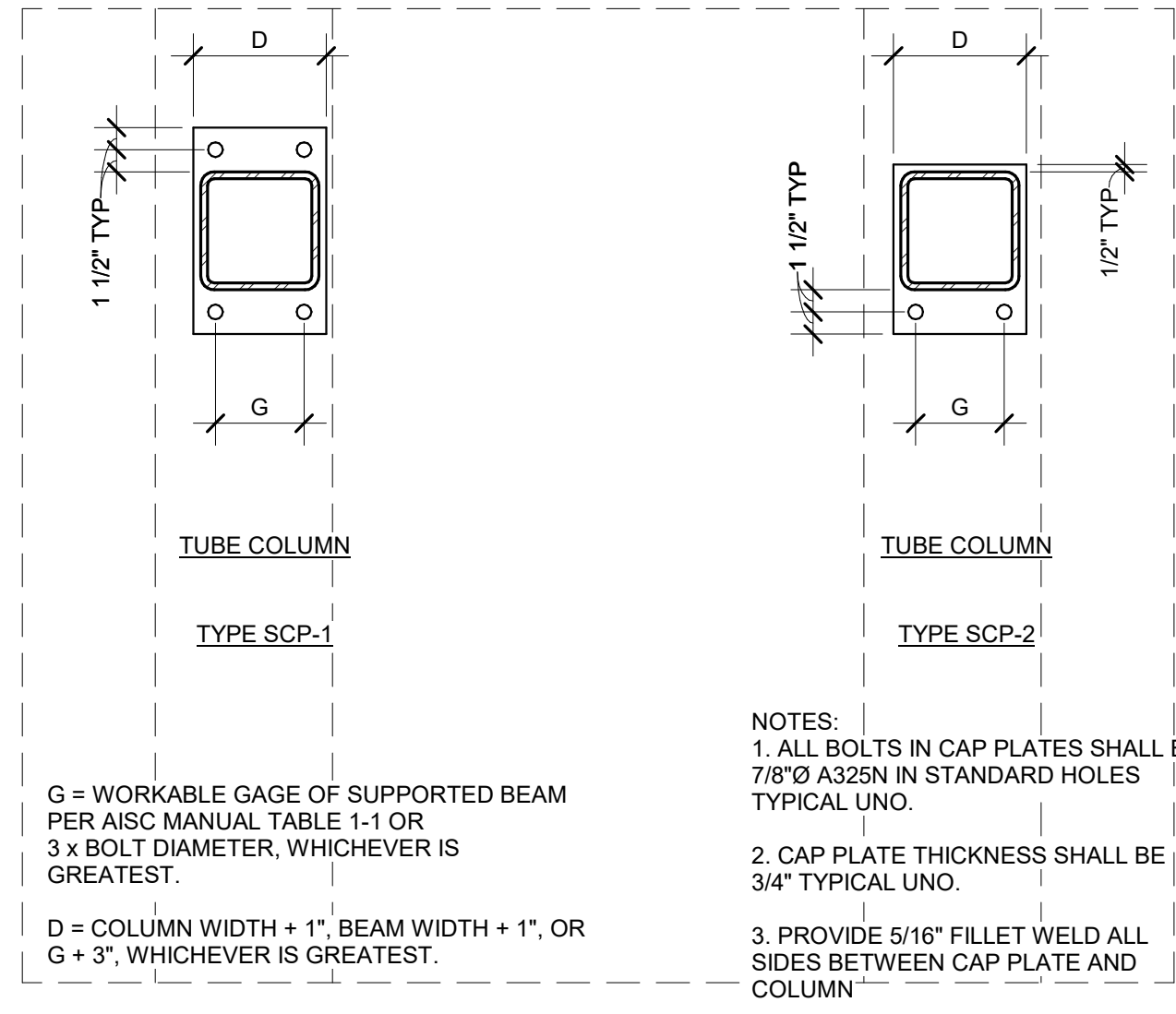


- NOTES:**
- UNLESS OTHERWISE NOTED, ANCHOR BOLTS SHALL BE 3/4" DIA WITH 1'-0" MINIMUM EMBED. BASEPLATE SHALL BE CENTERED ON COLUMN. ANCHOR BOLTS SHALL BE STAINLESS STEEL AT ALUM BASE PLATES.
  - WELD SIZE SHALL BE DETERMINED BY THE THICKEST MEMBER JOINT. MINIMUM WELD SIZE SHALL BE 3/16" FILLET FOR MATERIAL THICKNESSES UP TO AND INCLUDING 1/2"; 1/4" FILLET FOR THICKNESSES OVER 1/2" AND UP TO 3/4"; 5/16" FILLET FOR MATERIAL THICKNESSES OVER 3/4". ALL WELDS SHALL BE SINGLE-PASS WELDS.
  - UNLESS OTHERWISE NOTED, BASE PLATES SHALL BE 3/4" THICK FOR COLUMNS UP TO 6" WIDE, AND 1/4" UP TO 10" COLUMNS.

**A STEEL COLUMN BASE**



**B STEEL CAP PLATE DETAILS FOR GRAVITY COL**

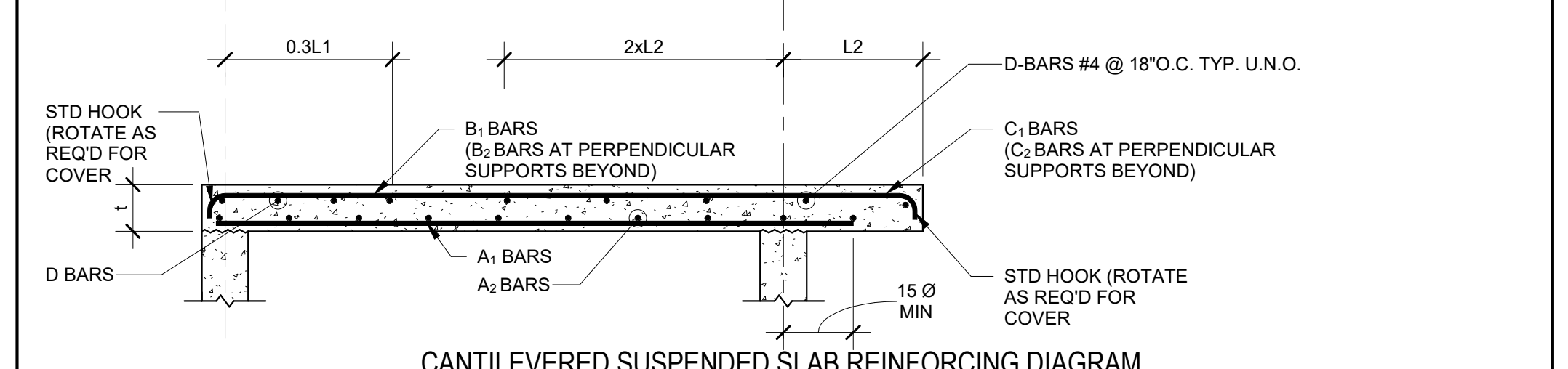
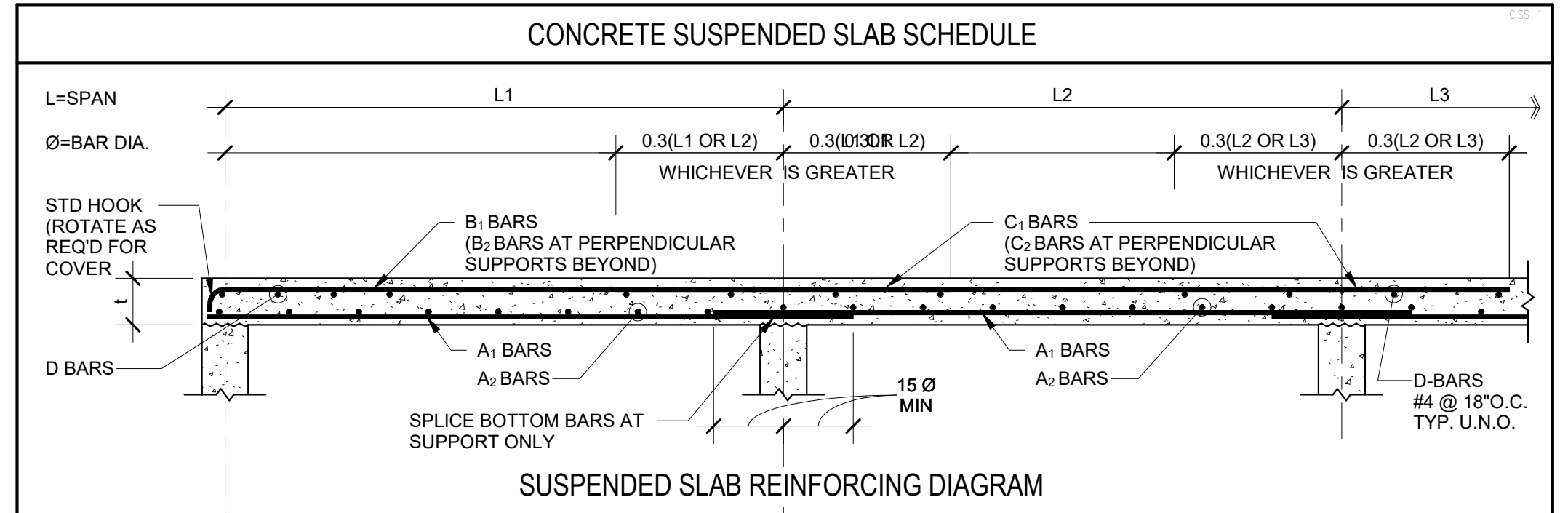
- NOTES:**
- ALL BOLTS IN CAP PLATES SHALL BE 7/8" Ø A325N IN STANDARD HOLES TYPICAL UNO.
  - CAP PLATE THICKNESS SHALL BE 3/4" TYPICAL UNO.
  - PROVIDE 5/16" FILLET WELD ALL SIDES BETWEEN CAP PLATE AND COLUMN.

**CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE**

BAR SIZE	f <sub>c</sub> = 3000 PSI				f <sub>c</sub> = 4000 PSI				f <sub>c</sub> = 4500 PSI				f <sub>c</sub> = 5000 PSI				f <sub>c</sub> = 6000 PSI				f <sub>c</sub> = ALL	
	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ld	Lt	Lsb	Lsbt	Ldc	Lsc
#3	17"	22"	22"	28"	15"	19"	19"	25"	14"	18"	18"	23"	13"	17"	17"	22"	12"	16"	16"	20"	8"	12"
#4	22"	29"	29"	38"	19"	25"	25"	33"	18"	24"	24"	31"	17"	23"	23"	29"	16"	21"	21"	27"	10"	15"
#5	28"	36"	36"	47"	24"	31"	31"	41"	23"	30"	30"	38"	22"	28"	28"	36"	20"	26"	26"	33"	12"	19"
#6	33"	43"	43"	56"	29"	37"	37"	49"	27"	35"	35"	46"	26"	34"	34"	44"	24"	31"	31"	40"	15"	23"
#7	48"	63"	63"	81"	42"	54"	54"	71"	40"	51"	51"	67"	38"	49"	49"	63"	34"	45"	45"	58"	17"	27"
#8	55"	72"	72"	93"	48"	62"	62"	81"	45"	59"	59"	76"	43"	56"	56"	72"	39"	51"	51"	66"	19"	30"
#9	62"	81"	81"	105"	54"	70"	70"	91"	51"	66"	66"	86"	48"	63"	63"	81"	44"	57"	57"	74"	22"	34"
#10	70"	91"	91"	118"	61"	79"	79"	102"	57"	74"	74"	96"	54"	71"	71"	92"	50"	64"	64"	84"	24"	39"
#11	78"	101"	101"	131"	67"	87"	87"	114"	64"	82"	82"	107"	60"	78"	78"	102"	55"	71"	71"	93"	27"	43"
#14	93"	121"	NA	NA	81"	105"	NA	NA	76"	99"	NA	NA	72"	94"	NA	NA	66"	86"	NA	NA	33"	NA
#18	124"	161"	NA	NA	108"	140"	NA	NA	101"	132"	NA	NA	96"	125"	NA	NA	88"	114"	NA	NA	43"	NA

- NOTES:**
- DEFINITIONS:**  
 Ld: TENSION DEVELOPMENT LENGTH FOR REINFORCEMENT SATISFYING THE FOLLOWING CONDITIONS:  
 SLABS AND WALLS: CLEAR SPACING > 2db AND CONCRETE CLEAR COVER > db  
 BEAMS AND COLUMNS: CLEAR COVER SPACING > db AND CONCRETE CLEAR COVER > db  
 Lt: DEVELOPMENT LENGTH FOR TOP BARS IN TENSION  
 Lsb: TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS (CLASS B)  
 Lsbt: TENSION LAP SPLICE LENGTH OF TOP BARS  
 Ldc: DEVELOPMENT LENGTH FOR BARS IN COMPRESSION  
 Lsc: TIED COLUMN LAP SPLICE IN COMPRESSION  
 db: NOMINAL BAR DIAMETER (INCHES)  
 TOP BARS: HORIZONTAL BEAM REINFORCEMENT WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW
  - MULTIPLY VALUES IN SCHEDULE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET REQUIREMENTS FOR Ld IN NOTE 1.
  - MULTIPLY VALUES IN SCHEDULE BY 1.3 FOR USE IN LIGHTWEIGHT AGGREGATE CONCRETE.
  - FOR EPOXY COATED BAR: MULTIPLY VALUES IN SCHEDULE BY 1.5 FOR BARS WITH CLEAR COVER < 3db OR CLEAR SPACING < 6db. OTHERWISE MULTIPLY VALUES BY 1.2.
  - a. FOR BUNDLED BARS OF THREE OR LESS MULTIPLY LENGTHS BY 1.2.  
 b. FOR BUNDLED BARS OF FOUR OR MORE MULTIPLY LENGTHS BY 1.33.  
 c. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.
  - SCHEDULE LENGTHS ARE FOR f<sub>y</sub>=60ksi REINFORCING, MULTIPLY LENGTHS BY 1.53 FOR f<sub>y</sub>=80ksi, 2.17 FOR f<sub>y</sub>=100ksi REINFORCING.
  - LAP SPLICES ARE NOT PERMITTED FOR #14 & #18 BARS. USE BAR COUPLERS PER G.S.N.
  - MINIMUM CLEAR SPACING BETWEEN THE CONTACT LAP SPLICES SHOWN IN THIS SCHEDULE AND ADJACENT SPLICES OR BARS SHALL BE IN ACCORDANCE WITH THE DETAILING PROVISIONS OF GENERAL STRUCTURAL NOTES.

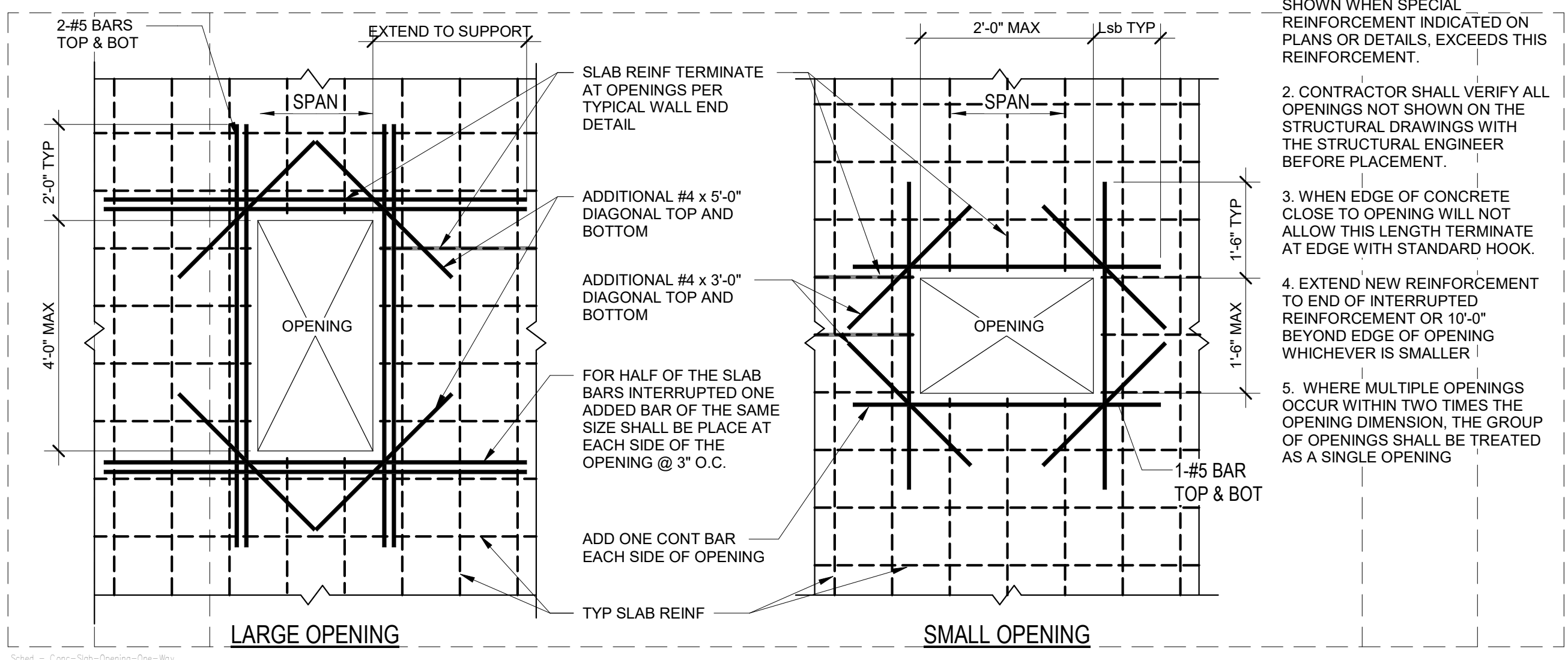
**D CONCRETE REINFORCING BAR LAP SPLICE SCHEDULE**



MARK	THICK (t)	PRIMARY REINFORCING			SECONDARY REINFORCING			D BARS
		A <sub>1</sub> BARS	B <sub>1</sub> BARS	C <sub>1</sub> BARS	A <sub>2</sub> BARS	B <sub>2</sub> BARS	C <sub>2</sub> BARS	
CSS-1	12"	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.
CSS-2	10"	#5 @ 6" O.C.	#5 @ 6" O.C.	#5 @ 6" O.C.	#5 @ 6" O.C.	#5 @ 6" O.C.	#5 @ 6" O.C.	#5 @ 6" O.C.
CSS-3	7"	#4 @ 10" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.	#4 @ 10" O.C.
CSS-4	24"	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.	#6 @ 7" O.C.

- NOTES:**
- PRIMARY REINFORCING SHALL RUN PARALLEL TO THE DIRECTION OF THE ARROW (→).
  - PRIMARY BOTTOM REINFORCING SHALL BE PLACED BELOW SECONDARY BOTTOM REINFORCING. PRIMARY TOP REINFORCING SHALL BE PLACED ABOVE SECONDARY TOP REINFORCING.

**C CONCRETE SUSPENDED SLAB SCHEDULE**



**E TYPICAL OPENING THROUGH ONE WAY CONCRETE SUSPENDED SLAB (PLAN VIEW)**

**REAVELEY Engineers**  
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 Salt Lake City, UT 84102  
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 F 801.485.0911  
 www.reaveley.com

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO. 0  
 DATE: 06/14/24  
 ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)

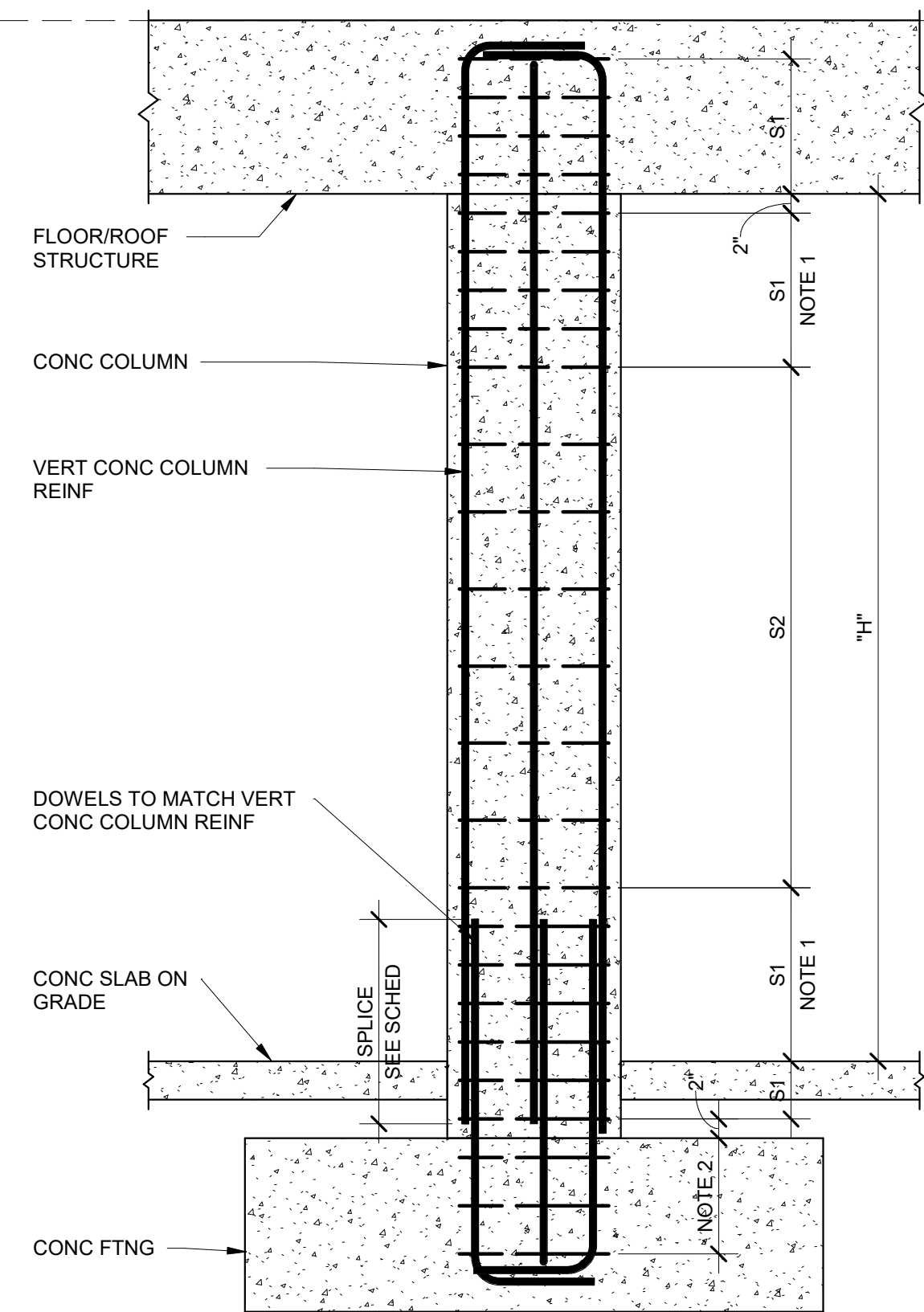
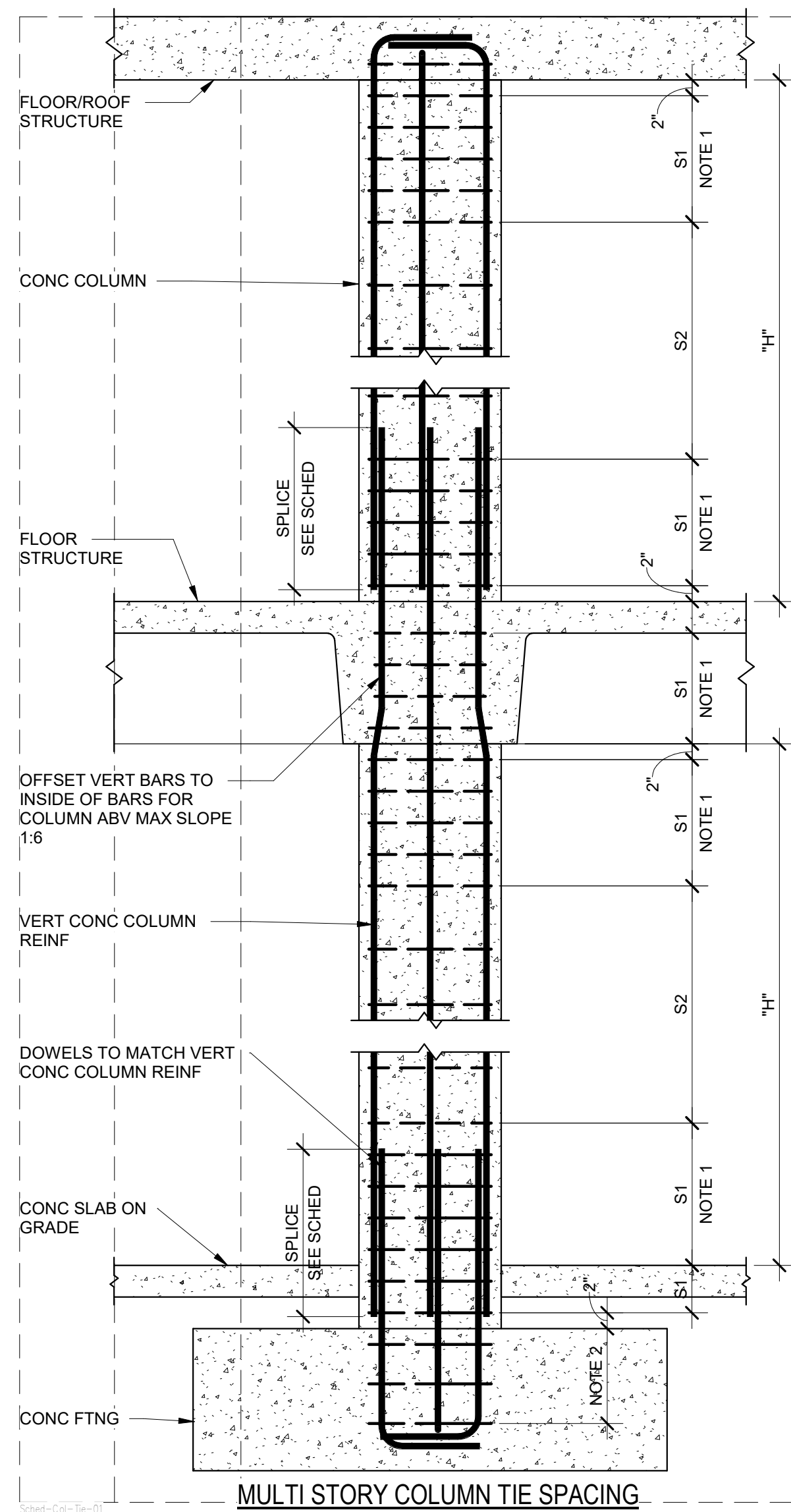
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 STANDARD STRUCTURAL  
 SCHEDULES 3

90% GMP

DRAWING NO. GS-28

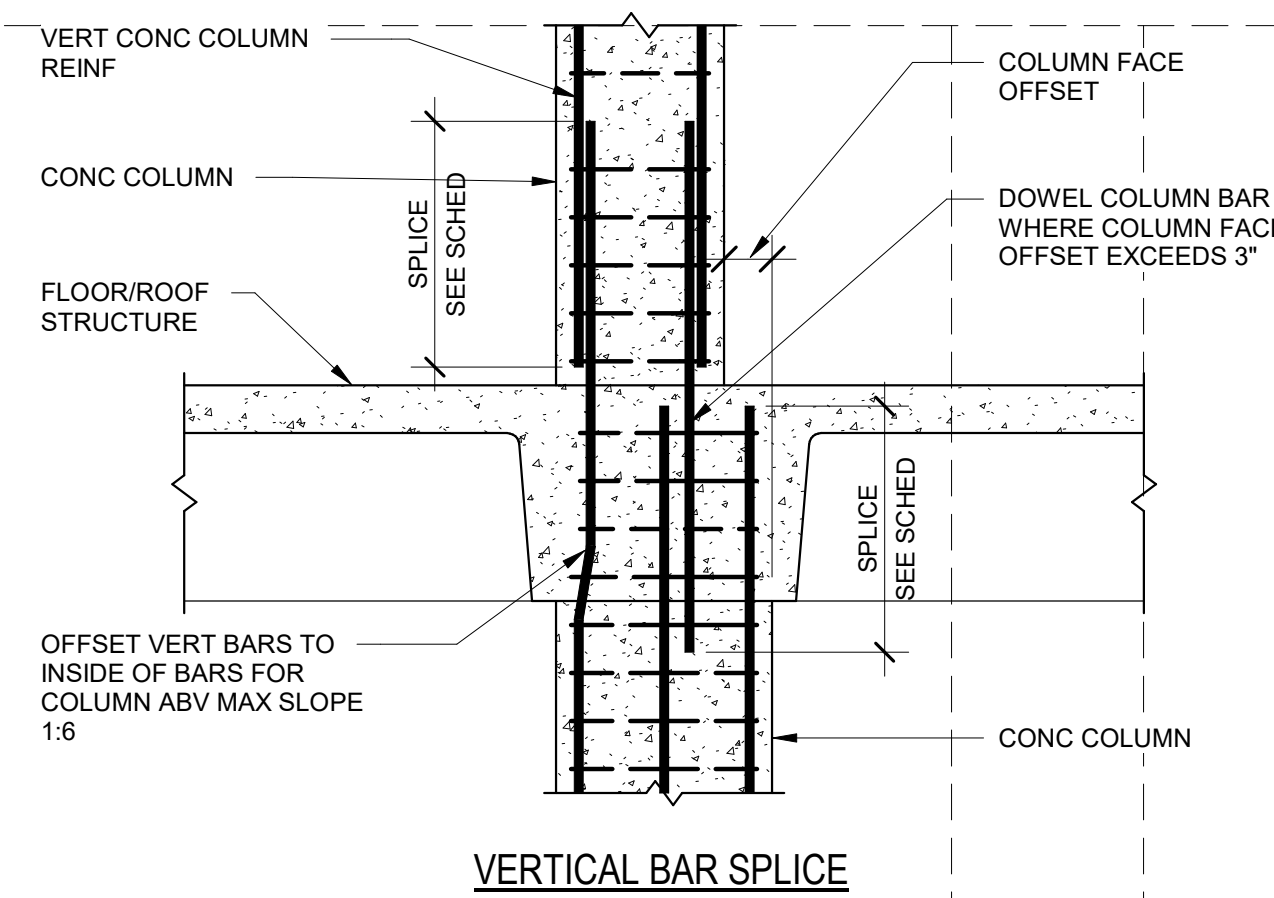
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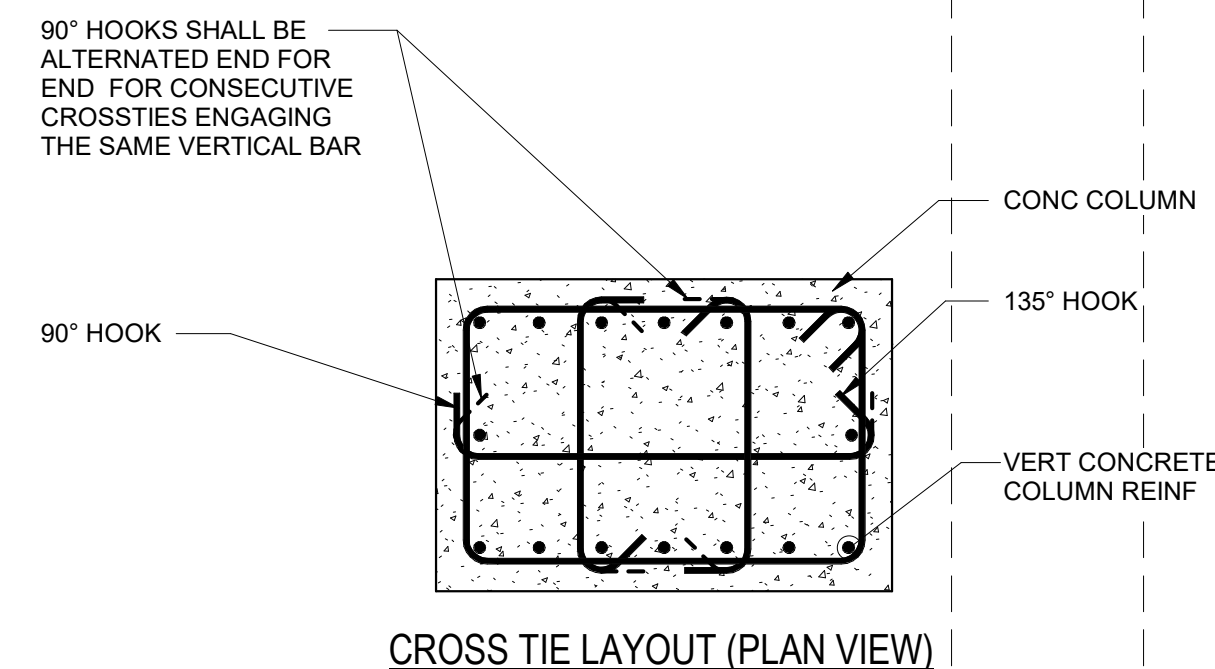


**SINGLE STORY COLUMN TIE SPACING**

- NOTE:
1. PROVIDE REDUCED TIE SPACING (S1) FOR THE LARGER OF H/6 THE MAX COLUMN DIMENSION or 18"
  2. TIES SHOWN IN FOOTING ARE ONLY REQUIRED WHERE COLUMN EDGE IS WITHIN 6" OF FOOTING EDGE. WHERE TIES ARE REQUIRED, USE S1 SPACING.



**VERTICAL BAR SPLICE**



**CROSS TIE LAYOUT (PLAN VIEW)**

MARK	SIZE	REINFORCING					REMARKS
		VERTICAL	SPLICE	TIES	S1 SPACING	S2 SPACING	
CC-1	18"x18"	8 - #6	NONE	#4	3" O.C.	6" O.C.	-
CC-2	16"x16"	8 - #6	NONE	#4	3" O.C.	6" O.C.	-
CC-3	15"x18"	8 - #6	NONE	#4	3" O.C.	6" O.C.	-

NOTES:  
 1. SEE DETAIL FOR TYPICAL CONCRETE COLUMN TIE SPACING AND PLACEMENT.  
 2. SEE CONCRETE REINFORCING BAR DEVELOPMENT AND LAP SPLICE LENGTH SCHEDULE.

**B CONCRETE COLUMN SCHEDULE**

**A TYPICAL GRAVITY CONCRETE COLUMN DIAGRAMS**

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: ---

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	PRICE/GMP	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE	PRICE/GMP		CH	CP

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 STANDARD STRUCTURAL  
 SCHEDULES 4

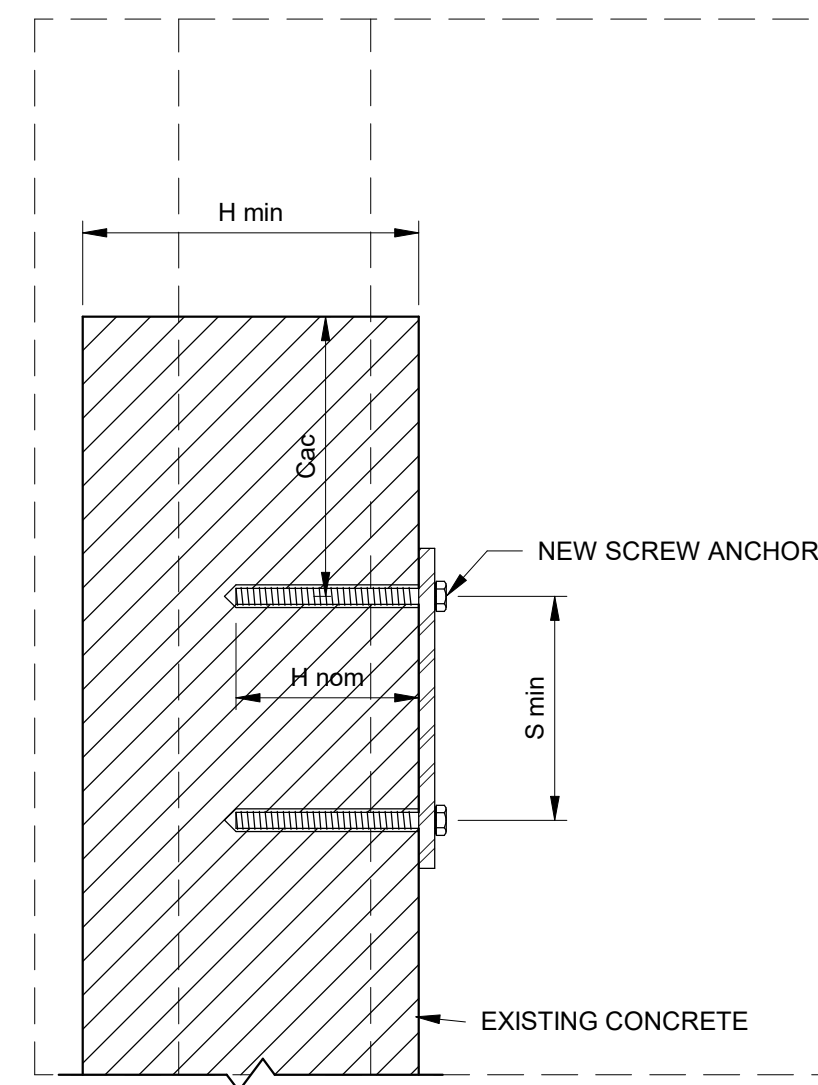
90% GMP

DRAWING NO. GS-29

**REAVELEY**  
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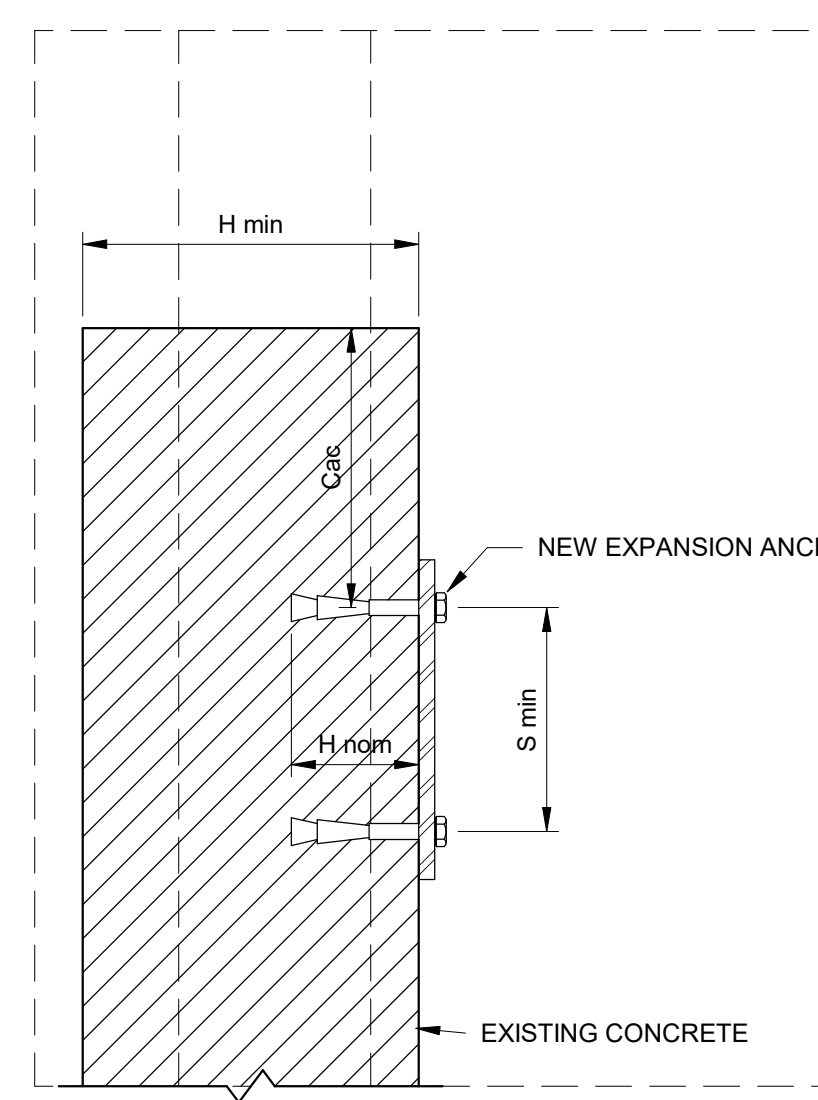
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SCREW ANCHORS IN CONCRETE SCHEDULE				
ANCHOR SIZE	MINIMUM EDGE DISTANCE (Cac)	EMBEDMENT LENGTH (H nom)	MINIMUM CONCRETE THICKNESS (H min)	MINIMUM ANCHOR SPACING (S min)
3/8"Ø	3.3/4"	3.1/4"	5"	3"
1/2"Ø	4.1/2"	4"	6.1/4"	3.1/2"
5/8"Ø	6.3/8"	5.1/2"	8.1/2"	3.3/4"
3/4"Ø	7.5/16"	6.1/4"	10"	4.1/2"

- NOTES:
- THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS AND AT OTHER LOCATIONS WITH APPROVAL OF THE STRUCTURAL ENGINEER.
  - EDGE DISTANCE, Cac, AND EMBEDMENT LENGTHS, H nom, AND ANCHOR SPACING SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER VALUES IN THIS SCHEDULE.
  - ANCHORS LOCATED WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER DOES NOT MEET THE REQUIRED MINIMUM CONCRETE THICKNESS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
  - SPECIAL INSPECTION IS REQUIRED DURING INSTALLATION OF ALL SCREW ANCHORS PER THE CODE EVALUATION REPORT FOR THE ANCHOR AND THE QUALITY ASSURANCE SECTION OF THE GENERAL STRUCTURAL NOTES.
  - SEE GENERAL STRUCTURAL NOTES FOR LIST OF APPROVED ANCHORS AND OTHER REQUIREMENTS FOR USING SCREW ANCHORS.
  - SCREW ANCHORS SHALL ONLY BE USED IN INTERIOR DRY LOCATIONS

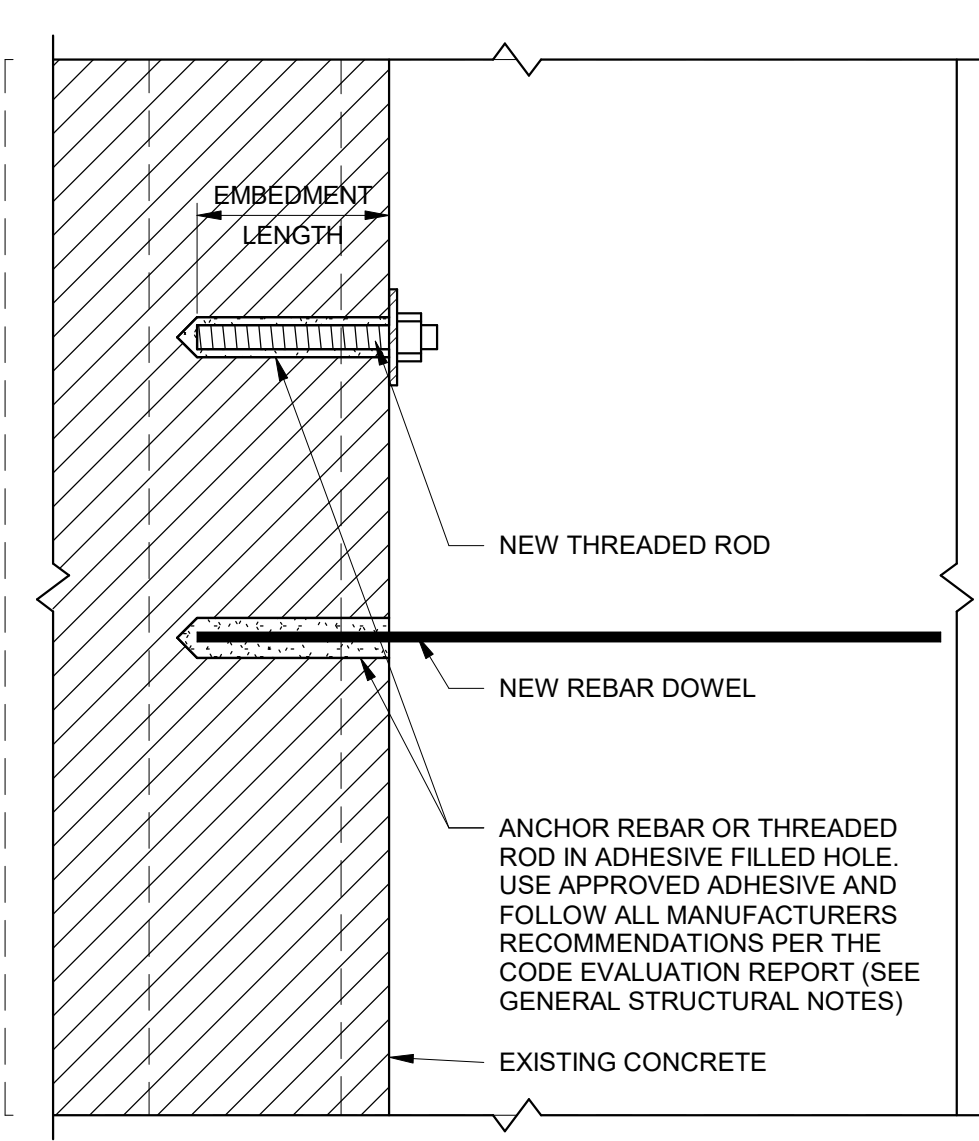
A SCREW ANCHORS IN CONCRETE SCHEDULE



EXPANSION ANCHORS IN CONCRETE SCHEDULE				
ANCHOR SIZE	MINIMUM EDGE DISTANCE (Cac)	EMBEDMENT LENGTH (H nom)	MINIMUM CONCRETE THICKNESS (H min)	MINIMUM ANCHOR SPACING (S min)
3/8"Ø	6.1/2"	2.7/8"	4.1/2"	3.3/4"
1/2"Ø	10"	3.7/8"	6"	5"
5/8"Ø	10"	5.1/8"	8"	6"
3/4"Ø	16"	5.3/4"	10"	7"

- NOTES:
- THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS. ANCHORS AT OTHER LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
  - EDGE DISTANCE, Cac, AND EMBEDMENT LENGTHS, H nom, AND ANCHOR SPACING SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER VALUES IN THIS SCHEDULE.
  - ANCHORS LOCATED WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER DOES NOT MEET THE REQUIRED MINIMUM CONCRETE THICKNESS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
  - SEE GENERAL STRUCTURAL NOTES FOR LIST OF APPROVED ANCHORS AND OTHER REQUIREMENTS FOR USING EXPANSION ANCHORS.

B EXPANSION ANCHORS IN CONCRETE SCHEDULE



ADHESIVE ANCHORS IN CONCRETE SCHEDULE			
REINFORCING BAR		THREADED ROD	
DOWEL SIZE	EMBEDMENT LENGTH (SEE NOTE #2)	SIZE	EMBEDMENT LENGTH (SEE NOTE #2)
#3	4"	3/8"Ø	4 1/2"
#4	6"	1/2"Ø	6"
#5	9"	5/8"Ø	7 1/2"
#6	10"	3/4"Ø	9"
#7	12 1/2"	7/8"Ø	10 1/2"
#8	13"	1"Ø	12"
#9	14"	1 1/4"Ø	15"
#10	18"		
#11	19"		

- NOTES:
- THIS SCHEDULE SHALL BE USED ONLY WHERE SPECIFICALLY REFERENCED ON THE DRAWINGS AND AT OTHER LOCATIONS WITH APPROVAL OF THE STRUCTURAL ENGINEER.
  - EMBEDMENT LENGTHS SPECIFIED ON PLANS OR DETAILS TAKE PRECEDENCE OVER EMBEDMENT LENGTHS IN THIS SCHEDULE.
  - WHERE THE THICKNESS OF THE EXISTING CONCRETE MEMBER IS NOT SUFFICIENT TO ACHIEVE SCHEDULED EMBEDMENT AND SPECIFIED CLEAR COVER FOR THE ANCHOR, CONTACT THE STRUCTURAL ENGINEER.
  - SEE GENERAL STRUCTURAL NOTES FOR LIST OF APPROVED ADHESIVES AND OTHER REQUIREMENTS FOR ADHESIVE ANCHORING.

C ADHESIVE ANCHORS IN CONCRETE SCHEDULE

SCALE: \_\_\_\_\_

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

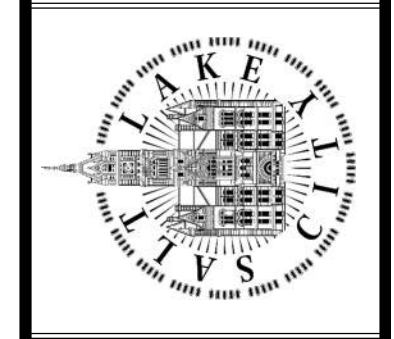
REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

MADE BY: \_\_\_\_\_  
 AUTH BY: \_\_\_\_\_  
 CH CP

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 STANDARD STRUCTURAL  
 SCHEDULES 5

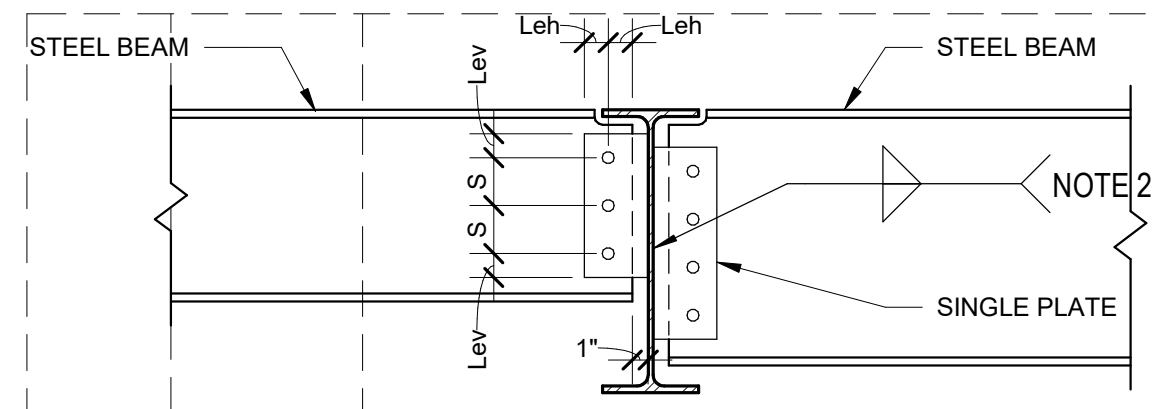


90% GMP

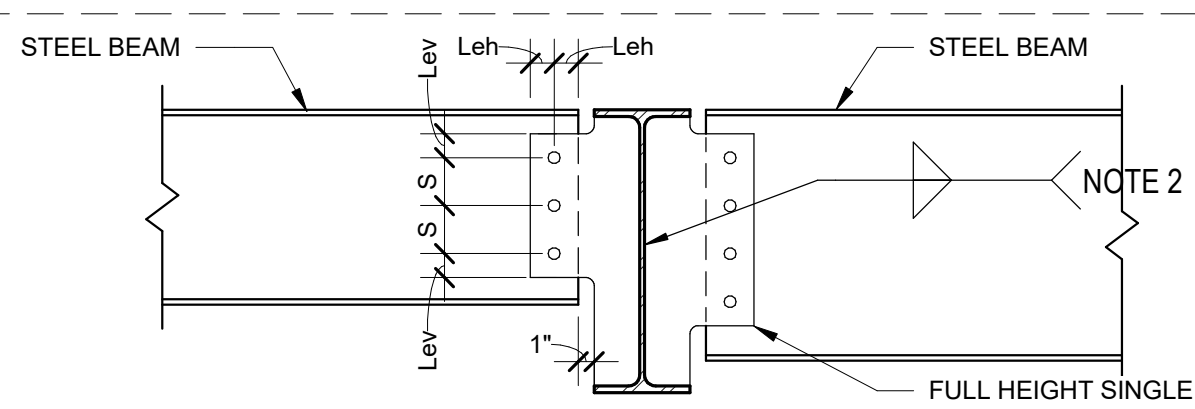
**REAVELEY**  
 Engineers

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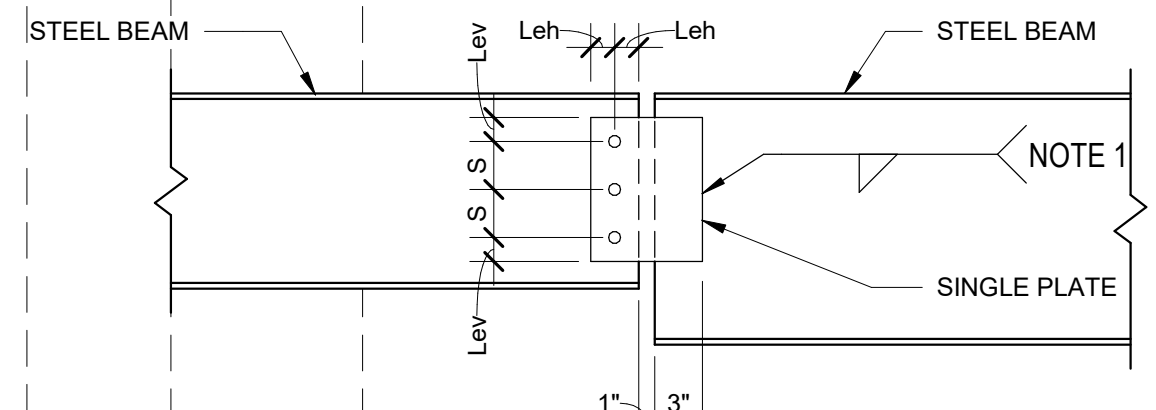
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**GS-30**



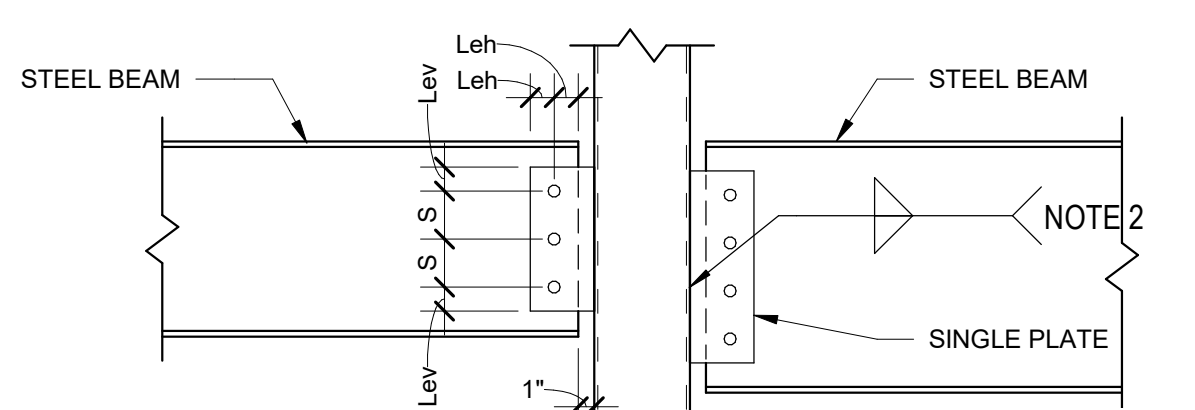
BEAM TO BEAM CONNECTION



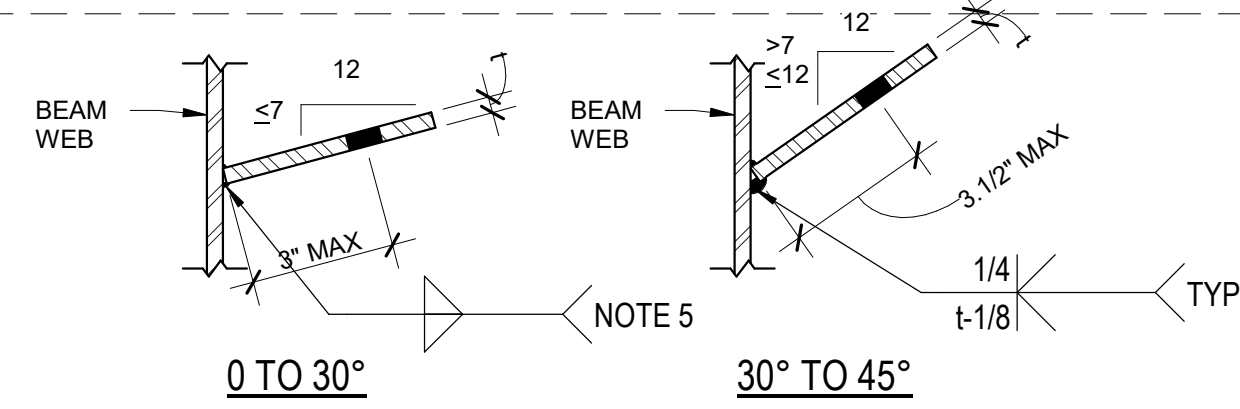
BEAM TO BEAM CONNECTION AT FULL HEIGHT STIFFENER



BEAM TO BEAM CONNECTION

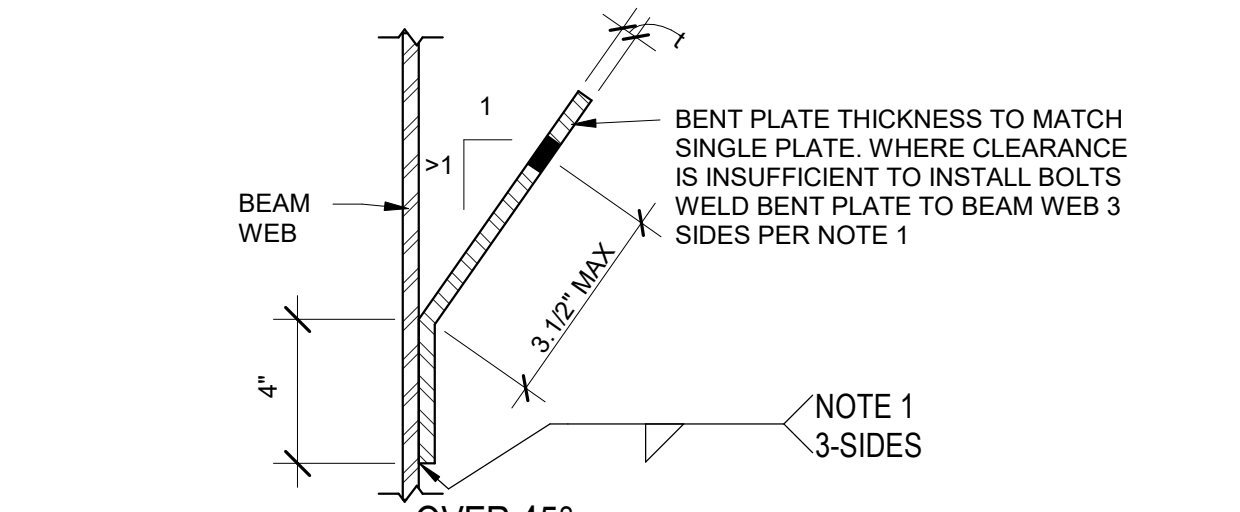


BEAM TO COLUMN CONNECTION



0 TO 30°

30° TO 45°



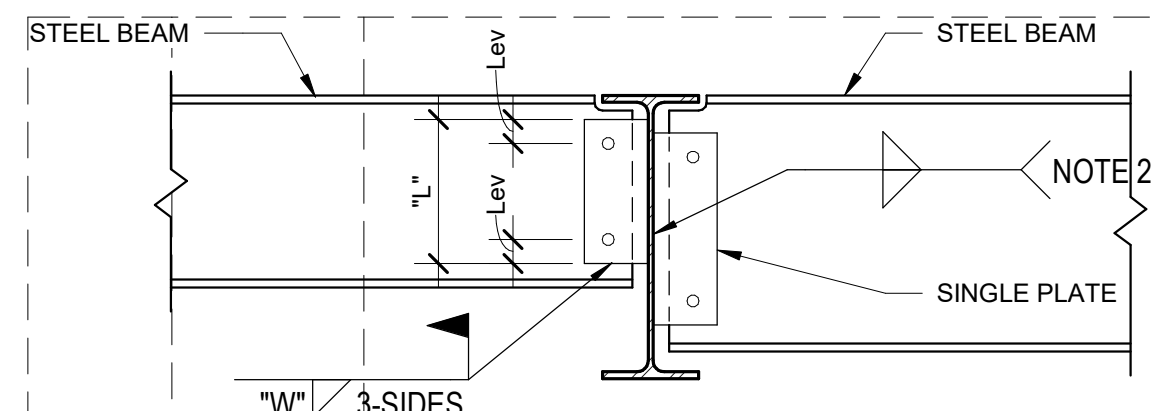
OVER 45°

SKewed CONNECTION (PLAN VIEW)

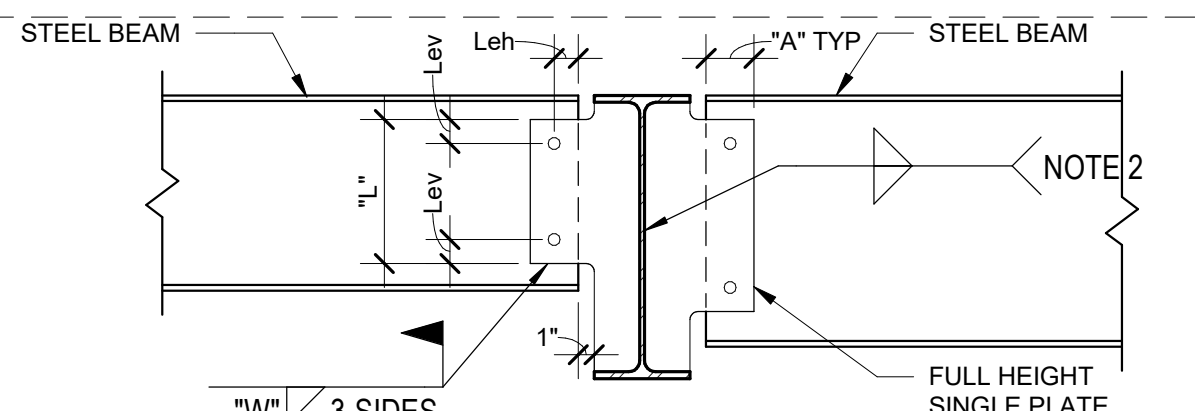
SINGLE PLATE CONNECTION SCHEDULE			
BEAM SIZE	WEB PLATE THICKNESS (t)	A325N BOLTS	
		NUMBER	SIZE
W8 AND W10	3/8"	2	7/8"Ø
W12 AND W14	3/8"	3	7/8"Ø
W16	3/8"	4	7/8"Ø
W18 AND W21	3/8"	5	7/8"Ø
W24	3/8"	6	7/8"Ø
W27	3/8"	7	7/8"Ø
W30	3/8"	8	7/8"Ø
W33	3/8"	9	7/8"Ø
W36	3/8"	10	7/8"Ø
W40	3/8"	11	7/8"Ø
W44	3/8"	12	7/8"Ø

NOTES:  
 1. FILLET WELDS ONE SIDE SHALL EQUAL THE PLATE THICKNESS MINUS 1/16" (1/4" MIN.)  
 2. FILLET WELDS TWO SIDES SHALL BE 5/8 THE PLATE THICKNESS (1/4" MIN.) EACH SIDE.  
 3. BOLT EDGE DISTANCE SHALL BE AS FOLLOWS: Le = 2 x BOLT DIAMETER; Lev = 1.1/2".  
 4. BOLT SPACING (S) SHALL BE 3".  
 5. AT SKEWED JOINTS PROVIDE AN EQUIVALENT LEG SIZE TO NOTE 2 PER AWS D1.1.  
 6. PROVIDE SHORT SLOTTED HOLES WHEN 6 OR MORE BOLTS ARE REQUIRED AND BOLT DIAMETER IS ≤ 3/4".

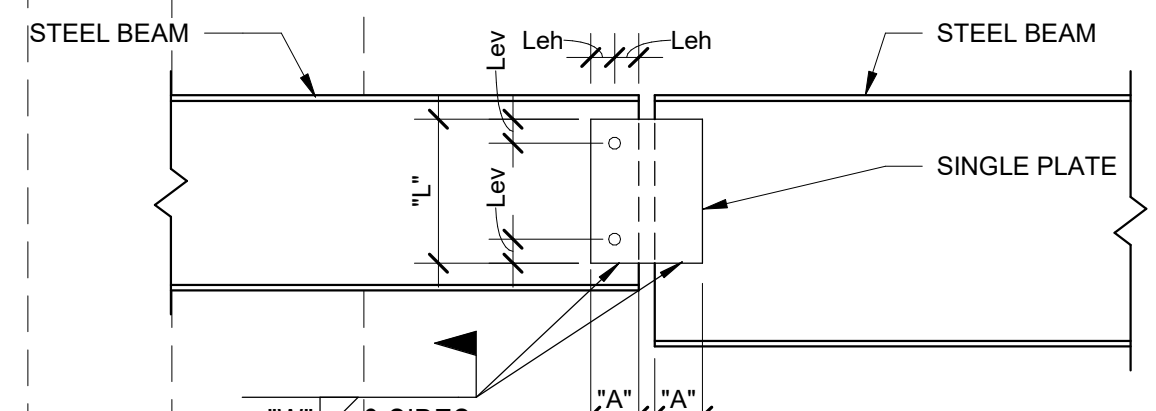
A TYPICAL SINGLE PLATE CONNECTION DETAILS AND SCHEDULE



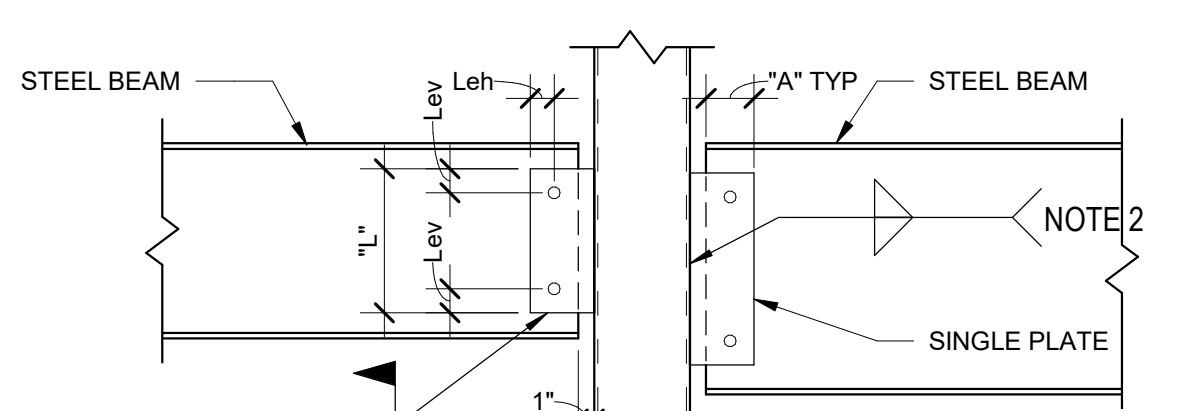
BEAM TO BEAM CONNECTION



BEAM TO BEAM CONNECTION AT FULL HEIGHT STIFFENER



BEAM TO BEAM CONNECTION



BEAM TO COLUMN CONNECTION

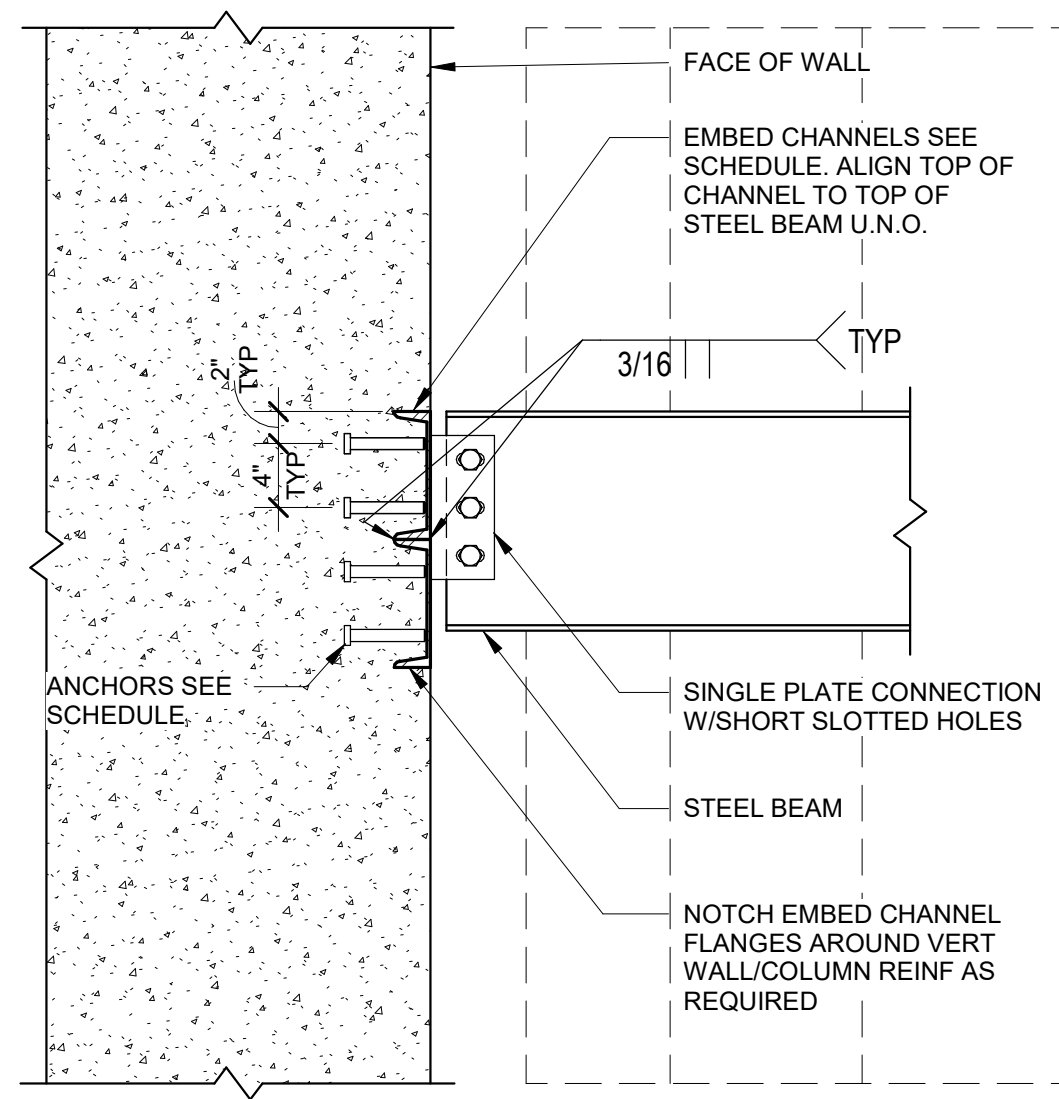
SINGLE PLATE COLLECTOR/CHORD CONNECTION SCHEDULE					
BEAM SIZE	WEB PLATE			WELD "W"	ERECTION BOLTS
	"L"	"A"	THICKNESS		
W21x62	18"	8"	1/2"	3/8"	2

NOTES:  
 1. ERECTION BOLT SHALL BE 7/8"Ø A325N BOLTS.  
 2. FILLET WELDS TWO SIDES SHALL BE 5/8 THE PLATE THICKNESS (1/4" MIN.) EACH SIDE.  
 3. BOLT EDGE DISTANCE SHALL AS FOLLOWS: Le = 2 x BOLT DIAMETER; Lev = 1.1/2".  
 4. BOLT SPACING (S) SHALL BE 3" MINIMUM.

STEEL ANGLE LINTEL SCHEDULE		
BEARING EQUALS 1" PER FOOT OF OPENING OR 6" MINIMUM TYPICAL		
OPENING SIZE	ANGLE SIZE	NOTES:
0'-0" - 7'-0"	L3.1/2x3.1/2x1/4	LINTELS ARE DESIGNED TO SUPPORT UNIFORM LOADS CONSISTING ONLY OF WEIGHT OF WALL WITHIN A 60 DEGREE ISOSCELES TRIANGLE AREA ABOVE OPENING.  ALL STEEL LINTELS ARE TO HAVE LONG LEG VERTICAL.  LINTEL SCHEDULE FOR 4" VENEER  ALL ANGLE LINTELS SHALL BE GALVANIZED.
7'-0" - 9'-0"	L4x3.1/2x1/4	
9'-0" - 10'-0"	L5x3.1/2x1/4	

C STEEL ANGLE LINTEL

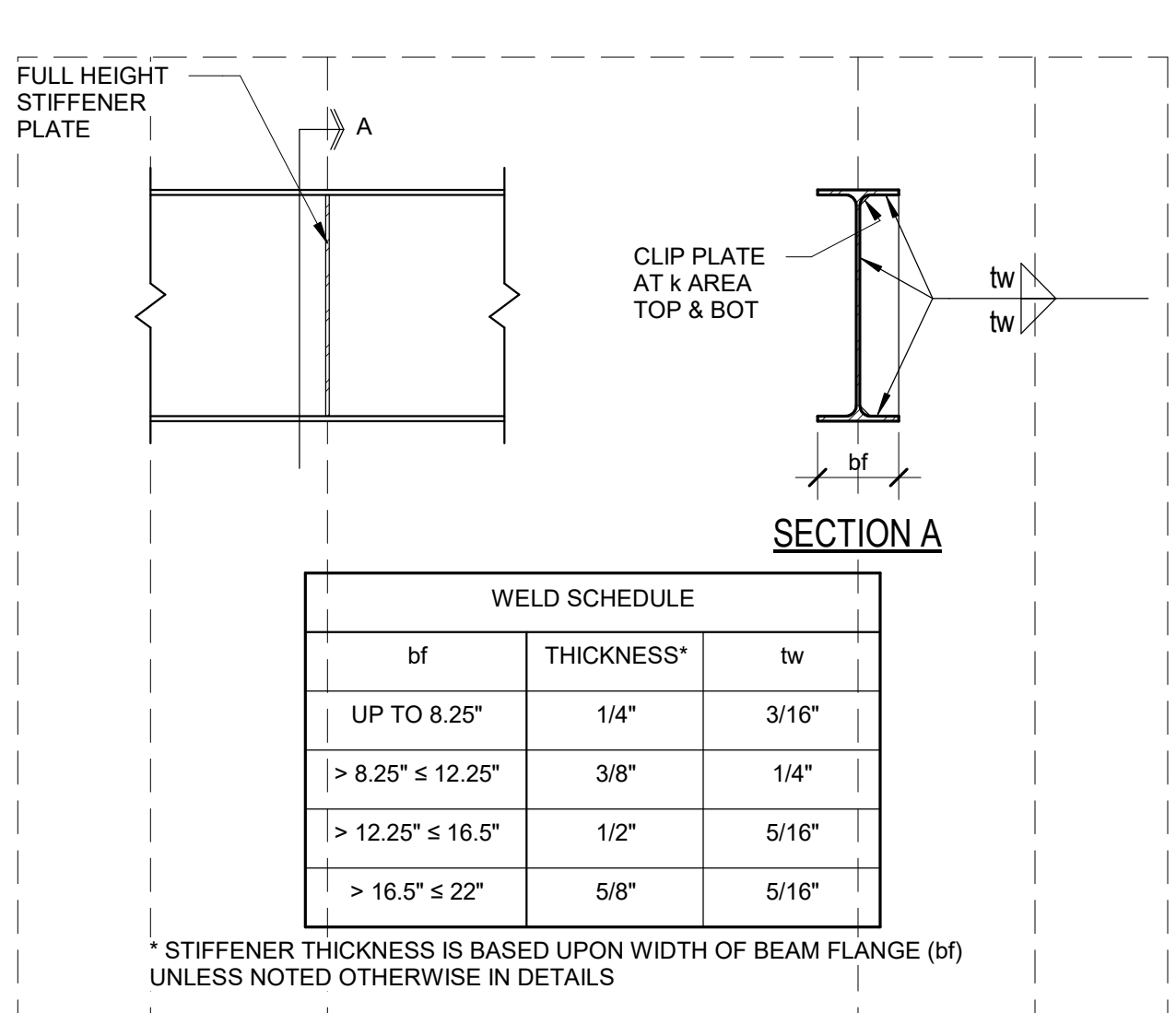
B TYPICAL WELDED SINGLE PLATE COLLECTOR/CHORD CONNECTION DETAILS AND SCHEDULE



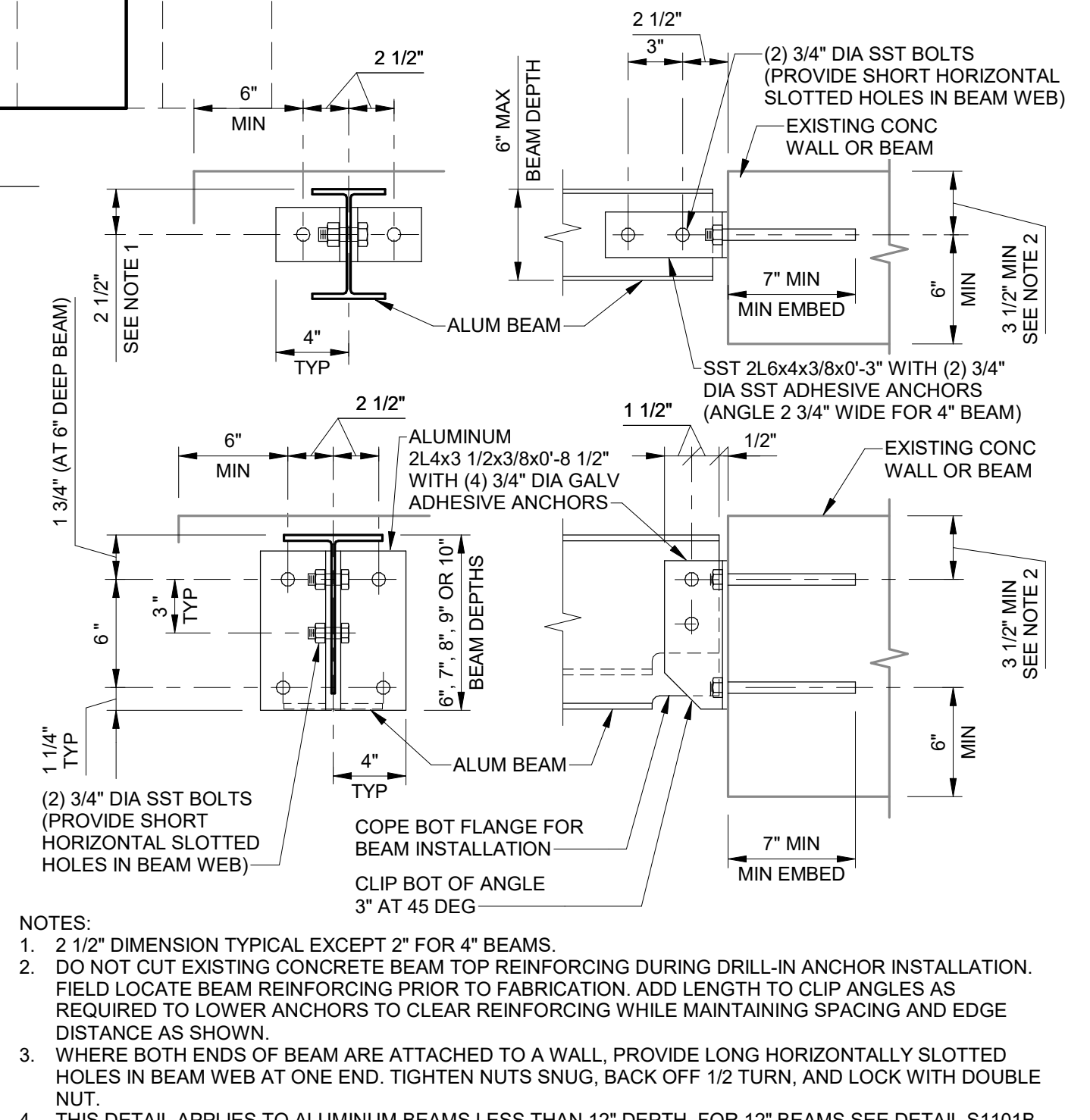
CONNECTION SCHEDULE		
BEAM DEPTH	EMBED CHANNEL	ANCHORS
TO 10"	1-C8x18.75x12"	4-3/4"Ø x 5" LONG HSA
TO 16"	2-C8x18.75x12"	8-3/4"Ø x 5" LONG HSA
TO 24"	3-C8x18.75x12"	12-3/4"Ø x 5" LONG HSA

NOTES:  
 1. WELD MULTIPLE EMBEDS TOGETHER WITH BUTT WELD EACH SIDE, FULL LENGTH.  
 2. PROVIDE 2" EDGE DISTANCE FROM END OF CHANNEL EMBED TO CENTER OF HSA, TYPICAL.

D TYPICAL EMBED CHANNEL CONNECTION SCHEDULE



E TYPICAL STIFFENER PLATE DETAIL



F BEAM / WALL CONNECTION - ALUM

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO.:  
 ACCOUNT NO.: 512260079

SCALE: VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
 STANDARD STRUCTURAL SCHEDULES 6

90% GMP

DRAWING NO. GS-31

**REAVELEY**  
 Engineers

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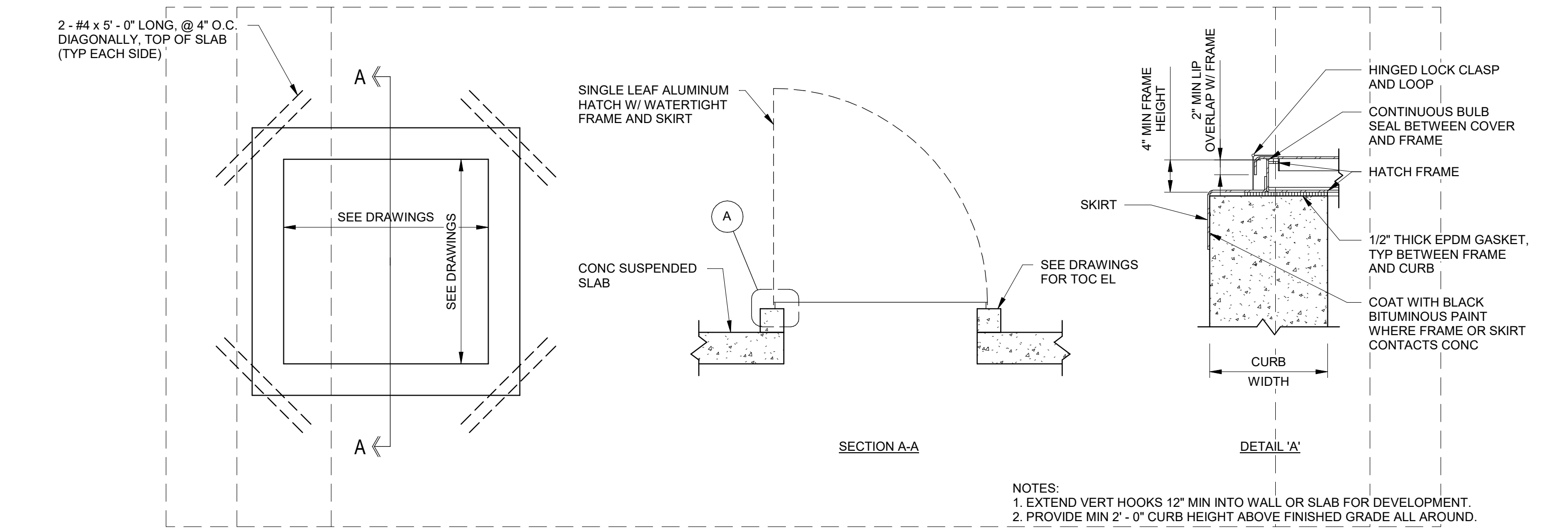
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STEEL DECK SCHEDULE										
MARK	STEEL DECK				CONCRETE FILL			STEEL DECK ATTACHMENT	MIN. ALLOWABLE SHEAR CAPACITY	NOTES
	PROFILE	MIN I (in <sup>2</sup> /ft)	MIN S (in <sup>2</sup> /ft)	FINISH	THICKNESS (t)	TYPE	REINFORCEMENT			
SD-1	TYPE B 1.1/2" DEEP x 20 GA	0.219	0.230	GALVANIZED (G60)	-	-	-	SDA-1	1304 PLF @ 6'-0"	-
SD-2	TYPE B 1.1/2" DEEP x 22 GA	0.219	0.230	GALVANIZED (G60)	-	-	-	SDA-2	1304 PLF @ 6'-0"	-

NOTES:  
 1. STEEL DECK SHALL COMPLY WITH LATEST REQUIREMENTS OF THE STEEL DECK INSTITUTE (SDI).  
 2. SUBMIT CURRENT CODE EVALUATION REPORT (ICC OR IAPMO) WITH LOAD AND LATERAL SHEAR CAPACITIES WITH SHOP DRAWINGS.  
 3. FIBER REINFORCEMENT, WHEN REQUIRED IN SCHEDULE, SHALL BE MACROSYNTHETIC FIBER REINFORCEMENT PER THE CONCRETE MATERIALS SECTION OF THE GENERAL STRUCTURAL NOTES.  
 4. ALL DECK SHALL BE 3-SPAN CONTINUOUS MINIMUM WHERE POSSIBLE. IN AREAS WHERE 3-SPAN CONDITIONS ARE NOT POSSIBLE THE CONTRACTOR SHALL VERIFY UN-SHORED DECK IS PERMITTED BY THE DECK MANUFACTURER FOR THE SPAN CONDITION, SPAN LENGTH, AND DECK GAUGE. WHERE DECK DOES NOT MEET THE REQUIREMENTS FOR UN-SHORED DECK, THE CONTRACTOR SHALL EITHER PROVIDE HEAVIER GAUGE DECK TO ALLOW FOR UN-SHORED DECK OR PROVIDE SHORING.  
 5. STEEL DECK WITHOUT CONCRETE FILL SHALL NOT BE USED TO SUPPORT LOADS FROM PLUMBING, HVAC DUCTS, LIGHT FIXTURES, ARCHITECTURAL ELEMENTS OR EQUIPMENT OF ANY KIND, UNLESS SPECIFICALLY NOTED OTHERWISE. LIGHTWEIGHT SUSPENDED ACOUSTICAL CEILINGS WITH A TOTAL WEIGHT PER WIRE NOT EXCEEDING 50# MAY BE HUNG FROM THE STEEL ROOF DECK. THE HANGERS SHOULD BE STAGGERED TO DISTRIBUTE THE LOAD OVER MULTIPLE DECK FLUTES.  
 6. DECK SHALL HAVE 2" MINIMUM BEARING ON ALL SUPPORTING MEMBERS (MEMBERS PERPENDICULAR TO DECK) UNO. DECKS SHALL HAVE 1.1/2" MINIMUM BEARING AT PARALLEL MEMBERS.  
 7. DO NOT EMBED CONDUITS OR PIPES IN CONCRETE FILL OVER STEEL DECKS WITHOUT APPROVAL OF STRUCTURAL ENGINEER.  
 8. SEE TYPICAL DETAILS FOR REINFORCEMENT REQUIRED AT OPENINGS THROUGH STEEL DECK. OPENING REINFORCING SHALL BE INSTALLED PRIOR TO SAW CUTTING OPENINGS.  
 9. PROVIDE GALVANIZED STEEL DECK ABOVE & BELOW MECHANICAL ROOMS.  
 10. SEE PLANS AND DETAILS FOR LOCATIONS WHERE ADDITIONAL SLAB REINFORCEMENT IS REQUIRED.

A STEEL DECK SCHEDULE



C ACCESS AND EQUIPMENT HATCH FOR BURIED FINISHED WATER RESERVOIRS

STEEL DECK ATTACHMENT SCHEDULE						
MARK	WELDED (SEE NOTE 13)			MECHANICAL (SEE NOTE 13)		
	SUPPORTS	PARALLEL	SIDE LAP	SUPPORTS	PARALLEL	SIDE LAP
SDA-1	PW @ 36/7	PW @ 12" O.C.	1.1/2" TSW @ 18" O.C.	PAF @ 36/7	PAF @ 12" O.C.	PSC @ 12" O.C.

NOTES:  
 1. PW = PUDDLE WELD - 1/2" EFFECTIVE DIAMETER ARC SPOT WELD AT INTERIOR FLUTES, 1" X 3/8" EFFECTIVE ARC SEAM WELD AT SUPPORTS ADJACENT TO SIDELAP.  
 2. TSW = TOP SEAM WELD - 1.1/2" LONG TOP SEAM WELDS BETWEEN ADJACENT PIECES OF DECKING. CRIMP SIDE SEAMS BEFORE WELDING INTERLOCKING SEAMS.  
 3. BP = BUTTON PUNCH - 3/16" BUTTON PUNCH BETWEEN ADJACENT PIECES OF DECK. CRIMP SEAMS BEFORE BUTTON PUNCHING INTERLOCKING SEAMS.  
 4. PAF = POWDER ACTUATED FASTENER -  
 HILTI X-HSN 24 AT SUPPORTS 3/16" THROUGH 3/8" THICK PNEUTEK SDK61075 AT SUPPORTS 0.113" THROUGH 0.155" THICK  
 HILTI X-ENP-19 L15 AT SUPPORTS 1/4" THICK AND GREATER PNEUTEK SDK63075 AT SUPPORTS 0.155" THROUGH 0.250" THICK  
 PNEUTEK K64062 AT SUPPORTS 0.187" THROUGH 0.312" THICK  
 PNEUTEK K66062 OR K66075 AT SUPPORTS 0.281" THICK AND GREATER  
 5. SDS = SELF DRILLING SCREW. WHERE SIDELAPS HAVE SCREWED CONNECTION, THE DECK PROVIDED SHALL HAVE A SCREWABLE SIDE SEAM, UNO.  
 6. PSC = PROPRIETARY SIDELAP CONNECTION - VERCO SIDELAP CONNECTION 2 FOR VERCO PUNCHLOK II SYSTEM, ASC DELTA GRIP FOR ASC DECKS.  
 7. SPACING AT SUPPORTS IS NOTED AS (DECK PANEL WIDTH)/(ATTACHMENTS PER PANEL). FOR EXAMPLE: PW @ 36/4 INDICATES A 36" WIDE DECK SHEET WITH 4 PUDDLE WELDS AT EACH SUPPORT.  
 8. HEADED STUD ANCHORS WELDED THROUGH DECK WITH 1" MINIMUM COVER FROM EDGE OF DECK TO STUD CENTERLINE MAY BE SUBSTITUTED ONE FOR ONE FOR PW, ALIGN AND SECURE DECK IN POSITION BEFORE INSTALLING STUDS.  
 9. SEE PLANS AND SFRS SHEETS FOR ADDITIONAL FASTENERS REQUIRED AT MEMBERS DENOTED AS SFRS. OMIT ATTACHMENTS WHERE DENOTED AS PROTECTED ZONES IN SFRS.  
 10. ALL WELDED SURFACES SHALL BE DRY BEFORE WELDING DECK OR STUDS TO SUPPORTS.  
 11. ALIGN AND SECURE DECK IN POSITION BEFORE WELDING OR INSTALLING FASTENERS OR STUDS.  
 12. ALTERNATE MEANS OF DECK ATTACHMENT ARE PERMITTED WITH APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT THE PROPOSED ATTACHMENT SYSTEM AND THE CODE EVALUATION REPORT DEMONSTRATING THE SYSTEM HAS THE STRENGTH TO MEET THE SPECIFIED DECK SHEAR. IF THE ALTERNATE METHOD IS APPROVED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE DECK TYPE AND PROFILE IS COMPATIBLE WITH THE FASTENING SYSTEM.  
 13. FM GLOBAL ROOF ATTACHMENT REQUIREMENTS MAY RESULT IN DECREASED/REVISED SPACINGS OR DOUBLE FASTENER ATTACHMENTS. COORDINATE ROOFING ASSEMBLY REQUIREMENTS WITH ROOFING SUBCONTRACTOR.

B STEEL DECK ATTACHMENT SCHEDULE

FLOOR AND WALL ACCESS DOOR SCHEDULE						
MARK	LOCATION/ ROOM NUMBER	CLEAR OPENING SIZE (NORTH/SOUTH x EAST/WEST)	LEAFS	LOADING	FALL PROTECTION GRATING	COMMENTS
H-01	PERIMETER DRAIN PUMP STATION	3' - 0" x 4' - 0"	SINGLE	300 psf	NO	SEE PROCESS MECHANICAL DRAWINGS
H-02	HEAD BOX AND FILTER WALL	24"Ø	SINGLE	50 psi	N/A	OUT SWINGING, WATER TIGHT, COORDINATE GASKETS AND MATERIALS W/ PROCESS MECHANICAL
H-03	FILTER DECK	3' - 0" x 3' - 0"	SINGLE	300 psf	NO	
H-04	FILTER DECK	3' - 0" x 3' - 0"	SINGLE	500 psf	NO	
H-05	FILTER DECK	3' - 0" x 4' - 0"	SINGLE	300 psf	NO	
H-06	CLEARWELL	3' - 0" x 3' - 0"	SINGLE	300 psf	NO	SEE DETAIL C/ GS-32
H-07	FILTER DECK	4' - 0" x 4' - 0"	SINGLE	500 psf	NO	
H-08	CLEARWELL	3' - 0" x 6' - 0"	DOUBLE	300 psf	NO	SEE DETAIL C/ GS-32

NOTES:  
 1. CLEAR OPENING IS DEFINED AS THE DIMENSION SUCH THAT OBJECTS CAN PASS THROUGH THE FLOOR ACCESS DOOR. LIFTING AND OTHER HARDWARE SHALL BE OUTSIDE OF THE OPENING DIMENSIONS.  
 2. SEE SPECIFICATION 08 31 20 FOR FURTHER REQUIREMENTS

D FLOOR AND WALL ACCESS DOOR SCHEDULE

SCALE: \_\_\_\_\_

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 1512260079

NO. 0 DATE: 06/14/24 ISSUED FOR GUARANTEE (MAXIMUM PRICE/GMP)

REVISIONS

MADE BY: \_\_\_\_\_ AUTH BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

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 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 STANDARD STRUCTURAL  
 SCHEDULES 7

VERIFY SCALE  
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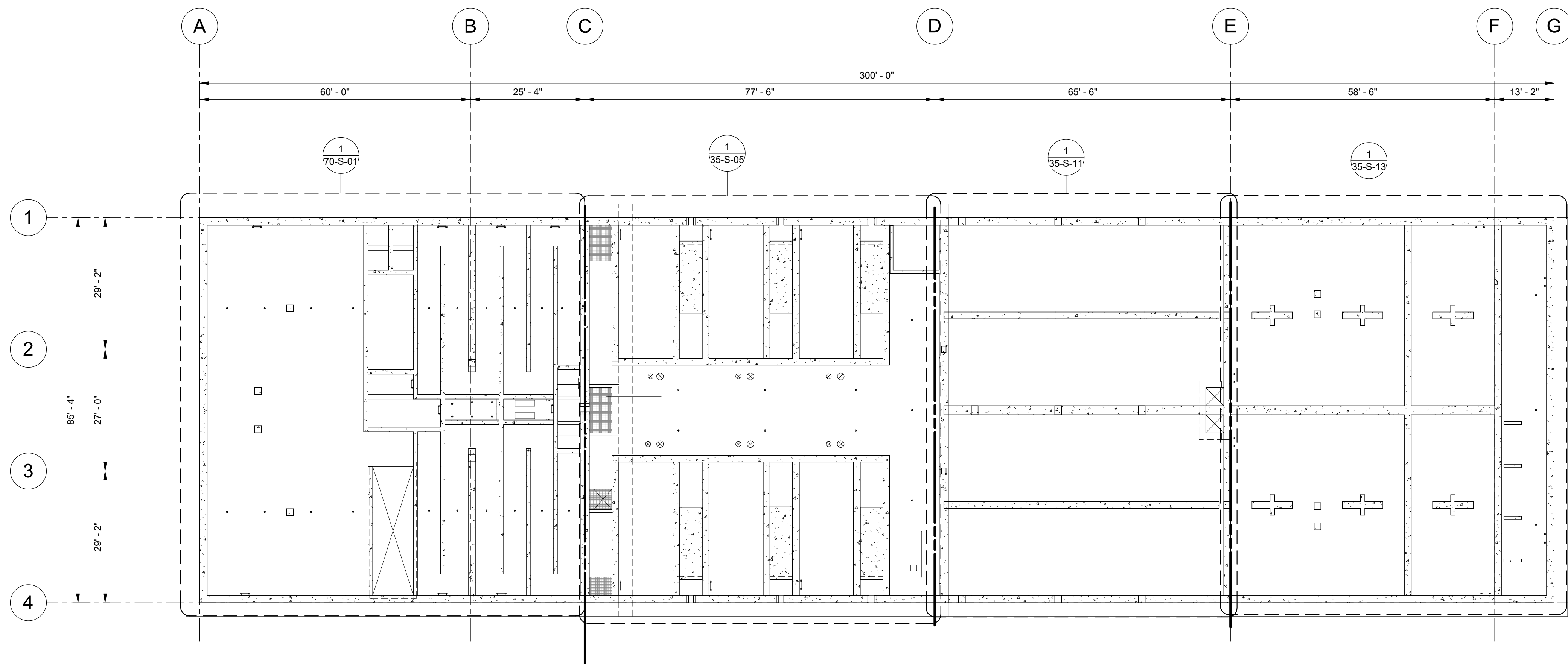
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DRAWING NO. GS-32

REAVELEY  
Engineers

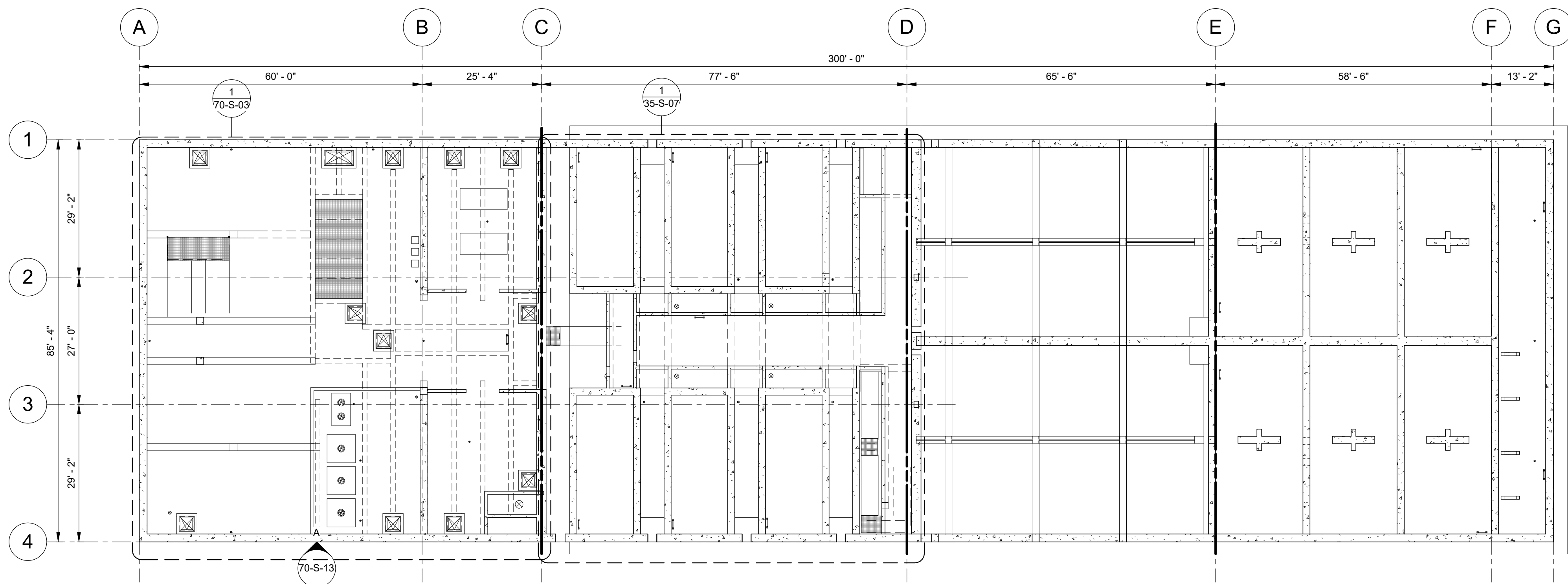
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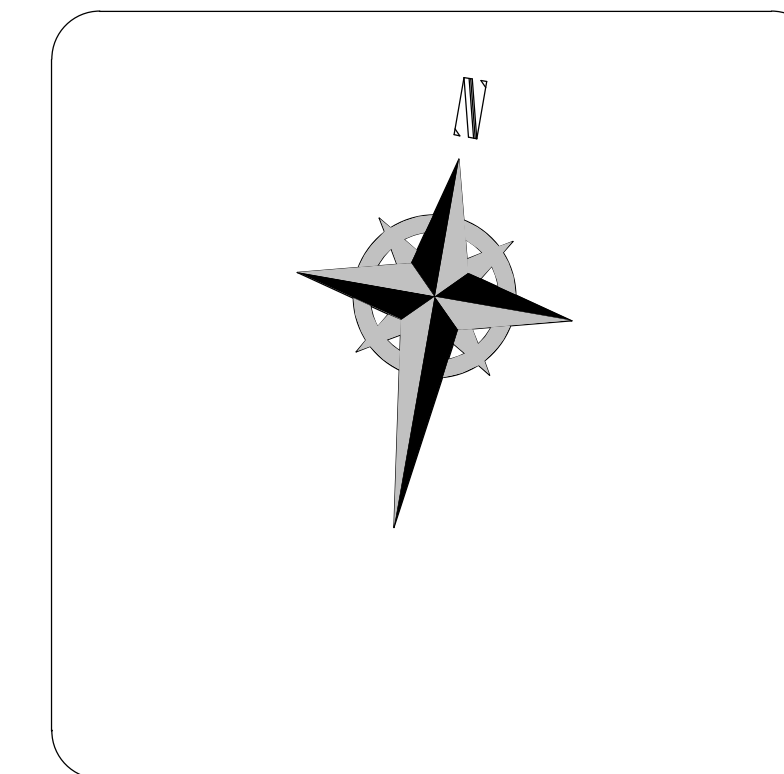
OVERALL LOWER PLAN

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



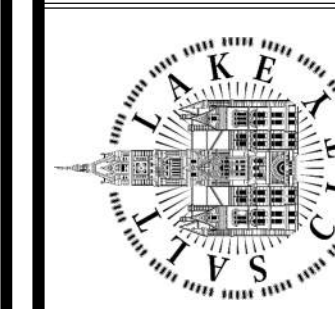
OVERALL INTERMEDIATE PLAN

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



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 CITY CREEK TREATMENT PLANT UPGRADES  
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 OVERALL PLANS 1



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DRAWING NO.

