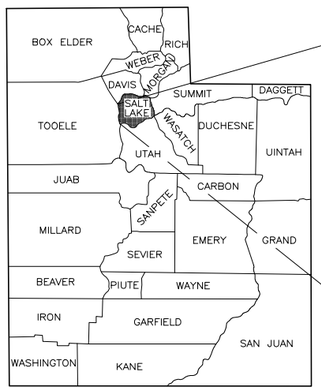
JORDAN VALLEY WATER CONSERVANCY DISTRICT

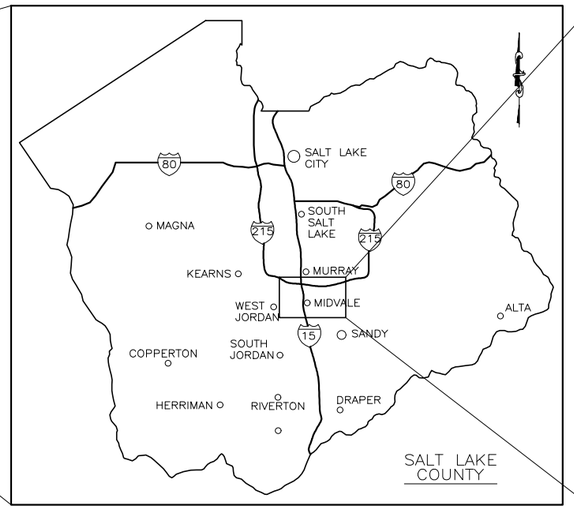
VAULT MODIFICATION PROJECT

145 WEST 7500 SOUTH, MIDVALE
700 WEST WINCHESTER, MURRAY CITY
6567 SOUTH 1300 WEST, TAYLORSVILLE

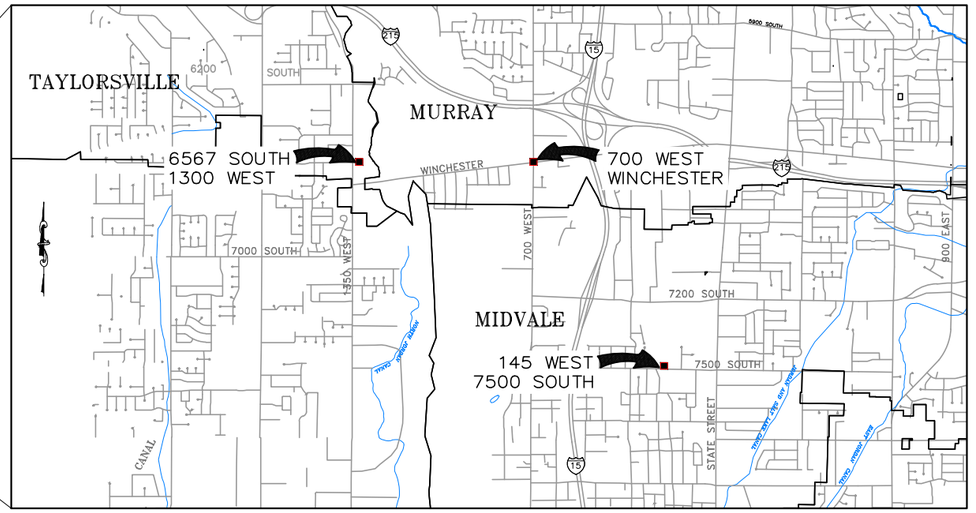
JANUARY 2020



STATE OF UTAH



VICINITY MAP



LOCATION MAP

PROFESSIONAL ENGINEER
No. 186689-2202
VERN G.
CONDER
12-31-19
STATE OF UTAH

HANSEN, ALLEN & LUCE DESIGN TEAM

MARVIN E. ALLEN, P.E. – PROJECT MANAGER
VERN G. CONDER, P.E. – PROJECT ENGINEER

KEITH B. HEGERHORST, P.E. – ELECTRICAL
(HPE, INC. ELECTRICAL ENGINEERS)

HANSEN ALLEN & LUCE
CONSULTING ENGINEERS

FILE NAME: PROJECTS\127 – JVWCD\35.100 – VAULT MODIFICATIONS\CAD\G-1-COVER.DWG
FILE DATE: 1.2.2020 16:21:43 (BKC)

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SECTION & DETAIL IDENTIFICATION

SECTION IDENTIFICATION

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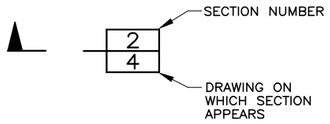

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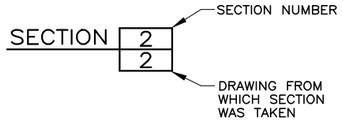

DETAIL IDENTIFICATION

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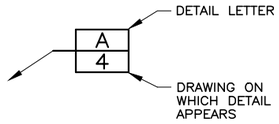

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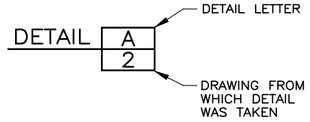


NOTES:

1. IF SECTION CUT AND SECTION OR DETAIL CALL–OUT AND DETAIL ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A LINE.
2. DETAIL LETTERS "I" AND "O" NOT USED.

LEGEND

C-TV-UG C-TV-UG	EXISTING CABLE TV UNDER GROUND
R O W	EXISTING RIGHT–OF–WAY
GS GS GS GS GS	EXISTING GAS SERVICE LINE
H P G	EXISTING HIGH PRESSURE GAS LINE
S S	EXISTING SANITARY SEWER LINE
S D	EXISTING SANITARY STORM DRAIN
W	EXISTING WATER LINE
P	EXISTING POWER LINE
T-UG T-UG	EXISTING TELEPHONE UNDER GROUND
P-UG P-UG P-UG	EXISTING UNDER GROUND POWER LINE
F O	EXISTING FIBER OPTIC LINE
I R R	EXISTING IRRIGATION LINE
I R R	EXISTING IRRIGATION LINE
Ⓥ	EXISTING VALVE
WM	EXISTING WATER METER
	EXISTING MANHOLE
	EXISTING LIGHT POLE
	EXISTING LIGHT POLE / TRAFFIC LIGHT
	EXISTING POLE W/ GUY WIRE

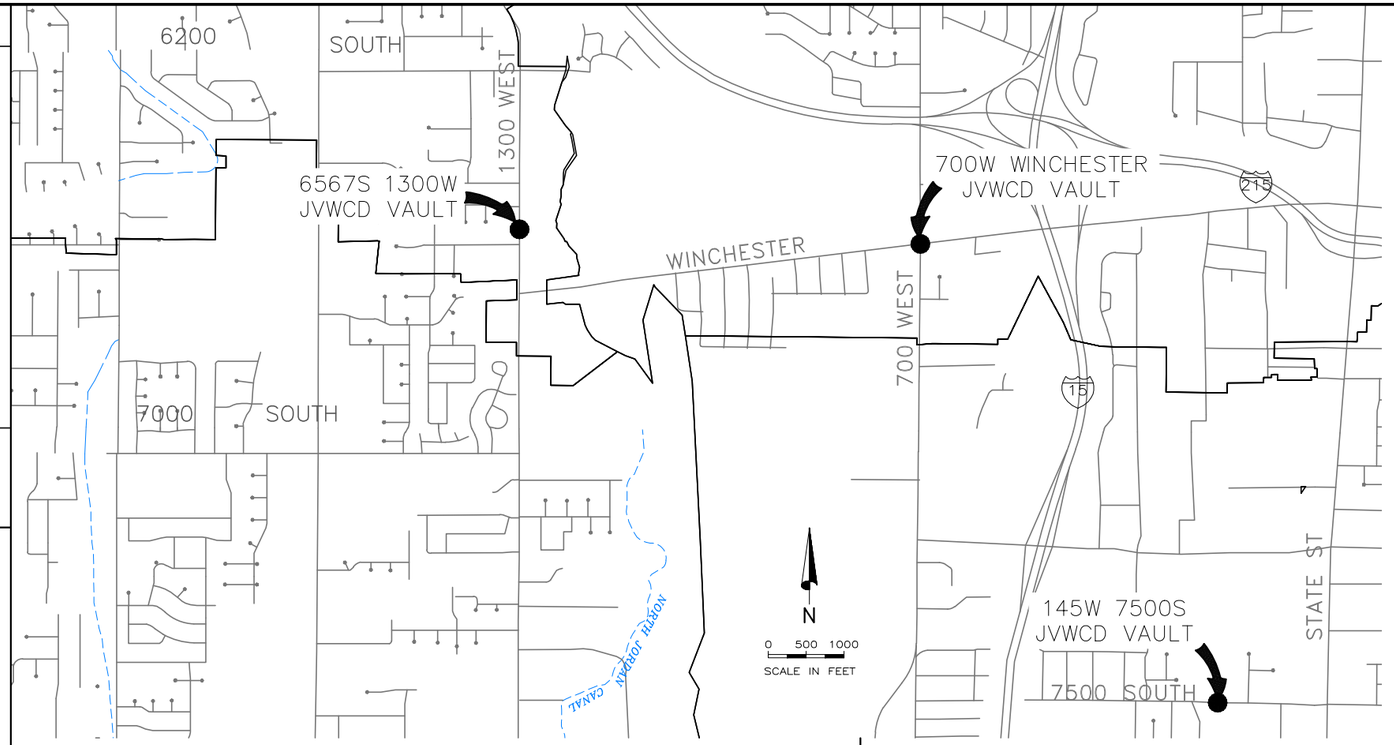


TABLE OF ABBREVIATIONS

@	=	AT	EL.	=	ELEVATION	PE	=	PLAIN END
ARV	=	AIR RELEASE VALVE	EW	=	EACH WAY	PSI	=	POUND PER SQUARE INCH
CC	=	CENTER TO CENTER	FL	=	FLOW LINE	PVC	=	POLYVINYL CHLORIDE
℄	=	CENTER LINE	FLG	=	FLANGE	STA.	=	STATION
CLSM	=	CONTROLLED LOW STRENGTH MATERIAL (FLOW FILL)	GE	=	GROOVED END	SW	=	SOLVENT WELD
			MAX.	=	MAXIMUM	THD.	=	THREAD
DIA.	=	DIAMETER	MIN.	=	MINIMUM	TYP.	=	TYPICAL
DIP	=	DUCTILE IRON PIPE	MJ	=	MECHANICAL JOINT	UBC	=	UNTREATED BASE COURSE
DWG	=	DRAWING	N.T.S.	=	NOT TO SCALE	VTR	=	VENT THROUGH ROOF
EF	=	EACH FACE	OC	=	ON CENTER			

INDEX OF DRAWINGS

PROFESSIONAL ENGINEER No. 10066202 BRAD G. CONDER 12-31-17 STATE OF UTAH

HANSEN ALLEN & LUCE inc ENGINEERS

PROJECT ENGINEER

DESIGNED	VGC	3			
DRAFTED	BKC	2			
CHECKED	MEA	1			
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY APVD.

SCALE NOT TO SCALE

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
GENERAL
PROJECT LOCATION & DRAWING INDEX

SHEET G–2

127.35.100

7/04

GENERAL NOTES

1. IN ADDITION TO THE TECHNICAL SPECIFICATIONS, DRAWINGS, AND OTHER PROVISIONS OR DOCUMENTS CONTAINED IN THESE CONTRACT DOCUMENTS; THESE DRAWINGS REFERENCE "MANUAL OF STANDARD SPECIFICATIONS" AND "MANUAL OF STANDARD PLANS" AS PREPARED BY THE UTAH CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, JVWCD STANDARDS, AND CITY STANDARDS FOR THE VARIOUS MUNICIPALITIES IN WHICH THIS PROJECT IS LOCATED (I.C. MIDVALE CITY, MURRAY CITY AND TAYLORSVILLE CITY). ANY CONFLICTS BETWEEN PROVISIONS OR DETAILS IN THE TECHNICAL SPECIFICATIONS, DRAWINGS, AND OTHER PROVISIONS OR DOCUMENTS CONTAINED IN THE CONTRACT DOCUMENTS VERSUS PROVISIONS CONTAINED IN THE LATEST EDITION OF APWA MANUAL OF STANDARD SPECIFICATIONS, APWA MANUAL OF STANDARD PLANS, JVWCD STANDARDS, OR CITY STANDARDS SHALL BE RESOLVED IN FAVOR OF THE MOST STRINGENT OF THE CRITERIA AND CONDITIONS AS DETERMINED BY ENGINEER.
2. CONTRACTOR SHALL MEET ALL UTAH STATE DEPARTMENT OF ENVIRONMENTAL QUALITY AND U.S. EPA REQUIREMENTS WITH RESPECT TO THEIR MINIMUM RULES AND REGULATIONS. ALL MATERIALS THAT MAY CONTACT DRINKING WATER, INCLUDING, PIPES, GASKETS, LUBRICANTS, O-RINGS, SHALL BE ANSI/NSF 61, DRINKING WATER SYSTEM COMPONENTS – HEALTH EFFECTS AND BE APPROPRIATELY STAMPED WITH THE NSF LOGO.
3. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED AND SIGNS, BARRICADES, AND FLASHERS SHALL BE PLACED SO AS TO COMPLY WITH OSHA, UTAH STATE INDUSTRIAL COMMISSION, LOCAL SAFETY STANDARDS, AND MANUAL ON UNIFORM TRAFFIC CONTROL.
4. UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, INCLUDING WATER LINES, IRRIGATION DRAIN LINES, TELEPHONE CABLES, AND ANY OTHER OBSTRUCTION DURING THE COURSE OF CONSTRUCTION AND INSTALLATION OF THE PIPELINES. (CALL BLUE STAKES @ 1-800-662-4111)
5. CONTRACTOR SHALL POTHOLE UTILITIES A MINIMUM OF 300 FEET AHEAD OF PIPELINE CONSTRUCTION TO VERIFY THAT THE DESIGN ALIGNMENT AND GRADE IS FEASIBLE AND TO PLAN ANY UTILITY RELOCATION'S THAT MAY BE NECESSARY. FAILURE TO POTHOLE IN ADVANCE WILL NOT RELIEVE THE CONTRACTOR FROM LOCATING THE PIPELINE IN AN ACCEPTABLE MANNER TO THE OWNER. ANY RELAYING OF THE PIPELINE, THAT MAY BECOME NECESSARY IN THIS REGARD, SHALL BE DONE AT THE CONTRACTORS EXPENSE.
6. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN RIGHT OF INGRESS AND EGRESS SHOULD HE VENTURE ONTO PRIVATE PROPERTY WHICH IS NOT WITHIN DISTRICT EASEMENTS OR ACQUIRED RIGHTS-OF-WAY AND EASEMENTS.
7. UNLESS DETAILED, SPECIFIED OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS OR IN SPECIFIC DRAWINGS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL EXISTING IMPROVEMENTS DURING CONSTRUCTION AND SHALL REPLACE OR RESTORE ANY IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION ACTIVITY, AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
10. THIS PROJECT IS LOCATED IN TAYLORSVILLE, MURRAY CITY AND MIDVALE CITY LIMITS. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND APPROVALS FROM THESE RESPECTIVE ENTITIES AND SHALL COMPLY WITH THEIR RESPECTIVE REGULATIONS FOR TRAFFIC CONTROL, SAFETY, EXCAVATION IN PUBLICLY OWNED RIGHTS OF WAY, ETC.
11. THE CONTRACTOR SHALL OBTAIN NOTICE OF INTENT, AND DEVELOP AND COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN, AND ALL UPDES REQUIREMENTS.

WATER NOTES

1. WATER LINE TRENCHES IN PRIVATE ROADWAYS OR TRAFFIC AREAS TO BE THOROUGHLY COMPACTED TO A MINIMUM OF 96% OF MAXIMUM DENSITY PER ASTM D1557. DENSITY CHECKS MAY BE REQUIRED BY THE CITY AT ANY TIME.
2. A MINIMUM OF 48" OF COVER FROM THE TOP OF THE PIPE TO THE FINISH GRADE IS REQUIRED, EXCEPT AS NOTED.
3. UNLESS OTHERWISE NOTED, ALL FITTINGS FOR PRESSURIZED WATER PIPING SHALL BE PROPERLY RESTRAINED BY THRUST BLOCKING, AND JOINT RESTRAINT.

STEEL AND METAL FABRICATIONS:

1. BOLTS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING, EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

UNLESS SHOWN OTHERWISE	A325-N
SLIP CRITICAL	A325-SC
ANCHOR BOLTS (AB)	
STAINLESS STEEL	F593, AISI TYPE 316, CONDITION CW
STEEL	F1554, GR 36
GALVANIZED STEEL	F1554, GR 36/A153
MACHINE BOLTS (MB)	A307

STEEL AND METAL FABRICATIONS: CONT

2. USE A307 BOLTS WITH PLATE WASHERS, UNLESS OTHERWISE SPECIFIED, FOR TYPICAL CONNECTIONS AND CONNECTIONS TO CONCRETE.
3. USE A325 BOLTS WITH PLATE WASHERS, UNLESS OTHERWISE SPECIFIED, FOR STEEL TO STEEL CONNECTIONS.
4. ITEMS TO EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.
5. STEEL FABRICATED PARTS SHALL CONFORM THE CURRENT EDITION OF "THE AISC MANUAL OF STEEL CONSTRUCTION" AND CURRENT OSHA STANDARDS.
6. ALL WELDS AND WELDING SHALL BE IN ACCORDANCE WITH THE SPECIDFICATIONS OF "THE AMERICAN WELDING SOCIETY", USING ELECTRODES AS SPECIFIED THEREIN. WELDS TO BE MADE WITH E-70XX ELECTRODES U.N.O.
7. STEEL PIPE SHALL CONFORM TO A53, GRADE B.

