
CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

100% Construction Drawings for the

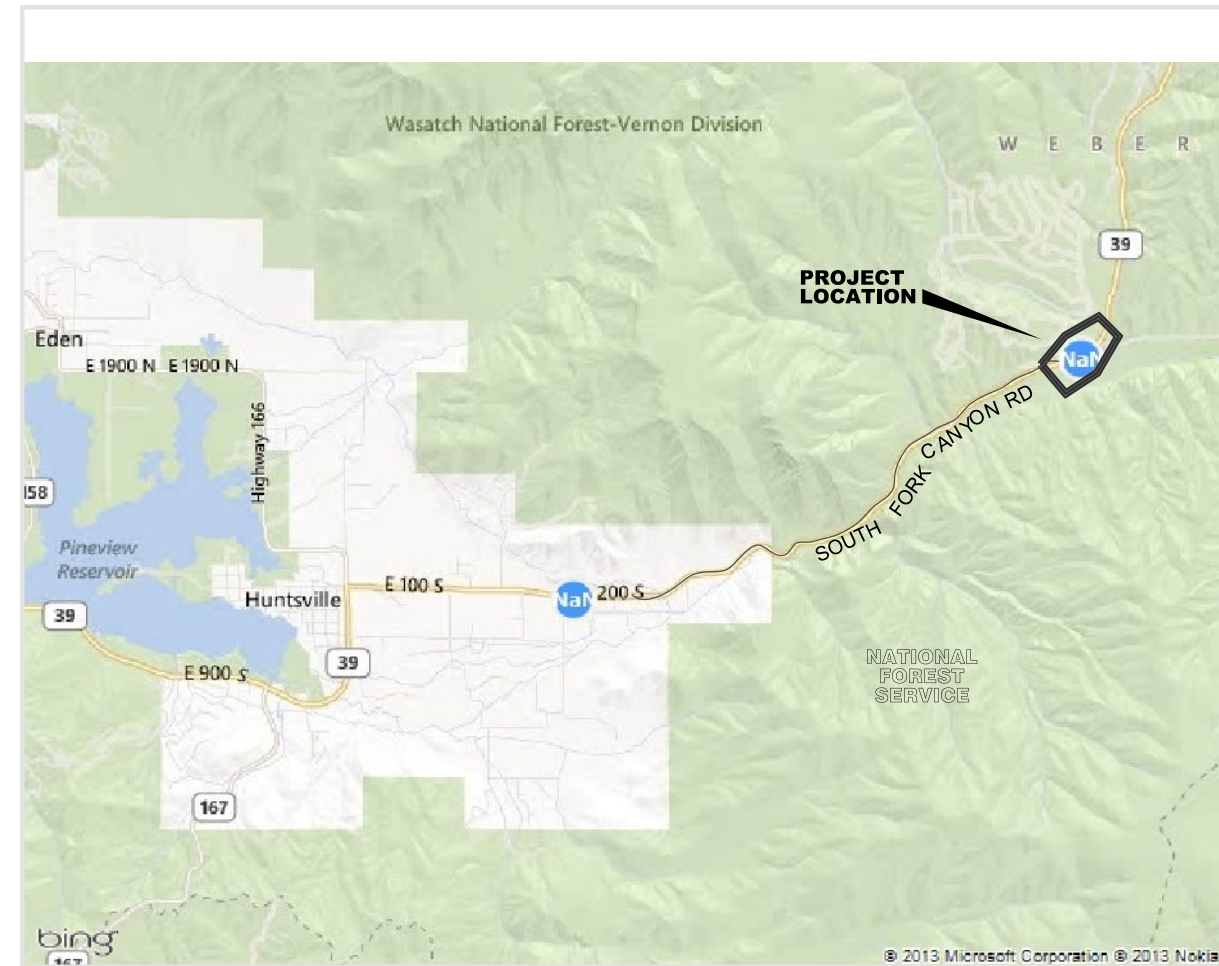
CAMP ATOKA PROJECT No. 502-6679-13010101 WATER SYSTEM IMPROVEMENTS

APRIL 2014
CONFORMED SET





LOCATION MAP



VICINITY MAP

LIST OF DRAWINGS

GENERAL			ELECTRICAL		
1	G-1	COVER SHEET	15	GE-1	ELECTRICAL NOTES & SYMBOLS
2	G-2	LOCATION MAP, VICINITY MAP AND LIST OF DRAWINGS	16	GE-2	ELECTRICAL DETAILS
3	G-3	SYMBOLS AND ABBREVIATIONS	17	SE-1	ELECTRICAL SITE PLAN
4	G-4	PIPE SCHEDULE	18	E-1	ELECTRICAL ONELINE & CONDUIT DEVELOPMENT
CIVIL			19	E-2	ELECTRICAL SCHEMATICS AND PANEL LAYOUT
5	GC-1	GENERAL CIVIL NOTES AND DETAILS - I			
6	GC-2	GENERAL CIVIL DETAILS - II			
7	GC-3	GENERAL CIVIL DETAILS - III			
8	GC-4	GENERAL CIVIL DETAILS - IV			
9	C-1	OVERALL SITE PLAN			
10	C-2	SITE PLAN DETAIL AT TANK			
11	C-3	CROSS SECTION A			
12	C-4	CROSS SECTION B			
13	PP-1	PLAN AND PROFILE 1 STA 0+00 TO STA 3+00			
14	PP-2	PLAN AND PROFILE 2 STA 3+00 TO STA 6+68.40			

Architect / Engineer:



Scale: NONE
 WARNING: IF THIS BAR DOES NOT MEASURE 1 INCH, THIS DRAWING IS NOT TO SCALE.

CAMP ATOKA
 WATER SYSTEM
 IMPROVEMENTS
 10700 EAST SOUTH FORK CANYON (SR-39)
 HUNTSMVILLE, UTAH

Project for:
 THE CHURCH OF
 JESUS CHRIST
 OF LATTER-DAY SAINTS

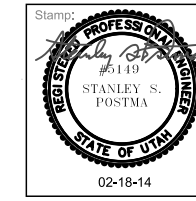
Mark	Date	Issue	Description

Project Number:
 502-6679-13010101
 Plan Series:
 N/A
 Property Number:
 502-6679

Sheet Title:
 LOCATION MAP,
 VICINITY MAP,
 AND LIST OF
 DRAWINGS

Designed: M CARTER
 Drawn: M CARTER
 Checked: M CHAMBERS

Sheet:
G-2



02-18-14

C	CENTERLINE
R	PROPOSED PROPERTY LINE
R	EXISTING PROPERTY LINE
[]	PROPOSED STRUCTURE OR FACILITY
[]	EXISTING STRUCTURE OR FACILITY
[]	FUTURE STRUCTURE OR FACILITY
X-X	PROPOSED FENCE
- - - -	EXISTING FENCE
	PROPOSED A.C. PAVING
	EXISTING A.C. PAVING
123	CONTOUR LINE, FINISHED GRADE
- - - 123	CONTOUR LINE, EXISTING GRADE
123.20	FINISHED ELEVATION
(123.20)	EXISTING ELEVATION
TOP TOE	CUT OR FILL SLOPE TO BE CONSTRUCTED
TOP TOE	EXISTING CUT OR FILL SLOPE
[]	GRAVEL ROAD
[]	RAILROAD
[]	CONCRETE
[]	PROPOSED CURB & GUTTER
[]	EXISTING CURB & GUTTER
•	PROPOSED UTILITY POLE
○	EXISTING UTILITY POLE
■	PROPOSED TELEPHONE OR POWER BOX
□	EXISTING TELEPHONE OR POWER BOX
[]	PROPOSED OPEN DITCH
[]	EXISTING OPEN DITCH
[]	PROPOSED CANAL
[]	EXISTING CANAL
- P - P	EXISTING BURIED POWER CABLE
- P - P	EXISTING OVERHEAD POWER CABLE
- W - W	EXISTING WATER LINE
[]	PROPOSED WATER LINE
- G - G	EXISTING GAS LINE
- T - T	EXISTING TELEPHONE CABLE
- S - S	EXISTING SEWER LINE
[]	PROPOSED SEWER LINE
- D - D	EXISTING STORM DRAIN
[]	PROPOSED STORM DRAIN
EH	FIRE HYDRANT
EH	FIRE HYDRANT
[]	PROPOSED WATER VALVE
[]	EXISTING WATER VALVE
WM	PROPOSED WATER METER
WM	EXISTING WATER METER
MH	PROPOSED MANHOLE
MH	EXISTING MANHOLE

COB	PROPOSED CLEANOUT BOX
COB	EXISTING CLEANOUT BOX
CB	PROPOSED CATCH BASIN
CB	EXISTING CATCH BASIN
○	PROPOSED AIR VALVE
○	EXISTING AIR VALVE
△	PROPOSED BLOWOFF VALVE
△	EXISTING BLOWOFF VALVE
[]	PROPOSED PRV STATION
[]	EXISTING PRV STATION
◆	SECTION CORNER
○	SOIL BORING
●	SURVEY MONUMENT
BM	BENCH MARK
	COMPACTED SOIL
	NATURAL GROUND
[]	PROPOSED CULVERT
[]	EXISTING CULVERT
[]	WATER SURFACE
[]	EASEMENT LINE
S	PRESSURE SWITCH
S	PRESSURE SWITCH WITH DIAPHRAGM SEAL
[]	FLANGED FITTING
[]	WELDED FITTING
[]	MECHANICAL-TYPE FITTING (GROOVED)
[]	SCREWED, SOCKET-WELD, BELL AND SPIGOT OR HUBLESS FITTING
[]	SLEEVE-TYPE COUPLING
[]	FLANGED ADAPTER COUPLING
[]	FLANGED ADAPTER - SET SCREW TYPE
[]	EXPANSION JOINT
[]	MECHANICAL TYPE COUPLING
[]	FLEXIBLE COUPLING
[]	UNION
[]	FLOOR DRAIN
[]	PIPE SUPPORT (IN PLAN ONLY)
[]	PIPE ANCHOR
[]	CHECK VALVE
[]	PRESSURE REGULATING VALVE

[]	BACK-PRESSURE VALVE
[]	MOTOR OPERATOR FOR VALVES (M = ELECTRIC, P = PNEUMATIC, H = HYDRAULIC)
[]	STOP GATE
[]	SLIDE GATE
[]	SLUICE GATE
[]	GATE VALVE, BURIED WITH VALVE BOX
[]	BUTTERFLY VALVE, BURIED WITH VALVE BOX
[]	NEEDLE VALVE
[]	PRESSURE RELIEF VALVE
[]	ANGLE VALVE
[]	HOSE BIBB (H/B)
[]	CAPPED END OR PLUGGED END
[]	BLIND FLANGE
[]	REDUCER OR INCREASER
[]	CUT PIPE
[]	GATE VALVE
[]	BUTTERFLY VALVE
[]	AIR VACUUM AND AIR RELEASE ASSEMBLY
[]	PRESSURE GAUGE

AC	ACRES	EL	ELEVATION	MH	MANHOLE	S	SOUTH, SCUM, SINK, SECOND OR SLOPE
ACP	ASPHALTIC CEMENT PIPE	EQ	EQUAL OR EQUATION	MIN	MINIMUM	SCD	SCREWED
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	EVC	EACH VERTICAL CURVE	MISC	MISCELLANEOUS	SCHED	SCHEDULE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	EW	EACH WAY	MJ	MECHANICAL JOINT	SD	STORM DRAIN
APPROX.	APPROXIMATE	EXIST	EXISTING	ML	MONUMENT LINE	SHT	SHEET
ASA	AMERICAN STANDARDS ASSOCIATION (NOW ANSI)	EXPJT	EXPANSION JOINT	MON	MONUMENT	SL	SLOPE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	EXT	EXTERIOR	MSL	MEAN SEA LEVEL	SO	SURVEY LINE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	FIN	FINISH	N	NORTH	SPECS	SPECIFICATIONS
AVAR	AIR VACUUM AND AIR RELEASE VALVE	FD	FLOOR DRAIN	NC	NORMALLY CLOSED	SS	SANITARY SEWER
BCR	BEGIN CURB RETURN	F TO F	FACE TO FACE	NO	NORMALLY OPEN	ST	STREET
BFP	BACK FLOW PREVENTER	FIN GR	FINISH GRADE	NTS	NOT TO SCALE	STA	STATION
BK	BACK	FG	FIRE HYDRANT FLOWLINE	O.D.	OUTSIDE DIAMETER	STD	STANDARD
BLDG	BUILDING	FH	FIRE HYDRANT	ORIG	ORIGINAL	STL	STEEL
BLD FLG	BLIND FLANGE	FL	FLANGE	P	POLE	STN STL	STRUCTURAL OR STRUCTURE
BM	BENCH MARK	FLG	FLANGED	PCC	POINT OF CURVATURE	T & B	TOP AND BOTTOM
BO	BLOW-OFF ASSEMBLY	FLR	FLOOR	PC	POINT OF COMPOUND	TAN	TANGENT
BOT	BOTTOM	FND	FOUND	PE	PERMANENT EASEMENT OR POLYETHYLENE OR PLAIN END	TB	TELEPHONE BOX
BRG	BEARING	FPM	FEET PER MINUTE	PI	POINT OF INTERSECTION	TBE	THREAD BOTH ENDS
B & S	BELL & SPIGOT	FPS	FEET PER SECOND	PL	PROPERTY LINE	TBC	TOP BACK CURB
BSMT	BASEMENT	FRP	FIBERGLASS REINFORCED PLASTIC	POT	POINT OF CURVE	TBM	TEMPORARY BENCH MARK
BV	BUTTERFLY VALVE	FT	FEET OR FOOT	PT	POINT OF TANGENT	TM	TELEPHONE MANHOLE
BVC	BEGIN VERTICAL CURVE	FTG	FOOTING	PP	POWER POLE	TOC	TOP OF CONCRETE
CB	CATCH BASIN	GALV	GALVANIZED	PRESS	PRESSURE	TOW	TOP OF WALL
CE	CONSTRUCTION EASEMENT	GIP	GALVANIZED IRON PIPE	PRC	POINT OF REVERSE CURVE	TP	TELEPHONE POLE OR TELEGRAPH POLE
CFH	CUBIC FEET PER HOUR	GPD	GALLONS PER DAY	PRV	PRESSURE REGULATING RELIEF OR REDUCING VALVE	TYP	TYPICAL
CFM	CUBIC FEET PER MINUTE	GPH	GALLONS PER HOUR	PSI	POUNDS PER SQUARE INCH	UG	UNDERGROUND
CFSC	CUBIC FEET PER SECOND	GRD	GRADE OR GROUND	PT	POINT OF TANGENCY	UGC	UNDERGROUND CONDUIT
CHK V	CHECK VALVE	GR BRK	GRADE BREAK OR GRADE CHANGE	PVC	POLYVINYL CHLORIDE	UNO	UNLESS NOTED OTHERWISE
CI	CAST IRON	GV	GATE VALVE	PVMT	PAVEMENT	VC	VERTICAL CURVE
CIP	CAST IRON PIPE	HDPE	HIGH DENSITY POLYETHYLENE	QTY	QUANTITY	VCP	VITRIFIED CLAY PIPE
CL	CENTERLINE	HORIZ	HORIZONTAL	R	RADIUS	VERT	VERTICAL
CLR	CLEARANCE	HWL	HIGH WATER LEVEL	RC	REINFORCED CONCRETE	VOL	VOLUME
CMP	CORRUGATED METAL PIPE	HWY	HIGHWAY	RCP	REINFORCED CONCRETE PIPE	VPI	VERTICAL POINT OF INTERSECTION
CMPA	CORRUGATED METAL PIPE ARCH	HPI	HORIZONTAL POINT OF INTERSECTION	RD	ROAD	WM	WATER METER
CO	CLEANOUT	ID	INSIDE DIAMETER	RDWD	REDWOOD	W	WEST
COB	CLEANOUT BOX	INST	INSTALLATION	RED	REDUCER OR REDUCING	W	WITH
COL	COLUMN	IN	INCH	REF	REFERENCE OR REFER	WT	WEIGHT
CONC	CONCRETE	INVT	INVERT ELEVATION	REINF	REQUIRED	YD	YARD
CTR	CENTER	IRRG	IRRIGATION	REQD	REQUIRED		
CY	CUBIC YARDS	L	LENGTH	RP	RADIUS POINT		
DET	DETAIL	LP	LENGTH OF CURVE	RPM	REVOLUTIONS PER MINUTE		
DIA	DIAMETER	LT	LEFT	RPM	OR REINFORCED PLASTIC		
DIP	DUCTILE IRON PIPE	LWL	LOW WATER LEVEL		MORTAR		
DN	DOWN	MAX	MAXIMUM				
DWG	DRAWING	ME	MECHANICAL END (COLLARED TYPE)				
E	EAST						
ESMT	EASEMENT						
EO	EDGE OF OIL						
ECR	END CURB RETURN						
EF	EACH FACE						

Architect / Engineer:
MWH

Scale: NONE

WARNING: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

CAMP ATOKA WATER SYSTEM IMPROVEMENTS

10700 EAST SOUTH FORK CANYON (SR-39) HUNTSVILLE, UTAH

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

Mark	Date (m/d/y)	Description

Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: 502-6679

Sheet Title: SYMBOLS AND ABBREVIATIONS

Designed: M.CARTER
Drawn: M.CARTER
Checked: M.CHAMBERS

Sheet: G-3

Stamp: STANLEY S. POSTMA 02-18-14

SECTION AND DETAIL IDENTIFICATION

SECTION IDENTIFICATION

(1) SECTION CUT SHOWN ON DRAWING AS:

(2) ON SHEET NUMBER G-2 THIS SECTION IS IDENTIFIED AS:

SCALE: AS DESIGNATED, SEE NOTE 5

DETAIL IDENTIFICATION

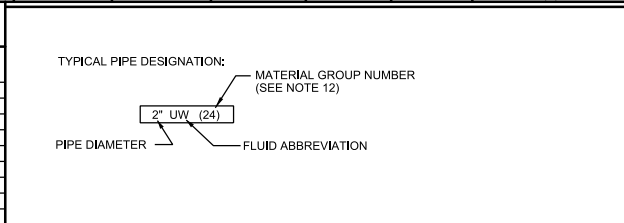
DETAIL IDENTIFICATION

STANDARD DETAIL IDENTIFICATION

STANDARD DETAILS ARE LOCATED ON DISCIPLINE GENERAL SHEETS, IN NUMERICAL ORDER

FLUID ABBREVIATION	FUNCTION THIS LIST INCLUDES SOME LINES NOT USED IN THIS PROJECT (* SEE NOTE 5)	PIPING MATERIALS (SEE SCH AT RIGHT)				FIELD TEST REQUIREMENTS (SEE NOTE 3 AND NOTE 4)		
		EXPOSED PIPING (SEE NOTE 14)		BURIED PIPING (SEE NOTE 13)		MINIMUM TEST PRESSURE PSI	TEST MEDIUM	LEAKAGE ALLOWANCE (SEE NOTE 2)
		4" DIA AND SMALLER	6" DIA AND LARGER	4" DIA AND SMALLER	6" DIA AND LARGER			
PD	PLANT DRAIN OR DRAIN	2	8,12,31	2, 27,35	12,22,26,27,31	NOTE 6	WATER	2.8(A) 12.28(B) 22(C)
PO	PLANT OVERFLOW	2	8	2	8,28	NOTE 6	WATER	2.8(A) 28(B)
PW	POTABLE WATER	2,11,16,24	8,11,16	11,16,24,31	8,11,16,19,31	125	WATER	2.8,11,16,24(A) 19,28(B)
RW	RAW WATER	2,11,16,24	8,11,16	11,16,24,31	8,11,16,19,31	125	WATER	2.8,11,16,24(A) 19,28(B)
RWL	RAINWATER LEADER	4,12	12	12	12	NOTE 7	—	—
SA	SAMPLE LINE (SEE LIST AT RIGHT)	16,24	—	16,24	—	125	WATER	(A)
SD	SANITARY DRAIN AND VENT	4,12	12	12,35	12	NOTE 7	—	—
SDR	STORM DRAIN	8	8	22	22	NOTE 6	WATER	8(A) 28(B) 22(C)
SS	SANITARY SEWER	—	12,22	—	12,22	NOTE 7	—	—
SU	STRUCTURE UNDERDRAIN	—	—	23	23	NO	TEST	REQ'D
SUC	STRUCTURE UNDERDRAIN COLLECTOR	—	—	23	23	NOTE 6	WATER	(C)
UW	UTILITY WATER (NON-POTABLE WATER)	2,11,14,15,16,24	8,11,14,15,16	11,14,15,16,24	8,11,19	125	WATER	2.11,24(A) 19(B)
V	VENT	2	2	2	2	25	AIR	(A)

LIST OF SAMPLE LINES	
PIPE DESIGNATION	SAMPLE POINT



NOTES:

GENERAL NOTE
ALTHOUGH SEVERAL PIPE MATERIAL GROUPS MAY BE LISTED ON THIS SHEET FOR A GIVEN FLUID SERVICE CONTRACTOR SHALL PROVIDE ONLY THE PIPE MATERIAL GROUP SHOWN ON THE DRAWINGS AND SPECIFIED FOR THAT FLUID SERVICE.