35-S-01

REVISIONS

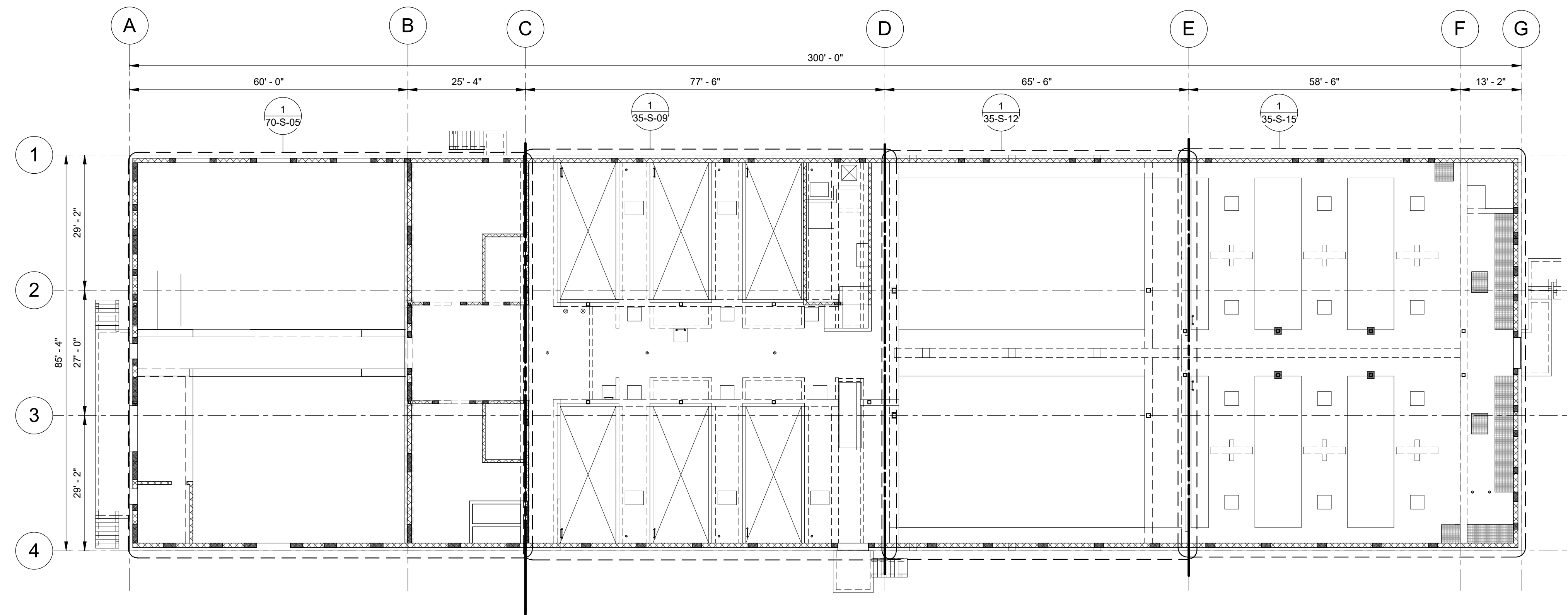
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DESIGNED BY: C.HAWKES	AUTH BY: CH
DRAWN BY: S.SHEPHERD	BY: CH
CHECKED BY: J.HARPER	CP
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

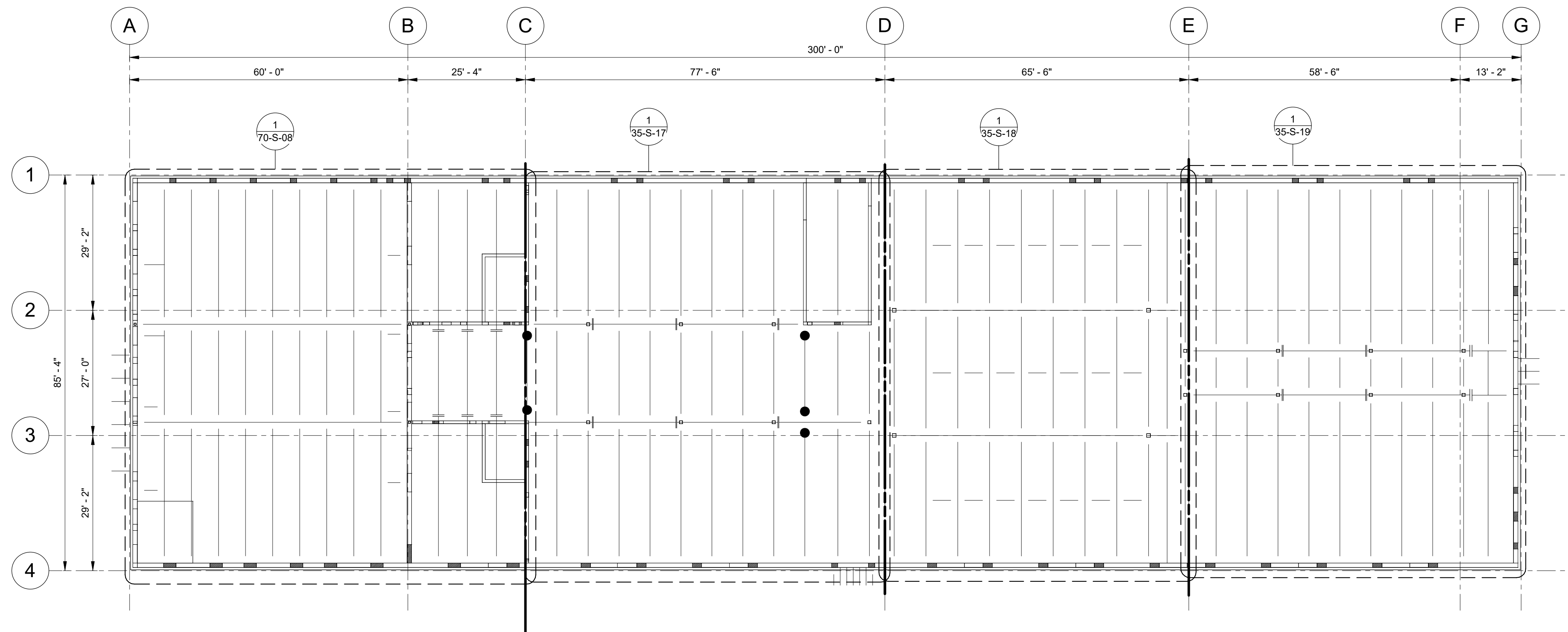
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**OVERALL UPPER PLAN**  
SCALE: 1/16" = 1'-0"

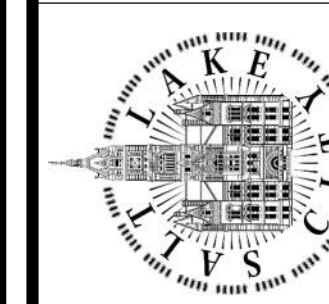


**OVERALL ROOF PLAN**  
SCALE: 1/16" = 1'-0"



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CITY CREEK TREATMENT PLANT UPGRADES  
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OVERALL PLANS 2



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35-S-02

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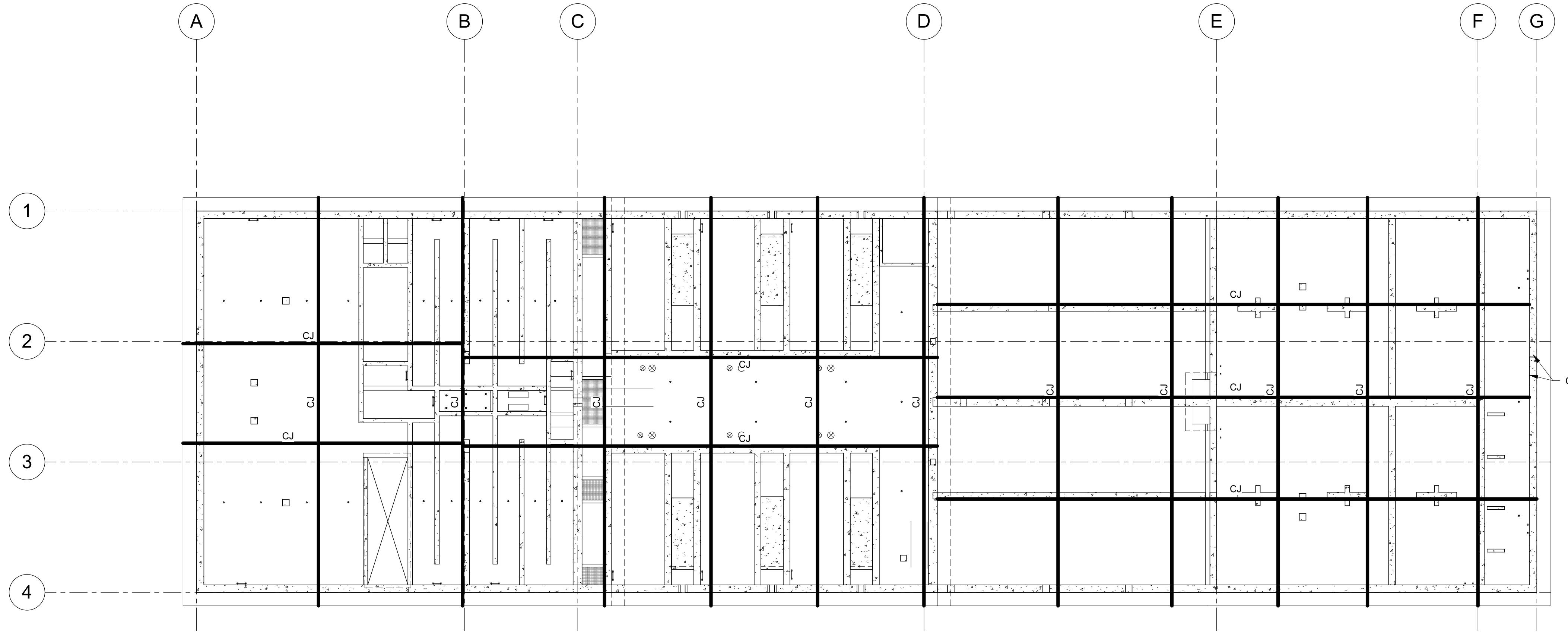
MADE BY	CH

DESIGNED BY:	C.HAWKES
DRAWN BY:	S.SHEPHERD
CHECKED BY:	J.HARPER
APPROVED BY:	C.PRICE
DATE:	JUNE 2024
EWO NO.:	---
ACCOUNT NO.:	512260079

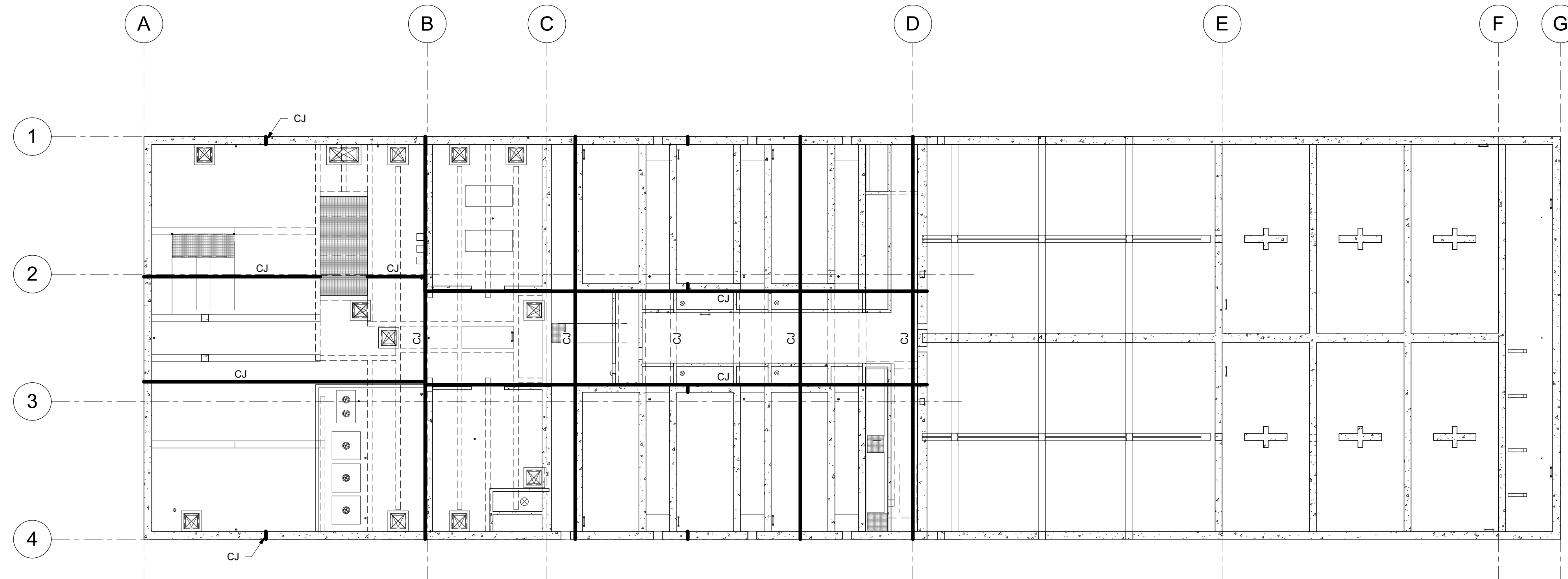
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

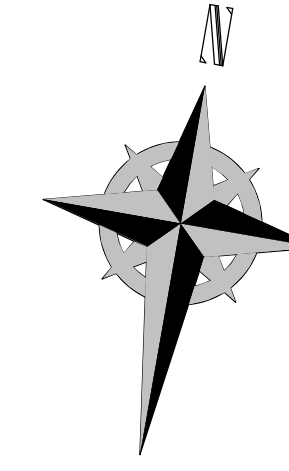
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OVERALL LOWER LEVEL CONTROL JOINT PLAN  
SCALE: 1/16" = 1'-0"



OVERALL INTERMEDIATE LEVEL CONTROL JOINT PLAN  
SCALE: 1/16" = 1'-0"

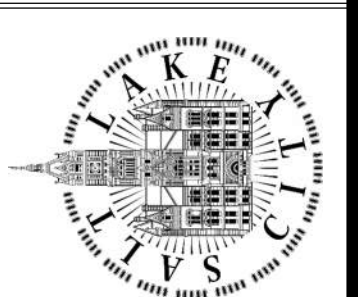


**GENERAL NOTES:**

1. CONTRACTOR SHALL PROVIDE CONSTRUCTION AND CONTROL JOINT LAYOUT IN CONCRETE REINFORCING SHOP DRAWINGS FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.



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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**OVERALL CONTROL JOINT  
PLAN 1**

**REVISIONS**

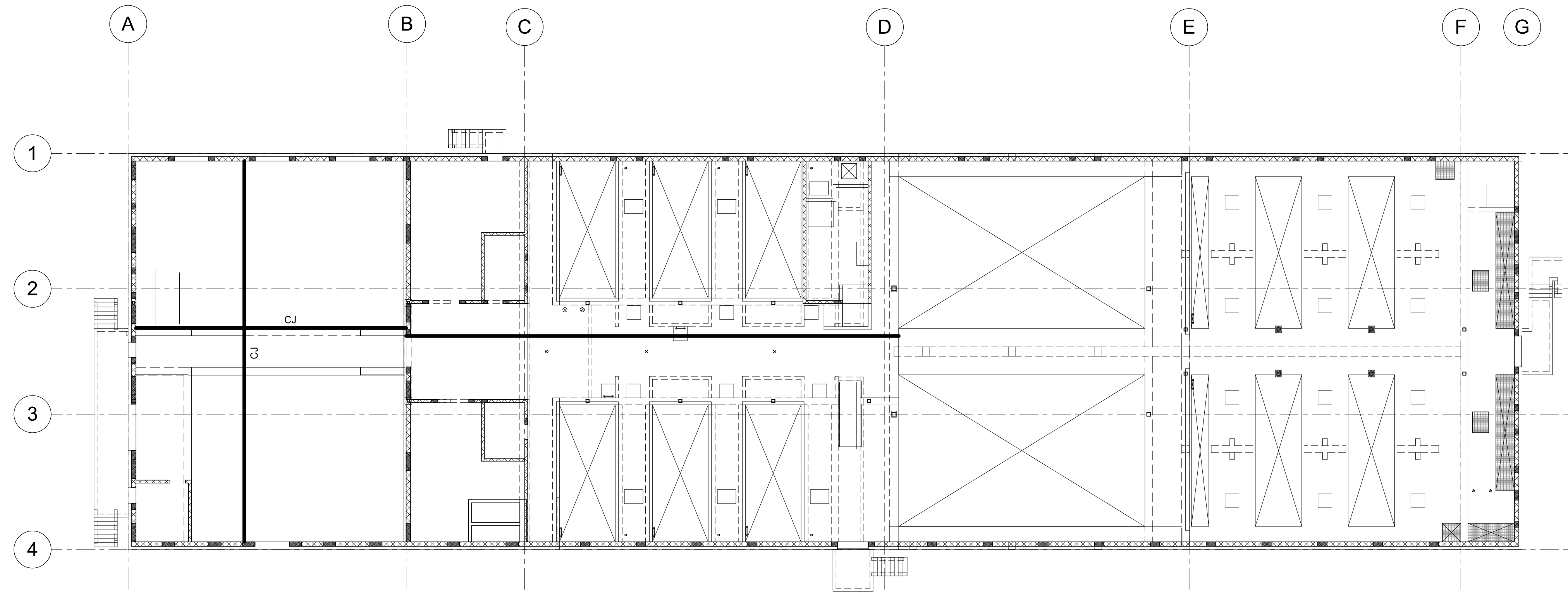
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CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
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ACCOUNT NO: 512260079

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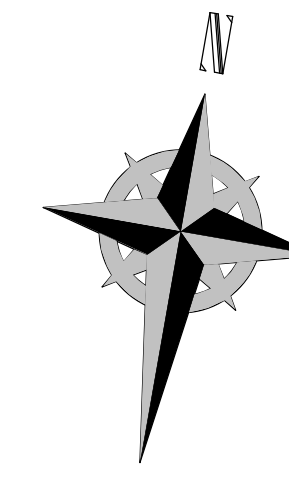
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING





OVERALL UPPER LEVEL CONTROL JOINT PLAN

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

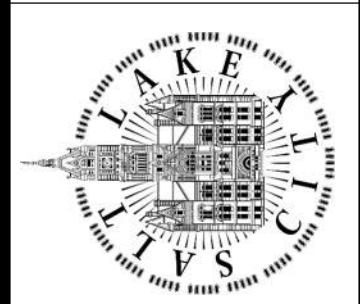


GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE CONSTRUCTION AND CONTROL JOINT LAYOUT IN CONCRETE REINFORCING SHOP DRAWINGS FOR APPROVAL PRIOR TO CONCRETE PLACEMENT.



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 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 OVERALL CONTROL JOINT  
 PLAN 2

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DRAWING NO.

35-S-04

REVISIONS

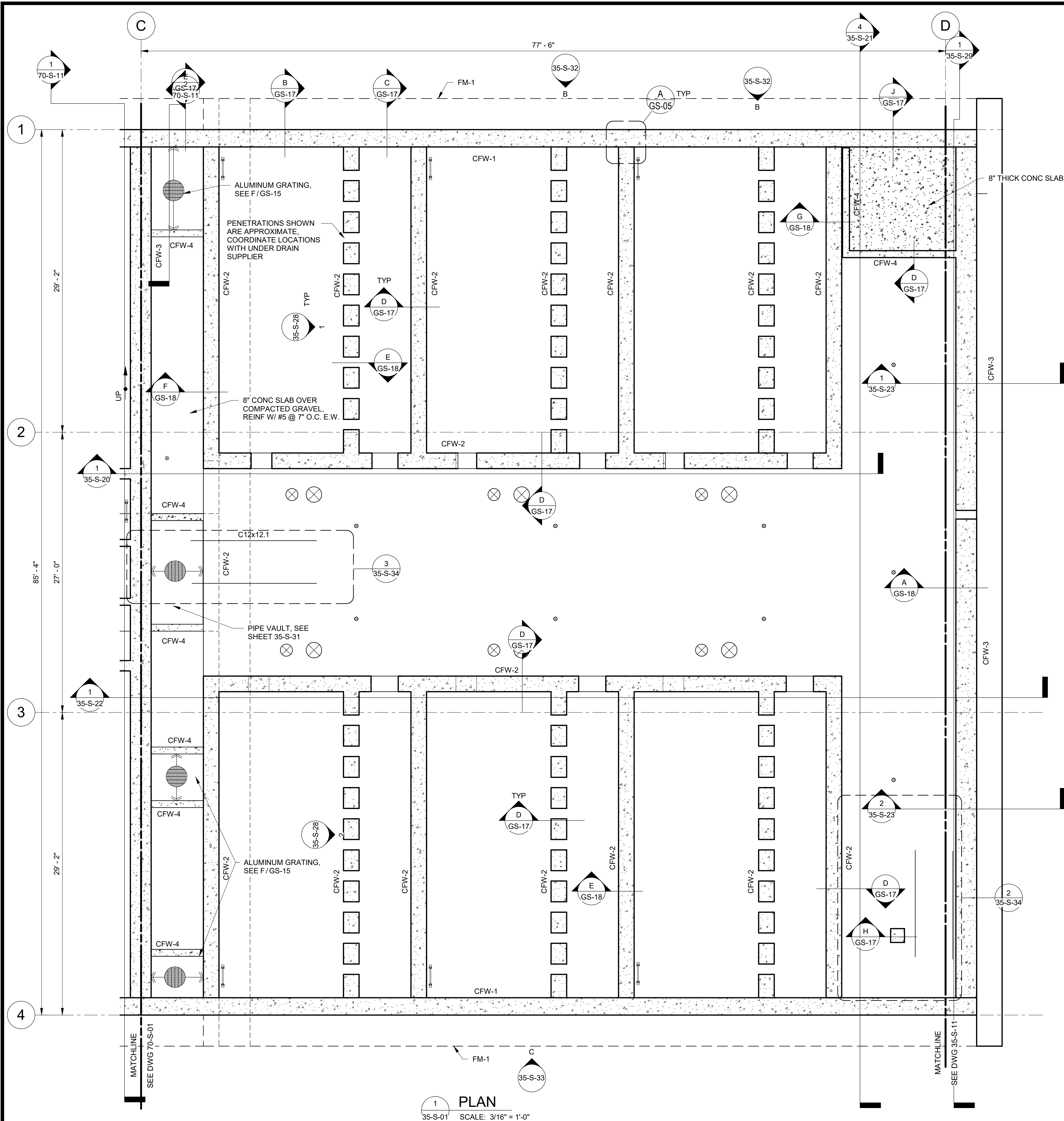
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DESIGNED BY: C.HAWKES  
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 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

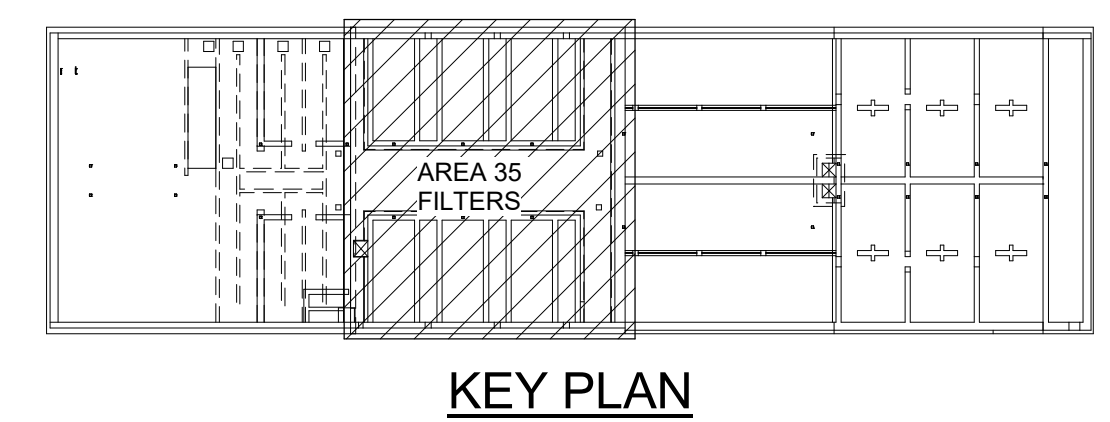
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VERIFY SCALE  
 BAR IS ONE INCH ON  
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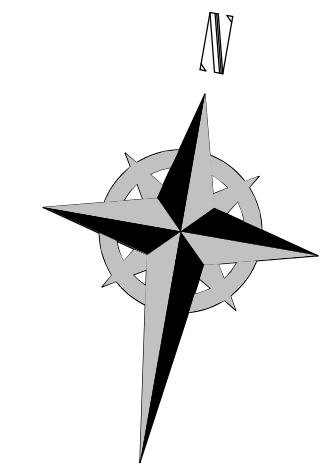
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1 PLAN  
35-S-01 SCALE: 3/16" = 1'-0"



KEY PLAN



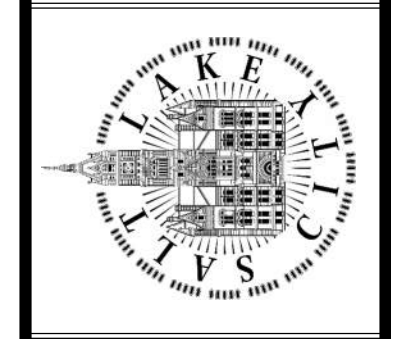
**GENERAL NOTES:**

1. ALL EMBEDDED CONDUIT AND PIPE SHALL BE INSTALLED IN 8" THICK CONCRETE SLABS. EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS. SPECIFIC DETAILS INCLUDED ON CONSTRUCTION DOCUMENTS DETAIL SHEETS HEREIN TAKE PRECEDENCE OVER TYPICAL DETAILS FOUND IN THE DETAIL BOOK.
2. SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENINGS/PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
3. PROCESS EQUIPMENT PADS' HEIGHT SHALL BE 6 INCHES, TYPICAL; ELECTRICAL AND MECHANICAL EQUIPMENT PADS' HEIGHT TO BE 4 INCHES, TYPICAL. EQUIPMENT PAD HEIGHTS VARY AS REQUIRED FOR EQUIPMENT PLACEMENT AS NOTED ON PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EQUIPMENT POSITION AND ELEVATION. EQUIPMENT PAD DIMENSIONS SHALL BE DETERMINED FROM DIMENSIONS OF SELECTED EQUIPMENT AND EQUIPMENT MOUNTING DETAILS. SEE TYPICAL DETAILS AND SPECIFICATIONS FOR EQUIPMENT MOUNTING DETAILS. ANY PAD DIMENSIONS SHOWN HEREIN TO BE VERIFIED BY CONTRACTOR WITH APPROVED EQUIPMENT SUBMITTAL.
4. GUARDRAIL, GRATING, STAIRS, AND PLATFORM FRAMING SHOWN ARE ALUMINUM, UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS AND GS SHEETS FOR ADDITIONAL INFORMATION.
5. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
6. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE AND MASONRY REINFORCING PLACEMENT TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY MASONRY/MASONRY REINFORCEMENT PLACEMENT.
7. CONCRETE VAPOR BARRIER TO BE INSTALLED ON ALL BURIED CONCRETE AND CONCRETE IN CONTACT WITH GROUND. SEE GSN 3.H. AND SPECIFICATION 03 30 00. EPOXY/POLYURETHANE CONCRETE COATINGS TO BE INSTALLED PER ARCHITECTURAL DRAWINGS AND SPECIFICATION 09 90 00 FOR INTERIOR ROOMS AND PROCESS AREAS.
8. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.

SCALE: \_\_\_\_\_  
DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

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NO.	DATE
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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER BASINS**  
**LOWER PLAN**

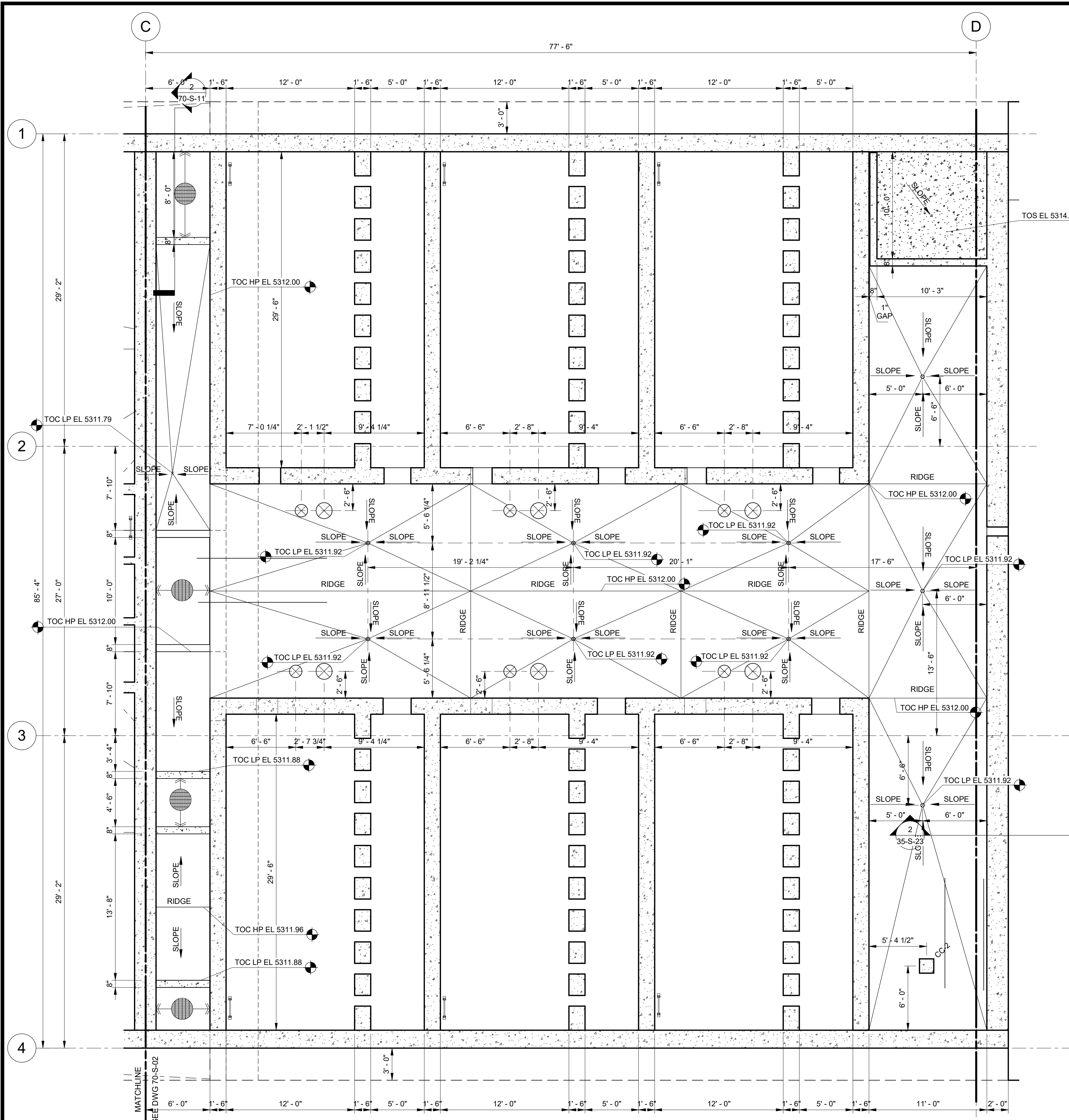


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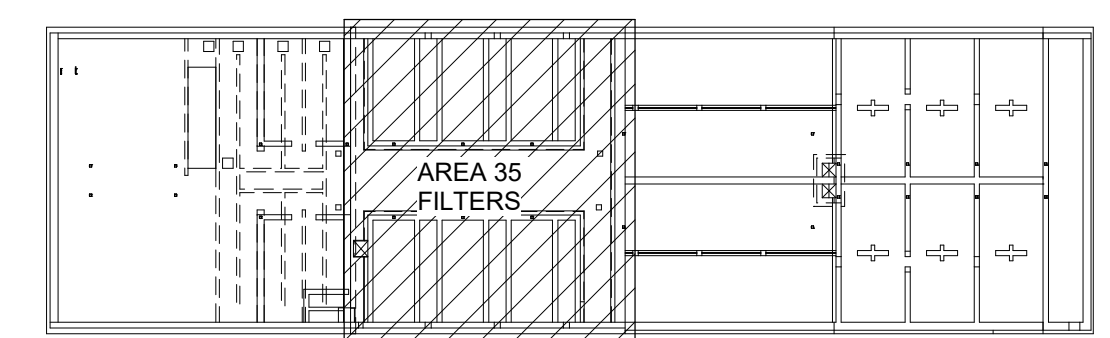
**REAVELEY**  
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P 801 486 3883  
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DRAWING NO.  
**35-S-05**

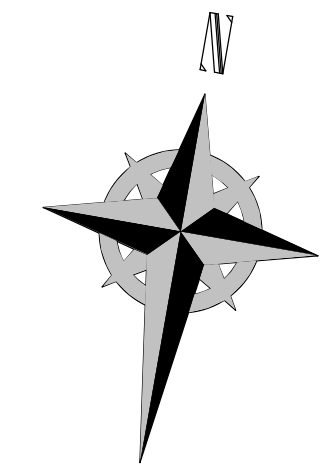
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1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



KEY PLAN



**REAVELEY**  
Engineers

675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
P 801.486.3883  
F 801.485.0911  
www.reaveley.com

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**TREATMENT - FILTER BASINS  
LOWER DIM PLAN**

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

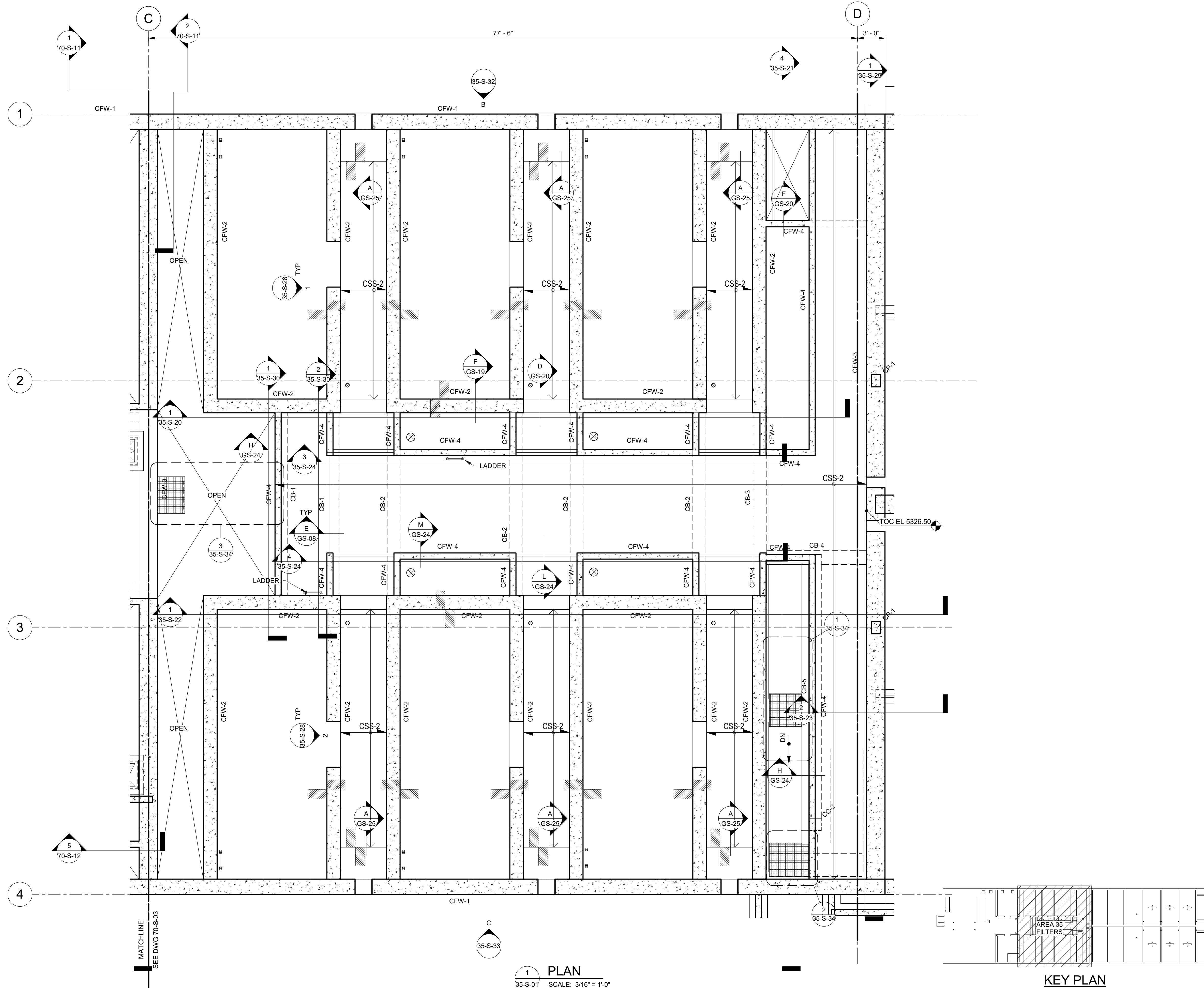
REVISIONS

MADE BY	AUTH BY
CH	CP

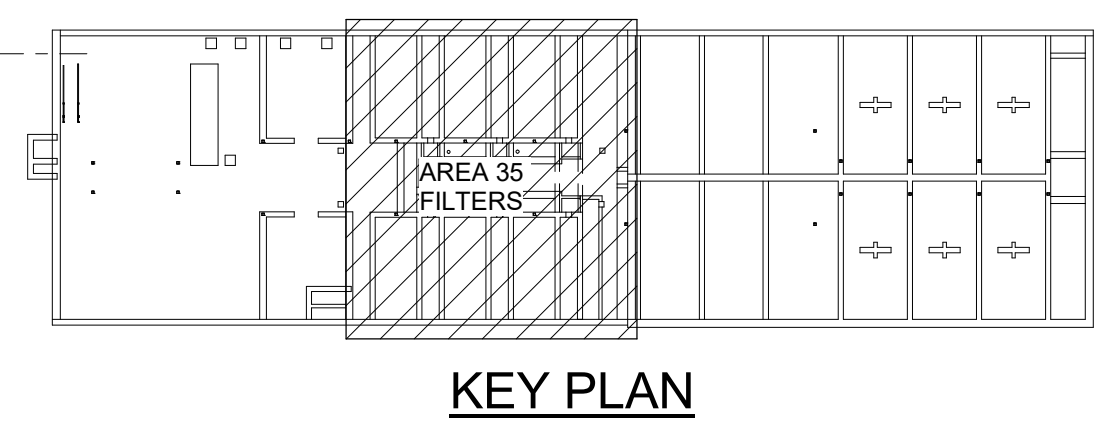
90% GMP

DRAWING NO.  
**35-S-06**

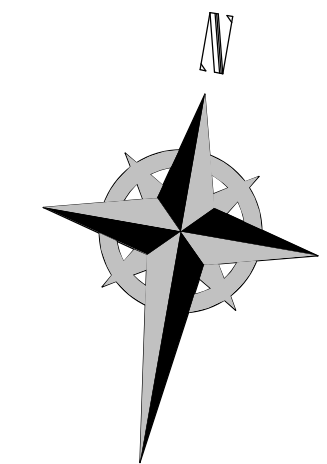
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1 PLAN  
35-S-01 SCALE: 3/16" = 1'-0"



KEY PLAN



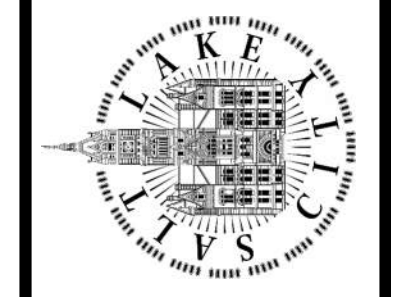
**GENERAL NOTES:**

1. SEE TYPICAL DETAILS INCLUDING, BUT NOT LIMITED TO, STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS. SPECIFIC DETAILS INCLUDED ON CONSTRUCTION DOCUMENTS DETAIL SHEETS HEREIN TAKE PRECEDENCE OVER TYPICAL DETAILS FOUND IN THE DETAIL BOOK.
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8. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	PRICE	DESCRIPTION
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	PRICE	DESCRIPTION

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER BASINS  
 INTERMEDIATE PLAN**



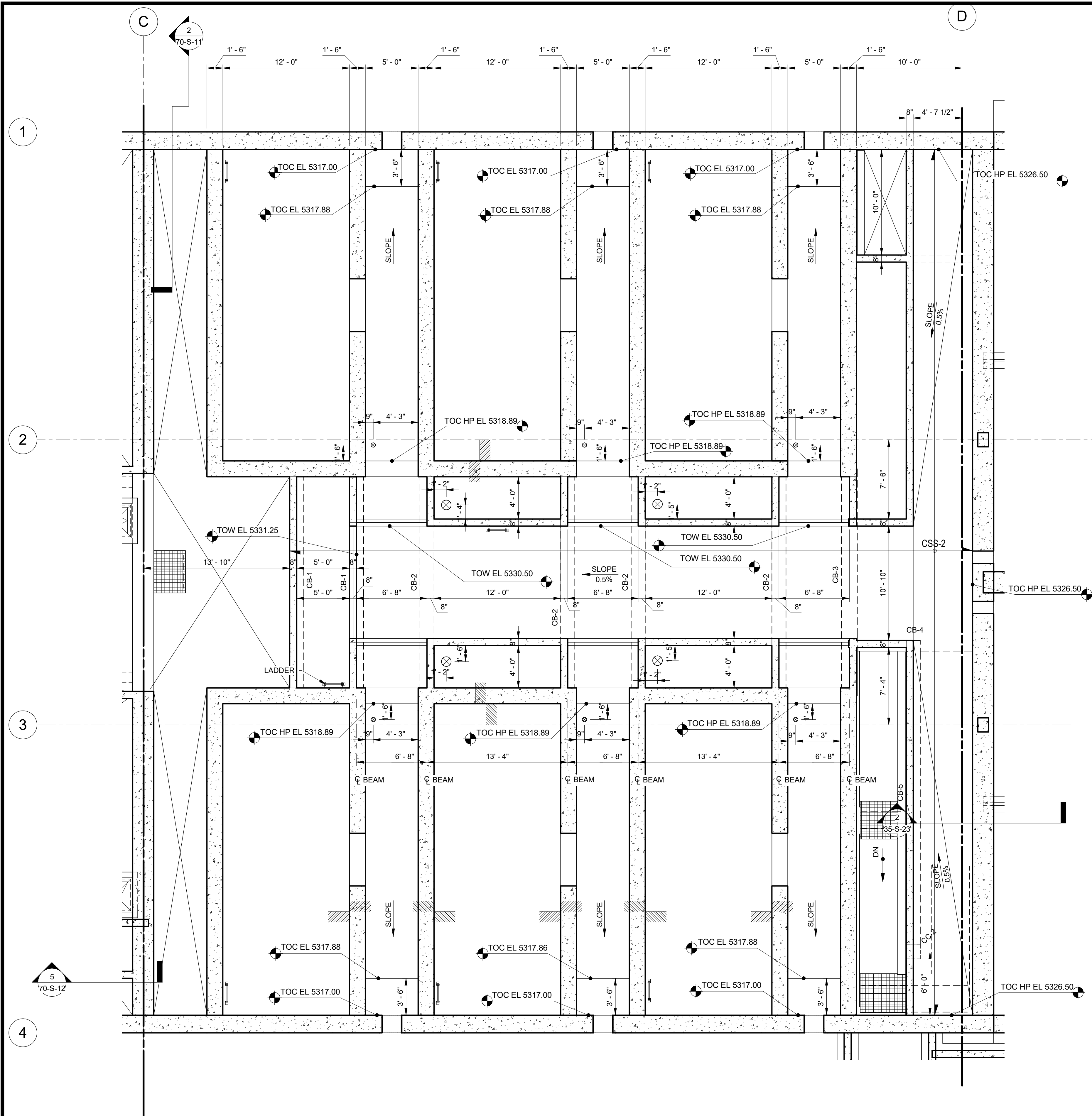
**90% GMP**



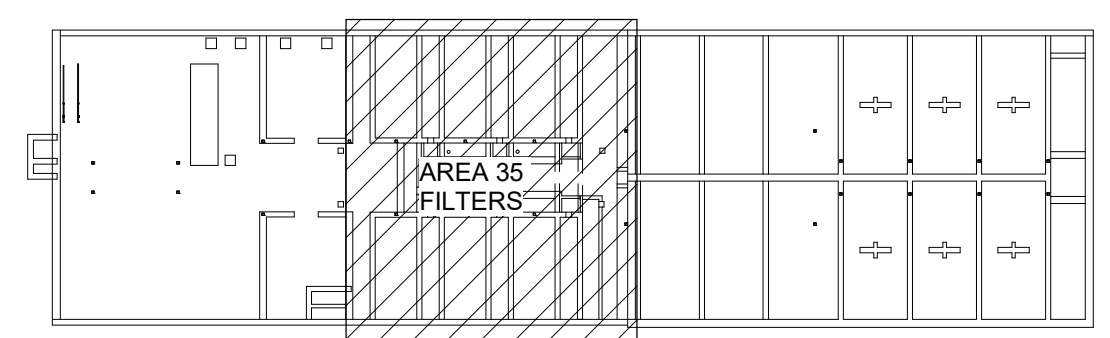
675 East 500 South, Suite 400  
 Salt Lake City, UT 84102  
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 F 801 485 0911  
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DRAWING NO.  
**35-S-07**

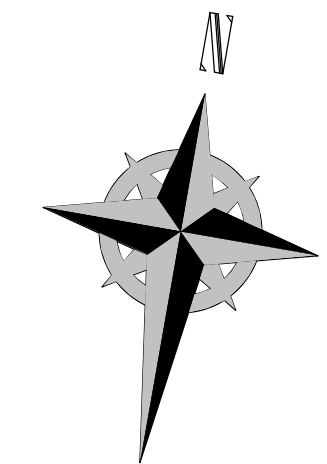
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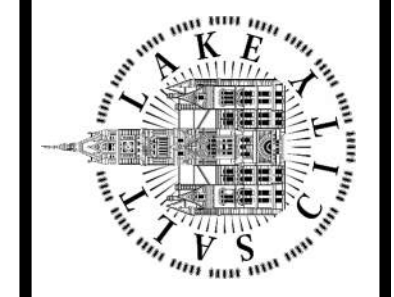
1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FILTER BASINS  
INTERMEDIATE DIM PLAN



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DRAWING NO.  
35-S-08

90% GMP

REVISIONS

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0	06/14/24			

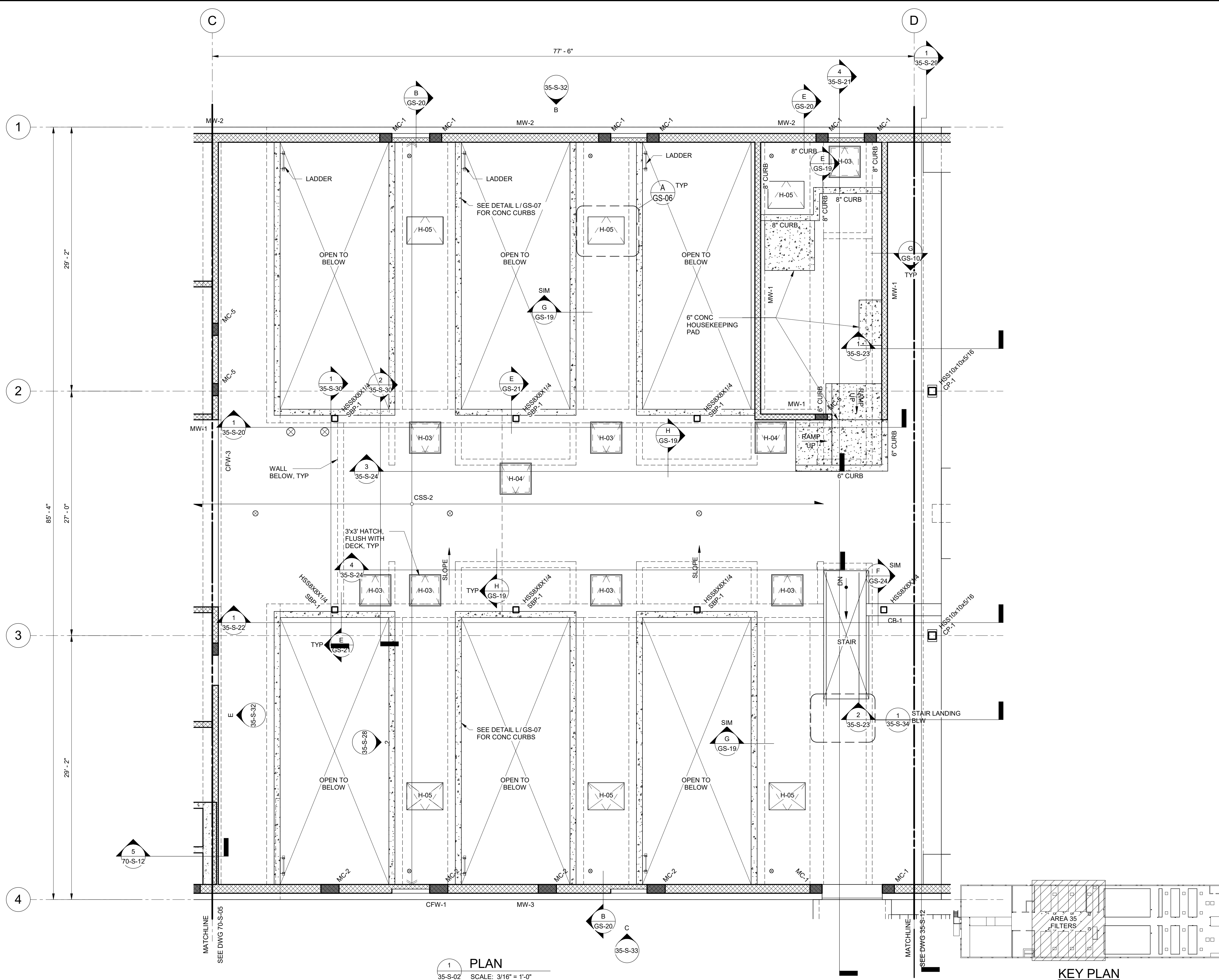
MADE BY	CH

DESIGNED BY	C.HAWKES
DRAWN BY	S.SHEPHERD
CHECKED BY	J.HARPER
APPROVED BY	C.PRICE
DATE	JUNE 2024
EWO NO.	---
ACCOUNT NO.	512260079

SCALE:

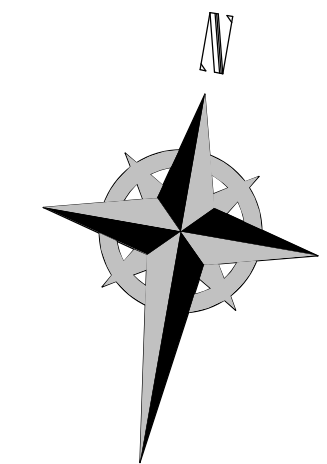
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

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1 PLAN  
35-S-02 SCALE: 3/16" = 1'-0"

KEY PLAN

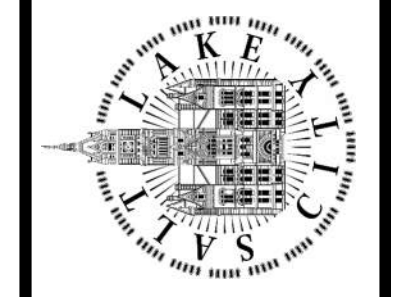


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8. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.

DESIGNED BY: C.HAWKES	AUTH BY: CP
DRAWN BY: S.SHEPHERD	MADE BY: CH
CHECKED BY: J.HARPER	ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP)
APPROVED BY: C.PRICE	NO. 0
DATE: JUNE 2024	DATE: 06/14/24
EWO NO: ---	ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP)
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER BASINS  
UPPER PLAN**



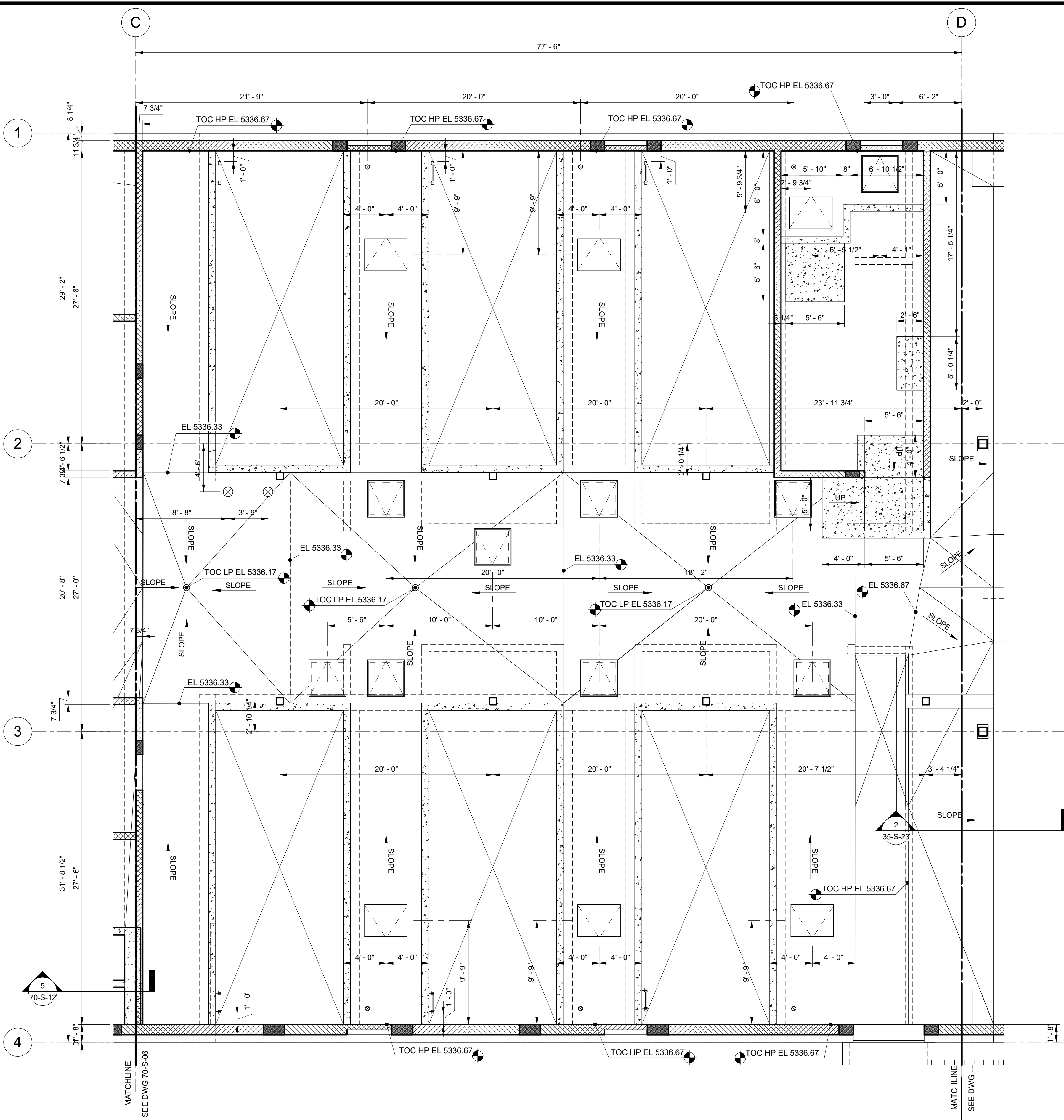
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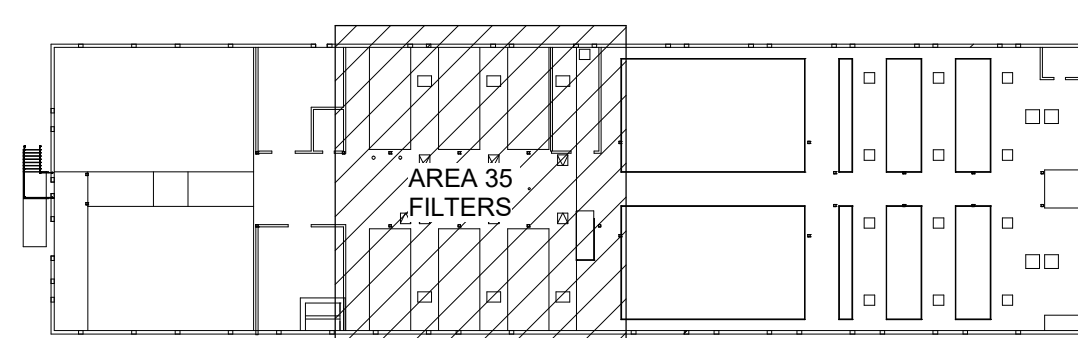
675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
P 801.486.3883  
F 801.485.0911  
www.reaveley.com

DRAWING NO.  
**35-S-09**

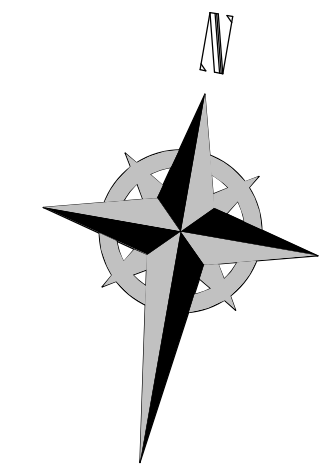
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1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



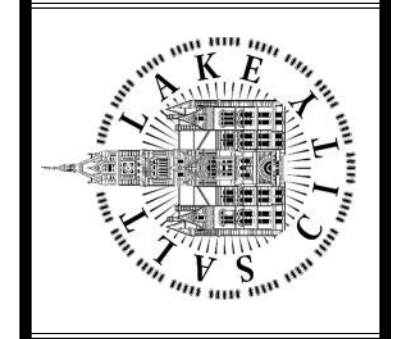
KEY PLAN



**REAVELEY**  
Engineers  
675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
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F 801.485.0911  
www.reaveley.com

DESIGNED BY: C.HAWKES		AUTH BY: S.SHEPHERD	
NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		
DRAWN BY: S.SHEPHERD		CHECKED BY: J.HARPER	
APPROVED BY: C.PRICE		DATE: JUNE 2024	
EWO NO.:		ACCOUNT NO.: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER BASINS**  
UPPER DIM PLAN

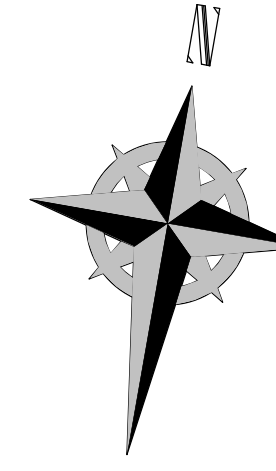
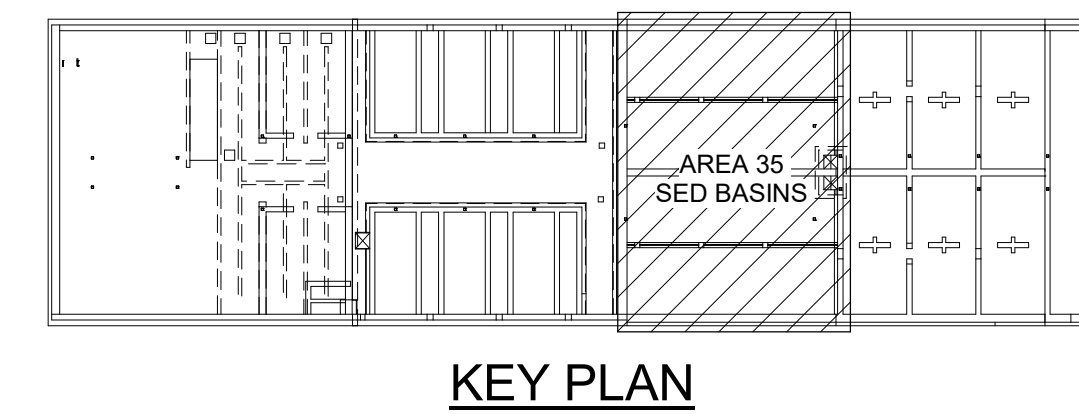
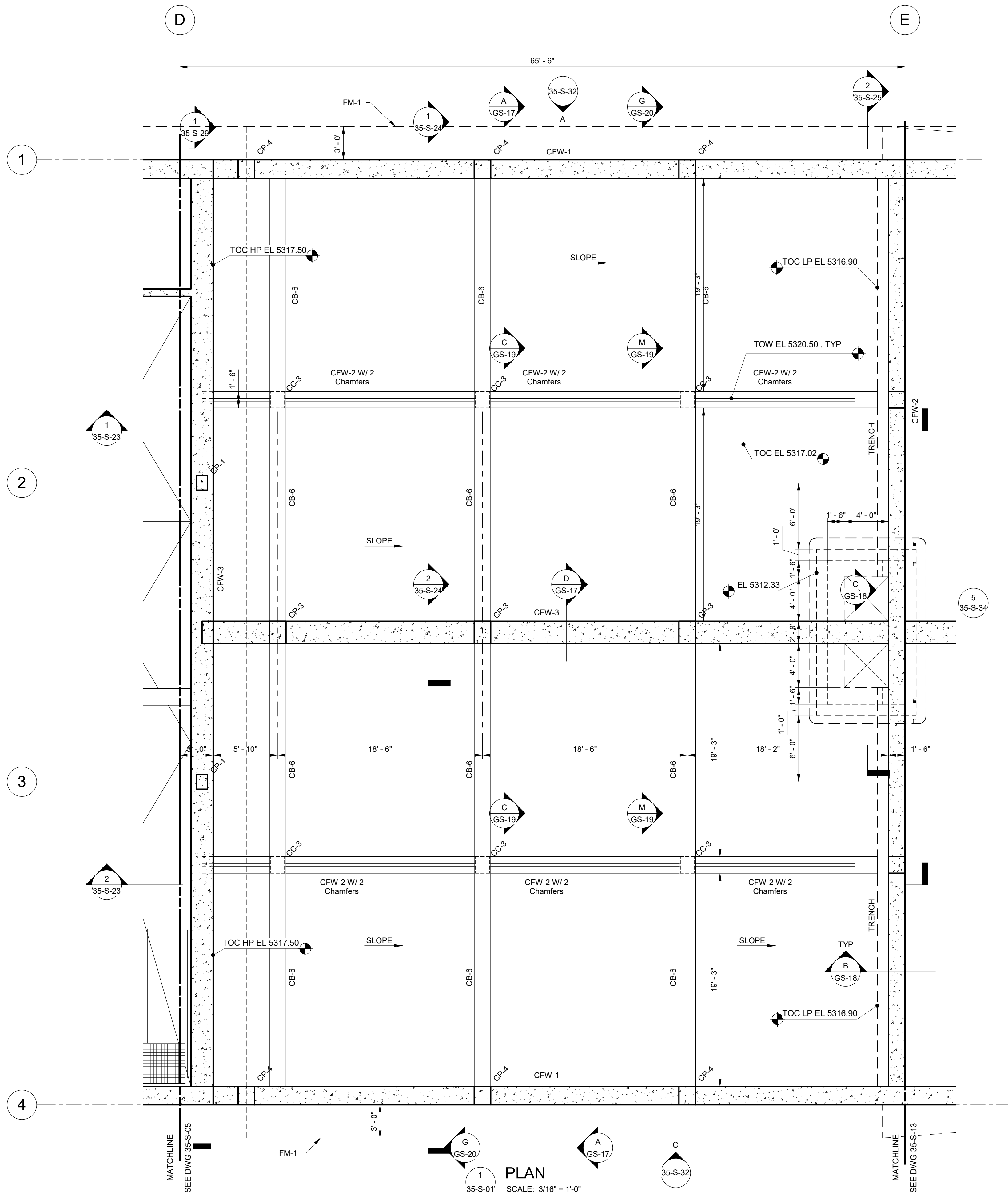


90% GMP

DRAWING NO.  
**35-S-10**

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

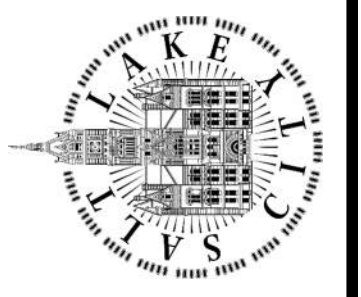
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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SED BASINS  
LOWER PLAN**



675 East 500 South, Suite 400  
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P 801.486.3883  
F 801.485.0911  
www.reaveley.com

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				CH	CP

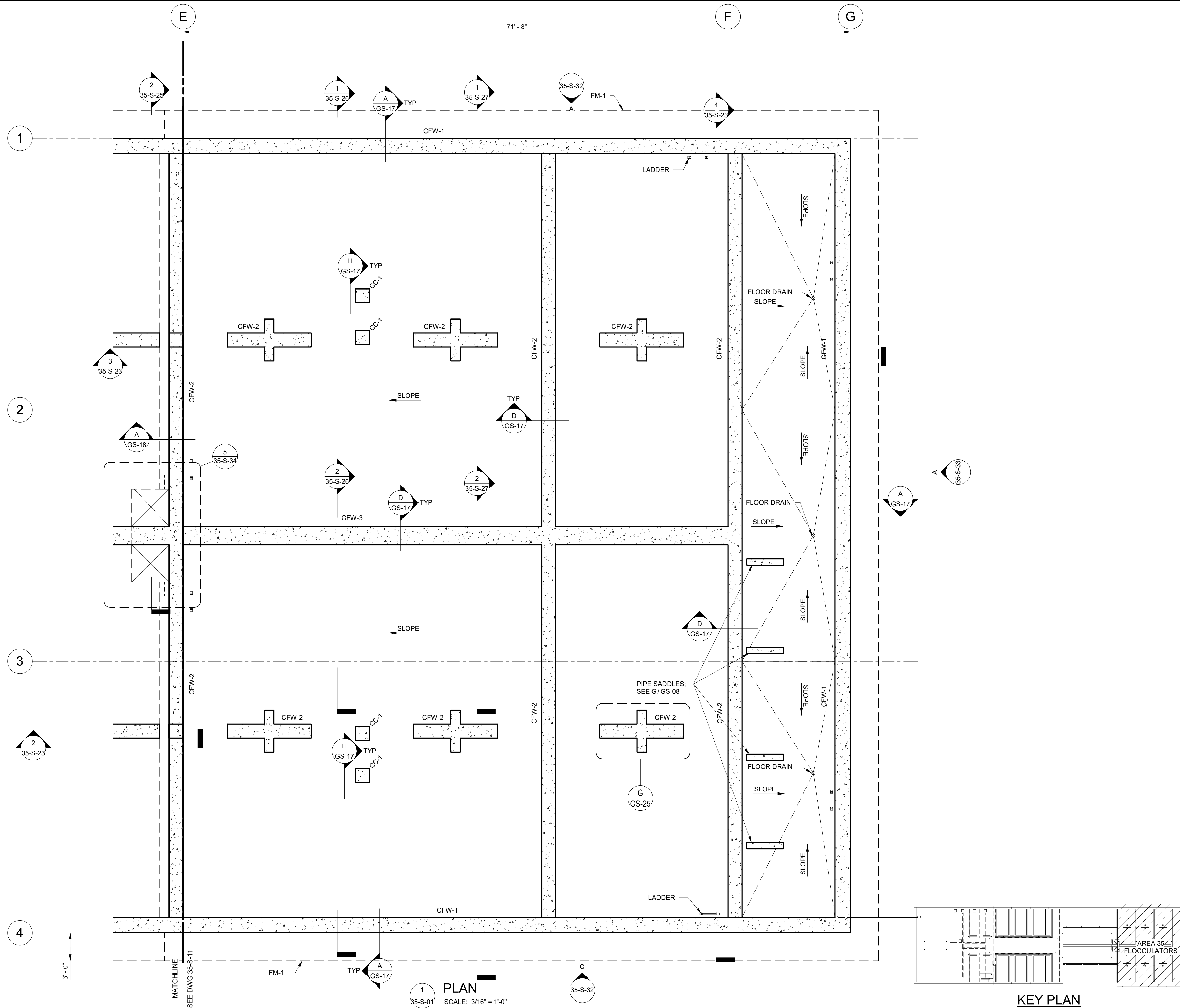
DRAWING NO.  
**35-S-11**

**90% GMP**

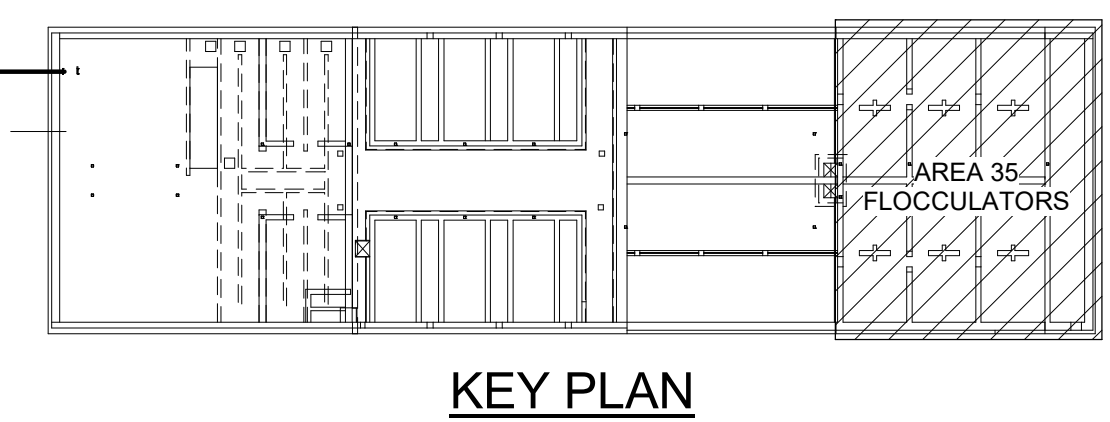




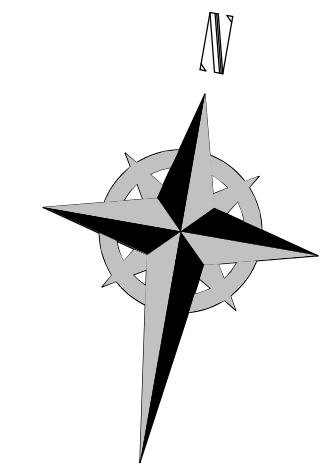
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1 PLAN  
35-S-01 SCALE: 3/16" = 1'-0"



KEY PLAN



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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS  
LOWER PLAN**

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

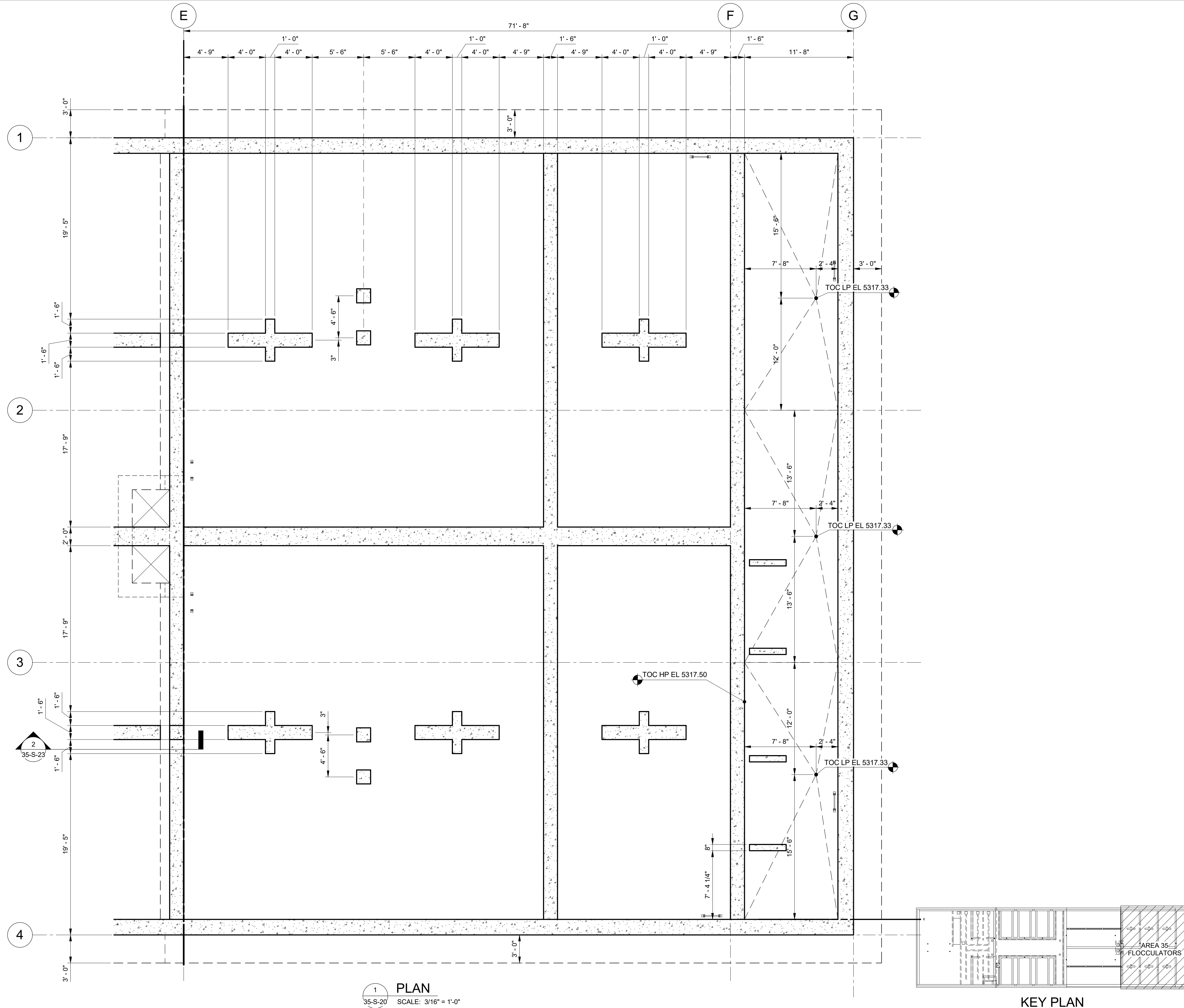
REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				CH	CP

90% GMP

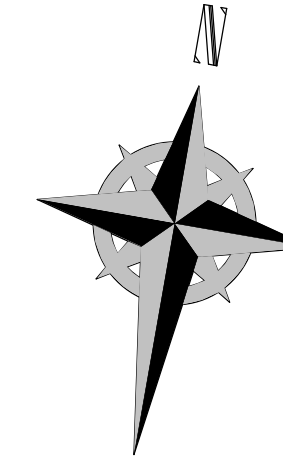
DRAWING NO.  
**35-S-13**

Plot Date: 6/13/2024 9:34:06 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-S-3570V21.rvt



1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"

KEY PLAN



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90% GMP

DRAWING NO.  
35-S-14

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
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BRIC PACKAGE  
TREATMENT - FLOC BASINS  
LOWER DIM PLAN

REVISIONS

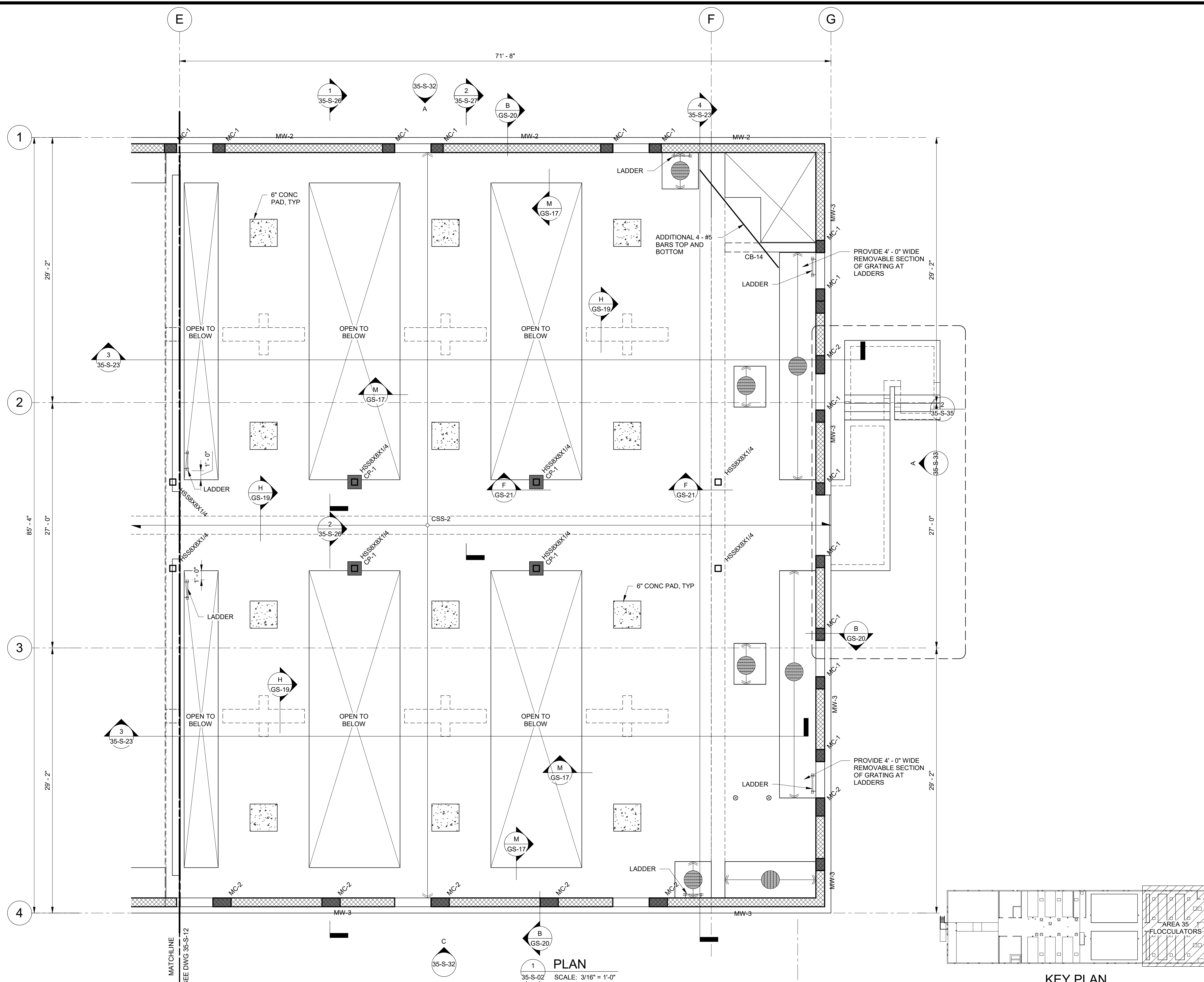
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VERIFY SCALE  
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ORIGINAL DRAWING

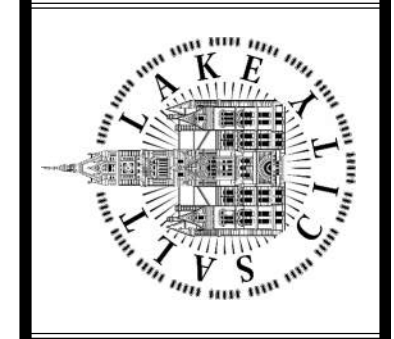
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- GENERAL NOTES:**
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  - ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.

DESIGNED BY: C.HAWKES	AUTH BY: CP
DRAWN BY: S.SHEPHERD	MADE BY: CH
CHECKED BY: J.HARPER	ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP)
APPROVED BY: C.PRICE	NO. 0
DATE: JUNE 2024	DATE: 06/14/24
EWO NO: ---	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOC BASINS  
 UPPER PLAN**



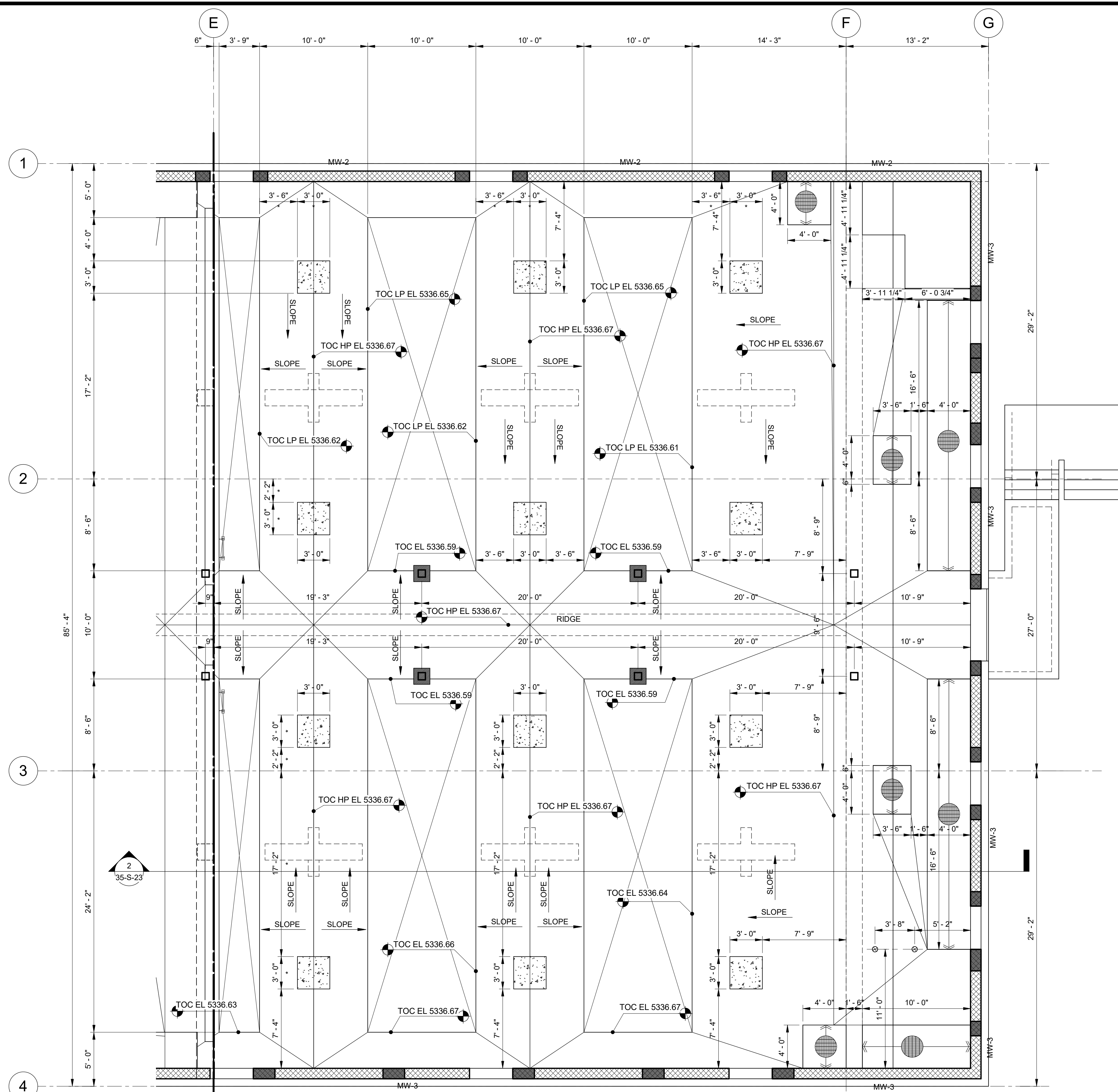
**90% GMP**

DRAWING NO.  
**35-S-15**

**REAVELEY**  
 Engineers

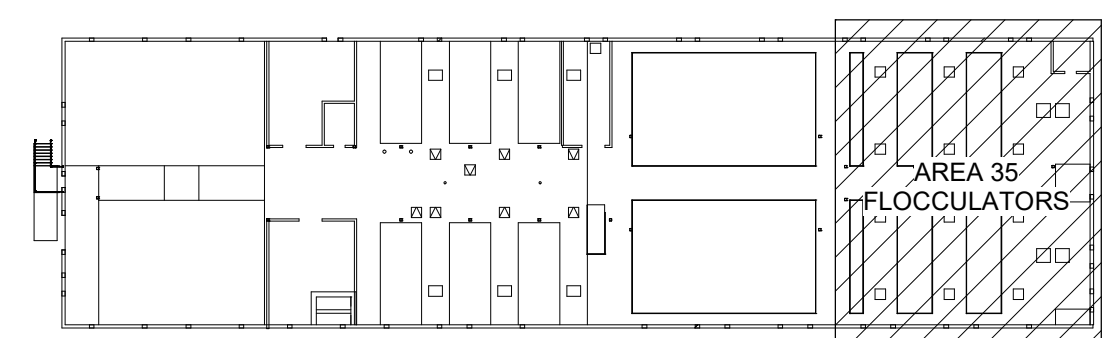
675 East 500 South, Suite 400  
 Salt Lake City, UT 84102  
 P 801.486.3883  
 F 801.485.0911  
 www.reaveley.com

Plot Date: 6/13/2024 9:34:12 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt

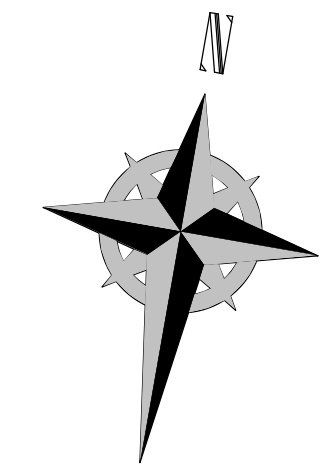


MATCHLINE  
SEE DWG ...

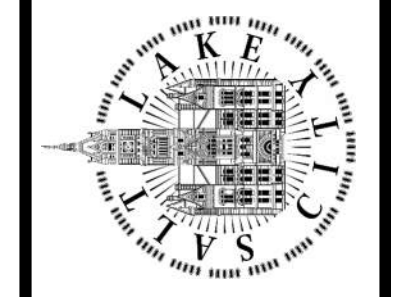
1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOC BASINS**  
 UPPER DIM PLAN



**90% GMP**



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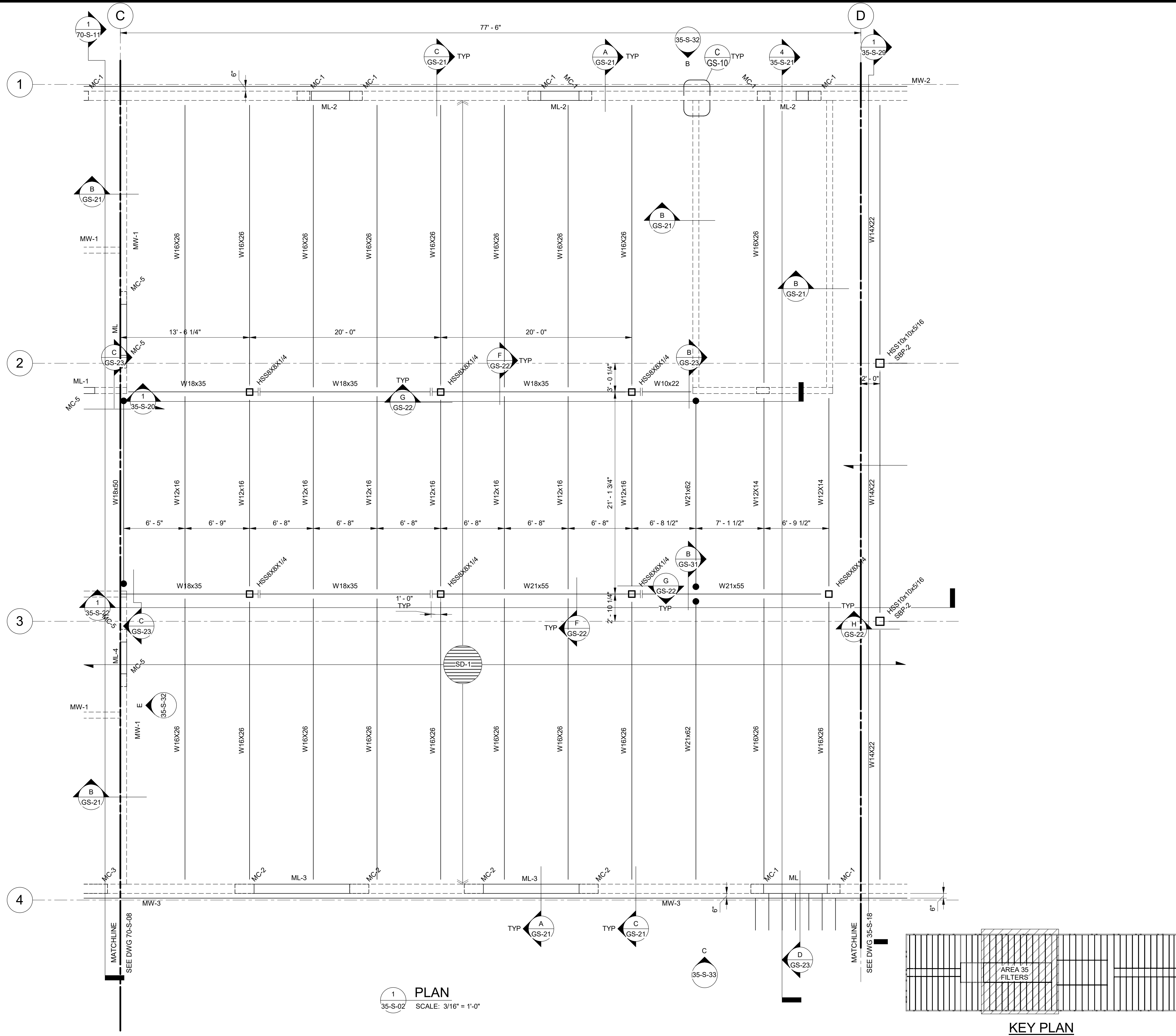
DRAWING NO.  
**35-S-16**

DESIGNED BY: C.HAWKES		AUTH BY: CP	
DRAWN BY: S.SHEPHERD		MADE BY: CH	
CHECKED BY: J.HARPER		ISSUED FOR GUARANTEE (MAXIMUM PRICE/GMP)	
APPROVED BY: C.PRICE		NO. DATE:	
DATE: JUNE 2024		0 06/14/24	
EWO NO: ---		ACCOUNT NO: 512260079	

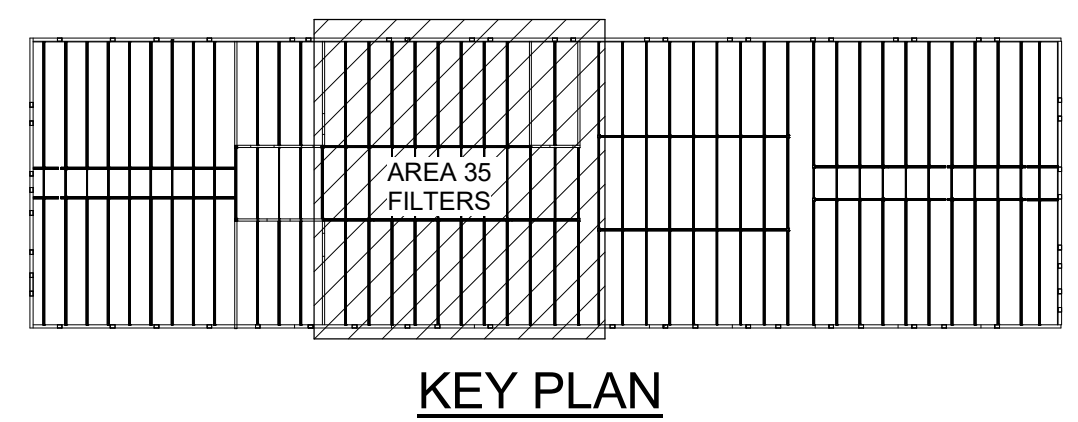
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**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 9:34:16 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



1 PLAN  
35-S-02 SCALE: 3/16" = 1'-0"



KEY PLAN

- GENERAL NOTES:**
- EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS. SPECIFIC DETAILS INCLUDED ON CONSTRUCTION DOCUMENTS DETAIL SHEETS HEREIN TAKE PRECEDENCE OVER TYPICAL DETAILS FOUND IN THE DETAIL BOOK.
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**REAVELEY**  
Engineers

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Salt Lake City, UT 84102  
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F 801.485.0911  
www.reaveley.com

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER BASINS**  
ROOF FRAMING PLAN

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

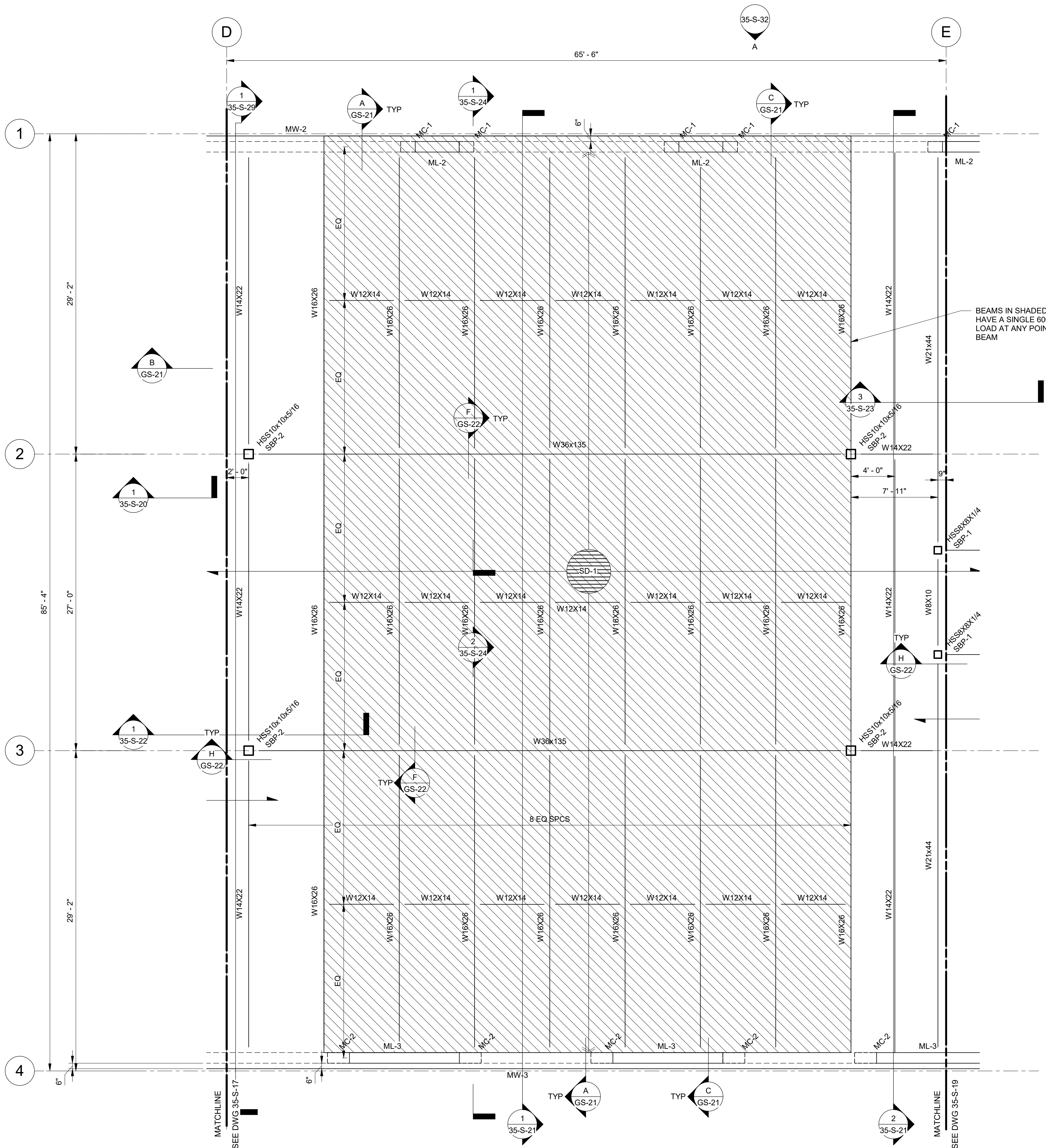
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	DESCRIPTION
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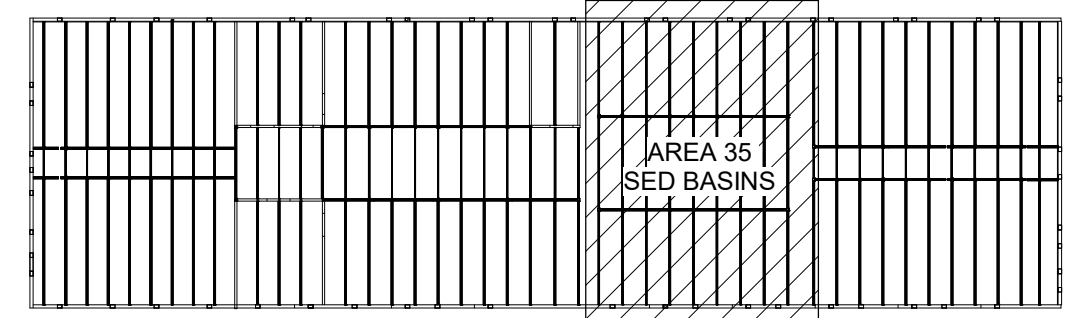
DRAWING NO.  
**35-S-17**

90% GMP

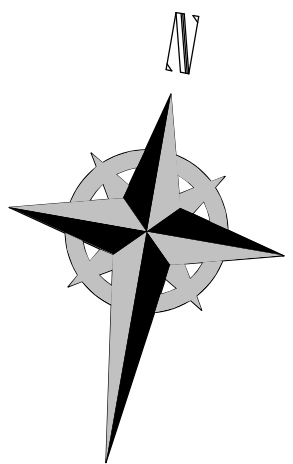
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1 PLAN  
35-S-02 SCALE: 3/16" = 1'-0"



KEY PLAN

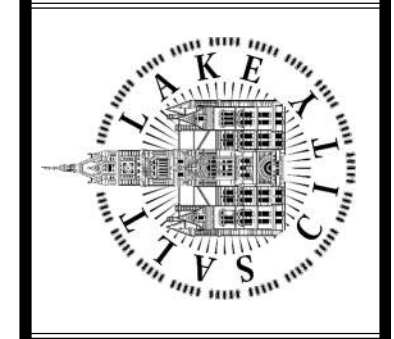


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DESIGNED BY: C.HAWKES		AUTH: _____	
DRAWN BY: S.SHEPHERD		BY: _____	
CHECKED BY: J.HARPER		CH: _____	
APPROVED BY: C.PRICE		CP: _____	
DATE: JUNE 2024		ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP): _____	
EWO NO: _____		NO: _____	
ACCOUNT NO: 512260079		DATE: 06/14/24	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SED BASINS  
ROOF FRAMING PLAN**



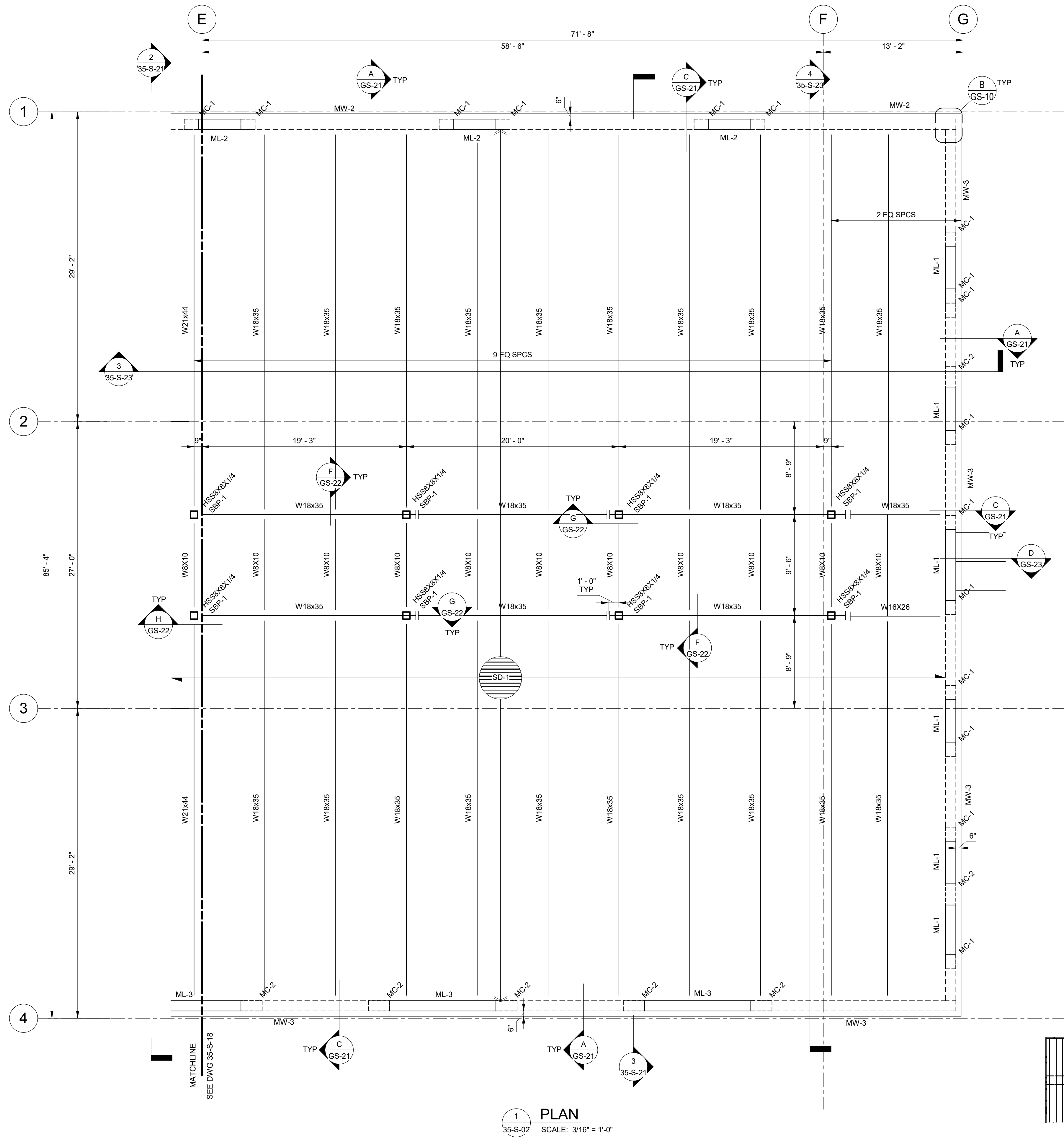
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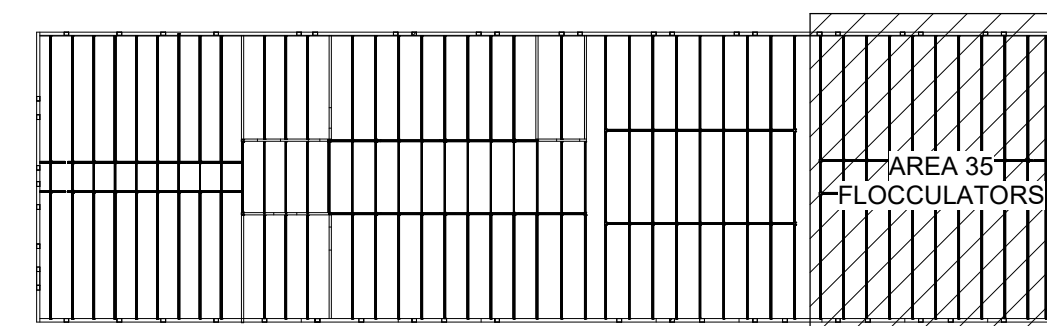
675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
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F 801.485.0911  
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DRAWING NO.  
**35-S-18**

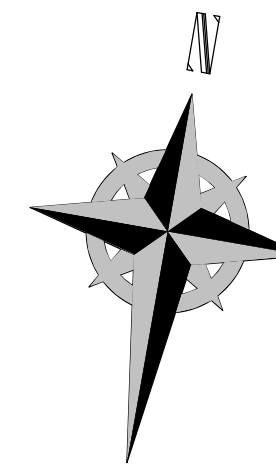
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1 PLAN  
35-S-02 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

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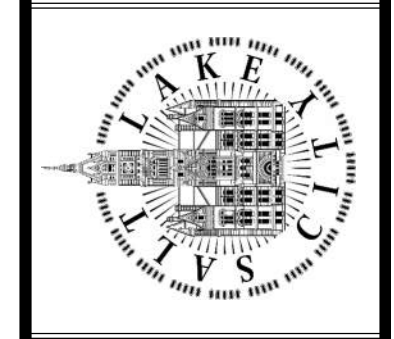
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P 801.486.3883  
F 801.485.0911  
www.reaveley.com

DESIGNED BY: C.HAWKES		AUTH BY: C.P.	
DRAWN BY: S.SHEPHERD		MADE BY: CH	
CHECKED BY: J.HARPER		ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP)	
APPROVED BY: C.PRICE		NO. 0	
DATE: JUNE 2024		DATE: 06/14/24	
EWO NO. ---		ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS  
ROOF FRAMING PLAN**



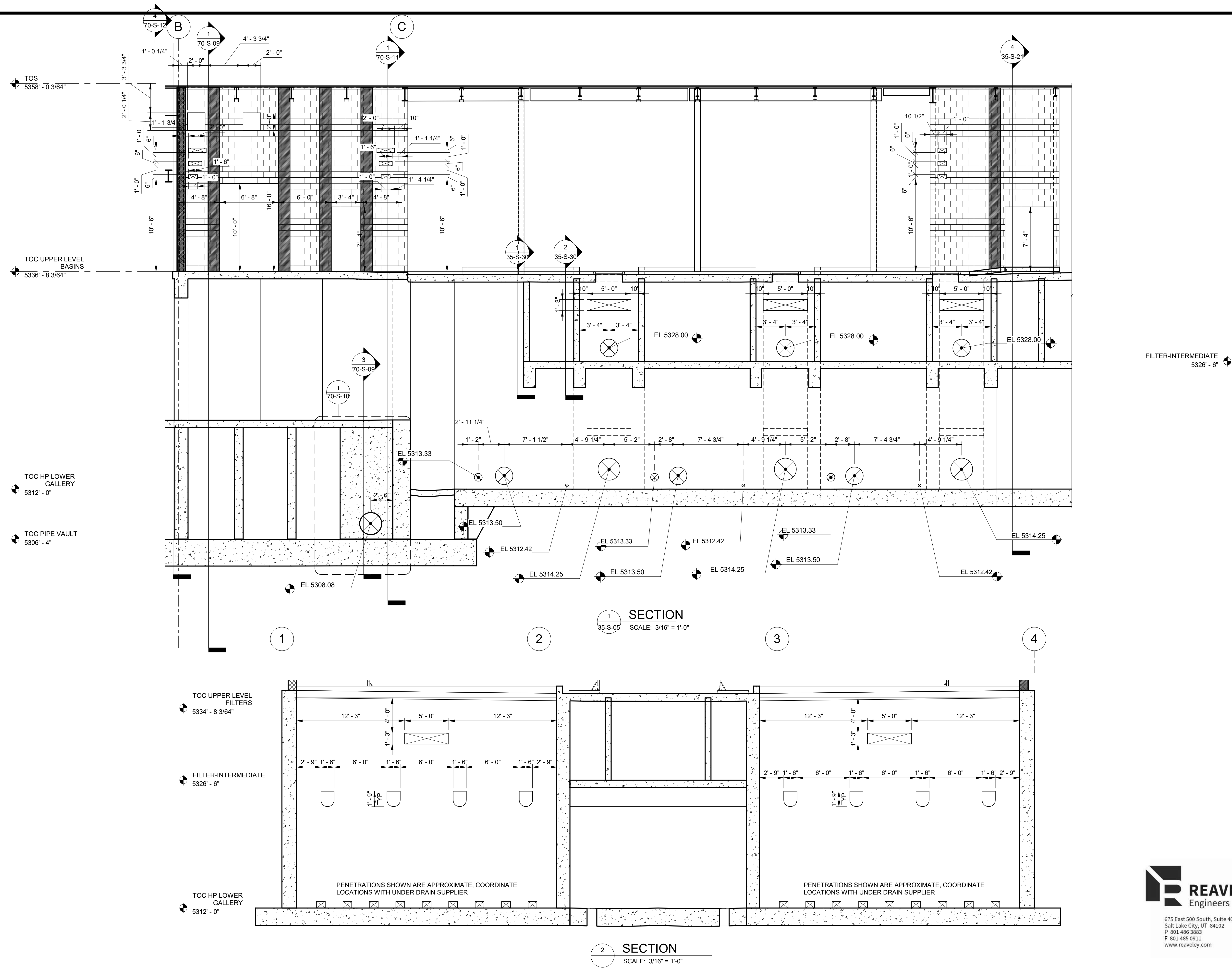
DRAWING NO.  
**35-S-19**

90% GMP

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VERIFY SCALE  
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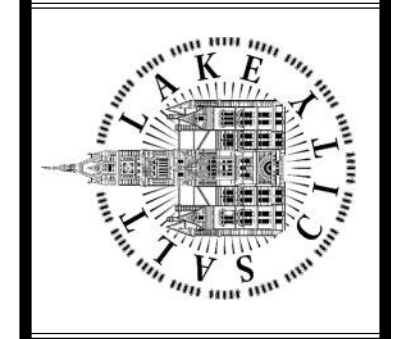
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REVISIONS	
NO.	DATE
0	06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - SECTIONS 1**