GENERAL CONSTRUCTION NOTES

1. EXCAVATION, BEDDING AND BACKFILL FOR BURIED PIPELINES SHALL CONFORM TO CITY SPECIFIC STANDARDS, AND SECTION 31 23 15 OF THESE CONTRACT DOCUMENTS.
2. ASPHALT, OR CONCRETE PAVEMENT CUTTING AND PATCHING SHALL CONFORM TO CITY SPECIFIC STANDARDS.
3. CONTRACTOR SHALL REPLACE ANY EXISTING PAVEMENT, SIDEWALK OR CURB & GUTTER ALONG THE FRONTAGE OF THIS PROJECT, THAT IS DAMAGED OR REMOVED BY THE CONTRACTOR, OR AS DIRECTED BY CITY INSPECTORS OR ENGINEERS.
4. ALL CONSTRUCTION SHALL CONFORM WITH THE CURRENT CITY STANDARD SPECIFICATIONS AND DETAILS FOR MUNICIPAL CONSTRUCTION FROM THE CITY IN WHICH CONSTRUCTION IS BEING CONDUCTED. (SEE NOTE 1 "GENERAL NOTES")
5. ANY PROPOSED CHANGES TO THE APPROVED DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD AND THE CITY ENGINEER.
6. NOTIFY EACH CITY'S PUBLIC WORKS INSPECTION DEPARTMENT, 48 HOURS PRIOR TO BEGINNING CONSTRUCTION IN ANY ROADWAYS OR PUBLIC IMPROVEMENTS WITHIN CITY. ALL INSPECTIONS MUST BE DONE PRIOR TO OR CONCURRENT WITH CONSTRUCTION. FAILURE TO MAKE THIS NOTIFICATION MAY RESULT IN THE UNCOVERING AND/OR REMOVAL OF ALL CONSTRUCTION DONE WITHOUT NOTIFICATION AT THE DISCRETION OF CITY'S ENGINEER.
7. PROVIDE A PROCTOR TEST FOR ANY ROADBASE MATERIAL, TO THE CITY'S PUBLIC WORKS INSPECTOR, WHEN DELIVERED OR PLACED ON SITE.
8. DUST, MUD AND EROSION SHALL BE ADEQUATELY CONTROLLED BY WHATEVER MEANS NECESSARY (EXCEPT AS NOTED), AND THE ROADWAYS SHALL BE KEPT FREE OF MUD AND DEBRIS, AT ALL TIMES.
9. THE USE OF MOTOR OILS AND OTHER PETROLEUM-BASED OR TOXIC LIQUIDS, FOR DUST SUPPRESSION, IS ABSOLUTELY PROHIBITED.
10. PUBLIC NOTIFICATION TRAFFIC BOARDS SHALL BE PLACED AS PER CITY REQUIREMENT PRIOR TO CONSTRUCTION ON ALL AFFECTED ROADWAYS.
11. TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO, AND APPROVED BY, THE APPROPRIATE CITY AGENCY PRIOR TO CONSTRUCTION.

OBSERVATION AND TESTING

1. SPECIAL INSPECTION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR ANY REQUIRED INSPECTIONS BY THE BUILDING OFFICIAL. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BOTH INSPECTIONS.
2. SPECIFIED CONCRETE TESTING DURING CONSTRUCTION WILL BE CONTRACTOR FURNISHED. SPECIFIED LAB TEST, MIXES AND SIMILAR TESTING TO VERIFY MATERIAL QUALITY AND CONFORMANCE TO THE SPECS, REQUIRING SUBMITTAL FOR REVIEW AND ACCEPTANCE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. STRUCTURAL OBSERVATIONS (CONTRACTOR FURNISHED) IS REQUIRED IN ACCORDANCE WITH IBC SECTION 110 AND CHAPTER 17 AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTION.

CITY SPECIFIC CONSTRUCTION NOTES

MIDVALE CITY

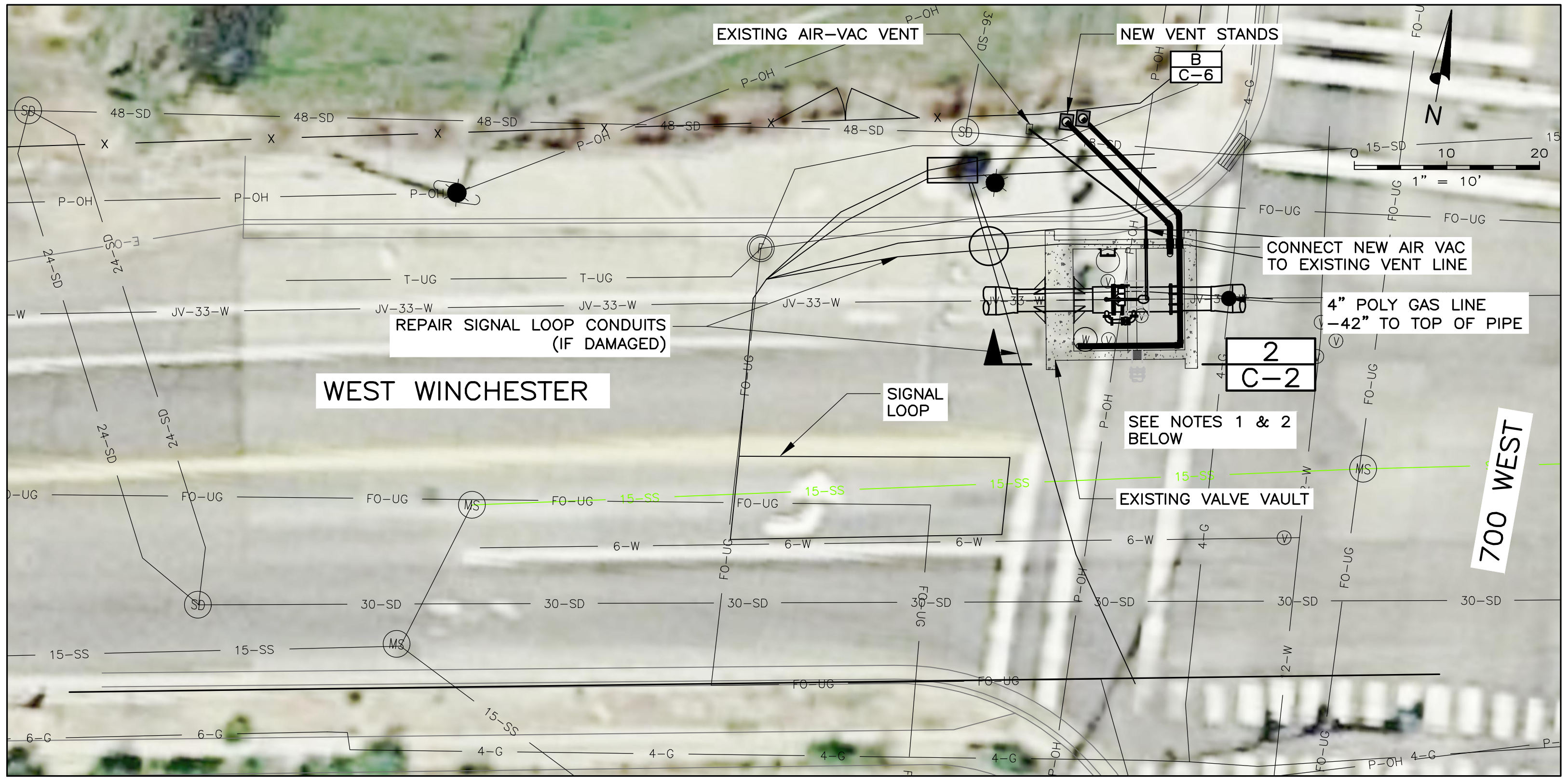
1. CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN; CONTRACTOR SUBMIT PLAN TO, AND OBTAIN APPROVAL FROM, MIDVALE CITY. CITY HAS INDICATED THEY WILL ALLOW A ROAD CLOSURE. TRAFFIC CONTROL PLAN WILL WILL REQUIRE A CITY APPROVED DETOUR ROUTE.
2. CONTRACTOR SHALL COORDINATE ROAD CLOSURES WITH UNIFIED FIRE AUTHORITY AND UNIFIED POLICE DEPARTMENT.
3. ELECTRONIC MESSAGE BOARDS SHALL BE IN PLACE ALONG CONSTRUCTION ROUTES 72 HOURS PRIOR TO CONSTRUCTION, INFORMING PUBLIC OF FUTURE CONSTRUCTION AND CHANGES IN TRAFFIC PATTERNS.
4. ROADWAY SURFACE WAS OVERLAIN WITHIN THE LAST YEAR. AS LONG AS ROADWAY DISTURBANCE IS RESTRICTED TO ROADWAY AREA BETWEEN CENTER CONCRETE MEDIAN AND SOUTH CURB AND GUTTER, CONTRACTOR SHALL MILL AND OVERLAY ENTIRE ROADWAY WIDTH (AFTER T-PATCH) BETWEEN CENTER MEDIAN TO SOUTH CURB AND GUTTER. IF CONTRACTOR DISTURBS CENTER CONCRETE MEDIAN AND ROADWAY NORTH OF CENTER MEDIAN, CONTRACTOR SHALL RESTORE CONCRETE MEDIAN AND SHALL MILL AND OVERLAY ENTIRE ROADWAY WIDTH FROM NORTH CURB AND GUTTER TO SOUTH CURB AND GUTTER. MILL AND OVERLAY SHALL EXTEND FIVE FEET MINIMUM BEYOND DISTURBED SURFACE IN THE EAST AND WEST DIRECTIONS. MILL AND OVERLAY SHALL COMPLY WITH MIDVALE CITY STANDARDS.
5. CONTRACTOR SHALL RESTORE ALL EXISTING LANE MARKINGS.

MURRAY CITY:

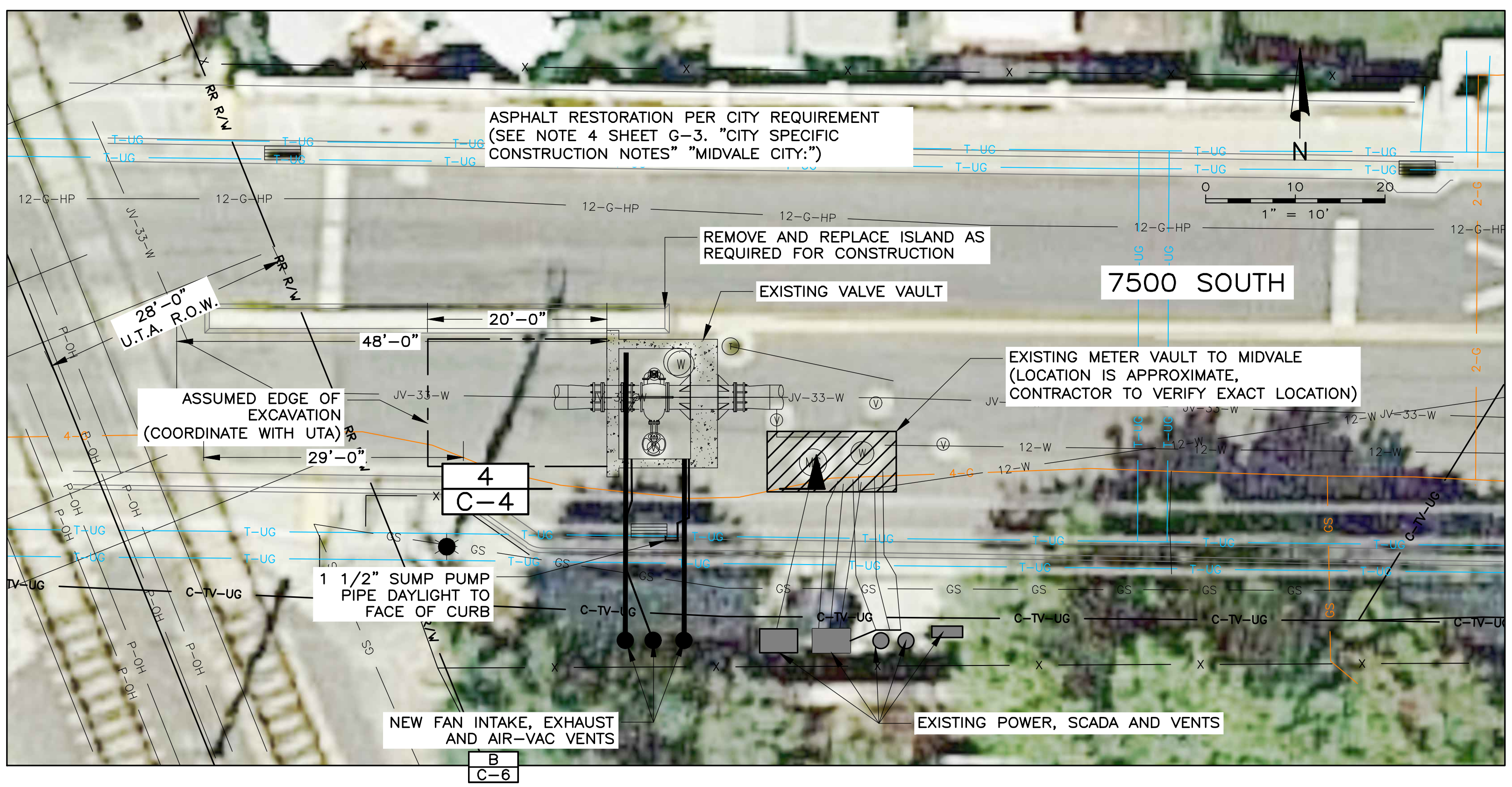
1. CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN; CONTRACTOR SUBMIT PLAN TO, AND OBTAIN APPROVAL FROM, MURRAY CITY. MURRAY CITY HAS INDICATED A ROAD CLOSURE WILL NOT BE PERMITTED. CONTRACTOR SHALL MAINTAIN THRU TRAFFIC IN BOTH DIRECTIONS.
2. ELECTRONIC MESSAGE BOARDS SHALL BE IN PLACE ALONG CONSTRUCTION ROUTE 72 HOURS PRIOR TO CONSTRUCTION, INFORMING PUBLIC OF FUTURE CONSTRUCTION AND CHANGES IN TRAFFIC PATTERNS.
3. ROADWAY SURFACE CONSISTS OF CONCRETE PAVEMENT. CONCRETE PAVEMENT PATCH SHALL BE IN ACCORDANCE WITH APWA PLAN 256.2 AND APWA SPECIFICATION SECTION 32 01 19.
4. CONTRACTOR SHALL RESTORE ALL EXISTING LANE MARKINGS.