NOTE 1
PROPRIETARY NAMES HAVE BEEN QUOTED FOR IDENTIFICATION PURPOSES ONLY. SUBSTITUTIONS WILL BE PERMITTED SUBJECT TO PROVISIONS OF THE SPECIFICATIONS.

NOTE 2
LEAKAGE ALLOWANCE IS AS FOLLOWS:
 (A) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE.
 (B) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE FOR UNBURIED PIPE AND NOT MORE THAN 0.02 GALLON PER HOUR PER INCH DIAMETER PER 100 FEET OF BURIED PIPE.
 (C) PIPES SO DESIGNATED SHALL NOT SHOW A LEAKAGE OF MORE THAN 0.15 GALLON PER HOUR PER INCH OF DIAMETER PER 100 FEET OF PIPE.
 (D) PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5 PERCENT.
 (E) PIPE SO DESIGNATED SHALL NOT SHOW A LOSS OF VACUUM OF MORE THAN 4 INCHES MERCURY COLUMN.

NOTE 3
FOR FIELD TEST PROCEDURES AND ADDITIONAL TEST REQUIREMENTS, SEE PIPING SECTION OF SPECIFICATIONS.

NOTE 4
NO SUBSTITUTIONS UNLESS ACCEPTED BY THE ENGINEER PER THE SPECIFICATIONS.

NOTE 5
PIPING GROUP NUMBER SHOWN THUS * SHALL BE INSULATED. SEE PIPING SECTION OF SPECIFICATIONS FOR INSULATING MATERIALS.

NOTE 6
STATIC WATER TEST WITH SURFACE 5 FEET ABOVE HIGH POINT OF PIPE.

NOTE 7
INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE PLUMBING CODE.

NOTE 8
NO APPARENT LEAKS UNDER NORMAL OPERATING CONDITIONS.

NOTE 9
INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.

NOTE 10
PIPING MATERIALS SHALL BE IN ACCORDANCE WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.

NOTE 11
FOR VALVES 8" AND LARGER SEE VALVE SCH FOR SPECIAL VALVES SEE SPECIFICATIONS.

NOTE 12
CHANGE IN PIPING MATERIAL GROUP NUMBER IS INDICATED THUS: — ◆ —

NOTE 13
FOR PIPE LINING AND COATING, SEE SPECIFICATIONS.

NOTE 14
EXPOSED PIPING SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS. COLORS TO BE SELECTED BY ENGINEER.

NOTE 15
FOR SHORT PIPE RUNS, LIME SLURRY PIPING MATERIAL SHALL BE NON-ABRASIVE FLEXIBLE RUBBER HOSE AND QUICK CONNECT COUPLINGS WITH GROUP NO 1 AT EQUIPMENT.

NOTE 16
FOR VALVE ENDS, SEE SPECIFICATIONS.

NOTE 17
ALL RECLAIMED WATER PIPING SHALL BE COLOR CODED PURPLE OR AS REQUIRED BY LOCAL CODE.

NOTE 18
FOR OUTDOOR EXPOSED PIPING, GROUP NO. 36 IS HIGHLY RECOMMENDED.

NOTE 19
PROVIDE DOUBLE CONTAINMENT FOR ALL CHEMICAL PIPING PER CODE REQUIREMENTS.

NOTE 20
SIMILAR TO GROUP NO. 16 EXCEPT SCH. 40.

NOTE 21
FOR FIRST STAGE MEMBRANE CONCENTRATE TEST PRESSURE AT 250 PSI, FOR ALL OTHER LINES, 150 PSI.

GROUP NO	PIPING MATERIAL SCH (SEE NOTE 4 AND GENERAL NOTE AT RIGHT)		
	PIPE (SEE NOTE 13)	FITTINGS	VALVES, 6" AND SMALLER (SEE NOTE 1, 11 & 16)
1	STEEL, ASTM A53, SCH 40, BLACK WELDED, GALVANIZED	2 1/2" AND SMALLER, MALLEABLE IRON, ASME B16.3, THREADED, BANDED, BLACK, 150 PSI OR STEEL, ASME B16.9, BUTT-WELDED, 3" AND LARGER, CAST IRON, ASME B16.1, 125 PSI FLANGED OR MECHANICAL COUPLING.	BRONZE, THREADED, GATE; CRANE 428 UB OR STOCKHAM B-105, GLOBE; STOCKHAM B-37, CHECK; CRANE 37 OR STOCKHAM B-319Y, IRON PLUG VALVE; NORDSTROM FIG 142 OR 143, ECCENTRIC PLUG; DEZURIK PEC, CAST IRON OR MILLIKEN 603E, BALL; JAMESBURY FIG 351 OR WATTS #B-6080, LUBRICATED PLUG VALVE (FOR CONDENSATE ONLY); NORDSTROM FIG 114 OR 115.
2	STEEL, ASTM A53, SCH 40, BLACK WELDED,	2 1/2" AND SMALLER, MALLEABLE IRON, ASME B16.3, THREADED, BANDED, GALVANIZED 150 PSI, 3" AND LARGER, CAST IRON, ASME B16.1, 125 PSI FLANGED OR MECHANICAL COUPLING.	2 1/2" AND SMALLER, ECCENTRIC PLUG, SYNTHETIC RUBBER FACED; DEZURIK PEC, CAST IRON, OR MILLIKEN 603E, BALL; JAMESBURY FIG 351 OR WATTS #B-6080, 3" AND LARGER, ECCENTRIC PLUG, SYNTHETIC RUBBER FACED; DEZURIK PEC, CAST IRON, OR MILLIKEN 601, GATE; AWWA C500, BUTTERFLY; AWWA, FLANGED
3	STEEL, ASTM A106 OR A53, SCH 80, SEAMLESS, BLACK,	FORGED STEEL, ASME B16.11, SOCKET WELDED OR THREADED, BLACK, 2000 PSI, OR STEEL, ASME B16.9, BUTT-WELDED, SCH 80,	CAST IRON, LUBRICATED PLUG; NORDSTROM FIG 214 OR 305
4	SAME AS GROUP NO. 1	CAST IRON, ASME B16.12, THREADED, DRAINAGE PATTERN.	—
5	WELDED STEEL, AWWA C200, UNLINED,	WELDED STEEL, FABRICATED, AWWA C208, UNLINED,	CAST IRON, FLANGED, LUBRICATED PLUG; NORDSTROM FIG 143
6	STEEL, ASTM A106, OR A53, SCH 40, SEAMLESS, BLACK,	STEEL, ASME B16.9, BUTT-WELDED, CAST IRON, ASME B16.1, 125 PSI, FLANGED FORGED STEEL, SOCKET WELDED, ASME B16.11, 2000 PSI OR STEEL, ASME B16.5, 150 PSI FLANGED,	AS INDICATED ON DRAWINGS
7	SAME AS GROUP NO. 2,	MALLEABLE IRON, ASME B16.3, THREADED, BANDED, GALVANIZED, 300 PSI.	BRONZE THREADED, GLOBE; CRANE #212P OR STOCKHAM B-62 OR B-32T, BALL; JAMESBURY FIG 351 OR WATTS #B-6080, CHECK; CRANE #27TF OR STOCKHAM B-32ZT,
8	WELDED STEEL PIPE (AWWA C200 AND MODIFIED PER SECTION 02570)	WELDED STEEL, AWWA C208, FABRICATED,	AS INDICATED ON DRAWINGS.
9	SAME AS GROUP NO. 1,	2 1/2" AND SMALLER, MALLEABLE IRON, ASME B16.3, THREADED, BANDED, BLACK, 150 PSI, 3" AND LARGER, STEEL, ASME B16.9, BUTT-WELDED	ECCENTRIC PLUG; DEZURIK PEC, CAST IRON, OR MILLIKEN 603E, CHECK; CRANE 336E OR MILWAUKEE #544, BALL; JAMESBURY FIG 351 OR WATTS #B-6080,
10	SAME AS GROUP NO. 3,	1-1/4" AND SMALLER, FORGED STEEL, ASME B16.11, THREADED OR SOCKET WELDED, BLACK, 3000 PSI WITH FLANGED AMMONIA UNIONS, 1-1/2" AND LARGER, STEEL, ASME B16.9, BUTT-WELDED OR FLANGED, SCHEDULE 80	SEMI-PLUG AND YOKE TYPE OR BALL FOR CHLORINE SERVICE, FORGED CARBON STEEL
11	DUCTILE IRON, ANSI A21.51, (AWWA C151 AND MODIFIED PER SECTION 02565), ENDS BELL AND SPIGOT, MECH. JOINTS OR 125 PSI FLGD, (TYPICAL SERVICE - WATER LINES),	DUCTILE IRON AWWA C110 AND MODIFIED PER SECTION 02565, BELL AND SPIGOT JOINTS (RESTRAINT OR NON-RESTRAINT), MECH CPLNG, FLGD OR MECH JTS, 250 PSI (PRESS, RATING) 12" AND SMALLER, 150 PSI (PRESS, RATING) 14" AND LARGER, WITH 125 PSI ASME B16.1 FLANGES, FOR HIGHER PRESS, RATING, REFER TO MFR CATALOG.	GATE; AWWA C500, O-RING SEALS, MECHANICAL JOINT ENDS, CLOW F-5065, BUTTERFLY; AWWA, ECCENTRIC PLUG DEZURIK PEC, CAST IRON OR MILLIKEN 603E, BALL; PRATT OR APCO-WILLAMETTE, AS INDICATED ON DRAWINGS,
12	CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS, AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROUP NO. 11) MAY BE SUBSTITUTED	CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS, AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROUP NO 11) MAY BE SUBSTITUTED.	—
13	NOT USED	—	—
14	STAINLESS STEEL, TYPE 316, ASTM A312, SCHEDULE 40S,	STAINLESS STEEL, TYPE 316, SCREWED, WELDED SLIP-ON FLANGE ASME B16.3, OR SOCKET WELDED FITTINGS SCHEDULE 40S, (SCREWED JTS NOT ALLOWED FOR OZ, OX, LOX SERVICE)	STAINLESS STEEL, BALL, FLANGED; CONTROMATICS SERIES 2801 OR JAMESBURY SERIES 7150, CHECK; LADISH 5275 OR CRANE FIG 377 OR AS SHOWN ON DRAWINGS
15	STAINLESS STEEL, TYPE 316, ASTM A312, SCHEDULE 10S,	STAINLESS STEEL, TYPE 316 WELDED SLIP-ON FLG ASME B16.3, OR SOCKET WELDED FITTINGS SCHEDULE 40S, (NO SCREWED JOINTS ALLOWED)	STAINLESS STEEL, AS INDICATED ON DRAWINGS.
16	POLYVINYL CHLORIDE, SCHEDULE 80, NORMAL IMPACT, ASTM D1785, (SEE NOTE 18),	POLYVINYL CHLORIDE, SCH 80, NORMAL IMPACT, SOCKET SOLVENT WELD JOINTS, ASTM D2467, SOLVENT SHALL BE COMPATIBLE WITH FLUID SERVICE	POLYVINYL CHLORIDE, BALL, DIAPHRAGM, BUTTERFLY, OR LIFT CHECK; NIBCO/CHEMTROL, MCCANNA-MARPAC, OR GEORGE FISCHER SLOANE,
17	POLYPROPYLENE, ASTM D4101, SCHEDULE 40, WITH HEAT FUSED JOINTS,	POLYPROPYLENE, SCH 40, DRAINAGE TYPE WITH HEAT FUSED SOCKET JTS,	—
18	NOT USED	—	—
19	POLYVINYL CHLORIDE PRESSURE PIPE AWWA C900 (4"-12") OR AWWA C905 (14"-48") WITH BELL AND SPIGOT JOINTS,	DUCTILE IRON FITTINGS, 150 PSI, FOR POLYVINYL CHLORIDE PIPE, AWWA C110 CEMENT MORTAR LINED, AWWA C104,	SAME AS GROUP NO. 11,
20	NOT USED	—	—
21	NOT USED	—	—
22	REINFORCED CONCRETE, ASTM C76, O-RING BELL AND SPIGOT JOINTS,	USE MANHOLES,	—
23	POLYVINYL CHLORIDE, DOUBLE WALL, CORRUGATED, GRAVITY SEWER PIPE, ASTM F794, F949, BELL AND SPIGOT, PERFORATED (FOR STRUCTURE UNDERDRAIN), NON-PERFORATED (FOR STRUCTURE UNDERDRAIN COLLECTOR),	PVC, ASTM F794 AND ASTM F949,	—
24	LEAD FREE COPPER, ASTM B88, TYPE K, SOFT TEMPERED WHERE BURIED, HARD TEMPERED WHERE EXPOSED,	LEAD FREE WROUGHT COPPER OR CAST BRONZE, ASME B16.22, SILVER SOLDER JOINT, 150 PSI, OR COMPRESSION FITTINGS, (FOR COMPRESSED AIR PIPING USE 95-5 TIN-ANTIMONY SOLDER)	BRONZE, SILVER SOLDER JOINT, GLOBE; CRANE #1310 OR STOCKHAM B-14T, CHECK; CRANE #1342 OR 36, OR STOCKHAM B-309Y OR B-345, GATE; CRANE #426 OR STOCKHAM B-104 OR B-105,
25	NOT USED	—	—
26	SAME AS GROUP NO. 11 (TYPICAL SERVICE - SLUDGE AND SEWAGE LINES)	SAME AS GROUP NO. 11,	ECCENTRIC PLUG, SYNTHETIC RUBBER FACED; DEZURIK PEC, CAST IRON OR MILLIKEN 601, SWING TYPE CHECK; CRANE #383 OR POWELL FIG 559, BALL; PRATT OR APCO-WILLAMETTE,
27	POLYVINYL CHLORIDE GRAVITY SEWER PIPE, ASTM D3034, BELL AND SPIGOT,	POLYVINYL CHLORIDE, ANSI/ASTM D3034, BELL AND/OR SPIGOT,	—
28	NOT USED	—	—
29	POLYETHYLENE PIPE AND TUBING, ASTM D2513, SDR FOR YARD PIPING PER PLUMBING CODE,	HEAT FUSION FITTINGS, PE 3406, PE 2306, PE 2406, OR PE 3406 COMPRESSION TYPE OR OTHER APPROVED JOINTS PER PLUMBING CODE,	POLYETHYLENE BALL VALVES APPROVED BY PLUMBING CODE.
30	NOT USED	—	—
31	HIGH DENSITY POLYETHYLENE (HDPE) ASTM D3350 - SDR AS SPECIFIED,	HDPE THERMAL BUTT-FUSED FLANGE CONNECTIONS AT ALL VALVES AND TRANSITIONS,	—
32	NOT USED	—	—
33	NOT USED	—	—
34	NOT USED	—	—
35	ABS AND PVC COMPOSITE PIPING, ASTM D2680	SOLVENT WELDED JOINTS OR ELASTOMERIC GASKET CONFORMING TO ASTM D 2680	—
36	CHLORINATED POLYVINYL CHLORIDE (CPVC) SCH. 80, ASTM DI 784 - CLASS 23447-B,	CPVC, SCHEDULE 80, SOCKET AND SOLVENT WELD JOINTS,	BALL; CHEM-MRE, GLOBE; CRANE #212P OR STOCKHAM B-62 OR B-32,
37	NOT USED	—	—

Architect / Engineer:

Scale: NONE

CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS

10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS

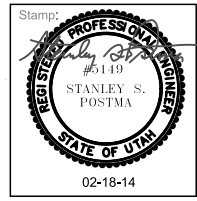
Mark	Date	Rev	Description

Project Number: 502-6679-13010101
 Plan Series: N/A
 Property Number: 502-6679

Sheet Title:
PIPE
SCHEDULE

Designed: T MEHRABAN
 Drawn: M CARTER
 Checked: M CHAMBERS

Sheet: G-4



CIVIL GENERAL NOTES

GENERAL

- 1. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.

UTILITIES

- 1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POthOLE FOR EXISTING UTILITIES PRIOR TO SUBMITTAL OF SHOP DRAWINGS, FOR POINTS OF CONNECTIONS.

PIPING

- 1. THE CONTRACTOR SHALL COMPLY WITH THE STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS.

EROSION CONTROL

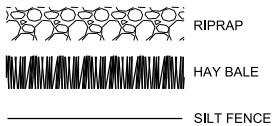
- 1. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN FOR WORK DURING THE CONSTRUCTION, SIGNED AND STAMPED BY A REGISTERED CIVIL ENGINEER PRIOR TO THE START OF CONSTRUCTION.

CIVIL GENERAL NOTES - CONTINUED

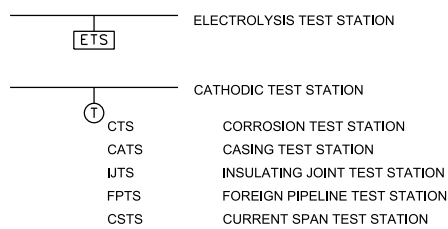
SURVEY AND CONTROL

COORDINATES ARE SHOWN IN UTAH STATE PLANE NAD 83, CENTRAL ZONE, US SURVEY FEET. ELEVATIONS ARE NAVD 88. SEE SHEET C- FOR CONTROL POINT INFORMATION AND LOCATIONS.