**90% GMP**

DRAWING NO.  
**35-S-20**

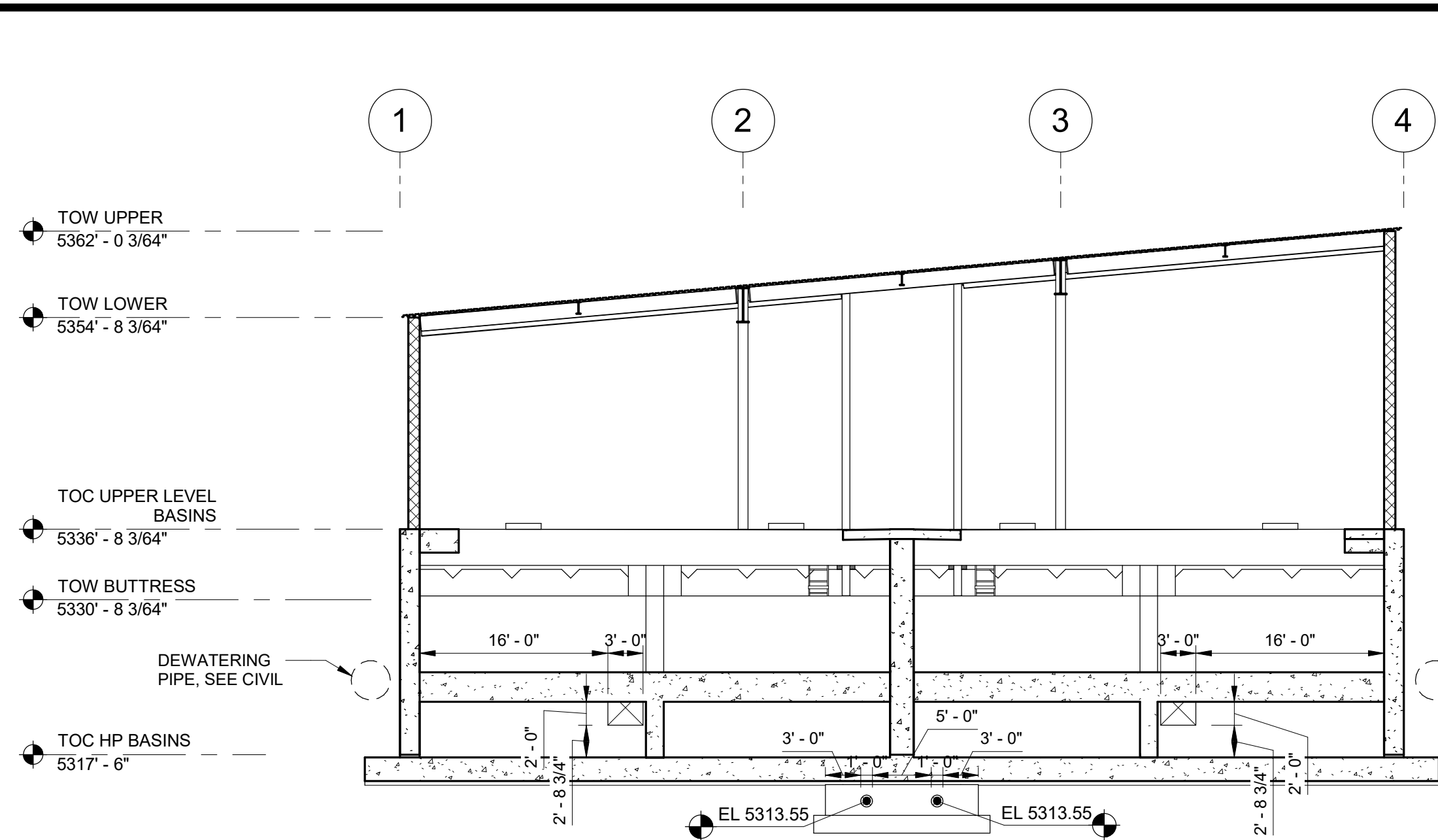
**REAVELEY**  
 Engineers

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 Salt Lake City, UT 84102  
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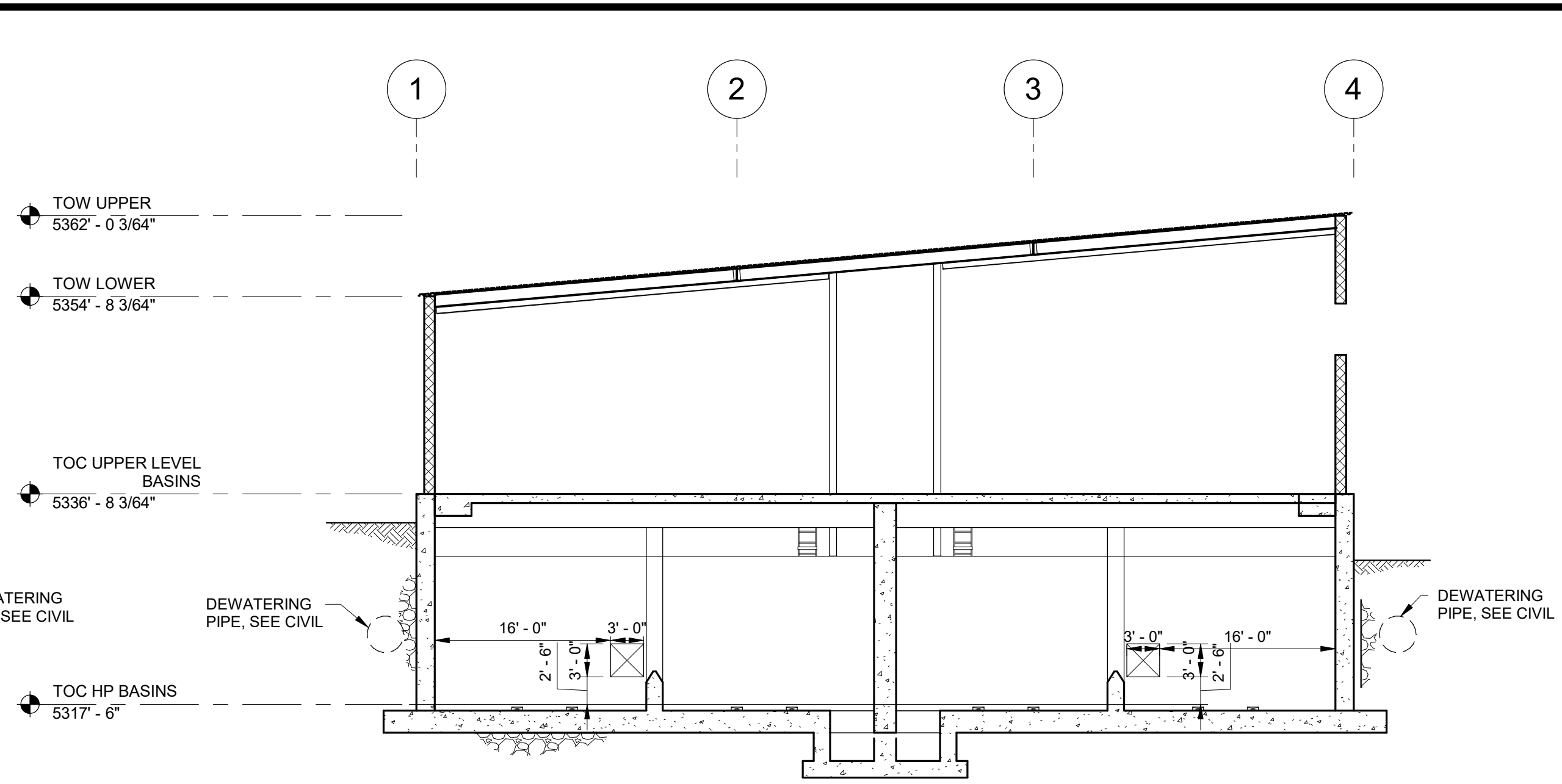
DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

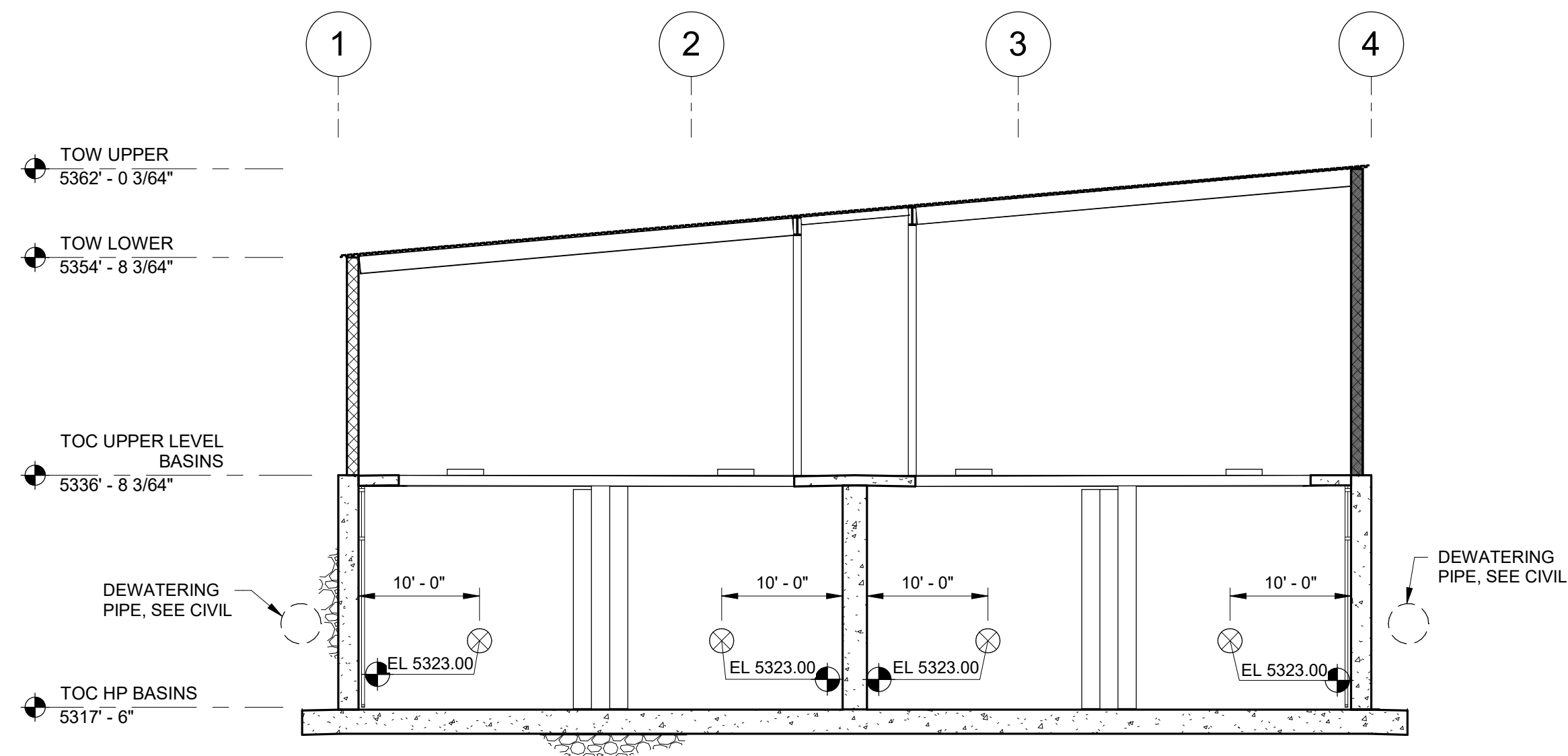
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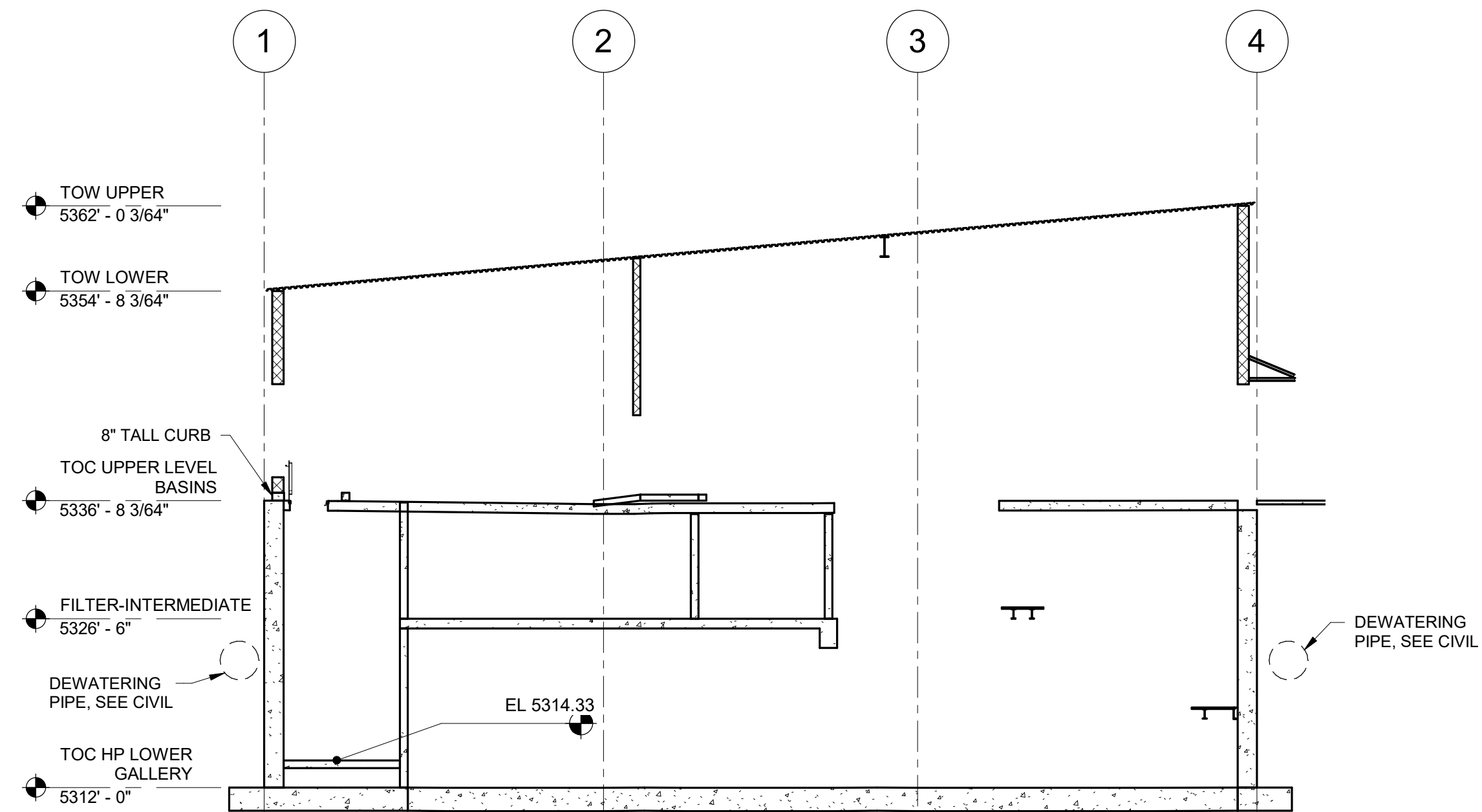
1 SECTION  
35-S-18 SCALE: 3/32" = 1'-0"



2 SECTION  
35-S-18 SCALE: 3/32" = 1'-0"



3 SECTION  
35-S-19 SCALE: 3/32" = 1'-0"



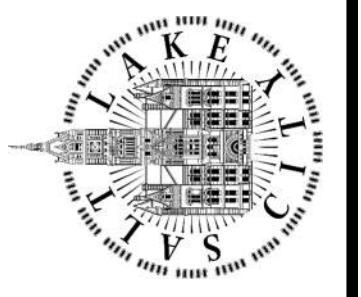
4 SECTION  
35-S-05 SCALE: 3/32" = 1'-0"



675 East 500 South, Suite 400  
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DESIGNED BY: C.HAWKES	AUTH BY: CH	NO. 0	DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE(GMP)	REVISIONS
DRAWN BY: S.SHEPHERD	BY: CP				
CHECKED BY: J.HARPER	CH				
APPROVED BY: C.PRICE					
DATE: JUNE 2024					
EWO NO: --					
ACCOUNT NO: 512260079					

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 2

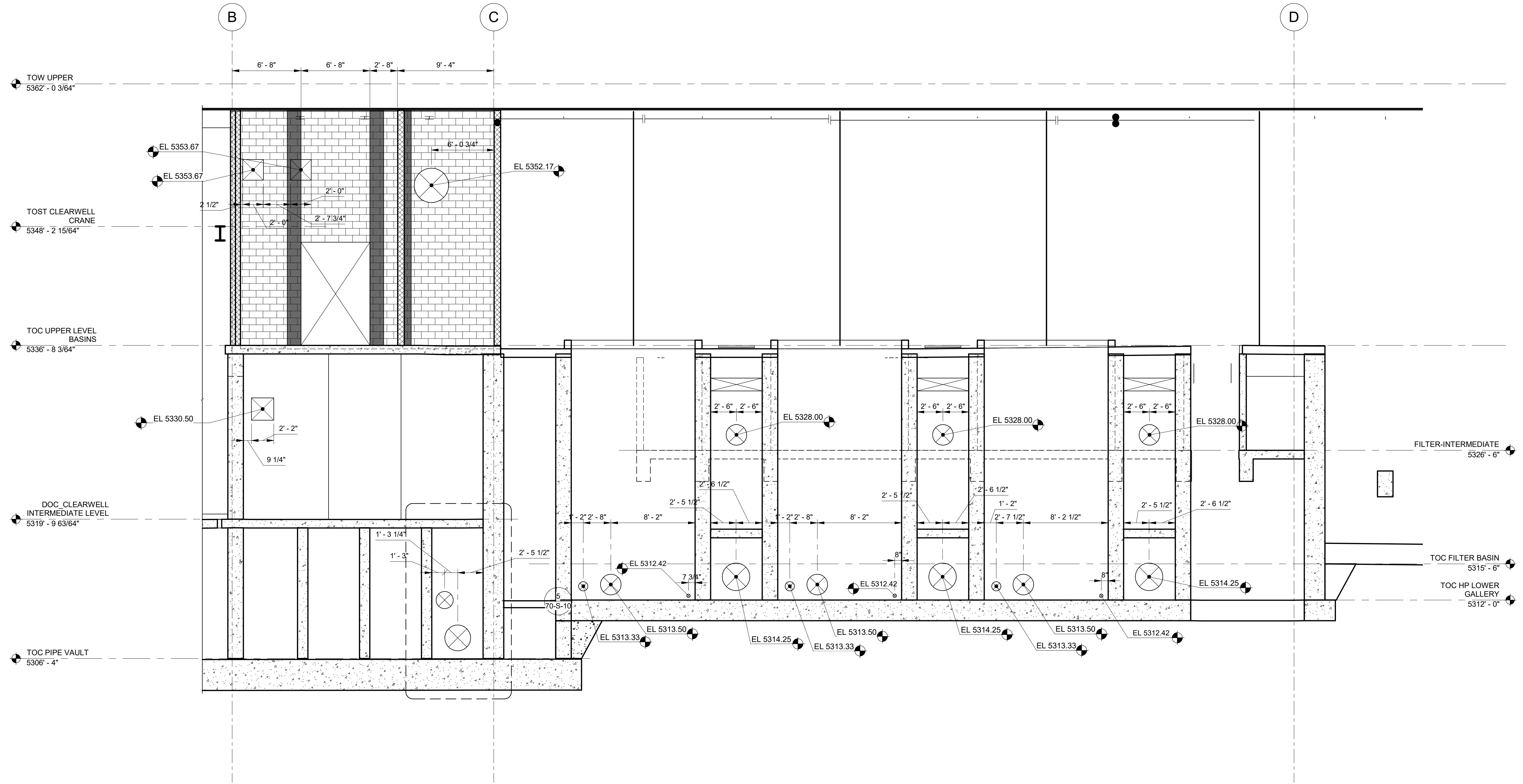


90% GMP

DRAWING NO.  
35-S-21

SCALE:  
VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

Plot Date: 6/13/2024 9:34:35 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-S-3570V21.rvt

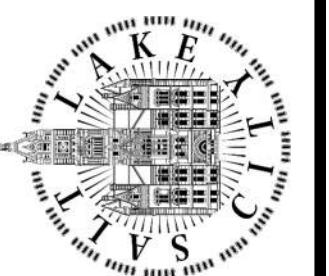


1 SECTION  
35-S-05 SCALE: 3/16" = 1'-0"



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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 3



90% GMP

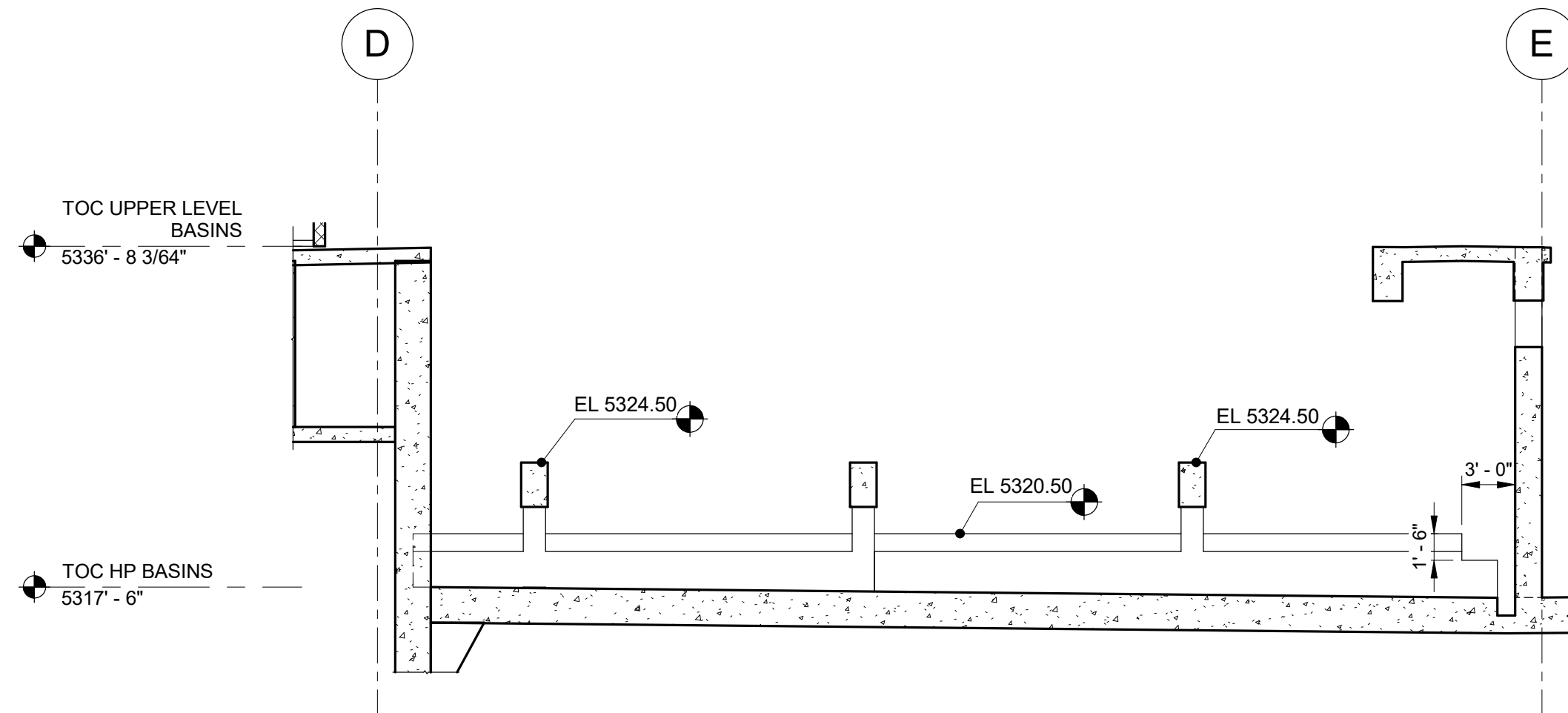
DRAWING NO.  
35-S-22

REVISIONS		AUTH		SCALE	
NO.	DATE	BY	CP	SCALE	DESCRIPTION
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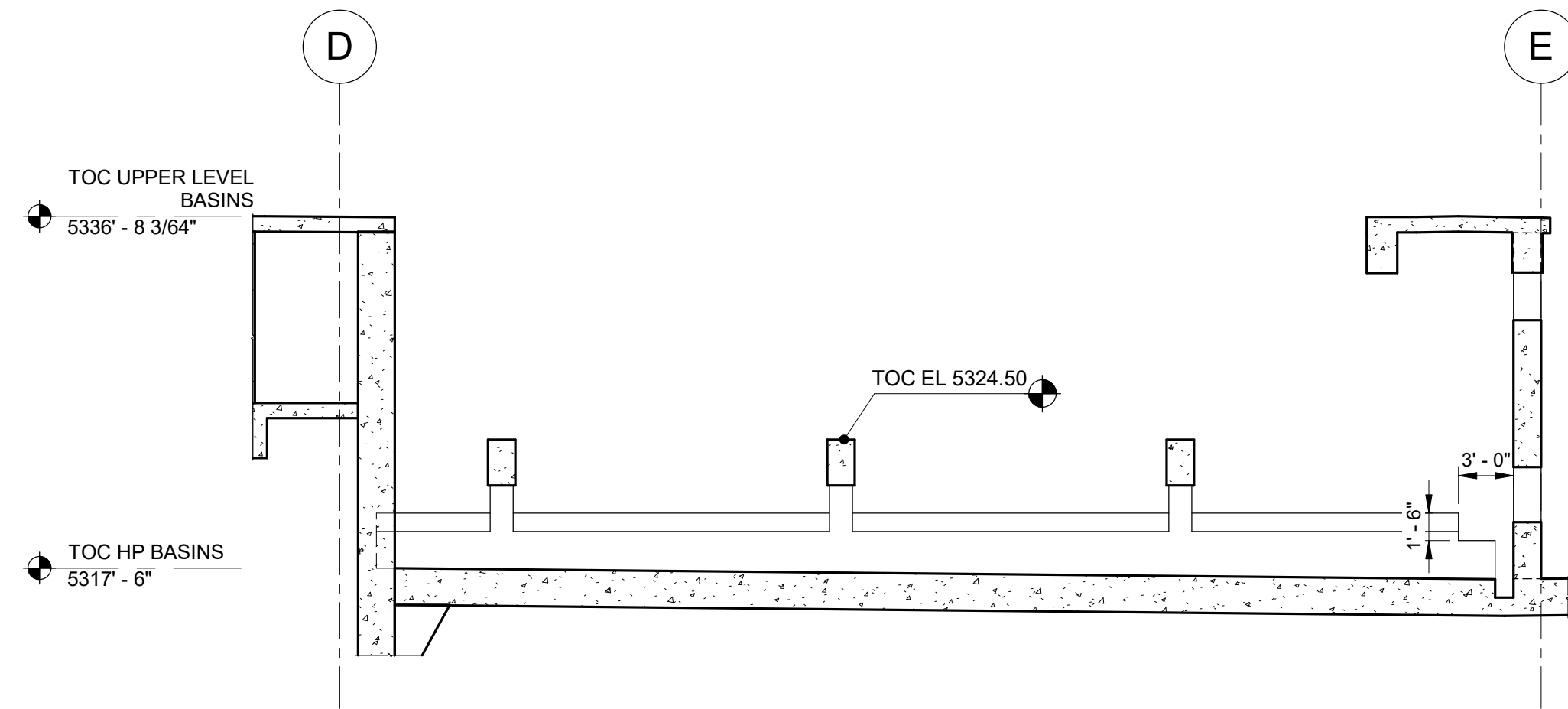
  

DESIGNED BY: C.HAWKES	DATE: JUNE 2024
DRAWN BY: S.SHEPHERD	EWO NO: 512260079
CHECKED BY: J.HARPER	ACCOUNT NO: 512260079
APPROVED BY: C.PRICE	

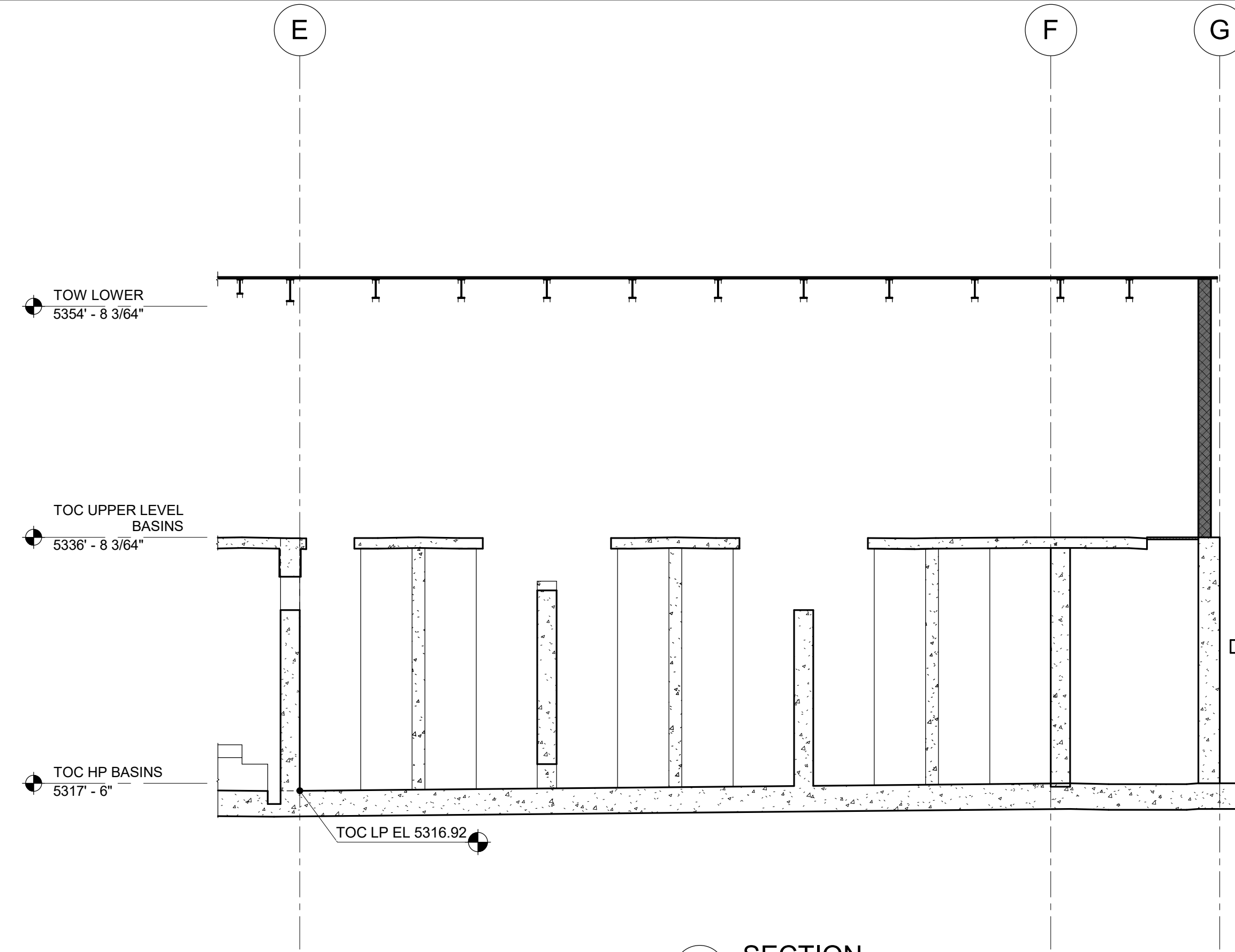
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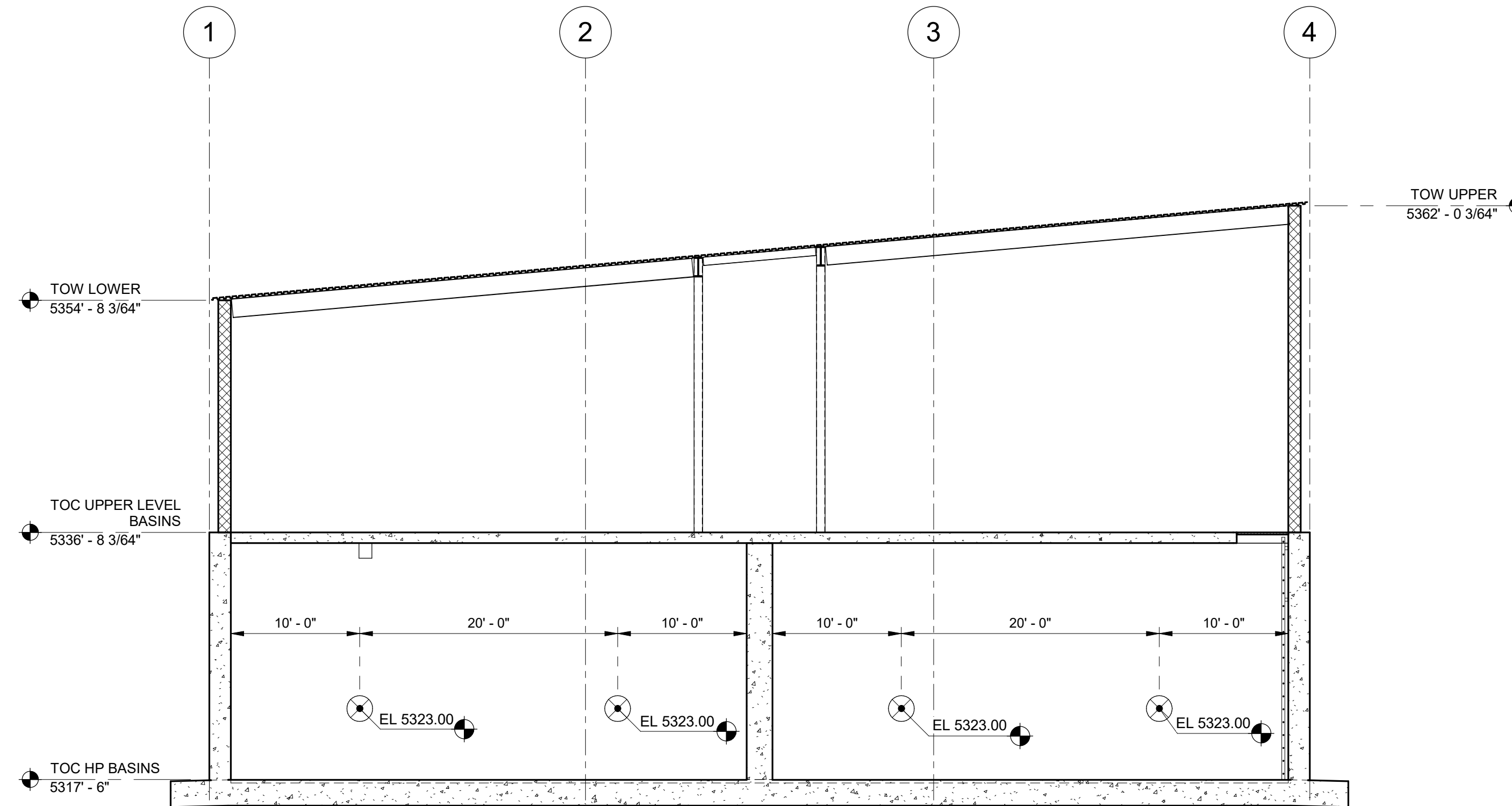
1 SECTION  
35-S-05 SCALE: 1/8" = 1'-0"



2 SECTION  
35-S-05 SCALE: 1/8" = 1'-0"



3 SECTION  
35-S-12 SCALE: 1/8" = 1'-0"

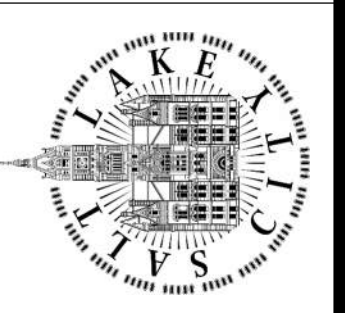


4 WALL SECTION ON GRID F  
35-S-13 SCALE: 1/8" = 1'-0"



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CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 4



90% GMP

DRAWING NO.  
35-S-23

NO. 0

DATE: 06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY: CH

AUTH BY: CP

DESIGNED BY: C.HAWKES

DRAWN BY: S.SHEPHERD

CHECKED BY: J.HARPER

APPROVED BY: C.PRICE

DATE: JUNE 2024

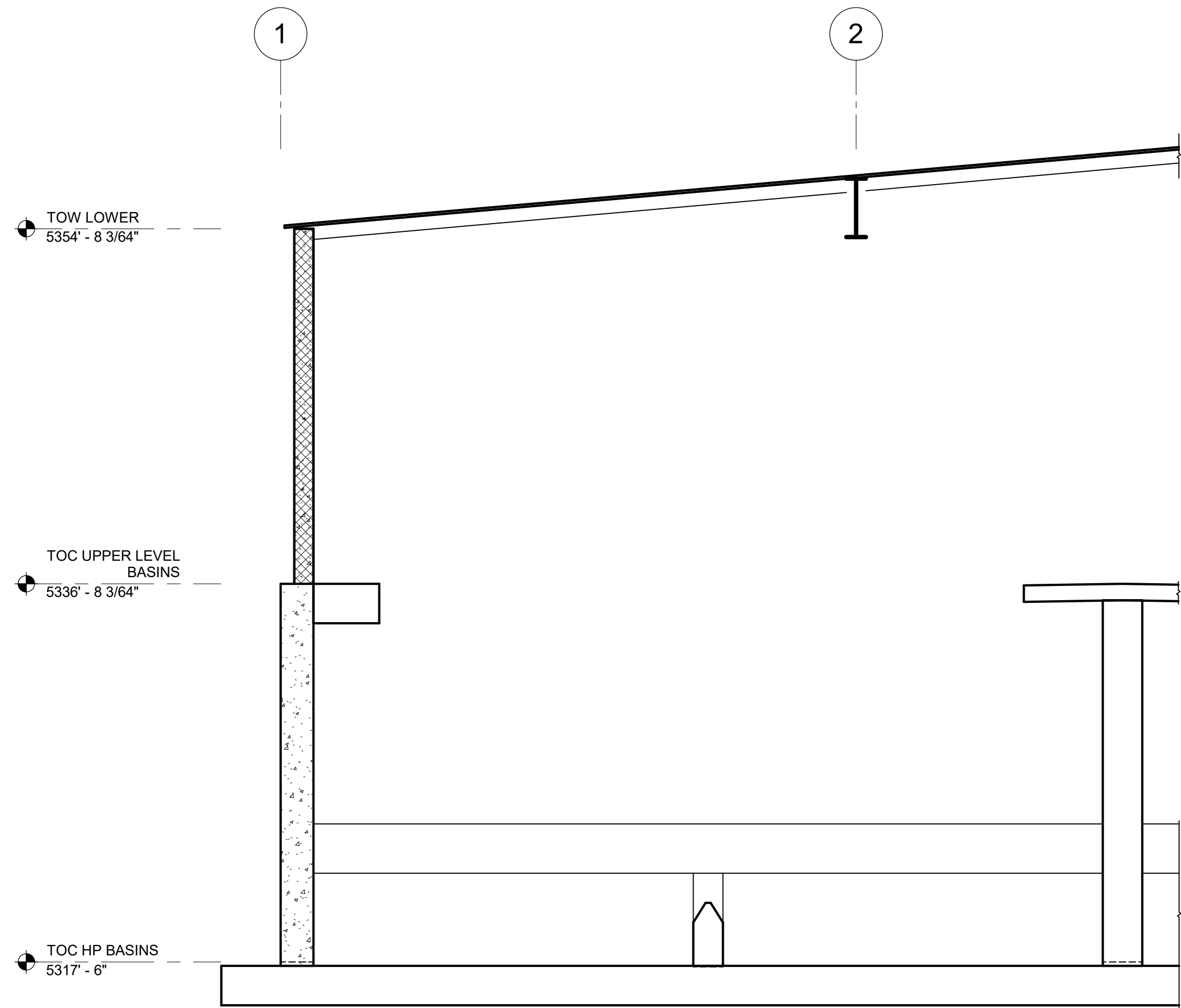
EWO NO: ---

ACCOUNT NO: 512260079

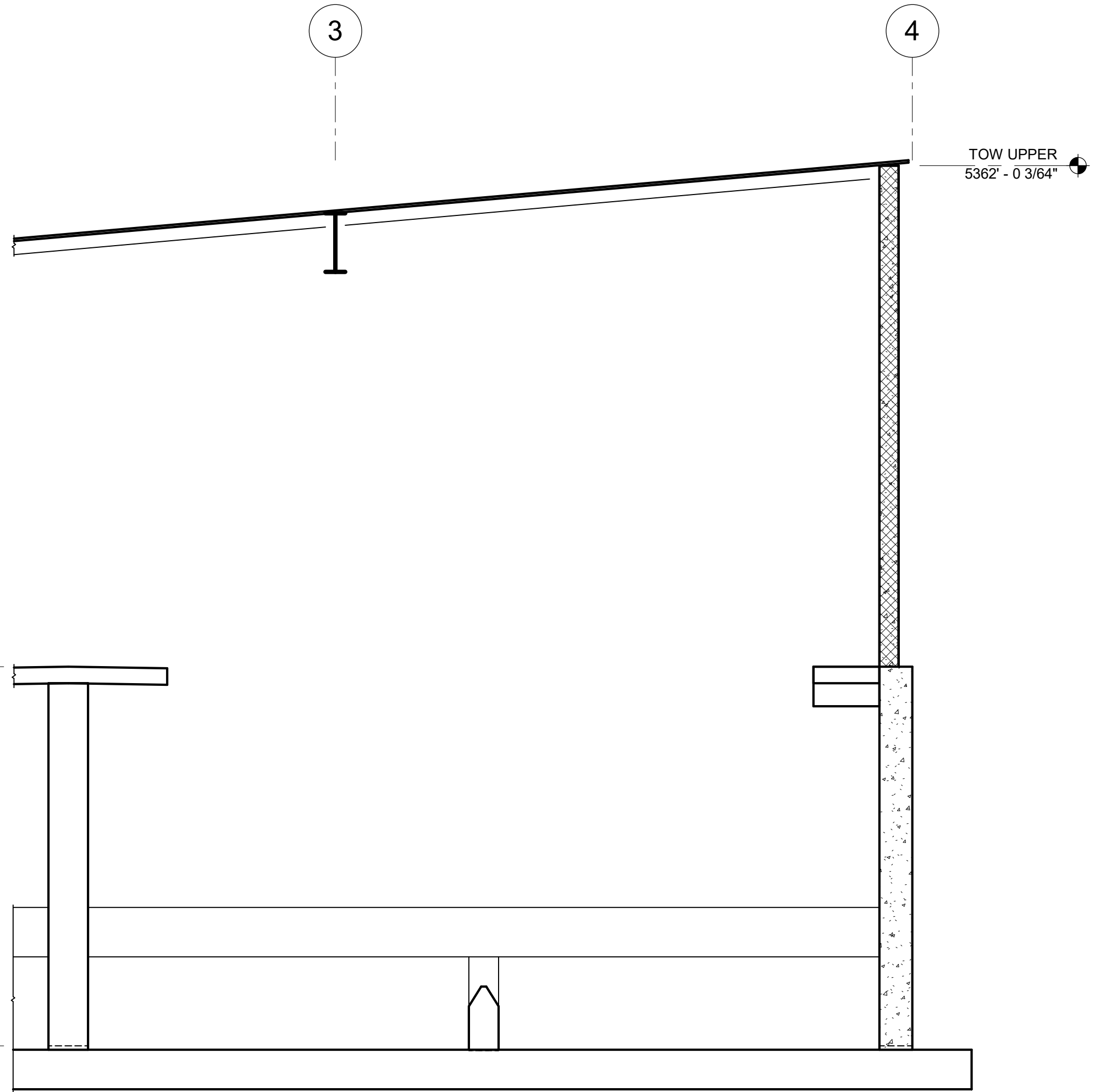
SCALE:

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

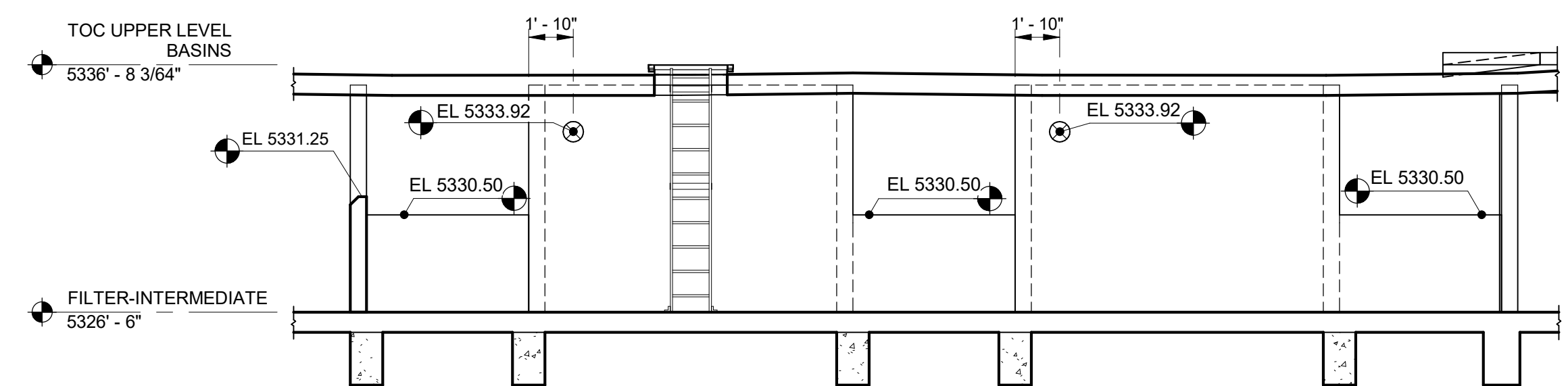
Plot Date: 6/13/2024 9:34:39 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



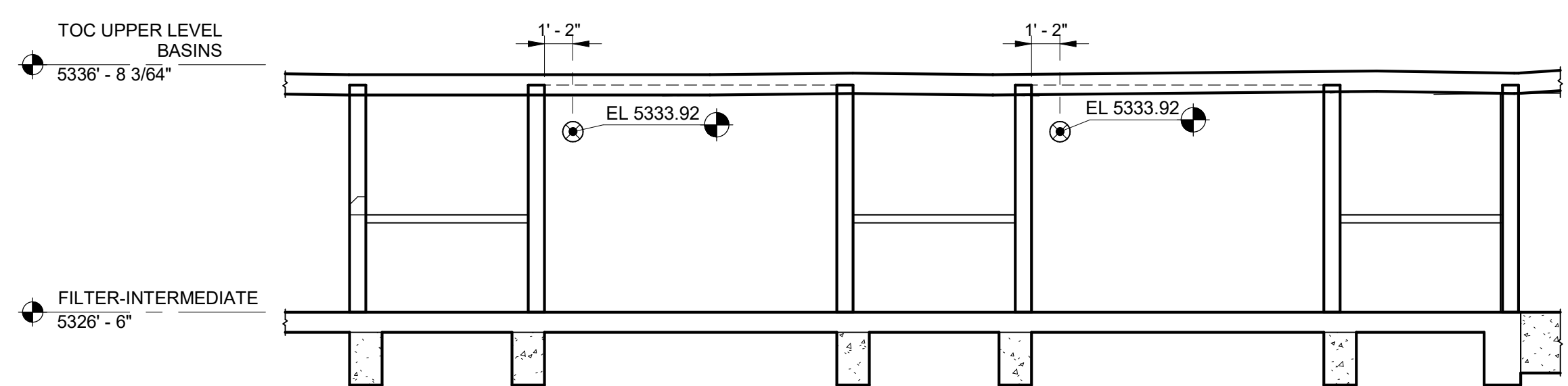
**1 SECTION**  
35-S-11 SCALE: 3/16" = 1'-0"



**2 SECTION**  
35-S-11 SCALE: 3/16" = 1'-0"



**3 SECTION**  
35-S-07 SCALE: 3/16" = 1'-0"



**4 SECTION**  
35-S-07 SCALE: 3/16" = 1'-0"

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CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 5

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)
0	06/14/24				

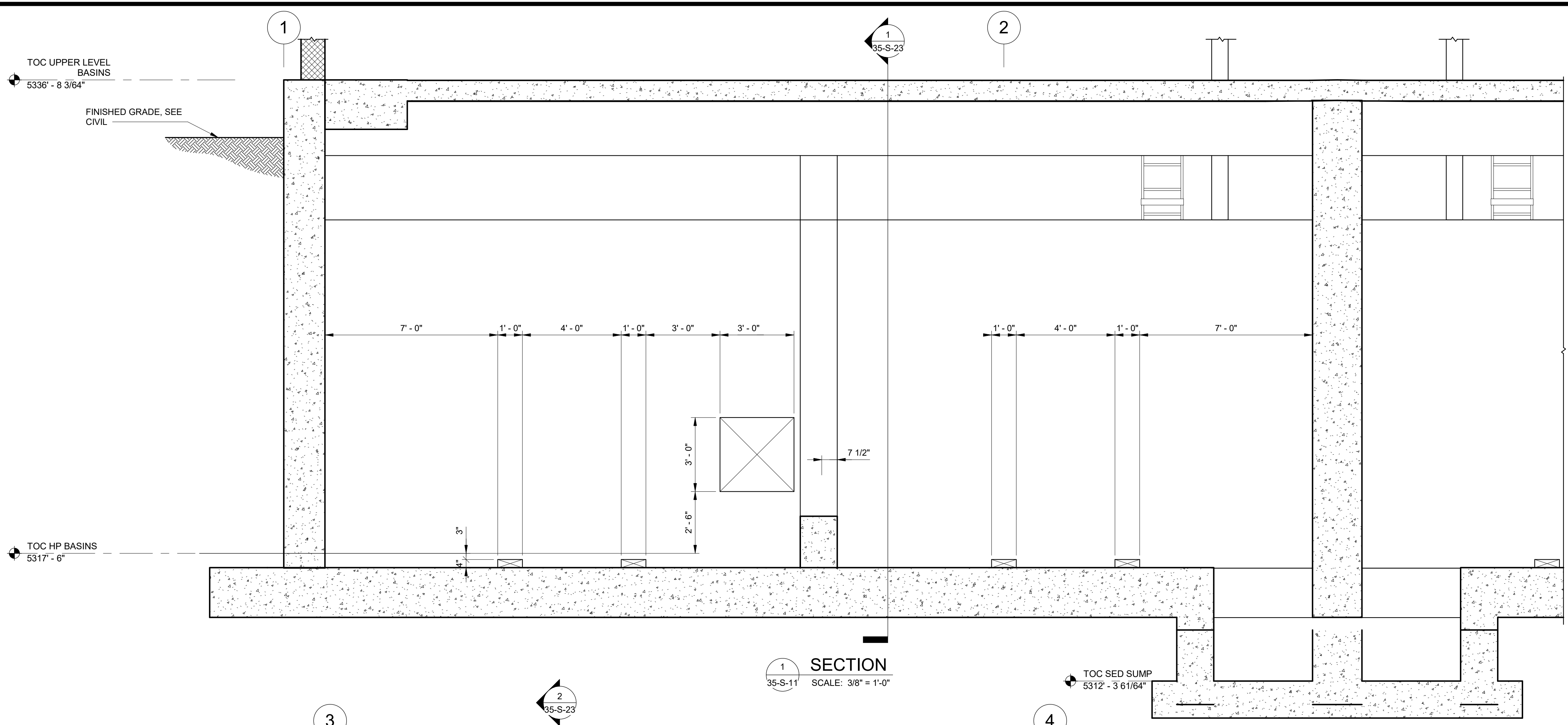
REVISIONS

AUTH. BY: CP  
MADE BY: CH

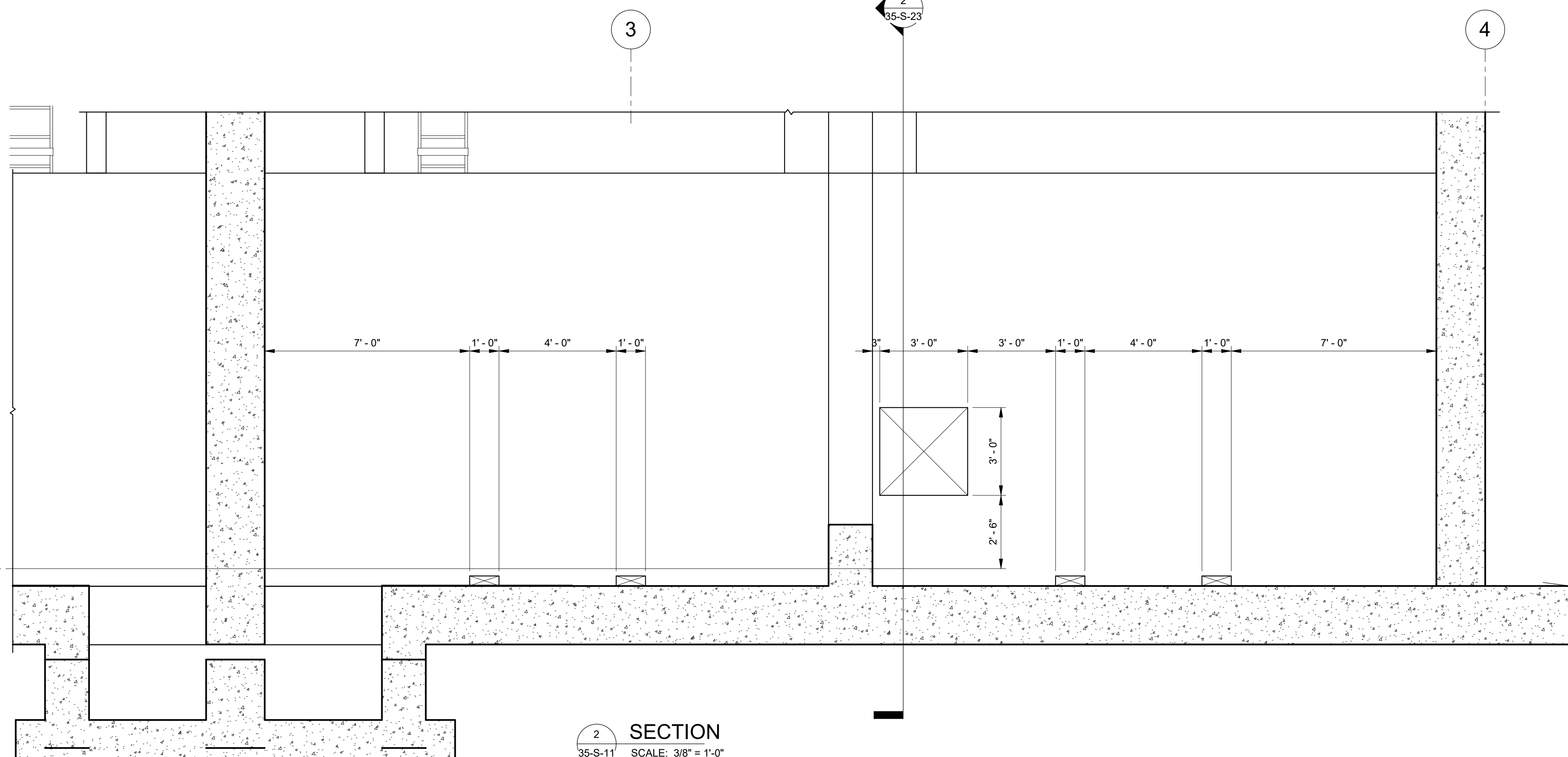
DRAWING NO. **35-S-24**

**90% GMP**

Plot Date: 6/13/2024 9:34:41 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt



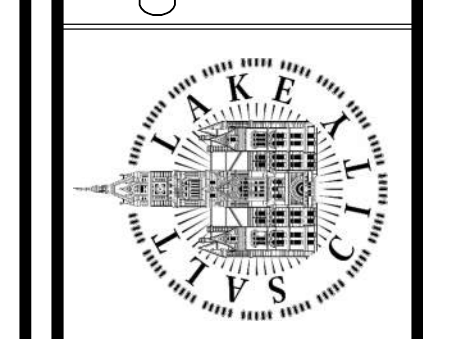
SECTION 1  
35-S-11 SCALE: 3/8" = 1'-0"



SECTION 2  
35-S-11 SCALE: 3/8" = 1'-0"

DESIGNED BY: C.HAWKES	AUTH BY: CP	MADE BY: CH	REVISIONS
DRAWN BY: S.SHEPHERD	BY: CP	BY: CH	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
CHECKED BY: J.HARPER	CP	CH	NO. 0
APPROVED BY: C.PRICE	DATE: JUNE 2024	DATE: JUNE 2024	DATE: 06/14/24
EWO NO: 512260079	ACCOUNT NO: 512260079		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 6



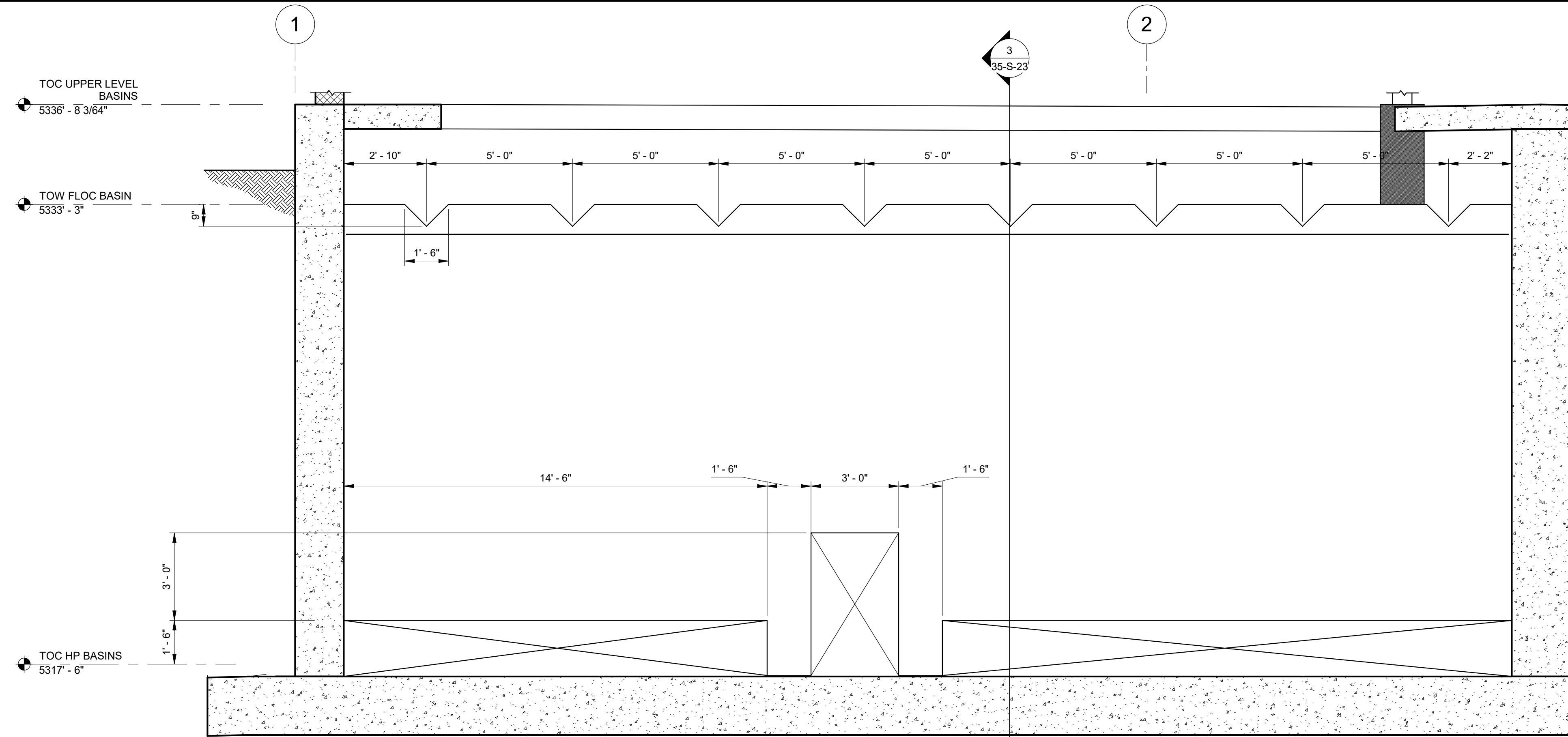
90% GMP

DRAWING NO.  
35-S-25

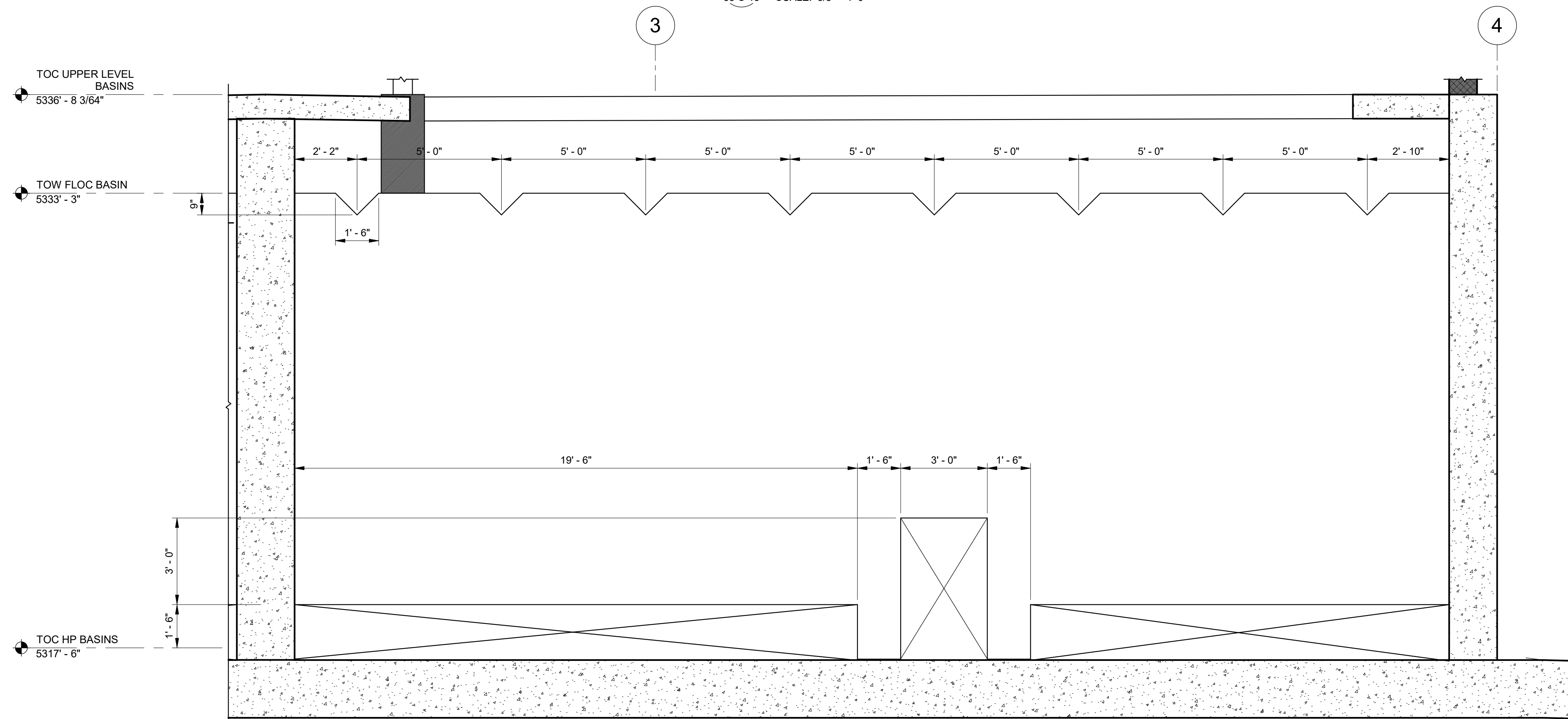
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Plot Date: 6/13/2024 9:34:42 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-S-3570V21.rvt



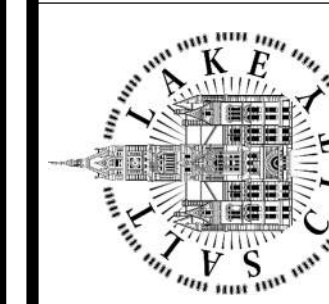
SECTION 1  
35-S-13 SCALE: 3/8" = 1'-0"



SECTION 2  
35-S-13 SCALE: 3/8" = 1'-0"



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CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

TREATMENT - SECTIONS 7

90% GMP

DRAWING NO.  
35-S-26

REVISIONS

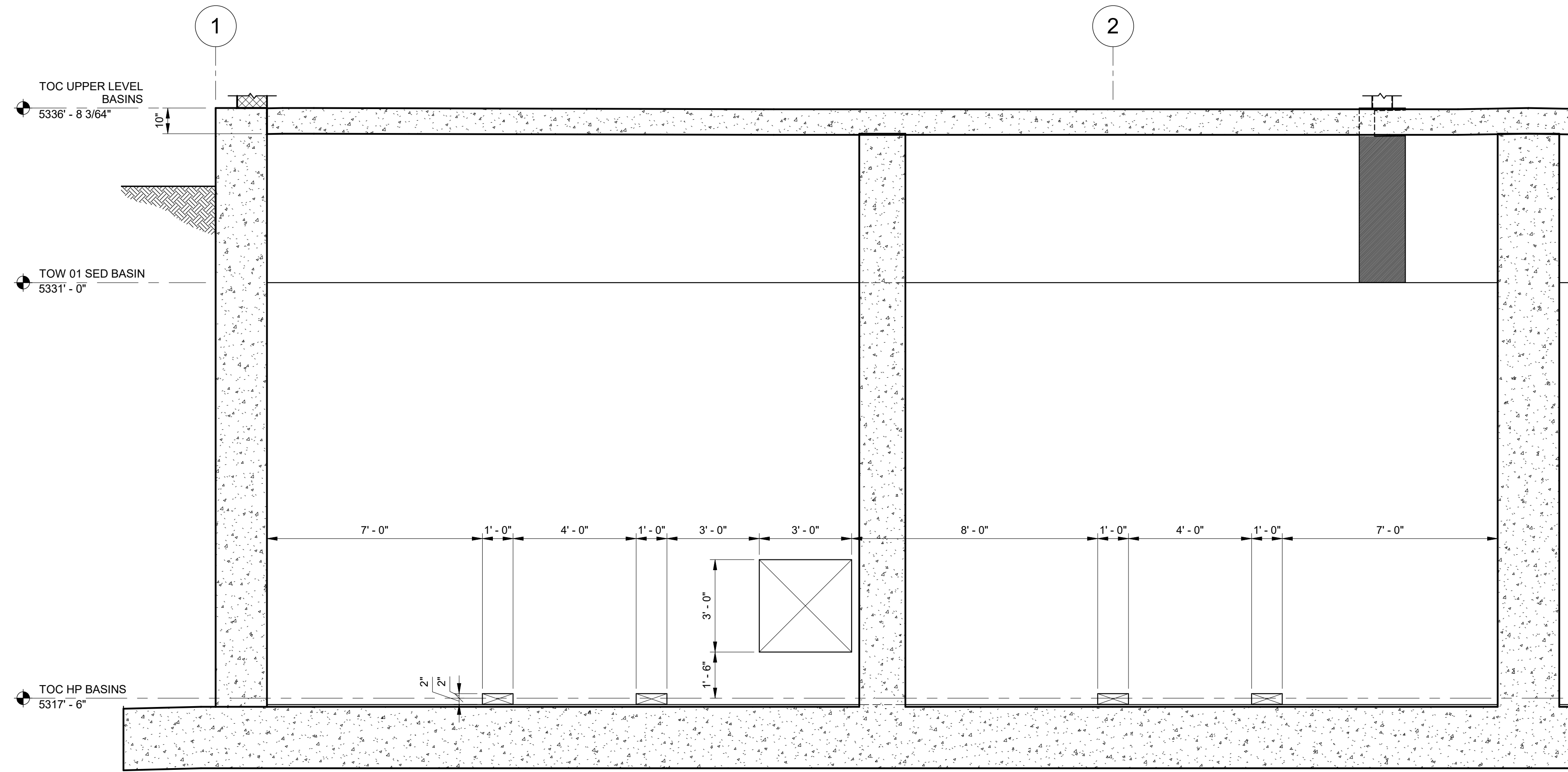
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	BY
0	06/14/24				CH	CP

SCALE:

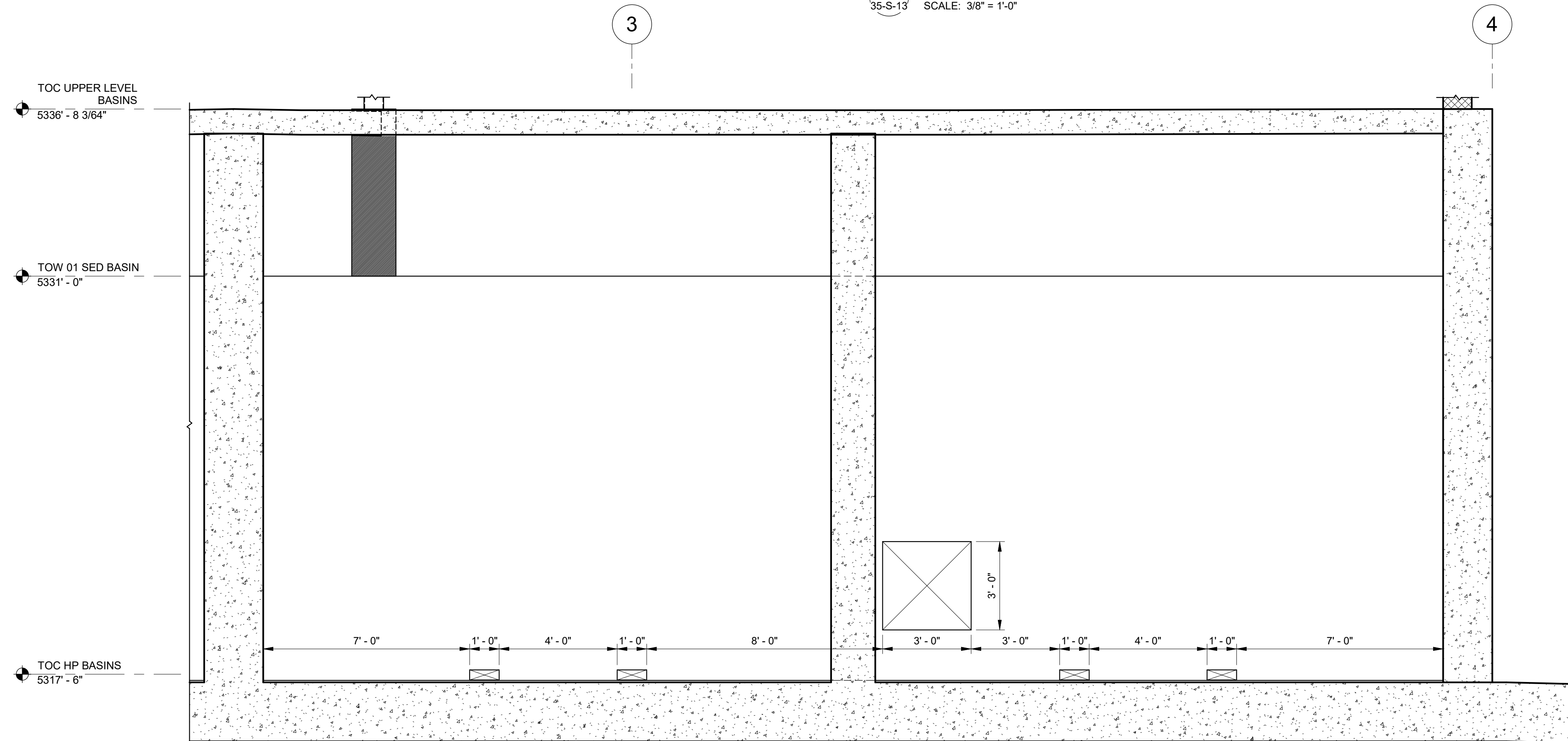
DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

Plot Date: 6/13/2024 9:34:44 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt

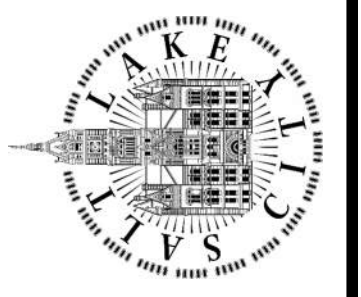


1 SECTION  
35-S-13 SCALE: 3/8" = 1'-0"



2 SECTION  
35-S-13 SCALE: 3/8" = 1'-0"

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BRIC PACKAGE  
TREATMENT - SECTIONS 8



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DRAWING NO.  
35-S-27

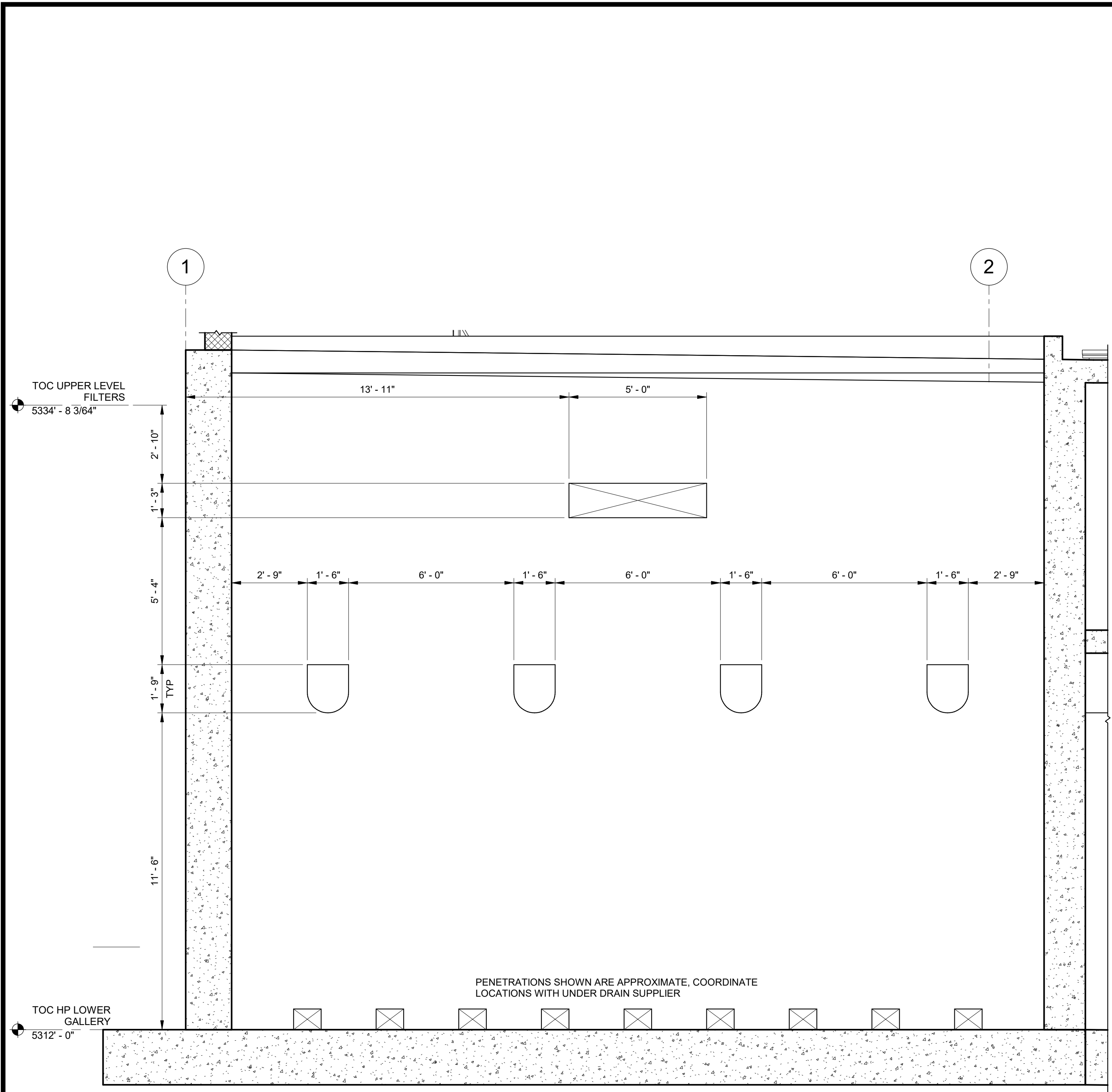
REVISIONS		DESIGNED BY: C.HAWKES	
NO.	DATE	AUTH	BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	CP
		MADE BY	CH
		CHECKED BY: J.HARPER	CP
		APPROVED BY: C.PRICE	CP
		DATE: JUNE	2024
		EWO NO:	---
		ACCOUNT NO:	512260079

SCALE: \_\_\_\_\_

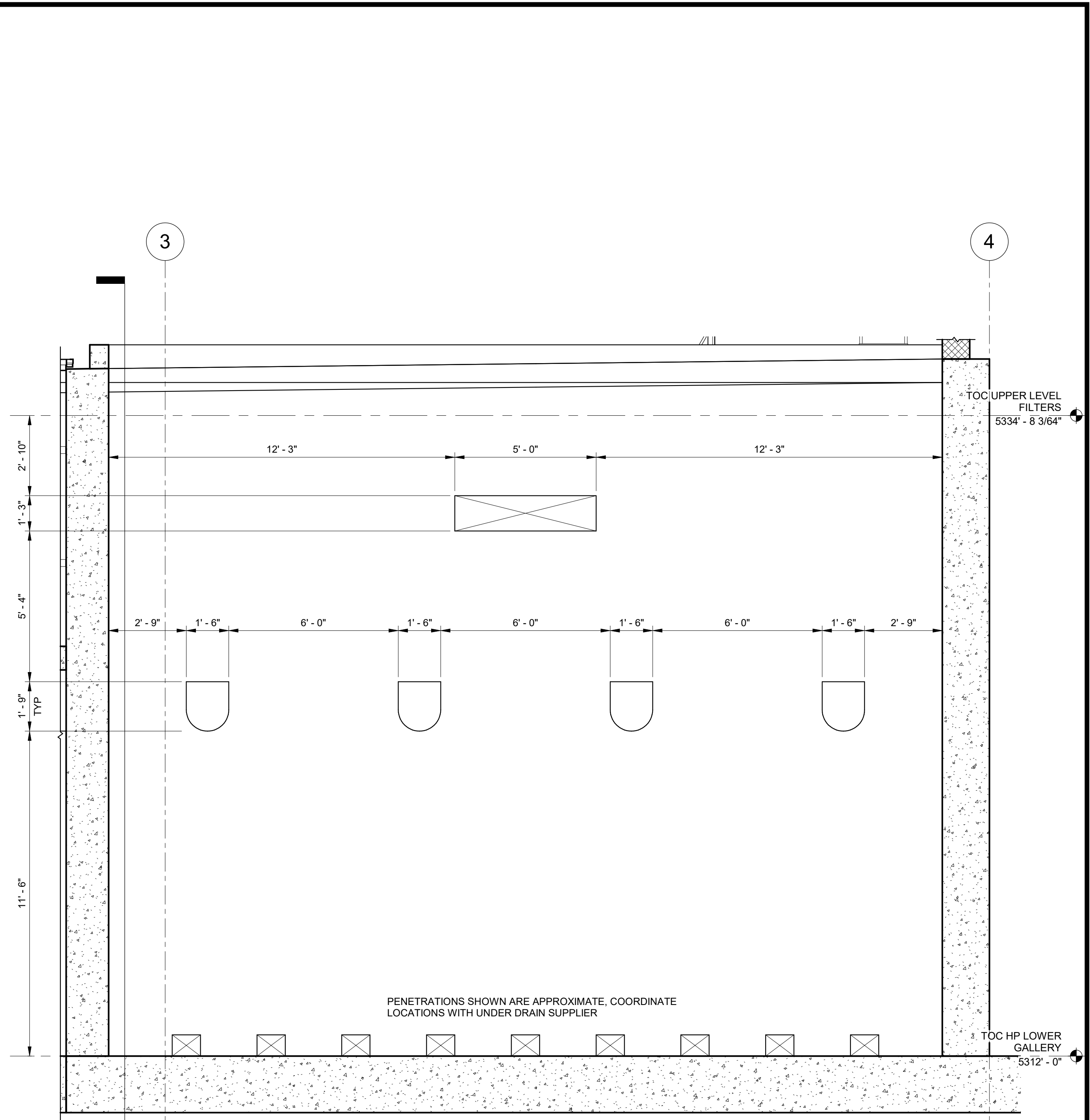
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



Plot Date: 6/13/2024 9:34:46 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt



1 SECTION  
35-S-05 SCALE: 3/8" = 1'-0"



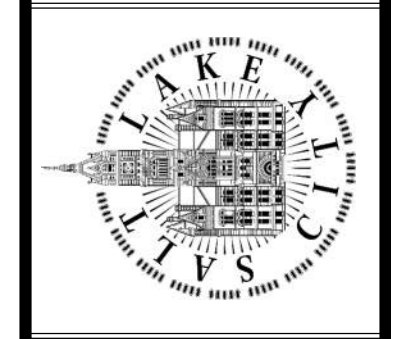
2 SECTION  
35-S-05 SCALE: 3/8" = 1'-0"



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DESIGNED BY: C. HAWKES		DRAWN BY: S. SHEPHERD		CHECKED BY: J. HARPER		APPROVED BY: C. PRICE													
DATE: JUNE	2024	EWO NO: --	ACCOUNT NO: 512260079	SCALE: _____															
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>ISSUED FOR</th> <th>GUARANTEE</th> <th>MAXIMUM PRICE</th> <th>GMP</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>06/14/24</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP	0	06/14/24				
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP														
0	06/14/24																		

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CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 9

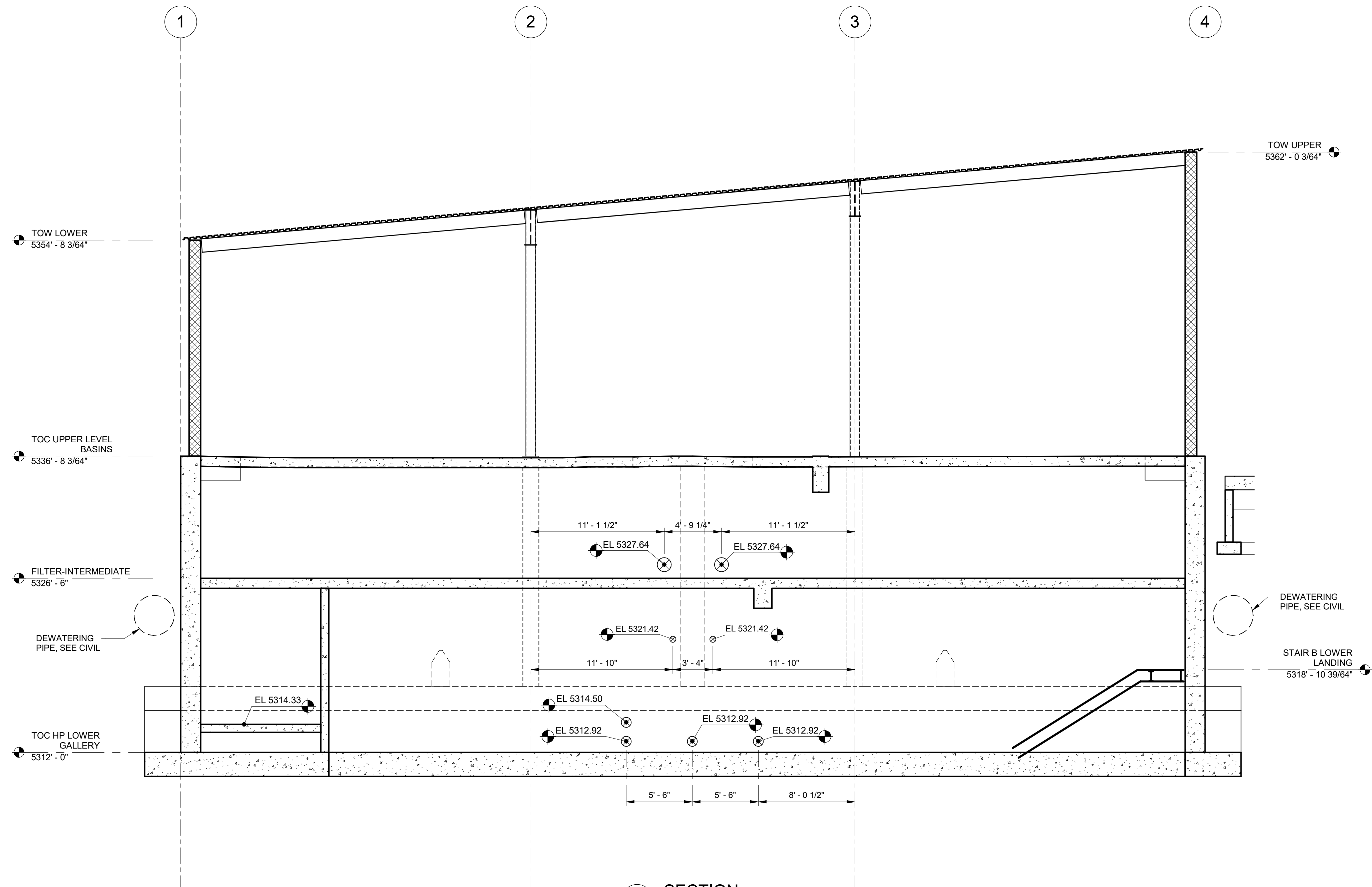


90% GMP

DRAWING NO.  
35-S-28

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

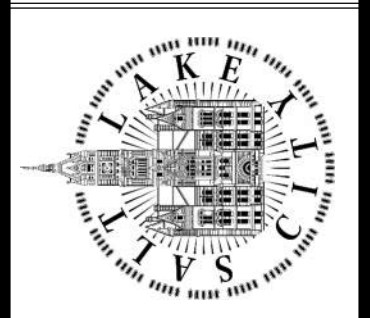
Plot Date: 6/13/2024 9:34:47 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



1 SECTION  
35-S-05 SCALE: 3/16" = 1'-0"

DESIGNED BY: C.HAWKES		SCALE:	
NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		
MADE BY	BY	CH	CP
DESIGNED BY: C.HAWKES	DRAWN BY: S.SHEPHERD	CHECKED BY: J.HARPER	APPROVED BY: C.PRICE
DATE: JUNE	2024	EWO NO: --	ACCOUNT NO: 512260079

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 10



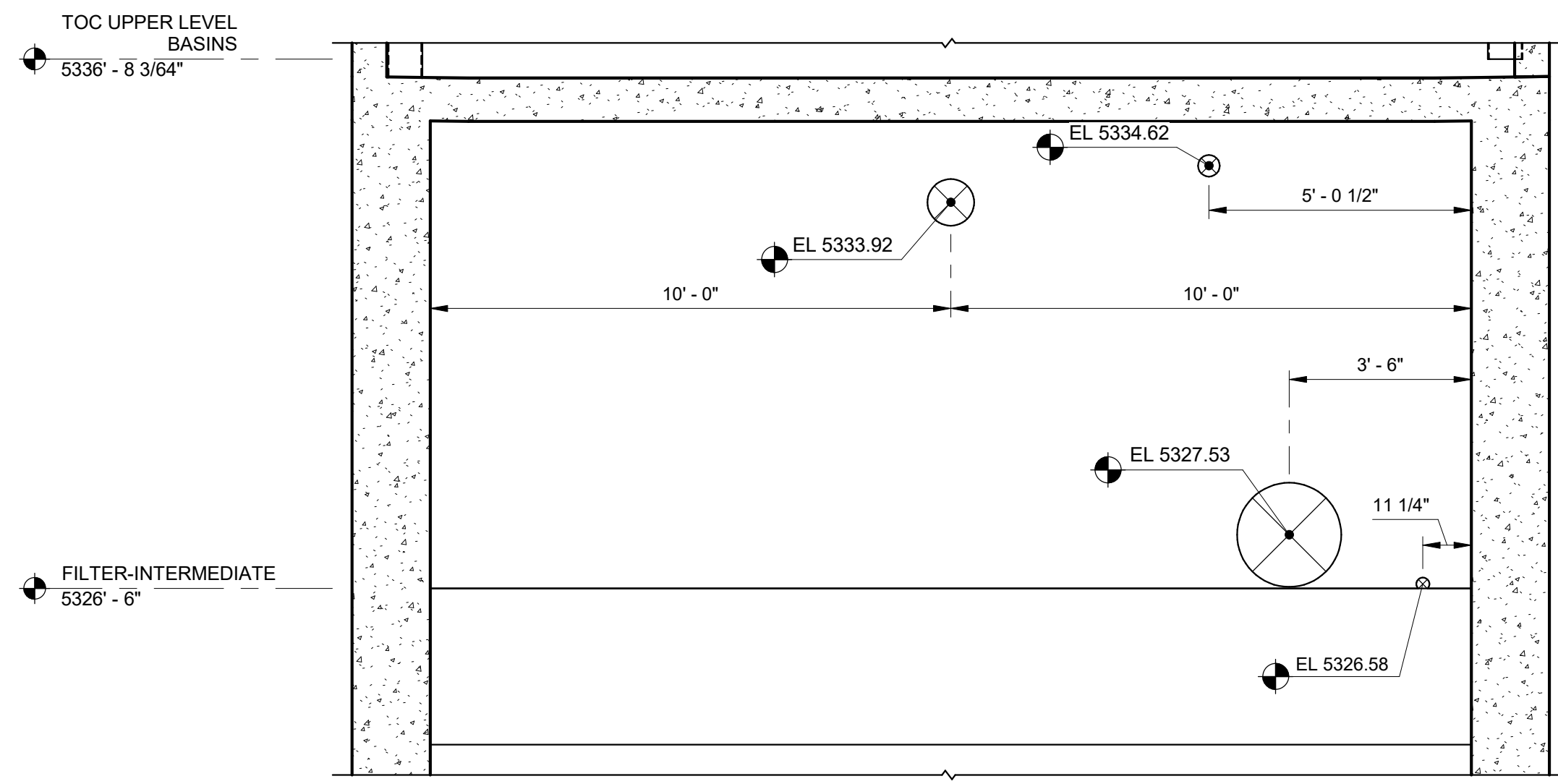
90% GMP

DRAWING NO.  
35-S-29

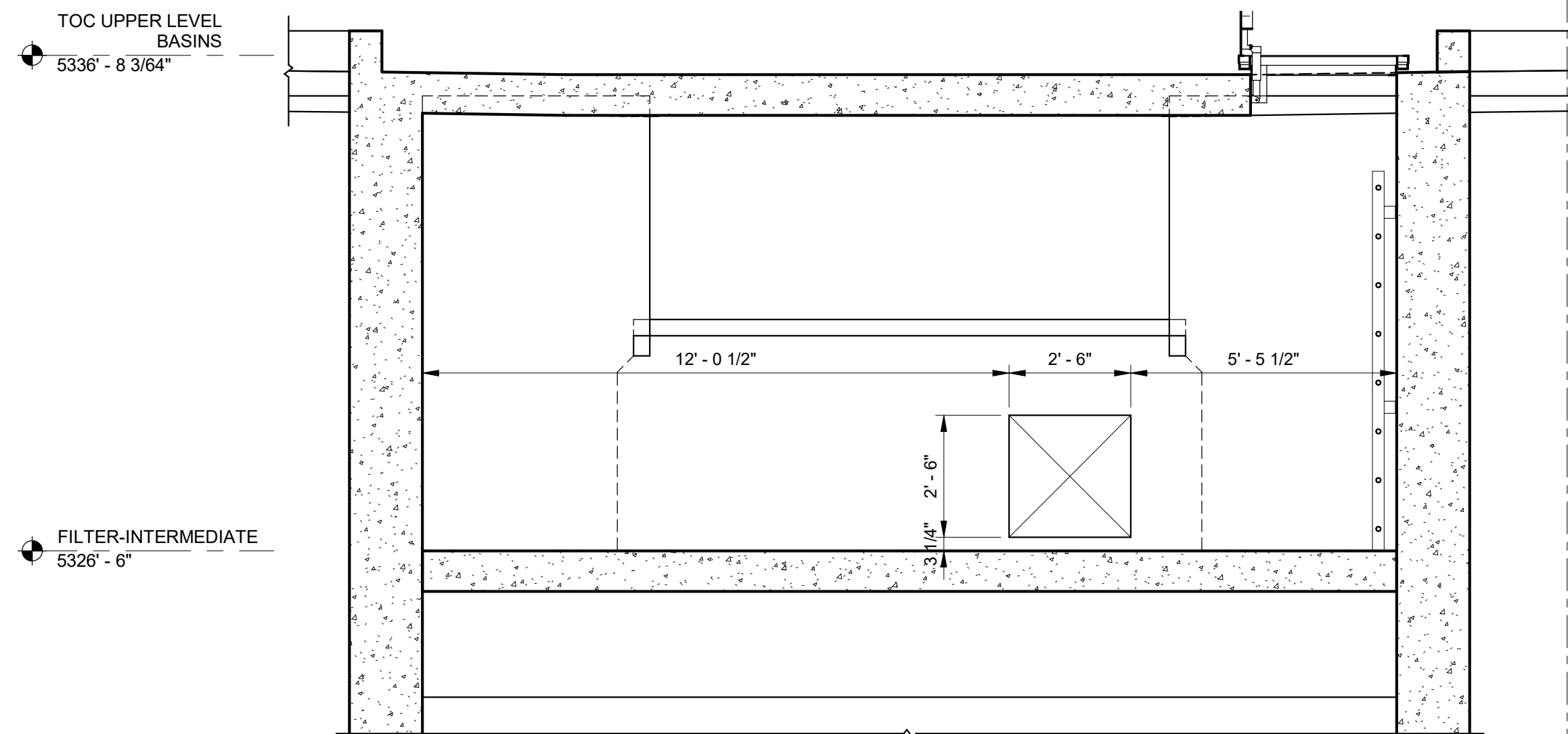


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Plot Date: 6/13/2024 9:34:49 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



1 SECTION  
35-S-07 SCALE: 3/8" = 1'-0"



2 SECTION  
35-S-07 SCALE: 3/8" = 1'-0"



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CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 11

90% GMP

DRAWING NO.  
35-S-30

REVISIONS

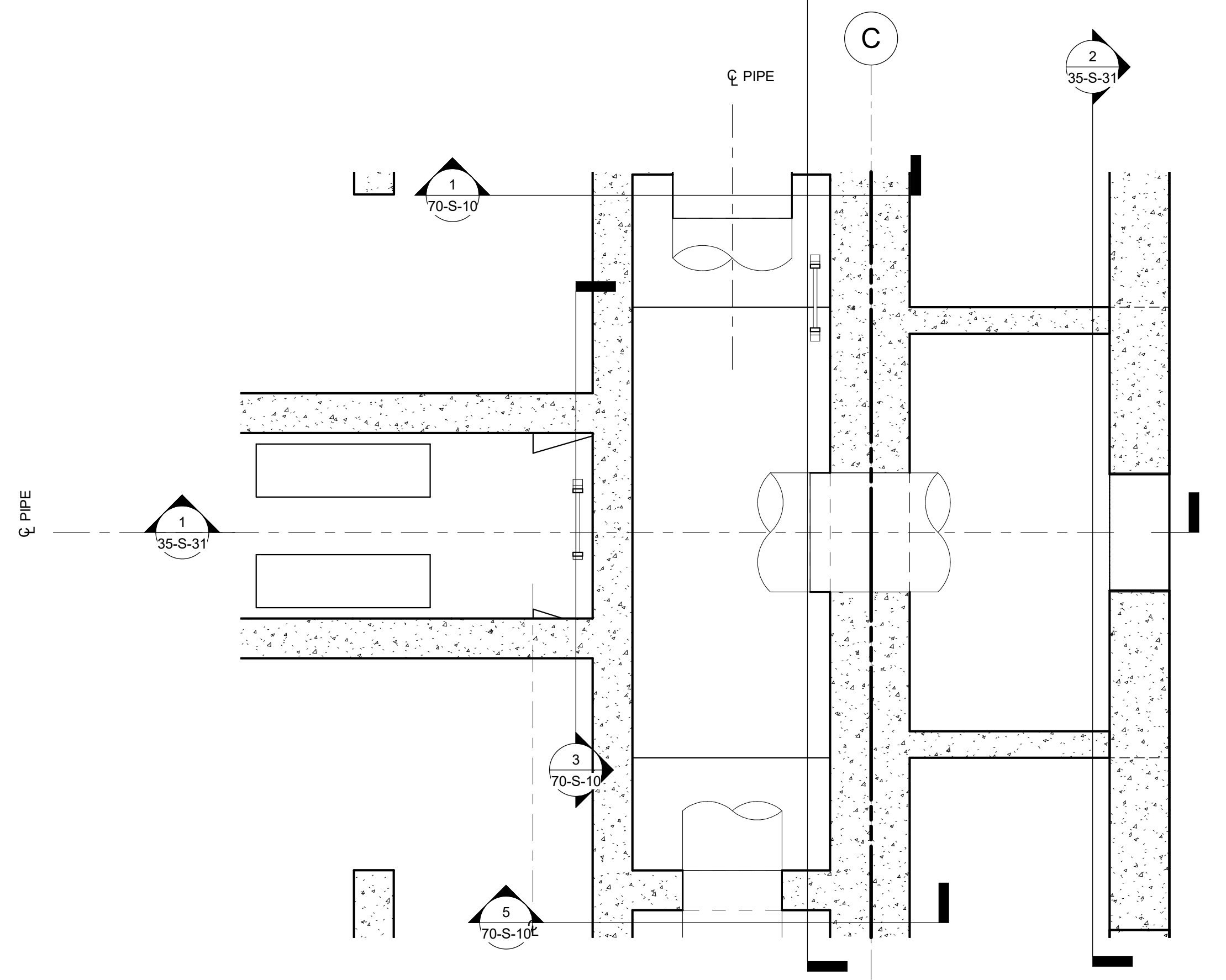
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				CH	CP

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

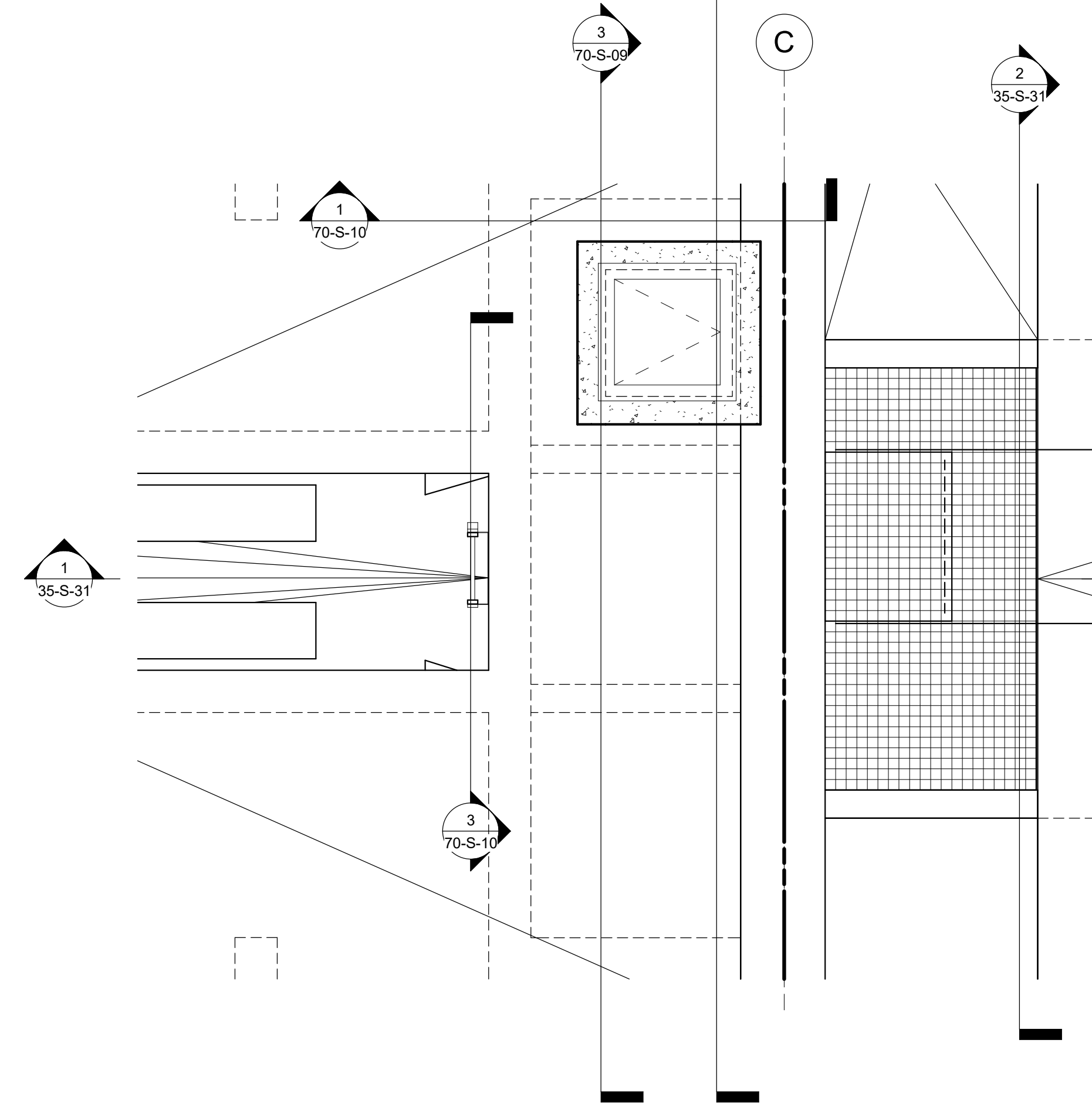
SCALE:

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

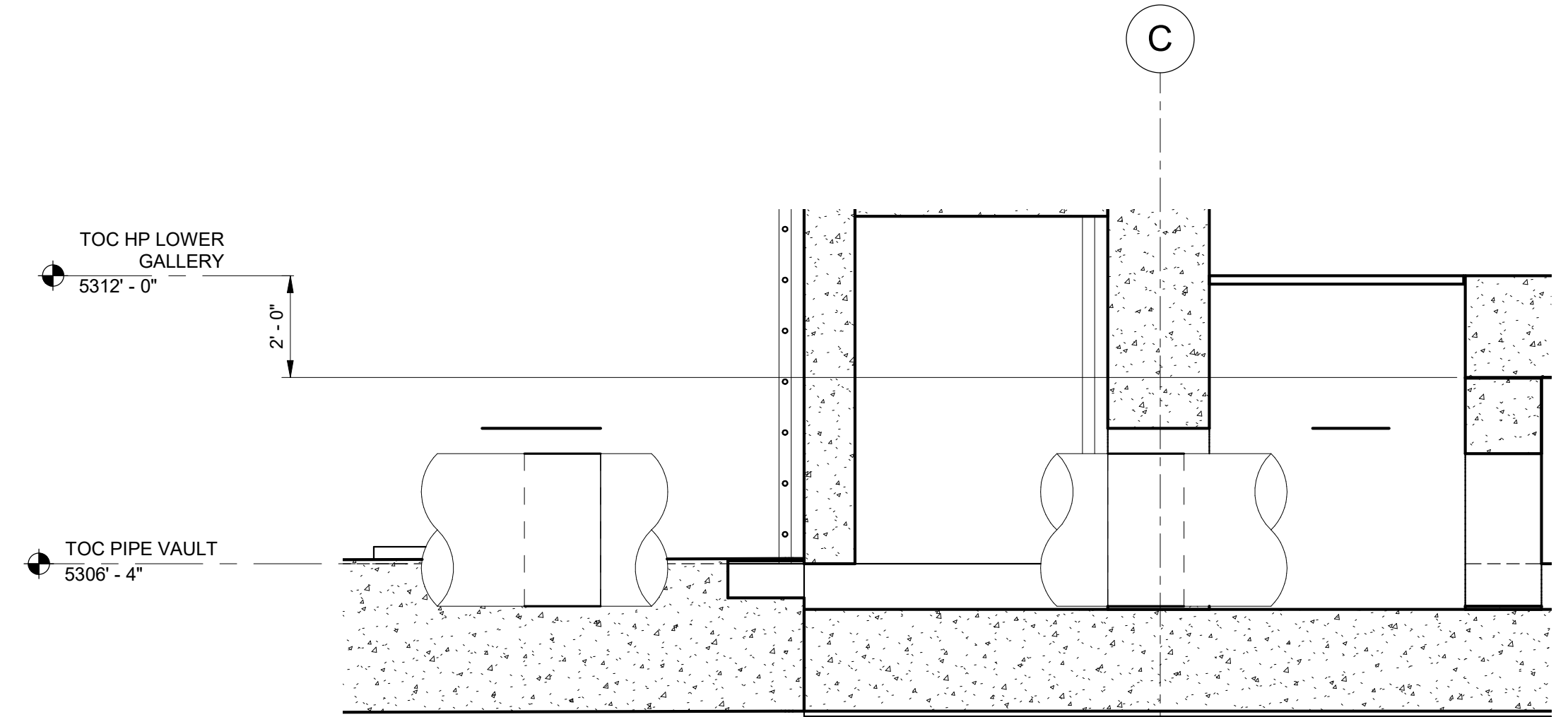
Plot Date: 6/13/2024 9:34:52 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-S-3570V21.rvt



