

ADDENDUM No 1

TO: ALL PLANHOLDERS OF RECORD

RE: KETCHIKAN GATEWAY BOROUGH—SOUTH TONGASS WATER MAIN PHASE IV.

FROM: R&M ENGINEERING-KETCHIKAN, INC.

DATE: July 30, 2010

This addendum forms a part of and modifies the Contract Documents as noted below. Bidder must acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject the Bidder to disqualification.

This addendum consists of 3 pages and 2 attachments totaling 13 pages. This addendum is being transmitted by FAX. No hard copy will be sent.

ITEM No I

Summary: **Water pump clarification and contractor responsibility.**

. Remove Section 11400 in its entirety and replace with Section 11305 included as Attachment I.

ITEM No II

Summary: **Bid closing time has been updated as described below:**

“Bids will be received at the office of the Ketchikan Gateway Borough, Borough Clerk’s Office, 1900 First Avenue, Suite 115, Ketchikan, Alaska 99901 until **2:00 P.M.** Alaska Time August 5th, 2010 and then at said office publicly opened and read aloud. Bidders should note that Ketchikan’s rural designation precludes, in most cases, overnight delivery by freight forwarding companies. Postmarks will not be controlling. Faxed copies will not be accepted.”

ITEM No III

Summary: **Sheet E-02 modification.**

KETCHIKAN GATEWAY BOROUGH
SOUTH TONGASS WATER LINE MT. POINT TO WHITMAN CREEK—PHASE IV

Strike general note number 4 and replace with the following: *Pump Control Panel CP-1 is furnished, installed and wired by contractor. Wiring diagrams will be provided with control panel.*

Any other references, either in the drawings or specifications, to the owner providing Control Panel CP-1 are hereby removed.

ITEM No IV

Summary: **Sheet A2 modification.**

Strike any reference to Hardi-Plank Siding in Detail 3/A2 and replace with: *Metal Siding*. All building siding material shall be metal.

ITEM No V

Summary: **Detail sheets have been added to the contract.**

Sheets D1 and D2 have been added to the contract and are included as Attachment No 2.

ITEM No VI

Summary: **Specification title sheet has been modified.**

Strike the following lines from the Specification Table of Contents: *02530 Dewatering*, and *03400 Valve Vault*.

ITEM No VI

Summary: **Specification modification.**

Strike paragraph A from part 1.01 from Section 01010 and replace with the following: *Work shall include construction of a 20'x20' wood framed water booster station, installation of 460 feet of 12" water main, installation of a 33,000 gallon bolted steel tank and connection to the existing Whitman Creek Dam.*

ITEM No VI

KETCHIKAN GATEWAY BOROUGH
SOUTH TONGASS WATER LINE MT. POINT TO WHITMAN CREEK—PHASE IV

Summary: **Specification modification.**

Strike line C, from Part 1.03, of Section 01220 *and* replace with the following:
Location of meetings: In KETCHIKAN as designated during preconstruction conference.

—END ADDENDUM I—

Attachment I

SECTION 11305

WATER BOOSTER STATION

1. GENERAL

1.1 WORK INCLUDED

A. This section covers the furnishing and installation of water pumping system and new water booster station.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. Water Lines: Section 02555
B. Rough Carpentry: Section 06100
F. Electrical: Division 16

1.3 QUALITY ASSURANCE

A. Equipment shall be manufactured and installed to AWWA requirements.
B. Provide manufacturer's certificates of conformance and performance.

1.4 SUBMITTALS

A. Provide shop drawings of the total pump packages including electrical wiring diagrams.
B. Provide manufacturer's literature and performance characteristics on all components including pumps, motors, valves, fittings, controls and so forth.
C. Submit manufacturer's recommended spare parts list for each piece of equipment.
D. Test Reports: Submit certified copies of test reports.
E. Provide Operation and Maintenance Manuals as prescribed in other sections of these specifications.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Pumps shall be properly crated to prevent damage to piping and equipment during transport.

- B. Onsite materials shall be stored in weatherproof enclosures to prevent damage.

