TATITLEK, ALASKA

BULK FUEL UPGRADE

ISSUED FOR BIDDING

JUNE 2020

DRAWING INDEX

PROJECT AREA MAP
1. The existing tank(s) shall remain in operation until the new tank(s) is fully operational.
2. See specifications for more details regarding design and work.
3. Contractor shall take ownership of the existing tank(s), unusable contents, and all attached fuel system components, and is responsible for removal from the community and the project documents.
4. Contractor is responsible for coordinating with tank owner prior to tank removal.

**Existing 2000 Gallon Tank**

**Existing 10000 Gallon Tank**

Add Alt 1 - Removal of 2,000 Gallon Concrete Fuel Tank

Add Alt 2 - Removal of 10,000 Gallon Double Wall Fuel Tank
TANK FARM OPERATIONS SCHEMATIC

TANK FARM OPERATIONAL PROCEDURE

FILLING TANK T1A AND T1B FROM FUEL TRUCK

1. Before beginning the fuel process, the operator will first ensure that the valves are closed.
2. Connect the truck grounding system and attach the truck pumps to the tank pumps. Make sure to ensure proper valve to eliminate locations inside tank mounted valves.
3. Open the valve at the fuel truck pumps and set the valve to the desired level.
4. Line pressure will be supplied by the fuel truck pumping system.
5. The tank farm operator will monitor the filling process via clock gauges and closing valve at each tank.
6. At the conclusion of filling, stop pump, disconnect fill hose, and secure tank cap Hayward spill bucket open.

BOIL TRANSFER/MAZE FUEL REEL OPERATION

Once fuel is available, to facilitate the filling of HTVs, transfer equipment is used to transfer fuel.

- Ensure the fuel truck is grounded, check valves and connect static grounding cable.
- Open isolation valve, drop desired fuel volume into pre-set meter set. Open isolated valve and depress pump stop button to initiate flow.
- Once flow stops, depress pump stop button. Flow will automatically stop at pre-set volume, but pump will continue to run.
- When filling is complete, depress pump stop button, close valve onto reel, hang off module, and note volume on fuel dispenser.

RETAIL SALES DISPENSER OPERATION

Retail fuel credit/debit card sales transactions will be conducted at the fuel dispensers. The electronic point of sale system will be located at the pump module. After entering fuel, the operator will need a technician to initiate the flow to the tank.
1. CLEAR & DRY SITE PRIOR TO THE EXTENT REQUIRED FOR EXCAVATION.

2. REMOVE ALL TOP SOIL TO EXPOSE IN-SITU MINERAL SOILS. DITCH IN TEST HOLES MAY BE USED TO EXPOSE MATERIAL AS SOIL IS REMOVED. SOILS WILL BE MOISTURIZED TO PREVENT DRYING.

3. DITCH IN TEST HOLES WILL BE COVERED WITH IN-SITU MINERAL SOILS AS DEFINED BY ENGINEER ARROW (DEPTH 3). EXCAVATED MATERIAL WILL BE MOISTURIZED TO PREVENT DRYING.

4. EXCAVATION WALLS WILL BE SLOPED 1:1 AND/OR REINFORCED AS NECESSARY TO ALLOW FOR SAFE AND EFFICIENT EXCAVATION.

5. CONTRACTOR SHALL LOCATE ALL PAVED UTILITIES WITHIN PROJECT AREA PRIOR TO CONSTRUCTION.

6. CONTRACTOR SHALL COORDINATE ANY AND ALL EXISTING UTILITY WORK OR CONFLICTS WITH THE NVT.
Hose Reel & Retail Dispenser - Elevation View

NOT TO SCALE

NOTES:

1. THIS SHEET SHOWS THE DESIRED FUNCTIONALITY AND GENERAL LAYOUT OF THE PROPOSED SYSTEMS. THE INTENT IS NOT TO SHOW EVERY REQUIRED COMPONENT BUT TO PROVIDE THE CONTRACTOR WITH SUFFICIENT INFORMATION TO FINALIZE THE DESIGN AND PREPARE SHOP DRAWINGS FOR FINAL REVIEW AND APPROVAL PRIOR TO FABRICATION. IT IS ASSUMED THAT THE CONTRACTOR HAS ALL NEEDED DESIGNS AND TECHNIQUES FOR FABRICATING INTEGRAL TANK / DISPENSING SYSTEMS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLEMENT THE SCHEMATIC DRAWINGS AS NEEDED TO PROVIDE A FULLY FUNCTIONAL, CODE COMPLIANT SYSTEM.

2. HOSE REEL AND DISPENSER FINISHED FLOOR ELEVATION MUST BE LEVEL WITH TOP OF CONCRETE CURB.

3. COAT ALL STEEL IN ACCORDANCE WITH THE SPECIFICATIONS.

Andrew M. Horazdovsky
CE-14054

Card Reader and Base (Electric)

Listed Overhead Hose Retractor with Manual Hose Dispenser and Mount to Stud wall with Angle Bracket (Type 21)

Provide 1" Holeninger to Connect Product Hose

Fire Extinguisher

Drill 3.125" hole in plate for pipe

1.5x1/4" (Typ)
2x1/4" (Typ)

Nipple Red

7.5' x 4' long sign 40 pipe with cap and to sleeve

Static Grounding reel bond to grounding system (Typ)

Fabricate pump base and Liquid tight conduit

Dispenser piping and trace free notes

Overhead hose retractor position to remain dispensers and mount to stud wall with angle bracket (Type 21)
1. Where buried pipelines cross existing traveled way, segregate pipe, road cap from general trench excavation and use to re-cap disturbed area.

