the introduction or admission of any foreign substance that degrades the quality and creates a health hazard.

(I) “CROSS CONNECTION” means a connection or potential connection between any part of a potable water system and any other environment containing other substances in a manner that under any circumstances would allow such substances to enter the potable water system. Other substances may be gasses, liquids, or solids, such as chemicals, waste products, steam, water from other sources (potable or nonpotable), or any matter that may change the color or add odor to the water.

(J) “CROSS CONNECTIONS - CONTROLLED” means a connection between a potable water system and a nonpotable water system with an approved backflow-prevention assembly properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.

(K) “CROSS CONNECTION CONTROL BY CONTAINMENT” means the installation of an approved backflow-prevention assembly at the water service connection to any consumer’s premises, where it is physically and economically unfeasible to find and permanently eliminate or control all actual or potential cross connections within the consumer’s water system; or it shall mean the installation of an approved backflow-prevention assembly on the service line leading to and supplying a portion of a consumer’s water system where there are actual or potential cross connections that cannot be effectively eliminated or controlled at the point of the cross connection.

(L) “CURB STOP” means the valve on the water service line, set on or about the right-of-way, easement, or property line which separates the City’s ownership from the consumers. This valve is operated by the City through the key box.

(M) “DOUBLE CHECK VALVE ASSEMBLY” means two internally loaded check valves, either spring loaded or internally weighted, installed as a unit between two tightly closing resilient seated shutoff valves and fittings with properly located resilient-seated test clocks. This assembly shall only be used to protect against a nonhealth hazard (that is, a pollutant).

(N) “EXTENDED WATER SERVICE CONNECTION” means a water service connection servicing a consumer whose property is not located adjacent to a road, right-of-way, or easement containing a main water line, making it necessary to locate the meter or key box away from the property line of the premises being served.

(O) “INDUSTRIAL FLUIDS SYSTEM” means any system containing a fluid or solution that may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration, such as would constitute a health, system, pollution, or plumbing hazard, if introduced into an approved water supply. This may include, but not be limited to: polluted or contaminated waters, all types of process waters and used waters originating from the public potable water system that may have deteriorated in sanitary quality, chemicals in fluid form, plating acids and alkalis, circulating cooling waters connected to an open cooling tower, cooling towers that are chemically or biologically treated or stabilized with toxic substances, contaminated natural waters such as wells, springs, streams, rivers, bays, harbors, seas, irrigation

canals or systems and so forth, oils, gases, glycerin, paraffins, caustic and acid solutions, and other liquid and gaseous fluids used in industrial or other purposes for fire-fighting purposes.

(P) "KEY BOX" means the service line shut-off that provides access to the curb stop valve located at or near the property line of the subject property or, in the case of extended service connections, located within the dedicated right-of-way or easement.

(Q) "NONPOTABLE WATER" means water that is not safe for human consumption or that is of questionable quality.

(R) "POLLUTION" means the presence of any foreign substance in water that tends to degrade its quality so as to constitute a nonhealth hazard or impair the usefulness of the water.

(S) "POTABLE WATER" means water that is safe for human consumption as described by the public health authority having jurisdiction.

(T) "REDUCED-PRESSURE BACKFLOW PREVENTION ASSEMBLY" means two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and below the first check valve. These units are located between two tightly closing resilient-seated shutoff valves as an assembly and equipped with properly located resilient-seated test cocks.

(U) "USED WATER" means any water supplied by a water provider from a public potable water system to a consumer's water system after it has passed through the point of delivery and is no longer under the sanitary control of the water provider.

(V) "TYPES OF HAZARDS" mean:

(1) *Degree of hazard.* The term is derived from an evaluation of the potential risk to public health and to the adverse effect of the hazard upon the potable water system.

(2) *Health hazard.* A cross connection or potential cross connection involving any substance that could, if introduced in the potable water supply, cause death, illness, spread disease, or have a high probability of causing such effects.

(3) *Plumbing hazard.* A plumbing-type cross connection in a consumer's potable water system that has not been properly protected by an approved air gap or an approved backflow-prevention assembly.