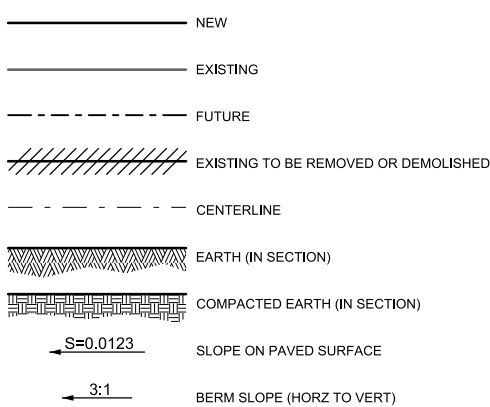
DRAINAGE SYMBOLS



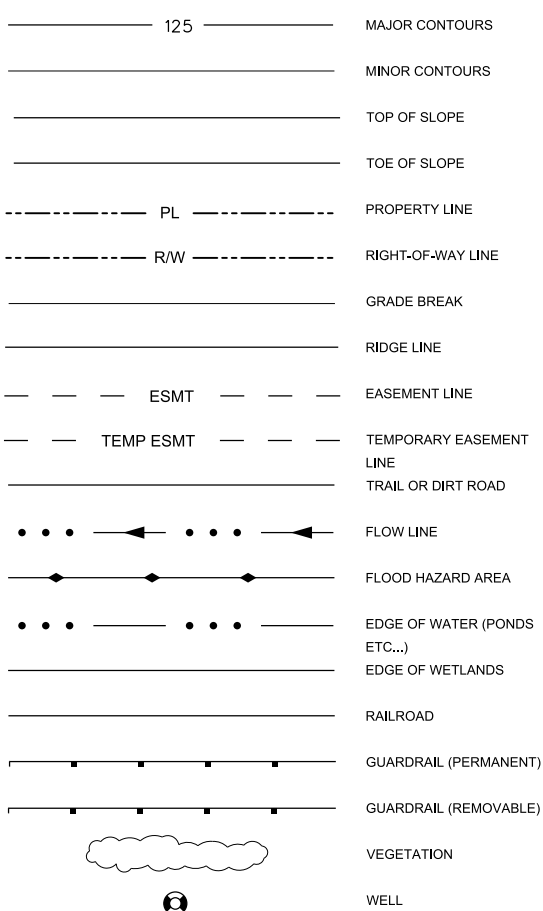
CORROSION CONTROL SYMBOLS



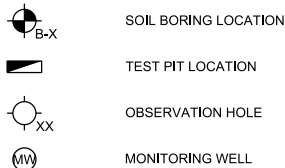
GENERAL CIVIL SYMBOLS



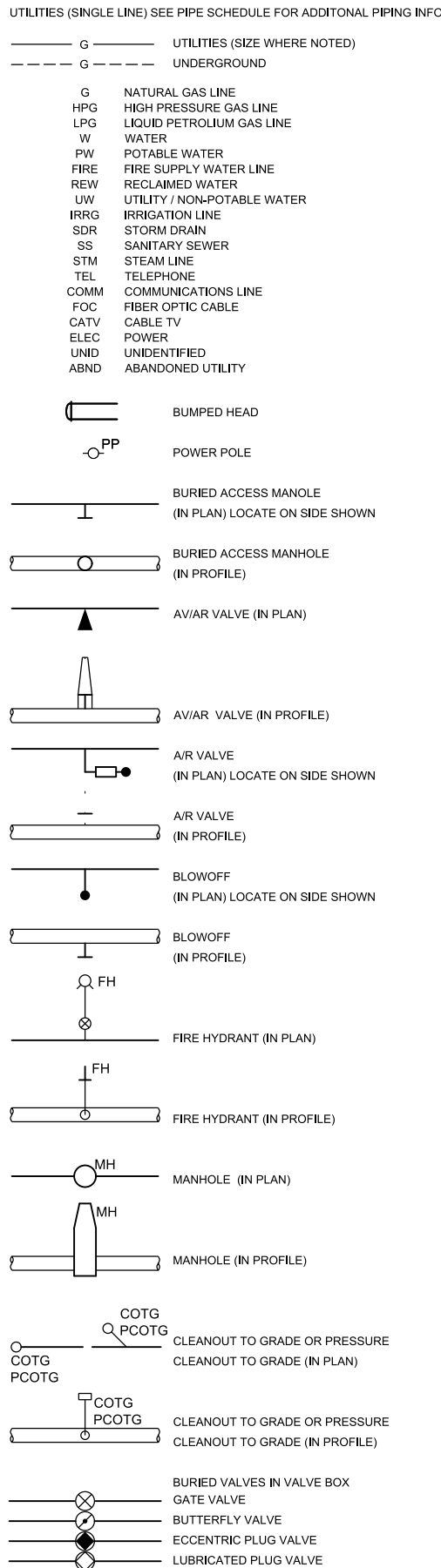
TOPOGRAPHY AND MAPPING SYMBOLS



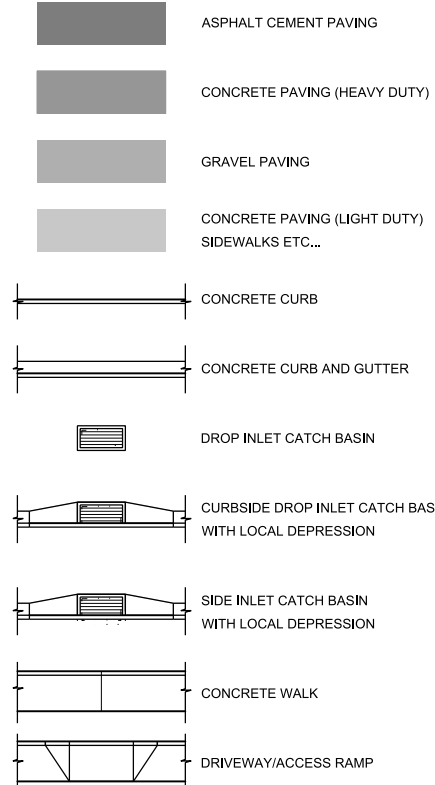
GEOTECHNICAL SYMBOLS



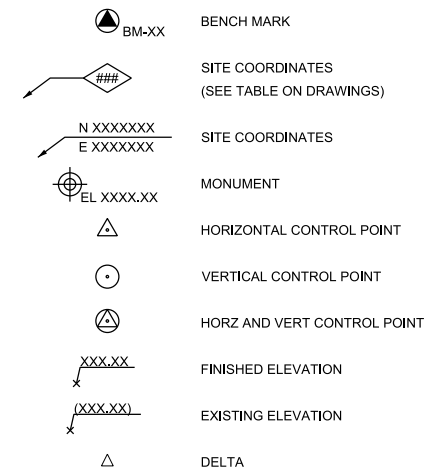
PIPING AND UTILITIES



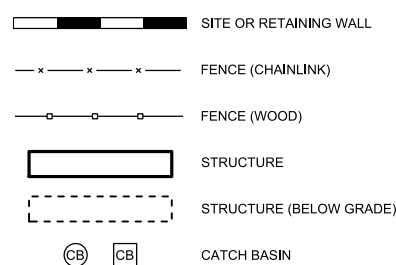
ROAD AND PAVING SYMBOLS



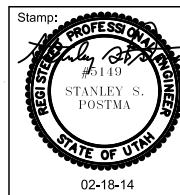
CONTROL SYMBOLS



STRUCTURES

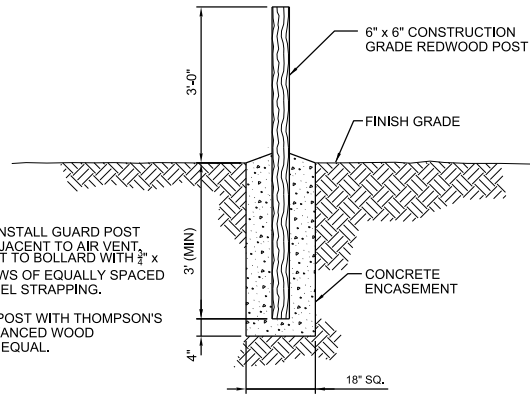


REV 032612

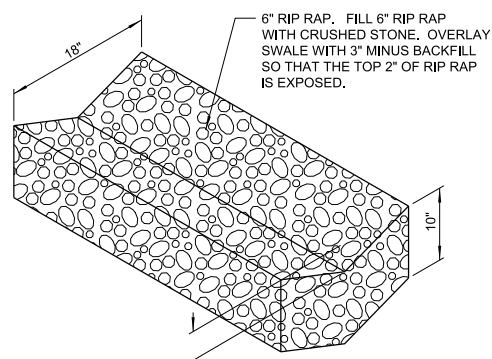


Architect / Engineer: MWH logo. Scale: NONE. Project for: THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS. Project Number: 502-6679-13010101. Plan Series: N/A. Property Number: 502-6679. Sheet Title: GENERAL CIVIL NOTES AND DETAILS - I. Sheet: GC-1. Designer: T MEHRIBAN. Drawn: M CARTER. Checked: M CHAMBERS.

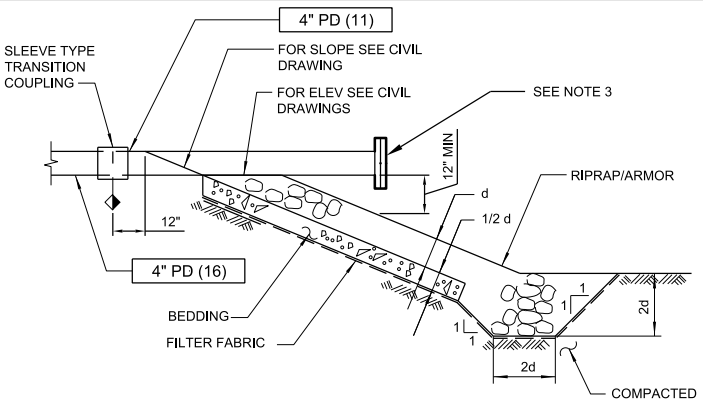
- NOTES:
- FOR ALL VENTS INSTALL GUARD POST IMMEDIATELY ADJACENT TO AIR VENT. SECURE AIR VENT TO BOLLARD WITH 3/4" x 0.031" 3 (MIN) ROWS OF EQUALLY SPACED GALVANIZED STEEL STRAPPING.
 - COAT EXPOSED POST WITH THOMPSON'S WATERSEAL ADVANCED WOOD PROTECTOR, OR EQUAL.



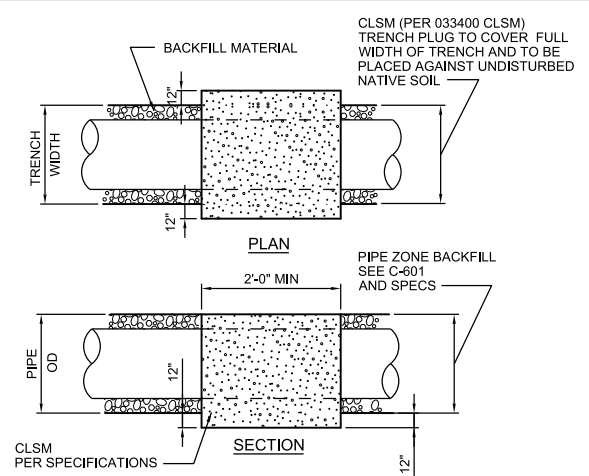
GUARD POST (BOLLARD) REV 071008 C-114



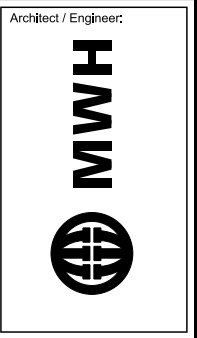
DRAINAGE SWALE NOT TO SCALE 051612 C-201



RIPRAP & ARMOR PROTECTION NOT TO SCALE 051612 C-202



CLSM TRENCH PLUG C-603



Scale: NONE
WARNING: IF THIS BAR DOES NOT MATCH THE SCALE DRAWING IS NOT TO SCALE

CAMP ATOKA WATER SYSTEM IMPROVEMENTS
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

Mark	Date	By	Description
1	05 JUN 13	ADDENDUM No. 2	

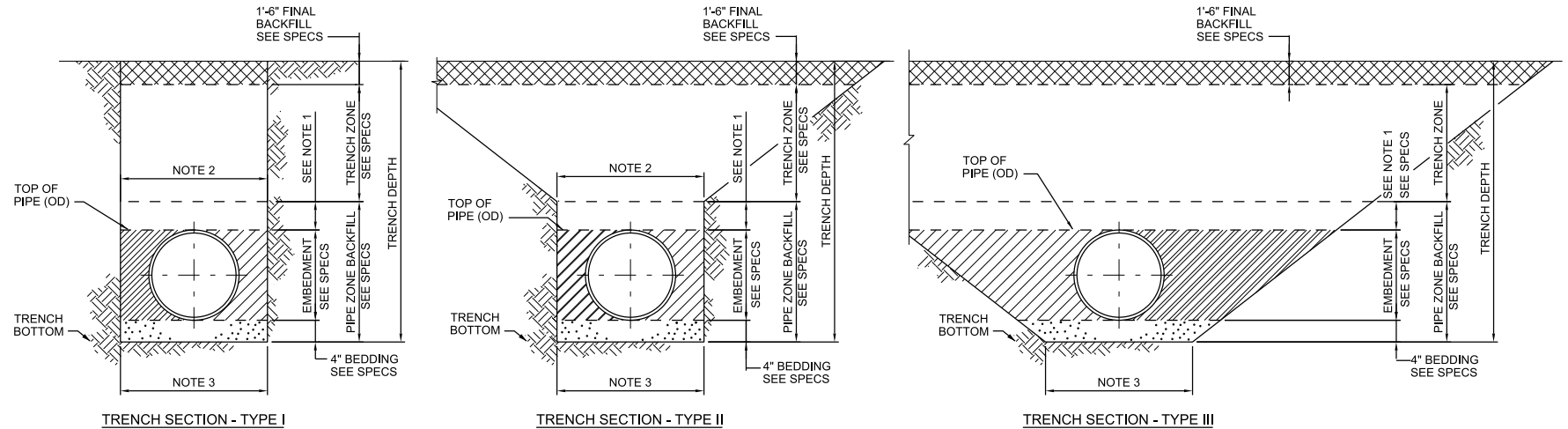
Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: 502-6679

Sheet Title:
GENERAL CIVIL DETAILS - II

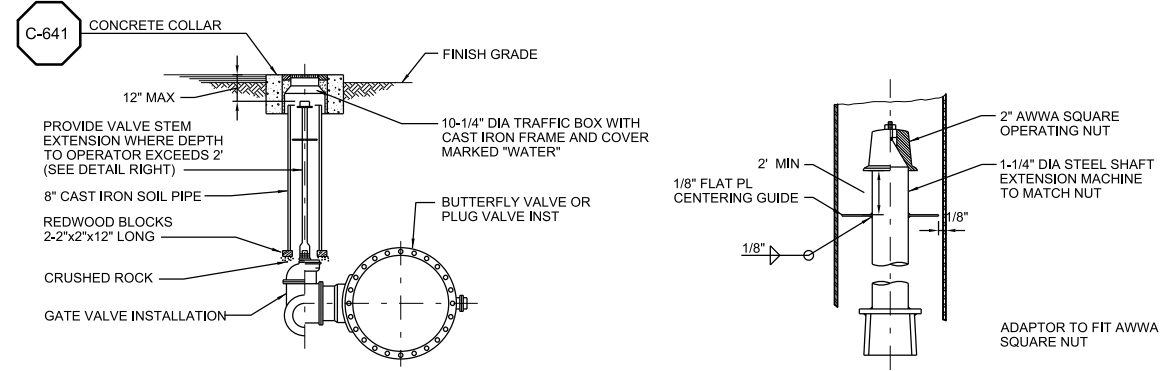
Designed: M CARTER
Drawn: M CARTER
Checked: M CHAMBERS

Sheet:
GC-2

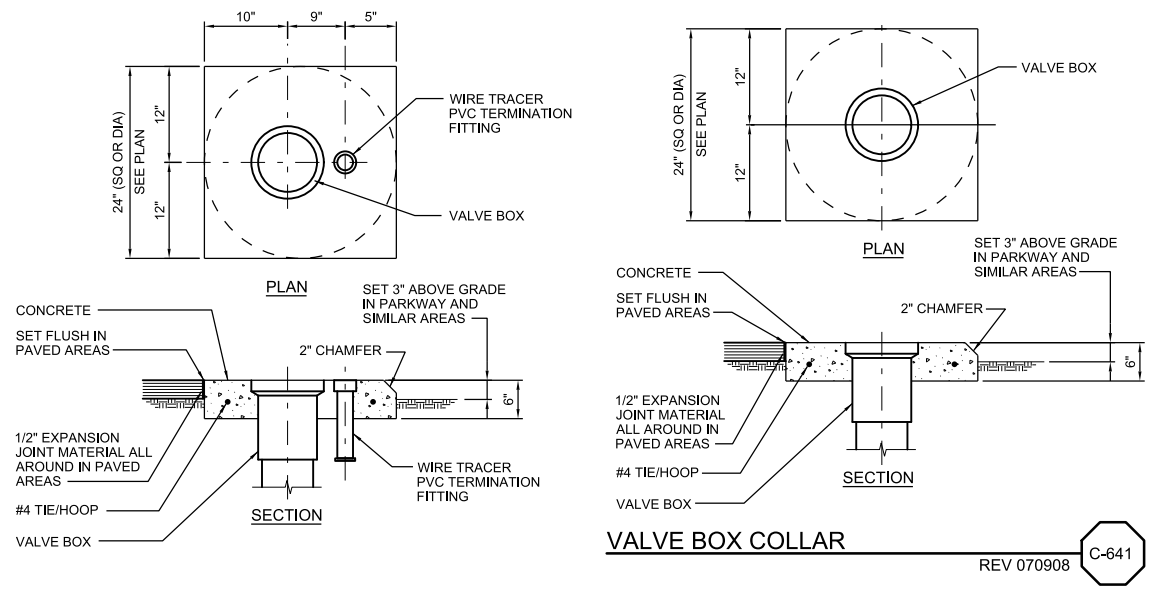
- NOTES:
- FLEXIBLE PIPE REFERS TO ALL STEEL, DUCTILE-IRON, AND PLASTIC PIPES.
 - TYPICAL TRENCH SECTIONS (I, II AND III) ARE TO BE USED ONLY WHERE STABLE, COMPACT SOIL CONDITIONS EXIST. IF BOULDERS OR LARGE OBSTRUCTIONS ARE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER OR WIDER THAN SHOWN, THE ENGINEER SHALL BE ADVISED SHOULD THIS OCCUR.
 - THE NEED FOR PROTECTIVE SYSTEMS AND EXCAVATION SLOPES SHALL BE DETERMINED CONSIDERING APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, AND GEOTECHNICAL CONSULTANTS' RECOMMENDATIONS.
 - PROTECTIVE SYSTEMS SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.
 - SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER REGARDING PIPE DESIGN AND COMPLIANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS.
 - UNSUPPORTED VERTICAL AND/OR SLOPING TRENCH WALL SLOPES SHALL NOT BE STEEPER THAN ALLOWED BY APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, UNLESS SUPPORTING DOCUMENTATION IS SUBMITTED, ACCORDING TO AFOREMENTIONED SAFETY STANDARDS.
 - TRENCH SECTIONS OTHER THAN THE TYPICAL SECTIONS SHOWN MAY BE UTILIZED PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS. DOCUMENTATION SUPPORTING THIS COMPLIANCE AND PIPE DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER.
 - IF OVER-EXCAVATION DUE TO POOR FOUNDATION MATERIAL IS ORDERED BY THE ENGINEER, THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTION OF THE SPECIFICATIONS ARTICLE ENTITLED, "FILL AND BACKFILL MATERIAL REQUIREMENTS."
 - IF DURING CONSTRUCTION, THE WATER TABLE IS DISCOVERED TO BE ABOVE THE TRENCH BOTTOM, THE ENGINEER SHALL BE NOTIFIED, AND APPROPRIATE DEWATERING SHALL BE IMPLEMENTED TO LOWER THE WATER LEVEL BELOW THE TRENCH BOTTOM. THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTIONS OF THE SPECIFICATIONS, OR AS ORDERED BY THE ENGINEER.



