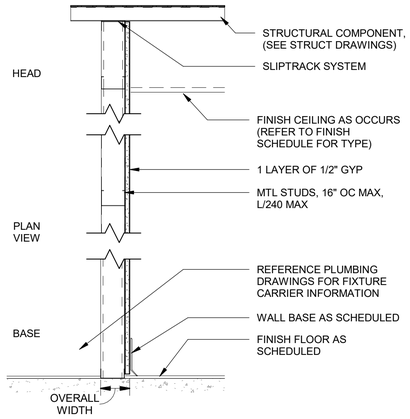
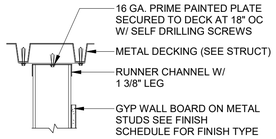


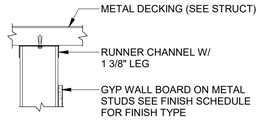
PARTITION TYPE D

MARK	OVERALL WIDTH	ASSEMBLY	UL LISTING	FIRE RATING
D	6 1/2"	1 LAYER 1/2" MOISTURE-RESISTANT GYPSUM WALL BOARD 6" METAL STUDS @ 16" OC	-	NR
DS	6 1/2"	1 LAYER 1/2" MOISTURE-RESISTANT GYPSUM WALL BOARD SEE STRUCT FOR CFMF	-	NR



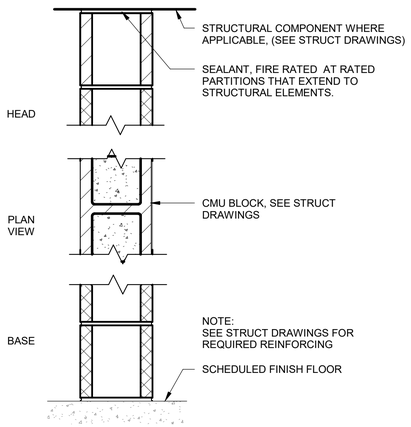
STUD WALL PARTITION PARALLEL TO DECK

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



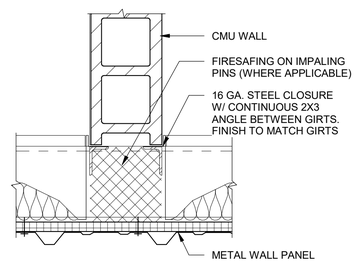
STUD WALL PARTITION PERPENDICULAR TO DECK

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



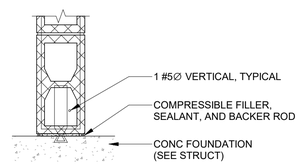
PARTITION TYPE H

MARK	OVERALL WIDTH	ASSEMBLY	UL LISTING	FIRE RATING
H	7 5/8"	7 5/8" CONCRETE MASONRY UNIT	-	NR
H1	7 5/8"	7 5/8" CONCRETE MASONRY UNIT	U905	1HR



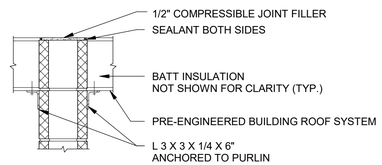
PLAN VIEW - CMU TO METAL PANEL

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



PARTITION AT CONC

SCALE: 1" = 1'-0"



PARTITION PERPENDICULAR TO STRUCTURE

SCALE: 1" = 1'-0"

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY:	AUTH. BY:
A	23-04-03 SW-1A: ISSUED FOR BID	JW	DB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

PARTITION TYPES

STATE OF UTAH
DAVID E. BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

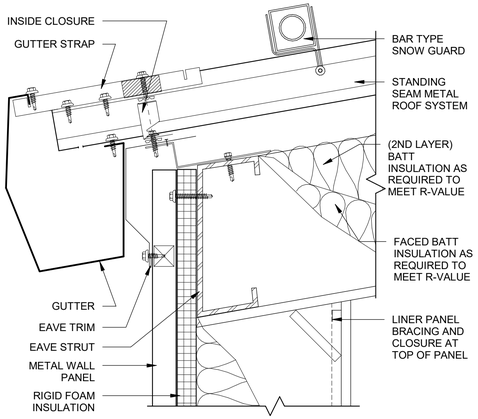
DRAWING No.
0104-A501

SHEET _____ OF _____

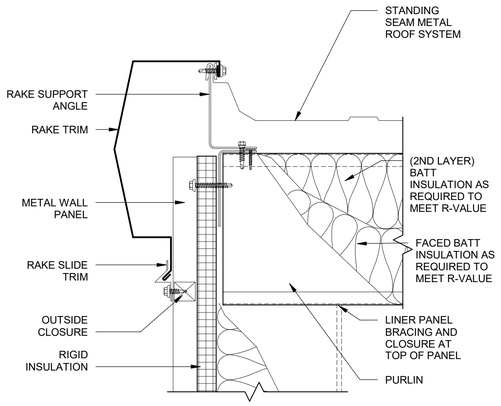
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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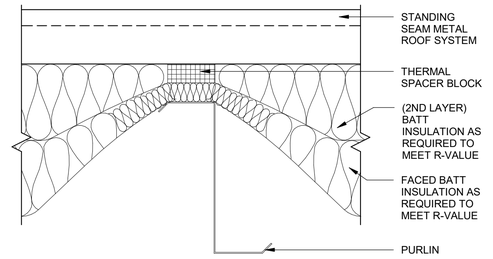
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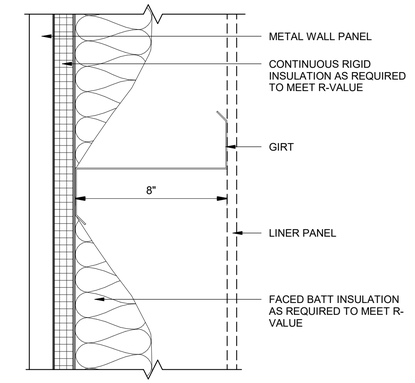
1 | GUTTER AT EAVE
0104-A301 | SCALE: 3" = 1'-0"



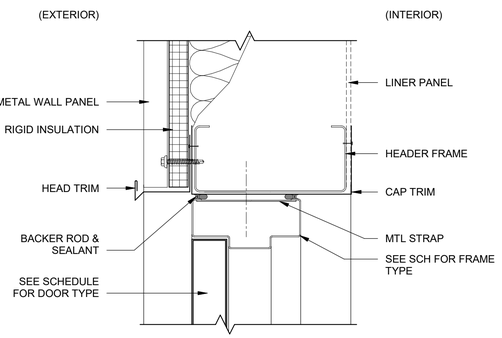
2 | RAKE DETAIL
0104-A301 | SCALE: 3" = 1'-0"



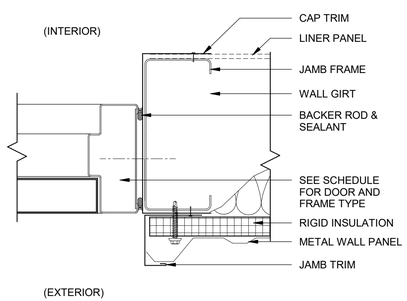
3 | ROOF THERMAL DESIGN
0104-A302 | SCALE: 3" = 1'-0"



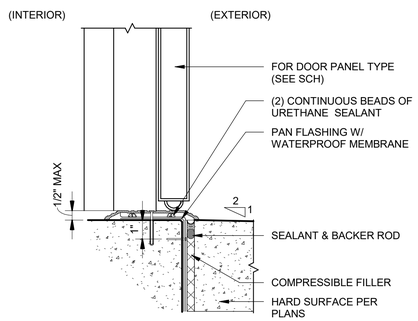
4 | WALL THERMAL DESIGN
0104-A301 | SCALE: 3" = 1'-0"



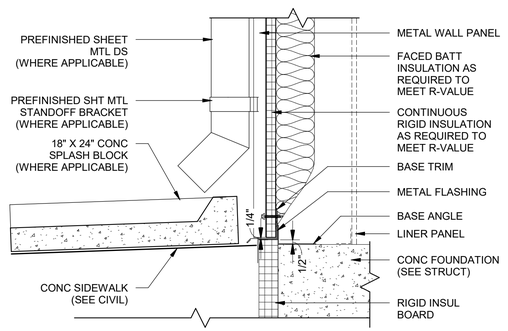
5 | DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



6 | DOOR JAMB DETAIL
SCALE: 3" = 1'-0"



7 | DOOR SILL @ EXTERIOR1
SCALE: 3" = 1'-0"



8 | DS @ CONC SPLASHBLOCK
0104-A301 | SCALE: 1 1/2" = 1'-0"

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

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LAST CONFORMED SET:

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WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

DETAILS

STATE OF UTAH
DAVID BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

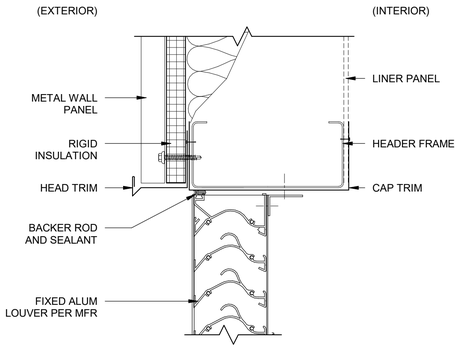
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SHEET _____ OF _____

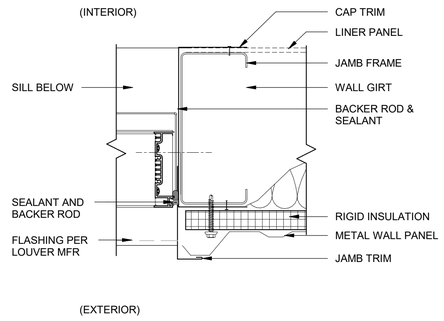
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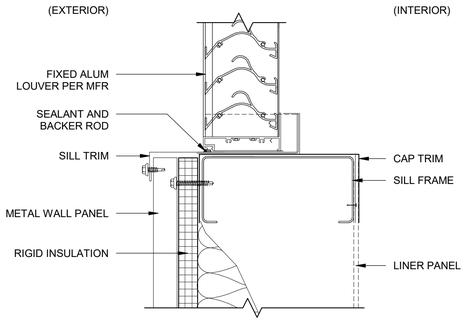
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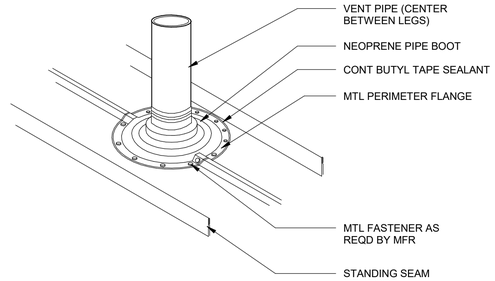
1 | LOUVER HEAD @ PEMB
SCALE: 3" = 1'-0"



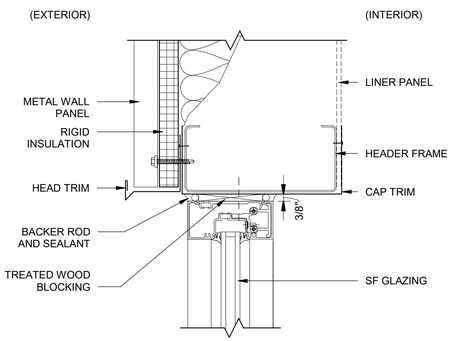
2 | LOUVER JAMB @ PEMB
SCALE: 3" = 1'-0"



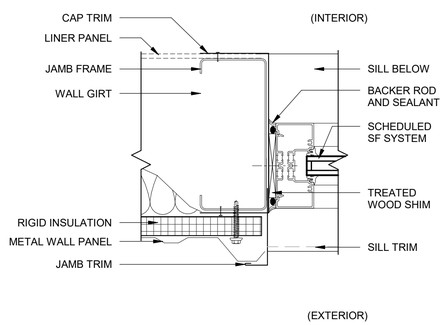
3 | LOUVER SILL @ PEMB
SCALE: 3" = 1'-0"



4 | MTL ROOF VENT FLASHING
SCALE: 1 1/2" = 1'-0"



5 | SF HEAD @ PEMB
SCALE: 3" = 1'-0"



6 | SF JAMB @ PEMB
SCALE: 3" = 1'-0"

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

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IPS ELECTRICAL BUILDING

DETAILS

STATE OF UTAH
DAVID BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

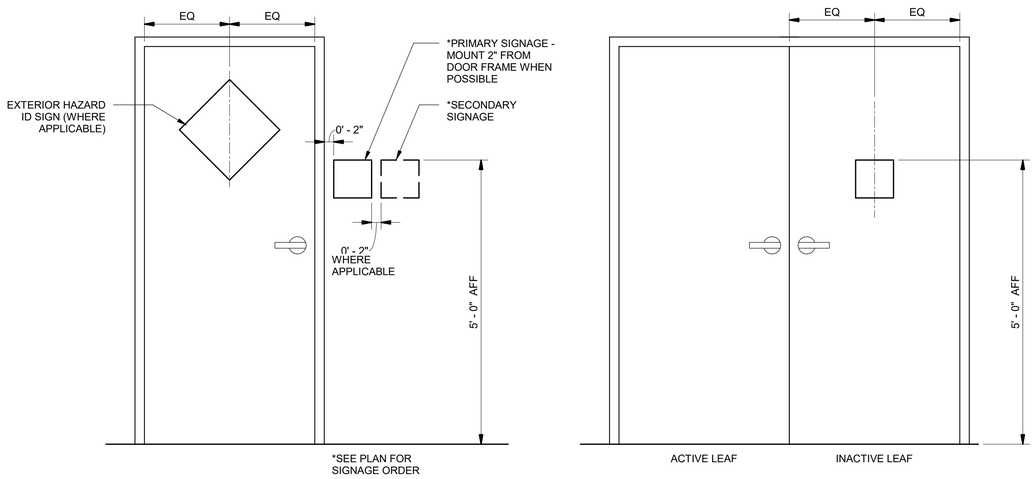
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SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

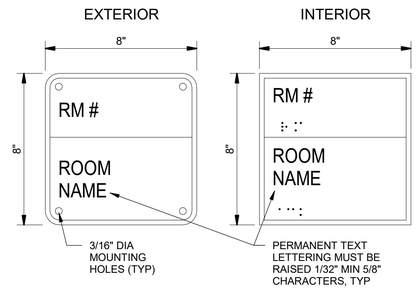
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1 | SIGNAGE MOUNTING DIAGRAM1

SCALE: 3/4" = 1'-0"



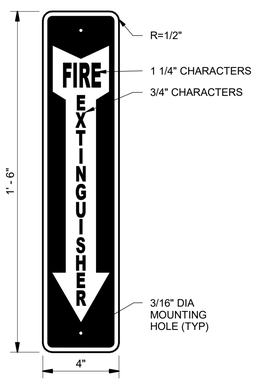
3 | ROOM NAME SIGNS

SCALE: 3" = 1'-0"



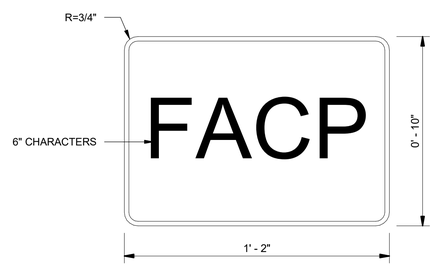
4 | RESTROOM SIGN

SCALE: 3" = 1'-0"



5 | FIRE EXTINGUISHER SIGN

SCALE: 3" = 1'-0"



EXTERIOR - FIRE ALARM
6 | CONTROL PANEL SIGN

SCALE: 3" = 1'-0"

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

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WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

DETAILS

STATE OF UTAH
DAVID E. BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

DRAWING No.
0104-A504

SHEET _____ OF _____

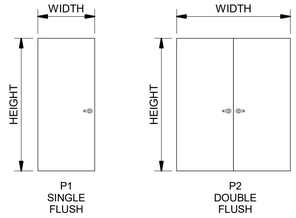
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DOOR SCHEDULE

MARK	ROOM	DOOR					FRAME			FIRE RATING	DETAIL			HARDWARE SET	ACCESS CONTROL	COMMENTS
		DOOR TYPE	WIDTH	HEIGHT	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH		HEAD DETAIL	JAMB DETAIL	SILL DETAIL			
10 MAIN LEVEL																
101A	MEDIUM VOLTAGE ELEC RM	P1	3' - 0"	7' - 0"	HM	PT	F1	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	10	•	
101B	MEDIUM VOLTAGE ELEC RM	P2	6' - 0"	7' - 0"	HM	PT	F4	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	11	•	
101C	MEDIUM VOLTAGE ELEC RM	P1	3' - 0"	7' - 0"	HM	PT	F1	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	10	•	
101D	MEDIUM VOLTAGE ELEC RM	P1	3' - 0"	7' - 0"	HM	PT	F1	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	10	•	
102A	LOW VOLTAGE ELEC RM	P2	6' - 0"	7' - 0"	HM	PT	F4	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	11	•	
102B	LOW VOLTAGE ELEC RM	P1	3' - 0"	7' - 0"	HM	PT	F1	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	10	•	
103	COMM ROOM	P2	6' - 0"	7' - 0"	HM	PT	F4	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	11	•	
104	RESTROOM	P1	3' - 0"	7' - 0"	HM	PT	F1	HM	PT	-	5 / 0104-A502	6 / 0104-A502	7 / 0104-A502	10	•	

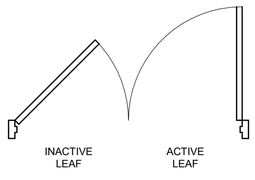


P1
SINGLE
FLUSH

P2
DOUBLE
FLUSH

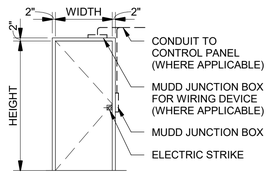
DOOR TYPES

SCALE: 1/4" = 1'-0"

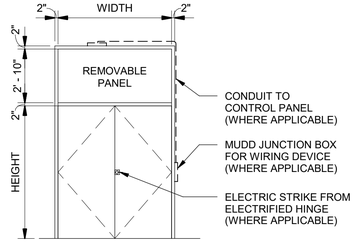


DOOR LEAF TYPE

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



F1
SINGLE FRAME



F4
DOUBLE W/ TRANSOM PANEL
FRAME

FRAME TYPES

SCALE: 1/4" = 1'-0"

1. DOOR AND FRAME ASSEMBLIES SHALL COMPLY WITH REQUIREMENTS INDICATED IN THE DOOR AND FRAME SCHEDULE, GENERAL NOTES, AND DETAILS REFERENCED FROM DOOR AND FRAME DIAGRAMS, UNO.
2. THE "MARK" REFERS TO THE DOOR TAG FOR EACH DOOR OPENING AS INDICATED ON THE FLOOR PLANS.
3. THE "ROOM", WHERE INDICATED, REFERS TO THE LOCATION OF THE DOOR INDICATED ON THE FLOOR PLANS.
4. THE "DOOR TYPE" REFERS TO THE DOOR PANEL ASSEMBLY INDICATED BY THE "DOOR TYPES" DIAGRAM.
5. THE "DOOR TYPE", "DOOR FINISH" AND "DOOR MATERIAL" INDICATE REQUIREMENTS FOR THE DOOR PANEL ASSEMBLY(IES).
6. THE "DOOR PANEL WIDTH" INDICATES THE NOMINAL WIDTH OF EACH DOOR PANEL IN THE ASSEMBLY DOOR THICKNESSES SHALL BE 1-3/4", UNO.
7. THE DOOR "HEIGHT" INDICATES THE NOMINAL HEIGHT OF THE DOOR PANEL(S) IN THE ASSEMBLY.
8. THE "FRAME TYPES" REFERS TO THE FRAME ASSEMBLY INDICATED BY THE "FRAME TYPES" DIAGRAM. THE SCHEDULE REFERENCES HEAD - JAMB - SILL DETAILS RELATED TO THE ASSEMBLY, UNO.
9. THE "FRAME TYPES", AND "FRAME FINISH" INDICATE REQUIREMENTS FOR TO THE FRAME ASSEMBLY, AS SHOWN IN THE CORRESPONDING LEGENDS. REFER TO THE DOOR TYPE DIAGRAM FOR LOCATION OF GLASS TYPES.
10. THE "GLAZING TYPE" INDICATES THE GLAZING PANEL ASSEMBLY.
11. THE "HARDWARE SET NO" INDICATES THE HARDWARE GROUP APPLICABLE TO THE DOOR-FRAME ASSEMBLY.
12. THE "ACCESS CONTROLS" (WHEN MARKED) INDICATES THE DOOR-FRAME ASSEMBLY(IES) THAT REQUIRE ACCESS CONTROLS.

DOOR TYPE LEGEND

P1	SINGLE FLUSH PANEL DOOR
P2	DOUBLE FLUSH PANEL DOOR

DOOR MATERIAL LEGEND

HM	HOLLOW METAL ASSEMBLY
FRP	FIBERGLASS REINFORCED PLASTIC

FIRE RATING LEGEND

--	NO RATING
45	45 MIN RATED DOOR AND FRAME ASSEMBLY
60	60 MIN RATED DOOR AND FRAME ASSEMBLY

FINISH TYPE LEGEND

N/A	NOT APPLICABLE
PTD	PAINTED FINISH

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
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84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524605386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
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LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

DOOR SCHEDULES

STATE OF UTAH
DAVID E. BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

DRAWING No.
0104-A601

SHEET _____ OF _____

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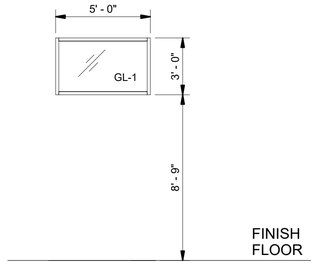
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MATERIAL & FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH				CEILING FINISH	EXPOSURE	COMMENTS
				N	S	E	W			
10 MAIN LEVEL										
101	MEDIUM VOLTAGE ELEC RM	CONC S-3	-	-	-	-	-	-		
102	LOW VOLTAGE ELEC RM	CONC S-3	-	-	-	-	-	-		
103	COMM ROOM	CONC S-3	-	-	-	-	-	-		
104	RESTROOM	CONC S-3	CT	CT	-	CT	CT	ACT		

STOREFRONT SCHEDULE

MARK	WINDOW TYPE	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	COMMENTS
10 MAIN LEVEL					
W1	WINDOW TYPE A	5 / 0104-A503	6 / 0104-A503	7 / 0104-A503	

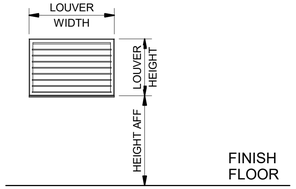


WINDOW TYPE A

SCALE: 1/4" = 1'-0"

LOUVER SCHEDULE

MARK	LOUVER WIDTH	LOUVER HEIGHT	*HEIGHT AFF	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	COMMENTS
10 MAIN LEVEL							
L1	8' - 0"	4' - 0"	7' - 0"	1 / 0104-A503	2 / 0104-A503	3 / 0104-A503	



LOUVER TYPES

SCALE: 1/4" = 1'-0"

-	UNFINISHED/OPEN TO STRUCTURE
CONC	CONCRETE, SEE SECTION 03 35 00 FOR FINISH DESIGNATIONS
CT	CERAMIC TILE
N/A	NOT APPLICABLE

SF PANEL TYPE LEGEND

GL-1	INSULATED SAFETY GLAZING

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	JW	DB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MISCELLANEOUS SCHEDULES

DAVID BLOOD
No. 11383041-0301
LICENSED ARCHITECT
STATE OF UTAH
04-03-2023

DRAWING No.
0104-A602

SHEET _____ OF _____

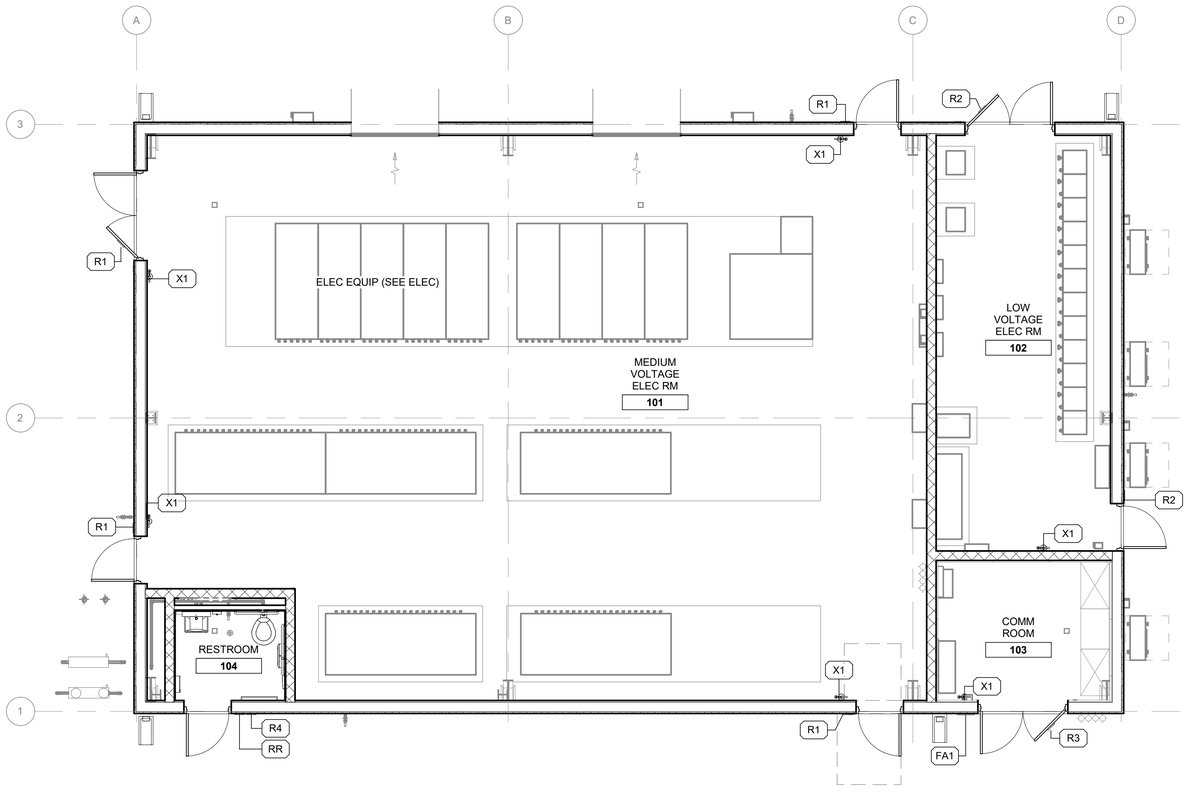
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DATE: 3/29/2023 12:16:27 PM

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MAIN LEVEL SIGNAGE SCHEDULE

MARK	TYPE	DETAILS			PLACEMENT (1 / 0104-A504)	
		DETAIL NUMBER	SIGN ROOM #	SIGN ROOM NAME	PRIMARY SIGNAGE	SECONDARY SIGNAGE
FA1	FIRE ALARM CONTROL PANEL SIGN	6 / 0104-A504	-	-		
R1	ROOM SIGN	3 / 0104-A504	101	MEDIUM VOLTAGE ELECTRICAL ROOM	●	
R2	ROOM SIGN	3 / 0104-A504	102	LOW VOLTAGE ELECTRICAL ROOM	●	
R3	ROOM SIGN	3 / 0104-A504	103	COMM ROOM	●	
R4	ROOM SIGN	3 / 0104-A504	104	RESTROOM		●
RR	RESTROOM SIGN	4 / 0104-A504	-	-	●	
X1	FIRE EXTINGUISHER SIGN	5 / 0104-A504	-	-		



N

MAIN LEVEL SIGNAGE PLAN

SCALE: 3/16" = 1'-0"

DATE: 3/29/2023 12:16:29 PM

FILE: BIM 360/766272288-Salt Lake City 2019\524365350_0104-A001.rvt

SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524365386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	JW	DB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

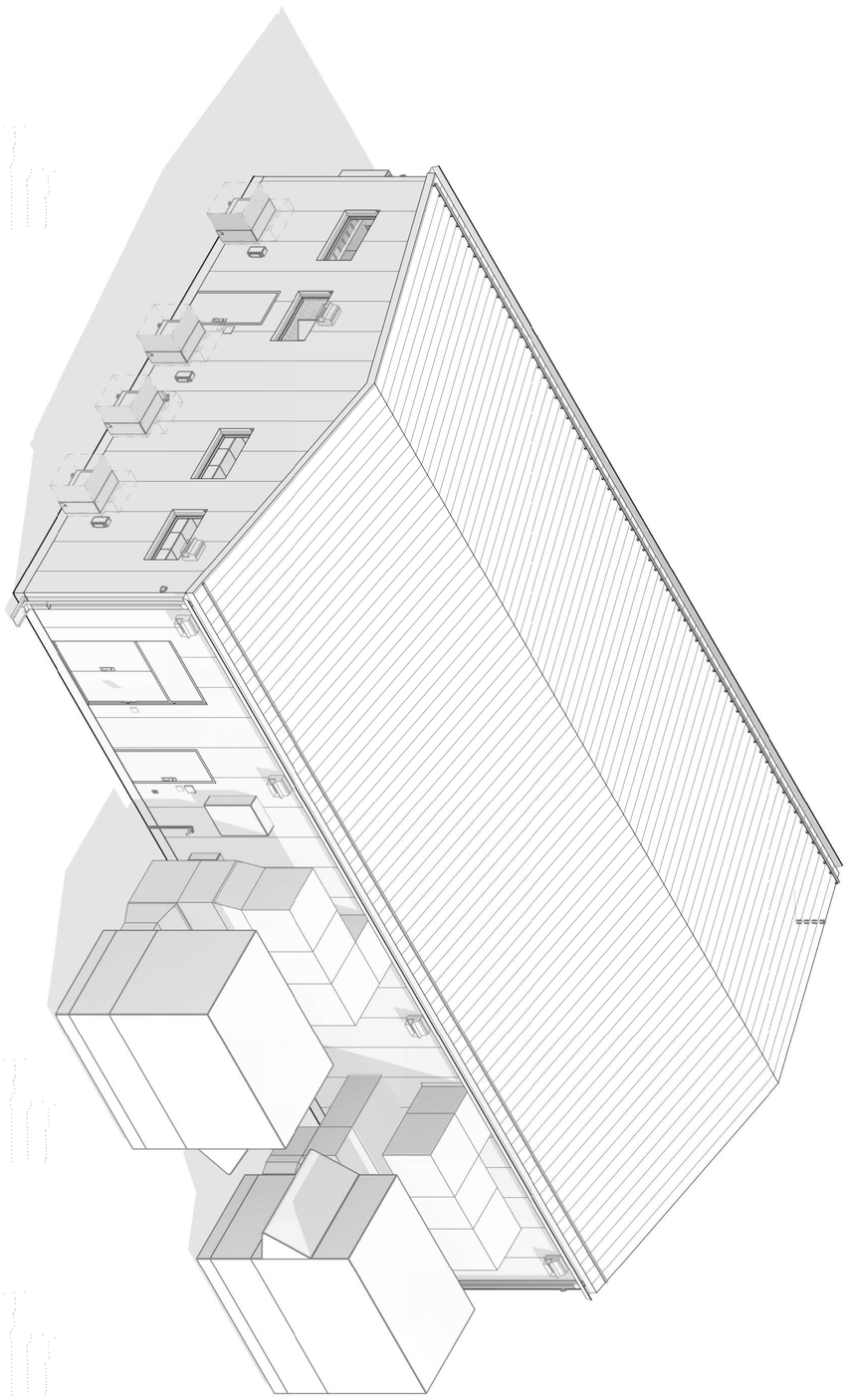
SIGNAGE PLAN AND SCHEDULE

STATE OF UTAH
DAVID E. BLOOD
No. 11383041-0301
LICENSED ARCHITECT
04-03-2023

DRAWING No.
0104-A603

SHEET _____ OF _____

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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

3D ISOMETRIC

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	JW	DB

LAST CONFORMED SET:

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

SCALE:

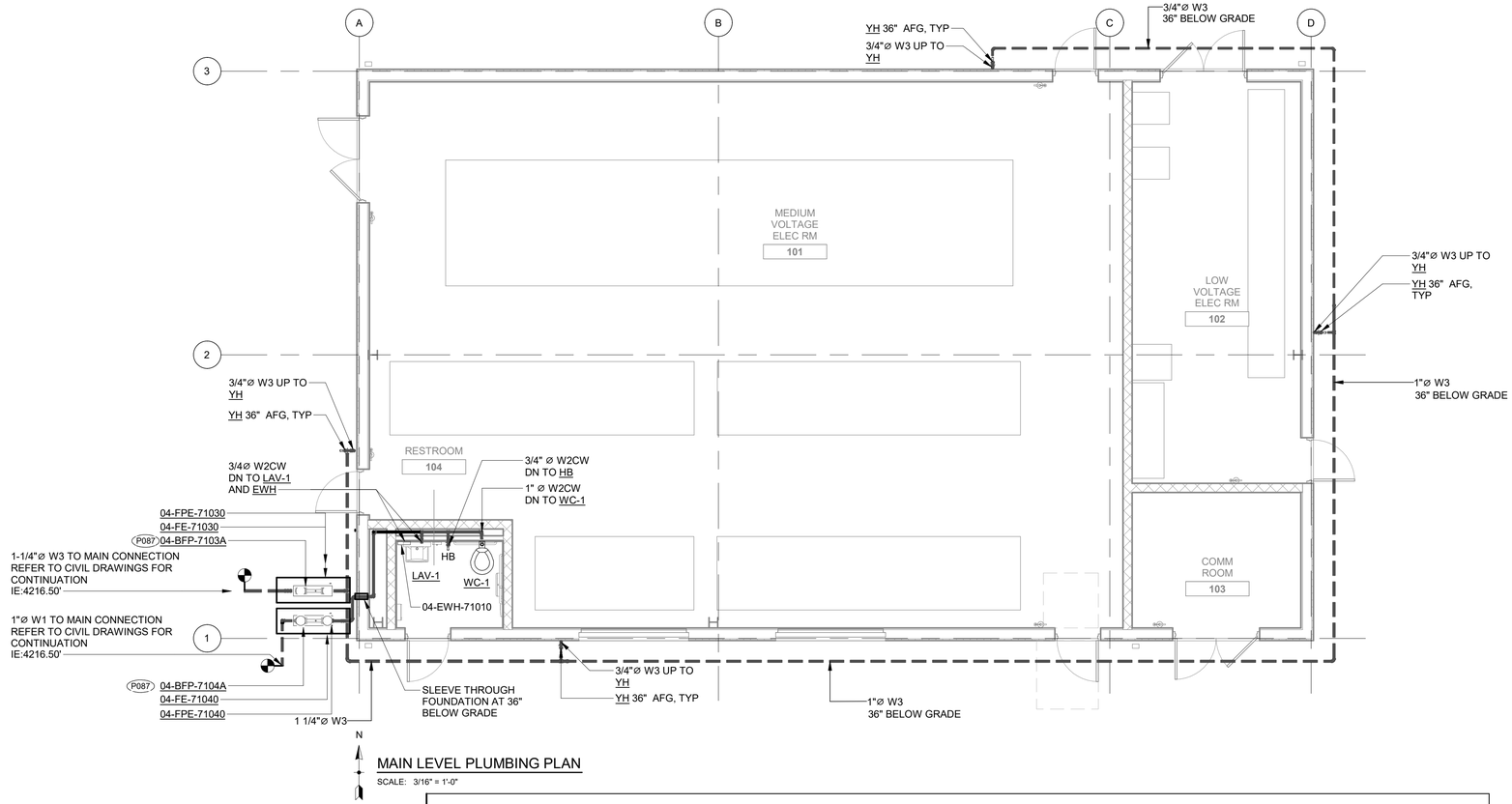
PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

SHEET ____ OF ____
DRAWING No. 0104-A901

04-03-2023
STATE OF UTAH
DAVID E. BLOOD
No. 11283041-5301
REGISTERED PROFESSIONAL ENGINEER

SALT LAKE CITY

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



MAIN LEVEL PLUMBING PLAN

SCALE: 3/16" = 1'-0"

1. REFER TO 1000-X600-SERIES DRAWING SHEETS FOR PLUMBING PROCESS FLOW DIAGRAMS AND P&IDs, WHICH INDICATE ADDITIONAL VALVES, PIPE SIZES, TIE-IN POINTS TO PROCESS PIPING, AND INFORMATION NOT SHOWN ON THESE PLANS.

PLUMBING SPECIALTIES SCHEDULE

UNIT DATA			BASIS OF DESIGN		SCHEDULE NOTES
TAG	FUNCTION	DESCRIPTION	MANUFACTURER	MODEL	
01-BFP-7103A	BACKFLOW PREVENTOR	1" DOUBLE CHECK VALVE ASSEMBLY. SINGLE HOUSING, SLEEVE ACCESS PORT,FOUR TEST COCKS AND TWO DRIP TIGHT SHUT-OFF VALVES. REMOVABLE AND SERVICABLE TRI-LINK CHECKS. CONSTRUCTED OF 304 SCHEDULE 40 STAINLESS STEEL PIPE WITH GROOVE END CONNECTIONS. TRI-LINK CHECKS SHALL HAVE REVERSIBLE ELASTOMER DISCS AND IN OPERATION SHALL PRODUCE DRIP TIGHT CLOSURE AGAINST REVERSE FLOW CAUSED BY BACKPRESSURE OR BACKSIPHONAGE.	WATTS	75OSY	
01-FPE-71030	FREEZE PROOF ENCLOSURE	ALUMINUM ENCLOSURE WITH TWO ACCESS PANELS, MINIMUM INSULATION 1-1/2" THICK (R-9) POLYISOCYANURATE FOAM LAMINATED TO A GLASS FIBER REINFORCED FACER (EACH SIDE), NON-WICKING. PROVIDE WITH DRAIN PANEL HINGE AND SPRING.	SAFE-T-COVER	400-AL	
01-BFP-71040	BACKFLOW PREVENTOR	1-1/4" DOUBLE CHECK VALVE ASSEMBLY. SINGLE HOUSING, SLEEVE ACCESS PORT,FOUR TEST COCKS AND TWO DRIP TIGHT SHUT-OFF VALVES. REMOVABLE AND SERVICABLE TRI-LINK CHECKS. CONSTRUCTED OF 304 SCHEDULE 40 STAINLESS STEEL PIPE WITH GROOVE END CONNECTIONS. TRI-LINK CHECKS SHALL HAVE REVERSIBLE ELASTOMER DISCS AND IN OPERATION SHALL PRODUCE DRIP TIGHT CLOSURE AGAINST REVERSE FLOW CAUSED BY BACKPRESSURE OR BACKSIPHONAGE.	WATTS	75OSY	
01-FPE-7104A	FREEZE PROOF ENCLOSURE	ALUMINUM ENCLOSURE WITH TWO ACCESS PANELS, MINIMUM INSULATION 1-1/2" THICK (R-9) POLYISOCYANURATE FOAM LAMINATED TO A GLASS FIBER REINFORCED FACER (EACH SIDE), NON-WICKING. PROVIDE WITH DRAIN PANEL HINGE AND SPRING.	SAFE-T-COVER	400-AL	
HB	HOSE BIBB	HOSE BIB (INTERIOR) ANTI-SIPHON. VACUUM BREAKER, MALE HOSE THREAD, WHEEL HANDLE.	WOODFORD	24P	
YH	YARD HYDRANT	FREEZELESS, 3/4" THREADED FEMALE INLET, LEVER HANDLE, 3/4" HOSE CONNECTION, 1/8" DRAIN HOLE, 4-FT BURY DEPTH	WOODFORD	U75M	
01-FE-71030	YARD HYDRANT	WATER METER/FLOW METER. SIEMENS MODEL SITRANS F M. MICROPROCESSOR BASED TRANSMITTER WITH BUILD-IN ALPHA NUMERIC DISPLAY.	SIEMENS		
01-FE-71040	YARD HYDRANT	WATER METER/FLOW METER. SIEMENS MODEL SITRANS F M. MICROPROCESSOR BASED TRANSMITTER WITH BUILD-IN ALPHA NUMERIC DISPLAY.	SIEMENS		

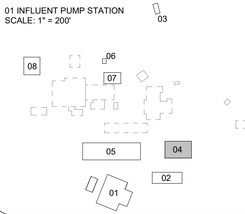
PLUMBING-ELECTRIC WATER HEATER SCHEDULE (TANKLESS)

MARK	DESCRIPTION	MANUFACTURER	MODEL	ROOM NAME & ROOM NUMBER	COLD WATER INLET (INCH)	TEPID WATER OUTLET (INCH)	V/HZ	kW	NOTES
04-EWH-71010	ELECTRIC TANKLESS WATER HEATER	EEMAX	EEM12004	SEE PLANS	1/2"	1/2"	120/60	3.5kW (30A, Double Pole)	1

NOTES:
1. REFERENCE MANUFACTURER INSTALLATION MANUAL PRIOR TO CONSTRUCTION.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	R. MEADOR
DRAWN BY:	C. IMPARATO
CHECKED BY:	G. DAVIES
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MAIN LEVEL PLUMBING PLAN





04-03-2023

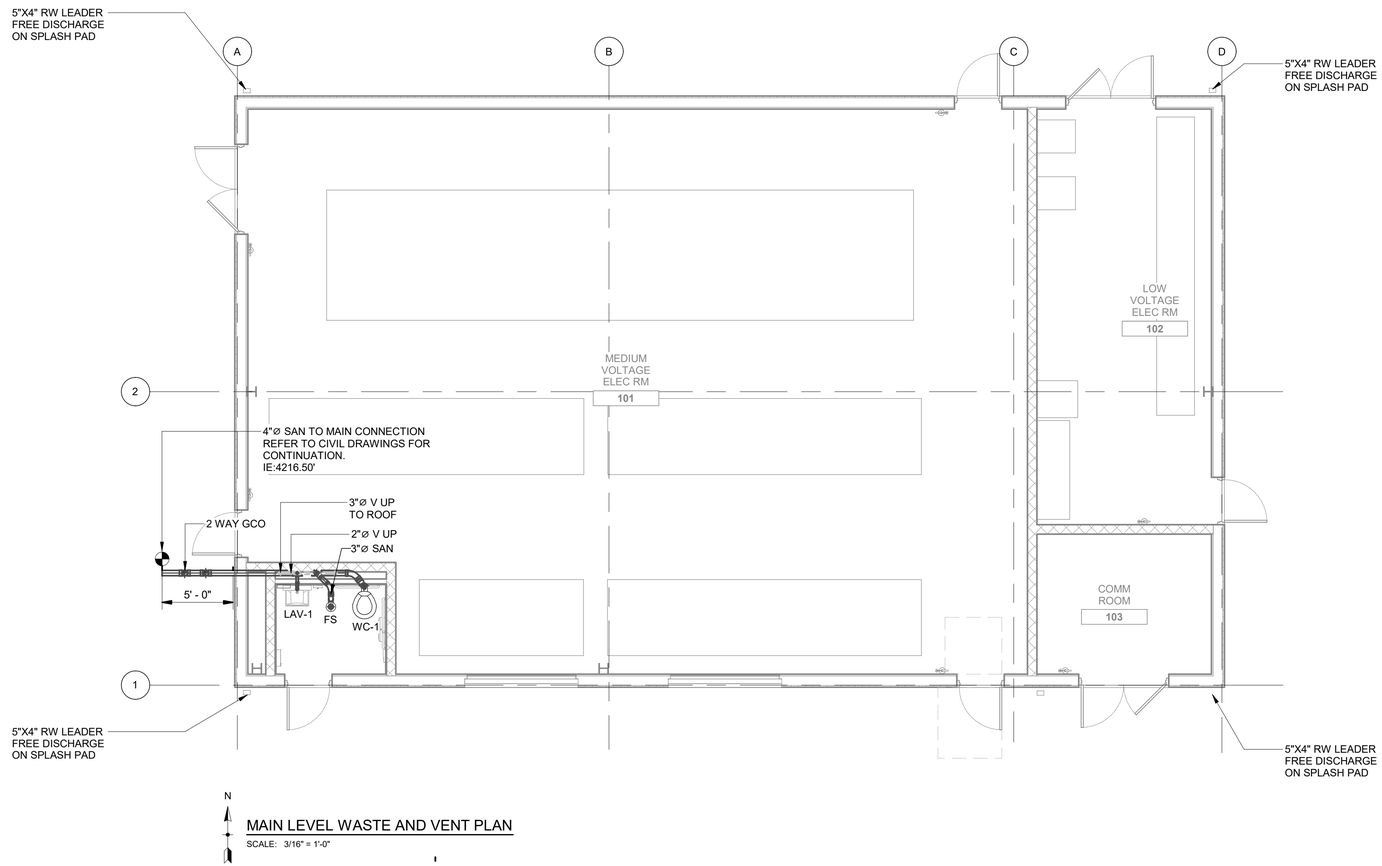
DRAWING No.
0104-P101

SHEET _____ OF _____

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MAIN LEVEL WASTE AND VENT PLAN

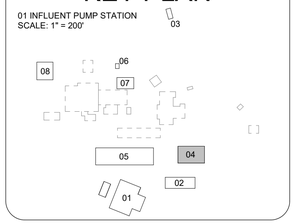
SCALE: 3/16" = 1'-0"

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	CONNECTION SIZES (IN) SAN	V	W2HW	W2CW
YH	YARD HYDRANT. BASIS: WOODFORD MODEL U75M, 3/4" INLET, 3/4" HOSE CONNECTION, 1/8" DRAIN HOLE BELOW FROST DEPTH.	-	-	-	3/4"
LAV-1	LAVATORY. BASIS: ZURN MODEL Z5310, 20" VITREOUS CHINA, WALL HUNG LAVATORY WITH REAR OVERFLOW AND SINGLE FAUCET DRILLING. PROVIDE CHROME PLATED TRAP WITH CLEANOUT, SUPPLIES, TRAP AND STOP COVERS. FAUCET BASIS: SLOAN MODEL EFB-615 BATTERY POWERED FAUCET, 0.35 GPM AERATOR.	1 1/2"	1 1/2"	1/2"	1/2"
WC-1	WATER CLOSET BASIS: AMERICAN STANDARD MODEL 3351.101, VITREOUS CHINA, WITH AMERICAN STANDARD SELECTRONIC 6065.111 1.1 GPF INFRARED SENSOR FLUSH VALVE, 1 1/2" TOP SPUD, BATTERY POWERED. WALL MOUNTED ELONGATED BOWL, CHURCH 95CT PLASTIC, OPEN FRONT, ELONGATED SEAT. PROVIDE WITH WALL CARRIER. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.	4"	2"	-	1"
FS	SANITARY FLOOR SINK JOSAM 49520A-NB ROUND CAST IRON 6" DEEP FLOOR SINK, ACID-RESISTING INTERIOR, BOTTOM OUTLET, NICKLE-ALLOY TOP, ALUMINUM DOME STRAINER. AIS COMPLAINT.	3"	2"	-	-
GCO	GRADE CLEAN-OUT BASIS: JOSAM 55000, DURA-COATED CAST-IRON BODY, ADJUSTABLE WITH ROUND HEAVY DUTY TOP AND CLEAN-OUT PLUG.	3"	-	-	-

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R. MEADOR
DRAWN BY: C. IMPARATO
CHECKED BY: G. DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET: SW-1: ISSUED FOR CONSTRUCTION

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MAIN LEVEL WASTE AND VENT PLAN

PROFESSIONAL ENGINEER
No. 10845604
RYAN E. MEADE
STATE OF UTAH
04-03-2023

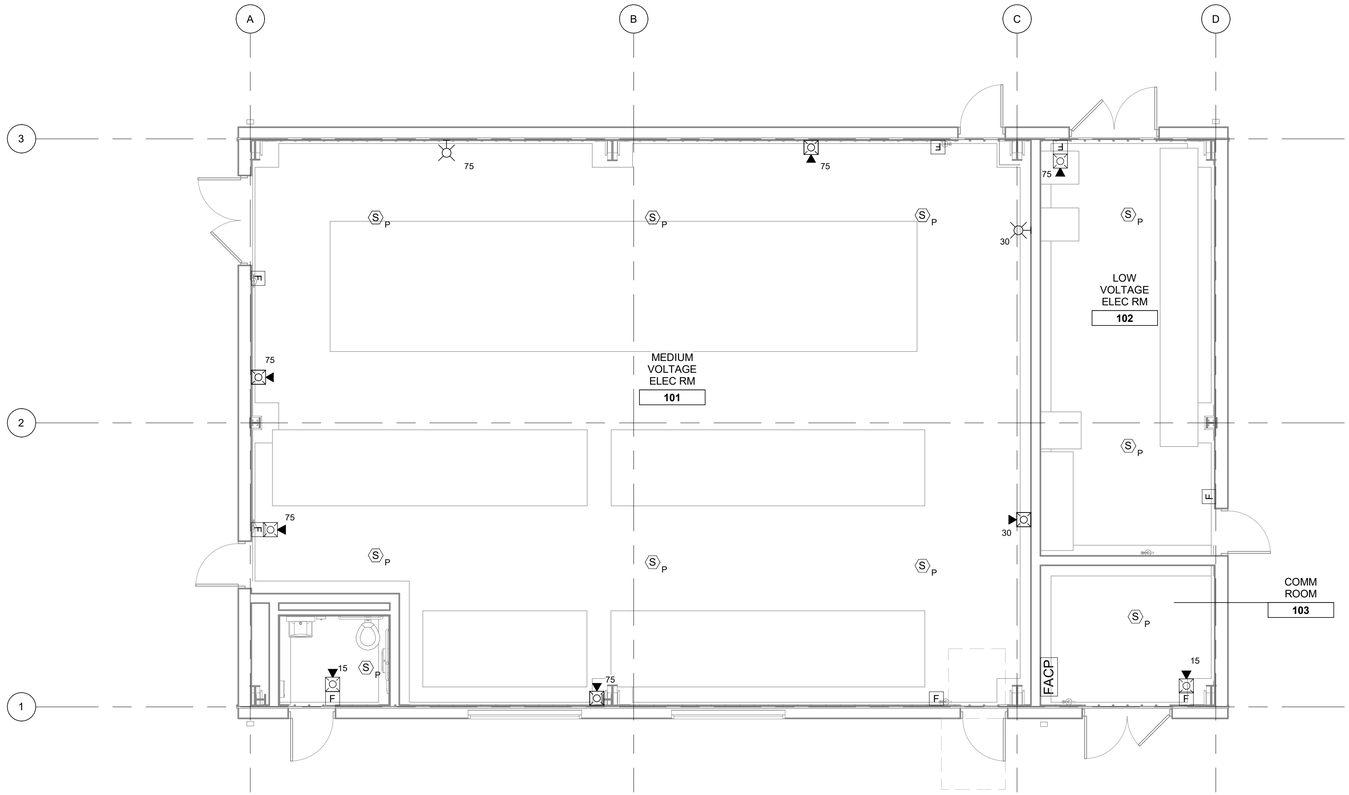
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SHEET _____ OF _____

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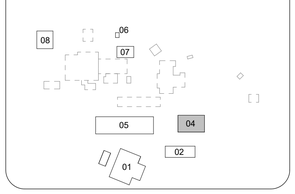


FIRE ALARM PLAN

SCALE: 3/16" = 1'-0"

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M. LANE
DRAWN BY: D. RUTHERFORD
CHECKED BY: J. HEIM
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905086

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	DR	ML

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

FIRE ALARM PLAN

PROFESSIONAL ENGINEER
No. 11499201
JONATHAN
CARTER HEIM
STATE OF UTAH
4/3/23

DRAWING No.
0104-F111

SHEET ____ OF -

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 3:09:09 PM

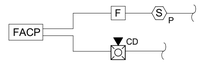
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FIRE ALARM SEQUENCE OF OPERATIONS MATRIX

	ALARM SIGNAL TO FACP	SUPERVISORY SIGNAL TO FACP	TROUBLE SIGNAL TO FACP	AUDIBLE AND VISUAL SIGNAL ACTIVATION	TRANSMIT ALARM SIGNAL TO O&M BUILDING CONTROL ROOM	TRANSMIT SUPERVISORY SIGNAL TO O&M BUILDING CONTROL ROOM	TRANSMIT TROUBLE SIGNAL TO O&M BUILDING CONTROL ROOM
MANUAL FIRE ALARM PULL STATION	X			X	X		
AREA SMOKE DETECTOR	X			X	X		
FIRE ALARM CONTROL PANEL LOW BATTERY			X				X
GROUND FAULT			X				X
OPEN CIRCUIT			X				X
NOTIFICATION APPLIANCE SHORT CIRCUIT			X				X
BREAK IN STANDBY BATTERY CIRCUITRY			X				X
FAILURE OF BATTERY CHARGING			X				X
LOSS OF PRIMARY POWER AT FACP			X				X

FIRE ALARM MATRIX

NTS



MAIN LEVEL

FIRE ALARM RISER DIAGRAM

NTS

DATE: 3/29/2023 3:09:09 PM

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A	23-04-03	SW-1A: ISSUED FOR BID	DR	ML

LAST CONFORMED SET:

DESIGNED BY: M. LANE
DRAWN BY: D. RUTHERFORD
CHECKED BY: J. HEIM
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

SCALE: N.T.S.

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

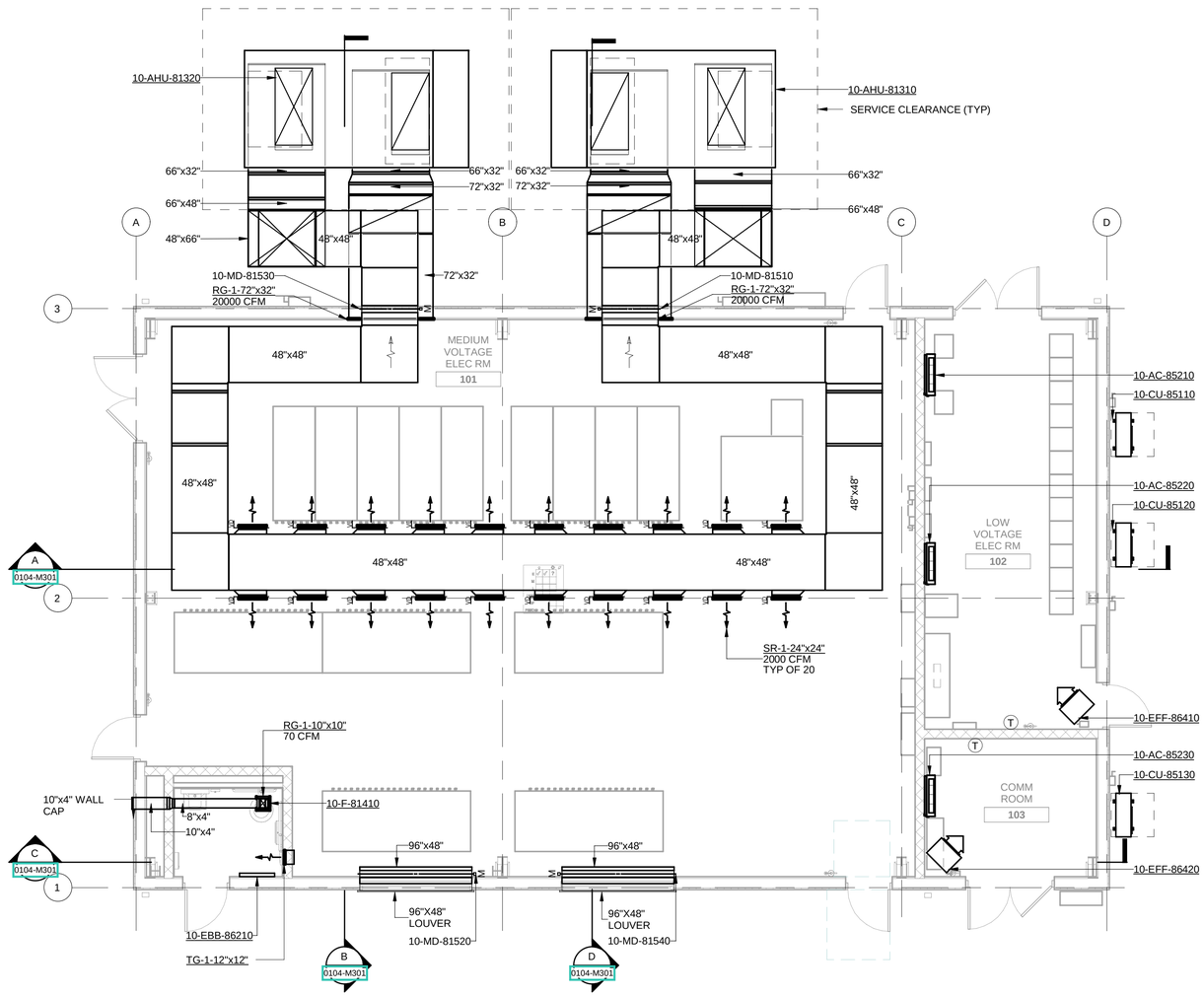
FIRE ALARM DETAILS

PROFESSIONAL ENGINEER
No. 11499201
JONATHAN CARTER HEIM
STATE OF UTAH
4/3/23

DRAWING No.
0104-F611

SHEET _____ OF -

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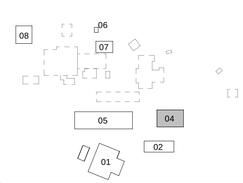
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MAIN LEVEL VENTILATION PLAN

SCALE: 3/16" = 1'-0"

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MAIN LEVEL VENTILATION PLAN

PROFESSIONAL ENGINEER
No. 10846606
RYAN E. MEAD
STATE OF UTAH
04-03-2023

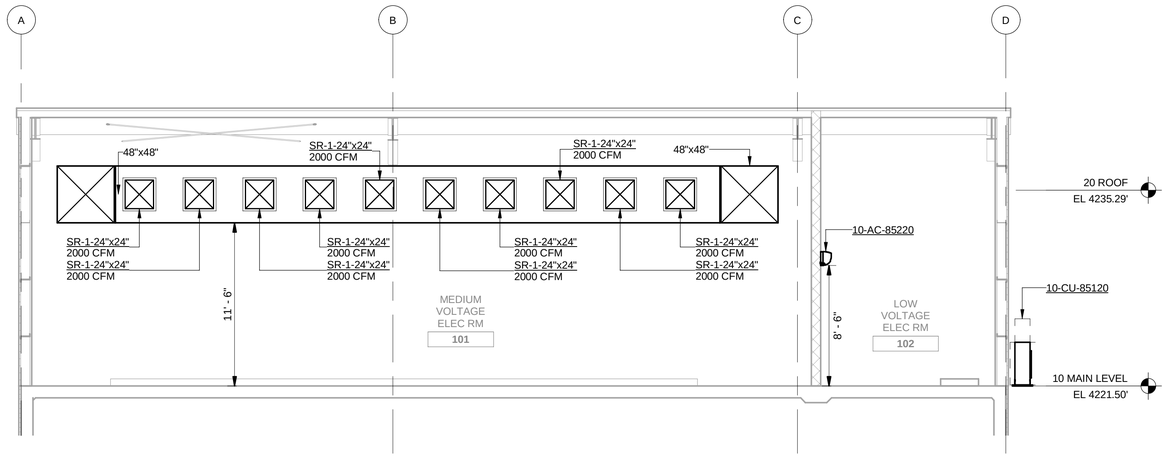
DRAWING No.
0104-M101

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

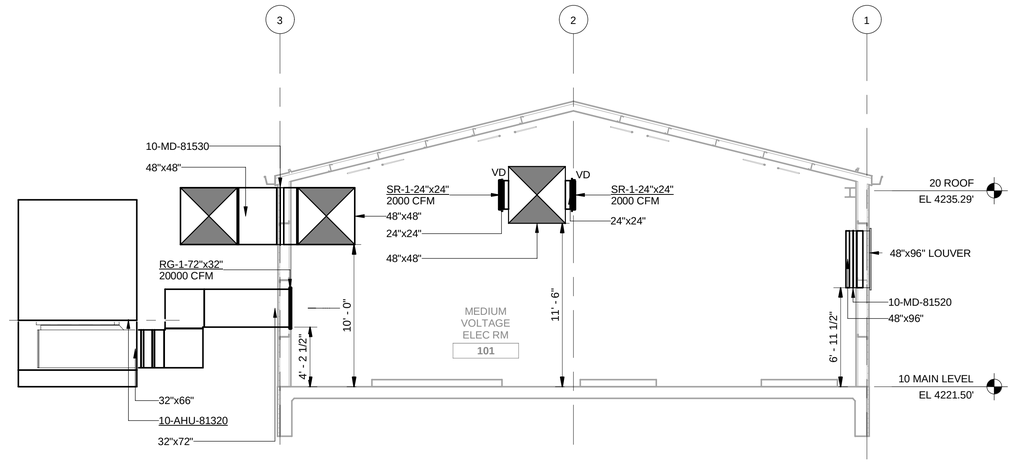
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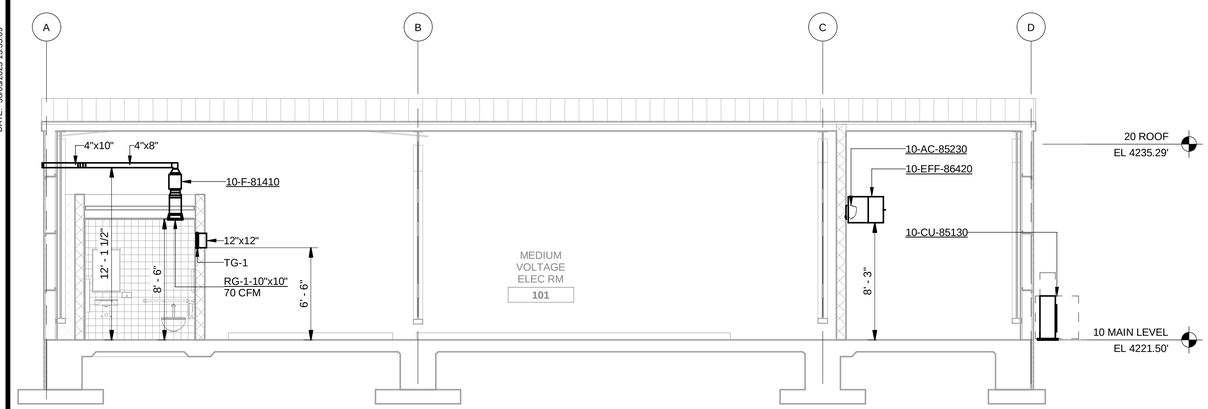
A | SECTION

0104-M101 | SCALE: 3/16" = 1'-0"



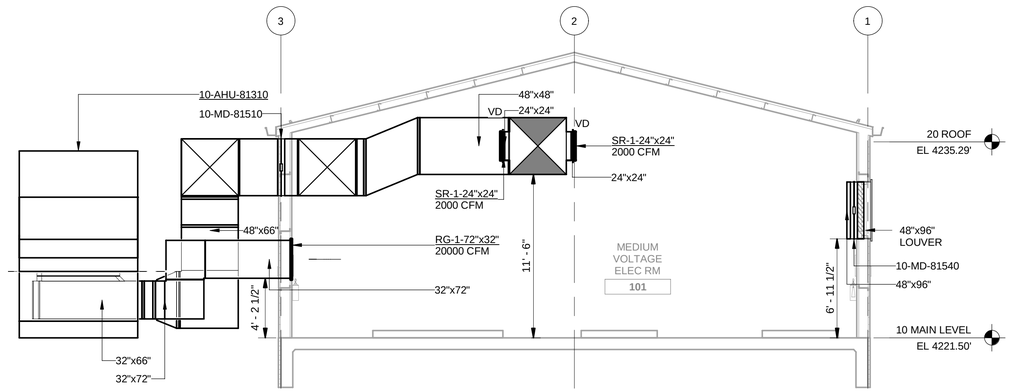
B | SECTION

0104-M101 | SCALE: 3/16" = 1'-0"



C | SECTION

0104-M101 | SCALE: 3/16" = 1'-0"



D | SECTION

0104-M101 | SCALE: 3/16" = 1'-0"

SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	BW

ISSUED FOR BID
LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

HVAC SECTIONS

SALT LAKE CITY



DRAWING No.
0104-M301

SHEET _____ OF _____

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DATE: 30/03/2023 13:33:09

FILE: BIM 360://9057228-Salt Lake City 2019/5249/5350_0104-M001.rvt

AIR HANDLING UNIT SCHEDULE (DX / ELECTRIC) (PART 1 OF 2)

UNIT DATA			BASIS OF DESIGN		PERFORMANCE DATA			SUPPLY FAN DATA											DX COOLING COIL DATA						
TAG	LOCATION	FUNCTION	MANUFACTURER	MODEL	AMBIENT (°F)	EER	IEER	TOTAL AIRFLOW (CFM)	MIN OA (CFM)	ESP (IN WG)	TSP (IN WG)	FAN TYPE	# OF FANS	HP (EACH)	BHP (EACH)	VOLTS	PHASE	VFD	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	ROWS
10-AHU-81310	GRADE	ELEC ROOM 101	AAON	RNA-060-D-3-3-CABJA-A02B0	95.0	10.7	17.1	20,000	3	2.25	3.72	DIRECT	2	10.00	9.52	460	3	Yes	533.7	533.7	81.9	57.7	49.2	45.0	4
10-AHU-81320	GRADE	ELEC ROOM 101	AAON	RNA-060-D-3-3-CABJA-A02B0	95.0	10.7	17.1	20,000	3	2.25	3.72	DIRECT	2	10.00	9.52	460	3	Yes	533.7	533.7	81.9	57.7	9.2	45.0	4

AIR HANDLING UNIT SCHEDULE (DX / ELECTRIC) (PART 2 OF 2)

	COMPRESSOR DATA				ELECTRICAL HEATING DATA				FILTER DATA		ELECTRICAL DATA								
TAG	REF. TYPE	TYPE	QUANTITY	CIRCUITS	HEATING AIRFLOW (CFM)	EAT DB (°F)	LAT DB (°F)	CAPACITY (KW)	PREFILTER (MERV)	FILTER (MERV)	UNIT FLA	MCA	MOCP	VOLTS	PHASE	EMERGENCY POWER	WEIGHT (LBS)	SCHEDULE NOTES
10-AHU-81310	R-410A	VARIABLE SCROLL	4	2	20,000	74.0	88.6	80	8	13	138	145	150	460	3	Yes	6,600	SCR CONTOLLER
10-AHU-81320	R-410A	VARIABLE SCROLL	4	2	20,000	74.0	88.6	80	8	13	138	145	150	460	3	Yes	6,600	SCR CONTOLLER

NOTES:

1. PROVIDE CARBON GAS-PHASE FILTER. REFERENCE SPECIFICATION SECTION 23 42 00 FOR GAS-PHASE FILTRATION REQUIREMENTS.

DUCTLESS SPLIT SYSTEM SCHEDULE (DX)

INDOOR UNIT DATA				BASIS OF DESIGN		INDOOR COOLING DATA				INDOOR ELECTRICAL DATA	OUTDOOR UNIT DATA		OUTDOOR PERFORMANCE DATA			COMPRESSOR DATA		OUTDOOR ELECTRICAL DATA				
TAG	LOCATION	FUNCTION	TYPE	MANUFACTURER	INDOOR MODEL	AIRFLOW (CFM)	TOTAL COOLING CAPACITY (MBH)	SENSIBLE COOLING CAPACITY (MBH)	FILTER (MERV)	POWERED FROM OUTDOOR UNIT	TAG	OUTDOOR MODEL	SUMMER AMBIENT (°F)	WINTER AMBIENT (°F)	SEER	REFRIG TYPE	TYPE	MCA	MOCP	VOLTS	PHASE	SCHEDULE NOTES
10-AC-85210	LV ELEC RM	LV ELEC RM	HIGH-WALL	MITSUBISHI	PKA-A24HA7	775	24.0	24.0	8	Yes	10-CU-85110	PUY-A24NHA7	95.0	8.0	21.4	R-410A	INVERTER	19	26	208	1	1-2
10-AC-85220	LV ELEC RM	LV ELEC RM	HIGH-WALL	MITSUBISHI	PKA-A24HA7	775	24.0	24.0	8	Yes	10-CU-85120	PUY-A24NHA7	95.0	8.0	21.4	R-410A	INVERTER	19	26	208	1	1-2
10-AC-85230	COMM ROOM	COMM ROOM	HIGH-WALL	MITSUBISHI	PKA-A12HA7	425	12.0	12.0	8	Yes	10-CU-85130	PUY-A12NKA7	95.0	8.0	20.8	R-410A	INVERTER	11	25	208	1	1-2

NOTES:

1. PROVIDE INDOOR UNIT WITH CONDENSATE PUMP PACKAGE.
2. PROVIDE OUTDOOR UNIT WITH WIND BAFFLES.

AIR DEVICE SCHEDULE

UNIT DATA		BASIS OF DESIGN		MOUNTING	MODULE SIZE (INCES)	FACE SIZE (INCHES)	FINISH	COMMENTS/ ACCESSORIES
TAG	FUNCTION	MANUFACTURER	MODEL					
SR-1	SUPPLY GRILLE	PRICE	910	TYPE A	24"x24"	26"x26"	ALUMINUM	C/W ALUMINUM DAMPER
RG-1	RETURN GRILLE	PRICE	80/F	TYPE A	72"x32"	74" X 34"	ALUMINUM	
TG-1	TRANSFER GRILLE	PRICE	910	TYPE A	12"x12"	14"x14"	ALUMINUM	

DAMPER SCHEDULE

TAG	DESCRIPTION OR LOCATION	MANUFACTURER	MODEL	SIZE (INCHES)	BLADE ACTION	ACTION	FAIL POSITION	ACTUATOR	VOLT	COMMENTS/ACCESSORIES
10-MD-81510	ELEC ROOM 101	TAMCO	9000 BF	48"x48"	PARALLEL	2 POSITION	CLOSED	BELIMO	24	
10-MD-81520	ELEC ROOM 101	TAMCO	9000 BF	96"x48"	PARALLEL	2 POSITION	CLOSED	BELIMO	24	
10-MD-81530	ELEC ROOM 101	TAMCO	9000 BF	48"x48"	PARALLEL	2 POSITION	CLOSED	BELIMO	24	
10-MD-81540	ELEC ROOM 101	TAMCO	9000 BF	96"x48"	PARALLEL	2 POSITION	CLOSED	BELIMO	24	

ELECTRIC BASEBOARD HEATER SCHEDULE

UNIT DATA		BASIS OF DESIGN		CAPACITY (Btu/h)	DIMENSIONS			ELECTRICAL DATA			SCHEDULE NOTES
TAG	LOCATION	MANUFACTURER	MODEL		LENGTH	WIDTH	HEIGHT	VOLTS	PHASE	AMP	
10-EBB-86210	RESTROOM 104	QMARK	QMKC2506W	5120	6'-0"	0'-3"	0'-7"	208	1	7.2	

FAN SCHEDULE

UNIT DATA			BASIS OF DESIGN		PERFORMANCE DATA					ELECTRICAL DATA					GENERAL DATA		
TAG	LOCATION	FUNCTION	MANUFACTURER	MODEL	FAN TYPE	FLOW (CFM)	ESP (IN WG)	DRIVE TYPE	SOUND RATING (dBA)	HP	HZ	VOLTS	PHASE	RPM	FAN SPEED (RPM)	WEIGHT (LBS)	SCHEDULE NOTES
10-F-81410	RESTROOM 104	RESTROOM 104	GREENHECK	SP-A200	CEILING EXHAUST	70	0.50	DIRECT	42	0.04	60.00	115	1	900	760	25	INTERLOCK W/ LIGHT SWITCH

ELECTRIC UNIT HEATER SCHEDULE

UNIT DATA			BASIS OF DESIGN		PERFORMANCE DATA				ELECTRICAL DATA				SCHEDULE NOTES
TAG	LOCATION	FUNCTION	MANUFACTURER	MODEL	CAPACITY	AIR FLOW	EAT (°F)	LAT (°F)	MOTOR HORSEPOWER	VOLTS	PHASE	MCA	
10-EFF-86410	LV ELEC RM 102	LV ELEC RM 102	RENZOR	EGEB	10000 Btu/h	310 CFM	66 °F	97 °F	0.02 hp	208 V	1	14.43 A	
10-EFF-86420	COMM RM 103	COMM ROOM 103	RENZOR	EGEB	10000 Btu/h	310 CFM	67 °F	98 °F	0.02 hp	208 V	1	14.43 A	

SCALE:

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

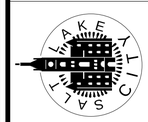
REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

HVAC EQUIPMENT SCHEDULES





04-03-2023

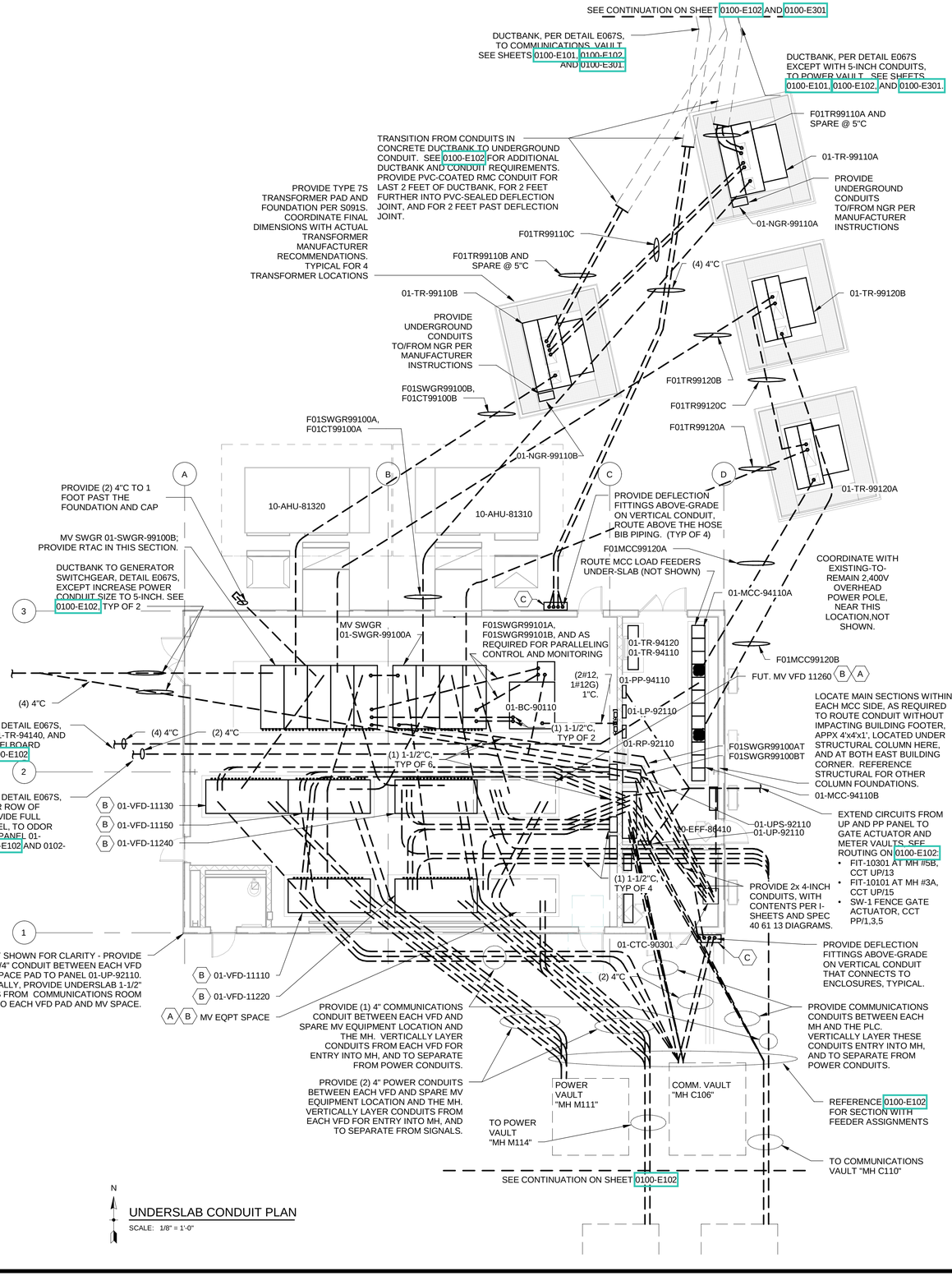
DRAWING No.
0104-M601

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 30/03/2023 13:33:11

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UNDERSLAB CONDUIT PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE FINAL LOCATIONS, MOUNTING HEIGHTS AND ARRANGEMENTS OF RECEPTACLES, DATA OUTLETS, SYSTEMS DEVICES, ETC. WITH ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH-IN.
2. ALL CONDUITS SHALL BE CONCEALED IN WALLS OR ABOVE CEILING WHEREVER POSSIBLE.
3. ALL STANDARD OUTLETS SHALL HAVE WHITE DEVICES/FACEPLATES, SCREWLESS, SNAP-ON TRIM (LEVITON DECORA PLUS OR EQUAL), UNO.
4. REFER TO SINGLE LINE DIAGRAM, PANEL SCHEDULES AND FLOOR PLANS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. CONDUITS ARE SHOWN BY SIZE IN SOME CASES, PROVIDE CONTENTS AS REQUIRED ELSEWHERE IN DOCUMENTS.
5. COORDINATE FINAL LOCATION OF DEVICES WITH OTHER SUBCONTRACTORS TO AVOID CONFLICT OF ACCESS TO THE DEVICES.
6. POWER CONDUITS THAT ARE RUN PARALLEL TO ANALOG SIGNAL OR COMMUNICATIONS CONDUITS, SHALL HAVE NO LESS THAN 12" SEPARATION.
7. ALL EQUIPMENT AND APPURTENANCES USED IN THIS PROJECT SHALL BE UL (NRTL) LISTED OR LABELED FOR THE PURPOSE.
8. REFER TO 0100-E601 AND TO SPECIFICATION 40 61 13, "PROCESS CONTROL SYSTEM GENERAL PROVISIONS", AND ASSOCIATED INSTRUMENT LOOP DIAGRAMS, FOR PROCESS AND INSTRUMENTATION CABLE AND CONDUIT REQUIREMENTS. REFER TO INSTRUMENTATION DRAWINGS FOR DEVICE LOCATIONS.
9. EQUIPMENT SHOWN ABOVE GRADE IS SHOWN FOR REFERENCE.
10. PROVIDE CONDUITS THAT CONNECT FROM IPS ELECTRICAL BUILDING TO EITHER TRANSFORMERS OR TO MAINTENANCE HOLES PER DETAIL E071S. PROVIDE CONDUITS UNDERSLAB PER E071S, EXCEPT GRADE IS BOTTOM OF CONCRETE.
11. PROVIDE OCAL, OR EQUAL, PVC-COATED DEFLECTION JOINTS IN EVERY CONDUIT AT ONE FOOT FROM THE FOLLOWING, WITH 2-FOOT PVC-COATED RMC STEMS ON BOTH ENDS OF THE JOINT:
    A. EACH FOUNDATION (BUILDING OR TRANSFORMER)
    B. EACH MAINTENANCE HOLE WALL
12. NOT SHOWN FOR CLARITY - PROVIDE CONDUITS BETWEEN 01-MCC-94110B AND SITE LIGHTING. REFERENCE 0100-E102.

KEYNOTES

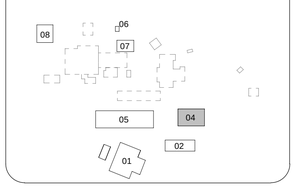
A. PROVIDE ELBOW, STUB, COUPLING, AND PLUG, ALL AS PVC-COATED RMC, AND LOCATE TOP OF PLUG BETWEEN 0" AND 1/8" BELOW FINISHED FLOOR. INSTALL PER DETAIL E005S. TYP. FOR FUTURE EQUIPMENT.

B. COORDINATE CONDUIT STUBS WITH COMPARTMENTS WITHIN THE DRIVE UNIT. FOR SPARE MV SPACE, LOCATE CONDUIT STUBS TO ACCOMMODATE A SPARE DRIVE UNIT OF IDENTICAL CONSTRUCTION.

C. PROVIDE LOCKING SS 4X BOX, nVENT CSD483612SSR, OR EQUAL, AND EXTEND CONDUITS INTO BOTTOM OF PULLBOX. LOCATE PULLBOX SO CONDUITS CAN ROUTE ALONG INTERIOR WALL ON WEST SIDE OF WALL.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	GR	GR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

UNDERSLAB CONDUIT PLAN

PROFESSIONAL ENGINEER
License No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

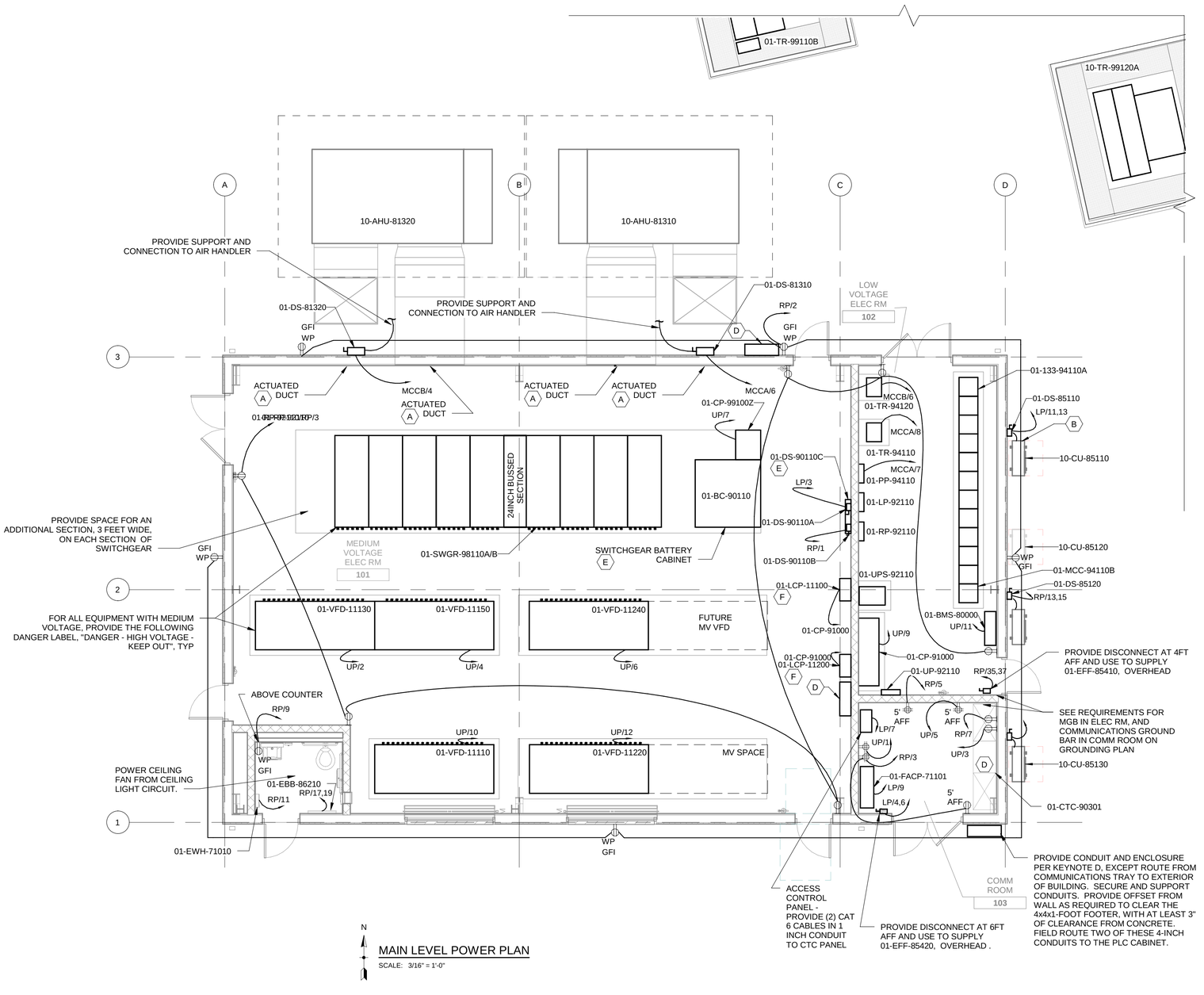
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DATE: 3/30/2023 10:14:19 AM

FILE: BIM 360://0507228-Salt Lake City 2019/524905350_0104-E001.rvt



MAIN LEVEL POWER PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

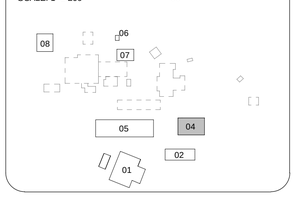
1. CIRCUIT ABBREVIATIONS ARE AS FOLLOWS:
   - SWGRA = 01-SWGR-99110A
   - SWGRB = 01-SWGR-99110B
   - MCCA = 01-MCC-94110A
   - MCCB = 01-MCC-94110B
   - PP = 01-PP-94110
   - RP = 01-RP-92110
2. COORDINATE FINAL LOCATIONS, MOUNTING HEIGHTS AND ARRANGEMENTS OF RECEPTACLES, DATA OUTLETS, SYSTEMS DEVICES, ETC. WITH ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH-IN.
3. FINAL FEEDER CONNECTIONS ARE NOT SHOWN ON PLAN. FINAL CONNECTIONS TO EQUIPMENT ARE SHOWN ON SINGLE LINE DIAGRAMS.
4. ALL CONDUITS SHALL BE CONCEALED IN WALLS OR ABOVE CEILING WHEREVER POSSIBLE.
5. ALL CONDUITS BELOW FLOOR SHALL BE 3/4" MINIMUM.
6. ALL STANDARD OUTLETS SHALL HAVE WHITE DEVICES/FACEPLATES, SCREWLESS, SNAP-ON TRIM (LEVITON DECORA PLUS OR EQUAL).
7. REFER TO SINGLE LINE DIAGRAM, PANEL SCHEDULES AND FLOOR PLANS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
8. DRAWING SHOWS DESIRED ELECTRICAL LAYOUT WITH NEW LOCATION OF RECEPTACLES, HARD WIRED JUNCTION BOXES, CONDUIT AND CIRCUITING REQUIREMENTS. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF DEVICES WITH OTHER SUBCONTRACTORS TO AVOID CONFLICT OF ACCESS TO THE DEVICES.
9. FOR EQUIPMENT REQUIRING SPECIAL RECEPTACLE PROVIDE RECEPTACLE WITH NEMA CONFIGURATION TO MATCH EQUIPMENT PLUG. VERIFY WITH EQUIPMENT MANUFACTURER.
10. A RECEPTACLE SHALL BE PROVIDED WITHIN 25' OF ALL HVAC EQUIPMENT.
11. EXTERIOR RECEPTACLES SHALL BE GFCI, WEATHER RESISTANT TYPE AND HAVE WEATHERPROOF COVERS WHICH ARE RATED NEMA 3R WITH THE PLUG AND CORD ATTACHED.
12. REFER TO 0100-E601 AND TO SPECIFICATION 40 61 13, "PROCESS CONTROL SYSTEM GENERAL PROVISIONS", AND ASSOCIATED INSTRUMENT LOOP DIAGRAMS, FOR PROCESS AND INSTRUMENTATION CABLE AND CONDUIT REQUIREMENTS. REFER TO INSTRUMENTATION DRAWINGS FOR DEVICE LOCATIONS.