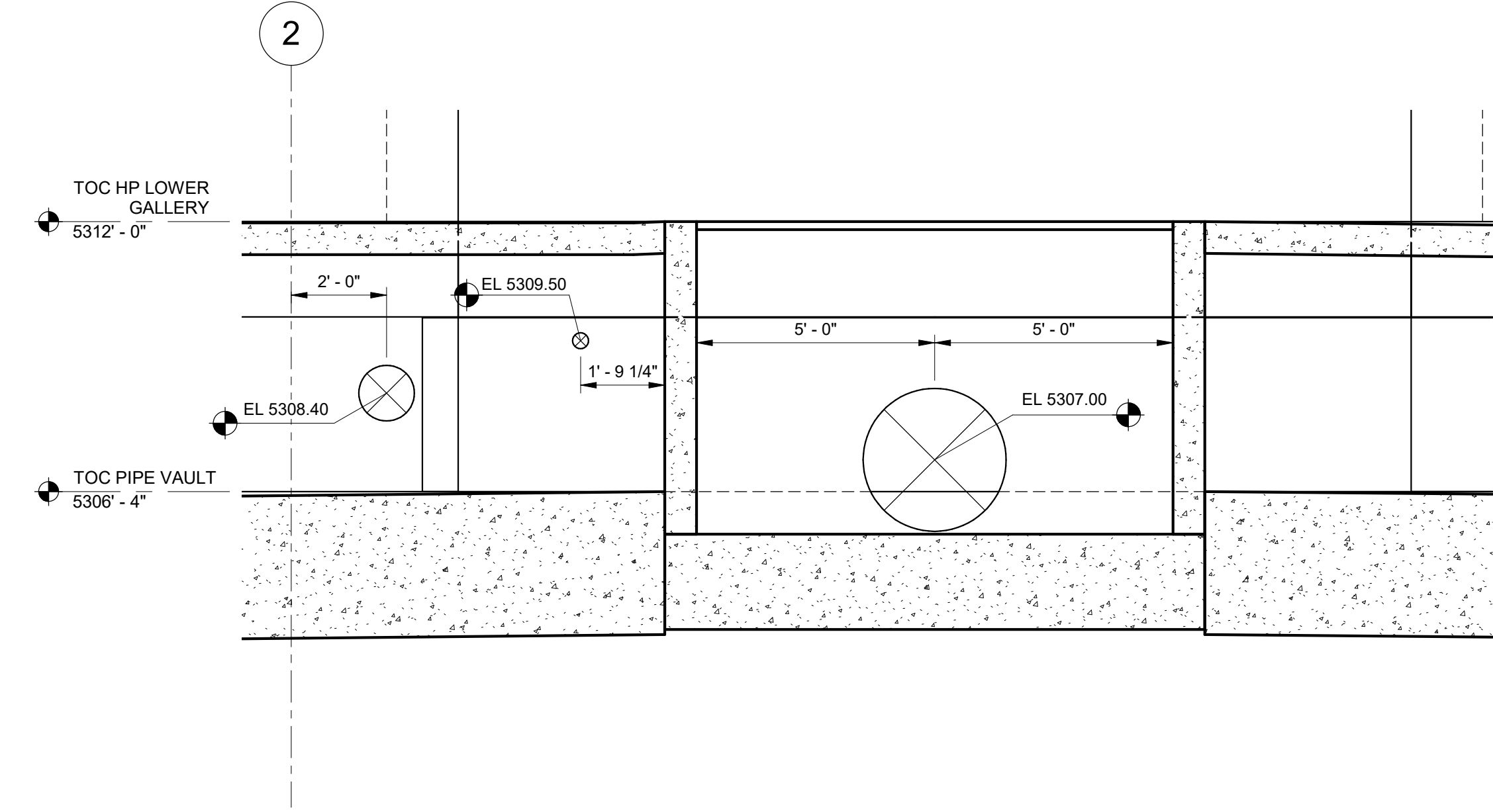
**A** PIPE VAULT LOWER PLAN  
35-S-20 SCALE: 3/8" = 1'-0"



**B** PIPE VAULT TOP PLAN  
35-S-05 SCALE: 3/8" = 1'-0"



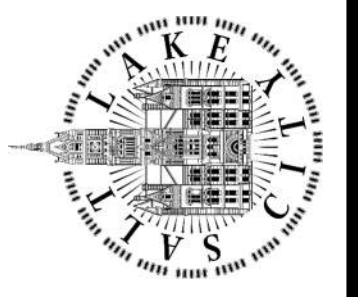
**1** SECTION  
35-S-31 SCALE: 3/8" = 1'-0"



**2** SECTION  
35-S-01 SCALE: 3/8" = 1'-0"



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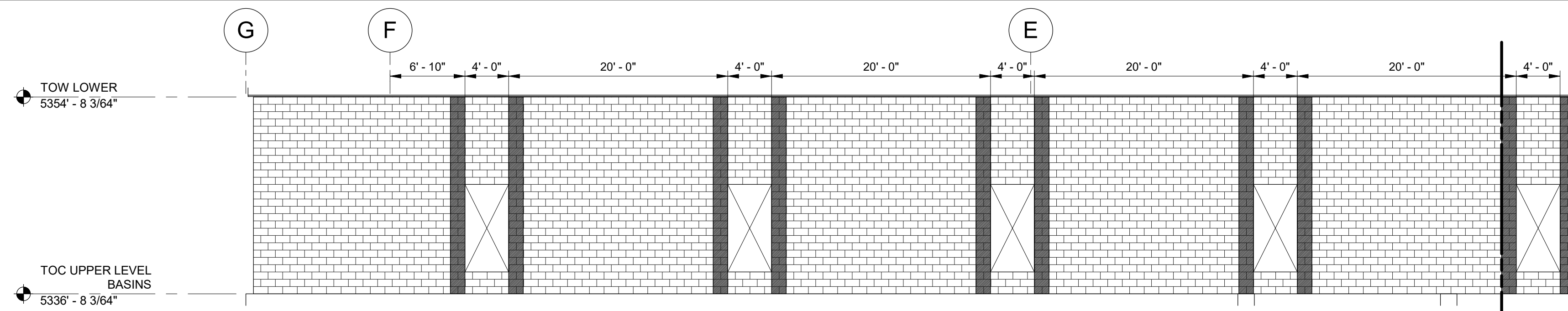
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - PIPE VAULT  
SECTIONS

REVISIONS		DESIGNED BY: C.HAWKES	SCALE:
NO.	DATE	AUTH. BY	VERIFY SCALE
0	06/14/24	ISSUED FOR GUARANTEE (MAXIMUM PRICE/GMP)	BAR IS ONE INCH ON ORIGINAL DRAWING
		MADE BY: CH	
		BY: CP	
		DESIGNED BY: S.SHEPHERD	
		DRAWN BY: J.HARPER	
		CHECKED BY: C.PRICE	
		APPROVED BY: C.PRICE	
		DATE: JUNE 2024	
		EWO NO: --	
		ACCOUNT NO: 512260079	

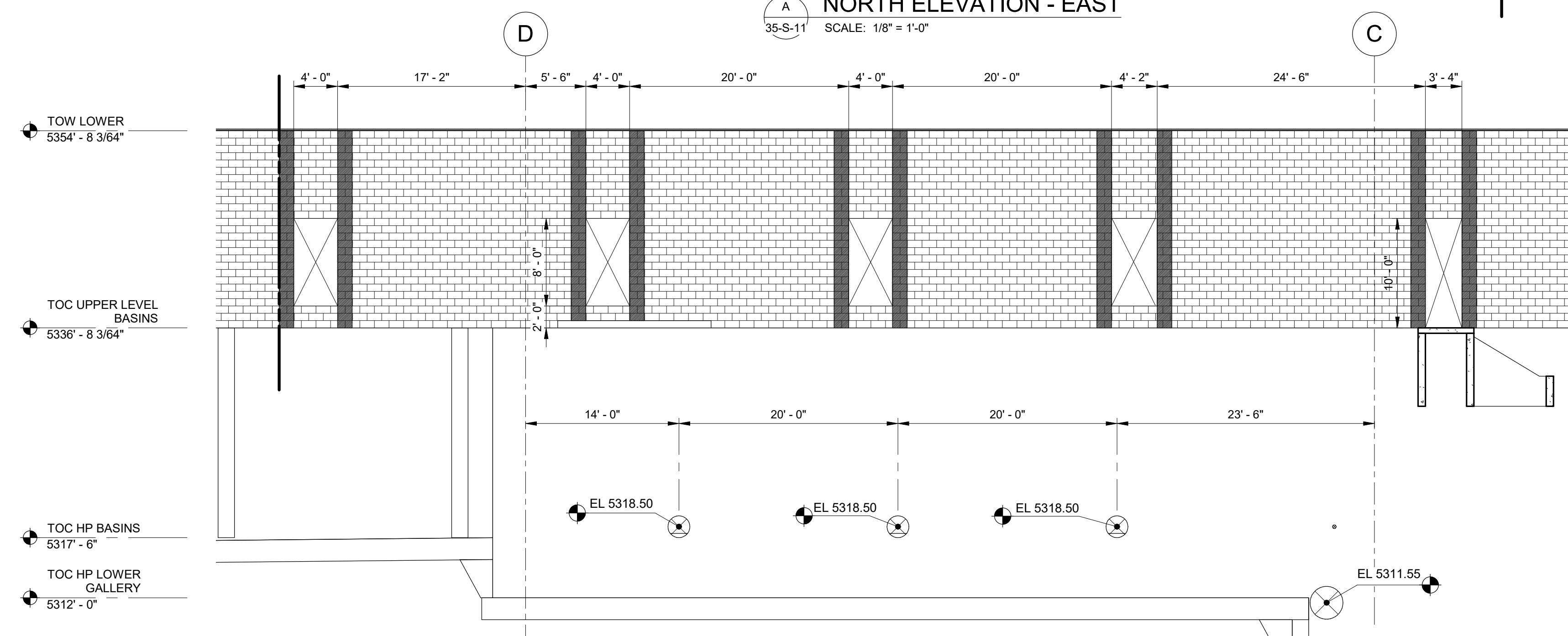
DRAWING NO.  
**35-S-31**

**90% GMP**

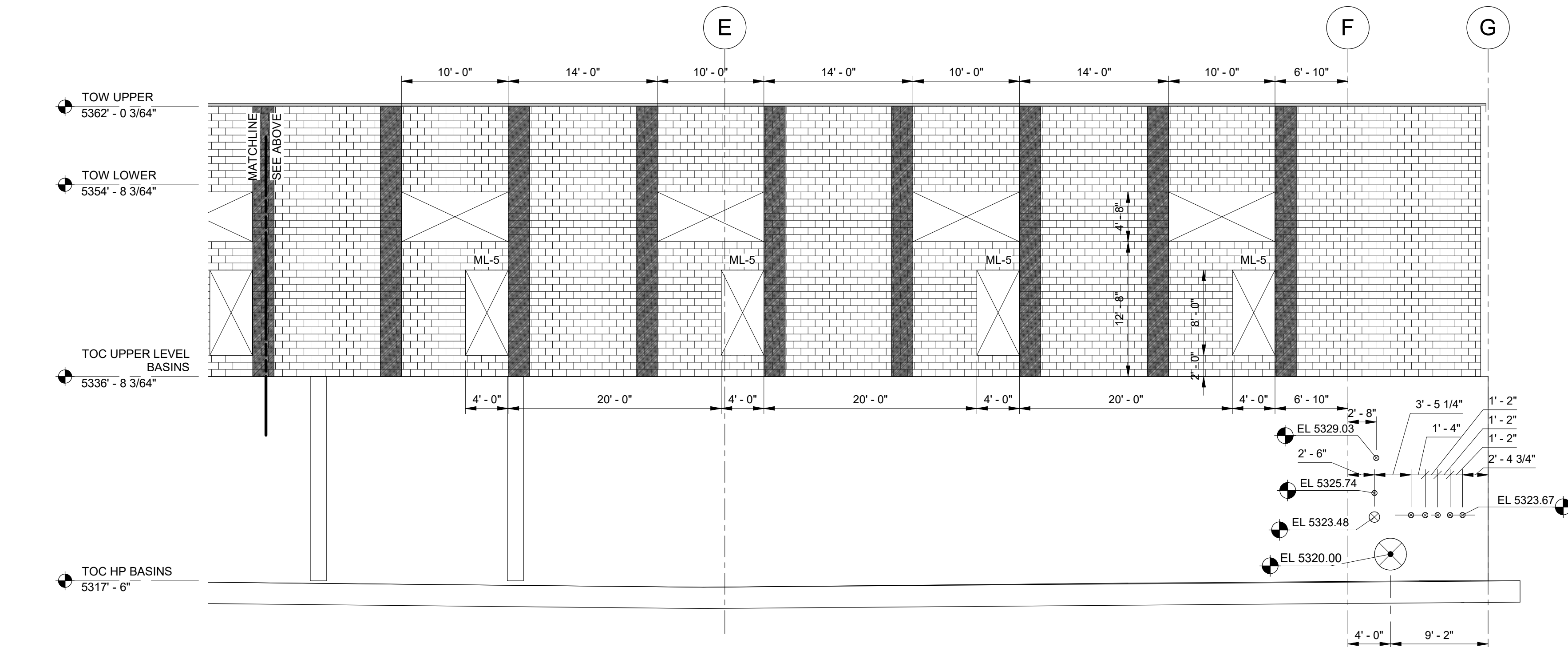
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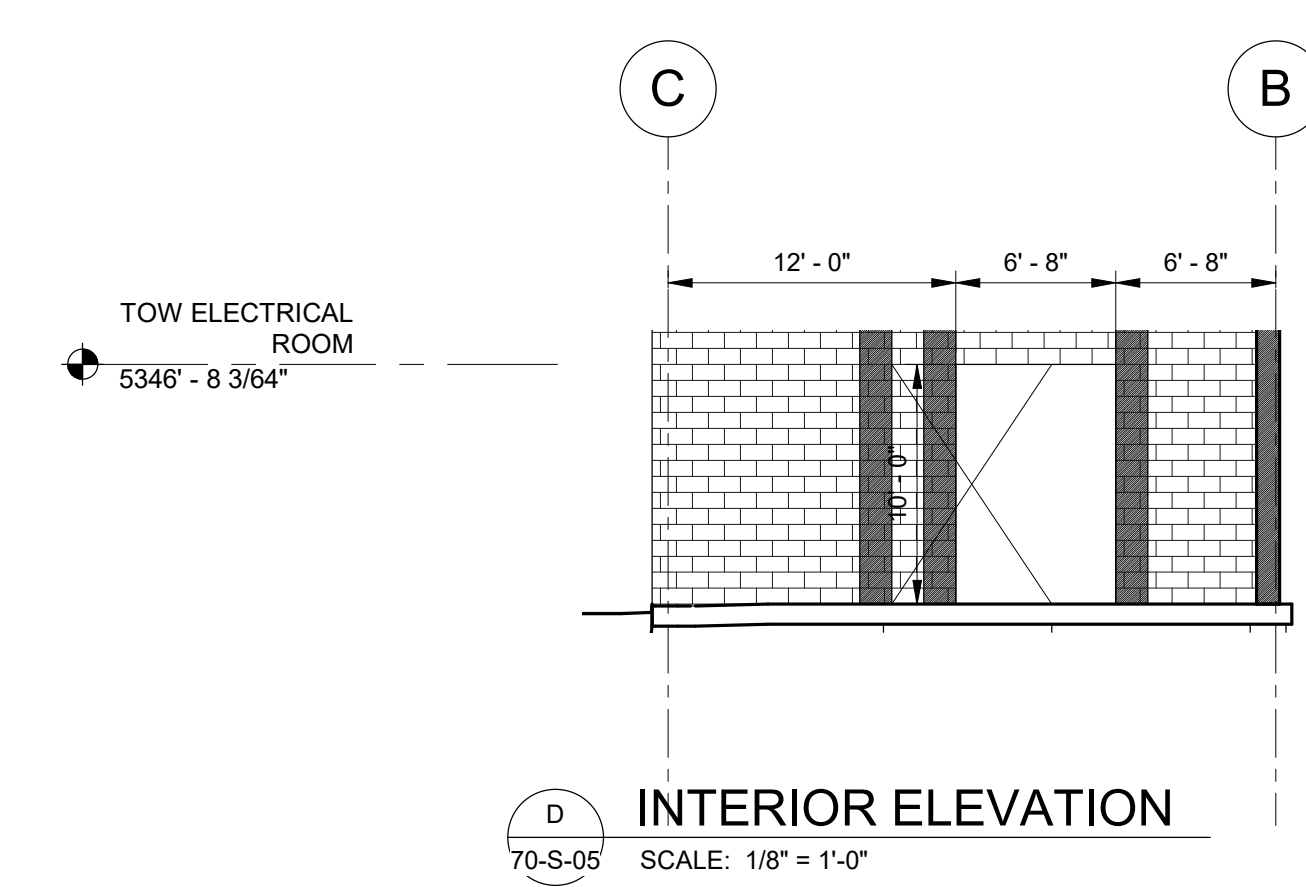
**A NORTH ELEVATION - EAST**  
35-S-11 SCALE: 1/8" = 1'-0"



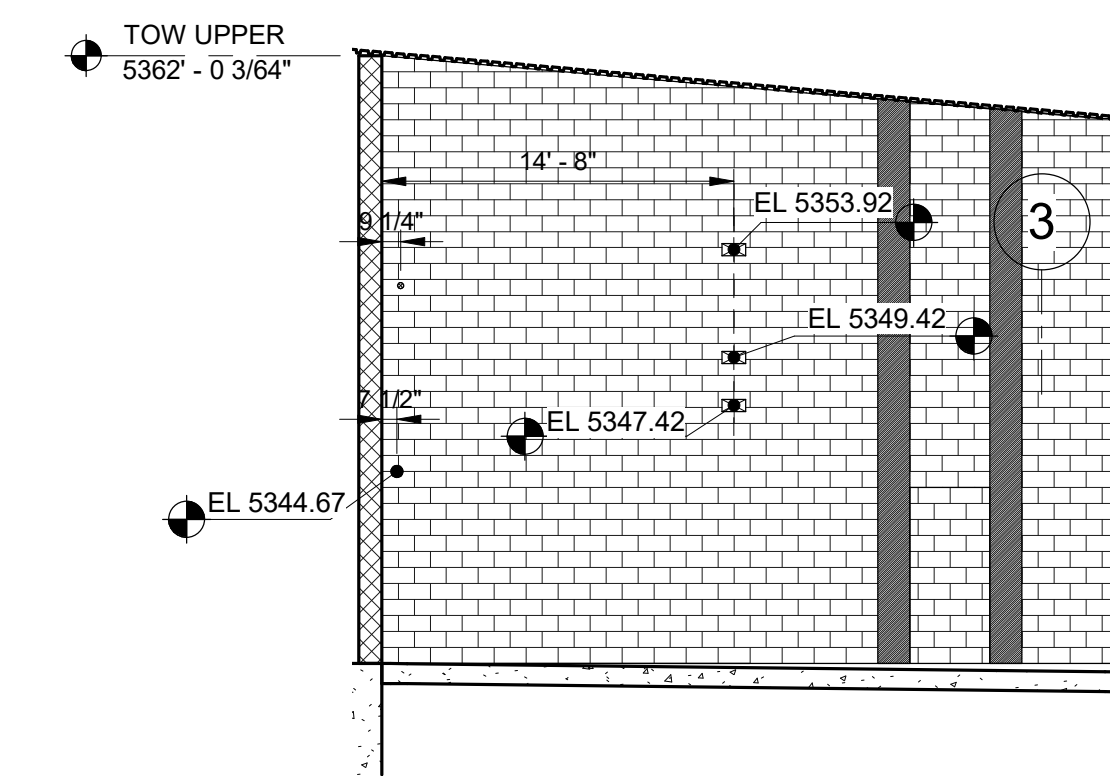
**B NORTH ELEVATION - WEST**  
35-S-05 SCALE: 1/8" = 1'-0"



**C SOUTH ELEVATION - EAST**  
35-S-11 SCALE: 1/8" = 1'-0"



**D INTERIOR ELEVATION**  
70-S-05 SCALE: 1/8" = 1'-0"



**E INTERIOR ELEVATION**  
35-S-09 SCALE: 1/8" = 1'-0"

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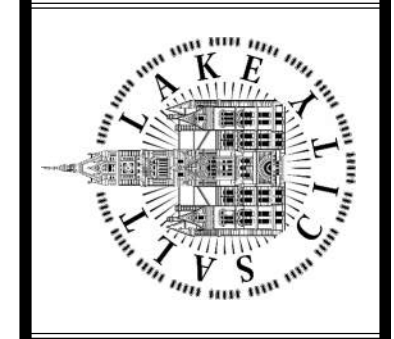
DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

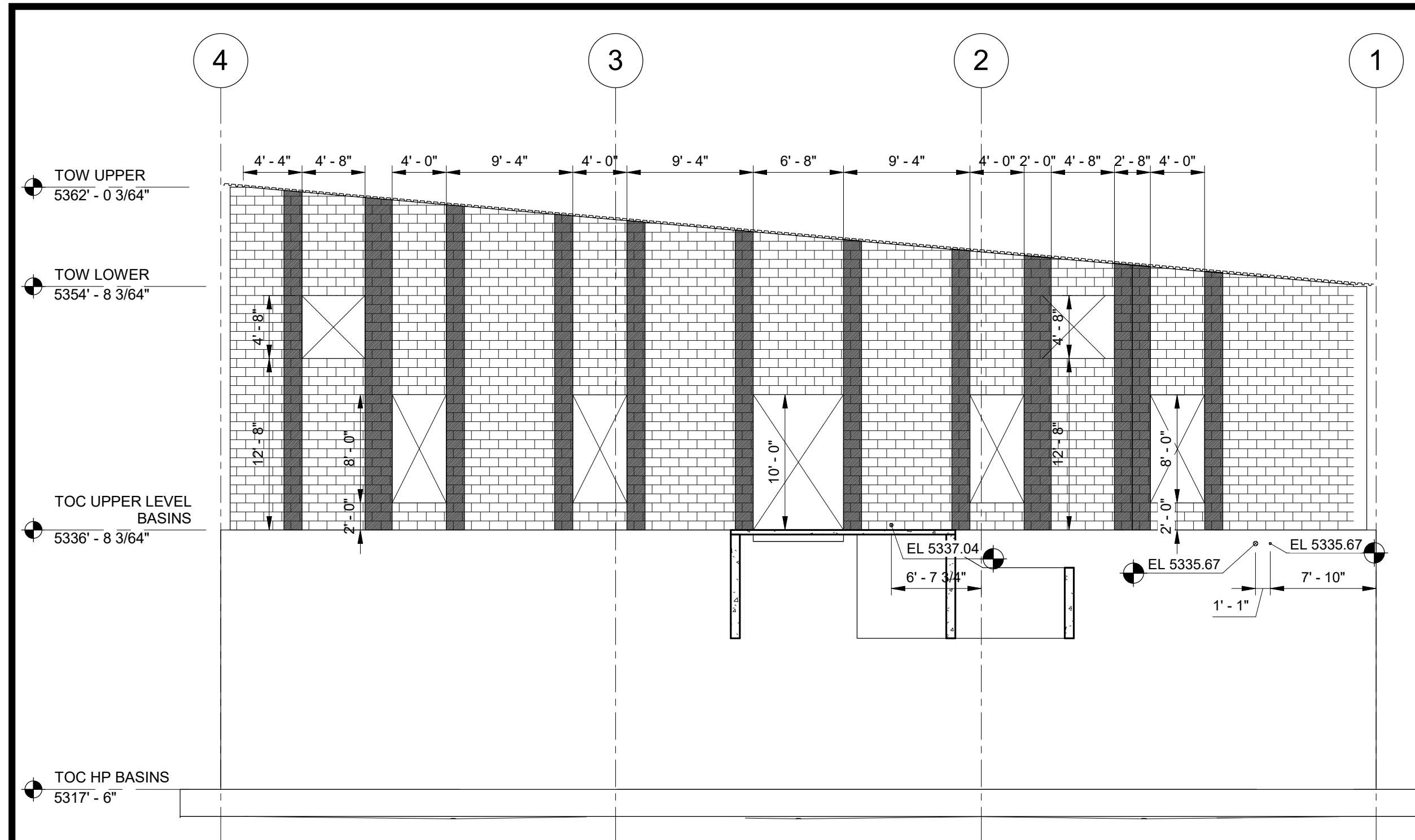
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - ELEVATIONS 1**



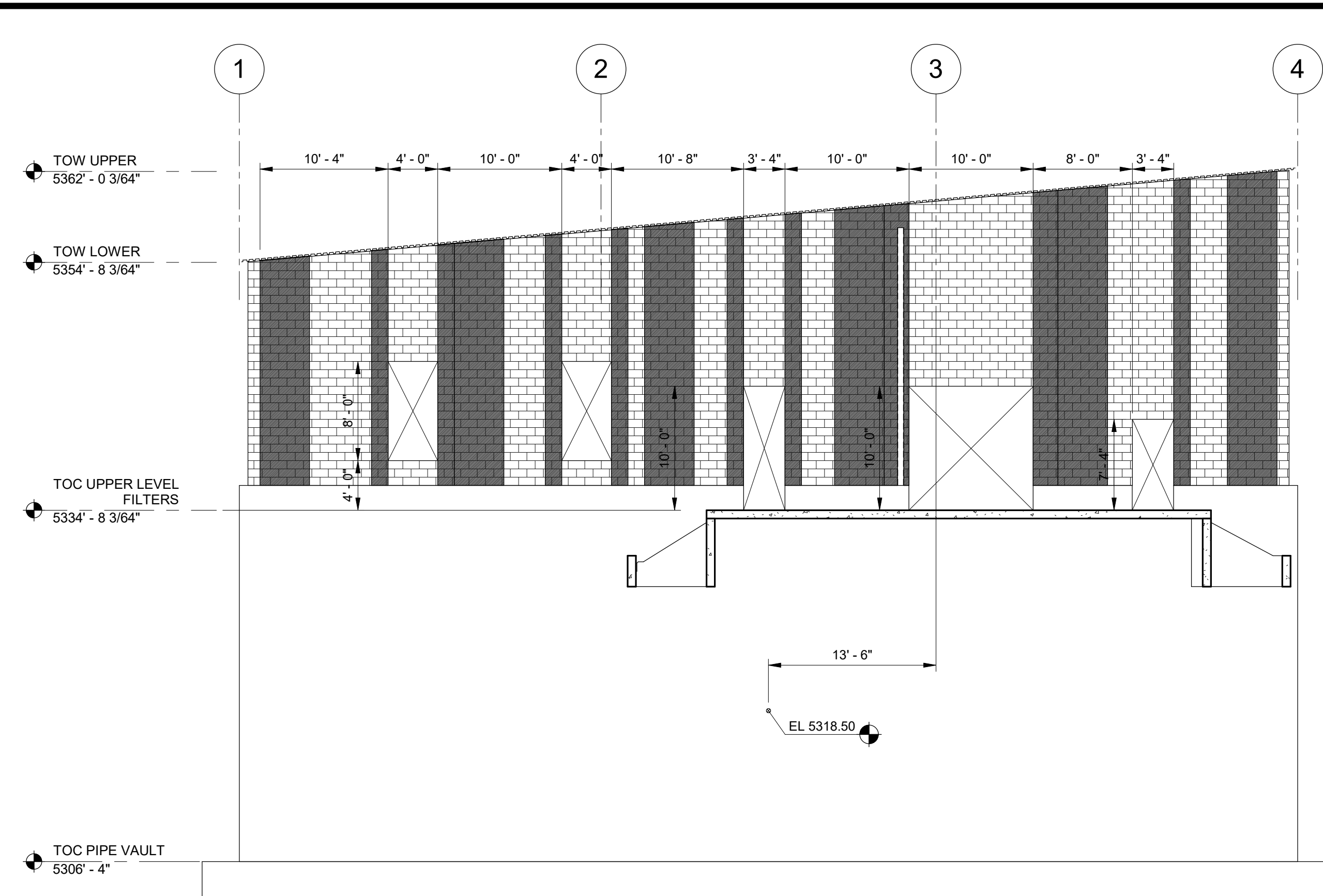
**90% GMP**

DRAWING NO.  
**35-S-32**

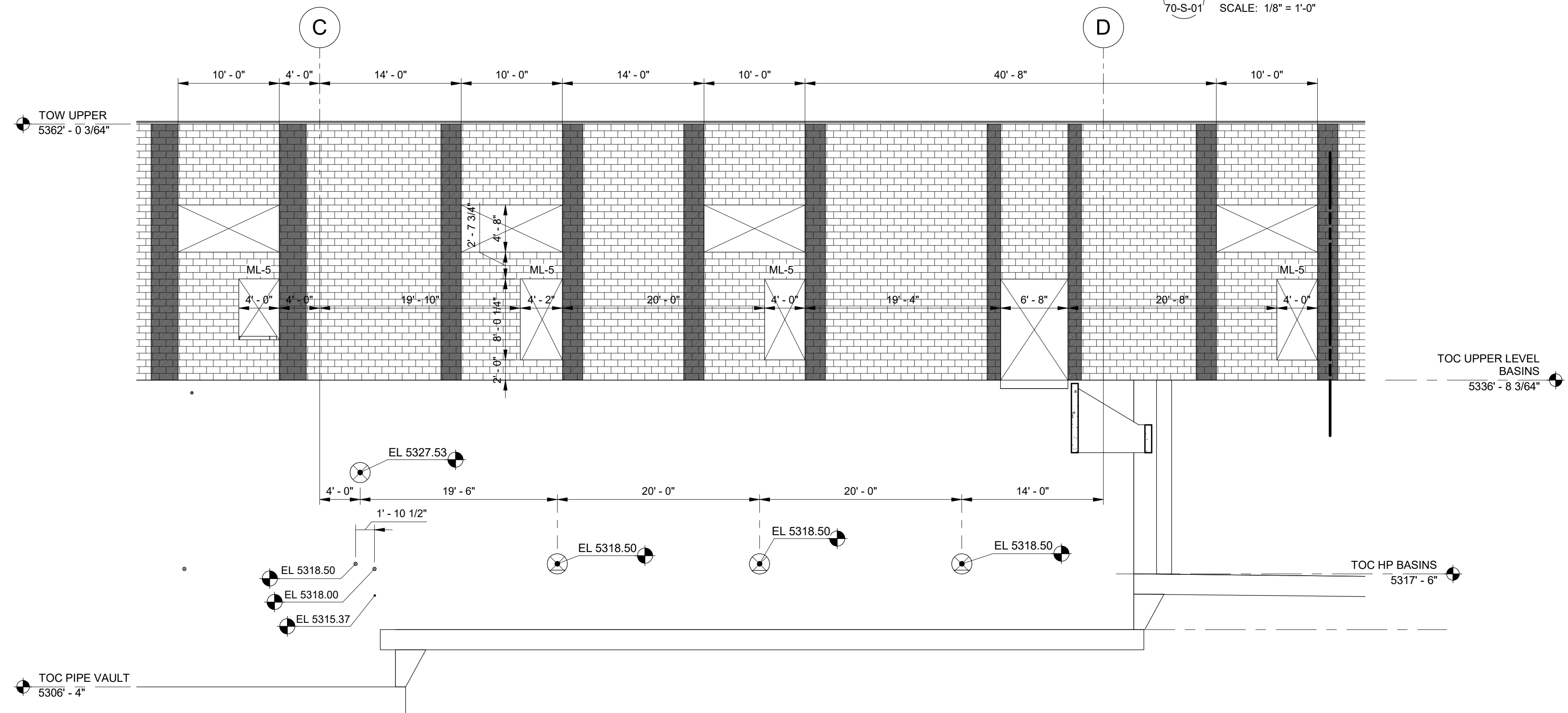
Plot Date: 6/13/2024 9:35:00 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



**A EAST ELEVATION**  
35-S-13 SCALE: 1/8" = 1'-0"



**B WEST ELEVATION**  
70-S-01 SCALE: 1/8" = 1'-0"



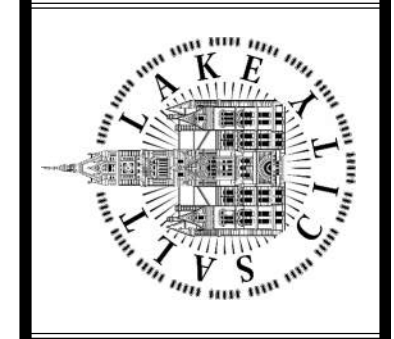
**C SOUTH ELEVATION - WEST**  
35-S-05 SCALE: 1/8" = 1'-0"

DESIGNED BY: C.HAWKES	SCALE:
DRAWN BY: S.SHEPHERD	VERIFY SCALE
CHECKED BY: J.HARPER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EMO NO: ---	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
TREATMENT - ELEVATIONS 2

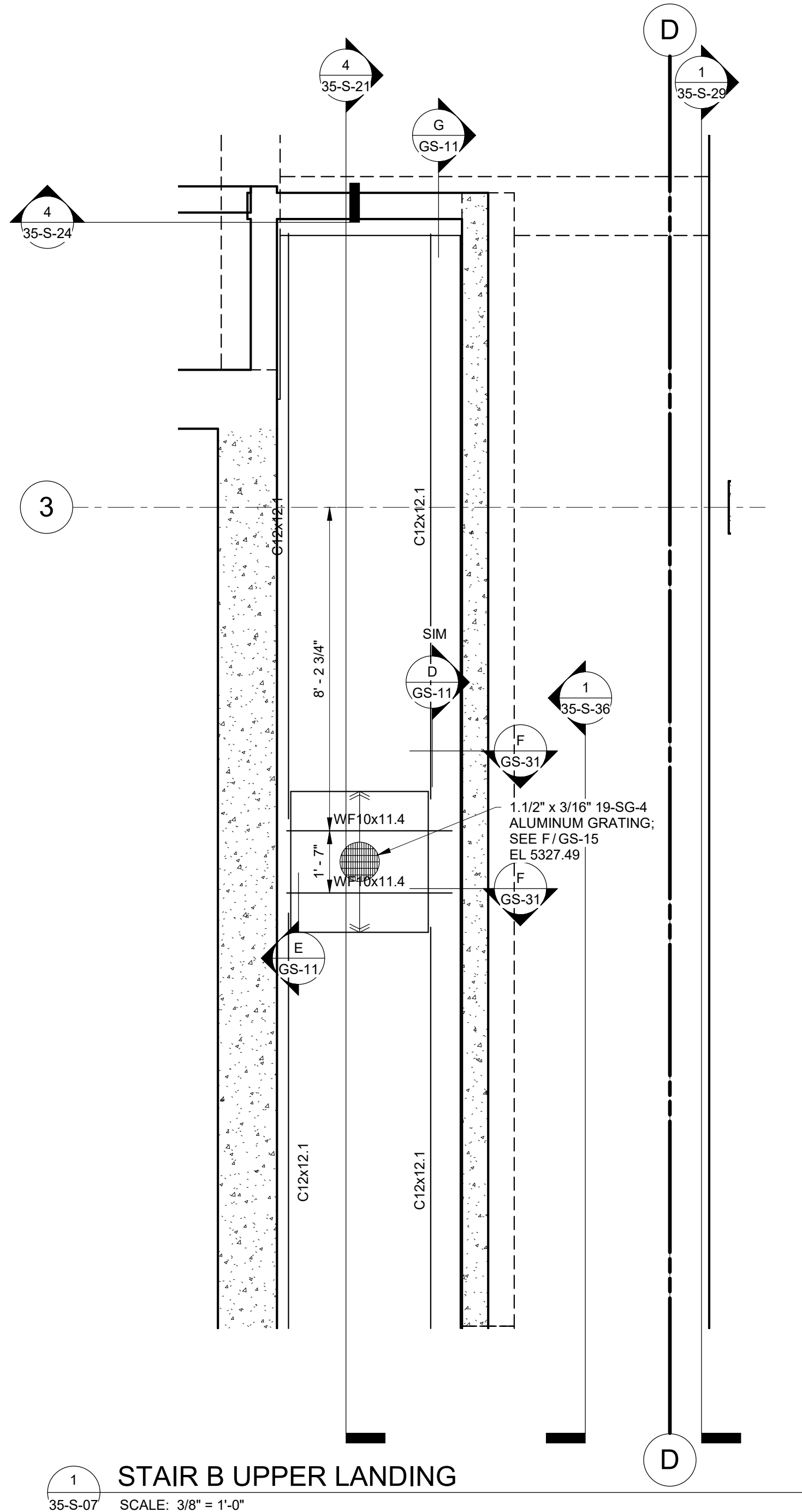


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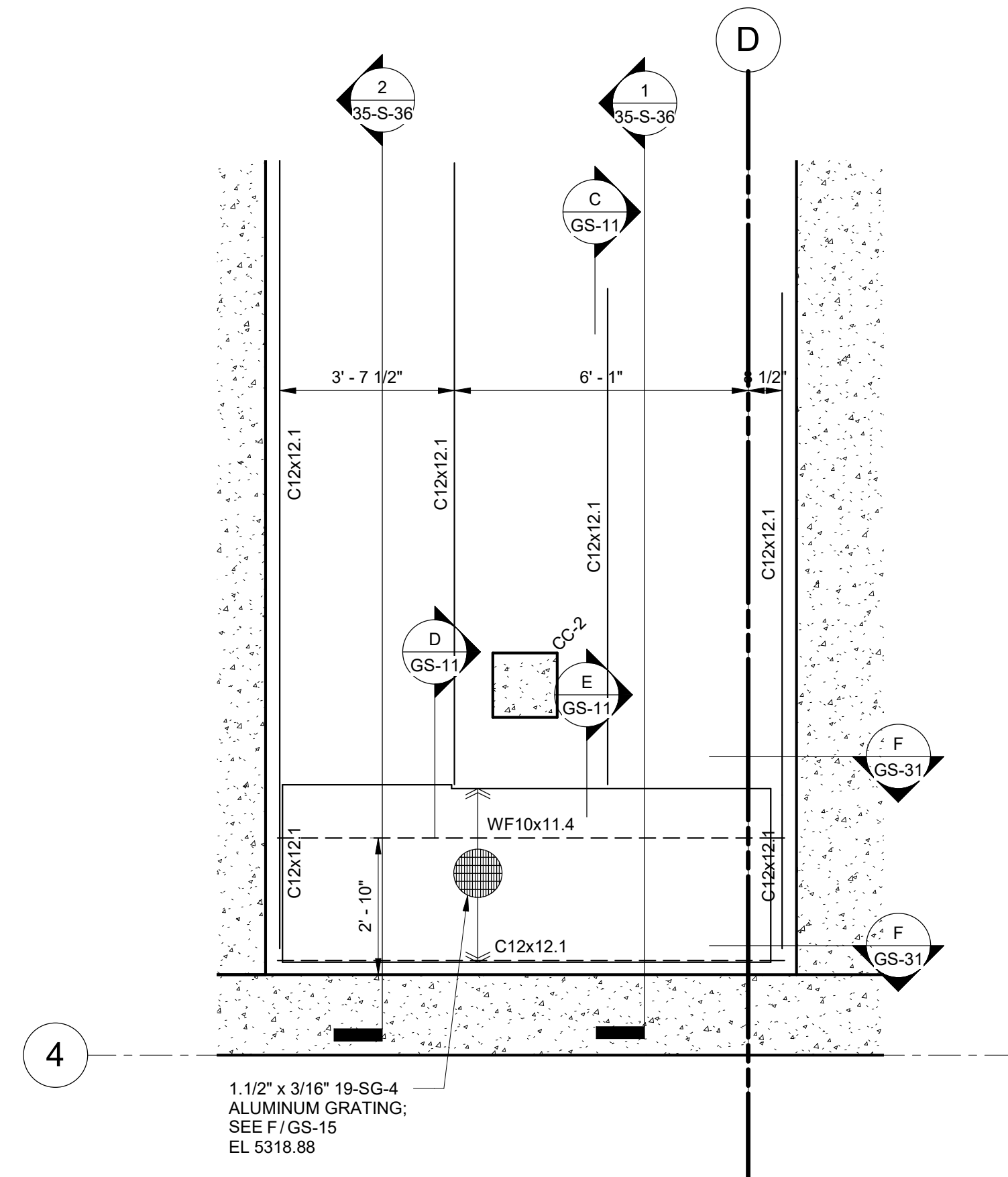
90% GMP

DRAWING NO.  
**35-S-33**

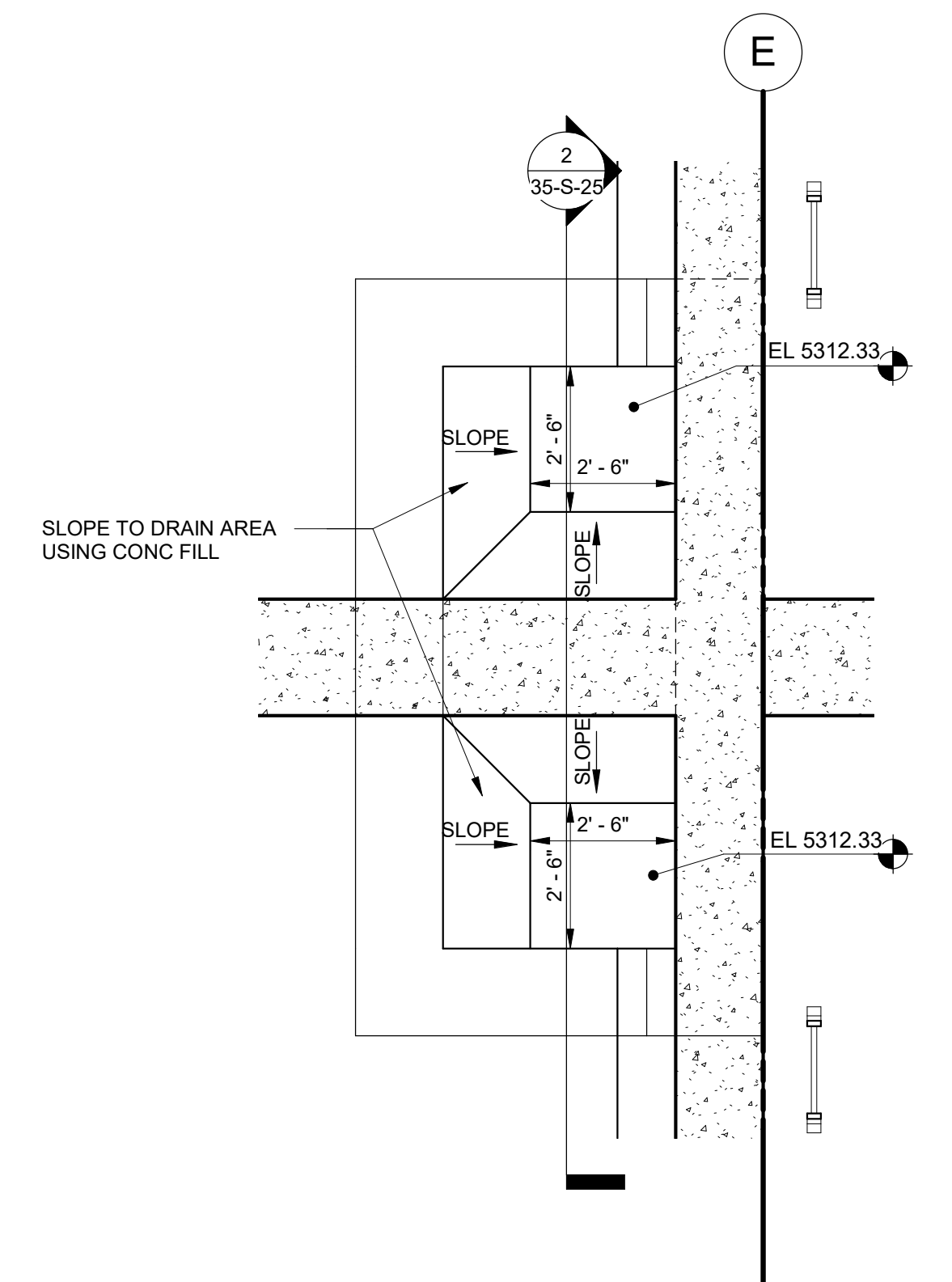
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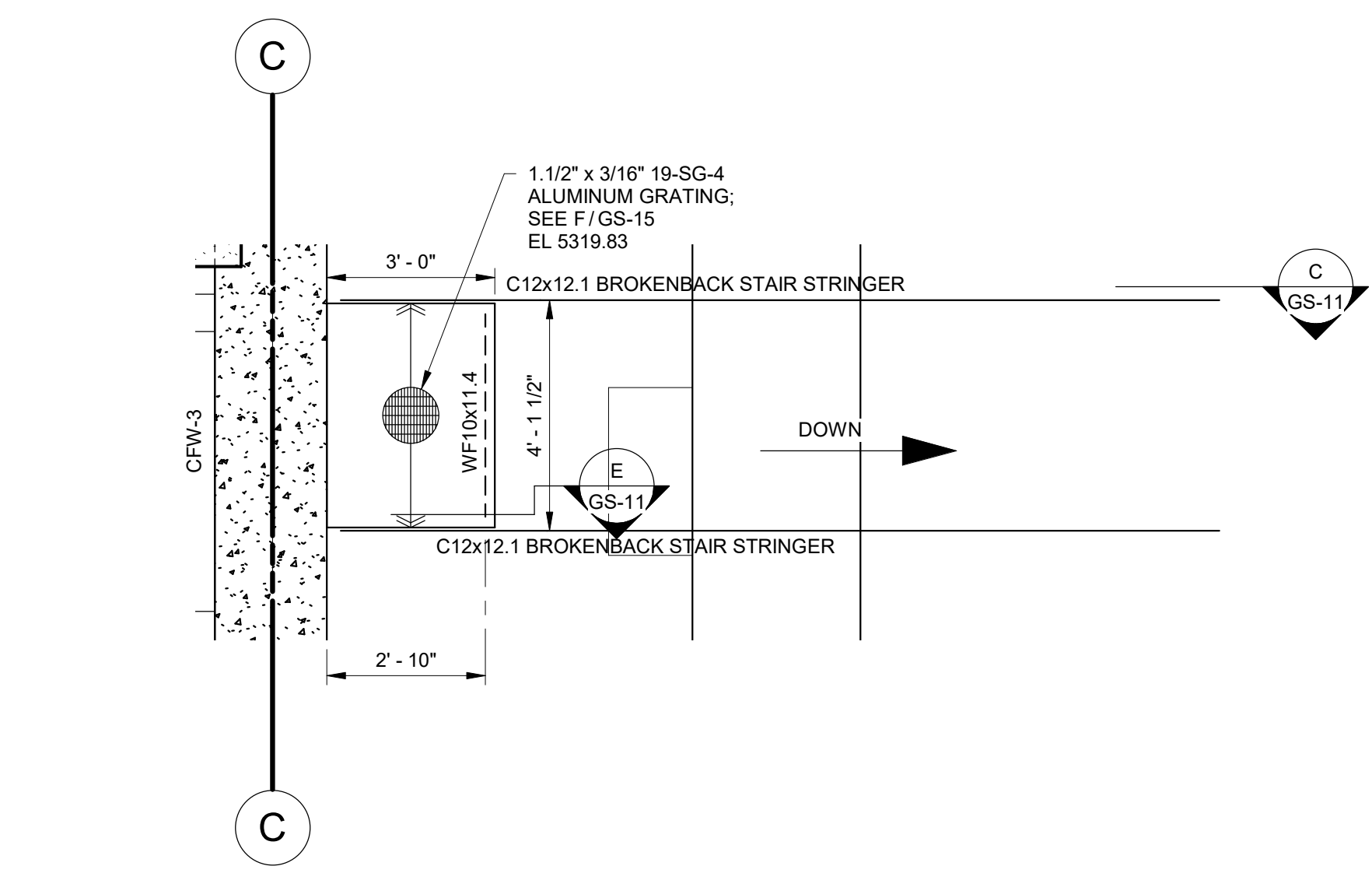
1 STAIR B UPPER LANDING  
35-S-07 SCALE: 3/8" = 1'-0"



2 STAIR B LOWER LANDING  
35-S-05 SCALE: 3/8" = 1'-0"

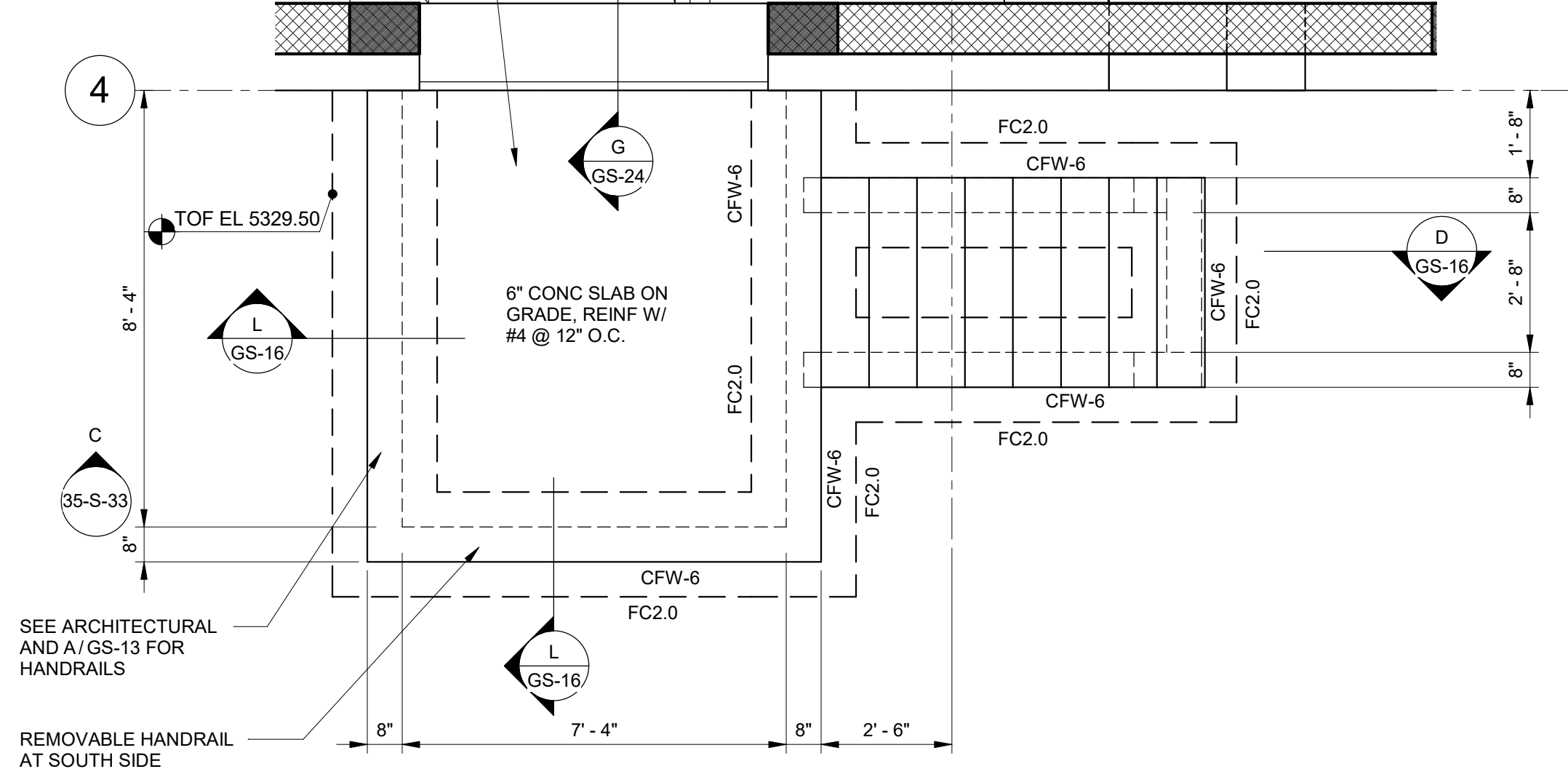


5 ENLARGED SED SUMP PLAN  
35-S-11 SCALE: 3/8" = 1'-0"



3 PIPE VAULT STAIR PLAN  
35-S-05 SCALE: 3/8" = 1'-0"

CONTRACTOR TO VERIFY THAT STRUCTURAL FILL UNDER STAIRS AND LANDING ARE COMPACTED PER GEOTECHNICAL RECOMMENDATIONS FOR FILL UNDER BUILDING FOOTPRINT EXTENDING DOWN TO BEDROCK OR UNDISTURBED NATIVE SOILS



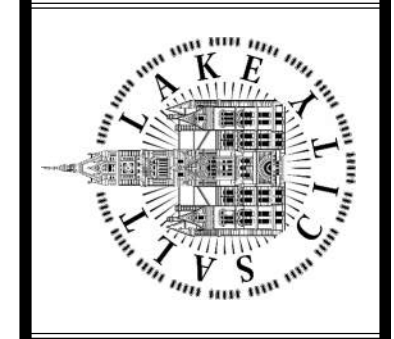
6 SOUTH ENTRANCE STAIR PLAN  
35-S-12 SCALE: 3/8" = 1'-0"

DESIGNED BY: C.HAWKES	SCALE:
DRAWN BY: S.SHEPHERD	VERIFY SCALE
CHECKED BY: J.HARPER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE	2024
DATE: JUNE	
EWO NO: ---	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - ENLARGED  
PLANS 1

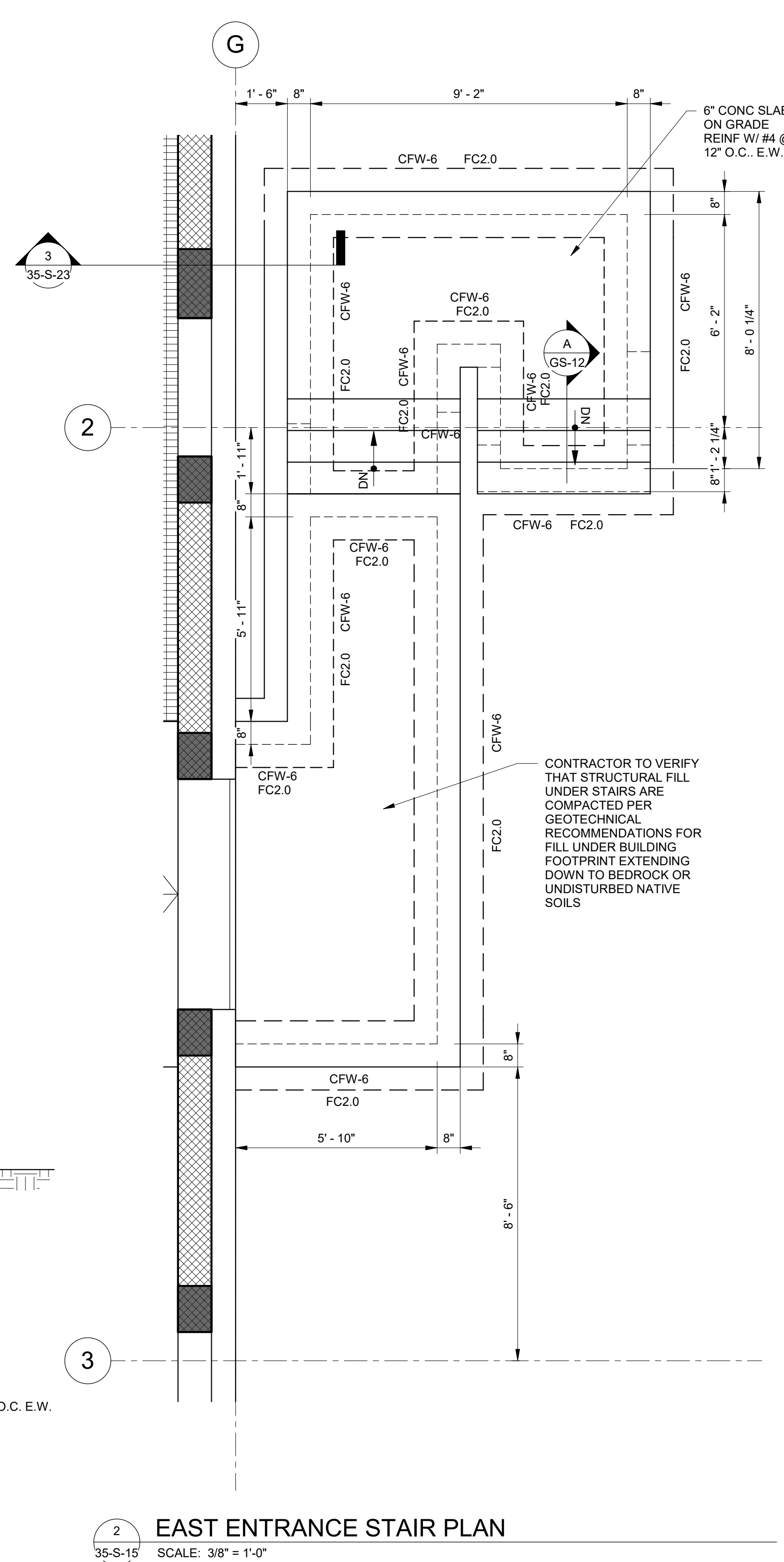
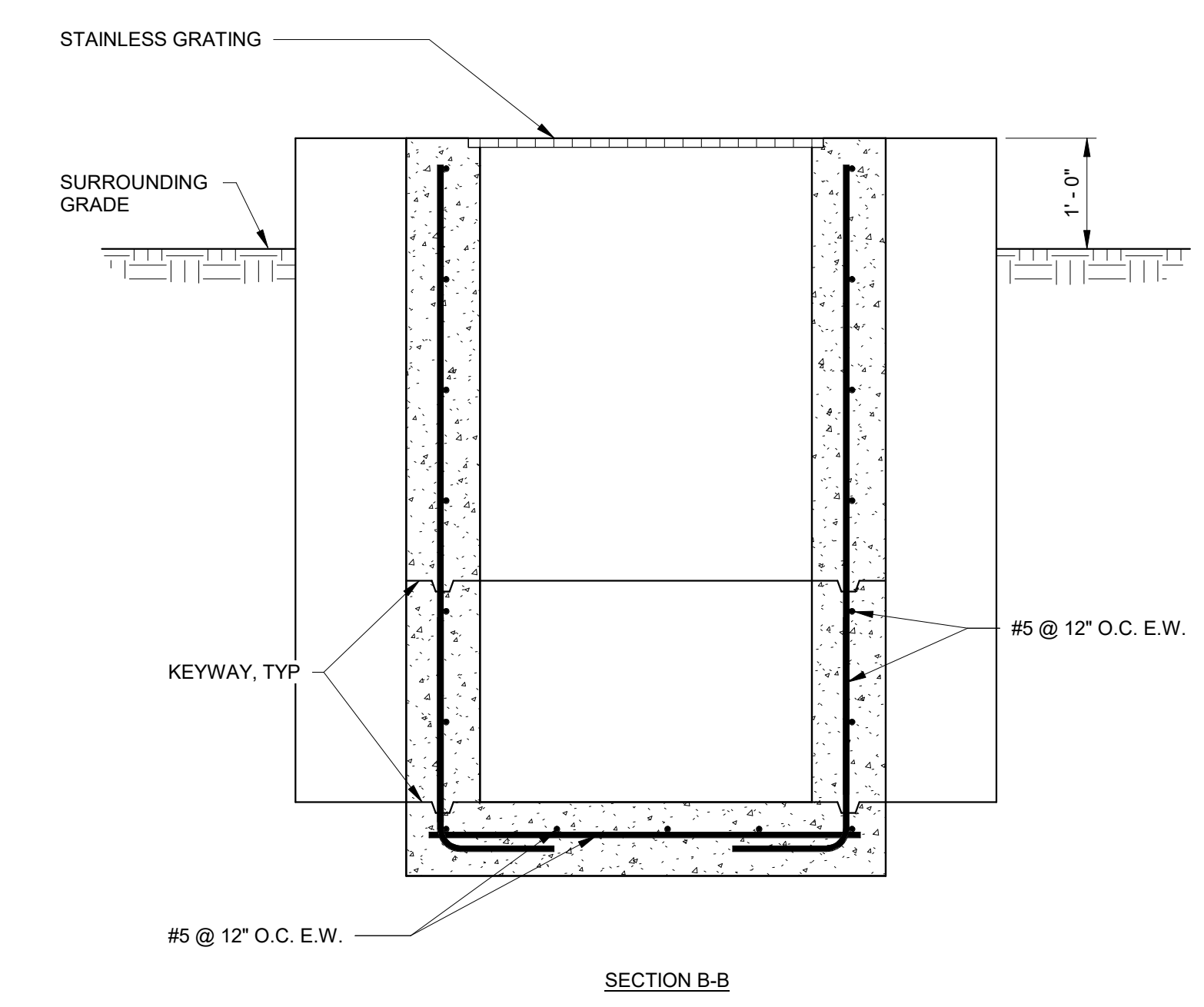
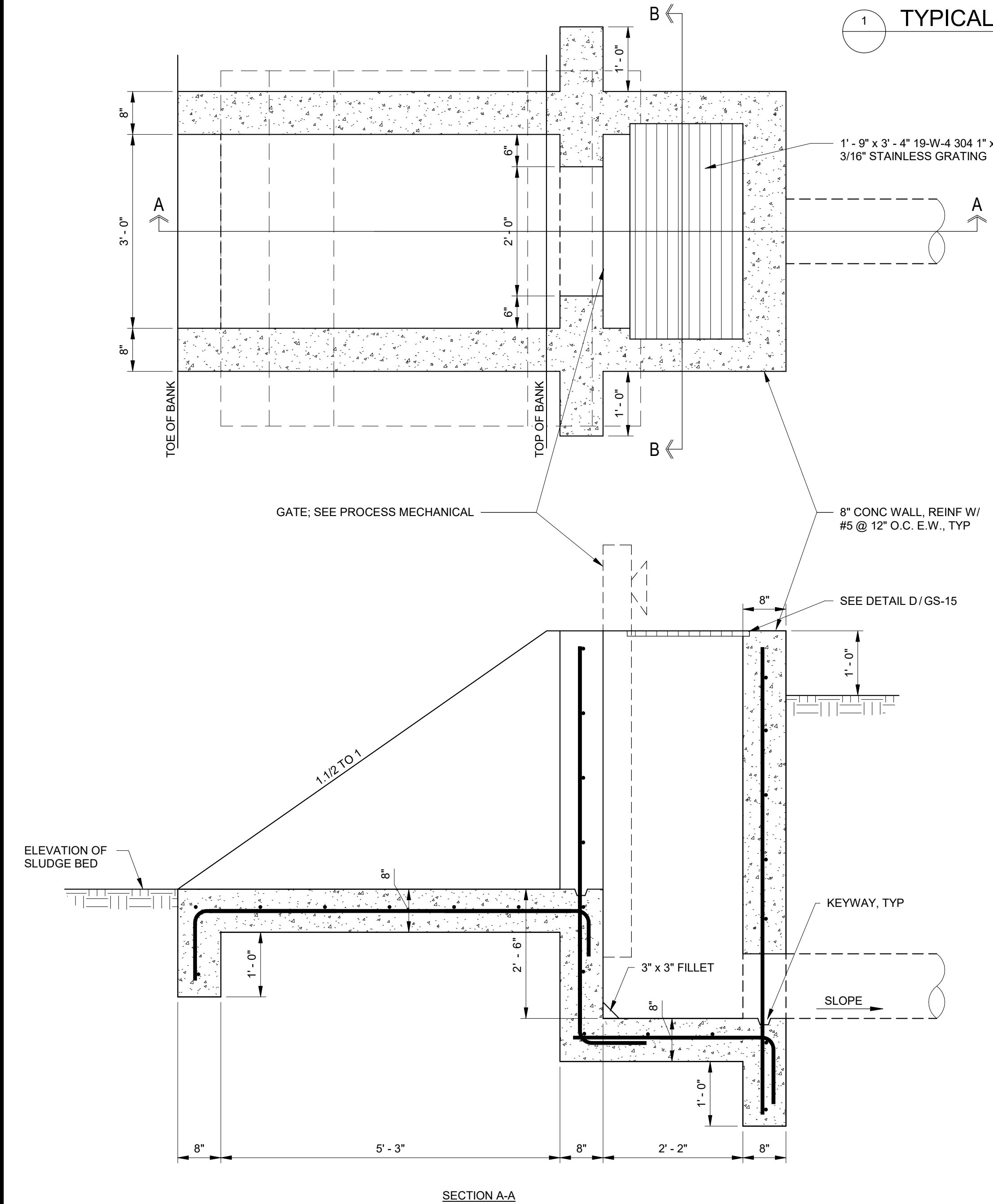
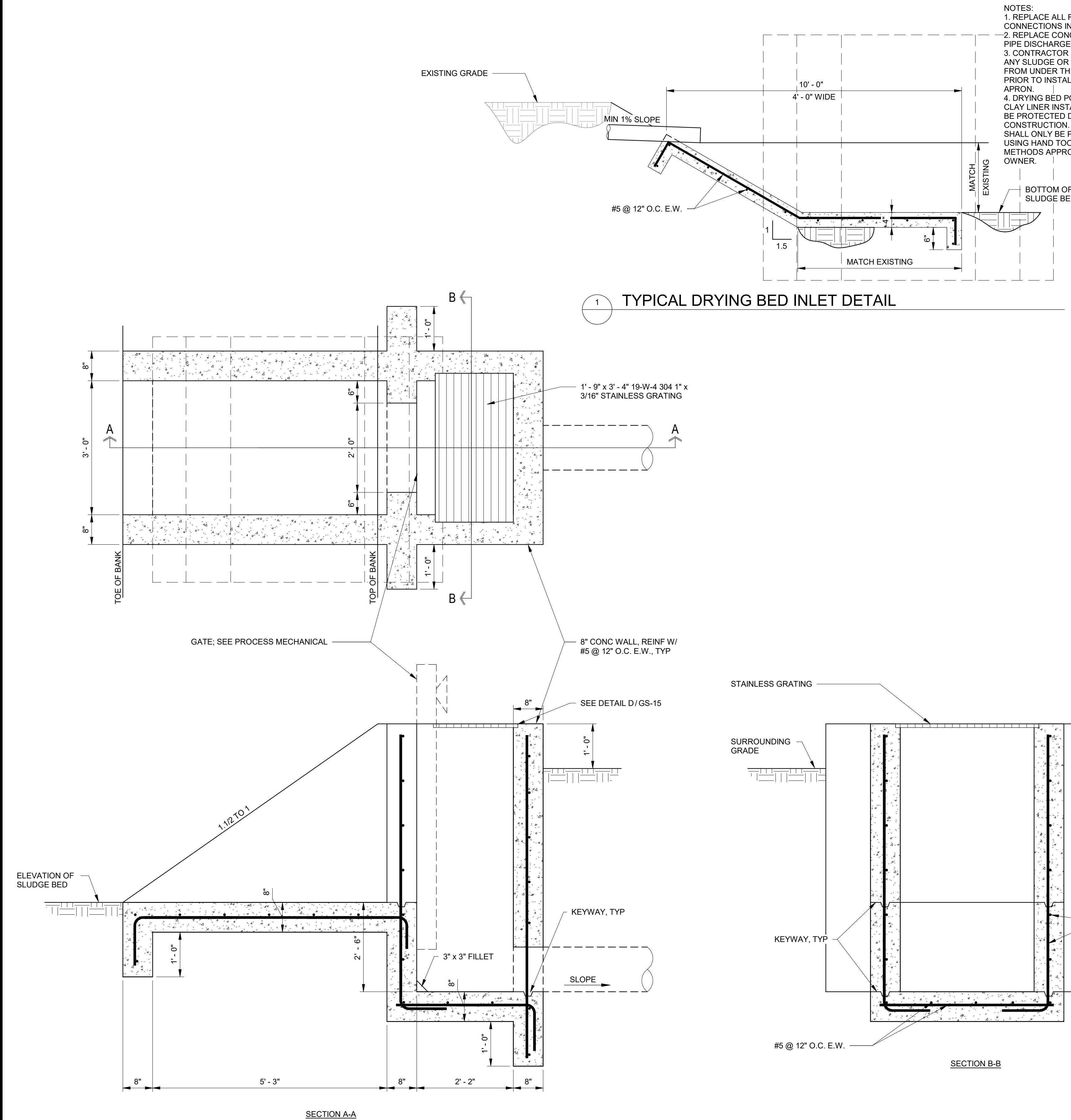


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DRAWING NO.  
35-S-34

90% GMP

Plot Date: 6/13/2024 9:35:09 AM Path: RIM\_360/153020 - City\_Creek\_WTP/153020-S-3570V21.rvt



DESIGNED BY: C. HAWKES		SCALE:	
DRAWN BY: S. SHEPHERD		VERIFY SCALE	
CHECKED BY: J. HARPER		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: C. PRICE		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
NO.	DATE:	ISSUED FOR:	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE (MAXIMUM PRICE/GMP)	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - ENLARGED**  
**PLANS 2**

**90% GMP**

DRAWING NO.  
**35-S-35**

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Plot Date: 6/13/2024 9:35:11 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt

TOC UPPER LEVEL  
BASINS  
5336' - 8 3/64"

STAIR B UPPER  
LANDING  
5327' - 5 57/64"

STAIR B LOWER  
LANDING  
5318' - 10 39/64"

TOC HP LOWER  
GALLERY  
5312' - 0"

3

STAIR A  
SCALE: 3/8" = 1'-0"

STAIR B LOWER  
LANDING  
5318' - 10 39/64"

TOC HP LOWER  
GALLERY  
5312' - 0"

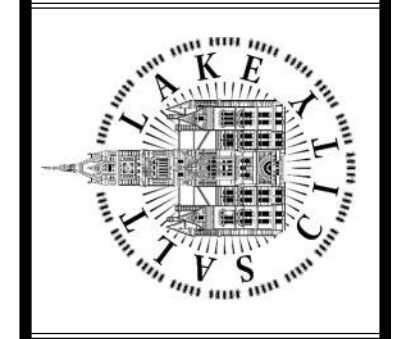
STAIR A  
SCALE: 3/8" = 1'-0"



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REVISIONS		DESIGNED BY:	AUTH. BY:
NO.	DATE:	ISSUED FOR:	GUARANTEE:
0	06/14/24	MAXIMUM PRICE (GMP)	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - STAIR  
ENLARGED SECTIONS 1



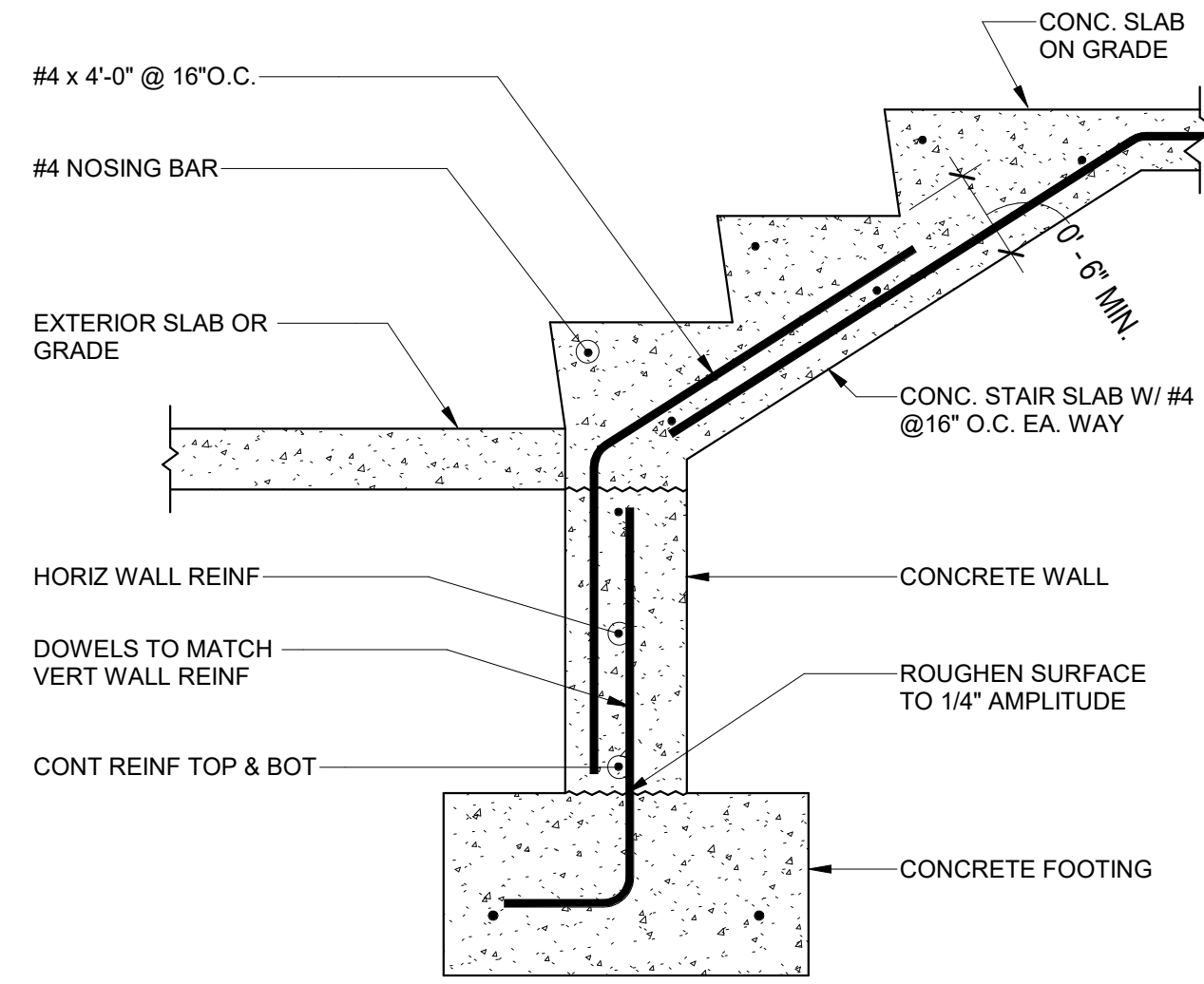
90% GMP

DRAWING NO.  
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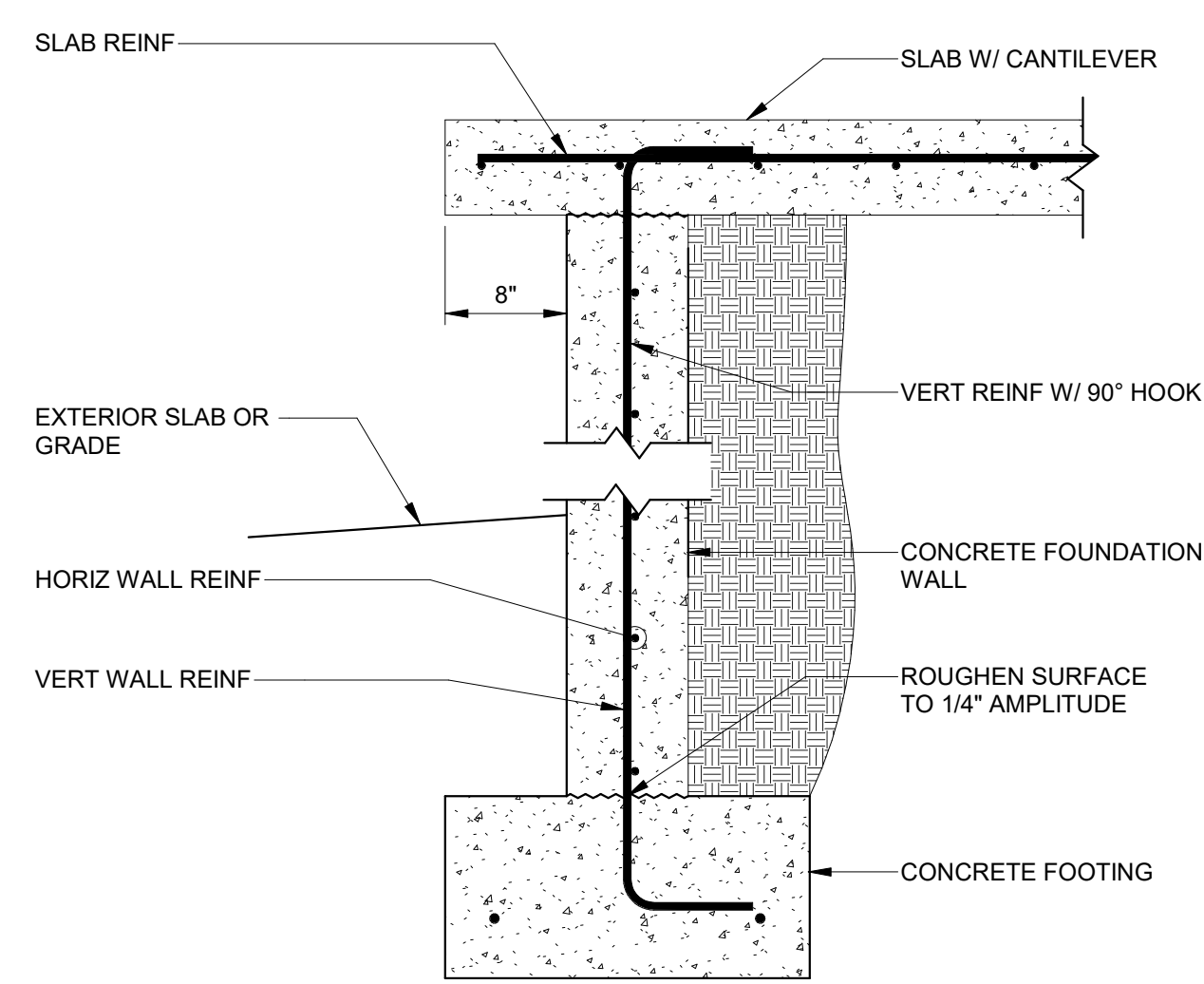
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VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

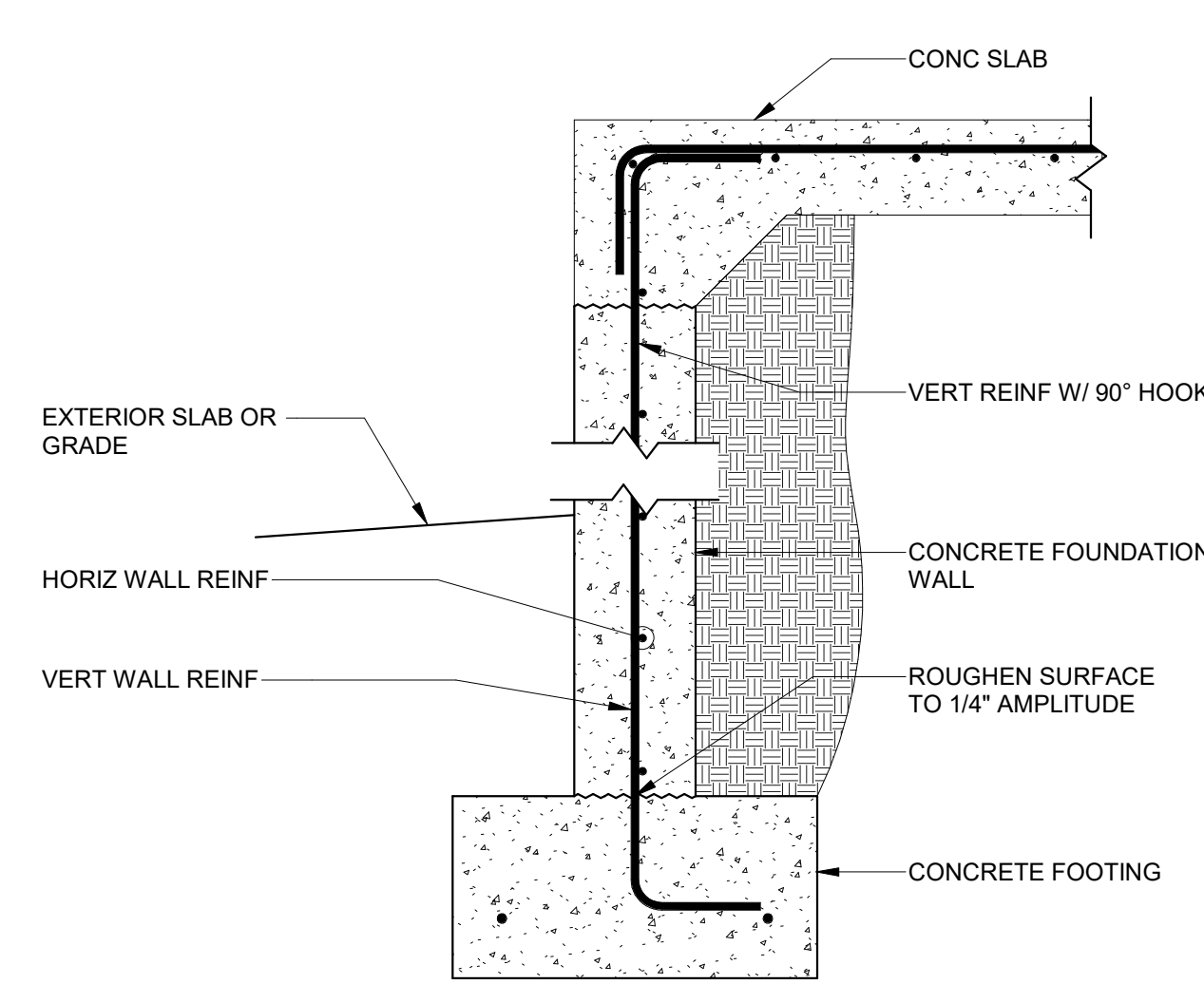




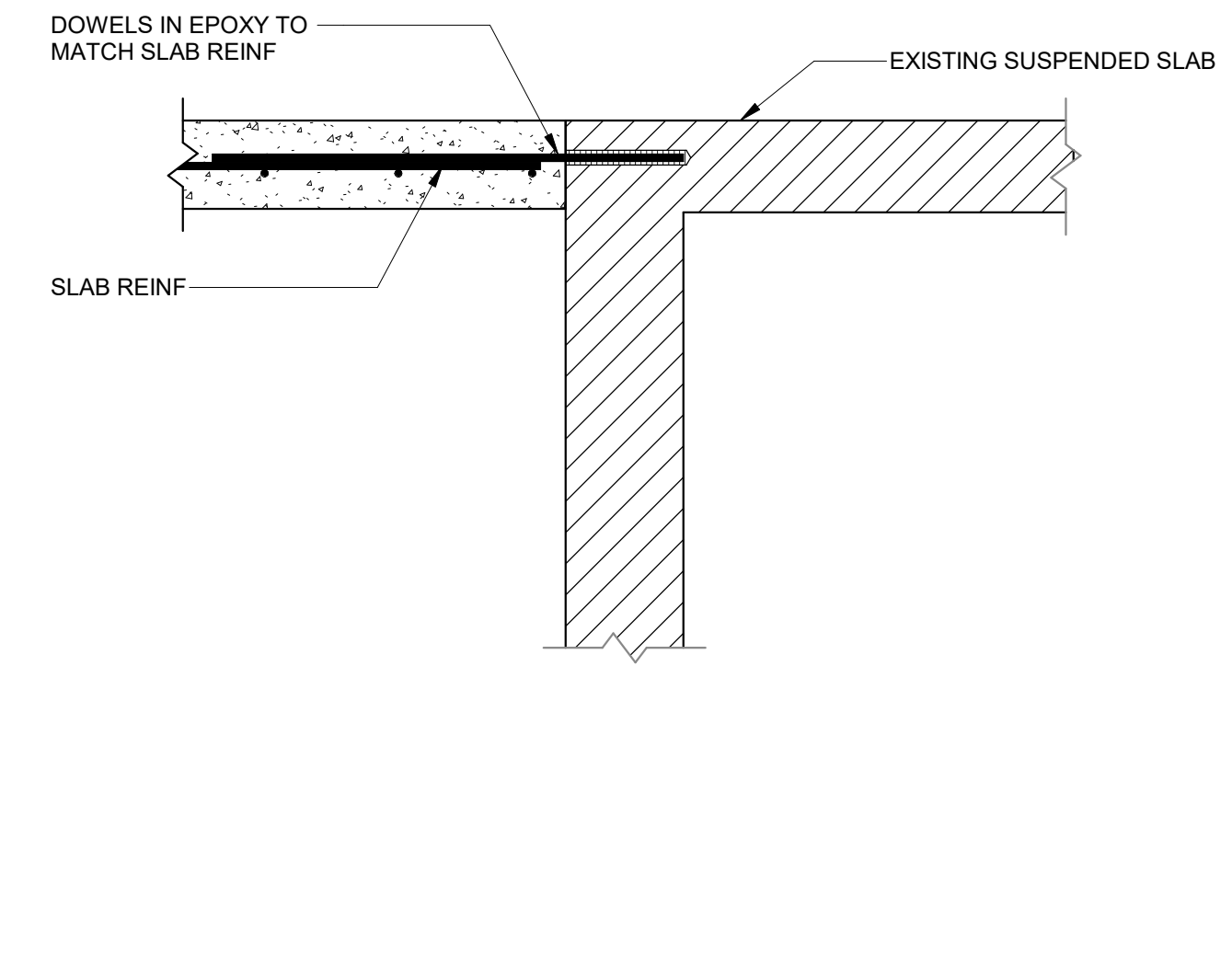
**A** TYP CONC STAIR TO FOUNDATION WALL  
60-S-01



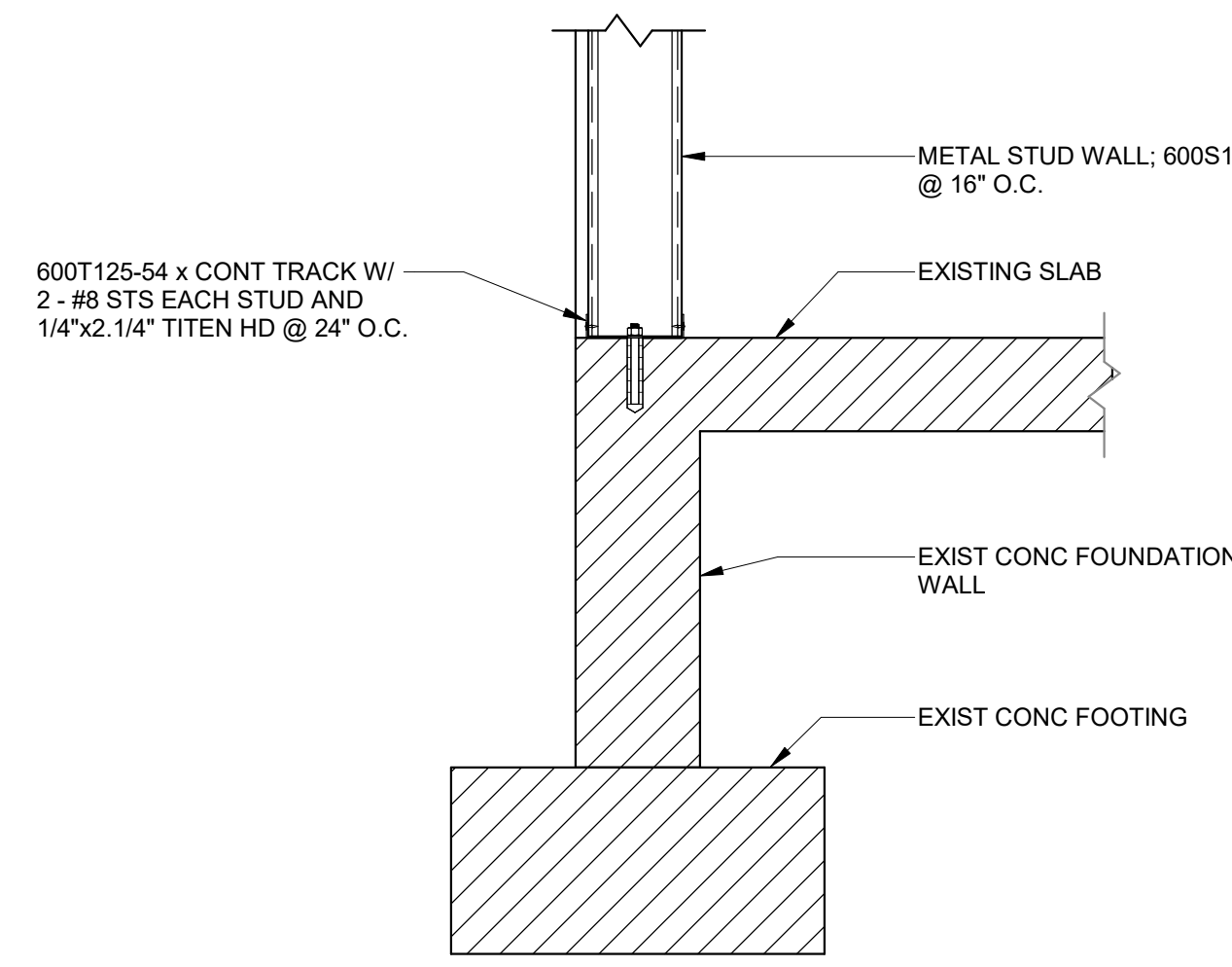
**B** FOOTING AND CANTILEVERED SLAB AT STAIR  
60-S-01



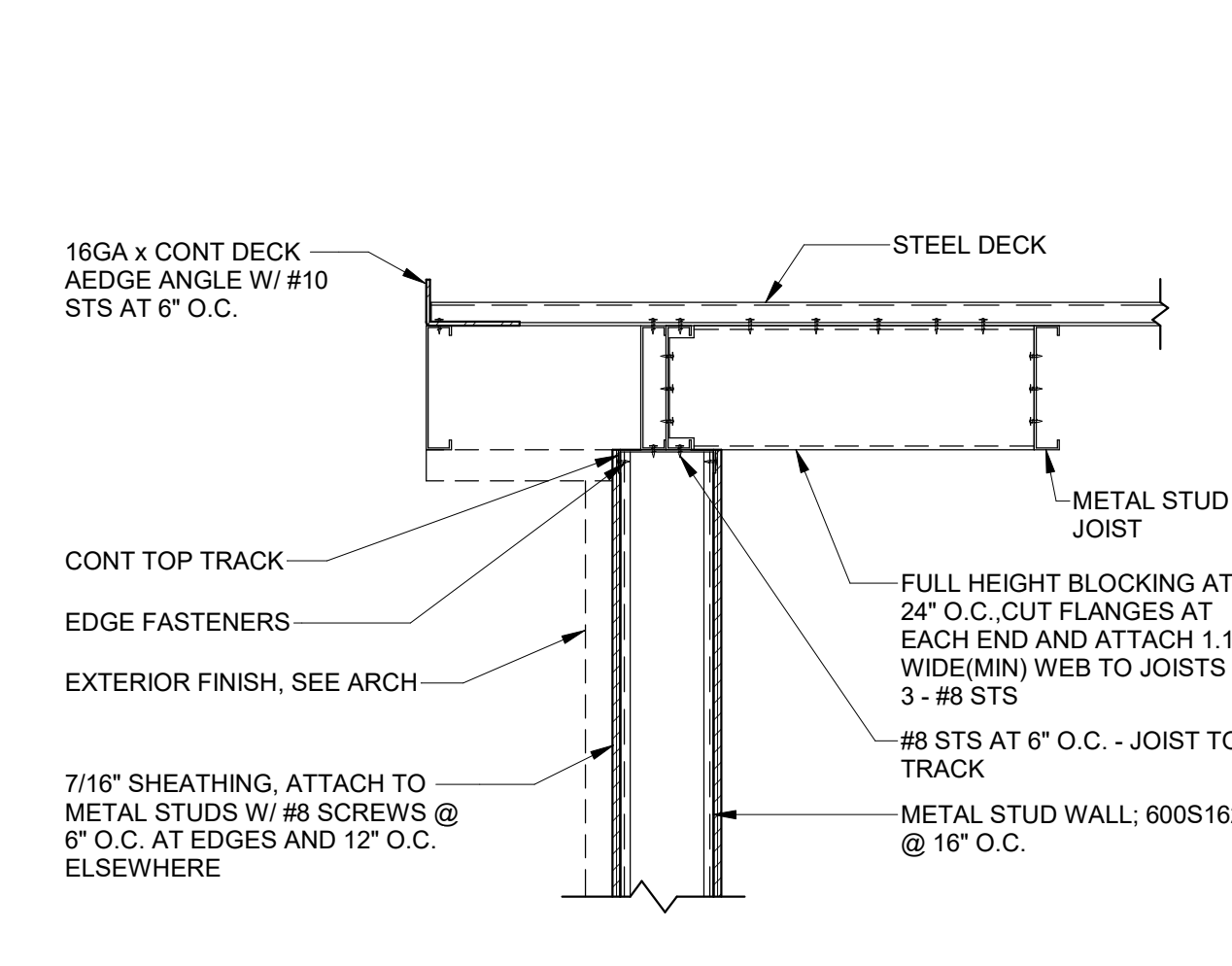
**C** FOOTING AND CANTILEVERED SLAB AT STAIR  
60-S-01



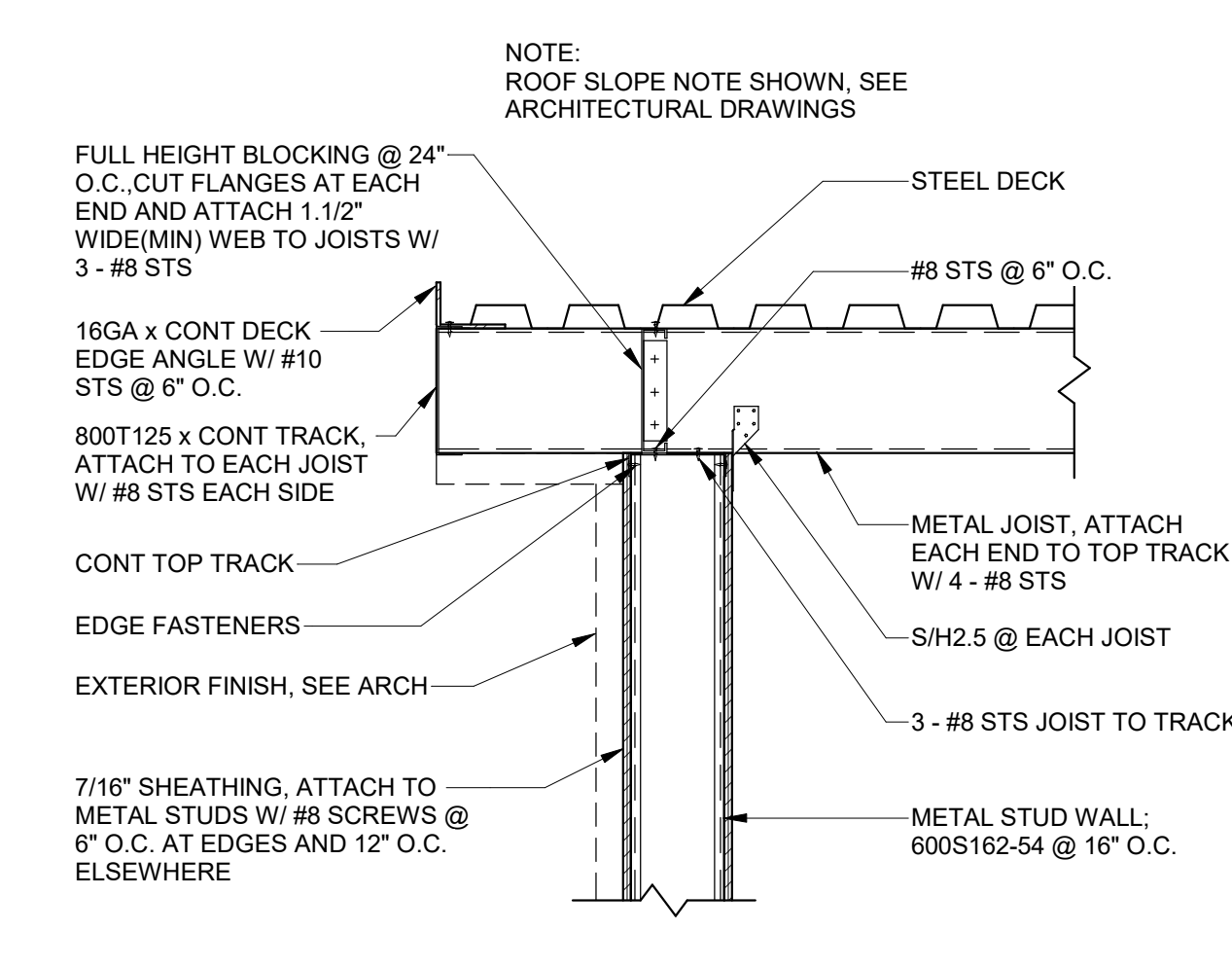
**D** SLAB TO EXIST CLARIFIER SLAB CONNECTION  
60-S-01



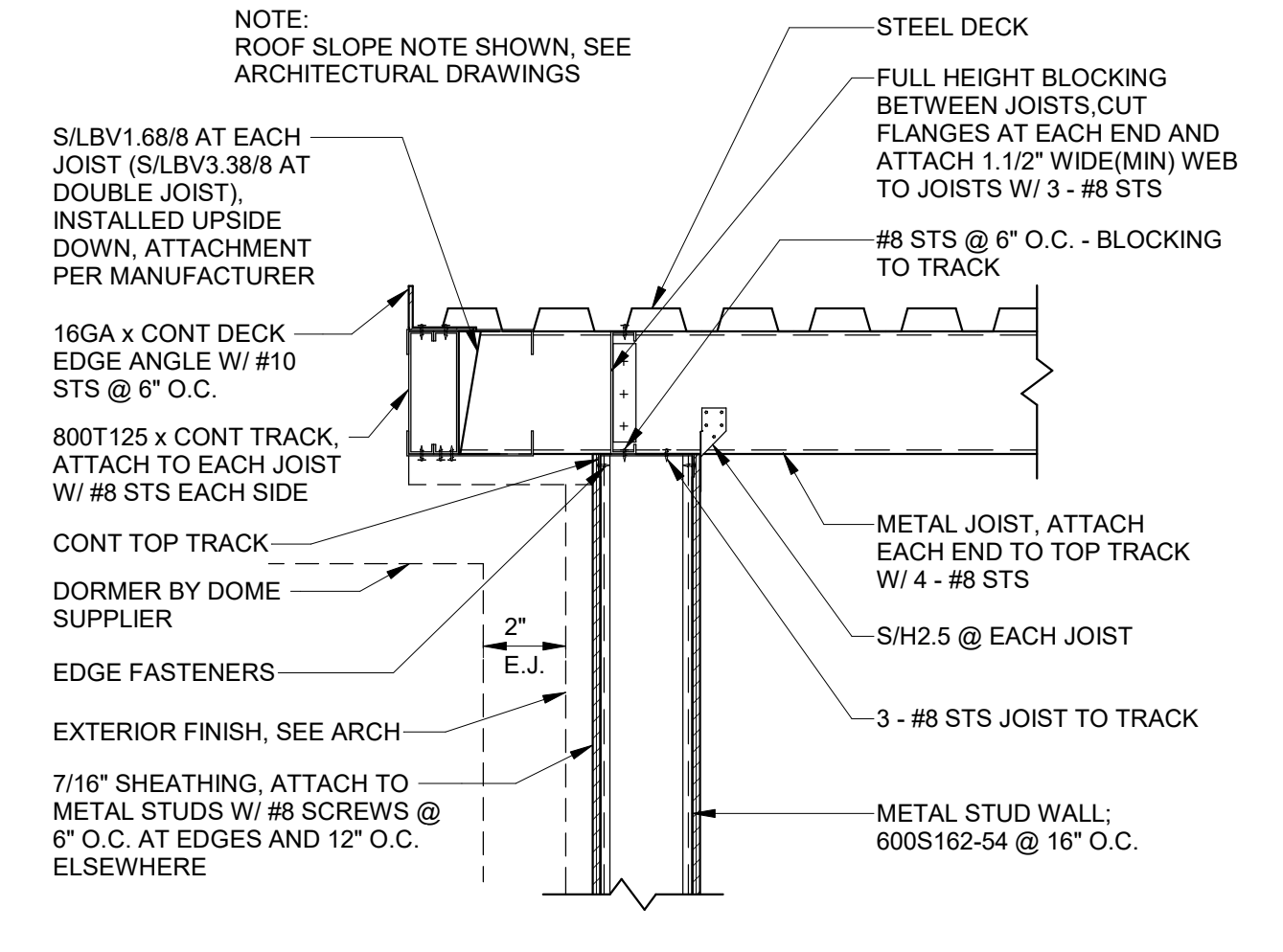
**E** SLAB TO EXIST CLARIFIER SLAB CONNECTION  
60-S-01



**F** VESTIBULE ROOF DETAIL  
60-S-01



**G** VESTIBULE ROOF DETAIL  
60-S-01

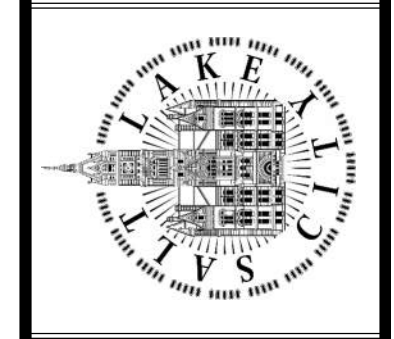


**H** VESTIBULE ROOF DETAIL  
60-S-01

DESIGNED BY: C.HAWKES	SCALE: _____
DRAWN BY: S.SHEPHERD	VERIFY SCALE
CHECKED BY: J.HARPER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EWO NO: _____	
ACCOUNT NO: 512260079	
MADE BY: _____	
BY: _____	
CH: _____	
CP: _____	
NO: _____	
DATE: 06/14/24	
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

REVISIONS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLARIFIER - SECTIONS &  
DETAILS 1



90% GMP

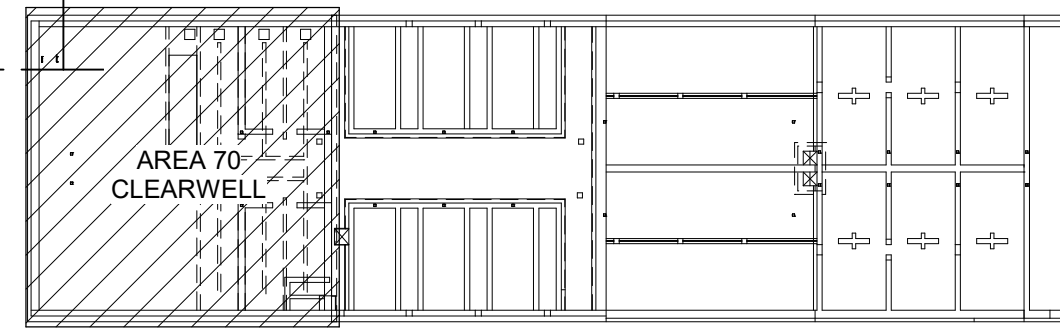
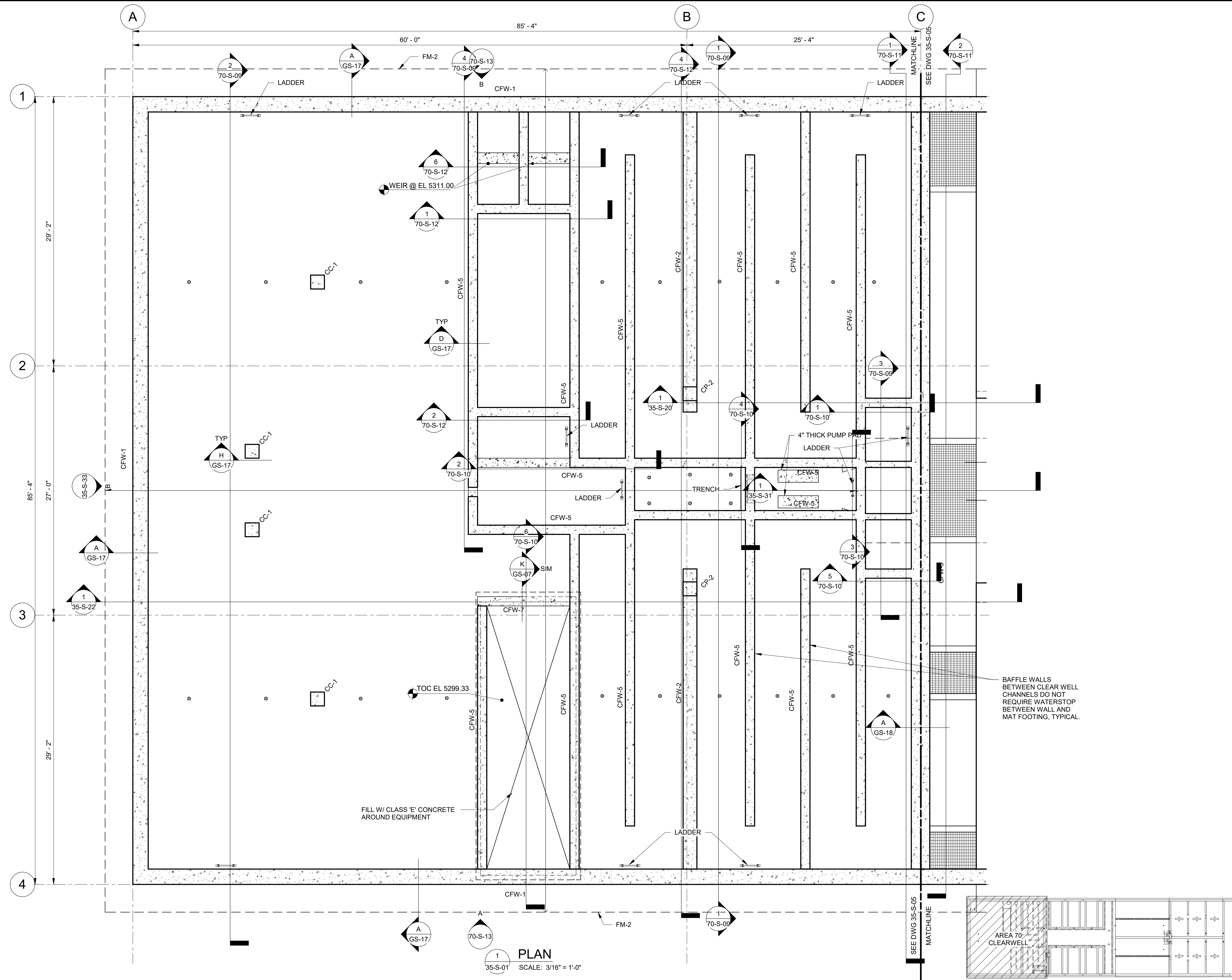
DRAWING NO.  
**60-S-02**

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Engineers

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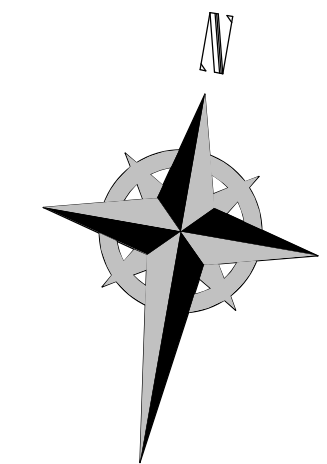
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**PLAN**  
SCALE: 3/16" = 1'-0"

**KEY PLAN**



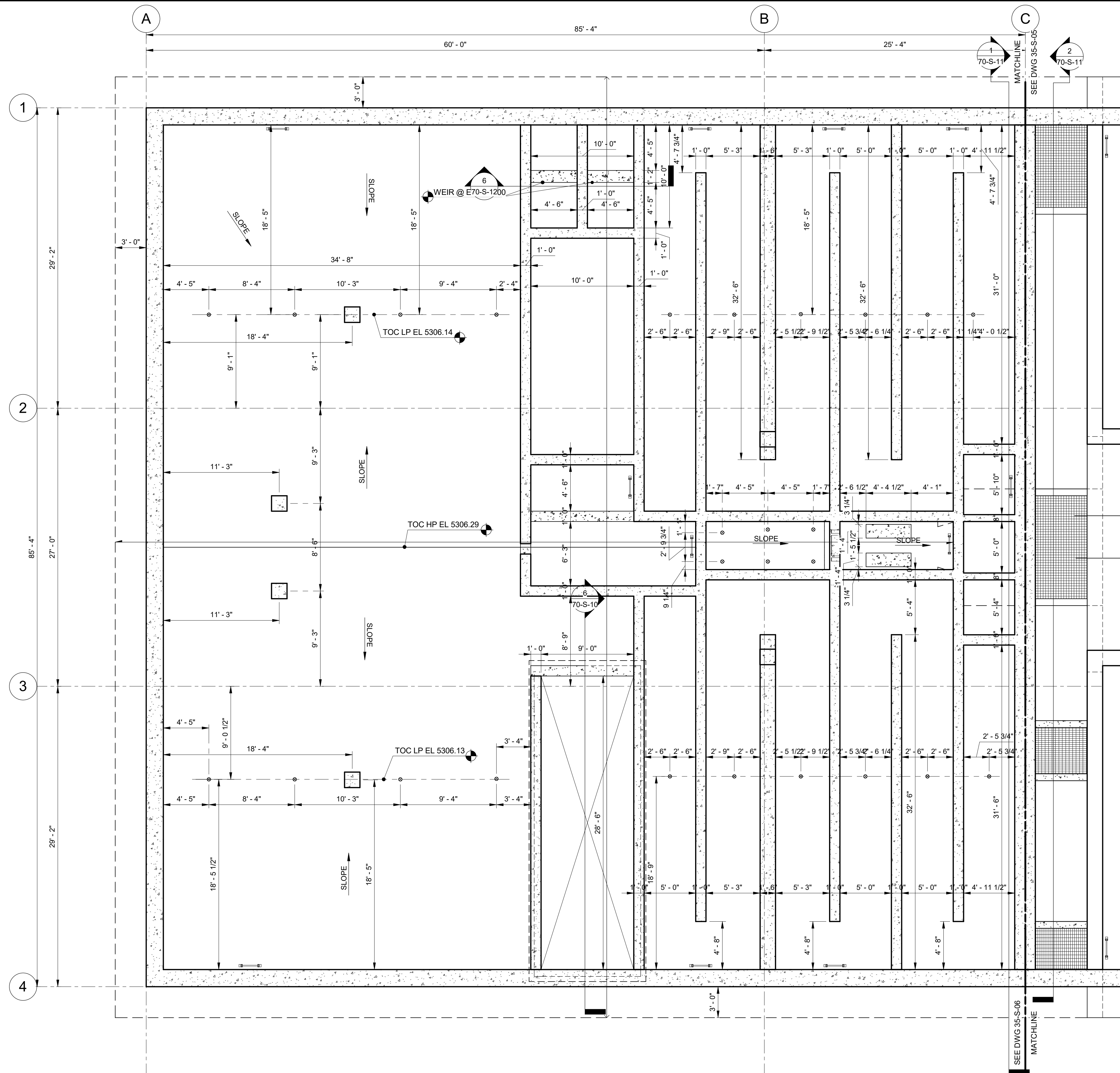
**GENERAL NOTES:**

1. SEE TYPICAL DETAILS FOR BUT NOT LIMITED TO STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS.
2. SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENINGS/PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
3. CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
4. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION 09 90 00 FOR EPOXY/POLYURETHANE CONCRETE COATINGS IN INTERIOR ROOMS AND PROCESS AREAS, WHERE REQUIRED.