2. See specs for back fill requirements.

3. 3" Wide reflective tape fill with concrete and paint caution yellow.

4. 6" Sonotube filled with concrete.

5. 3/4" Nipple.
CONTROL SPECIFICATION

ON all SPECIFICATIONS TAKE PRECEDENCE OVER THIS SPECIFICATION SHOULDS DIFFERENCES OCCUR.

CONTROL INSTALLATION: ALL MATERIAL AND EQUIPMENT AS REQUIRED FOR FINAL DESIGN, ERECTION, AND INSTALLATION OF THE FACILITIES CONTROLLS AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS, INCLUDE ALL APPROPRIATE APPARATUS AND CONTROL PANELS.

STANDARDS AND CODES: CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE 26 and all local codes and regulations.

SUBMITTAL: INCLUDE MANUFACTURER’S TECHNICAL DATA, SPECIFICATIONS, AND ALL APPROPRIATE MATERIALS AND INFORMATION FOR EACH ITEM OF CONTROL EQUIPMENT.

EQUIPMENT：ALL MATERIALS SHALL BE WELDED AND TESTED TO BE FREE FROM CAVITIES AND LEAKS. ALL MATERIALS SHALL BE IDENTIFIED AND MARKED WITH APPROPRIATE NAME AND CODE NUMBERS. THE EQUIPMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CODES AND REGULATIONS OF THE INSTALLATION LOCATION.

REPLACEMENT: IN CASES OF DAMAGE OR DEFECTIVE MATERIAL, THE CONTRACTOR SHALL PROVIDE REPLACEMENT MATERIALS AND EQUIPMENT.

WRITTEN DESCRIPTION: ALL WRITTEN DESCRIPTIONS SHALL BE ACCURATE AND COMPLETE.

MAINTENANCE: ALL MAINTENANCE INSTRUCTIONS AND LISTS OF SPARE PARTS FOR EACH TYPE OF CONTROL EQUIPMENT SHALL BE PROVIDED.

PROJECT RECORD: SUBMIT ALL PROJECT RECORDS AND INFORMATION RELATED TO THE INSTALLATION AND MAINTENANCE OF THE CONTROL SYSTEM.

QUALITY ASSURANCE: ALL CONTROL PANELS AND ELEFANTS FOR THIS PROJECT SHALL BE LISTED AND LABELLED AS AN ELECTRICAL APPARATUS BY THE OFFICIAL AGENCY RESPONSIBLE FOR SUCH CLASSIFICATION.

ASSEMBLY AND INSTALLATION: UNASSEMBLED PANELS AND EQUIPMENT SHALL BE ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE PROJECT RECORDS AND INFORMATION PROVIDED.

IBA MANUFACTURER: PROVIDE ALL INSTALLATION AND MAINTENANCE INSTRUCTIONS AND LISTS OF SPARE PARTS FOR EACH TYPE OF CONTROL EQUIPMENT.

WIRING: ALL WIRING SHALL BE DONE IN ACCORDANCE WITH THE CODES AND REGULATIONS OF THE INSTALLATION LOCATION.


PANELS: PANELS SHALL BE AS LISTED UNDER THE COMPONENT SCHEDULE.
NOTES
1. 3/4" X 1/8" COPPER CLAD STEEL GROUND ROSE CONNECTED WITH 44 GROUNDED TO SERVICE USING 44 GROUNDS.
2. 1/4/2/1/4,ije XJ4 XJ4 POWER CLOU OF LOCAL UTILITY POWER SUPPLY CONNECTION.
3. 120/240/480, 1500 KVA 1150 ML.
4. 120/240, 1250 MVA 12 SURFACE MOUNT PANEL.
5. PROVIDE FLEXIBLE CABLE (COMMON WITH ENGINEER PÆ) INSTALLATION.
   + WIG = 4/4 (MACHINE BUS)
   + HV = 120/240V
   + VIG = LEVEL 1

BULK FUEL POWER ONE-LINE SCALE: "N"
PERFORMANCE REQUIREMENTS FOR POINT OF SALE SYSTEM ELECTRICAL

CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

1. COORDINATES THE POCKET EQUIPMENT VENDOR AND THE OWNER AS REQUIRED.
2. PROVIDING ELECTRICAL SUPPORT FOR THE COMPONENTS RELATED TO THE POCKET, CONTROL PANEL, CARD READER, POCKET, AND COMMUNICATIONS.
3. PROVIDE INTERFACE BETWEEN CP, CARD READER, DISPENSER, AND POCKET SYSTEM.
4. PROVIDING INSTALLATION, INCLUDING DATA AND POWER FOR POCKET MODULES AT EMERGENCY SPILL CORNER, REMOTE RETAIL COUNTER.
5. ANTENNA POLES, INSTALLATION OF POCKET ANTENNAS PER MANUFACTURER'S REQUIREMENTS INSTALLATION TO INCLUDE GROUNDING AND SURGE PROTECTION AT STRUCTURE VENETATIONS.
6. PROVIDE OPERATOR TRAINING FOR THE POCKET, CARD READER, AND DISPENSER SALES SYSTEM DURING STARTUP AND COMMISSIONING.
7. PROVIDE AS-BUILT PLANS AND LAYOUT DRAWINGS SHOWING ALL WIRING AND Interfaces WITH CP, CARD READER, AND DISPENSER.
8. ALL WIRING AND INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE ELECTRICAL CODE.
9. CONTRACTOR MUST PROVIDE A COMPLETE, SECURE, AND OPERABLE POCKET AND FUEL DISPENSING SYSTEM, SEE TECHNICAL SPECIFICATIONS FOR MORE DETAIL.