2. PRODUCTS

2.1 BOOSTER STATION PUMP MODULE

- A. The Contractor shall furnish and install a 2-pump factory assembled water booster system. The unit shall be rated for total system capacity of 250 gpm, with the ability to expand to 350 gpm.
- B. The unit shall be completely factory assembled and tested and shall utilize a raised concrete base, designed to provide a rigid, stable mounting location.
- C. System shall include 2 (two) end suction, single stage, centrifugal drive, end suction pumps with: 3" suction, 2" discharge and a 6" impeller. Pumps shall meet or exceed relevant ANSI standards. Pumps shall be further capable of functioning under the following the following loads:
 - a) 95 feet head
 - b) 250 gpm flow.Individual pumps may be serviced with the booster system in operation.
- D. The entire unit shall be factory assembled, factory tested, including setting of pressure and flow sensing to specified job conditions. The unit shall be cleaned and painted with high grade machine enamel prior to shipment. The enamel painting shall not apply to galvanized steel components.
- N. Manufacturer: PACO, Sulzer or approved equal.

2.2 SPARE PARTS

- A. Pumps
 - 1. Spare parts shall be provided for each pump installed as recommended by the manufacturer and approved by the Engineer.
 - 2. Spare parts shall include, but not be limited to,

the following items:

- a. Seals or packing
- b. Gaskets
- c. Bearings
- d. Wear rings
- e. Shaft sleeves, when required.

- 3. All parts shall be handled in a manner to insure delivery in an undamaged condition, in the original protective packaging and tagged with part number, description and pump name.

3. EXECUTION

3.1 COORDINATION

- A. Contractor shall coordinate piping installation in the building to accommodate the pumping module as shown on the Drawings.
- B. Cutting or alteration of piping on the prefabricated module will not be allowed without express written permission from the manufacturer and the Engineer.
- C. Piping shall be as shown on the Drawings. Extensive use of fittings to compensate for improper pipe placement will not be allowed.

3.2 PUMP MODULE

- A. Install pump module per manufacturer's instructions and the requirements of the contract documents.
- B. Pipe installation shall be according to Section 02550, Pipe and Fittings.
- C. Electrical connections shall be according to Division 16, Electrical.
- D. Piping and pumps shall be pressure tested and disinfected according to the requirements of Section 02555, Water Lines. Testing and disinfection may be combined with other segments of construction.
- E. All exposed piping and equipment shall be painted per Section 9900, Painting. Color shall match color code

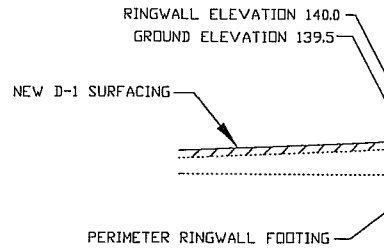
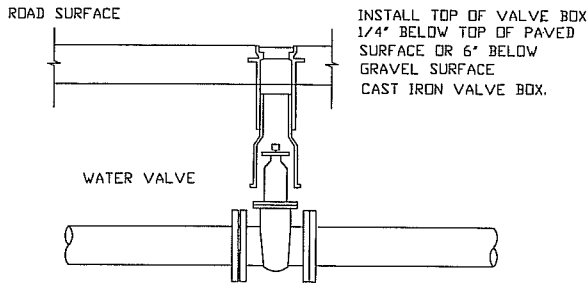
used in water treatment plant or as approved by the Engineer. It is the Contractor's responsibility to coordinate painting requirements with suppliers.