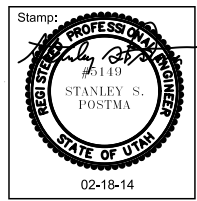
TRENCH SECTION FLEXIBLE PIPE REV 071508 C-601

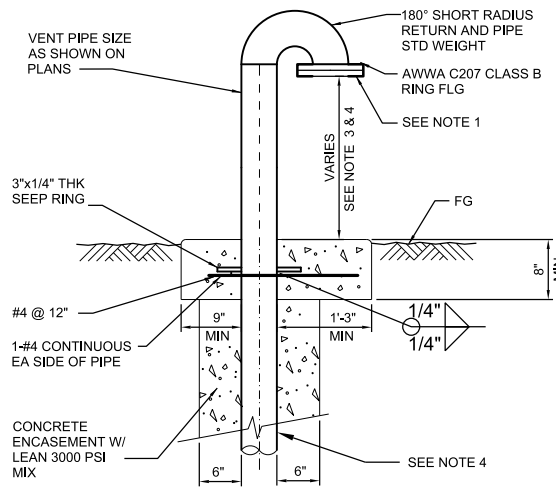


BURIED VALVE INSTALLATION REV 071008 C-640



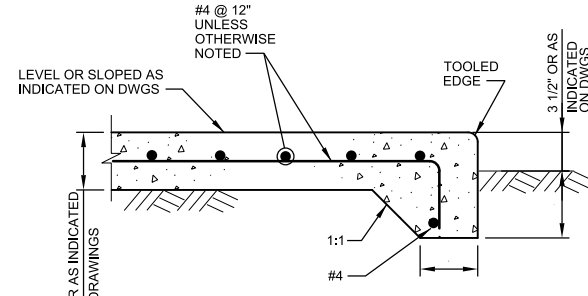
VALVE BOX COLLAR REV 070908 C-641



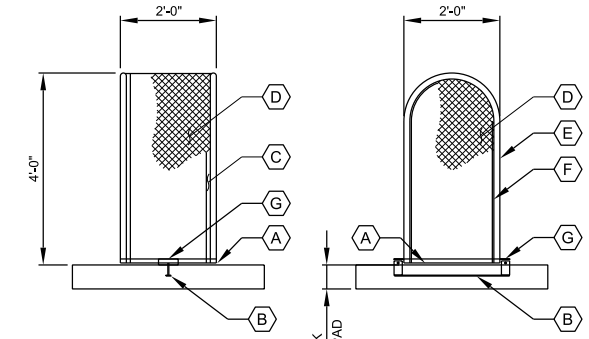


- NOTES:**
1. TYPE 316 STN STL INSECT SCREEN (#4 MESH) BACKED BY #14 (MESH), BOLTED BETWEEN FLANGES. USE AWWA C207 CLASS B RING FLG BOLTED TO FLG ABOVE FOR RETAINER.
 2. GALVANIZE AFTER FABRICATION, EXCEPT SCREEN.
 3. MIN HEIGHT OF FLANGE TO FINISH GRADE IS 4 FT UNO. SECURE TO GUARD POST POST PER DETAIL C-114/GC-2.
 4. EXTEND GALVANIZED PIPE A MIN 3 FT BELOW GRADE BEFORE TRANSITION TO HDPE PIPE. CONCRETE ENCASE ALL BURIED GALVANIZED PIPE. PVC TAPE WRAP PIPE PRIOR TO ENCASEMENT PER SECTION 099600. END TAPE WRAP AT SEEP RING.

AIR VENT ASSEMBLY C-908

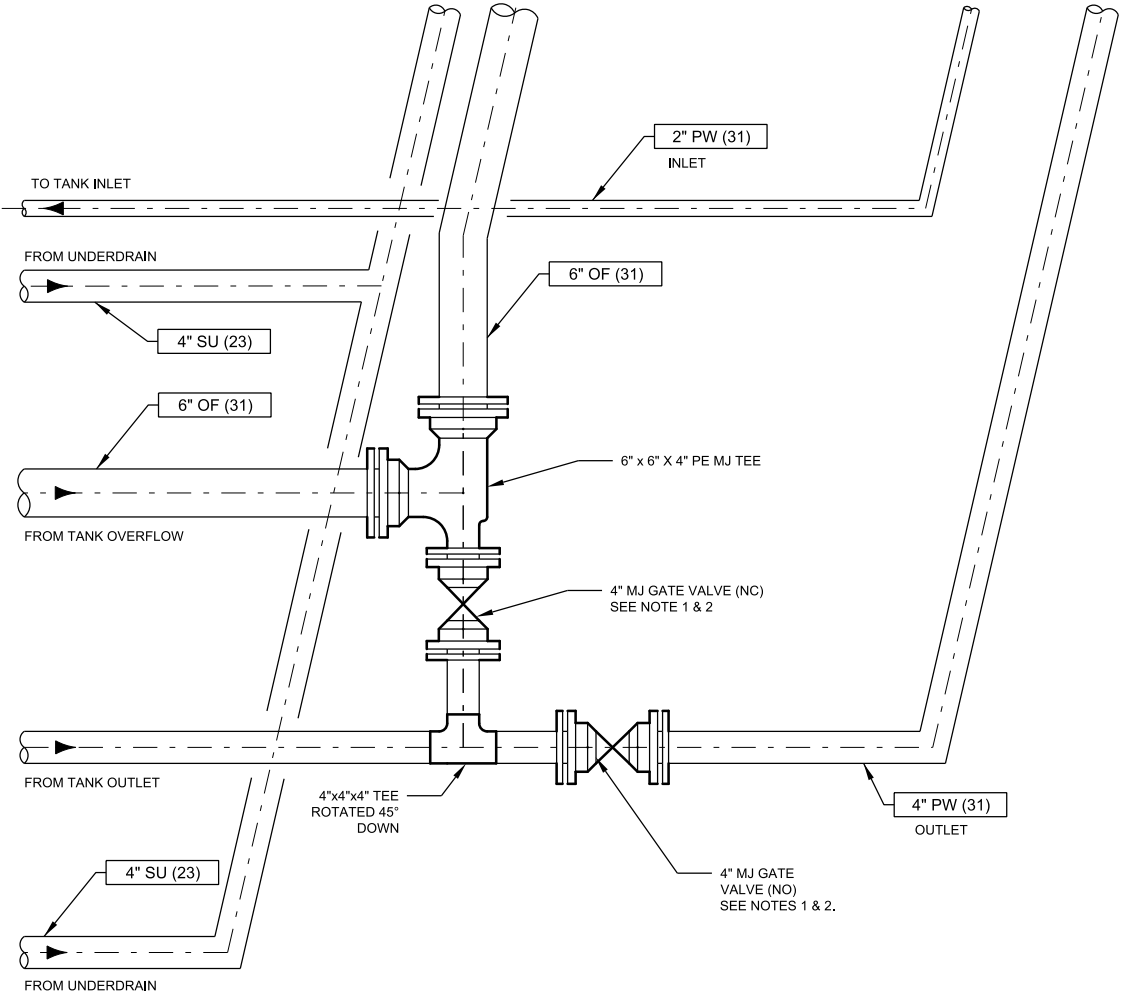


SLAB-ON-GRADE REV 051408 C-909



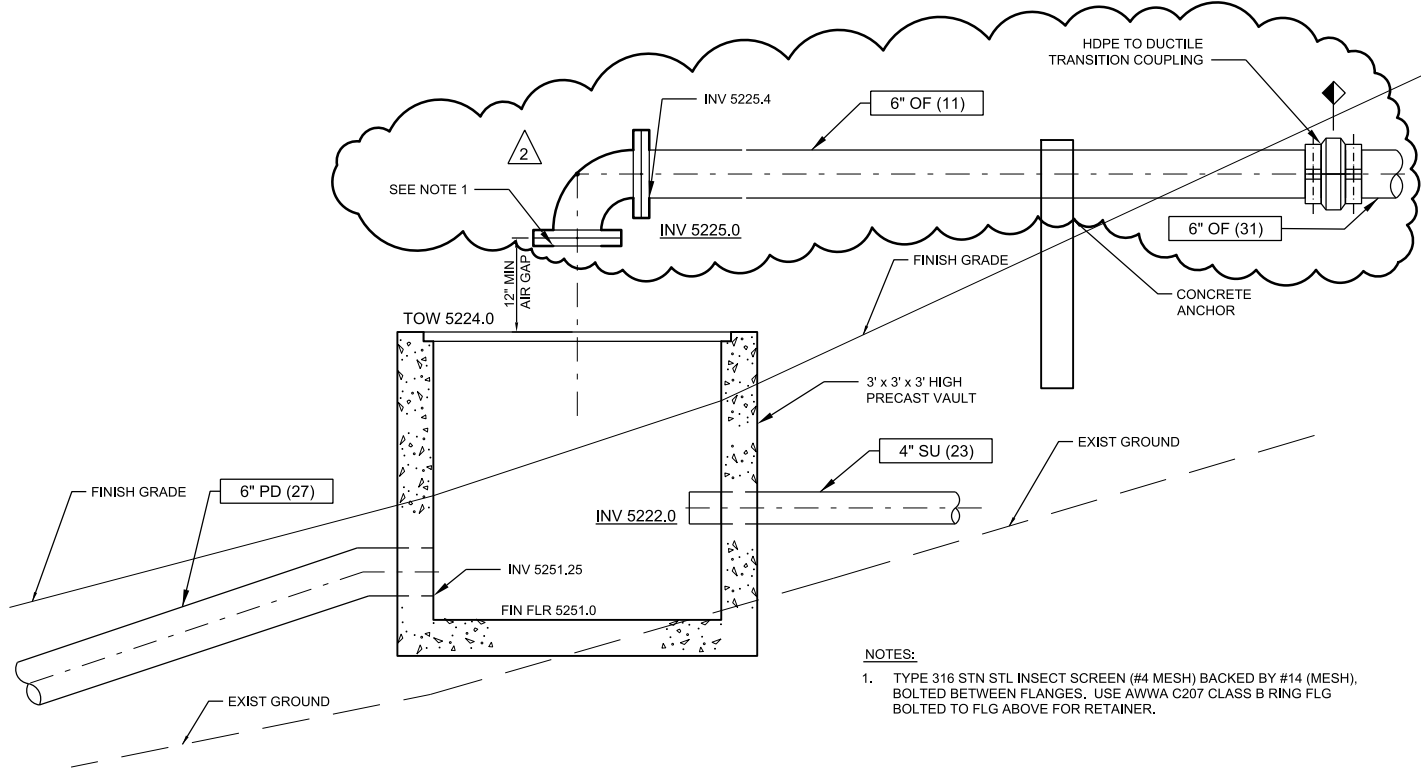
- KEY NOTES:**
- A. 1/2" CLR BETWEEN CONCRETE AND FRAME.
 - B. EMBEDDED STEEL PLATE WITH HASP FOR LOCK.
 - C. 3/8" X 1" STEEL STRAP WELDED TO FRAME. WELD GRATING TO STRAP.
 - D. 1/2" #13 CARBON STEEL FLATTENED DIAMOND GRATING - SAND BLAST TO REMOVE BURRS & SHARP EDGES.
 - E. 1 1/2" SCH 40 STEEL PIPE (TYP).
 - F. 3/8" Ø STEEL BAR WELDED TO FRAME. WELD GRATING TO STEEL BAR.
 - G. STEEL COVER PLATE OVER LOCK HASP.
- NOTES:**
1. POWDER COAT CAGE AFTER FABRICATION. COLOR SHALL BE GREEN.
 2. MANUFACTURER SHALL BE BACKFLOW PROTECTION OR EQUAL. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO PURCHASING THE SECURITY CAGE.

WELL HEAD SECURITY CAGE SCALE: 1/2" = 1'-0" C-912



- NOTES:**
1. USE MJ CI GATE VALVE WITH ADAPTORS TO HDPE AND VALVE BOX AND LID.
 2. SUPPORT VALVE ON CONCRETE PAD UNDER VALVE.

BYPASS VALVE DETAIL SCALE: 3/4" = 1'-0" C-910



- NOTES:**
1. TYPE 316 STN STL INSECT SCREEN (#4 MESH) BACKED BY #14 (MESH), BOLTED BETWEEN FLANGES. USE AWWA C207 CLASS B RING FLG BOLTED TO FLG ABOVE FOR RETAINER.

BLOWOFF BOX DETAIL SCALE: 3/4" = 1'-0" C-911

Architect / Engineer:

Scale: NONE

WARNING: IF THIS BAR DOES NOT MATCH THE DRAWING IS NOT TO SCALE

CAMP ATOKA WATER SYSTEM IMPROVEMENTS

10700 EAST SOUTH FORK CANYON (SR-39) HUNTSVILLE, UTAH

Project for:

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

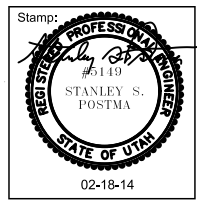
Mark	Date	Description
2	27-FEB-14	Addendum No.6
1	05-JUN-13	Addendum No.2

Project Number: 502-6679-13010101
 Plan Series: N/A
 Property Number: 502-6679

Sheet Title:
GENERAL CIVIL DETAILS - III

Designed: I MEHRABAN
 Drawn: M CARTER
 Checked: M CHAMBERS

Sheet:
GC-3



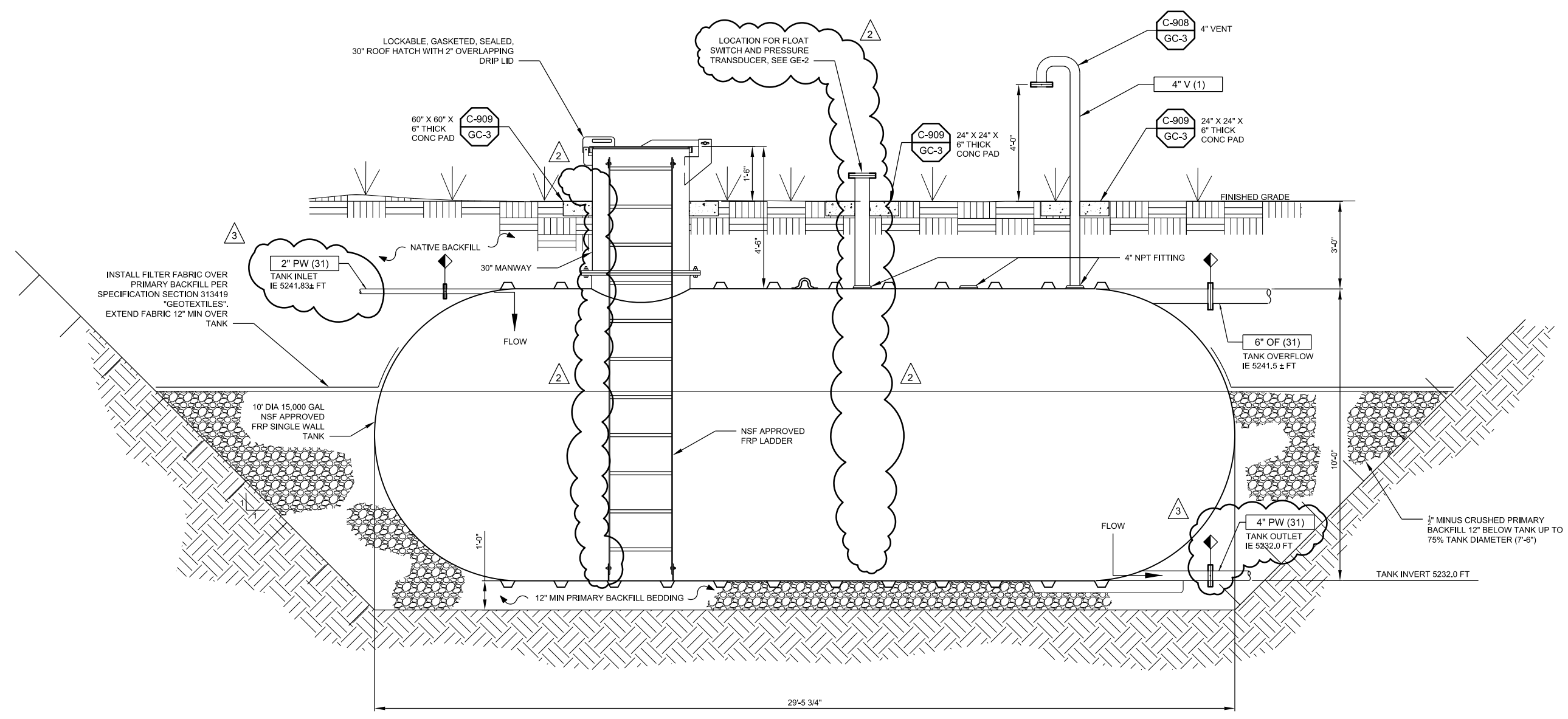
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2	25-FEB-14	Addendum No.4
1	05-JUN-13	Addendum No.2

Project Number:
 502-6679-13010101
 Plan Series:
 N/A
 Property Number:
 502-6679

Sheet Title:
**GENERAL CIVIL
 DETAILS - V**

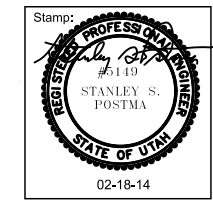
Designed: **T MEHRABAN**
 Drawn: **M CARTER**
 Checked: **M CHAMBERS**

Sheet:
GC-4

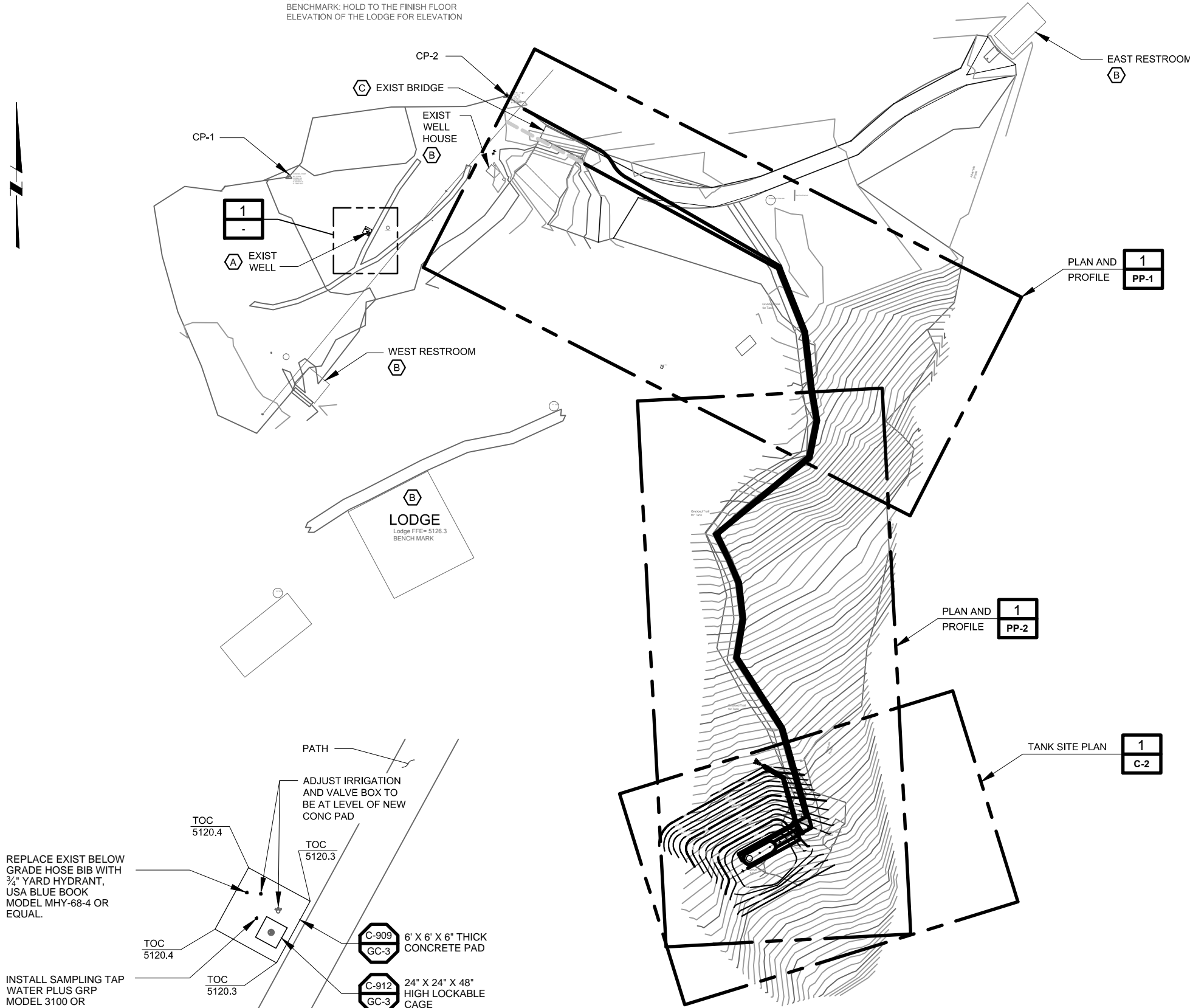


- NOTES:**
1. PRIMARY BACKFILL SHALL BE CLEAN, FREE FLOWING, AND FREE OF DIRT, SAND, LARGE ROCKS, ROOTS, ORGANIC MATERIAL, DEBRIS, ICE, AND SNOW.
 2. PRIMARY BACKFILL SHALL BE 1/2" MINUS CRUSHED STONE.
 3. NATIVE BACKFILL MUST BE CLEAN, FREE FLOWING, FREE OF LARGE ROCKS, ROOTS, ORGANIC MATERIAL, DEBRIS, ICE, AND SNOW. BACKFILL MATERIAL SHALL NOT BE FROZEN MATERIAL AT ANY TIME DURING INSTALLATION.
 4. TAPE WRAP ALL BURIED STEEL PIPE.