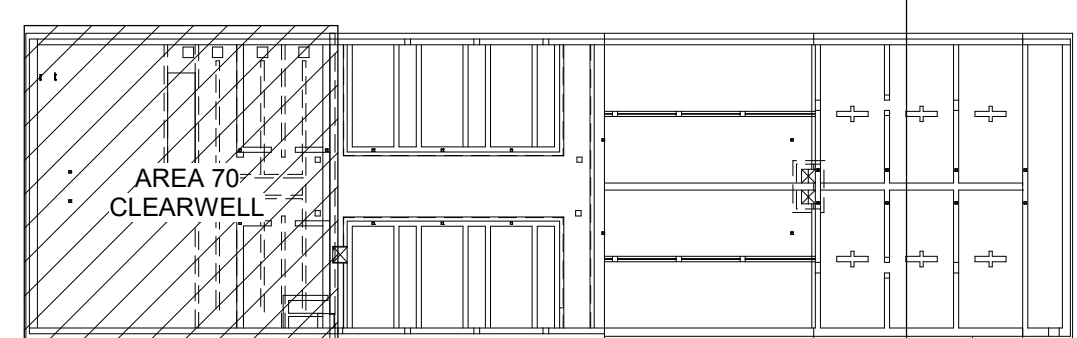
DESIGNED BY: C.HAWKES		SCALE:	
DRAWN BY: S.SHEPHERD		VERIFY SCALE	
CHECKED BY: J.HARPER		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: C.PRICE		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
<b>REVISIONS</b>			
NO.	DATE	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	CP
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>CLEARWELL - LOWER PLAN</b>			
<b>90% GMP</b>			
DRAWING NO.			<b>70-S-01</b>

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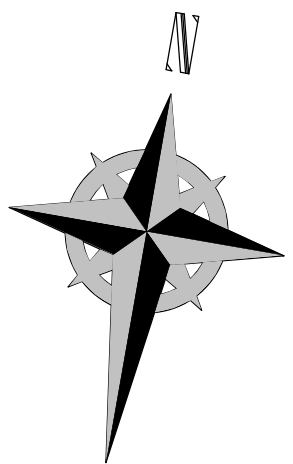
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1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



KEY PLAN



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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - LOWER DIM  
PLAN**

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

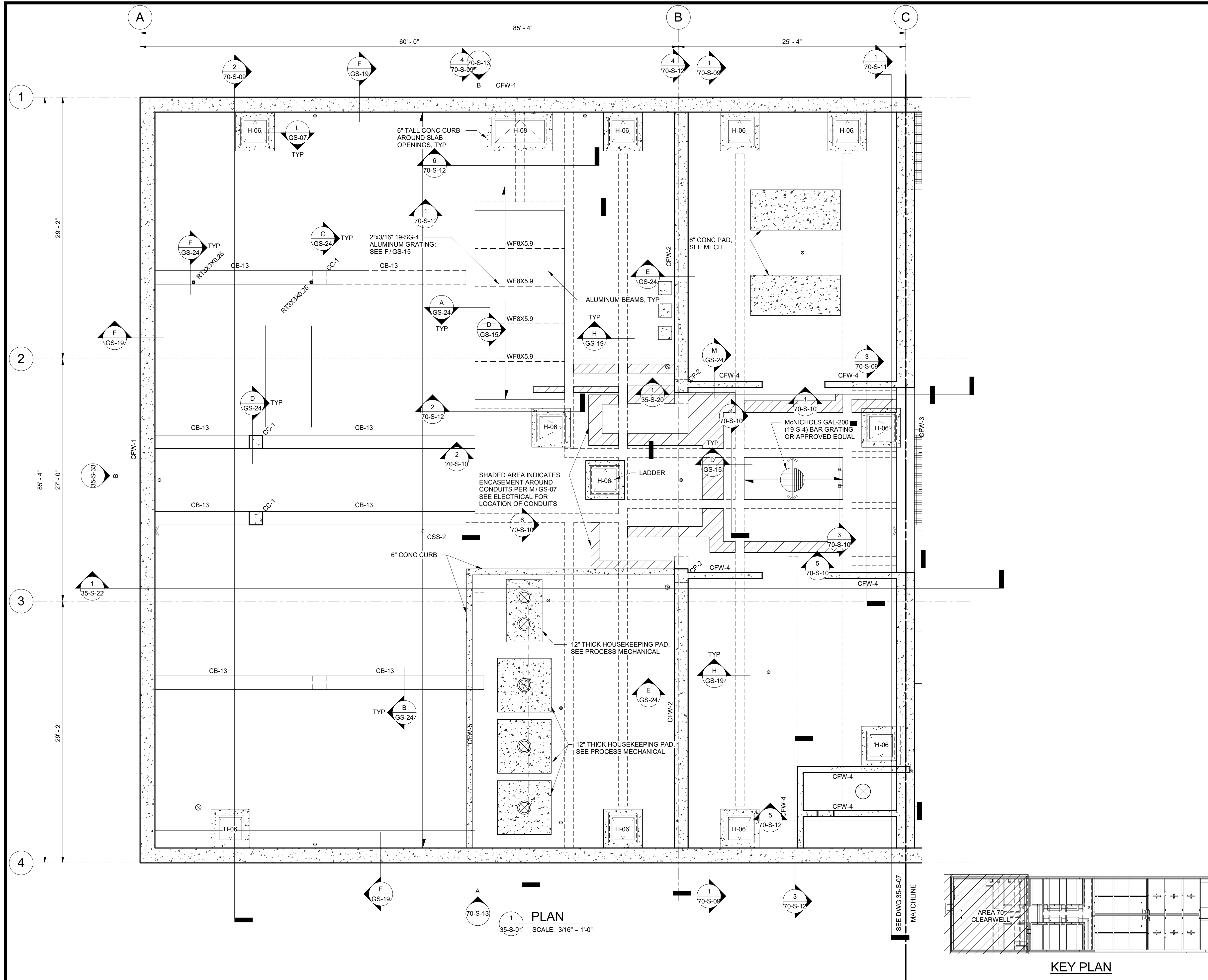
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	PRICE	MP
0	06/14/24					

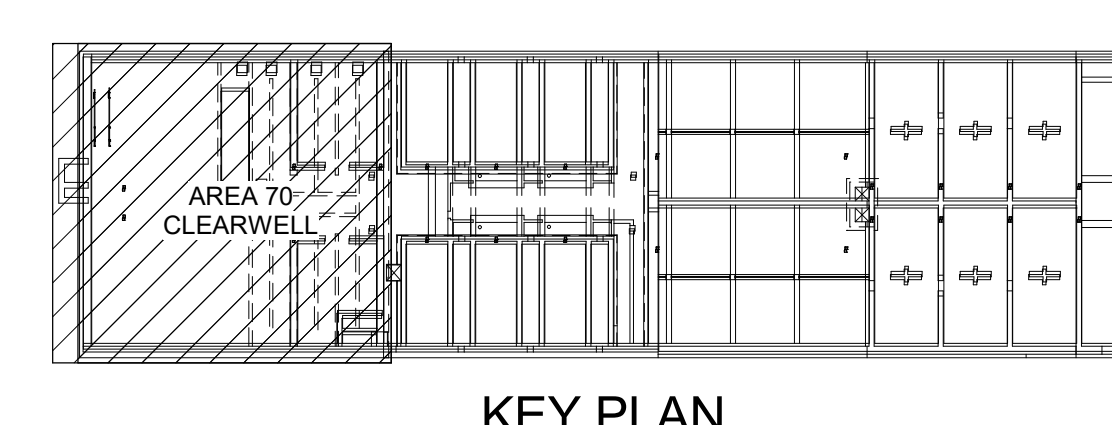
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90% GMP

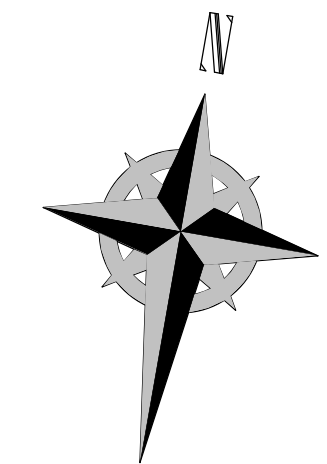
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35-S-01 PLAN SCALE: 3/16" = 1'-0"



KEY PLAN

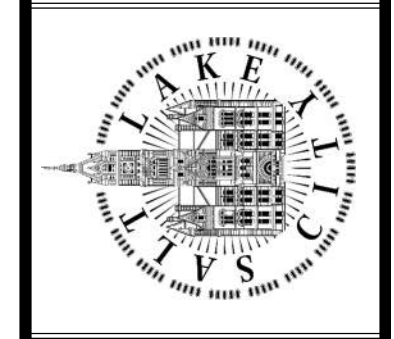


**GENERAL NOTES:**

- SEE TYPICAL DETAILS FOR BUT NOT LIMITED TO STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS.
- SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENING PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
- PROCESS EQUIPMENT PADS' HEIGHT SHALL BE 6 INCHES, TYPICAL UNO; ELECTRICAL AND MECHANICAL EQUIPMENT PADS' HEIGHT TO BE 4 INCHES, TYPICAL UNO. EQUIPMENT PAD HEIGHTS VARY AS REQUIRED FOR EQUIPMENT PLACEMENT AS NOTED ON PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EQUIPMENT POSITION AND ELEVATION. EQUIPMENT PAD DIMENSIONS SHALL BE DETERMINED FROM DIMENSIONS OF SELECTED EQUIPMENT AND EQUIPMENT MOUNTING DETAILS. SEE TYPICAL DETAILS AND SPECIFICATIONS FOR EQUIPMENT MOUNTING DETAILS. ANY PAD DIMENSIONS SHOWN HEREIN TO BE VERIFIED BY CONTRACTOR WITH APPROVED EQUIPMENT SUBMITTAL.
- GUARDRAIL, GRATING, STAIRS, AND PLATFORM FRAMING SHOWN ARE ALUMINUM, UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS AND GS SHEETS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION 09 90 00 FOR EPOXY/POLYURETHANE CONCRETE COATINGS IN INTERIOR ROOMS AND PROCESS AREAS, WHERE REQUIRED.
- ENCASE ALL DRAINS, PIPES, AND CONDUIT IN CLEARWELL AREA. SEE DETAIL K/ GS-07

DESIGNED BY: C.HAWKES		SCALE:	
DRAWN BY: S.SHEPHERD		VERIFY SCALE	
CHECKED BY: J.HARPER		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: C.PRICE		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
NO.	DATE	ISSUED FOR	MAXIMUM PRICE (GMP)
0	06/14/24		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - INTERMEDIATE PLAN**



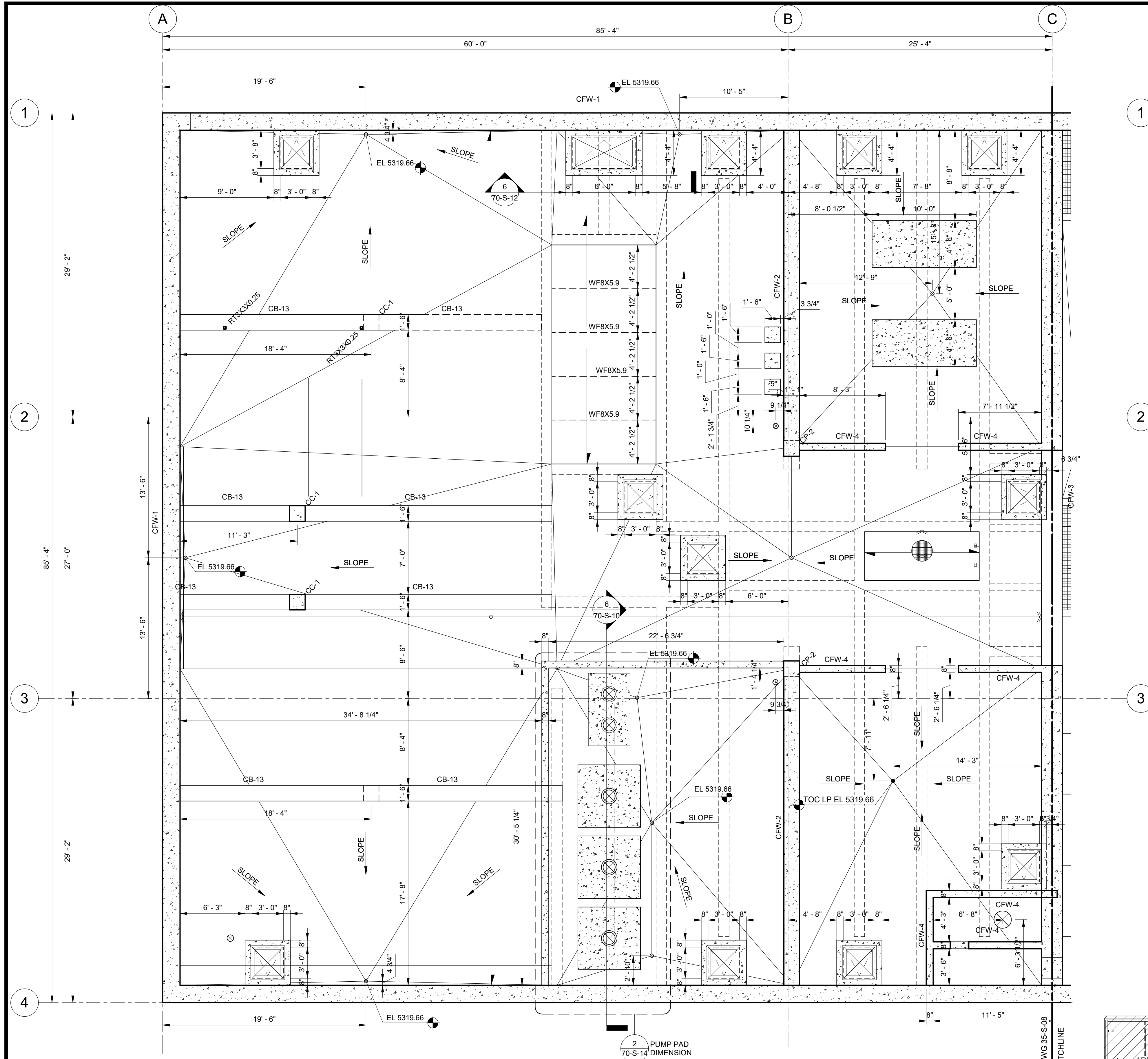
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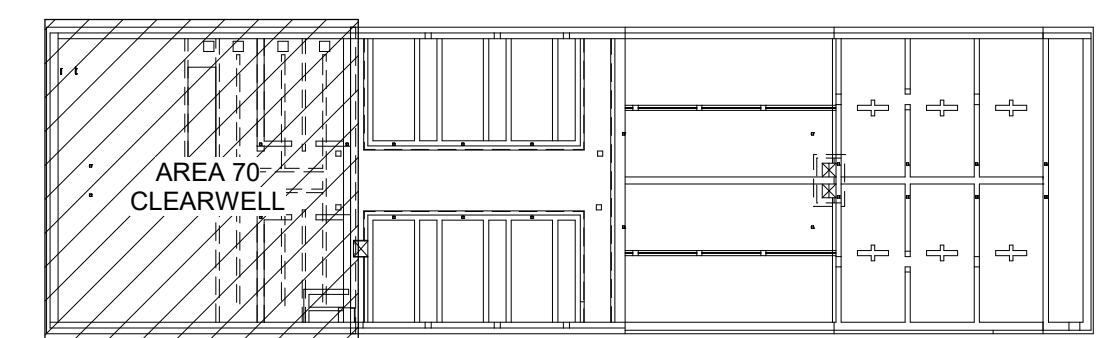
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DRAWING NO.  
**70-S-03**

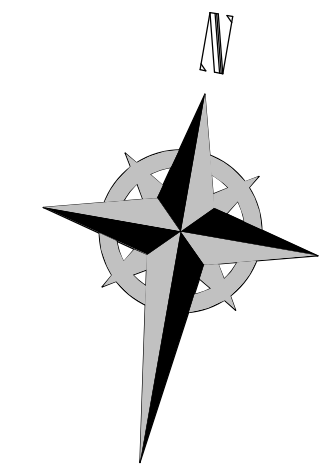
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1 PLAN  
35-S-22 SCALE: 3/16" = 1'-0"



KEY PLAN

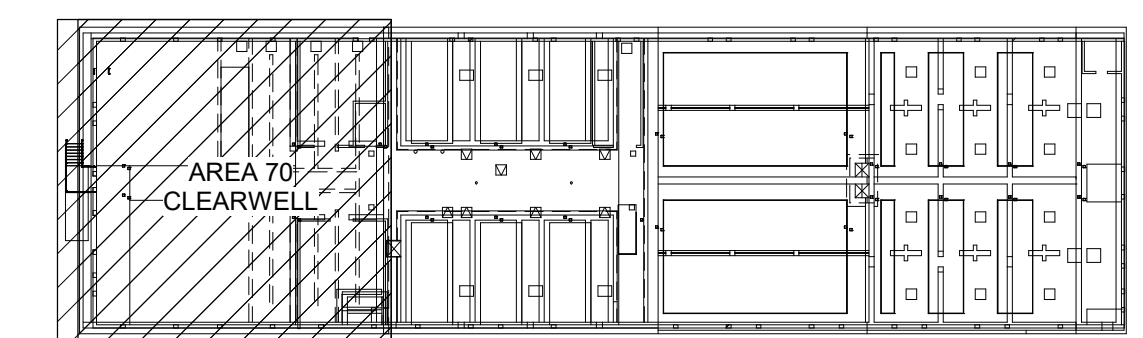
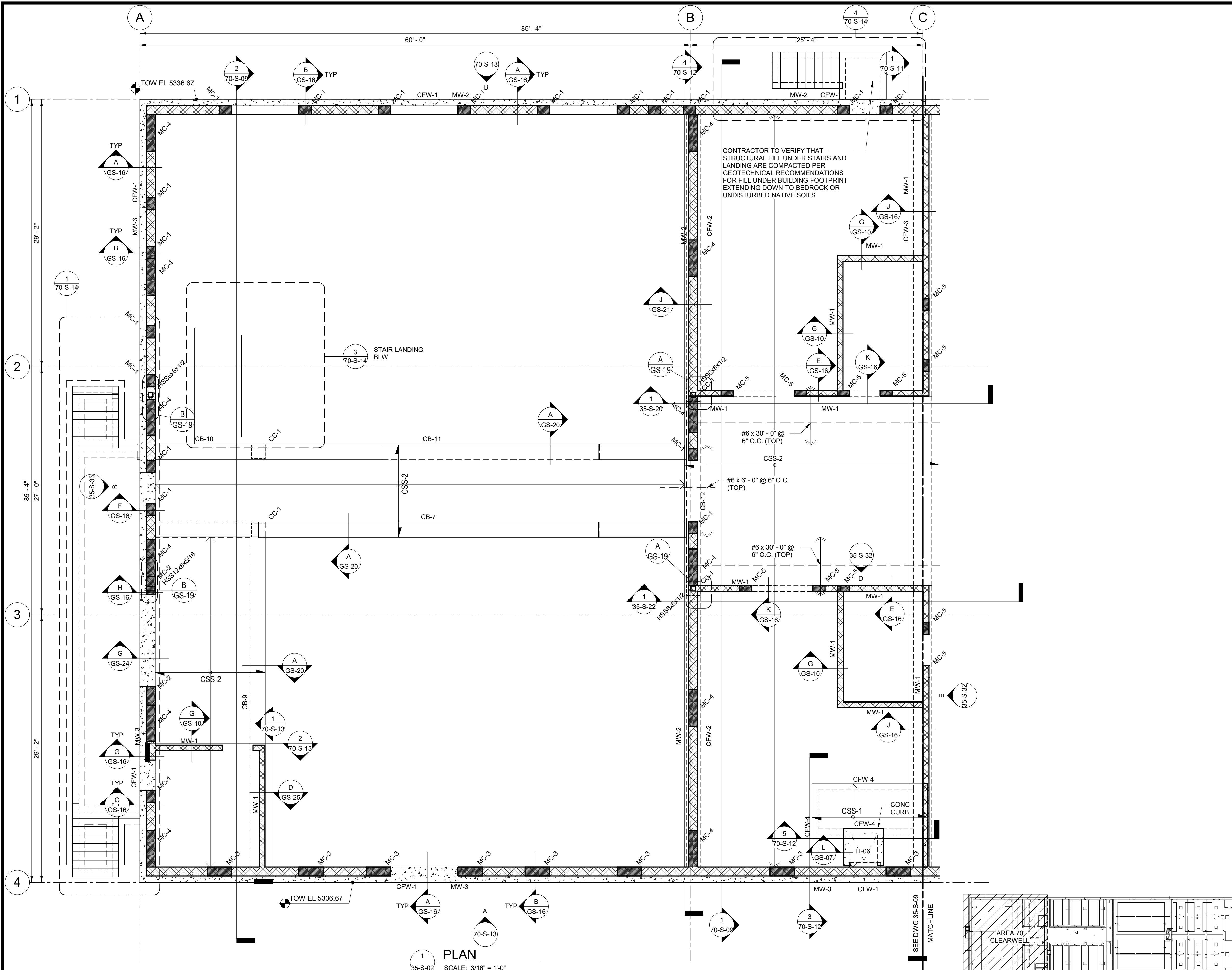


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Engineers

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F 801.485.0911  
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DESIGNED BY: C.HAWKES		SCALE:									
DRAWN BY: S.SHEPHERD		VERIFY SCALE									
CHECKED BY: J.HARPER		BAR IS ONE INCH ON ORIGINAL DRAWING									
APPROVED BY: C.PRICE		DATE: JUNE 2024									
EWO NO: ---		ACCOUNT NO: 512260079									
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NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)								
0	06/14/24										
REVISIONS MADE BY: CP AUTH BY: CH											
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>CLEARWELL - INTERMEDIATE DIM PLAN</b>											
DRAWING NO. <b>70-S-04</b>											
90% GMP											

Plot Date: 6/13/2024 9:35:28 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt



KEY PLAN



**GENERAL NOTES:**

- SEE TYPICAL DETAILS FOR BUT NOT LIMITED TO STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS.
- SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENINGS/PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
- PROCESS EQUIPMENT PADS' HEIGHT SHALL BE 6 INCHES. TYPICAL UNO; ELECTRICAL AND MECHANICAL EQUIPMENT PADS' HEIGHT TO BE 4 INCHES. TYPICAL UNO. EQUIPMENT PAD HEIGHTS VARY AS REQUIRED FOR EQUIPMENT PLACEMENT AS NOTED ON PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EQUIPMENT POSITION AND ELEVATION. EQUIPMENT PAD DIMENSIONS SHALL BE DETERMINED FROM DIMENSIONS OF SELECTED EQUIPMENT AND EQUIPMENT MOUNTING DETAILS. SEE TYPICAL DETAILS AND SPECIFICATIONS FOR EQUIPMENT MOUNTING DETAILS. ANY PAD DIMENSIONS SHOWN HEREIN TO BE VERIFIED BY CONTRACTOR WITH APPROVED EQUIPMENT SUBMITTAL.
- GUARDRAIL, GRATING, STAIRS, AND PLATFORM FRAMING SHOWN ARE ALUMINUM, UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS AND GS SHEETS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE PLACEMENT SEQUENCE TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
- CONTRACTOR SHALL SUBMIT PROPOSED MASONRY REINFORCING PLACEMENT TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY MASONRY/MASONRY REINFORCEMENT PLACEMENT.
- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION 09 90 00 FOR EPOXY/POLYURETHANE CONCRETE COATINGS IN INTERIOR ROOMS AND PROCESS AREAS, WHERE REQUIRED.

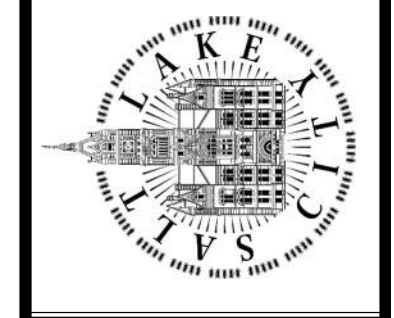
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Engineers

675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
P 801 486 3883  
F 801 485 0911  
www.reaveley.com

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	PRICE/GMP
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - UPPER PLAN

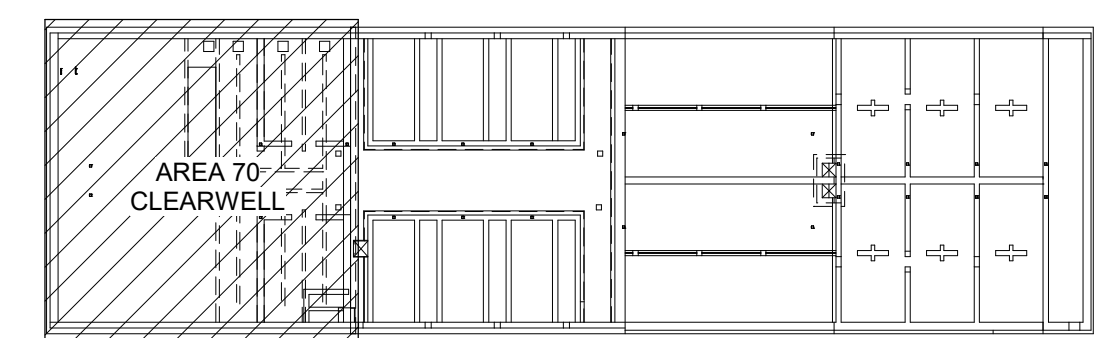
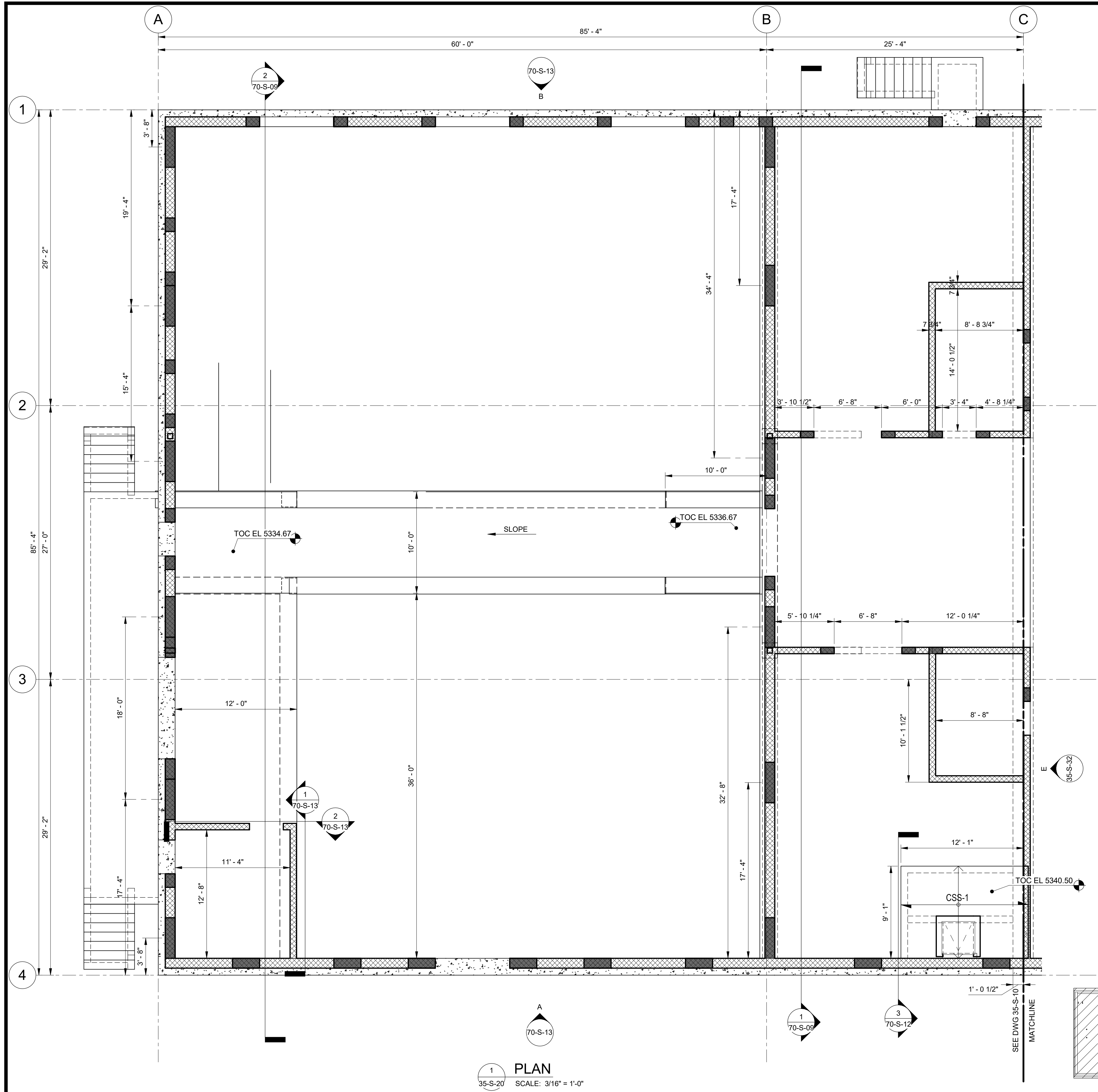


90% GMP

DRAWING NO.  
**70-S-05**

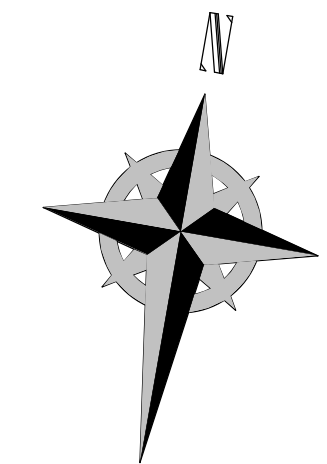


Plot Date: 6/13/2024 9:35:33 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt



KEY PLAN

1 PLAN  
35-S-20 SCALE: 3/16" = 1'-0"



**REAVELEY**  
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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - UPPER DIM  
PLAN**

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

REVISIONS

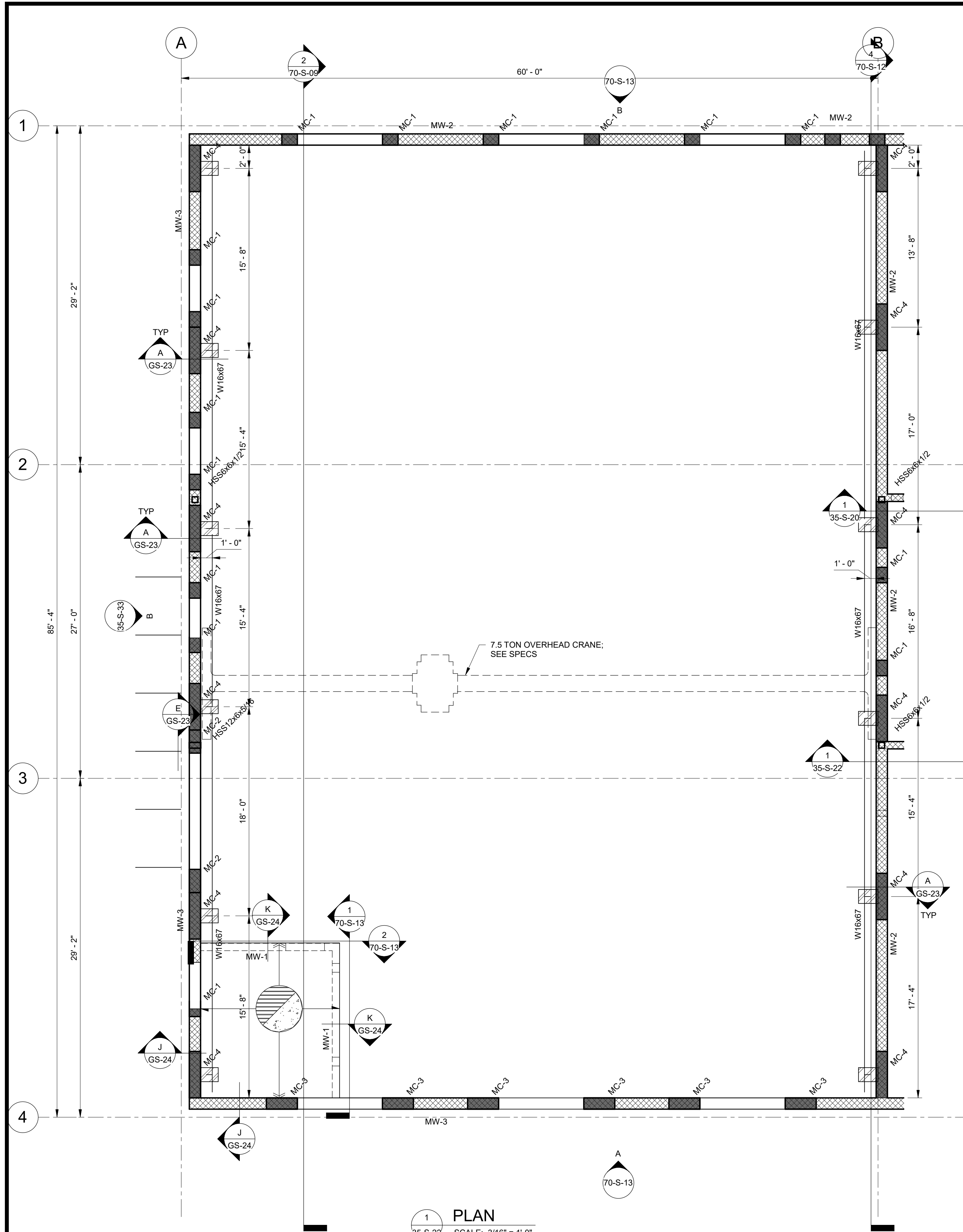
NO.	DATE	ISSUED FOR	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24			CH	CP

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

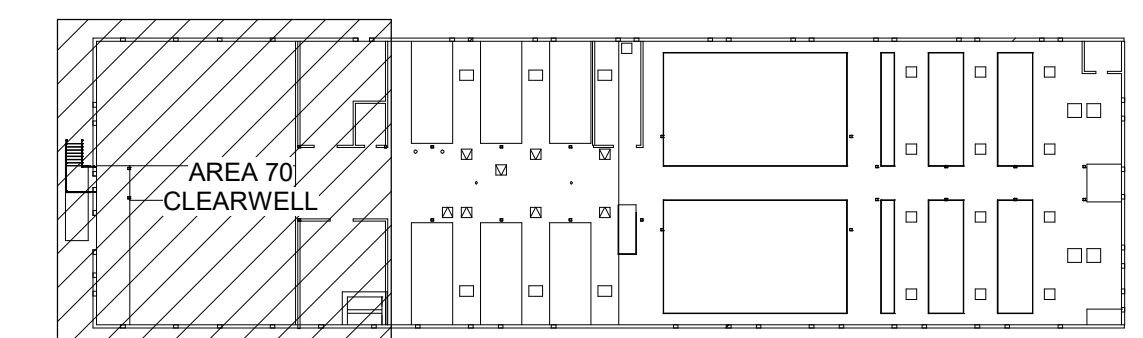
90% GMP

DRAWING NO.  
**70-S-06**

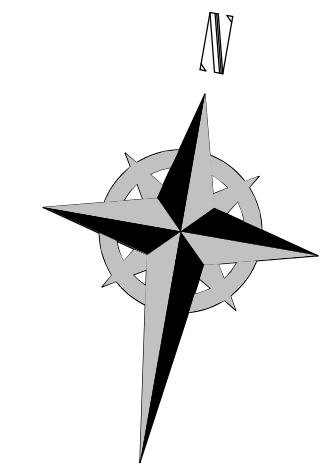
Plot Date: 6/13/2024 9:35:35 AM Path: R:\M\_360\153020 - City\_Creek WTP\153020-S-3570V21.rvt



1 PLAN  
35-S-22 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

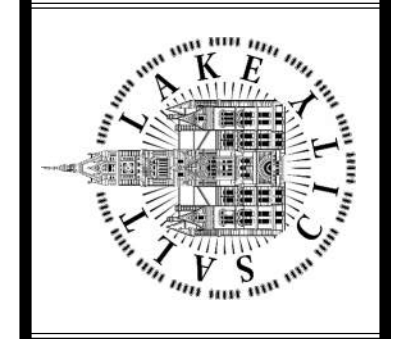
1. SEE TYPICAL DETAILS FOR BUT NOT LIMITED TO STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS.
2. SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENINGS/PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
3. CONTRACTOR SHALL SUBMIT PROPOSED MASONRY REINFORCING PLACEMENT TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY MASONRY/MASONRY REINFORCEMENT PLACEMENT.



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DESIGNED BY: C.HAWKES		AUTH BY: S.SHEPHERD	
DRAWN BY: S.SHEPHERD		CHECKED BY: J.HARPER	
APPROVED BY: C.PRICE		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
NO.	DATE:	ISSUED FOR:	MAXIMUM PRICE (GMP)
0	06/14/24		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - CRANE  
FRAMING PLAN**

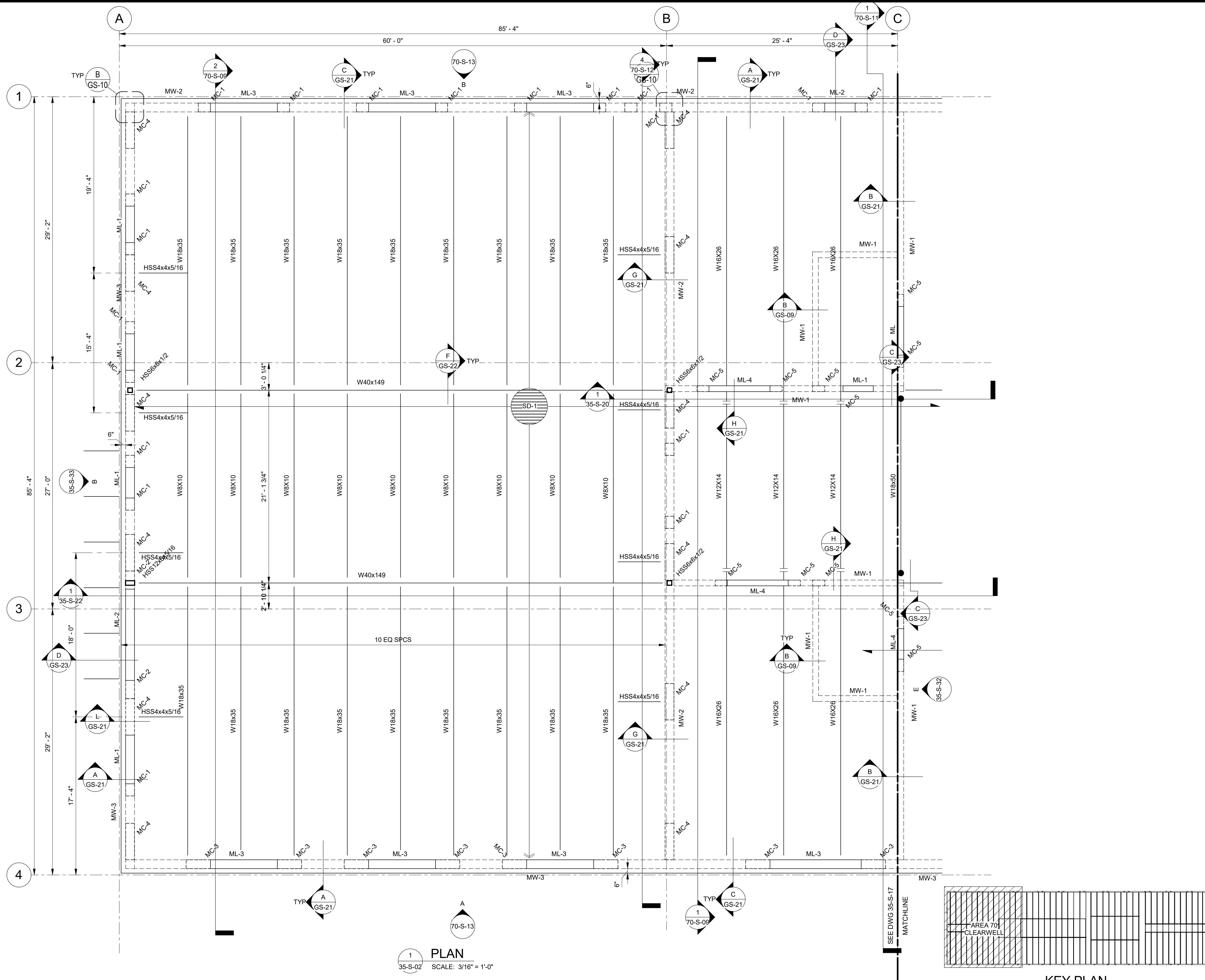


90% GMP

DRAWING NO.  
**70-S-07**

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 9:35:40 AM Path: R:\360\153020 - City Creek WTP\153020-S-3570V21.rvt



1 PLAN  
35-S-02 SCALE: 3/16" = 1'-0"

KEY PLAN

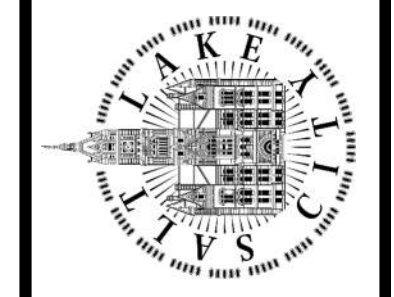


**GENERAL NOTES:**

1. SEE TYPICAL DETAILS FOR BUT NOT LIMITED TO STRUCTURAL DETAILS, ENCASED PIPE DETAILS, AND EMBEDDED CONDUIT/PIPE DETAILS. NO EMBEDDED CONDUIT OR PIPE ALLOWED IN ELEVATED SLABS.
2. SEE ARCHITECTURAL, MECHANICAL, PROCESS, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION INCLUDING OPENINGS/PENETRATIONS AND DETAILS. MASONRY COLUMNS TO OCCUR AT EDGE OF MASONRY OPENINGS, U.N.O.
3. CONTRACTOR SHALL SUBMIT PROPOSED MASONRY REINFORCING PLACEMENT TO ENGINEER FOR REVIEW / APPROVAL PRIOR TO ANY MASONRY/MASONRY REINFORCEMENT PLACEMENT.

DESIGNED BY: C.HAWKES	AUTH BY: S.SHEPHERD	SCALE:
DRAWN BY: S.SHEPHERD	CHECKED BY: J.HARPER	VERIFY SCALE
NO. 0	DATE: 06/14/24	BAR IS ONE INCH ON ORIGINAL DRAWING
ISSUED FOR GUARANTEE (MAXIMUM PRICE/GMP)		APPROVED BY: C.PRICE
		DATE: JUNE 2024
		EWO NO: ---
		ACCOUNT NO: 512260079

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - ROOF FRAMING PLAN**



**90% GMP**

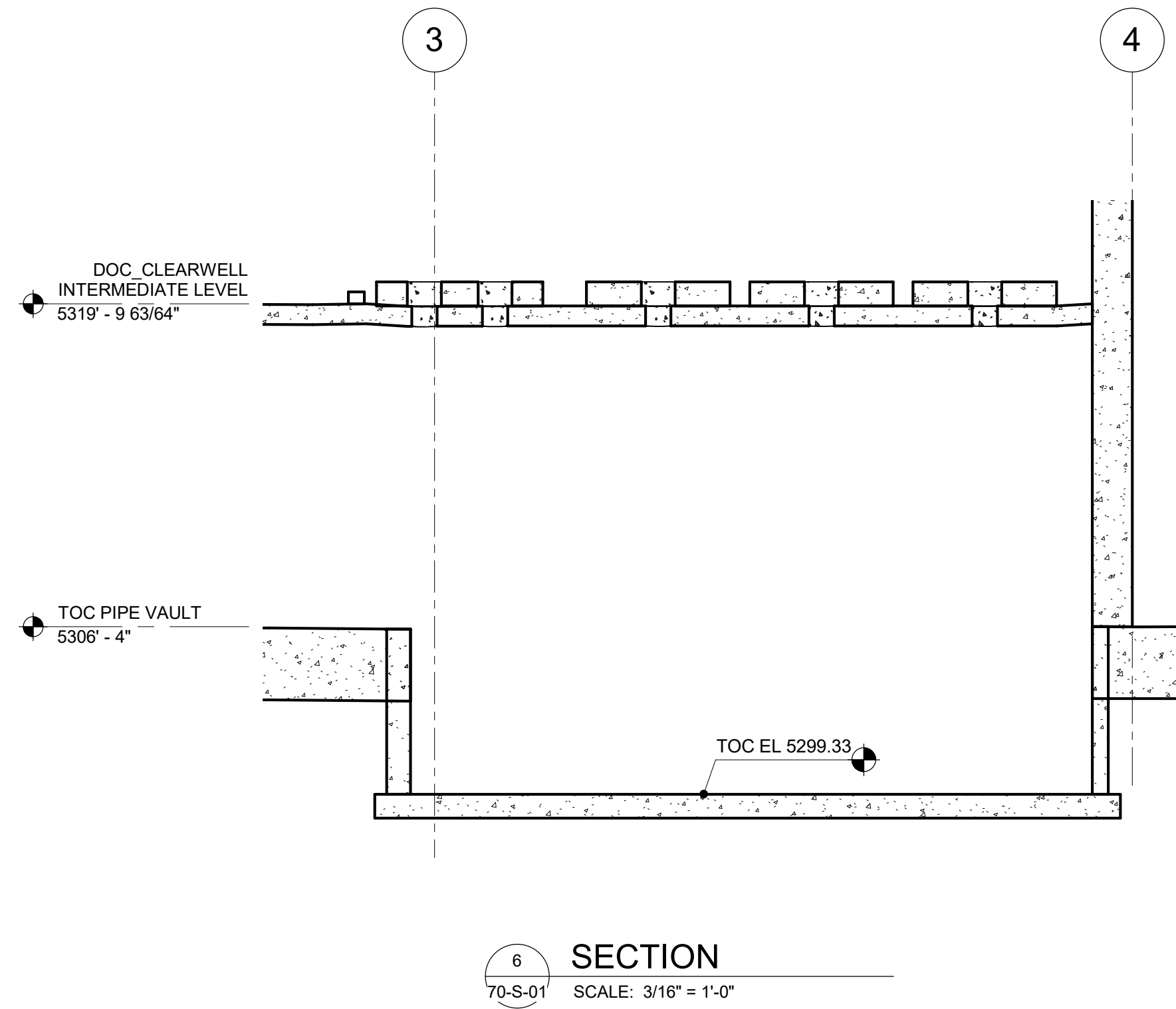
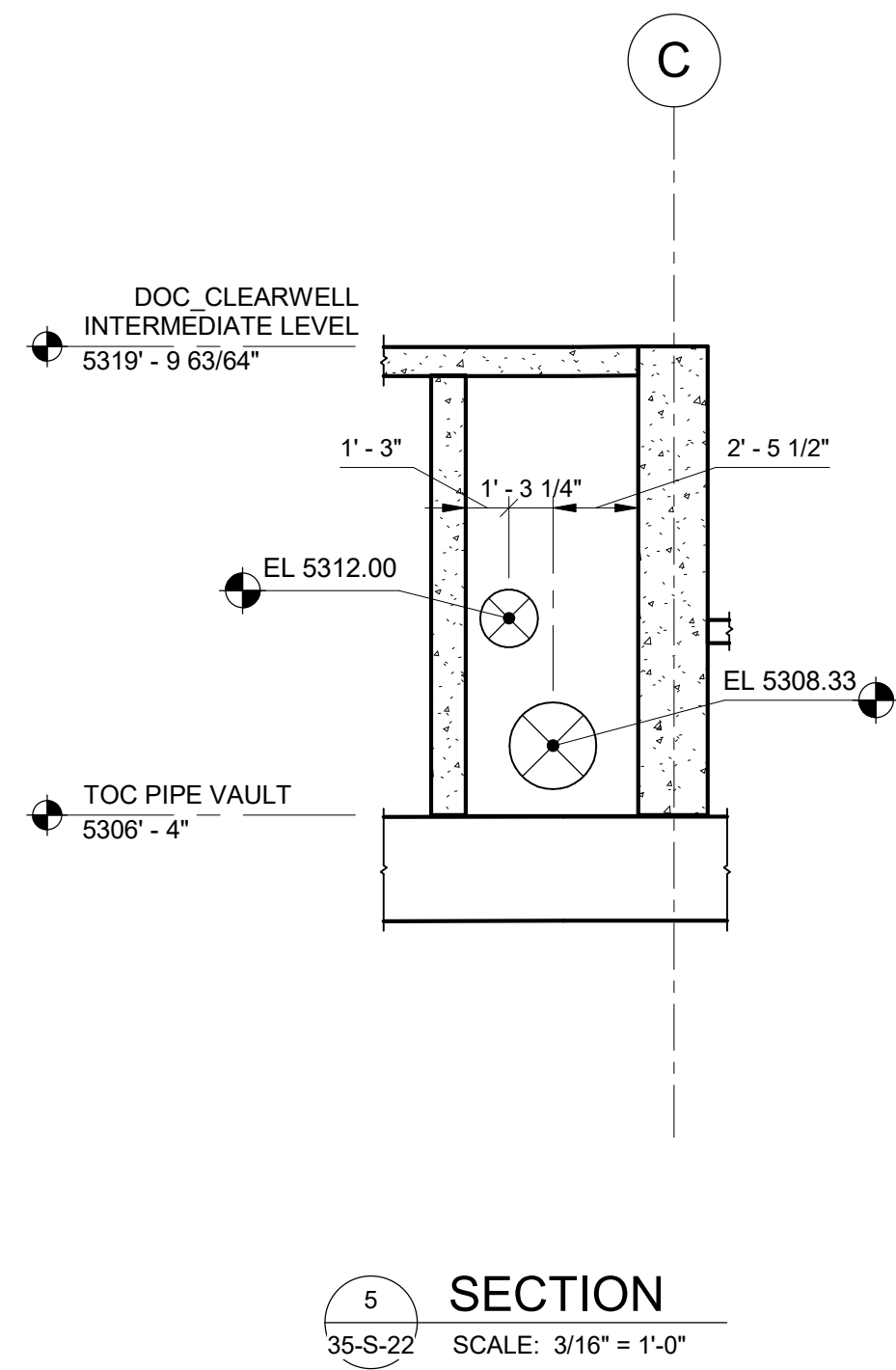
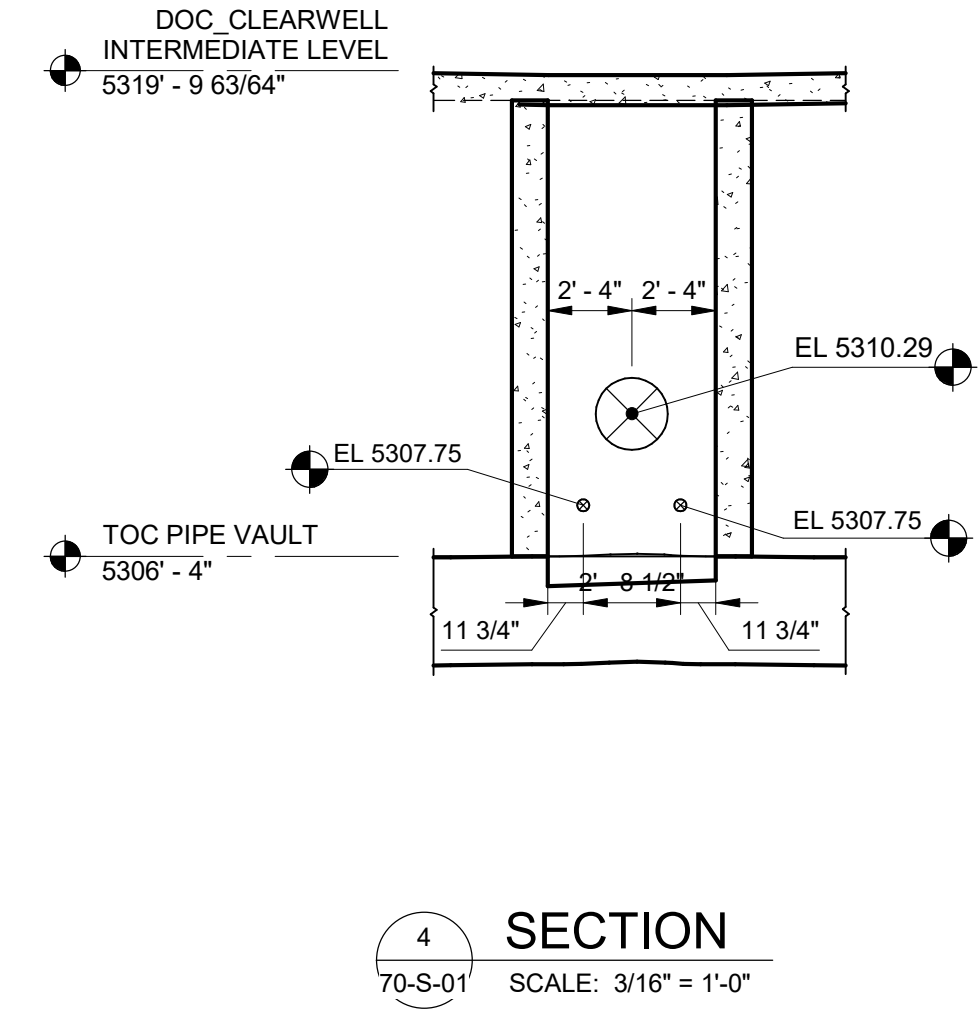
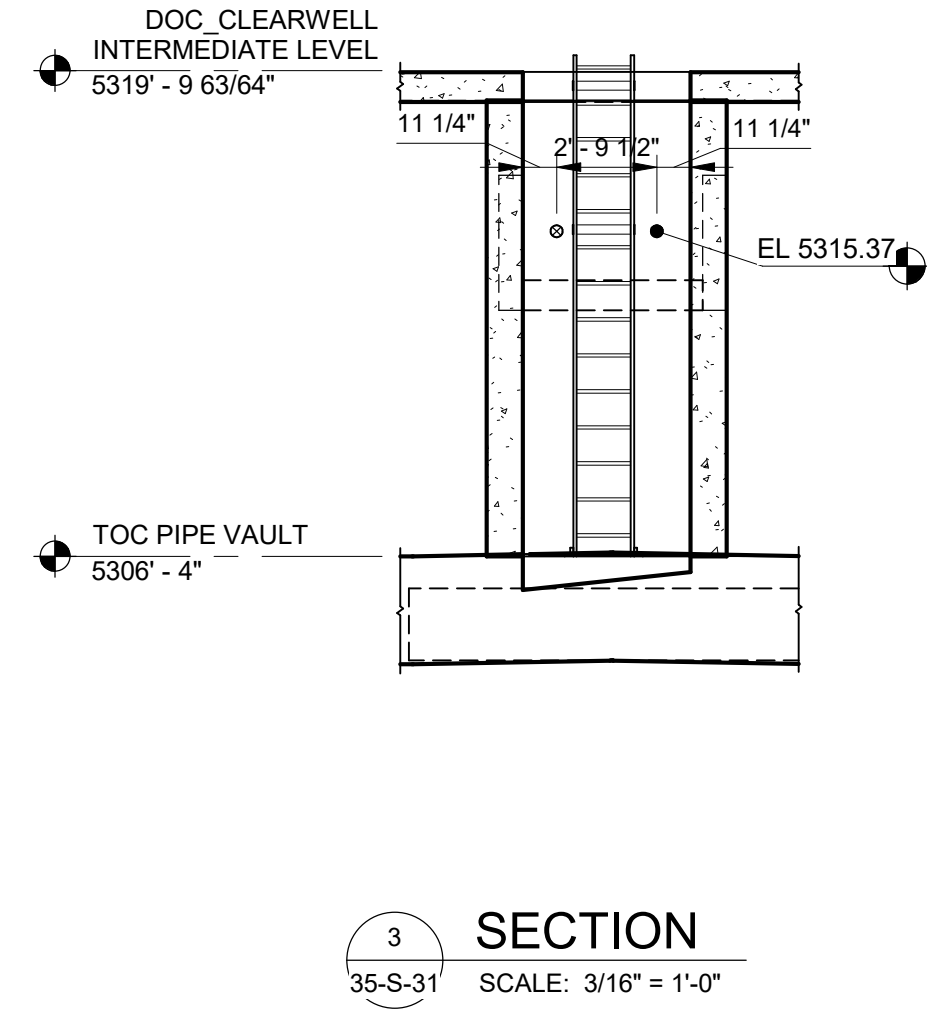
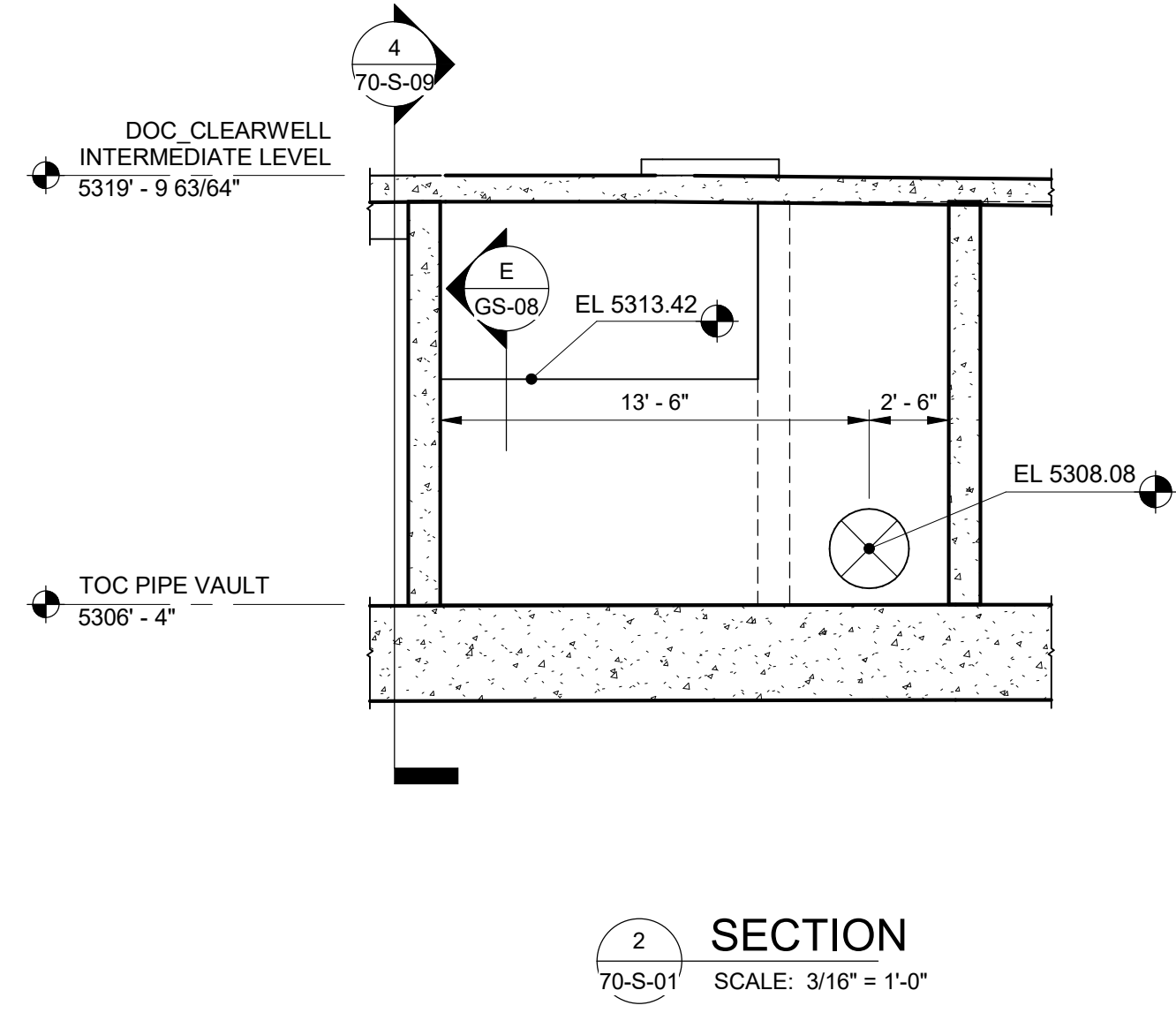
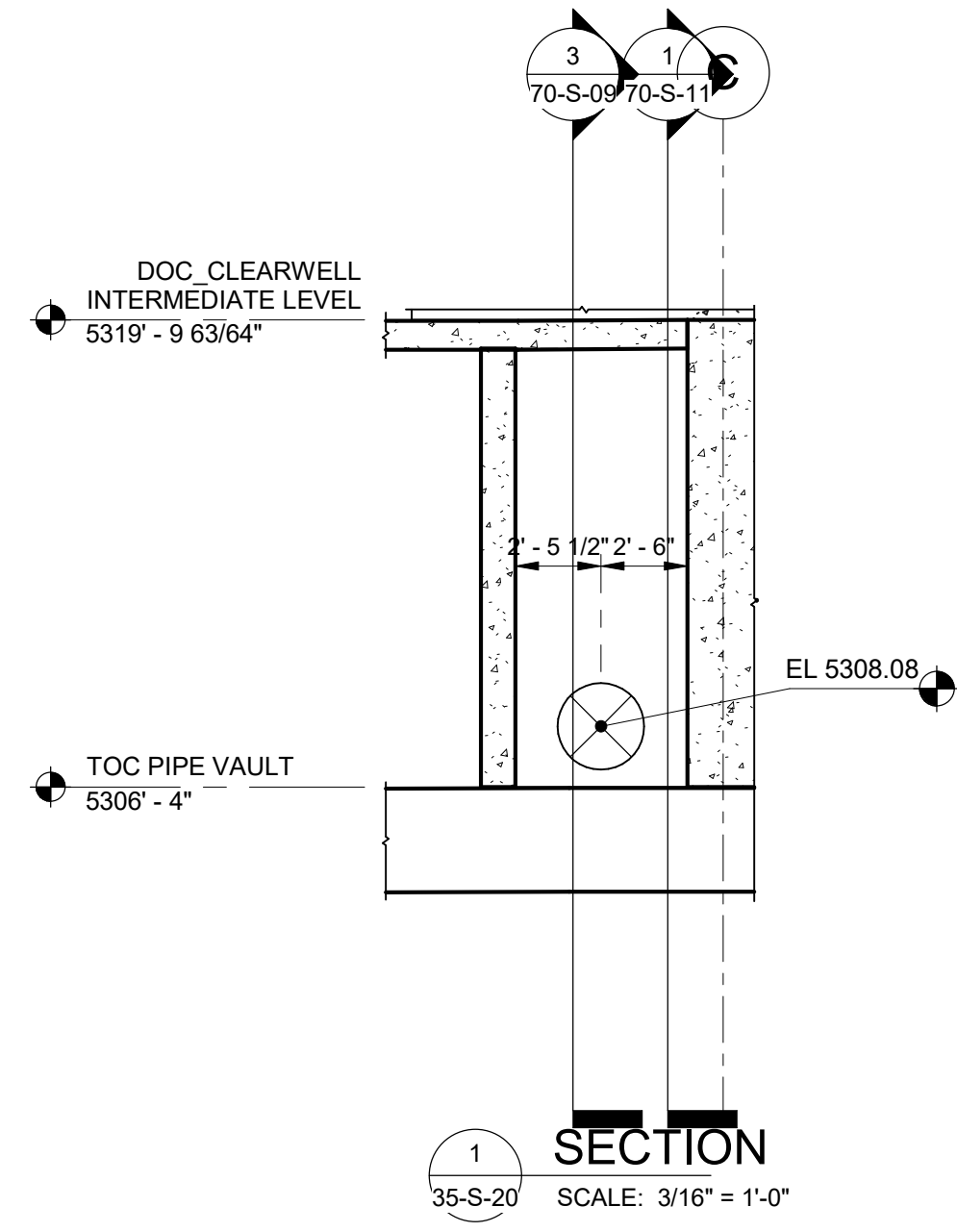


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DRAWING NO.  
**70-S-08**



Plot Date: 6/13/2024 9:35:47 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt

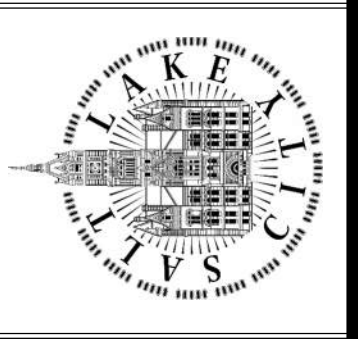


DESIGNED BY: C.HAWKES	SCALE:
DRAWN BY: S.SHEPHERD	VERIFY SCALE
CHECKED BY: J.HARPER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - SECTIONS 2

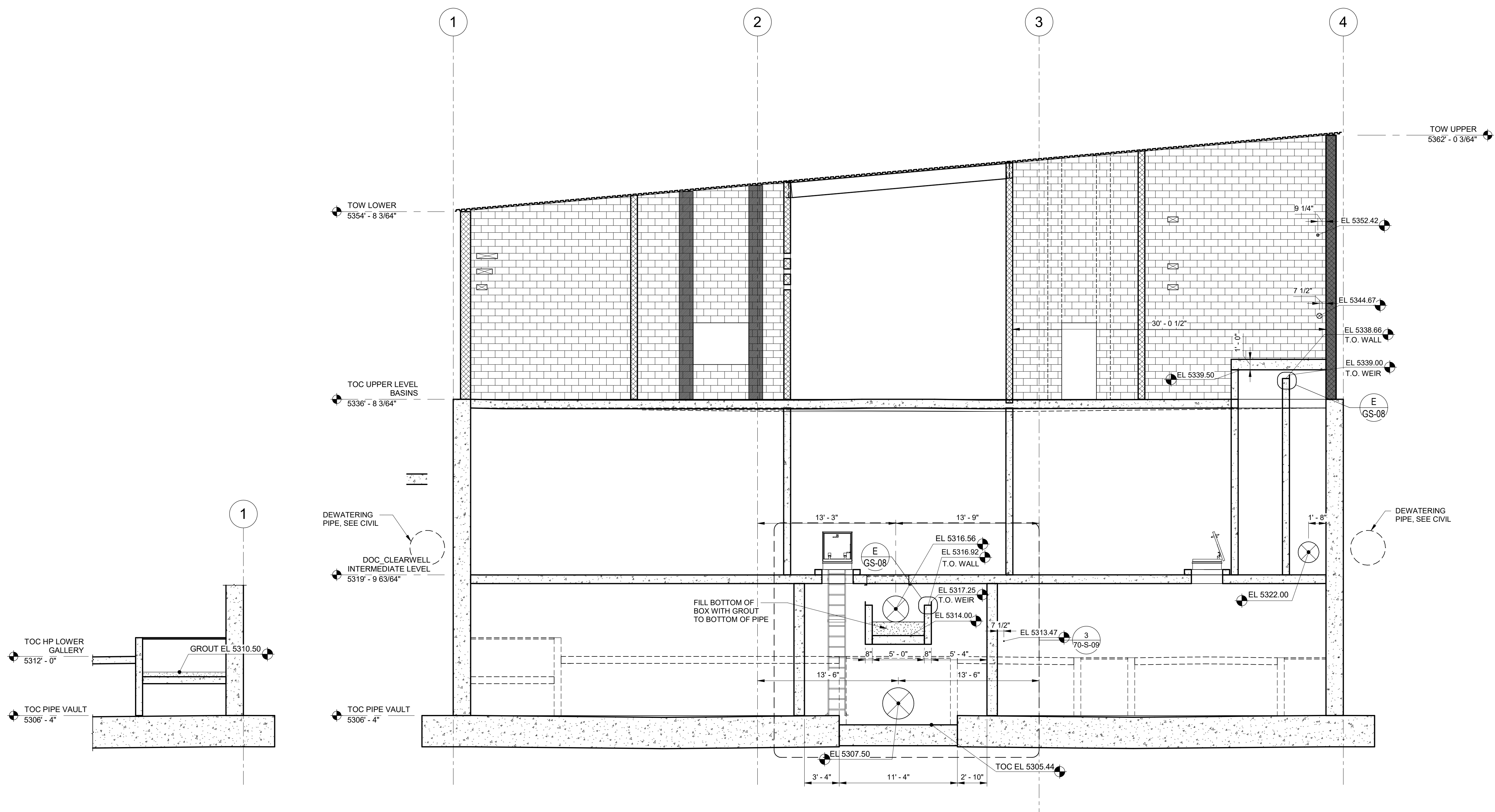


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90% GMP

DRAWING NO.  
70-S-10

Plot Date: 6/13/2024 9:35:49 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-357021.rvt

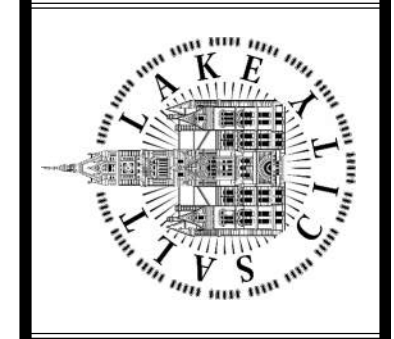


**SECTION 2**  
35-S-05 SCALE: 3/16" = 1'-0"

**SECTION 1**  
35-S-05 SCALE: 3/16" = 1'-0"

DESIGNED BY: C.HAWKES	AUTH BY: CP
DRAWN BY: S.SHEPHERD	MADE BY: CH
CHECKED BY: J.HARPER	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP):
APPROVED BY: C.PRICE	NO. 0
DATE: JUNE 2024	DATE: 06/14/24
EWO NO. ---	ACCOUNT NO: 512260079

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**CLEARWELL - SECTIONS 3**



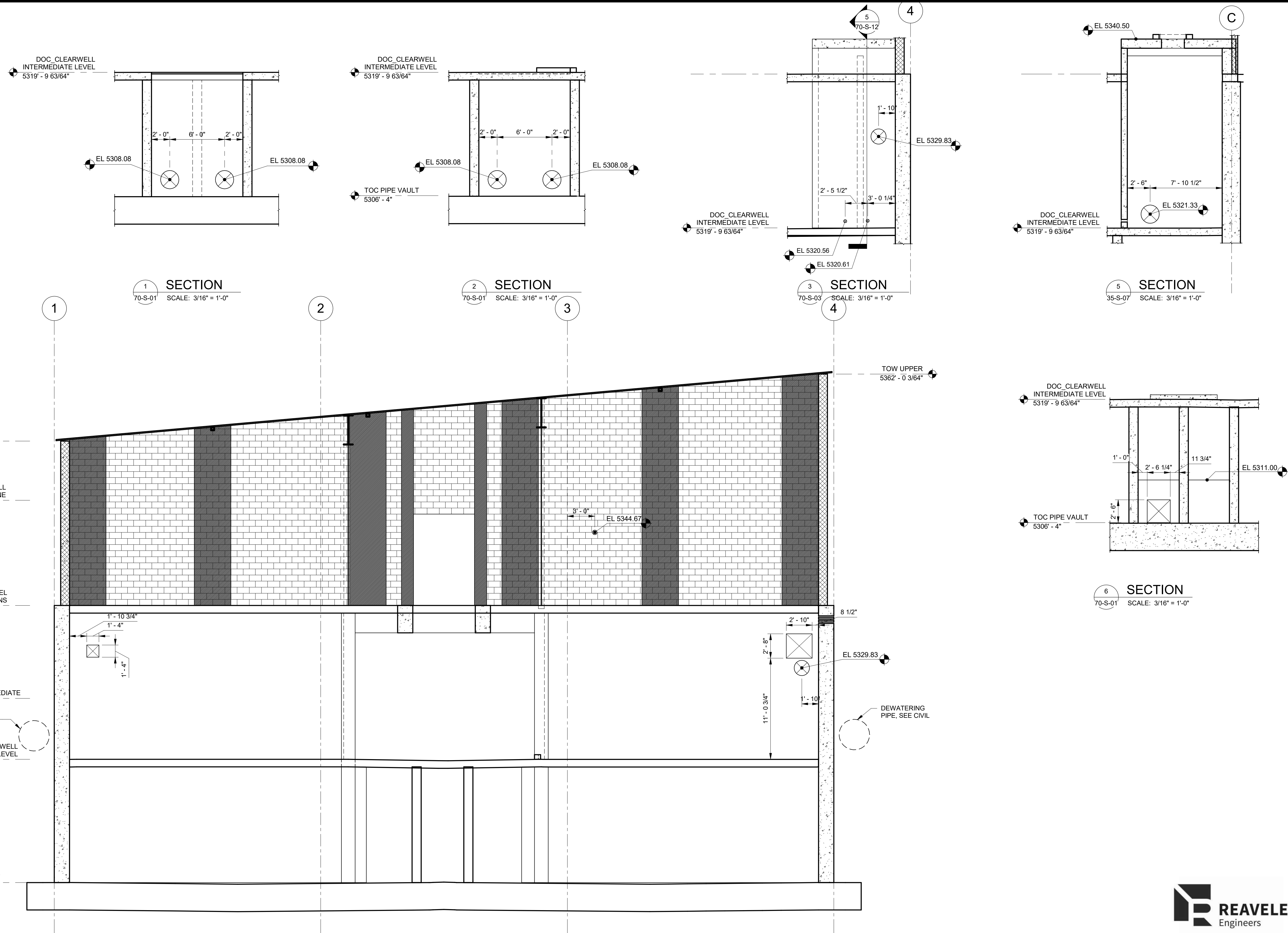
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**90% GMP**

DRAWING NO.  
**70-S-11**

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 9:35:52 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-S-3570V21.rvt



1 SECTION  
70-S-01 SCALE: 3/16" = 1'-0"

2 SECTION  
70-S-01 SCALE: 3/16" = 1'-0"

3 SECTION  
70-S-03 SCALE: 3/16" = 1'-0"

5 SECTION  
35-S-07 SCALE: 3/16" = 1'-0"

4 SECTION  
35-S-20 SCALE: 3/16" = 1'-0"

6 SECTION  
70-S-01 SCALE: 3/16" = 1'-0"

DESIGNED BY: C.HAWKES  
 DRAWN BY: S.SHEPHERD  
 CHECKED BY: J.HARPER  
 APPROVED BY: C.PRICE  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

REVISIONS

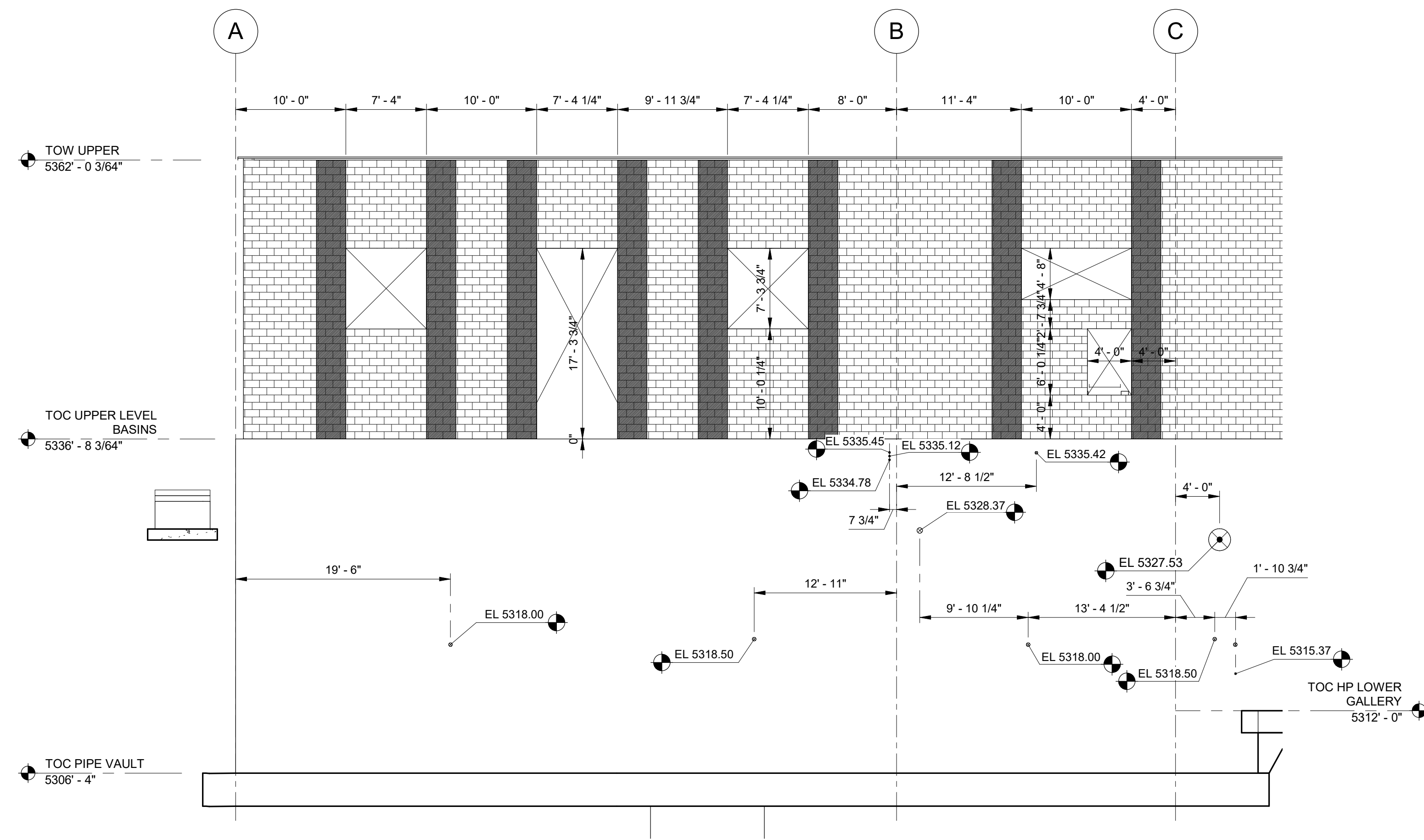
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
 CLEARWELL - SECTIONS 4

90% GMP

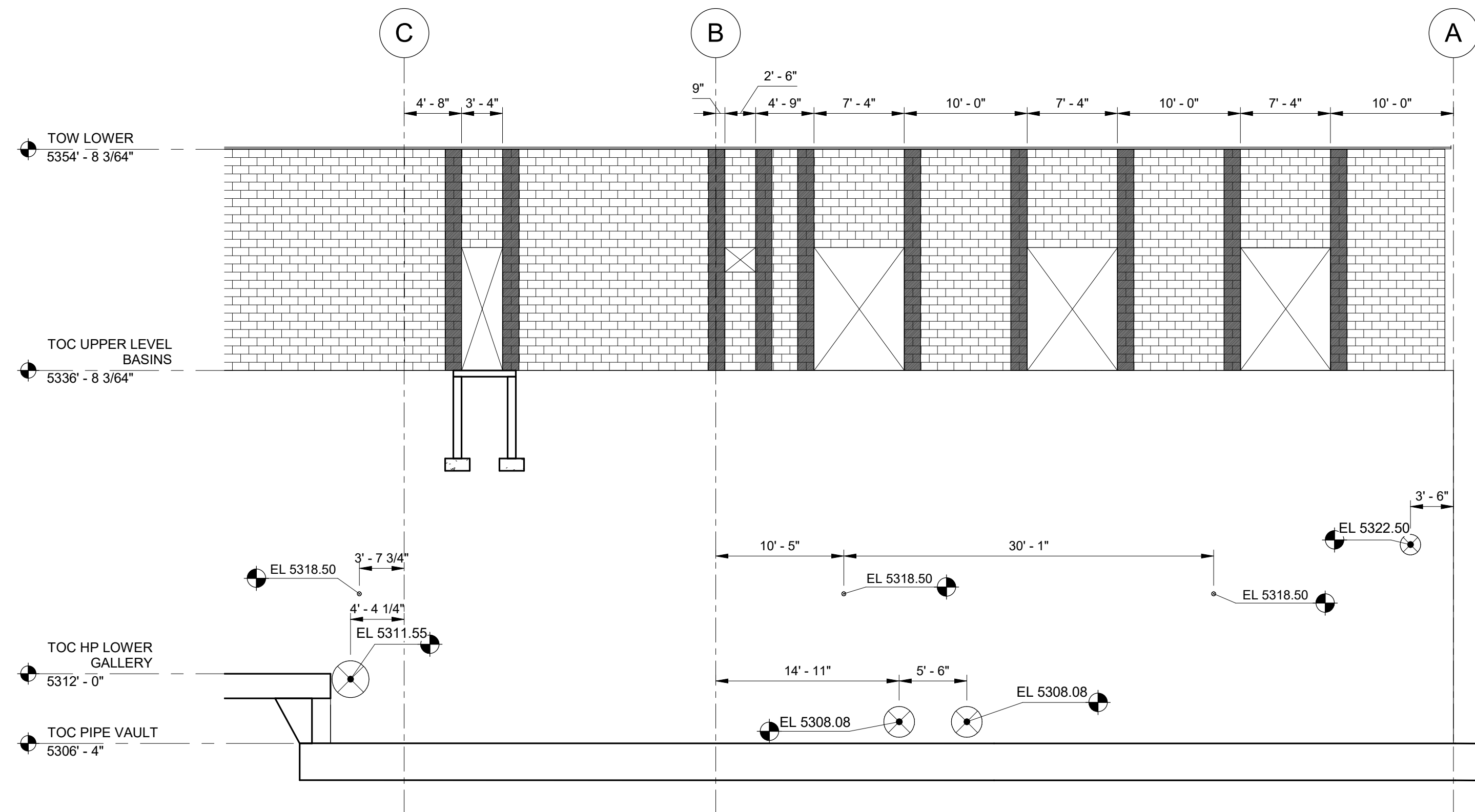
DRAWING NO.  
70-S-12

**REAVELEY**  
Engineers

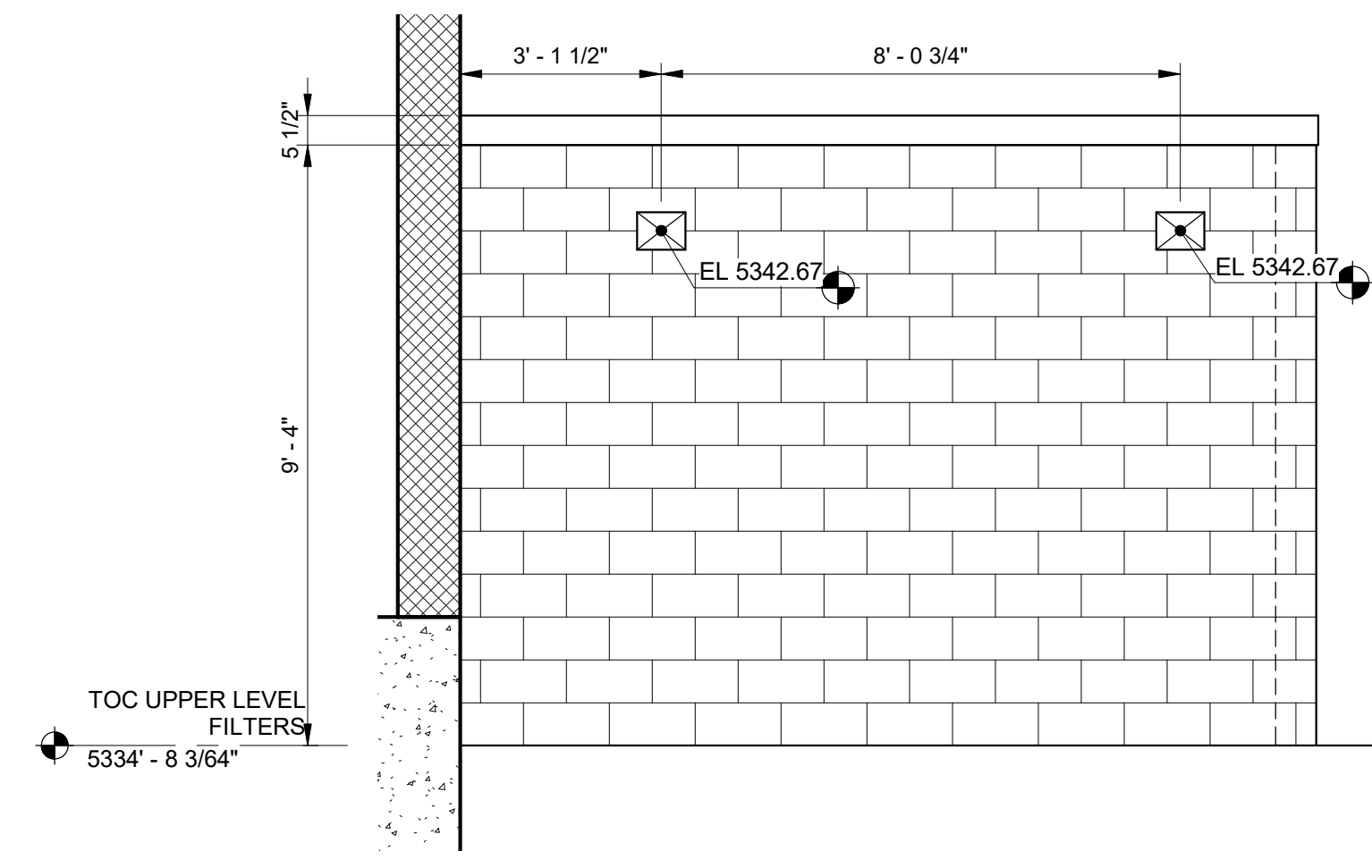
675 East 500 South, Suite 400  
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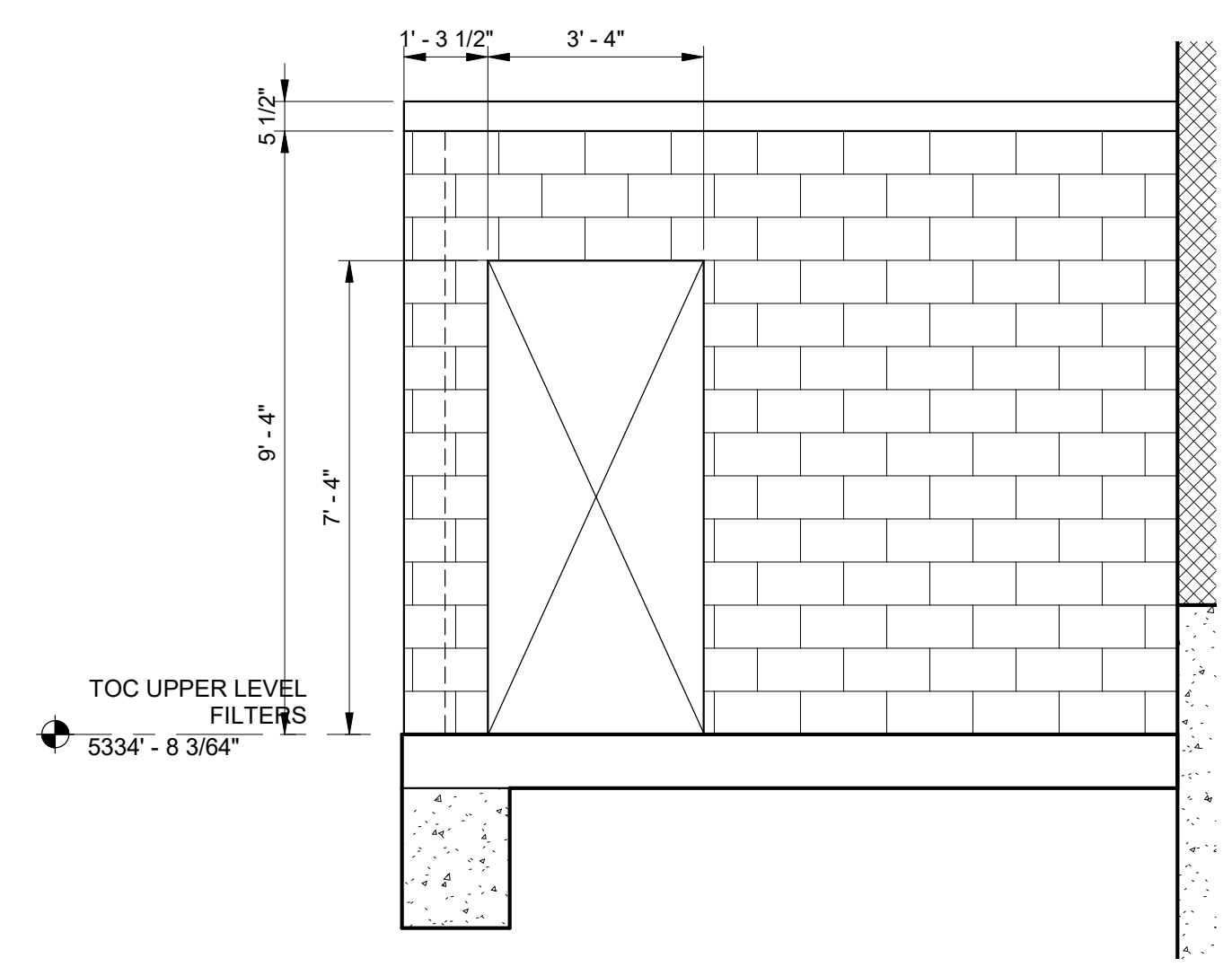
**A CLEARWELL EXTERIOR WALL ELEVATION - SOUTH**  
 35-S-01 SCALE: 1/8" = 1'-0"



**B CLEARWELL EXTERIOR WALL ELEVATION - NORTH**  
 35-S-05 SCALE: 1/8" = 1'-0"



**1 SHELTER-IN-PLACE WEST WALL**  
 70-S-05 SCALE: 3/8" = 1'-0"



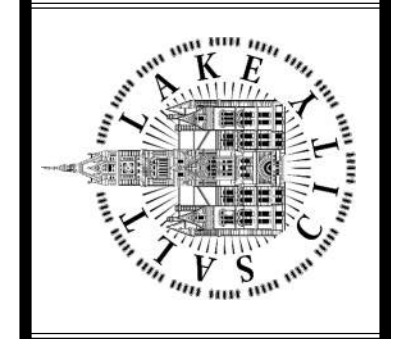
**2 SHELTER-IN-PLACE NORTH WALL**  
 70-S-05 SCALE: 3/8" = 1'-0"

**REAVELEY**  
 Engineers

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DESIGNED BY: C.HAWKES	SCALE:
DRAWN BY: S.SHEPHERD	VERIFY SCALE
CHECKED BY: J.HARPER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - ELEVATIONS**

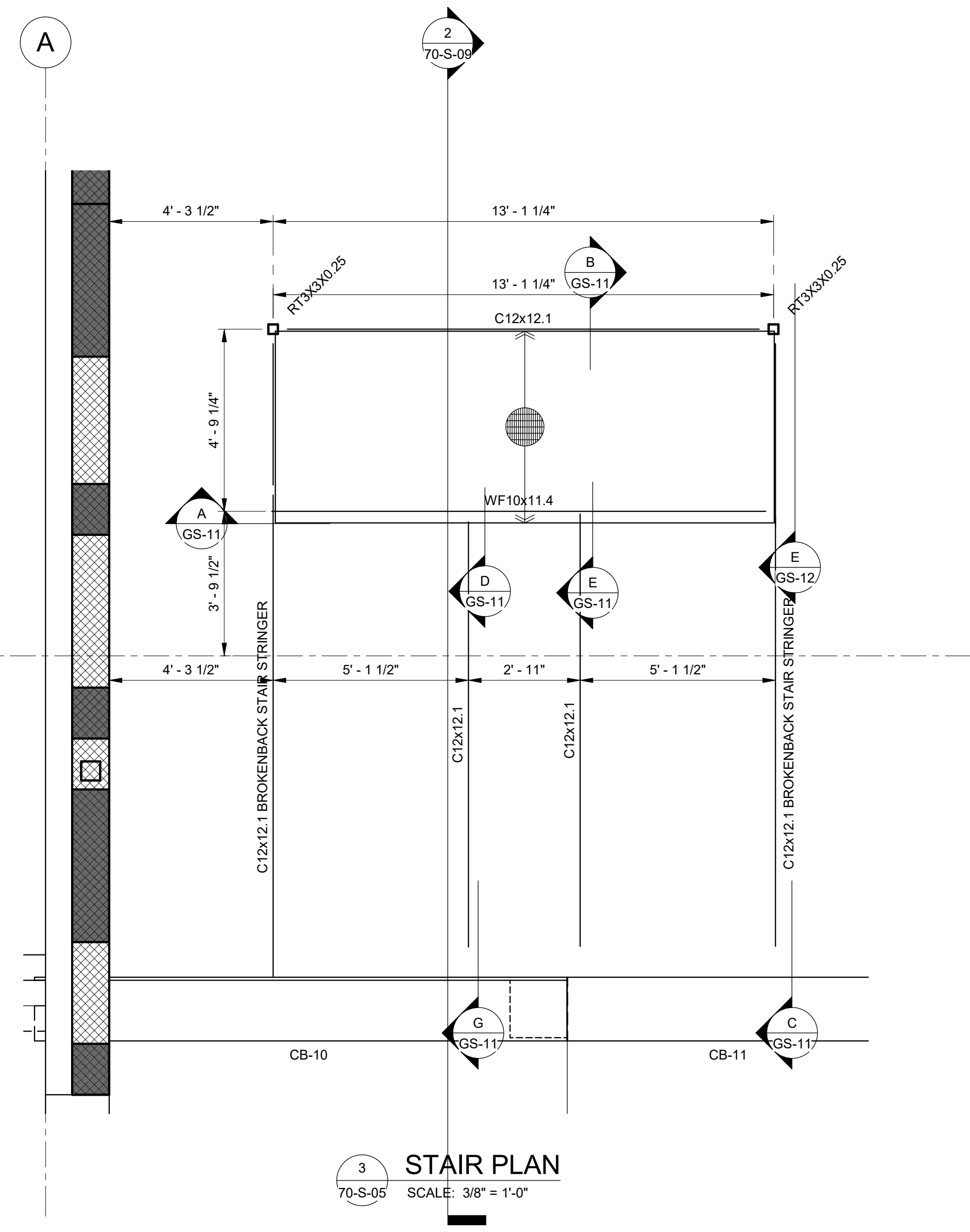
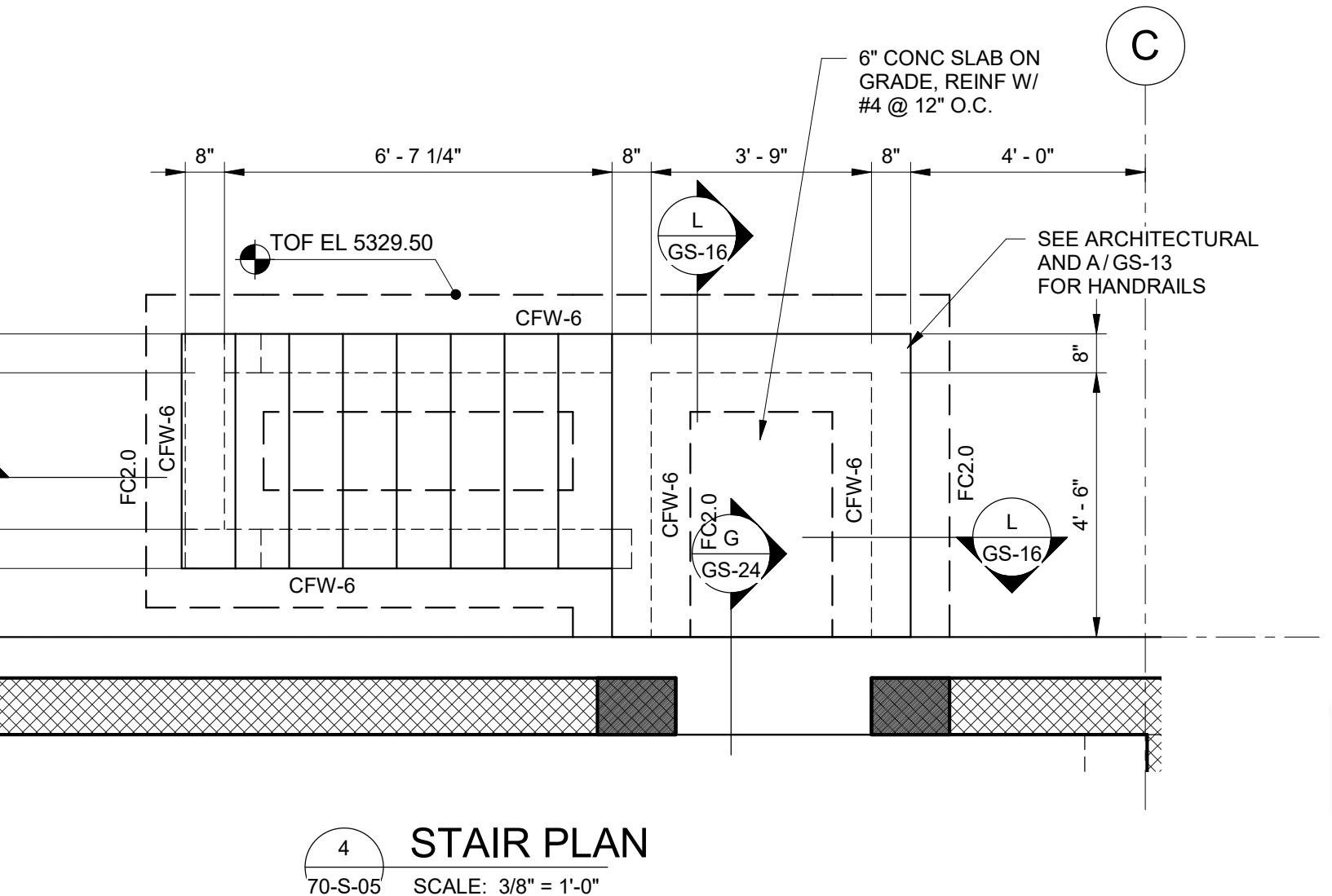
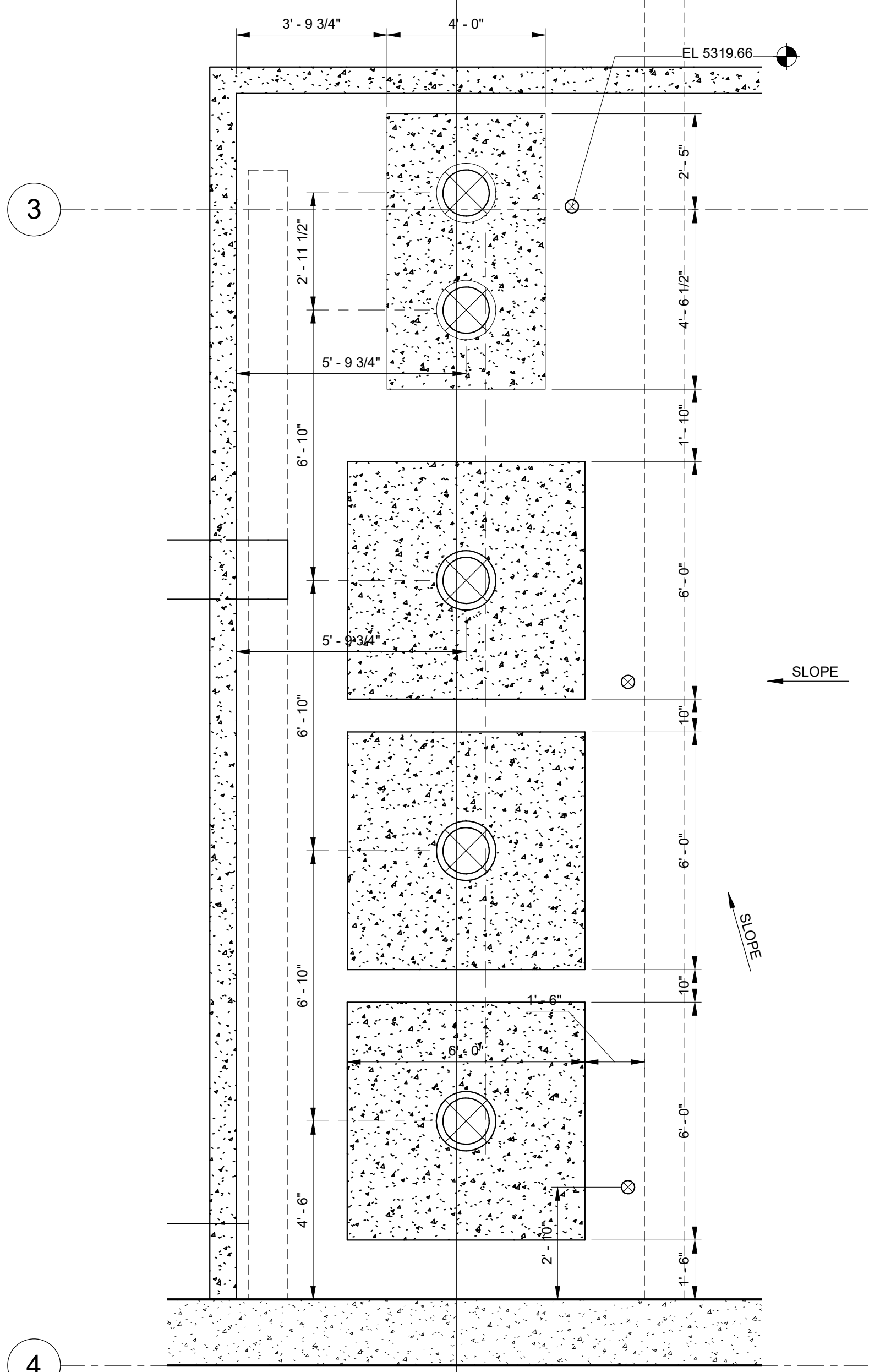
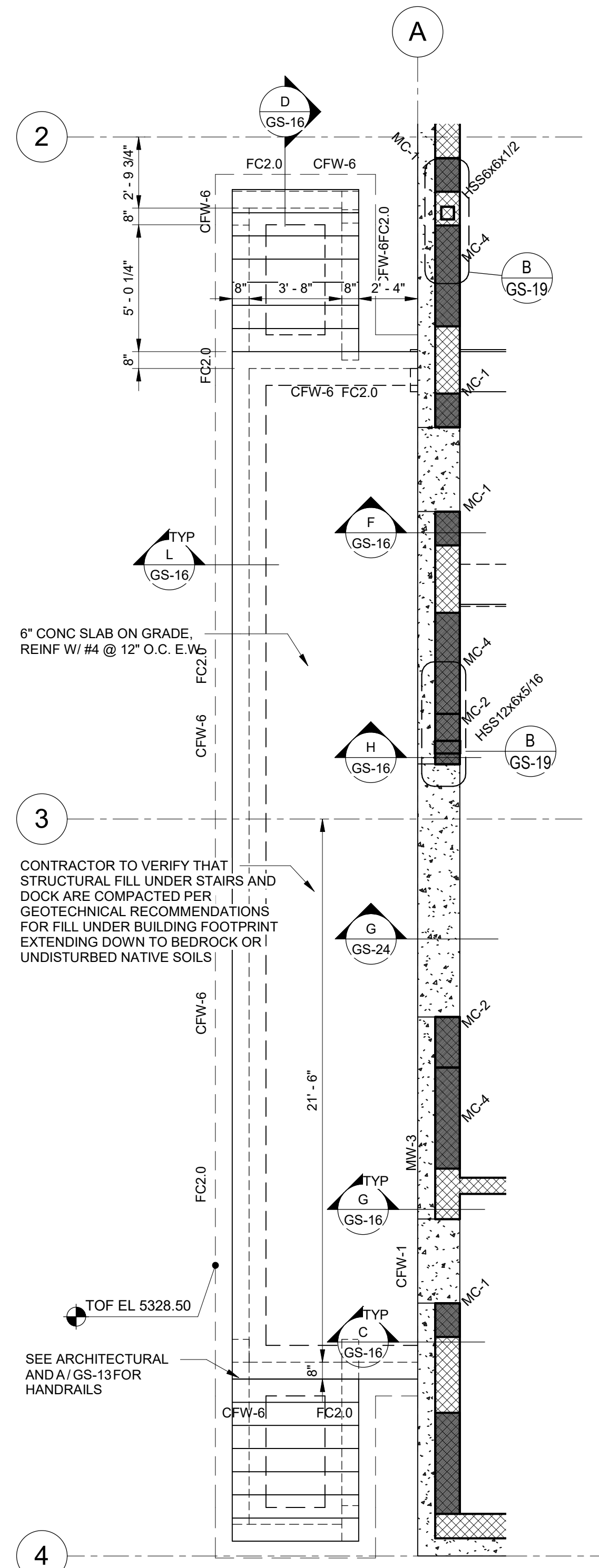


