AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
HAILEY, IDAHO
MARCH 2023

GENERAL CONSTRUCTIONS NOTES

1. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION" (ISPWC) AND CITY OF HAILEY STANDARDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND KEEPING A COPY OF THE ISPWC AND CITY OF HAILEY STANDARDS ON SITE DURING CONSTRUCTION.

2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THE PLANS IN AN APPROXIMATE WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING UTILITIES PRIOR TO COMMENCING AND DURING THE CONSTRUCTION. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH RESULT FROM HIS FAILURE TO ACCURATELY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL CALL DIGLINE (1-800-342-1585) TO LOCATE ALL EXISTING UNDERGROUND UTILITIES A MINIMUM OF 48 HOURS IN ADVANCE OF EXCAVATION.

3. THE CONTRACTOR SHALL CLEAN UP THE SITE AFTER CONSTRUCTION SO THAT IT IS IN A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.

4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION (THIS INCLUDES, BUT IS NOT LIMITED TO, ENCROACHMENT PERMITS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT (CGP) PERMIT COVERAGE).

5. ALL CLEARING & GRUBBING SHALL CONFORM TO ISPWC SECTION 201.

6. ALL EXCAVATION & EMBANKMENT SHALL CONFORM TO ISPWC SECTION 202. SUBGRADE SHALL BE EXCAVATED AND SHAPED TO LINE, GRADE, AND CROSS-SECTION SHOWN ON THE PLANS. THE SUBGRADE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-698. THE CONTRACTOR SHALL WATER OR AERATE SUBGRADE AS NECESSARY TO OBTAIN OPTIMUM MOISTURE CONTENT. IN-LIEU OF DENSITY MEASUREMENTS, THE SUBGRADE MAY BE PROOF-ROLLED TO THE APPROVAL OF THE ENGINEER.

- PROOF-ROLLING: AFTER EXCAVATION TO THE SUBGRADE ELEVATION AND PRIOR TO PLACING COURSE GRAVEL, THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE WITH A 5-TON SMOOTH DRUM ROLLER, LOADED WATER TRUCK, OR LOADED DUMP TRUCK, AS ACCEPTED BY THE ENGINEER. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF UNSUITABLE SUBGRADE MATERIAL AREAS, AND/OR AREAS NOT CAPABLE OF COMPACTION ACCORDING TO THESE SPECIFICATIONS. UNSUITABLE OR DAMAGED SUBGRADE IS WHEN THE SOIL MOVES, PUMPS AND/OR DISPLACES UNDER ANY TYPE OF PRESSURE INCLUDING FOOT TRAFFIC LOADS.
- IF, IN THE OPINION OF THE ENGINEER, THE CONTRACTOR'S OPERATIONS RESULT IN DAMAGE TO, OR PROTECTION OF, THE SUBGRADE, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR THE DAMAGED SUBGRADE BY OVER-EXCAVATION OF UNSUITABLE MATERIAL TO FIRM SUBSOIL, LINE EXCAVATION WITH GEOTEXTILE FABRIC, AND BACKFILL WITH PIT RUN GRAVEL.

7. ALL 2" MINUS GRAVEL SHALL CONFORM TO ISPWC 802, TYPE II (ITD STANDARD 703.04, 2"), SHALL BE PLACED IN CONFORMANCE WITH ISPWC SECTION 801 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 90% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99.

8. ALL 3/4" MINUS CRUSHED GRAVEL SHALL CONFORM TO ISPWC 802, TYPE I (ITD STANDARD 703.04, 3/4" B), SHALL BE PLACED IN CONFORMANCE WITH ISPWC SECTION 802 AND COMPACTED PER SECTION 202. MINIMUM COMPACTION OF PLACED MATERIAL SHALL BE 95% OF MAXIMUM LABORATORY DENSITY AS DETERMINED BY AASHTO T-99 OR ITD T-91.

9. ALL ASPHALTIC CONCRETE PAVEMENT WORK SHALL CONFORM TO ISPWC SECTION(S) 805, 810, AND 811 FOR CLASS II PAVEMENT. ASPHALT AGGREGATE SHALL BE 1/2" (13MM) NOMINAL SIZE CONFORMING TO TABLE 803B IN ISPWC SECTION 803. ASPHALT BINDER SHALL BE PG 58-28 CONFORMING TO TABLE A-1 IN ISPWC SECTION 805.

10. ASPHALT SAWCUTS SHALL BE AS INDICATED ON THE DRAWINGS, OR 24" INCHES FROM EDGE OF EXISTING ASPHALT, IF NOT INDICATED OTHERWISE SO AS TO PROVIDE A CLEAN PAVEMENT EDGE FOR MATCHING. NO WHEEL CUTTING SHALL BE ALLOWED.

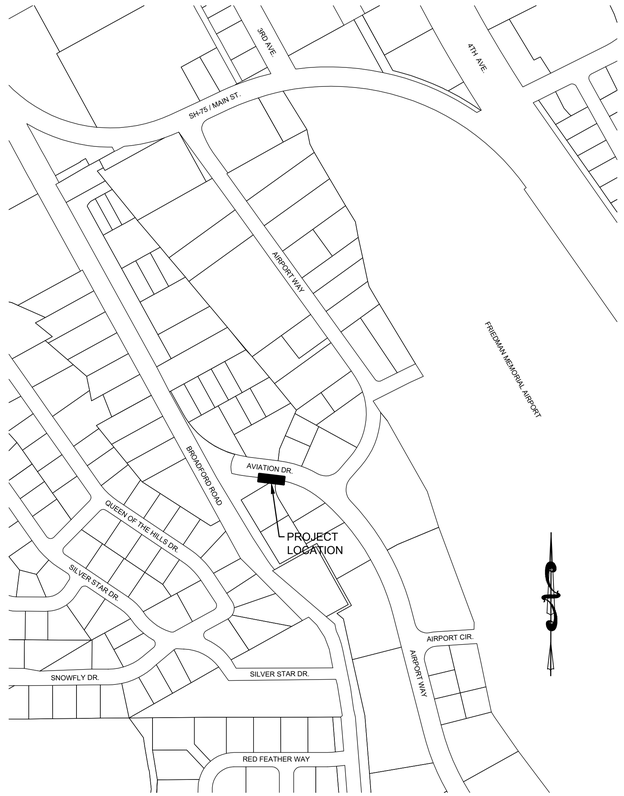
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL PER THE CURRENT EDITION OF THE US DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

12. ALL CONCRETE WORK SHALL CONFORM TO ISPWC SECTIONS 701, 703, AND 705. ALL CONCRETE SHALL BE 4,000 PSI MINIMUM, 28 DAY, AS DEFINED IN ISPWC SECTION 703, TABLE 1. IMMEDIATELY AFTER PLACEMENT PROTECT CONCRETE BY APPLYING MEMBRANE-FORMING CURING COMPOUND, TYPE 2, CLASS A PER ASTM C 309-94. APPLY CURING COMPOUND PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.

13. ALL TRENCHING SHALL CONFORM TO ISPWC STANDARD DRAWING SD-301. TRENCHES SHALL BE BACKFILLED AND COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

14. PER IDAHO CODE § 55-1613, THE CONTRACTOR SHALL RETAIN AND PROTECT ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS; ALL MONUMENTS, ACCESSORIES TO CORNERS, BENCHMARKS AND POINTS SET IN CONTROL SURVEYS THAT ARE LOST OR DISTURBED BY CONSTRUCTION SHALL BE REESTABLISHED AND RE-MONUMENTED, AT THE EXPENSE OF THE AGENCY OR PERSON CAUSING THEIR LOSS OR DISTURBANCE AT THEIR ORIGINAL LOCATION OR BY SETTING OF A WITNESS CORNER OR REFERENCE POINT OR A REPLACEMENT BENCHMARK OR CONTROL POINT, BY OR UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING A MATERIALS TESTING COMPANY DURING CONSTRUCTION TO VERIFY ALL COMPACTION AND MATERIAL PLAN AND SPECIFICATION REQUIREMENTS ARE MET. TESTING LOCATION AND FREQUENCY SHALL MEET ISPWC AND ADA COUNTY HIGHWAY DISTRICT (ACHD) REQUIREMENTS. REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN TWO WEEKS OF TESTING.



VICINITY MAP
N.T.S.