KEYNOTES

A. MOTORIZED DAMPERS POWERED FROM BUILDING MANAGEMENT SYSTEM PANEL 01-BMS-80000. COORDINATE 24V DC POWER TRANSFORMER WITH MECHANICAL CONTRACTOR.
B. INDOOR EVAPORATOR UNIT SHALL BE POWERED BY 3#12+1#12G IN 3/4" C VIA OUTDOOR CONDENSER UNIT AND LOCAL DISCONNECT. COORDINATE CONDUIT RUN AND WALL PENETRATION WITH GENERAL CONTRACTOR. COORDINATE FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR.
C. PROVIDE ORANGE FACEPLATES FOR RECEPTACLES FED FROM PANEL 01-UP-92110
D. PROVIDE CONDUIT AND 48x36x12 SS ENCLOSURES AS REQUIRED FOR IN-BUILDING CONDUIT ROUTING OF 4 4-INCH COMMUNICATION CONDUITS ON-WALL AND OVERHEAD BETWEEN NORTH BUILDING PERIMETER AND THE COMMUNICATIONS RACK. BOTTOM OF ENCLOSURE AT 6' AFF.
E. PROVIDE KIRK KEY INTERLOCK BETWEEN BOTH DISCONNECTS FOR THE BATTERY CABINET SO ONLY ONE CAN BE CONNECTED TO THE BATTERY CABINET CHARGER AT ANY POINT IN TIME. SPLICE LOAD-SIDE OF EACH DISCONNECT, USING WIREWAY, TO BATTERY CHARGER SUPPLY.
F. PROVIDE CONDUITS AND PASS-THROUGH CABLES FROM PLC CABINET TO VFD USING THIS ENCLOSURE. NOT SHOWN FOR CLARITY.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MAIN LEVEL POWER PLAN

PROFESSIONAL ENGINEER
STATE OF UTAH
LIC No. 12962039-2202
GLENN GERALD ROSS

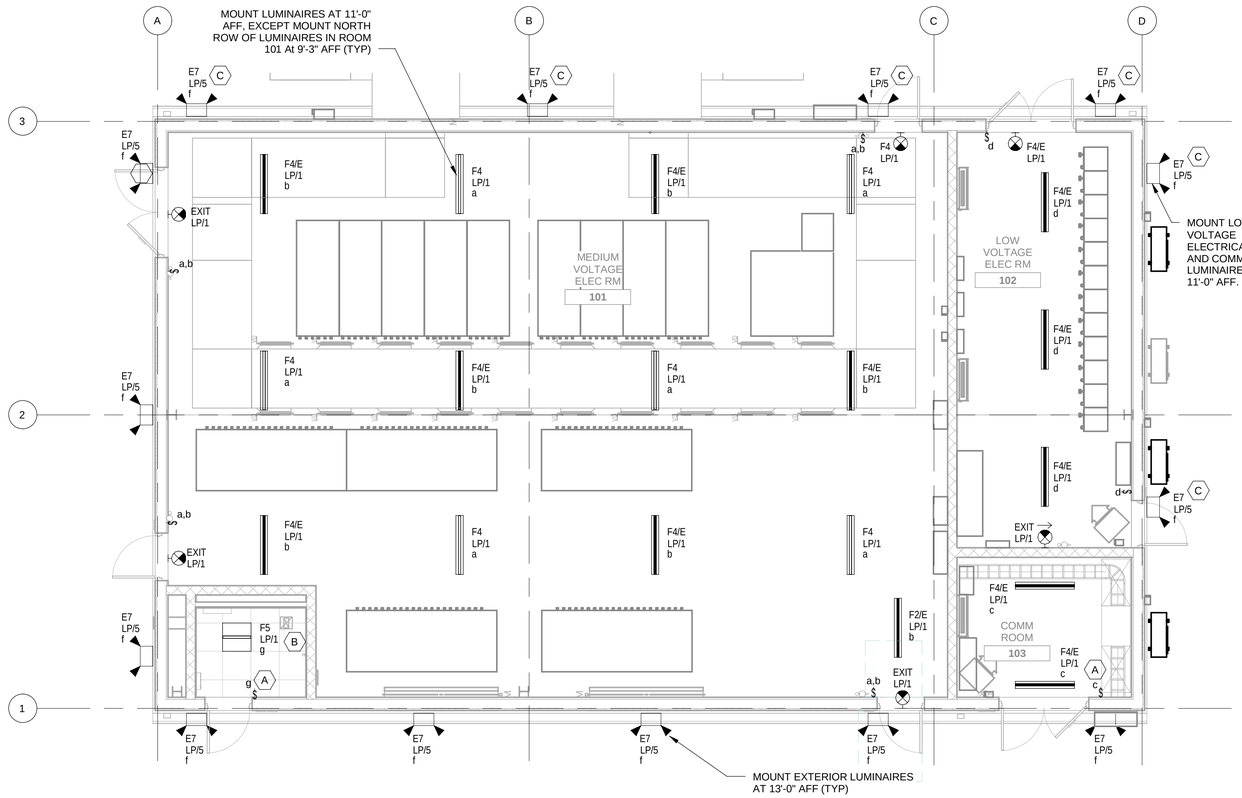
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MAIN LEVEL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. LIGHT FIXTURES ON THIS FLOOR SHALL BE CONNECTED TO PANEL 01-LP-92110 UNLESS OTHERWISE NOTED. THE CIRCUIT NUMBER AND CONTROL ZONE ARE INDICATED ON THE PLAN. CIRCUIT ABBREVIATIONS ARE AS FOLLOWS:
   - LP = 01-LP-92110
2. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES AND DEVICES WITH ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO INSTALLATION.
3. PROVIDE FAIL-SAFE TYPE OCCUPANCY SENSORS WHERE LIGHTING WILL STAY "ON" IN THE EVENT OF SENSOR FAILURE.
4. ALL RECESSED LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING GRID. REFER TO LIGHTING FIXTURE MOUNTING DETAILS ON SHEETS 0100-E709 AND 0100-E710 FOR MORE INFORMATION.
5. PROVIDE LIGHTING CONTROL SYSTEM AS SPECIFIED IN SPECIFICATIONS, OR PROVIDE nLIGHT ACUITY CONTROL OR APPROVED EQUAL NETWORK BASED SYSTEM, AT CONTRACTOR'S OPTION.
6. CONFIGURE OCCUPANCY SENSORS TO TURN OFF CONTROLLED LIGHT FIXTURES WITHIN A MAXIMUM OF 20 MINUTES OF NOT DETECTING AN OCCUPANT.
7. PROVIDE UN-SWITCHED CONSTANT HOT FROM NORMAL POWER SOURCE TO ALL EXIT SIGNS AND ALL UL924 RELAYS TO SENSE NORMAL POWER LOSS.
8. EXTERIOR LIGHTING SHALL AUTOMATICALLY TURN ON AND OFF BASED OFF ASTRONOMICAL TIME CONTROL SCHEDULE PROVIDED BY CLIENT.

KEYNOTES

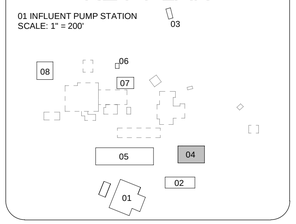
A. PROVIDE OCCUPANCY TYPE SWITCH WITH MANUAL ON/OFF CONTROL.

B. PROVIDE POWER TO EXHAUST FAN FROM LIGHTING CIRCUIT. SWITCH EXHAUST FAN WITH LIGHT.

C. PROVIDE LUMINAIRE AS SCHEDULED, EXCEPT OMIT BATTERY BACKUP FEATURE FROM THIS LUMINAIRE.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

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LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MAIN LEVEL LIGHTING PLAN

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0104-E121

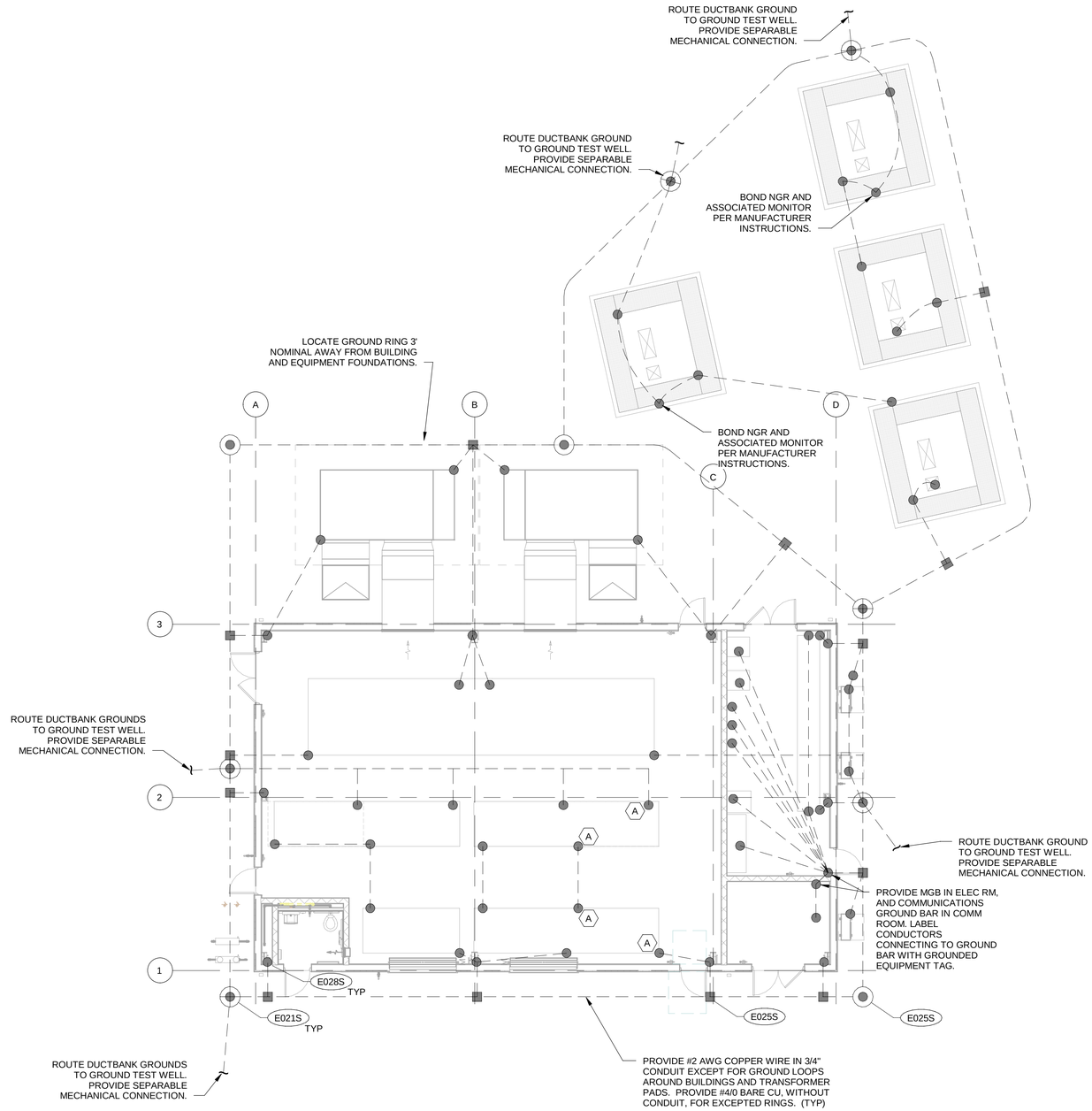
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10 MAIN LEVEL - GROUNDING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES

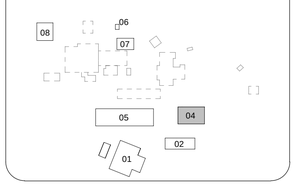
1. GROUNDING SHALL BE 4/0 COPPER GROUND CONDUCTOR, TYPICAL.
2. GROUND ROD SHALL BE 3/4" DIA X 20'-0" LONG, TYP.
3. BOND TO DUCT BANKS ALONG PERIMETER OF STRUCTURAL PAD AND TO EXISTING FLOW METER VAULT. (NOT SHOWN)

KEYNOTES

A. PROVIDE CONDUCTOR AND CONDUIT FOR FUTURE CONNECTION OF EQUIPMENT. PROVIDE FLUSH IN-PAD BOX TO ENCLOSURE ADEQUATE SLACK TO EXTEND AT LEAST 14 INCHES BEYOND TOP OF THE FLUSH BOX. PROVIDE FLUSH BOX COVER.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	GR	GR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

GROUNDING PLAN

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0104-E131

SHEET _____ OF -

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/30/2023 10:14:23 AM

FILE: BIM 360://605722BB-Salt Lake City_2019\524905350_0104-E001.rvt

Branch Panel: 01-LP-92110

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-TR-94110
MOUNTING: SURFACE
ENCLOSURE: TYPE 1

VOLTS: 208/120 WYE
PHASES: 3
WIRES: 4

A.I.C. RATING: 10,000 A SCCR
MAINS TYPE: MAIN CIRCUIT BREAKER
MAINS RATING: 100 A
MCB RATING: 100 A, 3 POLE

NOTES:
GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH CIRCUIT BREAKER.
GENERAL SCHEDULE NOTE - PROVIDE EXTERNAL SURGE PROTECTIVE DEVICE, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
LP/1	LIGHTING - BUILDING INTERIOR, FAN	20 A	1	1262 VA	0 VA					--	--	SPACE	LP/2
LP/3	01-BC-90110 FEED A	20 A	1			500 VA	2500 VA			2	20 A	COMM RM HEAT 01-EFF-85420	LP/4
LP/5	LIGHTING - BUILDING EXTERIOR	20 A	1					790 VA	2500 VA				LP/6
LP/7	ACCESS CONTROL PANEL	15 A	1	200 VA	0 VA					--	--	SPACE	LP/8
LP/9	01-FACP-71101 FIRE ALARM CONTROL PANEL	20 A	1			500 VA	0 VA			--	--	SPACE	LP/10
LP/11	LV ELEC NORTH 01-CU-85110	25 A	2					1976 VA	0 VA	1	20 A	SPARE	LP/12
LP/13				1976 VA	0 VA					1	20 A	SPARE	LP/14
LP/15	COMM RM 01-CU-85130	25 A	2			1144 VA	0 VA			1	20 A	SPARE	LP/16
LP/17								1144 VA	0 VA	1	20 A	SPARE	LP/18
LP/19	SPACE	--	--	0 VA	0 VA					1	20 A	SPARE	LP/20
LP/21	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	LP/22
LP/23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	LP/24
LP/25	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	LP/26
LP/27	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	LP/28
LP/29	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	LP/30
LP/31	SPARE	20 A	1	0 VA	0 VA					--	--	SPACE	LP/32
LP/33	SPARE	20 A	1			0 VA	0 VA			--	--	SPACE	LP/34
LP/35	SPARE	20 A	1					0 VA	0 VA	--	--	SPACE	LP/36
LP/37	SPARE	20 A	1	0 VA	0 VA					3	30 A	SURGE PROTECTIVE DEVICE	LP/38
LP/39	SPARE	20 A	1			0 VA	0 VA						LP/40
LP/41	SPARE	20 A	1					0 VA	0 VA				LP/42
			TOTAL LOAD:	3438 VA		4644 VA		6375 VA					
			TOTAL AMPS:	29 A		40 A		55 A					

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC	6240 VA	125.00%	7800 VA		
Lighting	2028 VA	125.00%	2535 VA	**TOTAL CONNECTED LOAD:**	14455 VA
Other	0 VA	0.00%	0 VA	**TOTAL ESTIMATED DEMAND:**	18069 VA
Power	6200 VA	125.00%	7750 VA	**TOTAL CONNECTED CURRENT:**	40 A
				TOTAL ESTIMATED DEMAND...	50 A

Branch Panel: 01-RP-92110

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-TR-94120B
MOUNTING: SURFACE
ENCLOSURE: TYPE 1

VOLTS: 208/120 WYE
PHASES: 3
WIRES: 4

A.I.C. RATING: 10,000 A SCCR
MAINS TYPE: MAIN CIRCUIT BREAKER
MAINS RATING: 100 A
MCB RATING: 100A, 3 POLE

NOTES:
GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH CIRCUIT BREAKER.
GENERAL SCHEDULE NOTE - PROVIDE EXTERNAL SURGE PROTECTIVE DEVICE, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.
NOTE 1 - PROVIDE GFCI-TYPE CIRCUIT BREAKER; CLASS A, PERSONNEL-PROTECTION TYPE.

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
RP/1	SWGR BATTERY SYS, B-FEED	15 A	1	500 VA	720 VA					1	20 A	RECEPTACLES - BUILDING OUTSIDE (NOTE 1)	RP/2
RP/3	RECEPTACLES - COMM RM DESK/PHONE	20 A	1			1620 VA	0 VA			1	20 A	SPARE	RP/4
RP/5	RECEPTACLE - COMM RM TELE BOARD	20 A	1					360 VA	0 VA	1	20 A	SPARE	RP/6
RP/7	RECEPTACLE - COMM RM 01-CTC-90301	20 A	1	180 VA	0 VA					1	20 A	SPARE	RP/8
RP/9	RECEPTACLE - RESTROOM (NOTE 1)	20 A	1			180 VA	0 VA			1	20 A	SPARE	RP/10
RP/11	01-EWH-71010	20 A	1					1440 VA	0 VA	1	20 A	SPARE	RP/12
RP/13	LV ELEC SOUTH 01-CU-85120	25 A	2	1976 VA	0 VA					1	20 A	SPARE	RP/14
RP/15						1976 VA	0 VA			1	20 A	SPARE	RP/16
RP/17	REST ROOM HEAT 01-EBB-86210	15 A	2					750 VA	0 VA	1	20 A	SPARE	RP/18
RP/19				750 VA	0 VA					1	20 A	SPARE	RP/20
RP/21	SPACE	--	--			0 VA	0 VA			1	20 A	SPARE	RP/22
RP/23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	RP/24
RP/25	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	RP/26
RP/27	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	RP/28
RP/29	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	RP/30
RP/31	SPARE	20 A	1	0 VA	960 VA					3	70 A	10-UPS-92120	RP/32
RP/33	SPARE	20 A	1			0 VA	780 VA						RP/34
RP/35	LV ELEC RM HEAT 01-EFF-85410	20 A	2					2500 VA	1210 VA				RP/36
RP/37				2500 VA	0 VA								RP/38
RP/39	SPARE	20 A	1			0 VA	0 VA			3	30 A	SURGE PROTECTIVE DEVICE	RP/40
RP/41	120 V - MOTORIZED DAMPERS	20 A	1					200 VA	0 VA				RP/42
			TOTAL LOAD:	7586 VA		4556 VA		6460 VA					
			TOTAL AMPS:	66 A		38 A		56 A					

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC	3952 VA	125.00%	4940 VA		
Motor	2000 VA	118.75%	2375 VA	**TOTAL CONNECTED LOAD:**	17902 VA
Power	7990 VA	125.00%	9988 VA	**TOTAL ESTIMATED DEMAND:**	21263 VA
Receptacle	3960 VA	100.00%	3960 VA	**TOTAL CONNECTED CURRENT:**	50 A
				TOTAL ESTIMATED DEMAND...	59 A

Branch Panel: 01-PP-94110

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-MCC-94110A
MOUNTING: SURFACE
ENCLOSURE: TYPE 1

VOLTS: 480V DELTA
PHASES: 3
WIRES: 3

A.I.C. RATING: 65,000A SCCR
MAINS TYPE: MAIN CIRCUIT BREAKER
MAINS RATING: 100 A
MCB RATING: 200A, 3 POLE

NOTES:
GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH CIRCUIT BREAKER.
GENERAL SCHEDULE NOTE - PROVIDE EXTERNAL SURGE PROTECTIVE DEVICE, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
PP/1				600 VA	0 VA					--	--	SPACE	PP/2
PP/3	SW-1 FENCE GATE ACTUATOR	20 A	3			600 VA	0 VA			--	--	SPACE	PP/4
PP/5								600 VA	0 VA	--	--	SPACE	PP/6
PP/7	SPACE	--	--	0 VA	0 VA					--	--	SPACE	PP/8
PP/9	SPACE	--	--			0 VA	0 VA			--	--	SPACE	PP/10
PP/11	SPACE	--	--					0 VA	0 VA	--	--	SPACE	PP/12
PP/13	SPACE	--	--	0 VA	0 VA					--	--	SPACE	PP/14
PP/15	SPACE	--	--			0 VA	0 VA			--	--	SPACE	PP/16
PP/17	SPACE	--	--					0 VA	0 VA	--	--	SPACE	PP/18
PP/19	SPACE	--	--	0 VA	0 VA					--	--	SPACE	PP/20
PP/21	SPACE	--	--			0 VA	0 VA			--	--	SPACE	PP/22
PP/23	SPACE	--	--					0 VA	0 VA	--	--	SPACE	PP/24
PP/25	SPACE	--	--	0 VA	0 VA					3	30 A	SURGE PROTECTIVE DEVICE	PP/26
PP/27	SPACE	--	--			0 VA	0 VA						PP/28
PP/29	SPACE	--	--					0 VA	0 VA				PP/30
			TOTAL LOAD:	600 VA		600 VA		600 VA					
			TOTAL AMPS:	2 A		2 A		2 A					

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor	1800 VA	125.00%	2250 VA		
				TOTAL CONNECTED LOAD:	1800 VA
				TOTAL ESTIMATED DEMAND:	2250 VA
				TOTAL CONNECTED CURRENT:	2 A
				TOTAL ESTIMATED DEMAND...	3 A

Branch Panel: 01-UP-92110

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-UPS-92110
MOUNTING: SURFACE
ENCLOSURE: TYPE 1

VOLTS: 208/120 WYE
PHASES: 3
WIRES: 4

A.I.C. RATING: 10,000 A SCCR
MAINS TYPE: MAIN CIRCUIT BREAKER
MAINS RATING: 100 A
MCB RATING: 100A, 3 POLE

NOTES:
GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH CIRCUIT BREAKER.
GENERAL SCHEDULE NOTE - PROVIDE EXTERNAL SURGE PROTECTIVE DEVICE, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
UP/1	RECEPTACLES - COMM RM DESK - ORANGE	20 A	1	360 VA	0 VA					1	20 A	01-VFD-11130 CONTROL/AUXILIARIES	UP/2
UP/3	RECEPTACLE - COMM RM 01-CTC-90301 - ORANGE	20 A	1			180 VA	0 VA			1	20 A	01-VFD-11150 CONTROL/AUXILIARIES	UP/4
UP/5	RECEPTACLES - COMM RM TELE BOARD - ORANGE	20 A	1					360 VA	0 VA	1	20 A	01-VFD-11240 CONTROL/AUXILIARIES	UP/6
UP/7	01-CP-99100Z PARALLELING I/O CP	20 A	1	500 VA	0 VA					1	20 A	SPARE	UP/8
UP/9	01-CP-91000 PLC CABINET	20 A	1			500 VA	0 VA			1	20 A	01-VFD-11110 CONTROL/AUXILIARIES	UP/10
UP/11	01-BMS-80000	20 A	1					500 VA	350 VA	1	20 A	01-VFD-11220 CONTROL/AUXILIARIES	UP/12
UP/13	FIT-10301 AT MH #5B	15 A	1	100 VA	0 VA					1	20 A	SPARE	UP/14
UP/15	FIT-10101 AT MH #3A	15 A	1			100 VA	0 VA			1	15 A	SPARE	UP/16
UP/17	SPARE	15 A	1					0 VA	0 VA	1	15 A	SPARE	UP/18
UP/19	SPARE	15 A	1	0 VA	0 VA					--	--	SPACE	UP/20
UP/21	SPARE	20 A	1			0 VA	0 VA			--	--	SPACE	UP/22
UP/23	SPARE	20 A	1					0 VA	0 VA	--	--	SPACE	UP/24
UP/25	SPARE	20 A	1	0 VA	0 VA					--	--	SPACE	UP/26
UP/27	SPARE	20 A	1			0 VA	0 VA			--	--	SPACE	UP/28
UP/29	SPARE	20 A	1					0 VA	0 VA	--	--	SPACE	UP/30
			TOTAL LOAD:	960 VA		780 VA		1210 VA					
			TOTAL AMPS:	8 A		7 A		10 A					

LEGEND:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor	500 VA	125.00%	625 VA		
Power	1050 VA	125.00%	1313 VA	**TOTAL CONNECTED LOAD:**	2450 VA
Receptacle	900 VA	100.00%	900 VA	**TOTAL ESTIMATED DEMAND:**	2838 VA
				TOTAL CONNECTED CURRENT:	7 A
				TOTAL ESTIMATED DEMAND...	8 A

SCALE:

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905390

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

PANEL SCHEDULES

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS

DRAWING No.
0104-E601

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/30/2023 10:14:24 AM

FILE: BIM 360://9057228-Salt Lake City 2019/524905390_0104-E001.rvt

EQUIPMENT TAG: 01-MCC-94110A

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-TR-99120A
MOUNTING: FREESTANDING
ENCLOSURE: Type 12

VOLTS: 480V DELTA
PHASES: 3
WIRES: 3

NOTES:
* GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH COMPARMENT. REFERENCE ONE-LINE FOR STARTER REQUIREMENTS.
* GENERAL SCHEDULE NOTE - PROVIDE TYPE 1 SURGE PROTECTIVE DEVICE WITHIN DEDICATED BUCKET, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.
* GENERAL SCHEDULE NOTE - LOCATE BUCKETS FOR EQUIPMENT PROVIDED UNDER THIS PROJECT IN THE BOTTOM. ARRANGE CONDUIT AND MCC FEATURES AS REQUIRED TO ALLOW REMAINING BUCKET SPACE TO BE TOP-ENTRY FOR ANY FUTURE LOADS.

CKT	CIRCUIT DESCRIPTION	Load	REMARKS
MCCA/1	SPACE	0 VA	--
MCCA/2	SPARE	0 VA	
MCCA/3	01-TR-94140, IPS STANDBY POWER AND FUEL STORAGE	112,500 VA	
MCCA/4	SPARE 100/3	0 VA	
MCCA/5	SPARE 30/3, NEMA SIZE 2 CONTACTOR	0 VA	
MCCA/6	ROOFTOP UNIT 01-AHU-81310, IPS ELEC BLDG	120,600 VA	
MCCA/7	LV ROOM ELEC PANEL 01-PP-94110, IPS ELEC BLDG	1,800 VA	
MCCA/8	PANEL 01-LP-92110 VIA 01-TR-94110, IPS ELEC BLDG	14,455 VA	
MCCA/9	ODOR CONTROL PANEL 01-PP-94130	124,000 VA	
MCCA/10	SPARE 30/3, NEMA SIZE 2 CONTACTOR	0 VA	
MCCA/11	TIE BREAKER	0 VA	
MCCA/12			
MCCA/13			
MCCA/14			
		373,353 VA	
		449 A	

ADDITIONAL NOTES:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC	6240 VA	125.00%	7800 VA		
Lighting	2028 VA	125.00%	2535 VA	**TOTAL CONNECTED LOAD:**	373353 VA
Motor	1800 VA	125.00%	2250 VA	**TOTAL ESTIMATED DEMAND:**	407566 VA
Other	0 VA	0.00%	0 VA	**TOTAL CONNECTED...**	449 A
Power	126800 VA	125.00%	158500 VA	**TOTAL EST. DEMAND...**	490 A
Spare	236500 VA	100.00%	236500 VA		

EQUIPMENT TAG: 01-MCC-94110B

LOCATION: LOW VOLTAGE ELEC RM 102
SUPPLY FROM: 01-TR-99120B
MOUNTING: FREESTANDING
ENCLOSURE: Type 12

VOLTS: 480V DELTA
PHASES: 3
WIRES: 3

NOTES:
* GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURERS LOCKING PROVISION FOR EACH COMPARMENT. REFERENCE ONE-LINE FOR STARTER REQUIREMENTS.
* GENERAL SCHEDULE NOTE - PROVIDE TYPE 1 SURGE PROTECTIVE DEVICE WITHIN DEDICATED BUCKET, AND BOND TO GROUND GRID PER MANUFACTURER INSTRUCTIONS.
* GENERAL SCHEDULE NOTE - LOCATE BUCKETS FOR EQUIPMENT PROVIDED UNDER THIS PROJECT IN THE BOTTOM. ARRANGE CONDUIT AND MCC FEATURES AS REQUIRED TO ALLOW REMAINING BUCKET SPACE TO BE TOP-ENTRY FOR ANY FUTURE LOADS.
(NOTE 1) PROVIDE LIGHTING CONTACTOR AND IECC2018-COMPLIANT ASTRONOMIC TIMECLOCK WITHIN MCC. USE TO SUPPLY POLE-MOUNTED SITE LIGHTING FOR SW-1 CAMPUS, EXCEPT WHERE WITHIN 25 FEET OF THE IPS PUMP BUILDING.

CKT	CIRCUIT DESCRIPTION	Load	REMARKS
MCCB/1	SPARE 100/3 BREAKER	0 VA	
MCCB/2	SPARE 100/3, NEMA SIZE 3 CONTACTOR	0 VA	
MCCB/3	SPARE 100/3, NEMA SIZE 3 CONTACTOR	0 VA	
MCCB/4	ROOFTOP UNIT 01-AHU-81320	120,600 VA	
MCCB/5	IPS PANEL 01-PP-94120, IPS BLDG	303,000 VA	
MCCB/6	PANEL 01-RP-92110 VIA 01-TR-94120, IPS ELEC BLDG	18,602 VA	
MCCB/7	POLE LUMINAIRES (NOT IPS) (NOTE 1)	7,200 VA	
MCCB/8			
MCCB/9			
MCCB/10			
MCCB/11			
MCCB/12			
MCCB/13			
MCCB/14			
		448,702 VA	
		540 A	

ADDITIONAL NOTES:

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
HVAC	3952 VA	125.00%	4940 VA		
Motor	9200 VA	119.57%	11000 VA	**TOTAL CONNECTED LOAD:**	448702 VA
Power	128590 VA	125.00%	160738 VA	**TOTAL ESTIMATED DEMAND:**	483638 VA
Spare	303000 VA	100.00%	303000 VA	**TOTAL CONNECTED...**	540 A
Receptacle	3960 VA	100.00%	3960 VA	**TOTAL EST. DEMAND...**	582 A

SCALE:

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

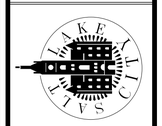
REVISIONS

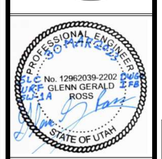
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A	23-04-03 SW-1A: ISSUED FOR BID	GR	GR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

MCC SCHEDULES





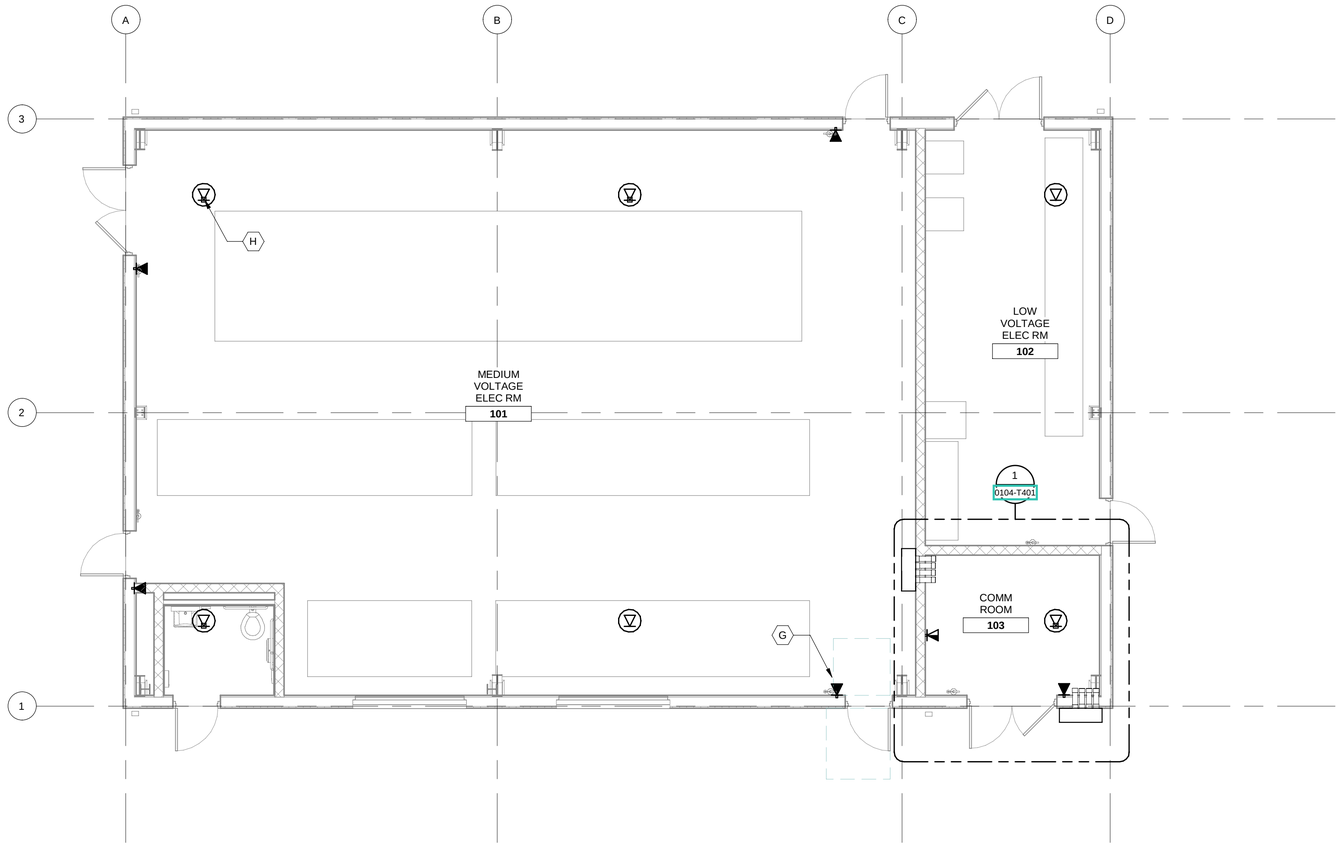
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0104-E602

SHEET _____ OF -

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DATE: 3/30/2023 5:29:45 PM

FILE: BIM 360://9057228-Salt Lake City 2019/524905350_0104-E001.rvt



TELECOMMUNICATIONS MAIN LEVEL PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET 0401-T001 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.
2. ALL OUTLETS TO BE FIELD ROUTED BACK TO COMM RM 103.

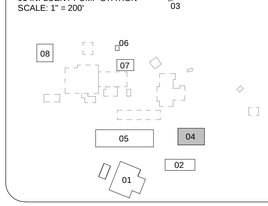
KEYNOTES

G SURFACE MOUNTED VOICE OUTLET LOCATION. TYPICAL.

H WIRELESS ACCESS POINT LOCATION. TYPICAL.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	K. ZEBROSKY
DRAWN BY:	B. MARTIR
CHECKED BY:	P. VITONE
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

TELECOMMUNICATIONS MAIN LEVEL PLAN

BKSI
REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI TECHNICIAN
BTS SPECIALIST

CERT.	REG. NO.	EXPIRES
RCDD	136703	12/31/2025
RCDD/NTS	136703	12/31/2024

Kristian Zebrosky 04/03/2023
KRISTIAN ZEBROSKY

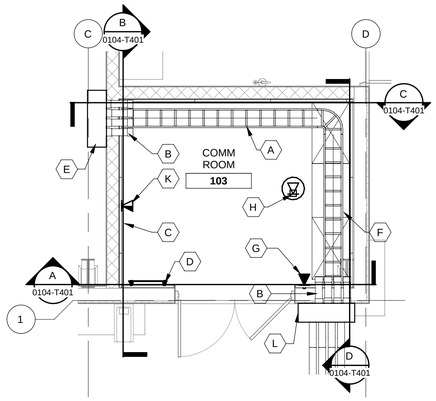
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0104-T101

SHEET ____ OF -

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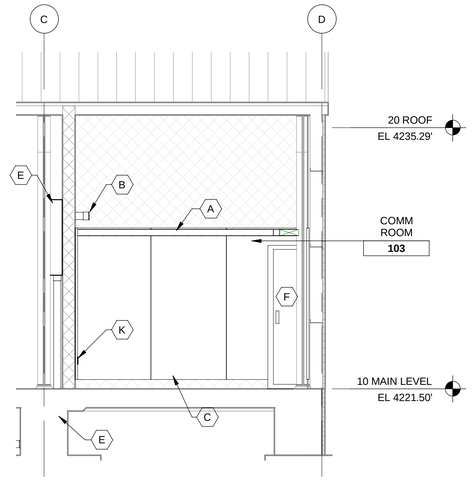
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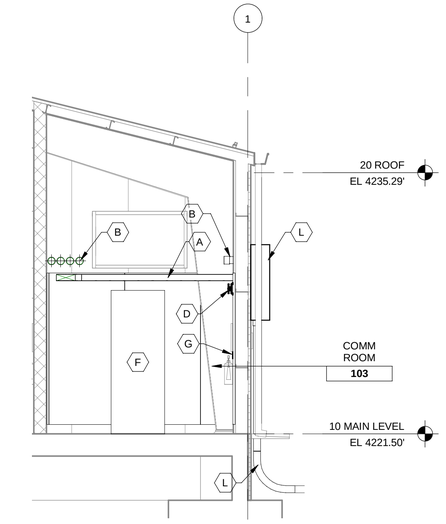
COMM RM 103 ENLARGED PLAN

SCALE: 1/4" = 1'-0"



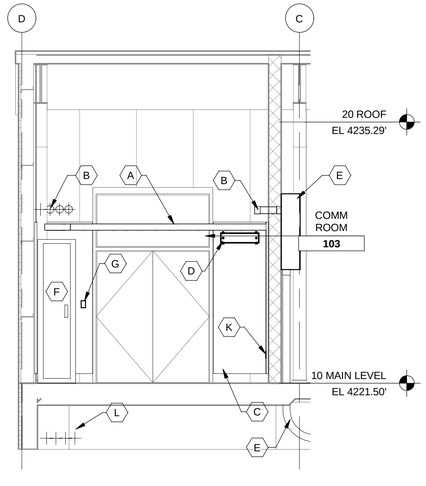
A | NORTH WALL ELEVATION - COMM ROOM 103

0104-T401 | SCALE: 1/4" = 1'-0"



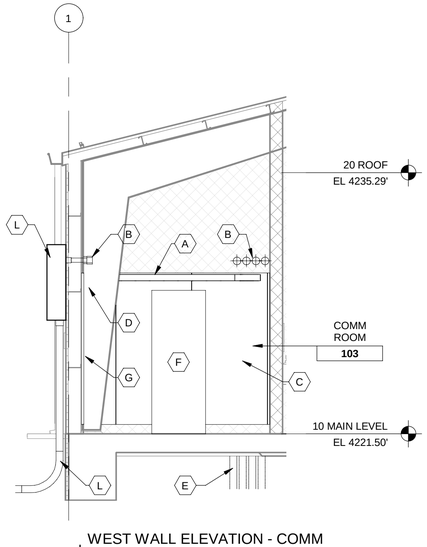
B | EAST WALL ELEVATION - COMM ROOM 103

0104-T401 | SCALE: 1/4" = 1'-0"



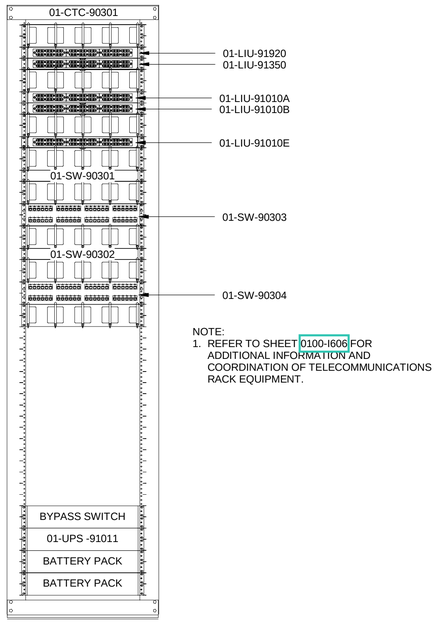
C | SOUTH WALL ELEVATION - COMM ROOM 103

0104-T401 | SCALE: 1/4" = 1'-0"



D | WEST WALL ELEVATION - COMM ROOM 103

0104-T401 | SCALE: 1/4" = 1'-0"



NOTE:
1. REFER TO SHEET 0100-I606 FOR ADDITIONAL INFORMATION AND COORDINATION OF TELECOMMUNICATIONS RACK EQUIPMENT.

E | TELECOMMUNICATIONS RACK ELEVATION

NTS

GENERAL NOTES

1. REFER TO SHEET 0100-T001 FOR GENERAL NOTES, SYMBOLS AND ABBREVIATIONS.

KEYNOTES

A 12" HORIZONTAL LADDER TYPE CABLE TRAY MOUNTED A MINIMUM OF 6" ABOVE TOP OF CABINET.

B (4) 4" CONDUIT SLEEVES.

C (3/4") PLYWOOD BACK TREATED WITH FIRE RATED PAINT. MOUNTED A MINIMUM OF 6" AFF.

D TELECOMMUNICATIONS PRIMARY BONDING BUSBAR.

E (4) 4" PVC CONCRETE ENCASED CONDUITS UNDERGROUND TO COMMUNICATIONS MAINTENANCE HOLE. PROVIDE CONDUIT 48"T x 36"W x 12"D STAINLESS STEEL ENCLOSURES AS REQUIRED FOR IN-BUILDING CONDUIT ROUTING OF (4) 4" COMMUNICATIONS CONDUITS ON-WALL AND OVERHEAD BETWEEN NORTH BUILDING PERIMETER AND THE COMMUNICATINS RACK. BOTTOM OF ENCLOSURE MOUNTED AT 6'-6" AFF. REFER TO ELECTRICAL DRAWING 0104-E100 FOR ADDITIONAL ROUTING INFORMATION.

F (91"H x 24"W x 34"D) TELECOMMUNICATIONS CABINET.

G SURFACE MOUNTED VOICE OUTLET LOCATION. TYPICAL.

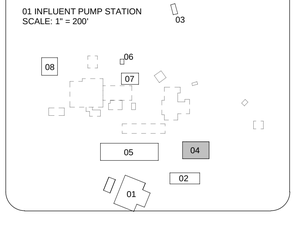
H WIRELESS ACCESS POINT LOCATION. TYPICAL.

K SURFACE MOUNTED VOICE & DATA OUTLET LOCATION. COORDINATE MOUNTING HEIGHT AND LOCATION WITH FURNITURE CONTRACTOR. TYPICAL.

L PROVIDE CONDUIT AND ENCLOSURE PER KEYNOTE E, EXCEPT ROUTE FROM TELECOMMUNICATIONS TRAY TO EXTERIOR OF BUILDING. SECURE AND SUPPORT CONDUITS. PROVIDE OFFSET FROM WALL AS REQUIRED TO CLEAR THE 4x4x1-FOOT FOOTER. WITH AT LEAST 3" OF CLEARANCE FROM CONCRETE. FIELD ROUTE TWO OF THESE 4-INCH CONDUITS TO THE PLC CABINET. REFER TO ELECTRICAL DRAWING 0104-E100 FOR ADDITIONAL ROUTING INFORMATION.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: B. MARTIR
CHECKED BY: P. VITONE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM KZ

LAST CONFORMED SET: SW-1: ISSUED FOR CONSTRUCTION

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

COMM RM 103
ENLARGED PLAN & ELEVATIONS

BKSI
CERT: RCDD — REG. NO.: 136703 — EXPIRES: 12/31/2025
RCDD/NTS — 136703 — 12/31/2024
KRISTIAN ZEBROSKY 04/03/2023

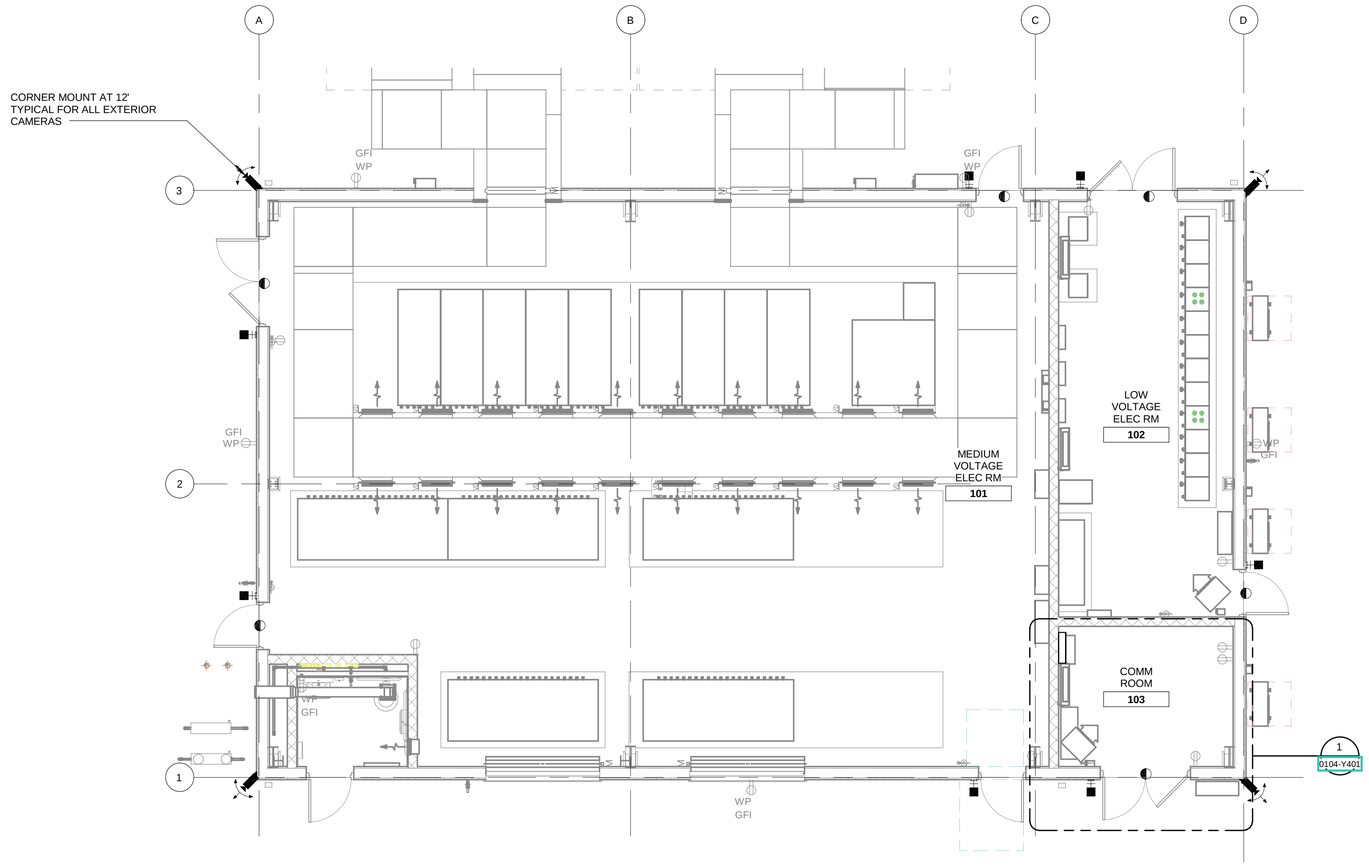
DRAWING No.
0104-T401

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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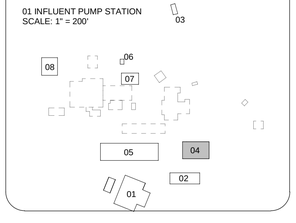


1 | MAIN LEVEL SECURITY PLAN

0104-T401 | SCALE: 3/16" = 1'-0"

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	K. ZEBROSKY	CHECKED BY:	K. LONG
DRAWN BY:	K.EAGAN	APPROVED BY:	G.DAVIES
		DATE:	-
		EWO NO.:	-
		ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 ISW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

ELECTRONIC SECURITY MAIN LEVEL PLAN

BKSI REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER BICSI ITS SPECIALIST

CERT	REG. NO	EXPIRES
RCDD	136702	12/31/2025
RCDD/NTS	136703	12/31/2024

04/03/2023
KRISTIAN ZEBROSKY

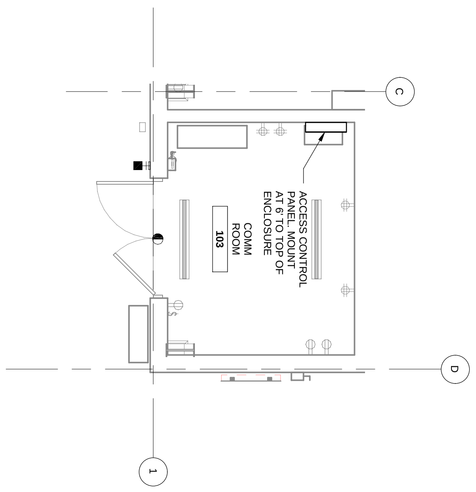
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0104-Y101

SHEET _____ OF -

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1 COMM ROOM 103 ENLARGED PLAN SECURITY
0104-Y101
NTS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

ELECTRONIC SECURITY ENLARGED PLAN

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

DESIGNED BY: K. ZEBROSKY
DRAWN BY: K.EAGAN
CHECKED BY: K. LONG
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

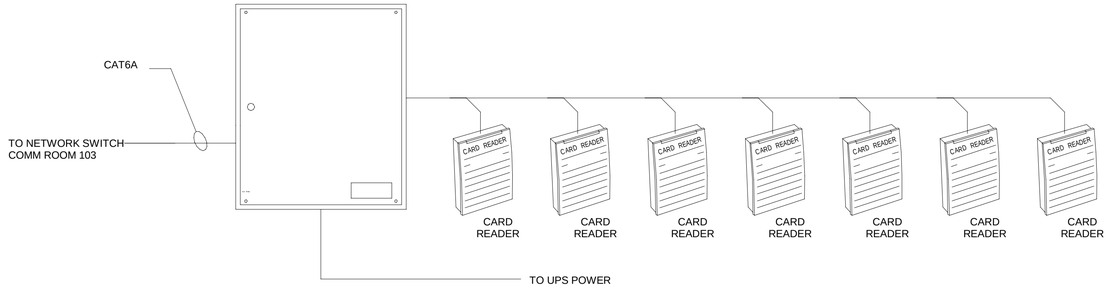
SCALE: 1/4" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DRAWING No: 0104-Y401
SHEET ____ OF -

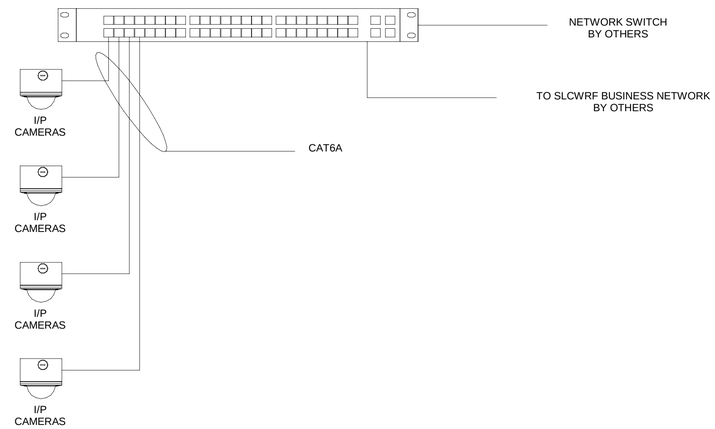
KRISTIN ZEBROSKY
REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH
No. 13670
CERTIFICATE NUMBER
DATE SIGNED
04/03/2023

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



1 ACCESS CONTROL ONE LINE DIAGRAM

NTS



2 VIDEO SURVEILLANCE ONE LINE DIAGRAM

NTS

DATE: 3/31/2023 10:22:15 AM

FILE: BIM 360://6057228-Salt Lake City 2019\5249\5350_0104-T001.rvt

SCALE: 12" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: K.EAGAN
CHECKED BY: K. LONG
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS ELECTRICAL BUILDING

ELECTRONIC SECURITY SINGLE LINE DIAGRAMS

BKSI
NTS SPECIALIST

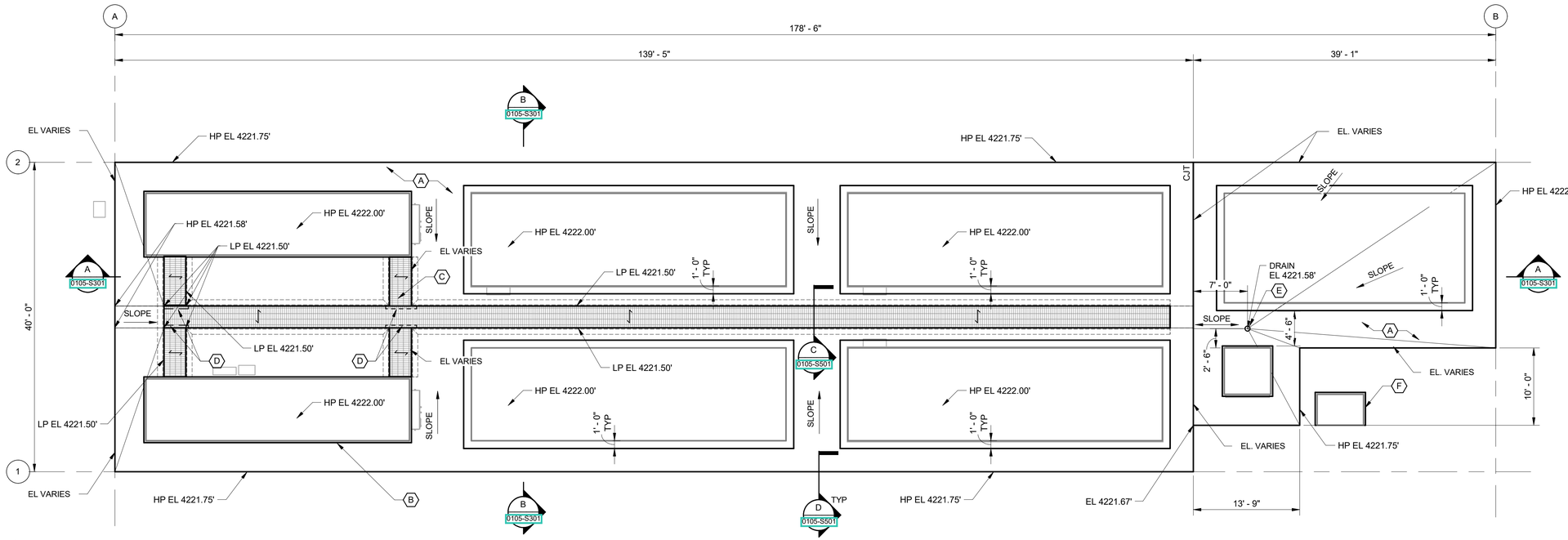
CERT.	REG.NO.	EXPIRES
RCDD	136703	12/31/2025
RCDDNTS	136703	12/31/2024

04/03/2023
KRISTIAN ZEBROSKY

DRAWING No.
0104-Y601

SHEET ____ OF -

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS A.
2. DO NOT DETAIL REBAR, FABRICATE REBAR, OR PLACE CONCRETE FOR MAT FOUNDATION UNTIL EQUIPMENT SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED BY THE DESIGN TEAM.
3. SEE ELECTRICAL DRAWINGS FOR LIGHTING POLE POSITIONS. SEE SECTION E/0105-S501 FOR DETAIL.

KEYNOTES

A. 2' - 6" (MIN) THICK CONCRETE MAT FOUNDATION +6" MAX ADDED THICKNESS FOR DRAINAGE. REINFORCE W/ #6 @ 12" OC EACH WAY T&B. BOF EL. 4219.00'

B. 6" (MIN) CONCRETE HOUSEKEEPING PAD TOC EL=4222.0' UNO. SEE TYPICAL DETAIL S013.

C. 1 1/2" X 3/16" ALUMINUM GRATING AT UTILITY TRENCH. POSITIONING OF TRENCH IS PRELIMINARY AND SUBJECT TO CHANGE BASED ON FINAL EQUIPMENT SELECTION.

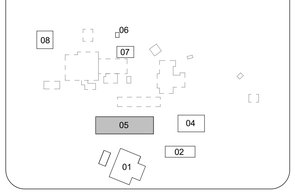
D. ALUMINUM C8X4.25 GRATING SUPPORT BEAM. SEE TYPICAL DETAIL S091 FOR CONNECTIONS.

E. FLOOR DRAIN. SEE PLUMBING DRAWINGS.

F. LIGHTING AND APPLIANCE PANELBOARD. SEE ELECTRICAL.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M.WASHMUTH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET: -

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

FOUNDATION PLAN

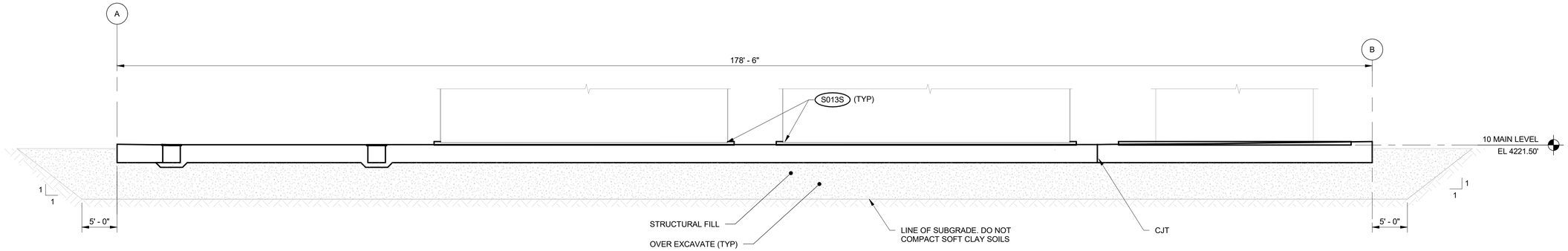
LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0105-S101

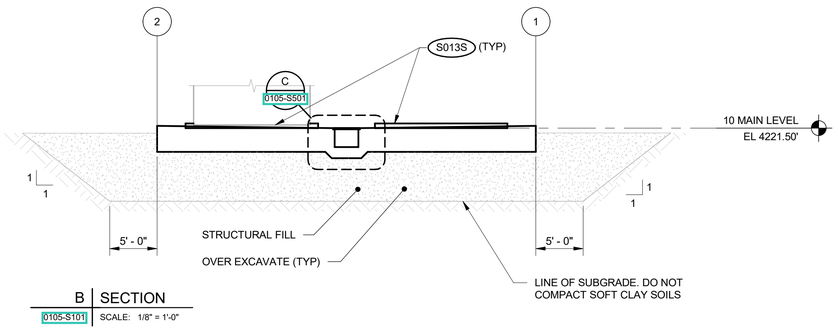
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DATE: 3/30/2023 2:52:38 PM



A | SECTION
0105-S101 | SCALE: 1/8" = 1'-0"



B | SECTION
0105-S101 | SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M.WASHMUTH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

SECTIONS

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

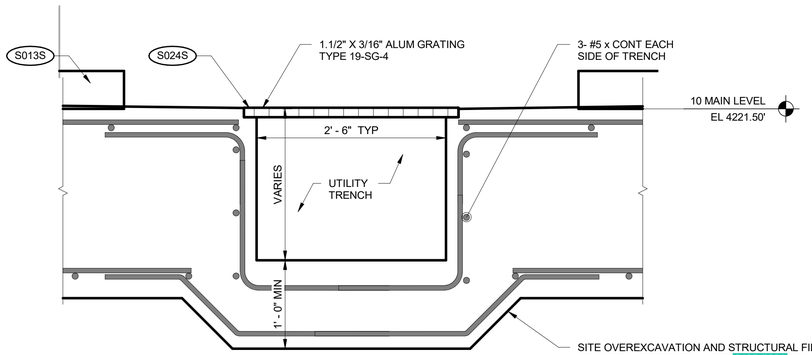
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SHEET _____ OF _____

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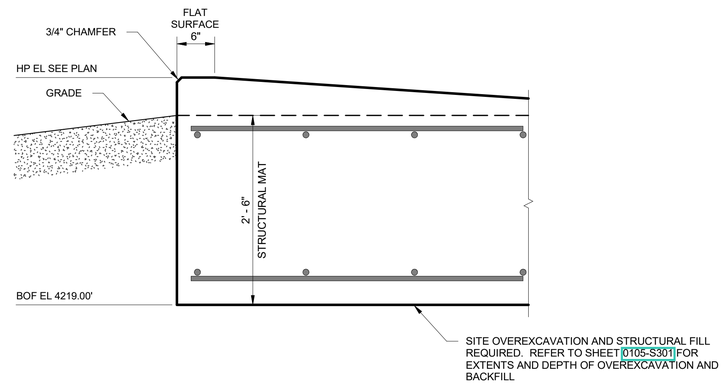
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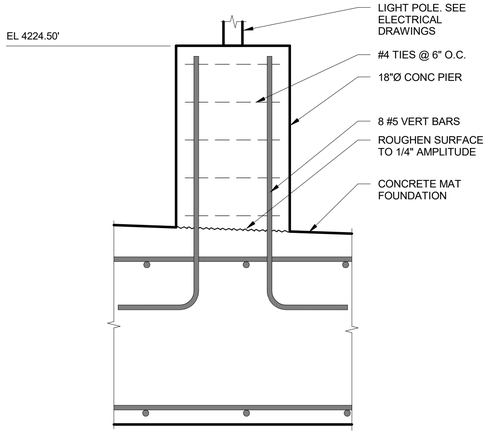
C | SECTION

0105-S101 | SCALE: 1" = 1'-0"



D | SECTION

0105-S101 | SCALE: 1" = 1'-0"



E | LIGHTING POLE DETAIL

0105-S101 | SCALE: 1" = 1'-0"

FILE: BIM 360://60572288-Salt Lake City 2019\524905350_0105-S001.rvt DATE: 3/30/2023 2:52:47 PM

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M.WASHBURN
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

SECTION DETAILS

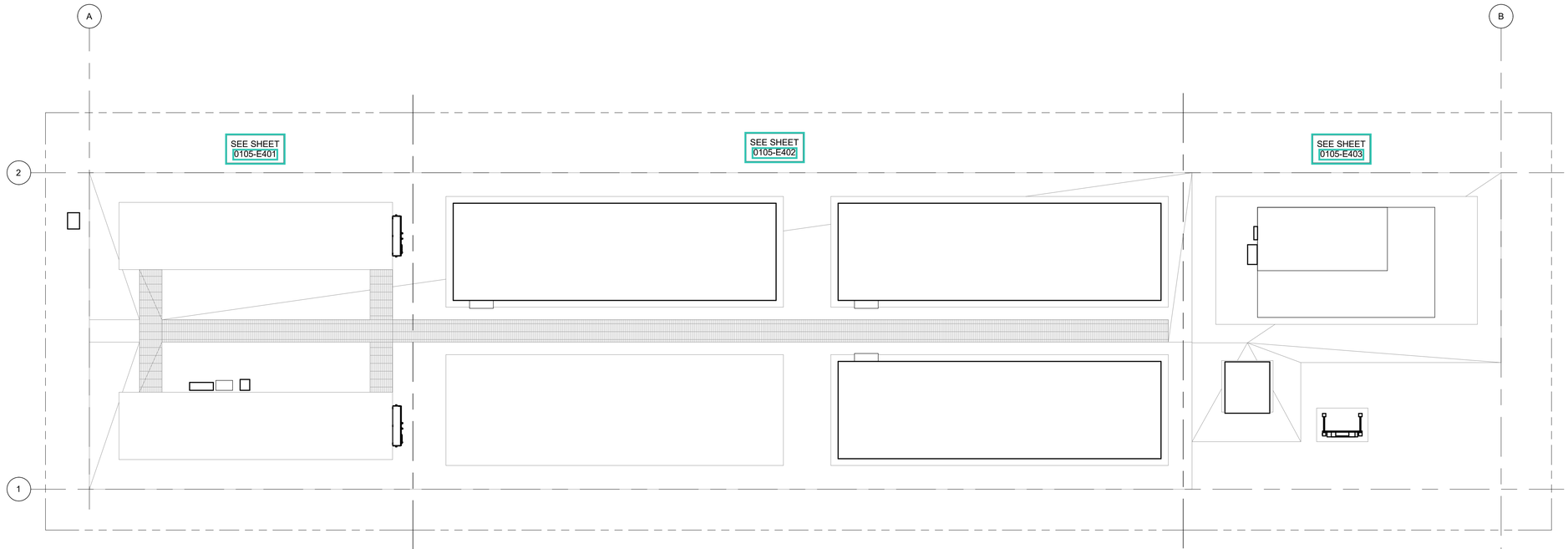
LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E.
HAWTHORNE
STATE OF UTAH

04-03-2023

DRAWING No.
0105-S501

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



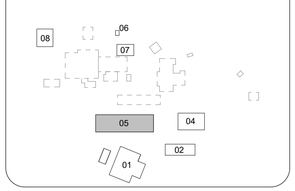
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MAIN LEVEL POWER PLAN - OVERALL

SCALE: 1/8" = 1'-0"

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

MAIN LEVEL OVERALL PLAN

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

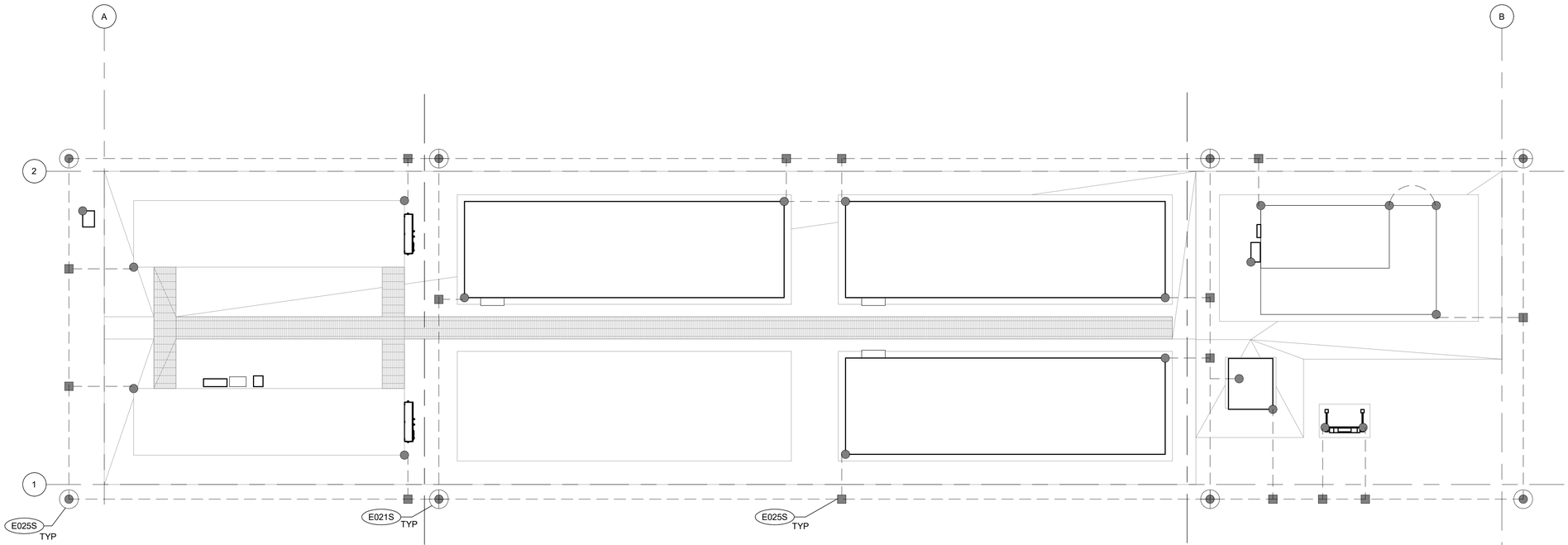
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SHEET _____ OF -

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N

MAIN LEVEL GROUNDING PLAN

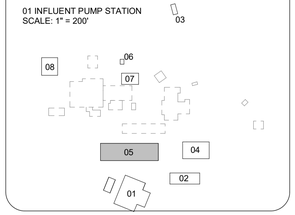
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. GROUNDING SHALL BE 4/0 COPPER GROUND CONDUCTOR, TYPICAL.
2. GROUND ROD SHALL BE 3/4" DIA X 20'-0" LONG, TYP.
3. BOND TO DUCT BANKS ALONG PERIMETER OF STRUCTURAL PAD AND TO EXISTING FLOW METER VAULT. (NOT SHOWN)

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 1/8" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

MAIN LEVEL GROUNDING PLAN

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

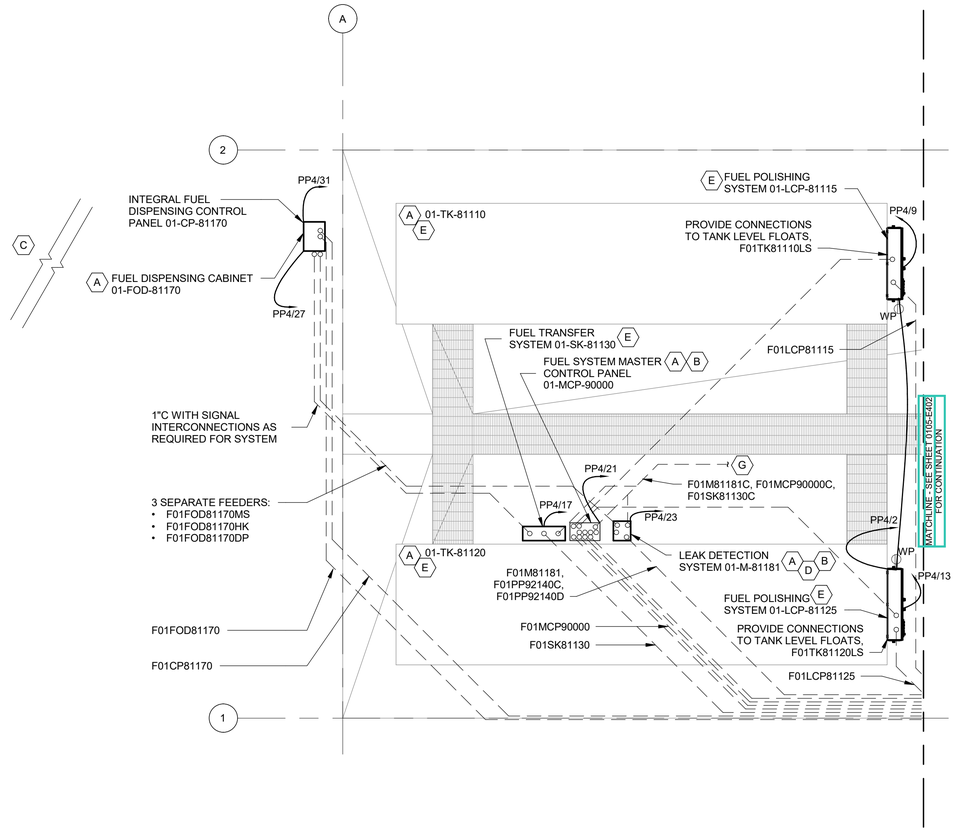
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DATE: 3/30/2023 5:14:15 PM

FILE: BIM 360://9057228-Salt Lake City 2019/524905350_0105-E001.rvt



N

MAIN LEVEL ENLARGED PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO SINGLE LINE DIAGRAM, SHEET 0100-E606 FOR POWER FEEDER DESIGNATIONS. REFERENCE 0100-E696 FOR FEEDER REQUIREMENTS
2. CONDUIT ROUTING IS DIAGRAMMATIC ONLY. FIELD ROUTE, CONSIDERING ACTUAL SITE AND EQUIPMENT.
3. PROVIDE INTEGRATION OF THE GENERATOR PARALLELING SYSTEM, THE FUEL TRANSFER SYSTEM, THE LEAK MONITORING/DETECTION SYSTEM, AND THE SCADA SYSTEM. REQUIREMENTS FOR GENERATORS VARY BY MANUFACTURER SO PROVIDE ADDITIONAL CONDUIT, CABLE, CONDUCTORS AND OTHER WORK AS REQUIRED FOR A FUNCTIONAL SYSTEM, EVEN IF NOT EXPLICITLY SHOWN.
4. ROUTE CONDUITS UNDERSLAB, PER DETAIL E071S, AND PROVIDE ABOVE-GRADE DEFLECTION FITTINGS WHERE CONDUIT IS SECURED TO THE ENLCOSURE IT ENTERS.

KEYNOTES

A. NOT SHOWN - PROVIDE FEEDERS FROM 01-M-81181 LEAK DETECTION CP TO FOLLOWING DEVICES. REFERENCE FEEDER SCHEDULE FOR ADDITIONAL REQUIREMENTS:
- TO SENSORS ON FUEL TANK 01-TK-81110:
  1. F01TK81110IL TO INTERSTITIAL LEAK SENSOR.
  2. F01TK81110MP TO MAGNETOSTRICTIVE PROBE.
  3. F01TK81110MS TO MAGNETOSTRICTIVE SENSOR.
  4. F01TK81110AH TO OVERFILL ALARM.
  5. F01TK81110LT TO LEVEL INSTRUMENTS.
- TO SENSORS ON FUEL TANK 01-TK-81120:
  1. F01TK81120IL TO INTERSTITIAL LEAK SENSOR.
  2. F01TK81120MP TO MAGNETOSTRICTIVE PROBE.
  3. F01TK81120MS TO MAGNETOSTRICTIVE SENSOR.
  4. F01TK81120AH TO OVERFILL ALARM.
  5. F01TK81120LT TO LEVEL INSTRUMENTS.
- TO SENSORS IN 01-SK-81130:
  1. F01TK81110DS TO SUMP SENSOR.
  2. F01TK81110QS TO PRESSURIZED LINE LEAK DETECTOR.
  3. F01TK81120DS TO SUMP SENSOR.
  4. F01TK81120QS TO PRESSURIZED LINE LEAK DETECTOR.

B. NOT SHOWN - PROVIDE FEEDERS FROM EQUIPMENT IDENTIFIED TO SCADA TIE-IN LOCATIONAT 01-CTC-90100 AS FOLLOWS:
- F01M81181C
- F01MCP90000C

C. NOT SHOWN - PROVIDE CONDUIT AND CONDUCTORS BETWEEN EMERGENCY POWER-OFF BUTTON LOCATED AS SHOWN ON SHEET 0100-E102. INTEGRATE SO SHUNT-TRIP BREAKERS SHOWN ON PANEL SCHEDULE WILL OPEN UPON EPO ACTUATION. PROVIDE ANY RELATED AUXILIARY ELECTRONICS IN A NEMA 3R ENCLOSURE ON THE REVERSE SIDE OF THIS RACK, IF REQUIRED.
- F01EPO81000 TO EPO BUTTON ON 0100-E102.
- F01TEL81000 TO TELEPHONE ON 0100-E102.
- F01TEL81000C TO TELEPHONE ON 0100-E102.

D. PROVIDE LOCKABLE NEMA 4 ENCLOSURE FOR VEEDER ROOT CONSOLE AND RELATED FUEL LEAK DETECTION AND MONITORING SYSTEM COMPONENTS. PROVIDE CLASS I, DIV. 2 SEAL-OFFS FOR ALL PROCESS CONDUITS.

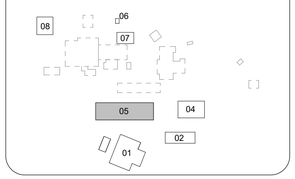
E. NUMEROUS SENSORS, CONTROLS, CONDUITS, AND CABLES ARE ASSOCIATED WITH THE FUEL TRANSFER, POLISHING, AND MONITORING SYSTEM. PROVIDE ALL INFRASTRUCTURE AS REQUIRED FOR A COMPLETE SYSTEM THAT TRANSFERS AND MONITORS FUEL, ALTHOUGH INDIVIDUAL DEVICES ARE NOT SHOWN. REFERENCE SHEET 0100-X655 THROUGH 0100-X659 AND SPECIFICATION 23 13 25 FOR ADDITIONAL REQUIREMENTS.

F. PROVIDE SUPPLY PUMP AND ASSOCIATED ROUTING VALVES AS REGULATED AND SWITCHED BY THE FUEL TRANSFER SYSTEM. REFERENCE SHEET 0100-X655 THROUGH 0100-X659 AND SPECIFICATION 23 13 25 FOR ADDITIONAL REQUIREMENTS.

G. NOT SHOWN - PROVIDE FEEDERS TO 01-CTC-90101 FROM THE FOLLOWING REMOTE EQUIPMENT:
  a. 01-MCP-90000 FUEL SYSTEM CONTROL PANEL, F01MCP90000C
  b. 01-M-81181 LEAK DETECTION SYSTEM, F01M81181C
  c. 01-SK-81130 FUEL TRANSFER SKID, F01SK81130C

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

FUEL STORAGE ENLARGED PLAN

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS

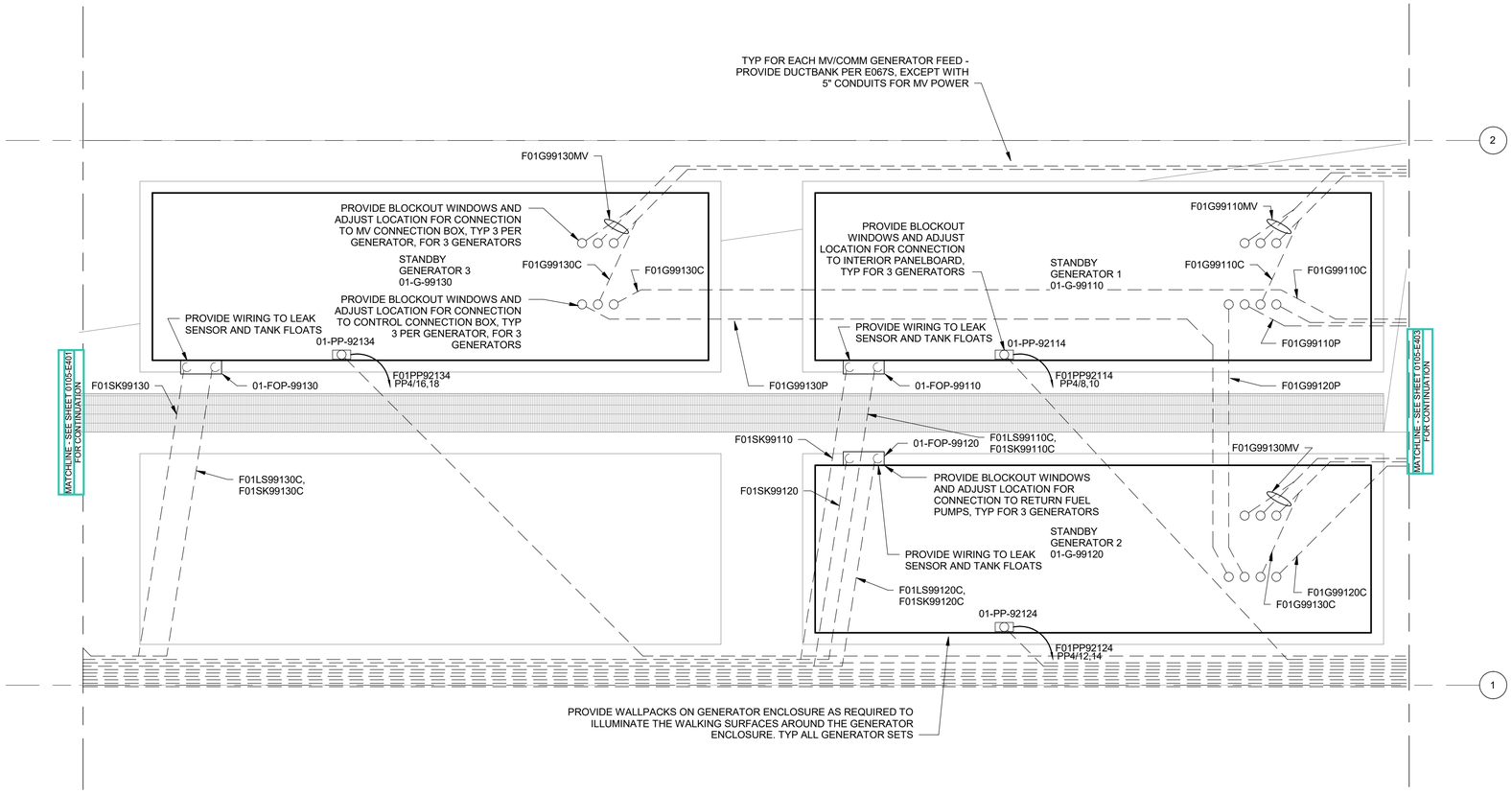
DRAWING No.
0105-E401

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N

MAIN LEVEL ENLARGED PLAN

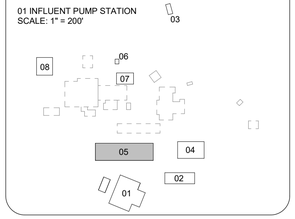
SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO SINGLE LINE DIAGRAM, SHEET 0100-E606 FOR POWER FEEDER DESIGNATIONS. REFERENCE 0100-E696 FOR FEEDER REQUIREMENTS.
2. CONDUIT ROUTING IS DIAGRAMMATIC ONLY. FIELD ROUTE, CONSIDERING ACTUAL SITE AND EQUIPMENT.
3. PROVIDE INTEGRATION OF THE GENERATOR PARALLELING SYSTEM, THE FUEL TRANSFER SYSTEM, THE LEAK MONITORING/DETECTION SYSTEM, AND THE SCADA SYSTEM. REQUIREMENTS FOR GENERATORS VARY BY MANUFACTURER SO PROVIDE ADDITIONAL CONDUIT, CABLE, CONDUCTORS AND OTHER WORK AS REQUIRED FOR A FUNCTIONAL SYSTEM, EVEN IF NOT EXPLICITLY SHOWN.
4. ROUTE CONDUITS UNDERSLAB, PER DETAIL E071S, AND PROVIDE ABOVE-GRADE DEFLECTION FITTINGS WHERE CONDUIT IS SECURED TO THE ENLCOSURE IT ENTERS.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	- - -
EWO NO.:	-
ACCOUNT NO.:	524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

GENERATOR SETS ENLARGED PLAN

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS

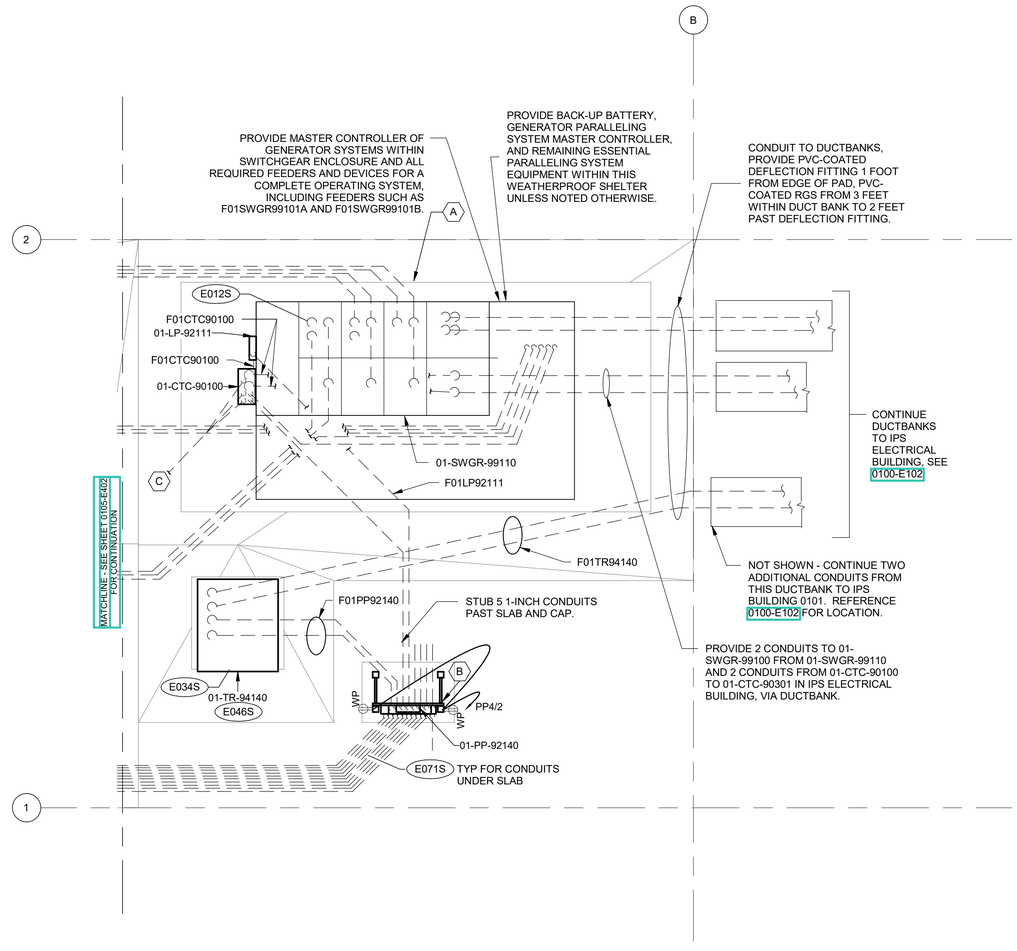
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0105-E402

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N

MAIN LEVEL ENLARGED PLAN

SCALE: 3/16" = 1'-0"

GENERAL NOTES

1. REFER TO SINGLE LINE DIAGRAM, SHEET 0100-E606 FOR POWER FEEDER DESIGNATIONS. REFERENCE 0100-E696 FOR FEEDER REQUIREMENTS.
2. CONDUIT ROUTING IS DIAGRAMMATIC ONLY. FIELD ROUTE, CONSIDERING ACTUAL SITE AND EQUIPMENT.
3. PROVIDE INTEGRATION OF THE GENERATOR PARALLELING SYSTEM, THE FUEL TRANSFER SYSTEM, THE LEAK MONITORING/DETECTION SYSTEM, AND THE SCADA SYSTEM. REQUIREMENTS FOR GENERATORS VARY BY MANUFACTURER SO PROVIDE ADDITIONAL CONDUIT, CABLE, CONDUCTORS AND OTHER WORK AS REQUIRED FOR A FUNCTIONAL SYSTEM, EVEN IF NOT EXPLICITLY SHOWN.
4. ROUTE CONDUITS UNDERSLAB, PER DETAIL E071S, AND PROVIDE ABOVE-GRADE DEFLECTION FITTINGS WHERE CONDUIT IS CONNECTED TO THE ENLCOSURE IT ENTERS.