3.3 START-UP

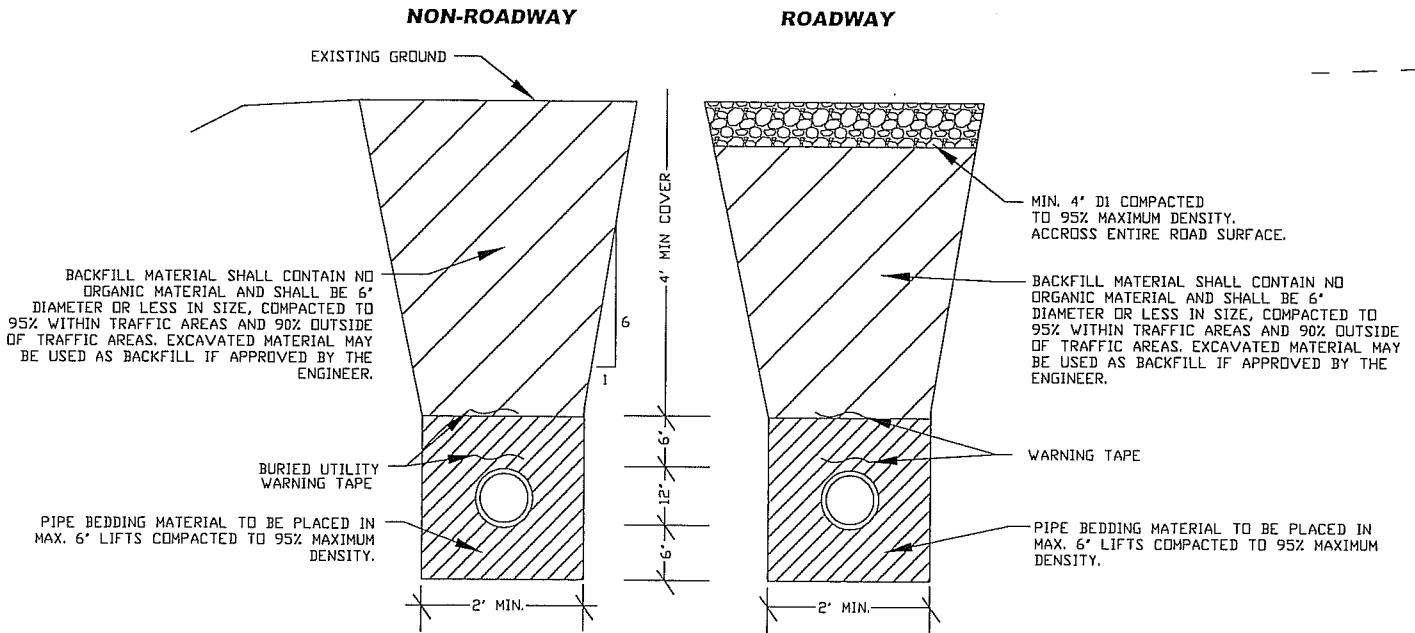
- A. Contractor shall provide a factory authorized representative to approve installation and provide a minimum of one day of start-up and maintenance instruction to the Owner personnel. Instruction shall be provided after all units have been field tested and accepted.