SHEET INDEX

SHEET#	DESCRIPTION
C0.10	COVER SHEET
C0.20	EXISTING SITE CONDITIONS
	SITE IMPROVEMENTS:
C1.00	SITE IMPROVEMENT PLAN
C1.10	DETAIL SHEET
C1.11	SPECIFICATION SHEETS
S1	WATER PIPE SUPPORT

RECEIVED
Mar 02, 2023
DEQ Twin Falls Regional Office

State of Idaho • Department of Environmental Quality
PLANS & SPECIFICATIONS REVIEW

These plans and/or specifications have been reviewed for compliance with Department of Environmental Quality rules. This review does not relieve the owner, engineer, or the contractor of the responsibility to design or construct these facilities in compliance with all current applicable federal, state, and local laws, rules, regulations, or ordinances. Plans and/or specifications must be resubmitted for review if construction is not completed within one year from approval date.

Joseph Otero, P.E. — Reviewing DEQ Engineer:
Mar 02, 2023 — Approval Date:
Refer to approval conditions in letter to: City of Hailey

CIVIL ENGINEER
JEFF LOOMIS, PE
GALENA ENGINEERING, INC.
317 N. RIVER ST.
HAILEY, IDAHO 83333

LAND SURVEYOR
MARK PHILLIPS, PLS
GALENA ENGINEERING, INC.
317 N. RIVER ST.
HAILEY, IDAHO 83333

AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
COVER SHEET
LOCATED WITHIN SECTION 15, T.2 N., R.18 E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR CITY OF HAILEY

PROJECT INFORMATION
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PROFESSIONAL ENGINEER REGISTERED 7986 03/02/23 STATE OF IDAHO JEFF C LOOMIS

CT DESIGNED BY
IDV DRAWN BY
JCL CHECKED BY

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
email galena@galena-engineering.com

PURPOSE: DEQ SUBMITTAL

NO	DATE	BY	REVISIONS
1	03/02/23	JCL	REVISIONS PER D.E.Q. COMMENTS

C0.10

AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
EXISTING SITE CONDITIONS

LOCATED WITHIN SECTION 15, T.2 N., R.18 E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR CITY OF HAILEY

PROJECT INFORMATION
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GRAPHIC SCALE
0 10 20
Scale in Feet

LEGEND

- Property Line
- Centerline
- Easement, type & width as shown
- FD1/2 = Found 1/2" Rebar
- FD5/8 = Found 5/8" Rebar
- 5' Contour Interval
- 1' Contour Interval
- EOA — EOA — Asphalt
- Concrete Sidewalk
- TVBOX = Cable TV Riser
- PHBOX = Telephone Riser
- EBOX = Power Box
- FOBOX = Fiber Optic Box
- PHB = Buried Telephone Line
- PB = Buried Power Line
- FL = Flow Line
- SS = Sewer Service
- WV = Water Valve
- VB = Valve Box
- TVB = Cable TV Buried
- Sewer Main
- FOMKR = Fibre Optic
- SMH = Sewer Manhole
- WM = Water Main
- CB = Catch Basin
- CT = Conifer Tree
- DT = Deciduous Tree
- ADD = Address
- CL = Centerline
- DAY = Daylight
- EOA = Edge of Asphalt
- EOC = Edge of Concrete
- FL = Flow Line
- GB = Grade Break
- IC = Illegible Cap
- NC = No Cap
- NG = Natural Ground
- TA = Top of Asphalt
- TOE = Toe of Slope
- TOP = Top of Slope

NOTES

1. The purpose of this map is to show topographical information as it existed on the date the field survey was performed. Changes may have occurred to site conditions since survey date (07/27/2022).
2. Boundary information is based on Found Monumentation. Please refer to the recorded plats of Airport West Subdivision, Lot 2, Block 5, Instr# 506228, records of Blaine County, Idaho. Refer to the Plat Notes, Conditions, Covenants, and Restrictions on Original Plat.
3. Underground utility locations are based on above ground appurtenances / utilities visible at the time of the survey and City Maps. Utilities should be located prior to any excavation.
4. Galena Engineering Inc. has not received a Title Policy from the client and has not been requested to obtain one. Relevant information that may be contained within a Title Policy may therefore not appear on this map and may affect items shown hereon. It is the responsibility of the client to determine the significance of the Title Policy information and determine whether it should be included. If the client desires for the information to be included they must furnish said information to Galena Engineering, Inc. and request it be added to this map.
5. Benchmark is top of 1/2" rebar with no cap marking the northeast corner of the lot, elevation = 5302.92. Point elevations shown are truncated (i.e. 3.5 is 5303.54). Vertical Datum is NAVD 1988.

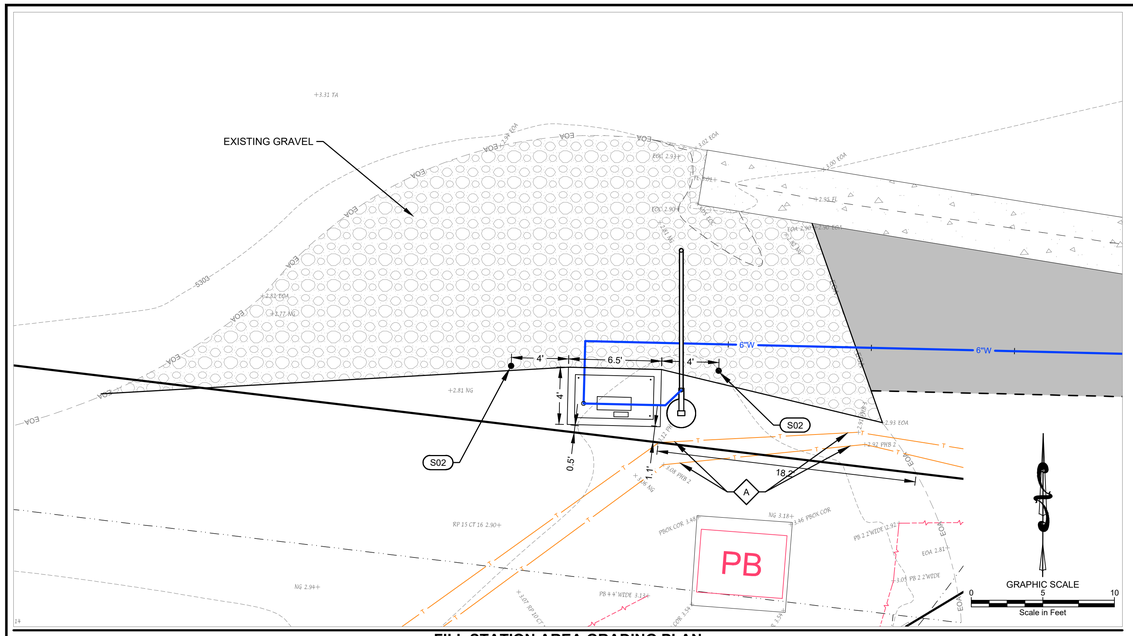
CT
DESIGNED BY
IDV
DRAWN BY
JCL
CHECKED BY

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
email galena@galena-engineering.com