KEYNOTES

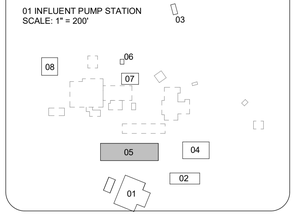
A. OUTDOOR WALK-IN STANDBY SWITCHGEAR 01-SWGR-99110 FOR GENERATOR SYNCHRONIZING; WITH INTEGRAL GENERATOR MANAGEMENT SYSTEM AND BATTERY CONTROL POWER. PROVIDE WITH INTERIOR AND EXTERIOR LIGHTING, 2 INDOOR CONVENIENCE RECEPTACLES. POWER FOR LIGHTING AND RECEPTACLES TO COME FROM EXTERNAL PANELBOARD 01-LP-92111.

B. PROVIDE STRUT RACK WITH KNEE BRACING AND PANEL 01-PP-92140. PROVIDE 8"x8" NEMA 3R WIREWAY BELOW PANEL FOR CONDUIT.

C. NOT SHOWN - PROVIDE FEEDERS TO 01-CTC-90101 FROM THE FOLLOWING REMOTE EQUIPMENT:
- 01-MCP-90000 FUEL SYSTEM CONTROL PANEL, F01MCP90000C
- 01-M-81181 LEAK DETECTION SYSTEM, F01M81181C
- EPO/PHONE ISLAND LOCATED WEST, ACROSS ROAD FROM DISPENSER, AS FOLLOWS:
  1. F01EPO81000 TO EPO BUTTON ON 0100-E102.
  2. F01TEL81000 TO TELEPHONE ON 0100-E102, FROM EPO BUTTON.
  3. F01TEL81000C TO TELEPHONE ON 0100-E102.

KEY PLAN

01 INFLUENT PUMP STATION
SCALE: 1" = 200'



SCALE: 3/16" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

POWER FACILITIES ENLARGED PLAN

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0105-E403

SHEET _____ OF -

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DATE: 3/30/2023 5:14:19 PM

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Branch Panel: 01-PP-92140

LOCATION: IPS STANDBY AND FUEL STORAGE FACILITY
SUPPLY FROM: 01-TR-94140
MOUNTING: SURFACE
ENCLOSURE: NEMA 3R

VOLTS: 208/120 WYE
PHASES: 3
WIRES: 4

A.I.C. RATING: 22,000 AMPS
MAINS TYPE: MAIN CIRCUIT BREAKER
MAINS RATING: 400 A
MCB RATING: 400 A, 3 POLE, LOCKABLE

NOTES:
GENERAL SCHEDULE NOTE - PROVIDE MANUFACTURER'S LOCKABLE HASP FOR EACH CIRCUIT BREAKER.
(NOTE 2) PROVIDE CLASS A / PERSONNEL-PROTECTION TYPE GROUND FAULT CIRCUIT INTERRUPTING CIRCUIT BREAKER FOR VALVE ACTUATOR AND FOR RECEPTACLE CIRCUIT.
(NOTE 3) PROVIDE INTERPOSING RELAY TO SHUNT TRIP ITEMS IDENTIFIED NOTED ON THIS SCHEDULE USING NATIVE VOLTAGE WITHIN VEEDER ROOT PANELBOARD.
(NOTE 4) PROVIDE SHUNT-TRIP TYPE BREAKER FOR SHUTDOWN UPON EPO ACTUATION.
(NOTE 5) COORDINATE WITH ENGINEER OF RECORD FOR ANY ACTUAL LOADS LARGER THAN DESIGN LOADS SHOWN IN THIS TABLE.

CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
PP4/1	SPACE	--	--	0 VA	720 VA					1	20 A	RCPT - STANDBY PAD VICINITY (NOTE 2)	PP4/2
PP4/3	SPACE	--	--			0 VA	0 VA			--	--	SPACE	PP4/4
PP4/5	SPACE	--	--					0 VA	0 VA	--	--	SPACE	PP4/6
PP4/7	01-PP-92110 SHUNT TRIP SUPPLY (NOTE 3)	15 A	1	10 VA	10400 VA					2	125 A	01-G-99110 GENERATOR SHORE FEED	PP4/8
PP4/9	01-TK-81110 POLISHING CABINET (NOTE 4)	20 A	1			1000 VA	10400 VA			--	--	--	PP4/10
PP4/11	(SHUNT TRIP ACCESSORY)	--	--					0 VA	10400 VA	2	125 A	01-G-99120 GENERATOR SHORE FEED	PP4/12
PP4/13	01-TK-81120 POLISHING CABINET (NOTE 4)	20 A	1	1000 VA	10400 VA					--	--	--	PP4/14
PP4/15	(SHUNT TRIP ACCESSORY)	--	--			0 VA	10400 VA			2	125 A	01-G-99130 GENERATOR SHORE FEED	PP4/16
PP4/17	01-MCP-9000 FUEL SYSTEM MASTER (NOTE 4)	70 A	1					7800 VA	10400 VA	--	--	--	PP4/18
PP4/19	(SHUNT TRIP ACCESSORY)	--	--	0 VA	0 VA					--	--	SPACE	PP4/20
PP4/21	01-SK-81130 FUEL TRANSFER SYSTEM (NOTE 4)	30 A	1			2800 VA	0 VA			--	--	SPACE	PP4/22
PP4/23	01-M-81181 LEAK DETECTION CP	15 A	1					500 VA	0 VA	--	--	SPACE	PP4/24
PP4/25	(SHUNT TRIP ACCESSORY)	--	--	0 VA	0 VA					--	--	SPACE	PP4/26
PP4/27	01-FOD-81170 FUEL OIL DISPENSER(NOTE 4)	120 A	1			1000 VA	0 VA			--	--	SPACE	PP4/28
PP4/29	(SHUNT TRIP ACCESSORY)	--	--					0 VA	0 VA	--	--	SPACE	PP4/30
PP4/31	01-CP-81170 FOD CP STANDBY FUEL (NOTE 4)	15 A	1	200 VA	0 VA					1	15 A	SPARE	PP4/32
PP4/33	(SHUNT TRIP ACCESSORY)	--	--			0 VA	0 VA			1	15 A	SPARE	PP4/34
PP4/35	SPACE	--	--					0 VA	0 VA	1	20 A	SPARE	PP4/36
PP4/37	PANEL 01-LP-93111, SWGR	100 A	3	2500 VA	0 VA					--	--	SPACE	PP4/38
PP4/39	--	--	--			2500 VA	0 VA			--	--	SPACE	PP4/40
PP4/41	--	--	--					2500 VA	0 VA	--	--	SPACE	PP4/42
		Total Load:		25230 VA		28100 VA		31600 VA					
		Total Amps:		210 A		238 A		267 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
Motor	31600 VA	100.00%	31600 VA		
Other	49100 VA	100.00%	49100 VA	**TOTAL CONNECTED LOAD:**	84930 VA
Power	3510 VA	100.00%	3510 VA	**TOTAL ESTIMATED DEMAND:**	84930 VA
Receptacle	720 VA	100.00%	720 VA	**TOTAL CONNECTED CURRENT:**	236 A
				TOTAL ESTIMATED DEMAND...	236 A

Notes:

SCALE:

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
IPS STANDBY POWER AND FUEL STORAGE

PANEL SCHEDULE

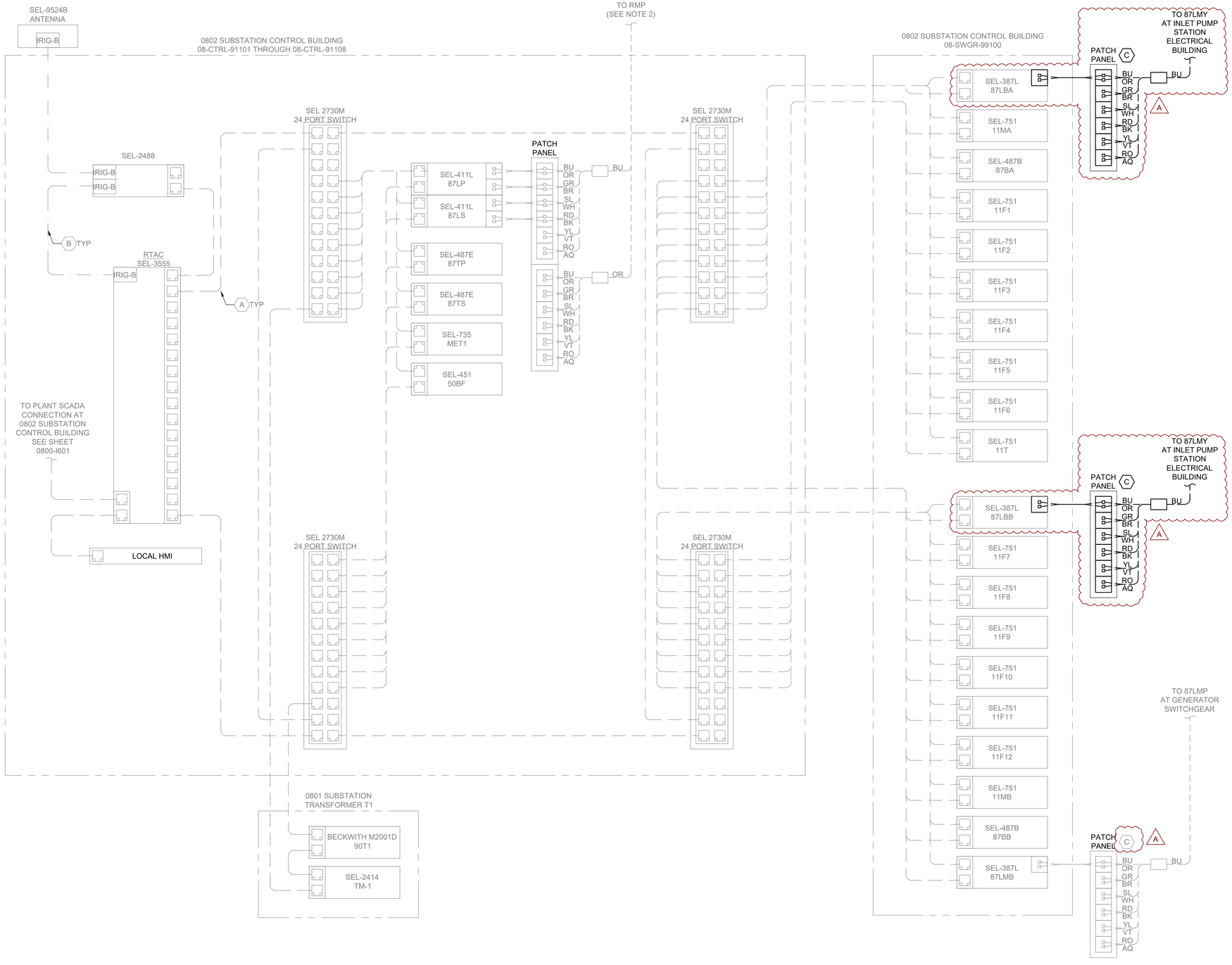
PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0105-E601

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VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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GENERAL NOTES

1. ALL SUBSTATION COMMUNICATIONS DEVICES AND RELAYS SHALL BE SEL AS INDICATED OR APPROVED EQUAL.
2. SUBSTATION COMMUNICATIONS DETAILS AND REQUIREMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING COORDINATION WITH RMP.

KEYNOTES

A. INSTALL NEW CAT 6 CABLE AS SHOWN IN A MINIMUM 3/4" CONDUIT. WHERE FEASIBLE, CAT 6 CABLES MAY BE COMBINED INTO THE SAME CONDUIT. CONDUITS SHALL BE INSTALLED PER DIVISION 26 AND 27.

B. IRIG-B SIGNAL SHALL BE DISTRIBUTED TO ALL SUBSTATION SEL DEVICES AND OTHER IRIG-B CAPABLE DEVICES WHETHER OR NOT SHOWN. DEVICES WITHIN THE SUBSTATION CONTROL BUILDING SHALL RECEIVE IRIG-B FROM THE RTAC VIA COAXIAL CONNECTION. DEVICES OUTSIDE THE CONTROL BUILDING SHALL RECEIVE IRIG-B FROM THE RTAC VIA SERIAL CONNECTION USING AN SEL FIBER OPTIC TRANSCEIVER.

A C. ROUTE SINGLE-MODE FIBER OPTIC CABLES THROUGH BUILDING CTC CABINET TO DESTINATIONS. LOCATE PATCH PANEL EITHER WITHIN SWITCHGEAR, OR WITHIN CTC AS SPACE/CRITERIA ALLOW. PROVIDE SINGLE CASSETTE HOUSING WHERE LOCATING WITHIN RELAY SWITCHGEAR CUBICLE, OR RACK-MOUNT HOUSING WHERE LOCATING WITHIN CTC.

LEGEND

- CAT 6 ETHERNET CABLE
- SINGLE MODE FIBER OPTIC CABLE
- SINGLE MODE DUPLEX PATCH CABLE
- COAXIAL CABLE
- LC TYPE FIBER OPTIC CONNECTOR
- ETHERNET PORT

SCALE: NTS

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: I. WELANDER
DRAWN BY: I. WELANDER
CHECKED BY: D. GOWARD
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905271

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	20-04-03	SW-1A: ISSUED FOR BID	GR	DG
0	22-01-14	SW-2: ISSUED FOR CONSTRUCTION	IW	

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
ELECTRICAL FACILITY

SUBSTATION COMMUNICATIONS BLOCK DIAGRAM

PROFESSIONAL ENGINEER
Lic. No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0800-I606

SHEET ---- OF ----

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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TYPICAL DETAILS INDEX

0100-C701S	
C701S	TRENCH SECTION
C702S	TYPICAL FORCEMAIN TRENCH SECTION
C703S	NATURAL GAS PIPE TRENCH
0100-C702S	
C704S	APWA PLAN 255 BITUMINOUS PAVEMENT T-PATCH
C705S	APWA PLAN 205.2 CURB & GUTTER
C706S	APWA PLAN 211 WATERWAY
C707S	APWA PLAN 231 SIDEWALK
0100-C703S	
C708S	TYPICAL CONCRETE SLAB-ON-GRADE DETAIL
C709S	TYPICAL CONCRETE APPROACH APRON
C710S	TYPICAL BOLLARD DETAIL
C711S	APWA PLAN 206 CURB AND GUTTER CONNECTION
0100-C704S	
C712S	CHAIN LINK FENCE DETAIL
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C713S	APWA PLAN 315.1 CATCH BASIN
C714S	APWA PLAN 308 CURB OPENING FRAME AND GRATE
C715S	APWA PLAN 331.2 CLEAN-OUT BOX (TYPE B)
C716S	APWA PLAN 303 44" FRAME AND COVER
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C720S	TYPICAL MAINTENANCE HOLE CONNECTION DETAILS
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C722S	APWA PLAN 431 SEWER LATERAL CONNECTION
C723S	APWA PLAN 433 SANITARY SEWER PIPE DROP
C724S	APWA PLAN 413 COVER COLLAR FOR SANITARY SEWER MANHOLE
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C725S	APWA PLAN 360.1 RAISE FRAME TO GRADE
C726S	APWA PLAN 574 COVER COLLAR FOR WATER VALVE BOX
C727S	TYPICAL BURIED VALVE INSTALLATION (3"-20" VALVES)
C728S	APWA PLAN 512 1 1/2" & 2" SERVICE TAPS
0100-C709S	
C729S	PVC DRAIN FLEXIBLE COUPLING
C730S	PVC OR HDPE RESTRAINED COUPLING
C731S	DRAIN CURB CUT
C732S	TYPICAL REMOVABLE BOLLARD DETAIL
0100-C710S	
C733S	APWA PLAN 511 FIRE HYDRANT WITH VALVE
C734S	APWA PLAN 542 WATER SERVICE LINE LOOP
C735S	APWA PLAN 543.1 WATER MAIN LOOP
C736S	APWA PLAN 543.2 WATER MAIN LOOP
0100-C711S	
C737S	(NOT USED)
C738S	CANTILEVER SLIDE GATE

TYPICAL DETAILS INDEX

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C739S	APWA PLAN 521 3/4" AND 1" METER
C740S	APWA PLAN 555 WATER SERVICE LINE
C741S	APWA PLAN 551 3/4" AND 1" SERVICE TAPS
C742S	(NOT USED)
0100-C713S	(NOT USED)
0100-C714S	(NOT USED)
0100-C715S	
C750S	T-BASE MH DETAILS
C753S	STOP LOG EMBEDDED ALUMINUM CHANNEL
0100-C716S	
C751S	APWA PLAN 411 SANITARY SEWER MAINTENANCE MANHOLE
C752S	CONCRETE CRADLE DETAIL

SCALE: NTS

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: G. STEPHENSON
CHECKED BY: M.CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A, ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: --

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
INDEX

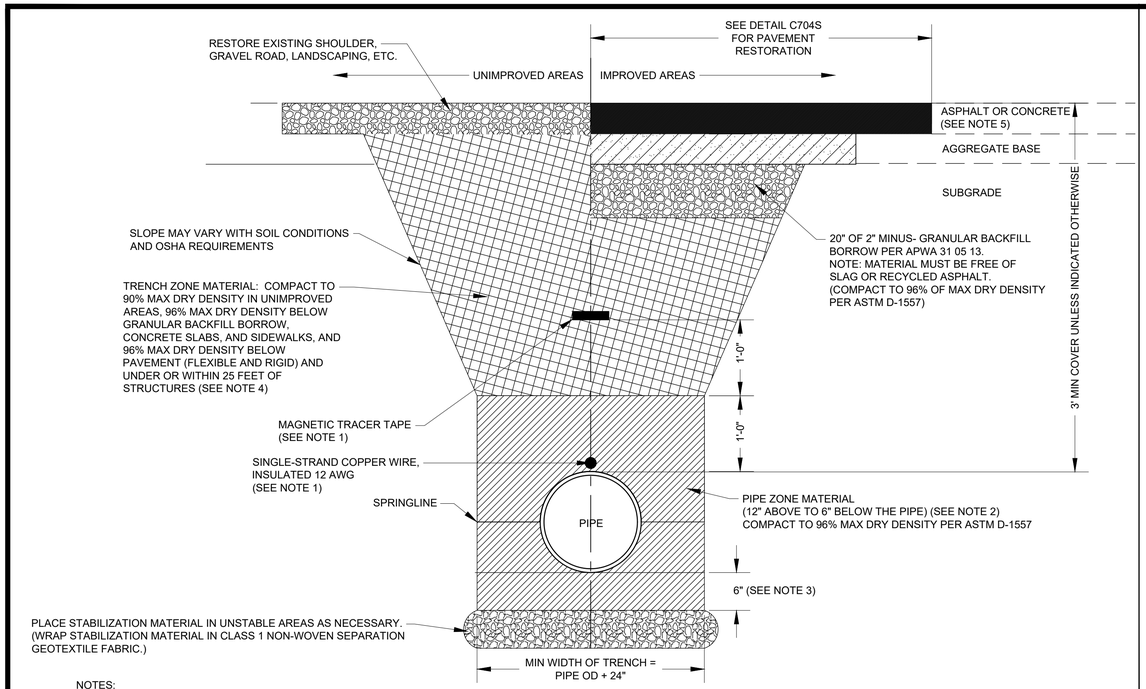
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C700S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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NOTES:

1. MAGNETIC TRACER TAPE AND TRACER WIRE REQUIRED ON ALL PIPES.

2A. PIPE ZONE MATERIAL FOR RCP SHALL CONSIST OF 3/4" MINUS, WELL GRADED MATERIAL PER SECTION 31 23 33.

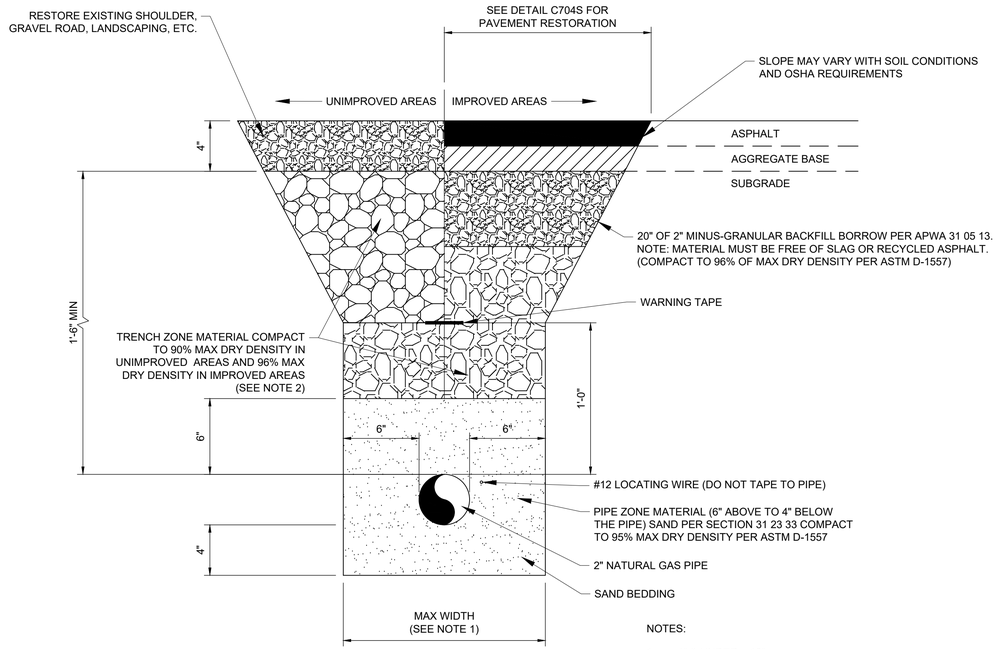
2B. PIPE ZONE MATERIAL FOR PVC, HDPE, GFRP, AND DUCTILE IRON PIPE SHALL CONSIST OF 1" UTBC PER SECTION 31 23 33.

3. BED PIPE IN MINIMUM OF 6" OF PIPE ZONE MATERIAL.

4. TRENCH ZONE MATERIAL SHALL CONSIST OF EXISTING FILL OR GRANULAR BORROW CONFORMING TO AASHTO A-1-a OR A-1-b WITH A MAXIMUM PARTICLE SIZE OF 3-INCHES. TRENCH ZONE MATERIAL UNDER STRUCTURES SHALL BE STRUCTURAL FILL UNLESS NOTED OTHERWISE.

5. FOR CONCRETE PAVEMENT RESTORATION, MATCH EXISTING CONCRETE THICKNESS OR 6-INCH MINIMUM AND PROVIDE DOWELS, REINFORCEMENT, AGGREGATE BASE, AND SUB-BASE PER DETAIL C709S.

C701S TRENCH SECTION
NTS

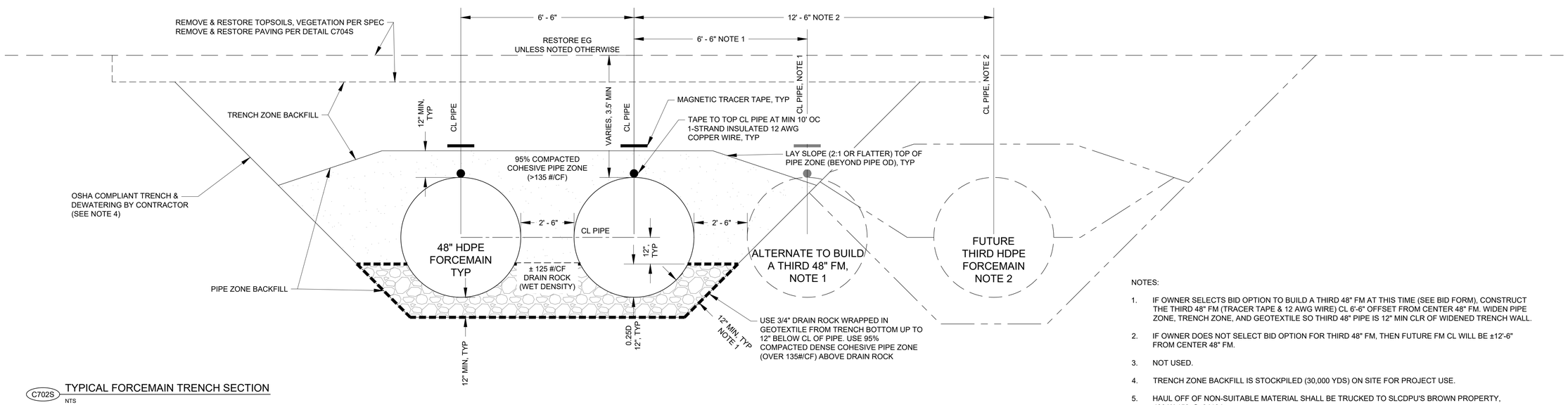


NOTES:

1. 4" & UNDER = 18";
   6" TO 8" = 24"

2. TRENCH ZONE MATERIAL SHALL CONSIST OF EXISTING FILL OR GRANULAR BORROW CONFORMING TO AASHTO A-1-a WITH A MAXIMUM PARTICLE SIZE OF 3-INCHES.

C703S NATURAL GAS PIPE TRENCH
NTS



C702S TYPICAL FORCEMAIN TRENCH SECTION
NTS

NOTES:

1. IF OWNER SELECTS BID OPTION TO BUILD A THIRD 48" FM AT THIS TIME (SEE BID FORM), CONSTRUCT THE THIRD 48" FM (TRACER TAPE & 12 AWG WIRE) CL 6'-6" OFFSET FROM CENTER 48" FM. WIDEN PIPE ZONE, TRENCH ZONE, AND GEOTEXTILE SO THIRD 48" PIPE IS 12" MIN CLR OF WIDENED TRENCH WALL.

2. IF OWNER DOES NOT SELECT BID OPTION FOR THIRD 48" FM, THEN FUTURE FM CL WILL BE ±12'-6" FROM CENTER 48" FM.

3. NOT USED.

4. TRENCH ZONE BACKFILL IS STOCKPILED (30,000 YDS) ON SITE FOR PROJECT USE.

5. HAUL OFF OF NON-SUITABLE MATERIAL SHALL BE TRUCKED TO SLCDPU'S BROWN PROPERTY, 499 W 150 S, 84104.

SCALE: AS SHOWN

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	GDS	MMC

LAST CONFORMED SET: --- SW-1A, ISSUED FOR BID

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 1 OF 16

LICENSED PROFESSIONAL ENGINEER No. 182750 MICHAEL M. CHAMBERS STATE OF UTAH
04-03-2023

DRAWING No. 0100-C701S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

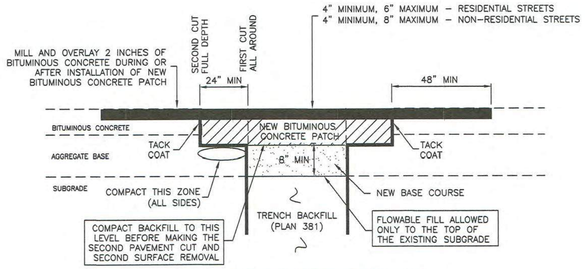
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BITUMINOUS PAVEMENT T-PATCH

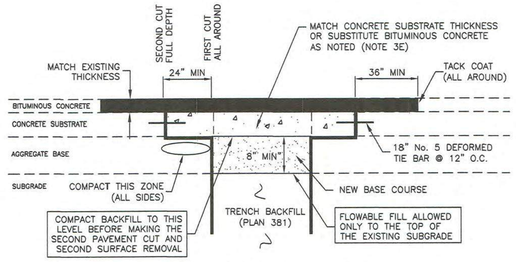
1. GENERAL
   - A. Vertical cuts in bituminous pavement may be done by saw or pavement zipping. If cuts greater than 6 inches are necessary to prevent pavement "break off" consult ENGINEER for directions on handling addtional costs.
   - B. Repair a T-patch restoration if any of the following conditions occur prior to final payment or at the end of the one year correction period.
     1) Pavement surface distortion exceeds 1/4-inch deviation in 10 feet. Repair option - plane off surface distortions. coat planed surface with a cationic or anionic mulsion that complies with APWA Section 32 12 03..
     2) Separation appears at a connection to an existing pavement or any Street Fixture. Repair option - blow separation clean and apply joint sealant, Plan 265.
     3) Cracks at least 1-foot long and 1/4-inch wide occur more often than 1 in 10 square feet. Repair option - blow clean and apply crack seal, Plan 265.
     4) Pavement raveling is greater than 1 square foot per 100 square feet. Repair option - Mill and inlay, APWA Sections 32 01 16.71 and 32 12 05.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
   - C. Reinforcement. No. 5, galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - D. Concrete: Class 4000, APWA Section 03 30 04.
   - E. Tack Coat: APWA Section 32 12 13.13.
   - F. Bituminous Concrete. APWA Section 32 12 05.
     1) Warm Weather Patch: PG64-22-DM-1/2, unless indicated otherwise.
     2) Cold Weather Patch: Modified MC-250-FM-1 as indicated in APWA Section 33 05 25.

3. EXECUTION
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Flowable Fill: Cure to initial set before placing aggregate base or bituminous pavement. Use in excavations that are too narrow to receive compaction equipment.
   - C. Tack Coat. Clean all horizontal and vertical surfaces. Apply full coverage all surfaces.
   - D. Pavement Placement: Follow APWA Section 32 12 16.13. Unless indicated otherwise, lift thickness is 3-inches minimum after compaction. Compact to 94 percent of ASTM D2041 (Rice density) plus or minus 2 percent.
   - E. Bituminous Concrete Substitution: If bituminous concrete is substituted for Portland cement concrete substrate, omit rebar and provide 1.25 inches of bituminous concrete for each 1 inch of Portland cement concrete. Follow paragraph E requirements.
   - F. Reinforcement. Required if thickness of existing Portland-cement concrete substrate is 6-inches or greater. Not required if 1) less than 6-inches thick, 2) if existing concrete is deteriorating, 3) if excavation is less than 3 feet square, or 4) if bituminous pavement is substituted for Portland-cement concrete substrate.
   - G. Concrete Substrate. Cure to initial set before placing new bituminous concrete patch.



BITUMINOUS CONCRETE RESTORATION



COMPOSITE RESTORATION

C704S APWA PLAN 255 BITUMINOUS PAVEMENT T-PATCH
NTS

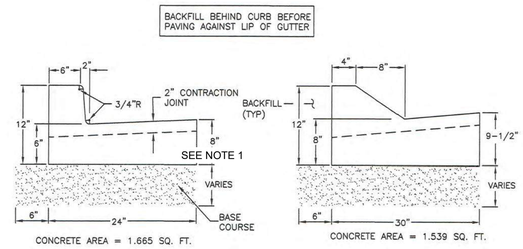
CURB AND GUTTER

1. GENERAL
   - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   - B. Additional requirements are specified in APWA Section 32 16 13.

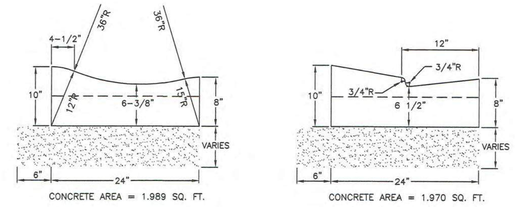
2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   - D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. EXECUTION
   - A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install at the start or end of a street intersection curb return. Expansion joints are not required in concrete placement using slip-form construction.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   - C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

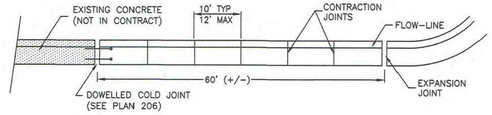
NOTES:
1. WHERE SPILL PAN IS NOTED ON THE DRAWING, CHANGE LIP OF GUTTER THICKNESS TO 6-INCHES AND SLOPE PAN 1-1/2" AWAY FROM CURB.
2. WHERE TRANSITION FROM CURB TO NO CURB IS REQUIRED, THE HORIZONTAL TRANSITION DISTANCE SHALL BE 24 INCHES.
3. TYPE F, TYPE G, AND TYPE H CURB AND GUTTER NOT USED.



Type E **Type F**



Type G **Type H**



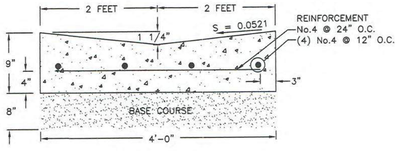
C705S APWA PLAN 205.2 CURB & GUTTER
NTS

WATERWAY

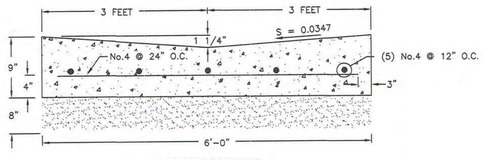
1. GENERAL
   - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   - B. Unless indicated otherwise, width of waterway as follows.
     1) 4 feet for a residential street.
     2) 6 feet for a non-residential street.
     3) If wider than 6 feet, offset the flow line in the waterway to match (line up with) the curb and gutter flow line. Adjust cross slopes to match existing slopes.
   - C. Additional requirements are specified in APWA Section 32 16 13.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   - D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

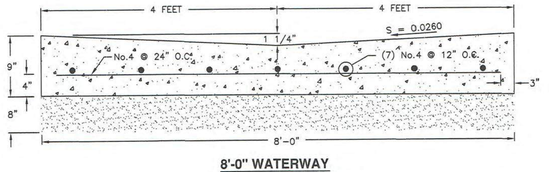
3. EXECUTION
   - A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Expansion joints are not required in concrete placement using slip-form construction.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Match joint location in adjacent Portland-cement concrete roadway pavement.
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   - C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.



4'-0" WATERWAY
CONCRETE AREA = 2.583 SQ. FT.



6'-0" WATERWAY
CONCRETE AREA = 3.875 SQ. FT.



8'-0" WATERWAY
CONCRETE AREA = 5.166 SQ. FT.

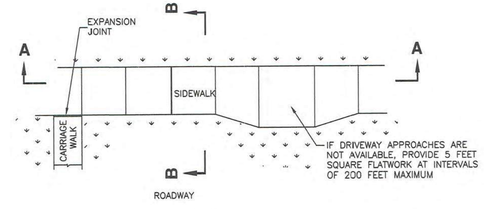
C706S APWA PLAN 211 WATERWAY
NTS

SIDEWALK

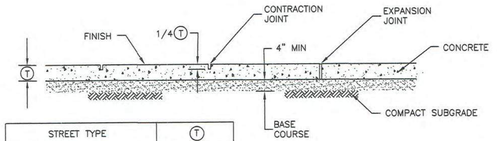
1. GENERAL
   - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
   - B. Additional requirements are specified in APWA Section 32 16 13.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
   - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
   - D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.

3. EXECUTION
   - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - B. Concrete Placement: APWA Section 03 30 10.
     1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
     2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
     3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.



PLAN



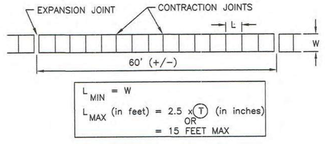
STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

SECTION A-A



SECTION B-B



SIDEWALK JOINT DETAIL

C707S APWA PLAN 231 SIDEWALK
NTS

SCALE: N.T.S.

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	GDS	MMC

ISW-1A ISSUED FOR BID
LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 2 OF 16

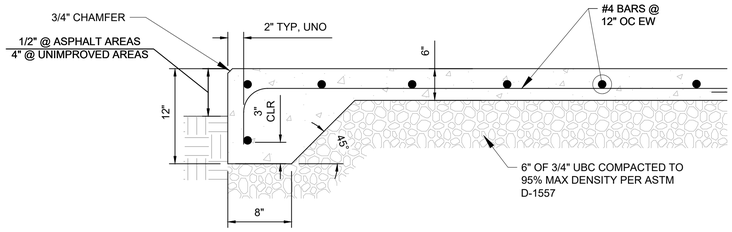
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C702S

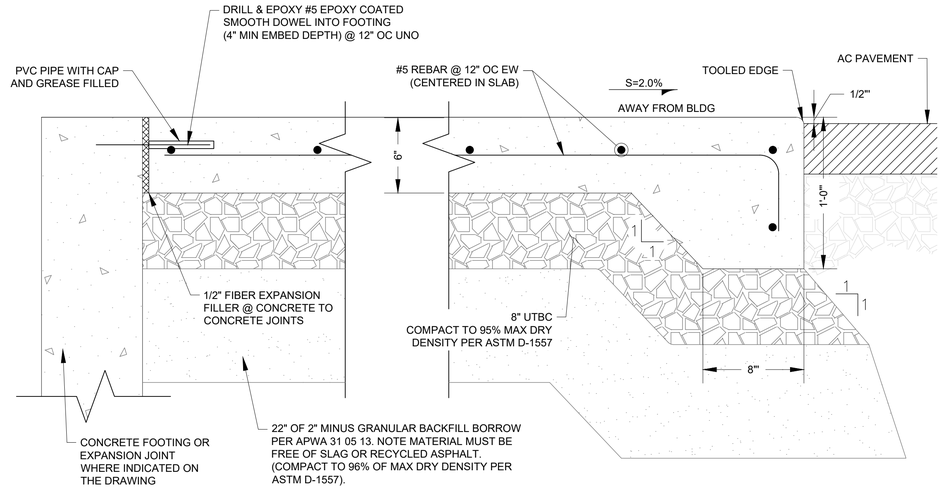
SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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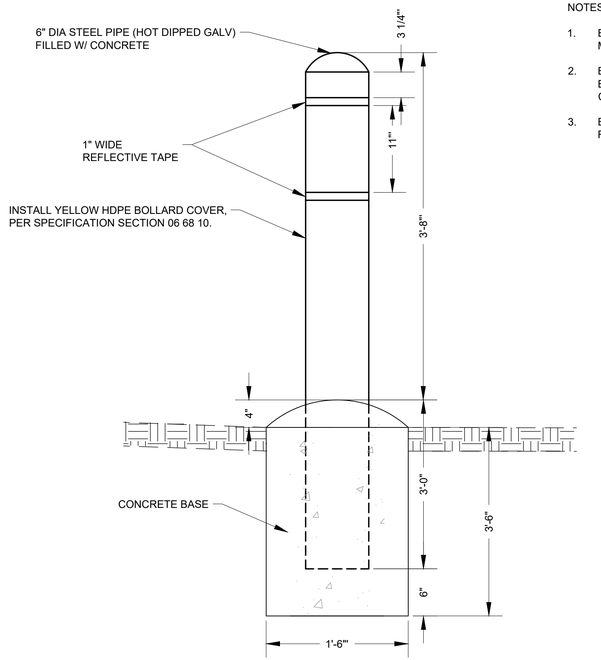
C708S TYPICAL CONCRETE SLAB-ON-GRADE DETAIL
NTS



C709S TYPICAL CONCRETE APPROACH APRON
NTS

NOTE:

1. THICKENED EDGE ONLY REQUIRED ON OUTSIDE EDGE OF PAVEMENT OR APRON.
2. INSTALL RIGID PAVEMENT PER THE REQUIREMENTS OF SPECIFICATION SECTION 32 13 00 - RIGID PAVING.



C710S TYPICAL BOLLARD DETAIL
NTS

NOTES:

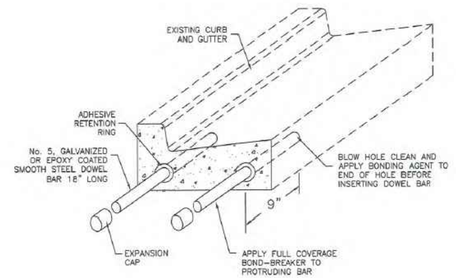
1. BOLLARDS INSTALLED TO PROTECT FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF IFC 312.2.
2. BOLLARDS INSTALLED TO PROTECT FIRE HYDRANTS SHALL BE SPACED NO MORE THAN 4 FEET BETWEEN POSTS ON CENTER.
3. BOLLARDS SHALL BE LOCATED NOT LESS THAN 3 FEET FROM FIRE HYDRANT.

Curb and gutter connection

1. GENERAL
   A. Connect new curb and gutter to existing curb and gutter that has not been placed by CONTRACTOR.

2. PRODUCTS
   A. Reinforcement: Galvanized or epoxy coated, 60 ksi yield grade steel, ASTM A615.
   B. Adhesive: Epoxy adhesive grout, APWA Section 03 61 00.
   C. Bond Breaker: Paraffin wax, lithium grease, or other semi-solid, inert lubricant.
   D. Expansion Cap: Plastic, with bar movement allowance of 1/2-inch.

3. EXECUTION
   A. Ensure drill rigs (or jigs) are set at mid-depth of the gutter and horizontal to the surface. Make hole size large enough to account for dowel bar and adhesive.
   B. Clean holes and dowel bars of dirt, dust and particles. Ensure coating on bars have no surface defects.
   C. Place bonding agent in the back of each hole so adhesive flows out around each bar fully encasing it. DO NOT apply adhesive to end of the bar and then insert the bar into the hole.
   D. Insert dowels with at least one full turning motion and if necessary, place a grout retention disk on the dowel after insertion to contain adhesive.
   E. Apply complete coverage of bond-breaker on the protruding end of each dowel.
   F. Install expansion caps on protruding dowel bar ends.



C711S APWA PLAN 206 CURB AND GUTTER CONNECTION
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	ISW-1A; ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 3 OF 16

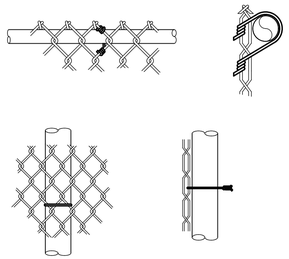
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C703S

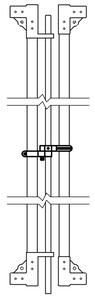
SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

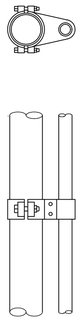
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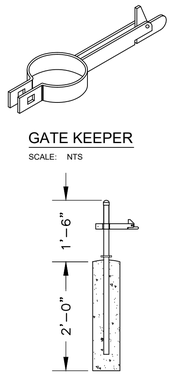
PIPE POST TIE
SCALE: NTS



DROP ROD ASSEMBLY
SCALE: NTS

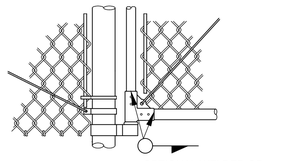


TOP GATE HINGE
SCALE: NTS



GATE KEEPER
SCALE: NTS

GATE KEEPER POST
SCALE: NTS

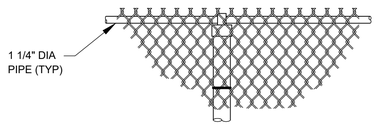


OPTIONAL WELDED OR
RIVETED CONSTRUCTION

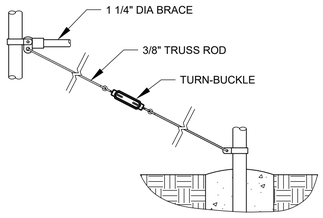
BOTTOM GATE HINGE
AND GATE DETAIL
SCALE: NTS

NOTES:

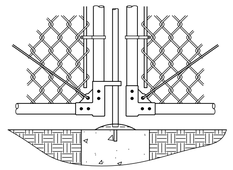
1. MATERIALS, CONSTRUCTION, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. BARBED WIRE SHALL BE USED ONLY WHEN DESIGNATED ON THE PLANS OR IN THE SPECIFICATIONS.
3. ALL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION F1083 SCHEDULE 40 HOT DIPPED ZINC COATED HIGH TENSILE STEEL PIPE.
4. POSTS SHALL BE STEEL SCHEDULE 40 PIPE OF THE SIZE SHOWN IN THE CHART. WEIGHT IN POUNDS PER FOOT WITH A TOLERANCE OF 5%.
5. LINE POSTS SHALL BE LOCATED AT EQUAL SPACING FOR EACH SEGMENT WITH A MAXIMUM SPACING AS FOLLOWS:
   - A. TANGENT SECTIONS TO 500-FOOT RADIUS NOT MORE THAN 10-FEET.
   - B. UNDER 500-FOOT RADIUS TO 200-FOOT RADIUS NOT MORE THAN 8-FEET.
   - C. UNDER 200-FOOT RADIUS TO 100-FOOT RADIUS NOT MORE THAN 6-FEET.
   - D. UNDER 100-FOOT RADIUS NOT MORE THAN 5-FEET.
6. TRUSS RODS AND BRACES SHALL NOT BE REQUIRED FOR FABRIC HEIGHT LESS THAN 5-FEET.
7. ALL PIPES, WIRES AND FABRICS TO BE GALVANIZED.
8. SEE DETAIL C738S FOR CANTILEVER SLIDING GATE DETAILS.
9. INSTALL BOTTOM LOCKING PRIVACY SLATS ON ALL FENCING AND GATES PER SPECIFICATION SECTION 32 31 13.



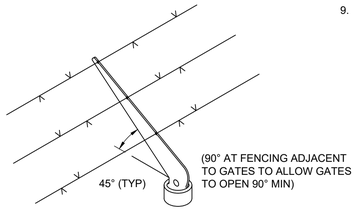
TWISTED & BARBED
SELVAGE (TYPE II)
SCALE: NTS



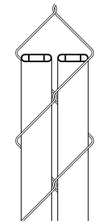
BRACE AND TRUSS CONNECTIONS
SCALE: NTS



CENTER GATE STOP
AND GATE DETAIL
SCALE: NTS



COMBINATION CAP AND
BARBED WIRE SUPPORTING ARM
SCALE: NTS



PRIVACY SLATS
SCALE: NTS

HEIGHT	GATE OPENING	GATE POST	GATE FRAME
UNDER 6 FEET	SINGLE TO 6' OR DOUBLE TO 12'	2"	1"
	SINGLE OVER 6' TO 8' OR DOUBLE OVER 12' TO 16'	2 1/2"	1 1/2"
	SINGLE OVER 8' TO 12' OR DOUBLE 16' TO 24'	3 1/2"	
6 FEET AND OVER	SINGLE OVER 6' OR DOUBLE TO 12'	2 1/2"	1 1/2"
	SINGLE OVER 6' TO 12' OR DOUBLE OVER 12' TO 24'	3 1/2"	
	SINGLE OVER 12' TO 18' OR DOUBLE OVER 24' TO 36'	6"	
	SINGLE OVER 18' OR DOUBLE OVER 36'	8"	

HEIGHT OF FABRIC	DEPTH OF POSTS	LENGTH OF END, CORNER OR PULL POST	LENGTH OF LINE POST HOLES	SIZE OF POSTS							
				END, CORNER, & PULL POSTS				LINE POST MIN. SIZE			
				NOMINAL SIZE	OUTSIDE DIA	PIPE WEIGHT		NOM. SIZE	OUTSIDE DIA	PIPE WEIGHT	
						ASTM F1083	TRIPLE COATED			ASTM F1083	TRIPLE COATED
7'	3'	10'	9'-8"	2 1/2"	2.875"	5.79	4.64	2"	2.375"	3.65	3.11
6'	3'	9'	8'-8"	2 1/2"	2.875"	5.79	4.64	2"	2.375"	3.65	3.11
5'	3'	8'	7'-8"	2"	2.375"	3.65	3.11	1 1/2"	1.900"	2.72	2.23
4'	3'	6'	5'-8"	2"	2.375"	3.65	3.11	1 1/2"	1.900"	2.72	2.23
3'	3'	5'	4'-8"	2"	2.375"	3.65	3.11	1 1/2"	1.900"	2.72	2.23

C712S CHAIN LINK FENCE DETAIL
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	GDS	MMC

LAST CONFORMED SET: ISW-1A, ISSUED FOR BID

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 4 OF 16

LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C704S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

FILE: H:\Projects\407 - AECOM\03 100 SLCWRF Upgrades\Task 8 Design\CAD\Working\20-SHEETS\10_Foreman_IPS\5_Details\524905360_0100-C704S.dwg DATE: 3/30/2023 7:49 AM

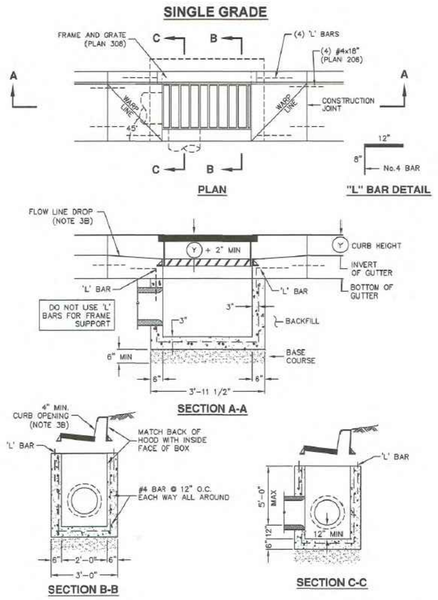
CATCH BASIN

1. GENERAL
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4000, APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.

3. EXECUTION
   A. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Curb Face Opening: Make opening at least 4-inches high. Provide at least a 2-inch drop between the "warp line" in the gutter flow-line and the top of the grate at the curb face opening.
   C. Concrete Placement: APWA Section 03 30 10. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   D. Backfill: Place backfill against the basin wall. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

NOTE:
SEE DETAIL C711S FOR APWA PLAN 206
AND DETAIL C714S FOR APWA PLAN 308.



C713S APWA PLAN 315.1 CATCH BASIN
NTS

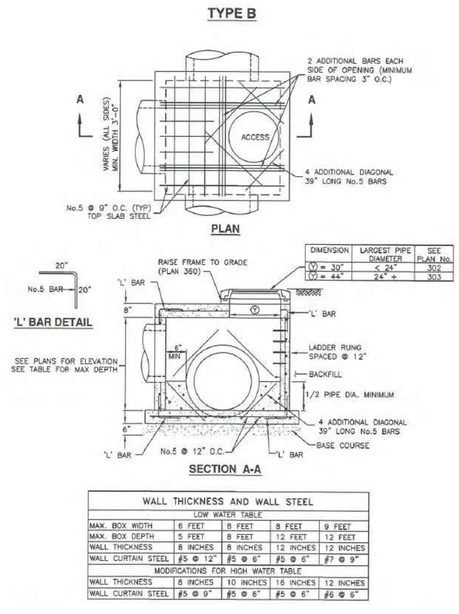
CLEANOUT BOX

1. GENERAL
   A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Concrete: Class 4000, APWA Section 03 30 04.
   D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   E. Stabilization-Separation Geotextile: High MARV, woven or non-woven, APWA Section 31 05 19.
   F. Ladder Rungs: Plastic, or plastic coated steel typically 8-inches wide.

3. EXECUTION
   A. Foundation Stabilization: Get ENGINEER's permission to use a sewer rock or a sewer rock in a geotextile wrap to stabilize an unstable foundation.
   B. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   C. Reinforcement: Center steel in walls and slabs with a minimum cover of 2-inches. Keep steel 2-inches clear around pipe and lid opening. Tie-bars required at all corners, vertical and horizontal. Tie-bars connecting two walls must match wall bar size and spacing. Tie-bars connecting walls to top and bottom slabs must match slab steel size and spacing.
   D. Concrete Placement: APWA Section 03 30 10. Adjust concrete dimensions at frame accordingly. Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
   E. Access: Eccentric access is shown. Before construction, verify if concentric access is required. Adjust reinforcement accordingly.
   F. Ladder Rungs: Required in boxes greater than 6 feet deep with eccentric access. Align rungs with location of access opening. Rungs not required in boxes with concentric access.
   G. Backfill: Provide backfill against all of the box walls. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

NOTE:
SEE DETAIL C716S FOR APWA PLAN 303,
APWA PLAN 302 NOT USED.



DIMENSION	LARGEST PIPE DIAMETER	SEE PLAN No.
Ⓨ = 30"	< 24"	302
Ⓨ = 44"	24" +	303

WALL THICKNESS AND WALL STEEL				
LOW WATER TABLE				
MAX. BOX WIDTH	6 FEET	8 FEET	8 FEET	9 FEET
MAX. BOX DEPTH	5 FEET	8 FEET	12 FEET	12 FEET
WALL THICKNESS	8 INCHES	8 INCHES	12 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 12"	#5 @ 6"	#5 @ 6"	#7 @ 9"
MODIFICATIONS FOR HIGH WATER TABLE				
WALL THICKNESS	8 INCHES	10 INCHES	16 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 9"	#5 @ 6"	#5 @ 6"	#6 @ 6"

C715S APWA PLAN 331.2 CLEAN-OUT BOX (TYPE B)
NTS

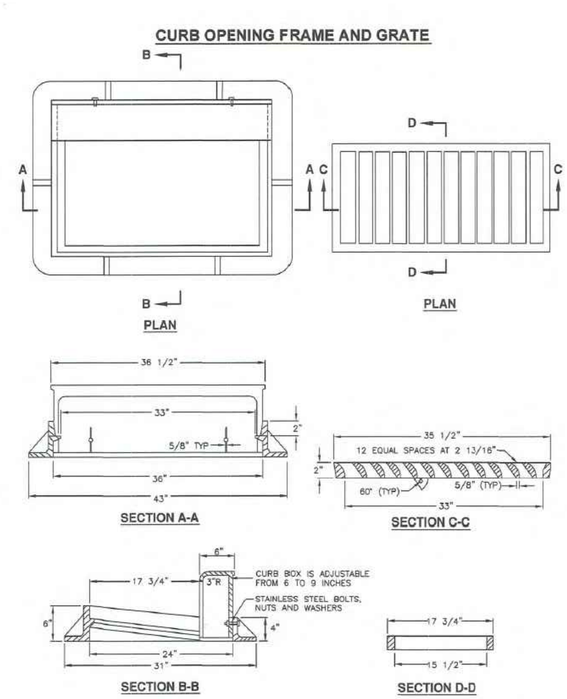
35 1/2" Grate and frame

1. GENERAL
   A. The grate and frame fits concrete boxes in Plan 315.

2. PRODUCTS
   A. Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.
   B. Bolts, Nuts, Washers, Accessories: Stainless steel, APWA Section 05 05 23.

3. EXECUTION (Not used)

NOTE:
SEE DETAIL C713S FOR APWA PLAN 315.1.



C714S APWA PLAN 308 CURB OPENING FRAME AND GRATE
NTS

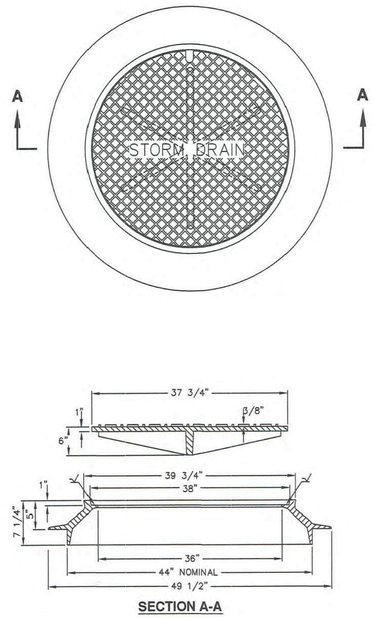
44" Frame and cover

1. GENERAL
   A. The frame and cover fits.
      1) Cleanout box type B in Plan 331, and
      2) Precast manhole in Plan 341.

2. PRODUCTS
   A. Castings: Grey iron class 35 minimum, ASTM A48, coated with asphalt based paint or better (except on machined surfaces).
      1) Cast the heat number on the frame and cover.
      2) Give the frame and cover a machine finish so the cover will not rock.
      3) √ designates a machine-finished surface.
      4) Cast the words "STORM DRAIN" on the cover in upper case flush with the surface finish.

3. EXECUTION
   A. Except in paved streets, provide locking manhole covers in easements, alleys, parking lots, and all other places. Drill and tap two holes to a depth of 1-inch at 90 degrees to pry hole and install 3/4 x 3/4-inch allen socket set screws.

NOTE:
1. FOR CLEANOUT BOX TYPE B, SEE DETAIL C715S.
2. PRECAST MANHOLE PLAN 341 NOT USED.



C716S APWA PLAN 303 44" FRAME AND COVER
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A, ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 5 OF 16

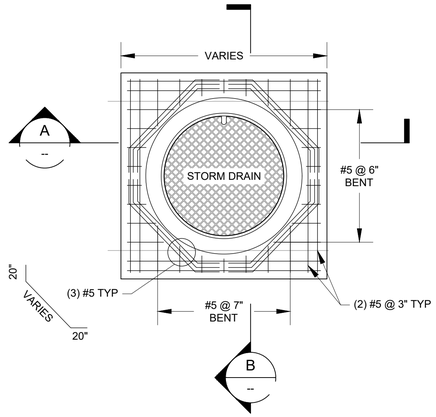
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C705S

SHEET _____ OF _____

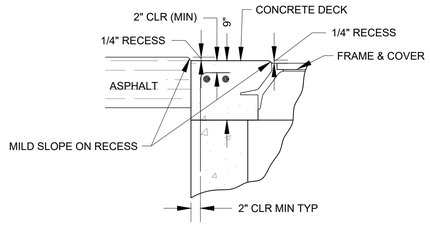
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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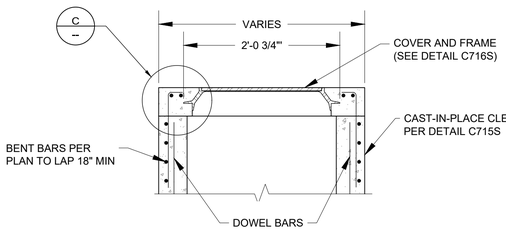
PLAN

SCALE: NTS



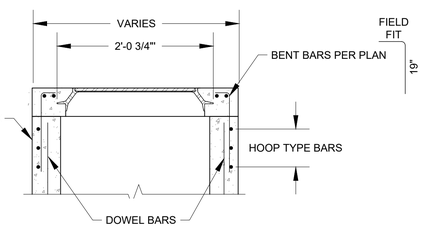
C | DETAIL

-- | SCALE: NTS



A | SECTION

-- | SCALE: NTS



B | SECTION

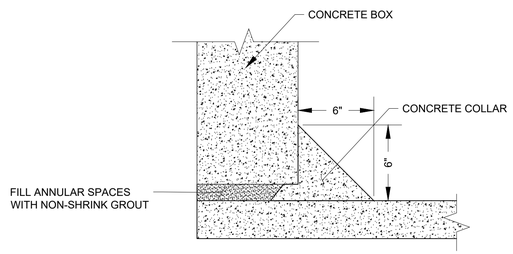
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NOTES:

1. FIELD MEASURE AND VERIFY DIMENSIONS OF ALL STRUCTURES.
2. BACKFILL: PROVIDE AND PLACE PER APWA SECTION 31 23 23. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS IS 8 INCHES BEFORE COMPACTION.
3. REINFORCEMENT: ASTM A 615, GRADE 60, DEFORMED STEEL. SEE APWA SECTION 03 20 00 REQUIREMENTS.
4. CONCRETE: CLASS 4000 PER APWA SECTION 03 30 04. PLACE CONCRETE PER APWA SECTION 03 30 10. CURE PER APWA SECTION 03 39 00.
5. COVER AND FRAME: FOR STORM DRAIN APPLICATION SEE PLAN NO. 303. ADJUST CONCRETE DIMENSIONS AT FRAME ACCORDINGLY.
6. COVER AND FRAME TOP TO BE 1/4" BELOW TOP OF CONCRETE, CONCRETE TOP TO BE 1/4" BELOW TOP OF ASPHALT.
7. DOWEL BARS SHALL BE #5 @ 12" OC EMBED 7" IN EXISTING WALL WITH EPOXY GROUT.
8. #5 BAR BENDS TO HAVE 1½" RADIUS.
9. ALL STEEL SHALL BE SAW-CUT. NO TORCH CUTS WILL BE ALLOWED.
10. CUTS SHALL BE CLEAN AND PERPENDICULAR TO THE LONG AXIS OF THE STEEL.
11. PROVIDE BOLT DOWN LIDS ON ALL NEW CLEANOUT BOXES.

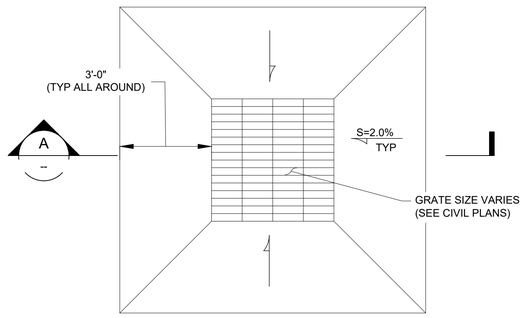
C717S CAST-IN-PLACE CLEAN-OUT BOX COVER

1/4" = 1'



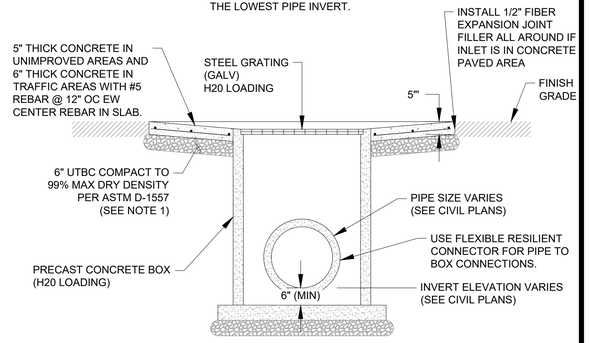
C719S CONCRETE COLLAR AND GROUT

NTS



NOTES:

1. IN TRAFFIC AREAS MATCH PAVEMENT BASE AND SUB-BASE MATERIAL TYPE, THICKNESS, AND COMPACTION REQUIREMENTS.
2. BOTTOM OF PRECAST BOX SHALL BE A MINIMUM OF 6 INCHES BELOW THE LOWEST PIPE INVERT.

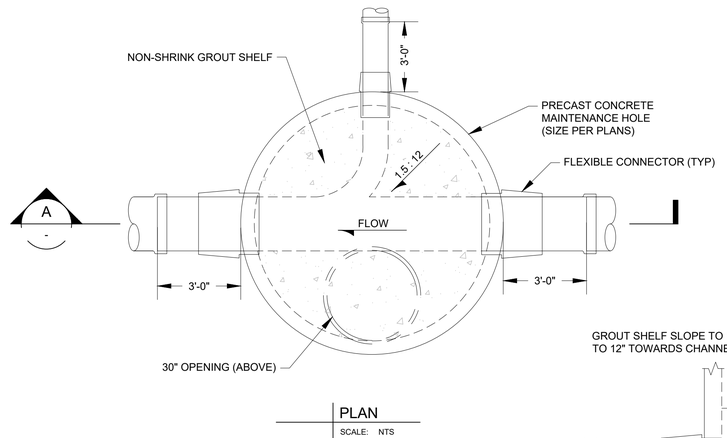


A | SECTION

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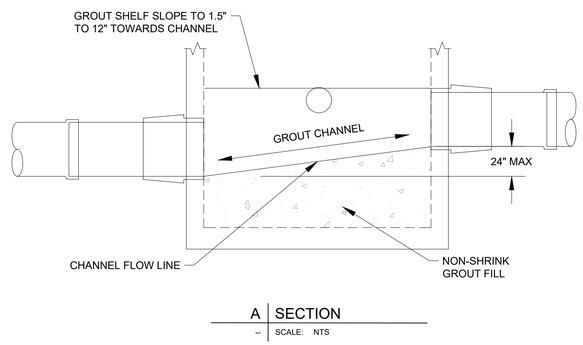
C718S AREA DRAIN INLET

NTS



PLAN

SCALE: NTS



A | SECTION

-- | SCALE: NTS

C720S TYPICAL MAINTENANCE HOLE CONNECTION DETAILS

NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

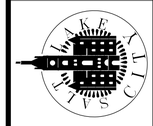
REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	GDS	MMC

LAST CONFORMED SET: ISW-1A, ISSUED FOR BID ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 6 OF 16





DRAWING No.

0100-C706S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

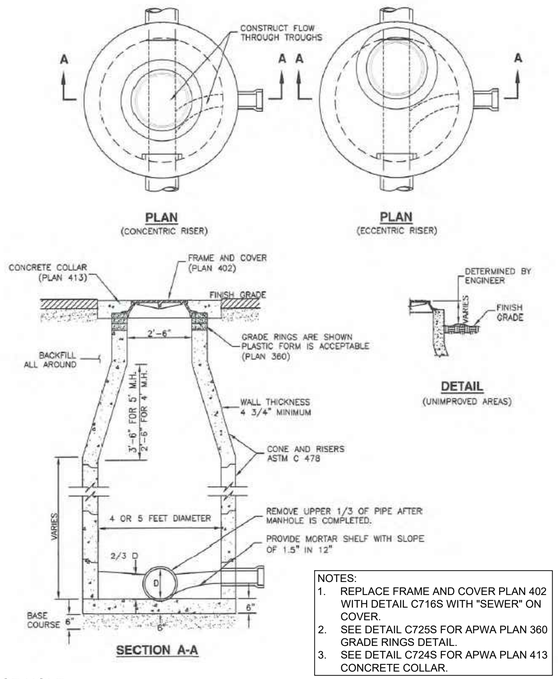
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SANITARY SEWER MANHOLE

1. GENERAL
   - A. The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the manhole.
   - B. Manhole size.
     1) Diameter is 4 feet: For sewers under 12" diameter.
     2) Diameter is 5 feet: For sewers 12" and larger, or when 3 or more pipes intersect the manhole.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - C. Concrete: Class 4000, APWA Section 03 30 04.
   - D. Riser and Reducing Riser: ASTM C478.
   - E. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   - F. Grout: 2 parts sand to 1 part cement mortar, ASTM C1329.
   - G. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.

3. EXECUTION
   - A. Foundation Stabilization: Get ENGINEER's permission to use a sewer rock or a granular backfill borrow in a geotextile wrap to stabilize an unstable foundation.
   - B. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   - C. Invert Cover. During construction, place invert covers over the top of pipe in manholes that currently convey sewerage. See Plan 412.
   - D. Pipe Connections: Grout around all pipe openings.
   - E. Pipe Seal: Install rubber-based pipe seals on all plastic pipes when connecting plastic pipes to manholes. Hold water-stop in place with stainless steel bands.
   - F. Joints: Place flexible gasket-type sealant in all riser joints. Finish with grout.
   - G. Adjustment: If the required manhole adjustment is more than 1'-0", remove the cone and grade rings and adjust the manhole elevation with the appropriate manhole section, the cone section, and the grade rings or plastic form to make frame and lid match finish grade.
   - H Finish: Provide smooth and neat finishes on interior of cones, shafts, and rings. Imperfect moldings or honeycombs will not be accepted.
   - I. Backfill: Provide backfill against the manhole shaft. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.



NOTES:
1. REPLACE FRAME AND COVER PLAN 402 WITH DETAIL C716S WITH "SEWER" ON COVER.
2. SEE DETAIL C725S FOR APWA PLAN 360 GRADE RINGS DETAIL.
3. SEE DETAIL C724S FOR APWA PLAN 413 CONCRETE COLLAR.

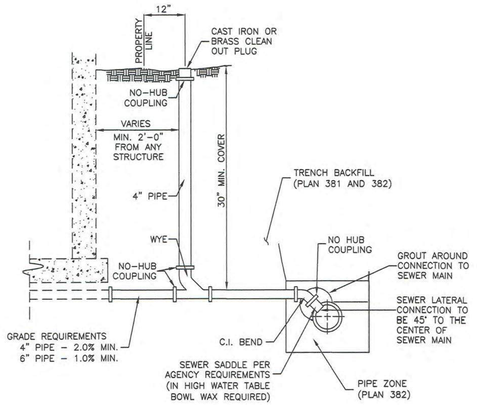
C721S APWA PLAN 411 SANITARY SEWER MAINTENANCE HOLE
NTS

Sewer lateral connection

1. GENERAL
   - A. Before installation, secure acceptance by ENGINEER for all pipe, fittings, and couplings to be used.
   - B. Before backfilling, secure inspection of installation by ENGINEER. Give at least 24 hours notice.
   - C. Verify if CONTRACTOR or agency is to install the wye.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - C. Provide agency approved wye or tee with appropriate donut.
   - D. Stainless steel straps required.

3. EXECUTION
   - A. Tape wrap pipe as required by soil conditions.
   - B. Remove core plug from sewer main. Do not break into sewer main to make connection.
   - C. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.



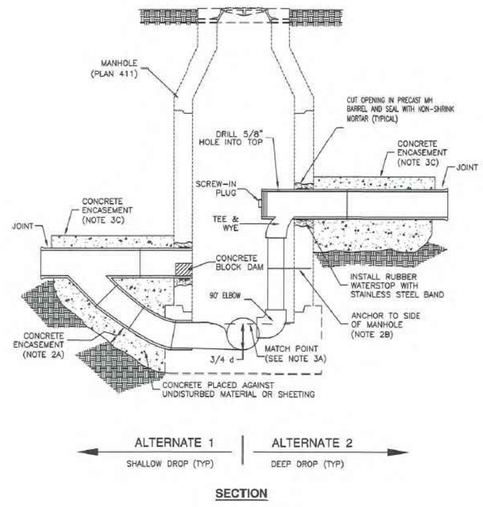
C722S APWA PLAN 431 SEWER LATERAL CONNECTION
NTS

Pipe drop

1. GENERAL
   - A. Only one drop pipe is allowed inside the manhole.
   - B. Size of drop pipe is to be the same diameter as sewer mainline pipe that it serves.

2. PRODUCTS
   - A. Concrete: Class 4000, APWA Section 03 30 04.
   - B. Anchors: Use stainless steel anchors that are acceptable to ENGINEER.

3. EXECUTION
   - A. At the match point, match the 3/4 diameter points of the pipes.
   - B. If the drop is more than 18-inches, anchor the riser to the wall every 12-inches.
   - C. Extend concrete encasement to first joint beyond excavation for drop connection.



NOTES:
1. USE ALTERNATIVE 2 FOR DROP PIPES 8-INCH DIAMETER AND SMALLER. SEE INDIVIDUAL DROP DETAIL FOR DROP PIPES 12-INCH DIAMETER AND LARGER.
2. SEE DETAIL C721S FOR MANHOLE PLAN 411 DETAIL.

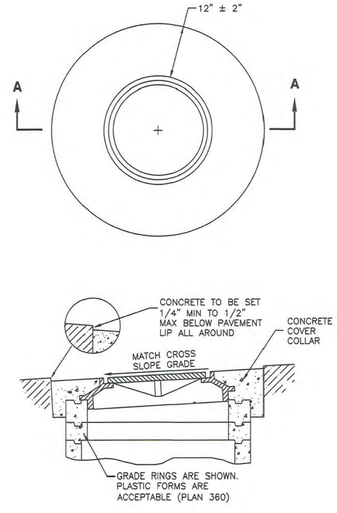
C723S APWA PLAN 433 SANITARY SEWER PIPE DROP
NTS

Cover collar for sanitary sewer manhole

1. GENERAL
   - A. In a pavement surface, the concrete will support the frame under traffic loadings.

2. PRODUCTS
   - A. Concrete: Class 4000, APWA Section 03 30 04.
   - B. Concrete Curing Agent: Type ID Class A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00.

3. EXECUTION
   - A. Pavement Preparation: Provide a neat vertical and concentric joint between the concrete collar and the bituminous pavment surface. Clean edges of all dirt, oil, and loose debris.
   - B. Concrete Placement: Fill the annular space around the frame and cover casting with concrete. Apply a broom finish. Apply a curing agent.



NOTE:
SEE DETAIL C725S FOR APWA PLAN 360.1.

C724S APWA PLAN 413 COVER COLLAR FOR SANITARY SEWER MANHOLE
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	ISW-1A, ISSUED FOR BID	GDS MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 7 OF 16

LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C707S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

FILE: H:\Projects\407 - AECOM\03.100 SLCWRF Upgrades\Task 8 Design\CAD\Working\20-SHEETS\10_Forcemain_IPS\5_Details\524905350_0100-C707S.dwg DATE: 3/30/2023 7:59 AM

GRADE RING

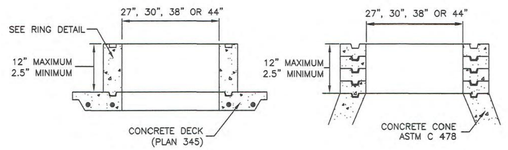
Raise frame to grade

1. GENERAL
   A. Grade rings are used in non-pressurized applications to adjust frame to grade.

2. PRODUCTS
   A. Concrete: Class 4000, APWA Section 03 30 04.
   B. Reinforcement: Deformed, 60 ksi yield grade hoop steel, ASTM A615.
      1) 2 1/2" High Rings: Provide two 1/4" diameter steel hoops tied with No. 14 AWS gage wire, 8" on center.
      2) 6" and 8" High Rings: Provide four 1/4" diameter steel hoops, tied with No. 14 AWS gage wire, 8" on center.
   C. Gasket: Rubber-based, compressible.

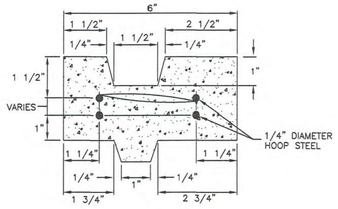
3. EXECUTION
   A. Ring Manufacture:
      1) Fabrication, APWA Section 03 30 10.
      2) Cure, APWA Section 03 39 00.
   B. Field Installation: Seat rings with a compressible gasket.

NOTE:
APWA PLAN 345 NOT USED.

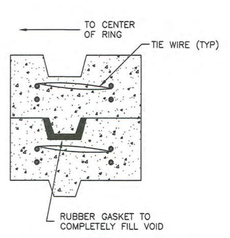


DECK SECTION

CONE SECTION



RING DETAIL



GASKET DETAIL

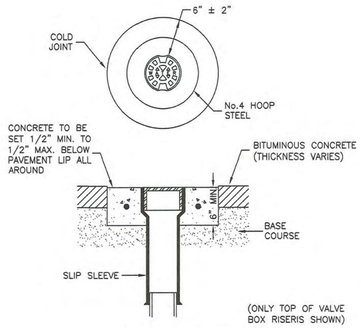
C725S APWA PLAN 360.1 RAISE FRAME TO GRADE
NTS

Cover collar for water valve box

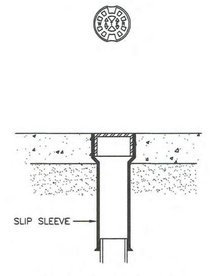
1. GENERAL
   A. In a pavement surface, fill an annular space around a frame and cover casting with concrete. The concrete will support the casting under traffic loadings.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Concrete: Class 4000, APWA Section 03 30 04.
   C. Concrete Curing Agent: Type ID Class A (clear with fugitive dye), membrane forming compound, APWA Section 03 39 00.

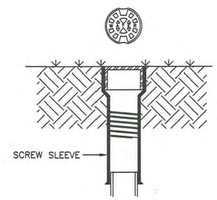
3. EXECUTION
   A. Base Course: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   B. Pavement Preparation: Provide a neat vertical and concentric joint between concrete collar and existing bituminous concrete surface. Clean edges of all dirt, oil, and loose debris.



BITUMINOUS PAVEMENT

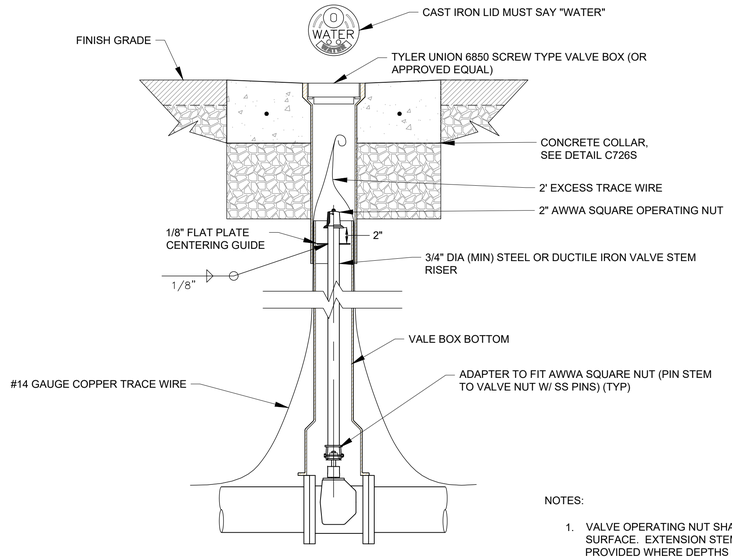


PORTLAND CEMENT CONCRETE PAVEMENT



LANDSCAPED AREA

C726S APWA PLAN 574 COVER COLLAR FOR WATER VALVE BOX
NTS



NOTES:

1. VALVE OPERATING NUT SHALL BE WITHIN 3' TO FINISHED SURFACE. EXTENSION STEMS WITH ROCK SHIELDS SHALL BE PROVIDED WHERE DEPTHS EXCEED 4'.

2. PROVIDE AN EPOXY PROTECTIVE COATING TO EXTERIOR SURFACE OF VALVE STEM RISER.

C727S TYPICAL BURIED VALVE INSTALLATION (3" - 20" VALVES)
NTS

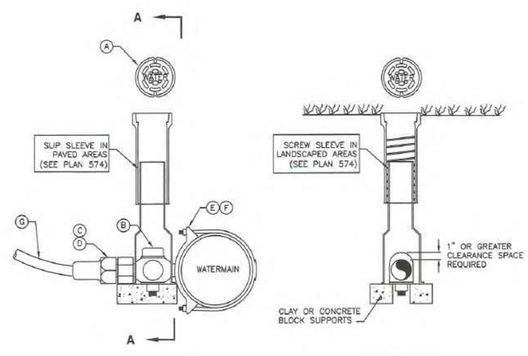
1 1/2" AND 2" SERVICE TAPS

1. GENERAL
   A. Before backfilling around taps, secure inspection of installation by ENGINEER.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Tape: Teflon tape is required on all taps.

3. EXECUTION
   A. Tapping: Place taps a minimum of 36-inches apart. Use a tapping tool that is sized corresponding to the size of the service line to be installed. No taps within 36-inches of end of pipe.
   B. PVC or AC Pipe: A service saddle clamp is required on all PVC and AC pipe taps unless specified otherwise.
   C. Backfill: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   D. Blocks: Clay brick or concrete block required under valve box to assure a 1" or greater space between the box and the corporation stop and pipe assembly.

NOTES:
1. ALL VALVE BOXES SHALL BE PER DETAIL C727S.



ELEVATION

SECTION A-A

LEGEND			
No.	*	ITEM	DESCRIPTION
(A)		VALVE BOX WITH LID	2 PIECE CAST IRON
(B)		CORPORATION STOP	BRASS
(C)		COPPER ADAPTER	
(D)		FLARE OR PACK JOINT COPPER ADAPTER	
(E)		SERVICE SADDLE CLAMP	D.I., A.C., C.I.
(F)		SERVICE SADDLE CLAMP	P.V.C.
(G)		COPPER PIPE (SERVICE LINE)	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

C728S APWA PLAN 552 1 1/2" & 2" SERVICE TAPS
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A, ISSUED FOR BID	GDS MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 8 OF 16

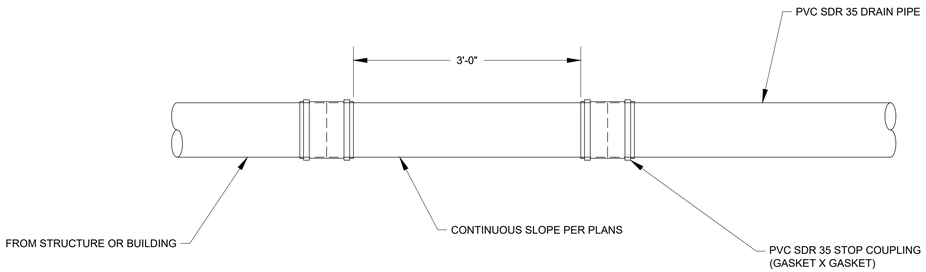
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C708S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

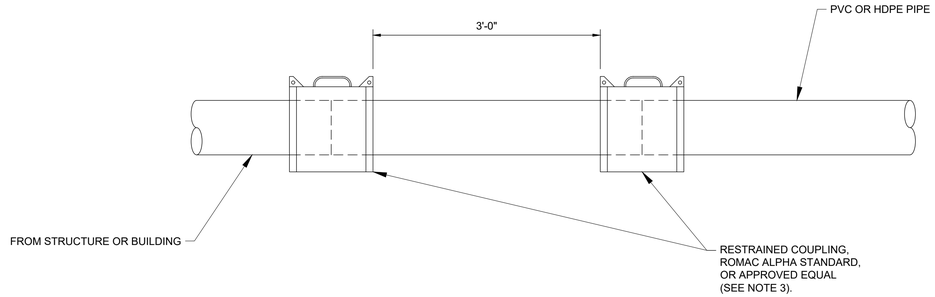
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C729S PVC DRAIN FLEXIBLE COUPLING
NTS

NOTES:

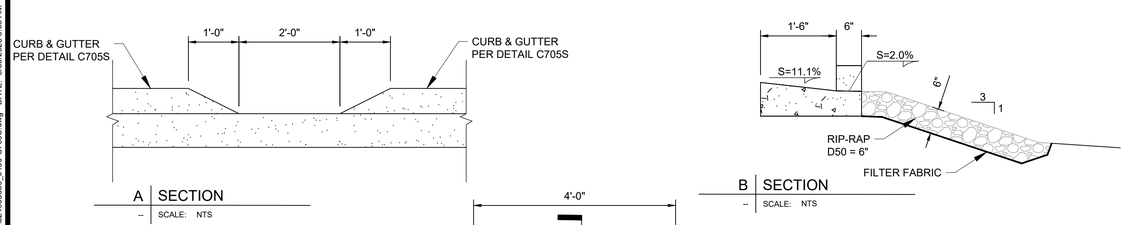
1. INSTALL COUPLINGS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COUPLING SHALL BE INSTALLED WITHOUT ANY DEFLECTION.
3. HAND COMPACT AROUND COUPLINGS TO 3 FEET ABOVE THE PIPE. DO NOT USE VIBRATORY OR HAMMER TYPE COMPACTORS UNTIL FILL HAS REACHED 3 FEET ABOVE THE PIPE TO AVOID DEFLECTING COUPLING JOINTS.

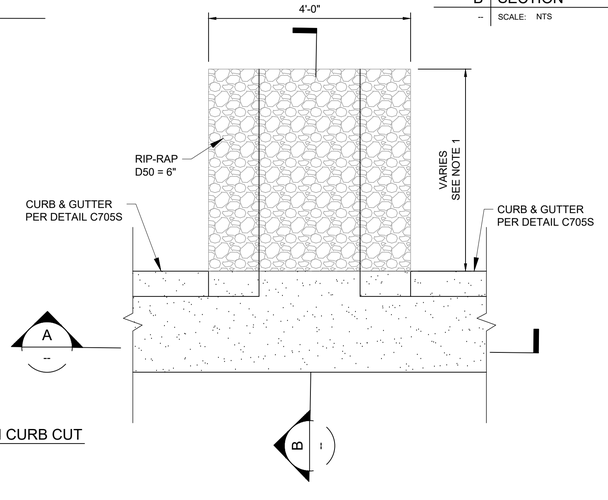


C730S PVC OR HDPE RESTRAINED COUPLING
NTS

NOTES:

1. INSTALL COUPLING PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. COUPLING SHALL BE INSTALLED WITHOUT ANY DEFLECTION.
3. WAX TAPE COAT COUPLING AFTER INSTALLATION.
4. HAND COMPACT AROUND COUPLINGS TO 3 FEET ABOVE THE PIPE. DO NOT USE VIBRATORY OR HAMMER TYPE COMPACTORS UNTIL FILL HAS REACHED 3 FEET ABOVE THE PIPE TO AVOID DEFLECTING COUPLING JOINTS.

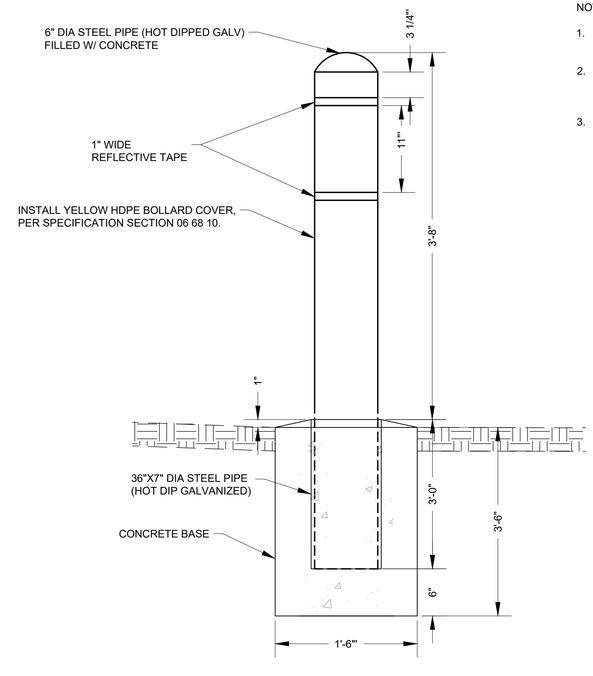




C731S DRAIN CURB CUT
NTS

NOTES:

1. INSTALL ROCK FROM BACK OF CURB TO TOE OF SLOPE.



NOTES:

1. BOLLARDS INSTALLED TO PROTECT FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF IFC 312.2.
2. BOLLARDS INSTALLED TO PROTECT FIRE HYDRANTS SHALL BE SPACED NO MORE THAN 4 FEET BETWEEN POSTS ON CENTER.
3. BOLLARDS SHALL BE LOCATED NOT LESS THAN 3 FEET FROM FIRE HYDRANT.

C732S TYPICAL REMOVABLE BOLLARD DETAIL
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	ISW-1A, ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 9 OF 16

LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C709S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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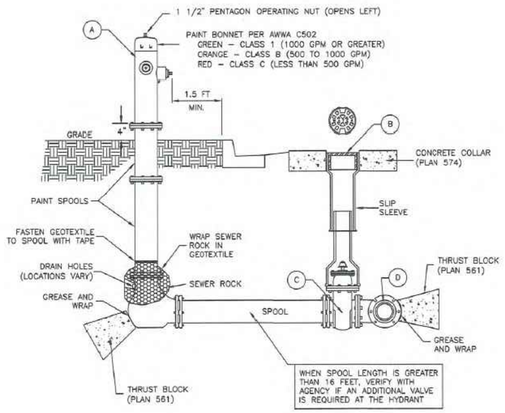
FIRE HYDRANT WITH VALVE

1. GENERAL
   - A. Before backfilling, secure inspection of installation by ENGINEER.
   - B. Additional requirements are specified in APWA Section 33 11 00.