FRP POTABLE WATER TANK C-911



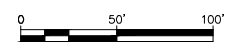
COORDINATE SYSTEM:
STATE PLANE, NAD83, UTAH NORTH ZONE,
US SURVEY FEET.
BENCHMARK: HOLD TO THE FINISH FLOOR
ELEVATION OF THE LODGE FOR ELEVATION



EXISTING WELL
SCALE: 1" = 5'

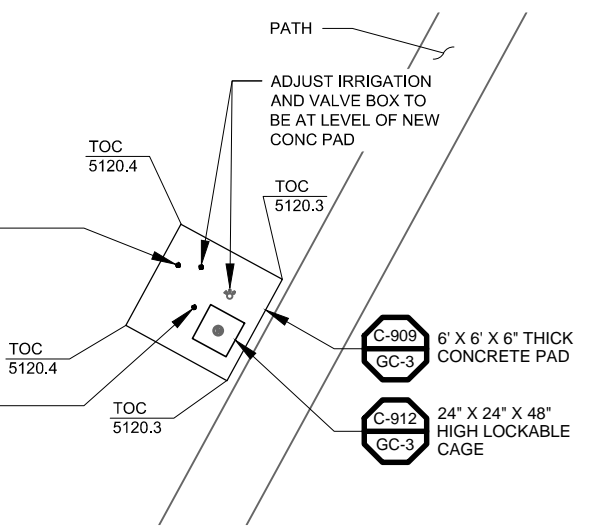


OVERALL SITE PLAN
SCALE: 1" = 50'

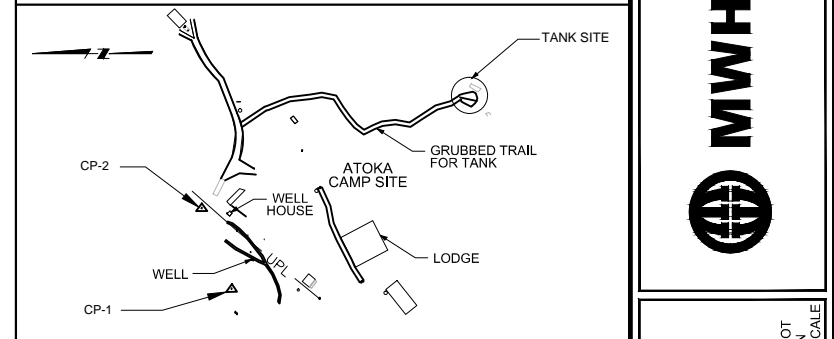


REPLACE EXIST BELOW GRADE HOSE BIB WITH 3/4" YARD HYDRANT, USA BLUE BOOK MODEL MHY-68-4 OR EQUAL.

INSTALL SAMPLING TAP WATER PLUS GRP MODEL 3100 OR EQUAL. CONNECT TO WELL DISCHARGE PIPE.



KEY PLAN



GENERAL SHEET NOTES

- CONTRACTOR TO INSTALL NEW 2-INCH AND 4-INCH DR 17 PE 4710 HDPE PIPE PER DETAIL C-601/GC-2. NO INTERMEDIATE HIGH OR LOW POINTS SHALL BE ACCEPTABLE EXCEPT FOR A SINGLE LOW POINT FOR EACH PIPELINE AT THE EAST RIVER BANK AT THE BRIDGE TO PROVIDE DRAINAGE OF PIPELINES INTO THE RIVER. PROVIDE 48-INCHES OF MIN COVER OVER PIPING EXCEPT FOR PIPING INSTALLED IN THE FLAT AREA EAST OF BRIDGE (~200 FT) WHERE A MIN OF 2 FEET OF COVER WILL BE ACCEPTABLE IN ORDER FOR THE PIPE TO DAYLIGHT AT SUFFICIENT ELEVATION TO ALLOW PIPE TO BE DRAINED INTO THE RIVER.
- MAXIMUM WIDTH OF DISTURBANCE IS 30 FT ALONG THE PIPELINE. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO STAY WITHIN THE 30 FT.
- COORDINATES SHOWN ARE APPROXIMATE. ADJUST PIPE LOCATION TO AVOID LARGE OBSTRUCTIONS SUCH AS TREES, LARGE SHRUBS, AND BOULDERS.
- POTABLE WATER HDPE PIPES SHALL BE BLUE OR BLACK WITH INTEGRAL BLUE STRIP. DRAIN OVERFLOW PIPES SHALL BE GREEN OR BLACK WITH INTEGRAL GREEN STRIPE.
- CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.
- CONSTRUCT LOW-POINTS OF 2-INCH AND 4-INCH PIPELINES ADJACENT TO THE EAST SIDE OF BRIDGE. INSTALL A "T" ON EACH PIPELINE AND PROVIDE HOSE GATE VALVE FOR DRAINAGE. PROVIDE HOSE (MIN 8 FT) TO ALLOW DRAINAGE OF PIPELINES INTO RIVER. HOSE VALVE TO BE 1-1/2 INCH BRONZE GATE VALVE WITH HAND LEVER, HOSE CAP AND CHAIN. VALVE INLET THREADS SHALL BE AMERICAN NATIONAL TAPERED PIPE THREADS AND MALE OUTLET SHALL BE NATIONAL STANDARD HOSE THREAD. PROVIDE VALVE BOXES TO PROTECT AND SECURE HOSE GATE VALVES.

SHEET KEYNOTES

- INSTALL 4 FT X 4 FT CONCRETE SLAB ON GRADE PER DETAIL C-912 OVER 12-INCHES OF AGGREGATE BASE, TYPE 6 MATERIAL COMPACTED TO 95% MAX DRY DENSITY. INSTALL SECURITY CAGE OVER WELL CASING PER DETAIL C-90#.
- CONTRACTOR TO REMOVE EXISTING HYDROPNEUMATIC TANKS THROUGHOUT CAMP BUILDINGS. RECONNECT DISTRIBUTION PIPING AND ASSOCIATED APPURTENANCES.
- SEE LOADING ANALYSIS REPORT BY DEAN L. WEBB & ASSOCIATES DATED 26 APRIL 2013.

SURVEY INFORMATION

COORDINATE SYSTEM:
STATE PLANE, NAD83, UTAH NORTH ZONE,
US SURVEY FEET

MARK	NORTHING	EASTING	ELEV	COMMENTS
CP-1	3,620,012.40	1,588,119.80	EL= 5120.4	SCRIBE ON CONCRETE
CP-2	3,620,081.92	1,588,306.50	EL= 5122.1	SCRIBE ON CONCRETE

Architect / Engineer:
MWH

Scale:
AS SHOWN
WARNING
0 1/2 1
IF THIS BAR DOES NOT SCALE PROPERLY, THE DRAWING IS NOT TO SCALE

**CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS**
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

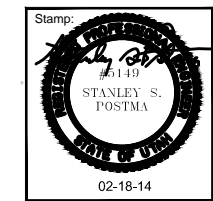
Project for:
**THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS**

Mark	Date	Description
1	17-APR-14	Addendum #6 of Feb 28, 2014

Project Number:
502-6679-13010101
Plan Series:
N/A
Property Number:
502-6679

Sheet Title:
**OVERALL
SITE PLAN**
Designed: M CHAMBERS
Drawn: M CARTER
Checked: M CHAMBERS

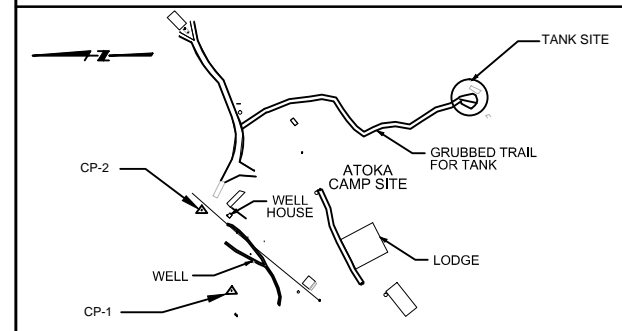
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C-1



02-18-14

SEE PP-2 FOR CONTINUATION

KEY PLAN



GENERAL SHEET NOTES

- CONTRACTOR TO INSTALL NEW 2-INCH, 4-INCH, AND 6-INCH DR 17 PE 4710 HDPE PIPE PER DETAIL C-601/GC-2 FOLLOWING THE EXISTING GRUBBED TRAIL. MAINTAIN DOWNWARD SLOPE FROM TANK TO WELL HOUSE; NO INTERMEDIATE HIGH OR LOW POINTS. PROVIDE 48-INCHES MIN COVER. TANK INLET AND OUTLET PIPING SHALL BE INSTALLED IN A SEPARATE TRENCH FROM THE 6-INCH TANK DRAIN PIPING.
- MAXIMUM WIDTH OF DISTURBANCE IS 30 FT ALONG THE PIPELINE. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO STAY WITHIN THE 30 FT.
- COORDINATES SHOWN ARE APPROXIMATE. ADJUST PIPE LOCATION TO AVOID LARGE OBSTRUCTIONS SUCH AS TREES, LARGE SHRUBS, AND BOULDERS.
- POTABLE WATER HDPE PIPES SHALL BE BLUE OR BLACK WITH INTEGRAL BLUE STRIP. DRAIN OVERFLOW PIPES SHALL BE GREEN OR BLACK WITH INTEGRAL GREEN STRIPE.
- CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.

SHEET KEYNOTES

- A. CONTRACTOR SHALL PROVIDE AND INSTALL A 15,000 GALLON FRP WATER TANK PER DETAIL C-911 AND SPECIFICATION SECTION 434010.
- B. 36" x 36" PRECAST CONCRETE BOX WITH GRATE.
6" OF INV 5225.4 FT
6" PD INV 5221.25 FT
4" SU INV 5222.0 FT
TOP OF GRATE EL 5224 FT
- C. INSTALL TRENCH PLUGS EVERY 500 FT PER DETAIL C-603/GC-2.
- D. INSTALL PRECAST CONCRETE OUTLET SECTION IE 5216.0 FT. INSTALL 10-FEET OF TYPE II RIP RAP PER SPECIFICATION SECTION 313700.
- E. NOT USED
- F. INSTALL SOIL NAIL WALL TO RETAIN SLOPE, SEE SHEET C-3.

PIPELINE COORDINATES

KEYNOTE	NORTHING	EASTING
44	3,619,507.35	1,588,527.09
45	3,619,539.63	1,588,541.08
46	3,619,540.67	1,588,543.38
47	3,619,497.97	1,588,543.18
48	3,619,495.25	1,588,544.63
49	3,619,494.86	1,588,543.35
50	3,619,444.90	1,588,557.48
51	3,619,455.03	1,588,567.60
52	3,619,450.62	1,588,559.58
53	3,619,438.16	1,588,536.92
54	3,619,454.97	1,588,557.19
55	3,619,442.52	1,588,534.55
56	3,619,464.17	1,588,562.42
57	3,619,432.54	1,588,504.87
58	3,619,426.75	1,588,508.05
59	3,619,427.56	1,588,509.51
60	3,619,420.48	1,588,513.04
61	3,619,459.36	1,588,554.77
62	3,619,457.74	1,588,553.85
63	3,619,431.89	1,588,506.90

TANK SITE PLAN
SCALE: 1" = 10'



1
C-2

Architect / Engineer:
MWH

Scale: AS SHOWN
WARNING: IF THIS BAR DOES NOT SCALE TO THE DRAWING, THE DRAWING IS NOT TO SCALE.

CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

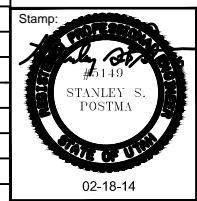
Mark	Date	By	Description
2	27-FEB-14		Addendum No.6
1	05-JUN-12		Addendum No.2

Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: 502-6679

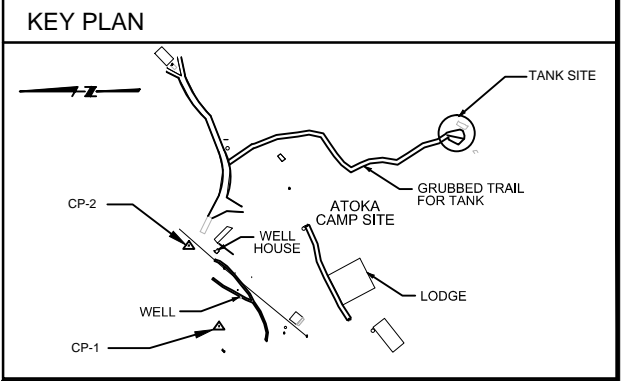
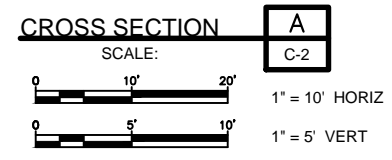
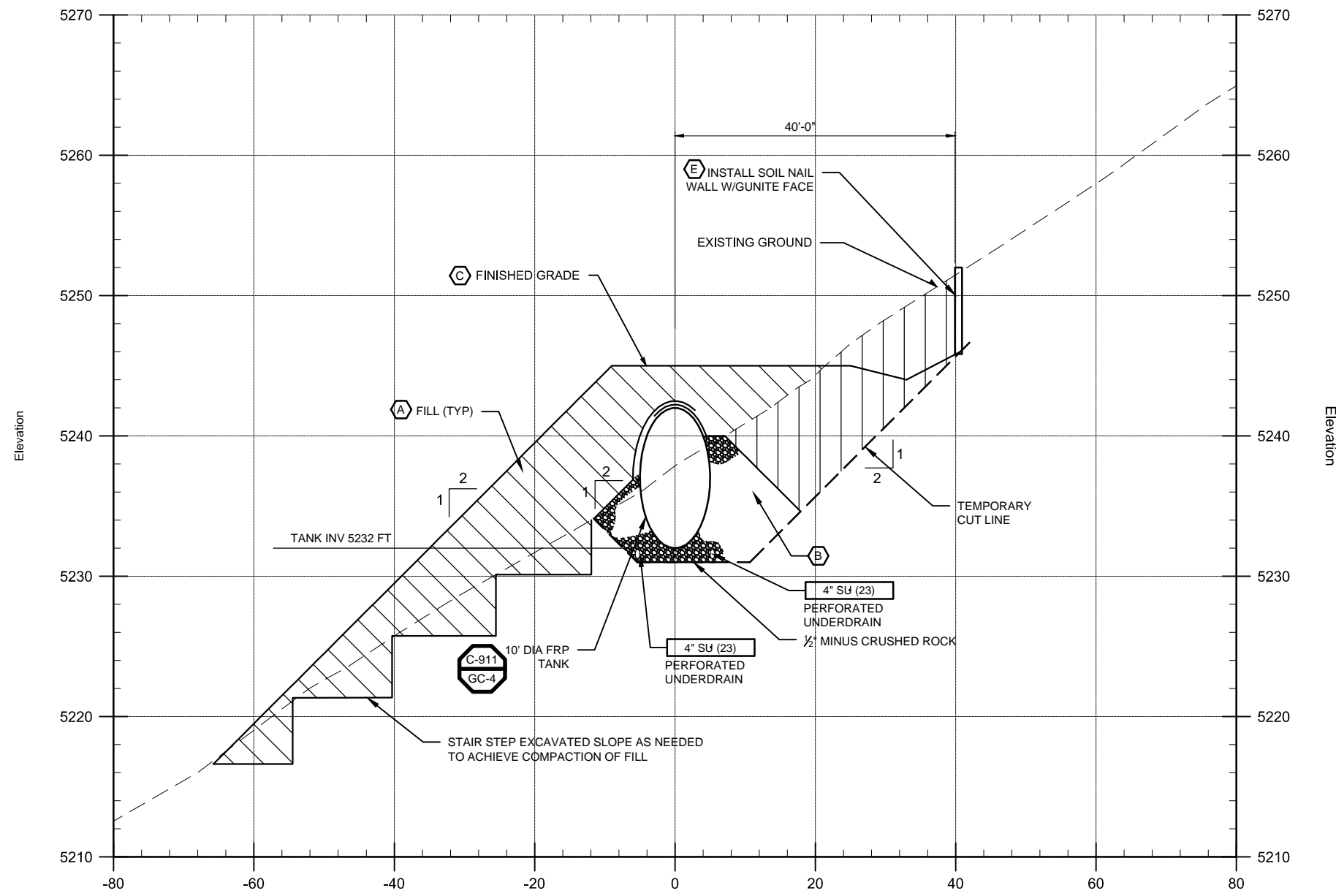
Sheet Title:
**SITE PLAN
DETAIL AT
TANK**

Designed: M CARTER
Drawn: M CARTER
Checked: M CHAMBERS

Sheet:
C-2



Stamp: 02-18-14



GENERAL SHEET NOTES

- SEE SHEET GC-4 FOR FRP TANK DETAILS.