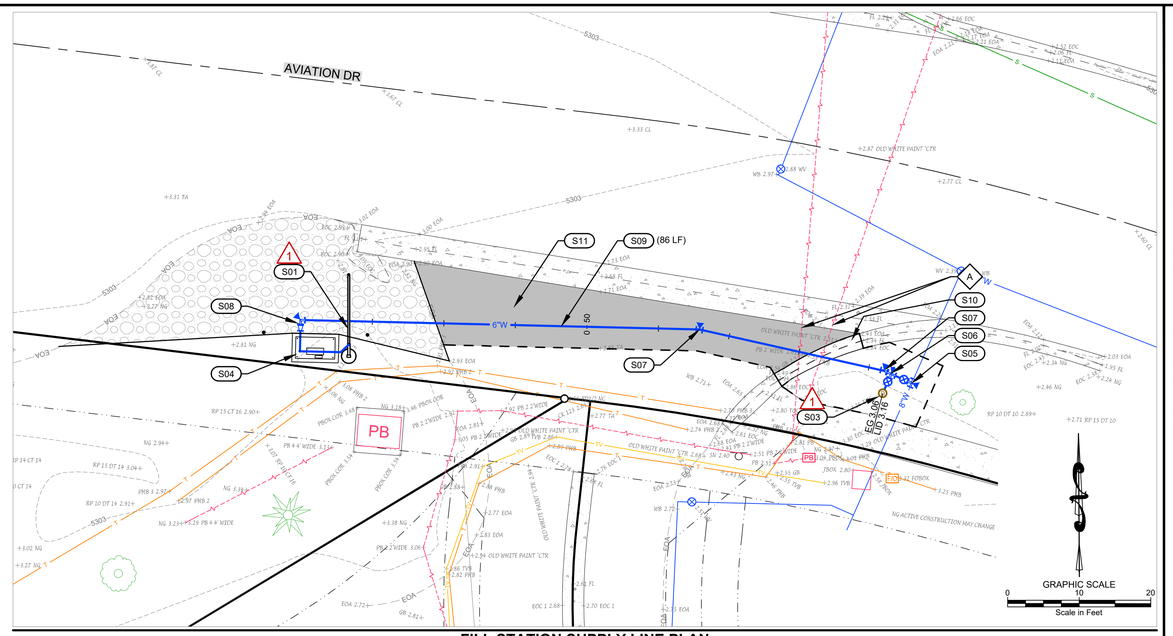
PURPOSE: ISSUE FOR REVIEW

NO	DATE	BY	REVISIONS

C0.20



FILL STATION AREA GRADING PLAN



FILL STATION SUPPLY LINE PLAN

SITE IMPROVEMENT KEY NOTES

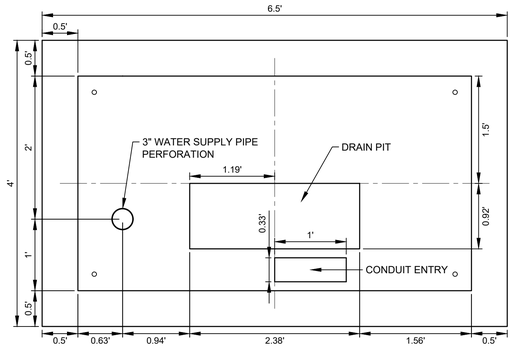
- S01 CONSTRUCT WATER PIPE SUPPORT. SHEET SHEET S1 FOR DETAILS.
- S02 INSTALL 3' HIGH BOLLARD. SEE DETAIL 3 / C1.10.
- 1 / D S03 CONSTRUCT DRYWELL: SEE DETAIL 4 / C1.10. RIM = 5303.16 (LID: 12" DIAMETER SOLID LID)
- S04 CONSTRUCT STATION FOUNDATION. SEE DETAIL 1, THIS SHEET.
- S05 INSTALL 8"x6" STAINLESS STEEL TAPPING SADDLE 6" GATE VALVE W/ THRUST BLOCKS SEE DETAIL 1 / C1.10 FOR TRENCHING AND DETAIL 2 / C1.10 FOR THRUST PROTECTION.
- S06 INSTALL 6" D.I. TEE 6" GATE VALVE W/ THRUST BLOCKS CONNECT TO DRYWELL S03b. SEE DETAIL 1 / C1.10 FOR TRENCHING AND DETAIL 2 / C1.10 FOR THRUST PROTECTION.
- S07 INSTALL 6" 11 1/4° D.I. BEND W/ THRUST BLOCKS SEE DETAIL 1 / C1.10 FOR TRENCHING AND DETAIL 2 / C1.10 FOR THRUST PROTECTION.
- S08 INSTALL 6" 90° D.I. BEND 6"x3" D.I. REDUCER W/ THRUST BLOCKS SEE DETAIL 1 / C1.10 FOR TRENCHING AND DETAIL 2 / C1.10 FOR THRUST PROTECTION.
- 6"W S09 INSTALL 6" C-900 PVC WATER MAIN. REFER TO FILL STATION SUPPLY LINE PROFILE THIS SHEET. SEE DETAIL 1 / C1.10 FOR TRENCHING.
- S10 CONSTRUCT CONCRETE CURB AND GUTTER REPAIR. MATCH EXISTING LINES AND GRADES.
- S11 CONSTRUCT ASPHALT REPAIR. MATCH EXISTING LINES AND GRADES.
- A RETAIN AND PROTECT EXISTING UTILITIES.

ABBREVIATIONS

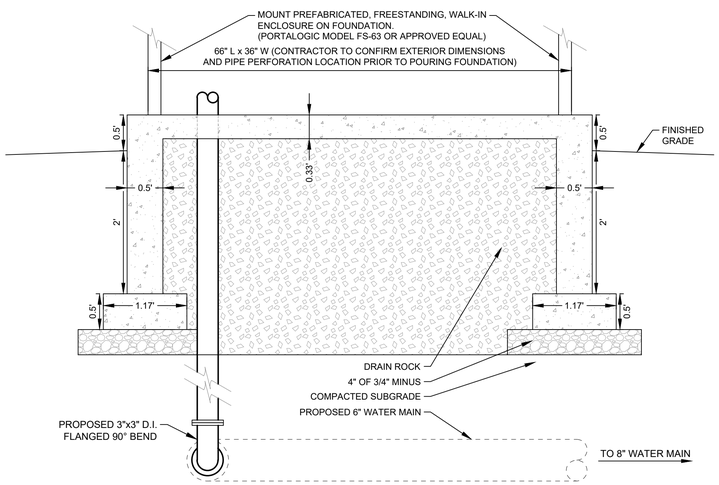
EG = EXISTING GRADE
LID = LID OF DRYWELL

GENERAL NOTE:

1. THE FILL STATION OWNER (CITY OF HAILEY) AND THE CONTRACTOR SHALL COORDINATE WITH IDAHO POWER COMPANY FOR POWER SUPPLY TO THE UNIT.



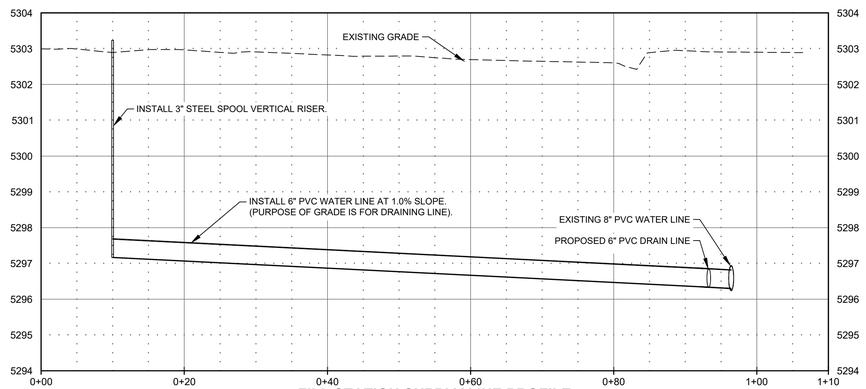
PLAN VIEW OF ENCLOSURE



ELEVATION VIEW OF FOUNDATION

1 / C1.00 **ENCLOSURE FOUNDATION DETAIL**

N.T.S.



FILL STATION SUPPLY LINE PROFILE

SCALE: 1"=10' H; 1"=2' V

AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
SITE PLAN

LOCATED WITHIN SECTION 15, T.2 N., R.18 E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR CITY OF HAILEY

PROJECT INFORMATION
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PROFESSIONAL ENGINEER REGISTERED 7986 03/02/23 STATE OF IDAHO JEFF C LOOMIS

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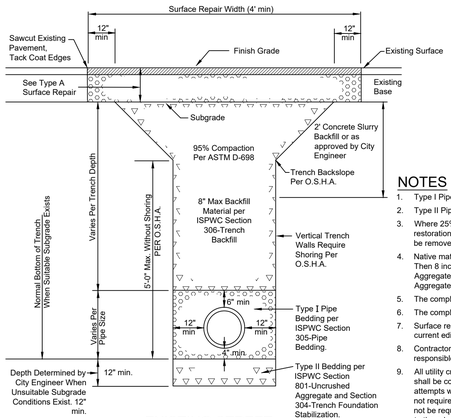
NO	DATE	BY	REVISIONS
1	03/02/23	JCL	REVISIONS PER D.E.Q. COMMENTS

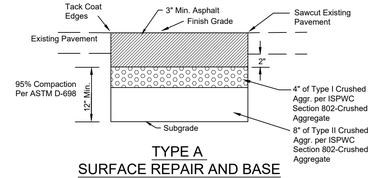
PURPOSE: DEQ SUBMITTAL

C1.00



EXISTING STREET
TYPICAL TRENCH SECTION

N.T.S.



TYPE A
SURFACE REPAIR AND BASE

N.T.S.