2. PRODUCTS
   - A. Hydrant: Dry barrel, AWWA C502.
   - B. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
   - C. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   - D. Backfill: APWA Section 31 05 13. Maximum particle size 2-inches.
     1) Sewer Rock: ASTM Size No. 3 (2" to 1") or larger.
     2) Other Type of Common Fill: CONTRACTOR's choice,.
   - E. Geotextile: Stabilization-separation fabric, APWA Section 31 05 19.

3. EXECUTION
   - A. Installation:
     1) Provide at least 1 cubic yard of sewer rock around drain hole at base of hydrant spool. Wrap geotextile around sewer rock and tape geotextile to hydrant spool to prevent silting of sewer rock.
     2) Paint fire hydrant to agency's fire hydrant paint code.
     3) Apply non-oxide grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
     4) Notify fire department as soon as hydrant is placed in service.
   - B. Thrust Blocks:
     1) Before pouring concrete, wrap pipe system with polyethylene sheet to prevent bonding of concrete to pipe system.
     2) Not required for flange or welded pipe systems.
   - C. Backfill: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

NOTES:
1. OMIT ALL REFERENCES TO THRUST BLOCKS. PROVIDE JOINT RESTRAINTS ON ALL PIPE AND FITTINGS.
2. VALVE BOX SHALL BE PER DETAIL C727S.
3. PIPE SPOOL SHALL BE PVC C900 DR 18 PIPE.
4. CONCRETE COLLAR SHALL BE PER DETAIL C726S.



LEGEND			
No.	*	ITEM	DESCRIPTION
(A)		FIRE HYDRANT	AWWA C502
(B)		VALVE BOX WITH LID	2-PIECE CAST IRON
(C)		GATE VALVE WITH 2" X 2" NUT	AWWA C509
(D)		TEE WITH 125 # FLANGE	AWWA C110

* FURNISHED BY UTILITY AGENCY

SECTION

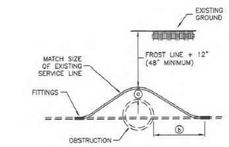
C733S APWA PLAN 511 FIRE HYDRANT WITH VALVE
NTS

WATER SERVICE LINE LOOP

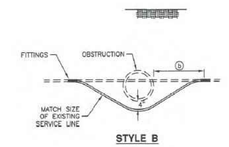
1. GENERAL
   - A. Before backfilling, secure inspection of installation by ENGINEER.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Piping: Match existing pipe, fittings, coupling sizes and materials.
   - C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
   - D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - F. Grease: Non-oxide poly-FM.

3. EXECUTION
   - A. Thrust Blocks: Not required for flange or welded pipe systems. Before pouring thrust block concrete, wrap pipe system with plastic sheet to prevent bonding of concrete to pipe system.
   - B. Fittings: Use copper to copper flare fittings or copper to iron pack joint coupling with locking split clamp on iron pipe side and flare on copper side. All couplings to be brass.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - D. Steel Spool: Weld in place and provide slip on flange except when fitting in pipe system could move. Epoxy line per AWWA C210, C213, and coated per AWWA C208, or C214.
   - E. Location: Loop water mains over top of sewer lines.
   - F. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.



STYLE A



STYLE B

TABLE OF DIMENSIONS		
	OBSTRUCTION	
	SEWER MAIN	OTHER
(a)	18"	12" MIN.
(b)	10'-0"	12" MIN.

C734S APWA PLAN 542 WATER SERVICE LINE LOOP
NTS

WATER MAIN LINE LOOP

1. GENERAL
   - A. Before backfilling, secure inspection of installation by ENGINEER.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Piping: Match existing pipe, fittings, coupling sizes and materials.
   - C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
   - D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - F. Grease: Non-oxide poly-FM.
   - G. Couplings: Brass.

3. EXECUTION
   - A. Thrust Blocks: Not required for flanged or welded pipe systems. Before pouring thrust block concrete, wrap pipe system in plastic sheet to prevent bonding of concrete to pipe system.
   - B. Fittings: Use copper to copper flare fittings or copper to iron pack joint coupling with locking split clamp on iron pipe side and flare on copper side.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - D. Steel Spool: Weld in place and provide slip on flange except when fitting in pipe system could move. Epoxy line per AWWA C210, C213, and coated per AWWA C208, or C214.
   - E. Location: Loop water mains over top of sewer lines.
   - F. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

STYLE A

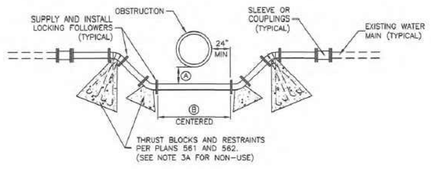


TABLE OF DIMENSIONS		
OBSTRUCTION	(A)	(B)
SEWER	18" MIN	20" MIN
OTHER	12" MIN	O.D. + 48"

NOTE: OMIT ALL REFERENCES TO THRUST BLOCKS. PROVIDE JOINT RESTRAINTS ON ALL PIPE AND FITTINGS.

C735S APWA PLAN 543.1 WATER MAIN LOOP
NTS

WATER MAIN LINE LOOP

1. GENERAL
   - A. Before backfilling, secure inspection of installation by ENGINEER.

2. PRODUCTS
   - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   - B. Piping: Match existing pipe, fittings, coupling sizes and materials.
   - C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
   - D. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615.
   - E. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   - F. Grease: Non-oxide poly-FM.

3. EXECUTION
   - A. Thrust Blocks: Not required for flange or welded pipe systems. Before pouring thrust block concrete, wrap pipe system with plastic sheet to prevent bonding of concrete to pipe system.
   - B. Fittings: Use copper to copper flare fittings or copper to iron pack joint coupling with locking split clamp on iron pipe side and flare on copper side. All couplings to be brass.
   - C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
   - D. Steel Spool: Weld in place and provide slip on flange except when fitting in pipe system could move. Epoxy line per AWWA C210, C213, and coated per AWWA C208, or C214.
   - E. Location: Loop water mains over top of sewer lines.
   - F. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

STYLE B AND C

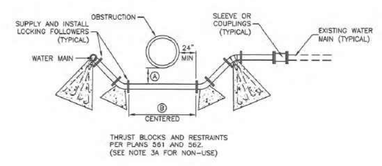


TABLE OF DIMENSIONS		
OBSTRUCTION	(A)	(B)
SEWER	18" MIN	20" MIN
OTHER	12" MIN	O.D. + 48"

STYLE B

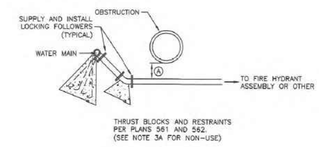


TABLE OF DIMENSIONS	
OBSTRUCTION	(A)
SEWER	18" MIN
OTHER	12" MIN

STYLE C

NOTE: OMIT ALL REFERENCES TO THRUST BLOCKS. PROVIDE JOINT RESTRAINTS ON ALL PIPE AND FITTINGS.

C736S APWA PLAN 543.2 WATER MAIN LOOP
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	GDS	MMC

LAST CONFORMED SET: ISW-1A, ISSUED FOR BID ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 10 OF 16

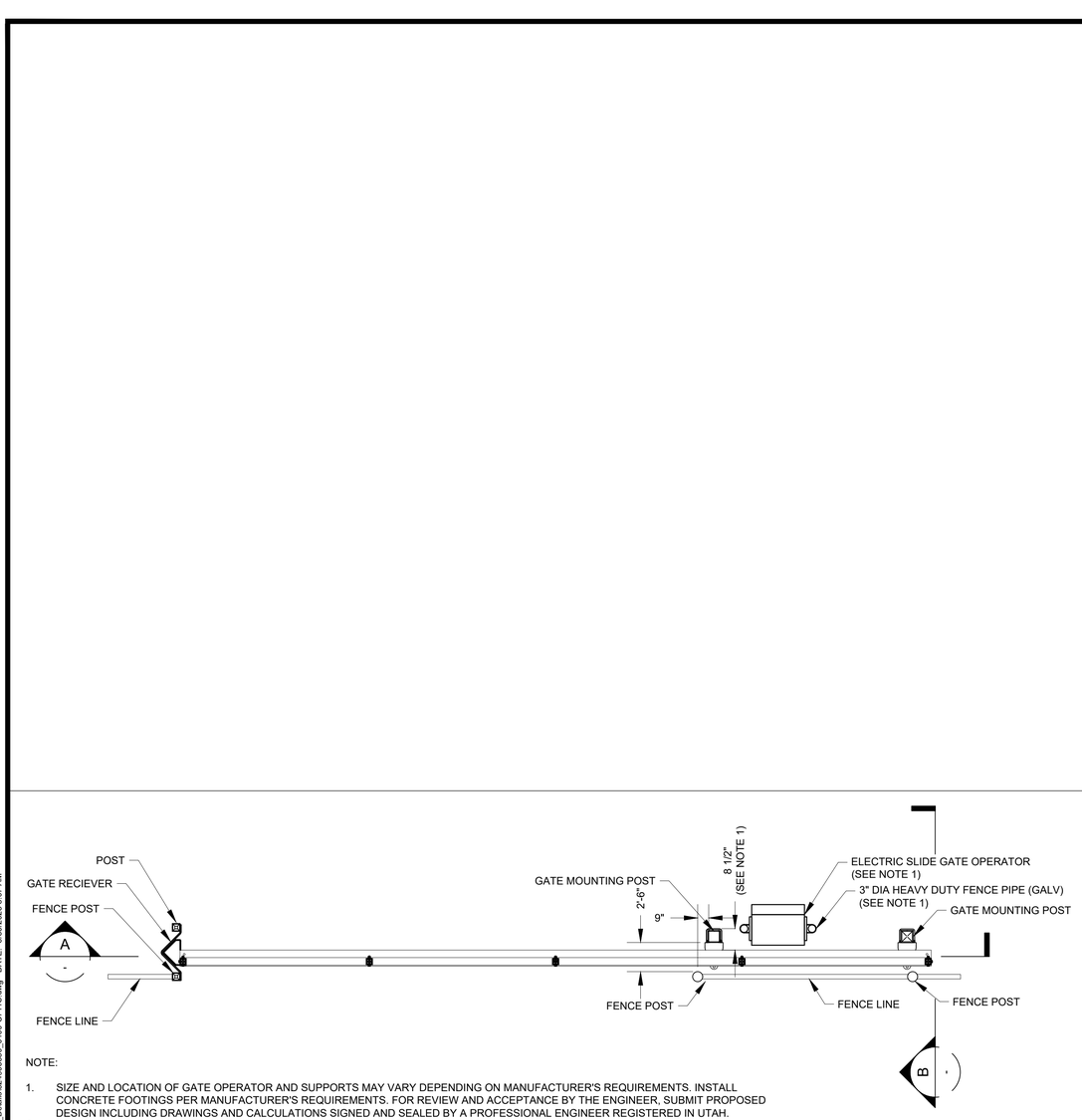
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C710S

SHEET _____ OF _____

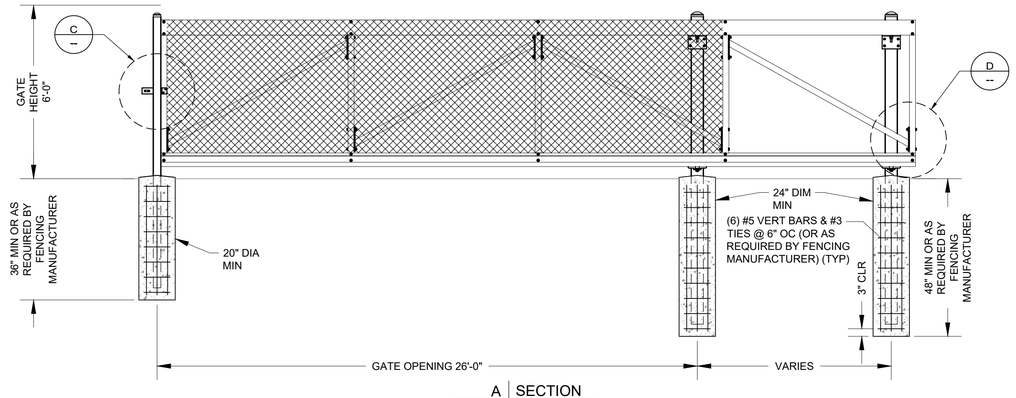
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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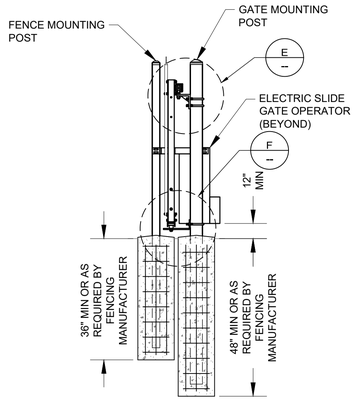
NOTE:

1. SIZE AND LOCATION OF GATE OPERATOR AND SUPPORTS MAY VARY DEPENDING ON MANUFACTURER'S REQUIREMENTS. INSTALL CONCRETE FOOTINGS PER MANUFACTURER'S REQUIREMENTS. FOR REVIEW AND ACCEPTANCE BY THE ENGINEER, SUBMIT PROPOSED DESIGN INCLUDING DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN UTAH.
2. FOR WIND AND SEISMIC DESIGN CRITERIA, SEE SPECIFICATION SECTION 01 41 20.

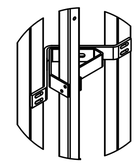


C738S CANTILEVER SLIDE GATE
NTS

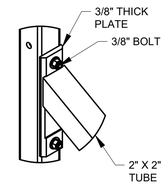
A | SECTION
SCALE: NTS



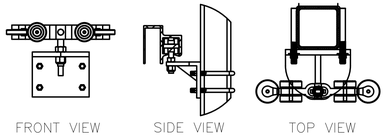
B | SECTION
SCALE: NTS



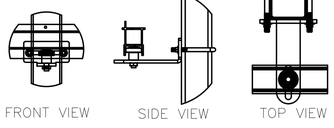
C | DETAIL
-- SCALE: NTS



D | DETAIL
-- SCALE: NTS



E | DETAIL
-- SCALE: NTS



F | DETAIL
-- SCALE: NTS

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A, ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: ---

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 11 OF 16

LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C711S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

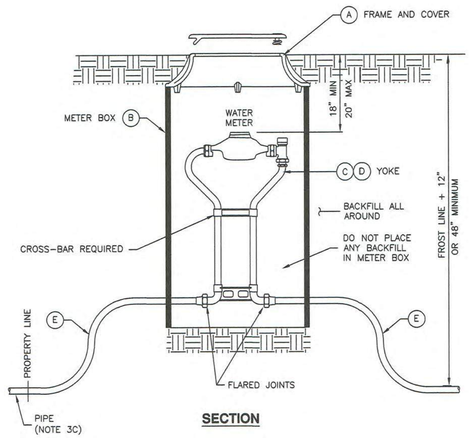
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3/4" AND 1" METER

1. GENERAL
   A. In street surfaces or other vehicular traffic areas (like driveway approaches), Install the same type of meter box as required for 1 1/2" and 2" service meters. See Plan 522.
   B. Before backfilling, secure inspection of installation by ENGINEER.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.

3. EXECUTION
   A. Meter Placement:
      1) All meters are to be installed in the park strip or within 7 feet of the property line (street side).
      2) Do not install meters under driveway approaches, sidewalks, or curb and gutter.
   B. Meter Box: Set box so grade of the frame and cover matches the grade of the surrounding surface.
   C. Pipe Outside of Right-of-Way: Coordinate with utility agency or adjacent property owner for type of pipe to be used outside of right-of-way.
   D. Inspection: Before backfilling around meter box, secure inspection of installation by ENGINEER.
   E. Base Course and Backfill Placement: Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26. Maximum lift thickness before compaction is 8-inches.



SECTION

LEGEND			
No.	*	ITEM	DESCRIPTION
A		FRAME AND COVER	CAST IRON COVER
B		METER BOX (18" TO 21" DIAMETER) (30" TO 36" DEEP)	CORRUGATED PE, PVC, CMP OR MATERIAL ACCEPTABLE TO AGENCY
C		3/4" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
D		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
E		COPPER PIPE	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

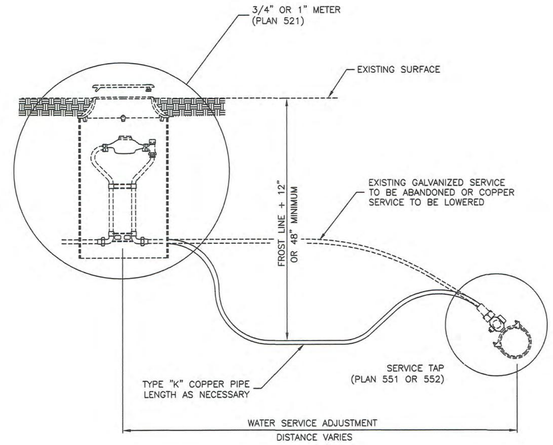
C739S APWA PLAN 521 3/4" AND 1" METER
NTS

WATER SERVICE LINE

1. GENERAL
   A. Before backfilling, secure inspection of installation by ENGINEER.

2. PRODUCTS
   A. Fittings: Provide brass fittings and nipples. Do not use galvanized materials..
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.

3. EXECUTION
   A. Backfill: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.



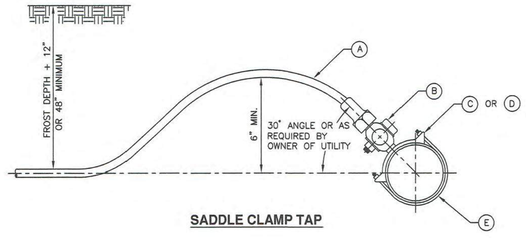
C740S APWA PLAN 555 WATER SERVICE LINE
NTS

3/4" AND 1" SERVICE TAPS

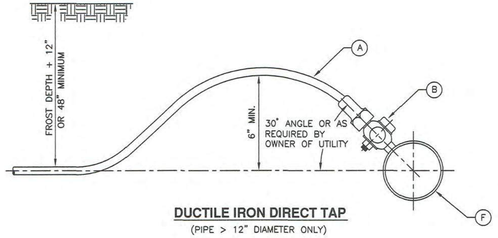
1. GENERAL
   A. Before backfilling around taps, secure inspection of installation by ENGINEER.

2. PRODUCTS
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Tape: Teflon tape is required on all taps.

3. EXECUTION
   A. Tapping: Place taps a minimum of 36-inches apart. Use a tapping tool which is sized corresponding to the size of the service line to be installed. No taps within 36-inches of end of pipe.
   B. PVC or AC Pipe: A service saddle clamp is required on all PVC and AC pipe taps unless specified otherwise.
   C. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.



SADDLE CLAMP TAP



DUCTILE IRON DIRECT TAP
(PIPE > 12" DIAMETER ONLY)

LEGEND			
No.	*	ITEM	DESCRIPTION
A		COPPER PIPE	TYPE K – SOFT
B		CORPORATION STOP	BRASS
C		SERVICE SADDLE CLAMP	(D.I., C.I., A.C.) **
D		SERVICE SADDLE CLAMP	(P.V.C.)
E		WATER MAIN PIPE	(D.I., C.I., A.C., P.V.C.)
F		WATER MAIN PIPE	(DUCTILE IRON (D.I.) ONLY

* FURNISHED BY UTILITY AGENCY
** DI & CI PIPE MAY BE DIRECT TAPPED

C741S APWA PLAN 551 3/4" AND 1" SERVICE TAPS
NTS

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G.STEPHENSON
DRAWN BY: B. CHANDLER
CHECKED BY: M. CHAMBERS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A, ISSUED FOR BID	GDS	MMC

LAST CONFORMED SET: ---

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 12 OF 16

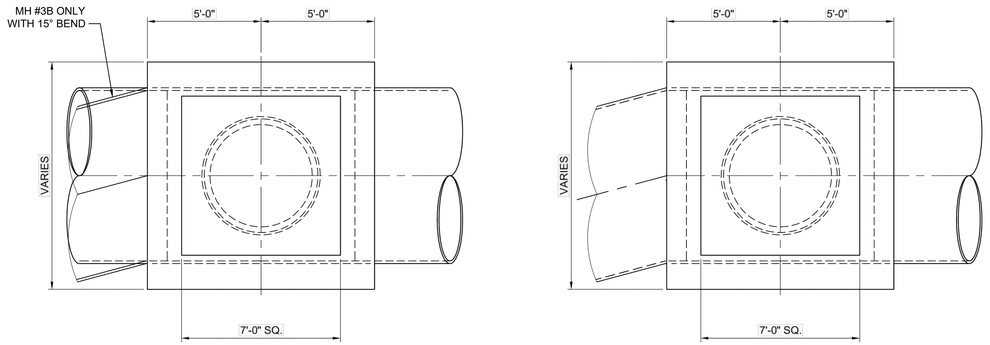
LICENSED PROFESSIONAL ENGINEER
No. 182750
MICHAEL M. CHAMBERS
STATE OF UTAH
04-03-2023

DRAWING No.
0100-C712S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

FILE: H:\Projects\407 - AECOM\03.100 SLCWRF Upgrades\Task 8 Design\CAD\Working\20-SHEETS\10_Forcemain_IPS\5_Details\0524905350_0100-C712S.dwg DATE: 3/30/2023 8:08 AM

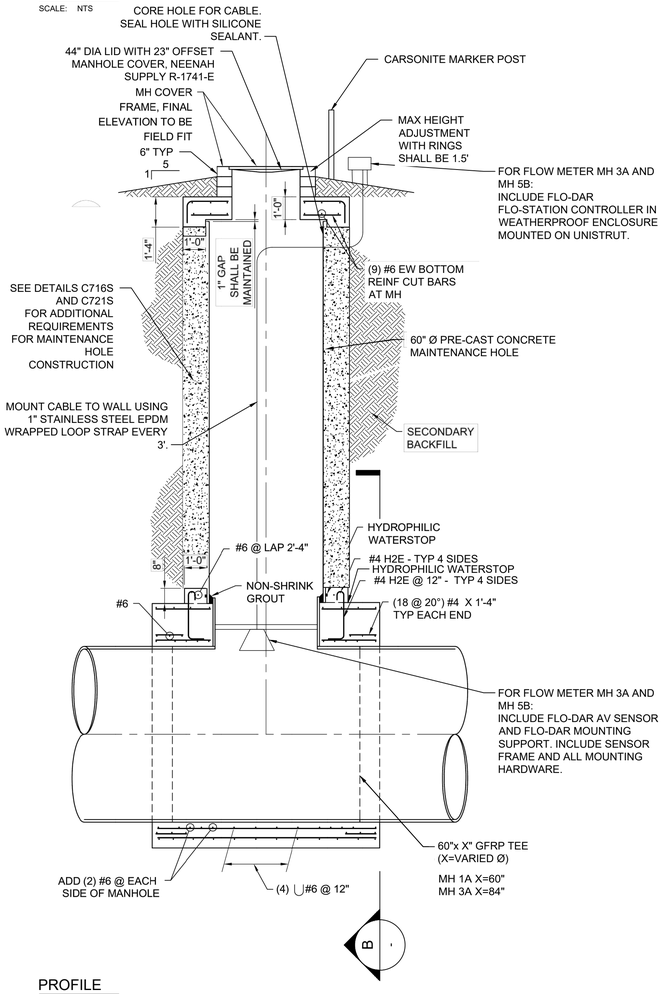


PLAN

SCALE: NTS

MH #3B PLAN

SCALE: NTS



PROFILE

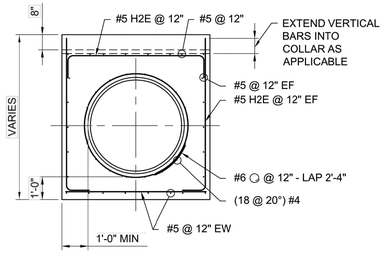
SCALE: NTS

C750S T-BASE MH DETAILS

NOT TO SCALE

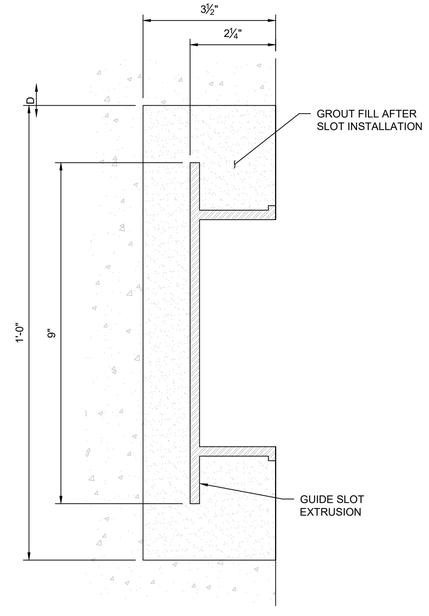
NOTE:

1. ALL MANHOLES LOCATED OUT OF PAVED AREAS SHALL BE INSTALLED 6-INCHES ABOVE FINISHED GRADE AND SHALL INCLUDE CARSONITE MARKER POST.



B SECTION

SCALE: NTS



C753S STOP LOG EMBEDDED ALUMINUM CHANNEL

NOT TO SCALE

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: S. BERZINS
DRAWN BY: B. WILD
CHECKED BY: S. BERZINS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

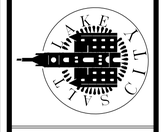
REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	ISW-1A; ISSUED FOR BID	LMR	SB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 15 OF 16





DRAWING No.
0100-C715S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

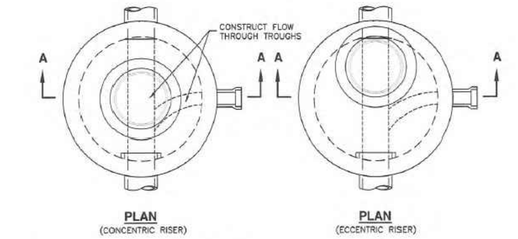
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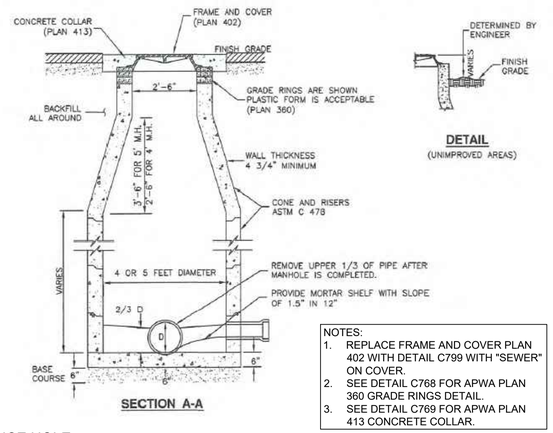
SANITARY SEWER MANHOLE

1. GENERAL
   A. THE DRAWING SHOWS TYPICAL PIPE CONNECTIONS. REFER TO CONSTRUCTION DRAWINGS FOR CONNECTION LOCATIONS OR REFER TO FIELD LOCATION OF EXISTING PIPING WHEN ENGINEERING PIPE CONNECTION TO THE MANHOLE.
   B. MANHOLE SIZE.
      1) DIAMETER IS 4 FEET: FOR SEWERS UNDER 12" DIAMETER.
      2) DIAMETER IS 5 FEET: FOR SEWERS 12" AND LARGER, OR WHEN 3 OR MORE PIPES INTERSECT THE MANHOLE.

2. PRODUCTS
   A. BASE COURSE: UNTREATED BASE COURSE, APWA SECTION 32 11 23. DO NOT USE GRAVEL AS A BASE COURSE WITHOUT ENGINEER'S PERMISSION.
   B. BACKFILL: COMMON FILL, APWA SECTION 31 05 13. MAXIMUM PARTICLE SIZE 2-INCHES.
   C. CONCRETE: CLASS 4000, APWA SECTION 03 30 04.
   D. RISER AND REDUCING RISER: ASTM C478.
   E. REINFORCEMENT: DEFORMED, 60 KSI YIELD GRADE STEEL, ASTM A615.
   F. GROUT: 2 PARTS SAND TO 1 PART CEMENT MORTAR, ASTM C1329.
   G. STABILIZATION-SEPARATION GEOTEXTILE: MODERATE OR HIGH AT CONTRACTOR'S CHOICE, APWA SECTION 31 05 19.

3. EXECUTION
   A. FOUNDATION STABILIZATION: GET ENGINEER'S PERMISSION TO USE A SEWER ROCK OR A GRANULAR BACKFILL BORROW IN A GEOTEXTILE WRAP TO STABILIZE AN UNSTABLE FOUNDATION.
   B. BASE COURSE PLACEMENT: APWA SECTION 32 11 23. MAXIMUM LIFT THICKNESS IS 8-INCHES BEFORE COMPACTION. COMPACTION IS 95 PERCENT OR GREATER RELATIVE TO A MODIFIED PROCTOR DENSITY, APWA SECTION 31 23 26.
   C. INVERT COVER. DURING CONSTRUCTION, PLACE INVERT COVERS OVER THE TOP OF PIPE IN MANHOLES THAT CURRENTLY CONVEY SEWERAGE. SEE PLAN 412.
   D. PIPE CONNECTIONS: GROUT AROUND ALL PIPE OPENINGS.
   E. PIPE SEAL: INSTALL RUBBER-BASED PIPE SEALS ON ALL PLASTIC PIPES WHEN CONNECTING PLASTIC PIPES TO MANHOLES. HOLD WATER-STOP IN PLACE WITH STAINLESS STEEL BANDS.
   F. JOINTS: PLACE FLEXIBLE GASKET-TYPE SEALANT IN ALL RISER JOINTS. FINISH WITH GROUT.
   G. ADJUSTMENT: IF THE REQUIRED MANHOLE ADJUSTMENT IS MORE THAN 1'-0", REMOVE THE CONE AND GRADE RINGS AND ADJUST THE MANHOLE ELEVATION WITH THE APPROPRIATE MANHOLE SECTION, THE CONE SECTION, AND THE GRADE RINGS OR PLASTIC FORM TO MAKE FRAME AND LID MATCH FINISH GRADE.
   H FINISH: PROVIDE SMOOTH AND NEAT FINISHES ON INTERIOR OF CONES, SHAFTS, AND RINGS. IMPERFECT MOLDINGS OR HONEYCOMBS WILL NOT BE ACCEPTED.
   I. BACKFILL: PROVIDE BACKFILL AGAINST THE MANHOLE SHAFT. PEA GRAVEL AND RECYCLED RAP AGGREGATE IS NOT ALLOWED. WATER JETTING IS NOT ALLOWED. MAXIMUM LIFT THICKNESS IS 8-INCHES BEFORE COMPACTION. COMPACTION IS 95 PERCENT OR GREATER RELATIVE TO A STANDARD PROCTOR DENSITY, APWA SECTION 31 23 26.





NOTES:
1. REPLACE FRAME AND COVER PLAN 402 WITH DETAIL C799 WITH "SEWER" ON COVER.
2. SEE DETAIL C768 FOR APWA PLAN 360 GRADE RINGS DETAIL.
3. SEE DETAIL C769 FOR APWA PLAN 413 CONCRETE COLLAR.

C751S APWA PLAN 411 SANITARY SEWER MAINTENANCE HOLE
NOT TO SCALE

SCALE: AS SHOWN

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: S. BERZINS
DRAWN BY: B. WILD
CHECKED BY: S. BERZINS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	ISW-1A, ISSUED FOR BID	LMR	SB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

CIVIL TYPICAL DETAILS
SHEET 16 OF 16

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

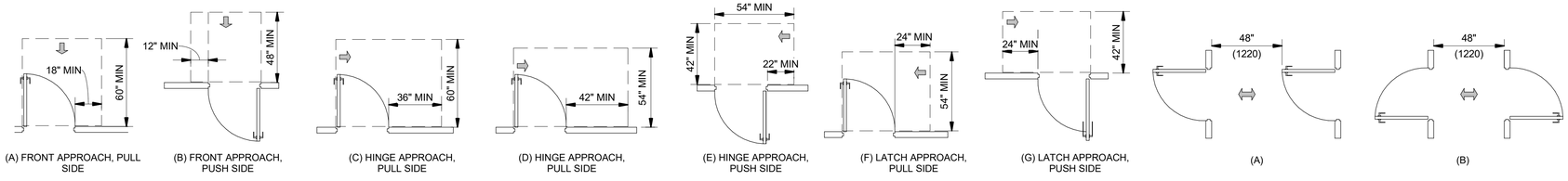
DRAWING No.
0100-C716S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

FILE: C:\Users\lindsay.reid\OneDrive - AECOM\Documents_Projects\SLC WRF\910-CAD\20-SHEETS\10_Forcemain-PS\S_Typical Details\524905350_0100-C716S.DWG DATE: 3/30/2023 8:47 AM

DOORS AND DOORWAYS



(A) FRONT APPROACH, PULL SIDE | (B) FRONT APPROACH, PUSH SIDE | (C) HINGE APPROACH, PULL SIDE | (D) HINGE APPROACH, PULL SIDE | (E) HINGE APPROACH, PUSH SIDE | (F) LATCH APPROACH, PULL SIDE | (G) LATCH APPROACH, PUSH SIDE | (A) | (B)

FIG. 404.2.5
TWO DOORS IN A SERIES

REACH RANGES

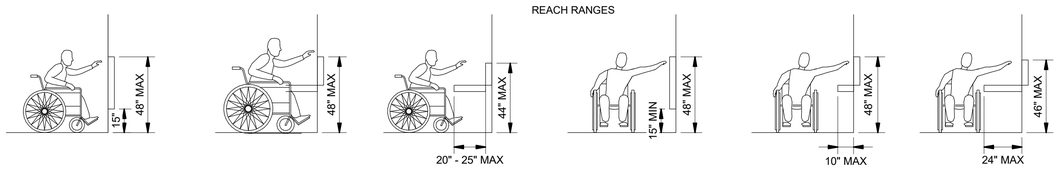


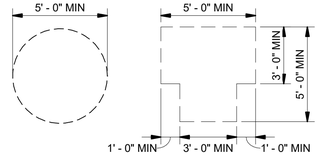
FIG. 308.2.1
UNOBSTRUCTED FORWARD REACH

FIG. 308.2.2
OBSTRUCTED HIGH FORWARD REACH

FIG. 308.3.1
UNOBSTRUCTED SIDE REACH

FIG. 308.3.2
OBSTRUCTED HIGH SIDE REACH

CLEAR FLOOR SPACE

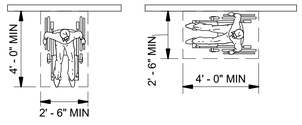


(A) CIRCULAR (B) T-SHAPED

FIG. 304.3
SIZE OF WHEELCHAIR TURNING SPACE

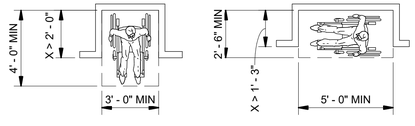
ADA ACCESSIBLE MANEUVERING CLEARANCES

SCALE: 1/4" = 1'-0"



(A) FORWARD (B) PARALLEL

FIG. 305.5
POSITION OF CLEAR FLOOR OR GROUND SPACE



(A) FORWARD APPROACH (B) PARALLEL APPROACH

FIG. 305.7
MANEUVERING CLEARANCE IN AN ALCOVE

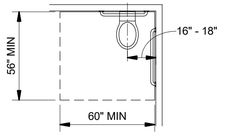
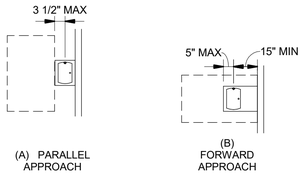


FIG. 604.2/604.3.1
WATER CLOSET LOCATION/SIZE CLEARANCE

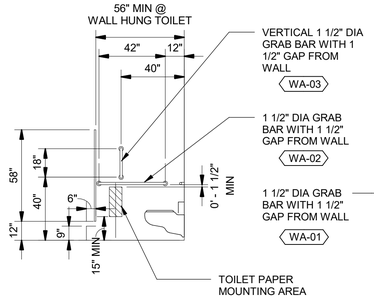


FIG. 609.3
SPACING OF GRAB BARS

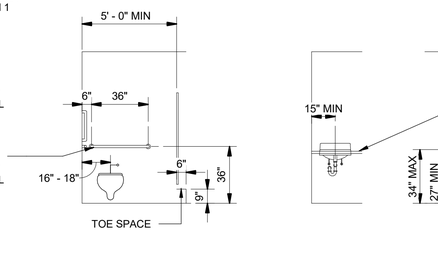


(A) PARALLEL APPROACH (B) FORWARD APPROACH

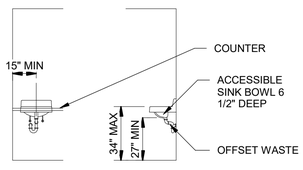
FIG. 602.5
DRINKING FOUNTAIN SPOUT LOCATION



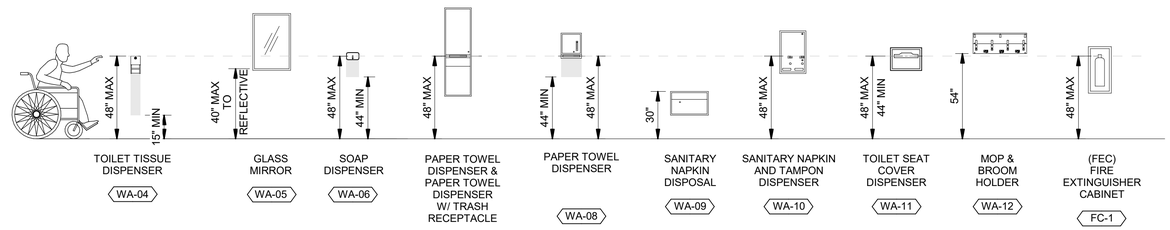
WATER CLOSET SIDE WALL



WATER CLOSET BACK WALL



LAVATORY OR VANITY SINK



ADA ACCESSIBLE PLUMBING ELEMENTS AND FACILITIES

SCALE: 1/4" = 1'-0"

SCALE: 1/4" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: D. BLOOD
DRAWN BY: J. WOLFF
CHECKED BY: M. SCHANTZ
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY:	AUTH. BY:
A	23-04-03 SW-1A: ISSUED FOR BID	JW	DB

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ACCESSIBILITY TYPICAL DETAILS

STATE OF UTAH
DAVID E. BLOOD
No. 11383041-0301
REGISTERED ARCHITECT
04-03-2023

DRAWING No.
0100-A701

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 12:09:57 PM

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S003S CONSTRUCTION JOINT - WALL TO SLAB
S004S CONTROL JOINT - SLAB
S005S CONSTRUCTION JOINT - SLAB
S006S CONSTRUCTION JOINT W/ WATERSTOP - SLAB
S007S STANDARD HOOK & REINF LAP SPLICE

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S083S MASONRY CONTROL JOINT (MCJ PLAN)
S084S MASONRY CORNER AND INTERSECTION REINFORCING

0100-S710S
S090S FRP BEAM TO WALL CONNECTION DETAIL

SCALE:

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS INDEX

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH

04-03-2023

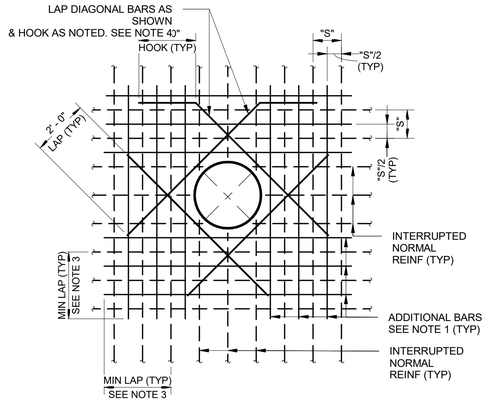
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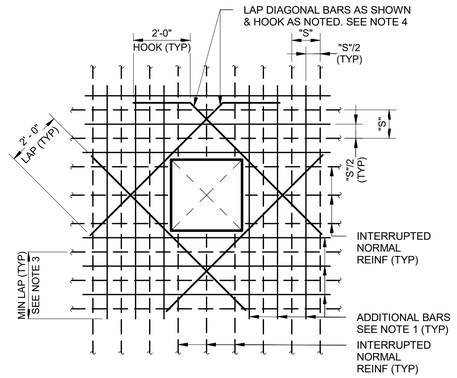
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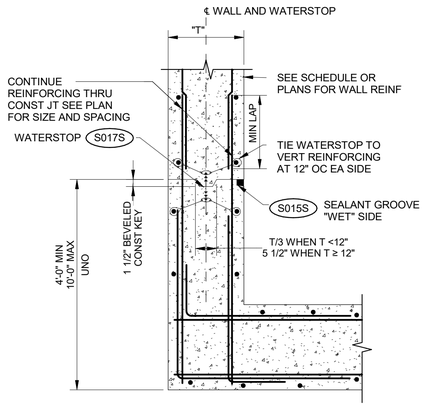


NOTES:

1. NUMBER OF ADDITONAL REINF BARS AT EACH SIDE OF OPNG SHALL EQUAL HALF THE NUMBER OF INTERRUPTED BARS IN EACH LAYER OF REINF.
2. SIZE OF ADDITIONAL REINF BARS TO EQUAL SIZE OF INTERRUPTED REINF BARS.
3. PROVIDE STD HOOKS FOR BARS IF LAP LENGTH EXTENSION CANNOT BE OBTAINED AT JOINTS OR OTHER OBSTRUCTIONS. PLACE ADDITIONAL BARS IN SAME PLANES AS INTERRUPTED REINF.
4. SIZE OF DIAGONAL BARS SHALL BE THE SIZE OF THE LARGEST NORMAL REINF BAR CUT, UNO. LOCATE DIAGONALS IN EACH LAYER OF REINF.
5. PLACE DIAGONAL BARS INSIDE NORMAL REINF.
6. ALL REINF TO CLEAR OPENING OR FLANGE COLLARS BY 2".
7. TWO OR MORE OPENINGS WITH 6" OR LESS BETWEEN THEM MAY BE A SINGLE OPENING.
8. ADDITIONAL REINF NOT REQUIRED IF OPENING DOES NOT INTERRUPT REINF OR ON ANY SIDE WHERE OPENING IS BORDERED BY A BEAM.
9. DETAILS APPLY TO PENETRATION 8" DIA OR LARGER.

S001S ADDITIONAL REINFORCING BARS
NOT TO SCALE

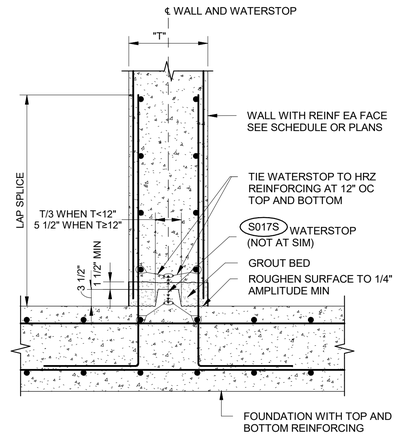




NOTES:

1. "T" = WALL THICKNESS WITH DOUBLE MAT OF STEEL.

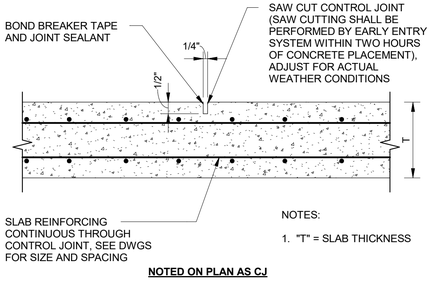
S002S CONSTRUCTION JOINT - WALL TO WALL
NOT TO SCALE



NOTES:

1. GROUT BED TO BE PLACED IMMEDIATELY PRIOR TO PLACEMENT OF WALL CONCRETE.

S003S CONSTRUCTION JOINT - WALL TO SLAB
NOT TO SCALE

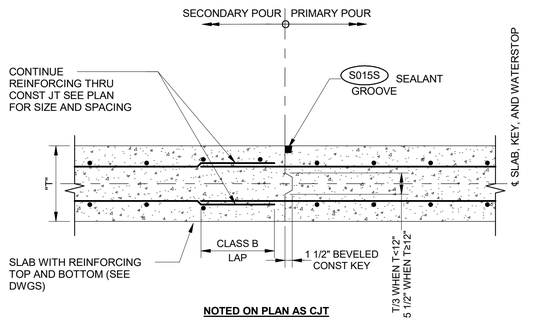


NOTES:

1. "T" = SLAB THICKNESS

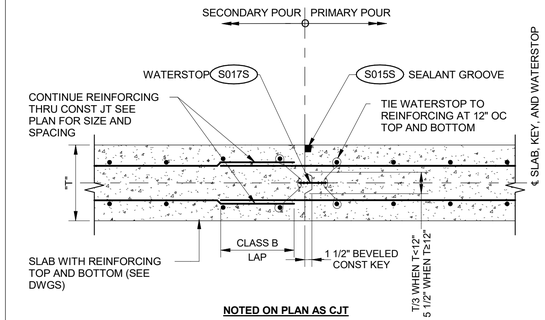
NOTED ON PLAN AS CJ

S004S CONTROL JOINT - SLAB
NOT TO SCALE



NOTED ON PLAN AS CJT

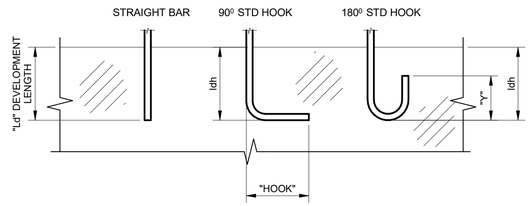
S005S CONSTRUCTION JOINT - SLAB
NOT TO SCALE

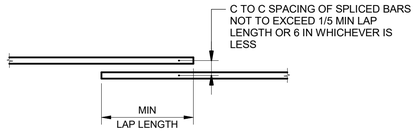


NOTED ON PLAN AS CJT

S006S CONSTRUCTION JOINT W/ WATERSTOP - SLAB
NOT TO SCALE

f'c = 5000 PSI		fy = 60,000 PSI				BAR SPACING = 6" MIN		
BAR SIZE	DIAMETER (db) (INCHES)	DEVELOPMENT LENGTH (Ld) (INCHES)		CLASS B LAP SPLICE (INCHES)		90° STD HOOK (INCHES)		180° STD HOOK "Y"
		"TOP" BARS	OTHER	"TOP" BARS	OTHER	HOOK	ldh	
		REINFORCING BARS IN TENSION						
#3	0.375	27	19	36	25	6	6	4
#4	0.5	29	21	38	28	8	8	5
#5	0.625	36	26	47	34	8	10	5
#6	0.75	43	31	56	41	9	12	6
#7	0.875	50	36	65	47	11	14	7
#8	1.0	58	41	76	54	12	16	8
#9	1.128	65	47	85	62	14	20	11
#10	1.270	73	52	95	68	16	22	12
#11	1.41	81	58	106	78	17	24	13
REINFORCING BARS IN COMPRESSION								
#3	0.375	8		12		HOOKED BARS SHALL NOT BE USED IN COMPRESSION		
#4	0.5	9		15				
#5	0.625	12		19				
#6	0.75	14		23				
#7	0.875	16		27				
#8	1.0	18		30				
#9	1.125	21		34				
#10	1.270	23		38				
#11	1.41	25		42				





NOTES:

1. "TOP" BARS SHALL BE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
2. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED SHALL
   A. NOT BE LESS THAN d_b , HAVE CLEAR COVER NOT LESS THAN d_b , AND STIRRUPS OR TIES THROUGHOUT L_d NOT LESS THAN THE CODE MINIMUM OR;
   B. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN $2d_b$ AND CLEAR COVER NOT LESS THAN d_b, WHERE d_b =DIAMETER OF REINFORCING BAR AND L_d = DEVELOPMENT LENGTH.
3. ALL LAP SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE.
4. WHEN SPLICING BARS OF DIFFERENT SIZE, THE LENGTH OF LAP SHALL BE GOVERNED BY THE LARGER DIAMETER BAR.
5. SPLICES ARE TO BE MADE SO THAT THE GIVEN DISTANCES TO FACE OF CONCRETE WILL BE MAINTAINED.
6. SPLICES SHALL BE STAGGERED TO GIVE 12 INCHES CLEAR BETWEEN ENDS OF ADJACENT SPLICES, IF BARS ARE SPACED CLOSER THAN 6 INCHES OR 6 BAR DIAMETERS.

S007S STANDARD HOOK & REINF LAP SPLICE
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905350

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-IA: ISSUED FOR BID	RP SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 1 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

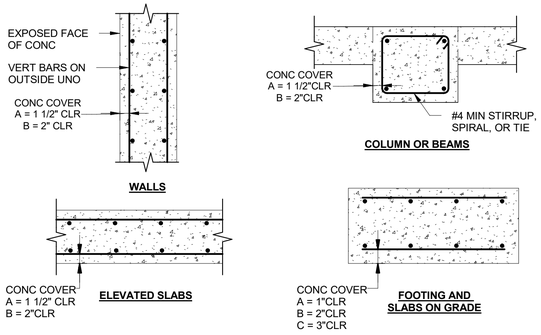
DRAWING No.
0100-S701S

SHEET _____ OF _____

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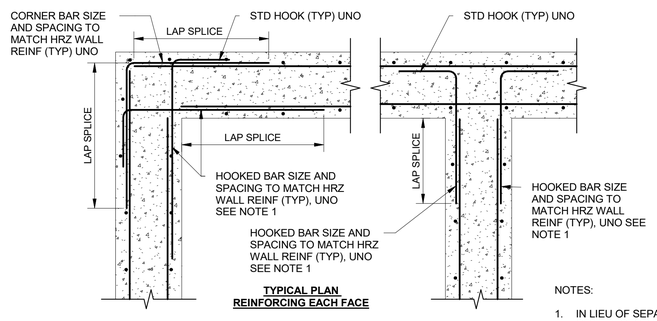
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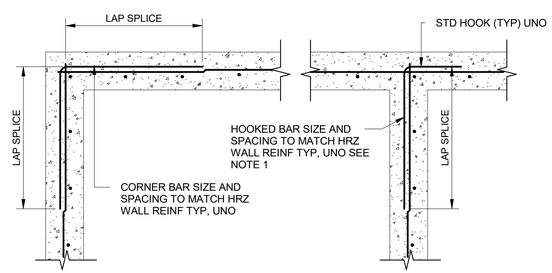


A = NO EXPOSURE TO GROUND, WEATHER OR WATER AFTER FORM REMOVAL.
B = EXPOSURE TO GROUND, WEATHER OR WATER AFTER FORM REMOVAL.
C = CONCRETE PLACED AGAINST GROUND.

S008S CONCRETE COVER FOR REINF STEEL
NOT TO SCALE



TYPICAL PLAN
REINFORCING EACH FACE

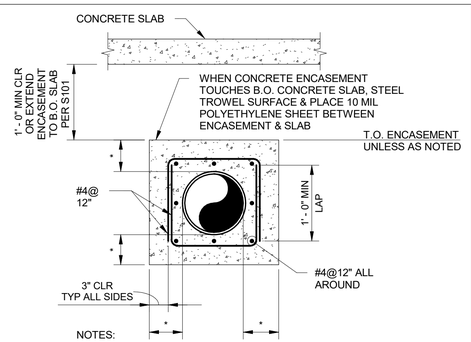


TYPICAL PLAN
SINGLE LAYER REINFORCING

NOTES:

1. IN LIEU OF SEPARATE HOOKED BAR, CONTRACTOR OPTION TO USE HRZ REINF WITH STD HOOK EACH END.

S011S WALL INTERSECTION/CORNER REINFORCING
NOT TO SCALE

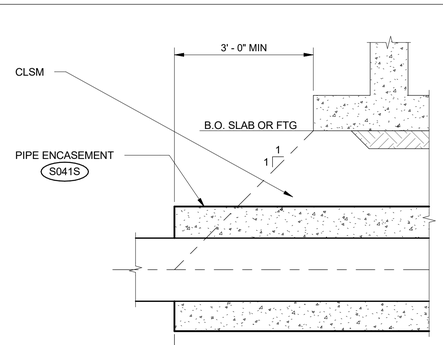


NOTES:

* = 8" MIN FOR PIPE ≤ 24" DIA, 12" FOR PIPE > 24" DIA

1. CONCRETE ENCASEMENT SHALL BE TERMINATED AT PIPE JOINTS ONLY.
2. SEE PIPE ENCASEMENT (ELEVATION) FOR EXTENTS OF ENCASEMENT BEYOND STRUCTURE.
3. FOR MULTI PIPE, PROVIDE U STIRRUPS AT EACH PIPE.

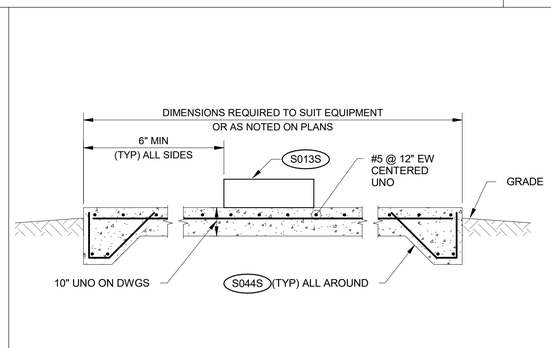
S041S PIPE ENCASEMENT (SECTION)
NOT TO SCALE



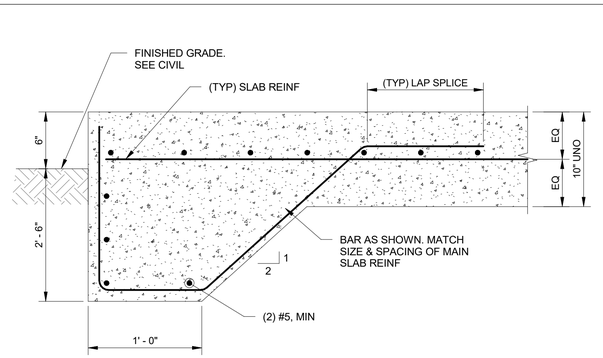
NOTES:

1. FOR EXTENT OF PIPE ENCASEMENT BEYOND EDGE OF STRUCTURE, SEE PROCESS DETAIL D138 OR MINIMUM 3ft OR MINIMUM 1:1 ZONE AS SHOWN.

S042S PIPE ENCASEMENT (ELEVATION)
NOT TO SCALE



S043S EXTERIOR EQUIPMENT SLAB-ON-GRADE
NOT TO SCALE



NOTE: THINNER MIDDLE AREA MAY BE OMITTED FOR PADS 4' X 4' SQUARE OR SMALLER (SUCH AS PIPE SUPPORT FOUNDATIONS). MIN SIDE DIMENSION IS 2' - 0".

S044S SLAB ON GRADE THICKENED EDGE
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905356

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 2 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S702S

SHEET _____ OF _____

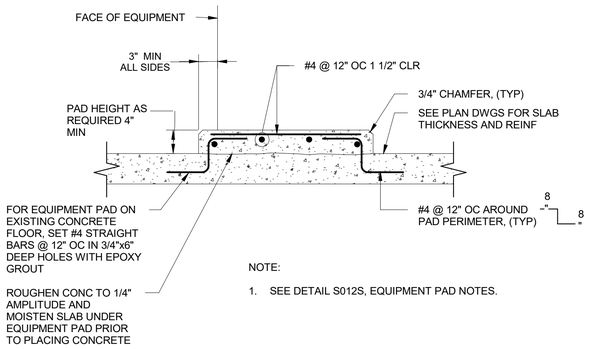
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NOTES:

1. THE MINIMUM PAD SIZE SHALL BE AS INDICATED OR AS DETERMINED BY THE EQUIPMENT MANUFACTURER.
2. THE SIZE, NUMBER, TYPE, LOCATION AND THE THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER. HOLD CONCRETE ANCHOR BOLTS IN POSITION WITH A TEMPLATE WHILE PAD IS BEING PLACED.
3. USE PIPE SLEEVES TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT AFTER EQUIPMENT IS INSTALLED.
4. PIPE SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN THE ANCHOR BOLT DIAMETER.
5. EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS NOTED OTHERWISE ON THE PLANS.
6. PROVIDE WEDGES OR SHIMS TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. THE WEDGES OR SHIMS THAT REMAIN IN PLACE SHALL NOT BE EXPOSED TO VIEW.

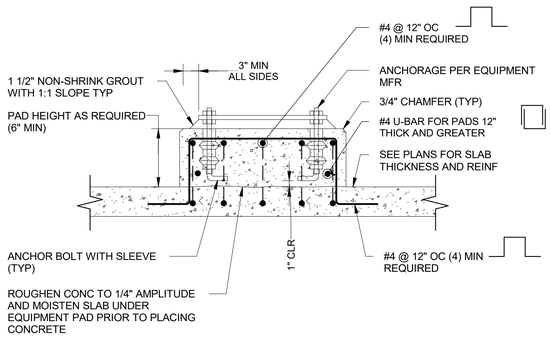
S012S EQUIPMENT PAD NOTES
NOT TO SCALE



NOTE:

1. SEE DETAIL S012S, EQUIPMENT PAD NOTES.

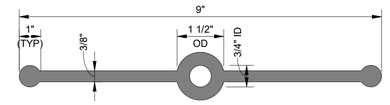
S013S EQUIPMENT PAD DETAIL-1
NOT TO SCALE



NOTE:

1. SEE DETAIL S012S, EQUIPMENT PAD NOTES.

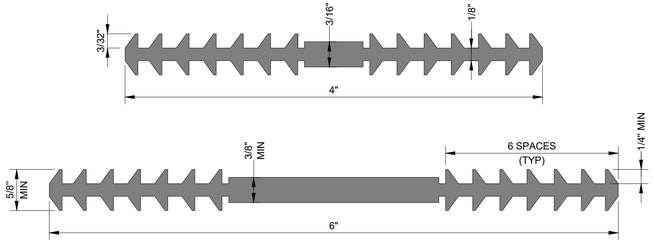
S016S EQUIPMENT PAD DETAIL-2
NOT TO SCALE



NOTE:

1. SEE DETAIL S019 FOR SPLICES.

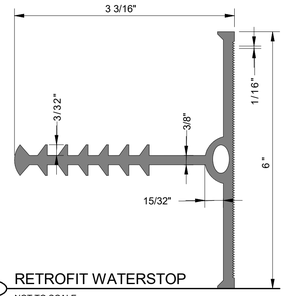
S014S WATERSTOP-BULB TYPE
NOT TO SCALE



NOTE:

1. SEE DETAIL S019S FOR SPLICES.
2. MATERIAL IS PVC
3. USE 6" WATERSTOP UNO

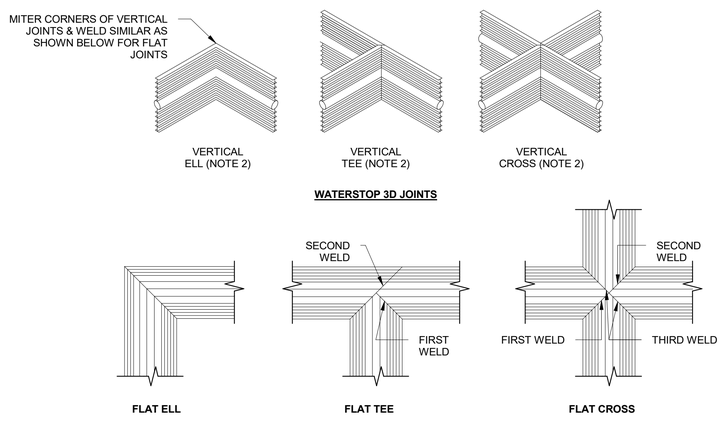
S017S WATERSTOP-FLAT STRIP
NOT TO SCALE



S020S RETROFIT WATERSTOP
NOT TO SCALE

NOTES:

1. ALL WELDS SHALL BE PER WATERSTOP MANUFACTURER'S RECOMMENDATIONS.
2. THE INDICATED 3D WATERSTOP JOINTS SHALL BE PRE- FABRICATED BY WATERSTOP MANUFACTURER.
3. WATERSTOPS ARE TO BE MADE CONTINUOUS BY SPLICING AND CONNECTING TO OTHER WATERSTOPS AS SHOWN ON THE DRAWINGS.



S019S WATERSTOP DETAILS
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 3 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S703S

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

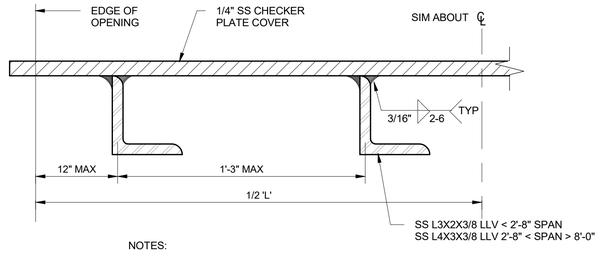
DATE: 3/30/2023 9:50:40 AM

FILE: BIM 360://6057228-Salt Lake City 2019\524905350_0100-S701.rvt

NOTES:

1. COVER PLATE AND STIFFENERS SHALL BE TYPE 316L PLATES & 316L SS ANGLES.
2. COVER PLATES SHALL HAVE APPLICABLE LIFTING EYES.
3. STIFFENERS SHALL BE PLACED LONG LEG VERTICAL.
4. STIFFENERS SHALL BE PARALLEL TO THE SHORT EDGE OF OPENINGS.
5. THESE DETAILS ARE APPLICABLE TO NORMAL PROCESS LOADS ONLY.

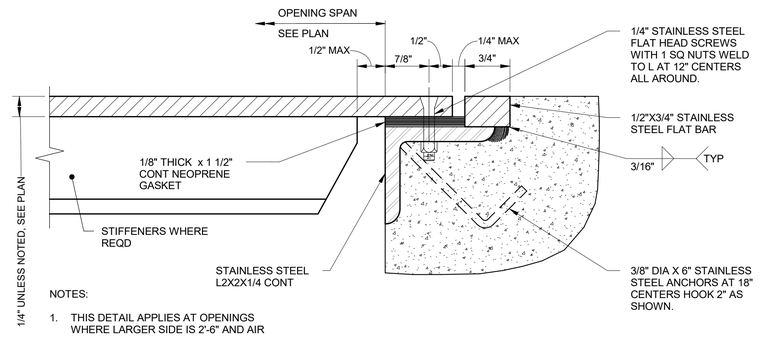
S021S CHECKER PLATE NOTES
NOT TO SCALE



NOTES:

1. SEE DETAIL S021S, CHECKER PLATE NOTES.

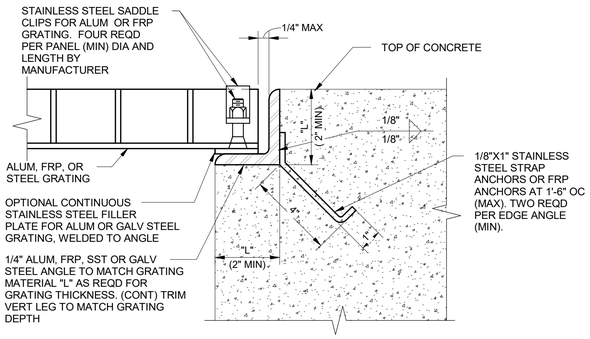
S022S TYPICAL CHECKER PLATE COVER
NOT TO SCALE



NOTES:

1. THIS DETAIL APPLIES AT OPENINGS WHERE LARGER SIDE IS 2'-6" AND AIR TIGHTNESS IS NOT REQUIRED.
2. SEE DETAIL S021S, CHECKER PLATE NOTES

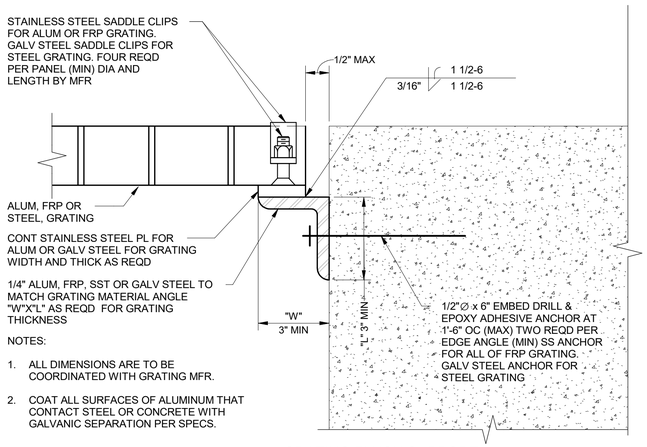
S023S CHECKER PLATE SUPPORT
NOT TO SCALE



NOTES:

1. ALL DIMENSIONS ARE TO BE COORDINATED WITH GRATING MFR.
2. COAT ALL SURFACES OF ALUMINUM IN CONTACT WITH STEEL OR CONCRETE WITH GALVANIC SEPARATION PER SPECS.

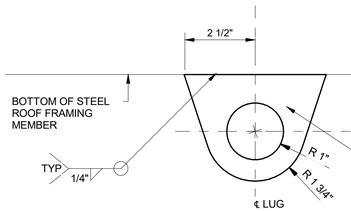
S024S GRATING EDGE DETAIL
NOT TO SCALE



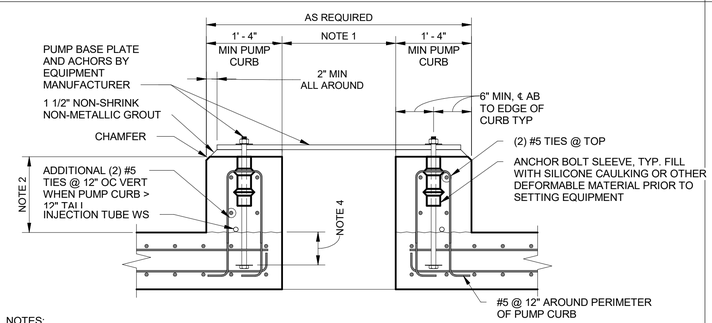
NOTES:

1. ALL DIMENSIONS ARE TO BE COORDINATED WITH GRATING MFR.
2. COAT ALL SURFACES OF ALUMINUM THAT CONTACT STEEL OR CONCRETE WITH GALVANIC SEPARATION PER SPECS.

S025S GRATING FLUSH SUPPORT
NOT TO SCALE



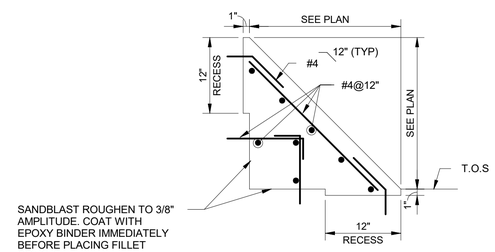
S035S LIFTING LUG DETAIL
NOT TO SCALE



NOTES:

1. COORDINATE OPENING SIZE WITH EQUIPMENT MANUFACTURER.
2. PUMP CURB HEIGHT PER EQUIPMENT MANUFACTURER.
3. EQUIPMENT MANUFACTURER IS RESPONSIBLE FOR DESIGN AND SPECIFYING BASE PLATE AND ANCHORS. SUBMIT SIGNED AND SEALED CALCULATIONS FOR REVIEW PRIOR TO FABRICATION.
4. ANCHOR DESIGN SHALL BE BASED ON EMBEDMENT IN SLAB ONLY.
5. THE SIZE, NUMBER, TYPE, LOCATION AND THREAD PROTECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER. HOLD CONCRETE ANCHOR BOLTS IN POSITION WITH A TEMPLATE WHILE PAD IS BEING PLACED.
6. USE PIPE SLEEVES TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.
7. PIPE SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN THE ANCHOR BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER.
8. EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS NOTED OTHERWISE.
9. PROVIDE WEDGES OR SHIMS TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. THE WEDGES OR SHIMS THAT REMAIN IN PLACE SHALL NOT BE EXPOSED TO VIEW.

S026S VERTICAL PUMP SUPPORT
NOT TO SCALE



NOTES:

1. FILLET TO BE 5.000 PSI EPOXY GROUT, SEE SPECIFICATIONS

S027S GROUT FILLET TERMINATION
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 4 OF 10

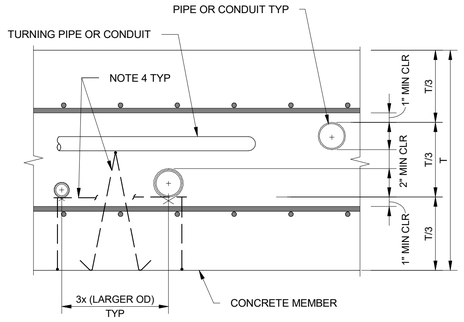
LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S704

SHEET _____ OF _____

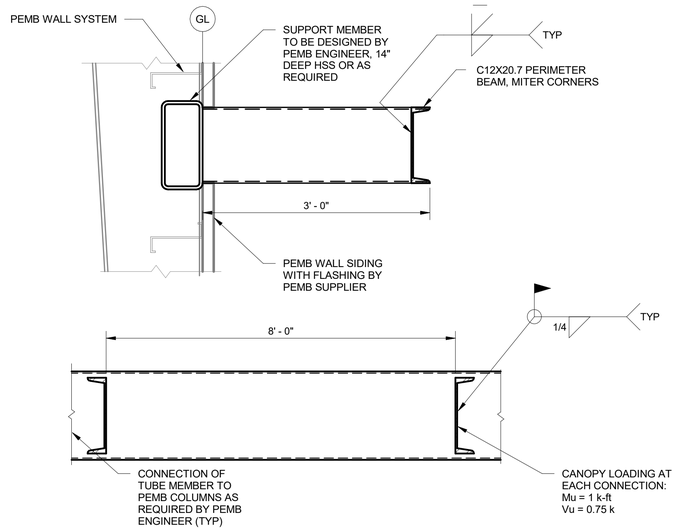
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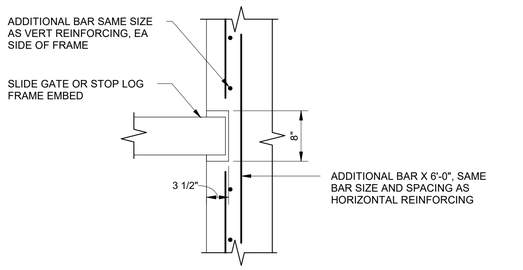


NOTES:
1. INSTALL ALL PIPES AND CONDUITS WITHIN THE MIDDLE THIRD OF THE CONCRETE WALL, SLAB OR BEAM MEMBER THICKNESS.
2. DO NOT INSTALL CONDUIT BETWEEN FORMWORK AND REINFORCING.
3. THE MAXIMUM PERMITTED PIPE OR CONDUIT OUTSIDE DIAMETER IS ONE THIRD THE MEMBER THICKNESS, MINUS 2 INCHES.
4. SUPPORT OR TIE PIPES AND CONDUITS SO AS TO PREVENT MOVEMENT IN ANY DIRECTION DURING CONCRETE PLACEMENT AND CONSOLIDATION. THE SPACING OF SUPPORTS OR TIE OFFSET SHALL BE APPROVED BY THE ENGINEER.
5. DO NOT TIE PIPES OR CONDUITS AGAINST REINFORCING.
6. DO NOT CROSS PIPES OR CONDUITS UNLESS BOTH CAN BE MAINTAINED WITHIN THE MIDDLE THIRD OF THE MEMBER THICKNESS AND THE SPECIFIED CLEARANCE BETWEEN LAYERS IS PROVIDED.
7. MOVE PIPES AND CONDUITS TO AVOID CONFLICTS WITH WATERSTOPS AND OTHER JOINT MATERIALS, WHERE THE SPECIFIED HORIZONTAL AND VERTICAL CLEARANCES CANNOT BE MAINTAINED.

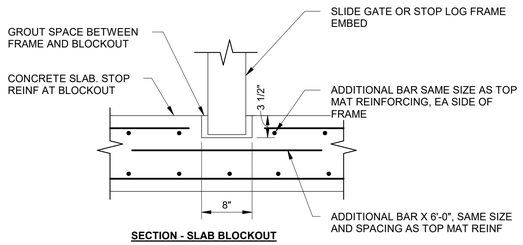
S061S EMBEDDED PIPE OR CONDUIT IN CONCRETE MEMBER
NOT TO SCALE



S058S ENTRANCE CANOPY SECTIONS
NOT TO SCALE

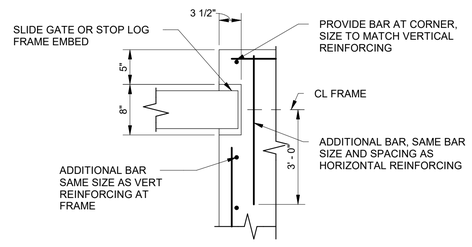


PLAN - WALL BLOCKOUT

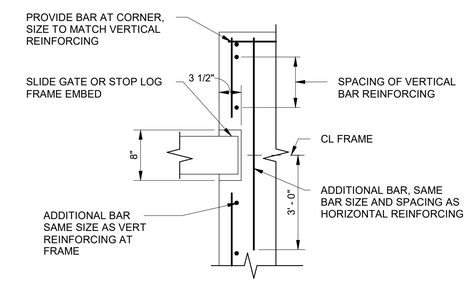


SECTION - SLAB BLOCKOUT

S065S GATE AND STOP LOG BLOCKOUTS
NOT TO SCALE

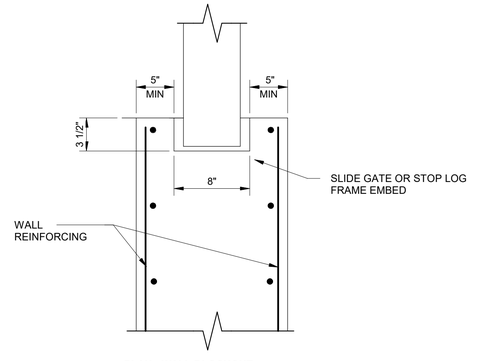


PLAN - WALL BLOCKOUT MINIMUM EDGE DISTANCE



PLAN - WALL BLOCKOUT NEAR EDGE DISTANCE

S066S GATE AND STOP LOG BLOCKOUTS NEAR EDGE
NOT TO SCALE



PLAN - WALL BLOCKOUT

S067S GATE AND STOP LOG BLOCKOUTS AT END OF WALL
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 5 OF 10

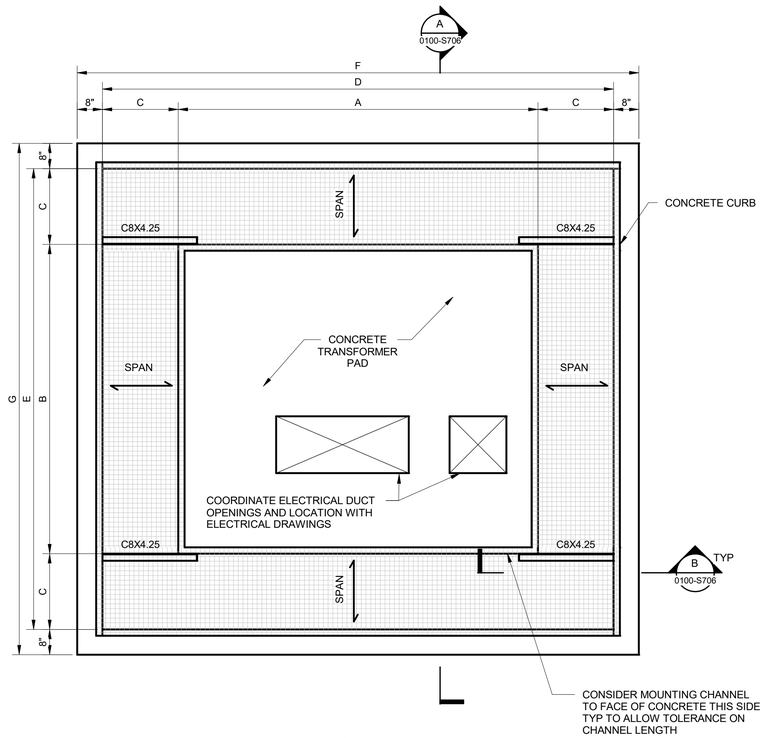
LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S705

SHEET _____ OF _____

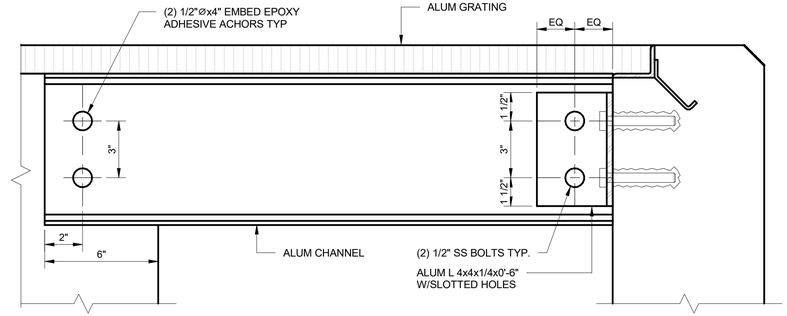
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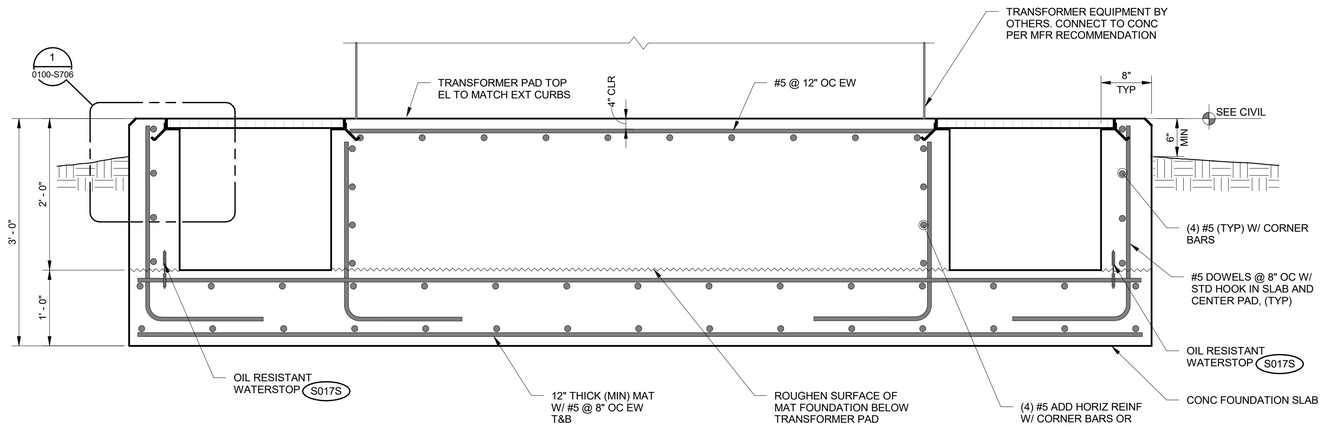


PLAN

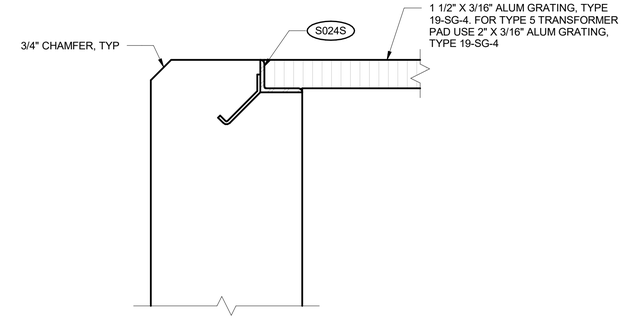
TRANSFORMER SCHEDULE							
TYPE	A	B	C	D	E	F	G
1	8'-6"	7'-6"	1'-6"	11'-6"	10'-6"	12'-10"	11'-10"
2	9'-0"	7'-8"	1'-9"	12'-6"	11'-2"	13'-10"	12'-6"
3	9'-6"	8'-2"	2'-0"	13'-6"	12'-2"	14'-10"	13'-6"
4	8'-8"	8'-6"	3'-3"	15'-2"	15'-0"	16'-6"	16'-4"
5	16'-0"	9'-0"	6'-0"	28'-0"	21'-0"	29'-4"	22'-4"
6	10'-10"	11'-0"	TBD	TBD	TBD	TBD	TBD
7S	9'-0"	10'-0"	2'-0"	13'-0"	14'-0"	14'-4"	15'-4"



B | SECTION
0100-S706 | SCALE: 3" = 1'-0"



A | SECTION
0100-S706 | SCALE: 1" = 1'-0"



1 | DETAIL
0100-S706 | SCALE: 3" = 1'-0"

S091S TRANSFORMER PAD DETAIL
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

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WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 6 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

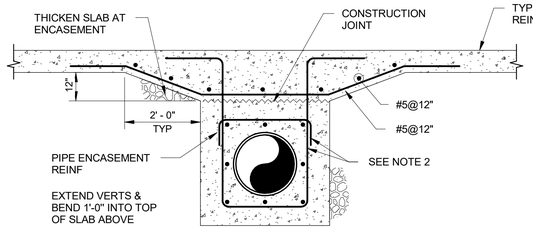
DRAWING No.
0100-S706

SHEET _____ OF _____

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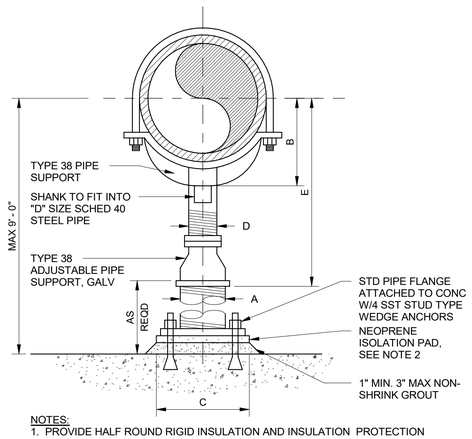
SECTION

NOTES:

1. TIE PIPE ENCASEMENT TO SLAB AS SHOWN WHEN DISTANCE BETWEEN PIPE ENCASEMENT AND BOTTOM OF SLAB IS LESS THAN 12IN AND WHERE INDICATED ON THE DRAWINGS.
2. FOR REINFORCEMENT AND COVER SEE S041S.
3. LONGITUDINAL CONSTRUCTION JOINTS ARE OPTIONAL.
4. WHERE THE FLOOR SLAB ABOVE THE ENCASEMENT IS GREATER THAN 12" THICKNESS, ENCASEMENTS MAY BE BROUGHT DIRECTLY UP TO THE BOTTOM OF SLAB WITHOUT TAPERING.

S101S PIPE ENCASEMENT ATTACHED TO SLAB DETAIL

NOT TO SCALE



PIPE SIZE	A	B	C	D	E	
					MIN.	MAX.
2 1/2	2 1/2	3 1/2	9	1 1/2	8	13
3	2 1/2	3 3/4	9	1 1/2	8 1/4	13 1/4
3 1/2	2 1/2	4	9	1 1/2	8 1/2	13 1/2
4	3	4 1/4	9	2 1/2	9 1/4	14
5	3	4 7/8	9	2 1/2	10	14 3/4
6	3	5 1/2	9	2 1/2	10 1/2	15 1/4
8	3	6 7/8	9	2 1/2	11 3/4	16 1/2
10	3	8 1/2	9	2 1/2	13 1/2	18 1/4
12	3	9 15/16	9	2 1/2	15	19 3/4
14	4	10 15/16	11	3	16 1/4	20 3/4
16	4	12 3/8	11	3	17 3/4	22 1/4
18	6	13 7/8	13 1/2	3 1/2	19 1/2	24
20	6	15 3/8	13 1/2	3 1/2	21	25 1/2
24	6	17 15/16	13 1/2	4	23 3/4	28 1/4
30	6	21 5/16	17 1/2	4	22	26 3/4

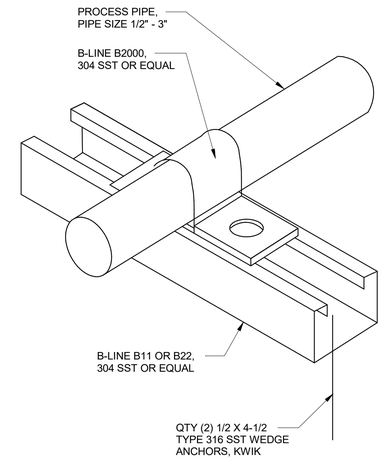
NOTES:

1. PROVIDE HALF ROUND RIGID INSULATION AND INSULATION PROTECTION SHIELD (TYPE 40), SIMILAR TO ANVIL FIG 167 OR B-LINE B-3151 WHEN PIPING IS INSULATED.
2. PROVIDE NEOPRENE WAFFLE ISOLATION PAD SIMILAR TO MASON TYPE "W" OR KORFUND KORPAD 40, UNDER SUPPORT FOOT WHEN PIPING IS TO BE ISOLATED OR FIRST SUPPORT ADJACENT TO MECHANICAL EQUIPMENT.
3. FOR SUPPORT PIPE BASE, HEIGHT, AND FLANGE DIMENSIONS, SEE TABLE.
4. SST=TYPE 316.
5. PIPE SUPPORT SPACING MAX 12' PER SMACNA THERMOSET FRP DUCT CONSTRUCTION MANUAL. SPACING MAY BE INCREASED PER FRP PIPE MANUFACTURERS RECOMMENDATIONS. PROVIDE PIPE SUPPORT MIN. 4 PIPE DIAMETERS FROM EXPANSION JOINTS.

PIPE STANCHION SUPPORT WITH SADDLE

S104S PIPE SUPPORT TYPE A

NOT TO SCALE



S106S CHANNEL SUPPORT

NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO: -
ACCOUNT NO.: 524905396

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A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 7 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH

04-03-2023

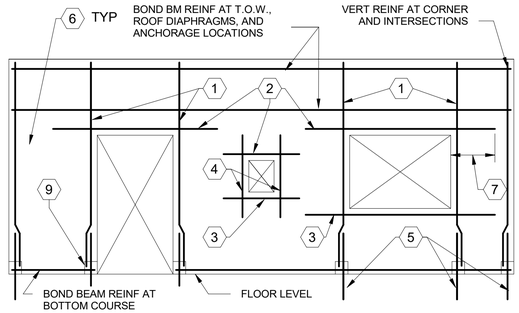
DRAWING No.
0100-S707

SHEET _____ OF _____

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DATE: 3/30/2023 9:50:39 AM

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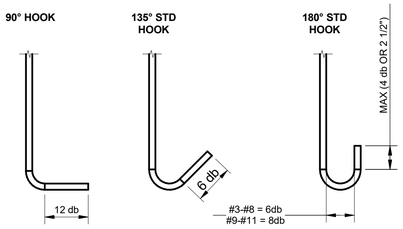


DOOR	OPNG TO 24" WIDE	OPNG GREATER THAN 24" WIDE

NOTES:

1. OPENING JAMB REINF, SEE TYPICAL DETAIL S074.
2. LINTEL OPENING REINF, SEE TYPICAL DETAIL S073.
3. SILL REINF, 1-#5 (MIN) IN BOND BEAM, UNO.
4. CMU JAMB REINFORCING PER SCHEDULE
5. FOUNDATION DOWELS TO MATCH SIZE, LOCATION & SPACING PER TYPICAL DETAIL S075.
6. BETWEEN REINF SHOWN, PROVIDE TYP WALL REINF PER TYPICAL DETAIL S075.
7. EXTEND LINTEL, JAMB, AND BOND BEAM REINF A MINIMUM OF ONE LAP LENGTH TO EACH SIDE OF OPENINGS AND JOINTS. HOOK AT DISCONTINUOUS ENDS.
8. PIPE PENETRATIONS THROUGH CMU WALLS ARE TREATED AS GENERAL OPNGS WITH THE DIAMETER OF THE WALL PENETRATION BEING CONSIDERED THE RO WIDTH.