- SHEET KEYNOTES**
- BACKFILL WITH IMPORTED MATERIAL PER SPECIFICATION SECTION 313000 - EARTHWORK.
 - INSTALL FILTER FABRIC OVER PRIMARY BACKFILL (1/2" MINUS CRUSHED STONE) PER SPECIFICATION SECTION 313419 - GEOTEXTILES. EXTEND FABRIC 12" MIN OVER TANK.
 - CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.
 - INSTALL 6 OZ/SY NON-WOVEN GEOTEXTILE FILTER FABRIC SOCK AROUND PERFORATED UNDERDRAINS PER SPECIFICATION 313419 - GEOTEXTILES.
 - INSTALL SOIL NAIL WALL WITH GUNITE FACE. CONTRACTOR TO SUBMIT DESIGN TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

Architect / Engineer:

Scale: AS SHOWN

WARNING
IF THIS BAR DOES NOT MEASURE 1' THEN DRAWING IS NOT TO SCALE

**CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS**
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
**THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS**

Mark	Date	Description

Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: 502-6679

Sheet Title:
**CROSS
SECTION A**

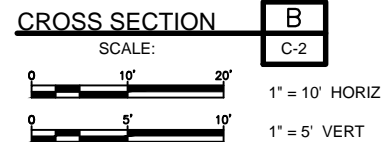
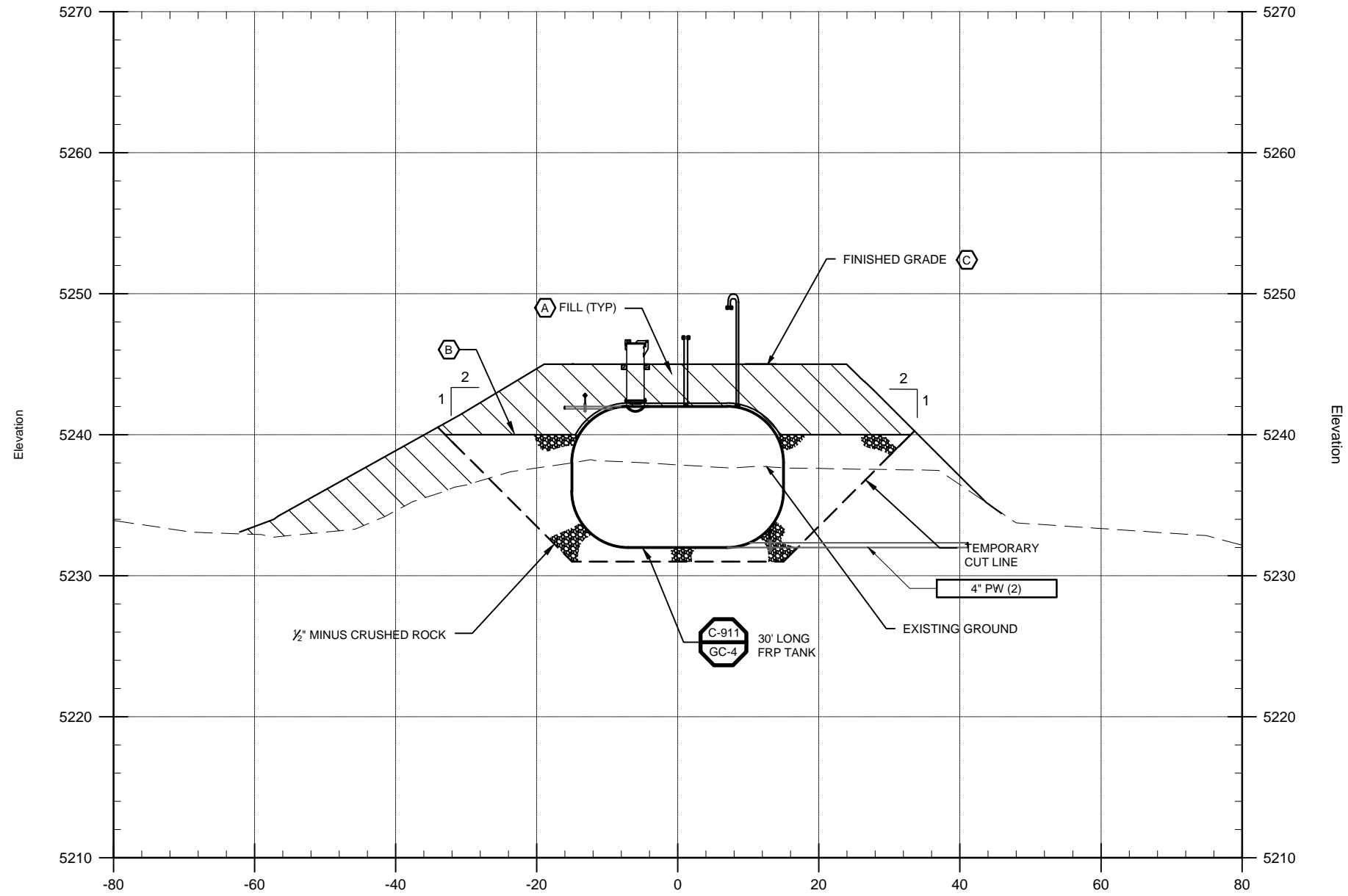
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Drawn: M CARTER
Checked: M CHAMBERS

Sheet:
C-3

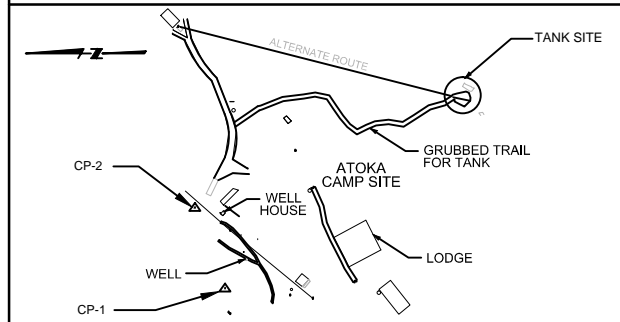
Stamp:

STANLEY S. POSTMA
02-18-14

Cross Section



KEY PLAN



GENERAL SHEET NOTES

- SEE SHEET GC-4 FOR FRP TANK DETAILS.

SHEET KEYNOTES

- BACKFILL WITH IMPORTED MATERIAL PER SPECIFICATION SECTION 31300 - EARTHWORK.
- INSTALL FILTER FABRIC OVER PRIMARY BACKFILL (1/2" MINUS CRUSHED STONE) PER SPECIFICATION SECTION 313419 - GEOTEXTILES. EXTEND FABRIC 12" MIN OVER TANK.
- CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.

Architect / Engineer:



Scale:
AS SHOWN



WARNING
IF THIS BAR DOES NOT
MEASURE 1" THEN
DRAWING IS NOT TO SCALE

**CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS**

10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
**THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS**

Mark	Date	Description

Project Number:
502-6679-13010101

Plan Series:
N/A

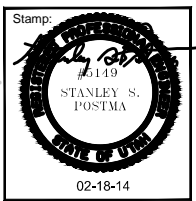
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502-6679

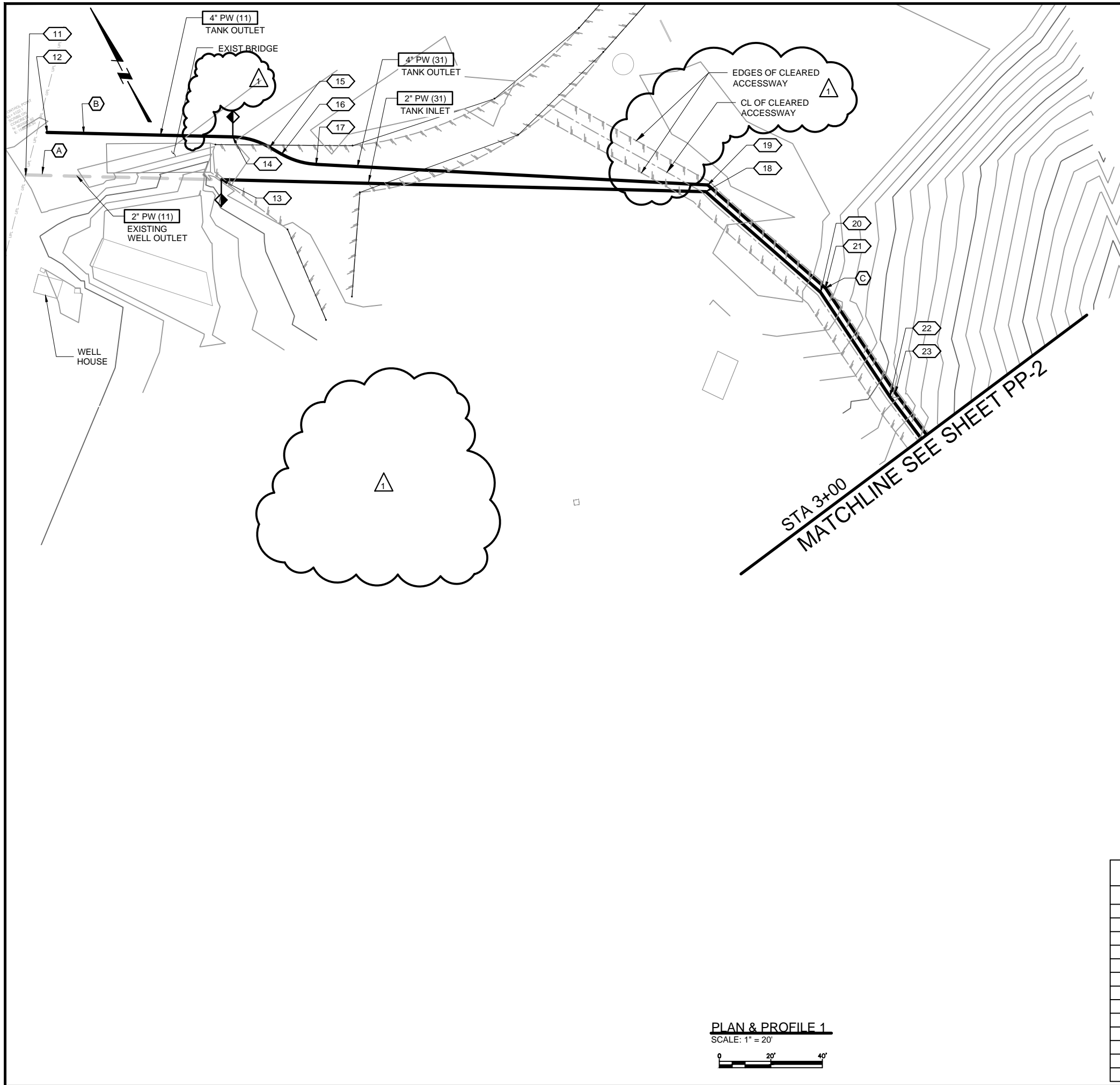
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SECTION B**

Designed: M CHAMBERS
Drawn: M CARTER
Checked: M CHAMBERS

Sheet:

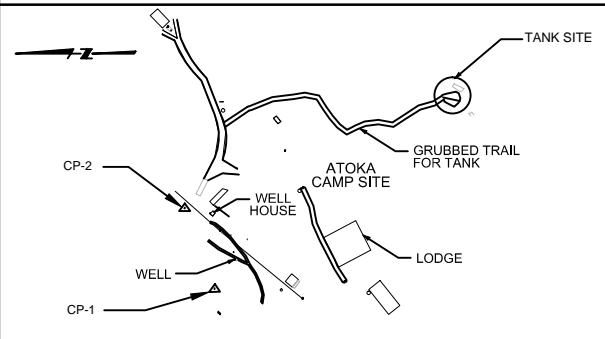
C-4





PLAN & PROFILE 1
SCALE: 1" = 20'

KEY PLAN



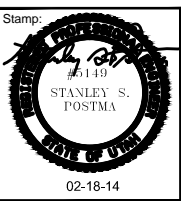
GENERAL SHEET NOTES

1. CONTRACTOR TO INSTALL NEW 2-INCH AND 4-INCH DR 17 PE 4710 HDPE PIPE PER DETAIL C-601/GC-2. NO INTERMEDIATE HIGH OR LOW POINTS SHALL BE ACCEPTABLE EXCEPT FOR A SINGLE LOW POINT FOR EACH PIPELINE AT THE EAST RIVER BANK AT THE BRIDGE TO PROVIDE DRAINAGE OF PIPELINES INTO THE RIVER. PROVIDE 48-INCHES OF MIN COVER OVER PIPING EXCEPT FOR PIPING INSTALLED IN THE FLAT AREA EAST OF BRIDGE (~200 FT) WHERE A MIN OF 2 FEET OF COVER WILL BE ACCEPTABLE IN ORDER FOR THE PIPE TO DAYLIGHT AT SUFFICIENT ELEVATION TO ALLOW PIPE TO BE DRAINED INTO THE RIVER.
2. MAXIMUM WIDTH OF DISTURBANCE IS 30 FT ALONG THE PIPELINE. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO STAY WITHIN THE 30 FT.
3. COORDINATES SHOWN ARE APPROXIMATE. ADJUST PIPE LOCATION TO AVOID LARGE OBSTRUCTIONS SUCH AS TREES, LARGE SHRUBS, AND BOULDERS.
4. POTABLE WATER HDPE PIPES SHALL BE BLUE OR BLACK WITH INTEGRAL BLUE STRIP. DRAIN OVERFLOW PIPES SHALL BE GREEN OR BLACK WITH INTEGRAL GREEN STRIPE.
5. CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.
6. CONSTRUCT LOW-POINTS OF 2-INCH AND 4-INCH PIPELINES ADJACENT TO THE EAST SIDE OF BRIDGE. INSTALL A "T" ON EACH PIPELINE AND PROVIDE HOSE GATE VALVE FOR DRAINAGE. PROVIDE HOSE (MIN 8 FT) TO ALLOW DRAINAGE OF PIPELINES INTO RIVER. HOSE VALVE TO BE 1-1/2 INCH BRONZE GATE VALVE WITH HAND LEVER, HOSE CAP AND CHAIN. VALVE INLET THREADS SHALL BE AMERICAN NATIONAL TAPERED PIPE THREADS AND MALE OUTLET SHALL BE NATIONAL STANDARD HOSE THREAD. PROVIDE VALVE BOXES TO PROTECT AND SECURE HOSE GATE VALVES.

SHEET KEYNOTES

- A. CONTRACTOR SHALL POTHOLE EXISTING BURIED WELL PUMP DISCHARGE PIPING TO VERIFY SIZE, TYPE, LOCATION AND ARRANGEMENT. CONNECT PUMP DISCHARGE TO EXISTING BRIDGE MOUNTED PIPE AND TO NEW TANK INLET PIPE ONLY SUCH THAT ALL PUMP FLOW MUST BE PUMPED DIRECTLY TO NEW STORAGE TANK.
- B. INSTALL NEW 4-INCH DI TO EXISTING BRIDGE AND CONNECT TO EXIST DISTRIBUTION PIPE DISCONNECTED FROM WELL DISCHARGE PIPE AS INDICATED IN KEYNOTE A.
- C. INSTALL TRENCH PULGS EVERY 500 FT PER DETAIL C-603/GC-2.

PIPELINE COORDINATES		
	NORTHING	EASTING
11	3,620,059.39	1,588,306.58
12	3,620,070.29	1,588,294.79
13	3,620,023.26	1,588,373.36
14	3,620,036.03	1,588,384.85
15	3,620,025.94	1,588,395.76
16	3,620,021.54	1,588,398.61
17	3,620,011.86	1,588,408.79
18	3,620,059.30	1,588,306.74
19	3,619,935.81	1,588,540.51
20	3,619,878.87	1,588,560.57
21	3,619,879.49	1,588,563.01
22	3,619,830.62	1,588,566.19
23	3,619,830.97	1,588,568.66



Architect / Engineer:
MWH

Scale: AS SHOWN
WARNING: 0 1/2 1
IF THIS BAR DOES NOT SCALE TO THESE DIMENSIONS THE DRAWING IS NOT TO SCALE

CAMP ATOKA WATER SYSTEM IMPROVEMENTS
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

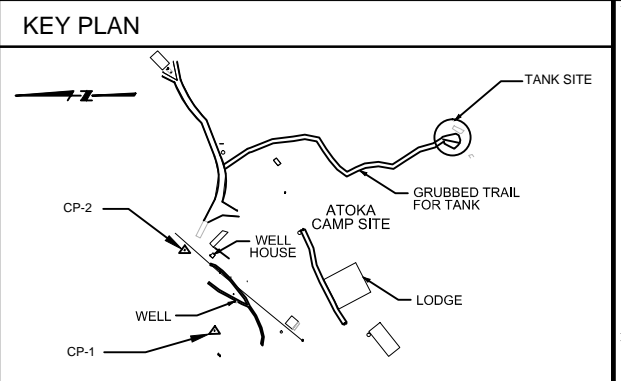
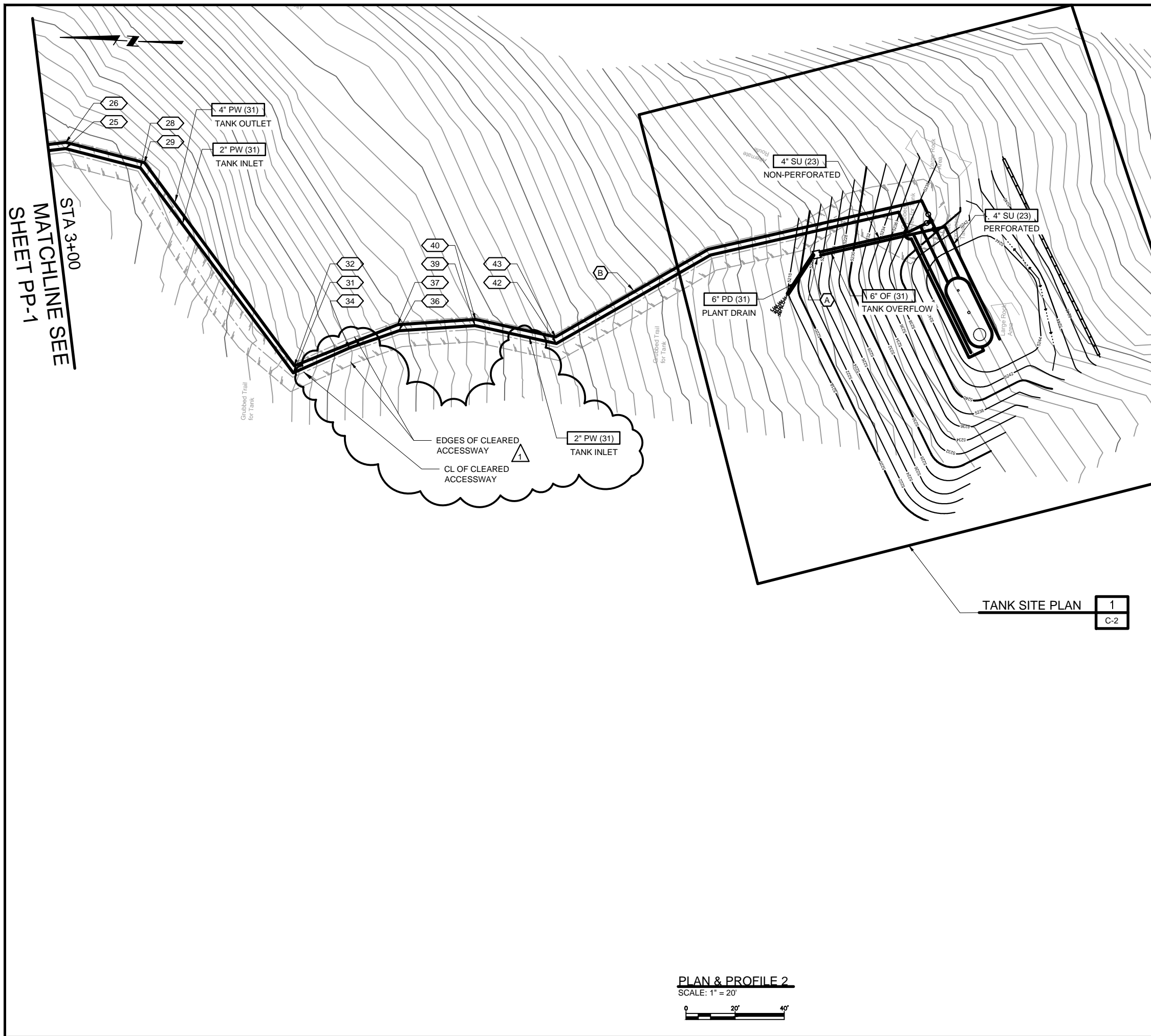
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2	17-APR-14	Addendum #5 of Feb 28, 2014
1	27-FEB-14	Addendum #6

Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: 502-6679

Sheet Title:
PLAN AND PROFILE 1
STA 0+00 TO STA 3+00

Designed: M CHAMBERS
Drawn: M CARTER
Checked: M CHAMBERS

Sheet:
PP-1

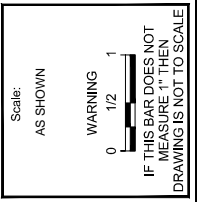
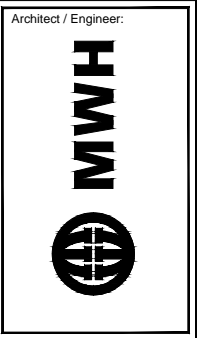


- ### GENERAL SHEET NOTES
- CONTRACTOR TO INSTALL NEW 2-INCH, 4-INCH, AND 6-INCH DR 17 PE 4710 HDPE PIPE PER DETAIL C-601/GC-2 FOLLOWING THE EXISTING GRUBBED TRAIL. MAINTAIN DOWNWARD SLOPE FROM TANK TO WELL HOUSE NO INTERMEDIATE HIGH OR LOW POINTS. PROVIDE 48-INCHES MIN COVER.
 - MAXIMUM WIDTH OF DISTURBANCE IS 20 FT ALONG THE PIPELINE. CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO STAY WITHIN THE 20 FT.
 - COORDINATES SHOWN ARE APPROXIMATE. ADJUST PIPE LOCATION TO AVOID LARGE OBSTRUCTIONS SUCH AS TREES, LARGE SHRUBS, AND BOULDERS.
 - POTABLE WATER HDPE PIPES SHALL BE BLUE OR BLACK WITH INTEGRAL BLUE STRIP. DRAIN OVERFLOW PIPES SHALL BE GREEN OR BLACK WITH INTEGRAL GREEN STRIPE.
 - CONTRACTOR TO RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION. NATIVE GRASS SEED SHALL BE PLACED ALONG PIPELINE AND TANK SITE.