TAYLORSVILLE CITY:

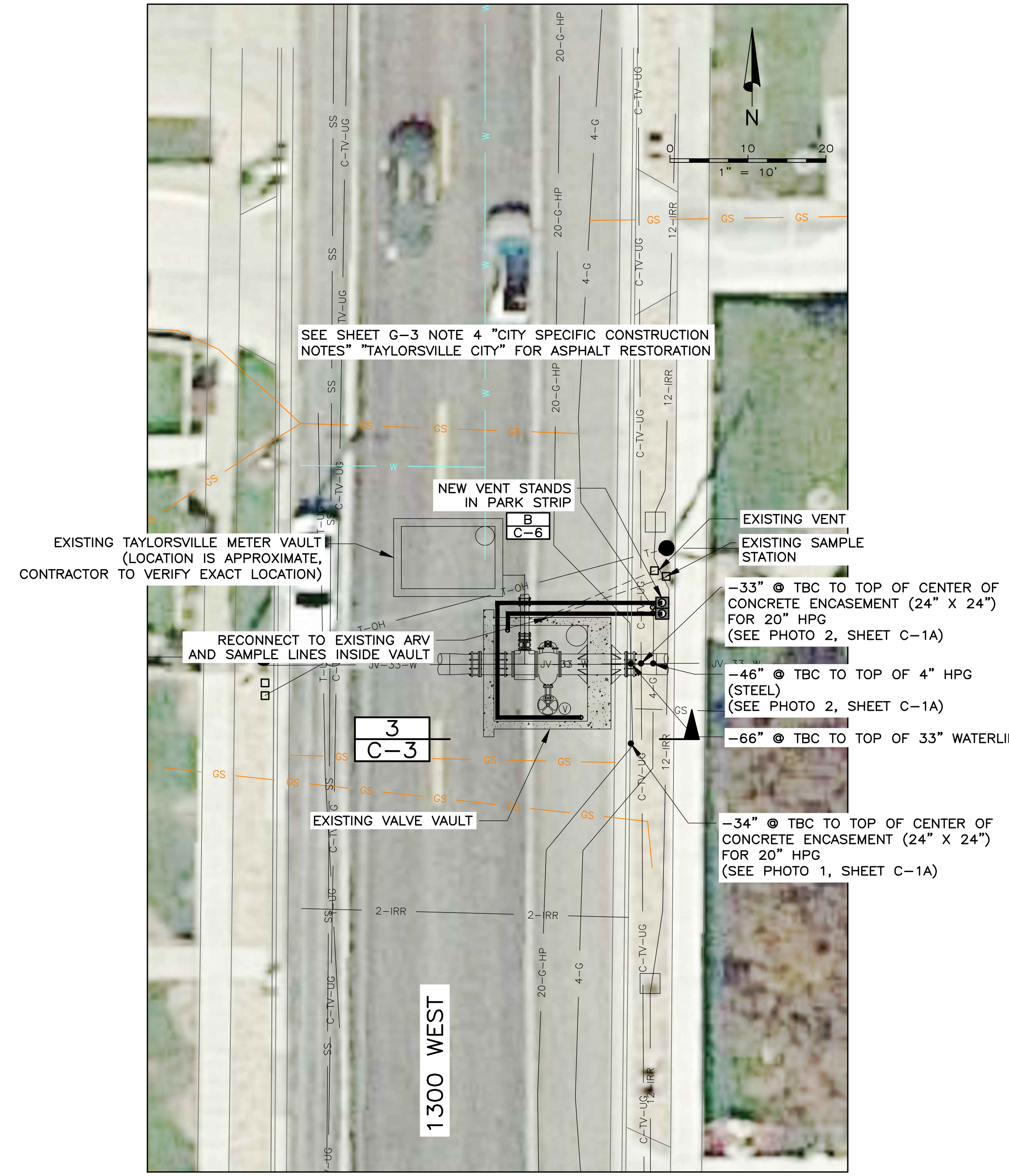
1. SINGLE LANE TRAFFIC IS PERMITTED BETWEEN 9:00AM THROUGH 3:00PM OR BETWEEN 8:00PM THROUGH 5:00AM. FLAGGER IS REQUIRED (NO LIGHTS). CONTRACTOR REQUIRED TO HAVE TWO-WAY TRAFFIC WITH 121' LANES DURING PEAK TRAFFIC TIMES. TAYLORSVILLE MAY CONSIDER 10' LANE THROUGH WORK ZONE.
2. JERSEY BARRIERS SHALL BE PROVIDED AROUND OPEN EXCAVATION PIT.
3. TWO-FOOT (2'-0") T-PATCH REQUIRED AND SHALL MATCH EXISTING ASPHALT THICKNESS + 1".
4. ELECTRONIC MESSAGE BOARDS SHALL BE IN PLACE ALONG CONSTRUCTION ROUTE 72 HOURS PRIOR TO CONSTRUCTION, INFORMING PUBLIC OF FUTURE CONSTRUCTION AND CHANGES IN TRAFFIC PATTERNS.
5. CONTRACTOR SHALL RESTORE ALL EXISTING LANE MARKINGS.



700 WEST WINCHESTER SITE PLAN
(MURRAY)



145 WEST 7500 SOUTH SITE PLAN
(MIDVALE)



6567 SOUTH 1300 WEST SITE PLAN
(TAYLORSVILLE)

NOTES:

1. CONCRETE SHALL BE RESTORED TO NEAREST JOINT IN ROADWAY AND SIDEWALK AS PER CITY REQUIREMENTS. (SEE SHEET G-3, NOTE 3, "CITY SPECIFIC CONSTRUCTION NOTES" "MURRAY CITY")
2. REPLACE DAMAGED SIGNAL LOOPS AND CONDUITS TO MEET CITY STANDARDS.

FILE NAME: PROJECTS\127 – JVWCD\35.100 – VAULT MODIFICATIONS\CAD\C-1 SITE PLANS AND NOTES.DWG
FILE DATE: 12.30.2019 06:36:45 (BKC)

PROFESSIONAL ENGINEER
No. [seal number]
VERN G. CONDER
12-31-19
STATE OF UTAH

PROJECT ENGINEER

HANSEN ALLEN & LUCE INC ENGINEERS

DESIGNED	VGC	3			
DRAFTED	BKC	2			
CHECKED	MEA	1			
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY / APVD.

SCALE: AS SHOWN

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
CIVIL
SITE PLANS

SHEET C-1

127.35.100

7/04

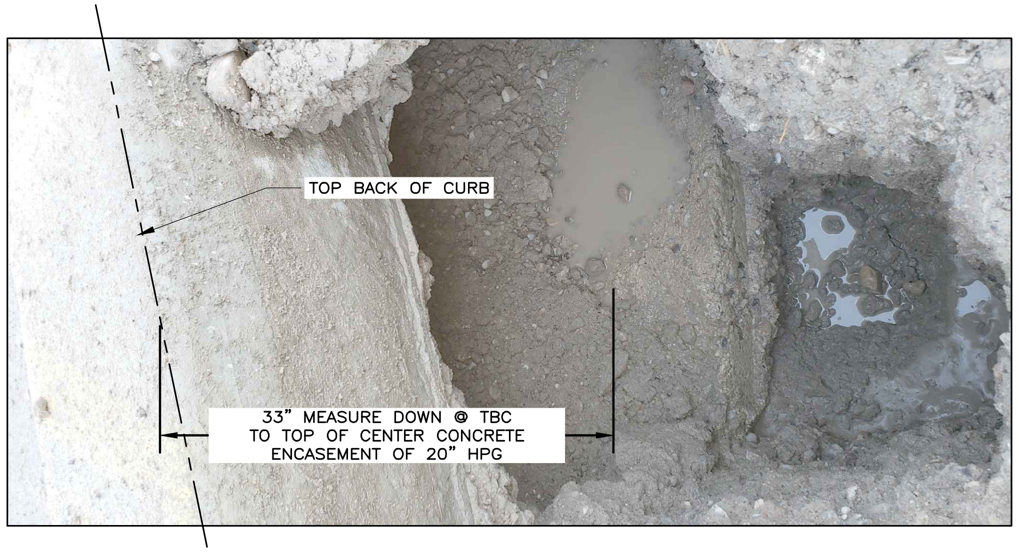


PHOTO #1

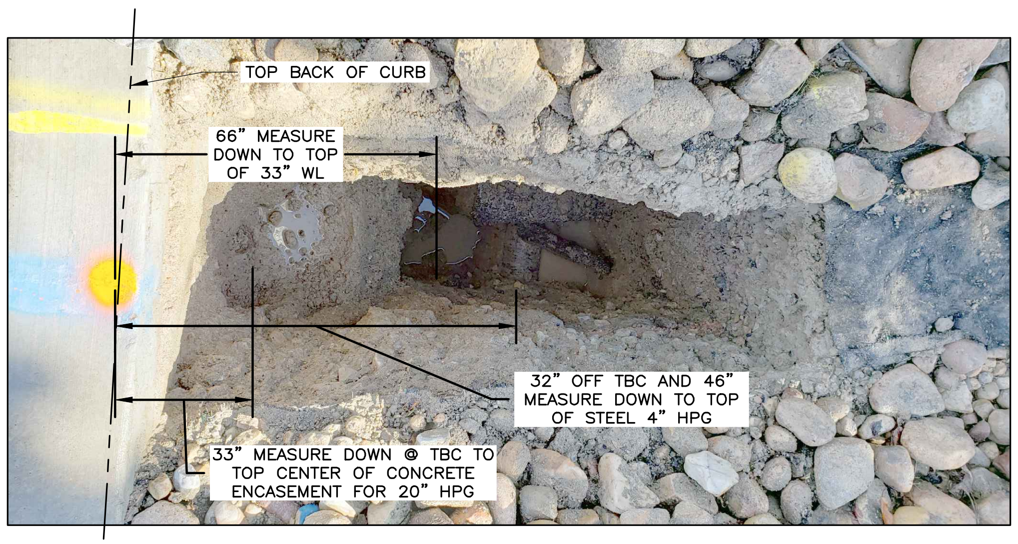
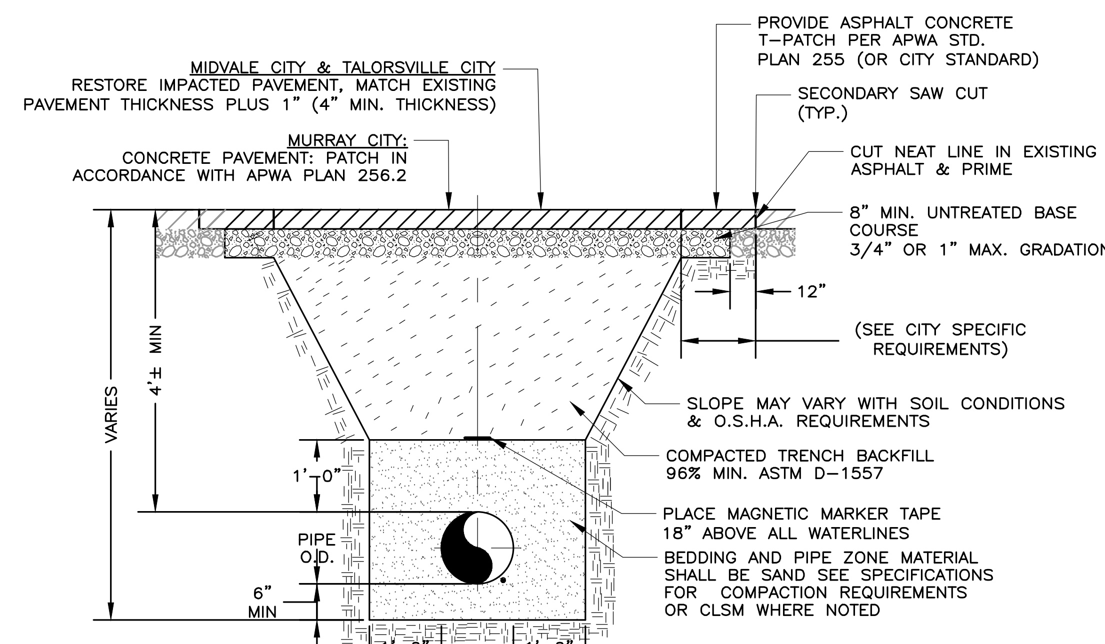


PHOTO #2

SEE SHEET C-1 (6567 SOUTH 1300 WEST SITE PLAN) FOR LOCATIONS FOR THE ABOVE PHOTOGRAPHS.

GAS LINE NOTES
(FROM DOMINION ENERGY)

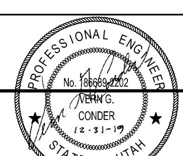
1. CALL DOMINION ENERGY (FORMERLY QUESTAR GAS) AT 801-324-3370, 48 HOURS PRIOR TO WORKING WITHIN 10 FEET OF ANY HIGH PRESSURE GAS LINE. A COMPANY HIGH PRESSURE INSPECTOR SHALLO BE PRESENT DURING CONSTRUCTION ACTIVITIES NEAR THE HP GAS PIPELINES.
2. ALL HIGH PRESSURE GAS PIPELINES SHALL BE PROTECTED IN PLACE.
3. MAINTAIN AT LEAST 3 FEET HORIZONTAL AND 1 FOOT VERTICAL CLEARANCE, (OUTSIDE TO OUTSIDE) BETWEEN HIGH PRESSURE GAS PIPELINES AND OTHER UTILITY PIPES, BOXES, MANHOLES, ETC.
4. NO VIBRATORY OR COMPACTION EQUIPMENT WILL OPERATE WITHIN 5 FEET OF THE OUTSIDE OF THE HIGH PRESSURE GAS LINE. IF STATIC ROLLING OF THE ROAD BASE DOESN'T ACHIEVE MINIMUM COMPACTION SPECIFICATIONS, FLOW FILL SHALL BE USED OVER THE HP GAS PIPELINES. VIBRATORY PAVING EQUIPMENT IS OK TO USE OVER THE HP GAS PIPELINES.
5. FLOW FILL WILL BE USED TO BACKFILL PROPOSED UTILITY CROSSINGS WITH THE HIGH PRESSURE GAS LINE, WHEN THE VERTICAL CLEARANCE IS LESS THAN 2 FEET FROM OUTSIDE OF HP PIPE TO OUTSIDE OF UTILITY. FLOW SAND SHALL BE INSTALLED DIRECTLY OVER THE HIGH PRESSURE GAS LINE (12" MINIMUM), UNDER THE FLOW FILL. VISQUEEN PLASTIC SHALL BE LAID OVER THE SAND TO PREVENT MIGRATION OF THE FLOW FILL INTO THE SAND.
6. CONTRACTOR WILL PROVIDE DOMINION ENERGY HP ENGINEER WITH A LIST OF CONSTRUCTION EQUIPMENT THAT WILL BE CROSSING AND/OR WORKING OVER THE HIGH PRESSURE GAS PIPELINE. DOMINION ENGINEER WILL CONDUCT AN ANALYSIS PRIOR TO THE START OF CONSTRUCTION TO DETERMINE IF THE EQUIPMENT IS SAFE TO CROSS THE HP GAS PIPELINES.
7. POTHOLING OF THE HIGH PRESSURE GAS PIPELINES SHALL BE DONE AT POINTS WHERE COVER DEPTHS ARE UNKNOWN, AND AT PROPOSED UTILITY CROSSINGS.
8. BLADED EXCAVATION VEHICLES SHALL CUT DIRECTLY OVER THE HIGH PRESSURE GAS LINES WHERE THE COVER DEPTH IS LESS THAN 3 FEET. A COMPANY HIGH PRESSURE INSPECTOR WILL BE OBSERVE ALL EXCAVATION ABOVE OR AROUND HP GASLINES.
9. DURING EXCAVATION THE ALLOWABLE UNSUPPORTED SPAN FOR THE GAS PIPE IS:
   20" HP GAS (STEEL) = 30'-0"
   4" HP GAS (STEEL) = 16'-0"
10. THE LOAD FOR THE GAS PIPES IS AS FOLLOWS:
    12,000 AXLE LOAD
    78,255 TRACK LOAD
11. A MINIMUM LEAD TIME NOTICE OF 48 HOURS WILL BE GIVEN TO DOMINION ENERY AND THE FORMENTIONED REQUIREMENTS SHALL BE MET FOR ANY WORK INVOLVING GAS TRANSMISSION PIPES AND LINES OTHER THAN SERVICE CONNECTIONS.



TYPICAL TRENCH DETAIL
N.T.S.

FILE NAME: PROJECTS\127 - JVWCD\35.100 - VAULT MODIFICATIONS\CAD\C-1A SITE NOTES AND PICS.DWG
FILE DATE: 1.2.2020 16:20:55 (BKC)

HANSEN ALLEN & LUCE inc ENGINEERS



PROJECT ENGINEER

DESIGNED	VGC	3				
DRAFTED	BKC	2				
CHECKED	MEA	1				
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY	APVD.