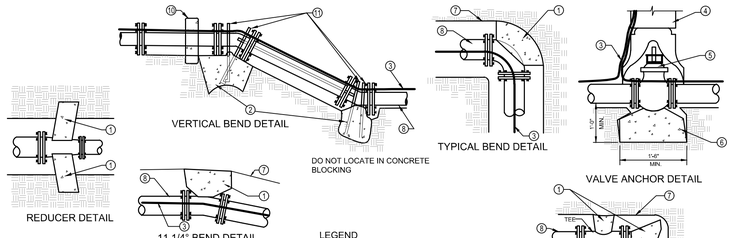
NOTES

1. Type I Pipe Bedding material shall meet the requirements of the current edition of the ISPWC Standards-Section 305-Pipe Bedding.
2. Type II Pipe Bedding material shall meet the requirements of the current edition of the ISPWC Standards-Section 305-Pipe Bedding.
3. Where 25% or more of any portion of the surface area of any pavement has been damaged within the project limits, full width restoration shall be required. Any strip of remaining pavement less than 2 feet in width along curb and gutter or pavement edge shall be removed and replaced.
4. Native materials may be used for backfill unless, in the sole opinion of the City Engineer, the native material is found to be unstable. Then 8 inch minus aggregate, which meets the requirements of the current edition of the ISPWC Standards-Section 801-Uncrushed Aggregate or crushed aggregate, which meets the requirements of the current edition of the ISPWC Standards-Section 802-Crushed Aggregate, will be required as backfill.
5. The completed patch shall not deviate from existing surface more than .02 ft/10 ft in any direction.
6. The completed patch shall not pond water in excess of .02 feet in depth.
7. Surface repair in gravel shoulder areas within 3 feet of pavement edge shall be 3 inch depth of Type I crushed aggregate per the current edition of the ISPWC Standards-Section 802-Crushed Aggregate.
8. Contractor shall be responsible for maintenance of street repair for one year after installation. PUC regulated utilities shall be responsible for a period of three years.
9. All utility crossings, including but not limited to power, telephone, cable TV, gas, and water services, which cross existing paved roads shall be constructed by horizontal boring. Open cuts across paved roadways will only be allowed after a minimum of three failed attempts with approved boring tools. When utility mains are located under existing pavement, open cuts will be allowed and boring is not required. If in the judgment of the City Engineer, boring may be detrimental to the health, safety, or welfare of the public, boring will not be required and trenching will be allowed. A six foot trench, two feet deeper than the proposed utility shall be excavated adjacent to the edge of pavement for evaluation of soil conditions by the City Engineer to determine if boring shall be attempted or if trenching will be allowed.
10. All trenches shall be repaved within 72 hours of starting the work unless prior approval to delay repaving has been provided by the City Engineer.
11. Concrete Slurry Mix Design

Coarse Aggregate (3/8" minus)	2,600 lbs
Sand	800 lbs
Cement	94 lbs (max)
Water	11 gals (max)

1 / C1.10 TRENCH AND SURFACE REPAIR DETAIL (18.14.010.A.1)

N.T.S.



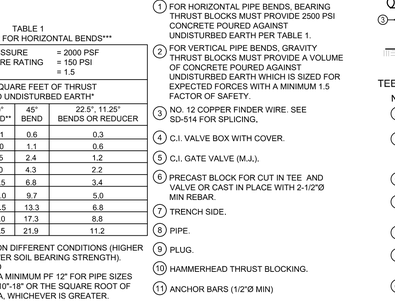
LEGEND

1. FOR HORIZONTAL PIPE BENDS, BEARING THRUST BLOCKS MUST PROVIDE 2500 PSI CONCRETE POURED AGAINST UNDISTURBED EARTH PER TABLE 1.
2. FOR VERTICAL PIPE BENDS, GRAVITY THRUST BLOCKS MUST PROVIDE A VOLUME OF CONCRETE POURED AGAINST UNDISTURBED EARTH WHICH IS SIZED FOR EXPECTED FORCES WITH A MINIMUM 1.5 FACTOR OF SAFETY.
3. NO. 12 COPPER FINDER WIRE. SEE SD-514 FOR SPLICING.
4. C.I. VALVE BOX WITH COVER.
5. C.I. GATE VALVE (M.J.).
6. PRECAST BLOCK FOR CUT IN TEE AND VALVE OR CAST IN PLACE WITH 2-1/2"Ø MIN REBAR.
7. TRENCH SIDE.
8. PIPE.
9. PLUG.
10. HAMMERHEAD THRUST BLOCKING.
11. ANCHOR BARS (1/2"Ø MIN)

TABLE 1
THRUST AREA FOR HORIZONTAL BENDS***

SOIL BEARING PRESSURE WORKING PRESSURE RATING SAFETY FACTOR			= 2000 PSF = 150 PSI = 1.5	
	MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH*			
PIPE SIZE	TEE, PLUG OF VALVE	90° BEND**	45° BEND	22.5°, 11.25° BENDS OR REDUCER
3"	0.8	1.1	0.6	0.3
4"	1.4	2.0	1.1	0.6
6"	3.2	4.5	2.4	1.2
8"	5.7	8.0	4.3	2.2
10"	8.8	12.5	6.8	3.4
12"	12.7	18.0	9.7	5.0
14"	17.3	24.5	13.3	6.8
16"	22.6	32.0	17.3	8.8
18"	28.6	40.5	21.9	11.2

* MUST BE INCREASED BASED ON DIFFERENT CONDITIONS (HIGHER WORKING PRESSURE OR LOWER SOIL BEARING STRENGTH).
** OR TEE ACTING AS A 90° BEND
***THRUST BLOCK DEPTH TO BE A MINIMUM PF 12" FOR PIPE SIZES 3"-8" AND 18" FOR PIPE SIZES 10"-18" OR THE SQUARE ROOT OF THE REQUIRED BEARING AREA, WHICHEVER IS GREATER.



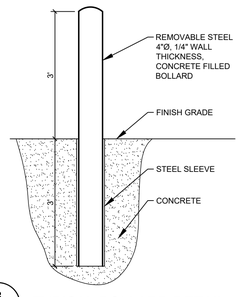
TEE AND PLUG DETAIL

NOTES:

- (A) ANCHOR ALL VALVES CONNECTED TO P.V.C. PIPE AS SHOWN.
- (B) COVER BOLTS AND FLANGES WITH PLASTIC TO PROTECT FROM CONCRETE ADHERENCE DURING CONSTRUCTION OF THRUST BLOCKS.
- (C) SEE CHART FOR MIN THRUST BLOCKS BEARING AREAS.
- (D) ALL CONCRETE TO BE 2500 P.S.I. STRENGTH POURED AGAINST UNDISTURBED EARTH.
- (E) PROVIDE 6 MIL POLYPROPYLENE BETWEEN FITTINGS AND CONCRETE.
- (F) NOTIFY ENGINEER FOR ANY CONDITION OR PIPE SIZE NOT INDICATED.
- (G) ALL BLOCKS TO BE CENTERED AROUND PIPE SPRING LINE.

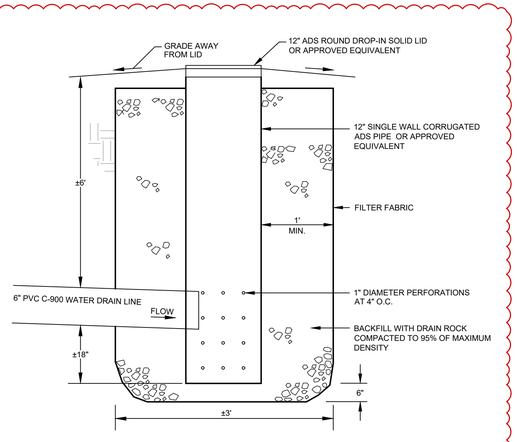
2 / C1.10 THRUST BLOCK AND ANCHOR DETAILS

N.T.S.



3 / C1.10 TYPICAL BOLLARD DETAIL

N.T.S.



1 / 4 / C1.10 FILL STATION SUPPLY LINE DRAIN DRYWELL

N.T.S.