*** * * END OF SECTION * * ***

Attachment II



1 TYPICAL BURIED MAIN LINE VALVE
D1 NOT TO SCALE

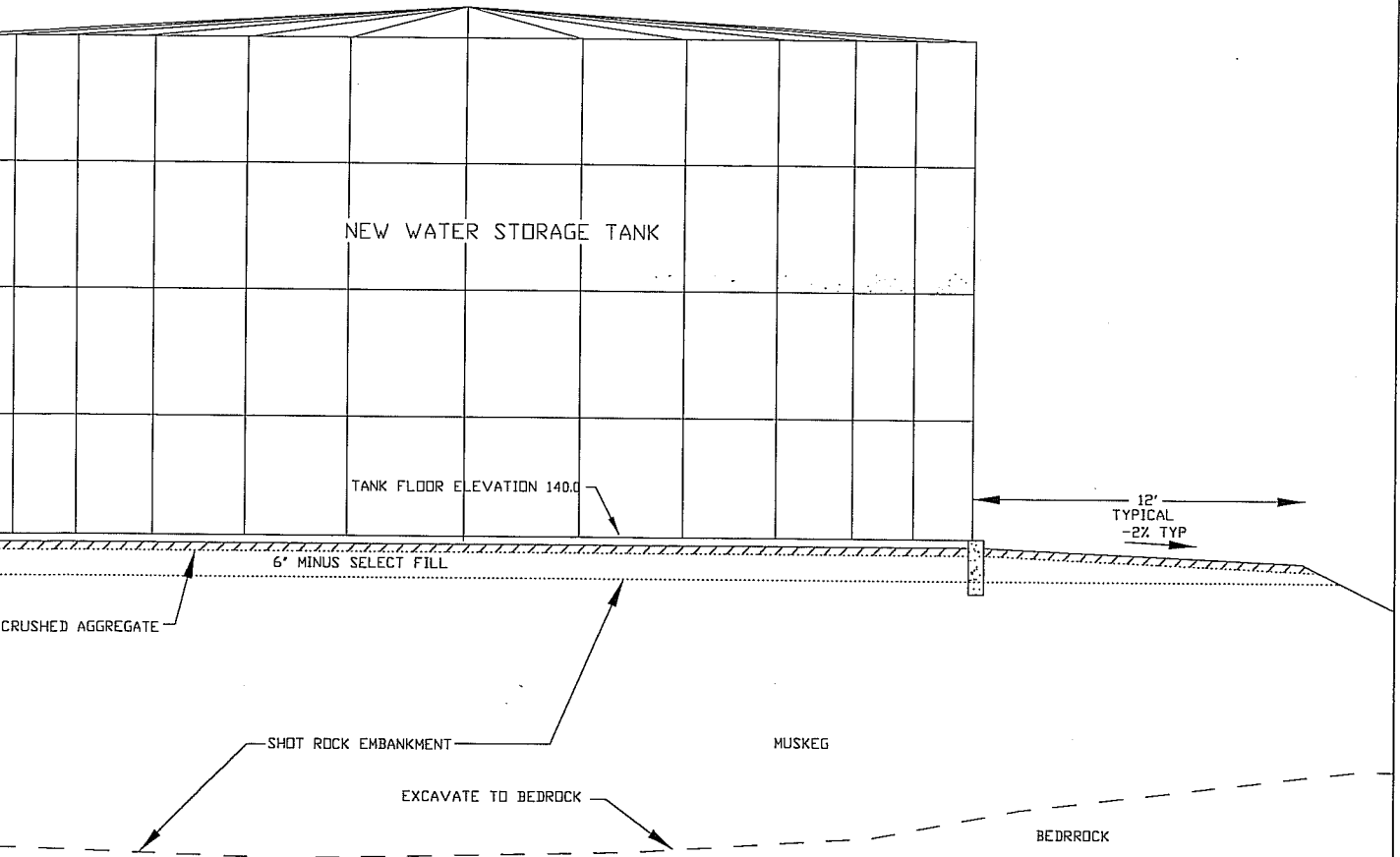


NOTES:

1. BACKFILL MATERIAL SHALL BE PLACED IN 12" MAXIMUM LIFTS.
2. TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS. INDICATED SLOPE IS FOR PAY QUANTITY DETERMINATION ONLY FOR IMPORTED BACKFILL GRAVEL AND RESURFACING REQUIREMENTS.
3. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.
4. THE DITCH LINE, IF ONE EXISTS, SHALL BE RESHAPED IN SUCH A MANNER TO ALLOW POSITIVE DRAINAGE AND RESTORED TO ORIGINALLY DESIGNED GRADE REGARDLESS OF PRE-CONSTRUCTION CONDITIONS.

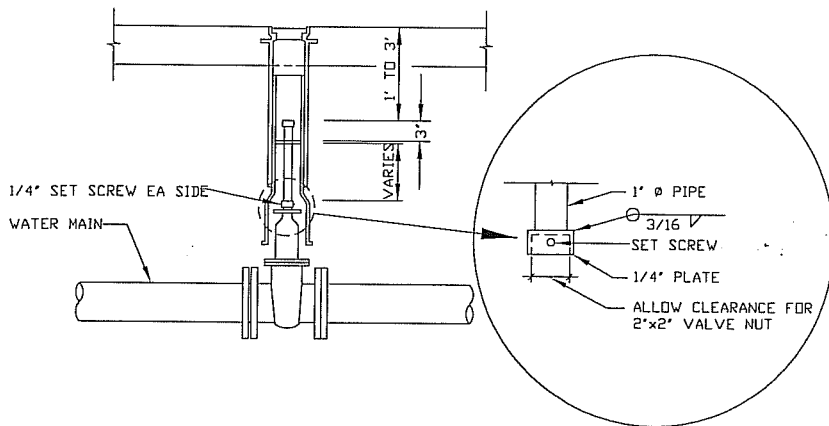
3 TYPICAL TRENCH SECTIONS
D1 NOT TO SCALE

Designed: EJC	Approved: TSS	R&M R&M ENGINEERING-KETCHIKAN, INC. 355 CARLANNA LAKE ROAD	Client: KETCHIKAN GAT
Drawn: EJC	Scale: AS NOTED		
Date: 7-27-10		344 FRONT	KETCHIKAN