(4) *Nonhealth hazard.* A cross connection or potential cross connection involving any substance that generally would not be a health hazard but would constitute a nuisance or be aesthetically objectionable if introduced into the potable water supply.

(5) *System hazard.* An actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer's potable water system or of a pollution or contamination that would have a protracted effect on the quality of the potable water in the system.

(W) "WATER SERVICE CONNECTION" means a pipe, key box, meter, and other appurtenances, used to conduct and deliver water from the main to a point at or near the property line of the subject property, except in the case of extended service connections. It is considered the terminal end of a service connection from the public potable water system, that is, where the water provider loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system. If a meter is installed at the end of the service connection, then the

service connection shall mean the downstream end of the meter. There shall be no unprotected takeoffs from the service line ahead of any meter or backflow-prevention assembly located at the point of delivery to the consumer's water system. Service connection shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system.

(Ord. No. 2001-05, passed 5-8-01; Am. Ord. 2005-18, passed 10-5-05)

§ 10.12.015 FACILITY DESCRIPTION.

The City's water system shall be considered as made up of two parts: the utility system and the consumer system.

(A) Utility system consists of the source of facilities and the distribution system, and shall include all those facilities of the water system under the complete control of the utility, up to the point where the consumer's system begins. The source shall include all components of the facilities utilized in the production, treatment, storage, and delivery of water to the distribution system. The distribution system shall include the network of conduits used for the delivery of water from the source to the consumer's system.

(B) The consumer's system includes those parts of the facilities beyond the termination of the utility distribution system that are utilized in conveying utility-delivered domestic water to points of use.

(Ord. 2005-18, passed 10-5-05)

§ 10.12.020 SERVICE CONDITIONS AND REQUIREMENTS.

(A) Water utility services are subject to the following conditions and requirements:

(1) *Availability.* Except as otherwise provided in this Chapter, water service is contingent upon the availability of system capacity and location of main distribution lines or facilities relative to any property to be served.

(2) *Point of delivery.* The point of delivery is where the consumer's service line connects to the downstream side of the curb stop at the water service connection. Unless authorized by the City in writing, water supplies from one water service connection may not be used to provide or deliver water to another person or subject property otherwise eligible to receive water service.

(3) *Service connection procedures.* The City will provide materials for and install or supervise the installation of service lines from the main line to the point of delivery at the property line including the key box. The owner shall install and maintain the service line from the key box to the point of use. Any work at the point of delivery must be inspected by the City prior to activating and burying the connection to the City's water delivery system. The owner will be charged for all work completed and materials provided by the City according to the City's fee and rate schedule. The following provisions apply specifically to metered connections:

(a) *Meters required.* Water service to industrial, commercial, and multi-family residential buildings having three or more units will be metered and charged for actual usage. Duplex and single family dwellings may be metered at the consumer's request.

(b) *Meters provided by City.* Where a meter is required by this Chapter, the City will provide at its expense, but not install, a suitable meter for each consumer's water service connection. The City will determine the size, type, and placement of the meter. The City will withhold service pending the proper location and installation of the meter by the owner. The meter will remain the sole property of the City; provided, however, that the consumer shall pay for any damages to the meter or other City property arising from the consumer's negligence.

(c) *Plumbing apparatus.* The owner shall cause to be placed, at the owner's expense, the necessary plumbing apparatus for meter placement as indicated by the City's standard specifications.

(d) *Removal and reinstallation.* The charges for removal and reinstallation of a meter due to the negligence of the consumer will be based upon time and materials as set by the City's fee and rate ordinance.

(e) *Meter replacement.* The City reserves the right to remove and test any meter at any time and to install another meter in the place of the one it removed.

(4) *Extended water service connections.* In cases where mains have not been installed within three hundred (300) feet of the subject property, the owner of the subject property may be eligible for an extended service connection by signing an extended water service connection agreement and agreeing to, among other terms, the following:

(a) *Location and charges.* A standard connection and key box installation shall be installed by the City at a point on the water main designated by the City. The owner shall pay the standard time and materials charges as provided in the fee and rate ordinance.