WATER MAIN CONSTRUCTION NOTES

1. WATER MAIN AND SERVICE CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF HAILEY STANDARDS. NO WATER MAIN OR SERVICES SHALL BE BACKFILLED UNTIL THEY HAVE BEEN INSPECTED AND APPROVED BY THE CITY AND ENGINEER. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWENTY-FOUR (24) HOURS' NOTICE TO THE CITY AND ENGINEER PRIOR TO TESTING. REFER TO HAILEY CODE SECTION 18.10.010.
2. WATER MAINS LESS THAN 12" IN DIAMETER AND WATER SERVICES SHALL HAVE A MINIMUM COVER OF SIX FEET (6.0'), MEASURED FROM FINISHED GRADE. WATER MAINS GREATER THAN OR EQUAL TO 12" IN DIAMETER SHALL HAVE A MINIMUM COVER OF FIVE FEET (5.0'), MEASURED FROM FINISHED GRADE.
3. ALL 4" AND LARGER WATER MAINS SHALL BE CONSTRUCTED WITH AWWA C-900, CLASS 235 PVC PIPE. ALL WATER MAINS SHALL BE PRESSURE TESTED IN CONFORMANCE WITH ISPWC SECTION 401.3.6 AND THE CITY OF HAILEY STANDARDS. TRACER WIRE SHALL BE NO. 12 GAUGE COPPER LOCATING WIRE INSULATED PER ISPWC SECTION 401 AND THE CITY OF HAILEY SPECIFICATIONS.
4. SEE FLUSHING AND DISINFECTION REQUIREMENTS THIS SHEET. ALL BACTERIA TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER AND THE CITY OF HAILEY WATER AND SEWER DEPARTMENT FOR FINAL APPROVAL AND ACCEPTANCE PRIOR TO ACTIVATION OF THE WATER MAIN AND SERVICES.
5. ALL WATER DISTRIBUTION AND WATER SERVICE INSTALLATION MATERIALS AND CHEMICALS USED TO DISINFECT POTABLE WATER COMPONENTS MUST BE COMPLIANT WITH ANSI/NSF STANDARD 60/61. ALL MATERIALS MUST BE COMPLIANT WITH THE LOW LEAD RULE (<0.25%Pb BY WEIGHT).
6. ALL TEES, PLUGS, CAPS AND BENDS SHALL BE SECURED AND ANCHORED BY SUITABLE THRUST BLOCKING (MECHANICAL RESTRAINTS ARE NOT ALLOWED). THRUST BLOCKS SHALL CONFORM TO ISPWC SD-403 AND THE CITY OF HAILEY STANDARDS.
7. ALL VALVES SHALL BE GATE VALVES WITH NON-RISING STEM, "O" RING SEALS, AND TWO-INCH OPERATING NUTS MEETING AWWA STANDARDS PER ISPWC SECTION 402. ALL GATE VALVES LOCATED IN PAVEMENT SHALL BE FITTED WITH CAST IRON VALVE BOXES WITH CONCRETE COLLARS PER ISPWC SD-406 AND THE CITY OF HAILEY SPEFICIATIONS.
8. ALL WATER MAIN FITTINGS SHALL BE DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF AWWA C-110 FOR 250 PSI WORKING PRESSURE. JOINTS ON BURIED VALVES SHALL BE MECHANICAL JOINTS UNLESS OTHERWISE NOTED. FLANGED JOINTS SHOULD IN GENERAL BE AVOIDED UNDERGROUND.
9. FIRE HYDRANTS SHALL CONFORM WITH THE CITY OF HAILEY STANDARDS.
10. ALL TAPPING SADDLES SHALL BE CONSTRUCTED FROM T-304 STAINLESS STEEL WITH ANSI/AWWA C-207 CLASS 150 FLANGES. ALL WELDS SHALL CONFORM TO ASTM A-380. THE TEST OUTLET SHALL BE 3/4" NPT WITH 3/4" NPT PLUG.
11. ALL WATER MAINS SHALL COMPLY WITH IDAPA 58.01.08.542.07.a AND IDAPA 58.01.08.542.07.b WHICH ADDRESS THE REQUIREMENTS FOR SEPARATION DISTANCES BETWEEN POTABLE WATER LINES (INCLUDING MAINS AND SERVICE LINES) WITH NON-POTABLE LINES (SEE ILLUSTRATION OF THESE SEPARATION REQUIREMENTS ON SHEET C2.20). IN ADDITION, WATER MAINS SHALL BE CONSTRUCTED WITH AT LEAST 25 FEET HORIZONTAL SEPARATION FROM INFILTRATION TRENCHES AND DRY WELLS.
12. ALL WATER SERVICES SHALL BE IN COMPLIANCE WITH ISPWC SECTION 404 AND THE CITY OF HAILEY STANDARDS. A USC EC APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) SHALL BE INSTALLED ON PRIMARY SERVICE CONNECTIONS (INCLUDING FIRE SUPPRESSION SERVICES, IF APPLICABLE) IN ACCORDANCE WITH THE CITY OF HAILEY WATER DEPARTMENT, FIRE MARSHAL, PLUMBING BUREAU, AND STATE OF IDAHO BACKFLOW PREVENTION REQUIREMENTS. IN AREAS WHERE MULTIPLE WATER SERVICE LINES ARE IN SAME TRENCH SEPARATE LINES BY 6".
13. THE CONTRACTOR SHALL KEEP THE EXISTING WATER DISTRIBUTION SYSTEM LIVE, TO THE GREATEST EXTENT POSSIBLE, WHILE INSTALLING THE NEW WATER MAIN AND SERVICES MINIMIZING DISRUPTION TO EXISTING WATER SYSTEM USERS. THE NEW WATER MAIN AND SERVICES SHALL BE INSTALLED, BACKFILLED, PRESSURE TESTED AND DISINFECTED AND FLUSHED PRIOR TO CONNECTING THE NEW MAIN TO THE EXISTING MAIN. THE MAXIMUM ALLOWABLE SERVICE OUTAGE FOR ANY SHUTDOWN IS 4 HOURS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROMPTLY REMOVING AND DISPOSING OF WATER ENTERING THE TRENCH DURING THE TIME THE TRENCH IS BEING PREPARED FOR INSTALLATION OF THE UTILITY, INCLUDING COMPLETION OF BACKFILL OF THE PIPE ZONE, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL DISPOSE OF THE WATER IN A SUITABLE MANNER WITHOUT CAUSING DAMAGE TO PROPERTY.
15. EXTRA FITTINGS MAY BE NECESSARY IN ADDITION TO THOSE SHOWN HEREON TO CONTROL ELEVATION AND AVOID UNDERGROUND CONFLICTS.

FLUSHING AND DISINFECTION

A. FLUSHING PRIOR TO DISINFECTION

1. BEFORE CHLORINATION, FLUSH THE MAINS THOROUGHLY AFTER THE PRESSURE AND LEAKAGE TEST ARE COMPLETE.
2. USE A MINIMUM FLUSHING VELOCITY IN THE MAIN OF 2.5 FEET/SECOND.
3. IF NO HYDRANT IS INSTALLED AT THE END OF THE MAIN, PROVIDE A TAP OF THE SIZE SUFFICIENT TO PRODUCE A VELOCITY IN THE MAIN OF AT LEAST 2.5 FEET/SECOND.
4. TABLE 1 SHOWS THE RATES OF FLOW REQUIRED TO PRODUCE A VELOCITY OF 2.5 FEET/SECOND IN VARIOUS SIZE PIPES.
5. EXERCISE EXTREME CARE AND CONDUCT A THOROUGH INSPECTION DURING THE WATER MAIN LAYING TO PREVENT AND DETECT SMALL STONES, PIECES OF CONCRETE, PARTICLES OF MATERIAL, OR OTHER FOREIGN MATERIAL THAT MAY HAVE ENTERED THE MAINS.
6. CLEAN LARGE MATERIAL BY FLUSHING AND INSPECTING ALL HYDRANTS ON THE LINES TO ENSURE THAT THE ENTIRE VALVE OPERATING MECHANISM OF EACH HYDRANT IS IN GOOD CONDITION.