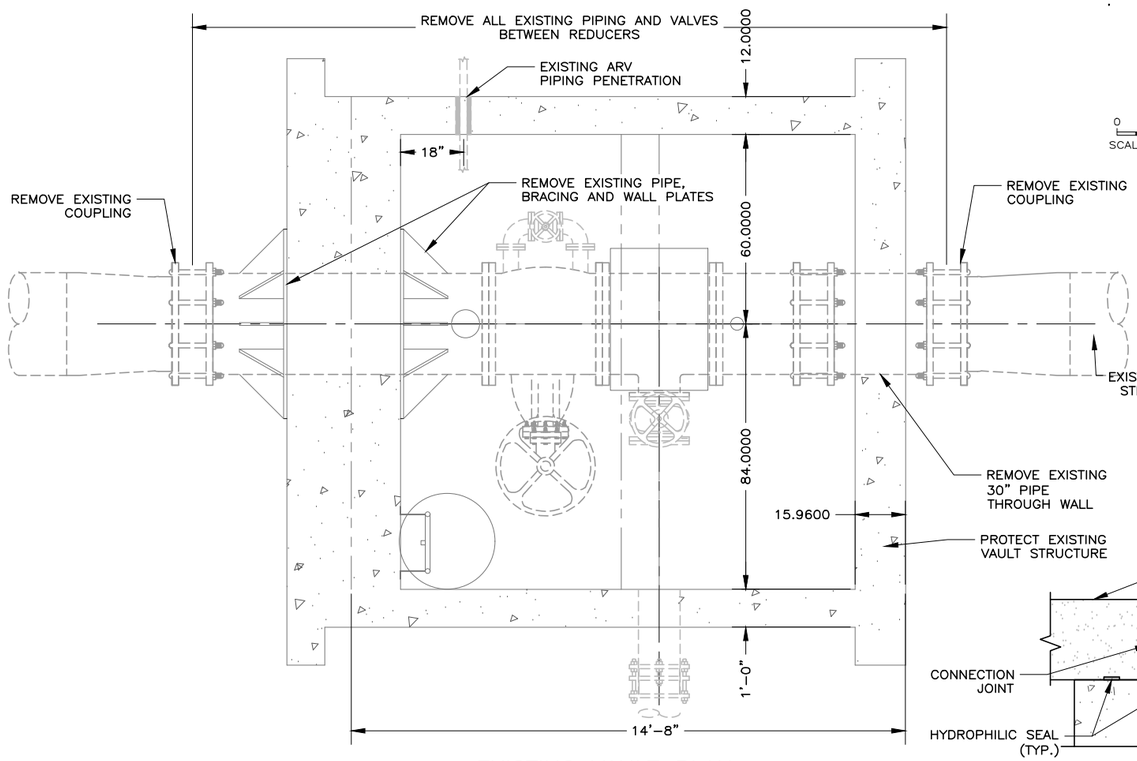
SCALE
NOT TO SCALE

JORDAN VALLEY WATER CONSERVANCY DISTRICT

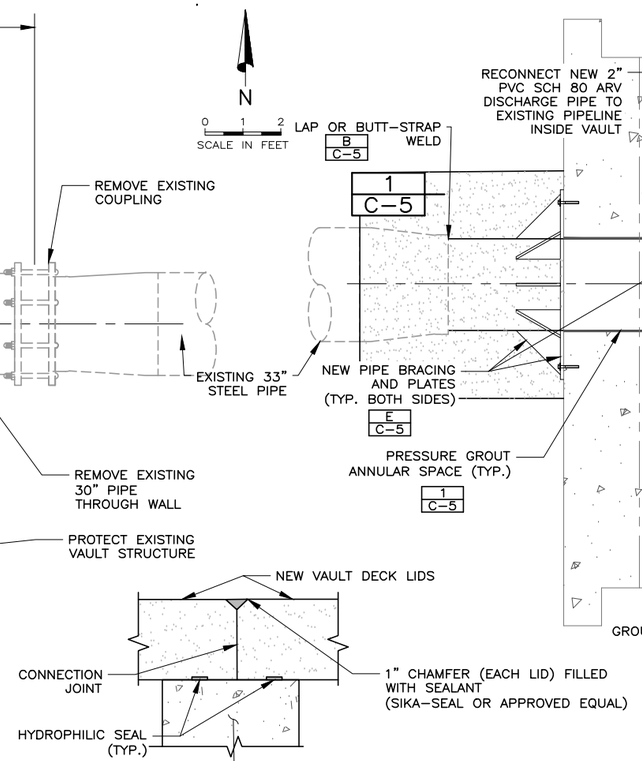
VAULT MODIFICATION PROJECT
CIVIL
6567 S 1300 W PHOTOS & NOTES, & MISC. DETAILS

SHEET
C-1A
127.35.100

7/04

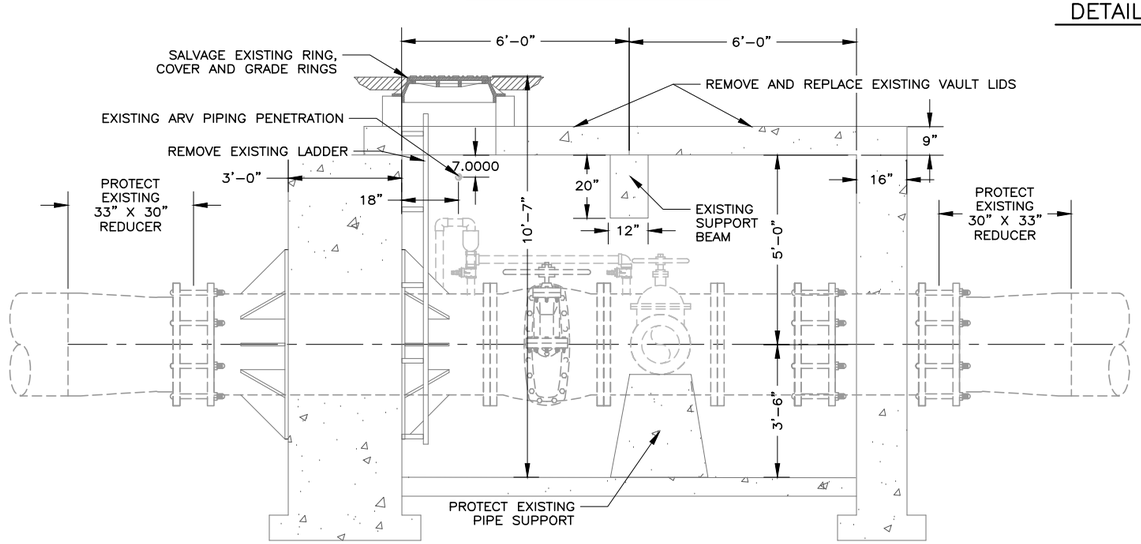


EXISTING VAULT PLAN



DETAIL A

MODIFIED VAULT PLAN



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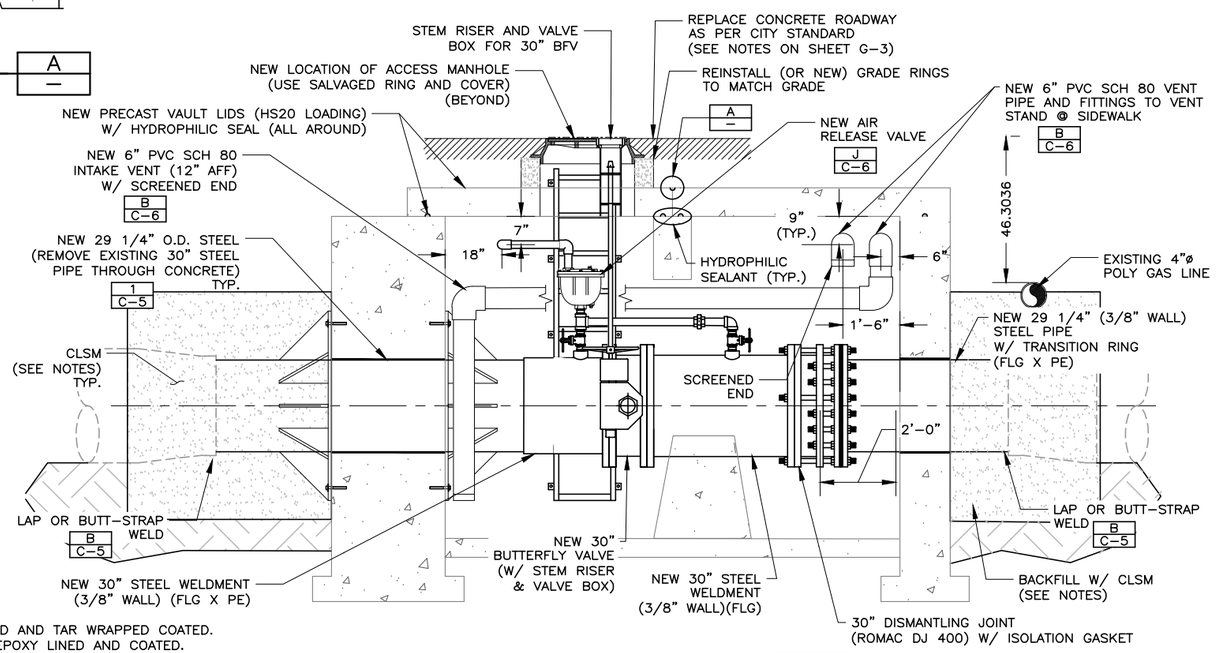


MODIFIED VAULT SECTION 2 C-1

NOTES:
1. EXISTING 33" STEEL PIPE IS MORTAR LINED AND TAR WRAPPED COATED.
2. ALL NEW STEEL PIPE TO BE 3/8" WALL EPOXY LINED AND COATED.
3. BACKFILL W/ CLSM (FLOWFILL) AROUND PIPE 1'-6" MIN COVER. (TYP.)
4. CURB, GUTTER, PARK STRIP AND SIDEWALK SHALL BE REPLACED AND CONFORM TO CITY STANDARD.
5. VALVE BOXES AND MANHOLES SHALL BE INSTALLED ACCORDING TO CITY STANDARD.
6. CONTRACTOR SHOULD ANTICIPATE DISASSEMBLING PIPE AFTER INSTALL TO REPAIR PIPE COATING.
7. PIPING SHALL BE DISSINFECTED PER AWWA C651-14 BEFORE PLACING INTO SERVICE.

HANSEN ALLEN & LUCE inc ENGINEERS
PROFESSIONAL ENGINEER No. 10553702 BRIAN G. CONDER 12-31-19 STATE OF UTAH
PROJECT ENGINEER

DESIGNED	VGC	3					
DRAFTED	BKC	2					
CHECKED	MEA	1					
DATE	JANUARY 2020	NO.	DATE	REVISIONS		BY	APVD.

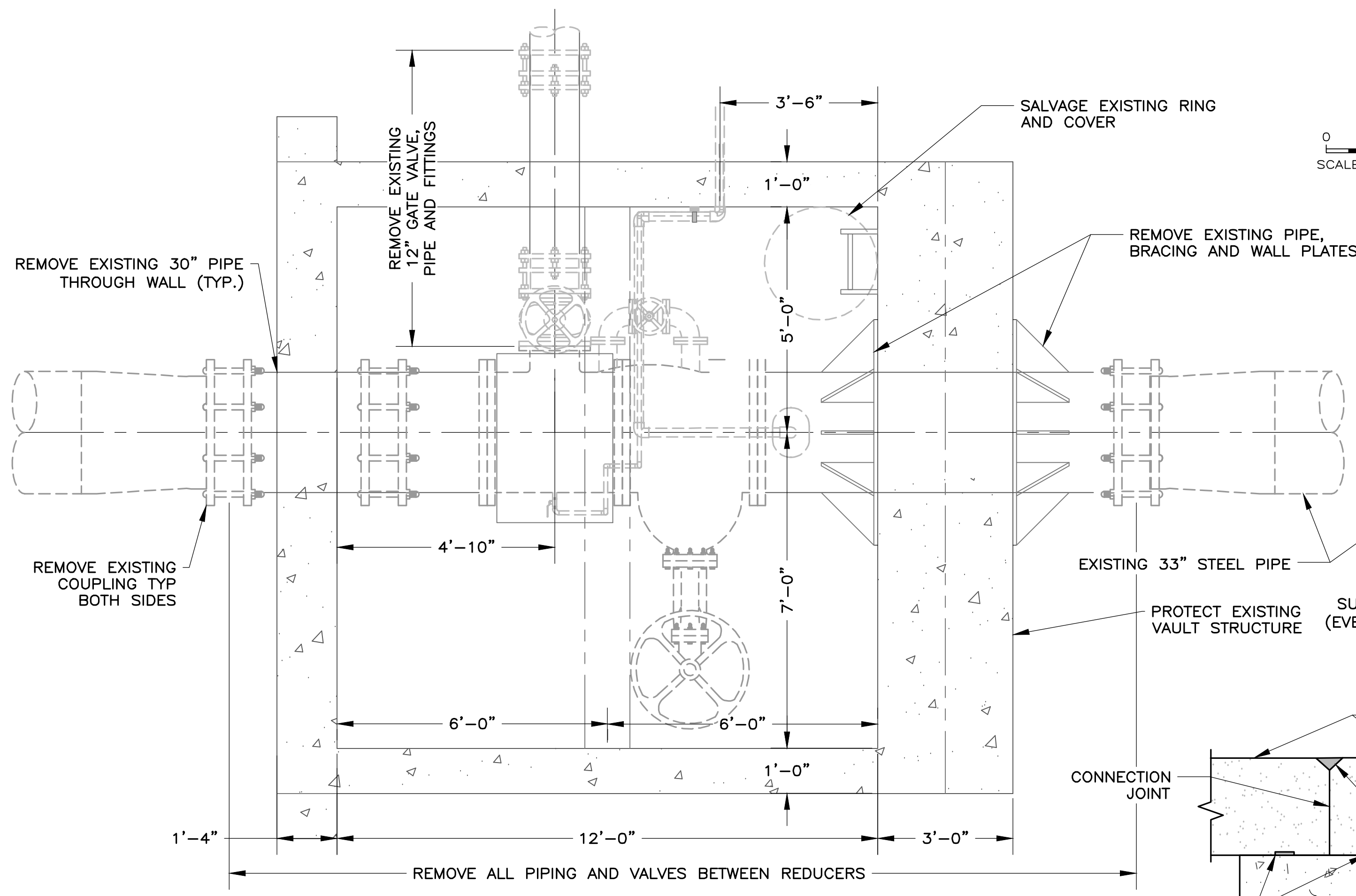
SCALE AS SHOWN

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
CIVIL
700 WINCHESTER VAULT MODIFICATIONS

SHEET C-2
127.35.100

7/04



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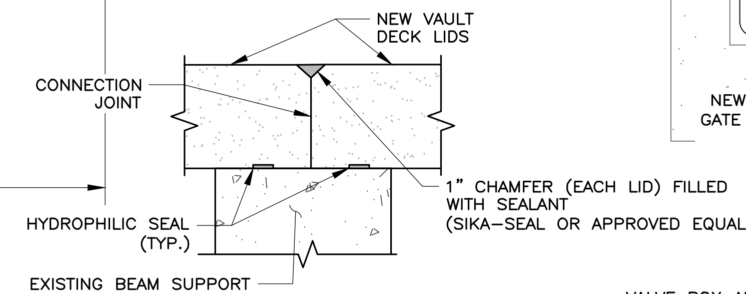
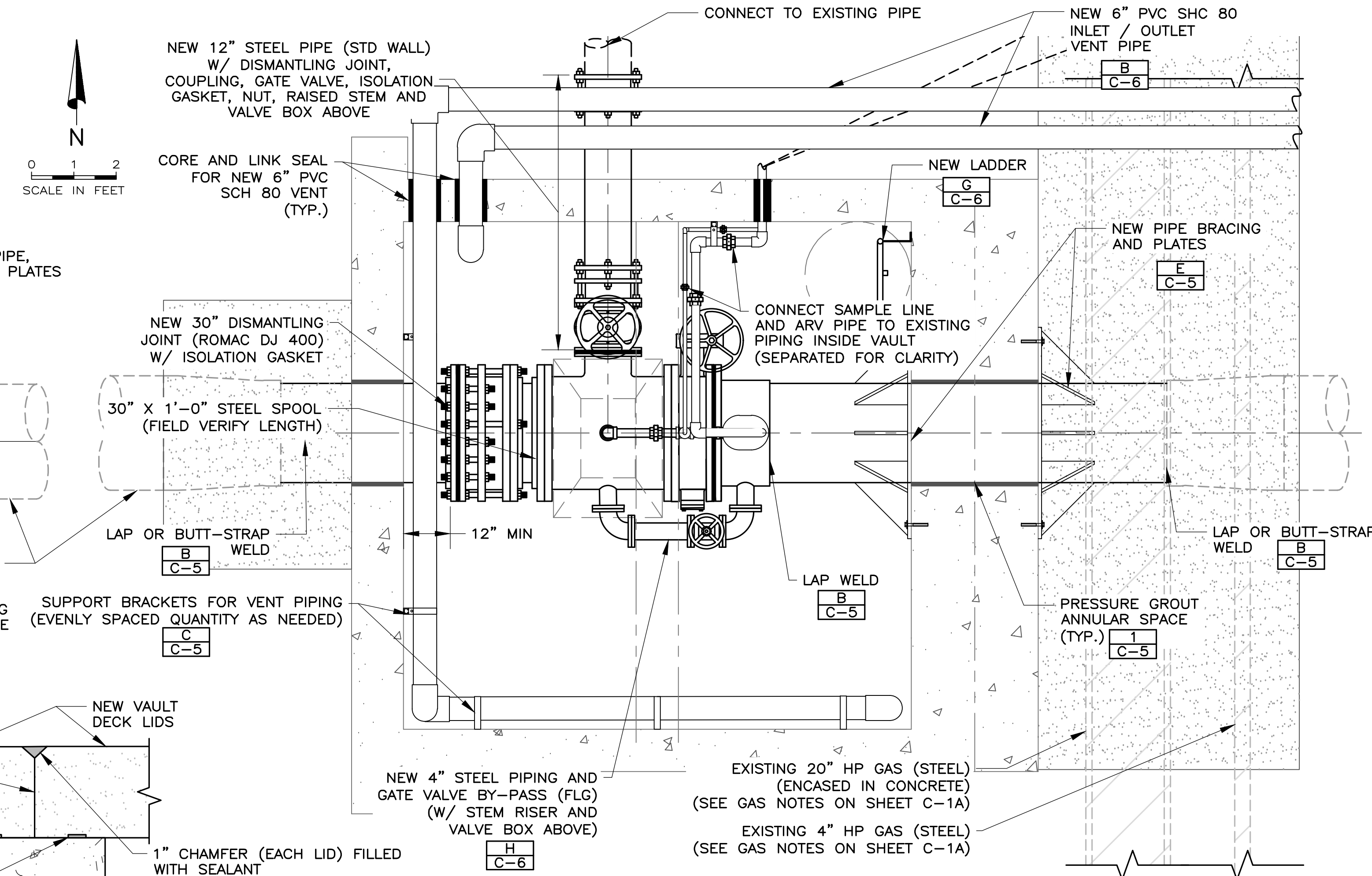
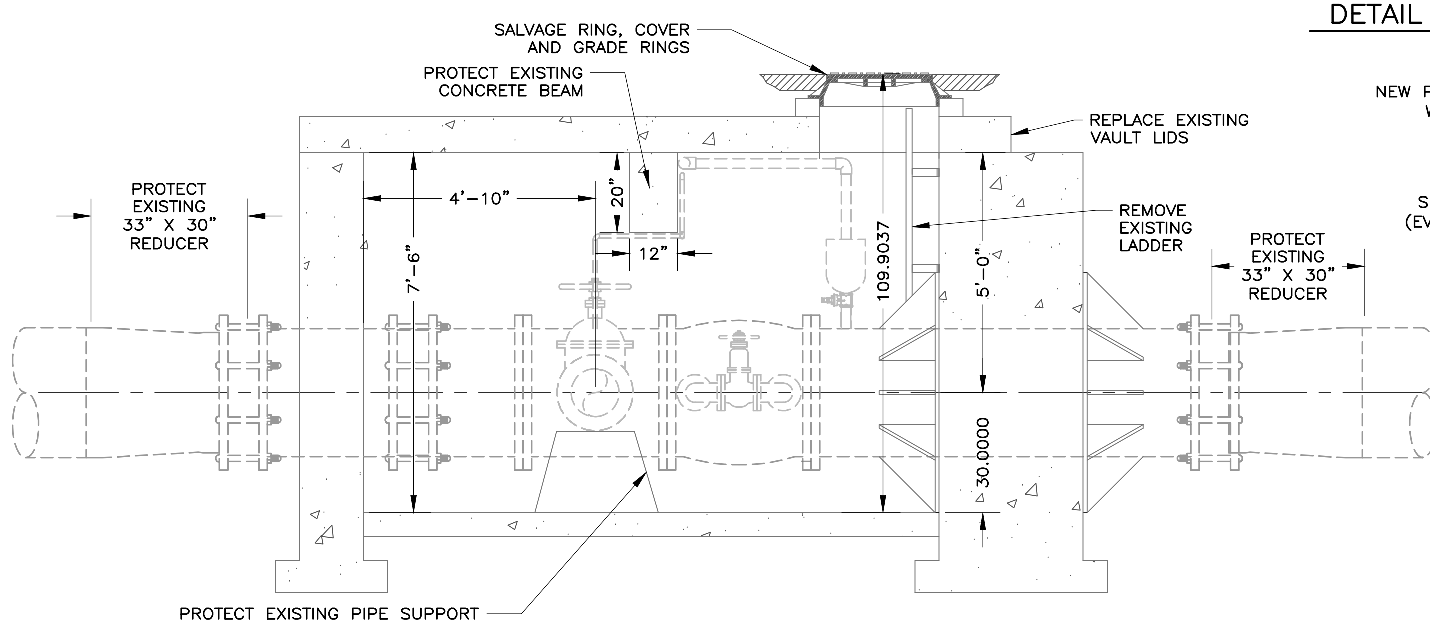