**90% GMP**

DRAWING NO.  
**70-S-13**



Plot Date: 6/13/2024 9:36:00 AM Path: R:\M\_360\153020 - City Creek WTP\153020-S-3570V21.rvt



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - ENLARGED PLANS 1**

DESIGNED BY: C.HAWKES  
DRAWN BY: S.SHEPHERD  
CHECKED BY: J.HARPER  
APPROVED BY: C.PRICE  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		

MADE BY: \_\_\_\_\_  
AUTH BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

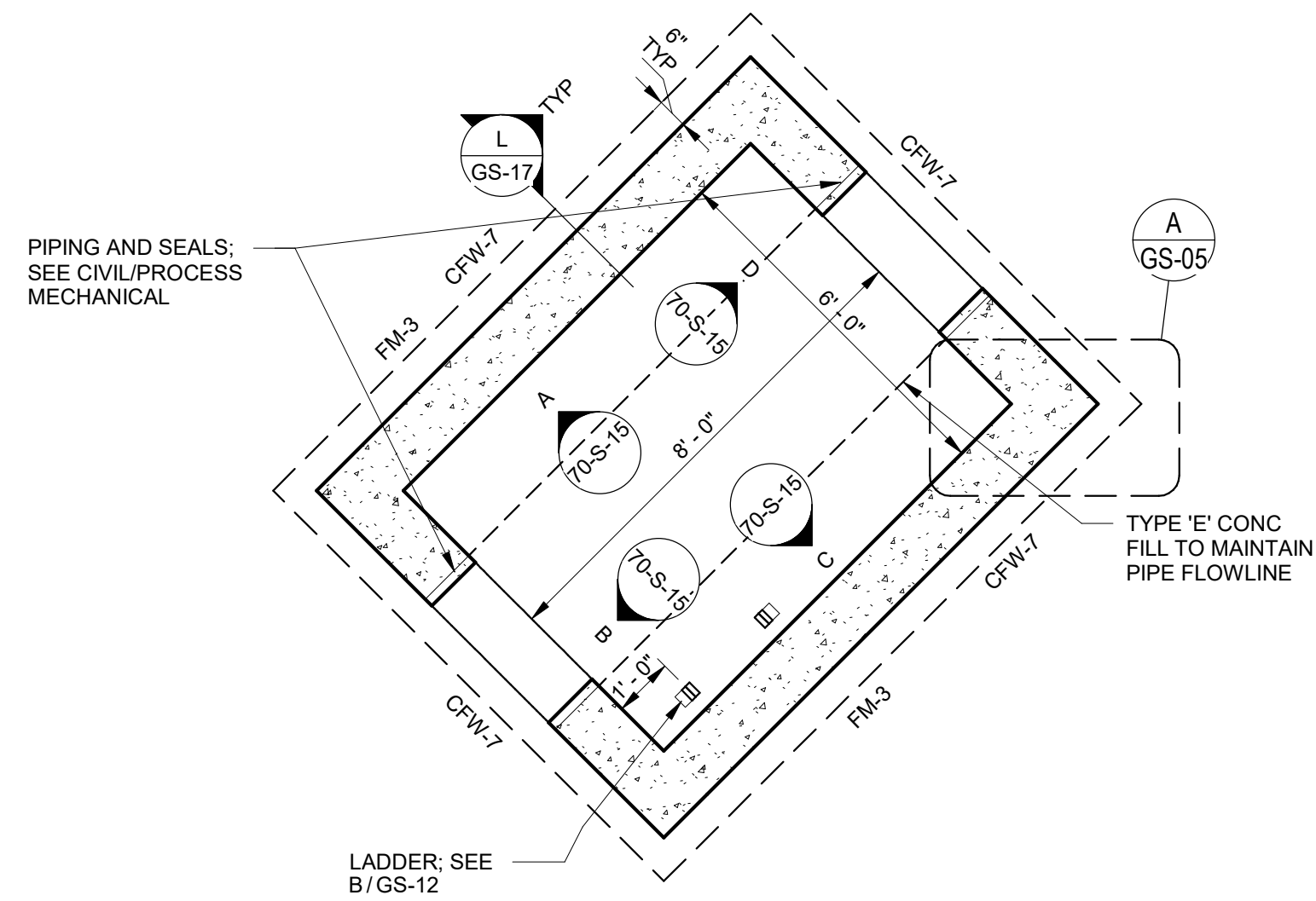
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

90% GMP

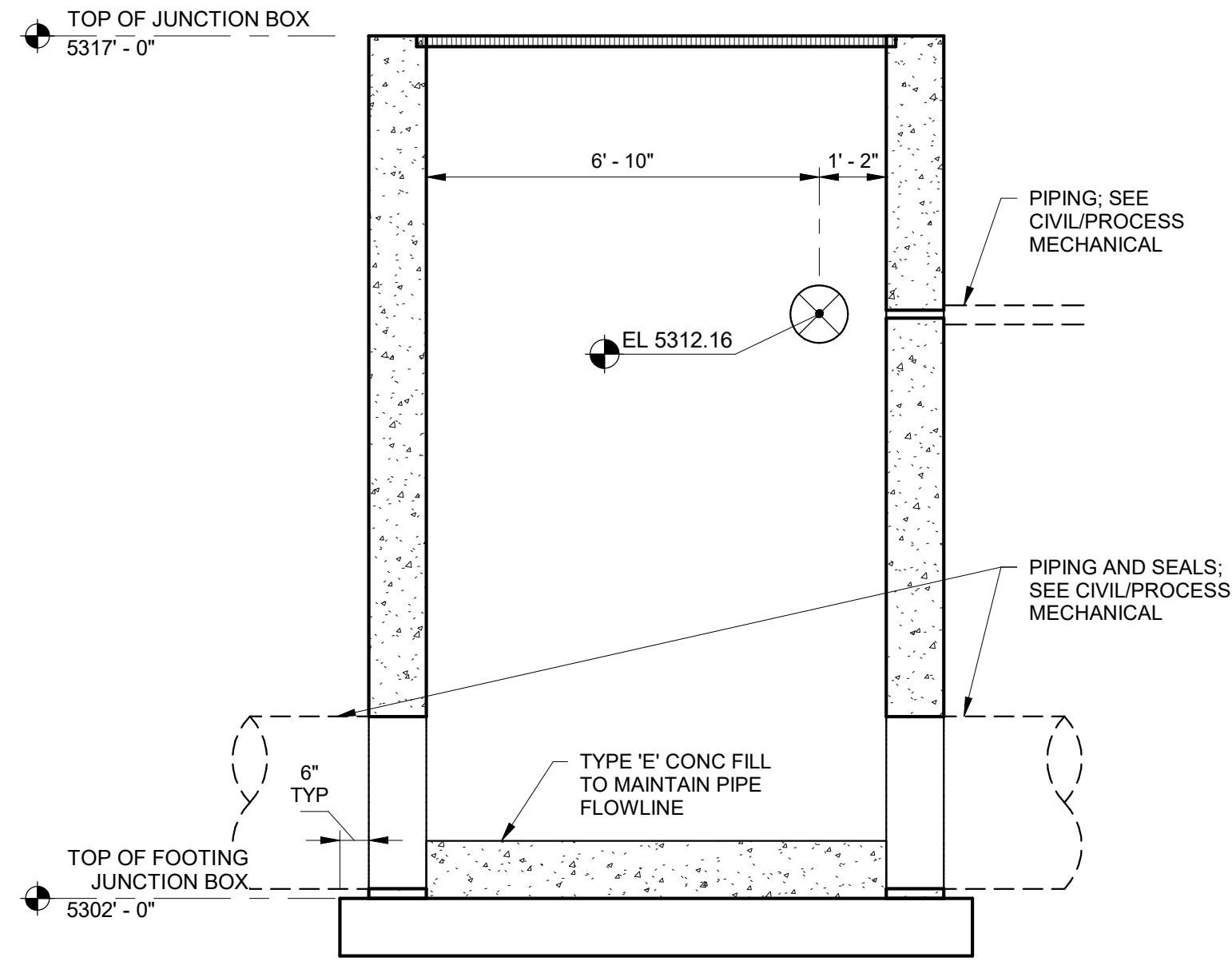
DRAWING NO.  
**70-S-14**

**REAVELEY**  
Engineers

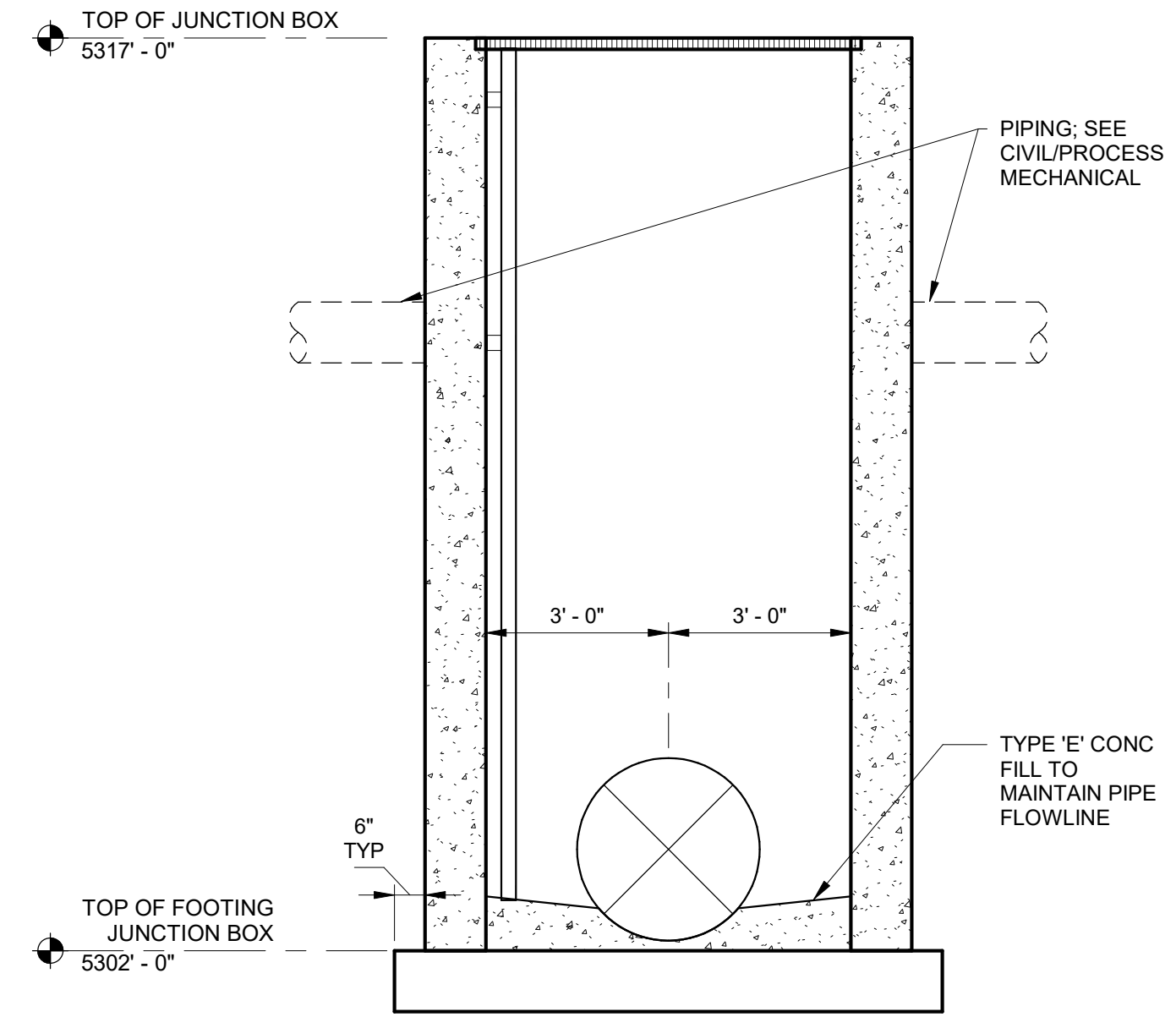
675 East 500 South, Suite 400  
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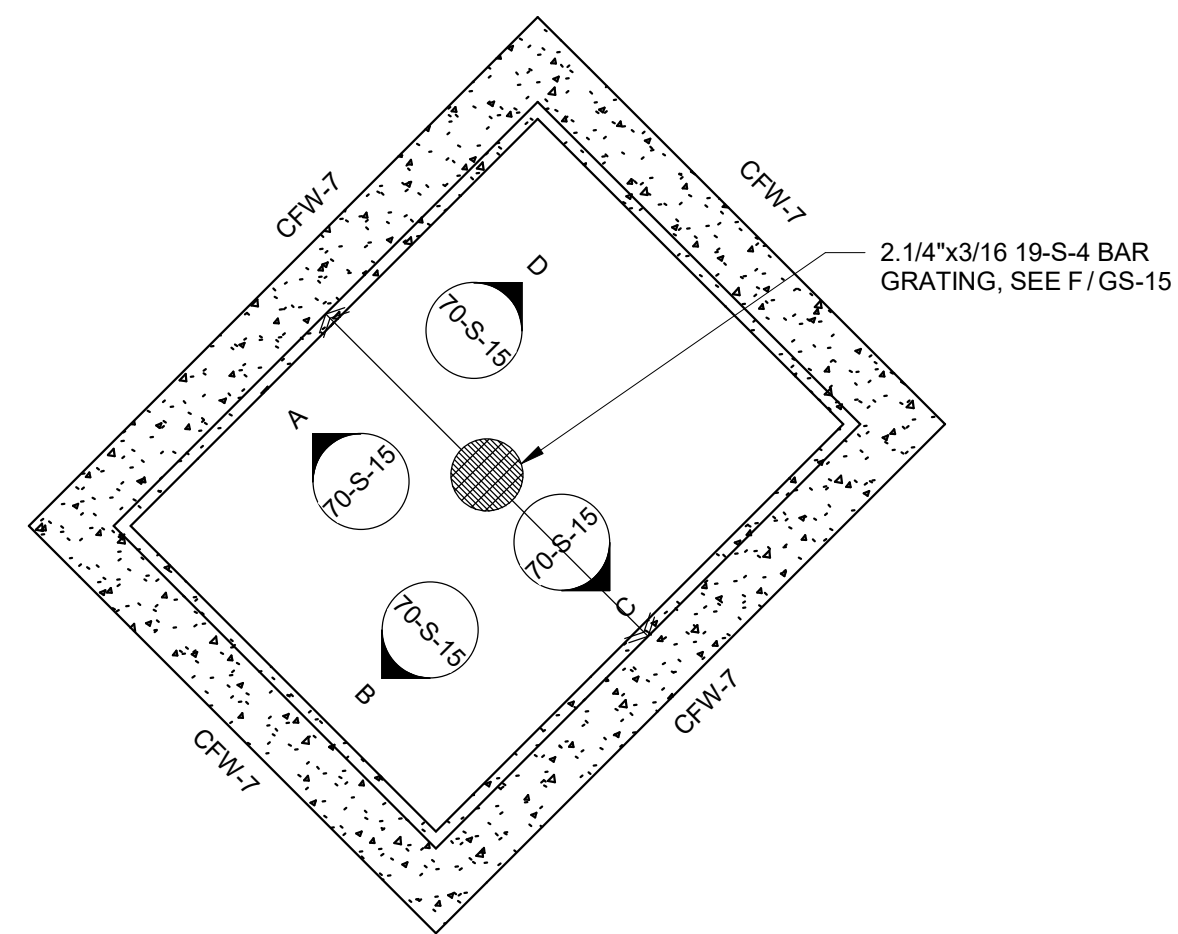
**FOOTING AND FOUNDATION PLAN - JUNCTION BOX**  
SCALE: 3/8" = 1'-0"



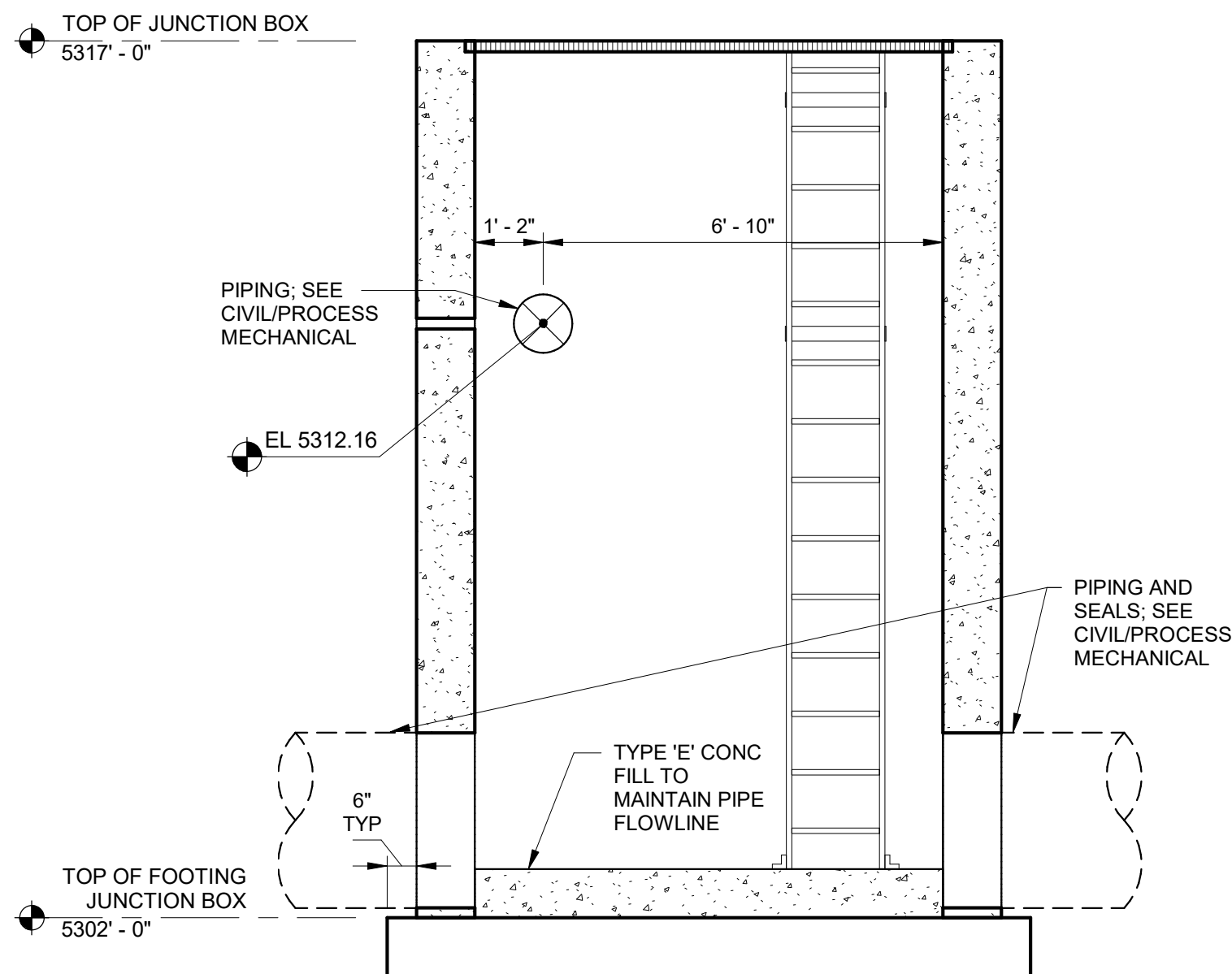
**A SOUTH ELEVATION**  
70-S-15 SCALE: 3/8" = 1'-0"



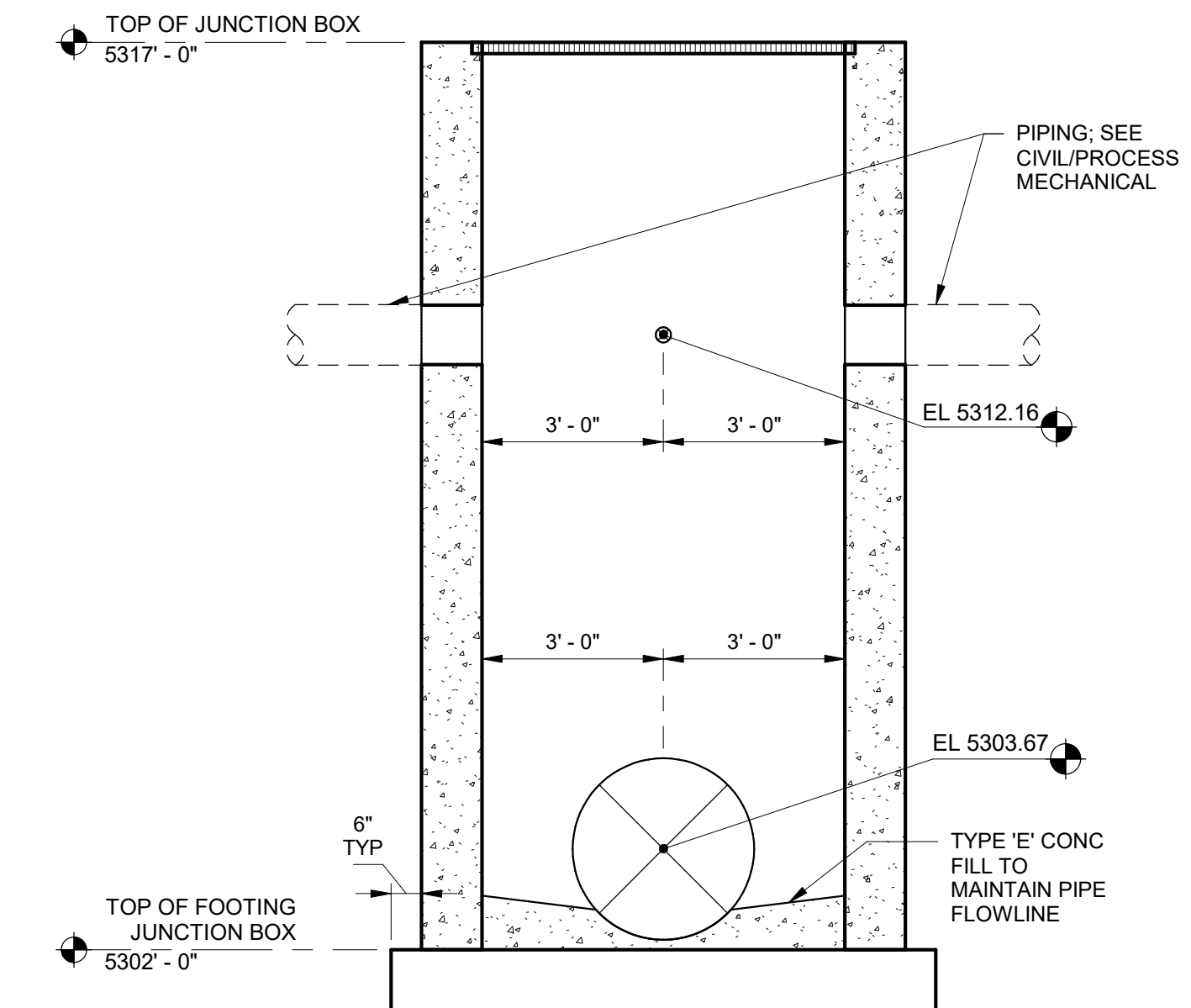
**B EAST ELEVATION**  
70-S-15 SCALE: 3/8" = 1'-0"



**TOP OF JUNCTION BOX**  
SCALE: 3/8" = 1'-0"



**C NORTH ELEVATION**  
70-S-15 SCALE: 3/8" = 1'-0"



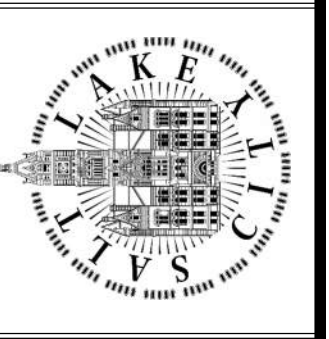
**D WEST ELEVATION**  
70-S-15 SCALE: 3/8" = 1'-0"



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DESIGNED BY: C.HAWKES	AUTH BY: CP	MADE BY: CH	NO. 0	DATE: 06/14/24	ISSUED FOR: GUARANTEE (MAXIMUM PRICE/GMP)	REVISIONS	SCALE:
DRAWN BY: S.SHEPHERD	BY: CP	BY: CH					VERIFY SCALE
CHECKED BY: J.HARPER	CP	CH					BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: C.PRICE							
DATE: JUNE 2024							
EWO NO: --							
ACCOUNT NO: 512260079							

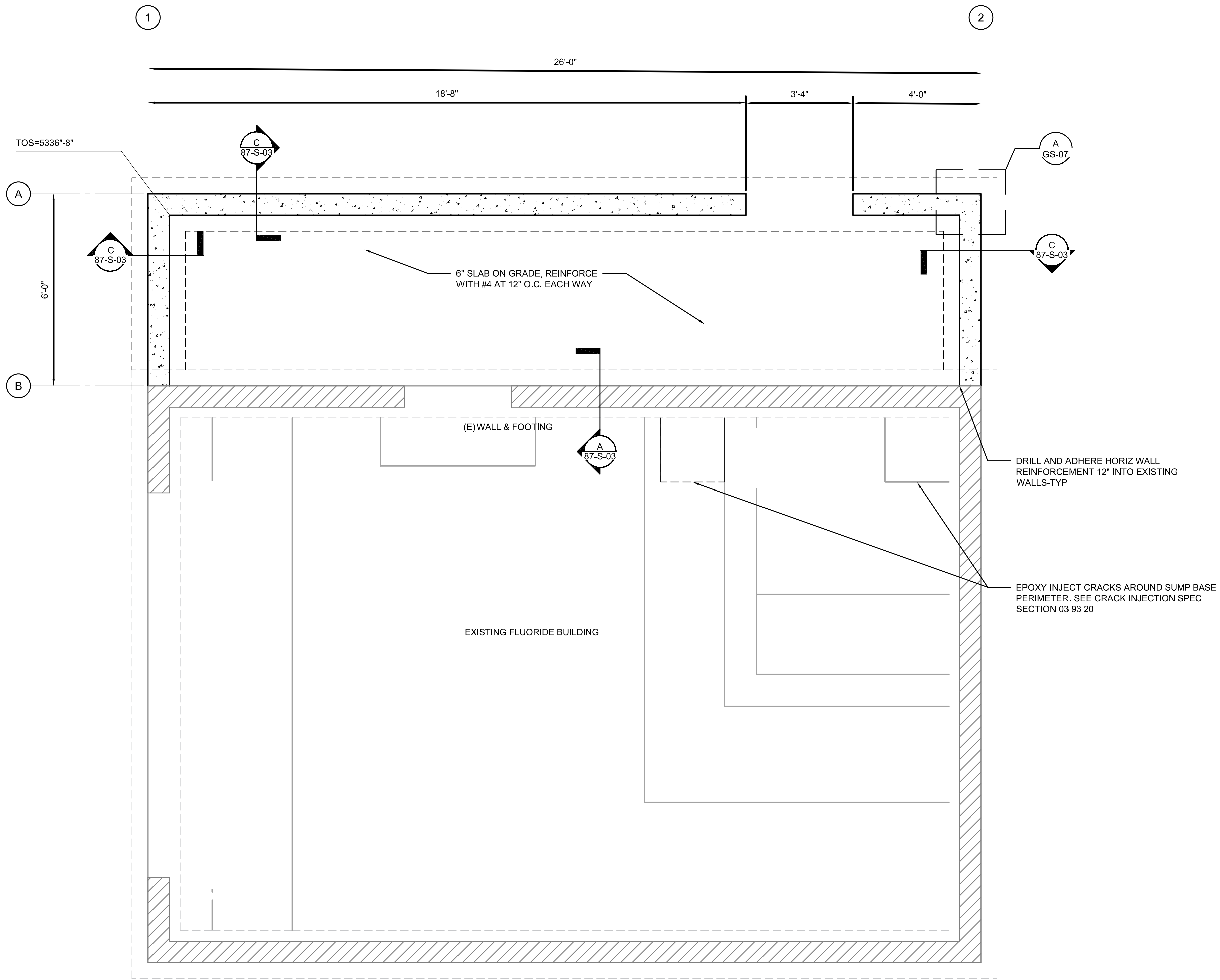
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - ENLARGED**  
**PLANS 2**



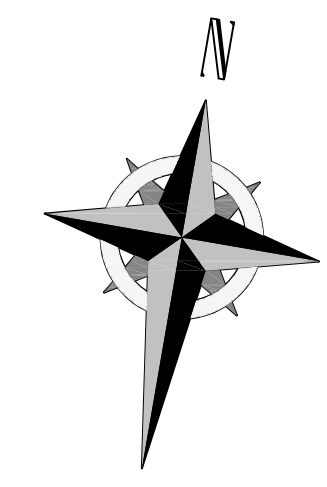
90% GMP

DRAWING NO.  
**70-S-15**

Plot Date: 6/13/2024 9:36:03 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-S-3570V21.rvt



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



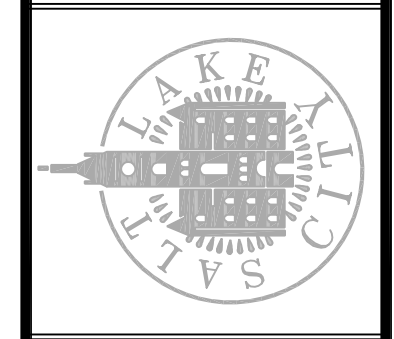
**GENERAL NOTES**

- SEE ARCHITECTURAL, CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE RETAINING AND / OR SITE WALLS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- PROVIDE REINFORCEMENT AT WALL ENDS, INTERSECTIONS AND OPENINGS PER TYPICAL DETAIL A3/S87-S-03.
- DOWEL ALL CONCRETE WALLS TO FOOTING PER TYPICAL DETAIL A1/A87-S-03.
- PROVIDE COMPACTED STRUCTURAL FILL UNDER ALL CONCRETE FOOTINGS PER TYPICAL DETAIL H/GS-07.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DETAILING, FABRICATING, ERECTING OR INSTALLING ANY STRUCTURAL ELEMENT. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM IN A TIMELY MANNER SUCH THAT WORK WILL NOT BE DELAYED.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING OF EXISTING STRUCTURE DURING CONSTRUCTION.

DESIGNED BY: C.HAWKES  
 DRAWN BY: P.DELGADO  
 CHECKED BY: C.PRICE  
 DATE: JUNE 2024  
 EVO NO.:  
 ACCOUNT NO.: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	CH	CP

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - FLOOR PLAN**



**90% GMP**

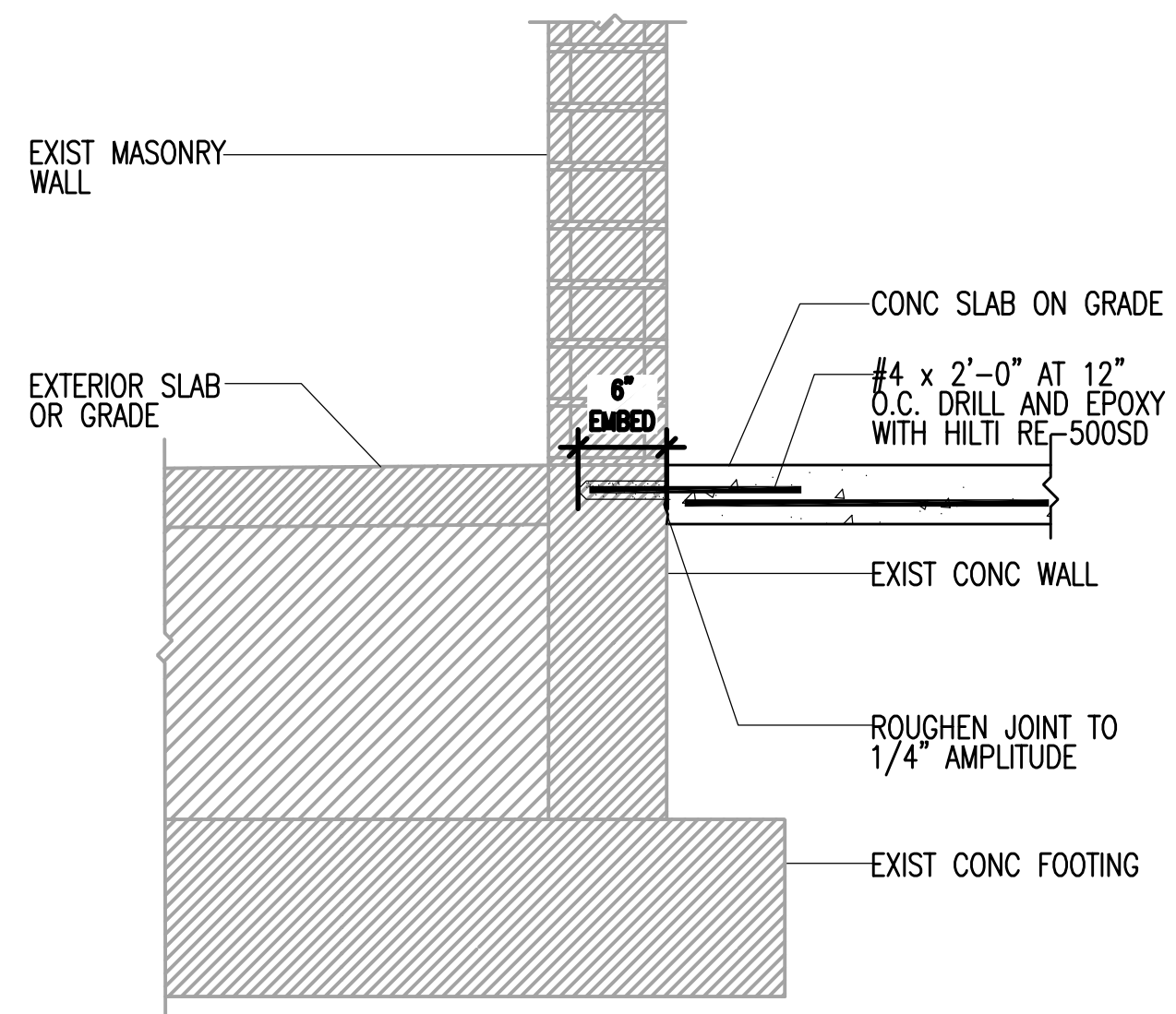
DRAWING NO.  
**87-S-01**



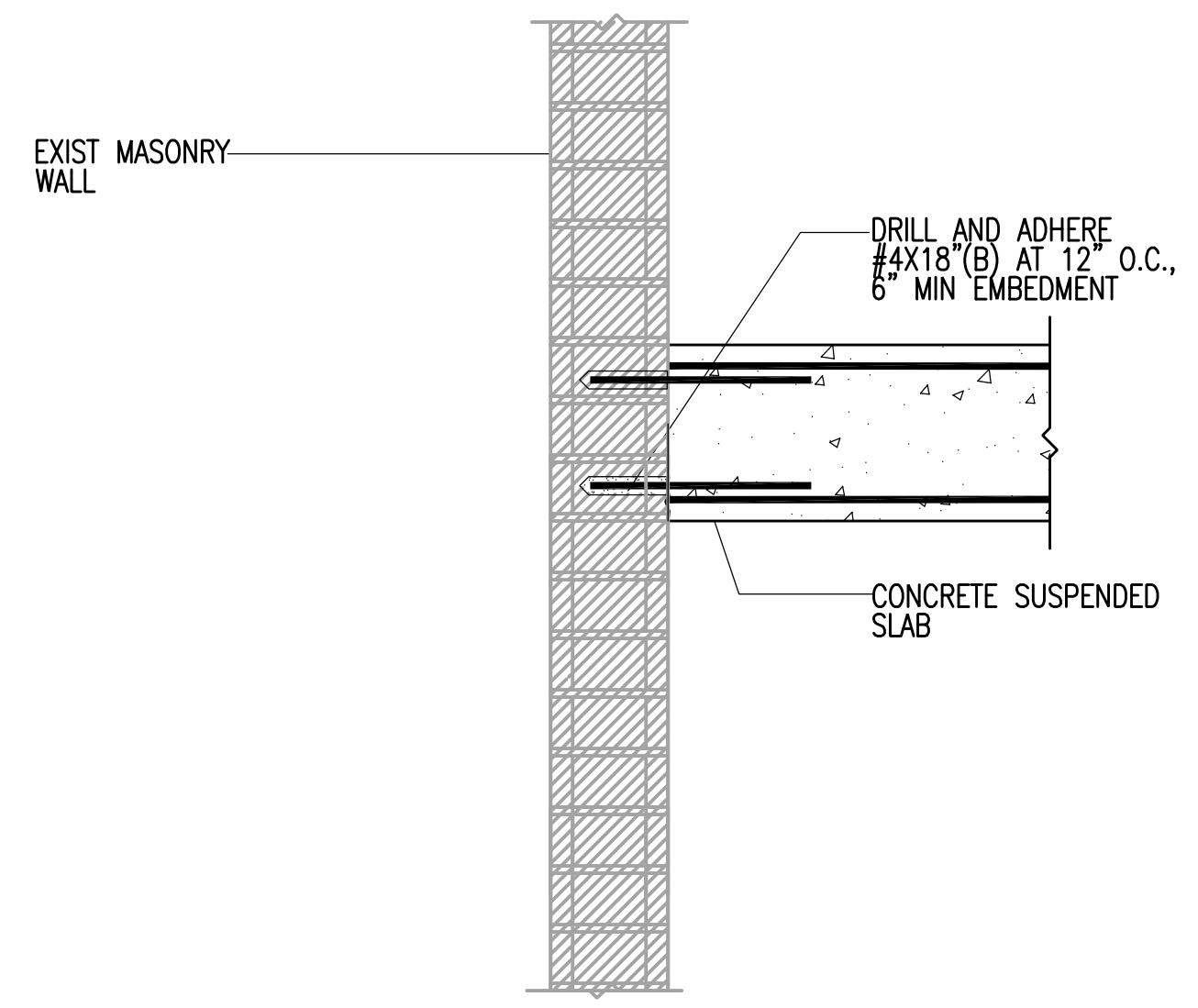
675 East 500 South, Suite 400  
 Salt Lake City, UT 84102  
 P 801 486 3883  
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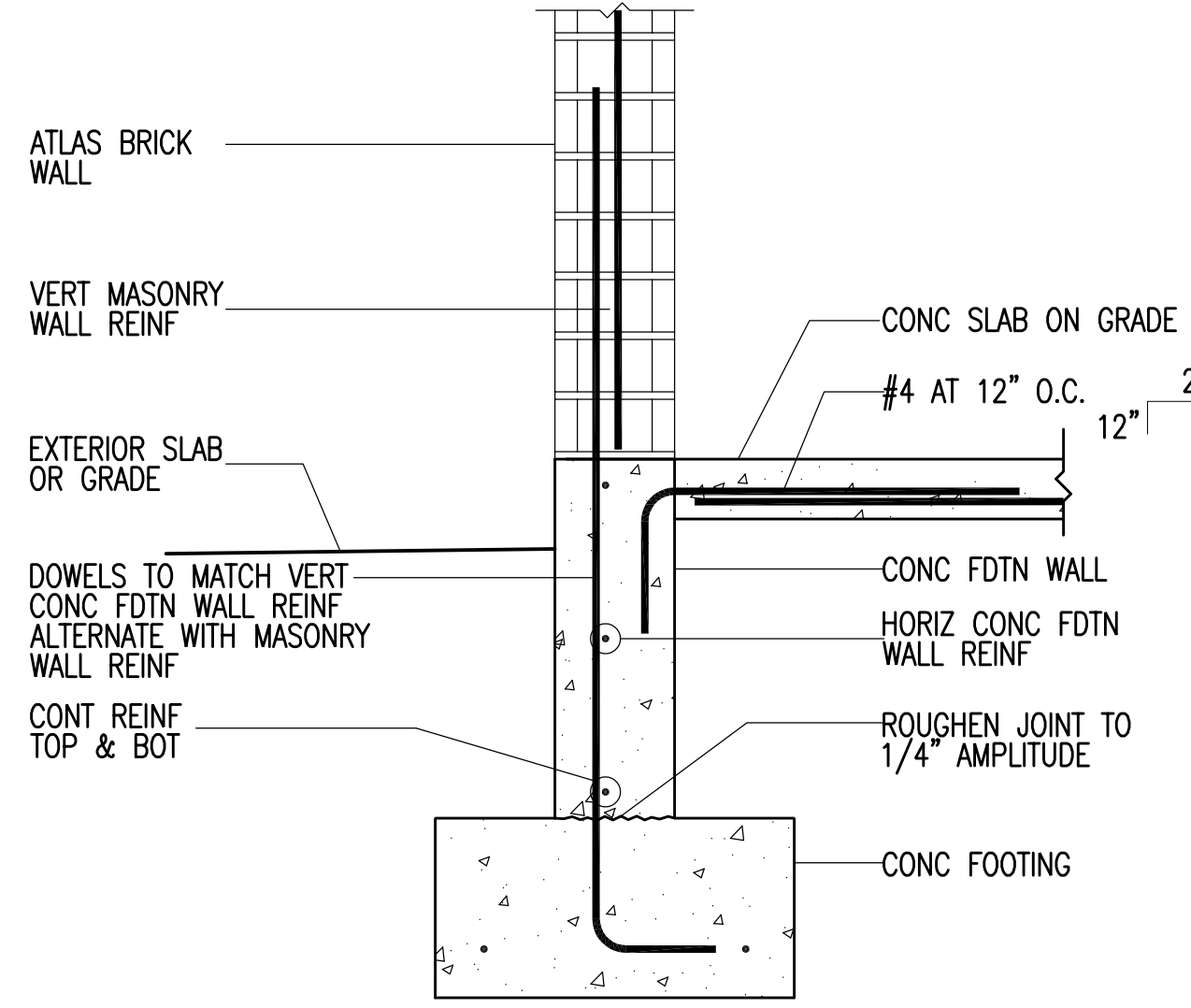
C:\users\sshepherd\bcpx\43522235\87-S-03.dwg Jun 13, 2024 - 9:15am



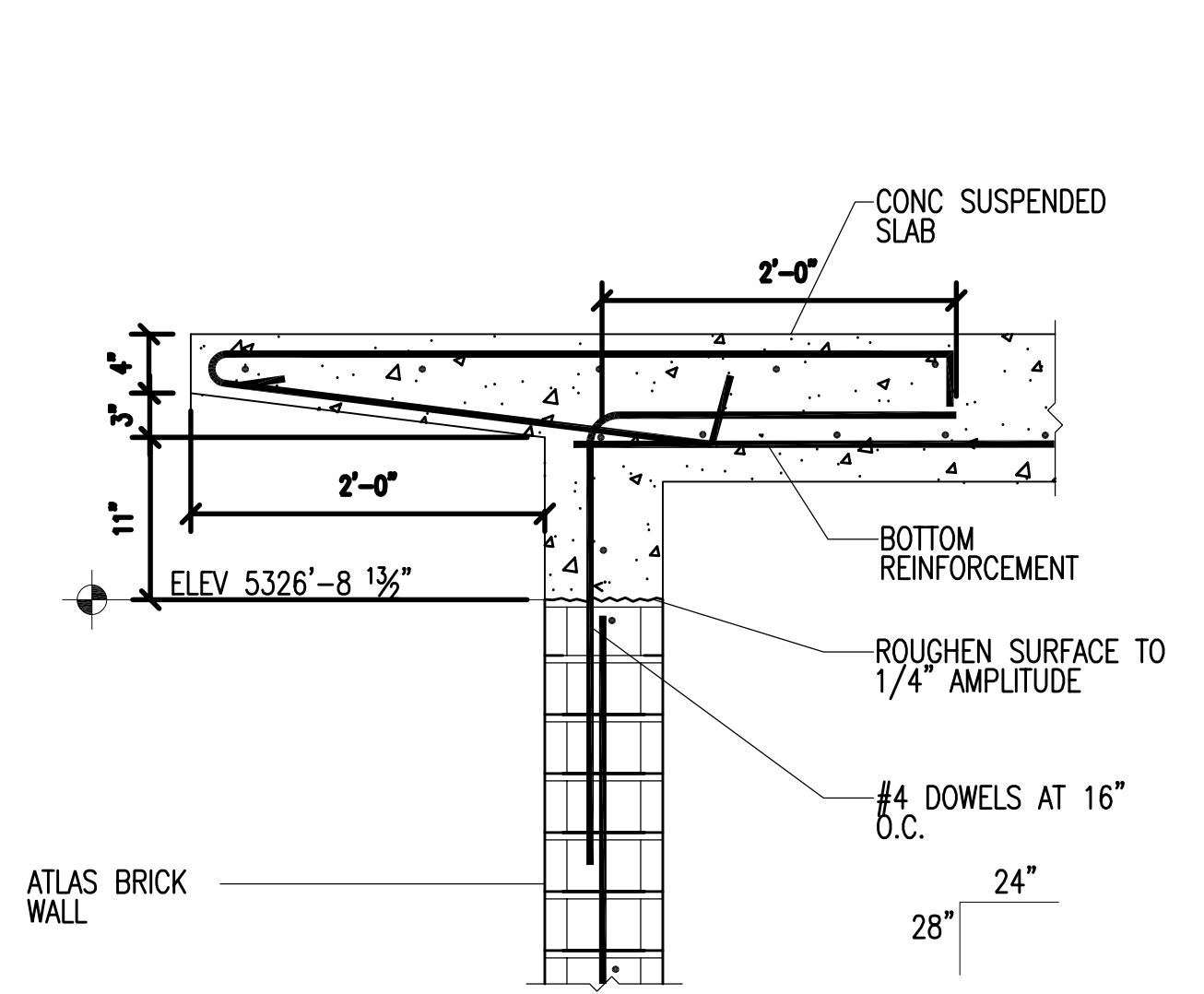
**A** NEW SLAB AT EXISTING CONC WALL  
87-S-03NO SCALE  
FILENAME



**B** ROOF SLAB TO EXISTING WALL DETAIL  
87-S-03NO SCALE  
FILENAME



**C** MASONRY WALL ON FOUNDATION WALL  
87-S-03NO SCALE  
MNYCFW01



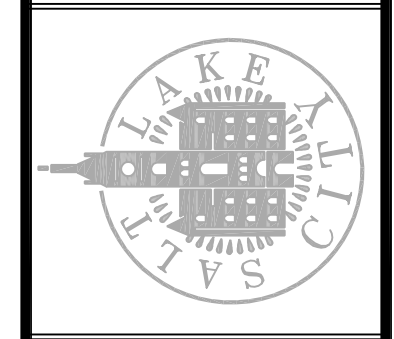
**D** SUSPENDED SLAB TO MASONRY WALL DETAIL  
87-S-03NO SCALE  
FILENAME

DESIGNED BY: C.HAWKES	SCALE:
DRAWN BY: P.DELGADO	
CHECKED BY: C.PRICE	
APPROVED BY: C.PRICE	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	AUTH. BY	MADE BY	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	CP	CH	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**FLUORIDE - DETAILS**



675 East 500 South, Suite 400  
Salt Lake City, UT 84102  
P 801 485 3883  
F 801 485 0911  
www.reaveley.com

**90% GMP**

DRAWING NO.  
**87-S-03**

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

C:\bcpa\1660460\GM-01.dwg Jun 12, 2024 - 1:08pm

VALVES			MECHANICAL PIPE AND FITTINGS			MISCELLANEOUS DEVICES			
3D PLAN OR ELEVATION	SCHEMATIC OR 2D	VALVE TYPE	3D PLAN OR ELEVATION	SCHEMATIC OR 2D	VALVE TYPE	2D SINGLE LINE	2D DOUBLE LINE	3D DOUBLE LINE	
		THREE WAY VALVE			GAUGE OR ROOT VALVE				FLANGED JOINT
		GATE VALVE (FLANGED)			KNIFE GATE VALVE				PLAIN OR GROOVED END MECHANICAL COUPLING
		GATE VALVE (THREADED)			FLAP GATE				PUSH ON OR BALL AND SOCKET JOINT
		PLUG VALVE (GEAR OPERATOR)			BALANCING COCK				MECHANICAL JOINT
		PLUG VALVE (LEVER HANDLE)			CIRCUIT SETTER				WELDED JOINT
		BALL VALVE (THREADED)			THERMOSTATICALLY CONTROLLED VALVE				GROOVED END ADAPTER FLANGE x FLANGE
		BALL VALVE (FLANGED)			PRESSURE AND VACUUM RELIEF VALVE				UNION
		BUTTERFLY VALVE (LUGGED/WAFER)			VACUUM RELIEF VALVE				SLEEVE TYPE MECHANICAL COUPLING
		BUTTERFLY VALVE (AWWA W/ HANDWHEEL ACTUATOR)			VACUUM RELIEF VALVE				RESTRAINED SLEEVE TYPE MECHANICAL COUPLING
		GLOBE VALVE (FLANGED)			PRESSURE RELIEF VALVE				FLANGED COUPLING ADAPTER
		GLOBE VALVE (THREADED)			IN-LINE, SPRING LOADED RELIEF VALVE				RESTRAINED FLANGED COUPLING ADAPTER
		DIAPHRAGM VALVE (FLANGED)			IN-LINE, SPRING LOADED RELIEF VALVE				ELASTOMER AND FABRIC EXPANSION JOINT
		DIAPHRAGM VALVE (THREADED)			PRESSURE REGULATING VALVE				EXPANSION JOINT (SEE SPECS FOR TYPE)
		CHECK VALVE			BACK PRESSURE REGULATING VALVE				FLEXIBLE METAL HOSE
		PUMP DISCHARGE VALVE			SOLENOID VALVE				ELBOW (PLAN)
		DOUBLE LEAF CHECK VALVE			DIAPHRAGM OPERATED VALVE				ELBOW UP
		ANGLE VALVE			DIAPHRAGM OPERATED VALVE				ELBOW DOWN
		FLOAT VALVE			PRESSURE BALANCE OPERATED VALVE				TEE (PLAN)
		PINCH VALVE			MOTOR OPERATED VALVE				TEE UP
		FUSIBLE LINK VALVE			PISTON OPERATED VALVE				TEE DOWN
		NEEDLE VALVE			CHLORINE INSTITUTE CONTAINER VALVE				LATERAL (PLAN)
		BALL CHECK VALVE			MUD VALVE				LATERAL UP
					WALL HYDRANT				LATERAL DOWN
					TELESCOPING VALVE				CONCENTRIC REDUCER
									ECCENTRIC REDUCER
									EQUIPMENT CONNECTION FITTING
									BLIND FLANGE OR CAP

SEE SHEET G-04 FOR PROCESS PIPE DESIGNATIONS

- UTILITY STATION (LETTER, IF ANY, DESIGNATES TYPE)
- HOSE RACK
- FLOOR DRAIN
- CLEANOUT; X=DESIGNATION IF ANY
- RECOMMENDED MAIN ANCHOR POINT WITH ALLOWABLE FORCE ON STRUCTURE
- PIPE ANCHOR
- SEAL WATER CONTROL UNIT
- QUICK COUPLING
- IN LINE PRESSURE SENSOR
- XX INSTRUMENT
  - DE DENSITY ELEMENT
  - FE FLOW ELEMENT
  - LE LEVEL ELEMENT
  - PE PRESSURE ELEMENT
  - PI PRESSURE INDICATOR (GAUGE)
  - TE TEMPERATURE ELEMENT
  - TI TEMPERATURE INDICATOR
- CALIBRATION TUBE
- PULSATION DAMPENER
- AIR RELIEF VALVE

DESIGNED BY: AJONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

MADE BY: AJ  
 AUTH BY: JH

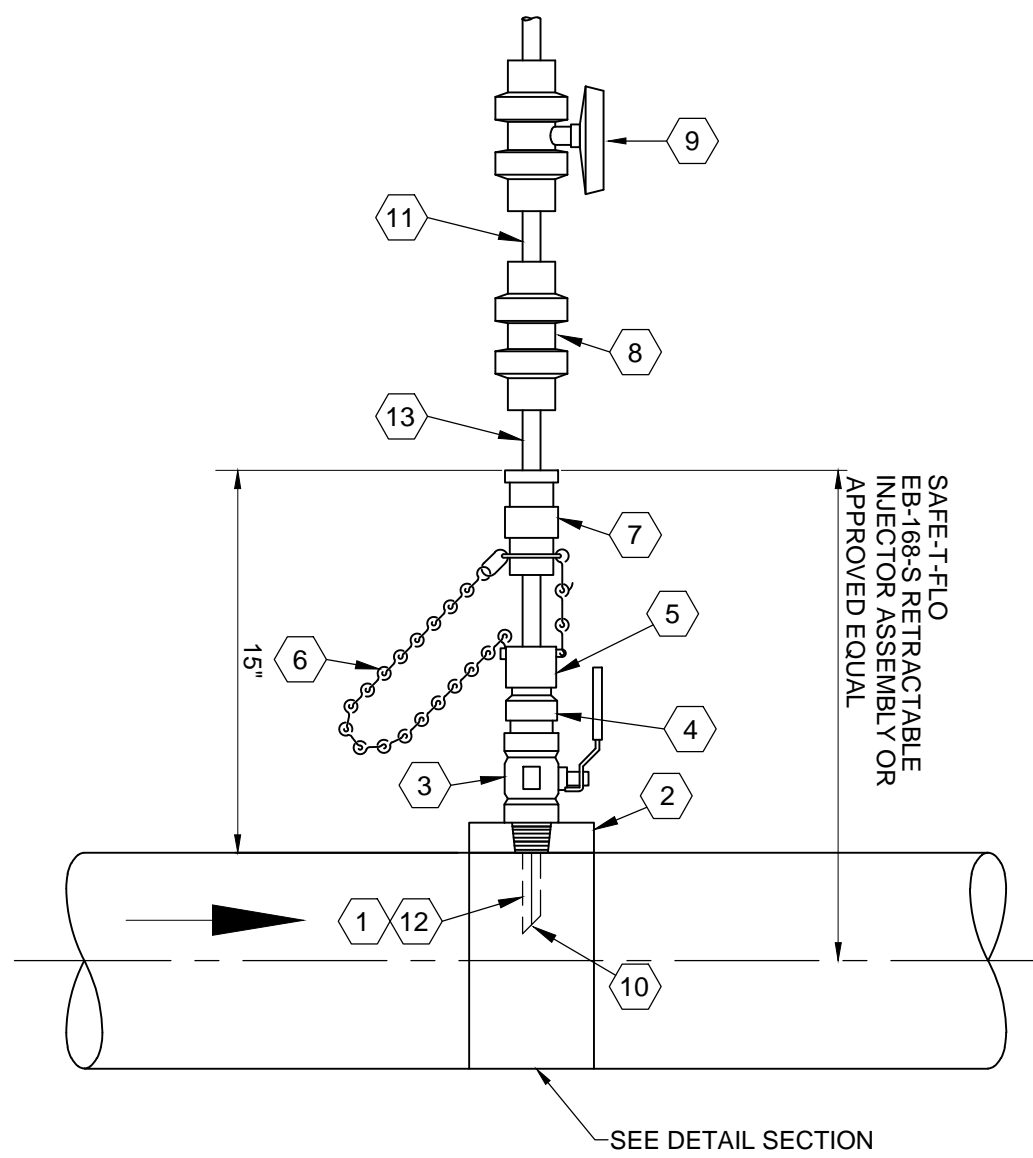
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE

**GENERAL NOTES & SYMBOLS**

90% GMP

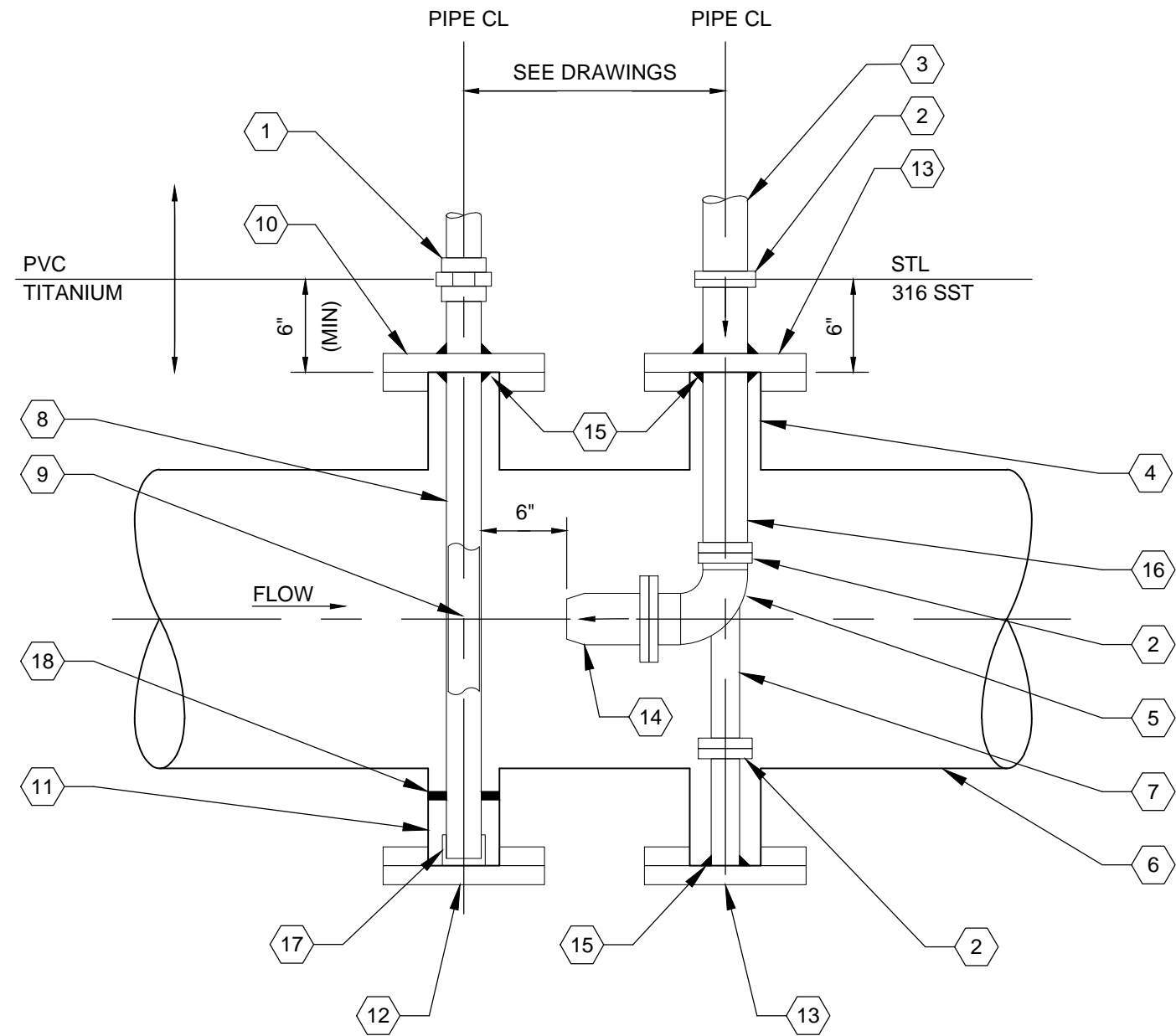
DRAWING NO. GM-01

**Brown and Caldwell**



**INJECTION QUILL DETAIL**  
M0000 NTS

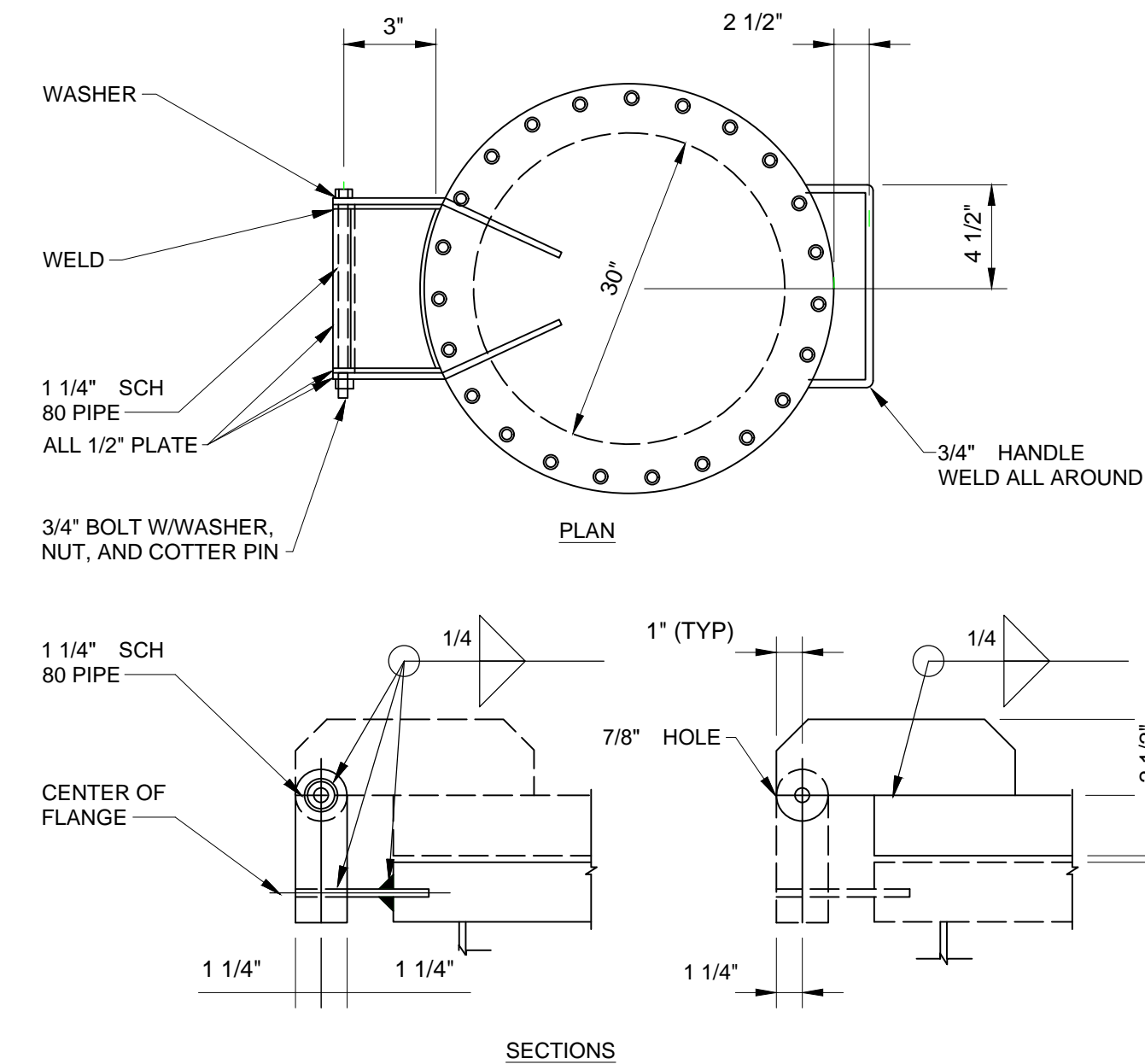
- KEY NOTES:**
1. TITANIUM 1/2" SOLUTION TUBE INJECTION QUILL "STINGER"
  2. PROVIDE WELDOLET. FLUORIDE INJECTION QUILL SHALL ENTER PIPE AT 45 DEGREE ANGLE FROM THE BOTTOM OF THE PIPE. ALL OTHER QUILLS SHALL ENTER PIPE ON TOP
  3. BALL VALVE SIZED TO PASS SOLUTION TUBE ON INJECTION QUILL
  4. SOLUTION TUBE/INJECTION QUILL ADAPTER
  5. PACKING NUT
  6. SST LIMIT CHAIN AND RESTRAINT CHAIN WITH RESTRAINT HOOK
  7. 1/2" NPT INLET CONNECTION WITH BALL CHECK VALVE
  8. UNION
  9. ISOLATION BALL VALVE. FIELD LOCATE ALLOW VALVE ACCESS FROM 4 FEET ABOVE FLOOR
  10. VITON SAF-T-SEAL TIP. ORIENT TIP AS SHOWN
  11. MATCH PIPE MATERIAL SPECIFIC TO CHEMICAL SERVICE
  12. PROVIDE SOLUTION TUBE/INJECTION QUILL SUCH THAT PENETRATION OF STINGER TIP IS 1/3 INTO MAIN PIPE OR PER QUILL MANUFACTURER'S RECOMMENDATION
  13. PROVIDE MINIMUM OF 1' TUBING TO ALLOW REMOVAL OF INJECTION QUILL.



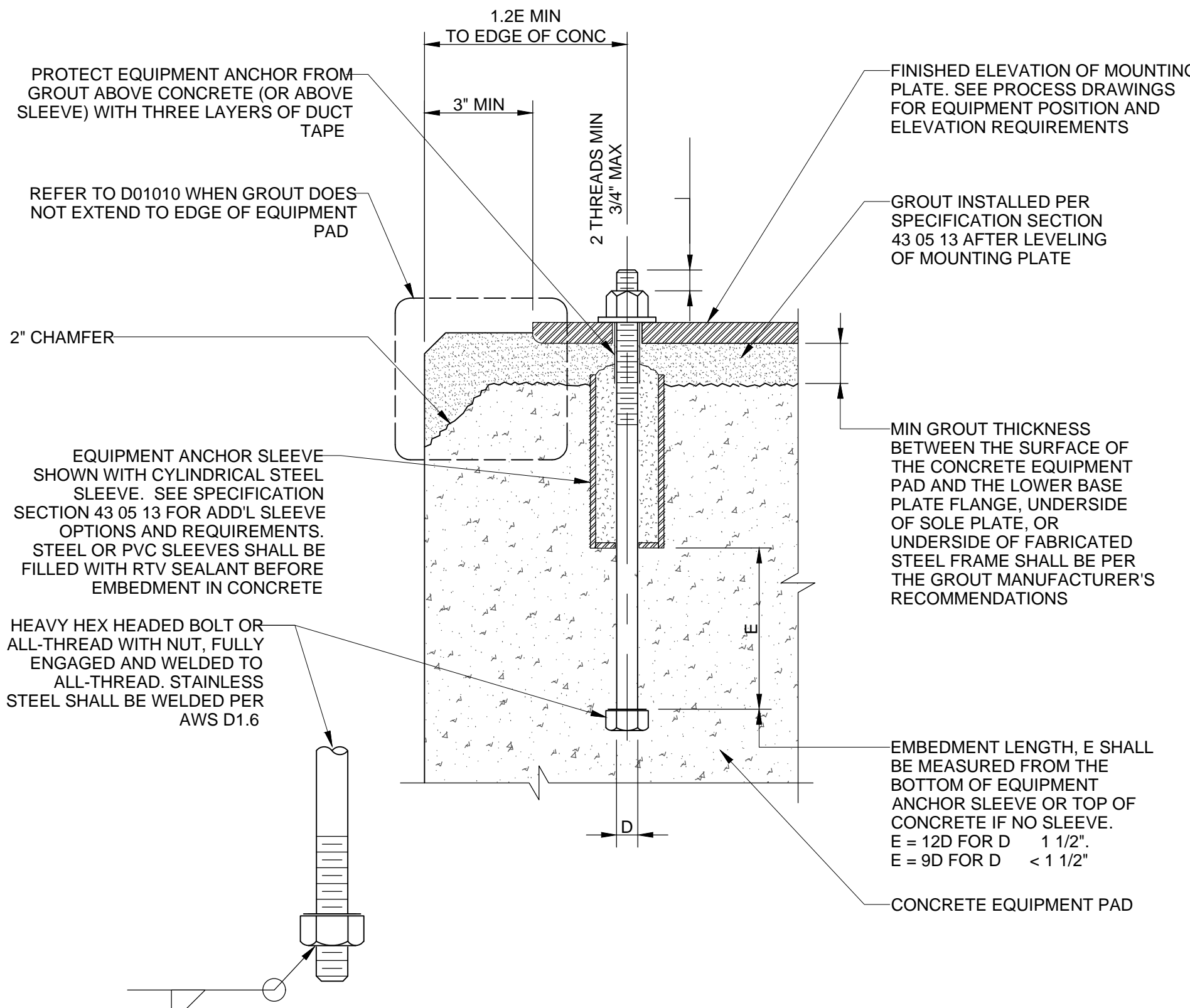
**TITANIUM FLASH MIX ASSEMBLY**  
M0001 NTS

**KEY NOTES:**

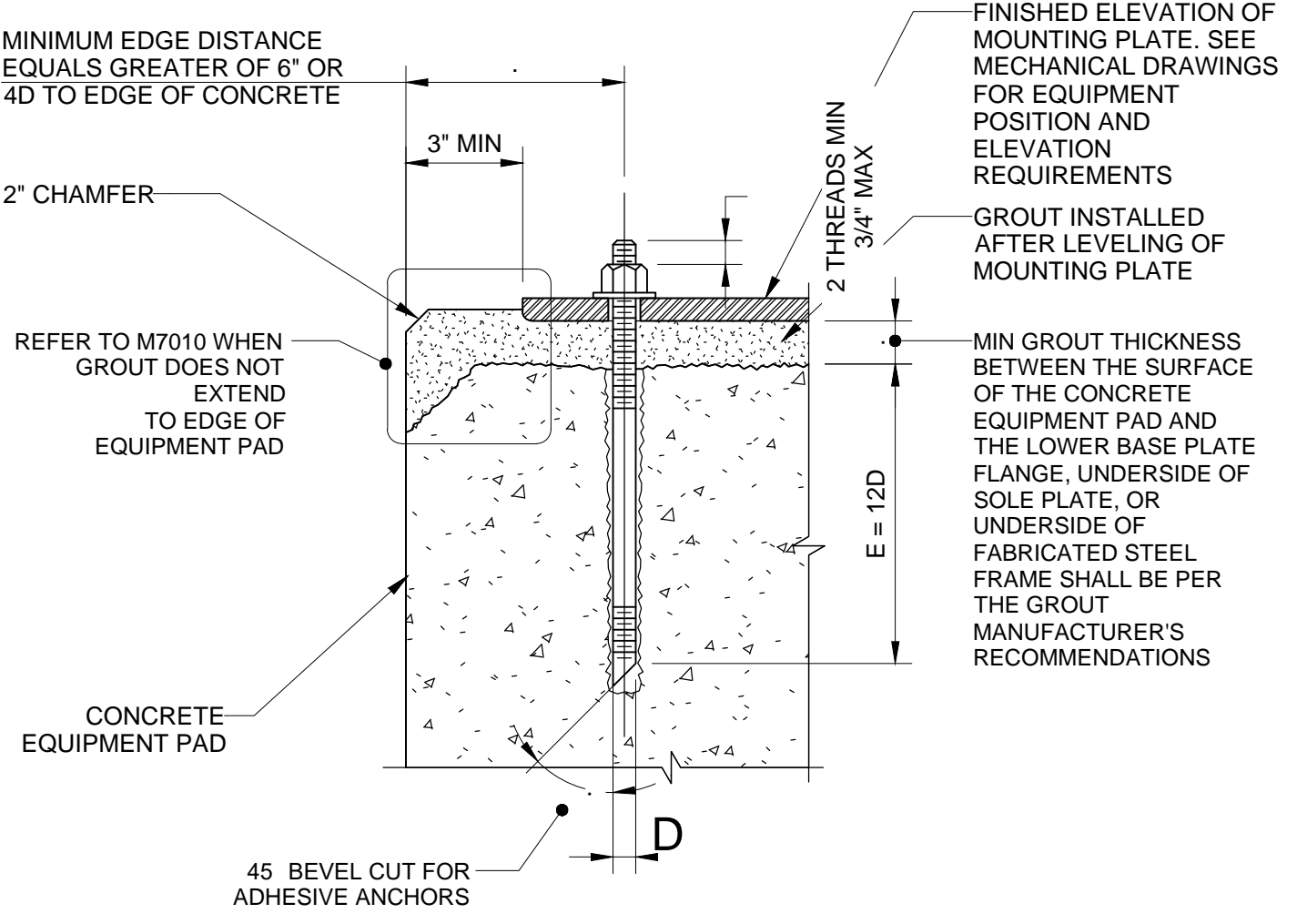
1. TITANIUM UNION (THREADED)
2. RIGID GROOVED END COUPLING
3. FLASH MIX PUMP DISCHARGE PIPE
4. 10" FLANGE CONNECTION PER TYPICAL DETAIL M203 (TYP OF 2)
5. 4" ELBOW
6. INFLUENT PIPE. SEE DRAWINGS FOR SIZE AND SERVICE
7. PIPE SUPPORT SIMILAR TO TYPICAL DETAIL P622. CONSTRUCT USING 316 SST
8. 2" DIA. SCH. 80 TITANIUM PIPE FOR CHEMICAL DIFFUSER. PIPE CUT AWAY FOR CLARITY
9. TWO 1/4" ORIFICES, LOCATED OPPOSITE OF EACH OTHER AND DIRECTED PERPENDICULAR TO THE FLOW OF THE INFLUENT PIPE
10. 6" TITANIUM 150 LB. COMPANION FLANGE WITH INSULATION KIT
11. 6" FLANGED CONNECTION PER TYPICAL DETAIL M203 (TYP OF 2)
12. 6" 316 SST 150 LB COMPANION FLANGE WITH INSULATION KIT
13. 10" 316 SST 150 LB COMPANION FLANGE WIT INSULATION KIT
14. FLASH MIX NOZZLE WITH FULL CONE SPRAY PATTERN. FLOW CAPACITY OF 300 GPM AT 15 PSI HEAD LOSS, AND 2.156" DIA. ORIFICE. SPRAYING SYSTEMS SOLUTIONS MODEL 4HF-SS-210 OR APPROVED EQUAL
15. FILLET WELD PIPE TO FLANGE
16. 6" SCH. 40S 316 SST PIPE. LENGTH AS REQUIRED
17. 2" DIA. SST HALF COUPLING WELDED TO FLANGE. INSERT DIFFUSER PIPE END INTO HALF COUPLING. WELD TITANIUM PLUG TO INSIDE OF DIFFUSER PIPE
18. LINK SEAL x 2



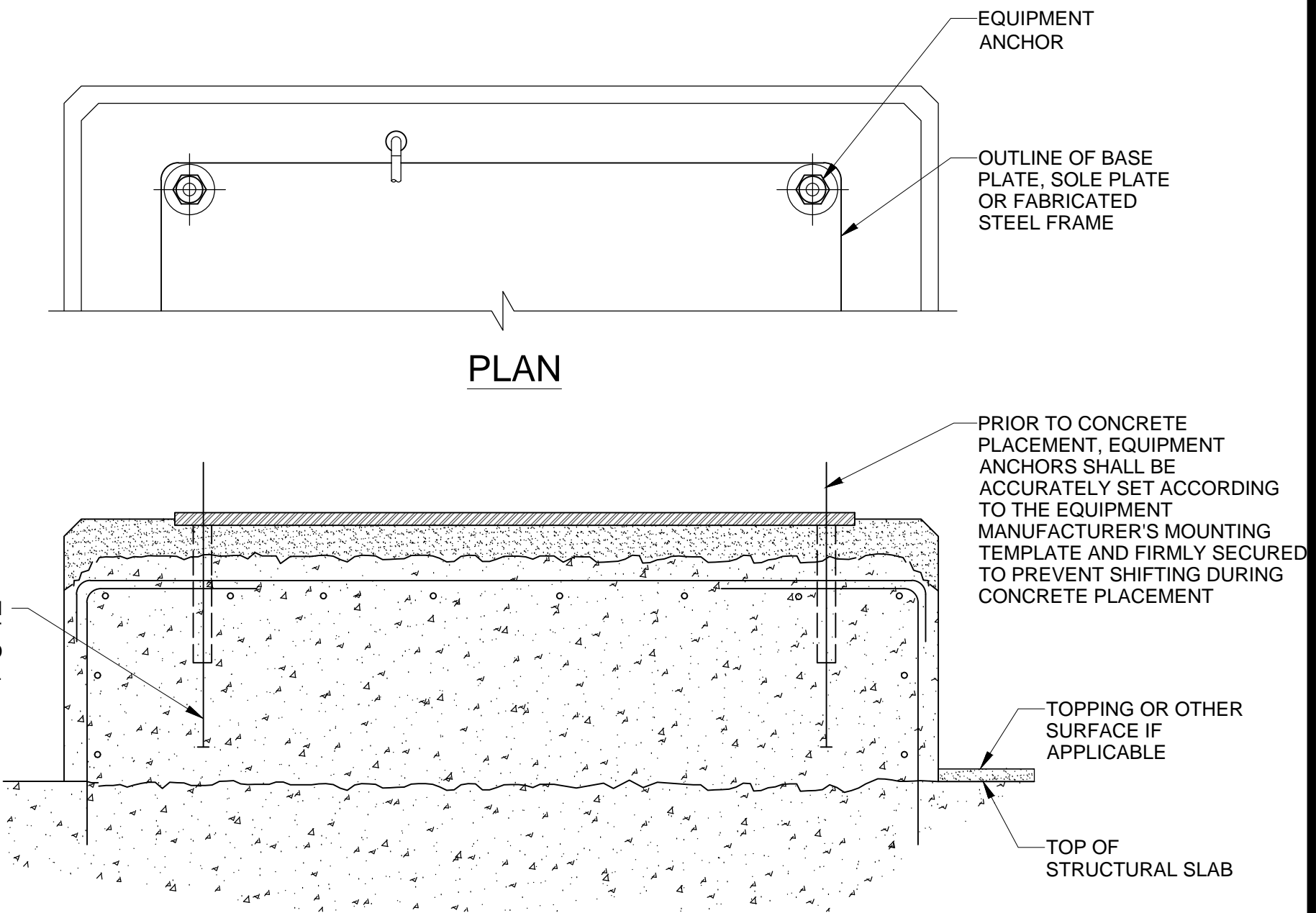
**HINGED BLIND FLANGE**  
M9001 NTS



**CAST-IN PLACE EQUIPMENT ANCHOR BOLTS FOR RIGID EQUIPMENT MOUNTS**  
M01002 NTS



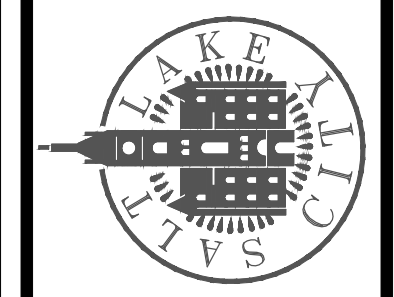
**ADHESIVE ANCHORS FOR RIGID EQUIPMENT MOUNTS**  
M01004 NTS



**PAD ANCHORED EQUIPMENT PAD**  
M01007 NTS

DESIGNED BY: AJONES	SCALE:
DRAWN BY: R.PERSHING	
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: 512260079	
ACCOUNT NO: 512260079	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING	

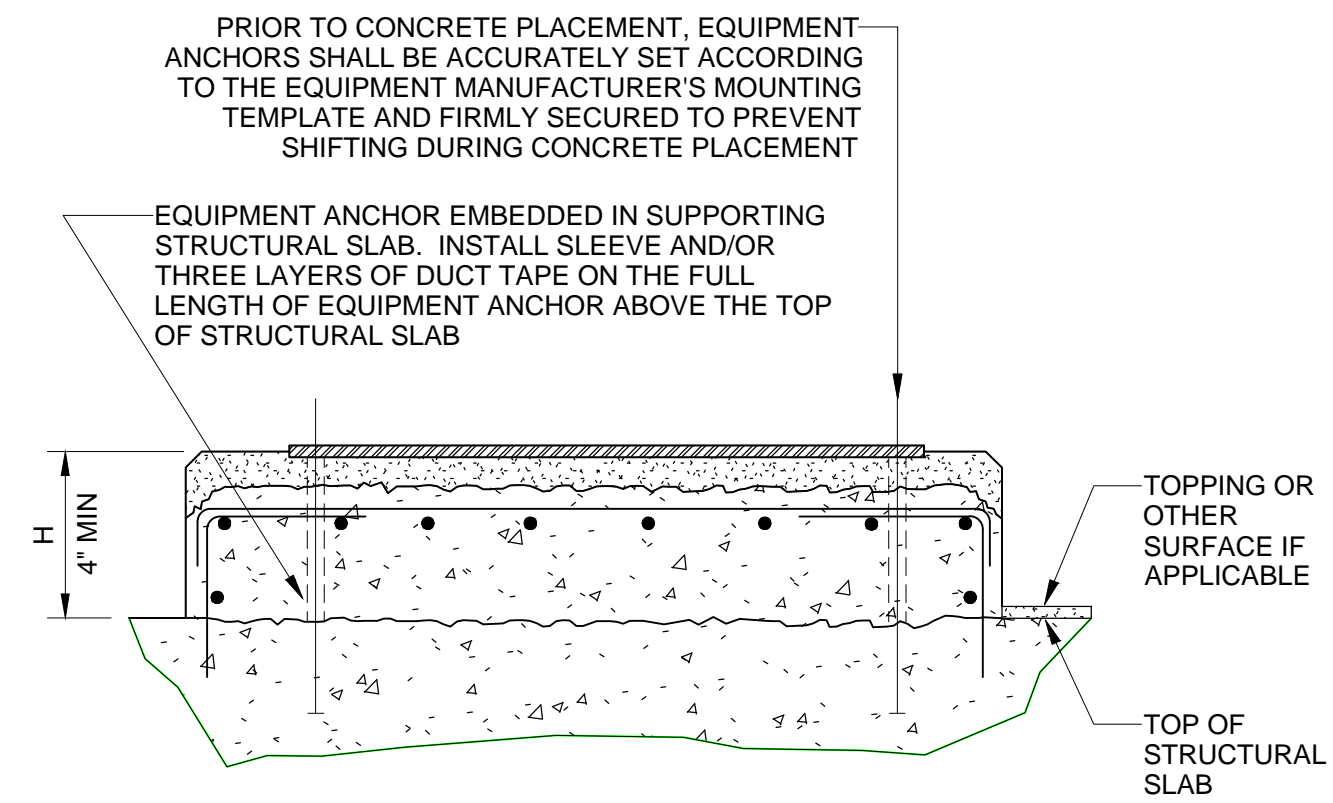
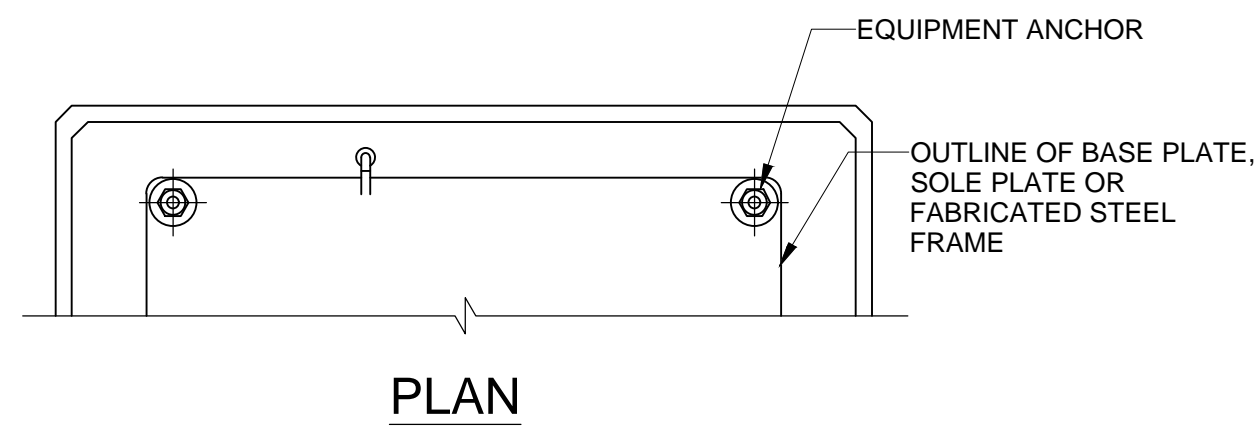
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**STANDARD MECHANICAL DETAILS 1**



**90% GMP**

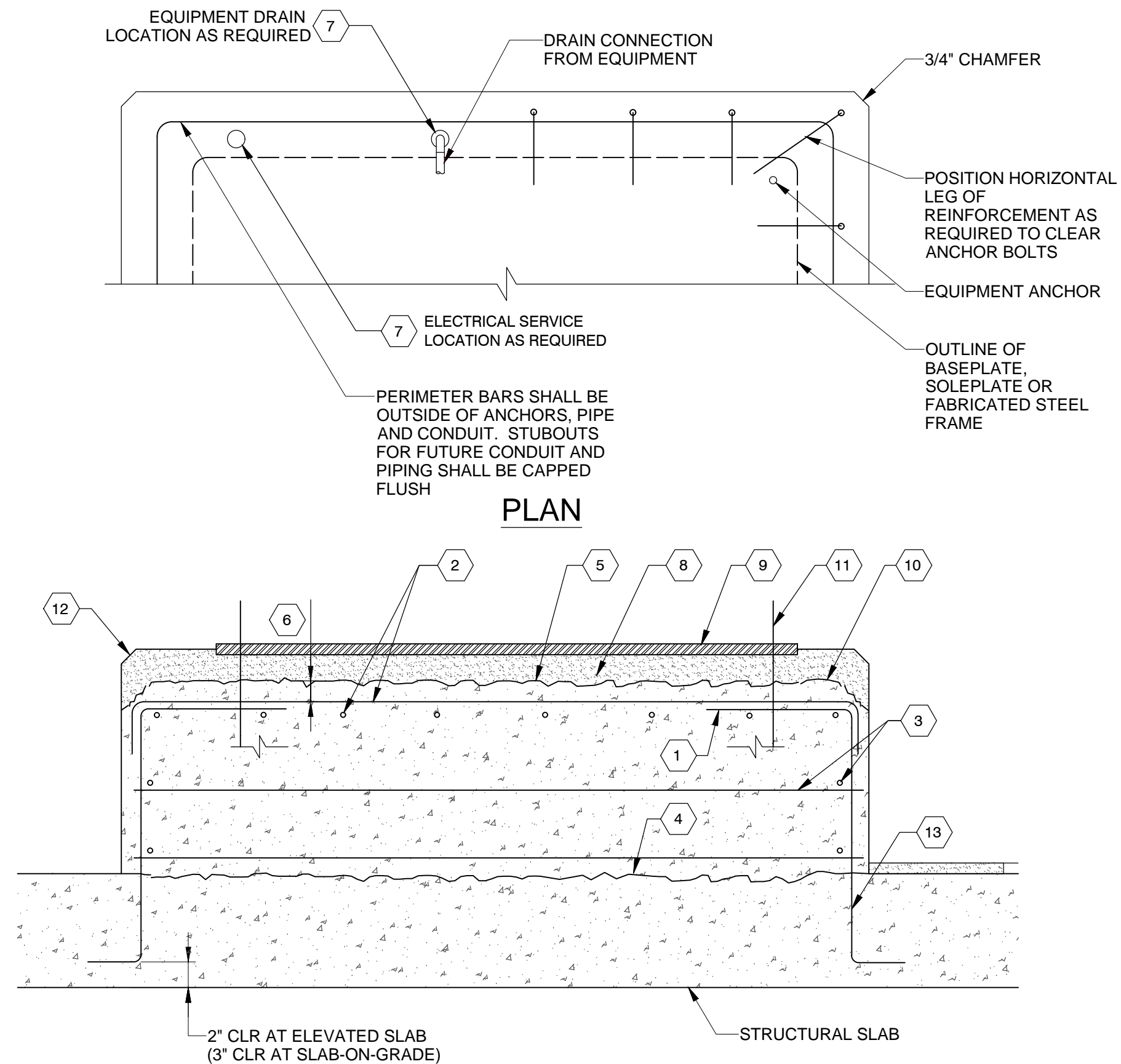
DRAWING NO.  
**GM-02**

**Brown and Caldwell**



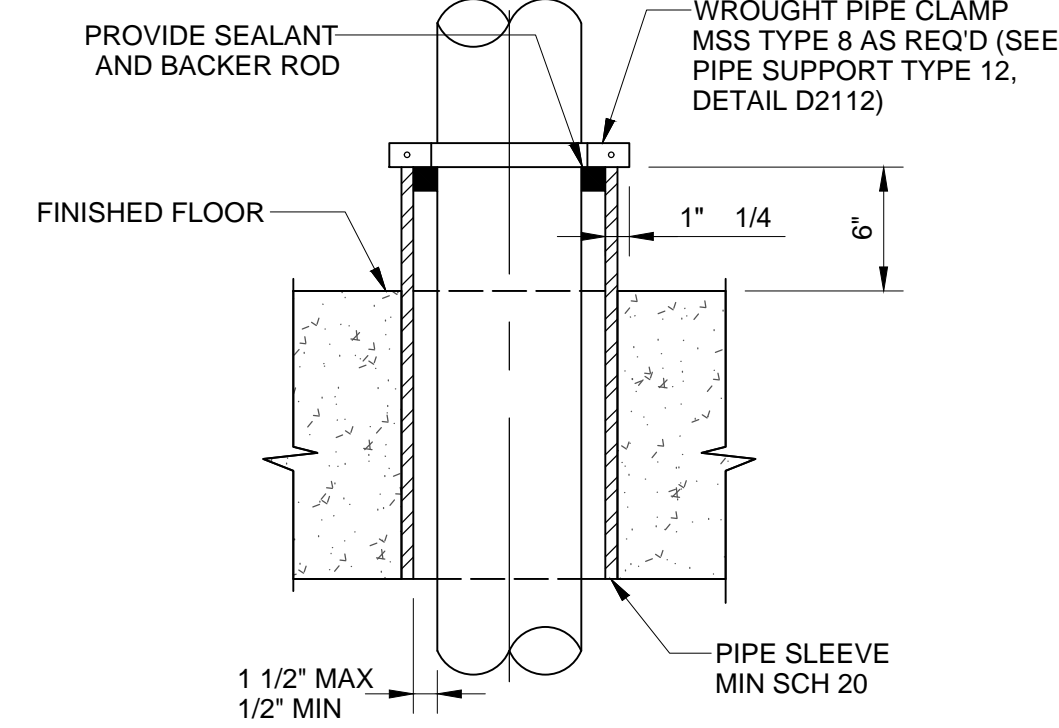
NOTE:  
1. EQUIPMENT PAD REINFORCEMENT, DRAINAGE, CONDUIT AND OTHER GENERAL REQUIREMENTS FOR EQUIPMENT PADS SHALL CONFORM TO STANDARD DETAIL D01009.

M01008 FOUNDATION ANCHORED EQUIPMENT PAD  
NTS



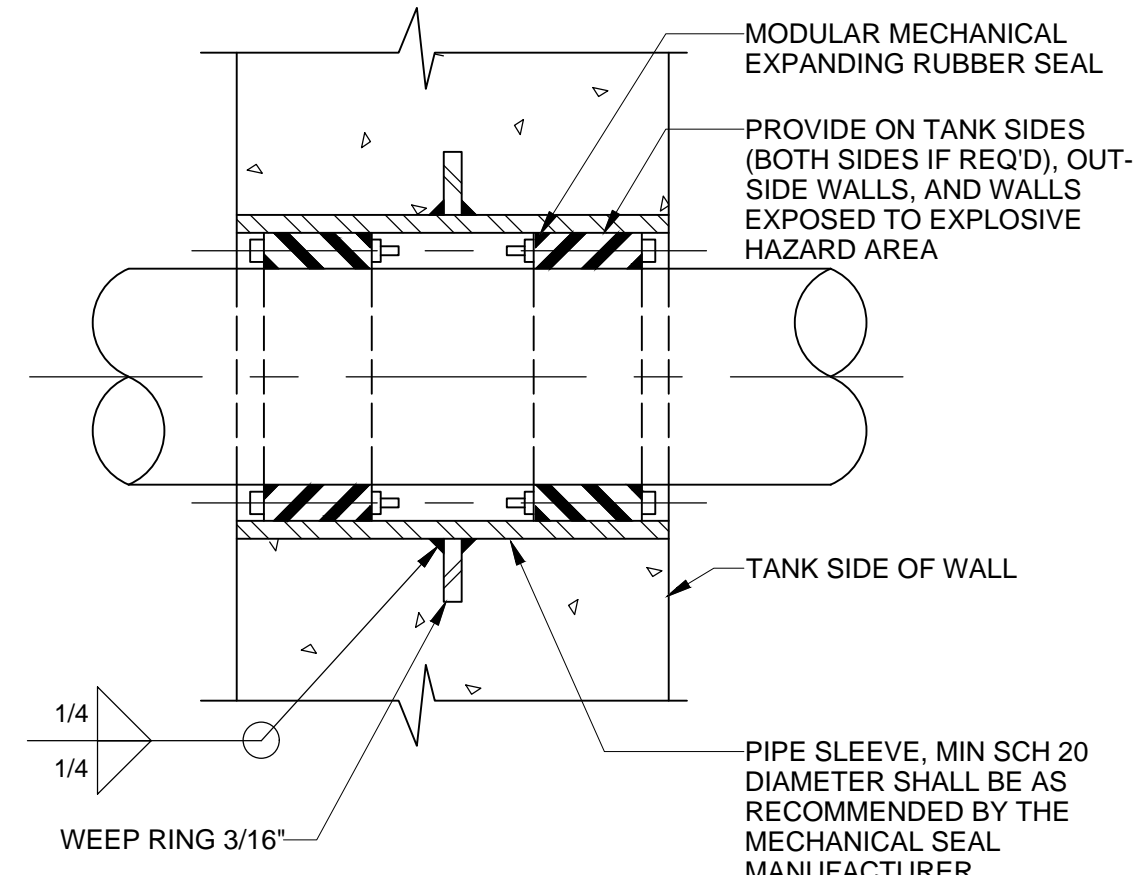
- KEY NOTES:
- #4 @ 12" DOWELS FOR PADS 12" HIGH (#5 @ 12" FOR PADS > 12" HIGH) WITH 90 DEGREE STANDARD HOOK. PROVIDE 10" EMBEDMENT INTO STRUCTURAL SLAB OR HOOK BARS AT BOTTOM OF SLAB IF SLAB IS LESS THAN 12" THICK.
  - #4 @ 12" EACH WAY. TERMINATE WITH STANDARD HOOKS OR CLASS B LAP SPLICE WITH DOWEL HOOKS.
  - 4 CLOSED TIES 8" WITH 135 END HOOKS OR U-SHAPED BARS WITH LAP SPLICES.
  - ROUGHEN SLAB SURFACE TO 1/4" AMPLITUDE. REMOVE ALL LAITANCE AND LOOSE MATERIAL. APPLY BONDING AGENT 30 MINUTES OR LESS BEFORE PLACING CONCRETE. EXTENT OF ROUGHENED AREA SHALL BE 2 INCHES INSIDE THE PERIMETER OF THE EQUIPMENT PAD.
  - AFTER THE CONCRETE IS FULLY CURED, THE TOP OF THE EQUIPMENT PAD SHALL BE ROUGHENED PER SPECIFICATION SECTION 11002.
  - MINIMUM 1" CLEAR AFTER ROUGHENING TOP OF EQUIPMENT PAD.
  - THE CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL CONDUIT AND DRAINAGE PIPING PENETRATIONS WITHIN THE EQUIPMENT PAD. ALL PENETRATIONS SHALL STUB-UP ON THE SAME SIDE OF THE EQUIPMENT AS REQUIRED FOR CONNECTION TO EQUIPMENT. EQUIPMENT PAD DRAINS SHALL BE LOCATED AT DRAINAGE CONNECTIONS FROM EQUIPMENT. EQUIPMENT PAD SHALL BE CONFIGURED ACCORDINGLY.
  - EQUIPMENT PAD GROUT. MINIMUM THICKNESS PER GROUT MANUFACTURER'S INSTRUCTIONS, BUT NOT LESS THAN 1".
  - BASEPLATE, SOLEPLATE OR FABRICATED STEEL FRAME.
  - 2-INCH ROUGHENED CHAMFER IN CONCRETE EQUIPMENT PAD ALL AROUND WHERE GROUT EXTENDS TO EDGE OF PAD.
  - PRIOR TO CONCRETE PLACEMENT, EQUIPMENT ANCHORS SHALL BE ACCURATELY SET ACCORDING TO THE EQUIPMENT MANUFACTURER'S MOUNTING TEMPLATE AND FIRMLY SECURED TO PREVENT SHIFTING DURING CONCRETE PLACEMENT.
- 3/4-INCH CHAMFER IN EQUIPMENT PAD GROUT ALL AROUND.
- FOR CONDITION WHERE STRUCTURAL SLAB IS EXISTING, DRILL HOLE AND ADHESIVE GROUT DOWELS A MINIMUM OF 6" INTO THE SLAB FOR #4 DOWELS AND 7 1/2" FOR #5 DOWELS.

M01009 GENERAL REQUIREMENTS FOR EQUIPMENT PADS  
NTS



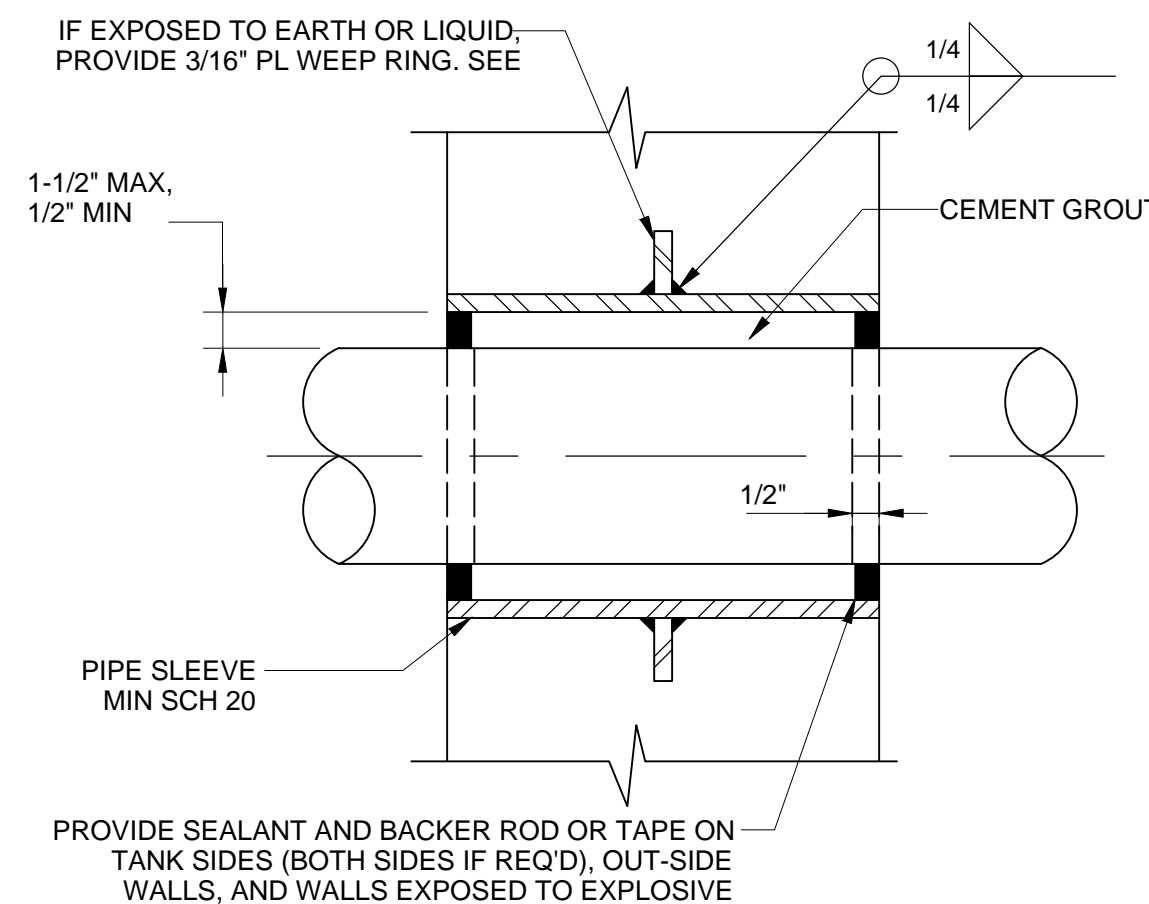
FOR FLOORS AND CEILINGS

M11002 TYPE C PIPE PENETRATION  
NTS



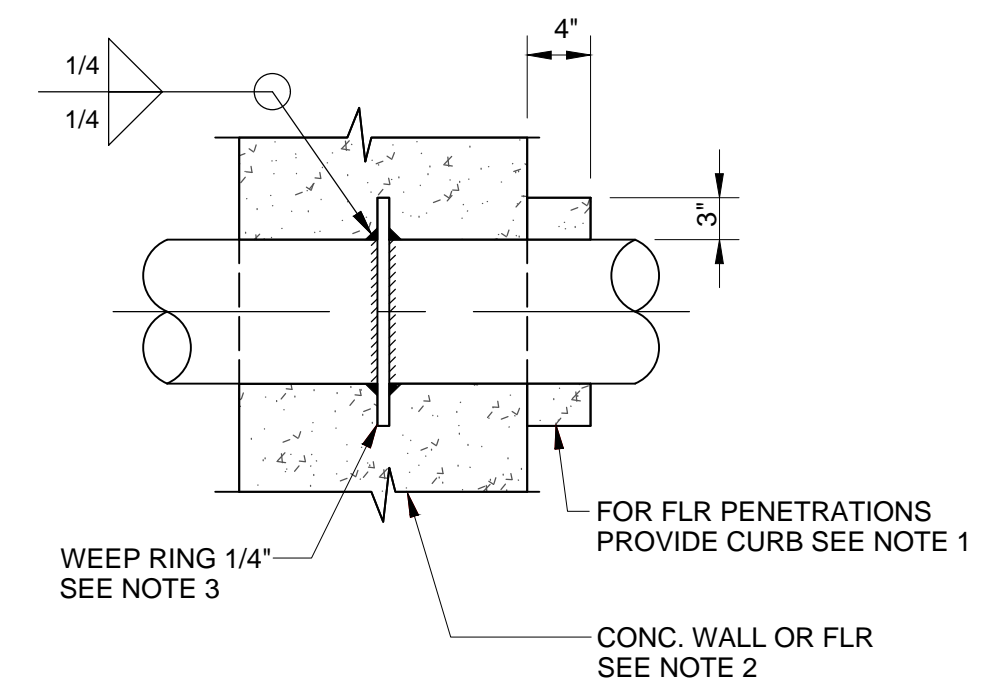
FOR WALLS

M12002 TYPE D PIPE PENETRATION  
NTS



FOR WALLS

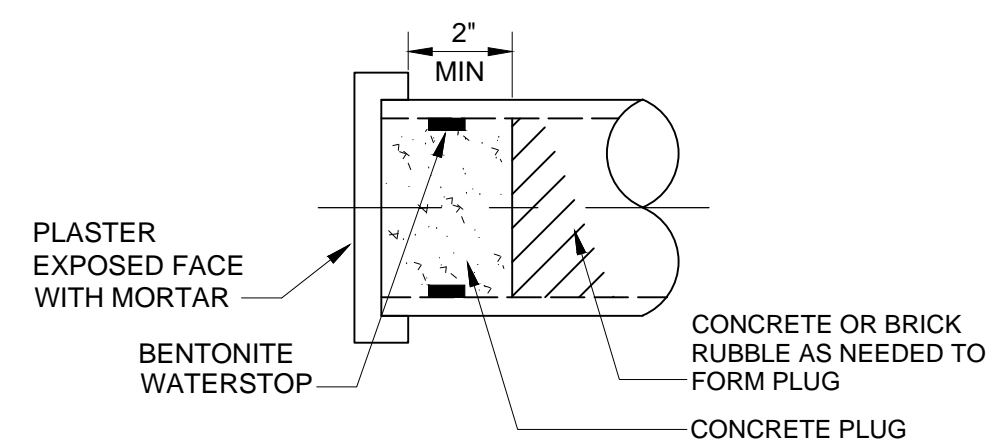
M12003 TYPE E PIPE PENETRATION  
NTS



FOR WALLS, FLOORS, AND CEILINGS

- NOTES:
- PROVIDE CURB WHERE PENETRATING FLOOR, CURB SHALL BE 4" HIGH BY 3" WIDE.
  - PROVIDE A MINIMUM OF 3" CLEARANCE BETWEEN REINFORCING STEEL AND FERROUS METAL PENETRATIONS.
  - WEEP RINGS SHALL HAVE A MINIMUM DIAMETER 3" GREATER THAN THE OUTSIDE PIPE DIAMETER.

M13002 TYPE K PIPE PENETRATION  
NTS

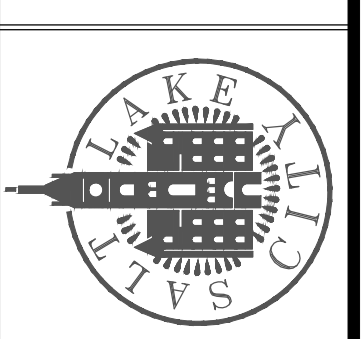


- NOTES:
- CLEAN INTERIOR OF PIPES TO BE PLUGGED.
  - PLUGS TO BE WATERTIGHT AGAINST ALL INTERNAL AND EXTERNAL PRESSURES.