B. DISINFECTION OF WATER PIPES

1. GENERAL.
   a. COMPLY WITH ANSI/AWWA C 651: DISINFECTING WATER MAINS, THESE SPECIFICATIONS, AND ENGINEER'S DIRECTION.
   b. KEEP THE INTERIOR OF ALL PIPE, FITTINGS AND APPURTENANCES FREE FROM DIRT, HEAVY AND FOREIGN PARTICLES.
   c. DISINFECT ALL WATER PIPES AND APPURTENANCES PRIOR TO PLACING IN SERVICE.
2. FORM OF CHLORINE USED TO BE PRE-APPROVED BY THE ENGINEER.
   a. LIQUID CHLORINE.
      1) FORM: LIQUID CONTAINING 100% AVAILABLE CHLORINE UNDER PRESSURE IN STEEL CONTAINERS.
      2) STANDARD: ANSI/AWWA B 301.
      3) EXECUTION: USED ONLY BY TRAINED PERSONNEL WITH APPROPRIATE GAS-FLOW CHLORINATORS AND EJECTORS.
      4) AUTHORIZATION: ONLY WITH WRITTEN AUTHORIZATION OF THE ENGINEER.
   b. SODIUM HYPOCHLORITE.
      1) FORM: LIQUID CONTAINING APPROXIMATELY 5% TO 15% AVAILABLE CHLORINE.
      2) STANDARD: ANSI/AWWA B 300.
   c. CALCIUM HYPOCHLORITE.
      1) FORM: GRANULAR OR IN 5G TABLETS CONTAINING APPROXIMATELY 65% AVAILABLE CHLORINE BY WEIGHT.
      2) STANDARD: ANSI/AWWA B 300.
3. METHODS OF CHLORINATION USED TO BE PRE-APPROVED BY THE ENGINEER.
   a. TABLET OR GRANULE METHOD.
      1) SOLUTION STRENGTH: 25 MG/L MINIMUM.
      2) USE: ONLY IF THE PIPES AND APPURTENANCES ARE KEPT CLEAN AND DRY DURING CONSTRUCTION. DO NOT USE SOLVENT WELDED PLASTIC OR SCREWED JOINT STEEL PIPE.
      3) PLACEMENT WHEN USING GRANULES: DURING CONSTRUCTION, PLACE CALCIUM HYPOCHLORITE GRANULES AT THE UPSTREAM END OF EACH BRANCH MAIN, AND AT 500-FOOT INTERVALS.
      4) GRANULAR QUANTITY: REFER TO TABLE 2
      5) PLACEMENT WHEN USING TABLETS: DURING CONSTRUCTION, PLACE 5G CALCIUM HYPOCHLORITE TABLES IN EACH SECTION OF PIPE AND ALSO PLACE ONE TABLET IN EACH HYDRANT, HYDRANT BRANCH AND OTHER APPURTENANCES. ATTACH TABLETS TO THE INSIDE OF THE PIPE USING AN ADHESIVE SUCH AS PERMATEX NO. 2 OR APPROVED SUBSTITUTION. ASSURE NO ADHESIVE IS ON THE TABLET EXCEPT ON THE BROAD SIDE ATTACHED TO THE SURFACE OF THE PIPE. ATTACH ALL THE TABLETS AT THE INSIDE TIP OF THE MAIN, WITH APPROXIMATELY EQUAL NUMBERS OF TABLETS AT EACH END OF A GIVEN PIPE LENGTH. IF THE TABLES ARE ATTACHED BEFORE THE PIPE SECTION IS PLACED IN THE TRENCH, MARK THEIR POSITION ON THE SECTION SO IT CAN BE READILY DETERMINED THAT THE PIPE IS INSTALLED WITH THE TABLES AT THE TOP.
      6) TABLET QUANTITY: REFER TO TABLE 3
         (1) ADJUST FOR PIPE LENGTH OTHER THAN 18 FEET.
         (2) BASED ON 3.25G AVAILABLE CHLORINE PER TABLET.
      7) FILLING PROCEDURE: WHEN GRANULE OR TABLET INSTALLATION HAS BEEN COMPLETED, FILL THE MAIN WITH CLEAN WATER AT A VELOCITY NOT EXCEEDING 1 FPS. TAKE PRECAUTIONS TO ASSURE THAT AIR POCKETS ARE ELIMINATED. LEAVE THIS WATER IN THE PIPE FOR AT LEAST 24 HOURS. IF THE WATER TEMPERATURE IS LESS THAN 41° F, LEAVE THE WATER IN THE PIPE FOR AT LEAST 48 HOURS. POSITION VALVE SO THAT THE CHLORINE SOLUTION IN THE MAIN BEING TREATED WILL NOT FLOW INTO WATER MAINS IN ACTIVE SERVICE.
   b. CONTINUOUS FEED METHOD.
      1) SOLUTION STRENGTH: DOSE AT 25 MG/L FOR 4 HOURS.
      2) RESIDUAL: 10 MG/L AT 24 HOURS.
      3) DOSING METHODS:
         a) LIQUID CHLORINE: SOLUTION FEED VACUUM-OPERATED CHLORINATOR IN COMBINATION WITH A BOOSTER PUMP.
         b) DIRECT FEED: NOT ALLOWED.
         c) HYPOCHLORITE SOLUTION: CHEMICAL FEED PUMP DESIGNED FOR FEEDING CHLORINE SOLUTIONS.
         d) CALCIUM HYPOCHLORITE GRANULES: REFER TO PREVIOUS SECTION.
      4) FILLING PROCEDURE: USE APPROVED SOURCE TO FLOW CLEAN WATER AT A CONSTANT, MEASURED RATE INTO THE NEWLY LAID WATER MAIN. FILL AT A POINT NOT MORE THAN 10 FEET DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN. MEASURE THE CHLORINE CONCENTRATION AT REGULAR INTERVALS AND ENSURE A 25 MG/L DOES. POSITION VALVES SO THAT THE CHLORINE SOLUTION IN THE MAIN BEING TREATED DOES NOT FLOW INTO WATER MAINS IN ACTIVE SERVICE. DO NOT STOP CHLORINE APPLICATION UNTIL THE ENTIRE MAIN IS FILLED WITH CHLORINATED WATER. RETAIN THE CHLORINATED WATER IN THE MAIN FOR AT LEAST 4 HOURS, OPERATING ALL VALVES AND HYDRANTS IN THE SECTION TREATED. AT THE END ON THE 24 HOUR PERIOD, VERIFY THE TREATED WATER IN ALL PORTIONS OF THE MAIN HAS RESIDUAL OF 10 MG/L FREE CHLORINE.
   c. SLUG METHOD.
      1) SOLUTION STRENGTH: 100 MG/L.
      2) DOSING METHODS: PER ENGINEER'S DIRECTION.
      3) FILLING PROCEDURE: USE APPROVED SOURCE TO FLOW CLEAN WATER AT A CONSTANT, MEASURED RATE INTO THE NEWLY LAID WATER MAIN. FILL AT A POINT NOT MORE THAN 10 FEET DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN. MEASURE CONCENTRATION AT REGULAR INTERVALS TO ENSURE 100 MG/L DOSE APPLY THE CHLORINE CONTINUOUSLY AND FOR THE TIME REQUIRED TO DEVELOP A SOLID COLUMN OR "SLUG" OF CHLORINATED WATER THAT WILL, AS IT MOVES THROUGH THE MAIN, EXPOSE ALL INTERIOR SURFACES TO A 100 MG/L FOR AT LEAST 3 HOURS. MEASURE THE CHLORINE RESIDUAL IN THE SLUG AS IT MOVES THROUGH THE MAIN. IF AT ANY TIME IT DROPS BELOW 50 MG/L, STOP FLOW AND RELOCATE CHLORINATION EQUIPMENT AT THE HEAD OF THE SLUG, AND AS FLOW IS RESUMED, ADD CHLORINE TO RESTORE THE FREE CHLORINE IN THE SLUG TO NOT LESS THAN 100 MG/L. AS THE CHLORINATED WATER FLOWS PAST FITTINGS AND VALVES, OPERATE VALVES AND HYDRANTS TO DISINFECT APPURTENANCES AND PIPE BRANCHES.

C. FINAL FLUSHING.

1. AFTER THE RETENTION PERIOD, FLUSH THE CHLORINATED WATER FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW THAT THE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT IN THE SYSTEM, OR IS ACCEPTABLE FOR DOMESTIC USE.
2. DISPOSAL OF FLUSHING WATER TO BE DONE IN A MANNER SO THAT IT DOES NOT:
   a. REACH SURFACE WATERS OR WATERS OF THE STATE
   b. DAMAGE SURROUNDING PROPERTIES
   c. TAKE PLACE DURING PERIODS WHEN THE AMBIENT TEMPERATURE IS ABOVE 85° WITHOUT PRIOR APPROVAL OF THE ENGINEER
3. IF WATER CAN NOT BE RETAINED ON SITE AND IF IT IS NOT ALLOWED TO ENTER THE SANITARY SEWER COLLECTION SYSTEM, WATER SHALL BE DECHLORINATED TO HAVE A MAXIMUM AVAILABLE CHLORINE CONCENTRATION OF 0.13 MG/L AND THE APPROPRIATE PRIVATE, FEDERAL AND STATE DISCHARGE AND DISPOSAL APPROVALS SHALL BE ACQUIRED PRIOR TO COMMENCEMENT OF FLUSHING ACTIVITIES. SHOULD THERE BE A POTENTIAL FOR THE GROUNDWATER RULE TO BE VIOLATED AS A RESULT OF A CHLORINATED DISCHARGE THE ENGINEER SHALL COORDINATE DISPOSAL WITH REGIONAL DEQ STAFF PRIOR TO FLUSHING.

D. BACTERIOLOGICAL TESTS.

1. AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE, TEST SAMPLES COLLECTED FROM THE MAIN(S) FOR COLIFORM BACTERIA. TAKE 2 SAMPLES FROM EACH LOCATION AT LEAST 24 HOURS APART.
2. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, COLLECT SAMPLES FROM EACH 1,200 FEET ON THE NEW MAIN AND ONE FROM EACH BRANCH.