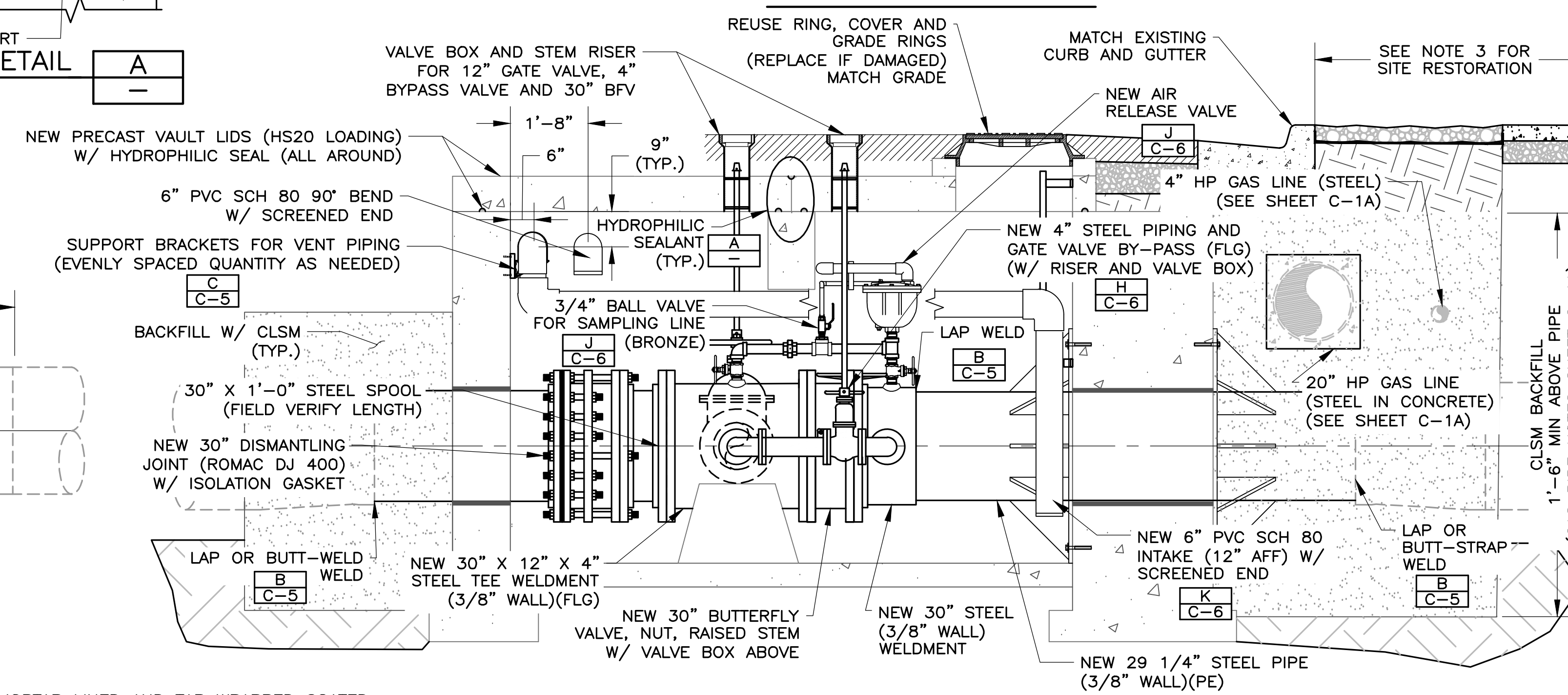
DETAIL A / –



MODIFIED VAULT PLAN



EXISTING VAULT SECTION



MODIFIED VAULT SECTION 3 / C-1

NOTES:
1. EXISTING 33" STEEL PIPE IS MORTAR LINED AND TAR WRAPPED COATED.
2. ALL NEW STEEL PIPE TO BE 3/8" WALL EPOXY LINED AND COATED.
3. BACKFILL W/ CLSM (FLOWFILL) AROUND PIPE 1'-6" MIN COVER. (TYP.)
4. CURB, GUTTER, PARK STRIP AND SIDEWALK SHALL BE REPLACED AND CONFORM TO CITY STANDARD.
5. VALVE BOXES AND MANHOLES SHALL BE INSTALLED ACCORDING TO CITY STANDARD.
6. CONTRACTOR SHOULD ANTICIPATE DISASSEMBLING PIPE AFTER INSTALL TO REPAIR PIPE COATING.
7. PIPING SHALL BE DISSINFECTED PER AWWA C651-14 BEFORE PLACING INTO SERVICE.

FILE NAME: PROJECTS\127 – JVWCD\35.100 – VAULT MODIFICATIONS\CAD\C-3 6567 X 1300.DWG
FILE DATE: 1.2.2020 16:15:54 (BKC)

HANSEN ALLEN & LUCE inc ENGINEERS

PROFESSIONAL ENGINEER No. [illegible] VERN G. CONDER 12-31-19 STATE OF UTAH
PROJECT ENGINEER

DESIGNED	VGC	3			
DRAFTED	BKC	2			
CHECKED	MEA	1			
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY	APVD.

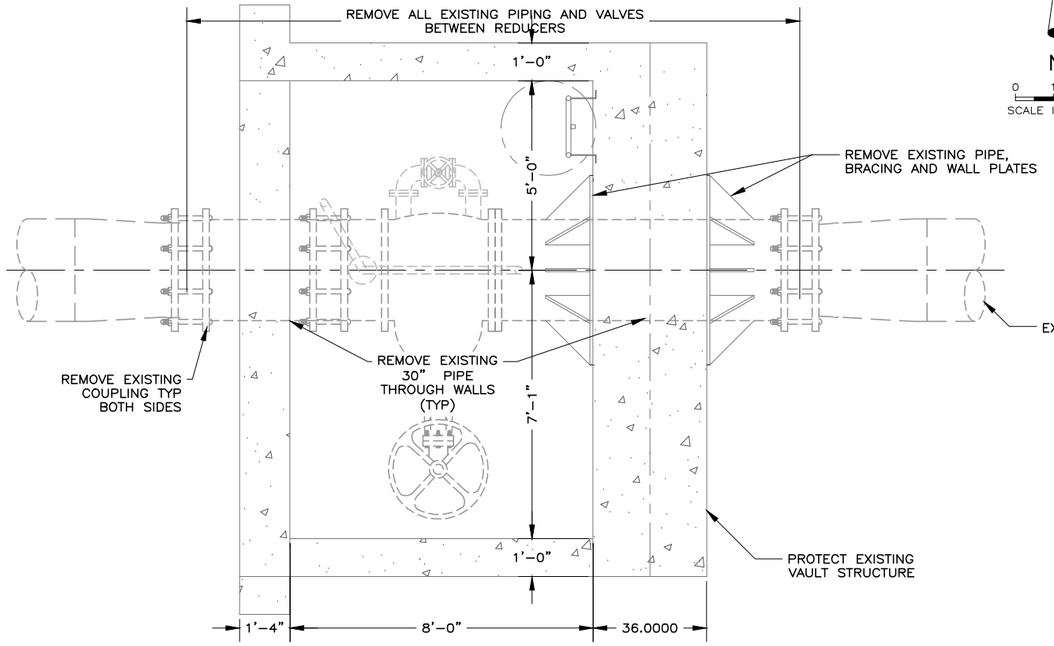
SCALE: AS SHOWN

JORDAN VALLEY WATER CONSERVANCY DISTRICT

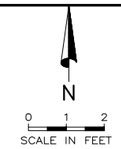
VAULT MODIFICATION PROJECT
CIVIL
6567 S 1300 W VAULT MODIFICATIONS

SHEET C-3
127.35.100

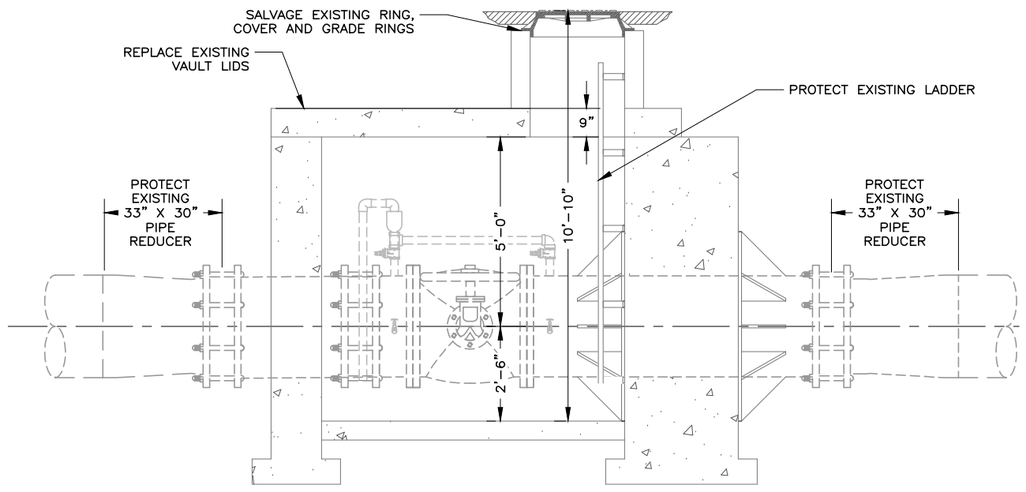
7/04



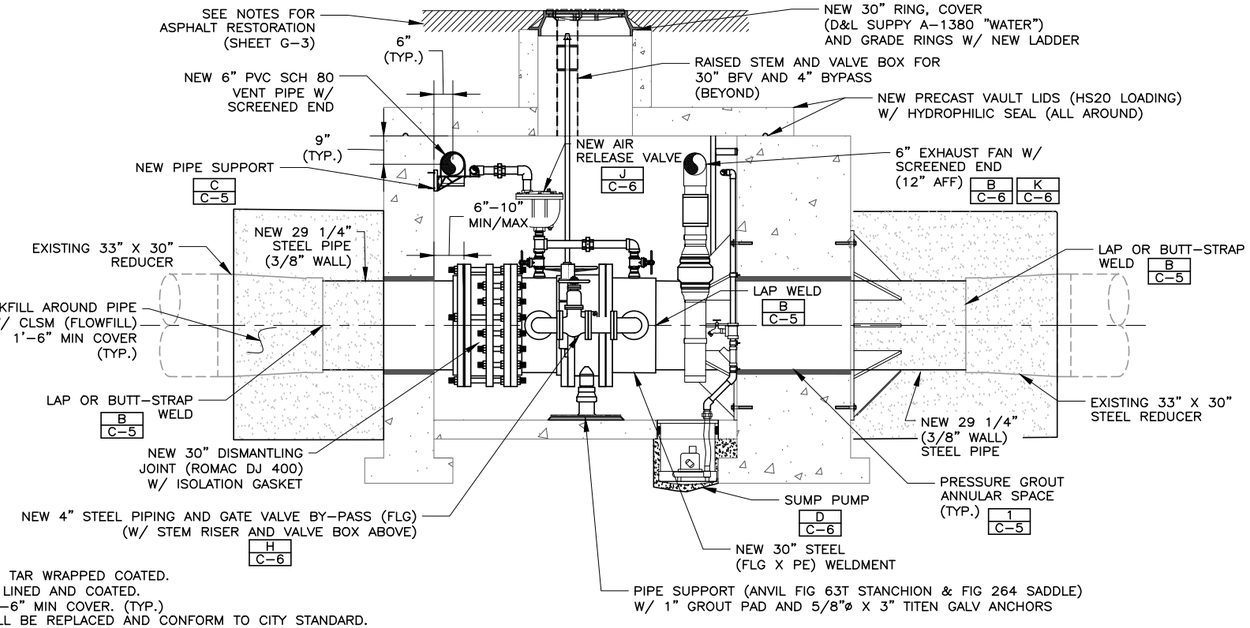
EXISTING VAULT PLAN



MODIFIED VAULT PLAN



EXISTING VAULT SECTION



MODIFIED VAULT SECTION 4 C-1

NOTES:
1. EXISTING 33" STEEL PIPE IS MORTAR LINED AND TAR WRAPPED COATED.
2. ALL NEW STEEL PIPE TO BE 3/8" WALL EPOXY LINED AND COATED.
3. BACKFILL W/ CLSM (FLOWFILL) AROUND PIPE 1'-6" MIN COVER. (TYP.)
4. CURB, GUTTER, PARK STRIP AND SIDEWALK SHALL BE REPLACED AND CONFORM TO CITY STANDARD.
5. VALVE BOXES AND MANHOLES SHALL BE INSTALLED ACCORDING TO CITY STANDARD.
6. CONTRACTOR SHOULD ANTICIPATE DISASSEMBLING PIPE AFTER INSTALL TO REPAIR PIPE COATING.
7. PIPING SHALL BE DISSINFECTED PER AWWA C651-14 BEFORE PLACING INTO SERVICE.

HANSEN ALLEN & LUCE inc ENGINEERS
PROFESSIONAL ENGINEER No. 10068702 CRAIG CONDER STATE OF UTAH
PROJECT ENGINEER

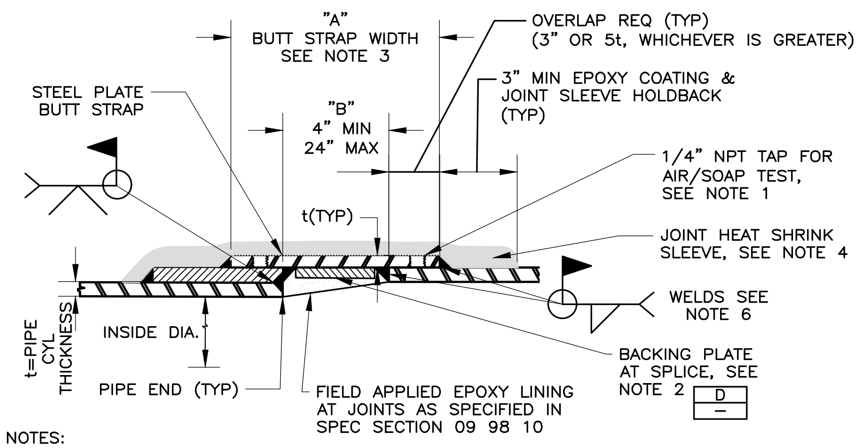
DESIGNED	VGC	3			
DRAFTED	BKC	2			
CHECKED	MEA	1			
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY APVD.