(b) *Expense.* The service line shall be extended by the owner at the owner's expense.

(c) *Maintenance.* The owner shall own and be responsible for maintenance of the service line from the point where the line connects to the City's curb stop.

(d) *Future connection.* At such time as mains are extended or installed to a point within three hundred (300) feet of the property being served, the property owner must connect to the extended main and abandon the old service at the main and pay the time and materials costs and charges for continuation of service. Any work at the point of delivery must be inspected by the City prior to activating connection to the City's water delivery system.

(5) *Condition for receiving water service.* Where sewer service is available within three hundred (300) feet of any property line of the property to be served, no person shall receive water service who has not previously made application for a wastewater service connection.

(B) *Consumer/owner responsibilities.*

(1) *Responsibility and ownership.* The owner shall retain ownership of and be responsible for maintenance of the water service line downstream from and including the connection with the curb stop.

(2) *Compliance with City specifications.* The consumer shall comply with all applicable standard specifications of the City. Specifications, known as Installation Guidelines, are available at the Department of Public Utilities. No person shall be permitted to connect to the City's water system while still physically connected to any other source of water supply, unless the provisions of backflow/cross-connection regulations as provided in this Chapter and the

City's standard specifications are met. The City reserves the right to refuse or to disconnect service whenever the City receives notice or has reasonable cause to believe that the consumer's service is in hazardous condition or does not conform with the City's Installation Guidelines and/or any other applicable laws or regulations.

(3) *Access.* By accepting water service, the consumer agrees to allow the City's designated representative, upon presentation of proper identification, to enter upon the consumer's premises at all reasonable hours for the purposes of service inspection and/or to set up devices as are necessary to control, sample, monitor, or measure water flow.

(4) *Maintenance and use requirements.*

(a) *Service line.* The consumer's service line located between the key box and the subject property of the consumer shall be kept in repair by the owner or occupant of the subject property, who shall be responsible for all damages other than those caused by acts of the City. In the case of a frozen water service, the consumer shall be responsible for thawing the service line from the main to the building, unless the freezing condition can be demonstrated to have been the result of the City's negligence.

(b) *Meter protection.* The owner or consumer shall provide, at the owner's or consumer's expense, a clean, dry, safe place for the meter which place is not subject to a great variation in temperature, so that the meter will be protected from freezing and other hazards and is so located as to control the entire supply and so as to be easily accessible for installation, maintenance, reading, and disconnection.

(c) *Electrical grounding systems.* The City will not be liable for the adequacy of any electrical grounding electrodes for electrical circuits and devices as may be attached by the owner to the owner's service pipe and plumbing system. This method of grounding involves an element of danger, and the City will not be liable for the safety of any person who makes contact with the owner's service pipe and plumbing system that is used as an electrical grounding system. The City reserves the right to make any structural or material changes it so desires in the installation of the City's water mains and water service connections without regard to the effect the changes may have on the overall adequacy of an electrical grounding system utilizing the owner's service pipe and plumbing system.

(d) *Connections and alterations.* Approval from the City shall be required to make any connections to or alterations in any conduit, pipe, or other fitting connecting directly to the key box, or to turn water service off or on at the key box.

(e) *Separate shut-off valve.* All consumers receiving service from the City shall provide a separate shut-off valve inside the building for which service is being requested or provided. The valve shall be located on the service line entering the structure, ahead of any branch lines, where it is readily accessible in the event of emergency.

(Ord. No. 2001-05, passed 5-8-01; Am. Ord. 2005-18, passed 10-5-05) Penalty, see §10.04.080

§ 10.12.030 SPECIAL PROVISIONS.

(A) *Hydrant use.* It shall be unlawful for anyone except City personnel to operate any City fire hydrant without a hydrant use permit.