E. REDISINFECTION.

1. IF THE INITIAL DISINFECTION FAILS TO PRODUCE APPROVED BACTERIOLOGICAL SAMPLES, REFLUSH AND RESAMPLE THE MAIN.
2. IF CHECK SAMPLES SHOW BACTERIAL CONTAMINATION, RE-CHLORINATE THE MAIN UNTIL APPROVED RESULTS ARE OBTAINED.

F. SWABBING.

1. IF CONNECTIONS ARE NOT DISINFECTED ALONG WITH THE NEWLY INSTALLED MAIN, SWAB OR SPRAY THE INTERIOR OF ALL PIPES AND FITTINGS USED IN MAKING THE CONNECTIONS WITH A 1% HYPOCHLORITE SOLUTION BEFORE INSTALLATION.

TABLE 1
REQUIRED FLOW AND OPENINGS TO FLUSH PIPELINES
40 PSI RESIDUAL PRESSURE IN WATER MAIN (1)

	Flow Required to Produce 2.5 fps (approx)	Size of Tap (inch) (1) (1-1/2) (2)			Hydrant Outlets	
Pipe Diam. (inch)	Flow in Main, (Gpm)	Number of taps on pipe (2)			Number	Size in (inch)
4	100	1			1	2-1/2
6	220		1		1	2-1/2
8	400		2	1	1	2-1/2
10	600		3	2	1	2-1/2
12	900			2	2	2-1/2
16	1600			4	2	2-1/2
1)	With a 40 psi pressure in the main with the hydrant flowing to atmosphere, a 2- 1/2 inch hydrant outlet will discharge approximately 1,000 gpm and a 4-1/2 inch hydrant will discharge approximately 2500 gpm.					
2)	Number of taps on pipe based on discharge through 5 feet of galvanized iron (GI) pipe with one 90° elbow.					

TABLE 2
OUNCES OF GRANULES

Pipe Diameter (inches)	Amount (ounces)
4	1.7
6	3.8
8	6.7
10	10.5
12	15.1
16	26.8
18	34.0
20	41.9
24	60.4

TABLE 3
NUMBER OF TABLETS (1)

Pipe Diameter (inches)	Number of 5g Tablets (2)
4	1
6	1
8	2
10	3
12	4
16	6
18	7
20	9
24	13

AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
DETAIL SHEET

LOCATED WITHIN SECTION 15, T.2 N., R.18 E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR CITY OF HAILEY

PROJECT INFORMATION
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PROFESSIONAL ENGINEER REGISTERED 7986 03/02/2023 DATE OF IDAHO JEFF C LOOMIS

CT DESIGNED BY
IDV DRAWN BY
JCL CHECKED BY

GALENA ENGINEERING, INC.
Civil Engineers & Land Surveyors
317 N. River Street
Hailey, Idaho 83333
(208) 788-1705
email galena@galena-engineering.com

PURPOSE: DEQ SUBMITTAL

NO	DATE	BY	REVISIONS
1	03/02/23	JCL	REVISIONS PER D.E.Q. COMMENTS

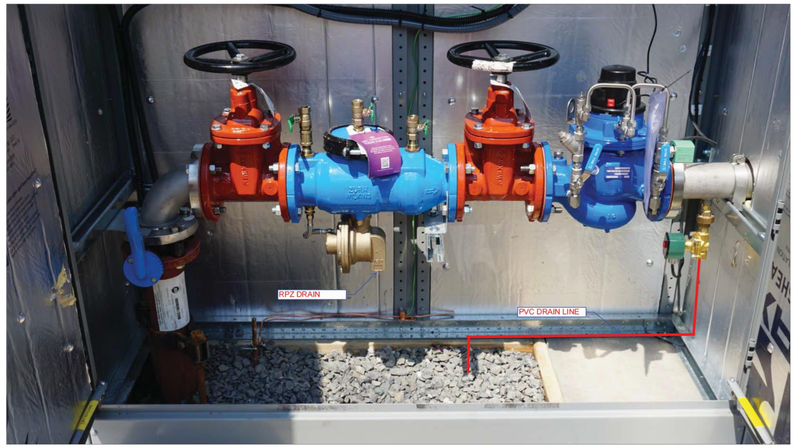
C1.10

ELEMECH INC.
ELECTRICAL AND MECHANICAL ENGINEERING SERVICES

Included Scope:

Item #	Part No.	Description			
1	FS-63	Bulk Water Station - Painted Steel Enclosure, With Lockable Door - Keypad Access & Display panel - Manual Shutoff Valve - 3" Backflow Prevention - Flow Meter - 3" Control Valve - Single Outlet Configuration - Drain Solenoid - Cold Climate Package: Heater, T-Stat, Insulated			

ELEMECH INC. • 2275 WHITE OAK CIR. • AURORA, IL 60502 • TELEPHONE (630) 499-7080 • FAX (630) 499-7760



Water Fill Station

PORTALOGIC
A PRODUCT OF ELEMECH, INC.

STATION REQUIREMENTS	FS-63
Base Price	RFQ
Enclosure Size	66" L, 36" W, 75" H
Enclosure Style	Freestanding, Walk-in
Steel Type	Painted Galvanized Steel (316SS optional)
Retrofitting Existing System	
Over-hydrant Connection	✓
Water Outlet Size	2" – 3"
Backflow Prevention	✓
Automatic Drainage	✓
Portalogic Management Software	✓
Portapay Online Payments	✓
OPTIONS*	✓
Solar Powered	Stations can be powered by solar energy for remote installations
Cold Climate Package	Heaters, insulation, and heat tracing can be added to protect the station in cold climates
Hot Climate Package	Air conditioners and sunshields can be added to protect the station in hot climates
Cellular Modem	Configurable with cellular connection
Cloud Hosting	Cloud hosting options also available
Receipt Printer	Durable non-jamming paper receipt dispenser for haulers
Alternative Payment Options	Configurable to accept credit/debit cards, bills, and coins
Multiple Fill Points	All models configurable with multiple fill points
Additional Piping	Addition of strainers and/or pressure reducing valves

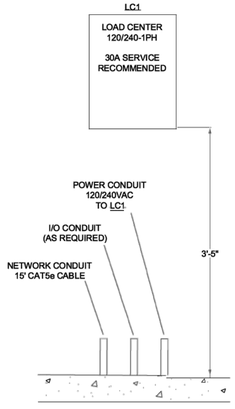
FS-63 Installation Examples

PORTALOGIC
A PRODUCT OF ELEMECH, INC.

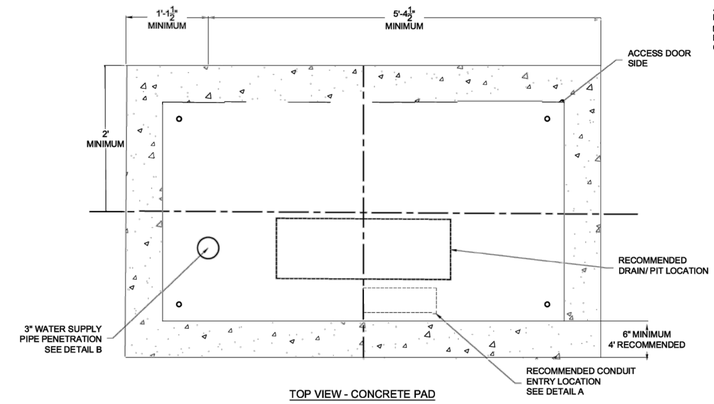
FS-63 - Little Rock Creek, CA
- Account Number & PIN user access
- 304 Stainless Steel
- Drain Solenoid
- 3" Side Fill Line
- Wifi Communication Antennas

FS-63 - Wauwatosa, WI
- Account Number & PIN user access
- 316 Stainless Steel
- Cold Climate Package – Enclosed Heater, Thermostat
- Low temperature alarm and email indication
- Interior and exterior LED lights
- 3" Side Fill Line

FS-63 in Newtown, PA
- Account Number & PIN user access
- Credit Card Reader
- Cold Climate Package – Enclosed Heater, Thermostat, Fan
- 3" Side Fill Line
- Cellular Modem



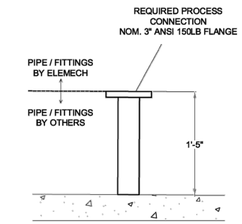
DETAIL A



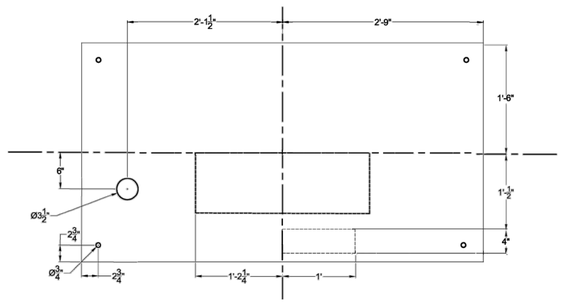
TOP VIEW - CONCRETE PAD

RECOMMENDED ANCHOR INFORMATION

ANCHOR:	POWER-STUD+ SD6 (OR EQUAL)
BRAND:	DEWALT (OR EQUAL)
MATERIAL:	¾" Ø TYPE 316 STAINLESS STEEL
DRILL METHOD:	HAMMER DRILL
QUANTITY:	4



DETAIL B



TOP VIEW - ENCLOSURE ENTRY LOCATIONS

___ Preliminary X Information Only
___ For Approval ___ Dimensions Certified

This drawing is limited to functional design, general arrangement and clearance. No responsibility is accepted by EleMech, Inc for other dimensions, quantities, or coordination with other equipment or drawings except as stated in the purchase order.