SCALE AS SHOWN

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
CIVIL
145 W 7500 S VAULT MODIFICATIONS

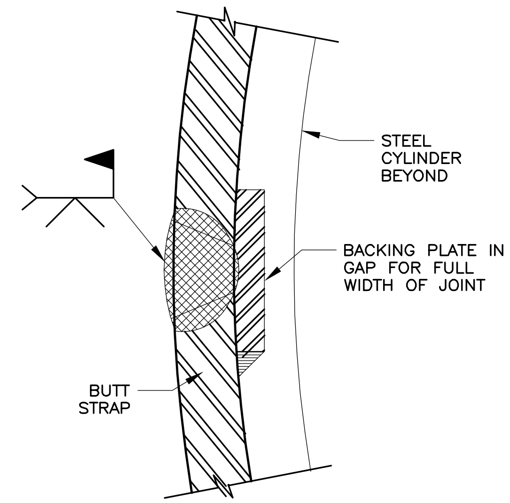
SHEET C-4
127.35.100



NOTES:

1. CONTRACTOR SHALL CONDUCT AN AIR/SOAP SOLUTION LEAK TEST AT 40 PSI AIR PRESSURE IN ACCORDANCE WITH SPEC SECTION 33 92 10 IN ADDITION TO DYE PENETRANT OR MAGNETIC PARTICLE TESTING. IF LEAKS ARE DETECTED, REPAIR AND RETEST THE WELDS UNTIL THERE ARE NO DEFECTS. PLUG HOLES WITH A THREADED OR WELDED PLUG AT COMPLETION OF TEST AND COAT AS SHOWN. TAP HOLES MAY BE ON INSIDE OR OUTSIDE OF JOINT.
2. FOR FIELD WELDING OF INDIVIDUAL BUTT STRAP PIECES TO EACH OTHER, SEE DETAIL D.
3. UNLESS OTHERWISE NOTED, BUTT STRAP WIDTH SHALL CONFORM TO THE LIMITATIONS SHOWN FOR PIPE END SEPARATION AND STEEL OVERLAP REQUIREMENTS.
4. HOLIDAY TEST THE HEAT SHRINK SLEEVE AFTER INSTALLATION AS SPECIFIED IN SECTION 09 98 10 OF THE SPECIFICATIONS.
5. FIELD PLACED CEMENT GROUT AND DIAPER IS NOT REQUIRED WHERE THE PIPE IS FULLY ENCASED IN CONTROLLED LOW STRENGTH MATERIAL (CLSM).
6. WELD THICKNESS = T. WELD THICKNESS SHALL NOT EXCEED THINNEST MATERIAL THICKNESS AT LOCATION OF WELD. FILLET WELDS SHOWN SHALL BE 3/8" FULL PEN WELDS U.O.N.

BUTT STRAP WELD
N.T.S

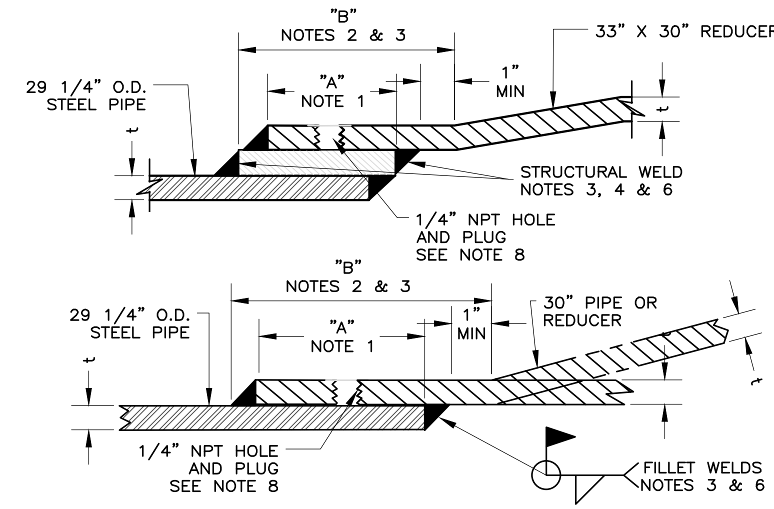


NOTES:

1. LINING AND COATINGS NOT SHOWN FOR CLARITY.
2. BEVEL ENDS OF BACKING PLATE AT BUTT STRAP PRIOR TO WELDING OR BACK GOUGE AT CONTACT WITH ADJACENT CYLINDER PRIOR TO COMPLETING INSIDE FILLET WELD.

BUTT STRAP SPLICE (D / –)
N.T.S

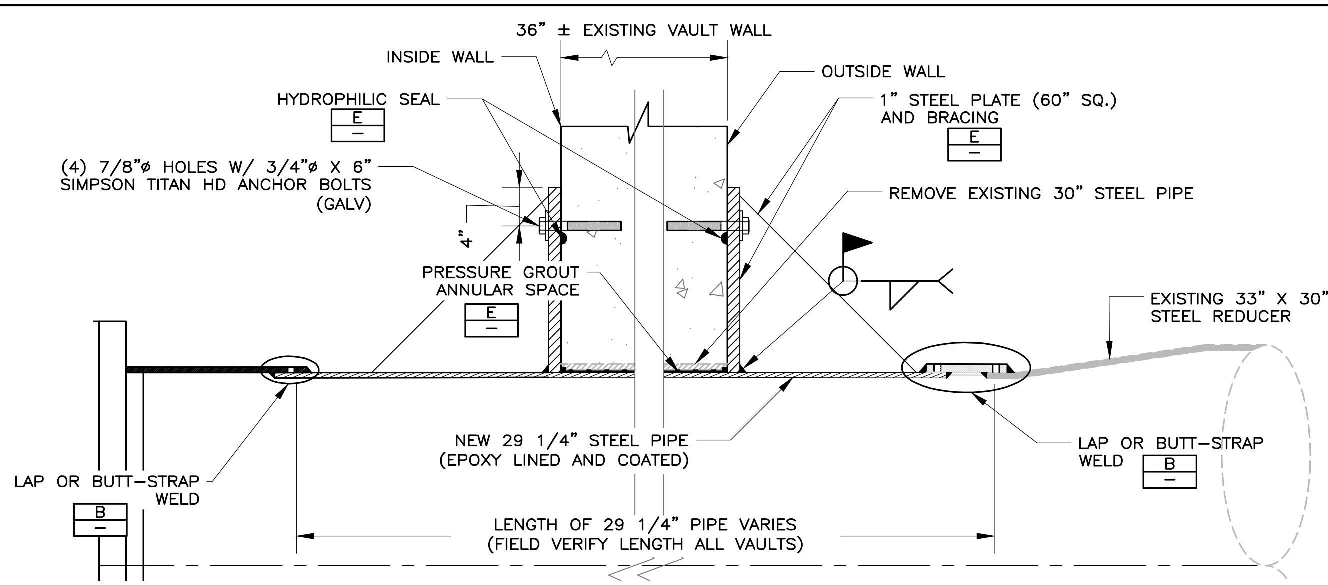
TYPICAL WELD JOINTS (B / –) (B / C–2) (B / C–3) (B / C–4)
N.T.S.



NOTES:

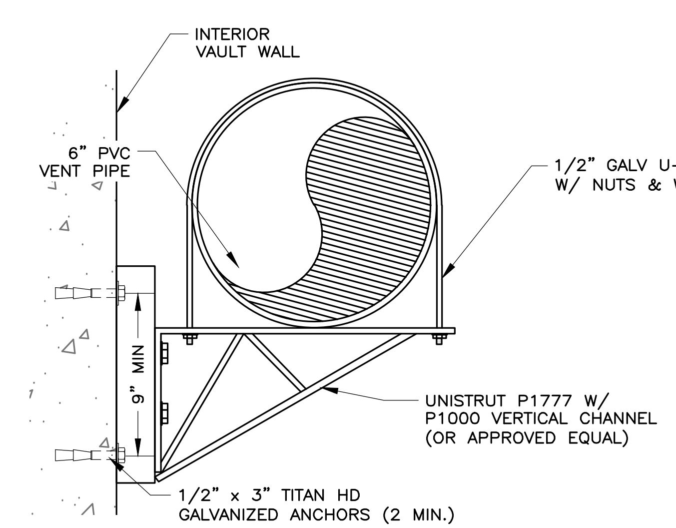
1. DIMENSION "A" CORRESPONDS TO THE COMPLETED JOINT OVERLAP AFTER FINAL FIELD WELDING. DIMENSION "A" SHALL BE THE GREATER OF 3" OR 5t, MINIMUM.
2. FOR STANDARD JOINTS, THE MINIMUM DIMENSION "B" SHALL BE AS REQUIRED TO PROVIDE THE MINIMUM OVERLAP DIMENSION "A" AND MAINTAIN THE INDICATED HOLDBACK FOR THE WELD.
3. FOR SPECIAL TEMPERATURE CONTROL JOINTS, THE MINIMUM DIMENSION "B" SHALL BE INCREASED BY AT LEAST 3 INCHES. AT THE TIME OF INSTALLATION AND PRIOR TO WELDING, THE SPIGOT SHALL BE INSERTED INTO THE LENGTHENED BELL TO PROVIDE "A" +3 INCHES MINIMUM OVERLAP. SEE SPECIFICATIONS FOR SPECIAL TEMPERATURE CONTROL JOINT WELDING REQUIREMENTS.
4. FILLET WELDS SHALL BE 3/8" FULL PEN U.O.N.
5. STRUCTURAL WELD SHALL BE MADE ON THE INSIDE AND OUTSIDE OF THE PIPE.
6. THE JOINTS SHALL BE FABRICATED AND INSTALLED TO BE WITHIN THE TOLERANCES INDICATED IN SPECIFICATION SECTION 33 92 10. THE TOLERANCE REQUIREMENTS SHALL APPLY TO BOTH STRAIGHT AND DEFLECTED JOINTS.
7. WELD THICKNESS = t. WELD THICKNESS SHALL NOT EXCEED THINNEST MATERIAL THICKNESS AT LOCATION OF WELD.
8. CONTRACTOR SHALL CONDUCT AN AIR/SOAP SOLUTION LEAK TEST @ 40 PSI AIR PRESSURE IN ADDITION TO DYE PENETRANT OR MAGNETIC PARTICLE TESTING. IF LEAKS ARE DETECTED, THE CONTRACTOR SHALL REPAIR AND RETEST THE WELDS UNTIL THERE ARE NO DEFECTS. PLUG TAPS WITH A THREADED OR WELDED PLUG AT COMPLETION OF TEST AND COAT LINE AS SHOWN OR SPECIFIED. TAP HOLES MAY BE ON INSIDE OR OUTSIDE OF JOINT. HOLIDAY TEST HEAT SHRINK AFTER INSTALLATION.

LAP JOINT WELD
N.T.S



SECTION (1 / C–2) (1 / C–3) (1 / C–4)
N.T.S

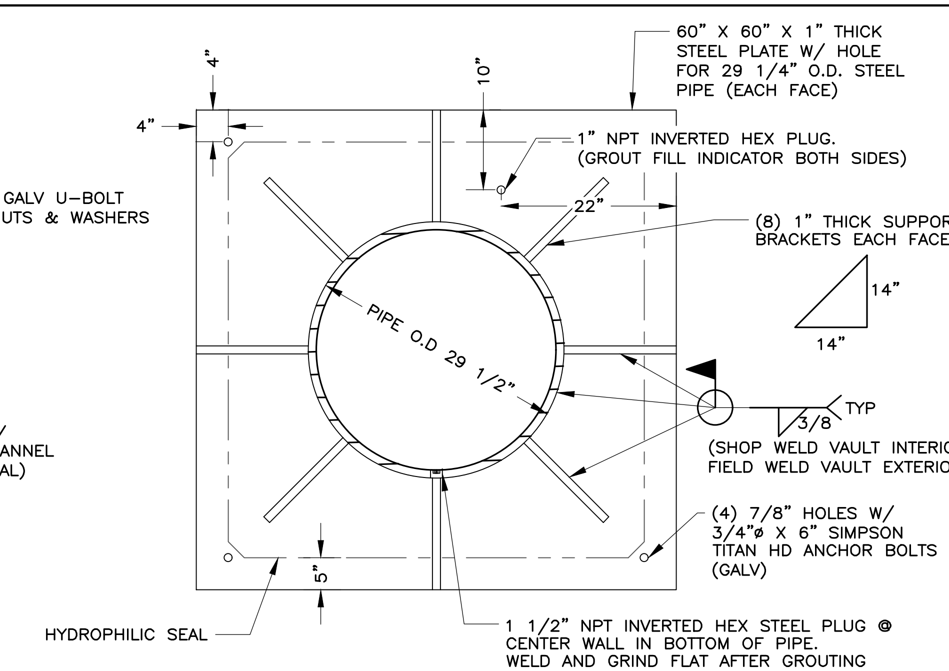
N.T.S.



NOTE:

1. ALL SUPPORT COMPONENTS SHALL BE GALVANIZED.
2. 10'-0" MAXIMUM DISTANCE BETWEEN SUPPORTS.

TYPICAL VENT PIPE SUPPORT (C / C–2) (C / C–3) (C / C–4)
N.T.S.



PIPE SUPPORT AND BRACING (E / –) (E / C–2) (E / C–3) (E / C–4)
N.T.S

FILE NAME: PROJECTS\127 – JVWCD\35.100 – VAULT MODIFICATIONS\CAD\C-5 DETAILS.DWG
FILE DATE: 1.2.2020 16:17:13 (BKC)

HANSEN ALLEN & LUCE inc ENGINEERS

PROFESSIONAL ENGINEER No. [stamp] VERN G. CONDER 12-31-19 STATE OF UTAH

PROJECT ENGINEER

DESIGNED	VGC	3			
DRAFTED	BKC	2			
CHECKED	MEA	1			
DATE	JANUARY 2020	NO.	DATE	REVISIONS	BY / APVD.

SCALE: NOT TO SCALE

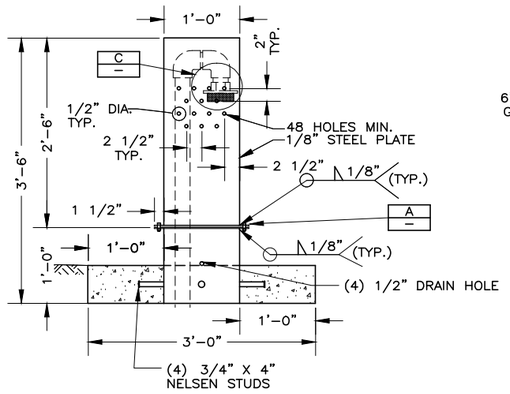
JORDAN VALLEY WATER CONSERVANCY DISTRICT

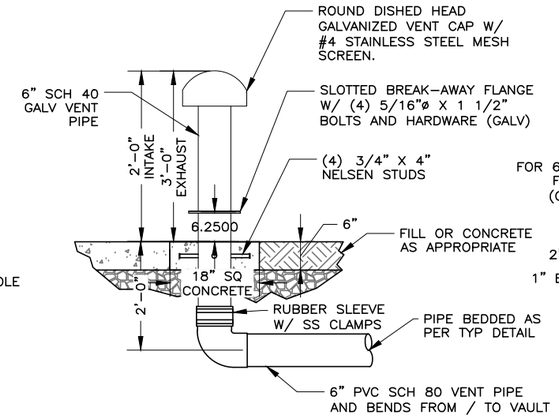
VAULT MODIFICATION PROJECT
CIVIL
TYPICAL DETAILS

SHEET C–5

127.35.100

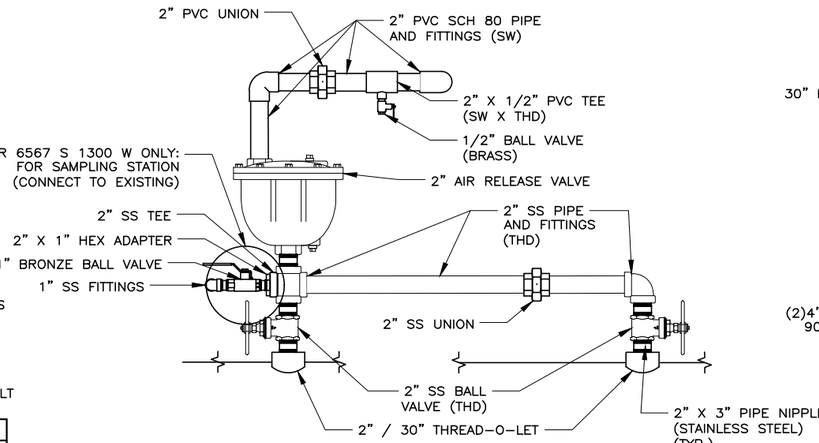
7/04





6" AIR VENT STAND PIPE
N.T.S.

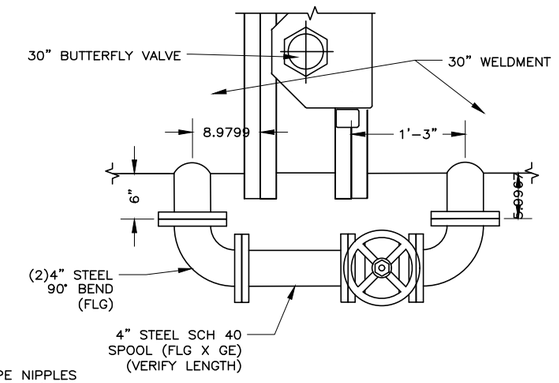
B	B	B
—	C-1	C-2
B	B	
C-3	C-4	



NOTE:
ROUTING OF PRV AND SAMPLING DISCHARGE SHALL BE BASED ON BEST AVAILABLE SPACE AND OWNER'S PREFERENCE. SUPPORT BRACKETS AND UNIONS SHALL BE APPLIED IN ACCORDANCE WITH ACCEPTABLE CONSTRUCTION PRACTICES.