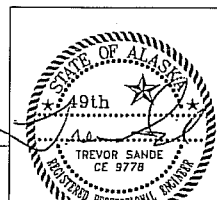


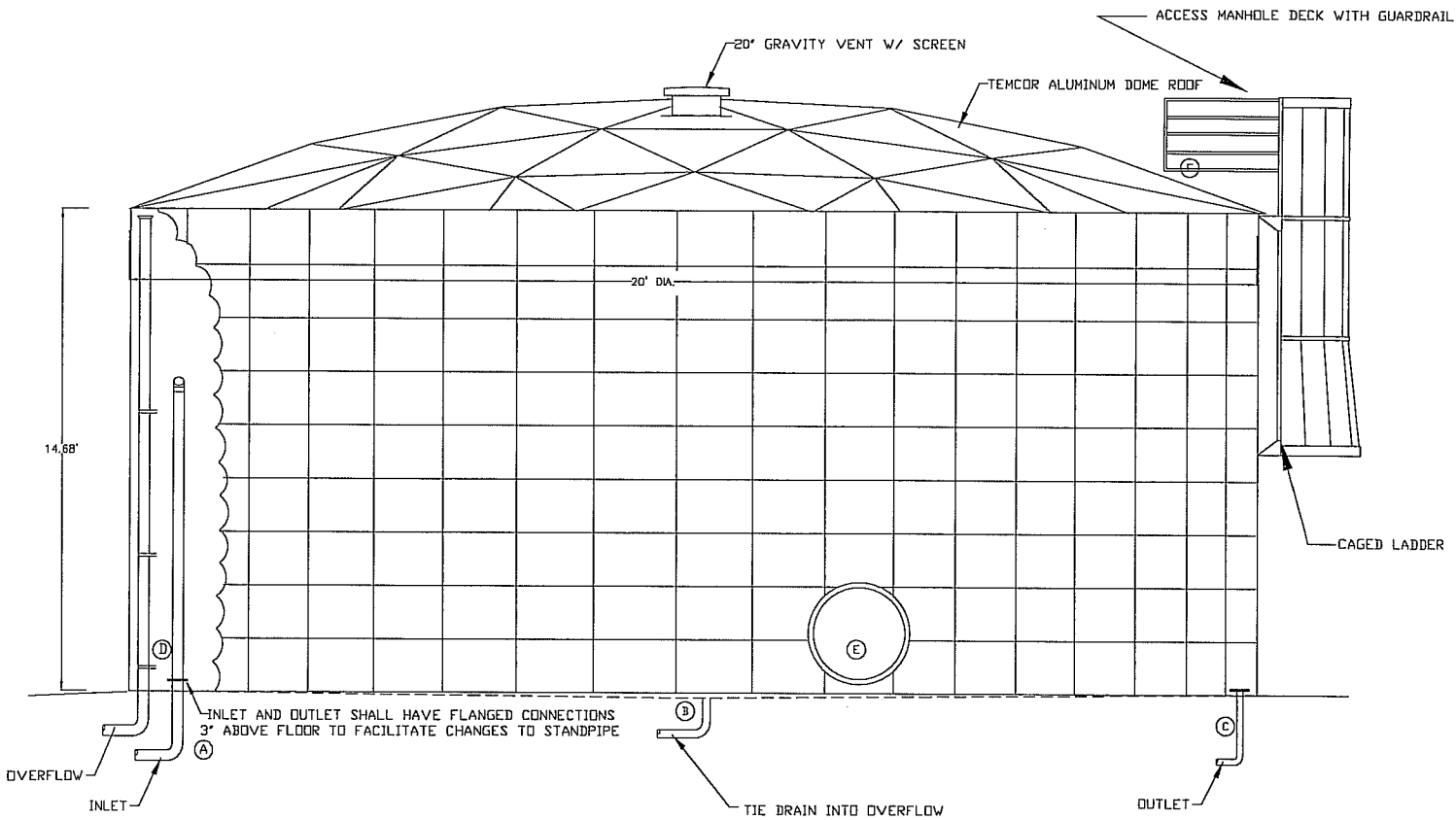
TYPICAL TANK SITE SECTION

NOT TO SCALE



4 MAIN VALVE OPERATING ROD
D1 NOT TO SCALE





1 ELEVATION STORAGE TANK
D2

TANK PENETRATION INDEX

	DIA.	TYPE	RISER MATL.	PIPE MATL.	RISER ELEV.
(A)	12"	INLET	PVC	DUCTILE	3'
(B)	12"	DRAIN	DUCTILE	DUCTILE	-3'
(C)	12"	OUTLET	DUCTILE	DUCTILE	3'
(D)	12"	OVERFLOW	PVC	DUCTILE	13'-6"
(E)		30" ROUND ACCESS DOOR			
(F)		24" SQ. MANWAY			

TANK NOTES:

- 1) TANK SHALL BE BOLTED STEEL. MANUFACTURER SHALL MAINTAIN A CURRENT ISO-9001 CERTIFICATION
 - 2) TANK CAPACITY SHALL BE 33,000 GALLONS.
 - 3) TANK SHALL BE CIRCULAR, CONSTRUCTED OF CARBON STEEL AND SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION SPECIFICATION ANSI/AWWA D103-97.
 - 5) TANK INTERIOR AND EXTERIOR COATING SHALL BE GLASS FUSED TO STEEL AS MANUFACTURE BY ENGINEERED STORAGE PRODUCTS COMPANY OR APPROVED EQUAL.
 - 6) IBC 2000 DESIGN LOADS: 120 MPH(AWWA D103), 40 PSF SNOW LOAD, SEISMIC: S_s=0.25, S₁=0.16, I_e=1.50, SITE CLASS = B, SEISMIC USE GROUP = CATEGORY III
 - 8) TANK SHALL BE EQUIPPED WITH HATCH, VENT, OUTSIDE TANK LADDER, INSIDE WALL LADDER, DECK WITH PERIMETER GUARDRAIL, SHELL MANHOLE, LIQUID LEVEL INDICATOR, AND ALL PIPE PENETRATIONS SHOWN ON THE PLAN DRAWINGS.