(B) *Cross-connection control.*

(1) *Purpose.* The purpose of this subsection is to:

(a) protect the public potable water supply of the City from the possibility of contamination or pollution by isolating within the consumer's internal distribution system(s) or the consumer's private water system(s) such contaminants or pollutants that could backflow into the public water system; and,

(b) promote the elimination or control of existing cross connections, actual or potential, between the consumer's in-plant potable water system(s) and nonpotable water systems, plumbing fixtures, and industrial piping systems; and,

(c) provide for the maintenance of a continuing program of cross-connection control that will systematically and effectively prevent the contamination or pollution of all potable water systems.

(2) *Responsibilities.* The City desires to protect the public potable water distribution system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. If, in the judgment of the Director, an approved backflow-prevention assembly is required (at the consumer's water service connection or within the consumer's private water system) for the safety of the water system, the Director or the Director's designated agent shall give notice in writing to consumer to install such an approved backflow-prevention assembly(s) at specific location(s) on the consumer's premises. The consumer shall immediately install such approved assembly(s) at their own expense. The failure, refusal, or inability on the part of the consumer to install, have tested, and maintain said assembly(s) shall constitute grounds for discontinuing water service to the premises until such requirements have been satisfactorily met.

(3) *Water supply protection.* No water service connection to any premises shall be installed unless the water supply is protected as required by state laws and regulations and this Chapter. Service of water to any subject property shall be discontinued by the City if a backflow prevention assembly required by this chapter is not installed, tested, and maintained, or if it is found that a backflow-prevention assembly has been removed, bypassed, or if an unprotected cross connection exists on the subject property. Service will not be restored until such conditions or defects are corrected.

(4) *Right to inspect.* The consumer's system shall be open for inspection at all reasonable times to authorized representatives of the City to determine whether cross connections or other structural or sanitary hazards, including violations of these regulations, exist. When it becomes known that such a condition exists, the City shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the consumer has corrected the condition(s) in conformance with the Chapter relating to plumbing and water supplies and the regulations adopted pursuant thereto.

(5) *When a Backflow Prevention Assembly is Required.* Wherever the following conditions exist, an approved backflow-prevention assembly shall be installed on each service line to a consumer's water system at or near the property line or immediately inside the structure being served; but, in all cases, before the first branch line leading off the service line:

(a) In the case of subject property having an auxiliary water supply that is not or may not be of safe bacteriological or chemical quality and that is not accepted as an additional source by

the City, the public water system shall be protected against backflow from the subject property by installing an approved backflow-prevention assembly in the service line appropriate to the degree of hazard.

(b) In the case of premises on which any industrial fluids or any other objectionable substances are handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow-prevention assembly in the service line appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the utility system that have been subject to deterioration in quality.

(c) In the case of premises having (1) internal cross connections that cannot be permanently corrected and controlled, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, rendering it impracticable or impossible to ascertain whether or not dangerous cross connections exist, the public water system shall be protected against backflow from the subject property by installing an approved backflow-prevention assembly in the service line.

(6) *Type of Assembly Required.* The type of protective assembly required under subsections 5(a), 5(b), and 5(c) shall depend upon the degree of hazard that exists as follows:

(a) In the case of any premises where there is an auxiliary water supply as stated in subsection 5(a) of this section and it is not subject to any of the following rules, the public water system shall be protected by an approved air-gap separation or an approved reduced-pressure principle backflow-prevention assembly.

(b) In the case of any premises where there is water or substance that would be objectionable but not hazardous to health if introduced into the public water system, the public water system shall be protected by an approved double check valve assembly.

(c) In the case of any premises where there is any material dangerous to health that is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air-gap separation or an approved reduced-pressure principle backflow prevention assembly. Examples of premises where these conditions will exist include sewage treatment plants, sewage pumping stations, docks, seafood processing plants, slaughter houses, chemical manufacturing plants, hospitals, mortuaries, and plating plants.

(d) In the case of any premises where there are "uncontrolled" cross connections, either actual or potential, the public water system shall be protected by an approved air gap separation or an approved reduced-pressure principle backflow prevention assembly at the service connection.

(e) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross-connection survey, the public water system shall be protected against backflow from the premises by either an approved air-gap separation or an approved reduced-pressure principle backflow-prevention assembly on each service to the premises.