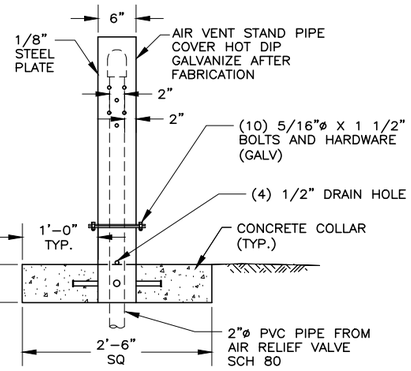
2" ARV DETAIL
N.T.S.

J	J	J
C-2	C-3	C-4



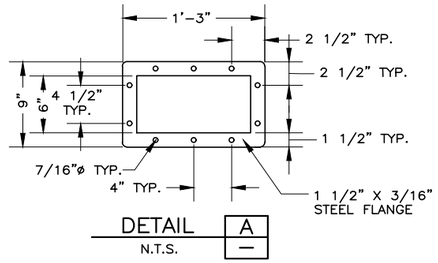
4" BY-PASS DETAIL
N.T.S.

H	H	H
C-2	C-3	C-4



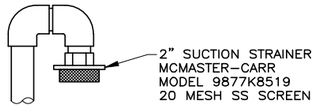
2" AIR VENT STAND PIPE
N.T.S.

A
C-4



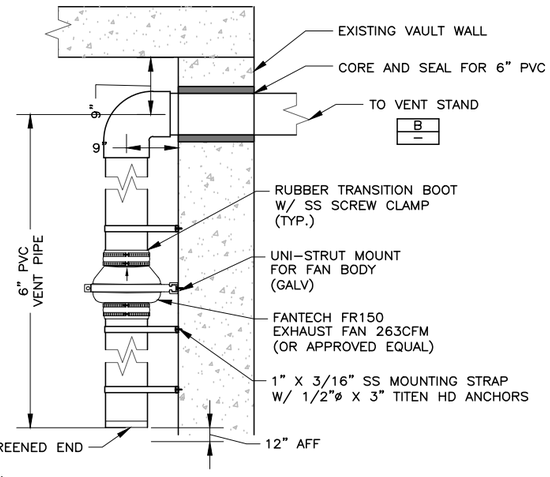
DETAIL
N.T.S.

A
—



DETAIL
N.T.S.

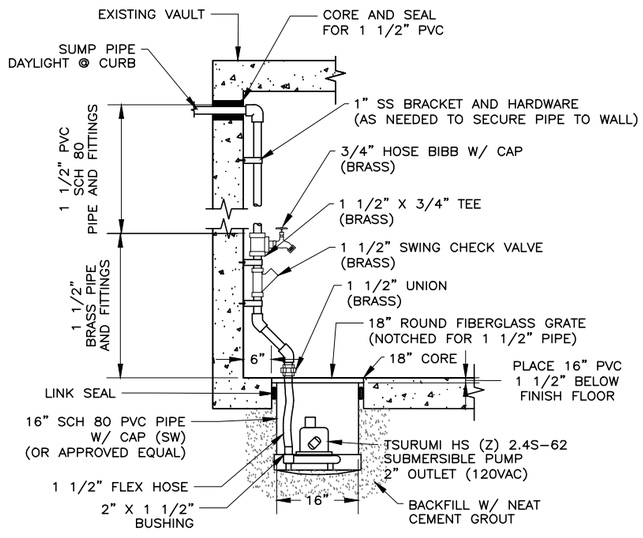
C
—



NOTE:
PASSIVE VENTS DO NOT HAVE FAN MOTORS.

VENT DETAIL
N.T.S.

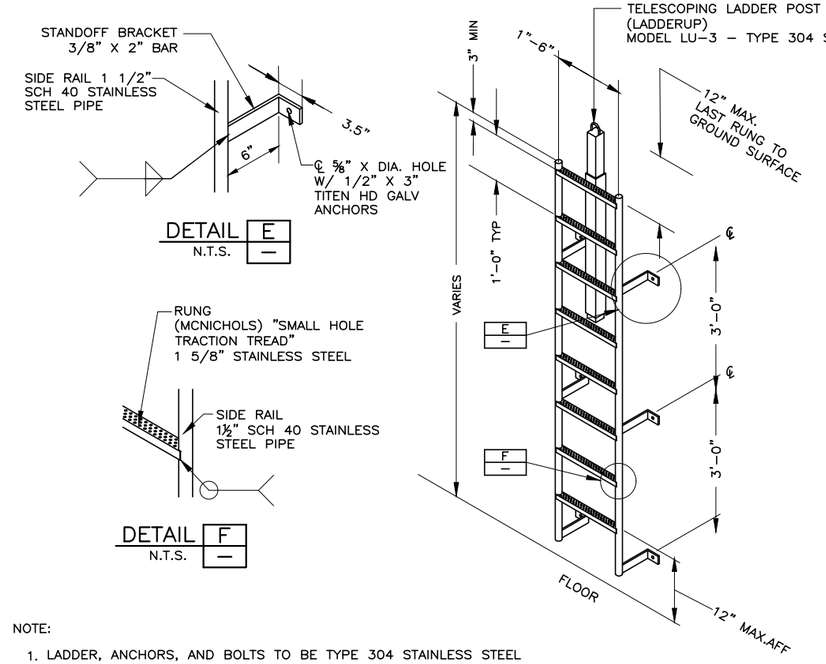
K
C-4



NOTE:
LENGTH OF 16" PVC SHALL BE FIELD VERIFIED FOR CLEARANCE OF PUMP, FITTINGS AND PIPE.

SUMP PUMP DETAIL
N.T.S.

D
C-4



DETAIL
N.T.S.

E
—

DETAIL
N.T.S.

F
—

NOTE:

1. LADDER, ANCHORS, AND BOLTS TO BE TYPE 304 STAINLESS STEEL

ACCESS LADDER DETAIL
N.T.S.

G	G	G
C-2	C-3	C-4

FILE NAME: PROJECTS\127_JWCD\35.100 - VAULT MODIFICATIONS\CAD\C-6 DETAILS.DWG
FILE DATE: 1.2.2020 16:17:52 (BKC)

7/04

HANSEN ALLEN & LUCE, INC. ENGINEERS

PROFESSIONAL ENGINEER — No. 10000000 — BRAD G. CONDER — 12-31-19 — STATE OF UTAH

PROJECT ENGINEER

DESIGNED	VGC
DRAFTED	BKC
CHECKED	MEA
DATE	JANUARY 2020

NO.	DATE	REVISIONS	BY	APVD.
3				
2				
1				

SCALE: NOT TO SCALE

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
CIVIL
TYPICAL DETAILS

SHEET C-6

127.35.100

GENERAL SYMBOLS

1	REFERENCE NOTE
XX / X	EQUIPMENT REFERENCE
	ELECTRICAL DEMOLITION TO BE REMOVED
XX-XX / HPE	HPE LIBRARY DESIGNATION HPE DETAIL REFERENCE
X-XX	LETTER REFERENCE SECTION/ELEVATION REFERENCE SHEET NUMBER
	SMALL LINE BREAK
	BREAK LINE

POWER ONE-LINE SYMBOLS

	TRANSFER SWITCH ATS: AUTOMATIC TRANSFER SWITCH MTS: MANUAL TRANSFER SWITCH
RVSS	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
M	MOTOR (HP SHOWN)
	GENERATOR
XXX	CONDUCTOR WITH CALLOUT REFERENCE (SEE CONDUIT/CONDUCTOR SCHEDULE)
	POWER FACTOR CAPACITOR
	CIRCUIT BREAKER
M	COMBINATION METER/MAIN
	MOTOR STARTER
	SURGE PROTECTOR
	TRANSFORMER
	FUSED SWITCH
	FUSE IN HOLDER

NOTE: THIS IS A STANDARD LEGEND. NOT ALL SYMBOLS ARE USED ON EACH DRAWING.

CONTROL ONE-LINE SYMBOLS

	ENCLOSURE OR CONTROL PANEL
PNL A / B	HOME RUN TO POWER PANEL "A" CIRCUIT "B"
R	LIGHT A: AMBER LENS G: GREEN LENS R: RED LENS W: WHITE LENS
	COMBINATION MOTOR STARTER F: FUSED BLANK: CIRCUIT BREAKER
XXX XXXX	EQUIPMENT IDENTIFICATION TAG
	ELECTRICAL CONNECTION POINT
	SINGLE RECEPTACLE
	GROUND CONNECTION
PNL B	DISTRIBUTION PANEL BOARD
XXX	WIRE SIZE CALLOUT REFER TO CONDUIT/CONDUCTOR SCHEDULE

LIGHT SWITCHES

$	SINGLE POLE SWITCH
$$	GANGED SWITCHES IN COMMON BOX WITH COMMON COVER PLATE
$a,b,c $3	SWITCH SUPERSCRIPT MODIFIER, LOWER CASE LETTER INDICATES CIRCUIT CONTROLLER -- a,b,c ETC. MAY BE COMBINED WITH CIRCUIT NUMBER. EXAMPLE: 1a, 3b SWITCH SUBSCRIPT MODIFIER, UPPER CASE LETTER OR NUMBER: 2 = DOUBLE POLE 3 = THREE WAY 4 = FOUR WAY K = KEY OPERATED M = HORSEPOWER RATED MANUAL STARTER MC = MOMENTARY CONTACT, THREE POSITION MS = MANUAL (STARTER) OR SWITCH D = DIMMER S = SURFACE F = FLUSH
	CONTROL STATION
P	PHOTOELECTRIC CONTROL UNIT

TSP = TWISTED SHIELDED PAIR

GROUNDING ELECTRODE CONDUCTOR SERVICE ENTRANCE OR SEPARATELY DERIVED SYSTEM

COPPER CONDUCTOR	WIRE SIZE
#2 OR SMALLER	#8
1 OR 1/0	#6
2/0 OR 3/0	#4
>3/0 THRU 350 KCMIL	#2
>350 KCMIL THRU 600 KCMIL	1/0

CONDUIT/CONDUCTOR SCHEDULE THHN, THWN, THWN-2

AMP RATING	DRAWING ID TAG.	CONDUCTOR QTY.*	CONDUCTOR SIZE	MIN. CONDUIT SIZE	EXCEPTIONS
20	212	2	#12	3/4"	
	312	3		3/4"	
	412	4		3/4"	
30	20	2	#10	3/4"	
	30	3		3/4"	
	40	4		3/4"	
50	28	2	#8	3/4"	
	38	3		3/4"	
	48	4		3/4"	
65	26	2	#6	3/4"	
	36	3		3/4"	
	46	4		3/4"	1"(C9)
85	24	2	#4	3/4"	1"(C2,C9)
	34	3		1"	3/4"(C4),1-1/4"(C9)
	44	4		1"	1-1/4"(C9)
115	22	2	#2	1"	
	32	3		1"	1-1/4"(C9)
	42	4		1-1/4"	
130	21	2	#1	1-1/4"	1"(C3,C4)
	31	3		1-1/4"	1"(C3)
	41	4		1-1/4"	1-1/2"(C2,C9,C10)
150	210	2	1/0	1-1/4"	
	310	3		1-1/4"	1-1/2"(C3,C9)
	410	4		1-1/2"	2"(C9)
175	220	2	2/0	1-1/4"	1-1/2"(C3,C4,C9)
	320	3		1-1/2"	
	420	4		2"	
200	230	2	3/0	1-1/2"	1-1/4(C4)
	330	3		1-1/2"	2"(C3,C9)
	430	4		2"	
230	240	2	4/0	1-1/2"	2"(C3)
	340	3		2"	
	440	4		2"	2-1/2"(C9)
255	225	2	250 KCMIL	2"	1-1/2"(C4)
	325	3		2"	2-1/2"(C1,C8)
	425	4		2-1/2"	2"(C4)
310	235	2	350 KCMIL	2"	2-1/2"(C9)
	335	3		2-1/2"	2"(C4)
	435	4		3"	2-1/2"(C1,C4)
380	250	2	500 KCMIL	2-1/2"	2"(C4)
	350	3		3"	2-1/2"(C1,C4)
	450	4		3"	3-1/2"(C9)
475	275	2	750 KCMIL	3"	
	375	3		3-1/2"	3"(C1,C7,C8)
	475	4		4"	3-1/2"(C1,C4,C8)

* CONDUCTOR QUANTITY DOES NOT INCLUDE GROUNDING CONDUCTORS. SEE EQUIPMENT GROUNDING CONDUCTORS FOR WIRE SIZES.

WHERE: C1 = ELECTRICAL METALLIC TUBING
C2 = ELECTRICAL NON-METALLIC TUBING
C3 = FLEXIBLE STEEL CONDUIT
C4 = INTERMEDIATE METALLIC CONDUIT
C7 = LIQUIDTIGHT FLEXIBLE METAL CONDUIT
C8 = RIGID METALLIC CONDUIT
C9 = PVC SCHEDULE 80 CONDUIT
C10 = PVC SCHEDULE 40 CONDUIT

EQUIPMENT GROUNDING CONDUCTORS

FUSE OR CB SIZE	SIZE (COPPER)
15	14
20	12
30	10
40	10
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0
1600	4/0
2000	250
2500	350

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AMERICAN FORK, UT 84003

HPE PROJECT: 19075
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

GENERAL NOTES:

1. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO ENSURE NEC CODE CLEARANCE REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
2. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED BEFORE BEGINNING ROUGH-IN.
3. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH-IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC.
4. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH ELECTRICAL ROOMS OR SPACES; OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN THE OTHER AREAS.
5. ALL PENETRATIONS OF FLOORS, WALLS AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL.

REGISTERED PROFESSIONAL ENGINEER
No. 86-171214-2202
KEITH B. HEGERHORST
12/20/19
STATE OF UTAH

FILE NAME:
FILE DATE:

HANSEN ALLEN & LUCE INC ENGINEERS

PROJECT ENGINEER

DESIGNED KBH
DRAFTED DAS
CHECKED KBH
DATE SEPTEMBER 2019

NO.	DATE	REVISIONS	BY	APVD.
3				
2				
1				

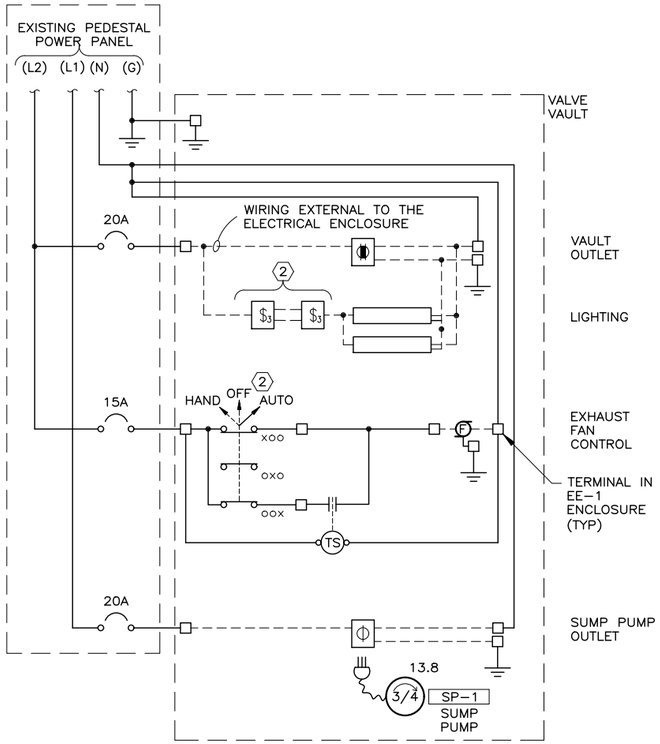
SCALE

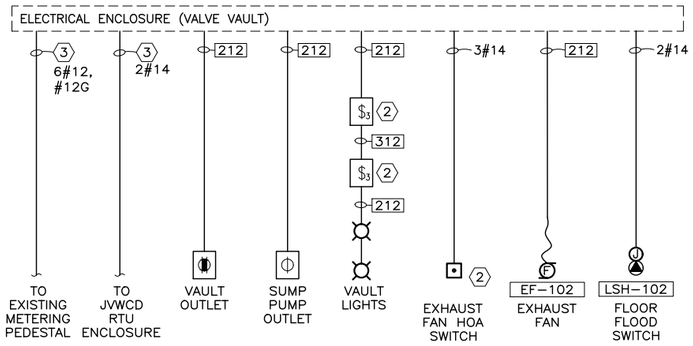
JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
ELECTRICAL
LEGENDS

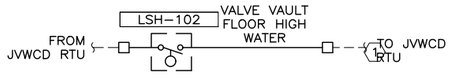
SHEET E1.1
127.35.100

7/04





ONE-LINE DIAGRAMS B
N.T.S. —



ELECTRICAL ENCLOSURE-1 DIAGRAM A
N.T.S. —

SERVICE PEDESTAL

LOCATION: S. SIDE OF 7500 SOUTH | MFGR: MILBANK | 100 AMPS | VOLTS: 240/120
DIMENSIONS: EXISTING | TYPE: SERVICE PEDESTAL | 60 M.C.B. | PHASE: 1
MOUNTING: VLOOR | NEMA: 3R | 10,000 A.I.C. | WIRES: 3
FEED: BOTTOM

BRKR A	BRKR P	DESCRIPTION	WIRE SIZE	CONT. WATTS	N-CONT. WATTS	NO	A CONT.	A N-CONT.	B CONT.	B N-CONT.	NO	N-CONT. WATTS	CONT. WATTS	WIRE SIZE	DESCRIPTION	BRKR A	BRKR P
20	1	MV VAULT OUTLET	E		180	1	660	180			2		660	E	MV LTS/EXHAUST FAN	20	1
20	1	MV SUMP PUMP	E		700	3			1,000	700	4		1,000	E	JVWCD RTU	20	1
20	1	SPARE				5	76	180			6	**180**	**76**	**#12**	**V VAULT OUTLET, LTS**	**20**	**1**
20	1	SPARE				7			600	0	8		**600**	**#12**	**V VAULT EXHAUST FAN**	**20**	**1**
	1	SPACE				9	0	700			10	**700**		**#12**	**V VAULT SUMP PUMP**	**20**	**1**
	1	SPACE				11			0	0	12				SPACE		1

TOTAL WATTS:	0	880	736	1,060	1,600	700	0	0	880	2,336	
CONTINUOUS LOAD:	2,336										
CONTINUOUS LOAD * 125%:	2,920										
NON-CONTINUOUS LOAD:	1,760										
DESIGN WATTS:	4,680										
MIN. RATING (AMPS):	20										

FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER NAME	MANUFACTURER CATALOG NO.	FIX VA	LAMP	MOUNTING	NOTES:
F1	4' LED ENCLOSED INDUSTRIAL, FIBERGLASS HOUSING, DAMP LOCATION, MVOLT, 4,000 LUMENS	METALUX	4VT2LED-LD4-4-DR-UNV-L840-CD-1-U	38	FURNISHED	SURFACE	

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AMERICAN FORK, UT 84003

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GENERAL NOTES:

1. REFER TO ELECTRICAL PLANS FOR EQUIPMENT LOCATIONS.
2. DEVICES SHOWN IN BOLD TEXT IN SERVICE PEDESTAL ARE NEW, PROVIDED AND INSTALLED BY CONTRACTOR.