- TANK SHALL BE EQUIPPED WITH CONTRACTOR DESIGN CATHODIC PROTECTION SYSTEM WITH A MINIMUM OF 6 ANODES.
- TANK SHALL BE EQUIPPED WITH AN ALUMINUM DOME ROOF MANUFACTURED BY TEMCOR, 150 W. WALNUT ST., SUITE 150, GARDEN, CA 90248 OR APPROVED EQUAL.

FOUNDATION NOTES:

- 1) COMPACT CRUSHED AGGREGATE LEVELING COURSE TO 98% OF MAXIMUM DRY DENSITY.
- 2) MINIMUM SOIL BEARING SHALL BE 3,000 POUNDS PER SQUARE FOOT.
- 3) CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 301-99 SPECIFICATIONS AND THE REQUIREMENTS LISTED BELOW.
- 4) CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 4,000 PSI.
- 5) REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- 6) CEMENT SHALL CONFORM TO ASTM C150, TYPE 1 OR 2 WITH AIR ENTRAINING ADMIXTURE PER ASTM C260 ADDED AT THE MIXTURE TO ACHIEVE 4-6% BY VOLUME AT THE POINT OF CONCRETE PLACEMENT.
- 7) MAXIMUM AGGREGATE SIZE SHALL BE 1 1/2" AND SHALL CONFORM TO ASTM C33.
- 8) READY MIXED CONCRETE SHALL CONFORM TO ASTM C94. THE SUPPLIER SHALL BE RESPONSIBLE FOR DETERMINING THE PROPORTIONS USED IN THE CONCRETE MIX.
- 9) FINISHED SURFACES:
A. ROUGH FORM FINISH IS ACCEPTABLE FOR VERTICAL SURFACES.
B. FLOATED FINISH WITH HARD TROWEL IS REQUIRED ON SLABS.