TYPICAL MASONRY WALL REINFORCING
S071S NOT TO SCALE



BAR SIZE	MASONRY MIN LAP LENGTH (INCHES)		
	BARS CENTERED IN WALL	BARS EF	HOOK EMBED "Le"
4	48db	48db	6
5	48db	48db	10
6	48db	48db	12
7	48db	48db	14
8	48db	48db	16

NOTES:

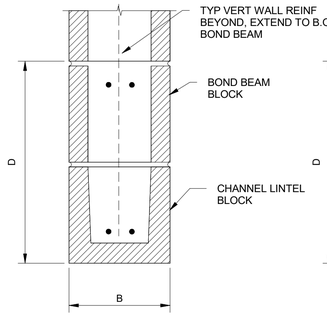
1. SEE DRAWINGS OR OBTAIN ENGINEER OF RECORD APPROVAL FOR LAP LENGTHS AND CONDITIONS NOT SHOWN.
2. db = BAR DIAMETERS.

MASONRY REINFORCING HOOKS AND LAP SPLICES
S072S NOT TO SCALE

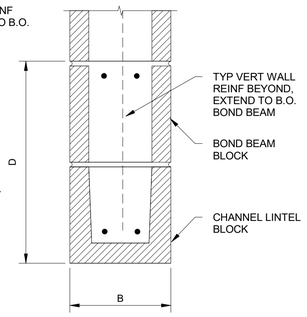
CMU LINTEL BEAM REINFORCING

8" CMU

RO WIDTH	B	D	HRZ REINF	STIRRUPS	NOTES
1'-4" TO 4'-0"	8"	8"	1-#5 BOT	NONE	SEE TYPICAL DETAIL S071 FOR ADDL REQUIREMENTS
4'-1" TO <8'-0"	8"	24"	1-#5 T&B	NONE	SEE TYPICAL DETAIL S071 FOR ADDL REQUIREMENTS



FOR RO WIDTHS UP TO BUT NOT INCLUDING 12'-1"



FOR RO WIDTHS > 12'-1"

NOTES:

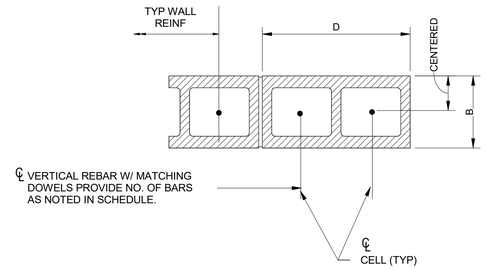
1. PROVIDE REINF AS INDICATED AT ALL OPNGS.
2. SPECIAL INSPECTION OF ALL LINTELS & BOND BEAMS IS REQUIRED.

MASONRY WALL LINTEL REINFORCING SCHEDULE
S073S NOT TO SCALE

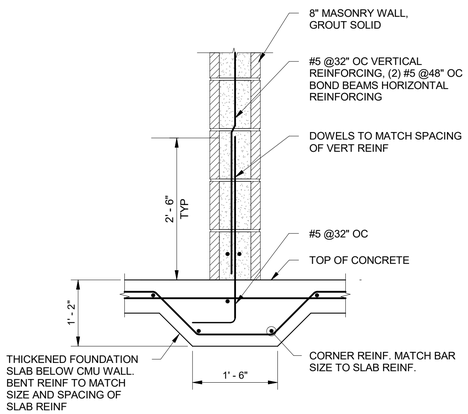
CMU JAMB REINFORCING SCHEDULE

8" CMU

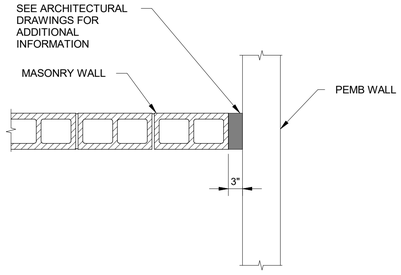
RO WIDTH	B	D	VERT REINF	STIRRUPS	NOTES
1'-4" TO <4'-0"	8"	8"	1-#5 PER CELL, CENTERED	NONE	SEE TYPICAL DETAIL S071 FOR ADDL REQUIREMENTS
4'-1" TO <8'-0"	8"	16"	1-#5 PER CELL, CENTERED	NONE	SEE TYPICAL DETAIL S071 FOR ADDL REQUIREMENTS



CMU WALL JAMB REINFORCING SCHEDULE
S074S NOT TO SCALE



MASONRY WALL
S075S NOT TO SCALE



PLAN - END OF MASONRY WALL
S076S NOT TO SCALE

SCALE: 3/4" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 8 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

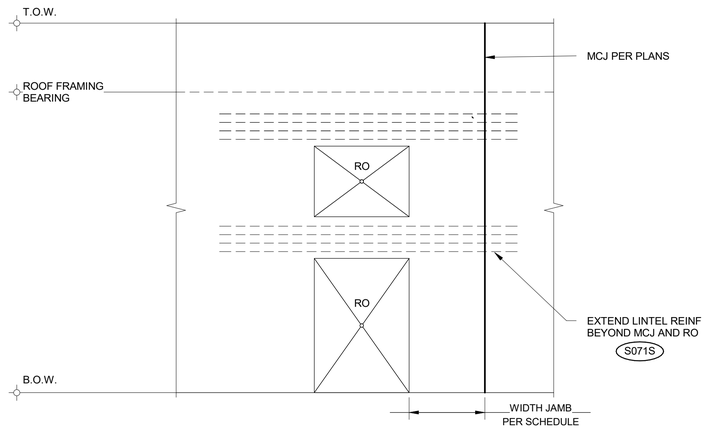
DRAWING No.
0100-S708

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

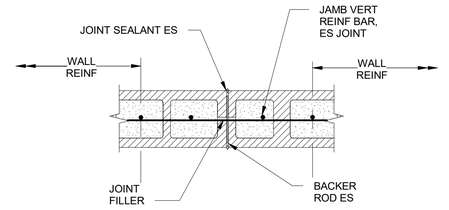
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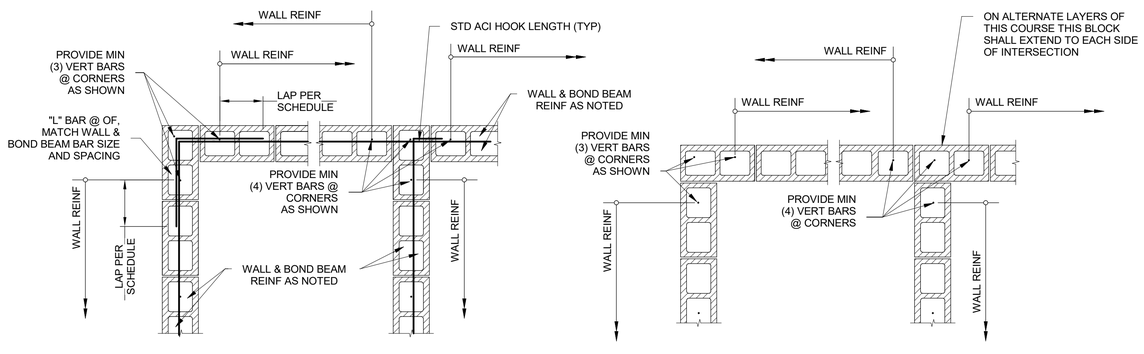
ELEVATION

S082S MASONRY CONTROL JOINT
NOT TO SCALE



NOTE:
MAXIMUM MCJ SPACING SHALL BE 16'-0" OC.

S083S MASONRY CONTROL JOINT
NOT TO SCALE



CMU COURSE WITH HRZ REINFORCEMENT SHOWN, 8IN BLOCK

CMU COURSE WITHOUT HRZ REINF, 8IN BLOCK

NOTE:
SEE DRAWINGS FOR HORIZONTAL REINFORCING SIZE, LAYOUT, AND SPACING

S084S MASONRY CORNER AND INTERSECTION REINFORCING
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: E.FUERSCHBACH
DRAWN BY: R.PITTMAN
CHECKED BY: R.HAWTHORNE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905086

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 9 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S709

SHEET _____ OF _____

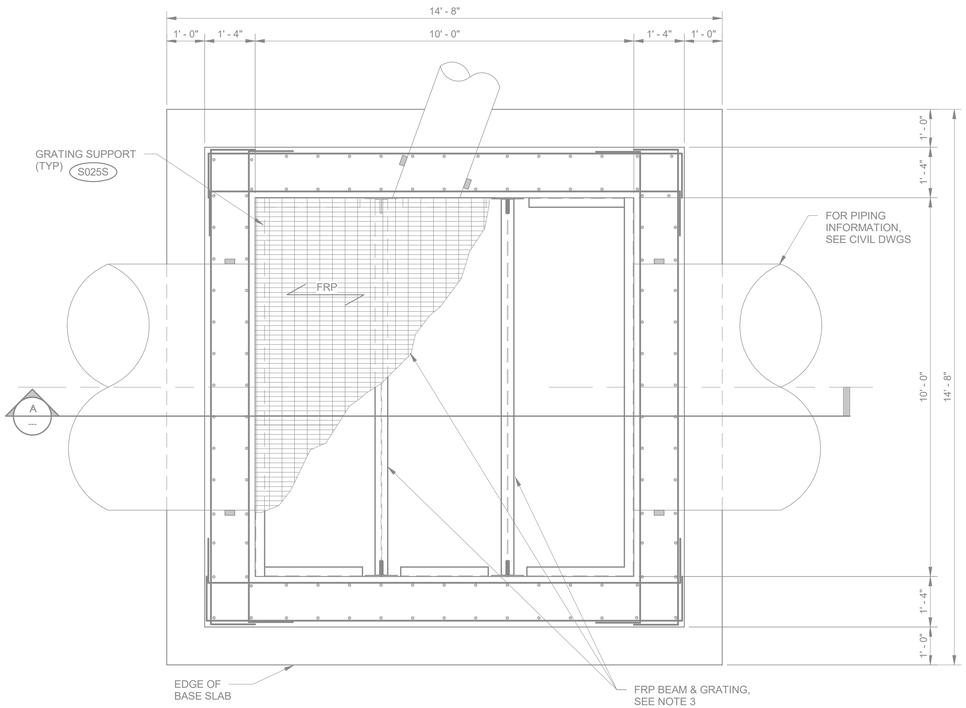
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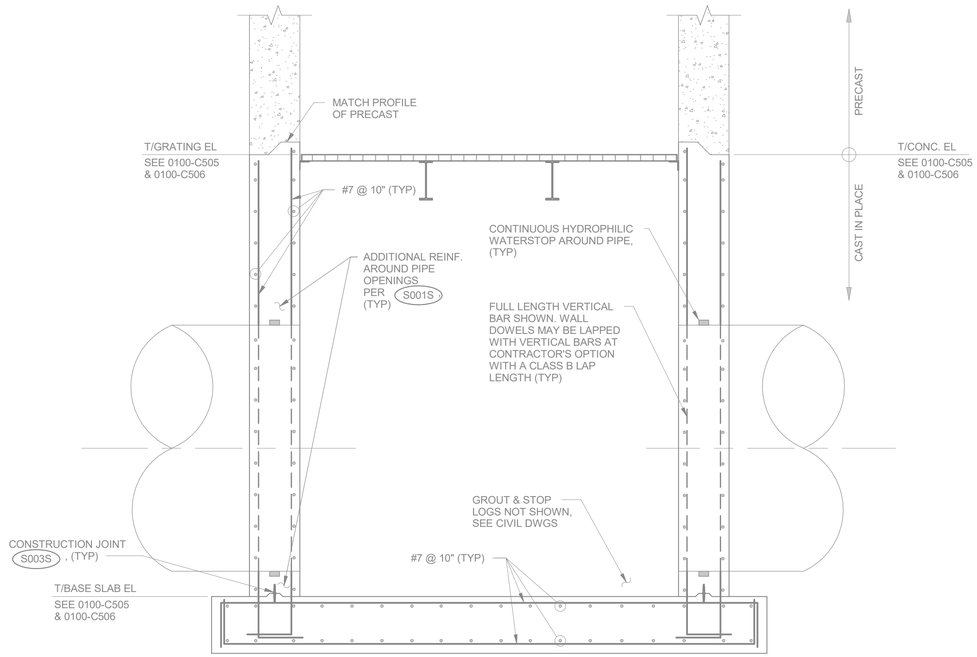
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GENERAL NOTES:

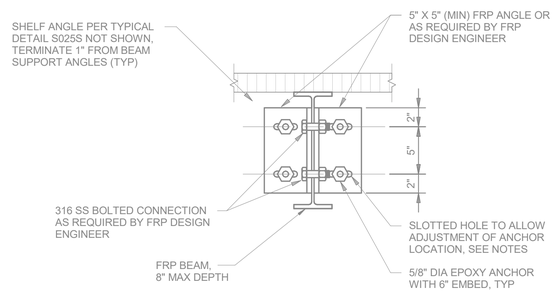
1. THE MANHOLE BASE SHOWN APPLIES TO MANHOLES MH #1, MH #1B, MH #3, MH #6, AND MH #7 AS SHOWN ON DRAWINGS 0100-C505 AND 0100-C506.
2. MANHOLE BASE CAST-IN-PLACE CONCRETE SHALL BE CLASS A.
3. FRP GRATING AND BEAM SUPPORTS BY DELEGATED DESIGN ENGINEER, SEE SPECIFICATION SECTION 06 60 10. GRATING FRAMING SHALL BE LAID OUT TO ALLOW REMOVAL OF GRATING PANELS AND STOP LOGS WHILE MAINTAINING PERSONNEL ACCESS ON THE REMAINING PORTION OF GRATING. SEE DRAWINGS 0100-C505 AND 0100-C506 FOR LAYOUT OF FRAMING RELATIVE TO STOP LOGS. PROPOSED GRATING AND SUPPORT SYSTEM SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.



PLAN



A | SECTION
NTS



NOTES:

1. CONTRACTOR TO SCAN WALL REINFORCEMENT TO DETERMINE LOCATIONS PRIOR TO INSTALLING ANCHORS. IF DRILLING INTO REINFORCEMENT CANNOT BE PREVENTED, NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO INSTALLING ANCHORS.
2. ALL FRP COMPONENTS ARE TO BE DESIGNED BY THE FRP DELEGATED DESIGN ENGINEER, SEE SPECIFICATION 06 60 10.

1 | FRP BEAM TO WALL CONNECTION
NTS

S090S | MANHOLE BASE DETAIL
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	M. WASHMUTH
DRAWN BY:	R.PITTMAN
CHECKED BY:	R.HAWTHORNE
APPROVED BY:	G.DAVIES
DATE:	- - -
EWO NO.:	-
ACCOUNT NO.:	524905086

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	RP	SP

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

STRUCTURAL TYPICAL DETAILS
SHEET 10 OF 10

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-S710S

SHEET _____ OF _____

VERIFY SCALE 1" BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/31/2023 10:15:33 AM

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PROCESS TYPICAL DETAILS INDEX

0100-D701S
D121S TYPE A PIPE PENETRATION
D122S TYPE B PIPE PENETRATION
D123S TYPE C PIPE PENETRATION - SW-1A
D125S TYPE E PIPE PENETRATION
D126S PIPE PENETRATION TYPES
D127S PIPE PENETRATION NOTES

0100-D702
D138S BURIED PIPE CONNECTION AT STRUCTURES
D139S HDPE TO STEEL OR DI PIPE CONNECTION
D141S GROUTED PIPE PENETRATION WITH DOUBLE LINK SEAL
D169S SAMPLING PORT DETAIL (TYP)
D170S DUCT INSULATION DETAIL
D174S FRP TO HDPE FLANGE DETAIL (20" DUCT)

0100-D703
D185S PORTABLE DAVIT CRANE
D186S PEDESTAL BASE DETAIL

0100-D704
D153S EXPANSION JOINT FOR DUCTILE IRON PIPE
D154S PVC EXPANSION JOINT
D155S DIP FLEXIBLE COUPLING TIE DOWN
D194S AIR/VACUUM OR AIR RELEASE VALVE ASSEMBLY FOR SEWAGE SERVICE
D197S 3-1/2" AND SMALLER PIPE CONNECTION
D198S 4" AND LARGER PIPE CONNECTION

0100-D705
D091S TYPE C STRUCTURAL ATTACHMENT
D092S TYPE D STRUCTURAL ATTACHMENT
D226S TYPE I DRAIN, VENT AND SEAL WATER PIPING FOR VERTICAL WET PIT SOLIDS HANDLING PUMPS
D313S FLOOR BOX OPERATOR
D315S STEM GUIDE

0100-D706
D329S STOP LOG

0100-D707
D345S SLIDE GATE

0100-D708
D094S TYPE G STRUCTURAL ATTACHMENT
D097S TYPE K STRUCTURAL ATTACHMENT
D369S TYPE A GOOSENECK AIR VENT
D370S TYPE B GOOSENECK AIR VENT
D371S FOUL AIR BUTTERFLY VALVE DAMPER ARRANGEMENT
D372S GOOSENECK ON COVER

0100-D709
D001S TABLE A (PIPE HANGERS)
D002S TABLE B (PIPE SUPPORT)
D003S PIPE HANGERS AND PIPE SUPPORTS GENERAL NOTES

0100-D710
D009S PIPE SUPPORT 1 1/2" THROUGH 8" PIPE
D010S PIPE SUPPORT 2 2" THROUGH 8" PIPE
D011S PIPE SUPPORT 3 10" THROUGH 12" PIPE
D012S PIPE SUPPORT 4 3/8" THROUGH 8" PIPE
D013S PIPE SUPPORT 5 1/2" THROUGH 12" PIPE
D014S PIPE SUPPORT 6 2" THROUGH 12" PIPE
D015S PIPE SUPPORT 7 2" THROUGH 12" PIPE
D016S THREADED ROD FOR PIPE HANGER

0100-D711
D018S PIPE SUPPORT 8 STEEL PIPE ELBOW OR TEE PIPE SUPPORT 2-1/2" THROUGH 12" PIPE
D019S PIPE SUPPORT 9 3/4" THROUGH 12" PIPE
D020S PIPE SUPPORT 10 ADJUSTABLE PIPE SUPPORT 2-1/2" THROUGH 12" PIPE
D021S FLANGED CONNECTION DETAIL FOR ADJUSTABLE PIPE SUPPORT
D022S PIPE SUPPORT 11

0100-D712
D025S PIPE SUPPORT 1 SEISMIC SUPPORT
D026S PIPE SUPPORT 2 SEISMIC SUPPORT
D027S LONGITUDINAL SEISMIC BRACING
D028S TRAPEZE PIPE HANGER SEISMIC BRACING

0100-D713
D041S PIPE SUPPORT WALL BRACKET ABOVE PIPE
D042S VERTICAL PIPE SUPPORT WALL BRACKET INSIDE
D043S PIPE SUPPORT FOR ONE VERTICAL RISER
D044S FREE STANDING PIPE SUPPORT
D045S PIPE SUPPORT POST WITH PREFORMED CHANNEL

0100-D714
D049S PIPE SUPPORT - WALL STRAP
D050S HORIZONTAL PIPE SWAY BRACE
D051S VERTICAL PIPE SWAY BRACE
D052S WALL PIPE SUPPORT
D053S OFFSET PIPE SUPPORT
D054S SUPPORT FOR VERTICAL FRP PIPE ON P/C WALL
D055S SUPPORT FOR HORIZONTAL FRP PIPE ON P/C WALL

SCALE: As Indicated

PROJECT ADDRESS: 1365 W 2300 N, SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: S.GALBICHKA
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS INDEX

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edvard Davies
STATE OF UTAH
04-03-2023

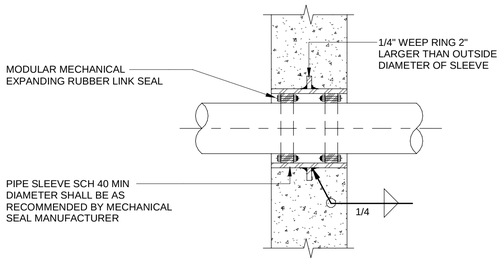
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0100-D700

SHEET _____ OF _____

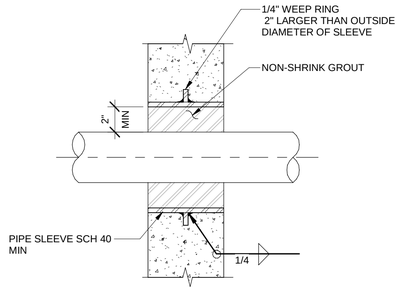
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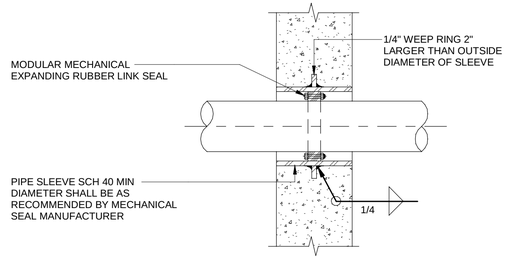
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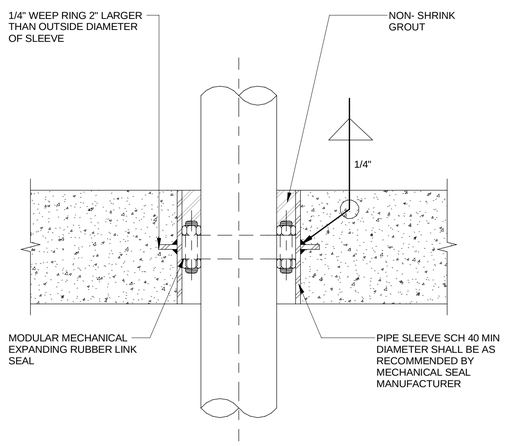
D121S TYPE A PIPE PENETRATION
NOT TO SCALE



D122S TYPE B PIPE PENETRATION
NOT TO SCALE



D123S TYPE C PIPE PENETRATION
NOT TO SCALE



D125S TYPE E PIPE PENETRATION
NOT TO SCALE

PIPE PENETRATION TYPES

CONDITION		TYPE		
FROM	TO	STEEL PIPE	DUCTILE IRON PIPE	PLASTIC
TANK	TANK BELOW WS	A, B OR WP	A, B OR WP	A, B OR WP
TANK	TANK ABOVE WS	A, B, C OR WP	A, B, C OR WP	A, B OR WP
PASSAGE	TANK BELOW WS	A, B, C OR WP	A, B, C OR WP	A, B OR WP
PASSAGE	TANK ABOVE WS	A, B, E OR WP	A, B, E OR WP	A, B, E OR WP
PASSAGE	PASSAGE	C, D, E OR WP	C, D, E OR WP	C, D, E OR WP
PASSAGE	OUTSIDE WALL	A, B OR WP	A, B OR WP	A, B OR WP
PASSAGE	ROOF	E OR WP	E OR WP	E OR WP
TANK	OUTSIDE WALL	A, B OR WP	A, B OR WP	A, B OR WP

NOTE:
1. WP STANDS FOR WALL PIPE, SEE DETAIL D139S

D126S PIPE PENETRATION TYPES
NOT TO SCALE

NOTES:

1. ALL STEEL SLEEVES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. SEAL FLANGES SHALL BE FACED AND DRILLED TO 150 POUND STANDARD, EACH JOINT SHALL BE GASKETED UNLESS OTHERWISE SPECIFIED.
3. WHERE SPECIFIED, CAST IRON FLANGES MAY BE INSTALLED FLUSH WITH WALL AND TAPPED FOR STUDS.
4. PROVIDE MINIMUM 3" CLEARANCE BETWEEN REINFORCING STEEL AND FERROUS METAL PENETRATIONS.
5. FLEXIBLE JOINTS SHALL BE PROVIDED FOR UNDERGROUND PIPING AS SPECIFIED.
6. RESTRAINED FLEXIBLE COUPLINGS FOR STEEL PIPE SHALL BE DESIGNED FOR 150 PSI LINE PRESSURE IN ACCORDANCE WITH AWWA MANUAL MII FIGURES 19.15 AND 19.16. AWWA MANUAL M11, TABLE 19.7 SHALL BE UTILIZED.
7. INSULATION SHALL NOT EXTEND THROUGH SLEEVES, UNLESS OTHERWISE SPECIFIED.
8. SEAL WITH MASTIC SEALANT WHERE WALL IS EXPOSED TO LIQUID, EARTH OR EXPLOSION HAZARD AREA.

D127S PIPE PENETRATION NOTES
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY:
A	23-04-03	SW-1A: ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS SHEET 1 OF 14

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

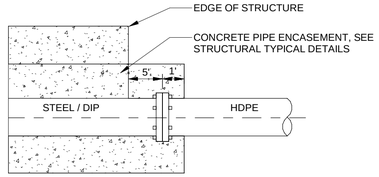
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0100-D701S

SHEET _____ OF _____

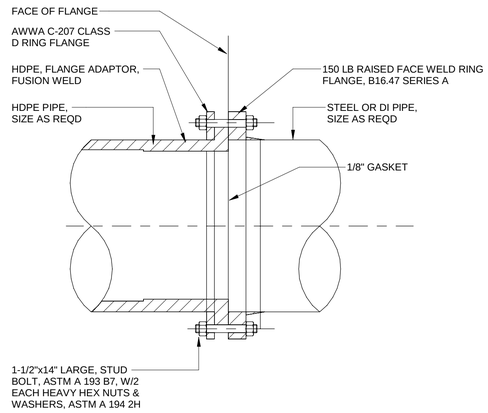
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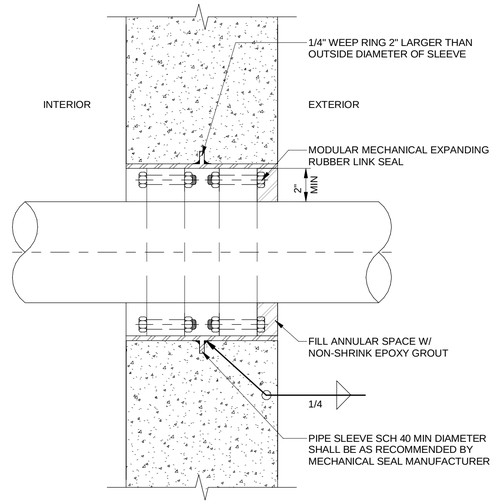
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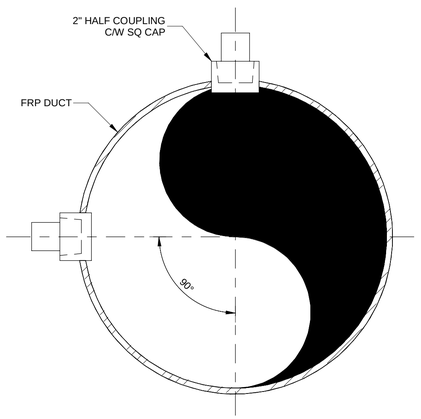
D138S BURIED PIPE CONNECTION AT STRUCTURES
NOT TO SCALE



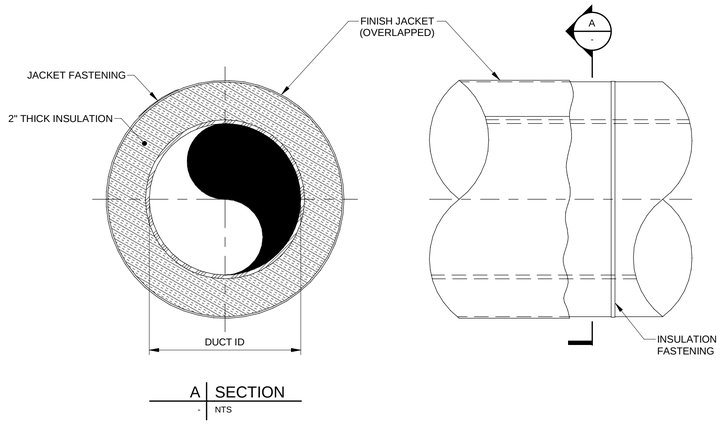
D139S HDPE TO STEEL OR DI PIPE CONNECTION
NOT TO SCALE



D141S GROUTED PIPE PENETRATION WITH DOUBLE LINK SEAL
NOT TO SCALE



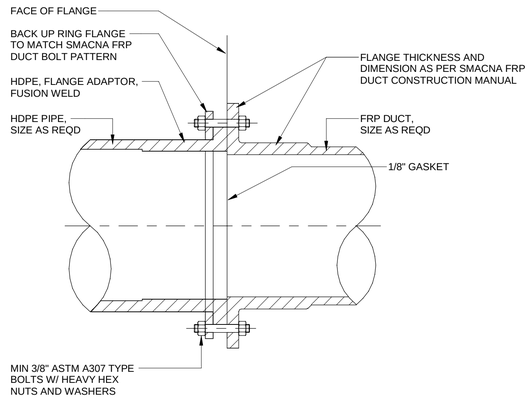
D169S SAMPLING PORT DETAIL (TYP)
NOT TO SCALE



NOTE:

1. SEE SPECIFICATION 44 60 14.

D170S DUCT INSULATION DETAIL
NOT TO SCALE



D174S FRP TO HDPE FLANGE DETAIL (20" DUCT)
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N, SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: P.ALCOS
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY:
A	23-04-03	SW-1A ISSUED FOR BID	PA BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS SHEET 2 OF 14

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

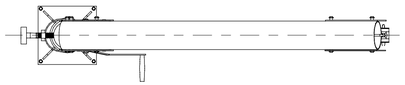
DRAWING No.
0100-D702

SHEET _____ OF _____

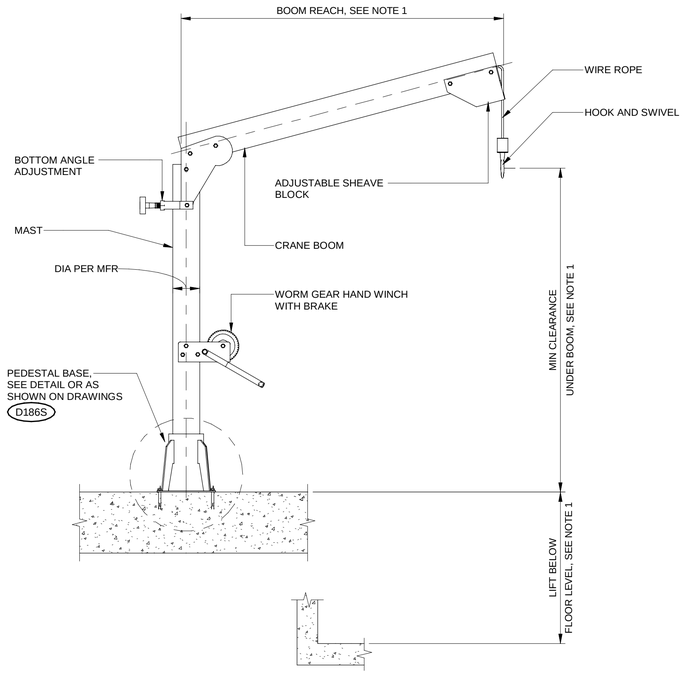
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 12:58:53 PM

FILE: BIM 360://6057228I-Salt Lake City 2019\524905350_0100-D701.rvt



PLAN
NTS

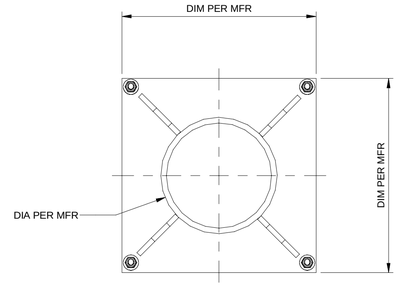


ELEVATION
NTS

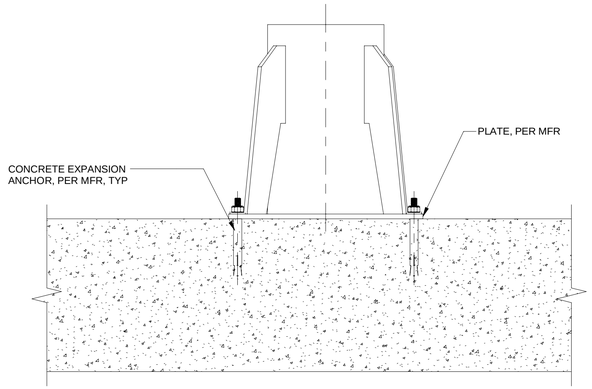
NOTE:

1. SEE SPECIFICATION 41 22 23 19.

D185S PORTABLE DAVIT CRANE
NOT TO SCALE



PLAN
NTS



ELEVATION
NTS

D186S PEDESTAL BASE DETAIL
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-IA	PA	BH

ISSUED FOR BID
LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 3 OF 14

LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

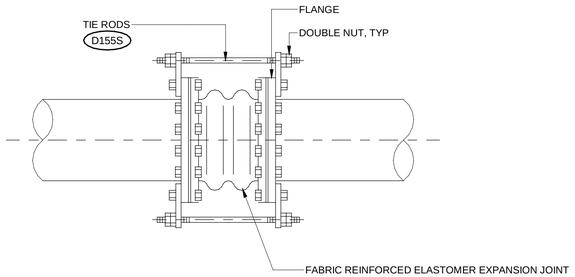
DRAWING No.
0100-D703

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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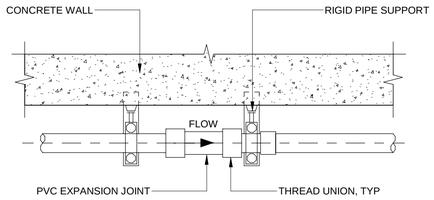
FILE: BIM 360://6507228-Salt Lake City 2019\524905350_0100-D701.rvt



EXPANSION JOINT FOR DUCTILE IRON PIPE

D153S

NOT TO SCALE



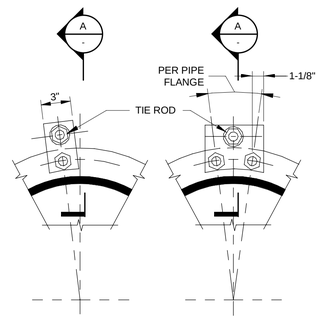
NOTE:

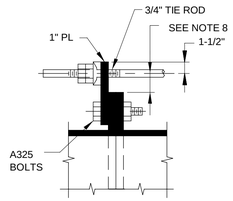
1. EXPANSION JOINT MATERIAL PER MANUFACTURER'S RECOMMENDATION WITH COMPATIBILITY WITH PIPE FLUID SERVICE.

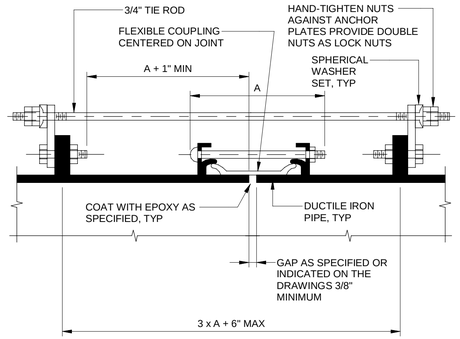
PVC EXPANSION JOINT

D154S

NOT TO SCALE







NOTES:

1. ALL EXPOSED FLEXIBLE COUPLINGS SHALL HAVE TIE RODS UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS.
2. PIPE THRUST SHALL BE BASED ON THE TEST PRESSURE.
3. PIPE THRUST = 0.7854 X D X TEST PRESSURE, WHERE D IS PIPE OD.
4. MINIMUM TIE ROD YIELD = 48,000 PSI.
5. FOR THRUSTS GREATER THAN 30,000 POUNDS, ADD ONE 3/4" DIA TIE ROD FOR EVERY 6,000 POUNDS INCREASE IN THRUST.
6. ALL ROD CONNECTIONS SHALL BE TYPE II FOR THRUST GREATED THAN 30,000 POUNDS.
7. GRIND ALL CORNERS SMOOTH.
8. SPACING AS REQUIRED TO CLEAR FLEXIBLE COUPLING. 3/4" MINIMUM AND 1-1/2" MAXIMUM.

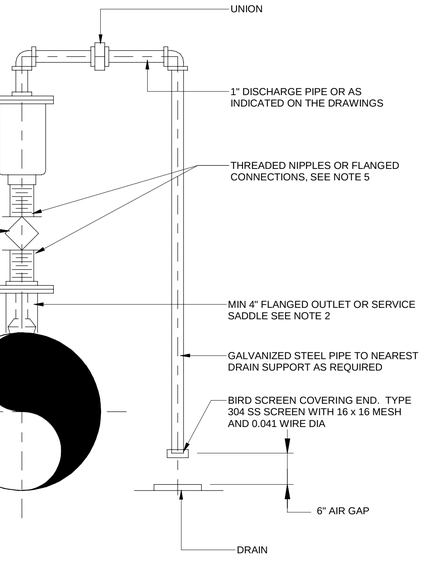
ROD SCHEDULE

PIPE THRUST. SEE NOTE 2.	TYPE OF CONNECTION	NO. OF RODS
0 - 6,000#	I	2
6,001 - 12,000#	II	2
12,001 - 18,000#	II	3
18,001 - 24,000#	II	4
24,001 - 30,000#	II	5

DIP FLEXIBLE COUPLING TIE DOWN

D155S

NOT TO SCALE



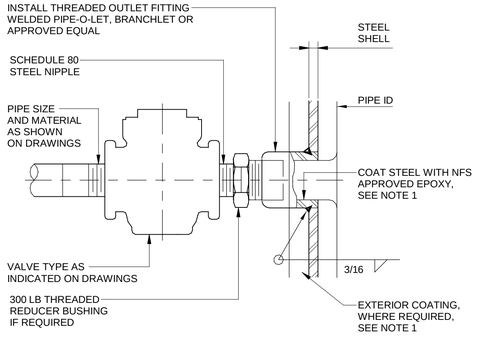
NOTES:

1. VALVE SIZE SHALL BE AS INDICATED ON THE DRAWINGS.
2. FOR VALVES 2" AND SMALLER, PROVIDE SERVICE SADDLE, THREADOLET, OR HALF COUPLING. SEE DETAIL D197S. FOR VALVES LARGER THAN 2", PROVIDE MIN 4" FLANGED OUTLET. SEE DETAIL D198S.
3. FOR SMALLER VALVES, TAP 4" BLIND FLANGE FOR NATIONAL PIPE TAPER NIPPLE. FOR VALVES 4" AND LARGER, PROVIDE FLANGE TO MATCH AIR/VACUUM OR AIR RELEASE VALVE.
4. FOR VALVES 3" AND SMALLER, PROVIDE BALL VALVE WITH SCREWED ENDS. FOR VALVES LARGER THAN 3", PROVIDE FLANGED ECCENTRIC PLUG VALVE OR STEEL BALL VALVE.
5. FOR VALVES 3" AND SMALLER, CONNECT ASSEMBLY WITH GSP NIPPLES, SIZED PER MFR. FOR VALVES LARGER THAN 3" USE FLANGED CONNECTIONS.
6. ALL COMPONENTS FURNISHED SHALL BE RATED FOR THE SERVICE PRESSURE IN WHICH THEY ARE INSTALLED.
7. PROVIDE DIELECTRIC PROTECTION WHERE CONNECTING DISSIMILAR METALS.
8. ASSEMBLY TO BE SUITABLE FOR SEWAGE SERVICE.

AIR/VACUUM OR AIR RELEASE VALVE ASSEMBLY FOR SEWAGE SERVICE

D194S

NOT TO SCALE



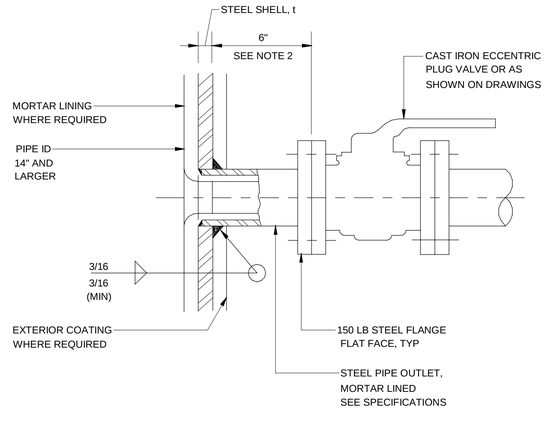
NOTES:

1. WHERE EXTERIOR COATING IS REQUIRED, REMOVE COATING TO DISTANCE SPECIFIED AND COAT PER SPECS.
2. PROVIDE DIALECTRIC ISOLATION AT COUPLING WHEN CONNECTING DISSIMILAR MATERIALS.
3. PROVIDE DIELECTRIC PROTECTION WHERE CONNECTING DISSIMILAR METALS.

3-1/2" AND SMALLER PIPE CONNECTION

D197S

NOT TO SCALE



NOTES:

1. FOR HIGH PRESSURE APPLICATION, USE WELDED STEEL SADDLE.
2. FOR 36" DIA AND LARGER PIPES, USE AWWA M11 STANDARD.
3. PROVIDE DIELECTRIC PROTECTION WHERE CONNECTING DISSIMILAR METALS.

4" AND LARGER PIPE CONNECTION

D198S

NOT TO SCALE

SCALE: -

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A ISSUED FOR BID	PA BH

LAST CONFORMED SET: -

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 4 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

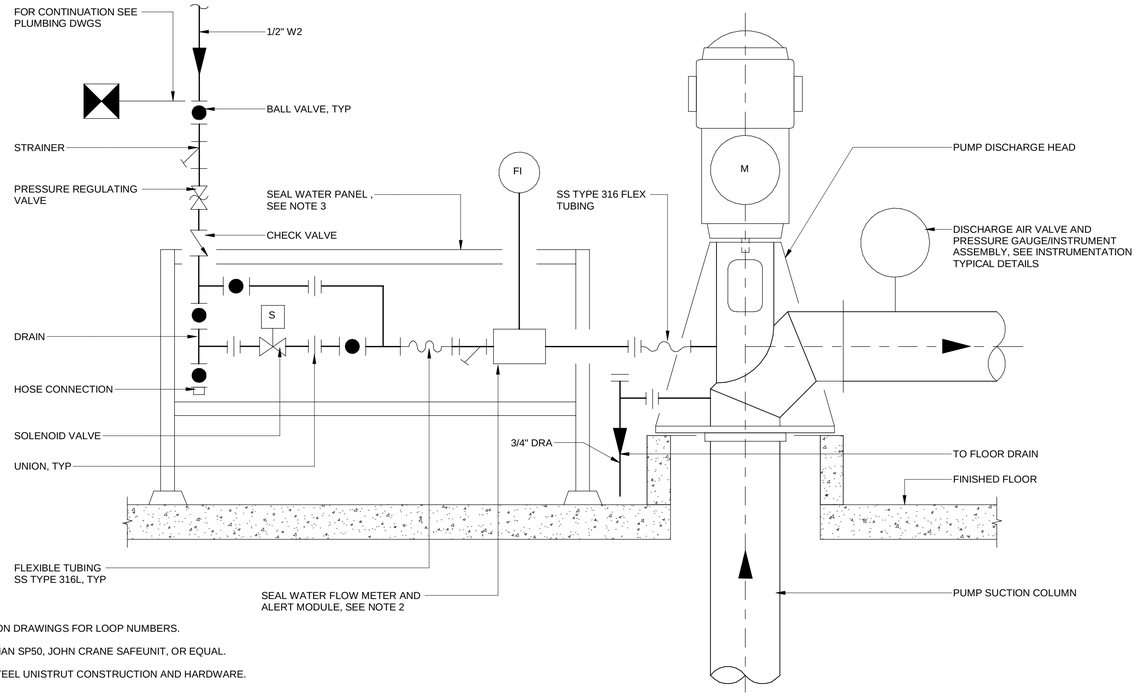
DRAWING No.
0100-D704

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 12:58:55 PM

FILE: BIM 360://6057228-Salt Lake City 2019\524905350_0100-D701.rvt

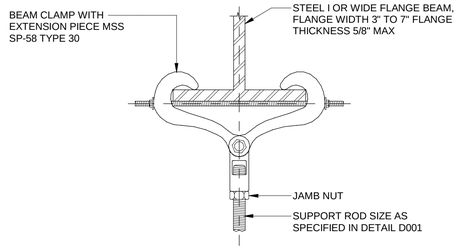


NOTES:

1. REFER TO INSTRUMENTATION DRAWINGS FOR LOOP NUMBERS.
2. CHESTERTON FLOW GUARDIAN SP50, JOHN CRANE SAFEUNIT, OR EQUAL.
3. TYPE 316/316L STAINLESS STEEL UNISTRUT CONSTRUCTION AND HARDWARE.

TYPE I DRAIN, VENT AND SEAL WATER PIPING FOR VERTICAL WET PIT SOLIDS HANDLING PUMPS

D226S NOT TO SCALE



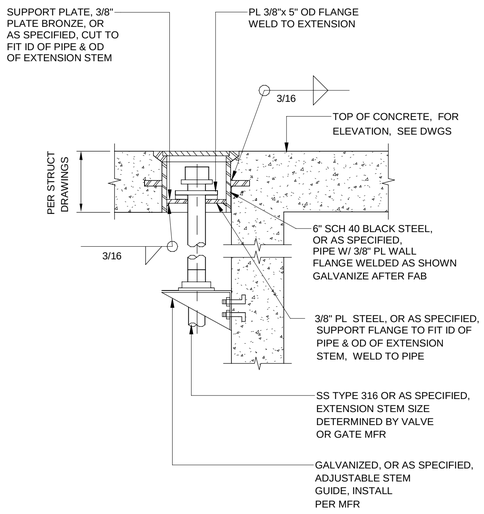
MAXIMUM ALLOWABLE LOAD	
ROD SIZE	LOAD, LBS
3/8"	610
1/2"	1130
5/8" - 7/8"	1365

NOTE:

1. SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN DETAIL D001.

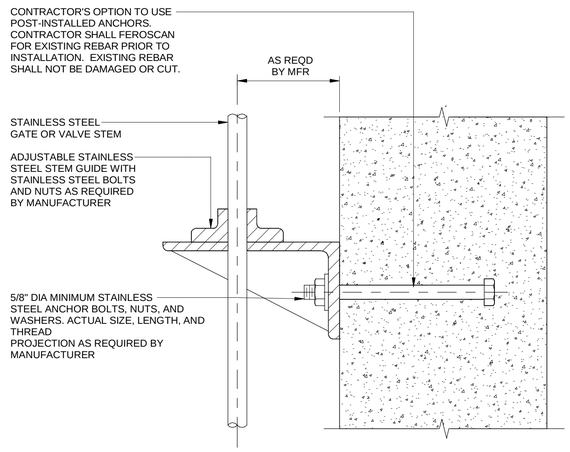
TYPE C STRUCTURAL ATTACHMENT

D091S NOT TO SCALE



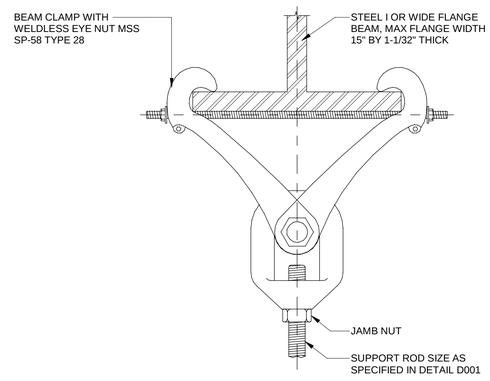
FLOOR BOX OPERATOR

D313S NOT TO SCALE



STEM GUIDE

D315S NOT TO SCALE



MAXIMUM ALLOWABLE LOAD	
ROD SIZE	LOAD, LBS
3/8"	610
1/2"	1130
5/8"	1810
3/4"	2710
7/8"	3770

NOTE:

1. SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN DETAIL D001.

TYPE D STRUCTURAL ATTACHMENT

D092S NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS: 1365 W 2300 N, SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 52490596

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A ISSUED FOR BID	PA BH

LAST CONFORMED SET:

REVISIONS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 5 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

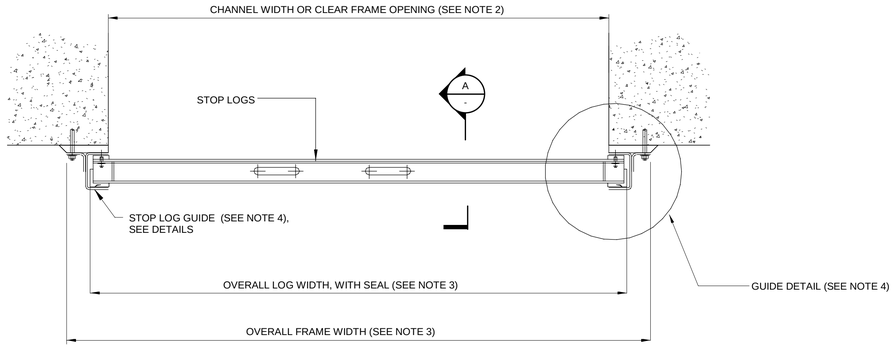
DRAWING No.
0100-D705

SHEET _____ OF _____

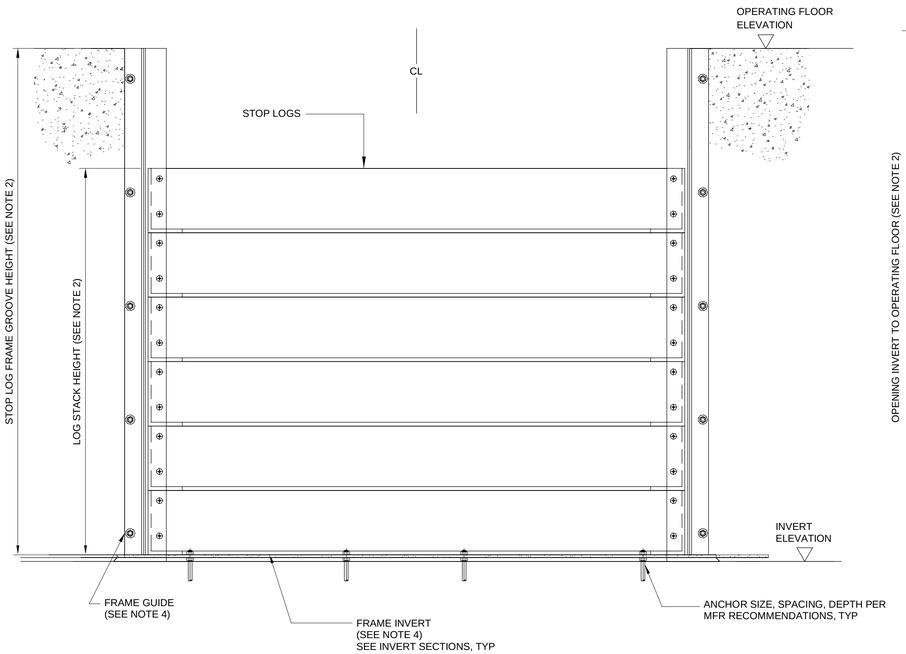
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DATE: 3/29/2023 12:58:56 PM

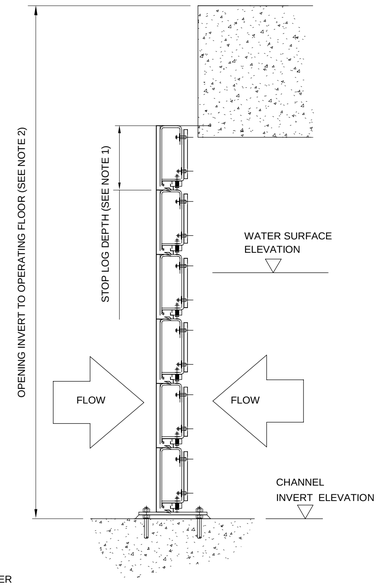
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PLAN
NTS



ELEVATION
NTS

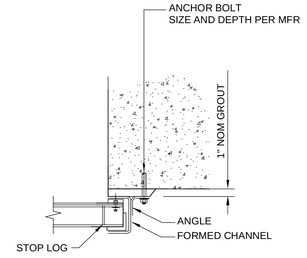


A SECTION
- NTS

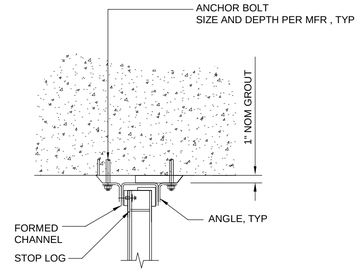
NOTES:

1. DIMENSIONS AS INDICATED ON SPECIFICATION.
2. AS SHOWN ON DRAWINGS.
3. SIZE PER MANUFACTURER RECOMMENDATIONS.
4. FRAME MOUNT TYPE (INVERT AND GUIDE) AS INDICATED ON STOP LOG SCHEDULE.

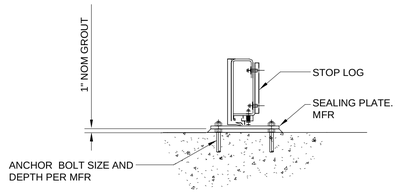
D329S STOP LOG
NOT TO SCALE



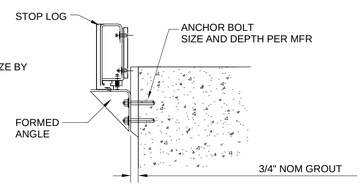
FACE MOUNT GUIDE



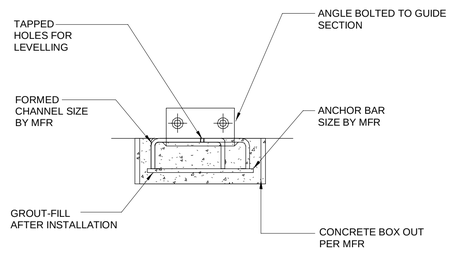
CHANNEL MOUNT GUIDE



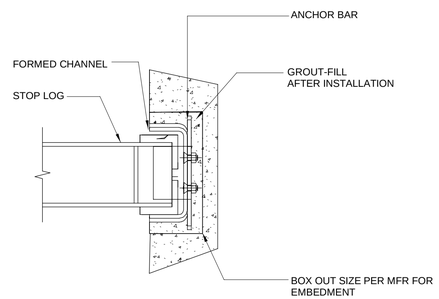
SURFACE MOUNT INVERT SECTION



FACE MOUNT INVERT SECTION



EMBEDDED INVERT SECTION



EMBEDDED GUIDE

DATE: 3/29/2023 12:58:57 PM

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SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N,
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

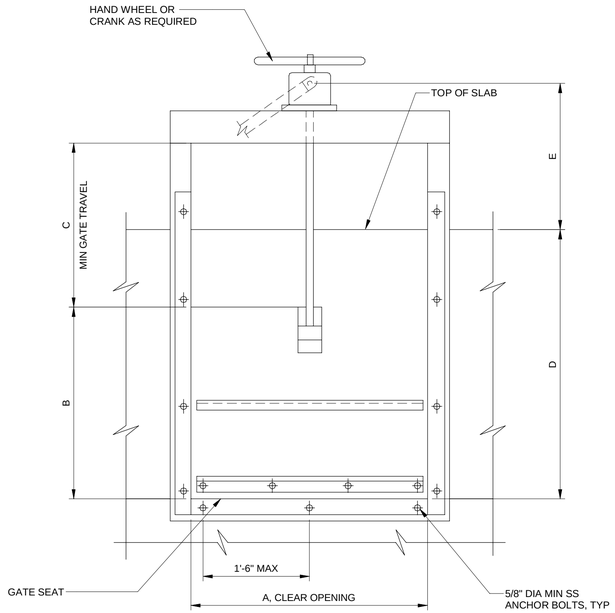
PROCESS TYPICAL DETAILS
SHEET 6 OF 14

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

DRAWING No.
0100-D706

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

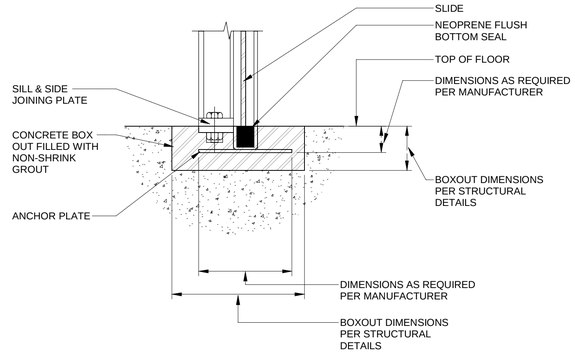


ELEVATION

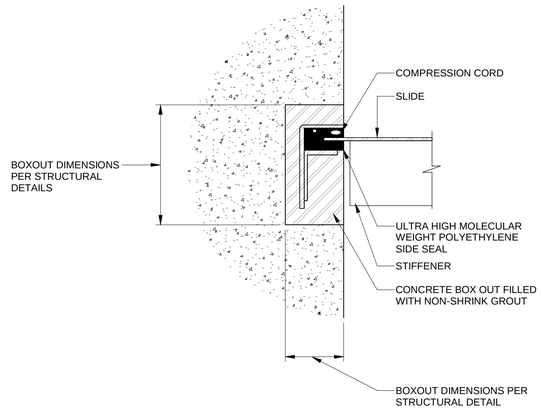
NTS

NOTE:

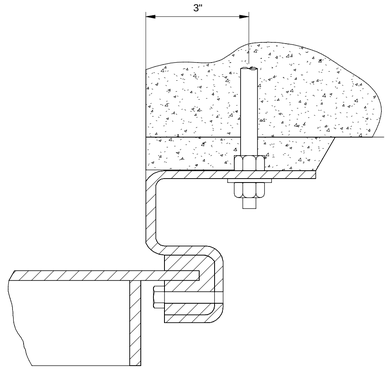
1. DIMENSIONS AS INDICATED ON SPECIFICATION OR AS SHOWN ON DRAWINGS.



FRAME EMBEDDED INTO CHANNEL BOTTOM



FRAME EMBEDDED INTO CHANNEL SIDE



WALL MOUNT ANCHOR DETAIL

D345S SLIDE GATE

NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N, SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 7 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

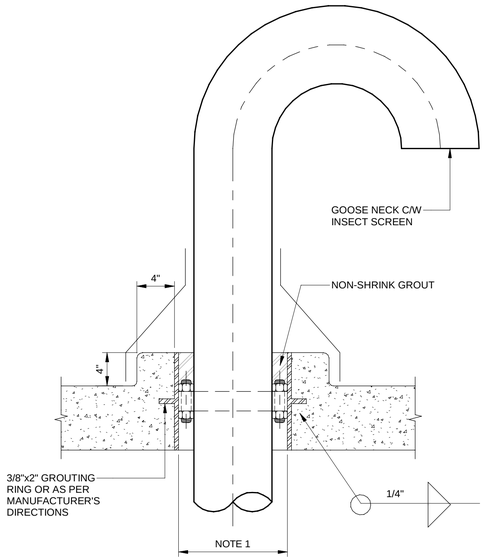
DRAWING No.
0100-D707

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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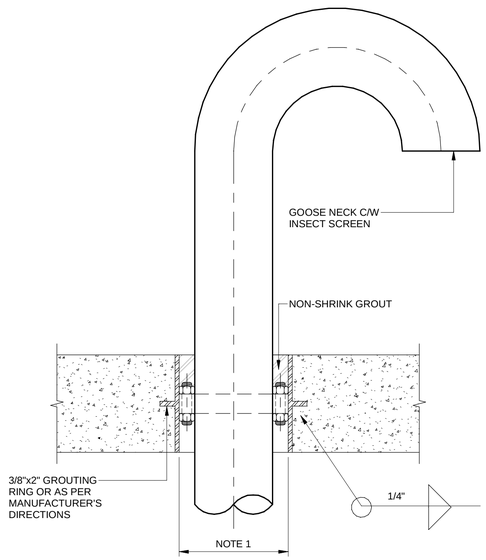
FILE: BIM 360://60572288-Salt Lake City 2019/524905350_0100-D701.rvt



NOTES:

1. FOR PIPES 12" OR SMALLER, SLEEVE DIAMETER TO BE PIPE DIAMETER + 2".
   FOR PIPES LARGER THAN 12", SLEEVE DIAMETER TO BE PIPE DIAMETER + 4".
2. SLEEVE TO THE FULL DEPTH OF THE CURB & SLAB.

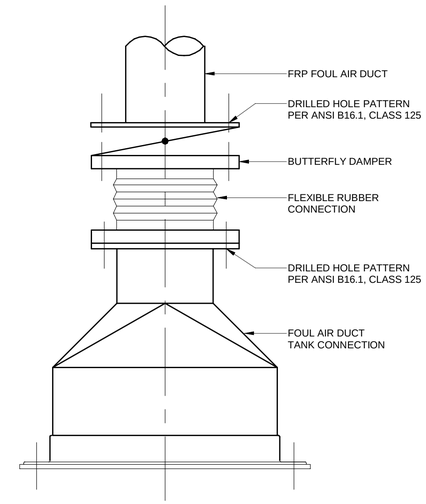
D369S TYPE A GOOSENECK AIR VENT
NOT TO SCALE



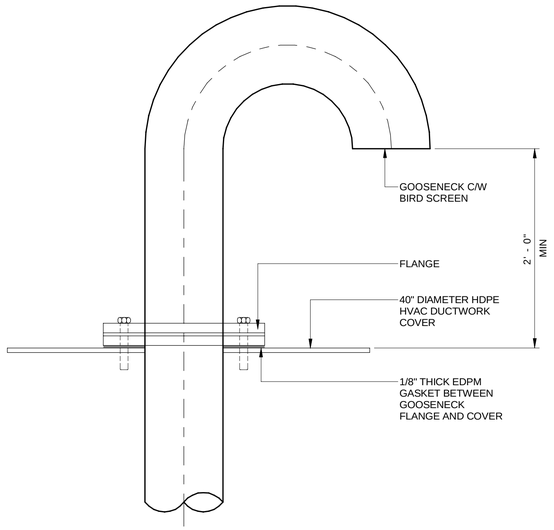
NOTES:

1. FOR PIPES 12" OR SMALLER, SLEEVE DIAMETER TO BE PIPE DIAMETER + 2".
   FOR PIPES LARGER THAN 12", SLEEVE DIAMETER TO BE PIPE DIAMETER + 4".
2. SLEEVE TO THE FULL DEPTH OF THE CURB & SLAB.

D370S TYPE B GOOSENECK AIR VENT
NOT TO SCALE



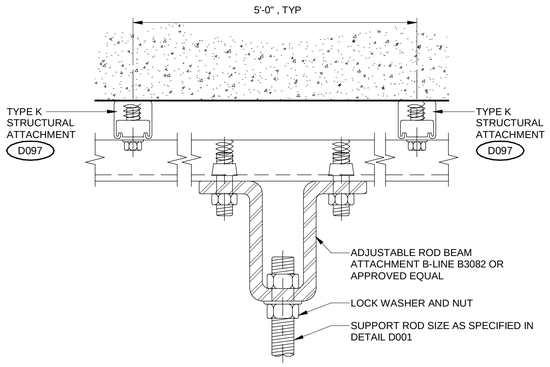
D371S FOUL AIR BUTTERFLY VALVE DAMPER ARRANGEMENT
NOT TO SCALE



NOTES:

1. GOOSENECK DUCTWORK TO EXTEND 6 INCHES BELOW COVER.
2. FOR PIPES UP TO 12".
3. 40" DIAMETER HDPE HVAC DUCTWORK COVER FOR WEIGHT OF GOOSENECK.
4. DESIGN GOOSENECK TO BE OF HDPE MATERIAL TO MATCH 40" HVAC DUCTWORK COVER.

D372S GOOSENECK ON COVER
NOT TO SCALE

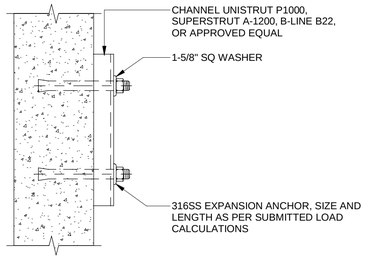


MAXIMUM ALLOWABLE LOAD	
ROD SIZE	LOAD, LBS
3/8"	610
1/2"	1130
5/8"	1810
3/4"	2710
7/8"	3770

NOTE:

1. SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN DETAIL D001.

D094S TYPE G STRUCTURAL ATTACHMENT
NOT TO SCALE



NOTES:

1. BRACKET MAY BE USED WITH VARIOUS HANGER, GUIDE RACK OR ANCHOR AND SWAY BRACE ASSEMBLIES.
2. MAXIMUM LOAD CAPACITY SHALL BE AS RECOMMENDED BY THE CHANNEL MANUFACTURER AND ANCHOR PULL-OUT SPECIFICATIONS APPROVED BY ENGINEER.
3. SPACING SHALL BE AS REQUIRED, BUT SHALL NOT EXCEED THOSE SPANS SHOWN IN DETAIL D001.

D097S TYPE K STRUCTURAL ATTACHMENT
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-IA	ISSUED FOR BID

LAST CONFORMED SET: PA BH

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS SHEET 8 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

DRAWING No.
0100-D708

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 12:58:59 PM

FILE: BIM 360://6057228B-Salt Lake City 2019\524905350_0100-D701.rvt

TABLE A

NOMINAL PIPE SIZE (INCHES)	PIPE SUPPORT 1 HANGER		PIPE SUPPORT 2 HANGER		PIPE SUPPORT 3 HANGER		PIPE SUPPORT 6 HANGER	
	ROD SIZES (INCHES)	DESIGN LOAD (POUNDS)	ROD SIZES (INCHES)	DESIGN LOAD (POUNDS)	ROD SIZES (INCHES)	DESIGN LOAD (POUNDS)	ROD SIZES (INCHES)	DESIGN LOAD (POUNDS)
1/2	3/8	610	--	--	--	--	--	--
3/4	3/8	610	--	--	--	--	--	--
1	3/8	610	--	--	--	--	--	--
1-1/4	3/8	610	--	--	--	--	--	--
1-1/2	3/8	610	--	--	--	--	--	--
2	3/8	610	3/8	610	--	--	3/8	600
2-1/2	3/8	1130	1/2	610	--	--	1/2	660
3	1/2	1130	1/2	610	--	--	1/2	700
3-1/2	1/2	1130	1/2	610	--	--	1/2	750
4	5/8	1430	5/8	610	--	--	5/8	750
5	5/8	1430	--	--	--	--	--	--
6	3/4	1940	3/4	610	--	--	3/4	1070
8	7/8	2000	7/8	610	--	--	7/8	1350
10	--	--	--	--	7/8	1730	7/8	1730
12	--	--	--	--	7/8	2400	7/8	2400

NOMINAL PIPE SIZE (INCHES)	MAXIMUM PIPE SPAN (FEET)				
	STD WT STEEL PIPE	COPPER (SEE NOTE 5)	PLASTIC (SEE NOTE 3)	DUCTILE IRON	FRP
1/2	7	5	4	20 FEET MAXIMUM SPACING. MINIMUM OF ONE SUPPORT PER LENGTH OF PIPE LOCATED IMMEDIATELY BEHIND THE PIPE BELL AND AT CHANGES IN DIRECTION AND BRANCH CONNECTIONS	-
3/4	7	5	4		-
1	7	6	4.5		-
1-1/4	7	7	5		-
1-1/2	9	8	5		-
2	110	8	5		-
2-1/2	111	9	6		-
3	112	10	6		-
3-1/2	13	11	6.5		-
4	114	12	6.5		10
5	16	13	7		-
6	117	14	7.5		-
8	19	16	8		10
10	22	18	8.5		-
12	23	19	9.5		-

NOTES:

1. DESIGN LOAD SHALL BE TWICE THE WEIGHT OF THE PIPE FULL OF WATER. HANGER SYSTEMS SHALL BE DESIGNED USING THIS DESIGN LOAD.
2. ROD SIZES AND DESIGN LOADS BASED ON LOAD CALCULATIONS FOR COPPER B-LINE HANGERS. THE TOTAL DESIGN LOAD SHALL NOT EXCEED THE MAXIMUM LOADS SHOWN IN THE TABLE ABOVE.
3. SPAN SHOWN IS FOR SCHEDULE 40 PVC PIPE AT 100ºF. SPANS FOR OTHER PLASTICS, OTHER PVC PIPE SCHEDULES AND PIPE AT HIGHER TEMPERATURES SHALL BE ADJUSTED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. "CONTINUOUS" MEANS PIPE SHALL BE IN MODULAR STRUT OR SIMILAR CHANNEL.
4. FOR PIPES SUBJECT TO LONGITUDINAL MOVEMENT, OR HAVING SERVICE TEMPERATURES IN RANGES AT 33ºF TO 59ºF OR 120ºF TO 450ºF, SEE TYPICAL SUPPORT ROD FOR PIPES SUBJECT TO HORIZONTAL MOVEMENT.
5. SPAN SHOWN IS FOR COPPER TUBE, TYPE L, DRAWN FOR WATER SERVICE AT ≤ 250ºF. OTHER COPPER TUBE TYPE OR SERVICE CONDITIONS SHALL BE ADJUSTED IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.

D001S TABLE A (PIPE HANGERS)
NOT TO SCALE

TABLE B (PIPE SUPPORT)											
■ INDICATES PIPE SUPPORT SUITABLE FOR CONDITIONS LISTED BELOW		PIPE SUPPORT									
		1	2	3	4	5	6	7	8	9	10	11
SERVICE TEMPERATURE												
33°F - 58°F	INSULATED		■	■			■	■		■	■	■
120°F - 450°F	UNINSULATED	■	■	■	■	■	■	■	■	■	■	■
60°F - 119°F		■			■	■		■	■	■	■	■
PIPING MATERIAL												
STEEL		■	■	■	■	■	■	■	■	■	■	■
COPPER			■	■	■	■	■	■		■		■
PLASTIC		■	■	■	■	■	■	■		■	■	■
DUCTILE IRON		■	■	■	■	■	■	■		■	■	■
FRP		■	■	■	■	■	■	■		■	■	■

NOTE:

1. FOR SERVICES OTHER THAN THOSE SHOWN IN TABLE B, PIPE ATTACHMENTS SHALL BE THOSE SPECIFIED IN THE PIPE SPECIFICATIONS.

D002S TABLE B (PIPE SUPPORT)
NOT TO SCALE

GENERAL NOTES:

1. WHERE NO REFERENCE TO PIPE SUPPORT SYSTEM IS GIVEN ON THE DRAWINGS, THE CONTRACTOR SHALL USE AN APPROPRIATE SYSTEM. SEE DETAIL D001S. PIPE AND CONDUIT SUPPORT SYSTEMS 12" AND SMALLER SHALL BE DESIGNED BY THE CONTRACTOR TO MEET THE STATIC, DYNAMIC, SURGE, SHOCK AND TEMPERATURE LOAD AND SPAN REQUIREMENTS SPECIFIED.
2. PROVIDE PIPE SUPPORTS OF TYPE AND SPACING AS SPECIFIED IN 40 23 19.01.
3. UNLESS OTHERWISE SPECIFIED, HANGERS AND SUPPORTS SHALL BE HOT DIPPED GALVANIZED ZINC PLATED, EXCEPT THOSE SUBJECT TO MOISTURE OR CORROSIVE ATMOSPHERE WHICH SHALL BE TYPE 2507 STAINLESS STEEL.
4. PIPE HANGERS AND SUPPORTS FOR PIPES 12" AND SMALLER SHALL BE MANUFACTURED, DESIGNED, AND INSTALLED IN ACCORDANCE WITH ANSI/MSS SP-58. MSS REFERS TO MANUFACTURER'S STANDARDIZATION SOCIETY OF THE VALVE FITTING INDUSTRY.
5. CONCRETE INSERTS IN AREAS BELOW WATER SURFACE OR NORMALLY SUBJECT TO SUBMERGENCE SHALL BE EMBEDDED ANCHOR BOLTS OR APPROVED EQUAL. SST DRILL AND EPOXY ANCHOR BOLTS ARE ACCEPTABLE. CONTRACTOR SHALL FEROSCAN AREA PRIOR TO DRILLING SO AS TO NOT DAMAGE EXISTING REBAR.
6. PROVIDE PLASTIC OR RUBBER CHANNEL END CAPS AT EXPOSED ENDS OF CHANNELS WITHIN 7'-0" OF FINISHED FLOOR.
7. MAXIMUM DESIGN WEIGHTS AND LOADS SHALL BE AS SHOWN IN TABLE A UNLESS OTHERWISE SPECIFIED.
8. WHEN SUPPORTED PIPING REQUIRES HORIZONTAL FLEXIBILITY NORMAL TO A STEEL BEAM AXIS, USE STRUCTURAL ATTACHMENTS C AND D. SEE DETAILS D091S AND D092S.
9. ALL PIPING SUPPORTED BY HANGERS AND/OR STRUCTURAL ATTACHMENTS SHALL BE BRACED AGAINST HORIZONTAL, VERTICAL, AXIAL AND LONGITUDINAL SWAY, AND DYNAMIC FORCES BASED ON RANGE OF OPERATING CONDITIONS, CONNECTED EQUIPMENT RAMPING, EQUIPMENT TRIPS, AND HYDRAULIC SHOCK.
10. FITTINGS SHALL NOT BE LESS THAN MSS CLASS B.
11. UNLESS OTHERWISE SPECIFIED, TRAPEZE AND PIPE RACK COMPONENTS SHALL HAVE A MINIMUM STEEL THICKNESS OF 12 GAGE WITH A MAXIMUM DEFLECTION OF 1/240 OF THE SPAN. MINIMUM CHANNEL COMPONENT SIZE SHALL BE 1-5/8" SQUARE AS MANUFACTURED BY SUPERSTRUT, ELCEN OR APPROVED EQUAL.
12. DETAILS INCLUDED HEREIN ARE COMPREHENSIVE AND NOT ALL ARE NECESSARILY INCLUDED IN THE DESIGN.
13. SECURE ALL NUTS WITH THREAD LOCKING COMPOUND. AS AN ALTERNATIVE TO THREAD LOCKING COMPOUND, THE CONTRACTOR SHALL PROVIDE DOUBLE NUTS.
14. FOR COPPER PIPE, SECURE 10 MM PVC TAPE HALFLAP WRAP AROUND THE PIPE.
15. PROVIDE SEISMIC BRACING OF PIPE HANGERS AND SUPPORTS IN ACCORDANCE WITH PROJECT SEISMIC REQUIREMENTS, IN ACCORDANCE WITH 40 23 19.01. SEISMIC BRACING SHALL BE MANUFACTURED, DESIGNED, AND INSTALLED IN ACCORDANCE ANSI/MSS SP-127 AND AS SPECIFIED.
16. CONTRACTOR SHALL LOCATE SUPPORTS SO AS TO NOT RESTRICT ACCESS TO WALKWAYS AND EQUIPMENT.

D003S PIPE HANGERS AND PIPE SUPPORTS GENERAL NOTES
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N, SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY:
A	23-04-03	SW-1A ISSUED FOR BID	PA BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 9 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

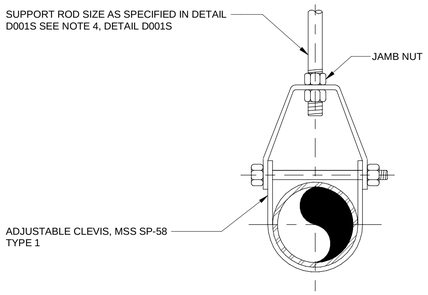
DRAWING No.
0100-D709

SHEET _____ OF _____

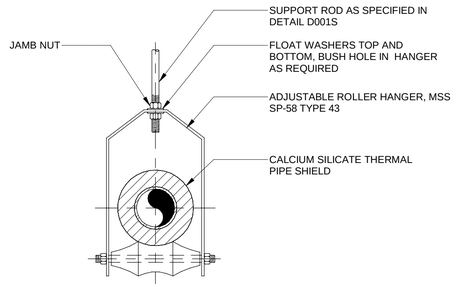
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DATE: 3/29/2023 12:59:01 PM

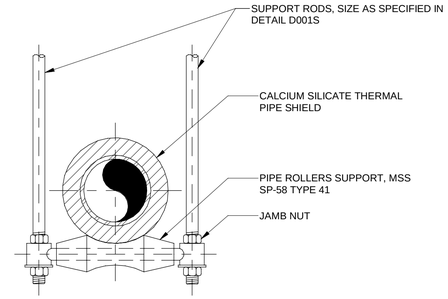
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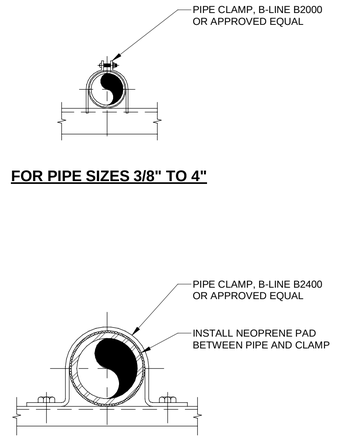
PIPE SUPPORT 1
1/2" THROUGH 8" PIPE
D009S NOT TO SCALE



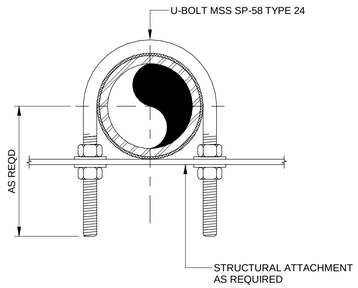
PIPE SUPPORT 2
2" THROUGH 8" PIPE
D010S NOT TO SCALE



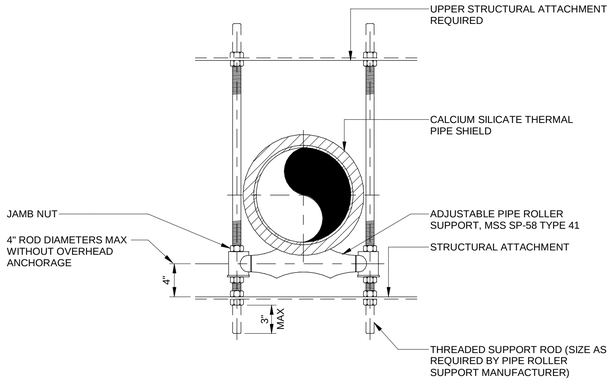
PIPE SUPPORT 3
10" THROUGH 12" PIPE
D011S NOT TO SCALE



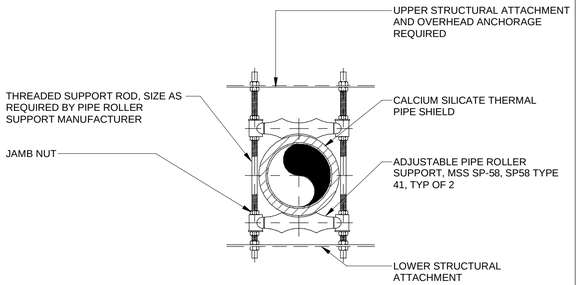
PIPE SUPPORT 4
3/8" THROUGH 8" PIPE
D012S NOT TO SCALE



PIPE SUPPORT 5
1/2" THROUGH 12 " PIPE
D013S NOT TO SCALE



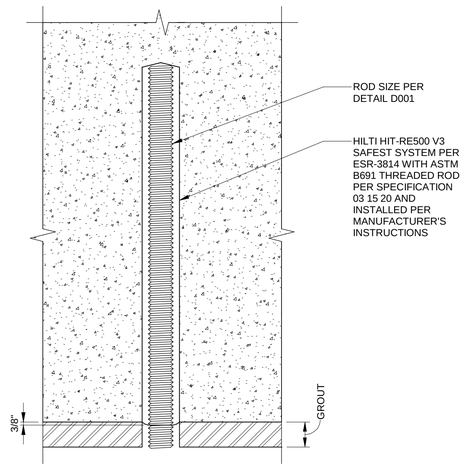
PIPE SUPPORT 6
2" THROUGH 12" PIPE
D014S NOT TO SCALE



NOTES:

1. SECTIONS OF HOT WATER PIPING BETWEEN ANCHORS AND EXPANSION JOINTS SHALL BE PROVIDED WITH PIPE GUIDES.
2. THE FIRST AND SECOND PIPE GUIDES FROM EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM OF FOUR AND EIGHTEEN PIPE DIAMETERS, RESPECTIVELY, FROM FREE END OF THE EXPANSION JOINT. INTERMEDIATE PIPE GUIDE SHALL BE LOCATED AS RECOMMENDED BY THE EXPANSION JOINT MANUFACTURER.

PIPE SUPPORT 7
2" THROUGH 12" PIPE
D015S NOT TO SCALE



THREADED ROD FOR
PIPE HANGER
D016S NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-IA	ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 10 OF 14

SALT LAKE CITY CORPORATION

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

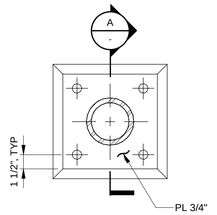
DRAWING No.
0100-D710

SHEET _____ OF _____

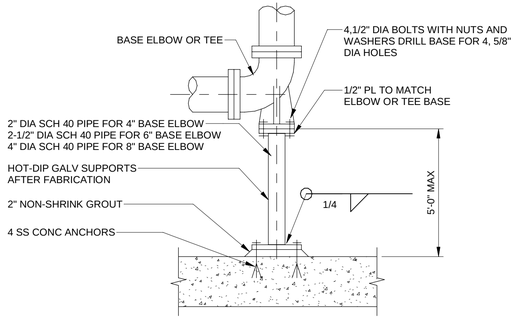
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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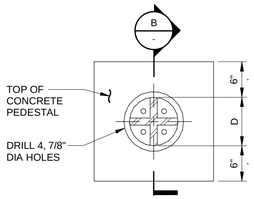
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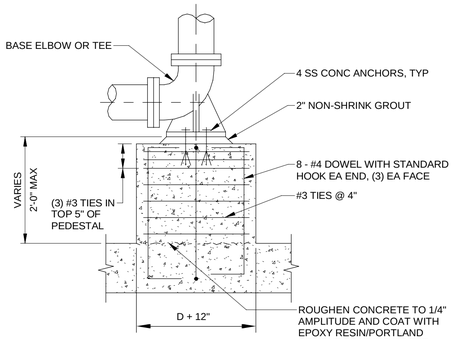
PLAN 1
NTS



A | SECTION
- | NTS



PLAN 2
NTS



B | SECTION
- | NTS

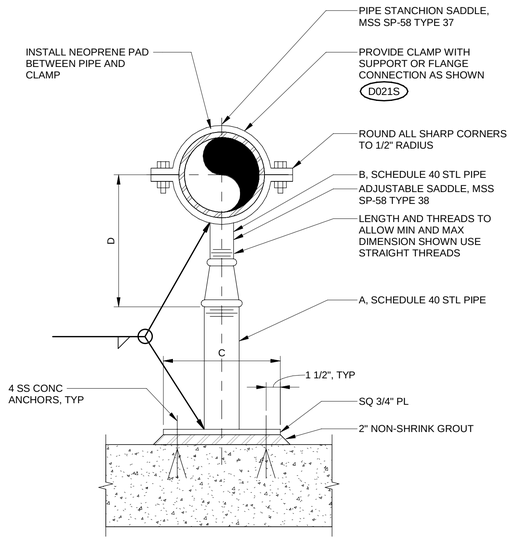
PIPE SUPPORT 8 STEEL PIPE
ELBOW OR TEE PIPE SUPPORT
2-1/2" THROUGH 12" PIPE

D018S NOT TO SCALE

ADJUSTABLE PIPE SADDLE SUPPORT SCHEDULE (INCHES)					
SIZE OF SUPPORTED PIPE	A	B	C	D	
				MINIMUM	MAXIMUM
2 1/2	2 1/2	1 1/2	12	8	13
3	2 1/2	1 1/2	12	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	12	8 1/2	13 1/2
4	3	2 1/2	12	9 1/2	14
6	3	2 1/2	12	10 1/2	15 1/2
8	3	2 1/2	12	11 1/2	16 1/2
10	3	2 1/2	12	13 1/2	18 1/2
12	3	2 1/2	12	15	19 1/2

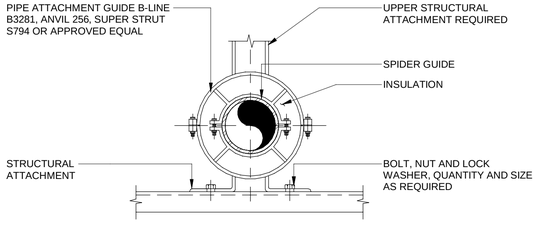
NOTES:

1. HOT-DIP GALVANIZED SUPPORT AFTER FABRICATION.
2. USE 2-1/2" SUPPORTS FOR PIPES LESS THAN 2-1/2" DIA.
3. PIPE SUPPORT FOR VERTICAL LOADS ONLY. CONTRACTOR SHALL PROVIDE SEISMIC BRACING FOR PIPE SUPPORT. SEE GENERAL NOTE 15 ON DETAIL D003S.



PIPE SUPPORT 10
ADJUSTABLE PIPE SUPPORT
2-1/2" THROUGH 12" PIPE

D020S NOT TO SCALE

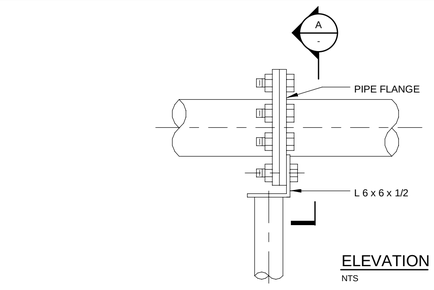


NOTES:

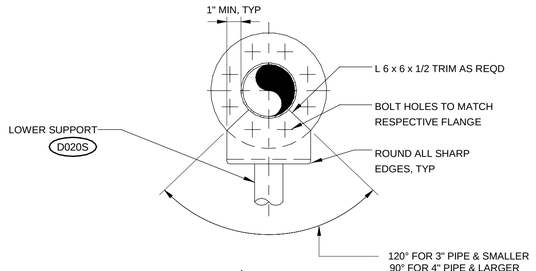
1. SECTIONS OF HOT WATER PIPING BETWEEN ANCHORS AND EXPANSION JOINTS SHALL BE PROVIDED WITH PIPE GUIDES.
2. THE FIRST AND SECOND PIPE GUIDES FROM EXPANSION JOINTS SHALL BE LOCATED AT A MINIMUM OF 4 AND 18 PIPE DIAMETERS, RESPECTIVELY, FROM FREE END OF THE EXPANSION JOINT. INTERMEDIATE PIPE GUIDES SHALL BE LOCATED AS RECOMMENDED BY THE EXPANSION JOINT MANUFACTURER.
3. PIPE GUIDE SHALL BE ADJACENT TO ALL EXPANSION JOINTS. ON INSULATED STRAIGHT PIPE SECTIONS REQUIRING 4 OR MORE GUIDES, EVERY THIRD GUIDE SHALL BE SPIDER GUIDE.
4. THIS GUIDE SHALL NOT BE USED FOR CHILLED WATER SUPPLY OR RETURN PIPING.