- ### SHEET KEYNOTES
- A. 36" x 36" PRECAST CONCRETE BOX WITH GRATE.
 6" OF INV 5226.4 FT
 6" PD INV 5221.5 FT
 4" SU INV 5222.0 FT
 TOP OF GRATE EL 5225 FT
 - B. INSTALL TRENCH PLUGS EVERY 500 FT PER DETAIL C-603/GC-2.

PIPELINE COORDINATES

	NORTHING	EASTING
24	NOT USED	NOT USED
25	3,619,803.78	1,588,570.83
26	3,619,803.74	1,588,573.37
27	NOT USED	NOT USED
28	3,619,772.89	1,588,564.55
29	3,619,771.37	1,588,566.79
30	NOT USED	NOT USED
31	3,619,706.54	1,588,484.56
32	3,619,706.27	1,588,487.50
33	NOT USED	NOT USED
34	3,619,684.42	1,588,495.77
35	NOT USED	NOT USED
36	3,619,664.58	1,588,503.87
37	3,619,665.21	1,588,506.31
38	NOT USED	NOT USED
39	3,619,633.77	1,588,507.52
40	3,619,633.71	1,588,510.04
41	NOT USED	NOT USED
42	3,619,600.32	1,588,501.97
43	3,619,600.86	1,588,504.60



**CAMP ATOKA
WATER SYSTEM
IMPROVEMENTS**

10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
**THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS**

Mark	Date	Description
1	27-FEB-14	Addendum No 6

Project Number:
502-6679-13010101

Plan Series:
N/A

Property Number:
502-6679

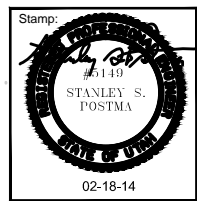
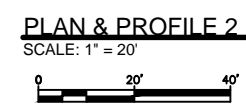
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**PLAN AND
PROFILE B
STA 3+00 TO
STA 6+68.40**

Designed: M CHAMBERS

Drawn: M CARTER

Checked: M CHAMBERS

Sheet:
PP-2



SCHEMATIC LINETYPES

Table with 2 columns: Schematic Linetypes and Electrical Bus types. Includes symbols for existing/future electrical bus, manufacturer/shop wire, and field/contractor installed wire.

SCHEMATIC SYMBOLS

Large table of schematic symbols. Columns include: Symbol, Description, and Notes. Symbols range from device connections, fuses, switches, motors, and transformers to metering equipment and starters.

ELECTRICAL PLAN LINETYPES

Table with 2 columns: Electrical Plan Linetypes and Electrical Equipment types. Includes symbols for exposed conduit, underground conduit, and electrical equipment.

ELEC. PLAN SYMBOLS

Table of electrical plan symbols. Columns include: Site Plan Devices, Ground Rod, Duplex Receptacle, Quadruple Receptacle, Data Jack, Single Pole Switch, Conduit Sealoff, LTC Connection, Disconnect Switch, and Thermostat.

PLC SYMBOLS

Table of PLC symbols. Columns include: Local Panel or Device Terminal Block, PLC Panel Terminal Block, MCC Terminal Block, PLC Discrete Input, PLC Discrete Output (Normally Open), PLC Discrete Output (Normally Closed), PLC Analog Input, PLC Analog Output, and PLC RTD.

CONDUIT CALLOUT

Table for Conduit Callout. Includes symbols for CXXX, PXXX, FXXX, SPXXX and a description: GROUPED CONDUIT AND CIRCUIT IDENTIFICATION TAGS. REFER TO THE POWER ONE-LINE AND CONTROL ONE-LINE DIAGRAMS OR CONDUIT SCHEDULES FOR CONDUIT SIZES AND CONTENTS.

EQUIPMENT CALLOUT

Table for Equipment Callout. Includes symbols for EQUIP. TAG, EQUIPMENT CALLOUT, DETAIL CALLOUT, and FIELD INSTRUMENT CALLOUT.

ABBREVIATIONS

Table of abbreviations. Lists symbols for various electrical components such as AMPERE, ABOVE FINISHED FLOOR, ANALOG INPUT, and many others.

NOTES

- 1. THE COMPLETED INSTALLATION SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. ALL WORK SHALL BE COMPLETED IN A NEAT, WORKMANLIKE MANNER IN ACCORDANCE WITH THE LATEST NEC STANDARDS OF INSTALLATION UNDER COMPETENT SUPERVISION. INSTALL GROUNDING PER NEC.
- 2. VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND OTHER FACTORS, WHICH MAY AFFECT THE EXECUTION OF THE WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.
- 3. THE CONTRACTOR SHALL COORDINATE WORK WITH THE UTILITIES PROVIDING SERVICES ON THIS PROJECT, AND SHALL COMPLY WITH ALL THEIR INSTALLATION REQUIREMENTS.
- 4. ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, UL, OR OTHER APPLICABLE STANDARDS. THE USE OF MANUFACTURERS' NAMES, MODELS, AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, USEFULNESS, AND BID PRICE.
- 5. PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS, OR ANY OTHER PREVENTABLE CAUSES. EQUIPMENT DAMAGED DURING SHIPPING OR CONSTRUCTION, PRIOR TO ACCEPTANCE BY THE ENGINEER OR THE OWNER, WILL BE REJECTED AS DEFECTIVE.
- 6. LEAVE THE SITE CLEAN. REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS. LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK. DAMAGED PAINT AND FINISHES SHALL BE TOUCHED UP OR REPAINTED WITH MATCHING COLOR PAINT AND FINISH.
- 7. CIRCUIT CONDUCTORS #6 AWG OR SMALLER SHALL BE THWN STRANDED COPPER. #4 AWG THROUGH #2 AWG SHALL BE XHHW STRANDED COPPER. #1 AWG OR LARGER SHALL BE XHHW-2 STRANDED COPPER. MINIMUM POWER CONDUCTOR SIZE SHALL BE #12 AWG WITH #12 AWG GROUND. ALL WIRE TO BE SIZED PER NEC TABLE 316-10, 75° C BASED ON A 30° C AMBIENT.
- 8. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC. MINIMUM CONDUIT DEPTH SHALL BE 24 INCHES. MINIMUM UNDERGROUND CONDUIT SIZE SHALL BE 1 INCH. MINIMUM CONDUIT DEPTH UNDER SLAB SHALL BE 1 INCH.
- 9. CONDUITS SHALL BE MARKED AT EACH END WITH MATCHING NUMBERED BRASS OR NYLON TAGS. SPARE CONDUITS SHALL HAVE A PULL STRING INSTALLED AND SECURED.
- 10. EXPOSED CONDUITS SHALL BE GALVANIZED RIGID STEEL (GRS). MINIMUM SIZE 3/4 INCH, UNLESS OTHERWISE NOTED ON THE PLANS.
- 11. SAFETY SWITCHES, ELECTRICAL DISTRIBUTION EQUIPMENT, CONTROL PANELS, AND OTHER ELECTRICAL DEVICES SHALL BE UL LISTED, AND RATED FOR HEAVY DUTY SERVICE.
- 12. WIRING DEVICES SHALL BE SPECIFICATION GRADE.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING, SCHEDULING, DOCUMENTING, AND PERFORMING THE WORK SO THAT A COMPLETE ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEM FOR THE FACILITY IS PROVIDED. ACCURATE SHOP AND RECORD DRAWINGS, AND OEM MANUALS SHALL BE SUBMITTED PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- 14. TYPICAL DETAILS SHALL APPLY IN ALL CASES, WHETHER SPECIFICALLY REFERRED TO OR NOT.

skm inc. 533 W 2600 S, Suite 100 Bountiful, Utah 84010 Phone: (801) 677-0011 Fax: (801) 677-0013 www.skm-inc.com

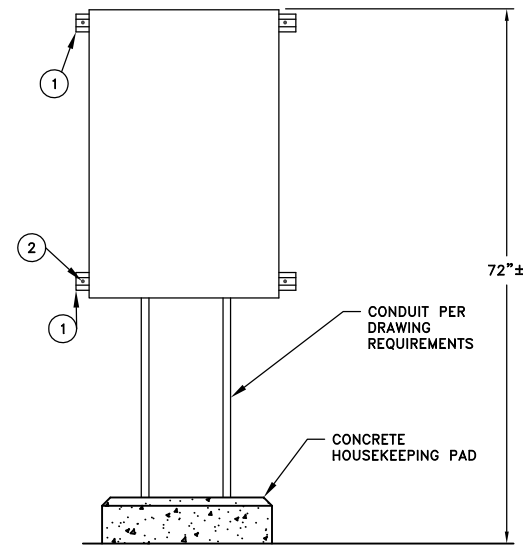
Architect / Engineer: MWH logo and contact information.

CAMP ATOKA WATER SYSTEM IMPROVEMENTS. 10700 EAST SOUTH FORK CANYON (SR-39) HUNTSVILLE, UTAH

Project for: THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

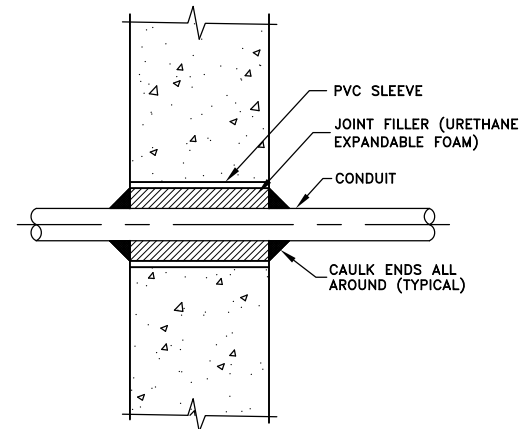
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Sheet Title: ELECTRICAL NOTES & SYMBOLS. Includes design, drawing, and check marks, along with a registered professional engineer seal for Mark L. Allen, No. 53398, State of Utah.

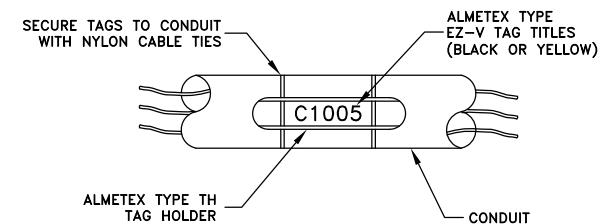


- 1 STAINLESS STEEL 1-5/8 X 1-5/8 UNISTRUT CHANNEL
- 2 1/2"x3" SS ANCHOR BOLT OR LAG BOLT WITH WASHER ANCHORED TO WALL (EVERY 18" 2 MINIMUM)

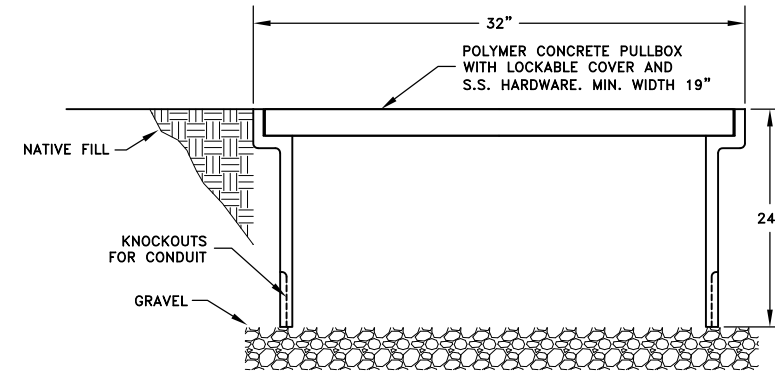
002 TYP WALL MOUNTED PANEL
SCALE: NONE



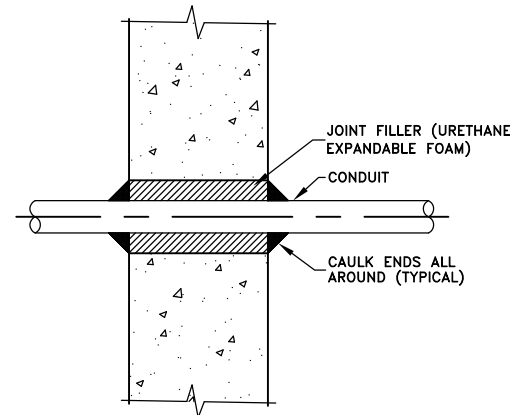
300 TYP CONDUIT PENETRATION AT NEW WALL OR SLAB
SCALE: NONE



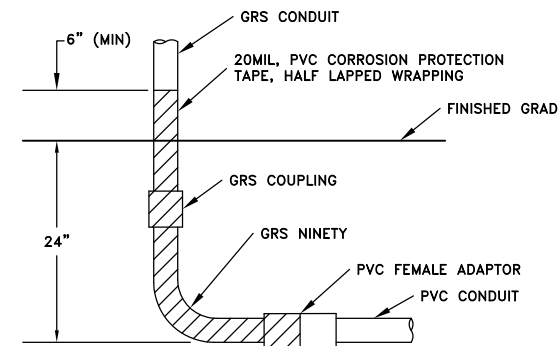
360 TYP CONDUIT MARKING SYSTEM
SCALE: NONE



025 TYP ELECTRICAL PULLBOX DETAIL
SCALE: NONE

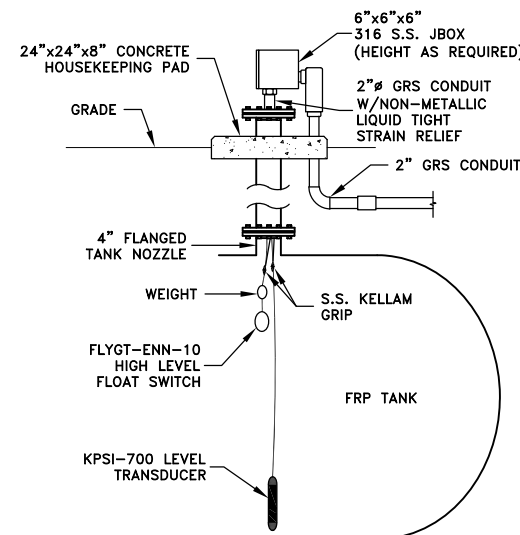


301 TYP CONDUIT PENETRATION AT EXISTING WALL OR SLAB
SCALE: NONE

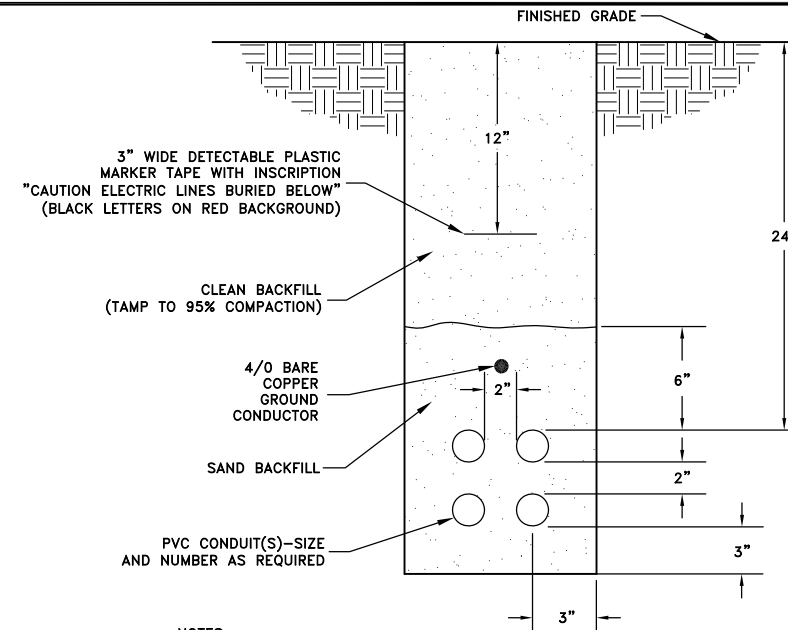


- NOTES:**
- WHERE CONDUITS ARE INSTALLED IN A CONCRETE SLAB, THE 24" DIMENSION DOES NOT APPLY. CONDUITS SHALL BE INSTALLED BETWEEN REBAR MATS OR UNDER A SINGLE REBAR MAT.
 - IN CORROSIVE AREAS, PVC COATED GRS SHALL BE USED.

320 TYP GRS STUB UP DETAIL
SCALE: NONE



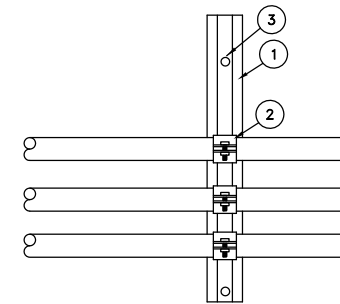
520 TYP PRESSURE TRANSDUCER DETAIL
SCALE: NONE



NOTES:
DIMENSIONS ARE MINIMUM.

THE GROUND CONDUCTOR SHALL RUN CONTINUOUSLY THROUGH MANHOLES AND PULL BOXES AND SHALL CONTINUE FROM THE DUCTBANK INTO THE ELECTRICAL EQUIPMENT OR BUILDING GROUNDING SYSTEM AND SHALL BE BONDED TO EACH RIGID METAL CONDUIT. BOND CONDUCTORS TO BE SOLID COPPER #10 AWG OR LARGER AS REQUIRED BY THE NEC.