M13200 PIPE PLUG  
NTS

DESIGNED BY: AJONES	SCALE:
DRAWN BY: R.FULK	
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: 512260079	
ACCOUNT NO: 512260079	
AUTH: JH	
MADE BY: AJ	
DATE: 06/14/24	
NO: 0	
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**STANDARD MECHANICAL DETAILS 2**



90% GMP

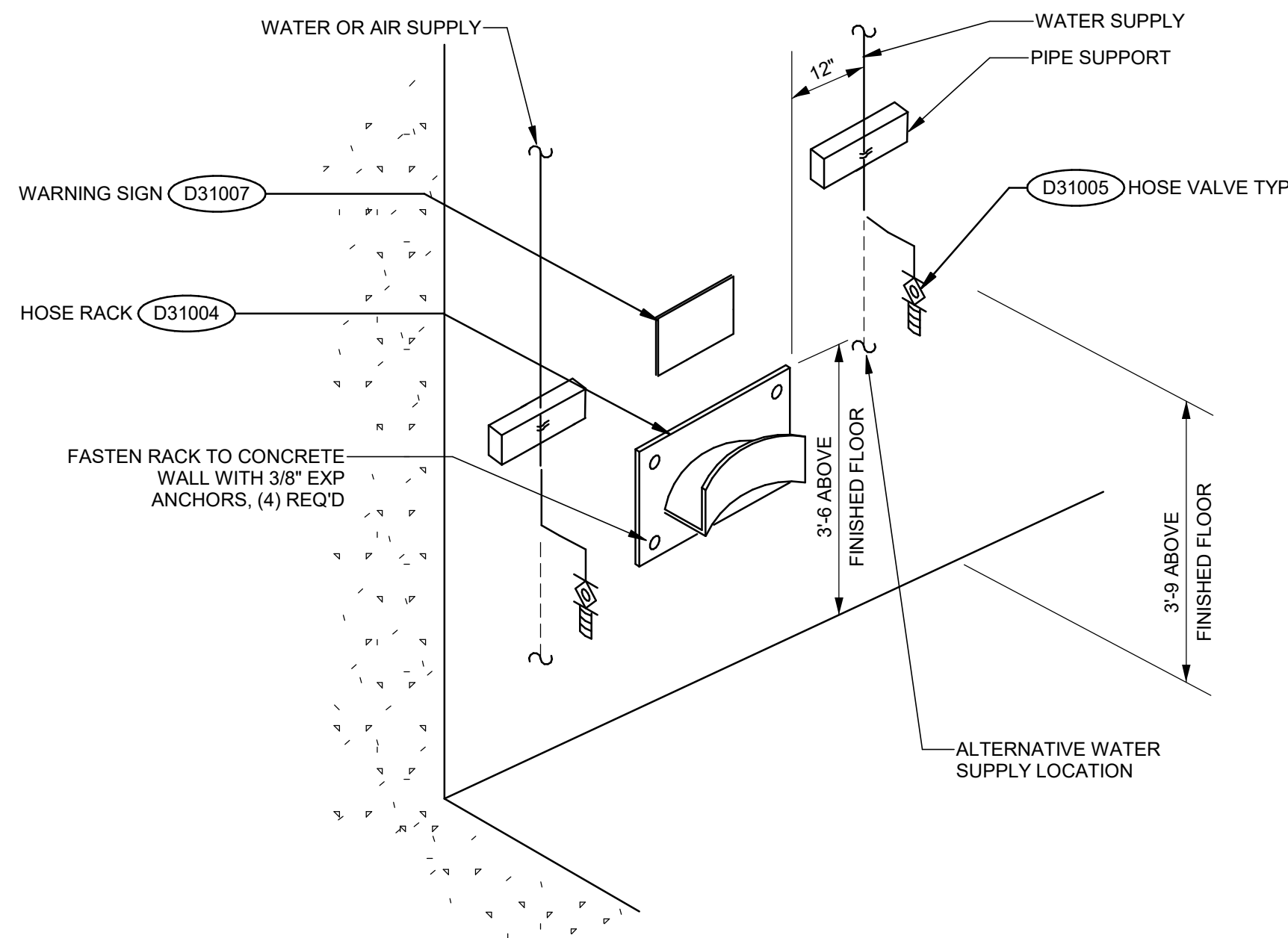
DRAWING NO.  
GM-03

Brown and Caldwell

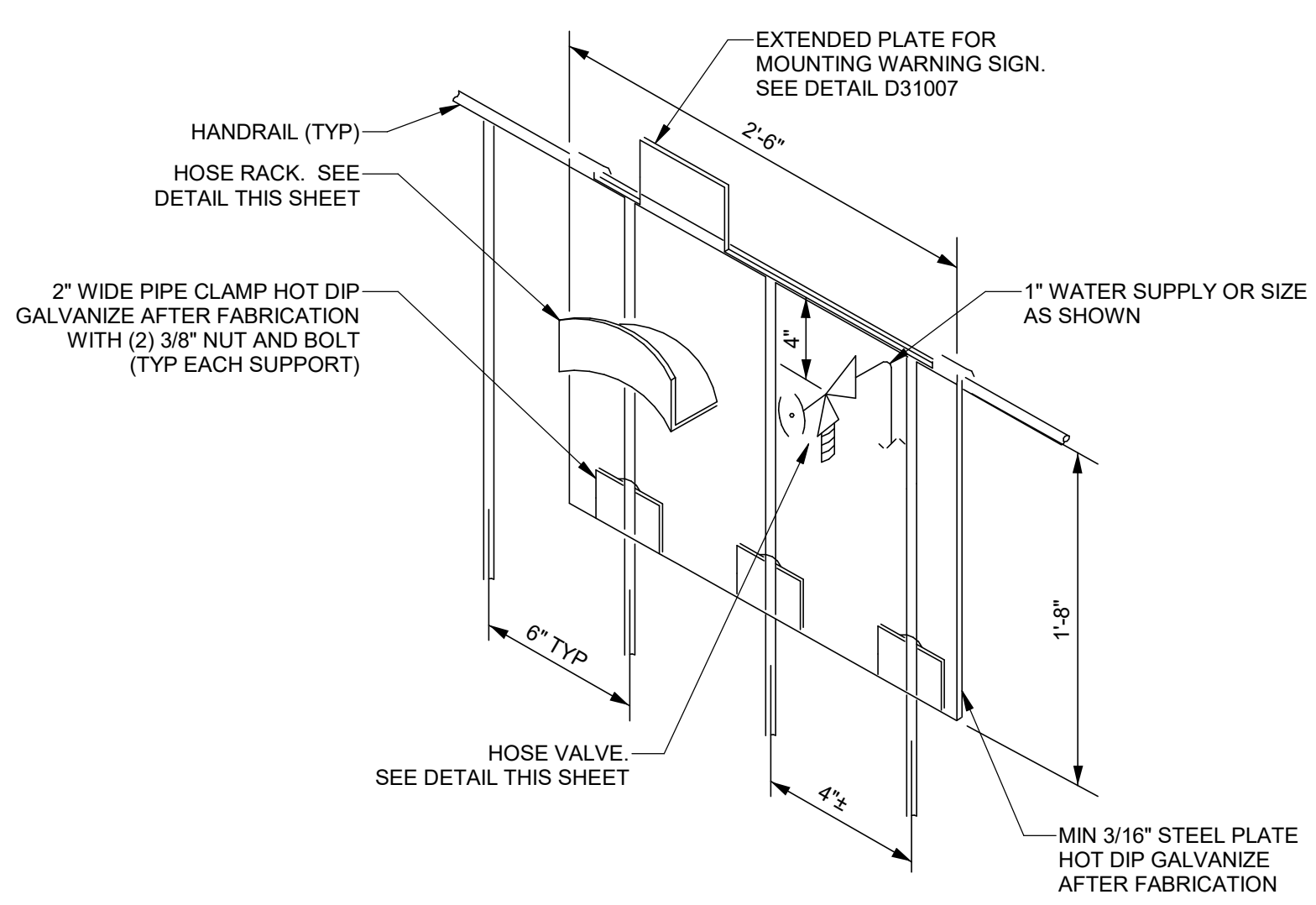
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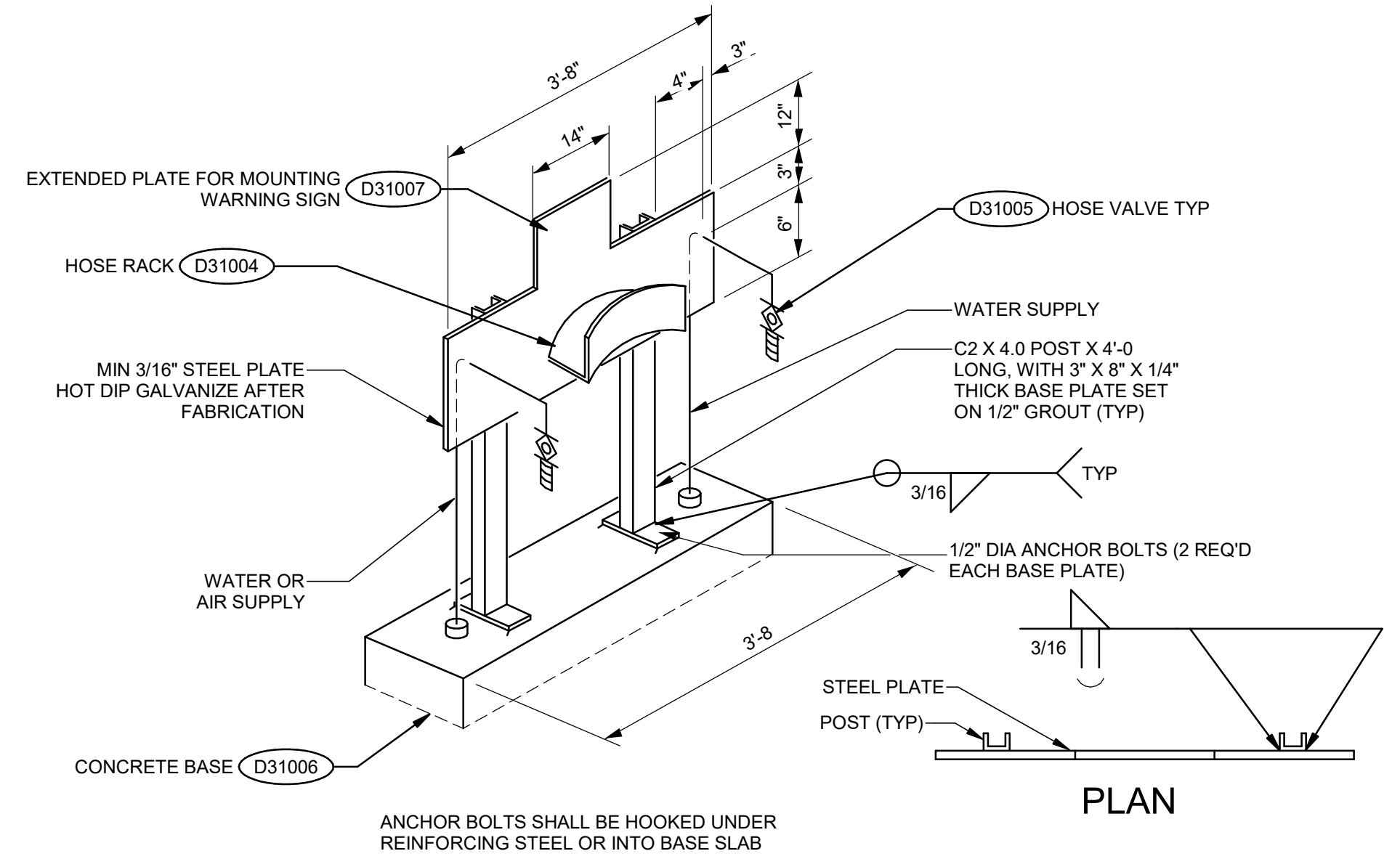
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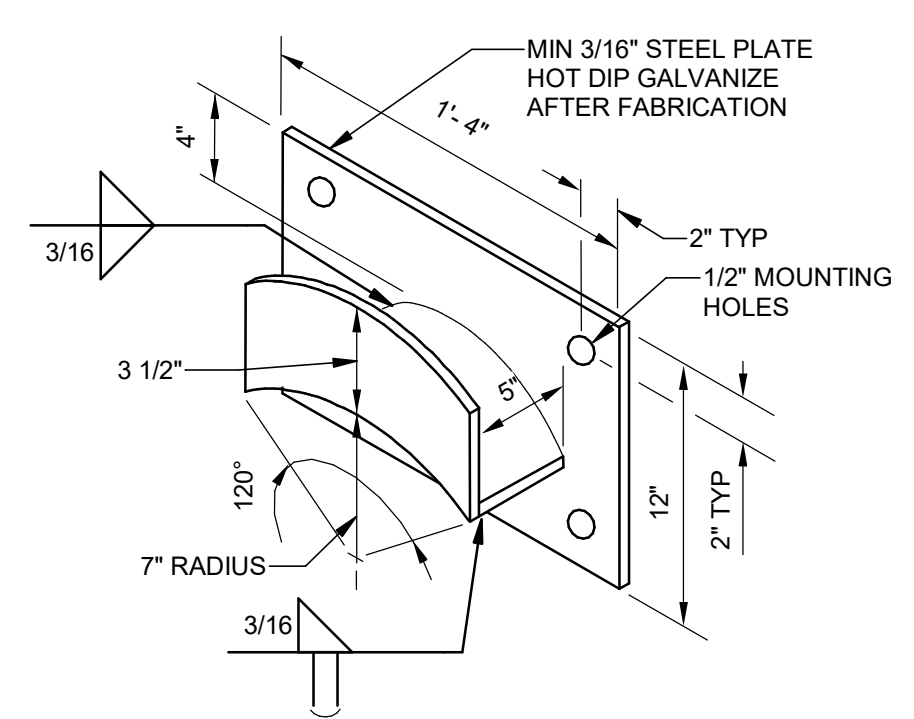
M31003 UTILITY STATION TYPE A, WALL MOUNTED  
N.T.S.



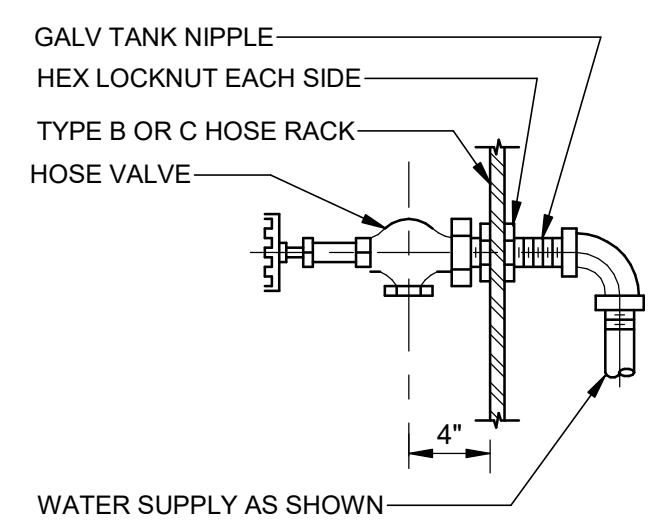
M31002 UTILITY STATION TYPE B, RAIL MOUNTED  
N.T.S.



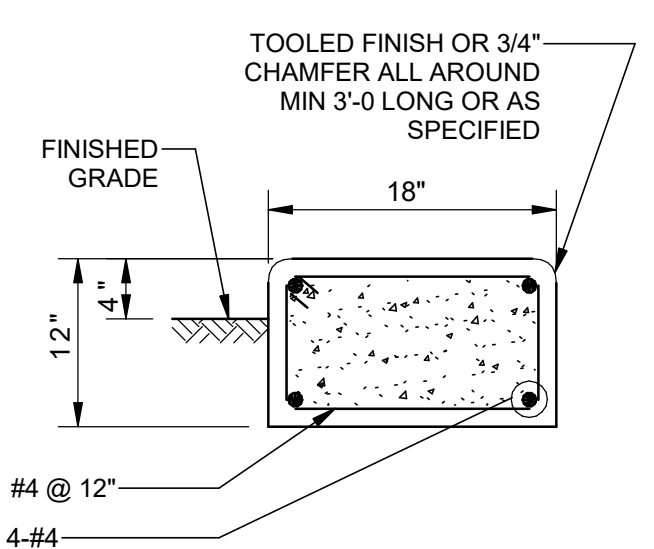
M31003 UTILITY STATION TYPE C, POST MOUNTED  
N.T.S.



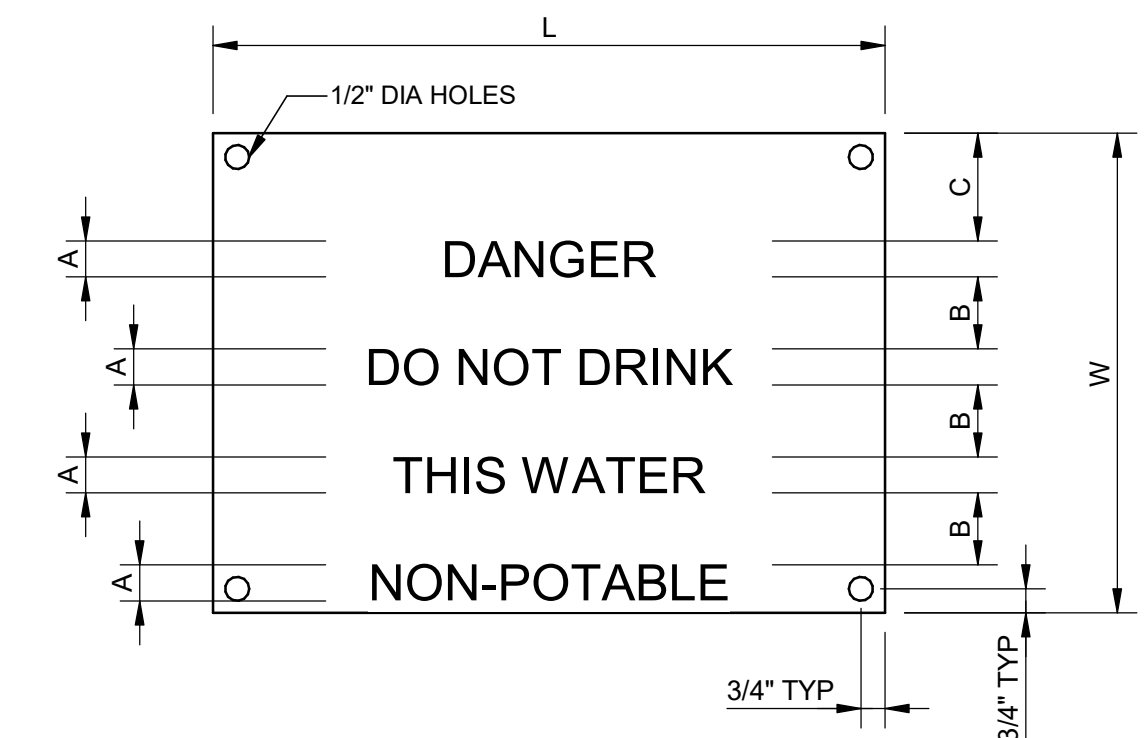
M31004 HOSE RACK  
N.T.S.



M31005 HOSE VALVE  
N.T.S.



M31006 CONCRETE BASE  
N.T.S.



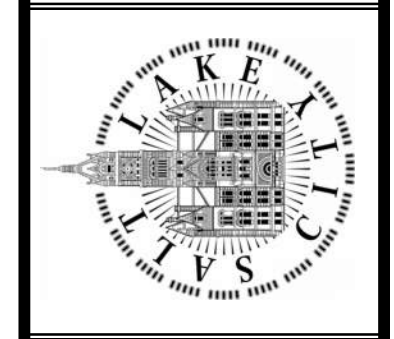
SIGN SIZE (W x L)	TEXT HEIGHT (A)	TEXT SPACING (B)	TOP OF TEXT (C)
14" x 20"	1"	1 1/4"	2 3/4"
10" x 14"	1"	1 1/4"	2 3/4"
7" x 10"	3/4"	3/4"	1 1/4"

- NOTES:
- WARNING SIGN SHALL BE BAKED ENAMEL ON STEEL PLATE WITH WHITE LETTERING ON RED BACKGROUND.
  - SEE SPECIFICATION SECTION 10 14 00 FOR SIGN SPECIFICATION

M31007 WARNING SIGN  
N.T.S.

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.FULK	
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
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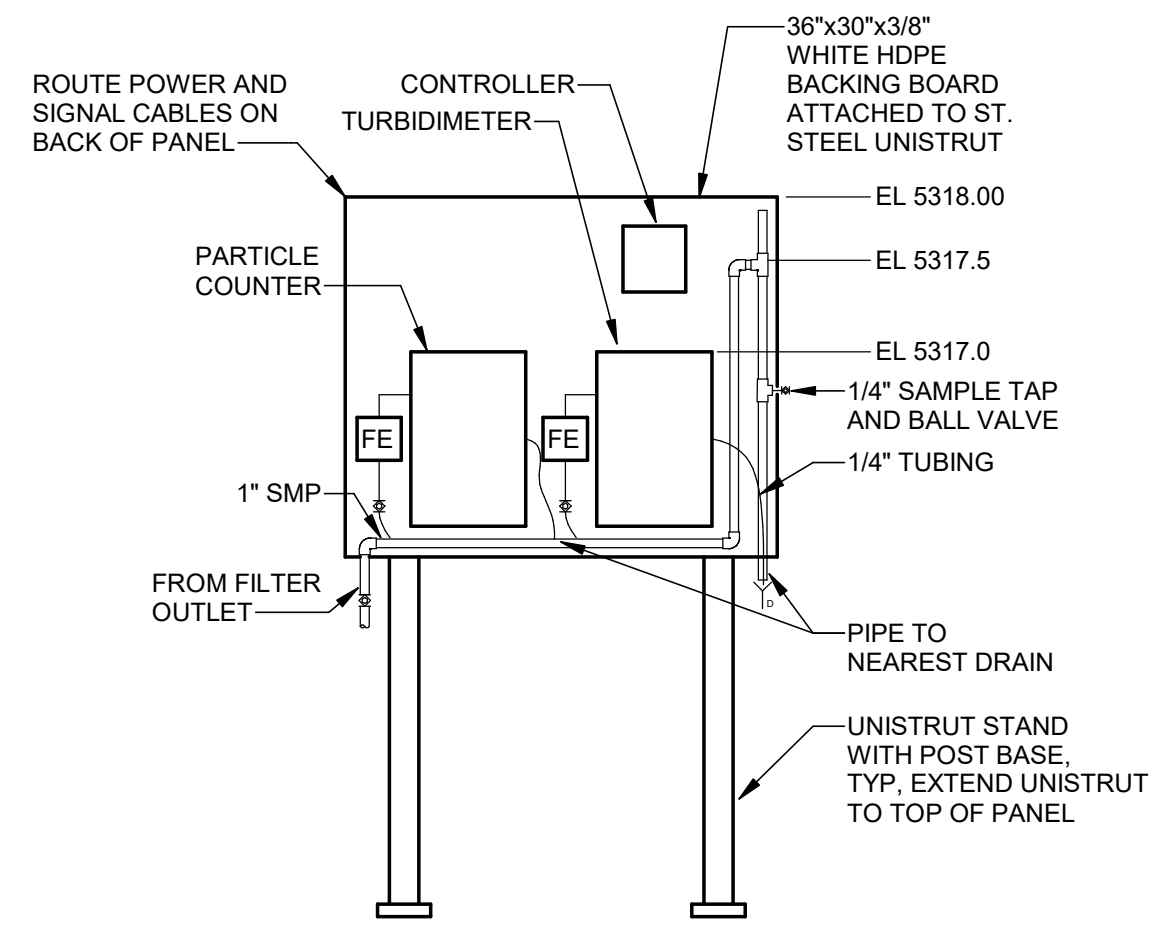
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
STANDARD MECHANICAL  
DETAILS 3



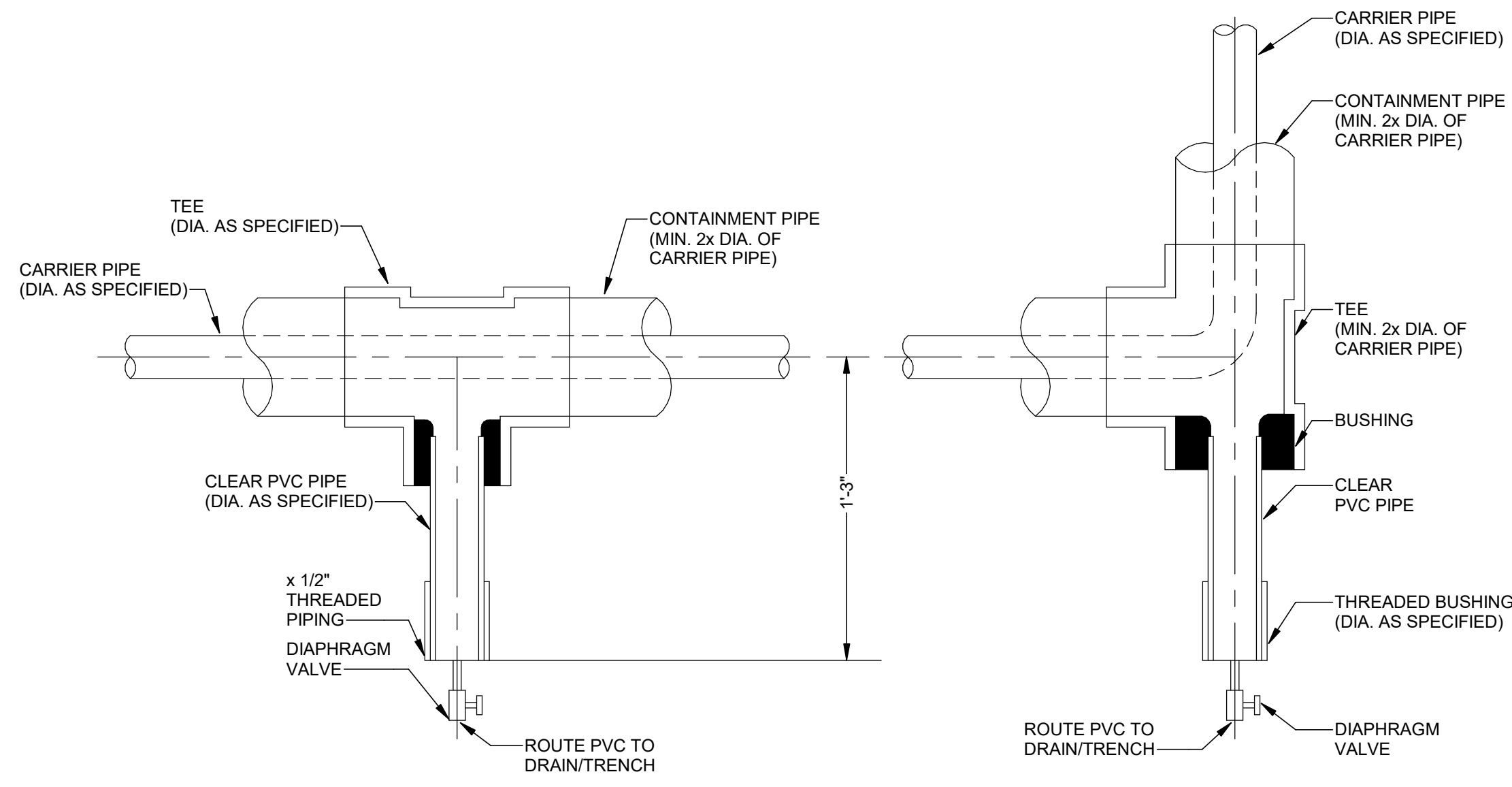
90% GMP

DRAWING NO.  
GM-04

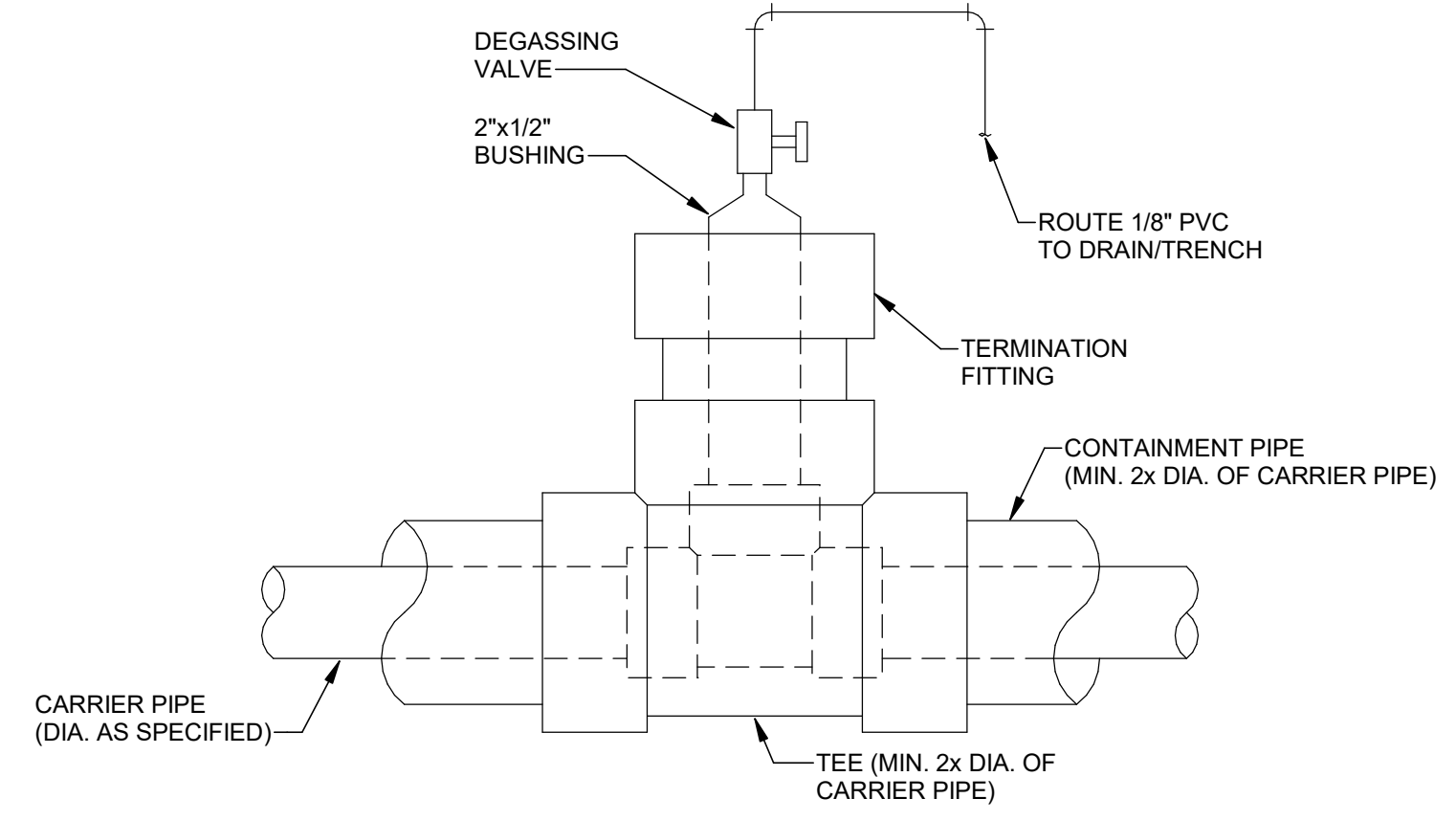
Brown and Caldwell



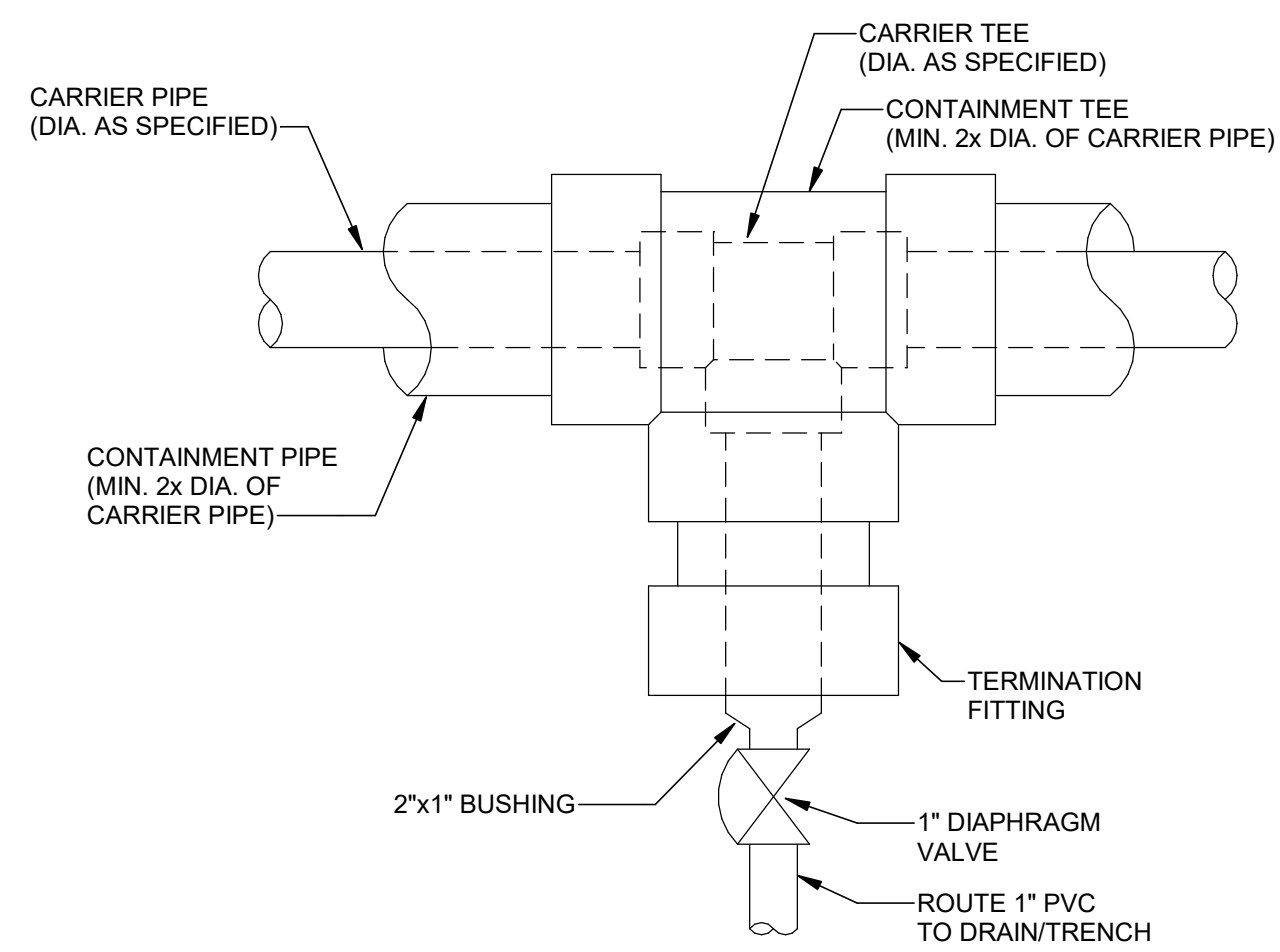
**A SAMPLE PANEL**



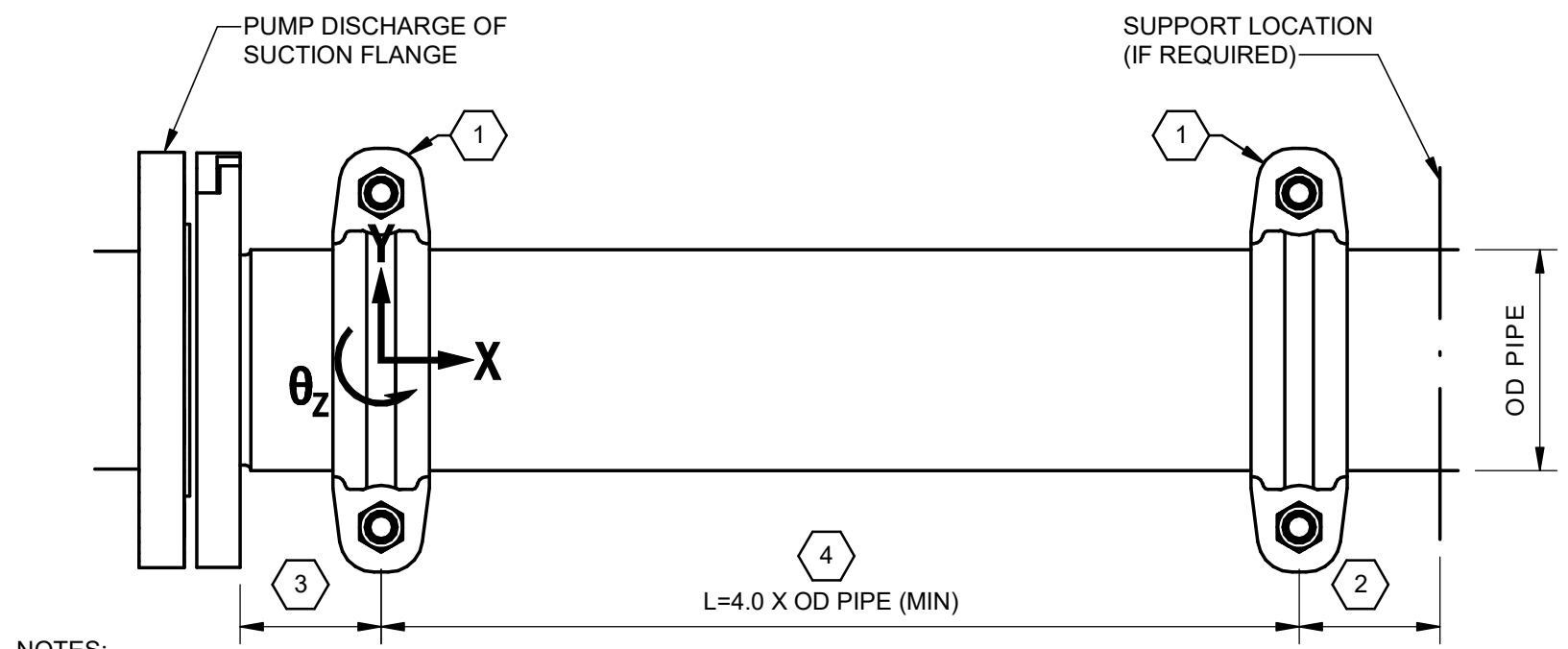
**B VISUAL LEAK DETECTION**



**C DOUBLE CONTAINMENT HIGH POINT VENT**

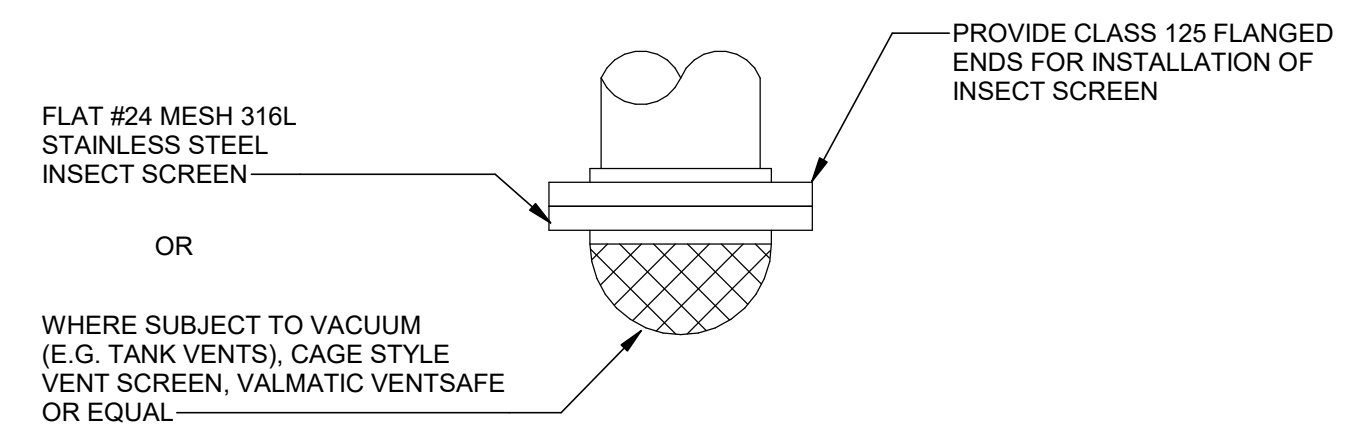


**D DOUBLE CONTAINMENT LOW POINT DRAIN**

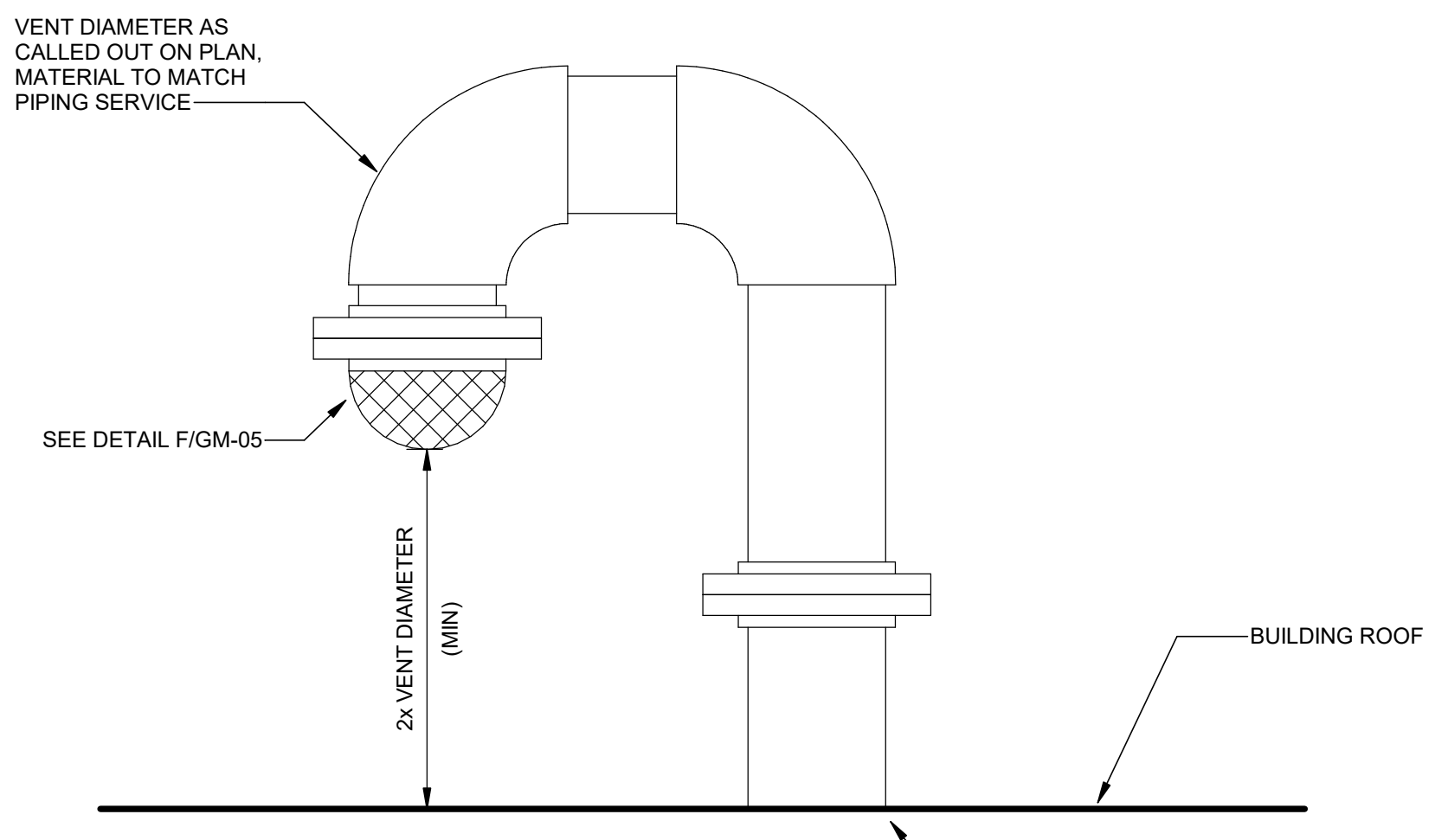


- NOTES:
1. PROVIDE A FLEXIBLE COUPLING (VICTAULIC OR EQUAL) WITH A GROOVED (CUT GROOVE ONLY) STRAIGHT PIPE SEGMENT OF MINIMUM LENGTH SHOWN AT EACH LOCATION SHOWN. ENSURE STRAIGHT PIPE SEGMENT REMAINS FREE TO MOVE AND ROTATE ABOUT BOTH COUPLING IN THE X, Y AND Z DIRECTIONS. DO NOT SUPPORT OR RESTRAIN THE STRAIGHT PIPE SEGMENT ALONG ITS LENGTH. POSITION COUPLINGS SUCH THAT BOTH COUPLINGS ARE IN A NEUTRAL POSITION (I.E. COUPLINGS ARE LOCATED HALF WAY BETWEEN POSITION AT FULL EXTENSION AND FULL CONTRACTION). WHEN SPACE PERMITS, SUPPORT PIPING IMMEDIATELY FOLLOWING THE STRAIGHT PIPE SEGMENT AND FLEXIBLE COUPLINGS TO MINIMIZE LOADING ON THE PUMP NOZZLE. AVOID PLACING VALVES, FLOW METERS, OR OTHER PIPING COMPONENTS OF SIGNIFICANT WEIGHT IMMEDIATELY FOLLOWING THE STRAIGHT PIPE SEGMENT AND FLEXIBLE COUPLINGS PRIOR TO A SUPPORT. CONSIDER ADDING A SUPPORT BETWEEN THE PUMP NOZZLE AND FIRST FLEXIBLE COUPLING WHEN PLACEMENT OF THESE COMPONENTS IN THE AREA CANNOT BE AVOIDED.
  2. MINIMIZE THE DISTANCE BETWEEN THE FLEXIBLE COUPLING AND THE PUMP NOZZLE. HOWEVER, PROVIDE ADEQUATE CLEARANCES AROUND COUPLING AND MATING FLANGE TO ALLOW FOR INSTALLATION AND PROPER MAINTENANCE OF THE AREA. WHEN LOADS NECESSITATE INSTALLATION OF A SUPPORT IN THIS AREA, THE SUPPORT SHALL BE FIELD ADJUSTABLE TO PROVIDE THE FLEXIBILITY DURING INSTALLATION TO ALLOW THE INSTALLER TO ALIGN PIPING WITH THE NOZZLE AND MINIMIZE STRAIN AT CONNECTION.
  3. LIMIT STRAIGHT PIPE SEGMENT LENGTHS LONGER THAN THIS PREVENT UNNECESSARY LOADING ON THE PUMP NOZZLE.
  - 4.

**E PIPE FLEXIBILITY**



**F INSECT SCREEN**



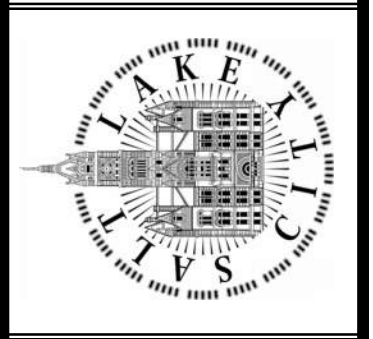
**G TANK VENT**  
SCALE: 1 1/2" = 1'-0"

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.FULK	VERIFY SCALE
CHECKED BY: J.HESBY	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

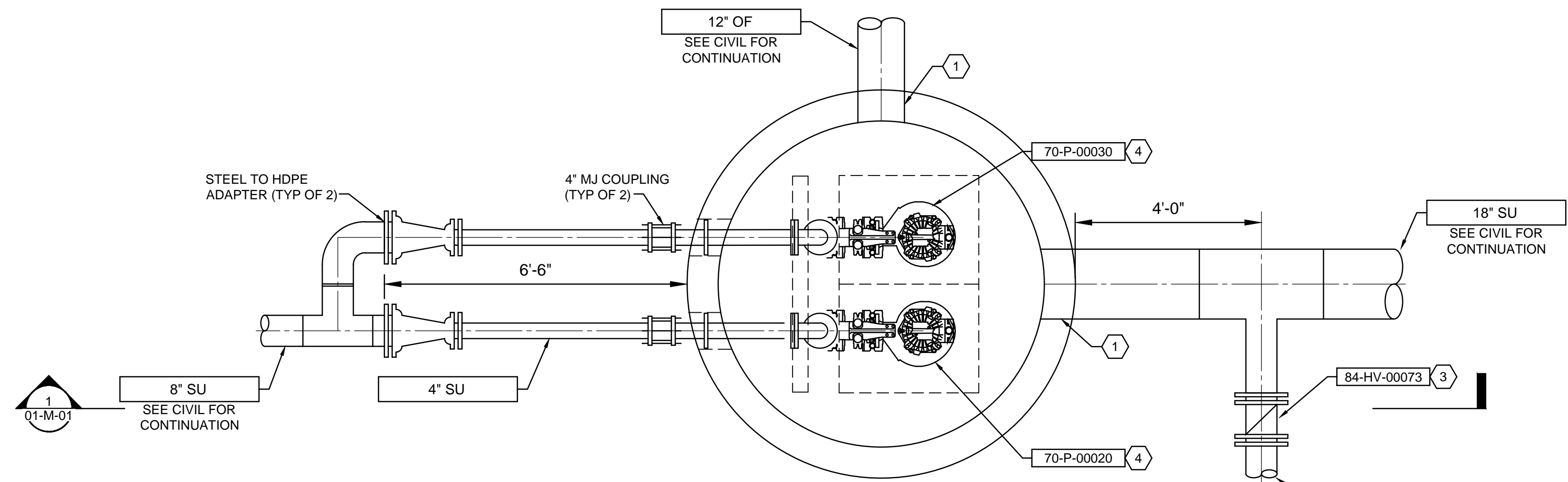
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
STANDARD MECHANICAL  
DETAILS 4



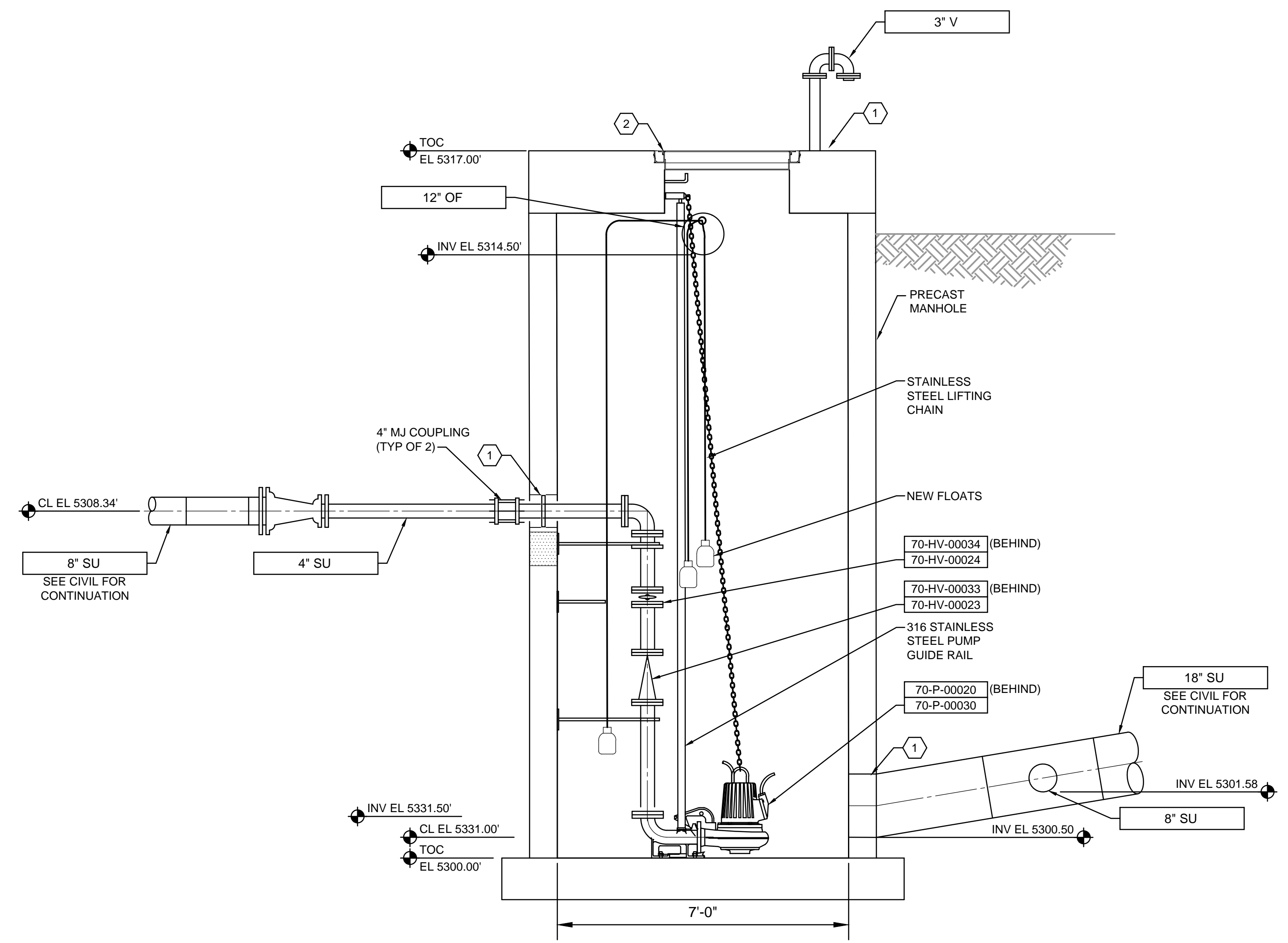
90% GMP

DRAWING NO.  
GM-05

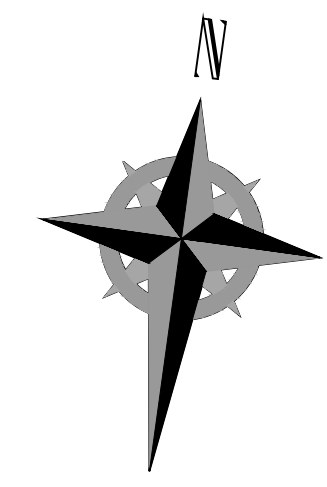
Brown and Caldwell



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



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



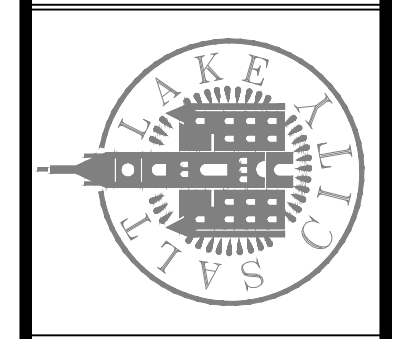
**GENERAL NOTES:**

- CONTRACTOR SHALL PROVIDE PIPE SUPPORTS AND DESIGN BY A PROFESSIONAL ENGINEER AS SPECIFIED.
- COORDINATE PENETRATION WITH MANHOLE MANUFACTURE. SEAL WITH LINK SEAL AND NON-SHRINK GROUT.
- INSTALL HATCH, SEE HATCH SCHEDULE ON STRUCTURAL DRAWINGS. PROVIDE HINGES ON LONG SIDE.
- INSTALL CHECKMATE ULTRAFLEX INLINE CHECK VALVE IN THE 8" SU LINE FROM THE FLUORIDE BUILDING. COORDINATE VALVE SIZE WITH MANUFACTURER BASED ON THE I.D. OF THE 8" SU LINE FROM THE FLUORIDE BUILDING.
- CONTRACTOR TO INSTALL AND PUMP TEST TREATMENT BUILDING PERIMETER DRAIN. TEST SHALL DETERMINE AVERAGE AND MAXIMUM FLOW RATE (GROUNDWATER YIELD) DURING THE MONTHS OF MARCH, APRIL, MAY, AND JUNE. TEST SHALL PROVIDE CONTINUAL FLOW RATE MONITORING. SUBMIT REPORT OF FLOW RATES TO CONFIRM PERIMETER DRAIN PUMP STATION SIZING.

**KEYNOTES:**

DESIGNED BY: ASTOLDT	SCALE:
DRAWN BY: R.FILK	
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**PERIMETER DRAIN PUMP  
STATION PLAN & SECTION**

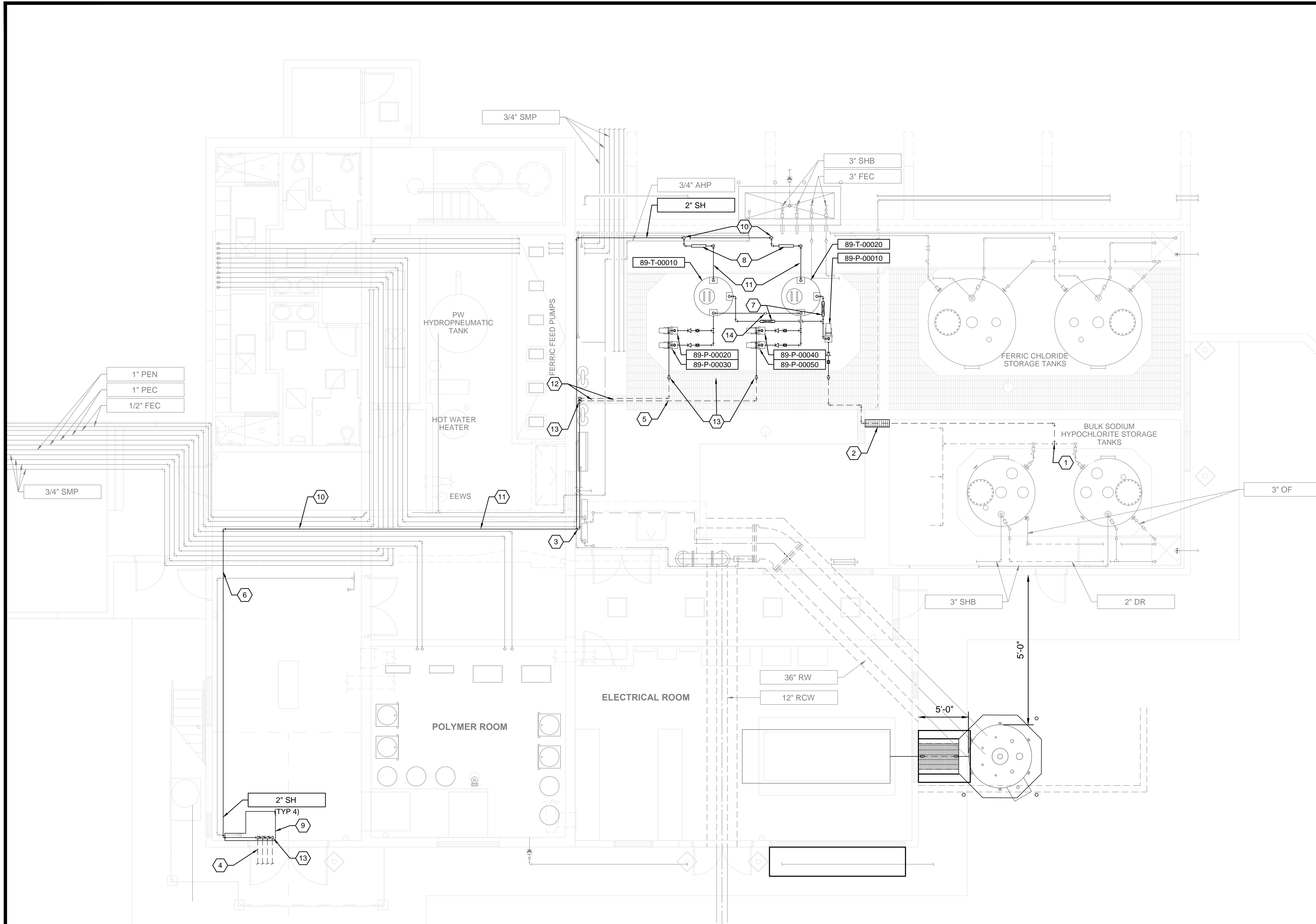


**90% GMP**

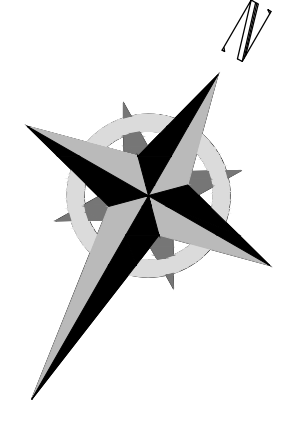
DRAWING NO.  
**01-M-01**

**Brown and Caldwell**

C:\bcpw\1660460\03-M-01.dwg Jun 13, 2024 - 10:35am



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

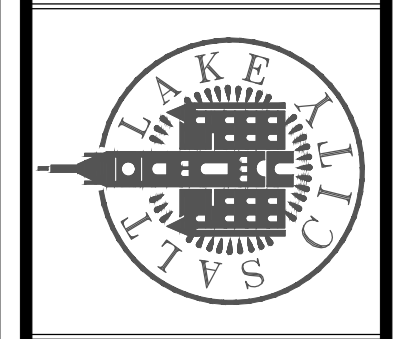


**KEYNOTES:**

- 1 CUT EXISTING SODIUM HYPOCHLORITE PIPING FROM TANKS. INSTALL NEW TEE AND PIPE. FIELD ROUTE PIPE THROUGH SUMPS TO NEW TRANSFER PUMP. MODIFY GRATING AS REQUIRED.
- 2 CUT NEW TRENCH INTO FLOOR. SEE STRUCTURAL DETAIL B/GS-25.
- 3 ROUTE PIPE THROUGH EXISTING WALL PENETRATIONS. TYPICAL 2 PIPES. CORE DRILL 2 NEW 4-1/2" DIAMETER PENETRATIONS. MATCH EXISTING PENETRATION ELEVATION. SCAN FOR EXISTING REBAR AND POSITION HOLES TO AVOID REBAR.
- 4 CORE DRILL FOUR 4-1/2" DIAMETER HOLES THROUGH FOUNDATION WALL 2" ABOVE FOOTING PER DETAIL M12003, OMIT PIPE SLEEVE. PROVIDE A MINIMUM OF 2" BETWEEN HOLES. ALIGN ALL HOLES WITHIN DOOR JAMB OPENING. SEE CIVIL SHEET FOR PIPING CONTINUATION.
- 5 FIELD ROUTE PIPE THROUGH SUMP TO STORAGE ROOM'S EAST WALL. CONTINUE PIPE UP WALL TO EXISTING/NEW PENETRATIONS PER KEY NOTE 4. CONTINUE PIPE TO SHOP ROOM AS SHOWN. TYPICAL 2 PIPES.
- 6 PROVIDE 4-1/2" PIPE PENETRATIONS THROUGH INTERIOR WALL. TYPICAL 5 PLACES. ORIENT PENETRATIONS 2 HIGH BY 3 WIDE SEPARATED BY 2" BETWEEN HOLES.
- 7 TRANSFER PUMP CONTROL VALVE ASSEMBLY SEE DET. A/03-M-01.
- 8 RECIRCULATION PUMP BACKPRESSURE VALVE ASSEMBLY SEE DET. B/03-M-01.
- 9 CUT EXISTING FLOOR CONCRETE TO INSTALL PIPE PENETRATIONS. CUT NO MORE THAN 4" WIDE OPENING. PATCH AND REPLACE CONCRETE SLAB PER STRUCTURAL DETAIL C/GS-25.
- 10 DOUBLE CONTAINMENT PIPING VISUAL LEAK DETECTION. SEE DETAIL B/GM-05.
- 11 LOCAL DOUBLE CONTAINMENT PIPING HIGH POINT VENT, SEE DETAIL C/GM-05.
- 12 LOCAL DOUBLE CONTAINMENT PIPING LOW POINT DRAIN, SEE DETAIL D/GM-05.
- 13 DOUBLE CONTAINMENT PIPING SHALL TRANSITION TO SINGLE WALL PIPING.
- 14 4" TANK VENT. SEE DETAIL G/GM-05.

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**OPERATIONS - LOWER PLAN**



**90% GMP**

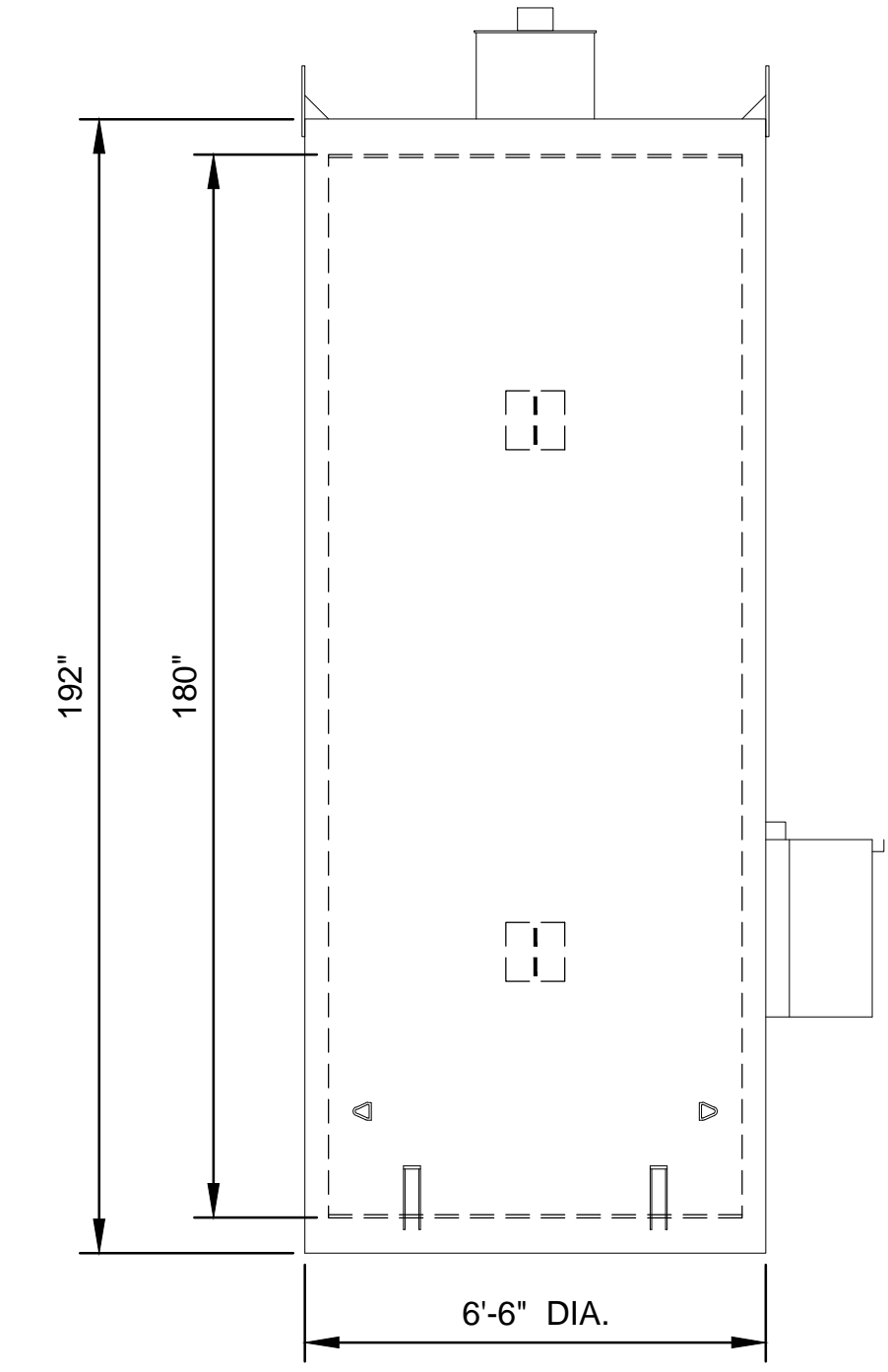
DRAWING NO.  
**03-M-01**

**Brown and Caldwell**

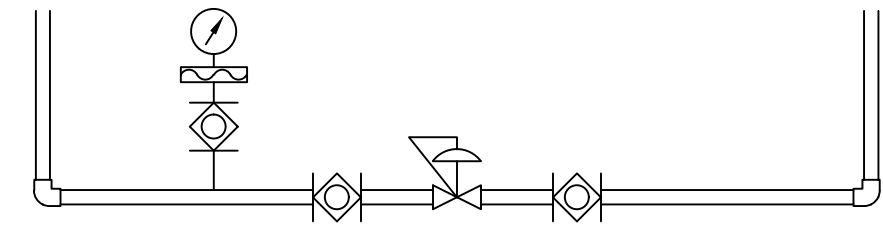
DESIGNED BY: AJONES  
DRAWN BY: R.FILK  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

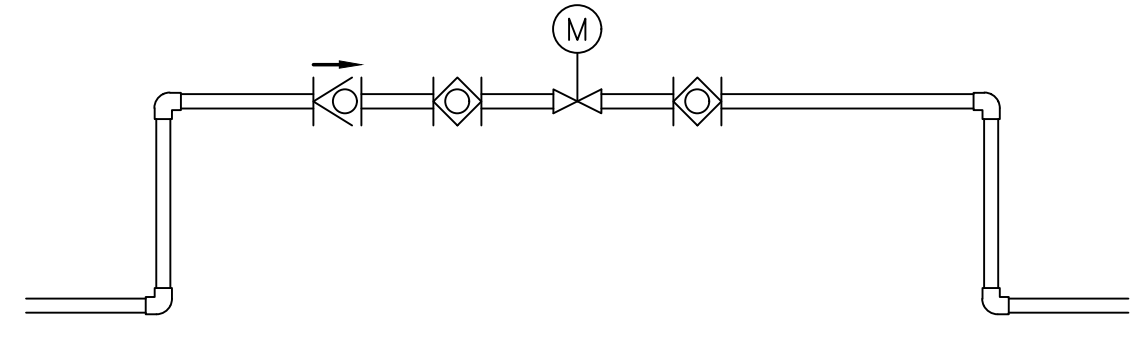
REVISIONS	MADE BY	AUTH BY
	AJ	JH



**C**  
03-M-02 VERTICAL FUEL TANK DETAIL  
SCALE: 3/8" = 1'-0"



**B**  
03-M-02 RECIRC PUMP CONTROL VALVE ASSEMBLY DETAIL  
SCALE: NTS

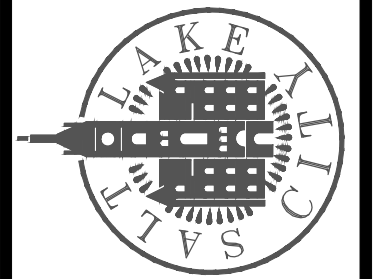


**A**  
03-M-02 CHEMICAL TRANSFER PUMP CONTROL VALVE ASSEMBLY DETAIL  
SCALE: NTS

**Brown and Caldwell**

DRAWING NO.  
**03-M-02**

**90% GMP**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**OPERATIONS - DETAILS**

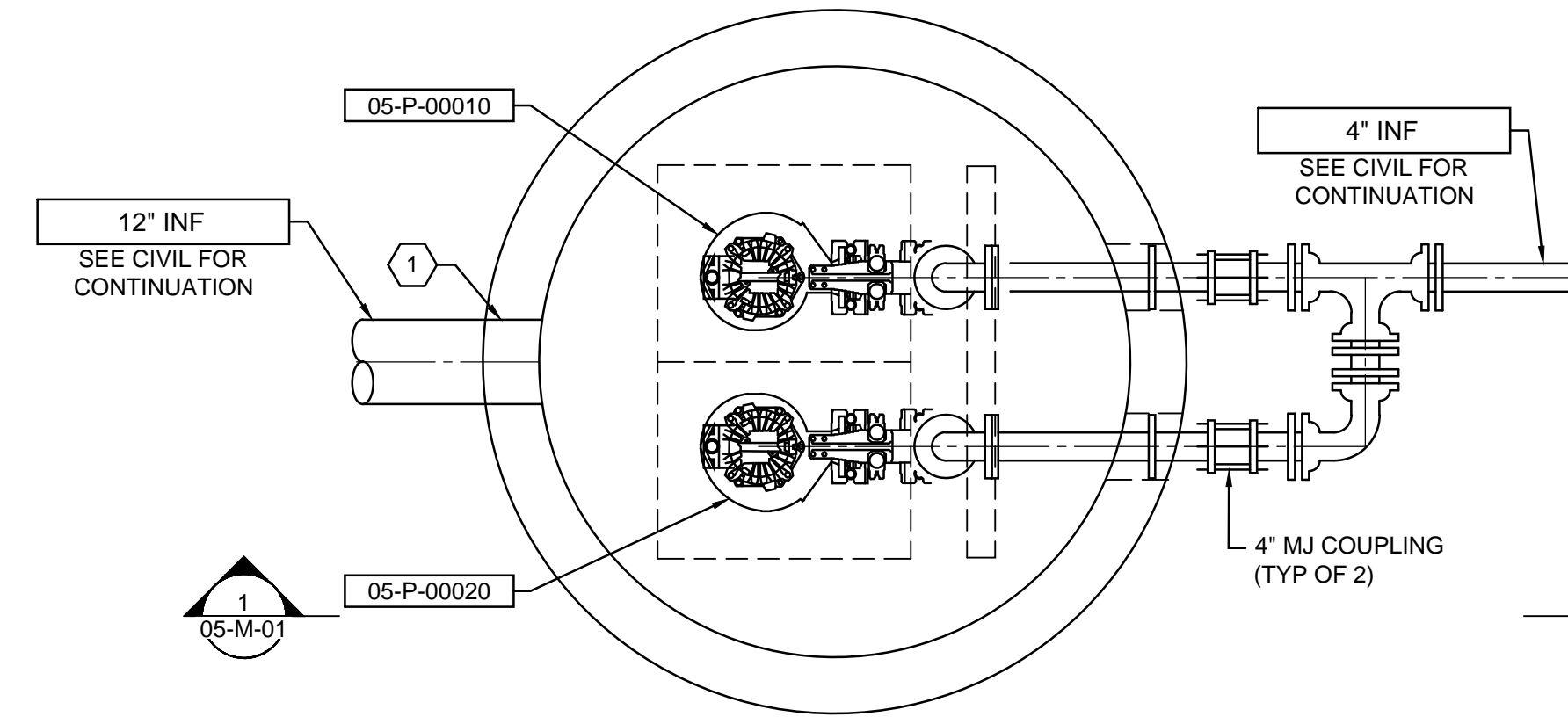
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	AJ	JH

DESIGNED BY: AJONES  
DRAWN BY: R.FULK  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

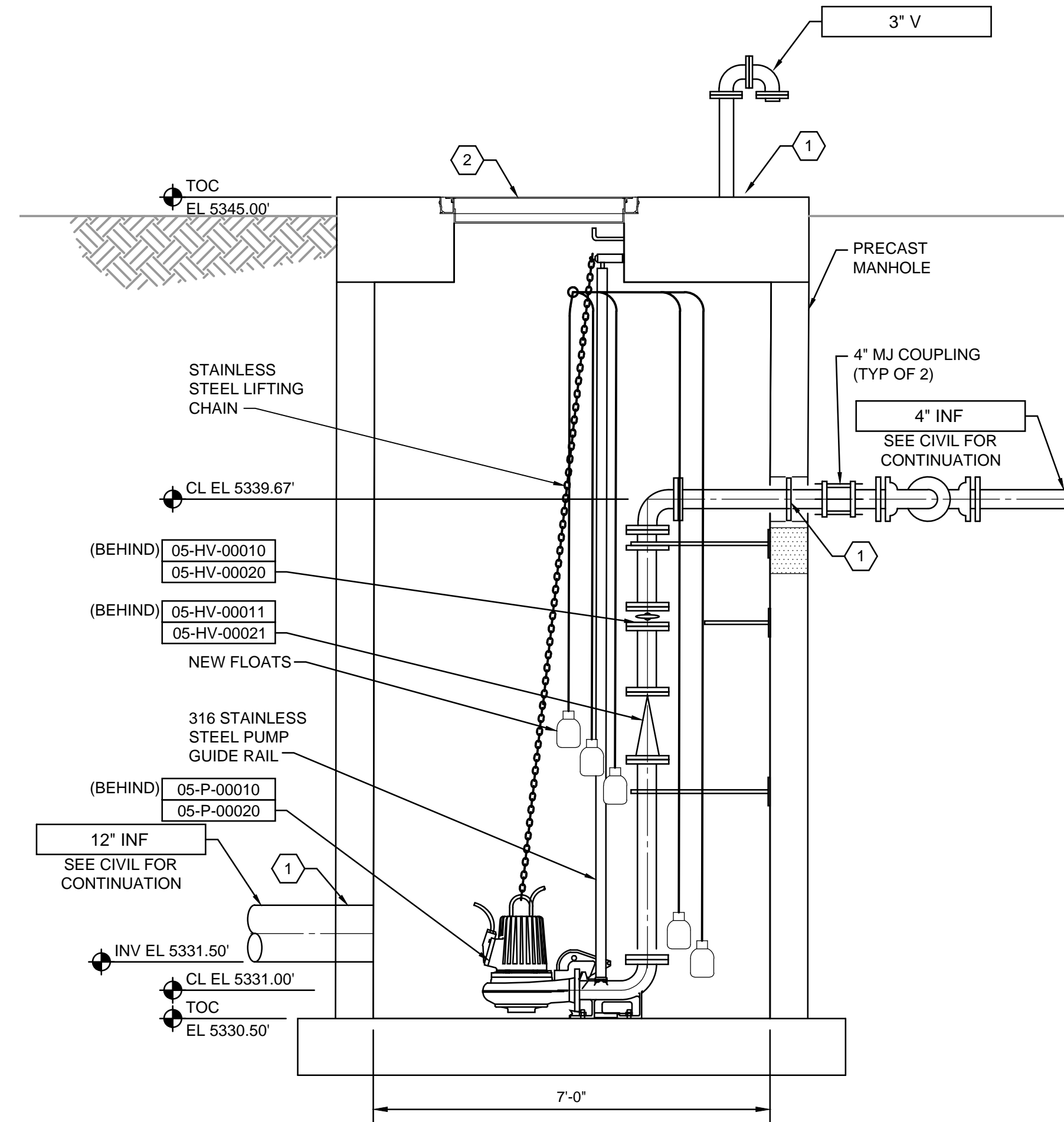
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

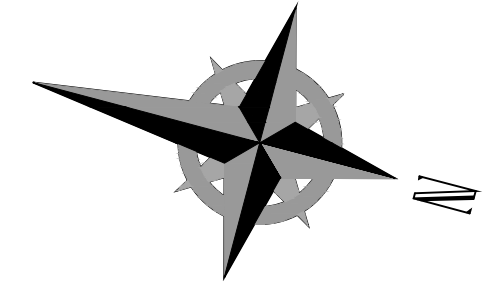
C:\bcpw\df1660460\05-M-01.dwg Jun 12, 2024 - 2:32pm



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



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



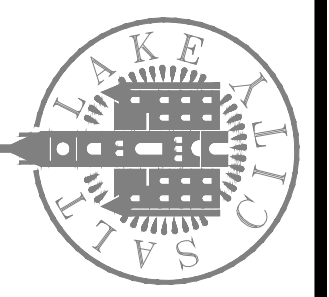
**GENERAL NOTES:**

- CONTRACTOR SHALL PROVIDE PIPE SUPPORTS AND DESIGN BY A PROFESSIONAL ENGINEER AS SPECIFIED.
- COORDINATE PENETRATION WITH MANHOLE MANUFACTURE. SEAL WITH LINK SEAL AND NON-SHRINK GROUT.
- INSTALL HATCH, SEE HATCH SCHEDULE ON STRUCTURAL DRAWINGS. PROVIDE HINGES ON LONG SIDE.

**KEYNOTES:**

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**INFILTRATION GALLERY PUMP  
STATION PLAN & SECTION**



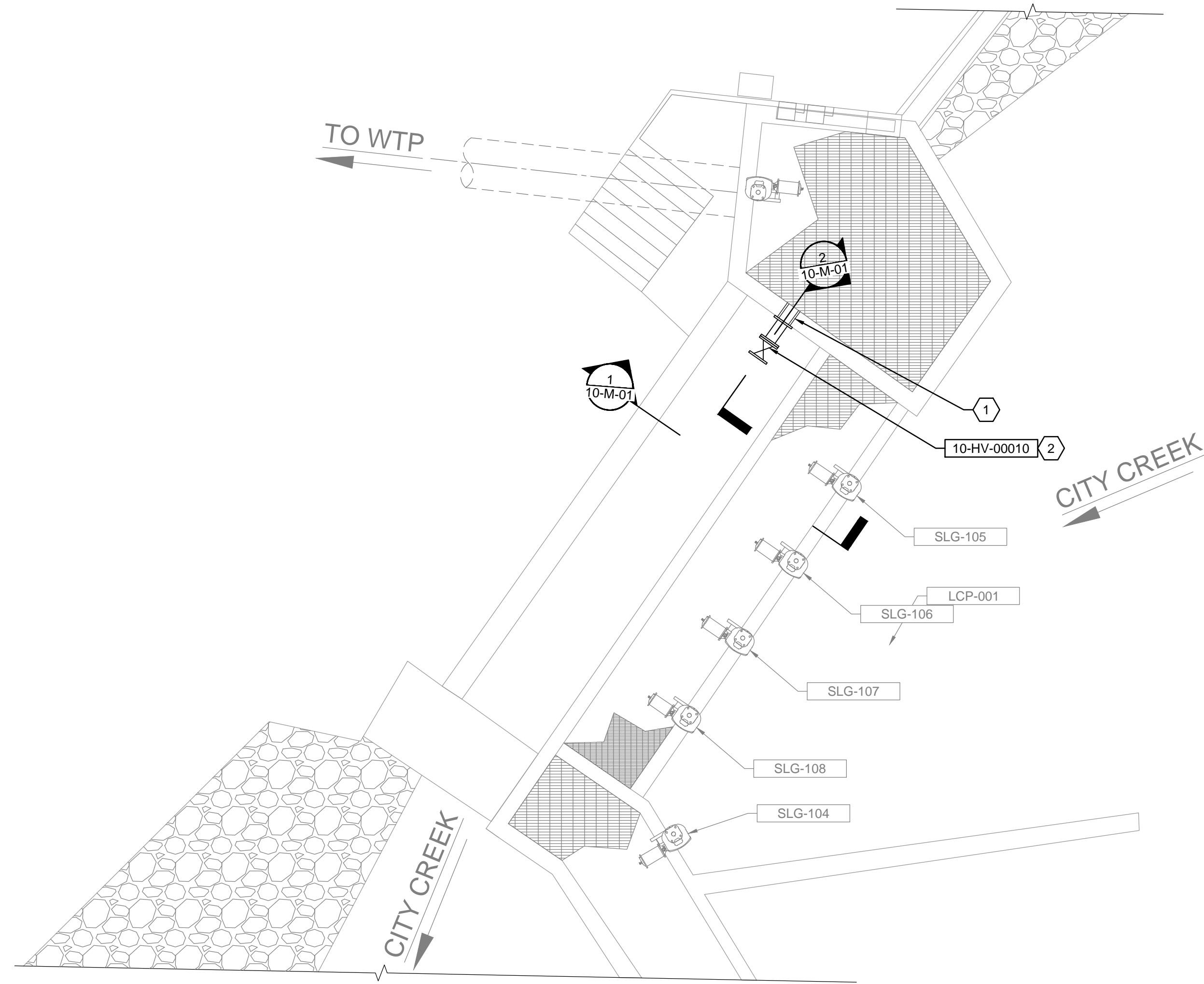
**90% GMP**

DRAWING NO.  
**05-M-01**

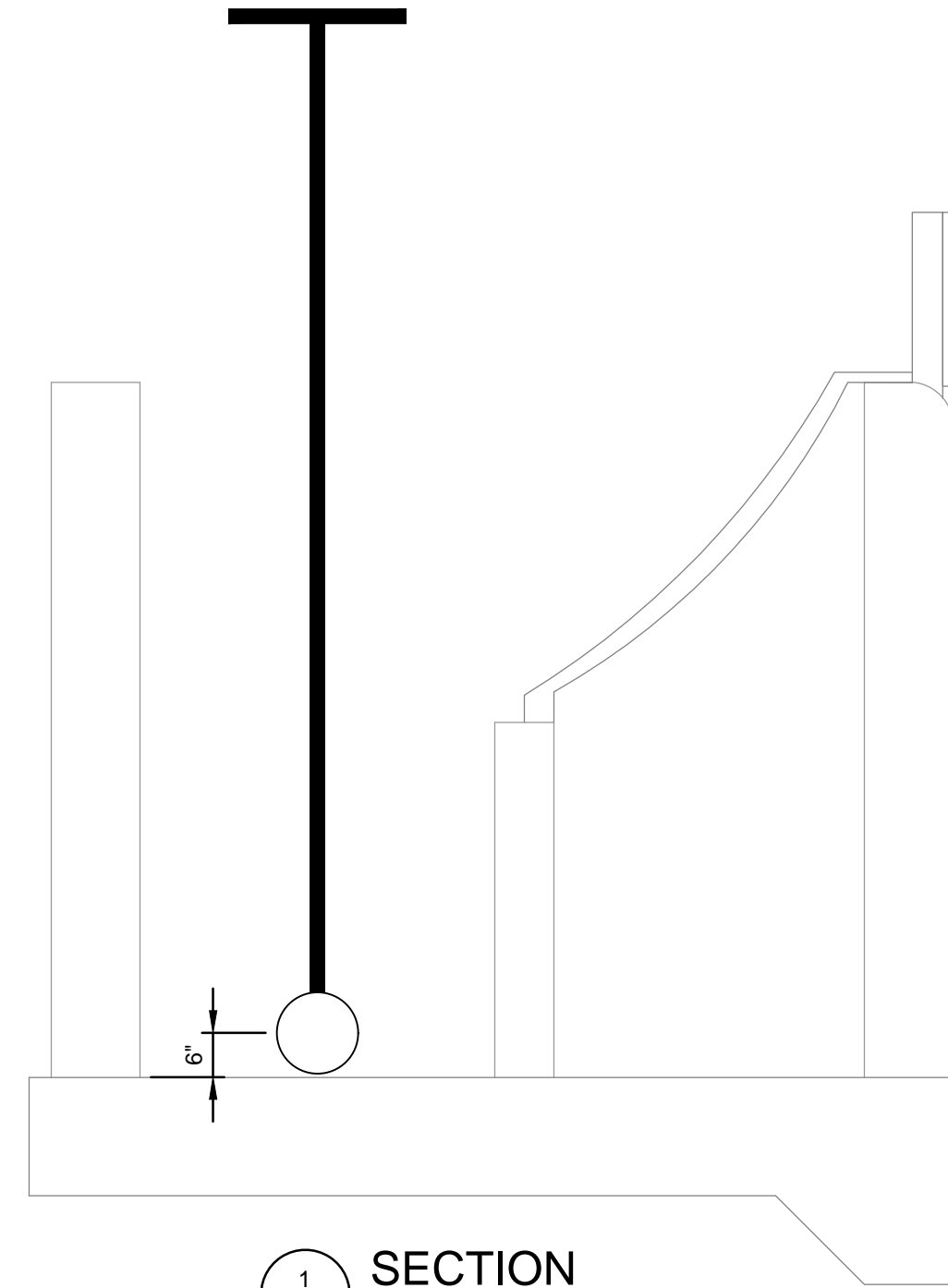
**Brown and Caldwell**

DESIGNED BY: AJJONES  
DRAWN BY: R.FILK  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

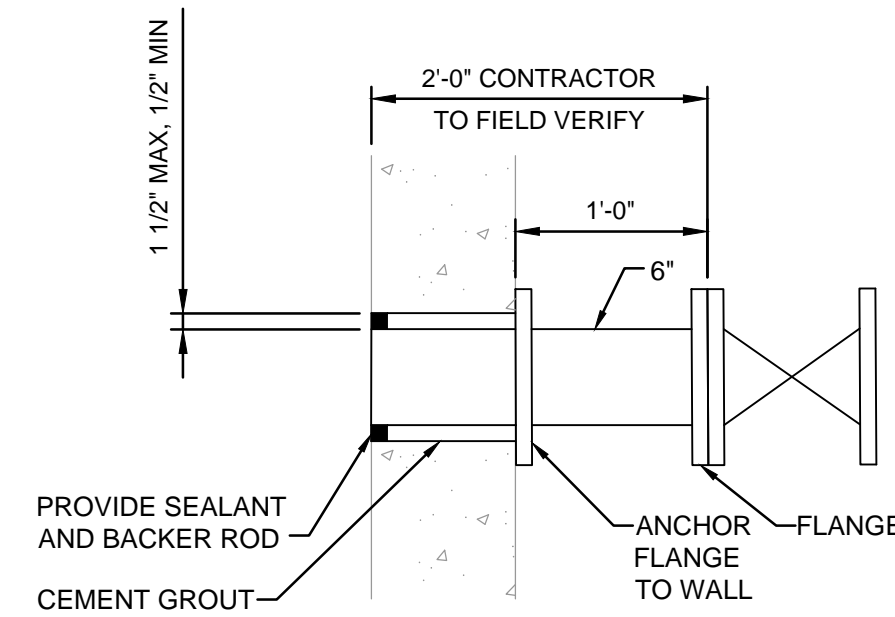
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



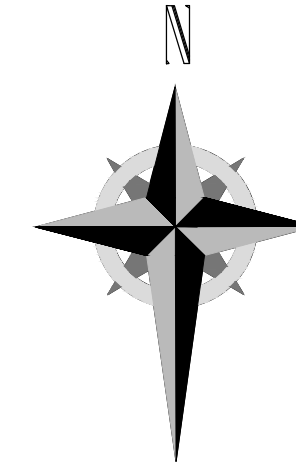
**PLAN**  
SCALE: 1/4" = 1'-0"



**1 SECTION**  
10-M-01 SCALE: 1/2" = 1'-0"



**2 SECTION**  
10-M-01 SCALE: 1" = 1'-0"



**GENERAL NOTES:**

1. PROTECT EXISTING EQUIPMENT, RAILING, GRATING, AND CONCRETE IN PLACE.

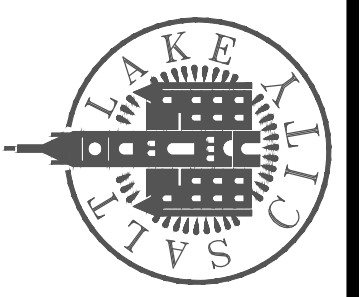
**KEYNOTES:**

1. CORE DRILL HOLE THROUGH EXISTING CONCRETE. INSTALL CUSTOM FABRICATED STEEL PIPE PER DETAIL A AND DETAIL B.
2. PROVIDE 6" STAINLESS STEEL GATE VALVE, FLANGED. PROVIDE HAND WHEEL OPERATOR WITH 11' EXTENSION. ANCHOR STEM TO CONCRETE WALL.

DESIGNED BY: AJONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**INTAKE - PLAN & SECTIONS**

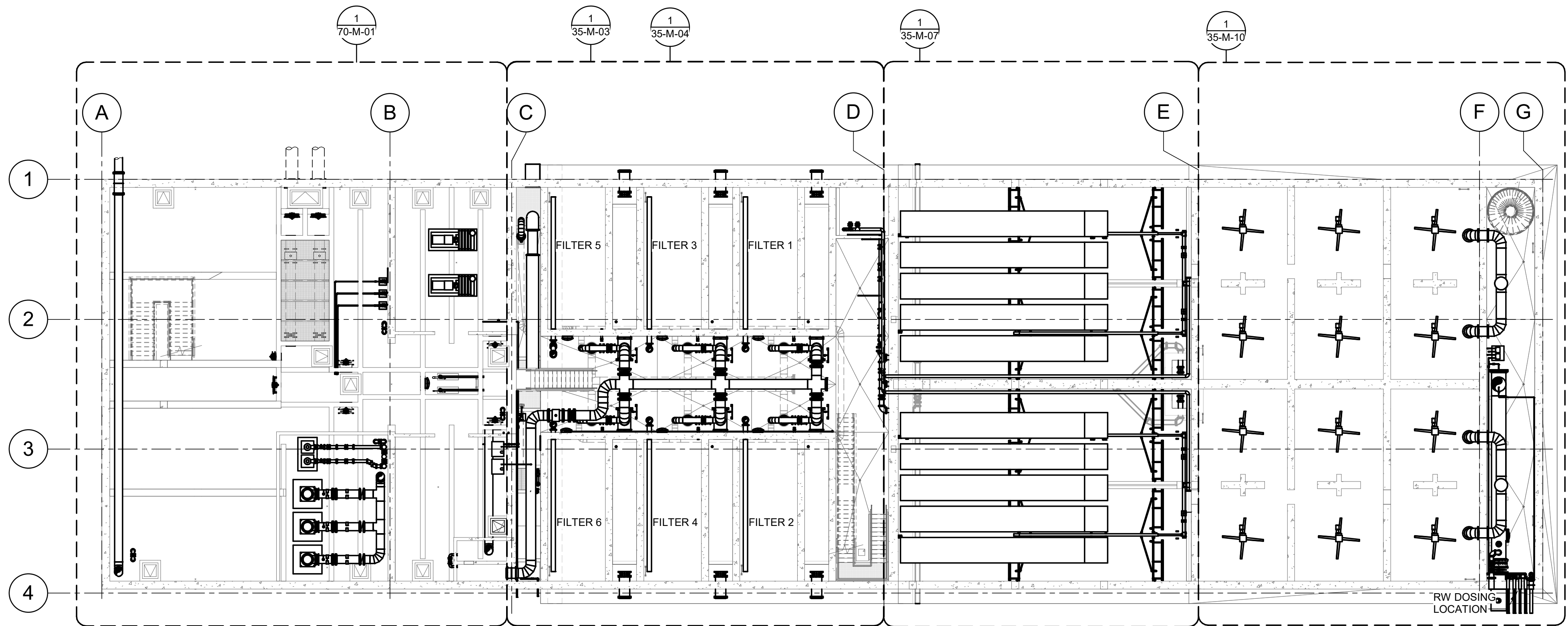


**90% GMP**

DRAWING NO.  
**10-M-01**

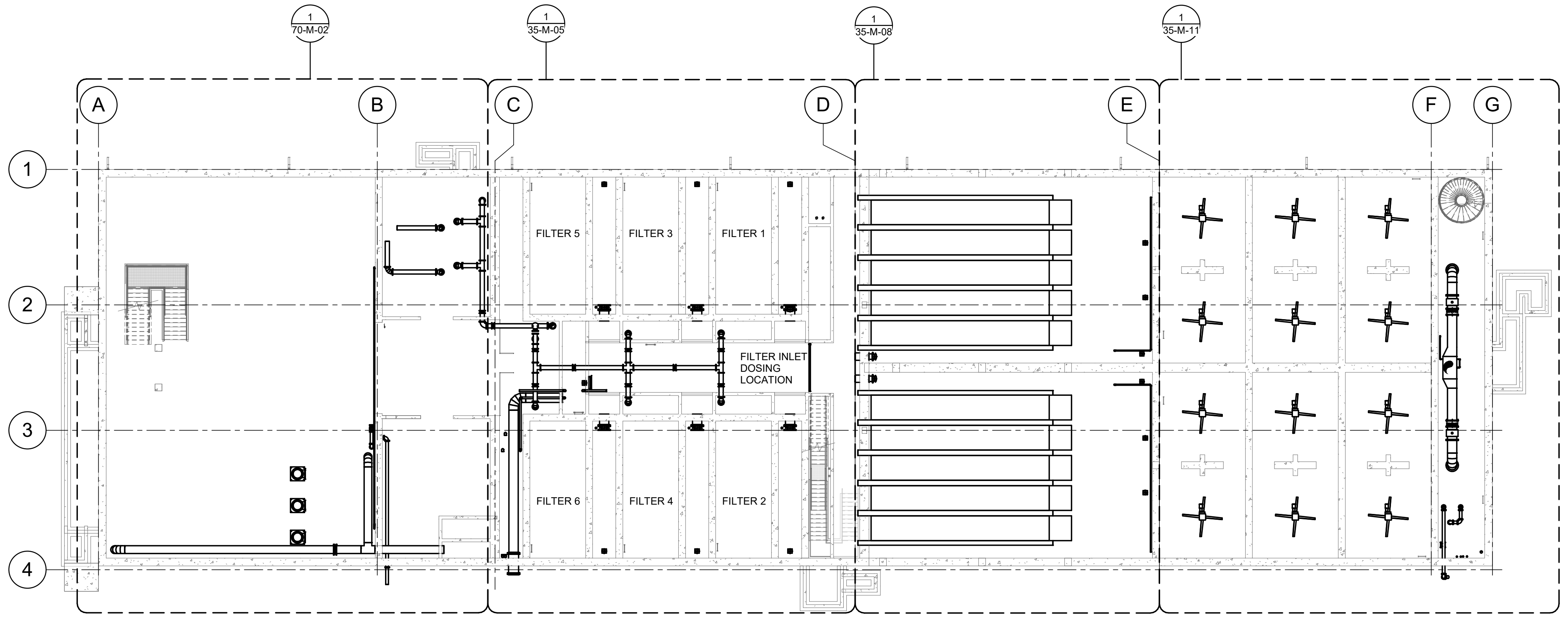
**Brown and Caldwell**

Plot Date: 6/12/2024 4:49:57 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-M-3570V21.rvt



OVERALL LOWER PLAN

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

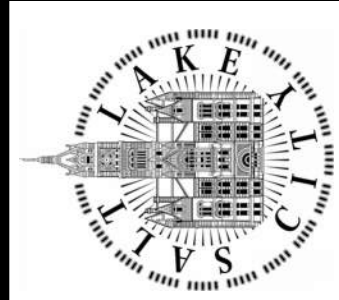


OVERALL INTERMEDIATE PLAN

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



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 OVERALL PLANS 1



90% GMP

DRAWING NO.  
 35-M-01

REVISIONS

DATE: 06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY: AJ

DESIGNED BY: A.JONES

DRAWN BY: R.PERSHING

SCALE: \_\_\_\_\_

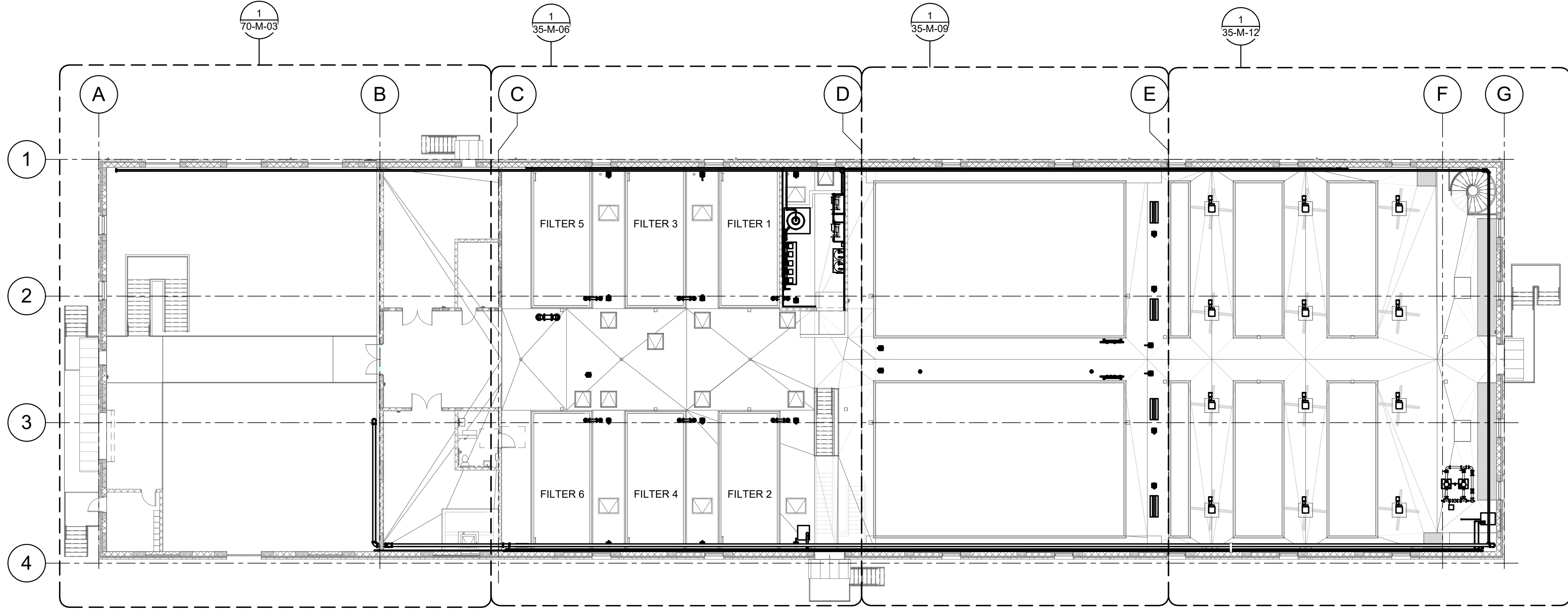
VERIFY SCALE  
 BAR IS ONE INCH ON  
 ORIGINAL DRAWING

APPROVED BY: J.JESBY  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

**Brown and Caldwell**



Plot Date: 6/12/2024 4:50:02 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-M-3570V21.rvt

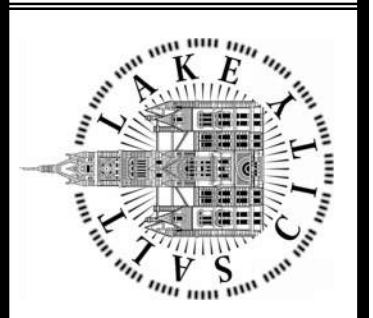


**OVERALL UPPER LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"

**Brown and Caldwell**

DRAWING NO.  
**35-M-02**

**90% GMP**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**OVERALL PLANS 2**

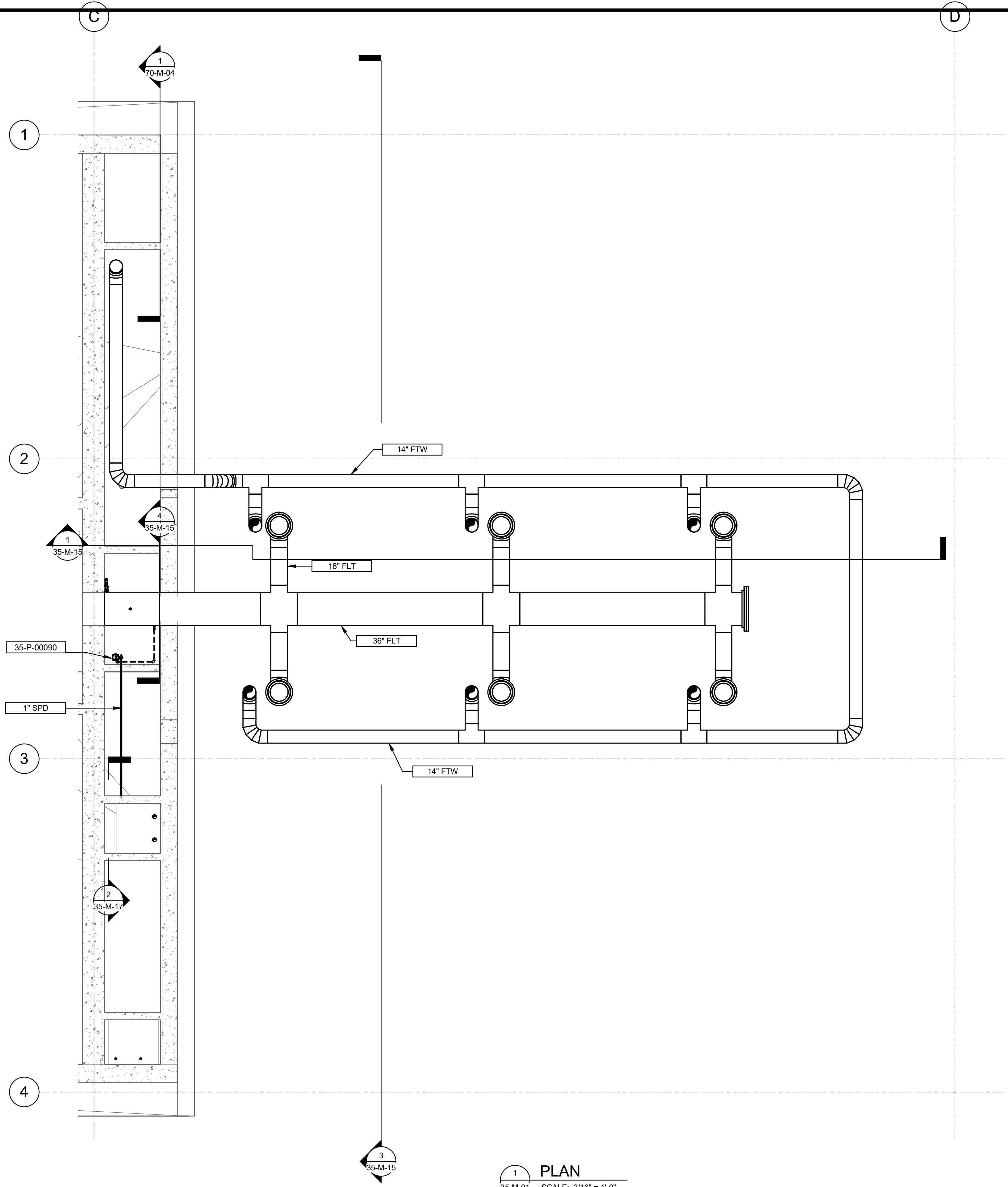
REVISIONS

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

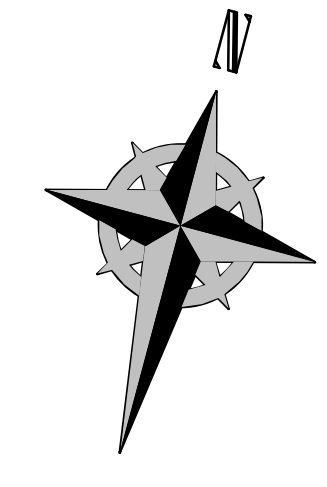
DESIGNED BY: A.JONES	AUTH BY: JH
DRAWN BY: R.PERSHING	BY: JH
CHECKED BY: J.HESBY	MADE BY: AJ
APPROVED BY: J.HESBY	DATE: 06/14/24
DATE: JUNE 2024	NO. 0
EWO NO. ---	
ACCOUNT NO: 512260079	

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

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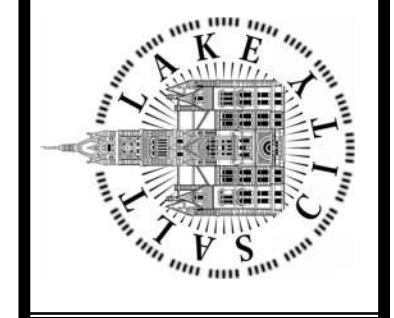


1 PLAN  
 35-M-01 SCALE: 3/16" = 1'-0"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER BASINS**  
 BELOW SLAB



90% GMP

DRAWING NO.  
**35-M-03**

REVISIONS

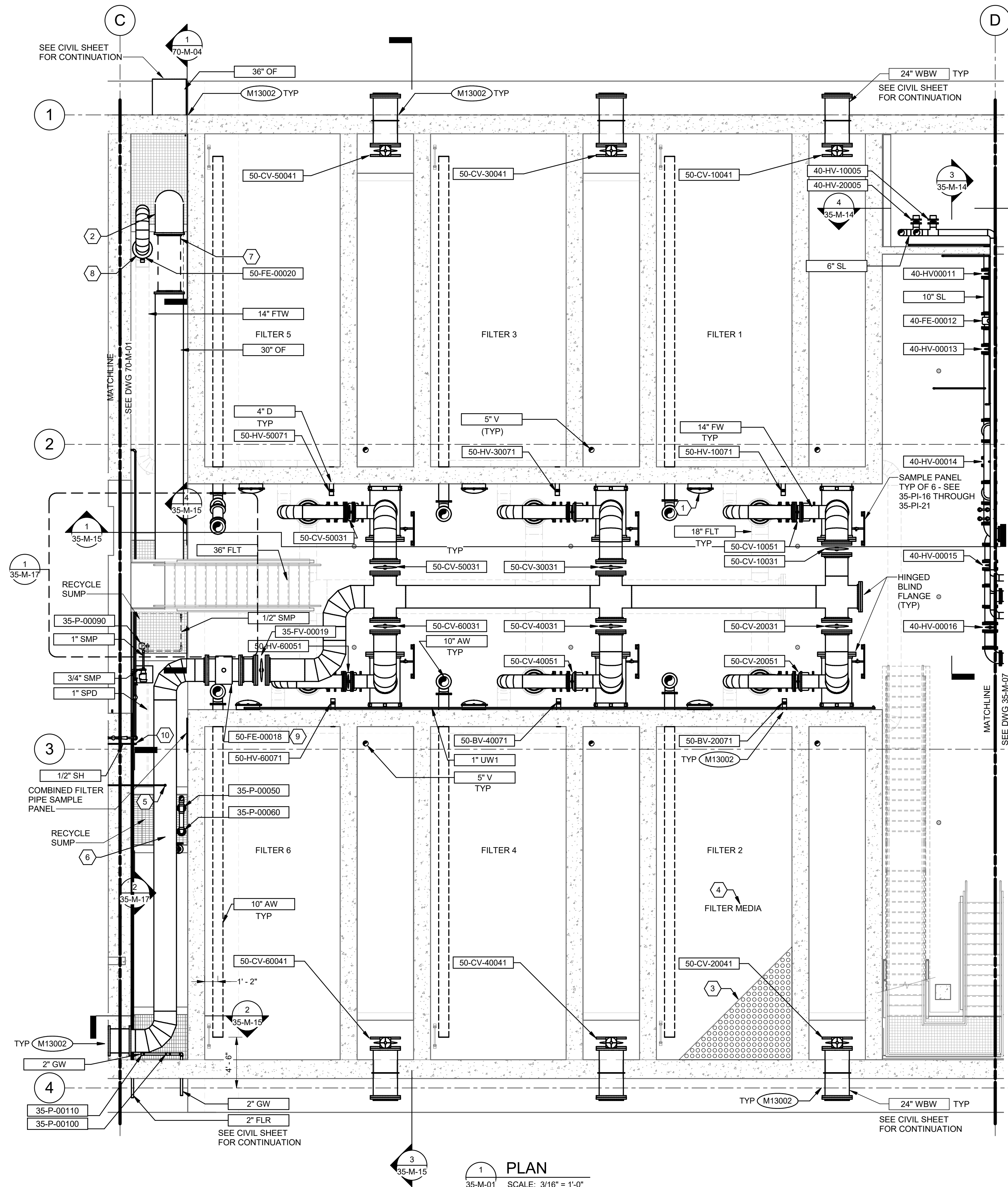
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

DESIGNED BY: A.JONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

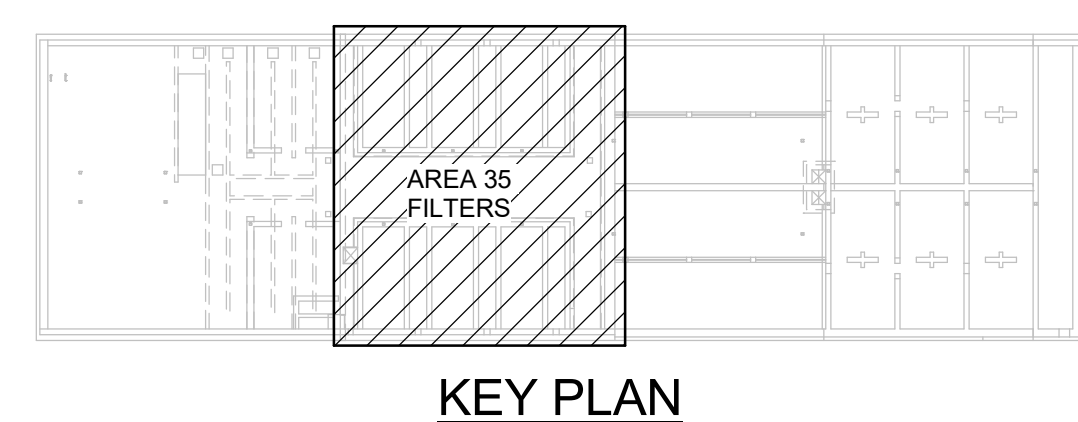
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**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

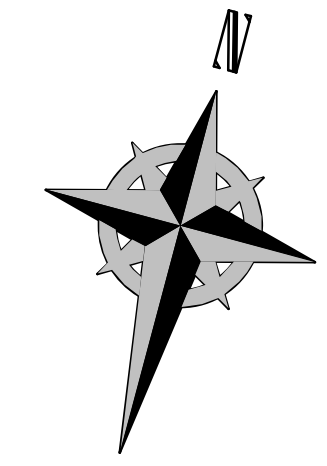
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



KEY PLAN



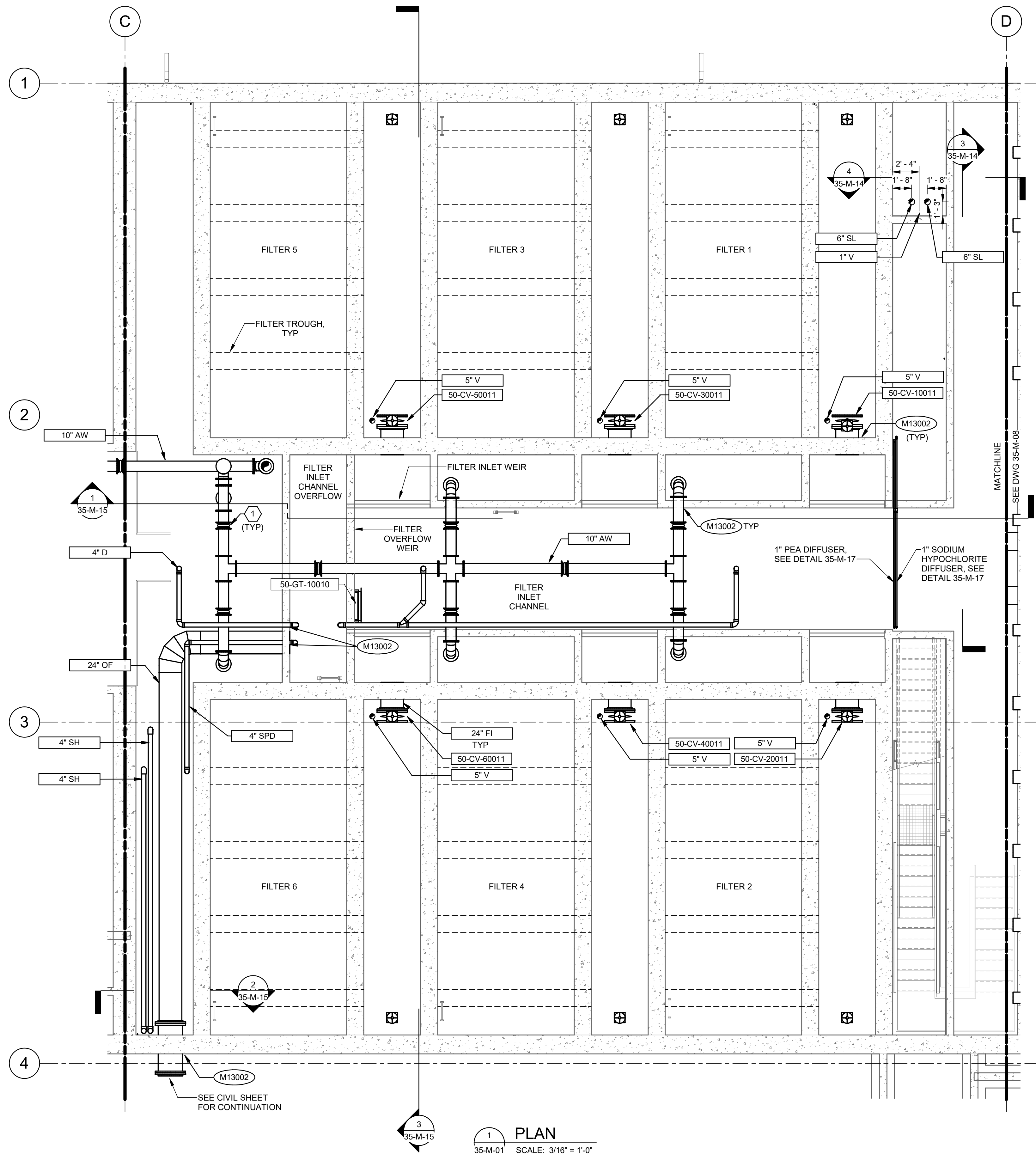
**GENERAL NOTES:**

1. SLOPE DRAIN LINE A MINIMUM OF 1%.
- KEYNOTES:**
1. PROVIDE 24" OUTWARD SWINGING WALL MANWAY, TYPICAL 6 PLACES.
  2. PROVIDE FABRICATED ELBOW, PER AWWA M11. MINIMUM RADIUS IN ACCORDANCE WITH C208 4 SEGMENT LENGTH OF 1.5.
  3. PROVIDE NOZZLE UNDERDRAIN SYSTEM PER SPECIFICATIONS, TYPICAL ALL FILTERS.
  4. INSTALL SAND AND ANTHRACITE MEDIA AS SPECIFIED.
  5. CONNECT TO SODIUM HYPOCHLORITE INJECTION QUILL. SEE DETAIL M00000
  6. INSTALL 2" DRAIN AND VALVE TO BOTTOM OF PIPE DOWNSTREAM OF VALVE PER 35-PI-23. CONNECT TO PIPE WITH WELDOLET OR APPROVED EQUAL.
  7. PROVIDE ELASTOMERIC SLIP-IN CHECK VALVE, TIDEFLEX TECHNOLOGIES CMUF-SL SLIP-IN CHECKMATE ULTRAFLEX VALVE OR APPROVED EQUAL.
  8. TAP PIPE WITH 1" SAMPLE LINE DOWNSTREAM OF FLOW METER. INSTALL SAMPLE PANEL. SEE DETAIL A/GM-05 AND 35-PI-23.
  9. PROVIDE 0 X DN MAGNETIC FLOW METER.
  10. CONNECT TO SODIUM HYPOCHLORITE INJECTION QUILL ON FILTER EFFLUENT PIPE. SEE DETAIL M00000.