PIPE SUPPORT 9
3/4" THROUGH 12" PIPE

D019S NOT TO SCALE



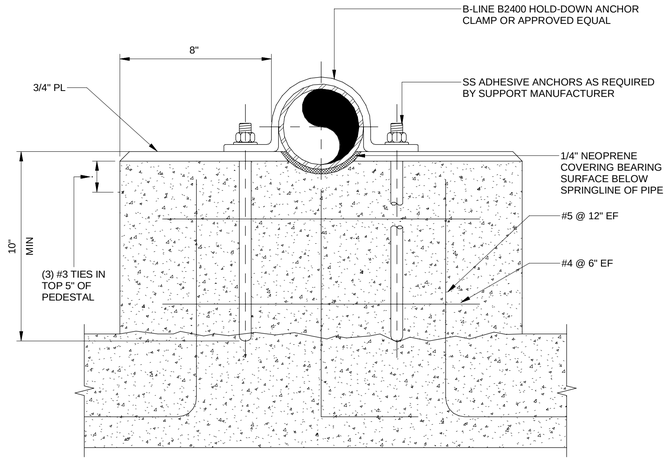
ELEVATION
NTS



A | SECTION
- | NTS

FLANGED CONNECTION DETAIL FOR
ADJUSTABLE PIPE SUPPORT

D021S NOT TO SCALE



PIPE SUPPORT 11

D022S NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N,
SALT LAKE CITY, UT,
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	PA	BH

ISSUED FOR BID
LAST CONFORMED SET: -

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 11 OF 14

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

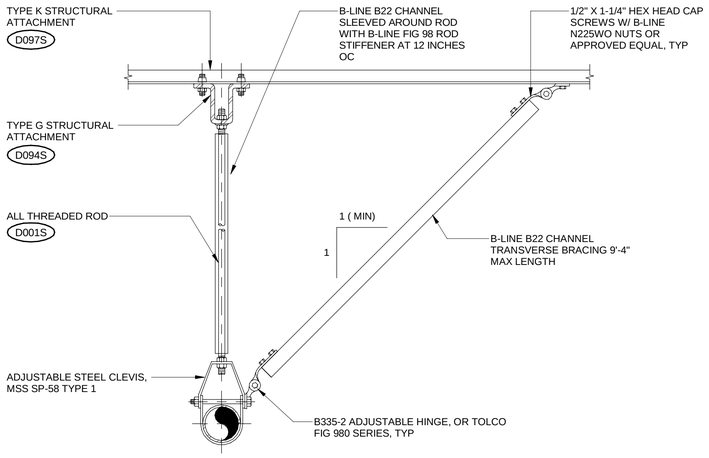
DRAWING No.
0100-D711

SHEET _____ OF _____

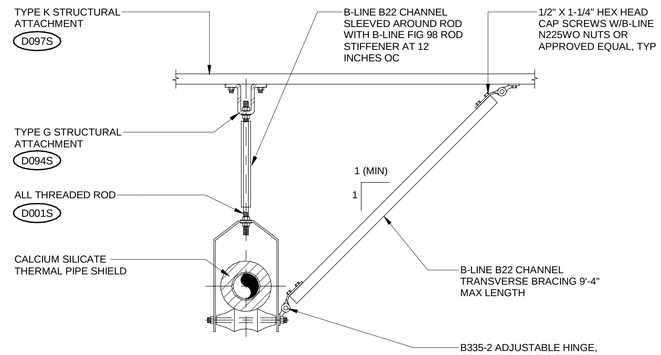
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DATE: 3/29/2023 12:59:04 PM

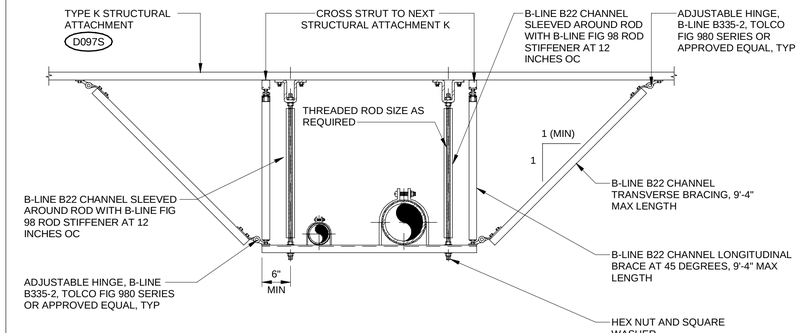
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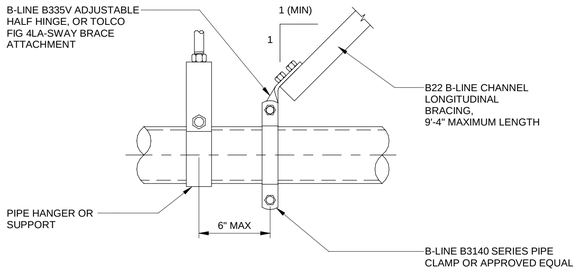


PIPE SUPPORT 1
D025S SEISMIC SUPPORT
NOT TO SCALE

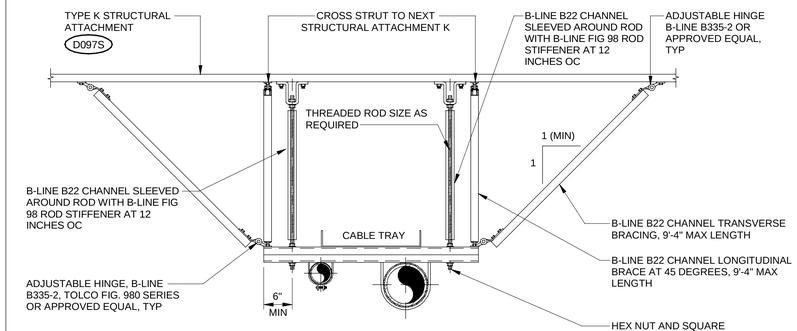


PIPE SUPPORT 2
D026S SEISMIC SUPPORT
NOT TO SCALE





LONGITUDINAL SEISMIC BRACING
D027S
NOT TO SCALE



TRAPEZE PIPE HANGER SEISMIC BRACING
D028S
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 12 OF 14

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

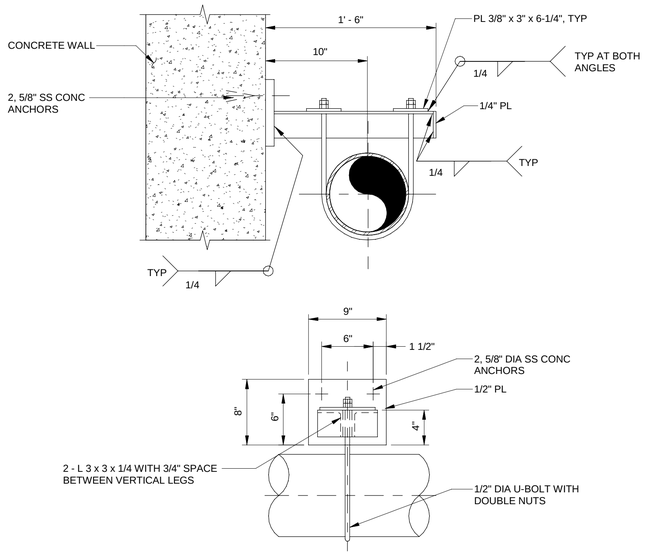
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SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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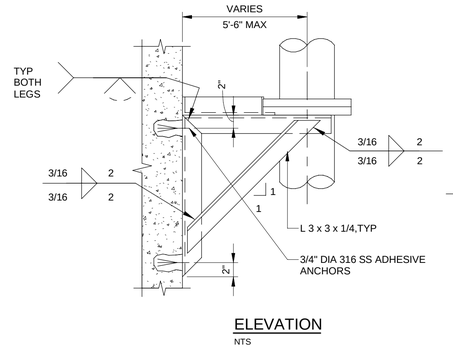


NOTES:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL FOR SUPPORT SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL FOR SUPPORT SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON DRAWINGS. HOT-DIP GALVANIZE AFTER FABRICATION.

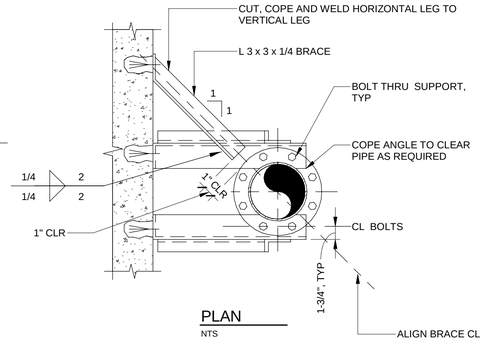
PIPE SUPPORT WALL BRACKET ABOVE PIPE

D041S NOT TO SCALE



ELEVATION

NTS



PLAN

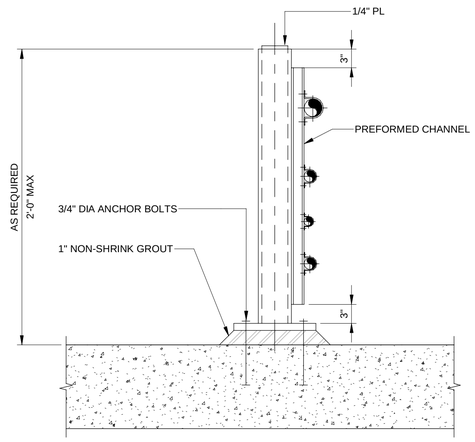
NTS

NOTES:

1. FOR SUBMERGED INSTALLATIONS, PIPE SUPPORT AND CONCRETE ANCHORS SHALL BE 316 SS CONSTRUCTION.
2. FOR OTHER INSTALLATIONS, PIPE SUPPORT FRAME SHALL BE STEEL CONSTRUCTION HOT-DIP GALVANIZED AFTER FABRICATION. CONCRETE ANCHORS SHALL BE 304 SS OR ASTM F1554 GRADE 36 HOT-DIP GALVANIZED.

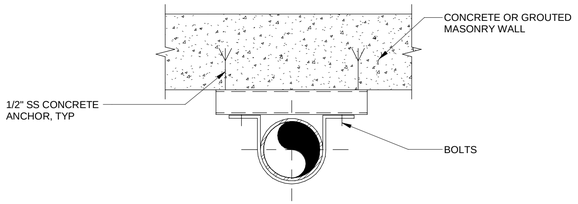
VERTICAL PIPE SUPPORT WALL BRACKET INSIDE

D042S NOT TO SCALE



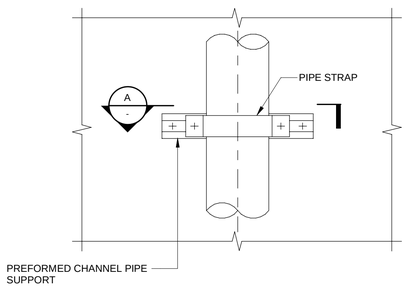
ELEVATION

NTS



A SECTION

- NTS



ELEVATION

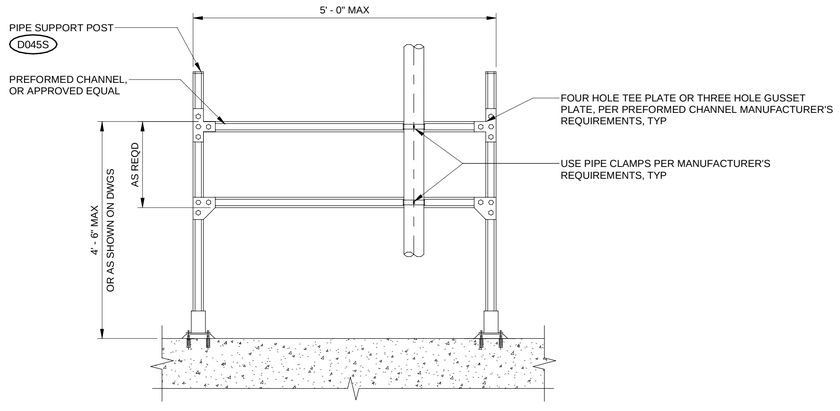
NTS

NOTE:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, THE MATERIALS SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS. HOT-DIP GALVANIZE AFTER FABRICATION.

PIPE SUPPORT FOR ONE VERTICAL RISER

D043S NOT TO SCALE

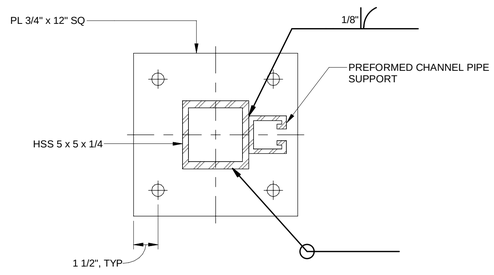


NOTE:

1. FOR PIPING INSTALLED HORIZONTALLY, ADD ADDITIONAL VERTICAL PREFORMED CHANNEL SUPPORT CENTERED BETWEEN HORIZONTAL SUPPORTS.

FREE STANDING PIPE SUPPORT

D044S NOT TO SCALE



PLAN

NTS

PIPE SUPPORT POST WITH PREFORMED CHANNEL

D045S NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS SHEET 13 OF 14

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edvard Davies
STATE OF UTAH
04-03-2023

DRAWING No.

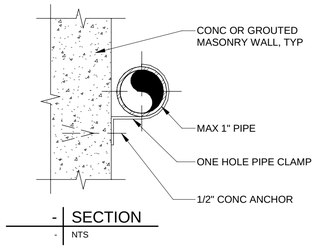
0100-D713

SHEET _____ OF _____

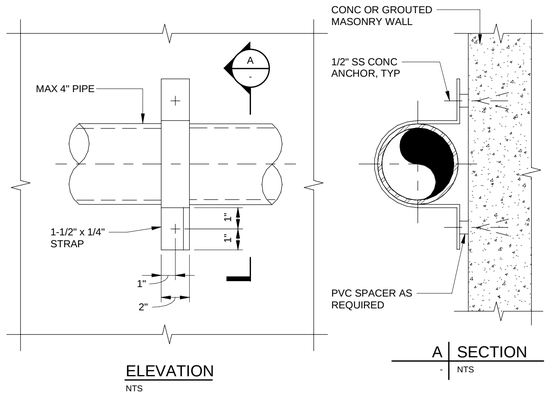
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- | SECTION
- NTS



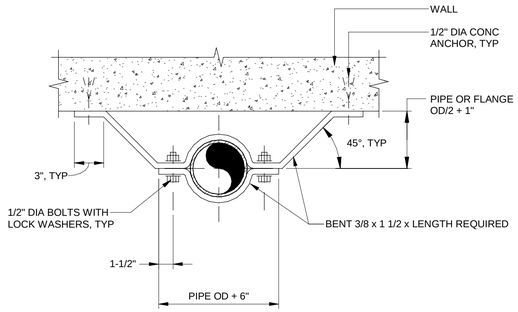
ELEVATION
NTS

A | SECTION
- NTS

NOTE:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

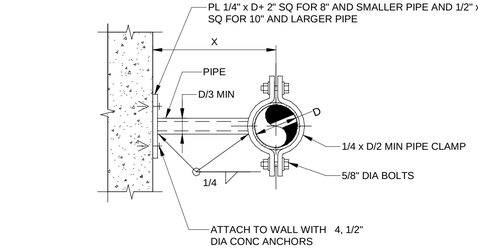
D049S PIPE SUPPORT WALL STRAP
NOT TO SCALE



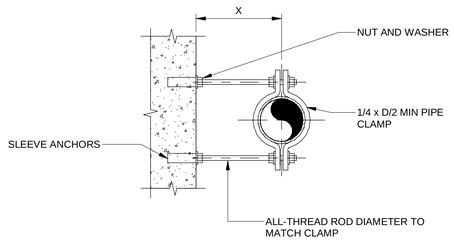
NOTE:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

D050S HORIZONTAL PIPE SWAY BRACE
NOT TO SCALE



SECTION - FOR PIPE GREATER THAN 12"

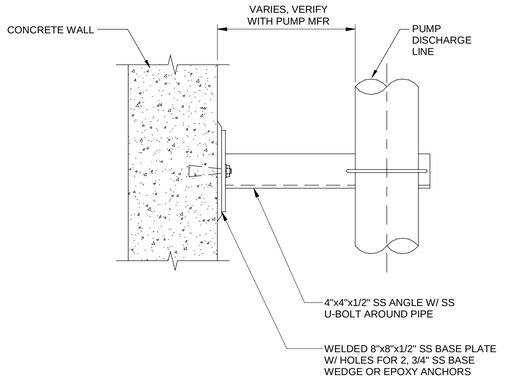


SECTION - FOR PIPE LESS THAN 12"

NOTE:

1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

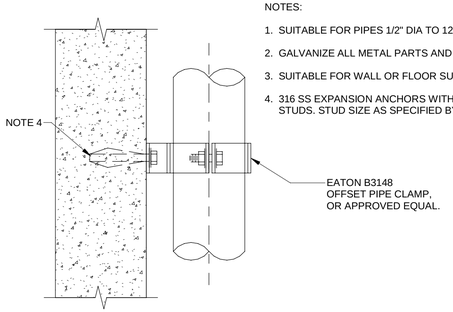
D051S VERTICAL PIPE SWAY BRACE
NOT TO SCALE

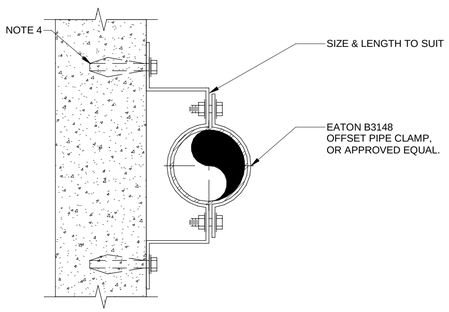


NOTE:

1. ALL SS TO BE TYPE 316.

D052S WALL PIPE SUPPORT
NOT TO SCALE

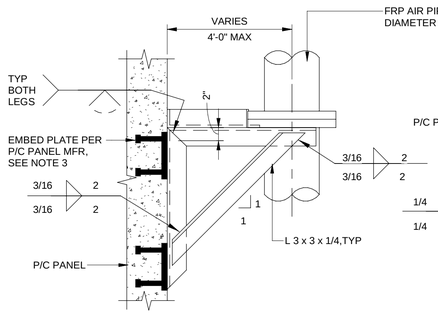




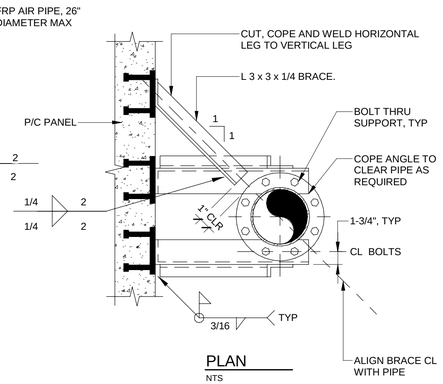
NOTES:

1. SUITABLE FOR PIPES 1/2" DIA TO 12" DIA.
2. GALVANIZE ALL METAL PARTS AND HARDWARE.
3. SUITABLE FOR WALL OR FLOOR SUPPORTED PIPE.
4. 316 SS EXPANSION ANCHORS WITH FULL THREADED STUDS. STUD SIZE AS SPECIFIED BY MANUFACTURER.

D053S OFFSET PIPE SUPPORT
NOT TO SCALE



ELEVATION
NTS



PLAN
NTS

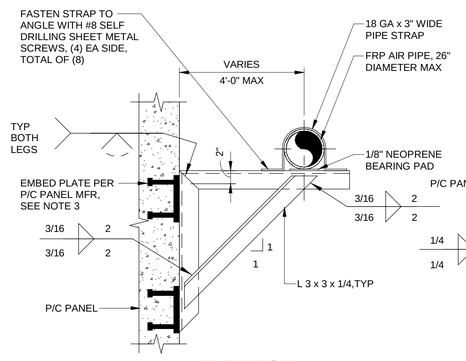
NOTES:

1. PROVIDE PIPE SUPPORTS AT 10'-0" MAX SPACING.
2. PIPE SUPPORT FRAME SHALL BE STEEL CONSTRUCTION AND HOT-DIP GALVANIZED AFTER FABRICATION.
3. EMBED PLATES SHALL BE DESIGNED BY THE P/C MFR. EMBED PLATES SHALL BE DESIGNED TO RESIST THE FOLLOWING ULTIMATE SEISMIC (INCLUDING OVERSTRENGTH FACTOR) AND WIND LOADS:

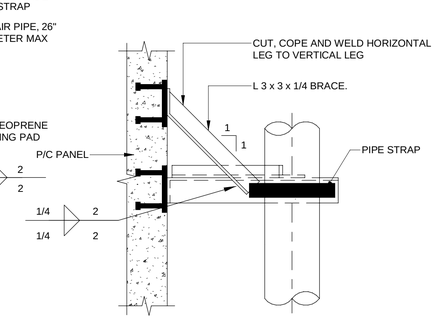
   A. TENSION FORCE = 4,000 LBS
   B. COMPRESSION FORCE = 4,000 LBS
   C. SHEAR FORCE = 2,000 LBS

4. CONTRACTOR'S OPTION TO USE POST-INSTALLED ANCHORS ON THE INSIDE FACE OF THE PRECAST WALL. CONTRACTOR SHALL FEROSCAN FOR EXISTING REBAR PRIOR TO INSTALLATION. EXISTING REBAR SHALL NOT BE DAMAGED OR CUT.

D054S SUPPORT FOR VERTICAL FRP PIPE ON P/C WALL
NOT TO SCALE



ELEVATION
NTS



PLAN
NTS

NOTES:

1. PROVIDE PIPE SUPPORTS AT 10'-0" MAX SPACING.
2. PIPE SUPPORT FRAME SHALL BE STEEL CONSTRUCTION AND HOT-DIP GALVANIZED AFTER FABRICATION.
3. EMBED PLATES SHALL BE DESIGNED BY THE P/C MFR. EMBED PLATES SHALL BE DESIGNED TO RESIST THE FOLLOWING ULTIMATE SEISMIC (INCLUDING OVERSTRENGTH FACTOR) AND WIND LOADS:

   A. TENSION FORCE = 4,000 LBS
   B. COMPRESSION FORCE = 4,000 LBS
   C. SHEAR FORCE = 2,000 LBS

4. CONTRACTOR'S OPTION TO USE POST-INSTALLED ANCHORS ON THE INSIDE FACE OF THE PRECAST WALL. CONTRACTOR SHALL FEROSCAN FOR EXISTING REBAR PRIOR TO INSTALLATION. EXISTING REBAR SHALL NOT BE DAMAGED OR CUT.

D055S SUPPORT FOR HORIZONTAL FRP PIPE ON P/C WALL
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N.
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.HODGSON
DRAWN BY: N.KUMAR
CHECKED BY: R.SCHROEDEL
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

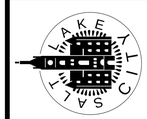
REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A ISSUED FOR BID	PA	BH

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PROCESS TYPICAL DETAILS
SHEET 14 OF 14





DRAWING No.
0100-D714

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 12:59:08 PM

FILE: BIM 360://60572288-Salt Lake City 2019\524905350_0100-D701.rvt

TYPICAL DETAIL INDEX 0100

0100-P001
PLUMBING LEGENDS AND ABBREVIATIONS

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P001S PIPE IN OUTSIDE WALL DETAIL
P002S HEAT TAPE DETAIL
P003S HOSE RACK DETAIL
P004S WATER SERVICE SLEEVE DETAIL
P005S WALL HYDRANT DETAIL
P006S HOSE BIBB DETAIL
P008S CURB AND STOP BOX DETAIL

0100-P702
P011S NATURAL GAS BUILDING ENTRY DETAIL
P012S NATURAL GAS EQUIPMENT CONNECTIONS
P013S FLOOR DRAIN FLASHING DETAIL
P014S VENT THROUGH ROOF FLASHING DETAIL
P015S GRADE CLEANOUT (GCO)

0100-P703
P018S SAMPLE SINK DETAIL
P020S DOWNSPOUT NOZZLE DETAIL
P021S WATER SERVICE SLEEVE (FLOOR)
P022S BUILDING WATER SERVICE PIPING DETAIL

0100-P705
P030S DEEP FLOOR SLAB P-TRAP
P031S TRENCH DRAIN DETAIL
P032S SURFACE CLEANOUT (SCO) 2-WAY

0100-P707
P040S WATER BREAK TANK & BOOSTING DETAIL
P041S INLINE CONDENSATE NEUTRALIZATION DETAIL

0100-P708
P050S STORM DRAIN - THREADED TO HUB AND SPIGOT CONNECTION

0100-P709
P054S CLEANOUT DETAIL

0100-P713
P068S TYPE I FLOOR DRAIN
P069S TYPE II FLOOR DRAIN
P070S TYPE III FLOOR DRAIN
P071S TYPE I EQUIPMENT DRAIN
P072S TYPE II EQUIPMENT DRAIN
P073S TYPE III EQUIPMENT DRAIN
P074S TYPE IV EQUIPMENT DRAIN

0100-P714
P075S YARD CLEANOUT
P076S FLOOR AND WALKWAY CLEANOUT
P077S PRESSURE CLEANOUT
P078S CLEANOUT TO GRADE
P080S TYPE V CLEANOUT

0100-P715
P083S YARD HYDRANT
P084S BACKFLOW PREVENTOR 3" AND LARGER
P085S BACKFLOW PREVENTOR LESS THAN 3" DIAMETER
P086S GATE VALVE STEM EXTENSION

SCALE:

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R. MEADOR
DRAWN BY: C. IMPARATO
CHECKED BY: G. DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

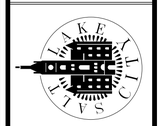
REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS INDEX





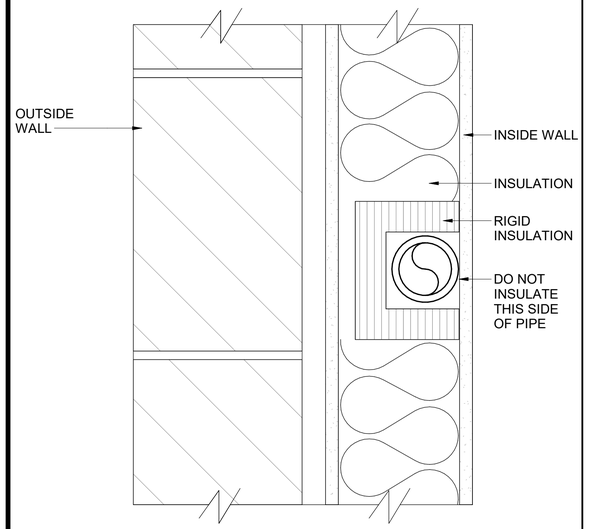
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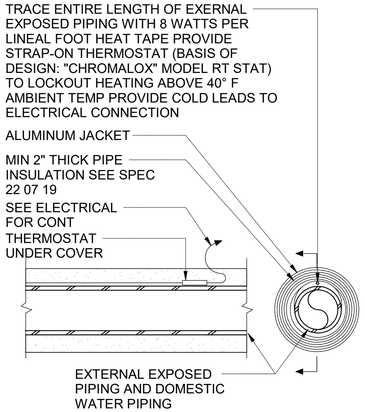
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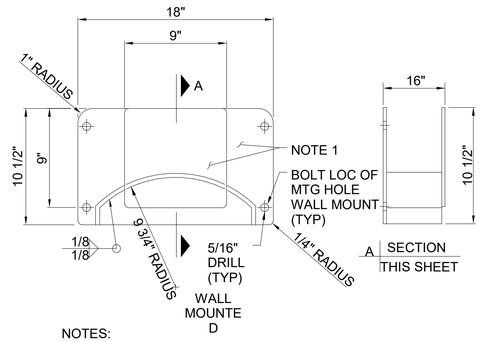
P001S PIPE IN OUTSIDE WALL DETAIL
NOT TO SCALE



NOTES:

1. MECH CONTRACTOR TO PROVIDE HEAT TAPE.
2. REFER TO SPECIFICATION SECTION 22 05 33 FOR ADDITIONAL DETAILS ON HEAT TRACING.

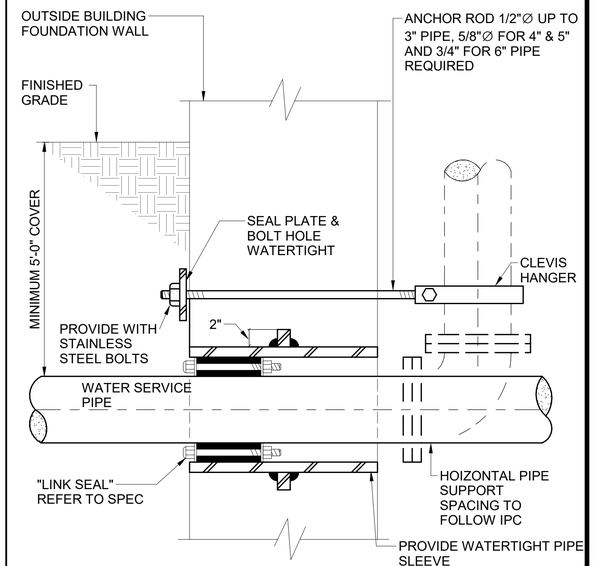
P002S HEAT TAPE DETAIL
NOT TO SCALE



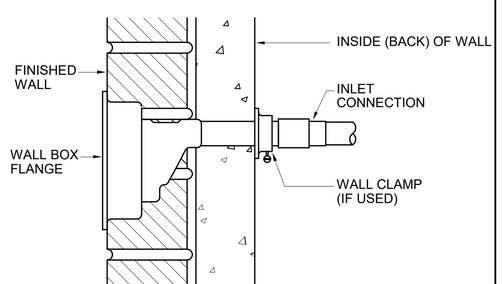
NOTES:

1. INTERIOR UNITS SHALL BE FABRICATED FROM 1/8" ASTM A 36 STEEL PLATE AND HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A 153.
2. EXTERIOR UNITS SHALL BE FABRICATED FROM 3/16" 6061-T6 ALUMINUM ALLOY PLATE.
3. ATTACH TO CONCRETE WALL WITH FOUR 1/4" 18-8 STAINLESS STEEL EXPANSION ANCHORS.
4. MOUNT HOSE RACK 3-FEET ABOVE FINISHED FLOOR OR GROUND ELEVATION.

P003S HOSE RACK DETAIL
NOT TO SCALE

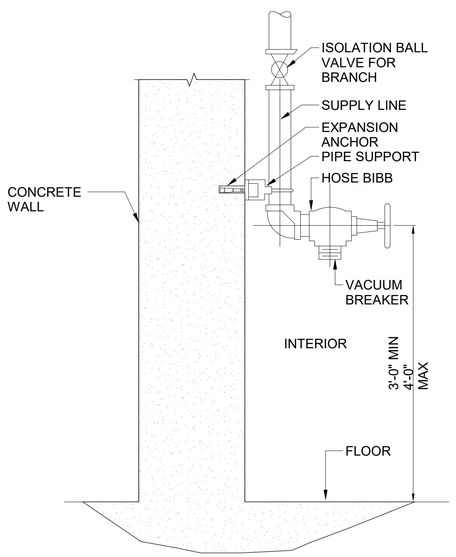


P004S WATER SERVICE SLEEVE DETAIL
NOT TO SCALE

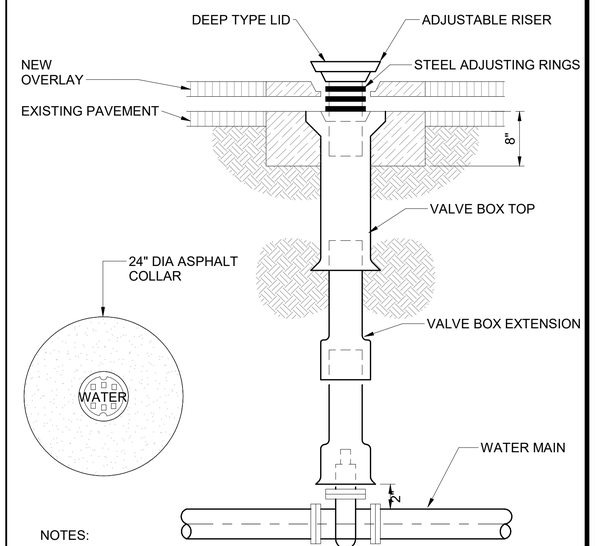


MOUNTING 2'-0" ABOVE EXTERIOR GRADE

P005S WALL HYDRANT DETAIL
NOT TO SCALE



P006S HOSE BIBB DETAIL
NOT TO SCALE



NOTES:

1) SLIP TYPE 5-1/4" ID SHAFT TYLER PIPE SERIES 6855 OR EQUIVALENT APPROVED BY WATER DIV.

2) PROVIDE THRUST BLOCK PIPE SUPPORT FOR ALL PIES GREATER THAN 5". REFERENCE TO SHT:0100-P703 DETAIL:P021S

P008S CURB AND STOP BOX DETAIL
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS: 1965 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

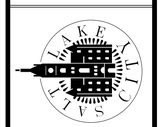
REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS SHEET 1 OF 15





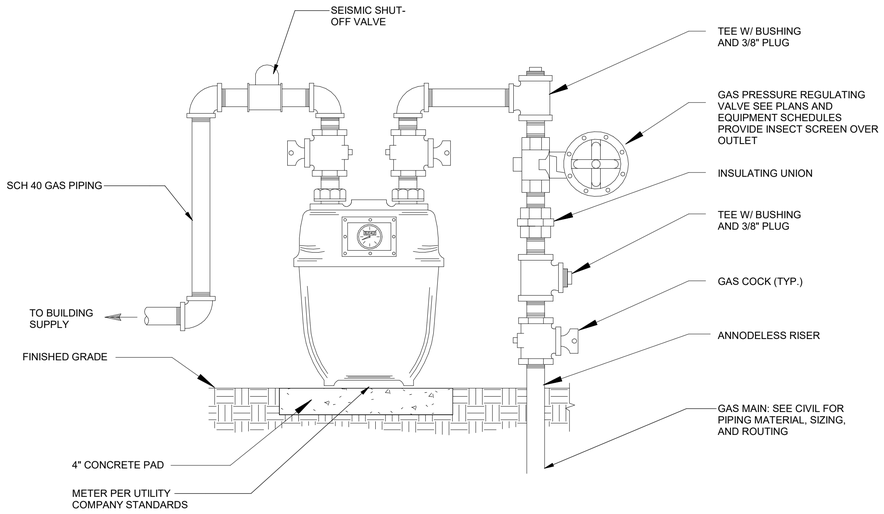
DRAWING No.
0100-P701

SHEET _____ OF _____

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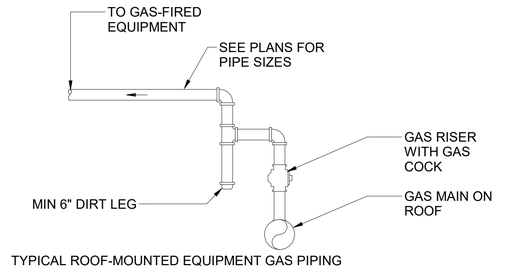
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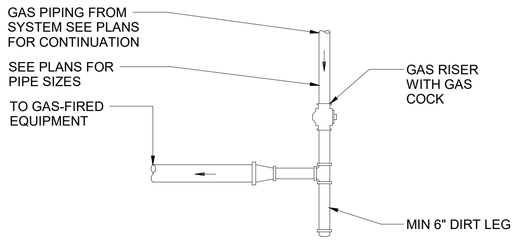
NATURAL GAS BUILDING ENTRY DETAIL

P011S

NOT TO SCALE



TYPICAL ROOF-MOUNTED EQUIPMENT GAS PIPING ARRANGEMENT

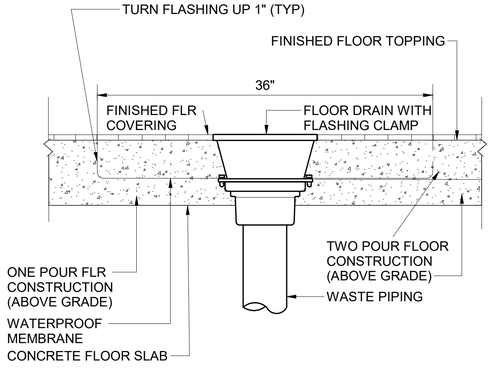


TYPICAL INTERIOR EQUIPMENT GAS PIPING ARRANGEMENT

NATURAL GAS EQUIPMENT CONNECTIONS

P012S

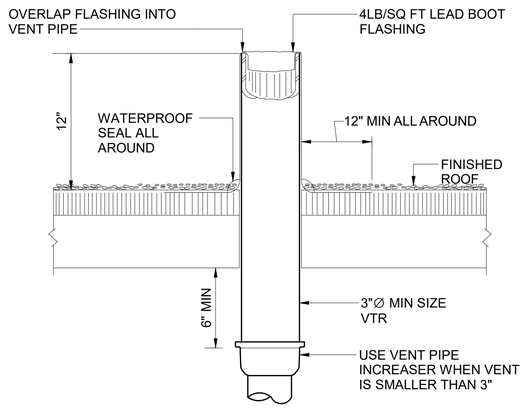
NOT TO SCALE



FLOOR DRAIN FLASHING DETAIL

P013S

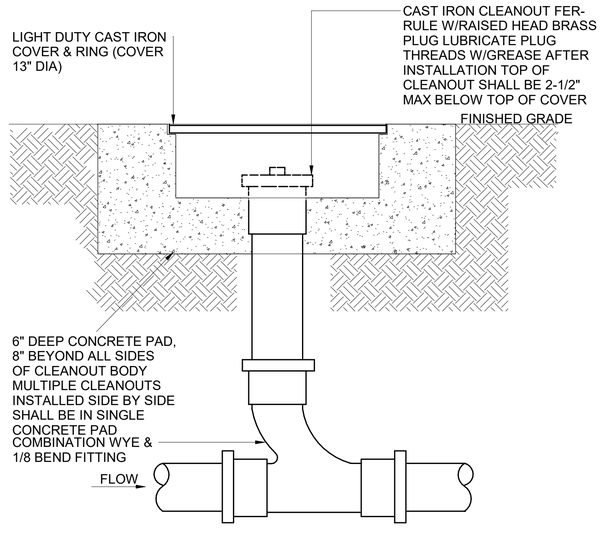
NOT TO SCALE



VENT THROUGH ROOF FLASHING DETAIL

P014S

NOT TO SCALE



DESIGN NOTE:

1. PROVIDE HEAVY DUTY MAINTENANCE HOLE WHERE REQUIRED.

GRADE CLEANOUT (GCO)

P015S

NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1965 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

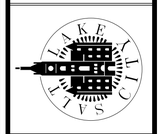
DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 2 OF 15





DRAWING No.

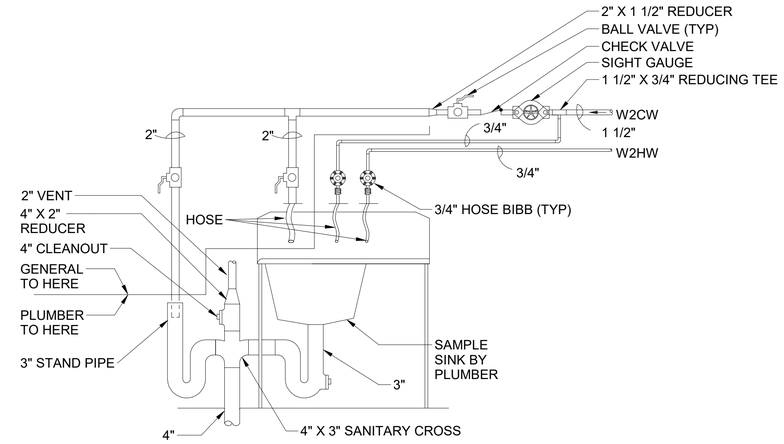
0100-P702

SHEET _____ OF _____

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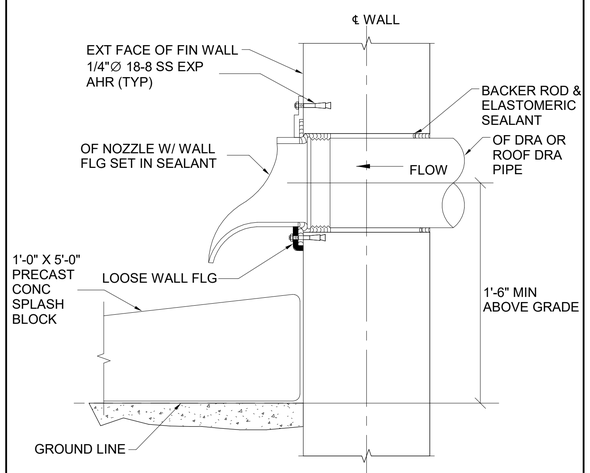
FILE: BIM 360://60572288-Salt Lake City 2019/524905350_0000-P701.rvt



NOTE:

1. NUMBER OF SAMPLE PIPES VARIES REFER TO P&ID'S.

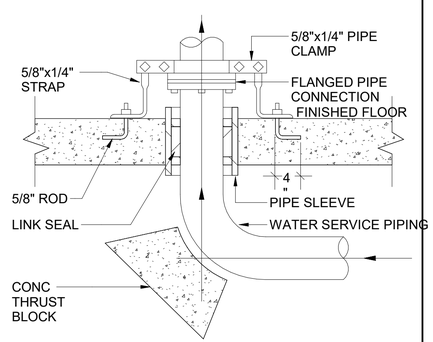
P018S SAMPLE SINK DETAIL
NOT TO SCALE



NOTES:

1.SATIN FINISH BRONZE.
2.SAME SIZE AS DOWNSPOUT PIPING.

P020S DOWNSPOUT NOZZLE DETAIL
NOT TO SCALE

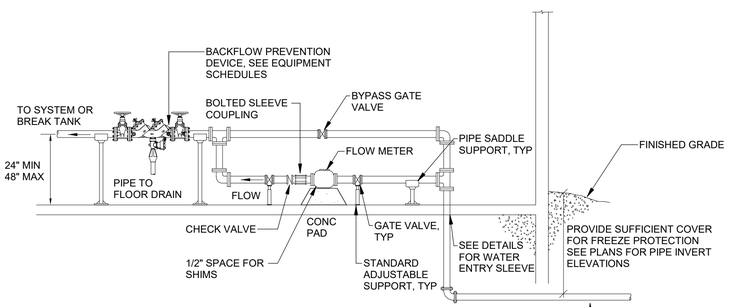


NOTES:

1. PIPE SUPPORT SIZES FOR UP TO 5" PIPING, INCREASE PIPE SUPPORT NOMINALLY FOR LARGER PIPE SIZES.

2. ALL HARDWARE TO BE 316L SS.

P021S WATER SERVICE SLEEVE (FLOOR)
NOT TO SCALE



NOTES:

1. FLOW METERS SMALLER THAN 2.0" DIAMETER MAY BE SUPPORTED BY PIPING.
2. FLOW METERS 2.0" TO 4.0" DIAMETER SHALL BE SUPPORTED INDEPENDENT OF PIPING BY ADJUSTABLE SUPPORT TO FLOOR.
3. FLOW METERS LARGER THAN 4.0" DIAMETER SHALL BE MOUNTED ON CONCRETE HOUSEKEEPING PAD DIRECTLY ON FLOOR, AS SHOWN.

P022S BUILDING WATER SERVICE PIPING DETAIL
NOT TO SCALE

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

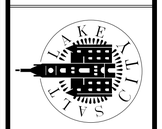
REVISIONS

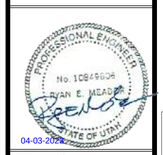
NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 3 OF 15





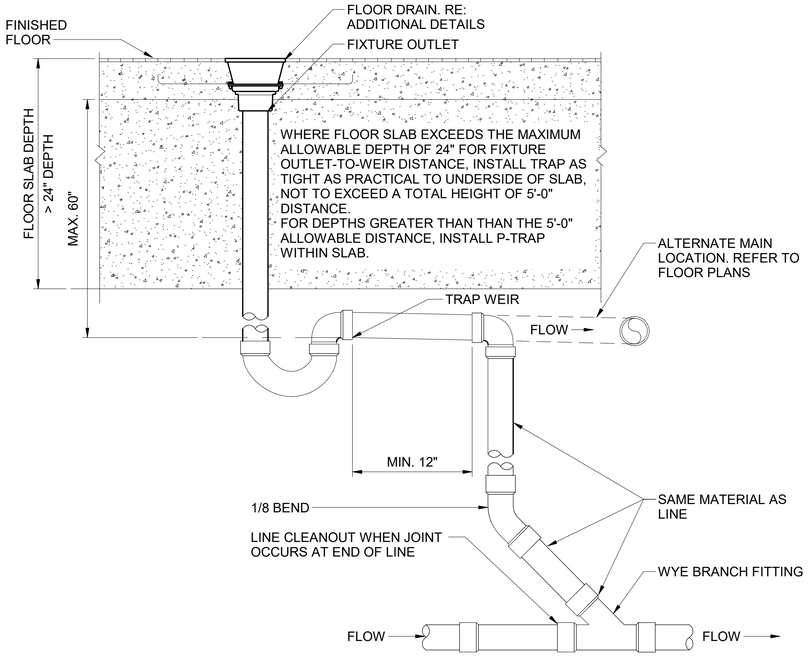
DRAWING No.
0100-P703

SHEET _____ OF _____

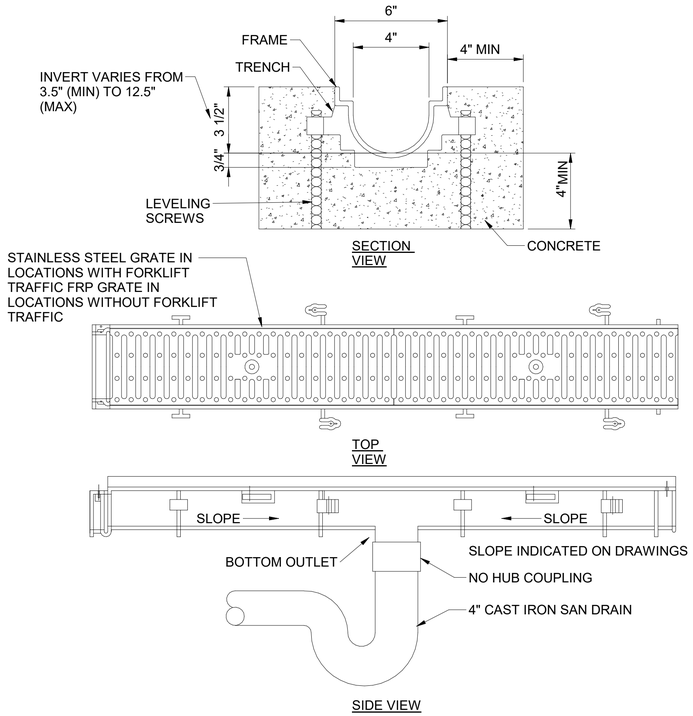
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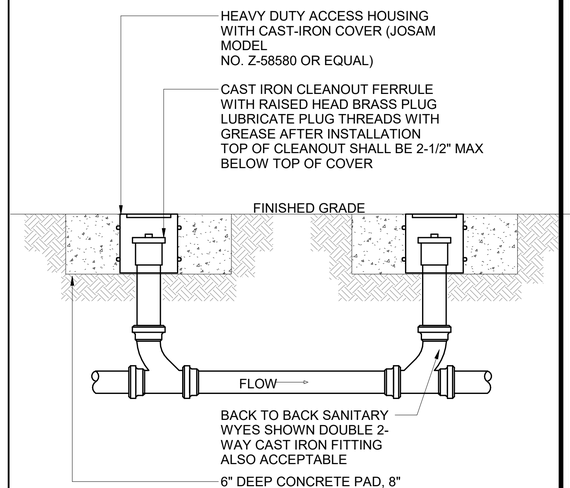
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P030S DEEP FLOOR SLAB P-TRAP
NOT TO SCALE



P031S TRENCH DRAIN DETAIL
NOT TO SCALE



P032S SURFACE CLEANOUT (SCO) 2-WAY
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 5 OF 15

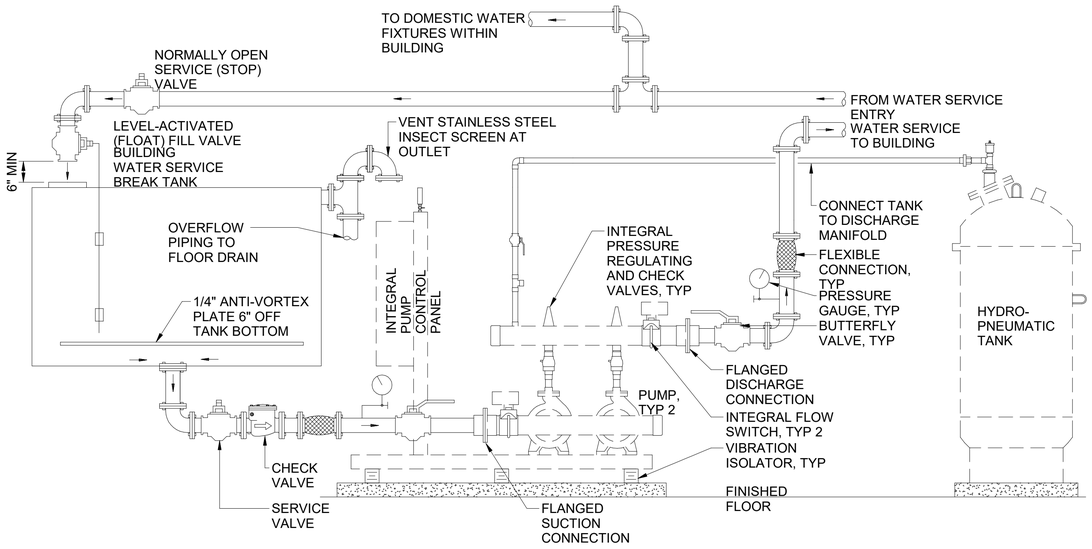
PROFESSIONAL ENGINEER
No. 10849606
RYAN E. MEADOR
STATE OF UTAH
04-03-2023

DRAWING No.
0100-P705

SHEET _____ OF _____

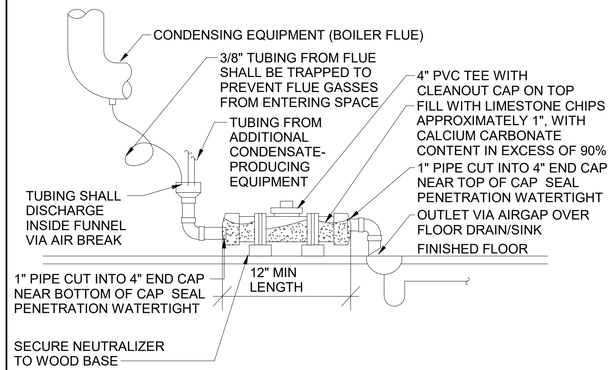
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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DATE: 3/29/2023 10:46:08 AM



WATER BREAK TANK & BOOSTING DETAIL

P040S NOT TO SCALE



INLINE CONDENSATE NEUTRALIZATION DETAIL

P041S NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS: 1965 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	CI RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS SHEET 7 OF 15

PROFESSIONAL ENGINEER No. 10845626 RYAN E. MEADE STATE OF UTAH
04-03-2023

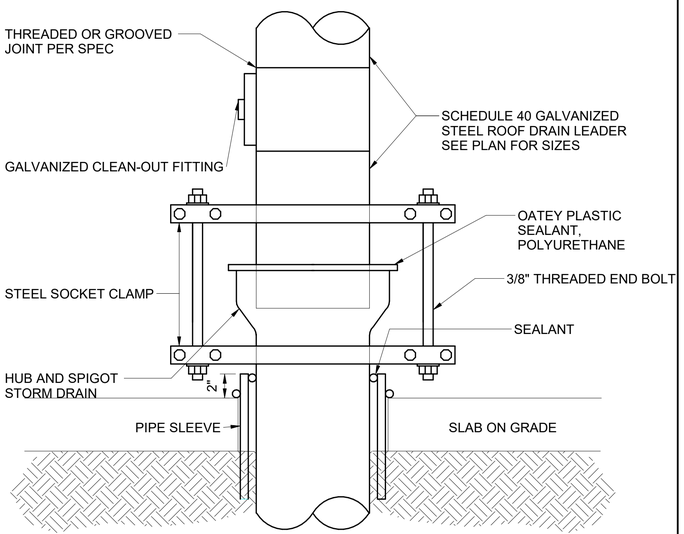
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SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 10:46:09 AM

FILE: BIM 360://6057228-Salt Lake City 2019524905350_0000-P701.rvt



DESIGN NOTES:

1. DETAIL IS TO BE USED ONLY FOR RDL'S HAVING 30 FT-HD OR MORE.
2. COORDINATE PIPE CHASE SIZE REQUIREMENTS WITH ARCHITECT.

P050S STORM DRAIN - THREADED TO HUB AND SPIGOT CONNECTION

NOT TO SCALE

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
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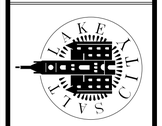
DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 8 OF 15





DRAWING No.
0100-P708

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 10:46:09 AM

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FLOOR CLEANOUT (FCO)

WALL CLEANOUT (WCO)

P054S CLEANOUT DETAIL
NOT TO SCALE

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	R.MEADOR
DRAWN BY:	C.IMPARATO
CHECKED BY:	G.DAVIES
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905396

REVISIONS

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A	23-04-03	SW-1A: ISSUED FOR BID	CI	RM

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 9 OF 15

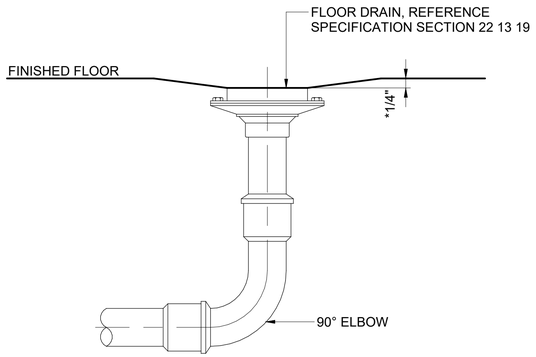
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SHEET _____ OF _____

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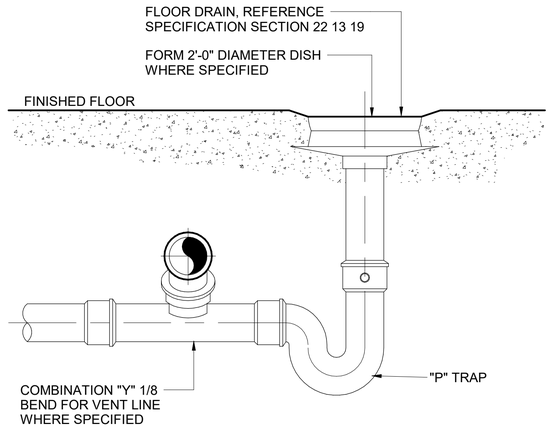
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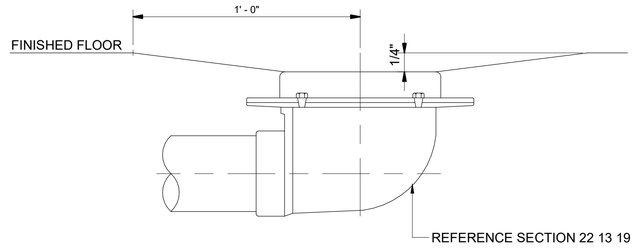
NOTE:

1. PROVIDE 12" RADIUS SLOPE TO DRAINS WHERE FLOOR DOES NOT SLOPE TO DRAIN.

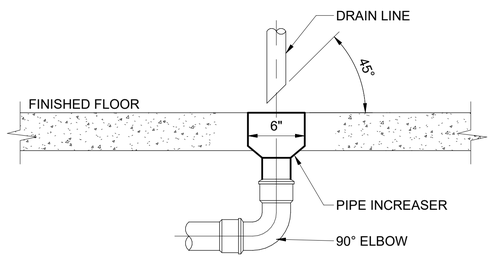
P068S TYPE I FLOOR DRAIN
NOT TO SCALE



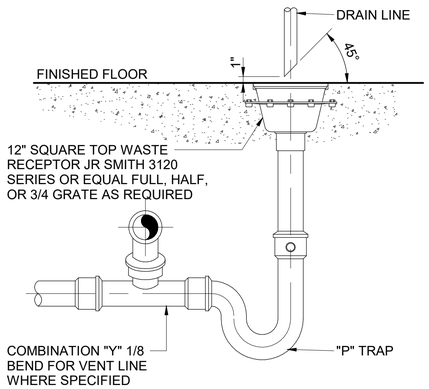
P069S TYPE II FLOOR DRAIN
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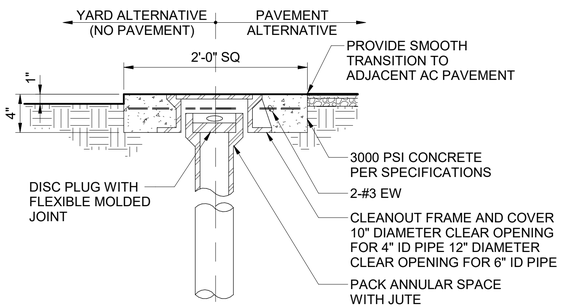
P070S TYPE III FLOOR DRAIN
NOT TO SCALE



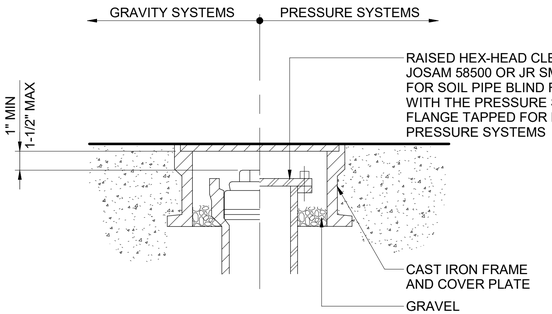
P071S TYPE I EQUIPMENT DRAIN
NOT TO SCALE



P072S TYPE II EQUIPMENT DRAIN
NOT TO SCALE



P073S TYPE III EQUIPMENT DRAIN
NOT TO SCALE



NOTE:
1. ALL CLEANOUTS SHALL HAVE NICKEL BRONZE TOPS.

P074S TYPE IV EQUIPMENT DRAIN
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905396

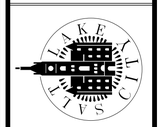
REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 13 OF 15





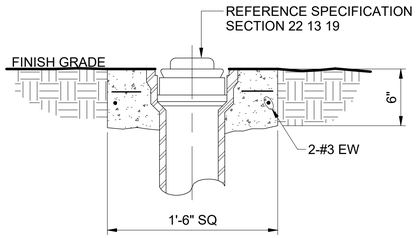
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0100-P713

SHEET _____ OF _____

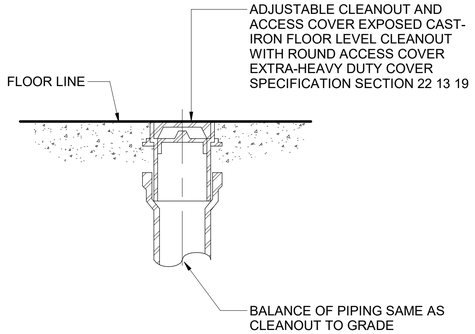
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 10:46:11 AM

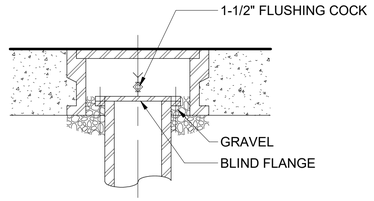
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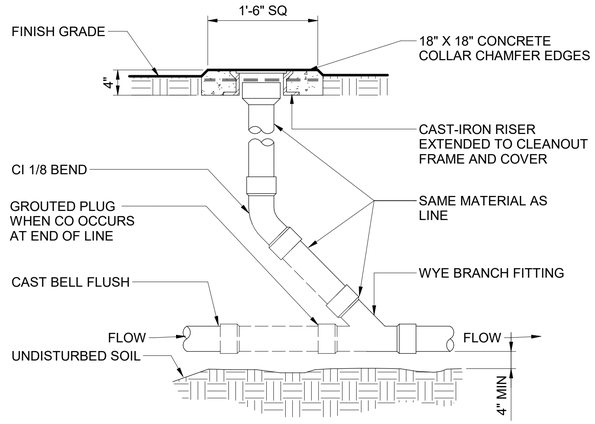
P075S YARD CLEANOUT
NOT TO SCALE



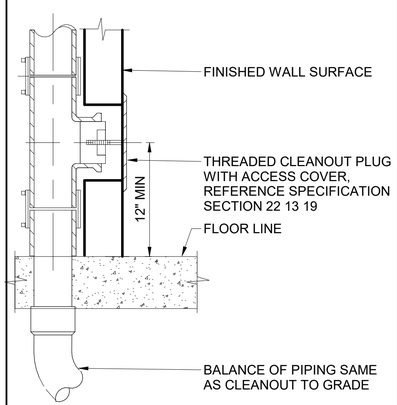
P076S FLOOR AND WALKWAY CLEANOUT
NOT TO SCALE



P077S PRESSURE CLEANOUT
NOT TO SCALE



P078S CLEANOUT TO GRADE
NOT TO SCALE



P080S TYPE V CLEANOUT
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1965 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905086

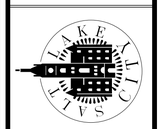
REVISIONS

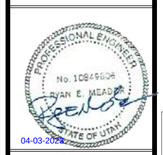
NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS
SHEET 14 OF 15





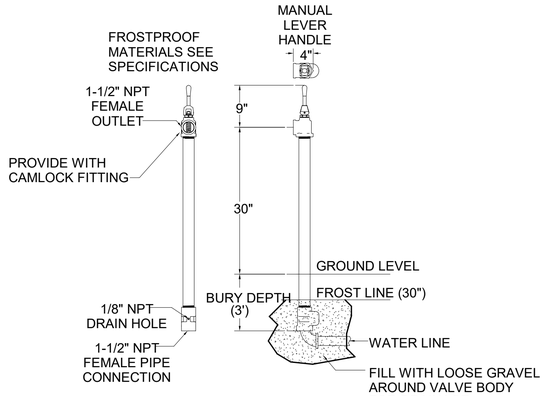
DRAWING No.
0100-P714

SHEET _____ OF _____

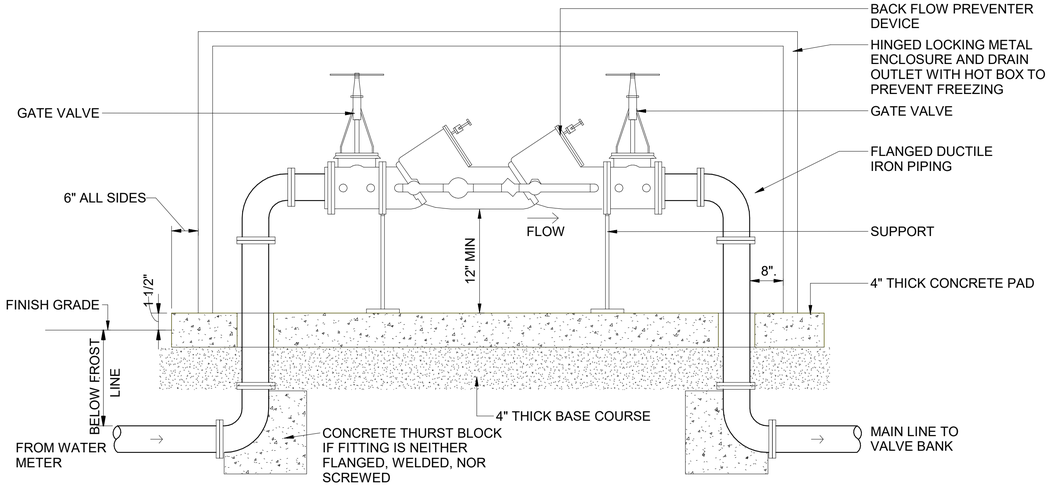
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 10:46:12 AM

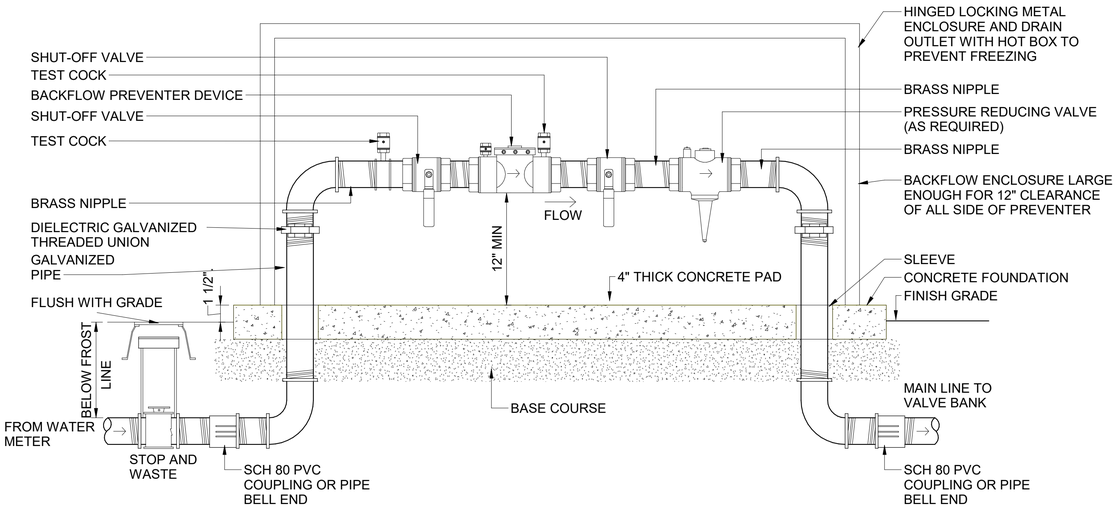
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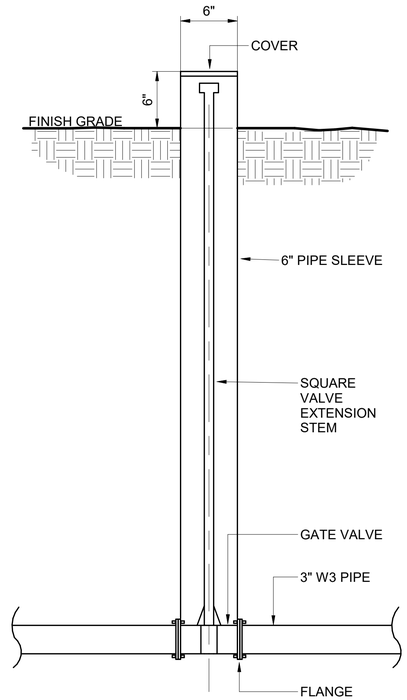
P083S YARD HYDRANT
NOT TO SCALE



P084S BACKFLOW PREVENTOR 3" AND LARGER
NOT TO SCALE



P085S BACKFLOW PREVENTOR LESS THAN 3" DIAMETER
NOT TO SCALE



P086S GATE VALVE STEM EXTENSION
NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1965 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: R.MEADOR
DRAWN BY: C.IMPARATO
CHECKED BY: G.DAVIES
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	CI	RM

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

PLUMBING TYPICAL DETAILS SHEET 15 OF 15

04-03-2023

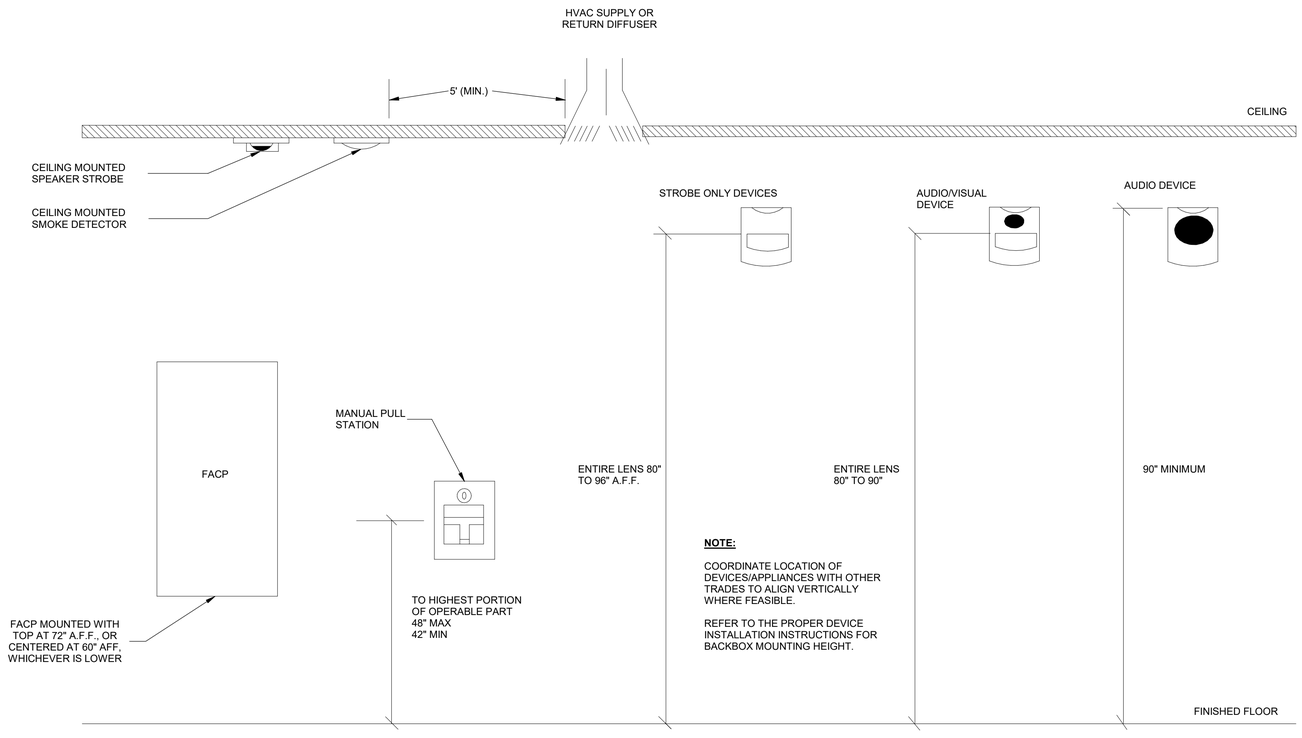
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SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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FILE: BIM 360://9057228-Salt Lake City 2019/524905350_0000-P701.rvt



FIRE ALARM MOUNTING HEIGHTS

F001S

NOT TO SCALE

SCALE: 3/32" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M. LANE
DRAWN BY: D. RUTHERFORD
CHECKED BY: J. HEIM
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	DR	ML

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

FIRE ALARM
TYPICAL DETAIL

PROFESSIONAL ENGINEER
No. 11499201
JONATHAN
CARTER HEIM
STATE OF UTAH
4/3/23

DRAWING No.
0100-F711

SHEET _____ OF -

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/29/2023 2:50:40 PM

FILE: BIM 360://9057228-Salt Lake City 2019\524905350_0000-F701.rvt

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M002S DUCT SUPPORT
M003S DUCT SUPPORT WALL BRACE
M004S VERTICAL DUCT SUPPORT AT WALL
M005S DUCT SUPPORT DETAIL
M006S DUCT HANGER SUPPORT DETAIL
M007S DUCT SUPPORT FROM WALL DETAIL
M008S DUCT AND EQUIPMENT SEISMIC BRACE
M009S VERTICAL DUCT SUPPORT

0100-M702
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M011S DUCT & PIPE SUPPORT
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M018S PIPE SUPPORT
M019S PIPE PENETRATION THROUGH FLOOR
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M029S THERMOMETER MOUNTING
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M038S INSULATED PIPE PENETRATION THROUGH FLOOR

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M040S LOUVRE IN WALL
M041S FLEXIBLE DUCT CONNECTION
M042S CURTAIN TYPE FIRE DAMPER DETAIL
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M058S INSTRUMENT INSTALLATION DETAIL
M059S THERMOWELL INSTALLATION DETAIL
M060S LOW PRESSURE SYSTEM MANUAL VENT
M061S AUTOMATIC AIRVENT (HIGH CAPACITY)
M062S DIAPHRAGM EXPANSION TANK DETAIL
M063S SNORKLE EXHAUST HOSE DETAIL
M064S HYDRONIC COIL PIPING DETAIL
M065S LAB HOOD EXHAUST FAN DETAIL

SCALE:

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS INDEX

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 10848604
RYAN E. MEAD
STATE OF UTAH
04-03-2023

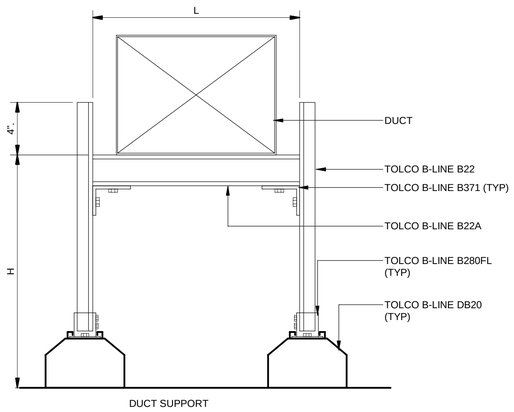
DRAWING No.
0100-M700

SHEET _____ OF _____

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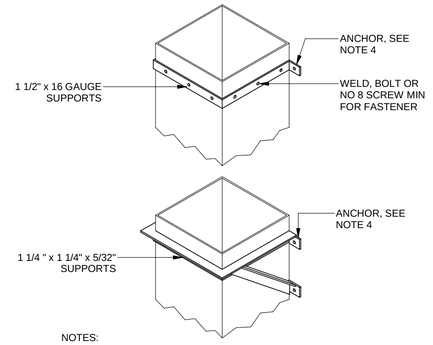
FILE: BIM 360://9057/2288-Salt Lake City 2019/524905350_0100-M701.rvt



L WIDTH OF DUCT + 6"
H FINISH FLOOR TO BOTTOM OF DUCT (24" MAXIMUM)

FLOOR MOUNTED DUCT SUPPORT DETAIL

M001S NOT TO SCALE

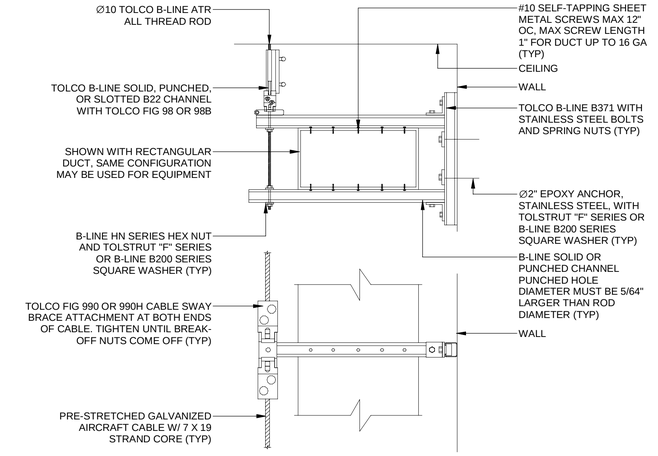


NOTES:

1. BRACKETS ARE SIZED FOR 12'-0" MAX LENGTH OF DUCT
2. LOCATE DUCTS AGAINST WALL OR MAX OF 2" AWAY FROM WALL
3. EACH WALL ANCHOR SHALL SATISFY THE FOLLOWING:
   (a) TENSILE LOAD = 3/8 X DUCT WEIGHT; SAFETY FACTOR OF 4
   (b) SHEAR LOAD = 1/2 x DUCT WEIGHT; SAFETY FACTOR OF 4
4. SECURE WITH APPROVED ANCHORS TO MATCH WALL CONSTRUCTION

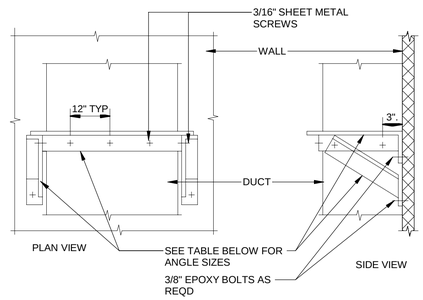
DUCT SUPPORT

M002S NOT TO SCALE



DUCT SUPPORT WALL BRACE

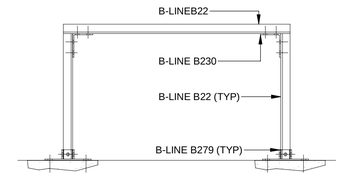
M003S NOT TO SCALE



DUCT SUPPORT ANGLE SIZES DIMENSION, (INCHES)	
MAX DUCT SIZE LESS THAN 60"	ANGLE 1 1/2" X 1 1/2" X 3/8"

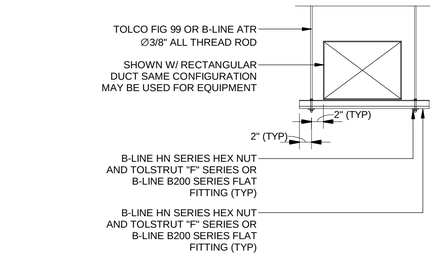
VERTICAL DUCT SUPPORT AT WALL

M004S NOT TO SCALE



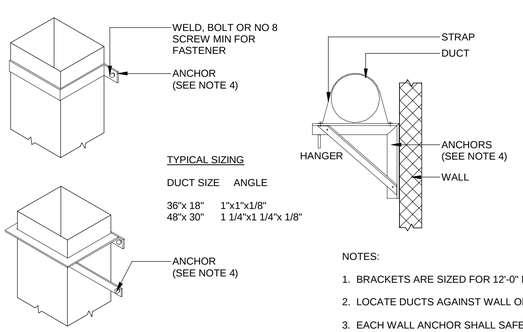
DUCT SUPPORT DETAIL

M005S NOT TO SCALE



DUCT HANGER SUPPORT DETAIL

M006S NOT TO SCALE

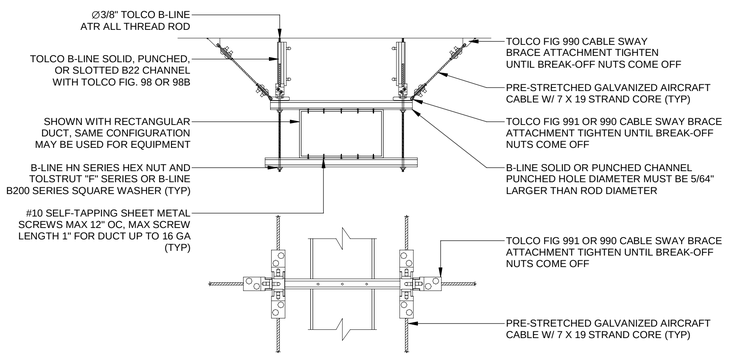


NOTES:

1. BRACKETS ARE SIZED FOR 12'-0" MAX LENGTH OF DUCT
2. LOCATE DUCTS AGAINST WALL OR MAX OF 2" AWAY FROM WALL
3. EACH WALL ANCHOR SHALL SAFELY SATISFY THE FOLLOWING:
   A. TENSILE LOAD = 9 x DUCT WEIGHT:
      SAFETY FACTOR OF 4
   B. SHEAR LOAD = 15 x DUCT WEIGHT:
      SAFETY FACTOR OF 4
4. SECURE WITH APPROVED ANCHORS TO MATCH WALL CONSTRUCTION

DUCT SUPPORT FROM WALL DETAIL

M007S NOT TO SCALE

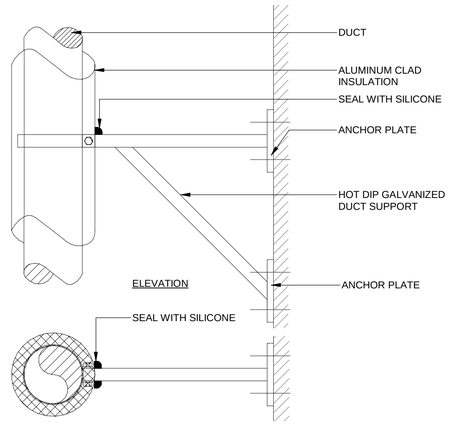


NOTES:

1. ALL DUCT SUPPORTS SHALL BE PER SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION INC (SMACNA) GUIDELINES
2. MANUFACTURED CHANNELS AND FITTINGS SHALL BE HOT-DIPPED GALVANIZED IF AVAILABLE
   FITTINGS NOT AVAILABLE WITH HOT- DIPPED GALVANIZED FINISH SHALL BE ZINC-COATED

DUCT AND EQUIPMENT SEISMIC BRACE

M008S NOT TO SCALE



VERTICAL DUCT SUPPORT

M009S NOT TO SCALE

SCALE: 1 - 12

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	B.WATSON
DRAWN BY:	N.AHMED
CHECKED BY:	C.COURCHAINE
APPROVED BY:	G.DAVIES
DATE:	- - -
EWO NO.:	-
ACCOUNT NO.:	524905288

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 1 OF 9





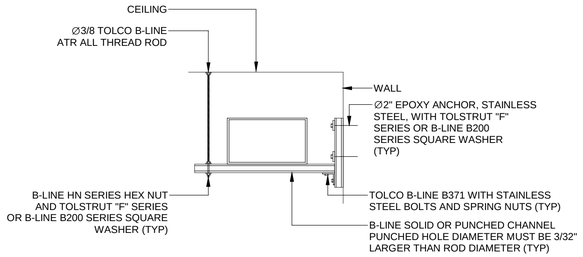
DRAWING No.
0100-M701

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

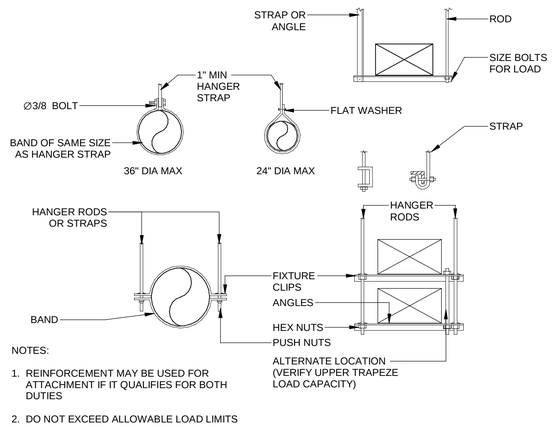
DATE: 30/03/2023 13:31:33

FILE: BIM 360://6057298-Salt Lake City 2019/524905350_0100-M701.rvt



M010S DUCT SUPPORT BRACKET DETAIL

NOT TO SCALE

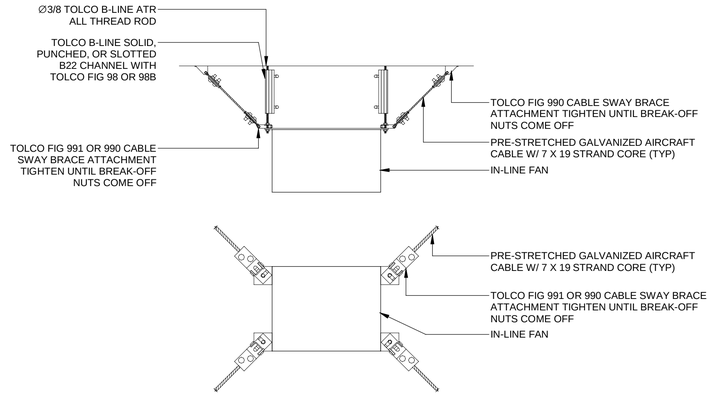


NOTES:

1. REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES
2. DO NOT EXCEED ALLOWABLE LOAD LIMITS

M011S DUCT & PIPE SUPPORT

NOT TO SCALE



M012S EQUIPMENT SEISMIC BRACE

NOT TO SCALE

M013S EXHAUST DUCT ROOF SUPPORT

NOT TO SCALE

M014S MANIFOLD EXHAUST DUCT SUPPORT

NOT TO SCALE

STATIC PRESSURE RATING	DOOR SIZE	HINGE QTY	LOCK QTY	METAL GAUGE		
				FRAME	DOOR	BACK
2" WC & LESS	12"x12"	2	1S	24	26	26
	16"x24"	2	2S	22	24	26
	24"x24"	3	2S	22	22	26
UP TO 3" WC	12"x12"	2	1S	22	22	26
	16"x24"	2	1-S,1-T,1-B	20	20	26
	24"x24"	3	2-S,1-T,1-B	20	20	24
4" WC TO 10" WC	12"x12"	2	1-S,1-T,1-B	20	20	26
	16"x24"	2	2-S,1-T,1-B	20	18	24
	24"x24"	3	2-S,2-T,2-B	18	18	24

S: SIDE OPPOSITE HINGE, T: TOP, B: BOTTOM

M015S DUCT ACCESS DOOR DETAILS

NOT TO SCALE

SCALE: 1 - 12

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS SHEET 2 OF 9

LAKE CITY UTAH

PROFESSIONAL ENGINEER No. 10848608 RYAN E. MEADE STATE OF UTAH

04-03-2023

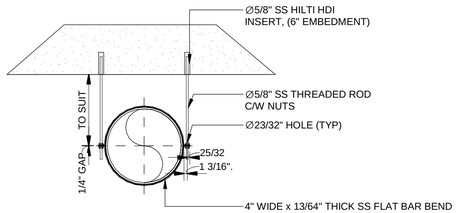
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SHEET _____ OF _____

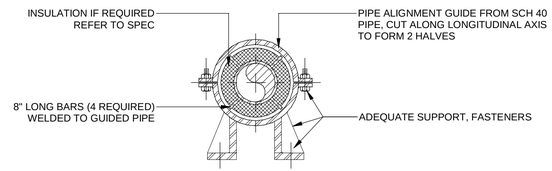
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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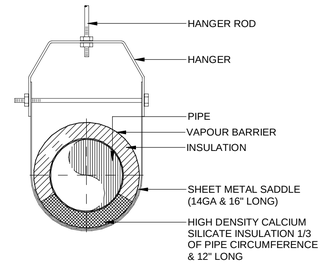
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M016S PIPE SUPPORT FROM SLAB
NOT TO SCALE