200 TYP DIRECT BURIED CONDUIT
SCALE: NONE



- 1 UNISTRUT P1000 CHANNEL
 - 2 UNISTRUT CONDUIT STRAP
 - 3 3/8"x3-1/2" ANCHOR BOLT GROUTED INTO CONCRETE (1 PER FOOT 2 MINIMUM)
- STAINLESS STEEL

351 TYP EXPOSED SURFACE CONDUIT
SCALE: NONE

skm inc.
533 W 2600 S, Suite 100
Bountiful, Utah 84010
Phone: (801) 677-0011
Fax: (801) 677-0013
www.skm-inc.com

Architect / Engineer:
MWH

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CAMP ATOKA WATER SYSTEM IMPROVEMENTS
10700 EAST SOUTH FORK CANYON (SR-39)
HUNTSVILLE, UTAH

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

Mark	Date	By	Review	Description
0	05-07-13			

Project Number: 502-6679-13010101
Plan Series: N/A
Property Number: *****

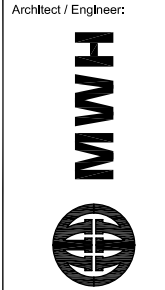
Sheet Title:
ELECTRICAL DETAILS

Designed: MPJ
Drawn: DCL
Checked: MPJ

Sheet:
GE-2



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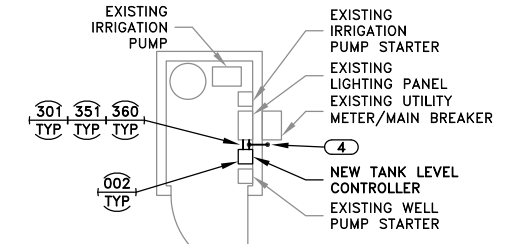
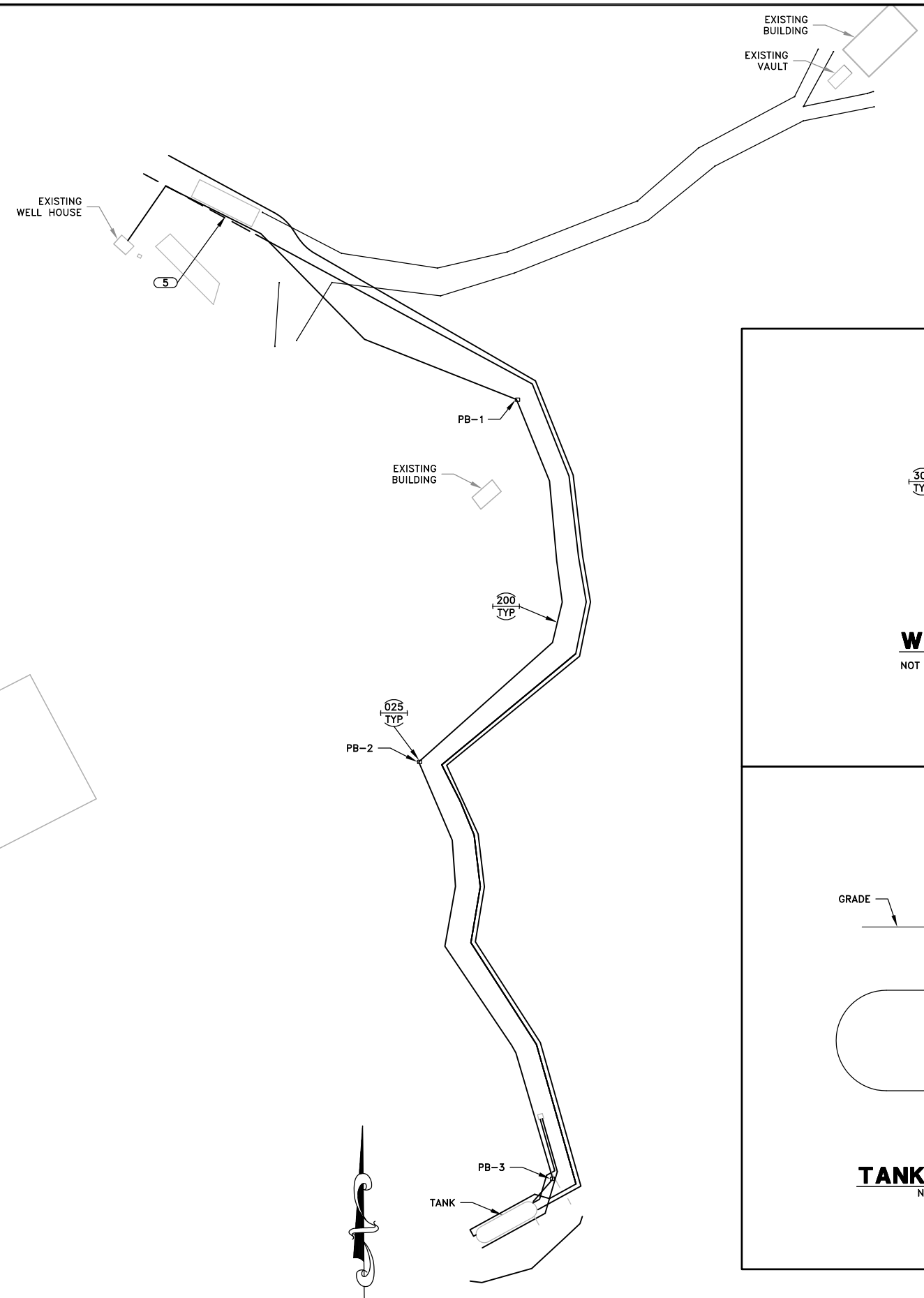
Mark	Date	By	Review	Description
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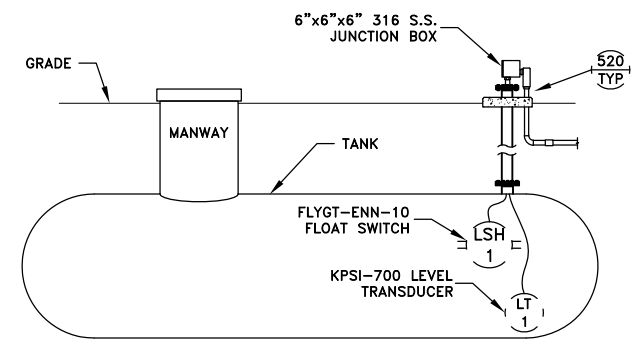
Sheet Title:
**ELECTRICAL
 SITE PLAN**

Designed: MPJ
 Drawn: DCL
 Checked: MPJ

Sheet:
SE-1



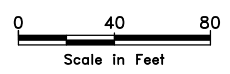
WELL HOUSE LAYOUT
 NOT TO SCALE

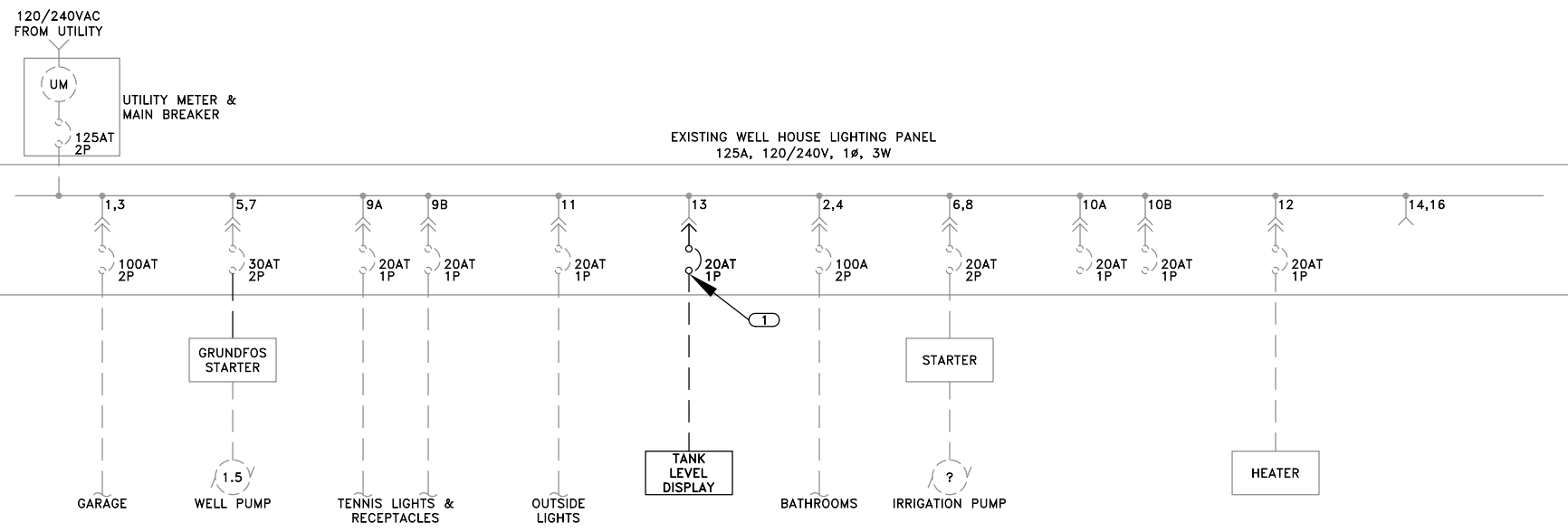


TANK SECTION LAYOUT
 NOT TO SCALE

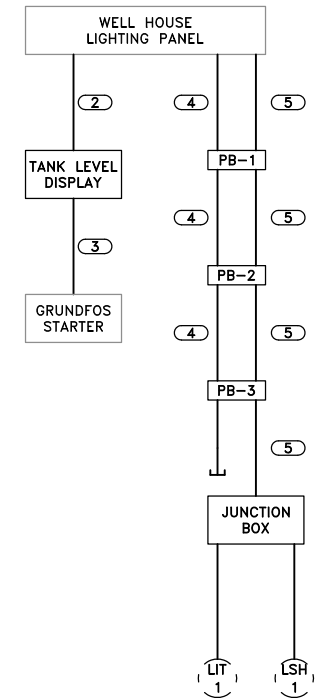
- NOTES:**
- CONDUIT SHALL ONLY RUN EXPOSED WHERE NECESSARY. UNLESS OTHERWISE INDICATED, ALL EXPOSED CONDUIT SHALL BE GRC.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING CONDUIT DETAILS AND A CONDUIT ROUTING PLAN TO THE ELECTRICAL ENGINEER FOR APPROVAL.
 - LIMIT EXPOSED CONDUITS, 90° BENDS, AND WALL PENETRATIONS. MAINTAIN SEPARATION BETWEEN SIGNAL AND POWER-CARRYING CONDUITS.
 - RUN 2" CONDUIT FROM LIGHTING PANEL THRU WALL AND ELBOW DOWN TO UNDERGROUND TRENCH.
 - RUN 2" CONDUIT EXPOSED ACROSS BRIDGE.

ELECTRICAL SITE PLAN





ONLINE



- NOTES:**
- ① INSTALL NEW BREAKER AS INDICATED.
 - ② 3/4" CONDUIT - 2 #12 W/ #12 GND
 - ③ 3/4" CONDUIT - 2 #14
 - ④ 2" CONDUIT - SPARE
 - ⑤ 2" CONDUIT - 2 #14, 1 PAIR TW/SHD #16

CONDUIT DEVELOPMENT

skm inc.
 533 W 2600 S, Suite 100
 Bountiful, Utah 84010
 Phone: (801) 677-0011
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 www.skm-inc.com

Architect / Engineer:
MWH

Scale:
 SCALE
 WARNING
 0 1/2 1
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**CAMP ATOKA
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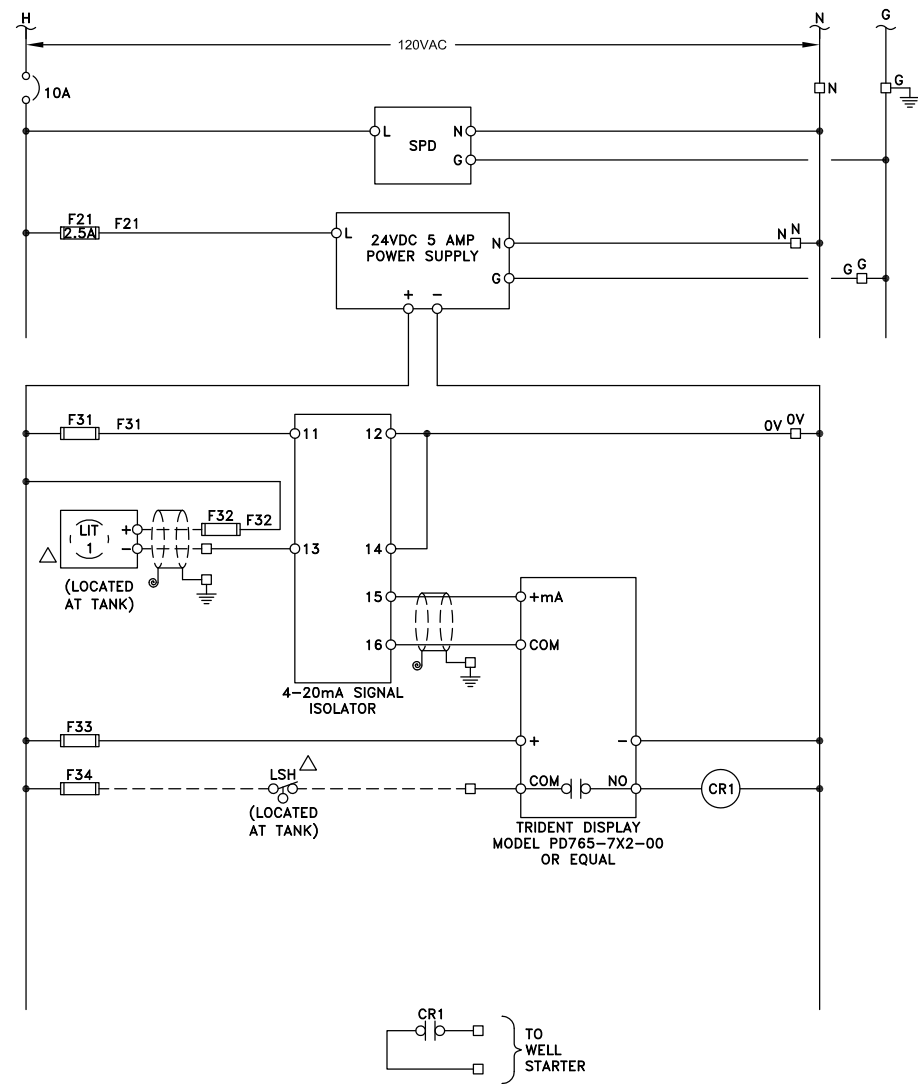
Mark	Date	By	Review	Description
0	05-07-13			

Project Number:
 502-6679-13010101
 Plan Series:
 N/A
 Property Number:

Sheet Title:
**ELECTRICAL
 ONLINE &
 CONDUIT
 DEVELOPMENT**
 Designed: MPJ
 Drawn: DCL
 Checked: MPJ

Sheet:
E-1

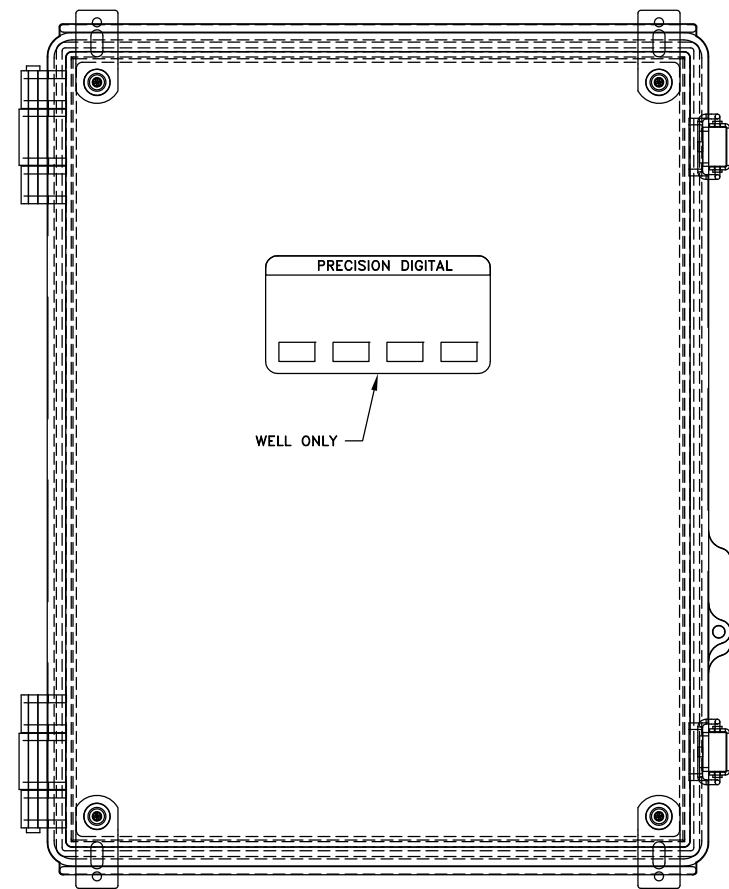




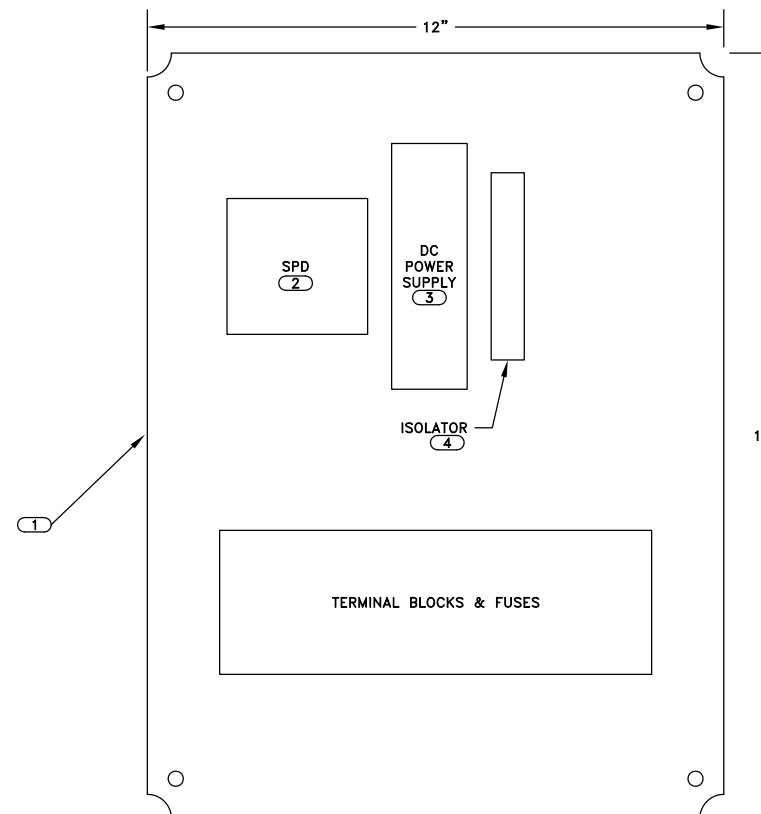
LEVEL CONTROL PANEL AT WELL

NOTES:

- ① PANEL SHALL BE NONMETALLIC NEMA 4X, HOFFMAN MODEL E453520PPG, OR EQUAL
- ② DITEK MODEL 120HW, OR EQUAL
- ③ PHOENIX CONTACT MODEL 2866310
- ④ ACROMAG 631T SIGNAL ISOLATOR



EXTERIOR PANEL LAYOUT



INTERIOR PANEL LAYOUT

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Architect / Engineer:
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Mark	Date	By	Description
0	05-07-13	REVIEW	

Project Number:
 502-6679-13010101
 Plan Series:
 N/A
 Property Number:

Sheet Title:
**ELECTRICAL
 SCHEMATICS &
 PANEL LAYOUT**

Designed: MPJ
 Drawn: DCL
 Checked: MPJ

Sheet:

E-2