By _____ Date _____

REV	DESCRIPTION	BY	DATE

REFERENCE INFORMATION

PROJECT NAME

DRAWN BY: DRA DATE: 07/08/21
CHECKED BY: DATE:
SCALE

TITLE: BULK WATER FILL STATION INSTALLATION FS-63

DRAWING NO.: FS-63_INSTALL REV: 0
SHEET 1 OF 1

AVIATION DRIVE CUL-DE-SAC
WATER TRUCK FILL STATION
SPECIFICATION SHEET
LOCATED WITHIN SECTION 15, T.2 N., R.18 E., B.M., CITY OF HAILEY, BLAINE COUNTY, IDAHO
PREPARED FOR CITY OF HAILEY

PROJECT INFORMATION
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PROFESSIONAL ENGINEER
REGISTERED
7986
03/02/23
DATE OF IDAHO
JEFF C LOOMIS

CT
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PURPOSE: DEQ SUBMITTAL

NO	DATE	BY	REVISIONS
1	03/02/23	JCL	REVISIONS PER D.E.Q. COMMENTS

C1.11

GENERAL NOTES AND STRUCTURAL SPECIFICATIONS

Any discrepancies in the drawing, notes and specifications, shall be reported to owner's representative for clarification. The contractor shall verify and coordinate dimensions prior to proceeding with any work or fabrication.

T.L. = Pipe weight + water within + ½" radial ice + internal flow forces as noted on the elevation all with a 1.5 safety factor added

Soil - 2000 psf bearing pressure assumed on firm, drained, undisturbed granular strata. Owner and contractor to verify soil adequacy.

Concrete - 3000 psi in 28 days, minimum 5 sack mix, 4% minimum entrained air

Rebar - Grade 40.

Bolts - A307, U.N.O.

Plates - ASTM A36

U Bolts - ASTM A307

HSS - ASTM A500 GR B

3" Pipe by City of Hailey

Treat exposed metal w/ grey Tnemec applied per MFTR's recommendations. Touch up after welding.

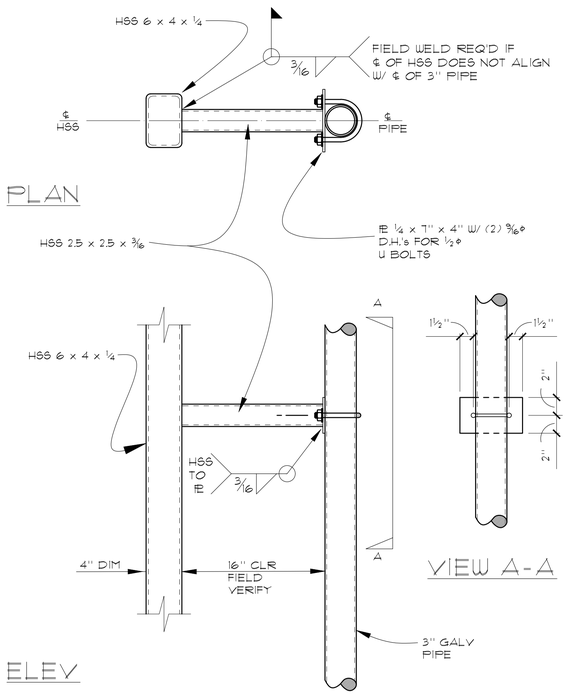
Safety - The engineer has not been retained nor compensated to provide design and/or construction review services related to the contractor's safety precautions or to means, methods, techniques, sequences or procedures for the contractor to perform his work. The undertaking of periodic site visits by the engineer shall not be construed as supervision of actual construction, nor make him responsible for providing a safe place for the performance of work by the contractor, subcontractors, suppliers or their employees, or for access,

CONTRACTOR / INSTALLER PREFERENCES

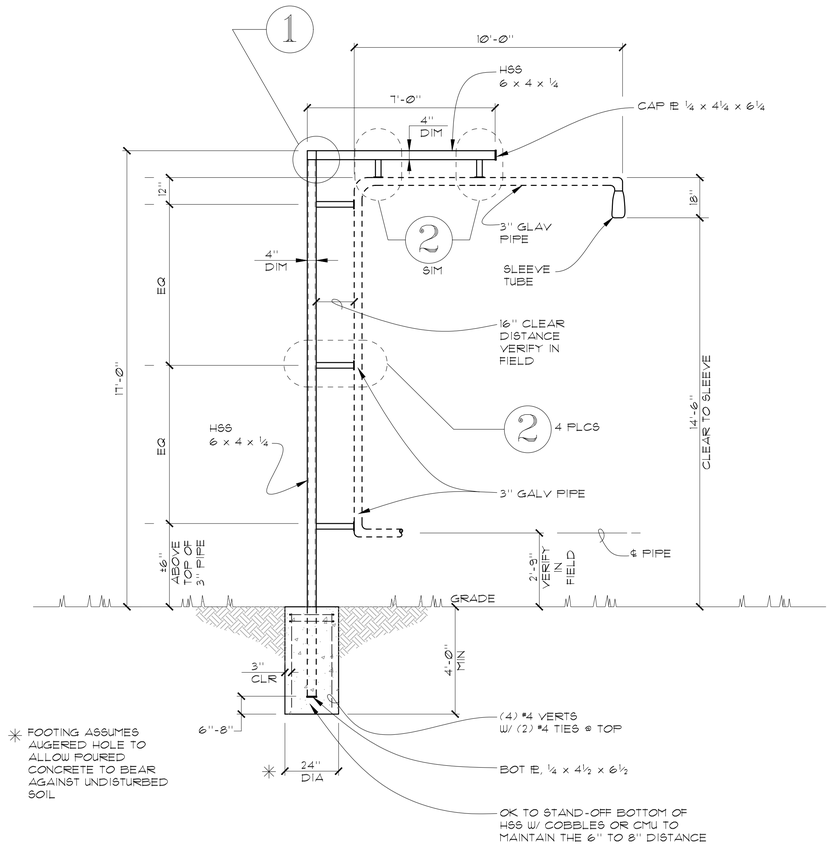
These drawings include the engineer's best vision of the installation. We recognize that there may be Contractor preferences that differ from these documents.

The Contractor is invited to request alternatives that may be more suitable for their methods, means and material resources.

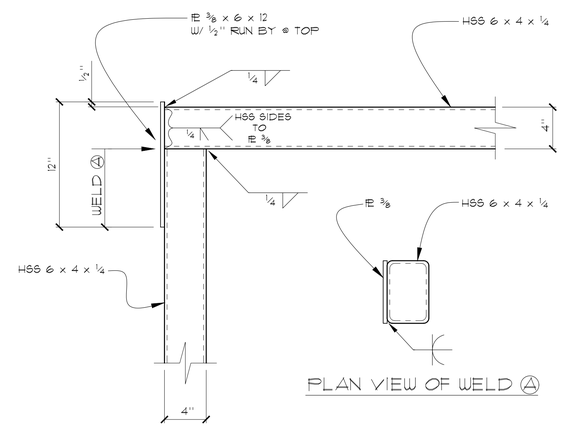
Please notify engineer regarding any deviation from these elements and details.



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



WATER PIPE SUPPORT
SCALE: ⅜" = 1'-0"



1 SCALE: N.T.S.

BOUISS & ASSOCIATES P.A.
STRUCTURAL ENGINEERS (208) 726-3606
P.O. BOX 251 KETCHUM, IDAHO 83340

PROFESSIONAL ENGINEER REGISTERED 3653 STATE OF IDAHO MICHAEL BOUISS

FEBRUARY 23, 2023

WATER PIPE SUPPORT

HAILEY, IDAHO

PROJECT: ---

DATE: FEBRUARY 23, 2023

△	REVISIONS	DATE

TITLE:

SHEET: S1