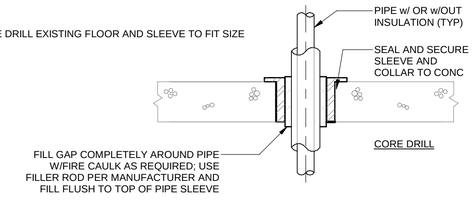
M017S PIPE SUPPORT
NOT TO SCALE

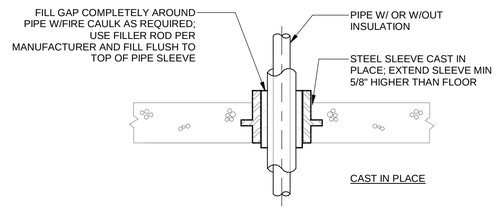


M018S PIPE SUPPORT
NOT TO SCALE

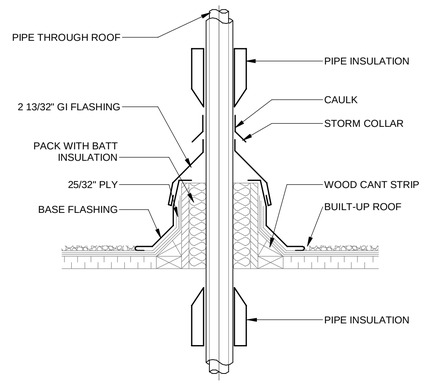
NOTE:

1. CORE DRILL EXISTING FLOOR AND SLEEVE TO FIT SIZE





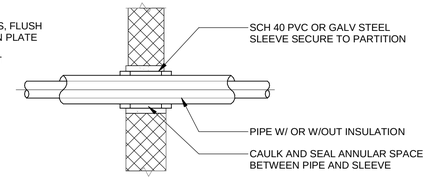
PIPE PENETRATION THROUGH FLOOR
M019S
NOT TO SCALE

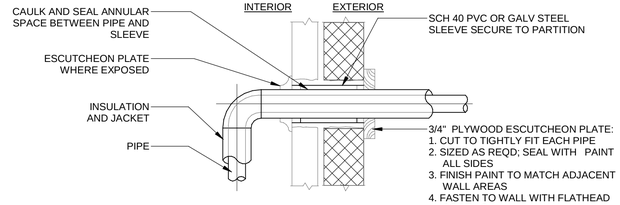


PIPE LINE THROUGH ROOF FLASHING
M020S
NOT TO SCALE

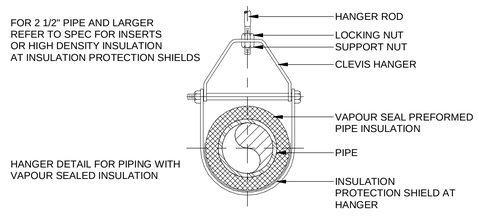
NOTES:

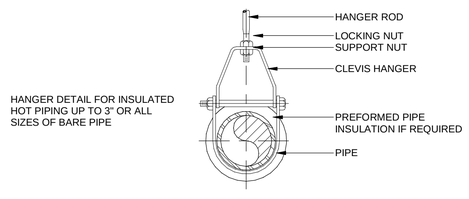
1. WHERE PIPING IS EXPOSED AT FINISH WALLS, FLUSH MOUNT SLEEVE AND PROVIDE ESCUTCHEON PLATE
2. TYP FOR NON-INSULATED PIPE AND CONDUIT
3. TYP FOR MASONRY OR CONCRETE WALL



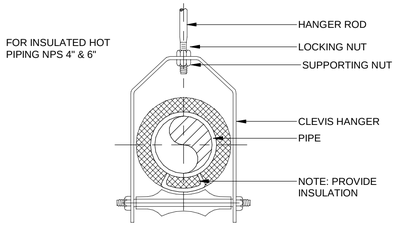


PIPE PENETRATION THROUGH WALL
M021S
NOT TO SCALE

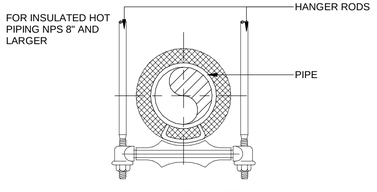




PIPE SUPPORT FROM CEILING
M022S
NOT TO SCALE



SINGLE ROD HANGER



DOUBLE ROD HANGER

PIPE SUPPORT - ROD HANGERS
M023S
NOT TO SCALE

SCALE: 1 : 12

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 3 OF 9





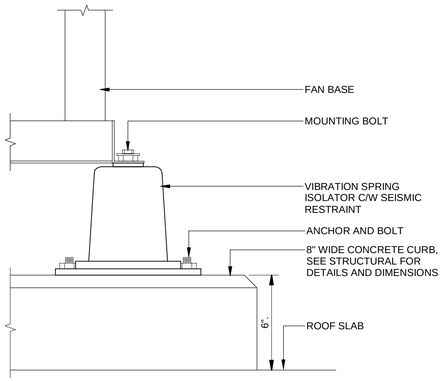
DRAWING No.
0100-M703

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

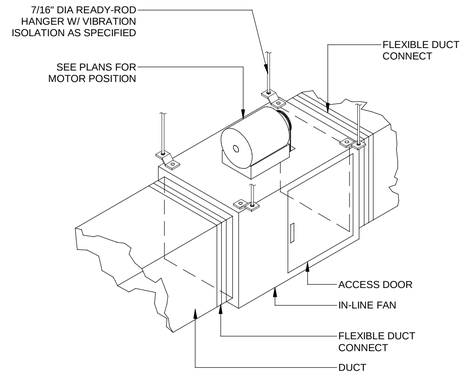
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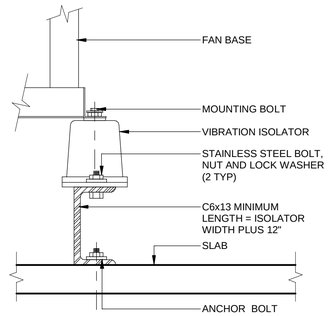
SLAB MOUNTED UTILITY FAN BASE

M024S NOT TO SCALE



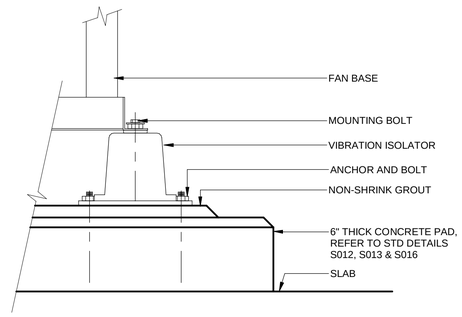
M025S IN-LINE FAN INSTALLATION

NOT TO SCALE



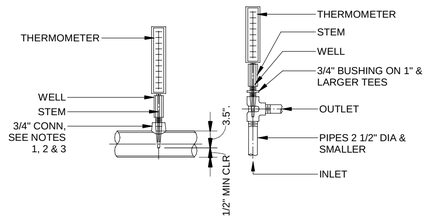
STEEL MOUNTED FAN BASE DETAIL

M026S NOT TO SCALE



SLAB MOUNTED FAN BASE DETAIL

M027S NOT TO SCALE

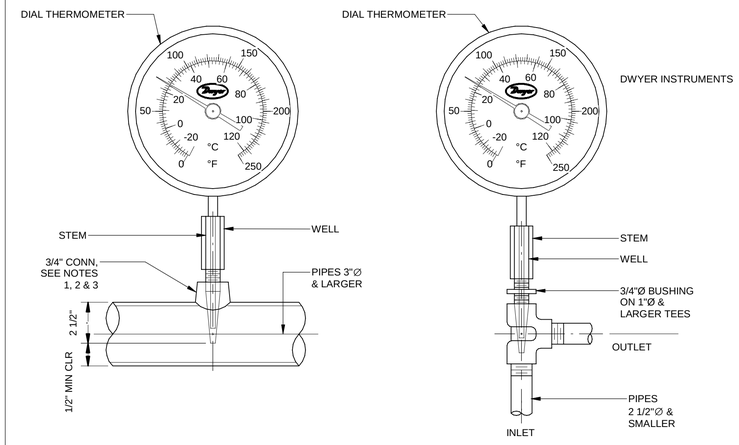


NOTES:

1. FOR STEEL, GALVANIZED STEEL AND PVC 2 1/2" AND SMALLER, USE A 3/4" BUSHING IN TEE
2. FOR DUCTILE IRON AND FIBERGLASS REINFORCED PLASTIC PIPE, ALL SIZES, USE A 3/4" OUTLET PIPE SADDLE
3. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE 3/4" THRED-O-LETS AS SHOWN

THERMOMETER MOUNTING DETAIL

M028S NOT TO SCALE

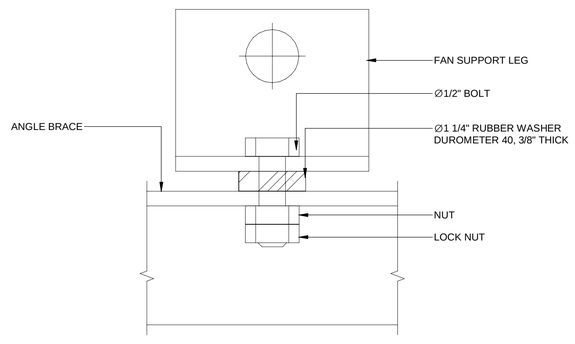


NOTES:

1. ALL DIMENSIONS IN INCHES, UNLESS OTHERWISE NOTED
2. FOR STEEL, GALVANIZED STEEL AND PVC 2 1/2" AND SMALLER, USE A 3/4" BUSHING IN TEE
3. FOR DUCTILE IRON AND FIBERGLASS REINFORCED PLASTIC PIPE, ALL SIZES, USE A 3/4" OUTLET PIPE SADDLE
4. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE 3/4" THRED-O-LETS AS SHOWN

M029S THERMOMETER MOUNTING

NOT TO SCALE



M030S FAN MOUNTING DETAIL

NOT TO SCALE

DATE: 30/03/2023 13:31:37

FILE: BIM 360://05/72288-Salt Lake City 2019/524905350_0100-M701.rvt

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY:	B.WATSON
DRAWN BY:	N.AHMED
CHECKED BY:	C.COURCHAINE
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS SHEET 4 OF 9

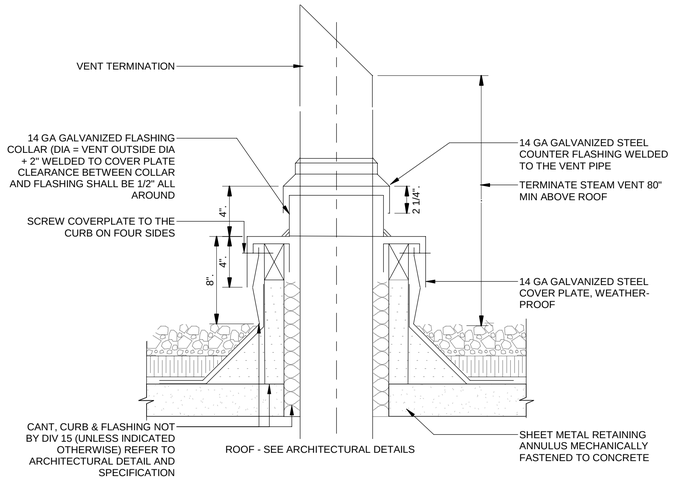




DRAWING No. 0100-M704

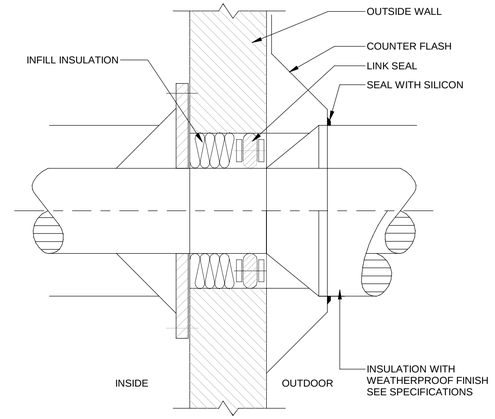
SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



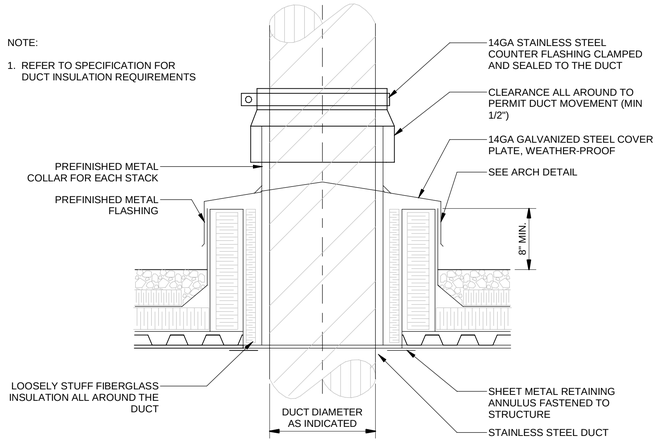
PIPING PENETRATION THROUGH ROOF

M031S NOT TO SCALE



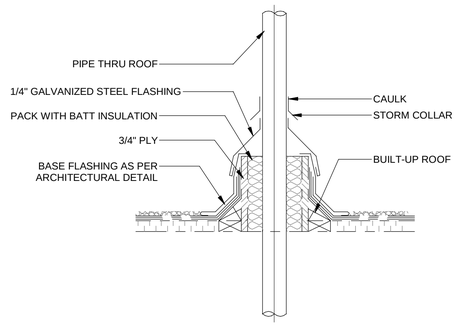
PIPE MAINS - OUTSIDE WALL PENETRATION

M032S NOT TO SCALE



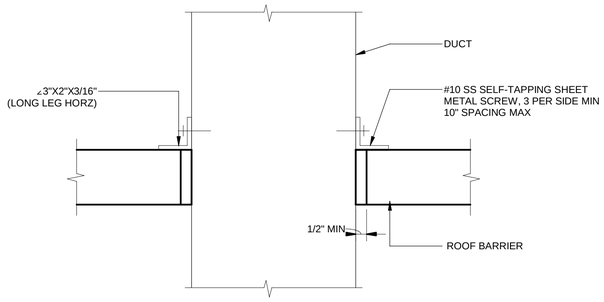
DUCT PENETRATION THROUGH ROOF

M033S NOT TO SCALE



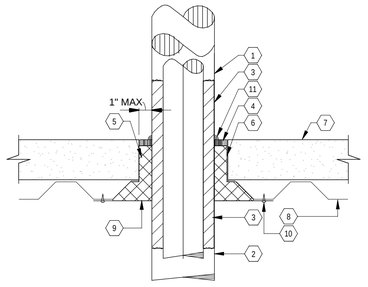
PIPE PENETRATIONS

M034S NOT TO SCALE



VERTICAL DUCT SUPPORT AT PENETRATION

M035S NOT TO SCALE

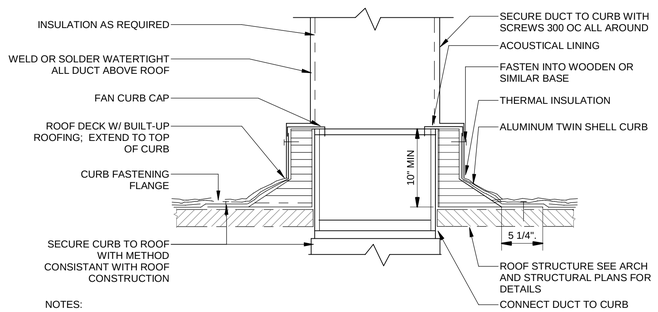


NOTES:

1. INSULATED PIPE
2. INSULATED DUCT
3. INSULATION (AS SPECIFIED)
4. MIN 1/2" THICK - UL APPROVED FIRE STOP SEALANT
5. MINERAL WOOL INSULATION - MANSON "CERAFIBER" OR CARBORUNDUM "FIBERFRAX" TIGHTLY PACKED
6. CORE OR FORMED HOLE IN CONCRETE FLOOR
7. CONCRETE FLOOR
8. STEEL DECK
9. SHEETMETAL RETAINING PLATE
10. SHEETMETAL SELF TAPPING SCREW
11. BEAD OF FIRE STOP SEALANT
12. PIPE INSTALLATION TO ENSURE THAT NO PIPE EXPANSION OCCURS AT FIRE STOP

INSULATED DUCT OR PIPE PENETRATION

M036S NOT TO SCALE

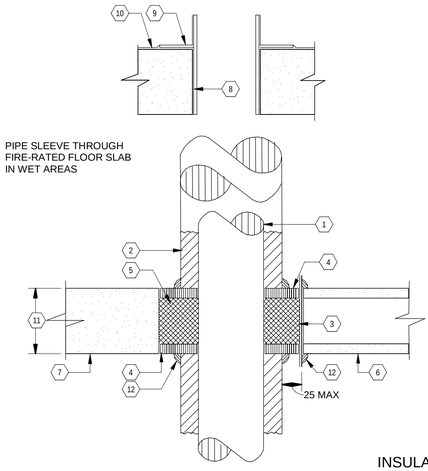


NOTES:

1. SPUD BACK GRAVEL A MIN OF 30" IN ALL DIRECTIONS FLASH WITH 90# MINERAL FACED BASE FLASHING STRIP WITH 3 LAYERS OF ROOFING FELT EMBEDDED ASPHALT GRAVEL TO MATCH
2. INSTALL LOUVER DAMPERS WHEN REQD w/OUT DEFORMATION TO LOUVER FRAME; ENSURE LOUVER'S MOVEMENT IS FREE AND UNRESTRICTED AFTER FAN IS INSTALLED
3. ROOFING CONTRACTOR SHALL PROVIDE FINAL FLASHING DETAIL

DUCT PENETRATION OR CURB INSTALLATION THROUGH MEMBRANE ROOF DETAIL

M037S NOT TO SCALE



NOTES:

1. UNINSULATED PIPE
2. INSULATION (AS SPECIFIED) TERMINATE INSULATION AT FIRE STOP
3. 20GA GALVANIZED STEEL SLEEVE (NOT REQD FOR CORE DRILLED CONCRETE OPENINGS) SEE NOTE 8 FOR WET AREAS
4. MIN 1/2" THICK - UL APPROVED FIRE STOP SEALANT SEAL BOTH SIDES (TO MAINTAIN RATING ON GYPROC CEILING; TO RETAIN MINERAL WOOL INSULATION; TO SEAL VAPOUR BARRIER ON COLD PIPES)
5. MINERAL WOOL INSULATION - MANSON "CERAFIBER" OR CARBORUNDUM "FIBERFRAX" TIGHTLY PACKED
6. FIRE RATED GYPROC CEILING
7. FIRE RATED CONCRETE FLOOR
8. PIPE SLEEVE (SCH 40)
9. FLANGE WELDED TO SLEEVE
10. WATERPROOF MEMBRANE
11. OVERALL THICKNESS OF MINERAL FIBER PACKING (5) AND FIRE STOP SEALANT (4) TO ENSURE REQUIRED FIRE - RESISTANCE RATING OF SEPARATION
12. BEAD OF FIRE STOP SEALANT
13. PIPE INSTALLATION TO ENSURE THAT NO PIPE EXPANSION OCCURS AT FIRE STOP

INSULATED PIPE PENETRATION THROUGH FLOOR

M038S NOT TO SCALE

SCALE: 1 : 12

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905360

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	BW

ISSUED FOR BID

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 5 OF 9

SALT LAKE CITY CORPORATION



BAR IS ONE INCH ON ORIGINAL DRAWING

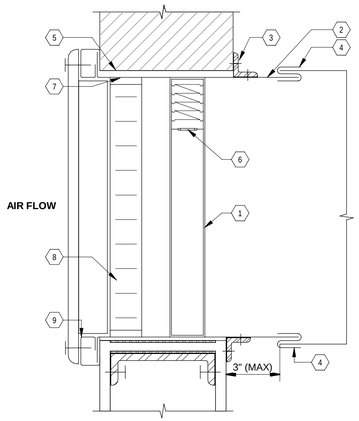
VERIFY SCALE

DRAWING No.
0100-M705

SHEET _____ OF _____

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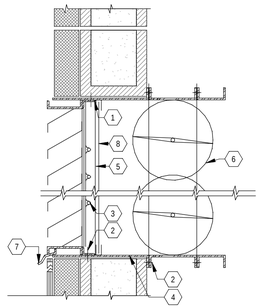
FILE: BIM 360://60572298-Salt Lake City 2019/524905360_0100-M701.rvt



NOTES:

1. APPROVED SHUTTER TYPE FIRE DAMPER- ` THINLINE
2. GALVANIZED STEEL SLEEVE - MATERIAL THICKNESS 10 GA
3. RETAINING ANGLE IRON - SEE SMACNA DETAILS
4. BREAKAWAY JOINT - USING "S" SLIP CONNECTION ON TOP AND BOTTOM & DRIVE LIP ON SIDES CAULK AIRTIGHT
5. OPENING SIZE - SEE SMACNA DETAILS
6. FUSIBLE LINK
7. SLEEVE - FLANGED TO FORM RETAINING ANGLE
8. REGISTER/GRILLE SIZE TO SUIT BOX FRAME - SECURED TO BOX FRAME
9. EXTENSION BOX FRAME WITH MITRED FINISHED CORNERS - TO RECEIVE SECURING SCREWS FOR REGISTER OR GRILLE ALTERNATIVE METHODS OF SECURING GRILLES/REGISTER WILL BE CONSIDERED

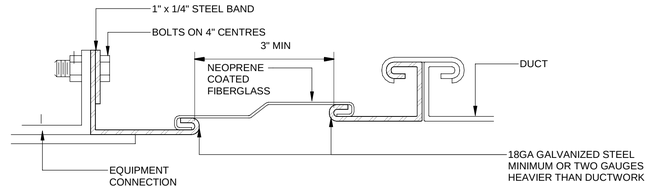
M039S SUPPLY GRILLE/FIRE DAMPER
NOT TO SCALE



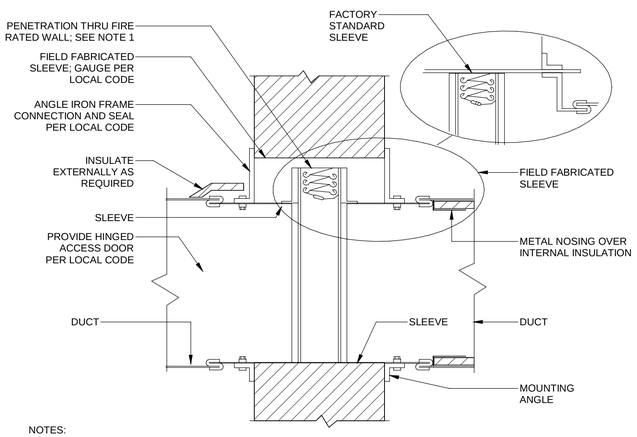
NOTES:

1. 2" WELDED ANGLE FRAME LAGGED TO WALL THROUGH SLEEVE @ 8" OC
2. LAG BOLTS MIN 1/4"X3" SET IN STEEL MASONRY LAG SHIELDS TACK WELD AFTER FASTENING
3. BIRD SCREEN
4. SLEEVE TO BE MINIMUM 18GA THICK
5. BIRD SCREEN C/W FRAME - WHERE EXPOSED TO ROOM (UNLESS GRILLE IS INDICATED ON DRAWINGS)
6. DAMPER (BALANCED BACKDRAFT OR MOTORIZED) WHERE REQUIRED
7. FLASHING - SEE ARCHITECTURAL DETAILS
8. INSECT SCREEN IN SLIDE IN FRAME (REMOVABLE FOR CLEANING) ON RELIEF AIR AND NON-FILTERED SUPPLY AIR SERVICES

M040S LOUVRE IN WALL
NOT TO SCALE



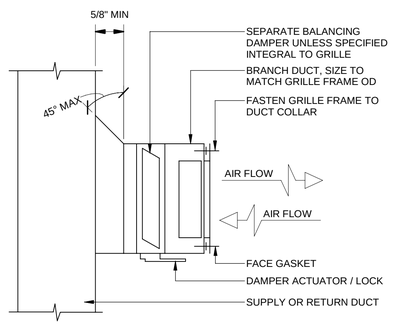
M041S FLEXIBLE DUCT CONNECTION
NOT TO SCALE



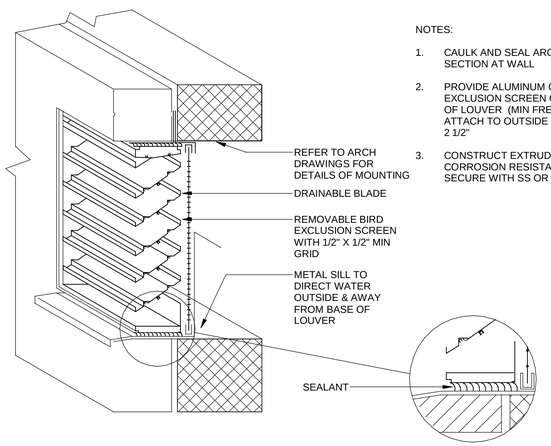
NOTES:

1. SIZE OPENING ACCORDING TO MANUFACTURER'S INSTRUCTIONS. OPENING SHALL BE 1/4" LARGER THAN DAMPER DIMENSIONS AT A MINIMUM.
2. SLEEVE GAUGE > GAUGE OF DUCT WHERE DUCT CONSTRUCTION AND JOINTS PER NFPA 90
3. DAMPER CONSTRUCTED AND TESTED PER UL 555, UL LABELED, TO MATCH FIRE RATING OF WALL ASSEMBLY
4. SEAL BETWEEN WALL AND SLEEVE W/ APPROVED FIRESTOP MATERIAL

M042S CURTAIN TYPE FIRE DAMPER DETAIL
NOT TO SCALE



M043S MOTORIZED DAMPER IN BRANCH DUCT
NOT TO SCALE



NOTES:

1. CAULK AND SEAL AROUND PERIMETER OF LOUVER SECTION AT WALL
2. PROVIDE ALUMINUM OR GALV EXPANDED BIRD EXCLUSION SCREEN ON INSIDE (OR OUTSIDE) OF LOUVER (MIN FREE AREA 80% OF GROSS AREA) ATTACH TO OUTSIDE IF BLADE SEPARATION IS > 2 1/2"
3. CONSTRUCT EXTRUDED LOUVER OF NONFERROUS CORROSION RESISTANT MATERIAL AND SECURE WITH SS OR ALUMINUM FASTENERS

M044S LOUVER IN MASONRY WALL
NOT TO SCALE

SCALE: 1 : 12

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

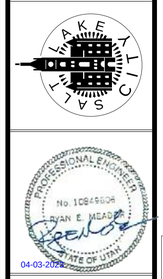
NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	BW

ISSUED FOR BID
LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 6 OF 9

SALT LAKE CITY



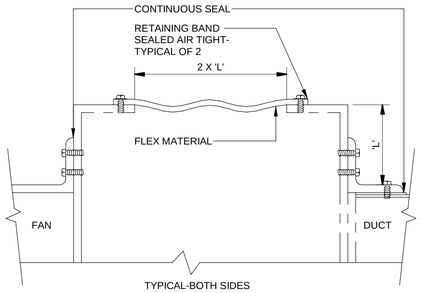
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0100-M706

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

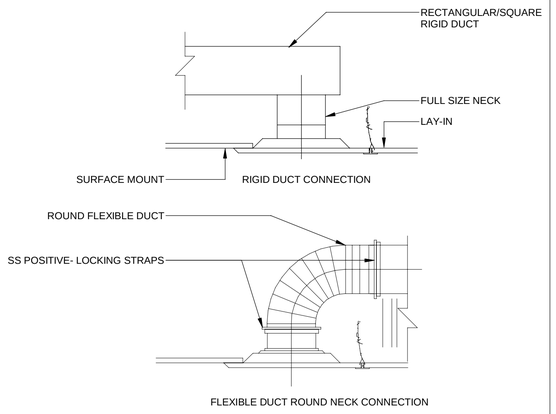
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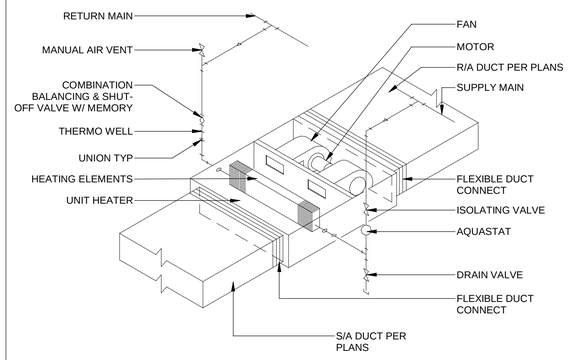
FAN/DUCT FLEXIBLE CONNECTION

M045S NOT TO SCALE



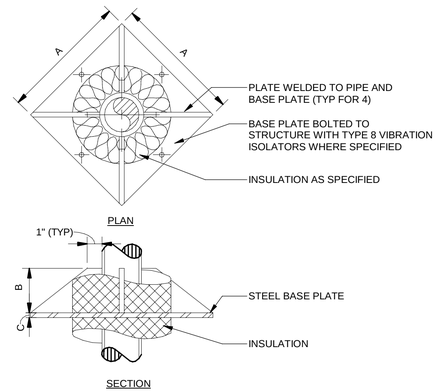
DIFFUSER/REGISTER CONNECTIONS

M046S NOT TO SCALE



TYPICAL PIPING CONNECTIONS TO CEILING MOUNTED UNIT HEATER

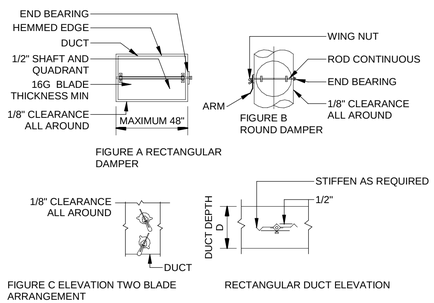
M047S NOT TO SCALE



PIPE SIZE	A	B	C
NPS 2	10"	4"	3/8"
NPS 2-1/2	16"	6"	1/2"
NPS 3	16"	7"	1/2"
NPS 4	17"	7"	1/2"
NPS 5	19"	8"	1/2"
NPS 6	21"	8"	1/2"
NPS 8	24"	10"	3/4"
NPS 10	28"	14"	3/4"

PIPE ANCHOR AT FLOOR SLAB

M048S NOT TO SCALE



BALANCING DAMPERS

M049S NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 7 OF 9





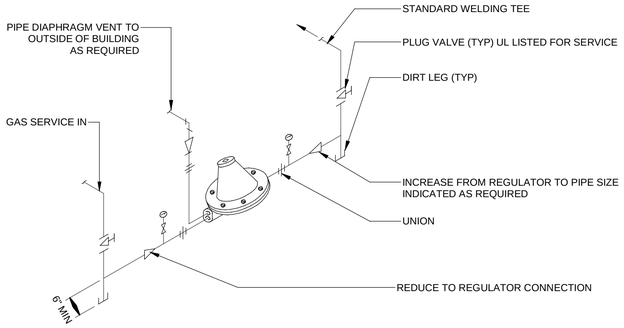
DRAWING No.
0100-M707

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

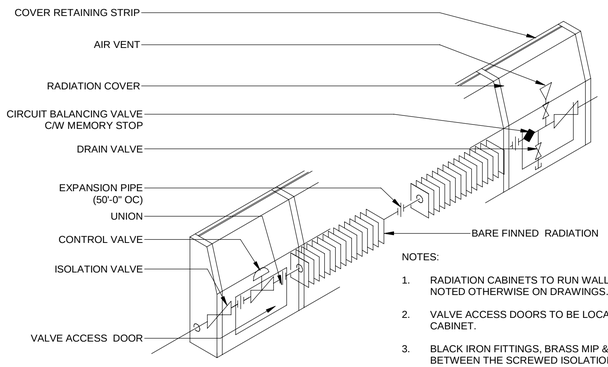
DATE: 30/03/2023 13:31:40

FILE: BIM 360://6/57228-Salt Lake City 2019/524905/3SO_0100-M701.rvt



M050S GAS PRESSURE REDUCING STATION DETAIL

NOT TO SCALE

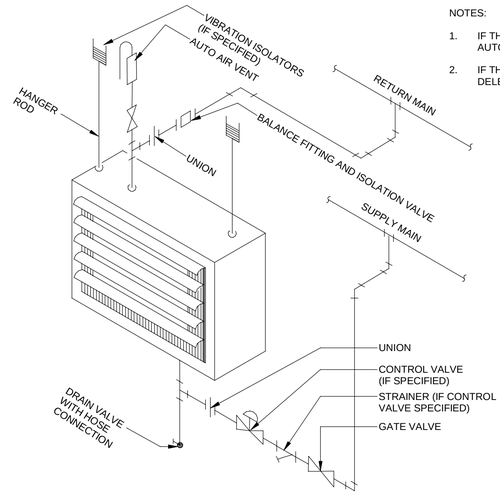


NOTES:

1. RADIATION CABINETS TO RUN WALL TO WALL UNLESS NOTED OTHERWISE ON DRAWINGS.
2. VALVE ACCESS DOORS TO BE LOCATED ON BOTH ENDS OF CABINET.
3. BLACK IRON FITTINGS, BRASS MIP & FIP ADAPTORS BETWEEN THE SCREWED ISOLATION VALVES ARE NOT ACCEPTABLE.
4. CABINET DAMPERS ARE REQUIRED IF CONTROL VALVE SERVES MORE THAN ONE ZONE.
5. PROVIDE JOINERS 20FT OC ON CONTINUOUS RADIATION.

M051S FORCE-FLOW AND RADIATION PIPING SCHEMATIC (SINGLE ROW)

NOT TO SCALE

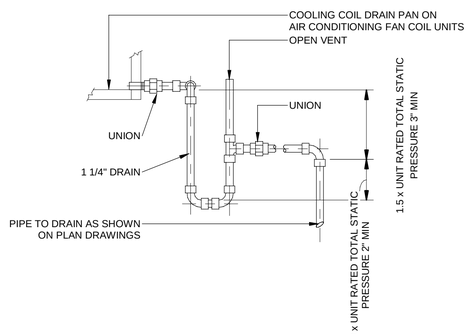


NOTES:

1. IF THE MAINS ARE BELOW THE HEATER, THE AUTO AIR VENT IS REQUIRED.
2. IF THE MAINS ARE ABOVE THE HEATER, DELETE THE AUTO AIR VENT.

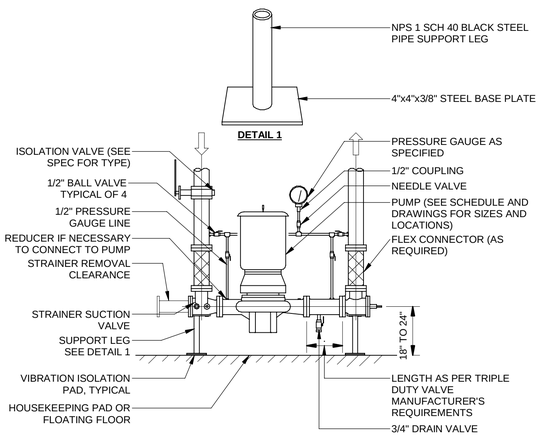
M052S PIPE CONNECTION TO UNIT HEATER WITH TWO WAY VALVE CONTROL

NOT TO SCALE



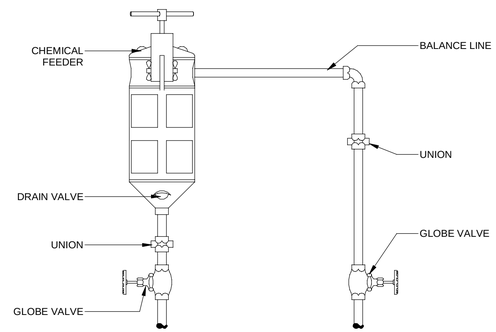
M053S CONDENSATE PIPING

NOT TO SCALE



M054S VERTICAL INLINE PUMP

NOT TO SCALE



M055S CHEMICAL POT FEEDER

NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: B.WATSON
DRAWN BY: N.AHMED
CHECKED BY: C.COURCHAINE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	BW

ISSUED FOR BID

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS SHEET 8 OF 9

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 10848604
RYAN E. MEAD
STATE OF UTAH
04-03-2023

DRAWING No. 0100-M708

SHEET _____ OF _____

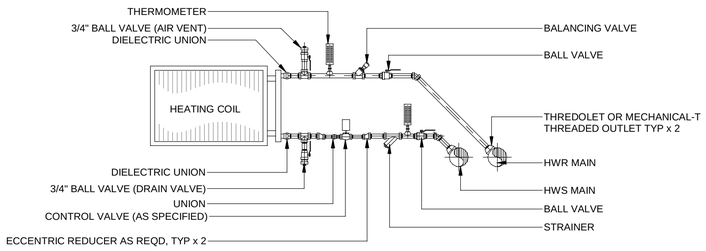
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DATE: 30/03/2023 13:31:41

FILE: BIM 360://09572288-Salt Lake City 2019/524905350_0100-M701.rvt

NOTE:

1. SEE MECHANICAL DRAWINGS FOR LINE SIZES

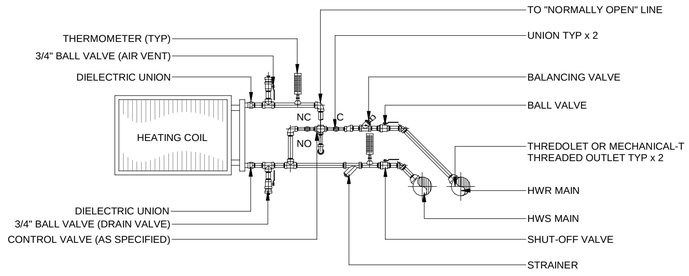


M056S 2 -WAY VALVE PIPING DETAIL

NOT TO SCALE

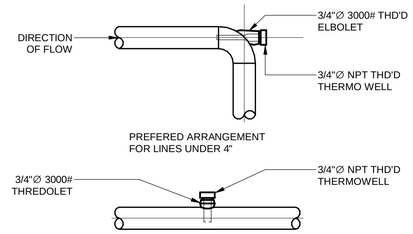
NOTE:

1. SEE MECHANICAL DRAWINGS FOR LINE SIZES



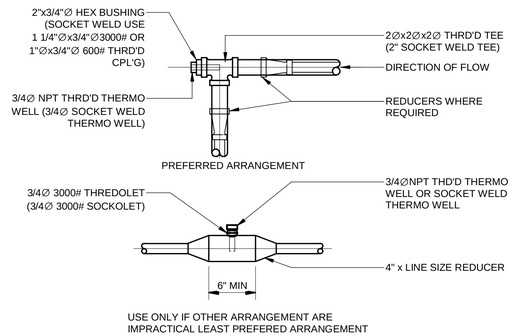
M057S 3-WAY VALVE PIPING DETAIL

NOT TO SCALE



M058S INSTRUMENT INSTALLATION DETAIL

NOT TO SCALE

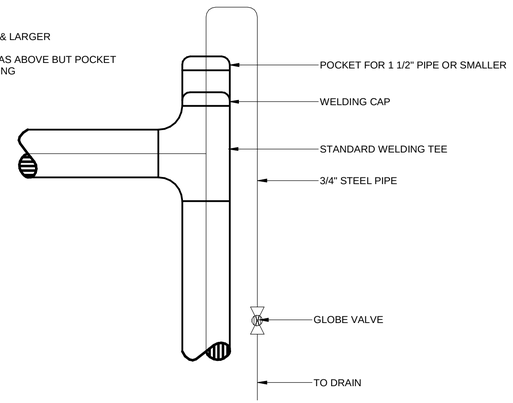


M059S THERMOWELL INSTALLATION DETAIL

NOT TO SCALE

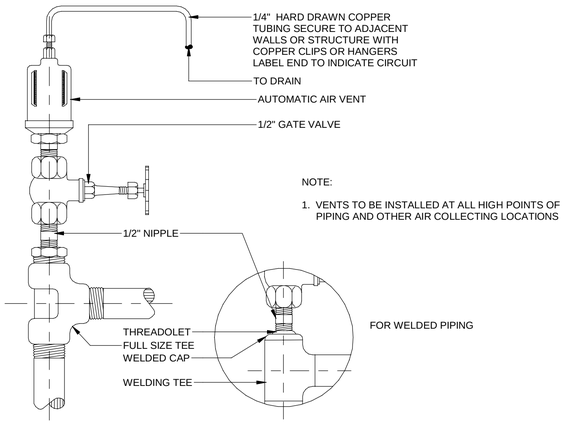
NOTES:

1. TYPICAL FOR 2 1/2" & LARGER
2. FOR 2" & SMALLER AS ABOVE BUT POCKET SHALL BE MIN 8" LONG



M060S LOW PRESSURE SYSTEM MANUAL VENT

NOT TO SCALE



NOTE:

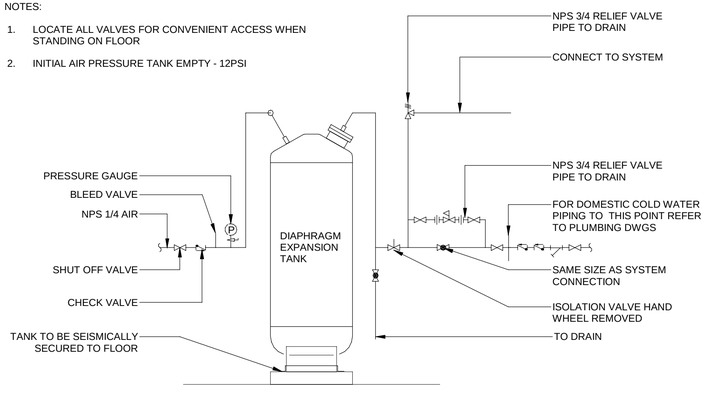
1. VENTS TO BE INSTALLED AT ALL HIGH POINTS OF PIPING AND OTHER AIR COLLECTING LOCATIONS

M061S AUTOMATIC AIRVENT (HIGH CAPACITY)

NOT TO SCALE

NOTES:

1. LOCATE ALL VALVES FOR CONVENIENT ACCESS WHEN STANDING ON FLOOR
2. INITIAL AIR PRESSURE TANK EMPTY - 12PSI

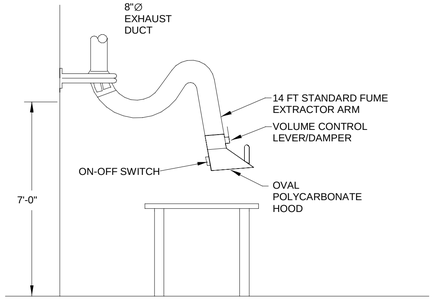


M062S DIAPHRAGM EXPANSION TANK DETAIL

NOT TO SCALE

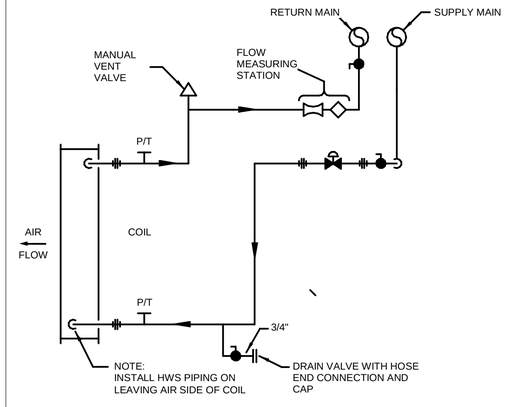
PROVIDE WITH THE FOLLOWING COMPONENTS:
(MODEL NUMBERS BASED ON NEDERMAN INC)

1. FUME EXTRACTOR: 14 FT MODEL 522435: WITH HORIZONTAL FRICTION JOINT



M063S SNORKLE EXHAUST HOSE DETAIL

NOT TO SCALE



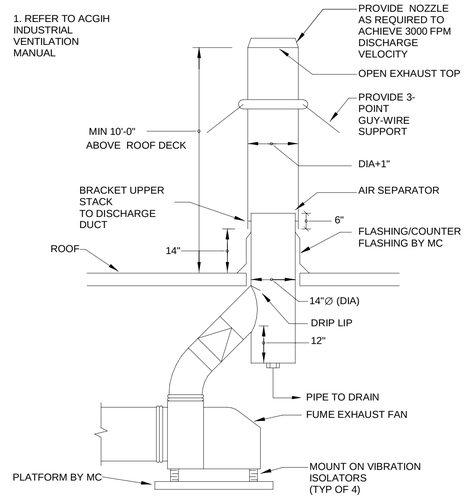
NOTE:

1. ARRANGE PIPING TO ALLOW COIL REMOVAL.

M064S HYDRONIC COIL PIPING DETAIL

NOT TO SCALE

1. REFER TO ACGIH INDUSTRIAL VENTILATION MANUAL



M065S LAB HOOD EXHAUST FAN DETAIL

NOT TO SCALE

SCALE: As indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	B.WATSON		
DRAWN BY:	N.AHMED		
CHECKED BY:	C.COURCHAINE		
APPROVED BY:	G.DAVIES	-	-
DATE:	-	-	-
EWO NO.:	-	-	
ACCOUNT NO.:	524905386		

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A	ISSUED FOR BID
		NA	BW

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

HVAC TYPICAL DETAILS
SHEET 9 OF 9





DRAWING No.

0100-M709

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 30/03/2023 13:31:43

FILE: BIM 360://60572288-Salt Lake City 2019/524905350_0100-M701.rvt

INSTRUMENT TYPICAL DETAILS INDEX

0100-I701
I001S MAGNETIC FLOW METER INSTALLATION
I002S MAINTENANCE HOLE FLOW RADAR

0100-I702
I009S PRESSURE GAUGE
I010S PRESSURE TRANSMITTER
I011S PRESSURE SWITCH

0100-I703
I019S FLOOR MOUNTED INSTRUMENT EXTERIOR VIEW
I019S FLOOR MOUNTED RADAR INTERIOR SECTION VIEW
I019S FLOOR MOUNTED FLOAT INTERIOR SECTION VIEW

0100-I704
I040S WIFI OAP OUTDOOR ACCESS POINT POLE MOUNT DETAIL
I041S WIFI OAP OUTDOOR ACCESS POINT EVE MOUNT DETAIL
I042S AERIAL COMMUNICATION CABLE END POLE
I043S AERIAL COMMUNICATION CABLE MIDDLE POLE
I044S WIFI OAP OUTDOOR ACCESS POINTTYPICAL ACCESSORY INTERFACE/POWER PANEL

SCALE:

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: C.ROBINSON
DRAWN BY: P.ALCOS
CHECKED BY: S.SYMONS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	JEP	CR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

INSTRUMENT TYPICAL DETAILS INDEX

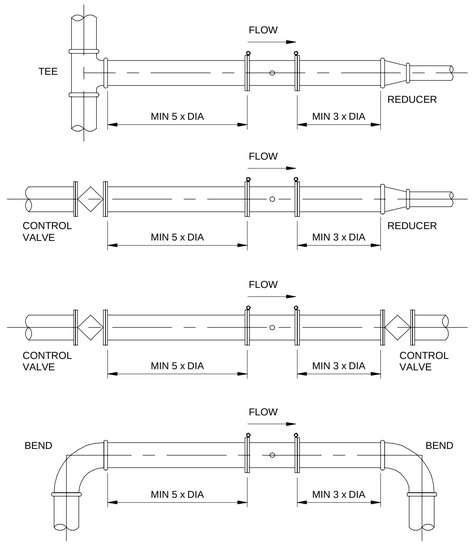
PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

DRAWING No.
0100-I700

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

FILE: BIM 360://60572288-Salt Lake City 2019\524905350_0100-D701.rvt
DATE: 2023-03-29 10:23:25 AM



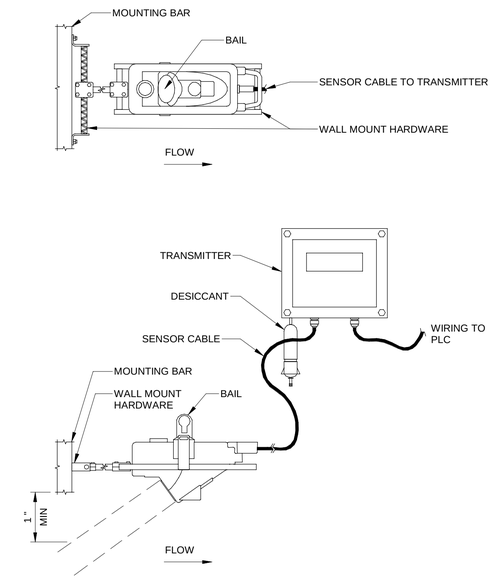
NOTES:

1. REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS IN CONJUNCTION WITH THESE INSTALLATION RECOMMENDATIONS.
2. WHERE SPECIFIC INSTALLATION CONFLICTS ARISE THAT MIGHT PREVENT THESE INSTALLATION RECOMMENDATIONS FROM BEING COMPLIED WITH, CONSULT THE ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION.
3. WHERE THE DRAWINGS INDICATE DIMENSIONS THAT DIFFER FROM THESE DETAILS, THE DRAWINGS SHALL TAKE PRIORITY.

MAGNETIC FLOW METER INSTALLATION

I001S

NOT TO SCALE



NOTES:

1. REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. WHERE THERE ARE OUTFALLS, VERTICAL DROPS, BAFFLES, CURVES, OR JUNCTIONS, INSTALL THE SENSOR EITHER UPSTREAM AT LEAST FIVE (5) TIMES THE PIPE DIAMETER OR MAXIMUM FLUID LEVEL, OR DOWNSTREAM AT LEAST TEN (10) TIMES THE PIPE DIAMETER OR MAXIMUM FLUID LEVEL.

MAINTENANCE HOLE FLOW RADAR

1002S

NOT TO SCALE

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	C.ROBINSON
DRAWN BY:	P.ALCOS
CHECKED BY:	S.SYMONS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	JEP	CR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

INSTRUMENT TYPICAL DETAILS
SHEET 1 OF 4

SALT LAKE CITY

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edvard Davies
STATE OF UTAH
04-03-2023

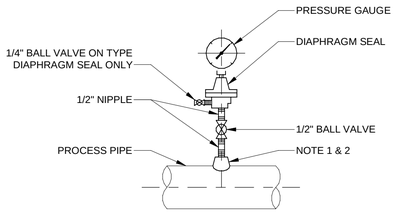
DRAWING No.
0100-I701

SHEET _____ OF _____

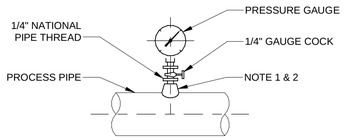
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DATE: 2023-03-29 10:23:26 AM

FILE: BIM 360://0057229B-Salt Lake City 2019\524905350_0100-D701.rvt



DIAPHRAGM PRESSURE GAUGE
FOR PARTICULATE LADEN FLUIDS, OR AGGRESSIVE CHEMICALS

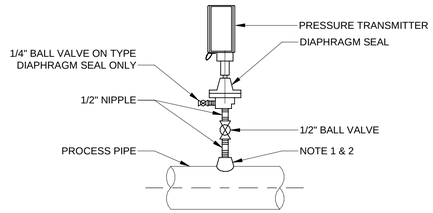


PRESSURE GAUGE
FOR NON-AGGRESSIVE, PARTICULATE-FREE FLUIDS

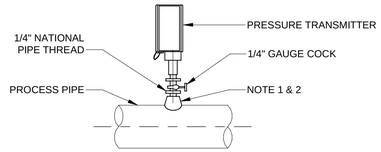
NOTES:

1. FOR STEEL, GALVANIZED STEEL, AND PVC 3" AND SMALLER, USE A BUSHING IN A TEE.
2. FOR DUCTILE IRON AND FIBERGLASS REINFORCED PLASTIC PIPE, ALL SIZES, USE PIPE SADDLE WITH BUSHING.
3. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE THRED-O-LET AS SHOWN.
4. PROVIDE SNUBBER FOR POSITIVE DISPLACEMENT PUMP INSTALLATIONS.

I009S PRESSURE GAUGE
NOT TO SCALE



DIAPHRAGM PRESSURE TRANSMITTER
FOR PARTICULATE LADEN FLUIDS, OR AGGRESSIVE CHEMICALS

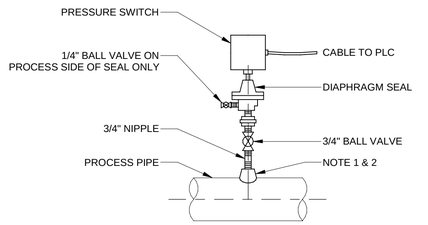


PRESSURE TRANSMITTER
FOR NON-AGGRESSIVE, PARTICULATE-FREE FLUIDS

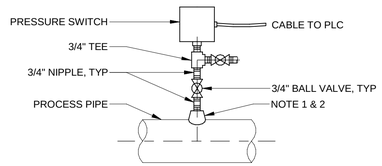
NOTES:

1. FOR STEEL, GALVANIZED STEEL, AND PVC 3" AND SMALLER, USE A BUSHING IN A TEE.
2. FOR DUCTILE IRON AND FIBERGLASS REINFORCED PLASTIC PIPE, ALL SIZES, USE PIPE SADDLE WITH BUSHING.
3. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE THRED-O-LET AS SHOWN.
4. PROVIDE SNUBBER FOR POSITIVE DISPLACEMENT PUMP INSTALLATIONS.

I010S PRESSURE TRANSMITTER
NOT TO SCALE



DIAPHRAGM PRESSURE SWITCH
FOR PARTICULATE LADEN FLUIDS, OR AGGRESSIVE CHEMICALS



PRESSURE SWITCH
FOR NON-AGGRESSIVE, PARTICULATE-FREE FLUIDS

NOTES:

1. FOR STEEL, GALVANIZED STEEL, AND PVC 3" AND SMALLER, USE A BUSHING IN A TEE.
2. FOR DUCTILE IRON AND FIBERGLASS REINFORCED PLASTIC PIPE, ALL SIZES, USE PIPE SADDLE WITH BUSHING.
3. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE THRED-O-LET AS SHOWN.
4. PROVIDE SNUBBER FOR POSITIVE DISPLACEMENT PUMP INSTALLATIONS.

I011S PRESSURE SWITCH
NOT TO SCALE

SCALE: As Indicated

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	C.ROBINSON	
DRAWN BY:	P.ALCOS	
CHECKED BY:	S.SYMONS	
APPROVED BY:	G.DAVIES	-
DATE:	-	-
EWO NO.:	-	-
ACCOUNT NO.:	524905386	

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 ISW-1A ISSUED FOR BID	JEP	CR

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

INSTRUMENT TYPICAL DETAILS
SHEET 2 OF 4

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

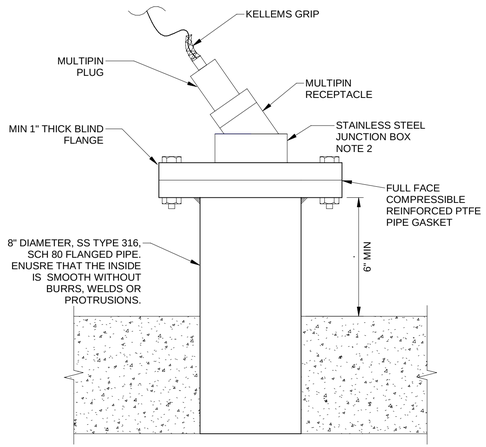
DRAWING No.
0100-I702

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 2023-03-29 10:23:27 AM

FILE: BIM 360://6057228-Salt Lake City 2019/524905350_0100-D701.rvt

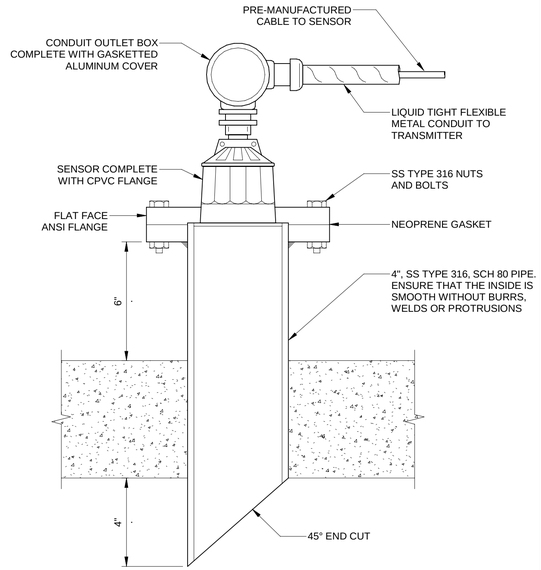


FLOOR MOUNTED INSTRUMENT EXTERIOR VIEW

I018S NOT TO SCALE

NOTE:

1. PROVIDE SPARE 1" THICK BLIND FLANGE TO SEAL OFF FLOOR PENETRATION DURING MAINTENANCE ACTIVITIES.
2. WELD JUNCTION BOX TO BLIND FLANGE
3. REFER TO D141S FOR PIPE PENETRATION DETAIL ON DRAWING 0100-D702

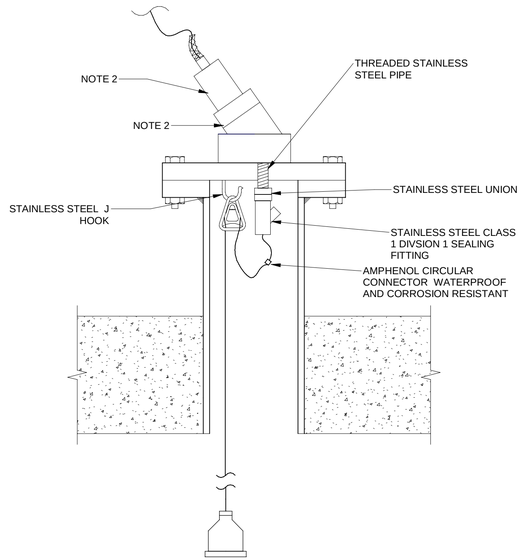


FLOOR MOUNTED FLANGED LEVEL TRANSDUCER

I019S NOT TO SCALE

NOTE:

1. THE CONTRACTOR SHALL ENSURE THAT EACH SENSOR IS SUITABLE FOR ITS APPLICATION.
2. PROVIDE SPARE 1" THICK BLIND FALNGE TO SEAL OFF FLOOR PENETRATION DURING MAINTENANCE ACTIVITIES.

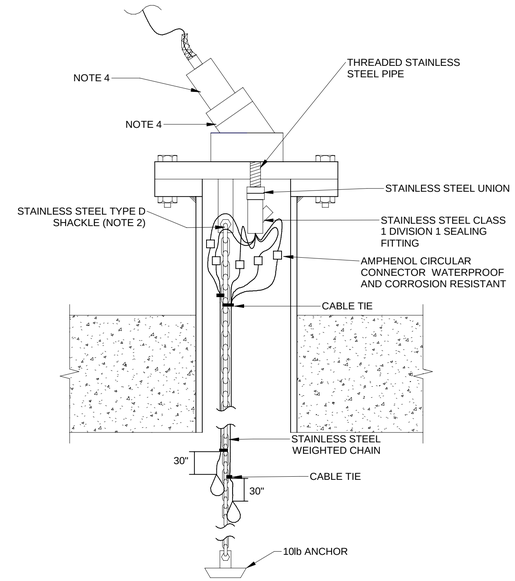


FLOOR MOUNTED RADAR INTERIOR SECTION VIEW

I020S NOT TO SCALE

NOTE:

1. REFER TO DETAILS I018S OF THIS DRAWING FOR EXTERIOR VIEW.
2. RECEPTACLE AND PLUG TO BE SPRING LOADED CONTACTS, 15A RATED, WITH TWIST DISCONNECT ACTION. MANUFACTURER: MELTRIC OR EQUIVALENT



FLOOR MOUNTED FLOAT INTERIOR SECTION VIEW

I021S NOT TO SCALE

NOTE:

1. PROVIDE SLACK BETWEEN SEALING FITTING AND AMPHENOL CIRCULAR CONNECTOR.
2. CHAIN D SHACKLE SCREW PIN TO TOP BLIND FLANGE
3. REFER TO DETAIL 1018S OF THIS DRAWING FOR EXTERIOR VIEW.
4. RECEPTACLE AND PLUG TO BE SPRING LOADED CONTACTS, 15A RATED, WITH PUSHBUTTON DISCONNECT ACTION. MANUFACTURER: MELTRIC OR EQUIVALENT

DATE: 2023-03-29 10:23:27 AM

FILE: BIM 360://0572288-Salt Lake City 2019\524905350_0100-D701.rvt

SCALE: 1" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: C.ROBINSON
DRAWN BY: P.ALCOS
CHECKED BY: S.SYMONS
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	JEP	CR

LAST CONFORMED SET: SW-1A: ISSUED FOR BID

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

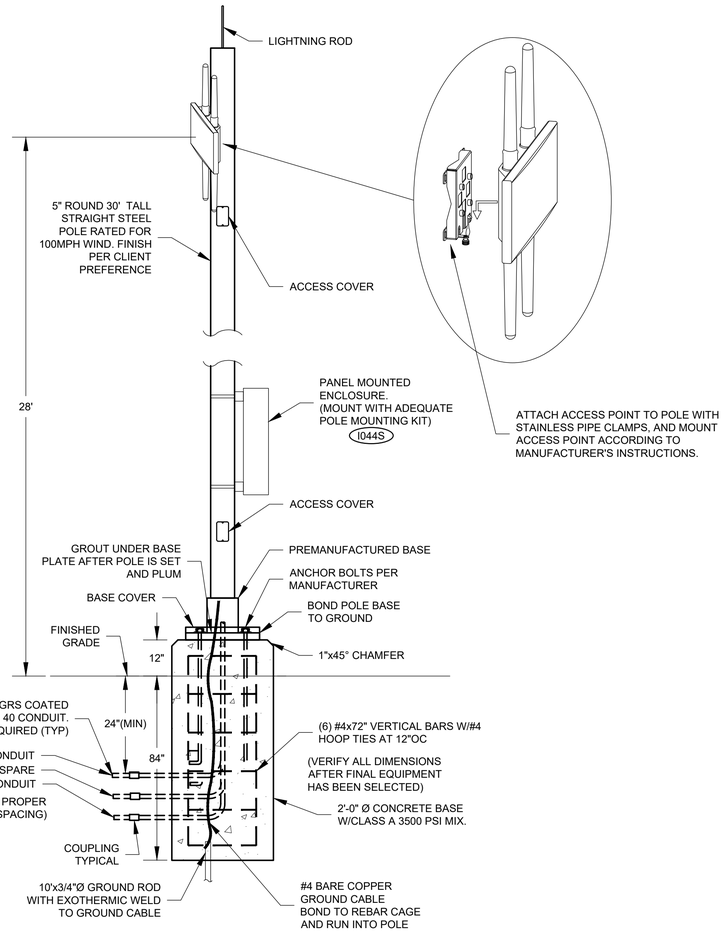
INSTRUMENT TYPICAL DETAILS
SHEET 3 OF 4

PROFESSIONAL ENGINEER
No. 12504923-2202
Grant Edward Davies
STATE OF UTAH
04-03-2023

DRAWING No.
0100-I703

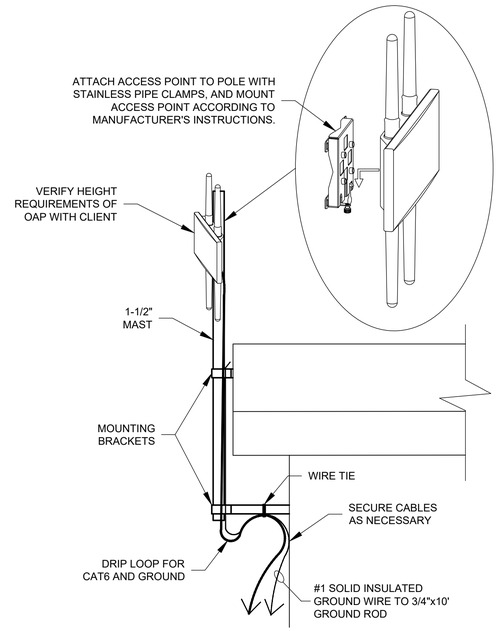
SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



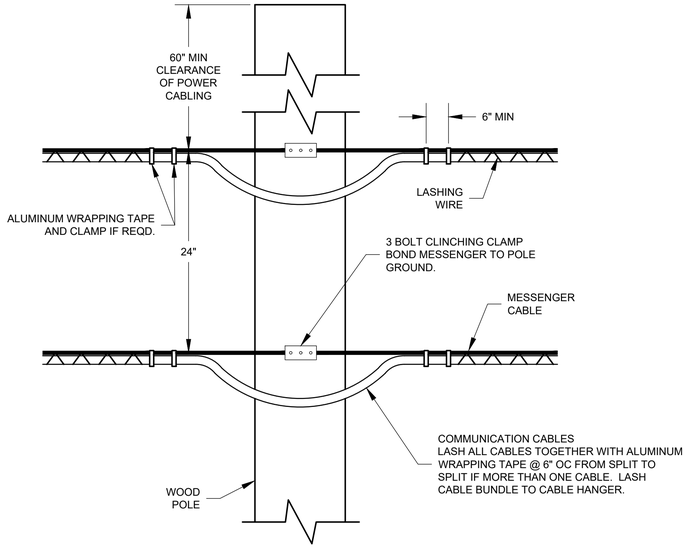
WIFI OAP OUTDOOR ACCESS POINT POLE MOUNT DETAIL

I040S SCALE: NONE



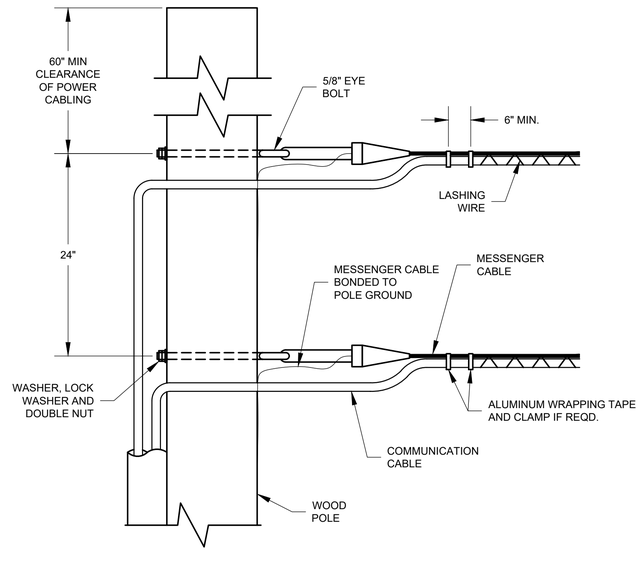
WIFI OAP OUTDOOR ACCESS POINT EVE MOUNT DETAIL

I041S SCALE: NONE



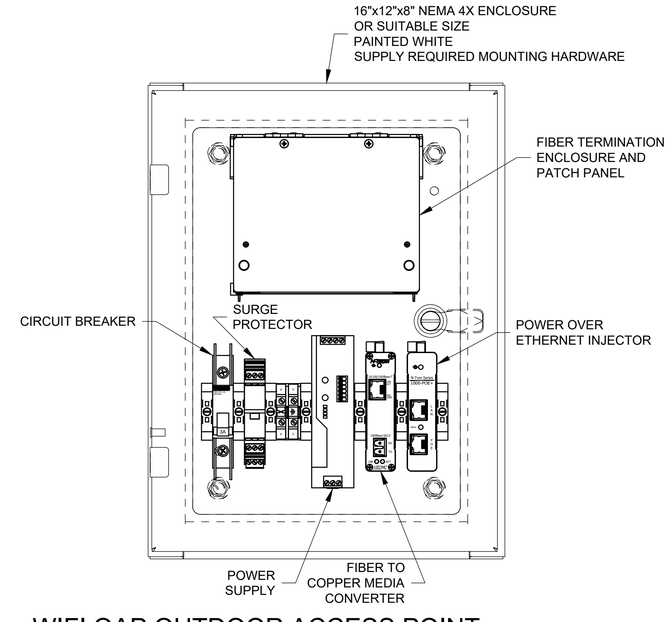
AERIAL COMMUNICATION CABLE MIDDLE POLE

I043S SCALE: NONE



AERIAL COMMUNICATION CABLE END POLE

I042S SCALE: NONE



WIFI OAP OUTDOOR ACCESS POINT TYPICAL ACCESSORY INTERFACE/POWER PANEL

I044S SCALE: NONE

SCALE: N/A

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: M.JEPPSEN
DRAWN BY: D.LEAVITT
CHECKED BY: M.JEPPSEN
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

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A	23-04-03	SW-1A, ISSUED FOR BID	MCJ	MPJ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

INSTRUMENT TYPICAL DETAILS
SHEET 4 OF 4

REGISTERED PROFESSIONAL ENGINEER
No. 5338864
MARK P. JEPPSEN
STATE OF UTAH
04-03-2023

DRAWING No.
0100-I704

SHEET _____ OF _____

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/28/2023 11:26 AM

FILE: C:\Users\michael.johnson\Aqua Engineering\SLCDPU - 001362 D SLC WRF Expansion\050 Drafting\998 Instrumentation\0100-I704.dwg

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E002S TYPICAL CONDUIT ENTRY THRU WALLS
E004S CONDUIT RACKING SYSTEM

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E005S TYPICAL FLUSH CONDUIT STUB DETAIL
E010S TERMINATION OF SHIELDED CONTROL CABLE
E012S MV SWITCHGEAR CABLE CONNECTION DETAIL

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E015S MOTOR MC ARMORED CABLE - BOTTOM FEED
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E038S LINEAR LUMINAIRE SUSPENSION FROM JOISTS

0100-E708
E040S LUMINAIRE INSTALLATION DETAIL
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E045S FIXTURE INSTALLATION DETAIL
E046S EQUIPMENT ENCLOSURE DETAIL

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E052S CONDUIT RUNNING 90° TO PURLIN
E054S FIXTURE SUSPENSION WET/DAMP LOCATION FLUORESCENT

0100-E711
E065S DUCTBANK JOINT SUPPORT
E067S DUCTBANK SECTION - 2x2

0100-E712
E070S PRECAST ELECTRICAL MAINTENANCE HOLE
E071S DIRECT BURIED CONDUIT DETAIL

0100-E713
E080S DUCTBANK SECTION - UNDERSLAB CONDUIT CONNECTIONS

0100-E714
PLAN VIEW
GROUNDING CONNECTION DETAIL
GUY ANCHOR DETAIL
BILL OF MATERIALS
GUYING PLAN
SECTION VIEW
POLE ELEVATION

0100-E715
POLE ELEVATION (EXISTING POLE 19)
GUY ANCHOR DETAIL P19
GUYING PLAN P19

DATE: 3/30/2023 10:21:23 AM
FILE: BIM 360://6057228I-Salt Lake City 2019/52490E350_0100-E701.rvt

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: P.ALCOS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

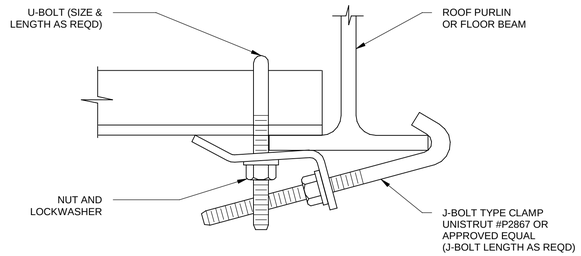
ELECTRICAL TYPICAL DETAILS INDEX

PROFESSIONAL ENGINEER
No. No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

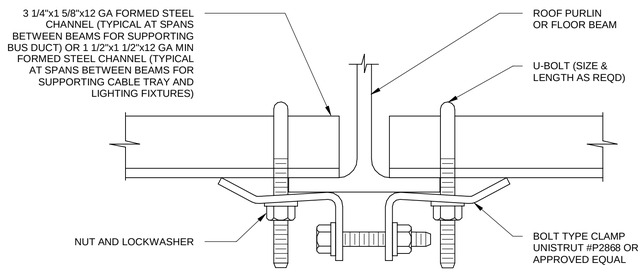
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0100-E700

SHEET _____ OF -

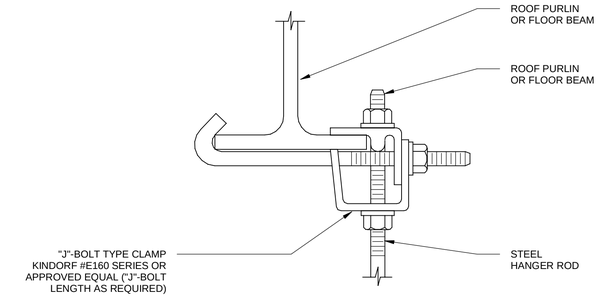
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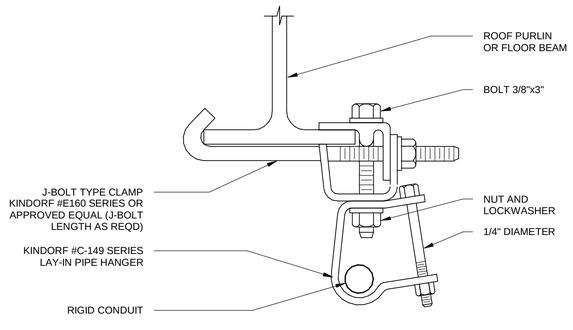
CLAMPING DETAIL
A
NOT TO SCALE



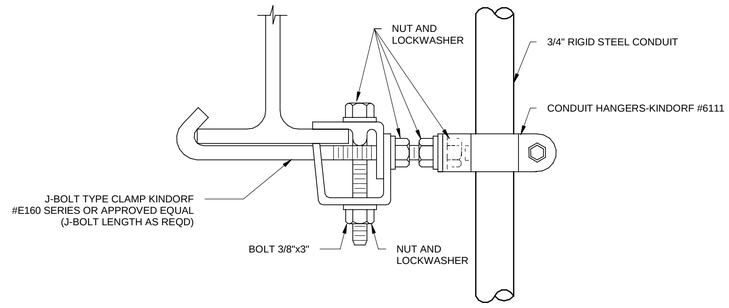
CLAMPING DETAIL
B
NOT TO SCALE



CLAMPING DETAIL
C
NOT TO SCALE

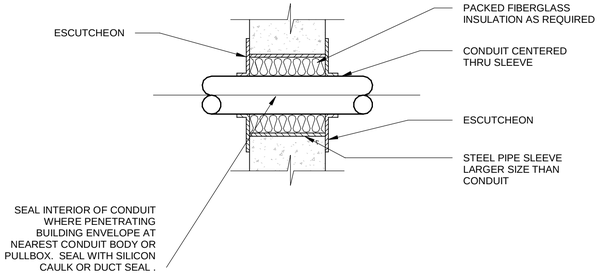


CLAMPING DETAIL
D
NOT TO SCALE

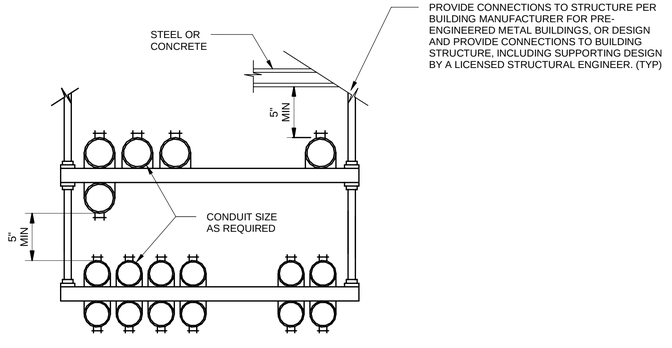


CLAMPING DETAIL
J
NOT TO SCALE

E001S CLAMPING DETAILS
NOT TO SCALE



E002S TYPICAL CONDUIT ENTRY THRU WALLS
NOT TO SCALE



NOTE - THIS RACKING DETAIL DOES NOT APPLY
TO UNDERGROUND VAULTS.

E004S CONDUIT RACKING SYSTEM
NOT TO SCALE

DATE: 3/30/2023 10:21:24 AM

FILE: BIM 360://6057228-Salt Lake City 2019/5249/5350_0100-E701.rvt

SCALE:
NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

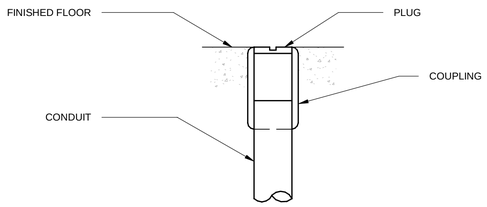
ELECTRICAL TYPICAL DETAILS
SHEET 1 OF 15

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS

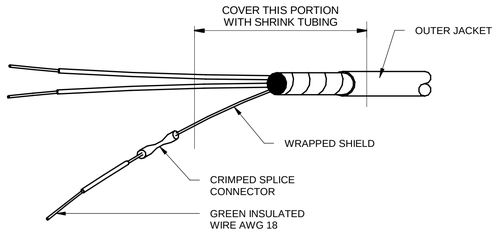
DRAWING No.
0100-E701

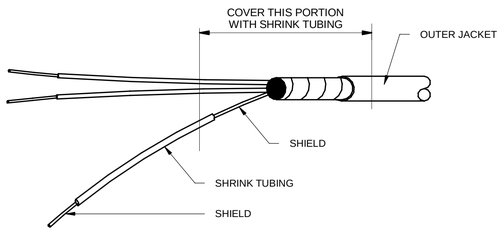
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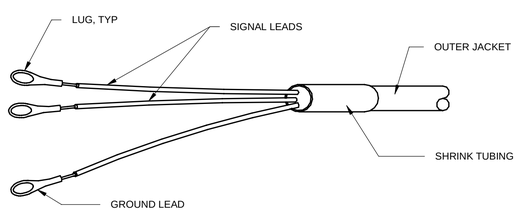
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



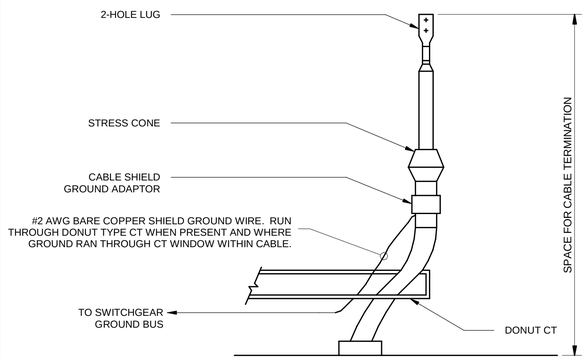
E005S TYPICAL FLUSH CONDUIT STUB DETAIL
NOT TO SCALE







E010S TERMINATION OF SHIELDED CONTROL CABLE
NOT TO SCALE



E012S MV SWITCHGEAR CABLE CONNECTION DETAIL
NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 2 OF 15

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

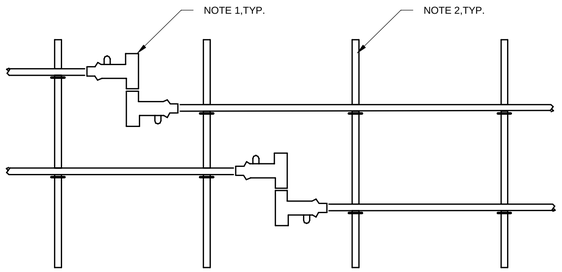
DRAWING No.
0100-E702

SHEET _____ OF *

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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FILE: BIM 360://9052728-Salt Lake City 2019/524905350_0100-E701.rvt



E013S MV SWITCHGEAR CABLE CONNECTION DETAIL

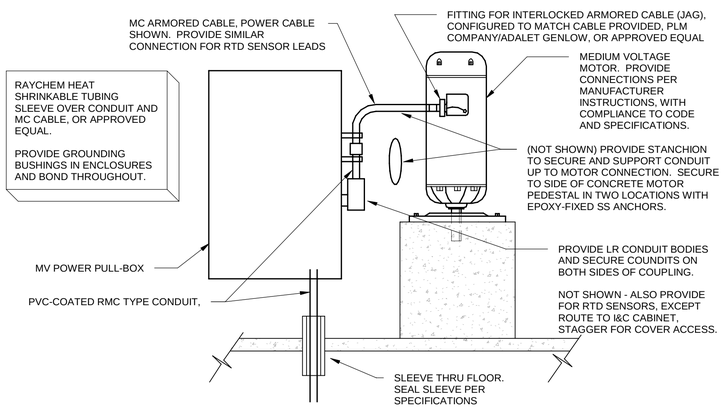
NOT TO SCALE

NOTE 1 - PROVIDE SEPARABLE TYPE T-SPLICE: IEEE 386, 15 kV, 600 A, 125 kV BIL, SHORT-CIRCUIT RATING 40kA FOR 0.17 SECONDS AND 27kA for 4.0 SECONDS, WITH WATERPROOF SEALS. SOURCE EQUIPMENT FROM 3M, EATON, HUBBELL, ABB/ELASTIMOLD, OR APPROVED EQUAL. FURNISH EACH SPLICE WITH:
* (2) T-BODIES WITH CAPACITIVE TEST POINTS
* (1) CONNECTING PLUG
* (2) INSULATING PLUGS
* (2) THREADED STUDS
* (2) INSULATING CAPS
* (2) DRAIN WIRE TABS
* (2) COMPRESSION OR SHEAR-BOLT CONNECTORS
* (2) FLAT-STRAP CABLE SHIELD GROUND KITS
* (2) CABLE SHIELD/JACKET SEALS
* CONNECTORS/CABLES TO GROUND T-SPLICE SEMICONDUCTIVE BODIES AND METALLIC SHIELDS
* ANY ADDITIONAL COMPONENETS REQUIRED TO CONSTRUCT A COMPLETE SPLICE

NOTE 2 - RACK ASSEMBLY, REINFORCED POLYMER, CABLE SUPPORT. ATTACH TO EMBEDDED STAINLESS STEEL STRUT AND/OR EPOXY-FIXED STAINLESS STEEL ANCHORS.

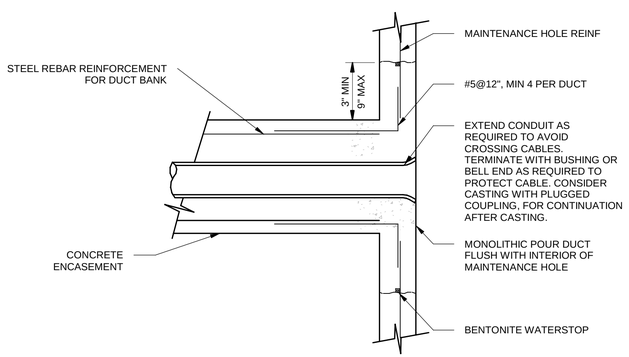
GENERAL DETAIL NOTE 3 - PROVIDE CABLE TIES TO SECURE EACH CABLE TO THE RACK ARM IN A CROSSED FASHION.

GENERAL DETAIL NOTE 4 - TYPICAL VAULTS HAVE (6) 3-PHASE SPLICES.