(f) In the case of any premises where, in the opinion of the Director, an undue health threat is posed because of the presence of extremely toxic substances, the Director may require

an air gap at the service connection to protect the public water system. This requirement will be at the discretion of the Director and is dependent on the degree of hazard.

(7) *Approved Backflow Prevention Assembly.* Any backflow-prevention assembly required herein shall be a model and size approved by the City. The term approved backflow prevention assembly shall mean an assembly that has been manufactured in full conformance with the current standards established by the Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR) of the University of Southern California.

Final approval shall be evidenced by a "Certificate of Approval" issued by an approved testing laboratory certifying full compliance with current AWWA standards and FCCCHR specifications.

Backflow preventers that have been fully tested and have been granted a certificate of approval by an approved laboratory may be used without further testing or qualifications.

(8) *Duty of consumer.* It shall be the duty of the consumer at any premises where backflow-prevention assemblies are installed to have certified inspections and operational tests made at least once per calendar year. In those instances where the Director deems the hazard to be great enough, certified inspections may be required at more frequent intervals. These inspections and tests shall be at the expense of the water user and shall be performed by the assembly manufacturer's representative, Water Department personnel, or by a certified tester approved by the Director. It shall be the duty of the Director to see that these tests are made in a timely manner. The consumer shall notify the Director in advance when the tests are to be undertaken so that the City may witness the tests if so desired. These assemblies shall be repaired, overhauled, or replaced at the expense of the consumer whenever said assemblies are found to be defective. Records of such tests, repairs, and overhaul shall be kept and made available to the Director.

(9) *Exclusions.* All presently installed backflow prevention assemblies that do not meet the requirements of this section but were approved assemblies for the purpose described herein at the time of installation and that have been properly maintained, shall, except for the inspection and maintenance requirements under subsection 8, be excluded from the requirements of these rules so long as the City reasonably believes that they will satisfactorily protect the utility system. Whenever the existing assembly is moved from the present location, requires more than minimum maintenance, or when the City finds that the maintenance constitutes a hazard to health, the unit shall be replaced by an approved backflow-prevention assembly meeting the requirements of this section.

(C) *Interconnections.* Interconnections between two or more public water supplies are prohibited except upon written approval of the City.

(D) *Inspections.* In order to assure compliance with City health and safety standards, all applications for building permits shall be reviewed by the Director to ensure that all plumbing is installed in a manner as to prevent the possibility of pollution of the City's water supply. Upon giving proper notice, and in compliance with applicable state and federal law, the Director may inspect any building or premise in the City to ensure that all plumbing has been installed so as to prevent the possibility of pollution of the City's water supply. City water service shall be immediately disconnected from any structure or subject property whose plumbing system has been installed in a manner that the Director reasonably believes could cause pollution to the City's water supply, pursuant to § 10.04.050(C)(2). The service shall remain disconnected until the plumbing problem has been corrected.

(Ord. No. 2001-05, passed 5-8-01; Am. Ord. 2005-18, passed 10-5-05) Penalty, see § 10.04.080

§ 10.12.035 SERVICE CLASSIFICATIONS.

(A) *Permanent service.* All permanent structures or facilities requiring water service beyond an initial twelve (12) month period shall be required to be served by a permanent water service connection that is installed in or upon a permanent structure and maintained in accordance with City standards.

(B) *Temporary service.* Temporary water service connections that are installed and maintained in accordance with City standards shall be permitted to provide water service during the course of construction and other special circumstances for a period not to exceed twelve (12) months. One twelve (12) month extension may be approved by the City. At such time as the City determines that the water service shall be permanent, the applicable system development charge will be assessed as provided in the City's fee and rate ordinance.

(Ord. No. 2001-05, passed 5-8-01; Am. Ord. 2005-18, passed 10-5-05)

§ 10.12.050 PENALTY.

Any person violating this Chapter may be subject to penalty as provided by § 10.04.080 and other action as may be provided by law.

(Ord. No. 2005-18, passed 10-5-05)