SPLICE LENGTHS

- #4 BARS - 19 INCHES
- #7 BARS - 33 INCHES
- #8 BARS - 37 INCHES
- #10 BARS - 126 INCHES

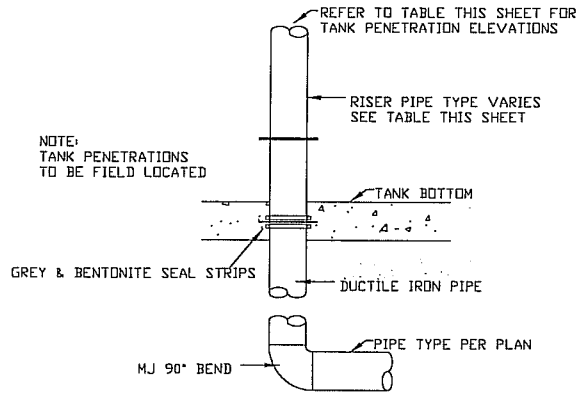
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Drawn: EJC	Scale: AS NOTED Date: 7-27-10		
Date	No.	Description	By

R&M
R&M ENGINEERING-KETCHIKAN, INC.
355 CARLANNA LAKE ROAD

Client: **KETCHIKAN GAT**

344 FROM

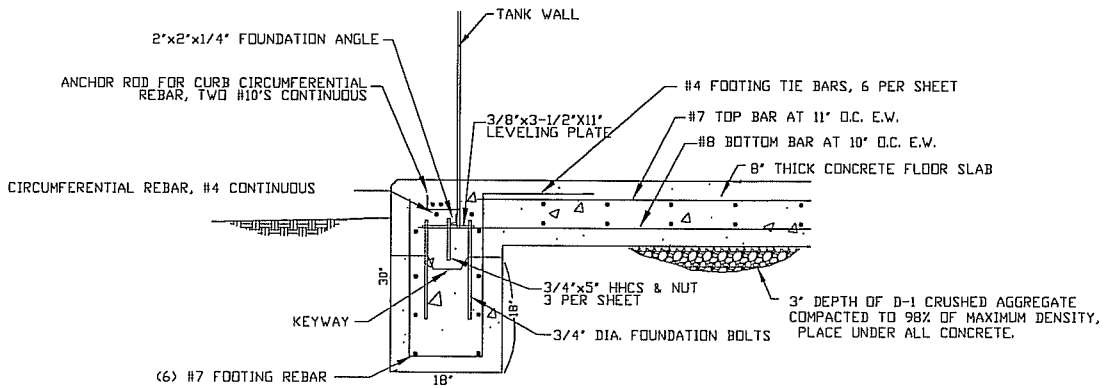
KETCHIKAN



- 1) CLEAN THE SURFACE ALL THE WAY AROUND EACH PIPE PENETRATION WHERE THE SEAL STRIPS ARE TO BE APPLIED.
- 2) USING A 2 INCH WIDE PAINT BRUSH, APPLY CLEAR PRIMER TO THE CLEANED SURFACE.
- 3) LET THE PRIMER DRY FOR 30 TO 60 SECONDS.

WHEN CAST IRON OR STEEL PIPING IS USED, INSTALL BOTH SEAL STRIPS ONTO THE PRIMED SURFACE(S). APPLY THE GRAY SEAL STRIP IN THE UPPER MOST POSITION IN ALL CASES. THE BLACK SEAL STRIP IS TO BE PLACED DIRECTLY BELOW AND TIGHT AGAINST THE GRAY SEAL STRIP. BOTH STRIPS TO LAP THEMSELVES BY APPROXIMATELY 2 INCHES.

2 TANK PENETRATION DETAIL



3 FOUNDATION DETAIL