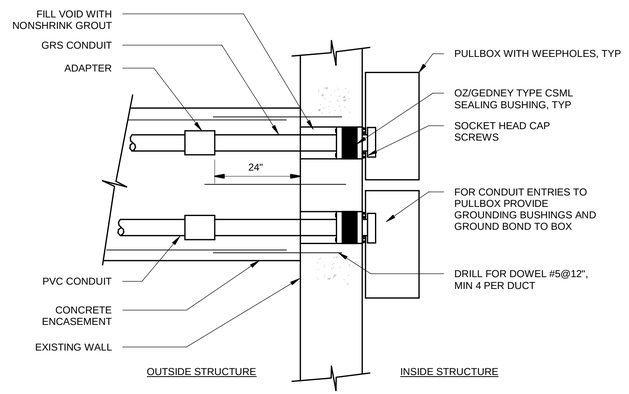
E015S MOTOR MC ARMORED CABLE - BOTTOM FEED

NOT TO SCALE



E016S DUCT TO PRECAST MAINTENANCE HOLE INTERFACE DETAIL

NOT TO SCALE



NOTE:

1. CORE DRILL THE EXISTING WALL TO INSTALL THIS SEALING.

E017S DUCT TO EXISTING STRUCTURE INTERFACE DETAIL

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 3 OF 15

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS

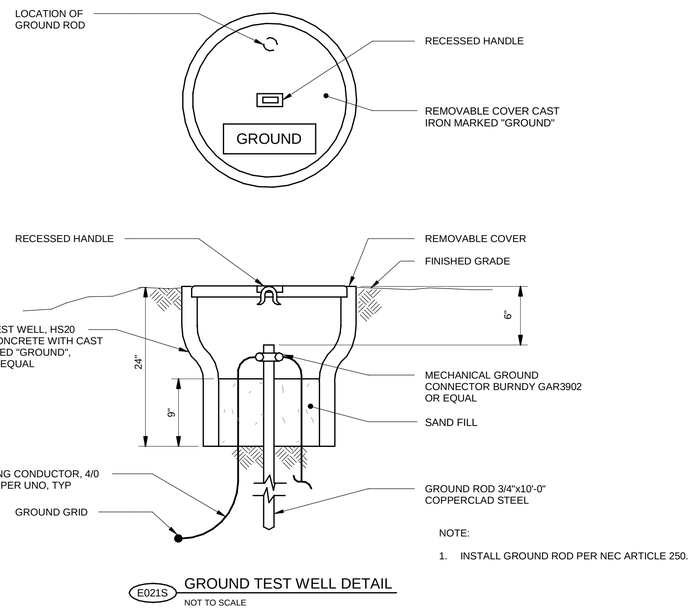
DRAWING No.
0100-E703

SHEET _____ OF _____

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DATE: 3/30/2023 10:21:25 AM

FILE: BIM 360://9572288-Salt Lake City 2019/524905350_0100-E703.rvt



NOTE:

1. INSTALL GROUND ROD PER NEC ARTICLE 250.

E021S GROUND TEST WELL DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 4 OF 15

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

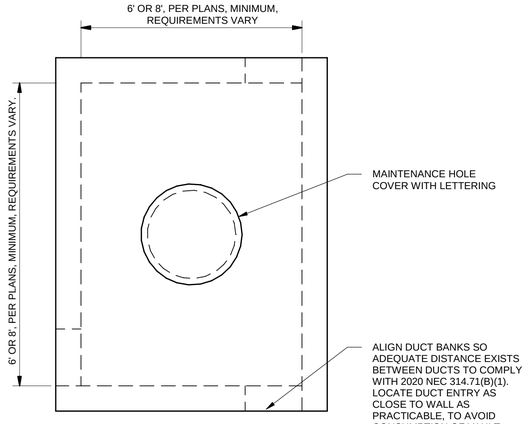
DRAWING No.
0100-E704

SHEET _____ OF -

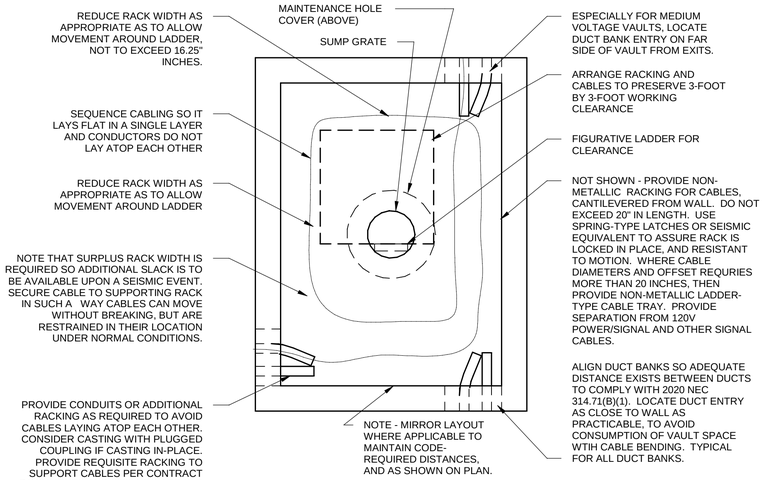
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/30/2023 10:21:25 AM

FILE: BIM 360://6057228-Salt Lake City 2019/524905350_0100-E701.rvt



TOP PLAN



INTERIOR PLAN

E023S MAINTENANCE HOLE INTERIOR DETAIL

NOT TO SCALE

DATE: 3/30/2023 10:21:26 AM

FILE: BIM 360://0057228l-Salt Lake City 2019/5249/5350_0100-E701.rvt

SCALE: 3" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

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A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

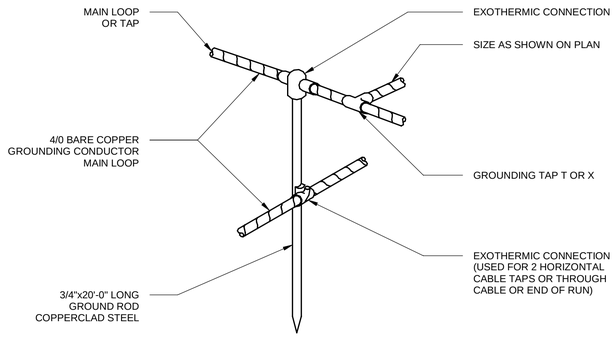
ELECTRICAL TYPICAL DETAILS
SHEET 5 OF 15

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0100-E705

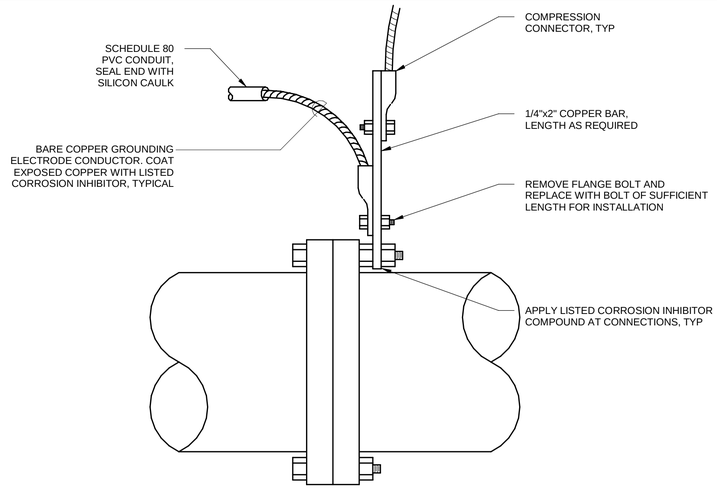
SHEET _____ OF -

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING



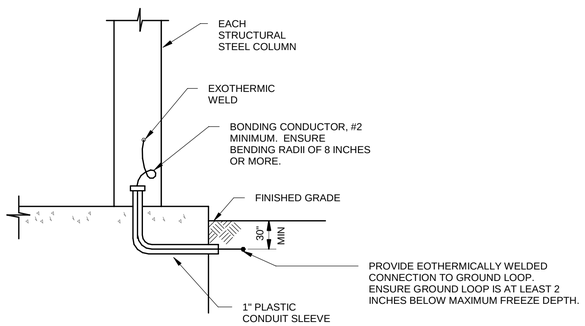
E025S CONDUCTOR TO GROUND ROD CONNECTION DETAIL

NOT TO SCALE



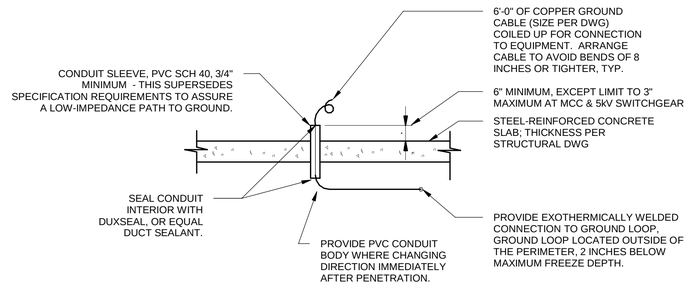
E026S PROCESS PIPING GROUNDING DETAIL

NOT TO SCALE



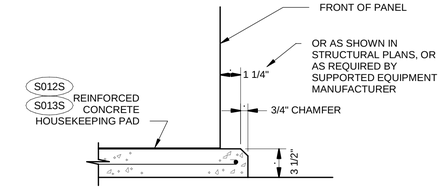
E028S STEEL COLUMN OR METAL BUILDING GROUND CONNECTION

NOT TO SCALE



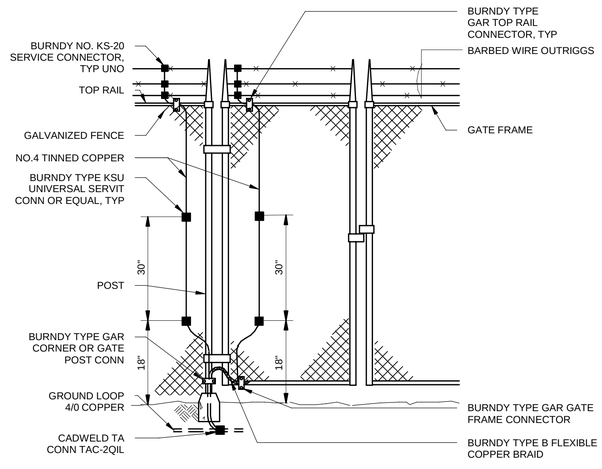
E029S EQUIPMENT GROUND CABLE STUB-UP

NOT TO SCALE



E030S CONCRETE PAD SECTION

NOT TO SCALE



E031S FENCE GATE AND HINGE POST GROUNDING DETAIL

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

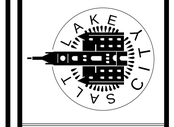
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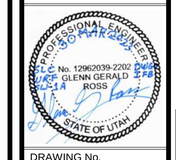
NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS SHEET 6 OF 15





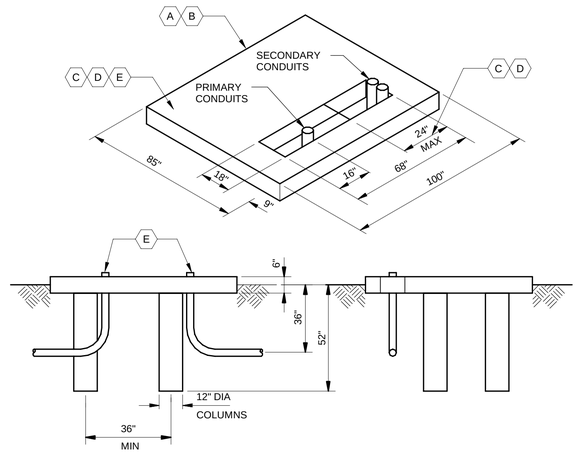
DRAWING No. 0100-E706

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VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: 3/30/2023 10:21:26 AM

FILE: BIM 360://6057228-Salt Lake City 2019/524905350_0100-E701.rvt



FRONT VIEW

SIDE VIEW

NOTES:

A. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 LBS PER SQ IN AND CONTAIN NOT LESS THAN 6 BAGS OF CEMENT PER CUBIC YARD. APPROXIMATELY ONE BAG OF FLY ASH MAY BE SUBSTITUTED FOR ONE BAG OF CEMENT PER CUBIC YARD OF CONCRETE.

B. THE TOP OF THE PAD SHALL BE REINFORCED WITH #3 RODS ON A ONE-FOOT SPACING.

C. SERVICE CONDUITS SHALL ALWAYS START FROM THE FRONT RIGHT CORNER OF THE WINDOW. THE CONDUITS MUST BE POSITIONED TIGHT TO THE RIGHT SIDE OF THE WINDOW AND TIGHT TO EACH OTHER.

D. POSITION PRIMARY CONDUITS IN THE FRONT OF THE WINDOW AND 16" FROM THE LEFT SIDE.

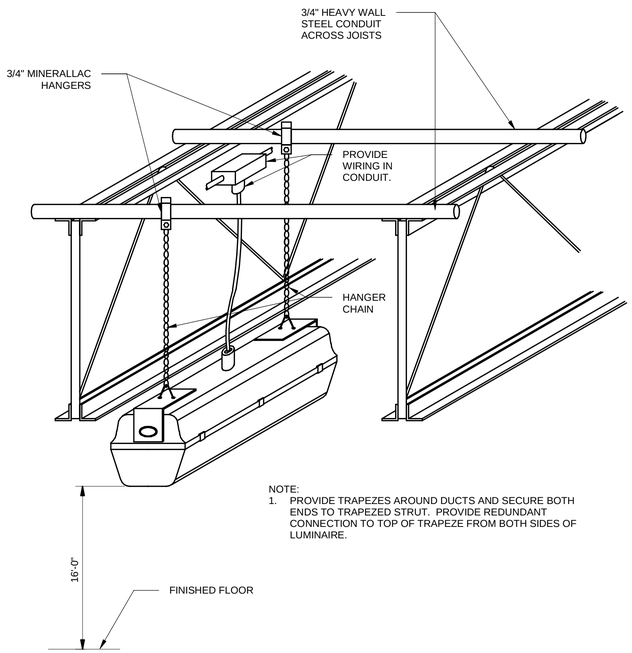
E. SERVICE AND PRIMARY CONDUITS TO BE JUST ABOVE (3" MAX) PAD (NEC 384-10).

F. ADJUST PAD DIMENSIONS AND WINDOW LOCATIONS TO MATCH ACTUAL TRANSFORMER OPENINGS AND REQUIREMENTS.

G. THIS DETAL APPLIES TO DRY TRANSFORMERS ONLY. FOR LIQUID-FILLED PADMOUNT, REFERENCE STRUCTURAL PLANS AND DETAILS FOR REQUIREMENTS.

E034S CONCRETE TRANSFORMER PAD DETAIL - DRY XFMR

NOT TO SCALE



NOTE:
1. PROVIDE TRAPEZES AROUND DUCTS AND SECURE BOTH ENDS TO TRAPEZED STRUT. PROVIDE REDUNDANT CONNECTION TO TOP OF TRAPEZE FROM BOTH SIDES OF LUMINAIRE.

E038S LINEAR LUMINAIRE SUSPENSION FROM JOISTS

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

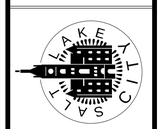
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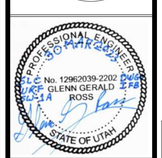
NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

LAST CONFORMED SET:

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WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 7 OF 15





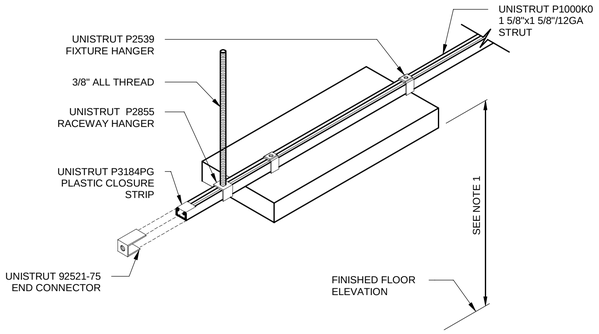
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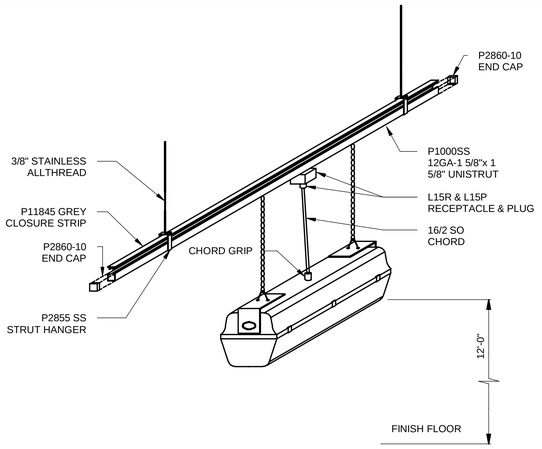


NOTE:

1. AS INDICATED ON DRAWINGS

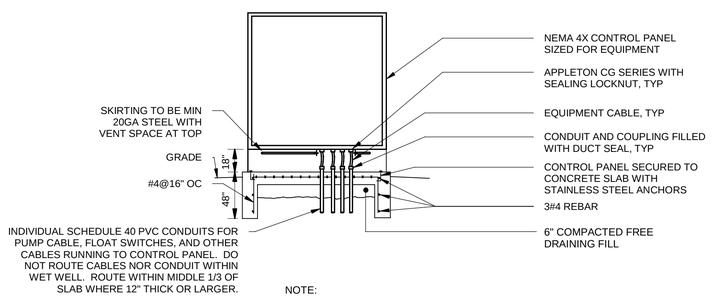
E040S LUMINAIRE INSTALLATION DETAIL

NOT TO SCALE



E043S FIXTURE SUSPENSION METHOD FOR CONTINUOUS ROW OR INDIVIDUAL UNIT

NOT TO SCALE

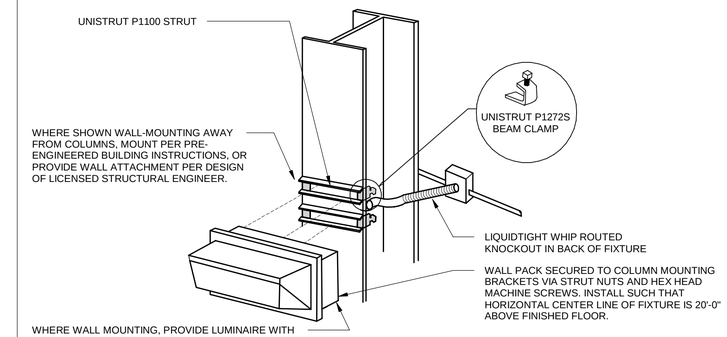


NOTE:

1. 6'-6"x2'-6" CAST IN PLACE CONCRETE PAD W/ 6x6 W2.9xW2.9 WELDED FABRIC.

E046S EQUIPMENT ENCLOSURE DETAIL

NOT TO SCALE



E045S FIXTURE INSTALLATION DETAIL

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

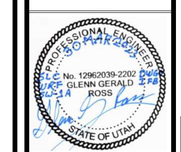
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A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

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ELECTRICAL TYPICAL DETAILS
SHEET 8 OF 15





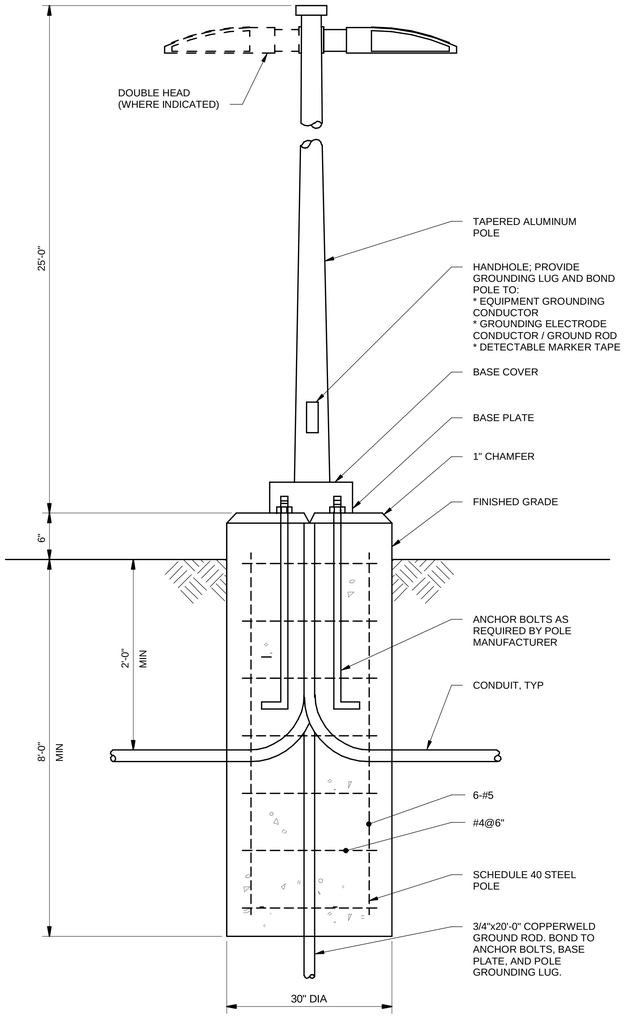
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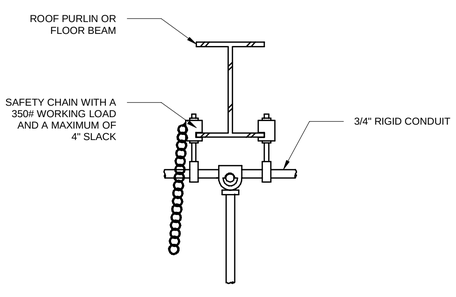
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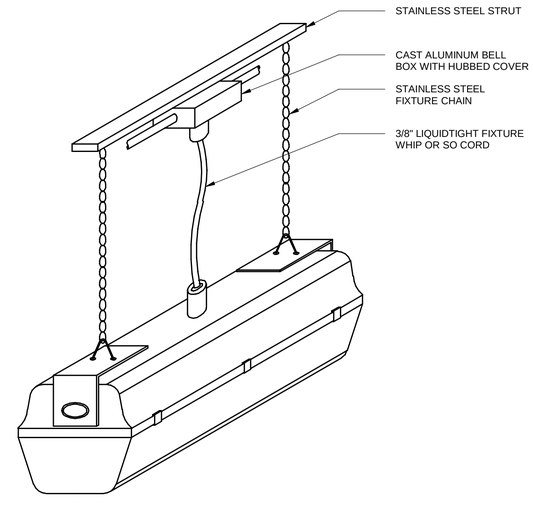
FILE: BIM 360://6057228-Salt Lake City 2019/524905350_0100-E701.rvt



E049S FIXTURE TYPE "S1X", "S2X" MOUNTING DETAIL
NOT TO SCALE



E052S CONDUIT RUNNING 90° TO PURLIN
NOT TO SCALE



E054S FIXTURE SUSPENSION WET/DAMP LOCATION FLUORESCENT
NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

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WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 9 OF 15

PROFESSIONAL ENGINEER
STATE OF UTAH
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

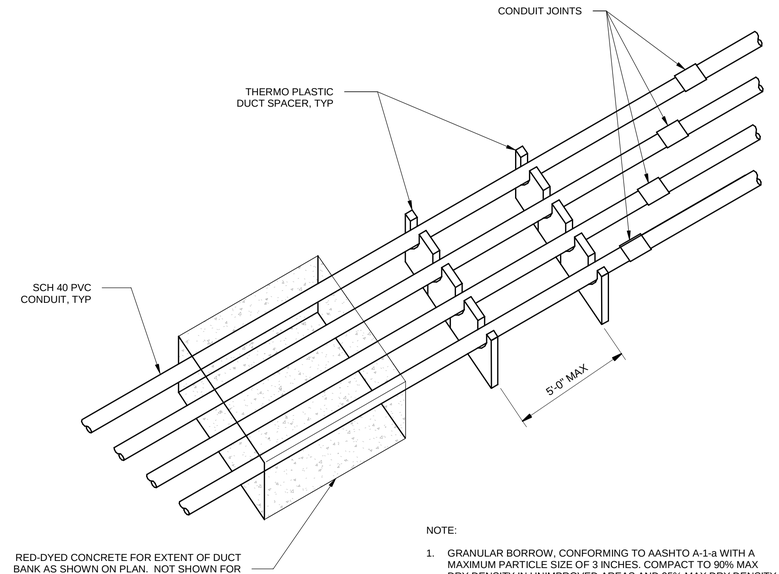
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0100-E709

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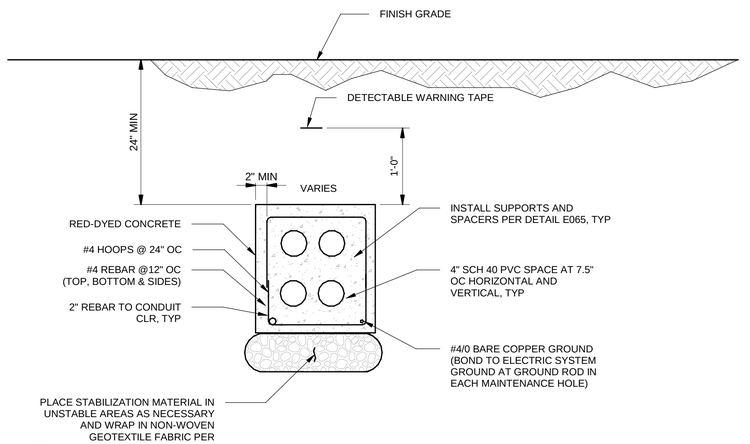


NOTE:

1. GRANULAR BORROW, CONFORMING TO AASHTO A-1-a WITH A MAXIMUM PARTICLE SIZE OF 3 INCHES. COMPACT TO 90% MAX DRY DENSITY IN UNIMPROVED AREAS AND 95% MAX DRY DENSITY IN IMPROVED AREAS PER ASTM D-1557.

E065S DUCTBANK JOINT SUPPORT

NOT TO SCALE



NOTES:

1. AT INTERSECTIONS WITH STRUCTURES, HOOK #4'S INTO THE FOOTING OR WALL, TYP.
2. BACKFILL SHALL CONSIST OF EXISTING FILL.
3. REFERENCE PLANS FOR ADJUSTMENTS IN CONDUIT DIMENSIONS. PROVIDE MINIMUM 2" BETWEEN CONDUIT OD, AND 7.5" CENTER-TO-CENTER, WHICHEVER SEPARATION IS LARGER.

E067S DUCTBANK SECTION - 2x2

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: G. ROSS
DRAWN BY: G. ROSS
CHECKED BY: C. ADAMS
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

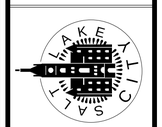
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WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 11 OF 15





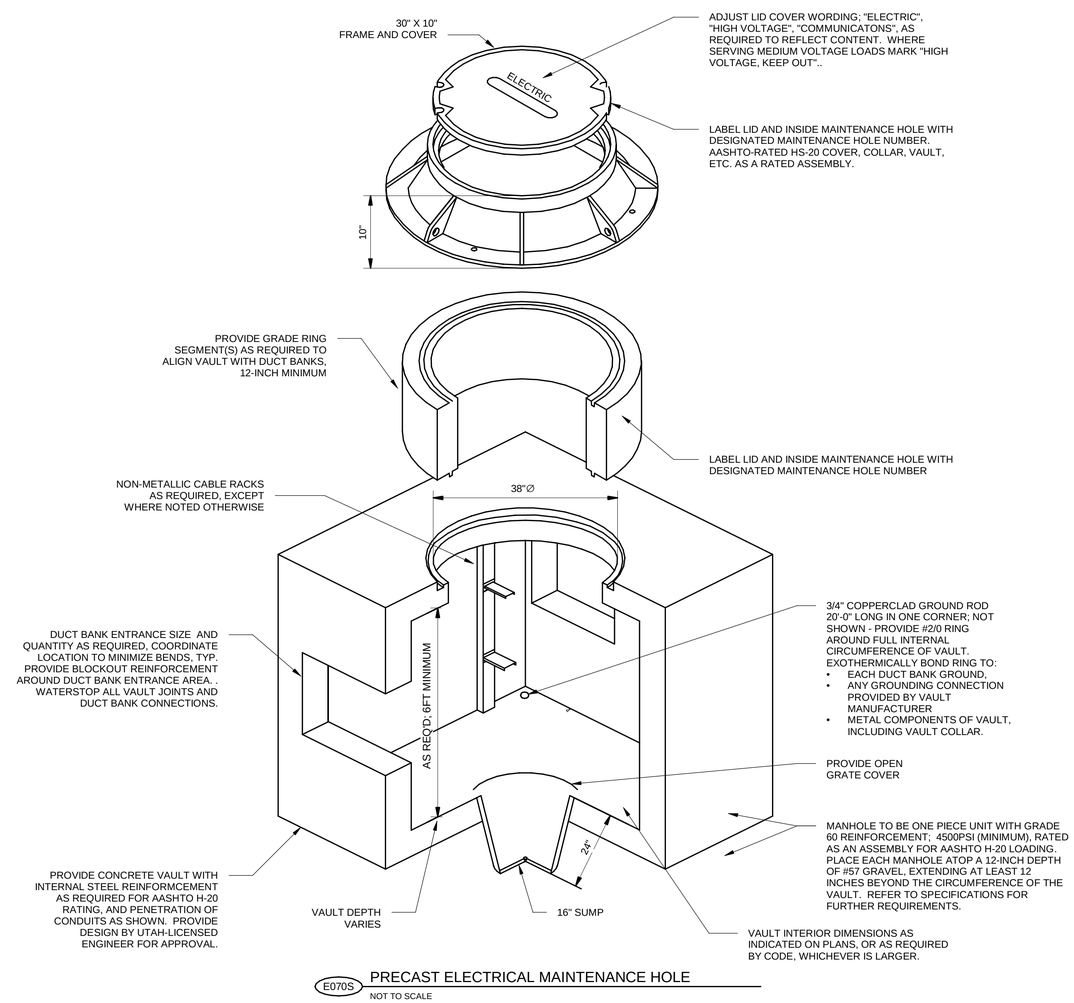
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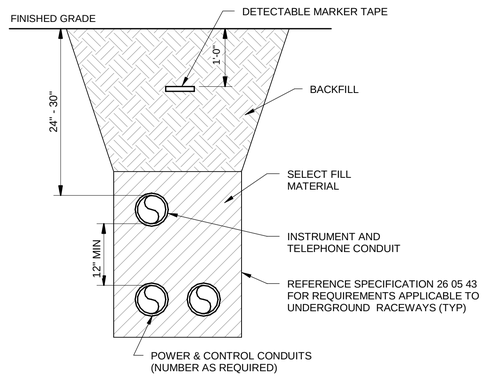
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E070S PRECAST ELECTRICAL MAINTENANCE HOLE

NOT TO SCALE



E071S DIRECT BURIED CONDUIT DETAIL

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

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A	23-04-03	SW-1A: ISSUED FOR BID	GR	CA

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WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS SHEET 12 OF 15

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

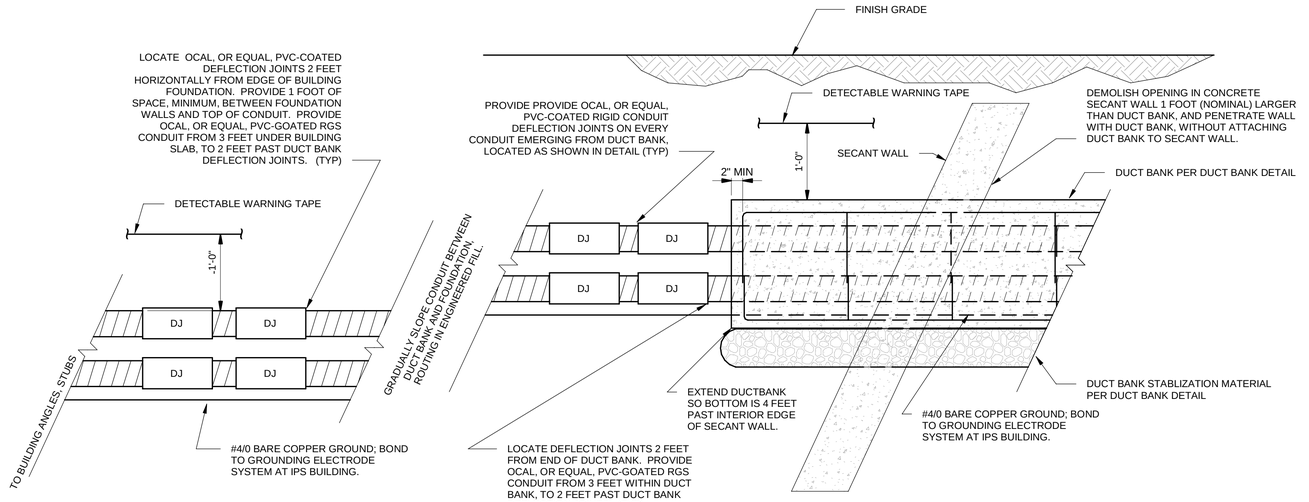
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DATE: 3/30/2023 10:21:29 AM

FILE: BIM 360://6057238-Salt Lake City 2019/524905350_0100-E701.rvt



NOTES:

1. BACKFILL SHALL CONSIST OF EXISTING FILL, INCLUDING ENGINEERED FILL TO MATCH SURROUNDINGS WHERE WITHIN SECANT WALL.

E080S DUCTBANK SECTION - UNDERSLAB CONDUIT CONNECTIONS

NOT TO SCALE

SCALE: NOT TO SCALE

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY:	G. ROSS
DRAWN BY:	G. ROSS
CHECKED BY:	C. ADAMS
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

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ELECTRICAL TYPICAL DETAILS
SHEET 13 OF 15

PROFESSIONAL ENGINEER
No. 12962039-2202
GLENN GERALD ROSS
STATE OF UTAH

DRAWING No.
0100-E713

SHEET _____ OF -

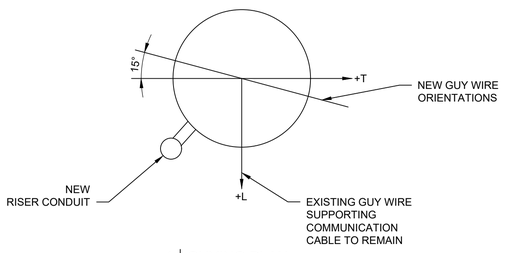
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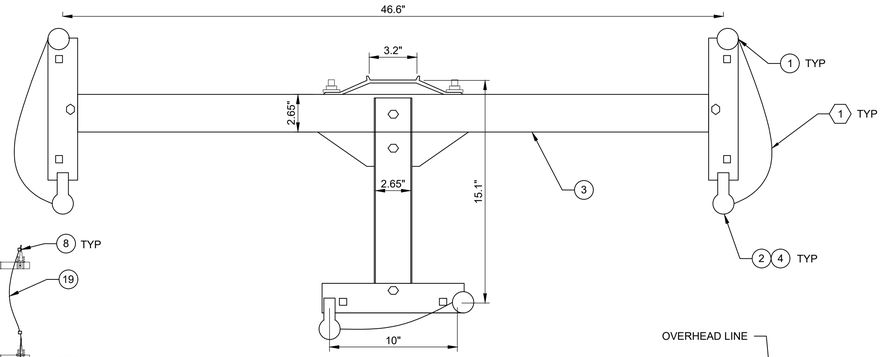
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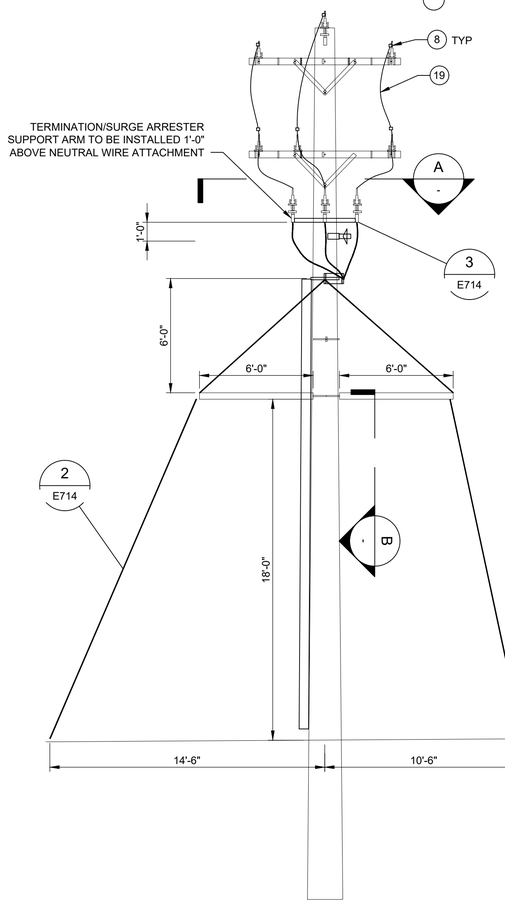
ITEM NO.	DESCRIPTION	QTY	MANUFACTURER	PART NO.
1	SURGE ARRESTER, DISTRIBUTION CLASS, RISER TYPE, RATED 3KV, 2.55KV MCOV	3	HUBBELL	PVR OPTIMA PVR2216037514
2	TERMINATION, 150kV BIL, SILICONE RUBBER, COLD-SHRINK TYPE, OUTDOOR, SKIRTED	3	3M	QT-III - 7695-S-4
3	THREE PHASE SURGE ARRESTER AND CABLE TERMINATOR EQUIPMENT MOUNT, APITONG WOOD (INCLUDE MOUNTING THRU-BOLT)	1	HUBBELL	SACWT3CA48
4	CABLE SUPPORT WITH ANGLED MOUNTING POST	3	HUBBELL	SACCS820CE
5	CONDUIT SUPPORT, DOUBLE BANDED STANDOFF BRACKET FOR 5 IN. CONDUITS, INCLUDE ALL REQUIRED ACCESSORIES	A / R	ALUMA-FORM	ALU-6B-XXX-X
6	EQUIPMENT GROUNDING CONDUCTORS, COPPER 1/0	A / R	-	-
7	RISER CONDUIT AND COUPLING FITTINGS, LENGTH A/R	A / R	-	-
8	PARALLEL CONNECTOR, ALUMINUM TO ALUMINUM OR ALUMINUM TO COPPER, A / R	A / R	-	-
9	ANCHOR, SINGLE HELIX, 1-1/2 INCH SHAFT, LENGTH A / R FOR HOLDING STRENGTH OF 16,000 LBS	2	MACLEAN POWER PRODUCTS	D66XX
10	GUY TERMINATION, 1-1/2 INCH SHAFT, TWIN EYE	2	MACLEAN POWER PRODUCTS	D6604US
11	GALVANIZED STEEL STRAND DEADEND GUY WIRE GRIP FOR 7 NO.8 AWG, INCLUDE ACCESSORIES FOR GUY ATTACHMENT TO POLE	4	-	-
12	GUY STRAND, 7 NO. 8 ALUMOWELD GUY WIRES	A / R	AFL	7 NO. 8 AWG
13	GUARD, GUY WIRE (YELLOW)	2	HUBBELL	84FRPMYEL
14	PIPE, GALVANIZED, 2 IN. DIA., 6 FOOT LENGTH	2	-	-
15	GUY FITTING, SIDEWALK, POLE PLATE	2	HUBBELL	0501
16	GUY FITTING, SIDEWALK, SINGLE GUY CLAMP	2	HUBBELL	0502
17	GUY WIRE SUPPORT, BOLT-A-BAND BANDING SYSTEM FOR GUY WIRES, 1-1/4 IN. DOUBLE BANDS, LENGTH A / R	A / R	ALUMA-FORM	BAB-58XX-2
18	GUY WIRE SUPPORT, BOLT-A-BAND BANDING SYSTEM FOR GUY WIRES	2	ALUMA-FORM	BGA S25
19	JUMPER LOOP, 336.4 KCMIL 26/7 STRANDS LINNET ACSR	A / R	-	-



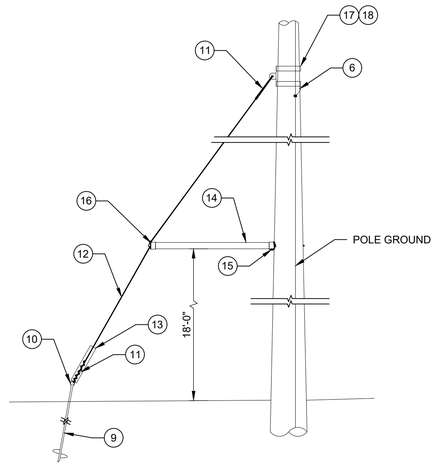
4 | GUYING PLAN
- | SCALE: NTS



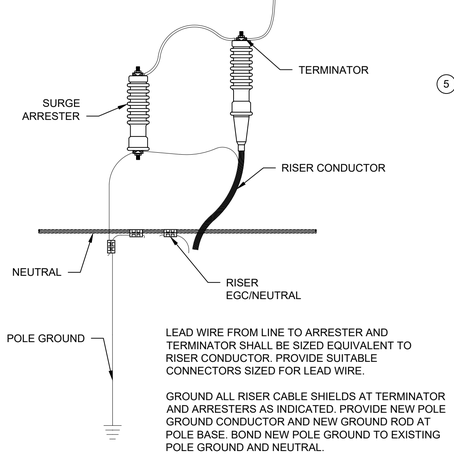
A | PLAN VIEW
- | SCALE: NTS



POLE ELEVATION (EXISTING POLE P18) (LOOKING NORTH)
1 | 0100-E111 | SCALE: NTS



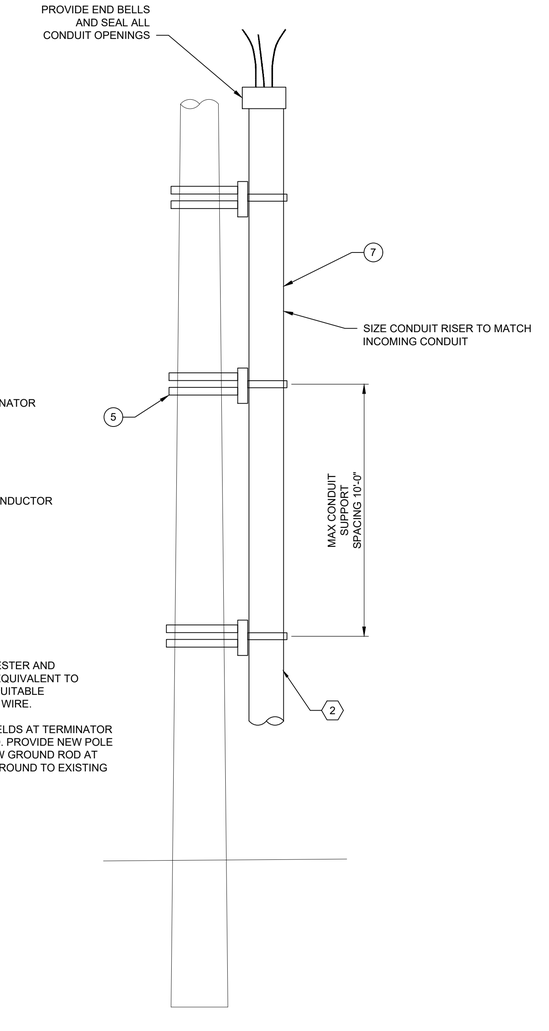
2 | GUY ANCHOR DETAIL
- | SCALE: NTS



LEAD WIRE FROM LINE TO ARRESTER AND TERMINATOR SHALL BE SIZED EQUIVALENT TO RISER CONDUCTOR. PROVIDE SUITABLE CONNECTORS SIZED FOR LEAD WIRE.

GROUND ALL RISER CABLE SHIELDS AT TERMINATOR AND ARRESTERS AS INDICATED. PROVIDE NEW POLE GROUND CONDUCTOR AND NEW GROUND ROD AT POLE BASE. BOND NEW POLE GROUND TO EXISTING POLE GROUND AND NEUTRAL.

3 | GROUNDING CONNECTION DETAIL
- | SCALE: NTS



B | SECTION VIEW
- | SCALE: NTS

GENERAL NOTES

1. BILL OF MATERIALS SHOWN LISTS MAJOR EQUIPMENT ITEMS ONLY. ALL OTHER EQUIPMENT, HARDWARE, AND MATERIALS AS NECESSARY TO COMPLETE THE INSTALLATION AS INDICATED SHALL BE PROVIDED.
2. THIS WORK SHALL CONVERT THE EXISTING TANGENT POLE (P18) TO A TRANSITION STRUCTURE AS SHOWN. THE WORK SHALL ALSO INCLUDE REINFORCING THE POLE WITH ADDITIONAL GUY WIRES.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE ALL LOCATIONS, CONNECTIONS, AND INTERFACE POINTS BETWEEN EXISTING AND NEW INSTALLATIONS.
4. THE CABLE CONDUCTORS SHALL BE TRAINED TO PREVENT STRAIN AND SHALL BE MOUNTED ON ANGLED MOUNTING POSTS AND SUPPORTED BY A CABLE POSITIONER.
5. THE GUY ATTACHMENTS AND CONDUIT SUPPORT SHALL BE ACHIEVED BY USING STEEL BANDS AS INDICATED. ALL OPEN HOLES ON THE WOOD POLE SHALL BE SEALED TO PREVENT MOISTURE INTRUSION.
6. THE POLE SHALL BE GUYED IN BOTH THE OFFSET TRANSVERSE DIRECTIONS AS SHOWN.
7. GUY ANCHORS SHALL BE INSTALLED TO BE IN-LINE WITH THE GUY WIRES.
8. GUY WIRES SHALL BE PRE-TENSIONED AS REQUIRED FOR A PLUMB POLE CONSTRUCTION.
9. GUY ANCHOR LOCATIONS SHALL BE ADJUSTED AS REQUIRED FOR CLEARANCE TO EXISTING AND NEW UNDERGROUND FACILITIES. CONTRACTOR SHALL SUBMIT ANY CHANGES FROM THE PROPOSED STRUCTURE CONFIGURATION FOR APPROVAL.
10. GUY ANCHORS SHALL BE INSTALLED TO HAVE A HOLDING CAPACITY OF 16,000 LBS.
11. POLE SHALL BE SUPPORTED AS REQUIRED DURING EXCAVATION WORK NEEDED FOR INSTALLING CONDUIT ADJACENT TO THE POLE. THE POLE SUPPORT SYSTEM SHALL BE IN-PLACE UNTIL THE POLE FOOTING IS RESTORED TO ITS EXISTING CONDITION.
12. ALL METAL HARDWARE SHALL BE GROUNDED TO ZERO POTENTIAL.

KEY NOTES

1. INSULATED BONDING LEADS SHALL BE USED FOR THE CONNECTION BETWEEN THE SURGE ARRESTER AND THE CABLE TERMINATION.
2. CONDUIT SWEEP NOT SHOWN FOR THE INTERFACE TO THE POLE. PROVIDE CONDUIT ELBOW AND COUPLING DETAILS AS REQUIRED FOR THE PURPOSE AS SHOWN.

PROFESSIONAL ENGINEER
No. 12921410-2202
IVAN DIEGO WELANDER
STATE OF UTAH
04-03-2023

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.ACHARYA/W
DRAWN BY: D.BROERMAN
CHECKED BY: R.HAWTHORNE/DG
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905396

REVISIONS

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LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 14 OF 15

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

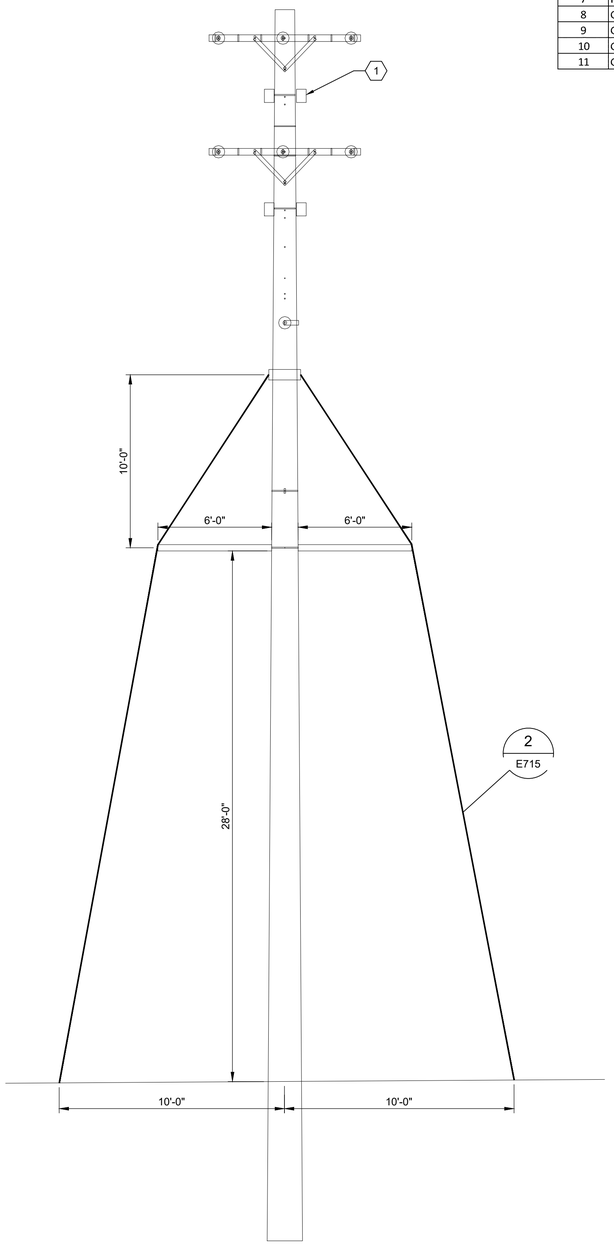
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0100-E714

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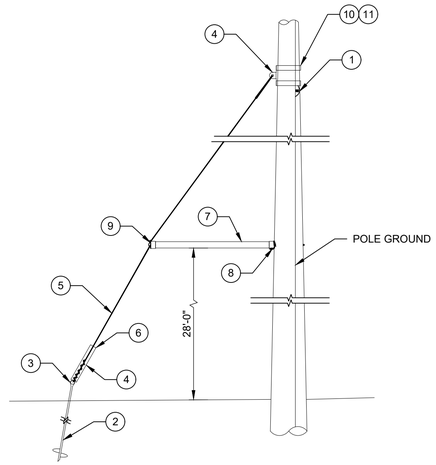
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BILL OF MATERIAL				
ITEM NO.	DESCRIPTION	QTY	MANUFACTURER	PART NO.
1	EQUIPMENT GROUNDING CONDUCTORS, COPPER 1/0	A / R	-	-
2	ANCHOR, SINGLE HELIX, 1-1/2 INCH SHAFT, LENGTH A / R FOR HOLDING STRENGTH OF 16,000 LBS	2	MACLEAN POWER PRODUCTS	D66XX
3	GUY TERMINATION, 1-1/2 INCH SHAFT, TWIN EYE	2	MACLEAN POWER PRODUCTS	D6604US
4	GALVANIZED STEEL STRAND DEADEND GUY WIRE GRIP FOR 7 NO.8 AWG, INCLUDE ACCESSORIES FOR GUY ATTACHMENT TO POLE	4	-	-
5	GUY STRAND, 7 NO. 8 ALUMOWELD GUY WIRES	A / R	AFL	7 NO. 8 AWG
6	GUARD, GUY WIRE (YELLOW)	2	HUBBELL	84FRPMYEL
7	PIPE, GALVANIZED, 2 IN. DIA., 6 FOOT LENGTH	2	-	-
8	GUY FITTING, SIDEWALK, POLE PLATE	2	HUBBELL	0501
9	GUY FITTING, SIDEWALK, SINGLE GUY CLAMP	2	HUBBELL	0502
10	GUY WIRE SUPPORT, BOLT-A-BAND BANDING SYSTEM FOR GUY WIRES, 1-1/4 IN. DOUBLE BANDS, LENGTH A / R	A / R	ALUMA-FORM	BAB-58XX-2
11	GUY WIRE SUPPORT, BOLT-A-BAND BANDING SYSTEM FOR GUY WIRES	2	ALUMA-FORM	BGA S25



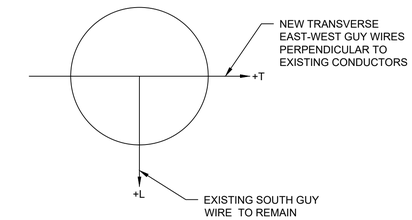
1 | POLE ELEVATION (EXISTING POLE19)

0100-E112 | SCALE: NTS



2 | GUY ANCHOR DETAIL

- | SCALE: NTS



3 | GUYING PLAN

- | SCALE: NTS

GENERAL NOTES

1. BILL OF MATERIALS SHOWN LISTS MAJOR EQUIPMENT ITEMS ONLY. ALL OTHER EQUIPMENT, HARDWARE, AND MATERIALS AS NECESSARY TO COMPLETE THE INSTALLATION AS INDICATED SHALL BE PROVIDED.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE ALL LOCATIONS, CONNECTIONS, AND INTERFACE POINTS BETWEEN EXISTING AND NEW INSTALLATIONS.
3. THE GUY ATTACHMENTS TO THE POLE SHALL BE ACHIEVED BY USING STEEL BANDS AS INDICATED. ALL OPEN HOLES ON THE WOOD POLE SHALL BE SEALED TO PREVENT MOISTURE INTRUSION.
4. THE POLE SHALL BE GUYED IN BOTH THE POSITIVE AND NEGATIVE TRANSVERSE DIRECTIONS (PERPENDICULAR TO THE INCOMING OH CONDUCTORS FROM P18) AS SHOWN.
5. GUY ANCHORS SHALL BE INSTALLED TO BE IN-LINE WITH THE GUY WIRES.
6. GUY WIRES SHALL BE PRE-TENSIONED AS REQUIRED FOR A PLUMB POLE CONSTRUCTION.
7. GUY ANCHOR LOCATIONS SHALL BE ADJUSTED AS REQUIRED FOR CLEARANCE TO EXISTING AND NEW UNDERGROUND FACILITIES. CONTRACTOR SHALL SUBMIT ANY CHANGES FROM THE PROPOSED STRUCTURE CONFIGURATION FOR APPROVAL.
8. GUY ANCHORS SHALL BE INSTALLED TO HAVE A HOLDING CAPACITY OF 16,000 LBS.
9. ALL METAL HARDWARE SHALL BE GROUNDED TO ZERO POTENTIAL.

KEY NOTES

1. WORK INCLUDES DECOMMISSIONING, DEMOLITION AND REMOVAL OF EXISTING OVERHEAD (OH) POWER POLES, CONDUCTORS, NEUTRAL AND GUY WIRES, CROSS-ARMS AND OTHER MISCELLANEOUS ASSETS WEST OF P19 THROUGH P21. P19 SHALL REMAIN ALONG WITH EXISTING NORTH OH CONDUCTORS AND SOUTH GUY WIRES, BUT WEST OH CONDUCTORS AND EAST GUY WIRES SHALL BE REMOVED. P19 SHALL BE REPURPOSED AND RECONFIGURED AS SHOWN, INCLUDING, BUT NOT LIMITED TO, RETROFIT WITH NEW EAST-WEST TRANSVERSE GUY WIRES.

PROFESSIONAL ENGINEER
12921410-2202
IVAN DIEGO WELANDER
STATE OF UTAH
04-03-2023

SCALE: NOT TO SCALE

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: B.ACHARYA/IW
DRAWN BY: D.BROERMAN
CHECKED BY: R.HAWTHORNE/DG
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
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WATER RECLAMATION FACILITY
PUMP STATION SITE

ELECTRICAL TYPICAL DETAILS
SHEET 15 OF 15

LICENSED PROFESSIONAL ENGINEER
No. 379242
ROBERT E. HAWTHORNE
STATE OF UTAH
04-03-2023

DRAWING No.
0100-E715

SHEET _____ OF _____

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TELECOM TYPICAL DETAILS INDEX

0100-T701

T001 STANDARD VOICE AND DATA OUTLET
T002 STANDARD 1-PORT DATA OUTLET
T003 STANDARD 2-PORT WAP OUTLET
T004 TYPICAL WALL MOUNTED OUTLET DETAIL
T005 TYPICAL WAP OUTLET DETAIL
T006 TYPICAL FURNITURE OUTLET DETAIL
T007 TYPICAL FURNITURE FEED DETAIL.
T008 TYPICAL WALL OUTLET ROUTING DETAIL.
T009 TYPICAL ABOVE COUNTER OUTLET DETAIL.
T010 TYPICAL CEILING MOUNTED OUTLET DETAIL
T011 TYPICAL FIRESTOP DETAIL
T012 TYPICAL J-HOOK SUPPORT DETAIL

0100-T702

T013 RUNWAY WALL ANGLE SUPPORT DETAIL
T014 RUNWAY END CLOSING KIT SUPPORTING DETAIL
T015 RUNWAY SPACING DETAIL
T016 RUNWAY RADIUS DROP OUTLET DETAILS
T017 RACK-TO-RUNWAY MOUNTING DETAIL
T018 VERTICAL CABLE LADDER INSTALLATION DETAIL
T019 RUNWAY JUNCTION DETAIL
T020 TYPICAL VERTICAL CABLE LADDER WITH CROSS-OVER DETAIL
T021 TYPICAL BASKET TRAY TRAPEZE MOUNTING DETAIL
T022 TYPICAL BASKET TRAY PARTITION MOUNTING DETAIL

0100-T703

T023 TYPICAL RAISED ACCESS FLOOR (RAF) BOX DETAIL
T024 TYPICAL OUTLET ROUTED TO RAISED ACCESS FLOOR (RAF) DETAIL
T025 PRIMARY BONDING BUSBAR (PBB) MOUNTING DETAIL (TYP)
T026 TYPICAL FURNITURE FEED ROUTED TO RAF DETAIL.
T027 TYPICAL WALL OUTLET AT COUNTER ROUTED TO RAF DETAIL.
T028 SECONDARY BONDING BUSBAR (SBB) DETAIL
T029 TYPICAL CEILING MOUNTED DETAIL
T030 TYPICAL GROUNDING BONDING JUMPER DETAIL
T031 PRIMARY BONDING BUSBAR (PBB) DETAIL

SCALE:

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: B. MARTIR
CHECKED BY: P. VITONE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

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TELECOM TYPICAL DETAILS INDEX

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RCDDNTS	136703	12/31/2024

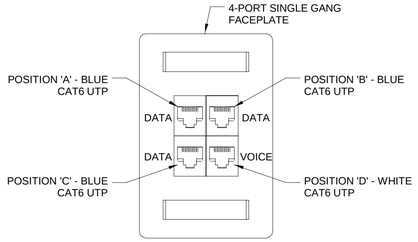
KRISTIAN ZEBROSKY 04/03/2023

DRAWING No.
0100-T700

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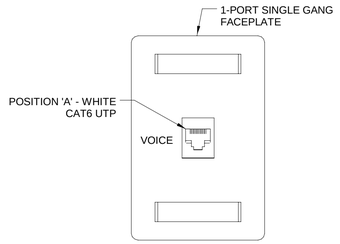
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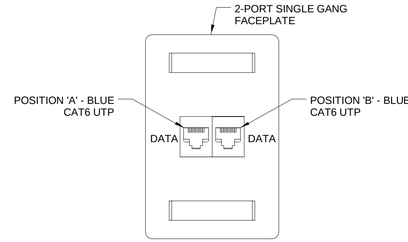
T001S STANDARD VOICE AND DATA OUTLET

NOT TO SCALE



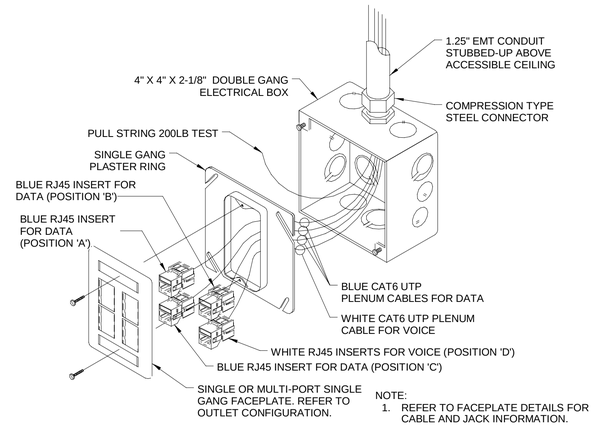
T002S STANDARD 1-PORT DATA OUTLET

NOT TO SCALE



T003S STANDARD 2-PORT WAP OUTLET

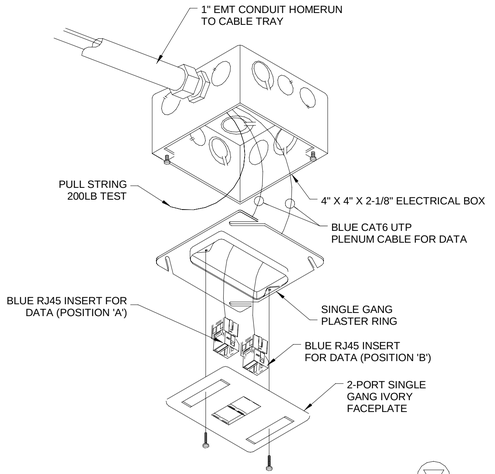
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NOTE:
1. REFER TO FACEPLATE DETAILS FOR CABLE AND JACK INFORMATION.

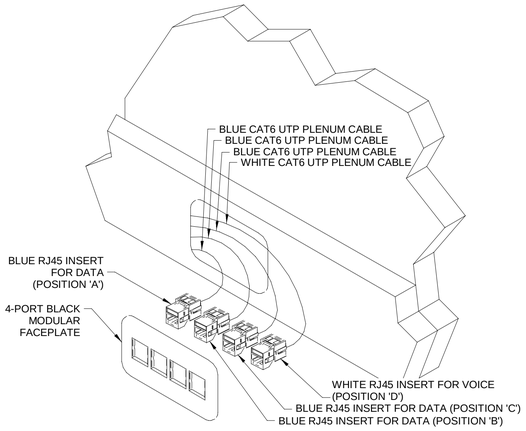
T004S TYPICAL WALL MOUNTED OUTLET DETAIL

NOT TO SCALE



T005S TYPICAL WAP OUTLET DETAIL

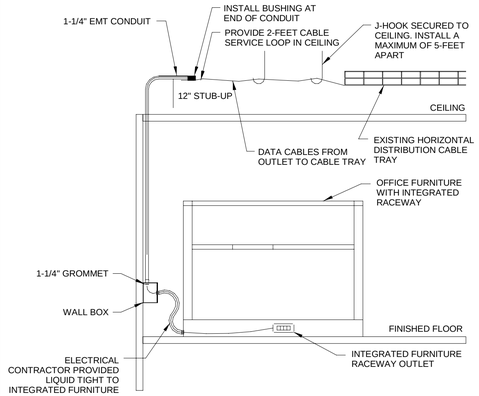
NOT TO SCALE



NOTE:
1. MOUNT 8" TO THE BOTTOM OF RACEWAY AFF.

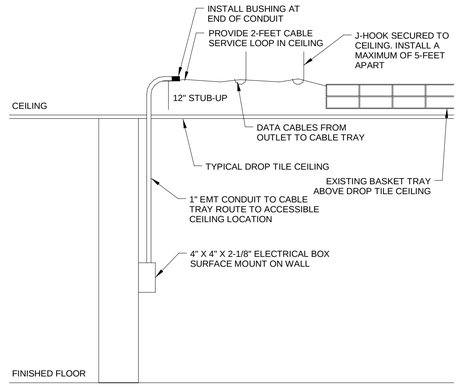
T006S TYPICAL FURNITURE OUTLET DETAIL

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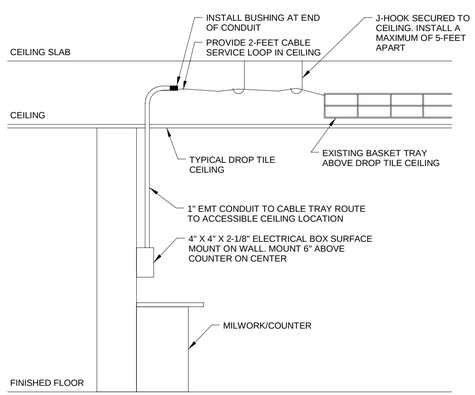
T007S TYPICAL FURNITURE FEED DETAIL.

NOT TO SCALE



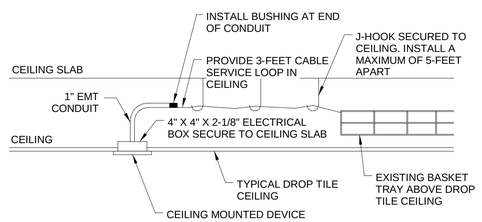
T008S TYPICAL WALL OUTLET ROUTING DETAIL.

NOT TO SCALE



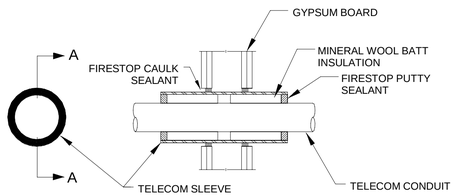
T009S TYPICAL ABOVE COUNTER OUTLET DETAIL.

NOT TO SCALE



T010S TYPICAL CEILING MOUNTED OUTLET DETAIL

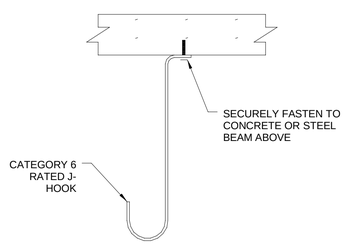
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NOTES:
1. ALL FIRESTOP SYSTEMS WILL BE UL CLASSIFIED TO ASTM E814 (UL 1479).
2. SEAL ALL PATHWAYS THROUGH FIRE-RATED PARTITIONS.
3. USE FIRESTOP SYSTEM THAT IS EQUAL TO OR GREATER THAN THE PENETRATED WALL FIRE RATING.
4. USE APPROPRIATE FIRESTOP SYSTEMS DESIGNATED FOR THE PENETRATION.
5. PRECISELY FOLLOW MANUFACTURERS INSTALLATION DETAILS.

T011S TYPICAL FIRESTOP DETAIL

NOT TO SCALE



NOTES:
1. SPACE J-HOOKS INSTALLED A MAXIMUM 5 FEET APART.
2. J-HOOK WILL BE SIZED TO ACCOMMODATE THE REQUIRED CABLES PLUS ADDITIONAL 25% SPARE CAPACITY.

T012S TYPICAL J-HOOK SUPPORT DETAIL

NOT TO SCALE

SCALE: 12" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: B. MARTIR
CHECKED BY: P. VITONE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03 SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

TELECOM TYPICAL DETAILS
SHEET 1 OF 3

BKSI REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI ATS SPECIALIST

CERT.	REG. NO.	EXPIRES
RCDD	136703	12/31/2020
RCDD/NTS	136703	12/31/2024

Kristian Zebrosky 04/03/2023
KRISTIAN ZEBROSKY

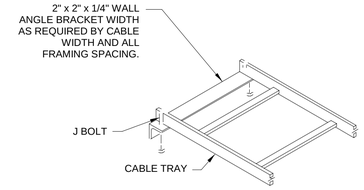
DRAWING No.
0100-T701

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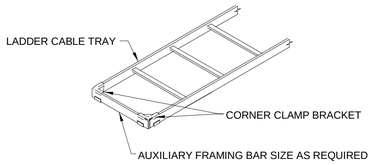
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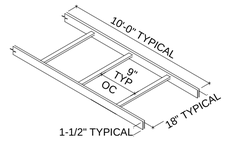
RUNWAY WALL ANGLE SUPPORT DETAIL

T013S NOT TO SCALE



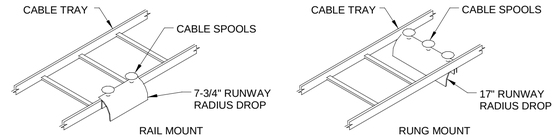
RUNWAY END CLOSING KIT SUPPORTING DETAIL

T014S NOT TO SCALE



RUNWAY SPACING DETAIL

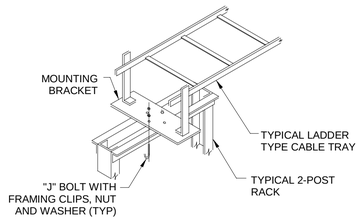
T015S NOT TO SCALE



RUNWAY RADIUS DROP OUTLET DETAILS

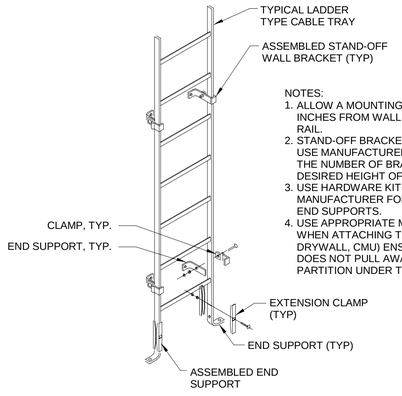
T016S NOT TO SCALE

NOTES:
1. TYPICAL CABLE TRAY FOR TELECOMMUNICATION ROOMS.
2. PROVIDE ACCESSIBLE PATHWAYS TO TOPS OF EQUIPMENT RACKS BY MOUNTING ALL TELECOM CABLE TRAYS 7'-6" AFF. VERIFY EXACT RACK HEIGHTS WITH CLIENT.
3. GROUND ALL CABLE TRAYS, CONDUITS AND EQUIPMENT RACKS TO THE TELECOM GROUNDING BUSBAR



RACK-TO-RUNWAY MOUNTING DETAIL

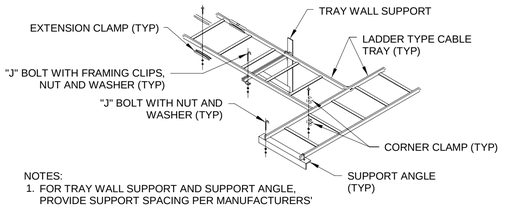
T017S NOT TO SCALE



NOTES:
1. ALLOW A MOUNTING CLEARANCE OF 2 TO 3 INCHES FROM WALL TO BACK OF CABLE TRAY RAIL.
2. STAND-OFF BRACKETS SHALL BE USED IN PAIRS. USE MANUFACTURERS RECOMMENDATIONS FOR THE NUMBER OF BRACKETS REQUIRED FOR DESIRED HEIGHT OF THE VERTICAL LADDER TRAY.
3. USE HARDWARE KITS RECOMMENDED BY MANUFACTURER FOR STAND-OFF BRACKETS AND END SUPPORTS.
4. USE APPROPRIATE MOUNTING HARDWARE WHEN ATTACHING TO VERTICAL PARTITION (i.e. DRYWALL, CMU) ENSURING THAT LADDER TRAY DOES NOT PULL AWAY FROM VERTICAL PARTITION UNDER THE WEIGHT OF THE CABLES.

VERTICAL CABLE LADDER INSTALLATION DETAIL

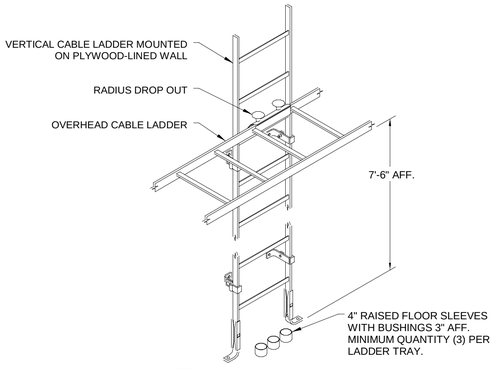
T018S NOT TO SCALE



NOTES:
1. FOR TRAY WALL SUPPORT AND SUPPORT ANGLE, PROVIDE SUPPORT SPACING PER MANUFACTURERS' RECOMMENDATION. USE MANUFACTURERS' MOUNTING HARDWARE AND WALL ANCHORS.
2. USE HARDWARE KITS RECOMMENDED BY MANUFACTURER FOR EXTENSION CLAMPS, FRAMING CLIPS, AND CORNER CLAMPS.

RUNWAY JUNCTION DETAIL

T019S NOT TO SCALE

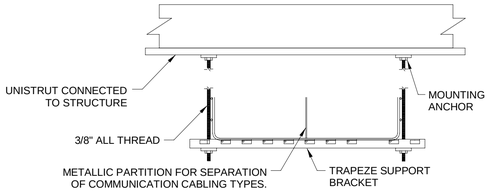


NOTE:
1. OVERHEAD CABLE LADDER TO BE MOUNTED 6" OFF THE WALL.

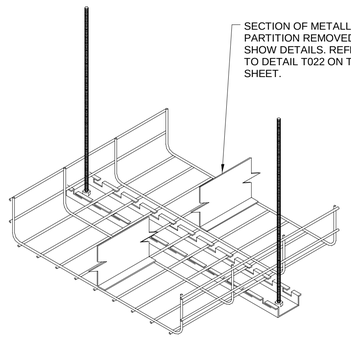
TYPICAL VERTICAL CABLE LADDER WITH CROSS-OVER DETAIL

T020S NOT TO SCALE

NOTES:
1. ALLOW A MINIMUM OF 300mm (12") CLEARANCE ABOVE TRAY AND ONE SIDE FOR CABLE PLACEMENT.
2. TYPICAL MOUNTING HEIGHT 3353mm (11') AFF ALLOW A MINIMUM OF 300mm (6") ABOVE DROP CEILING.
3. PROVIDE ALL REQUIRED BRACING AND SUPPORTS TO MEET SEISMIC REQUIREMENTS.



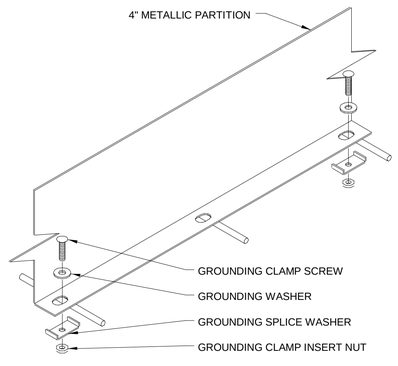
FRONT VIEW



ISOMETRIC VIEW

TYPICAL BASKET TRAY TRAPEZE MOUNTING DETAIL

T021S NOT TO SCALE



TYPICAL BASKET TRAY PARTITION MOUNTING DETAIL

T022S NOT TO SCALE

SCALE: 12" = 1'-0"

PROJECT ADDRESS: 1365 W 2300 N SALT LAKE CITY, UT 84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: B. MARTIR
CHECKED BY: P. VITONE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE		MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION FACILITY
PUMP STATION SITE

TELECOM TYPICAL DETAILS
SHEET 2 OF 3

BKSI — REGISTERED COMMUNICATIONS DISTRIBUTION PROFESSIONAL — NTS SPECIALIST

CERT.	REG. NO.	EXPIRES
RCDD	136703	12/31/2025
RCDD/NTS	136703	12/31/2024

KRISTIAN ZEBROSKY 04/03/2023

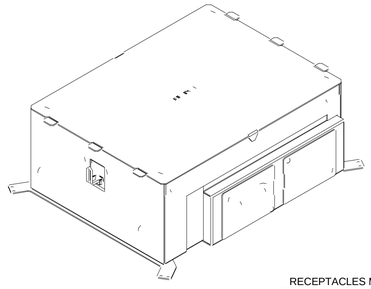
DRAWING No. 0100-T702

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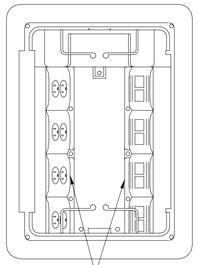
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ISOMETRIC VIEW WITH COVER



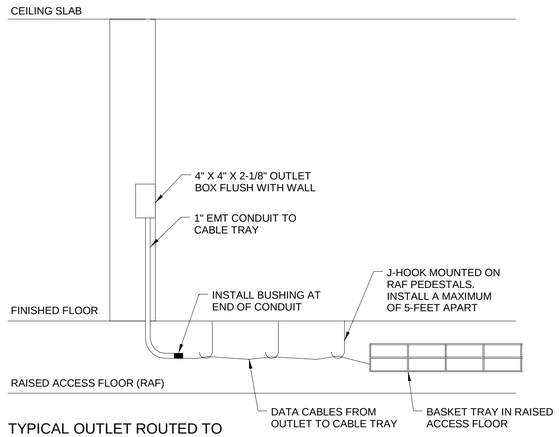
RECEPTACLES MOUNTED ON ONE SIDE OF THE ENCLOSURE AND TELECOM MOUNTED ON OTHER SIDE

TOP VIEW WITHOUT COVER.

NOTE:
1. EXACT OUTLET CONFIGURATIONS AND QUANTITIES PROVIDED IN EACH FLOOR BOX TO BE COORDINATED WITH FURNITURE AND ELECTRICAL INSTALLATION CONTRACTORS.

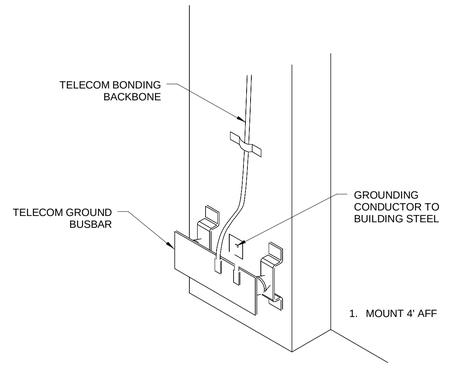
T023S TYPICAL RAISED ACCESS FLOOR (RAF) BOX DETAIL

NOT TO SCALE



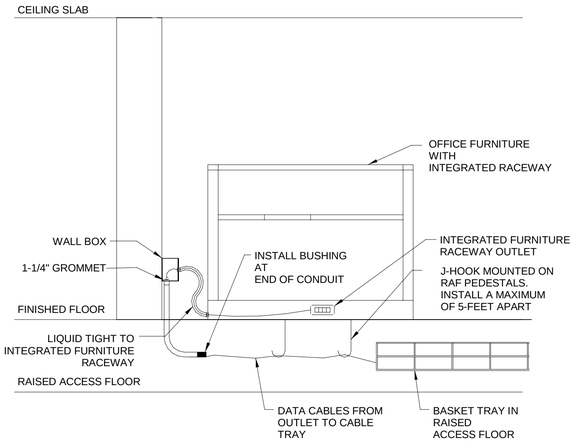
T024S TYPICAL OUTLET ROUTED TO RAISED ACCESS FLOOR (RAF) DETAIL

NOT TO SCALE



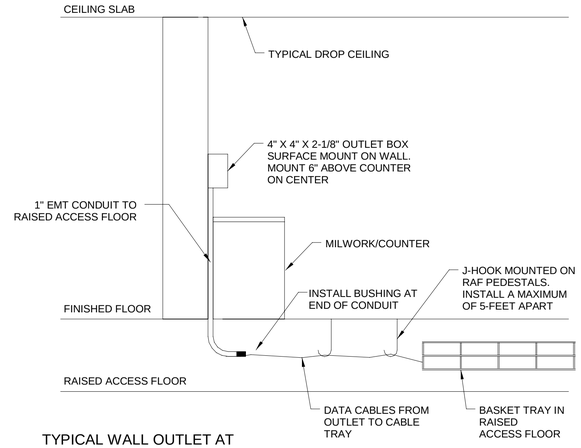
T025S PRIMARY BONDING BUSBAR (PBB) MOUNTING DETAIL (TYP)

NOT TO SCALE



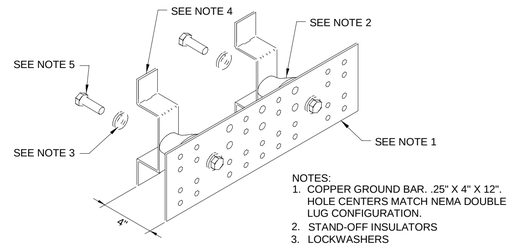
T026S TYPICAL FURNITURE FEED ROUTED TO RAF DETAIL.

NOT TO SCALE



T027S TYPICAL WALL OUTLET AT COUNTER ROUTED TO RAF DETAIL.

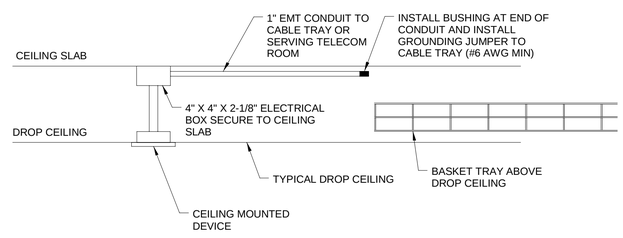
NOT TO SCALE



NOTES:
1. COPPER GROUND BAR. .25" X 4" X 12". HOLE CENTERS MATCH NEMA DOUBLE LUG CONFIGURATION.
2. STAND-OFF INSULATORS
3. LOCKWASHERS
4. WALL MOUNTING BRACKET
5. HHCS BOLTS
6. MOUNT 4' AFF

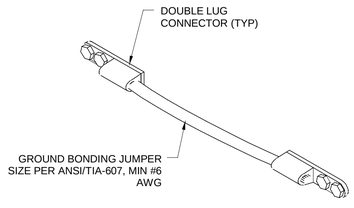
T028S SECONDARY BONDING BUSBAR (SBB) DETAIL

NOT TO SCALE



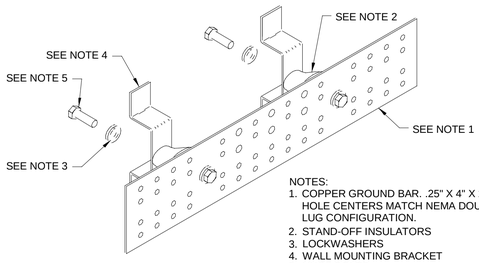
T029S TYPICAL CEILING MOUNTED DETAIL

NOT TO SCALE



T030S TYPICAL GROUNDING BONDING JUMPER DETAIL

NOT TO SCALE



NOTES:
1. COPPER GROUND BAR. .25" X 4" X 20". HOLE CENTERS MATCH NEMA DOUBLE LUG CONFIGURATION.
2. STAND-OFF INSULATORS
3. LOCKWASHERS
4. WALL MOUNTING BRACKET
5. HHCS BOLTS
6. MOUNT ABOVE LADDER TRAY ON PLYWOOD.

T031S PRIMARY BONDING BUSBAR (PBB) DETAIL

NOT TO SCALE

SCALE: 12" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: B. MARTIR
CHECKED BY: P. VITONE
APPROVED BY: G.DAVIES
DATE: - - -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

NO.	DATE	MADE BY	AUTH. BY
A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

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WATER RECLAMATION FACILITY
PUMP STATION SITE

TELECOM TYPICAL DETAILS
SHEET 3 OF 3

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CERT. RCDD — REG. NO. 136703 — EXPIRES 12/31/2023
RCDDNTS — 136703 — 12/31/2024
KRISTIAN ZEBROSKY 04/03/2023

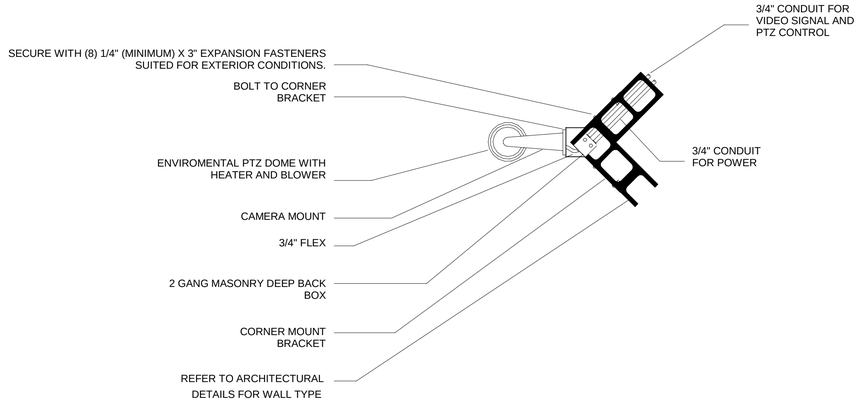
DRAWING No.
0100-T703

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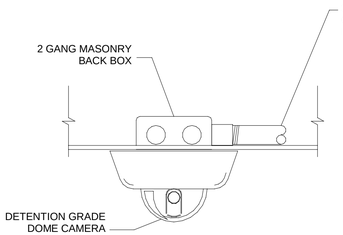
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Y001S CORNER MOUNT CAMERA 1

NOT TO SCALE



NOTES:

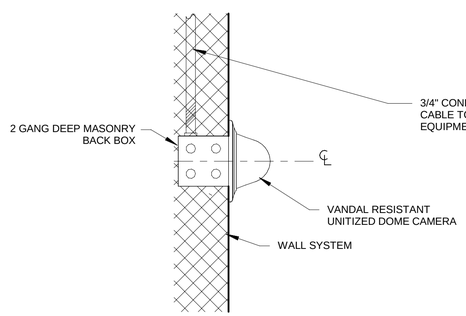
1. BACK BOX NEEDED IN HARD CEILINGS ONLY, NOT REQUIRED IN DROP CEILINGS.

Y002S FIXED CEILING MOUNT CAMERA 1

NOT TO SCALE

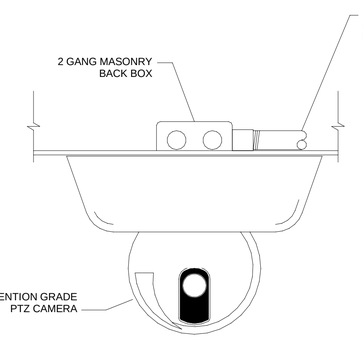
NOTES:

1. MOUNT BACK BOXES ON WALLS 6" BELOW CEILING. IF CEILING HEIGHT IS GREATER THAN 12'-6", MOUNT AT 12'



Y003S WALL MOUNT CAMERA 1

NOT TO SCALE



NOTES:

1. BACK BOX NEEDED IN HARD CEILINGS ONLY, IF LOCATED IN DROP CEILING, MOUNT CEILING MOUNT TO HARD SURFACE, USE PENDENT MOUNT IF HUNG FROM CEILING.

Y004S PTZ CEILING MOUNT CAMERA 1

NOT TO SCALE

SCALE: 12" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY: K. ZEBROSKY
DRAWN BY: K.EAGAN
CHECKED BY: K.LONG
APPROVED BY: G.DAVIES
DATE: -
EWO NO.: -
ACCOUNT NO.: 524905386

REVISIONS

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ELECTRONIC SECURITY TYPICAL DETAILS

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CERT.	REG.NO.	EXPIRES
RCDD	136703	12/31/2025
RCDDNTS	136703	12/31/2024

KRISTIAN ZEBROSKY 04/03/2023

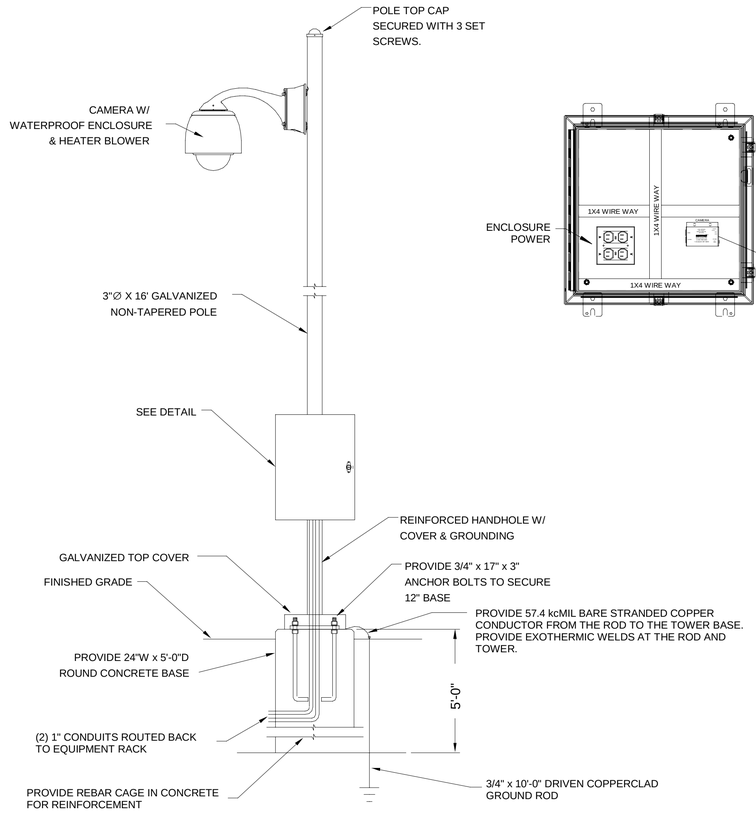
DRAWING No.
0100-Y701

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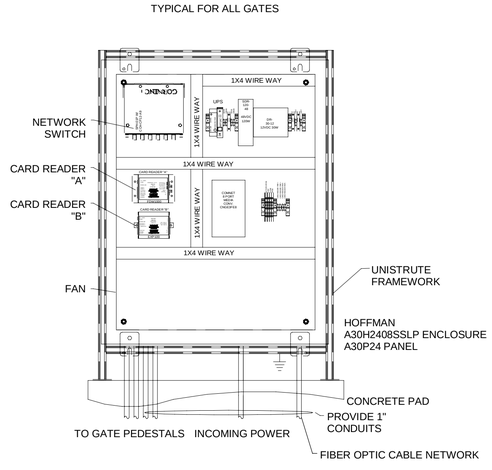
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Y001S POLE MOUNT CAMERA DETAIL 1

NOT TO SCALE

TYPICAL FOR ALL GATES



Y002S SECURITY CABINET ENCLOSURE 1

NOT TO SCALE

SCALE: 12" = 1'-0"

PROJECT ADDRESS:
1365 W 2300 N
SALT LAKE CITY, UT
84116, UNITED STATES

DESIGNED BY:	K. ZEBROSKY
DRAWN BY:	K.EAGAN
CHECKED BY:	K.LONG
APPROVED BY:	G.DAVIES
DATE:	-
EWO NO.:	-
ACCOUNT NO.:	524905386

REVISIONS

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A	23-04-03	SW-1A: ISSUED FOR BID	BM	KZ

LAST CONFORMED SET:

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ELECTRONIC SECURITY TYPICAL DETAILS

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REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
NTS SPECIALIST

CERT	REG. NO.	EXPIRES
RCDD	136703	12/31/2025
RCDDNTS	136703	12/31/2024

Kristian Zebrosky 04/03/2023
KRISTIAN ZEBROSKY

DRAWING No.
0100-Y702

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VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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