SHEET KEYNOTES:

1. CONTRACTOR SHALL PROVIDE NEMA 4X FIBERGLASS ENCLOSURE WITH HINGED COVER AND QUICK RELEASE LATCHES (HOFFMAN OR APPROVED EQUAL). ENCLOSURE SHALL BE SUPPLIED WITH INTERNAL PANEL.
2. INSTALL SWITCH NEAR ACCESS HATCH SUCH THAT AN OPERATOR CAN OPERATE THE SWITCH WITHOUT ENTERING THE VAULT.
3. REFER TO KEYNOTE 5 ON E3.1.

REGISTERED PROFESSIONAL ENGINEER
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HANSEN ALLEN & LUCE Inc ENGINEERS

DESIGNED KBH	3				
DRAFTED DAS	2				
CHECKED KBH	1				
DATE SEPTEMBER 2019	NO.	DATE	REVISIONS	BY	APVD.

PROJECT ENGINEER

SCALE

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
ELECTRICAL
DIAGRAMS AND SCHEDULES

SHEET E2.1
127.35.100

7/04

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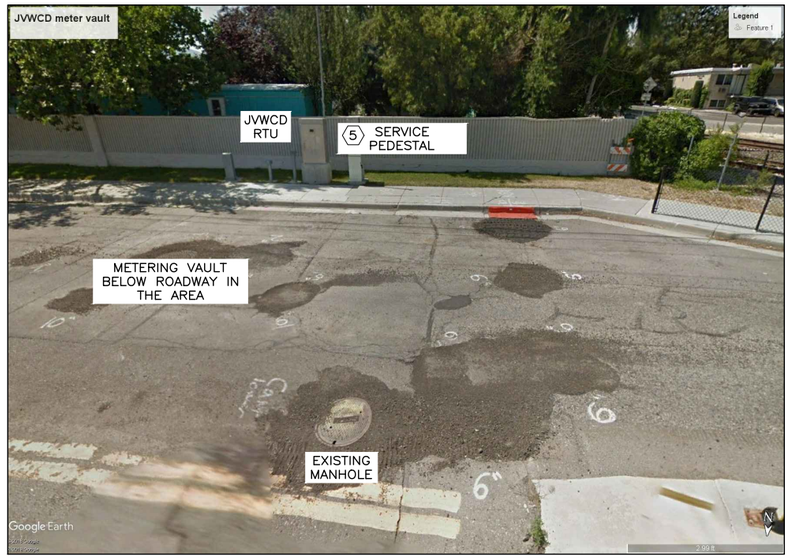


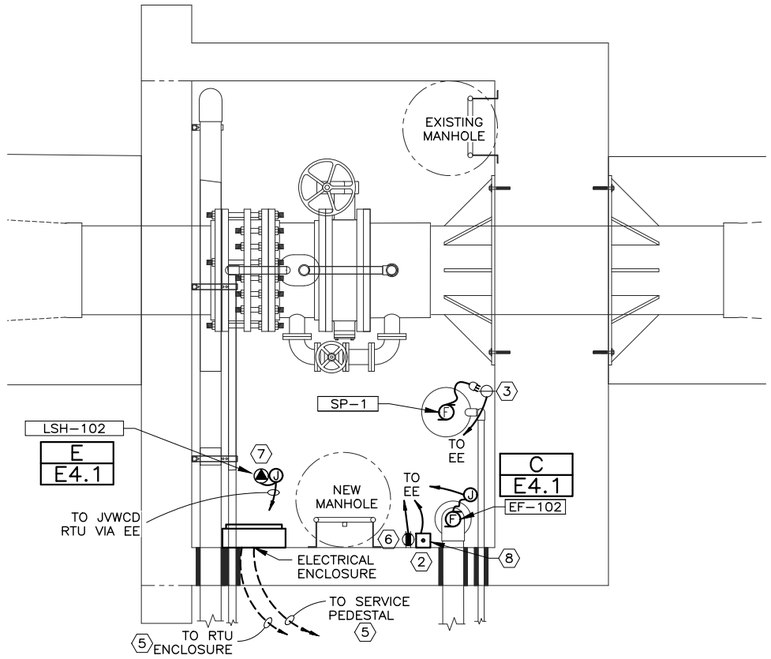
SITE PHOTO (LOOKING SOUTH)

GENERAL NOTES:

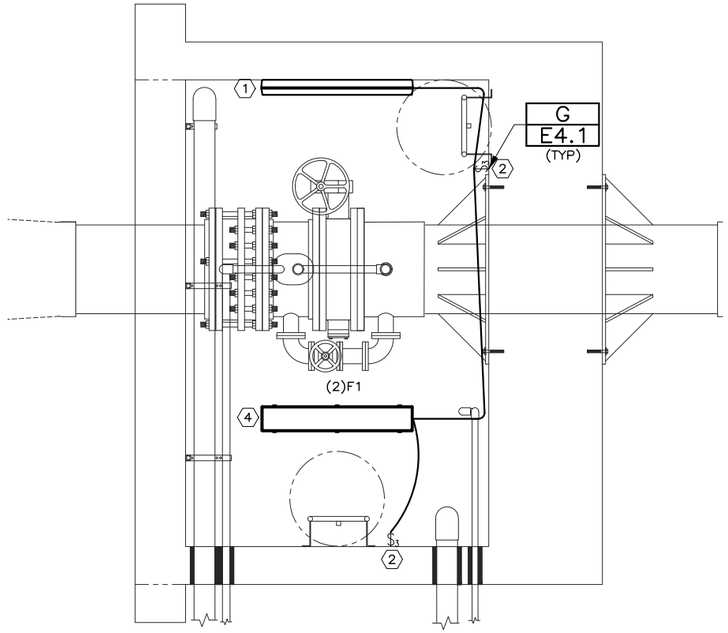
1. REFER TO ONE-LINE DIAGRAMS AND CONDUIT/CONDUCTOR TABLE FOR WIRE AND CONDUIT REQUIREMENT.
2. REFER TO A/E2.2 FOR THE ELECTRICAL ENCLOSURE DIAGRAM.
3. CONTRACTOR SHALL PROVIDE 4-FOOT SERVICE LOOP FOR ALL CONDUCTORS IN OWNERS'S RTU CABINET. RTU TERMINATIONS TO BE BY OWNER.
4. EXHAUST FAN TIMER SWITCH SHALL BE TORK 8001 OR TORK 8009A, NO EQUAL.
5. ALL CONDUCTORS SHALL BE STRANDED COPPER. (NO SOLID CONDUCTORS.)
6. CONDUIT BODIES AND BOXES FOR WIRING DEVICES SHALL BE CAST MALLEABLE IRON. BOXES ARE TYPE FS OR FD.
7. ALL WIRING DEVICES SHALL BE HEAVY DUTY, BACK WIRED ONLY, SUITABLE FOR STRANDED WIRE. STRANDED WIRE SHALL NOT BE WRAPPED AROUND DEVICE SCREWS.
8. ALL CONDUIT INSTALLED WITHIN VAULT SHALL BE GALVANIZED RIGID STEEL CONDUIT, 3/4" MINIMUM.
9. ATTACH CONDUIT TO STRUCTURE WITH MALLEABLE IRON 1-HOLE CLAMPS AND BACKSTRAP OR UNISTRUT AND STRUT STRAPS. ALL UNISTRUT, STRUT STRAPS, AND MOUNTING ANCHORS SHALL BE STAINLESS STEEL.
10. CONTRACTOR SHALL CLEARLY IDENTIFY CONDUCTORS WITH WEATHER RESISTANT LABELS.

SHEET KEYNOTES:

1. INSTALL FIXTURE ON VAULT WALL AT +8'AFF.
2. INSTALL THE FAN AND LIGHT 3-WAY SWITCHES IN A 4X4 BOX AT THE HATCH ENTRY'S. LOCATE BOX SO AN OPERATOR CAN OPERATE BOTH SWITCHES WITHOUT ENTERING THE VAULT. LABEL SWITCH "VAULT LIGHT" AND "VAULT FAN" AS REQUIRED.
3. LOCATE SUMP PUMP OUTLET +36"AFF.
4. INSTALL FIXTURE ON VAULT CEILING.
5. THERE IS A SPARE 3/4"CONDUIT THROUGH THE CONCRETE BASE AT THE SERVICE PEDESTAL AND THERE IS A SPARE 1" CONDUIT THROUGH THE CONCRETE BASE OF THE RTU CABINET. EXPOSE AND RE-USE CONDUITS FOR THE VALVE VAULT ELECTRICAL COMPONENTS. REPLACE CONCRETE CURB AND SIDEWALK PANELS TO THE NEAREST JOINT AS REQUIRED.
6. PROVIDE GFCI RECEPTACLE.
7. INSTALL LEVEL SWITCH BELOW ELECTRICAL ENCLOSURE.
8. EXHAUST FAN HOA SWITCH.



POWER PLAN 1
0 2' 4' 6'
1/2"=1'-0"
N



LIGHTING PLAN 2
0 2' 4' 6'
1/2"=1'-0"
N

REGISTERED PROFESSIONAL ENGINEER
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HANSEN ALLEN & LUCE inc ENGINEERS	PROJECT ENGINEER	DESIGNED KBH	3				SCALE
		DRAFTED DAS	2				
		CHECKED KBH	1				
		DATE SEPTEMBER 2019	NO.	DATE	REVISIONS	BY APVD.	

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
ELECTRICAL
VAULT PLANS

SHEET E3.1
127.35.100

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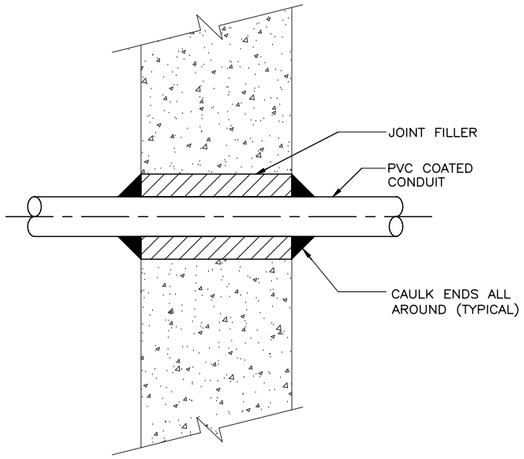
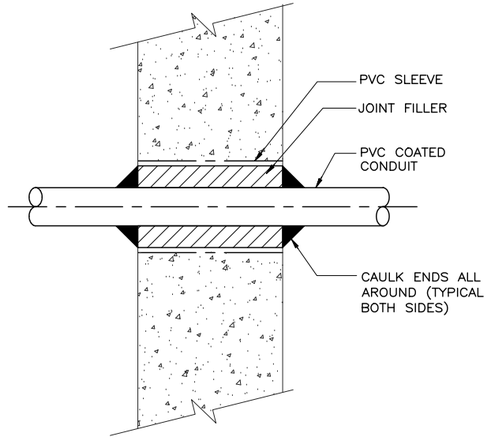
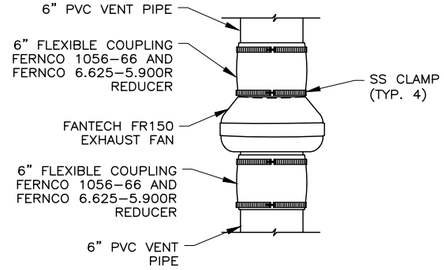


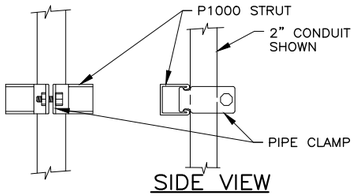
EXISTING WALL CONDUIT PENETRATION A
3" = 1'-0"



NEW WALL CONDUIT PENETRATION B
3" = 1'-0"



6 INCH IN-LINE FAN DETAIL C
1 1/2" = 1'-0"



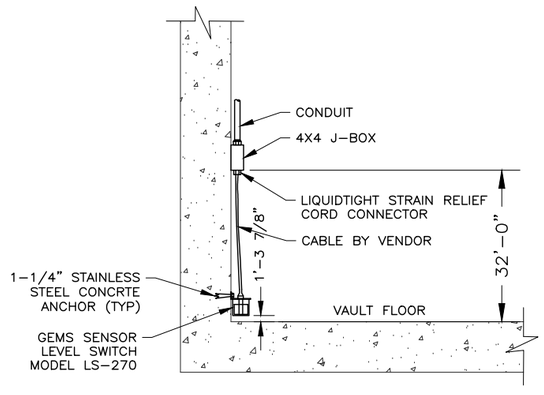
SIDE VIEW

CONDUIT PIPE CLAMPS*

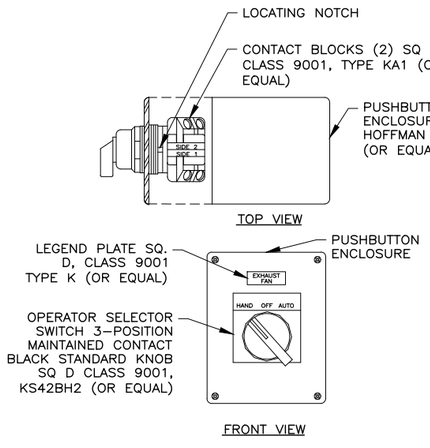
SIZE	EMT	RGS	EMT/RGS
1/2"	P1426	P1111	–
3/4"	P1427	P1112	P1212
1"	P1428	P1113	P1213
1-1/4"	P1429	P1114	P1214
1-1/2"	P1430	P1115	P1215
2"	P1431	P1117	P1217
2-1/2"	P1118	P1118	–
3"	P1119	P1119	–
3-1/2"	P1120	P1120	–
4"	P1121	P1121	–

* = SUPPLIED WITH SLOTTED HEAD SCREW AND NUT

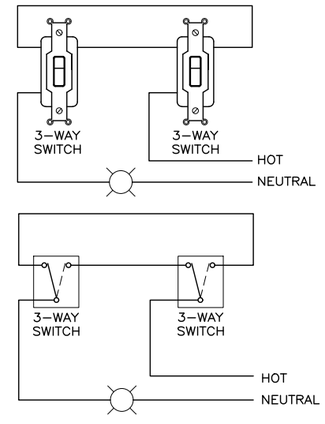
CONDUIT CLAMP DETAIL D
3" = 1'-0"



FLOOD SWITCH DETAIL E
1" = 1'-0"



SELECTOR SWITCH F
1' = 1'-0"



3-WAY SWITCH WIRING DIAGRAM G
1' = 1'-0"

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3				
2				
1				

SCALE

JORDAN VALLEY WATER CONSERVANCY DISTRICT

VAULT MODIFICATION PROJECT
ELECTRICAL
INSTALLATION DETAILS

SHEET E4.1
127.35.100

7/04