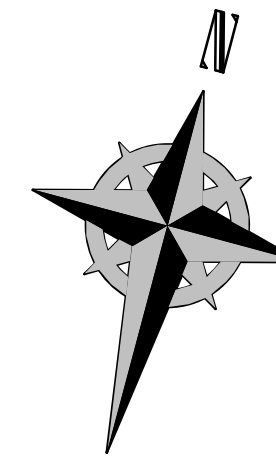
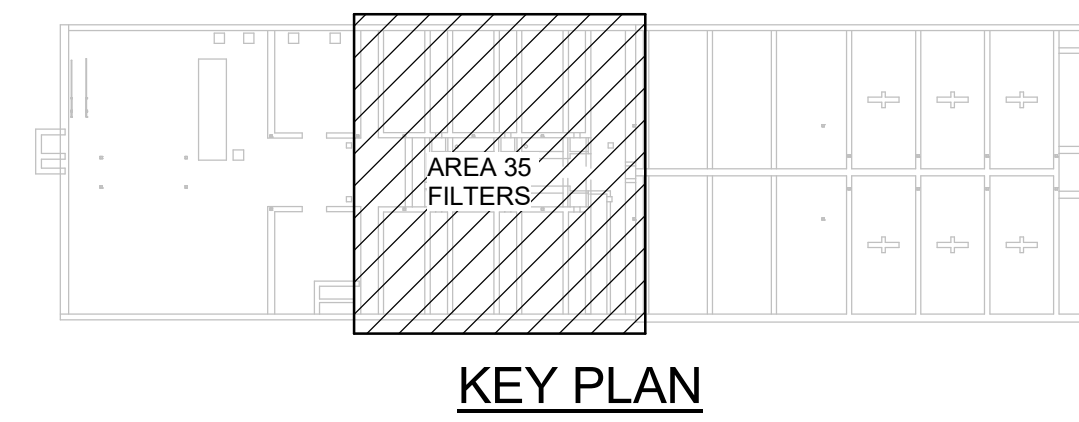
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<p>SCALE: _____</p> <p><b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING</p>											
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NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)							
0	06/14/24										
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE</p> <p><b>TREATMENT - FILTER BASINS LOWER PLAN</b></p>											
<p><b>90% GMP</b></p>											
<p>DRAWING NO. <b>35-M-04</b></p>											

**Brown and Caldwell**

Plot Date: 6/12/2024 4:50:08 PM Path: R:\M\_360\1153020 - City Creek WTP\153020-M-3570\21.rvt



1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



GENERAL NOTES:

KEYNOTES:

- 1 CONTRACTOR TO PROVIDE EXPANSION CONTROL DESIGN PER SPECIFICATION 40 05 06.23 AND 43.11 17.16.

Brown and Caldwell

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FILTER BASINS  
INTERMEDIATE PLAN

DESIGNED BY: A.JONES  
DRAWN BY: R.PERSHING  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: ---  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO. DATE: 0 06/14/24  
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

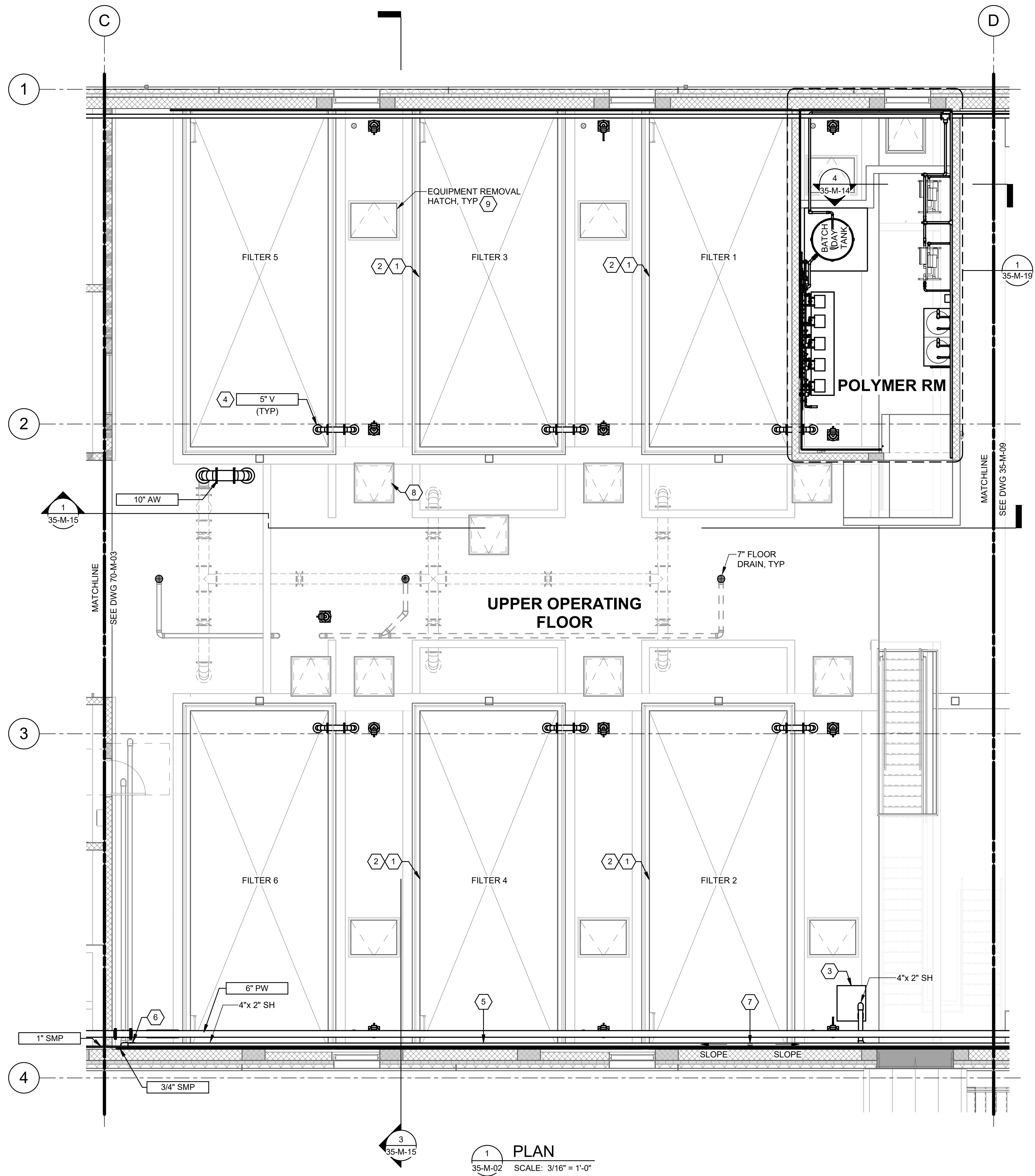
REVISIONS

NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24		AJ	JH

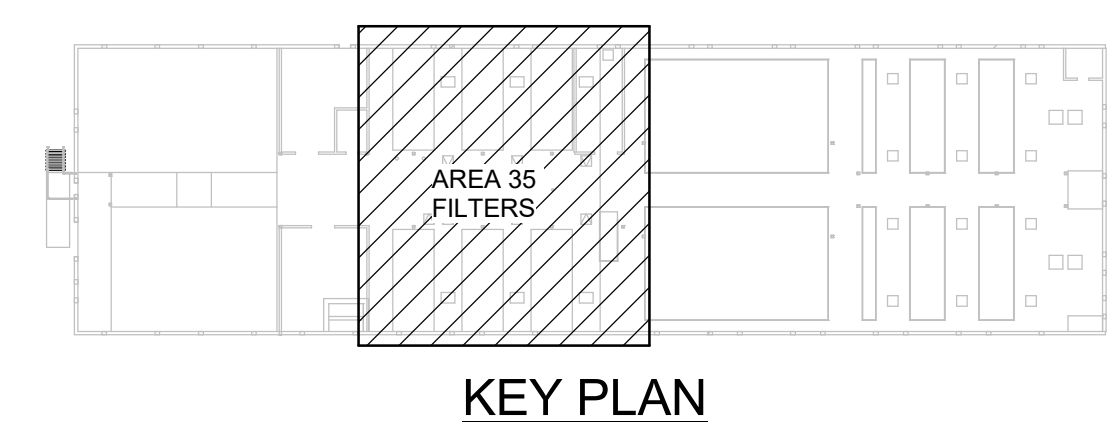
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DRAWING NO.  
35-M-05

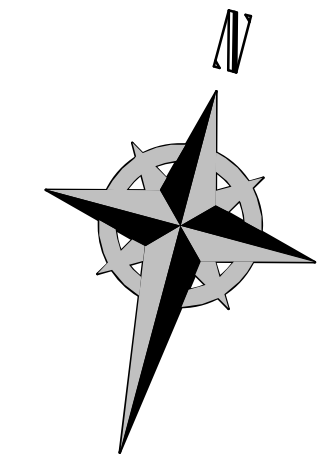
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1 PLAN  
SCALE: 3/16" = 1'-0"



KEY PLAN

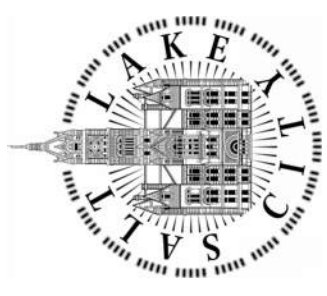


**GENERAL NOTES:**

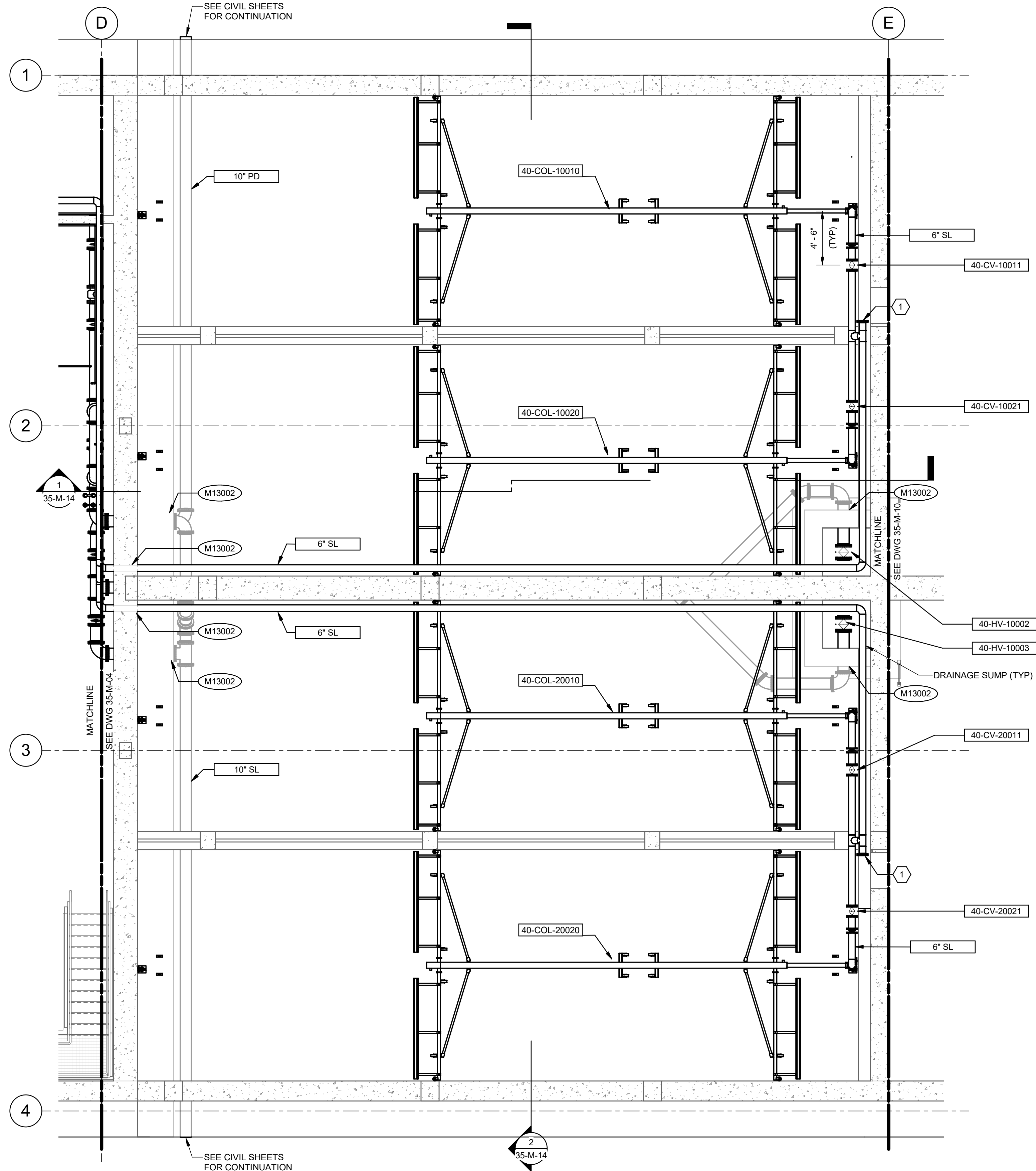
**KEYNOTES:**

- 1 PROVIDE HOSE RACK, VALVE AND UTILITY STATION PER DETAILS M31004, M31005, M31002 AND M31007.
- 2 FIELD ROUTE PIPE FROM HYDRANT TO NEAREST 3 INCH UTILITY WATER PIPE. TAP INTO UTILITY WATER PIPE USING TAPPING SADDLE OR FABRICATED REDUCING TEE. ROUTE PIPE USING 1 1/2 INCH SCH 80 PVC PIPE. INCLUDE 1-1/2 INCH BALL VALVE AT UTILITY WATER TAP. ANCHOR PIPING AS SPECIFIED. PROVIDE PROPOSED PIPE ROUTING TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- 3 SODIUM HYPOCHLORITE INJECT SKID WITH ONE CHEMICAL FEED PERISTALTIC PUMP (DUTY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- 4 PROVIDE NO. 14 MESH SCREEN BETWEEN TWO 150# FLANGES. TYPICAL ALL VENTS.
- 5 DOUBLE CONTAINMENT PIPING SHALL BE CONSTRUCTED WITH 2% SLOPE TOWARDS LOW POINT INSPECTION LOCATION.
- 6 DOUBLE CONTAINMENT PIPING VISUAL LEAK DETECTION SEE DETAIL B/GM-05.
- 7 LOCAL DOUBLE CONTAINMENT PIPING HIGH POINT VENT SEE DETAIL C/GM-05.
- 8 FIELD ROUTE PVC HATCH DRAINS BELOW SLAB TO FILTER INFLUENT CHANNEL OVERFLOW. ANCHOR DRAIN PIPE BELOW FILTER DECK SLAB AND ABOVE FILTER INLET CHANNEL WATER SURFACE. COORDINATE DRAIN PIPE DIAMETER WITH HATCH MANUFACTURER. TYPICAL 8 PLACES.
- 9 ROUTE PVC HATCH DRAINS DIRECTLY THROUGH SLAB TO FILTER UPPER GULLET. TERMINATE PIPE 2" FROM BOTTOM OF FILTER UPPER DECK. COORDINATE DRAIN PIPE DIAMETER WITH HATCH MANUFACTURER.

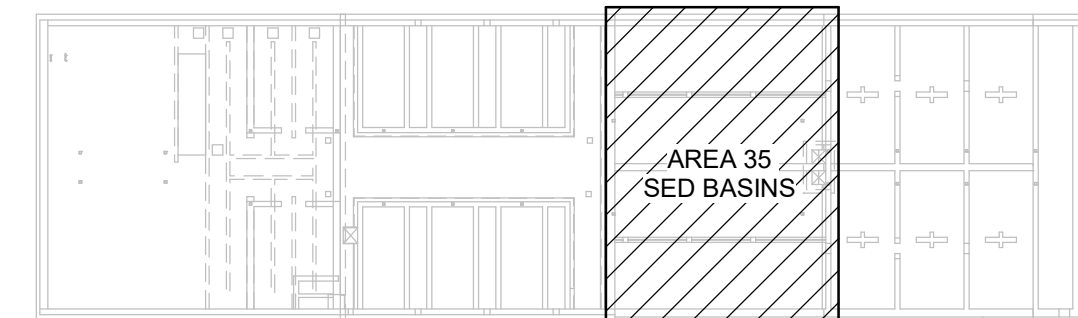
**Brown and Caldwell**

	<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FILTER BASINS UPPER PLAN</b></p>																												
<p>90% GMP</p>																													
<p>DRAWING NO. <b>35-M-06</b></p>																													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">DESIGNED BY: A.JONES</td> <td style="width: 20%;">AUTH BY: JH</td> <td style="width: 20%;">SCALE:</td> <td style="width: 40%;">VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING</td> </tr> <tr> <td>DRAWN BY: R.PERSHING</td> <td>BY: AJ</td> <td></td> <td></td> </tr> <tr> <td>CHECKED BY: J.HESBY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>APPROVED BY: J.HESBY</td> <td></td> <td></td> <td></td> </tr> <tr> <td>DATE: JUNE 2024</td> <td></td> <td></td> <td></td> </tr> <tr> <td>EWO NO: ---</td> <td></td> <td></td> <td></td> </tr> <tr> <td>ACCOUNT NO: 512260079</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGNED BY: A.JONES	AUTH BY: JH	SCALE:	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWN BY: R.PERSHING	BY: AJ			CHECKED BY: J.HESBY				APPROVED BY: J.HESBY				DATE: JUNE 2024				EWO NO: ---				ACCOUNT NO: 512260079			
DESIGNED BY: A.JONES	AUTH BY: JH	SCALE:	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING																										
DRAWN BY: R.PERSHING	BY: AJ																												
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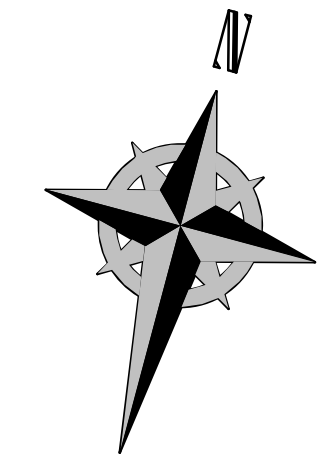
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1 PLAN  
SCALE: 3/16" = 1'-0"



KEY PLAN

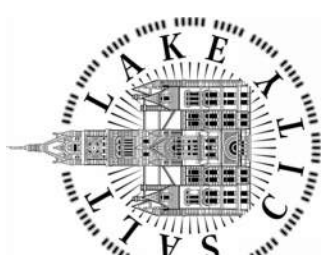


**GENERAL NOTES:**

1. PROVIDE HOSELESS SOLIDS COLLECTION SYSTEM IN ACCORDANCE WITH SECTION 46 43 80. CONTRACTOR TO COORDINATE WITH SELECTED MANUFACTURER TO VERIFY LAYOUT PRIOR TO PLACING PARTIAL WALL.
2. CONTRACTOR TO INSTALL HOSELESS SOLIDS COLLECTION EQUIPMENT IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED BY THE SELECTED MANUFACTURER. REFER TO INFORMATION PROVIDED IN THE INSTALLATION MANUAL AND OTHER INFORMATION PROVIDED DURING THE SUBMITTAL PROCESS FOR FURTHER INFORMATION.
3. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER.
4. PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAMINATION OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
5. ALL UNBURIED PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17.13.
6. ALL BURIED PIPING SHALL BE ENCASED IN CONCRETE IN ACCORDANCE WITH THE STRUCTURAL DETAILS SUPPLIED AS PART OF THIS DRAWING PACKAGE AND SLOPED A MINIMUM OF 2%.

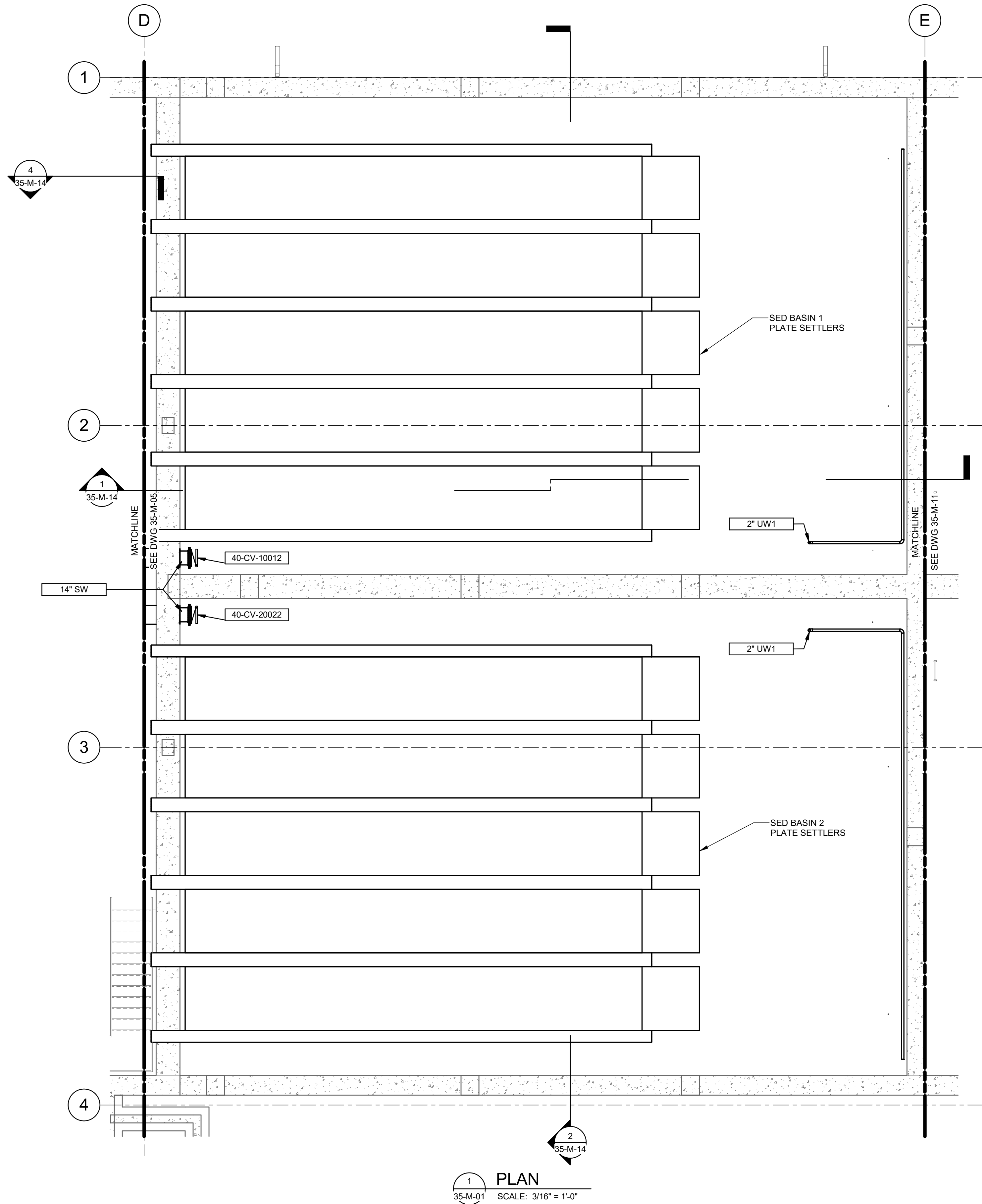
**KEYNOTES:**

1. PROVIDE A 6" TEE AT ALL LOCATIONS SHOWN. TEE SHALL ALSO INCLUDE A BLIND FLANGE AND 316 SS FASTENERS ON THE UNUSED LEG TO PROVIDE A CLEAN-OUT FOR THE SYSTEM.

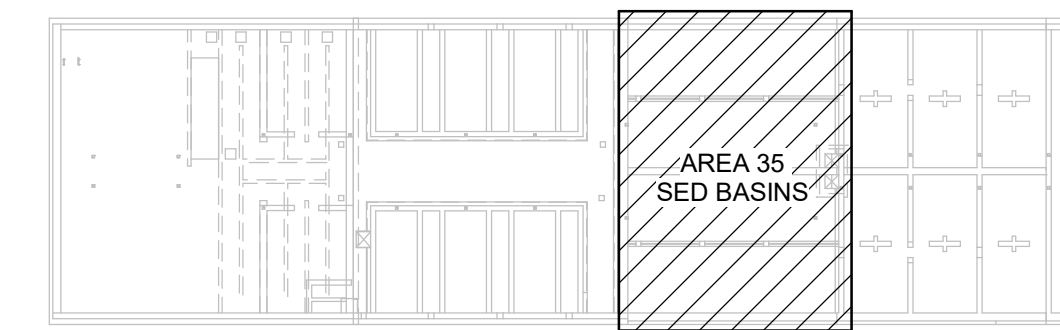
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DRAWN BY: R.PERSHING		VERIFY SCALE	
CHECKED BY: J.HESBY		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: J.HESBY		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
REVISIONS			
NO.	DATE:	ISSUED FOR:	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE TREATMENT - SED BASINS LOWER PLAN			
			
90% GMP			
DRAWING NO. 35-M-07			

**Brown and Caldwell**

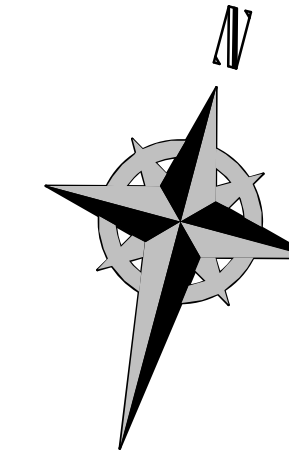
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



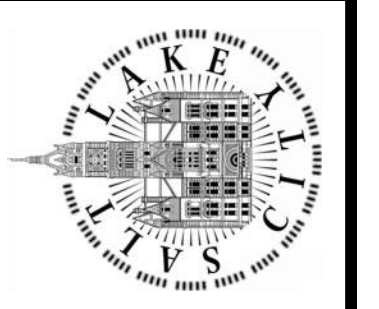
KEY PLAN



**GENERAL NOTES:**

1. PROVIDE PLATE SETTLER EQUIPMENT AND SUPPORT STRUCTURE IN ACCORDANCE WITH SECTION 46 63 76. CONTRACTOR TO COORDINATE WITH SELECTED MANUFACTURER TO VERIFY SUPPORT COLUMN PLACEMENT PRIOR TO PLACING PARTIAL WALL AND COLUMN PEDISTALS.
2. CONTRACTOR TO INSTALL PLATE SETTLER EQUIPMENT IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED BY THE SELECTED MANUFACTURER. REFER TO INFORMATION PROVIDED IN THE INSTALLATION MANUAL AND OTHER INFORMATION PROVIDED DURING THE SUBMITTAL PROCESS FOR FURTHER INFORMATION.
3. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER.
4. PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAMINATION OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.
5. WALL PENETRATIONS FOR PIPING SHALL BE PROVIDED AS SHOWN IN DETAIL M13002 UNLESS OTHERWISE NOTED.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SED BASINS  
INTERMEDIATE PLAN**



90% GMP

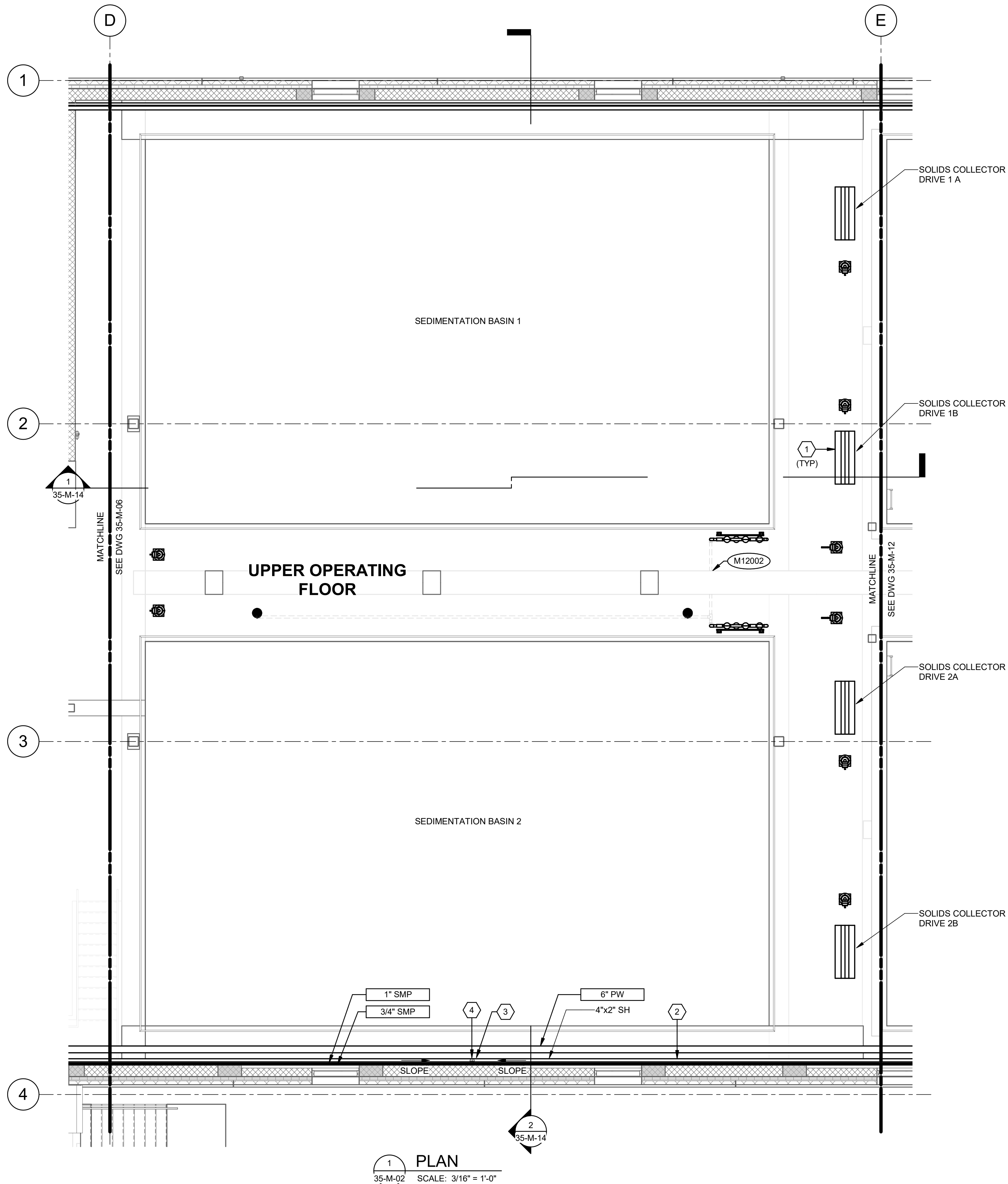
DRAWING NO.  
**35-M-08**

**Brown and Caldwell**

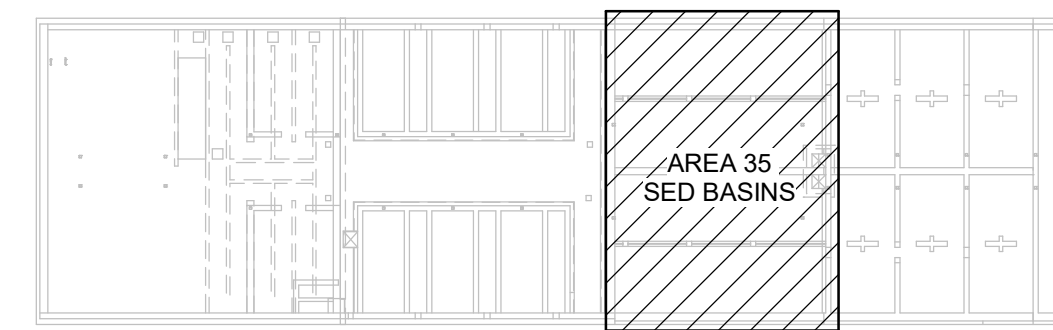
DESIGNED BY: A.JONES		AUTH. BY: JH	
DRAWN BY: R.PERSHING		MADE BY: AJ	
CHECKED BY: J.HESBY		ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
APPROVED BY: J.HESBY		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
<b>VERIFY SCALE</b>			
BAR IS ONE INCH ON ORIGINAL DRAWING			

SCALE:

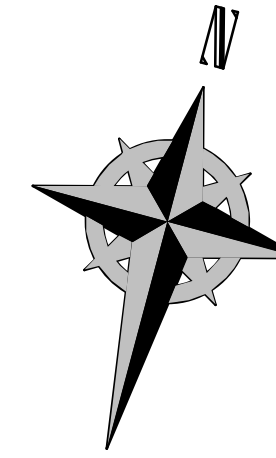
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1 PLAN  
35-M-02 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

1. ALL UNBURIED PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17.13.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER.
3. PROVIDE HOSELESS SOLIDS COLLECTION EQUIPMENT AND DRIVES IN ACCORDANCE WITH SECTION 46 43 80. CONTRACTOR TO COORDINATE WITH SELECTED MANUFACTURER TO VERIFY LOCATION OF DRIVE UNIT AND OTHER APPURTENANCES PRIOR TO POURING DECK TO ENSURE PROPER PLACEMENT OF THE DECK OPENINGS.
4. CONTRACTOR TO INSTALL HOSELESS SOLIDS EQUIPMENT IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED BY THE SELECTED MANUFACTURER. REFER TO INFORMATION PROVIDED IN THE INSTALLATION MANUAL AND OTHER INFORMATION PROVIDED DURING THE SUBMITTAL PROCESS FOR FURTHER INFORMATION.
5. PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAMINATION OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR HOSELESS SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.

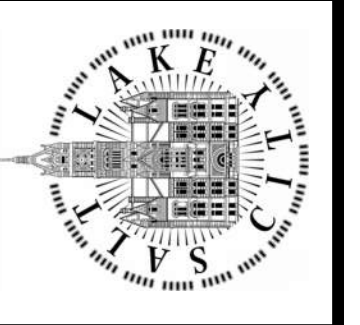
**KEYNOTES:**

1. PROVIDE EQUIPMENT PADS FOR HOSELESS SOLIDS COLLECTION SYSTEM IN ACCORDANCE WITH DETAIL M01009 AND THE STRUCTURAL SHEETS PROVIDED AS PART OF THIS DRAWING PACKAGE. THE CONTRACTOR SHALL ALSO PROVIDE ANCHORAGE FOR FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH DETAIL M01002.
2. DOUBLE CONTAINMENT PIPING SHALL BE CONSTRUCTED WITH 2% SLOPE TOWARDS LOW POINT INSPECTION LOCATION.
3. DOUBLE CONTAINMENT PIPING VISUAL LEAK DETECTION SEE DETAIL B/GM-05.
4. LOCAL DOUBLE CONTAINMENT PIPING LOW POINT DRAIN SEE DETAIL D/GM-05.

DESIGNED BY: A.JONES	AUTH BY: JH
DRAWN BY: R.PERSHING	BY: AJ
CHECKED BY: J.HESBY	DATE: JUNE 2024
APPROVED BY: J.HESBY	EWO NO: ---
ACCOUNT NO: 512260079	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)	REVISIONS
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SED BASINS  
UPPER PLAN



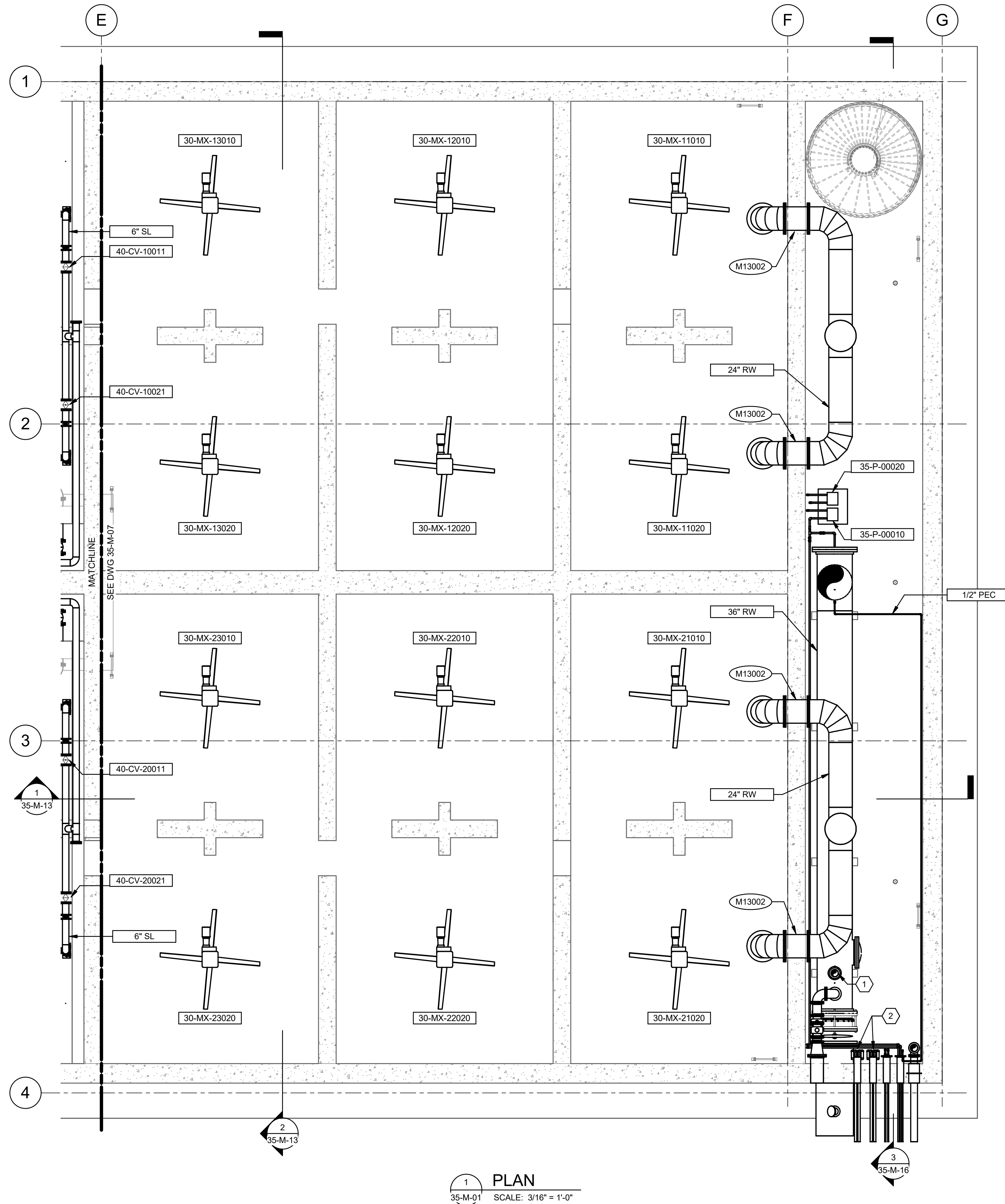
90% GMP

DRAWING NO.  
35-M-09

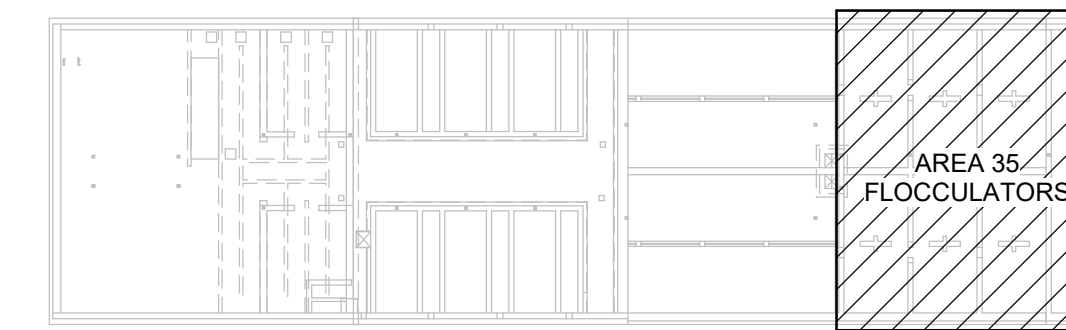
Brown and Caldwell



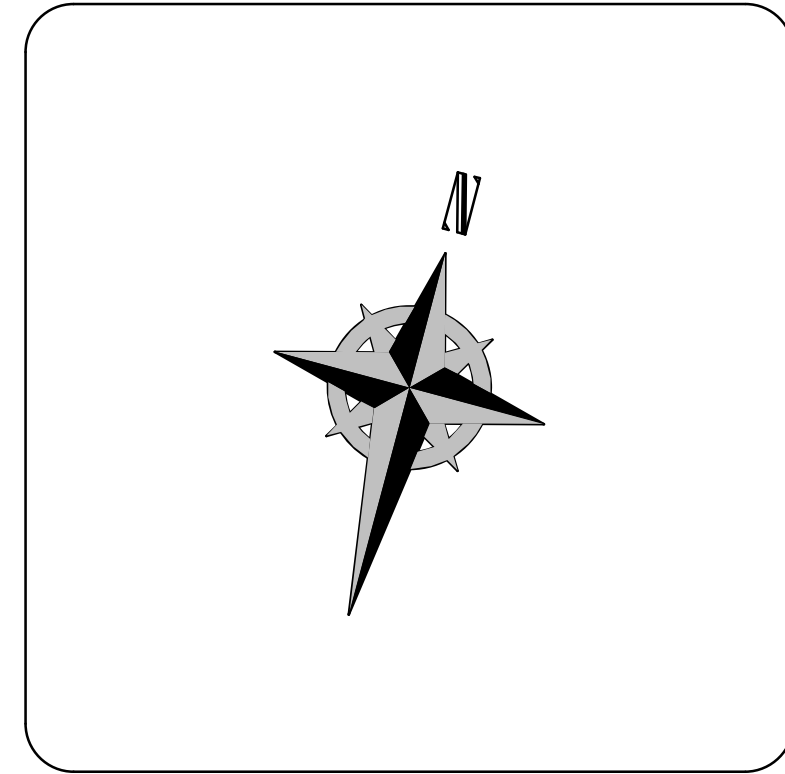
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

1. ALL UNBURIED PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17.13.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER.
3. SUPPORT 36-INCH RAW WATER PIPING IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS.

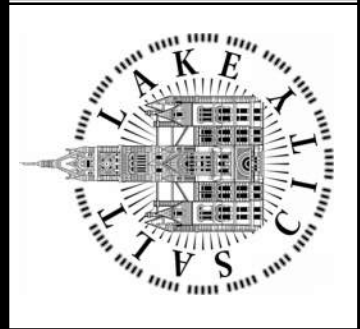
**KEYNOTES:**

1. PROVIDE INJECTION NOZZLE AND FERRIC CHLORIDE INJECTION POINT IN ACCORDANCE WITH DETAIL M0000 ON SHEET GM-02.
2. LOCALIZED DRAIN POINT FOR SODIUM HYPOCHLORITE CARRIER PIPES. CONSTRUCT 2" TEE FITTING WITH 1" DIAPHRAGM VALVE AND QUICK CONNECT FITTING. TYPICAL FOR ALL SODIUM HYPOCHLORITE PIPES.

**Brown and Caldwell**

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.PERSHING	VERIFY SCALE
CHECKED BY: J.HESBY	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

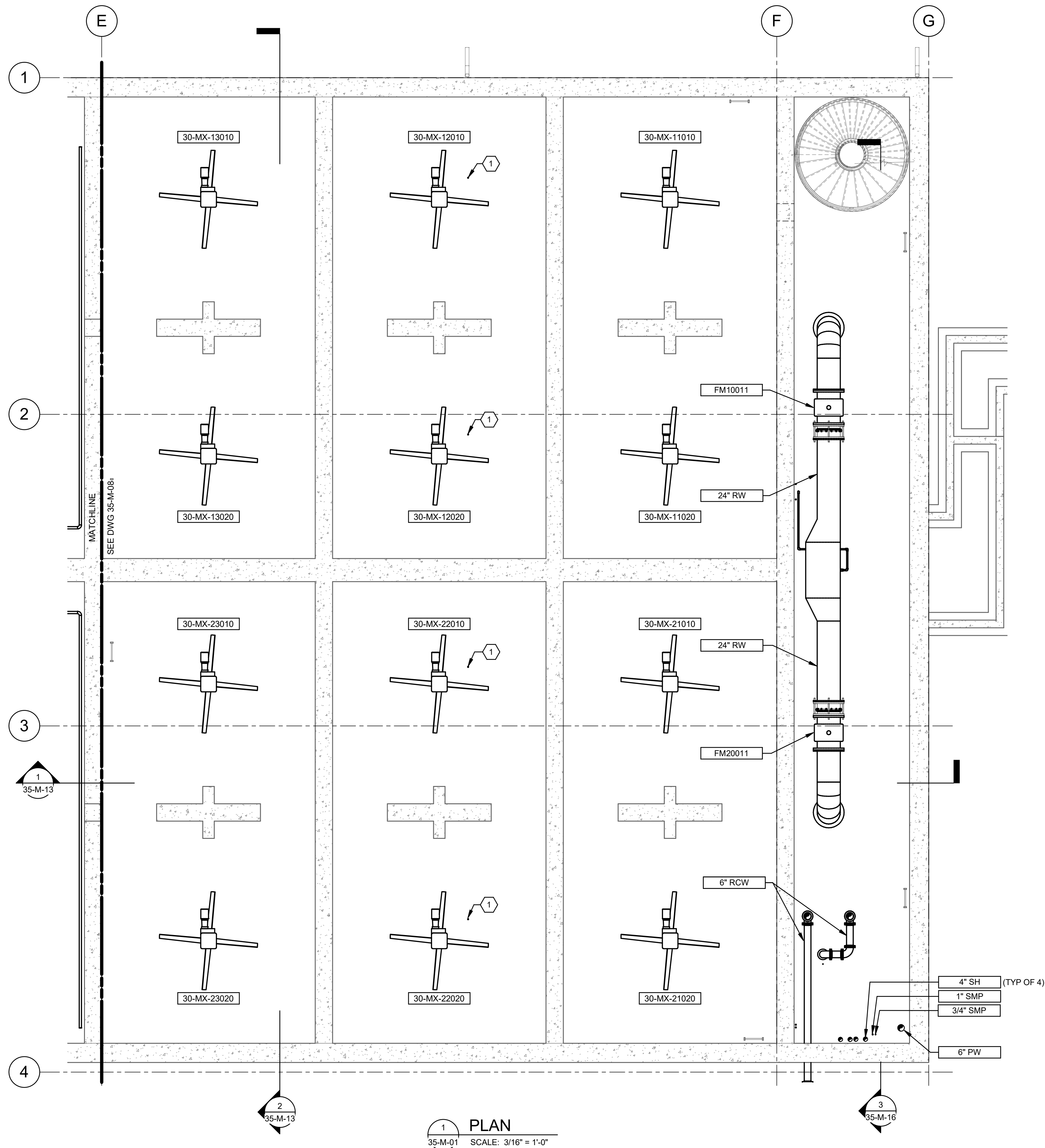
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS**  
**LOWER PLAN**



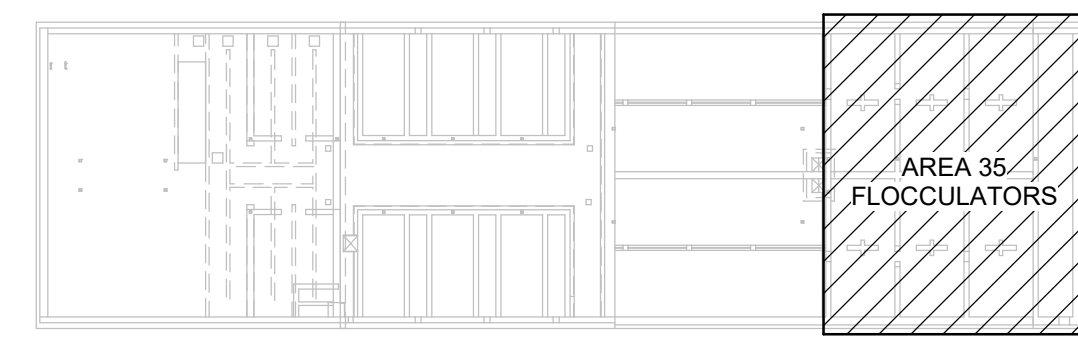
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DRAWING NO.  
**35-M-10**

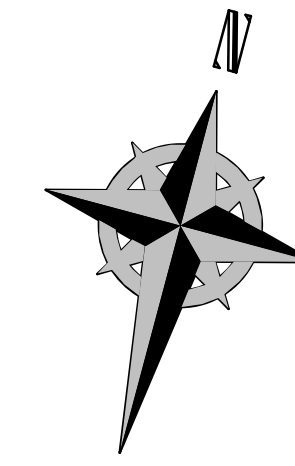
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

1. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17 13.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER. EPOXY ANCHORING ONLY PERMITTED WHERE RIGID ANCHORS HAVE NOT BEEN SPECIFIED.
3. PROVIDE FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH SECTION 46 41 42.
4. PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAINMENT OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR HOSELESS SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.

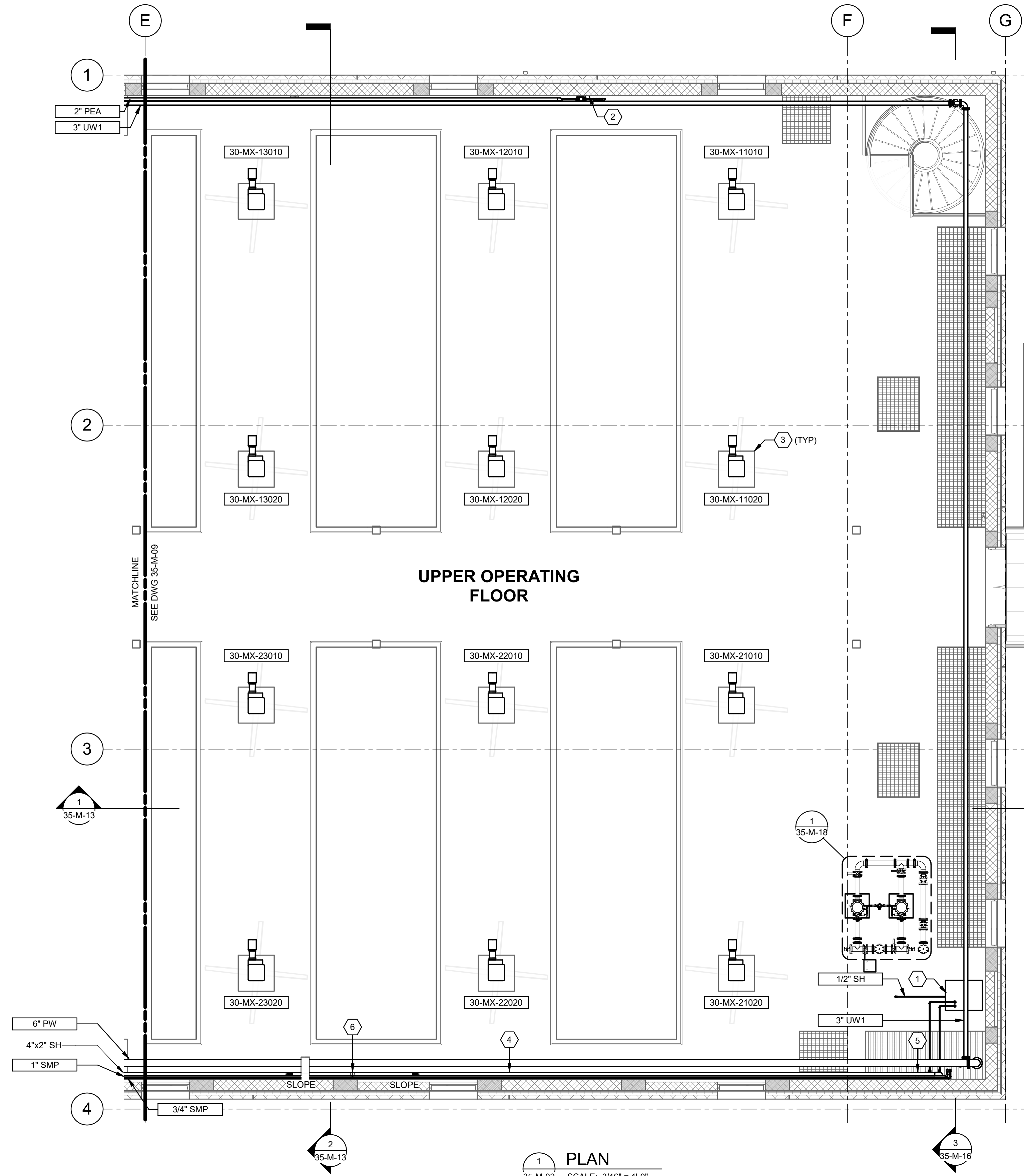
**KEYNOTES:**

1. ROUTE PIPING FROM OPERATOR PANEL DISCUSSED IN KEY NOTE 2 ON SHEET 35-M-11 TO LOCATION ABOVE EACH FLOCCULATOR IMPELLER AS SHOWN ON THIS DRAWING.

DESIGNED BY: A.JONES	DRAWN BY: R.PERSHING	CHECKED BY: J.HESBY	APPROVED BY: J.HESBY	DATE: JUNE 2024	EWO NO: ---	ACCOUNT NO: 512260079																		
<p>SCALE: _____</p> <p><b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING</p>																								
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NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP	AUTHOR	BY	JH																
0	06/14/24																							
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FLOC BASINS INTERMEDIATE PLAN</b></p>																								
<p><b>90% GMP</b></p>																								
<p>DRAWING NO. <b>35-M-11</b></p>																								

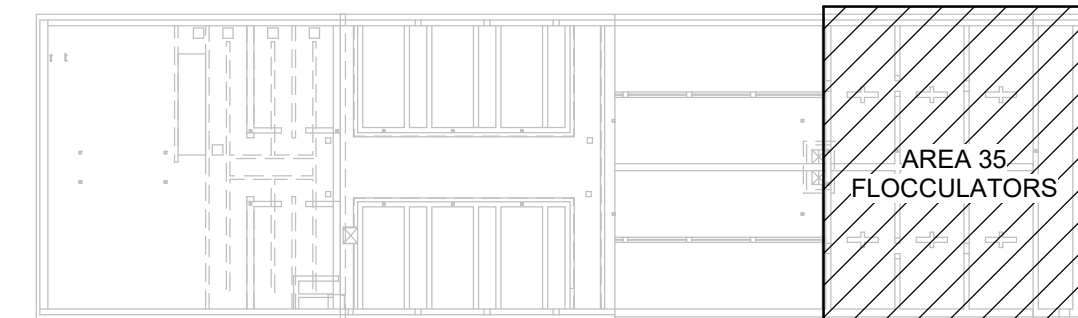
**Brown and Caldwell**

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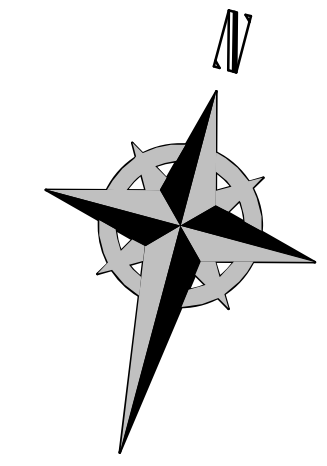


**UPPER OPERATING FLOOR**

**1 PLAN**  
35-M-02 SCALE: 3/16" = 1'-0"



**KEY PLAN**



**GENERAL NOTES:**

- ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17 13.
- ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER. EPOXY ANCHORING ONLY PERMITTED WHERE RIGID ANCHORS HAVE NOT BEEN SPECIFIED.
- PROVIDE FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH SECTION 46 41 42.
- PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAMINATION OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR HOSELESS SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.

**KEYNOTES:**

- SODIUM HYPOCHLORITE INJECT SKID WITH TWO CHEMICAL FEED PERISTALTIC PUMP (DUTY / STANDBY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- NEEDLE VALVES AND FLOW INDICATORS USED TO DOSE PEA AS SHOWN ON 35-PI-06 AND 35-PI-09 SHALL BE NEATLY ARRANGED, LABELED AND ATTACHED TO A STAINLESS STEEL BACKING PLATE. PLATE SHALL BE MOUNTED TO THE WALL IN THIS LOCATION, POSITIONED AT AN ELEVATION EASILY ACCESSIBLE TO AN OPERATOR WITHOUT BENDING DOWN OR REACHING.
- PROVIDE EQUIPMENT PADS FOR FLOCCULATORS IN ACCORDANCE WITH DETAIL M01009 AND THE STRUCTURAL SHEETS PROVIDED AS PART OF THIS DRAWING PACKAGE. THE CONTRACTOR SHALL ALSO PROVIDE ANCHORAGE FOR FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH DETAIL M01002.
- DOUBLE CONTAINMENT PIPING SHALL BE CONSTRUCTED WITH 2% SLOPE TOWARDS LOW POINT INSPECTION LOCATION.
- DOUBLE CONTAINMENT PIPING VISUAL LEAK DETECTION SEE DETAIL B/GM-05.
- LOCAL DOUBLE CONTAINMENT PIPING HIGH POINT VENT SEE DETAIL C/GM-05.

DESIGNED BY: J.H.MEBAUGH	SCALE:
DRAWN BY: R.P.FRESHING	
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	REVISIONS
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS  
UPPER PLAN**

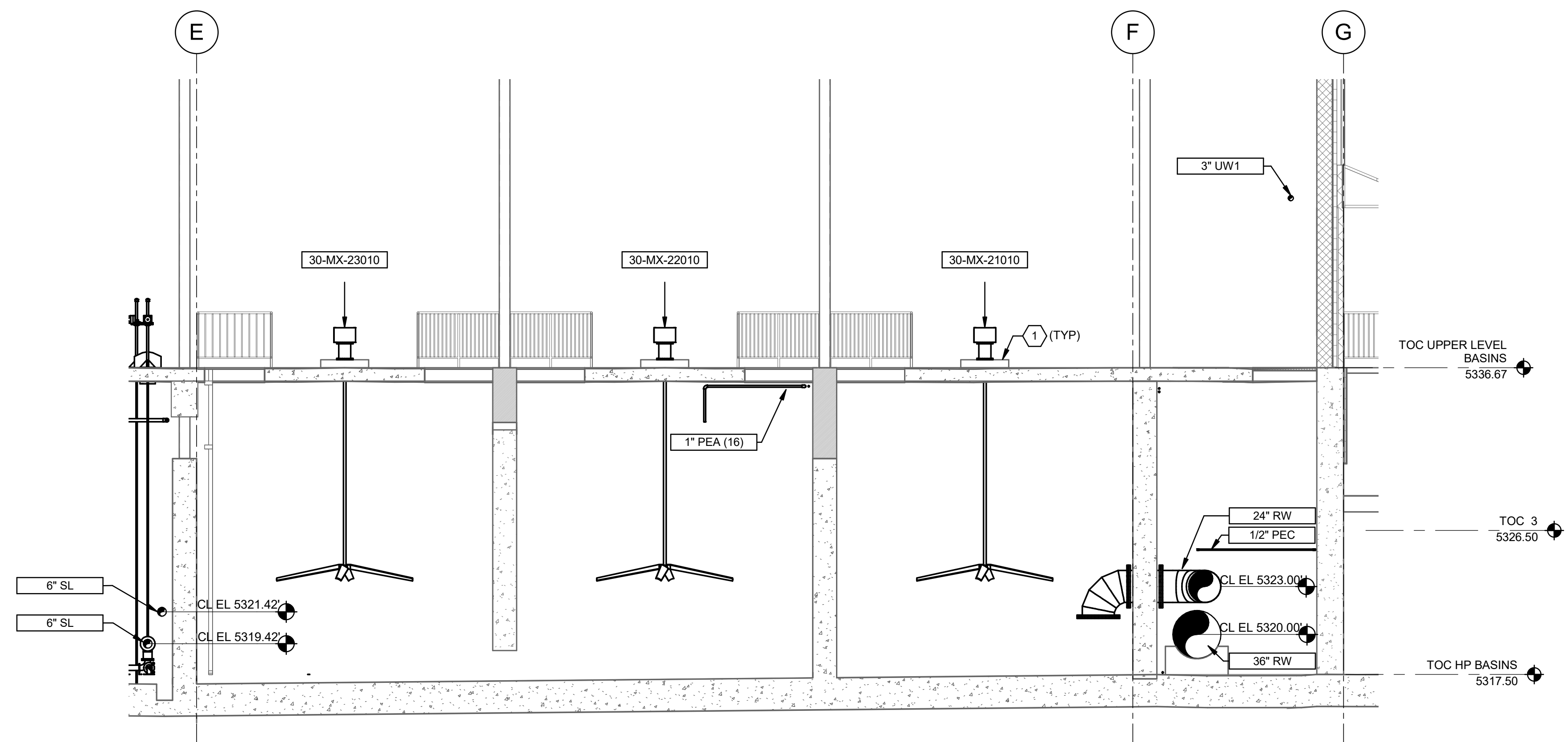
  
  

**90% GMP**

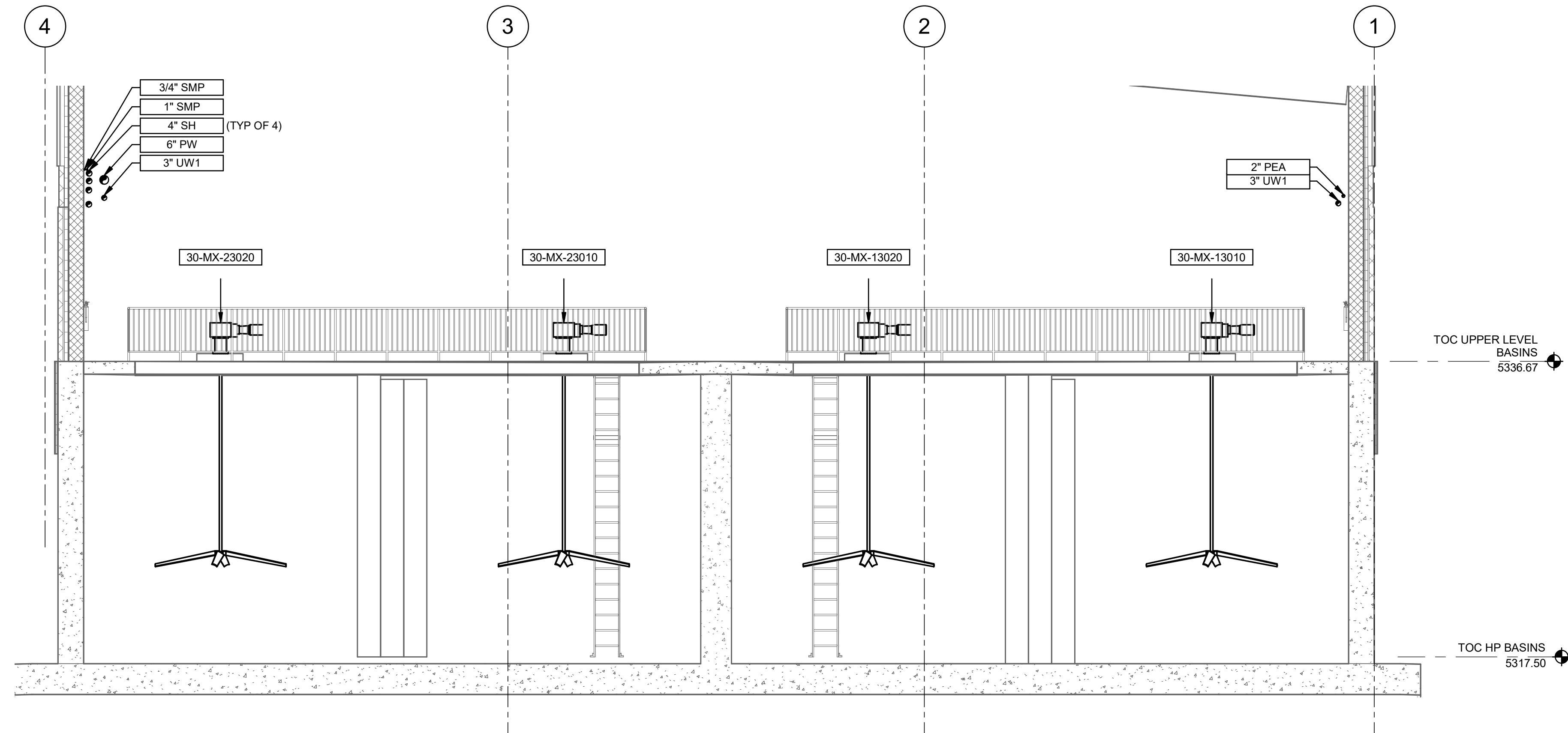
  

DRAWING NO.  
**35-M-12**

**Brown and Caldwell**



SECTION 1  
35-M-10 SCALE: 3/16" = 1'-0"



SECTION 2  
35-M-10 SCALE: 3/16" = 1'-0"

**GENERAL NOTES:**

1. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17 13.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER.
3. PROVIDE FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH SECTION 46 41 42.
4. PROVIDE HOSELESS SOLIDS COLLECTION IN ACCORDANCE WITH SECTION 46 43 80.
5. PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAMINATION OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.

**KEYNOTES:**

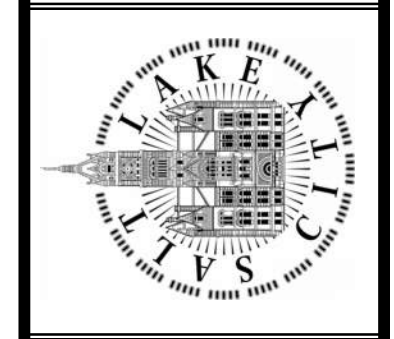
1. PROVIDE EQUIPMENT PADS FOR FLOCCULATORS IN ACCORDANCE WITH DETAIL M01009 AND THE STRUCTURAL SHEETS PROVIDED AS PART OF THIS DRAWING PACKAGE. THE CONTRACTOR SHALL ALSO PROVIDE ANCHORAGE FOR FLOCCULATOR EQUIPMENT IN ACCORDANCE WITH DETAIL M01002.

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGNED BY: A.JONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - SECTIONS 1**

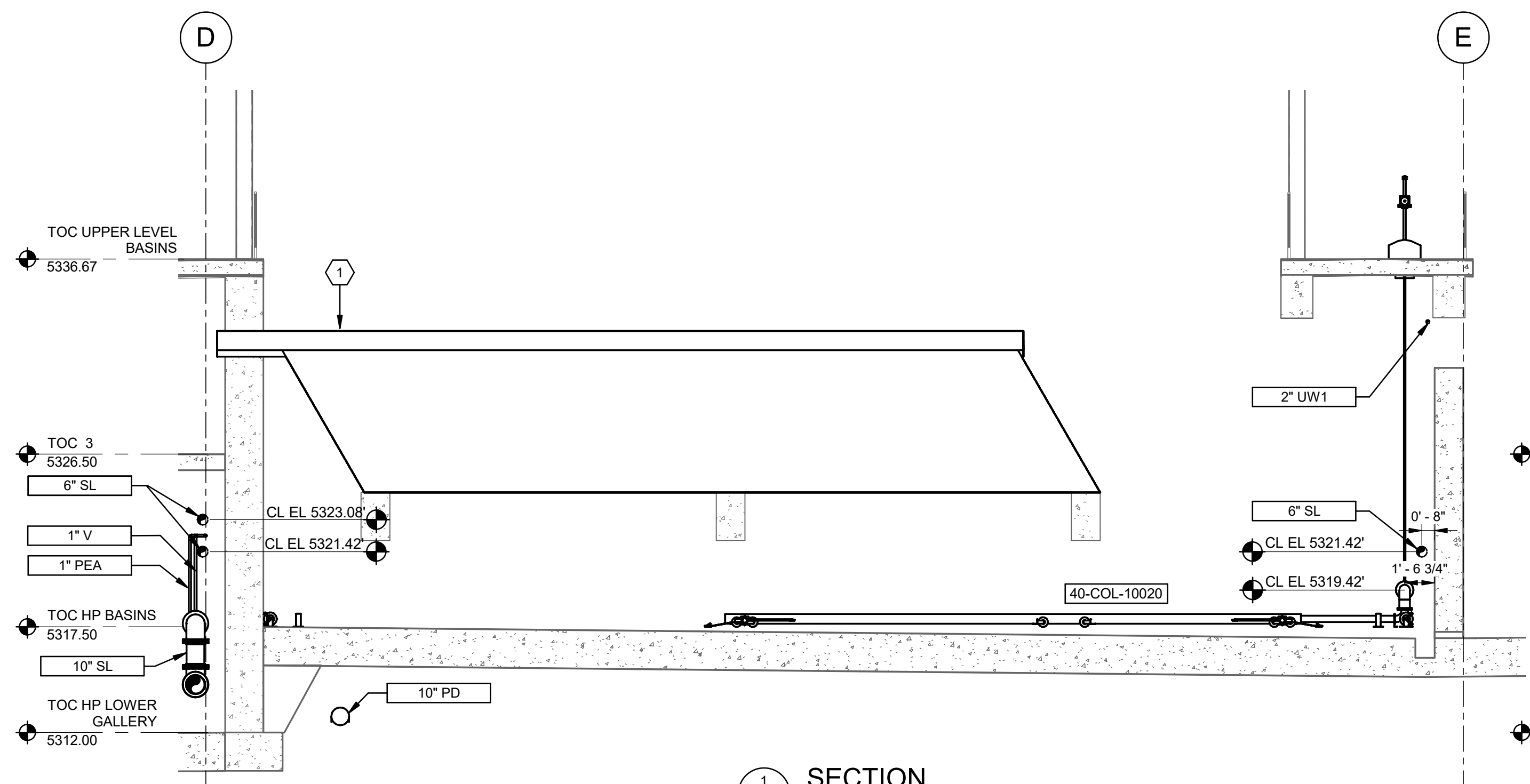


**90% GMP**

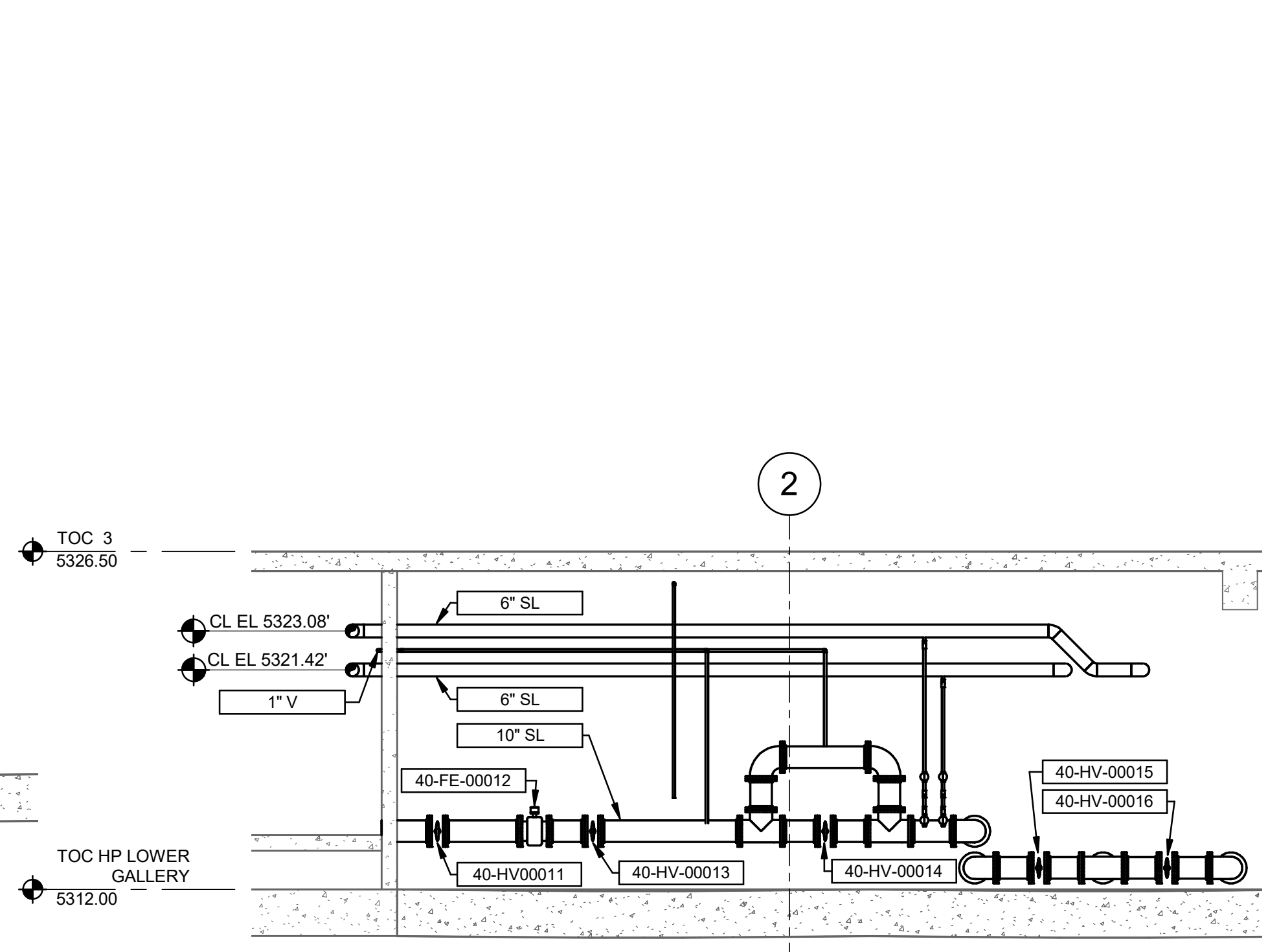
DRAWING NO.  
**35-M-13**

**Brown and Caldwell**

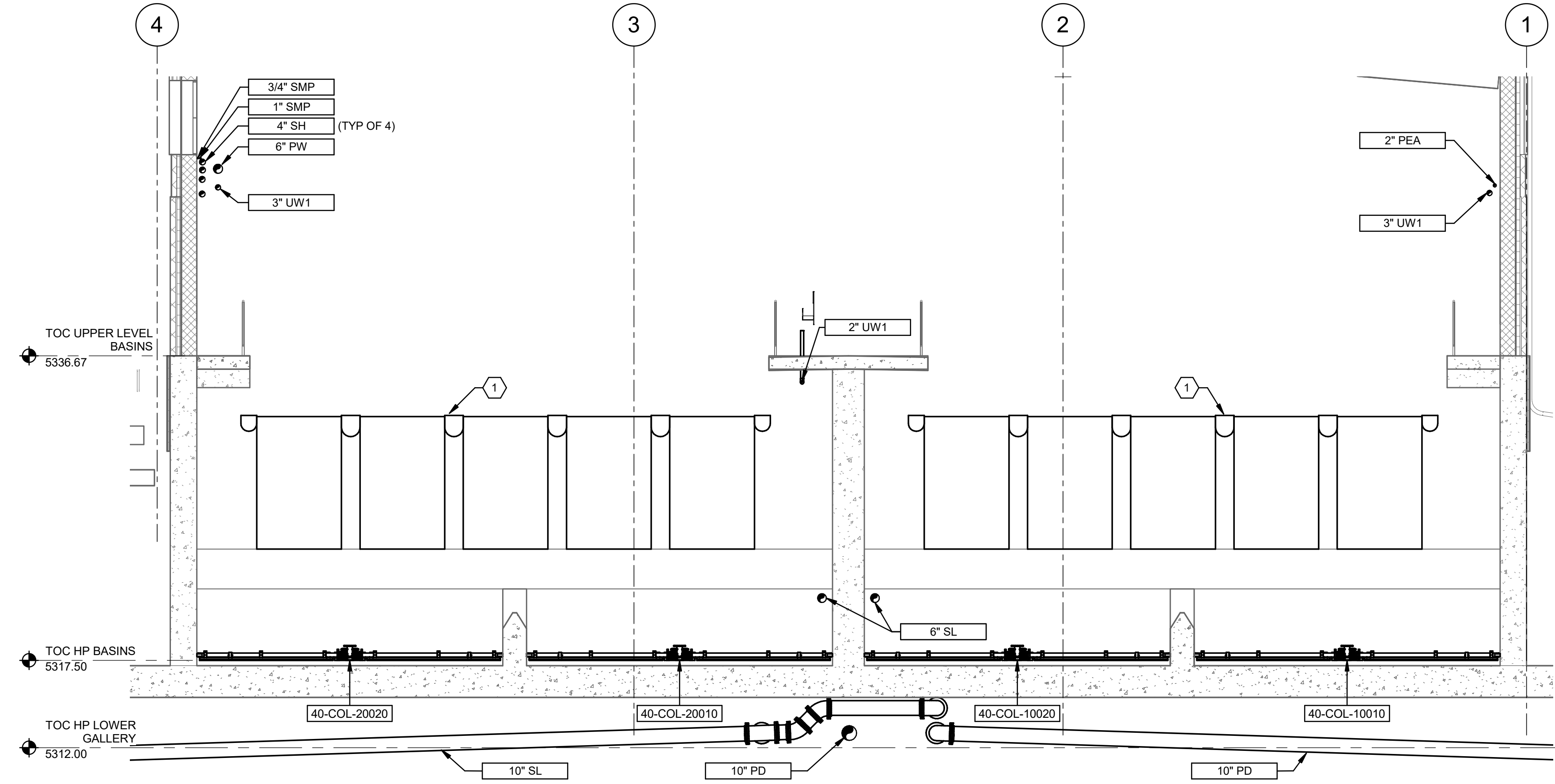
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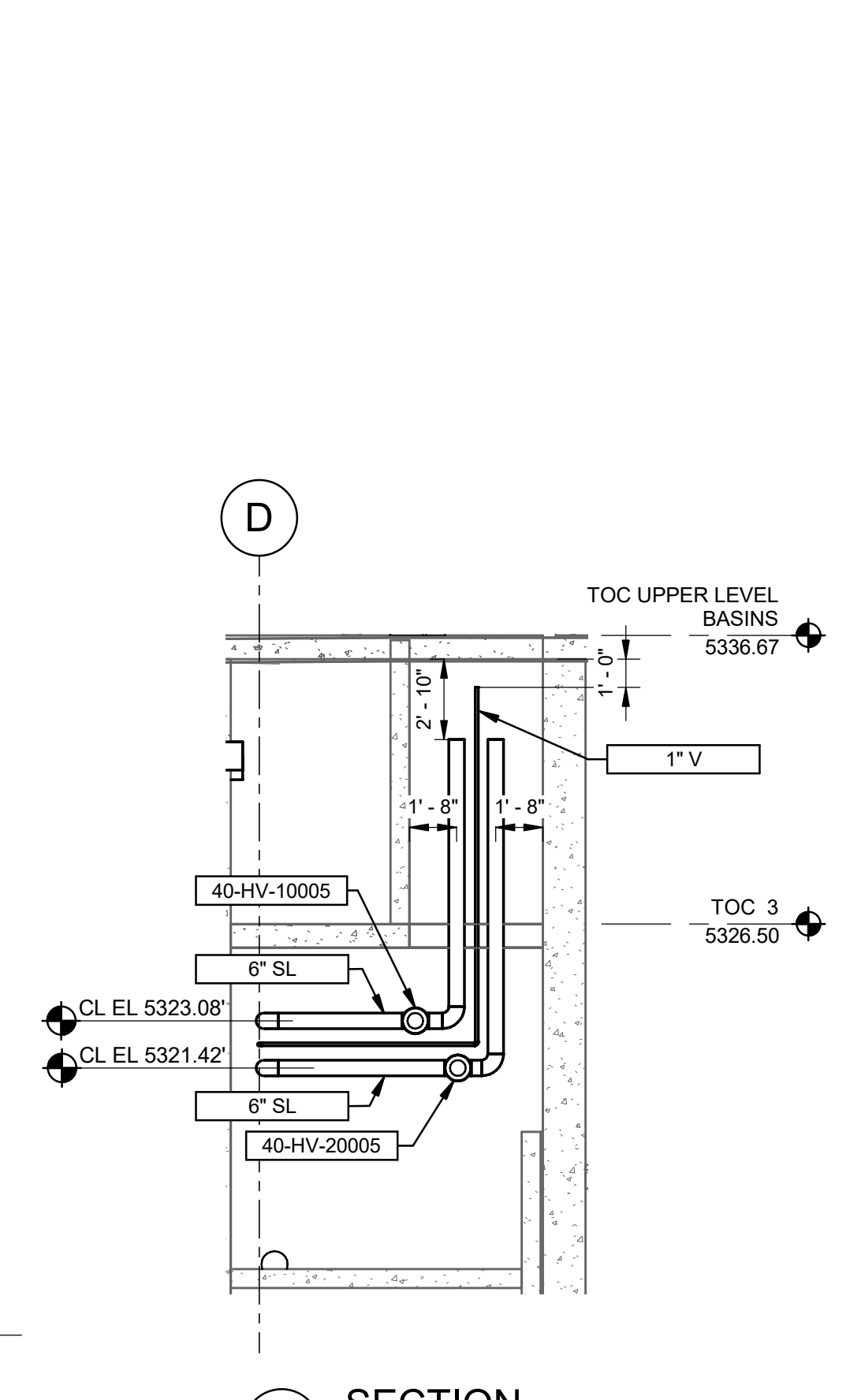
**1 SECTION**  
35-M-07 SCALE: 3/16" = 1'-0"



**3 SECTION**  
35-M-04 SCALE: 3/16" = 1'-0"



**2 SECTION**  
35-M-07 SCALE: 3/16" = 1'-0"



**4 SECTION**  
35-M-04 SCALE: 3/16" = 1'-0"

**GENERAL NOTES:**

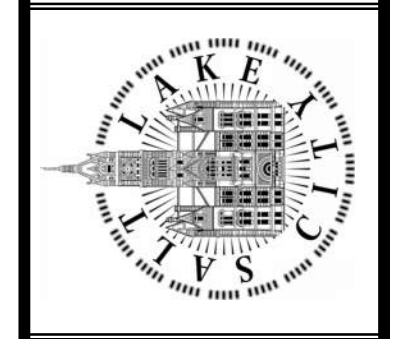
- ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17 13.
- ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER. EPOXY ANCHORING ONLY PERMITTED WHERE RIGID ANCHORS HAVE NOT BEEN SPECIFIED.
- PROVIDE PLATE SETTLER EQUIPMENT AND SUPPORT STRUCTURE IN ACCORDANCE WITH SECTION 46 63 76. CONTRACTOR TO COORDINATE WITH THE SELECTED MANUFACTURER TO VERIFY SUPPORT COLUMN PLACEMENT PRIOR TO PLACING PARTIAL WALL AND COLUMN PEDESTALS.
- PROVIDE HOSELESS COLLECTION EQUIPMENT IN ACCORDANCE WITH SECTION 46 43 80.
- CONTRACTOR TO INSTALL PLATE SETTLER EQUIPMENT IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED BY THE SELECTED MANUFACTURER. REFER TO INFORMATION PROVIDED IN THE INSTALLATION MANUAL AND OTHER INFORMATION PROVIDED DURING THE SUBMITTAL PROCESS FOR FURTHER INFORMATION.
- PROPER CARE SHALL BE TAKEN TO PREVENT ANY CONTAINMENT OF THE STAINLESS STEEL COMPONENTS OF THE PLATE SETTLER EQUIPMENT OR HOSELESS SOLIDS COLLECTION EQUIPMENT DURING INSTALLATION. FOLLOW ALL RECOMMENDATIONS PROVIDED IN PARAGRAPH 8 OF ASTM A380.

**KEYNOTES:**

- INSTALL TURBIDIMETER AS SPECIFIED IN 35-PI-11 AND PI-13. ROUTE PIPING FROM BOTTOM OF ONE OF THE CENTERMOST TROUGHS IN EACH BASIN TO THE FILTER GALLERY (BASEMENT). PIPING SHALL BE AS SHORT AS POSSIBLE. WALL PENETRATION SHALL BE IN ACCORDANCE WITH DETAIL M13002. COMPONENTS SHOWN ON P&IDS SHALL BE ATTACHED TO A STAINLESS STEEL PLATE, MOUNTED TO THE BASEMENT WALL AT A ELEVATION EASILY READABLE AND ACCESSIBLE TO AN OPERATOR. DRAINS FOR INSTRUMENTATION SHALL BE ROUTED TO THE NEAREST FLOOR DRAIN.

DESIGNED BY: A.JONES	AUTH BY: J.H.
DRAWN BY: R.PERSHING	BY: J.H.
CHECKED BY: J.HESBY	DATE: JUNE 2024
APPROVED BY: J.HESBY	DATE: JUNE 2024
EWO NO: ---	ACCOUNT NO: 512260079
SCALE: ---	VERIFY SCALE
	BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 2

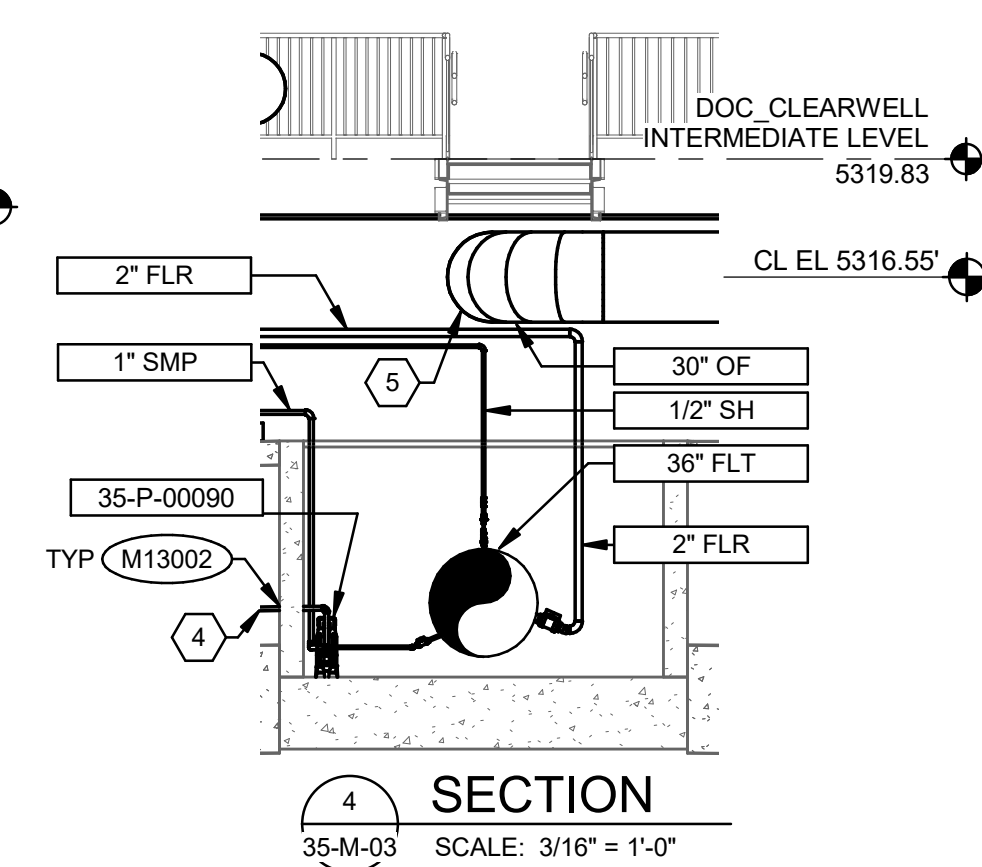
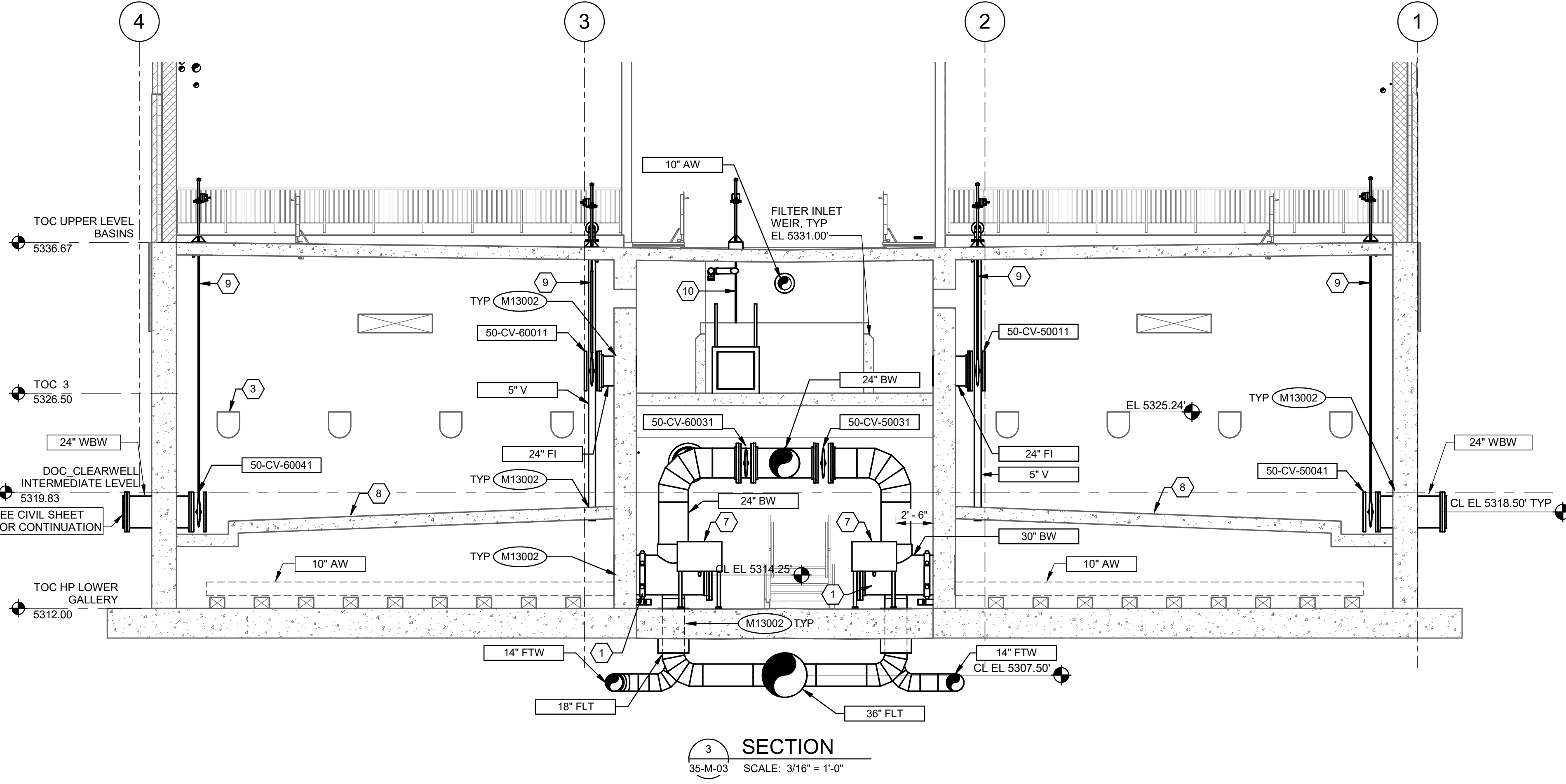
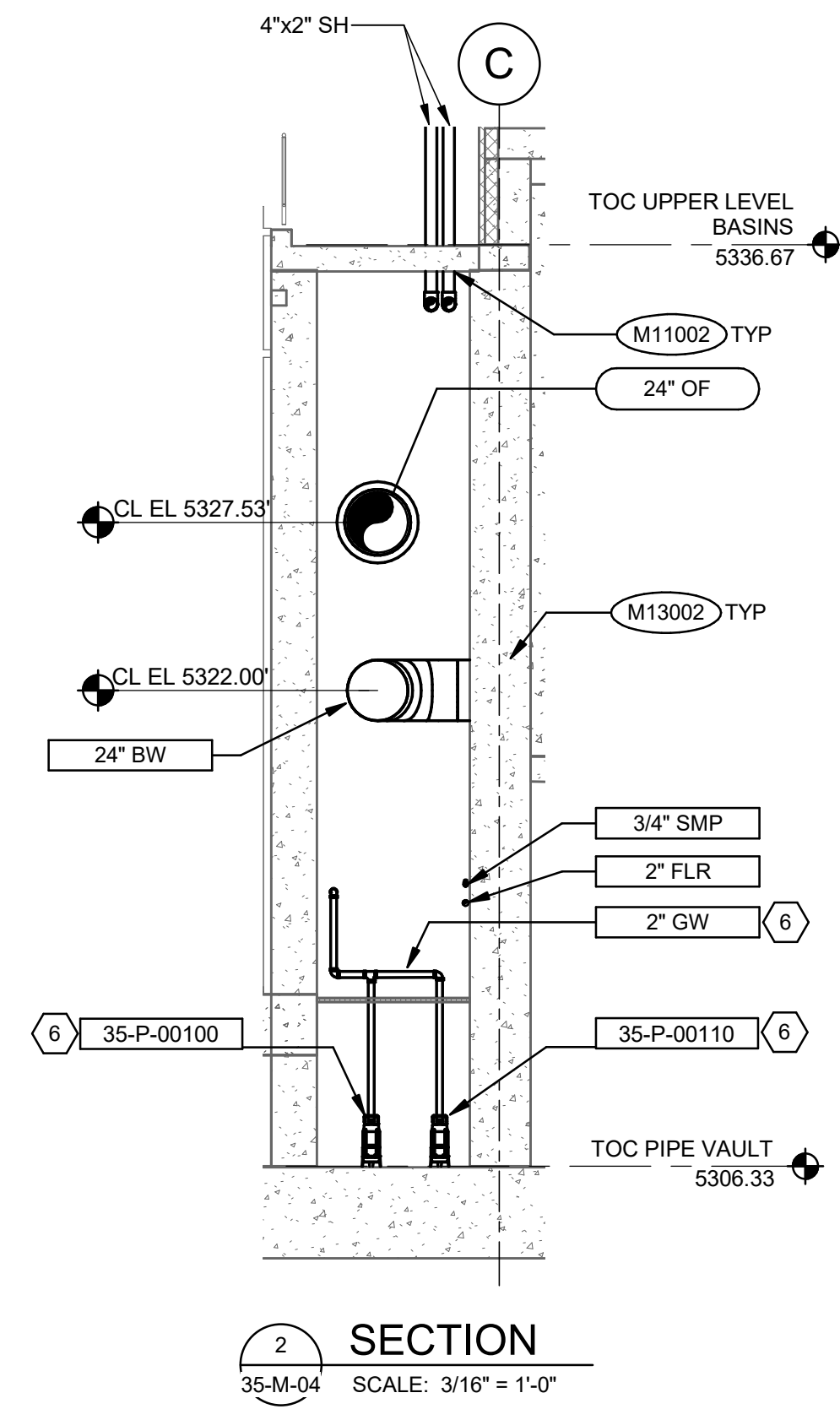
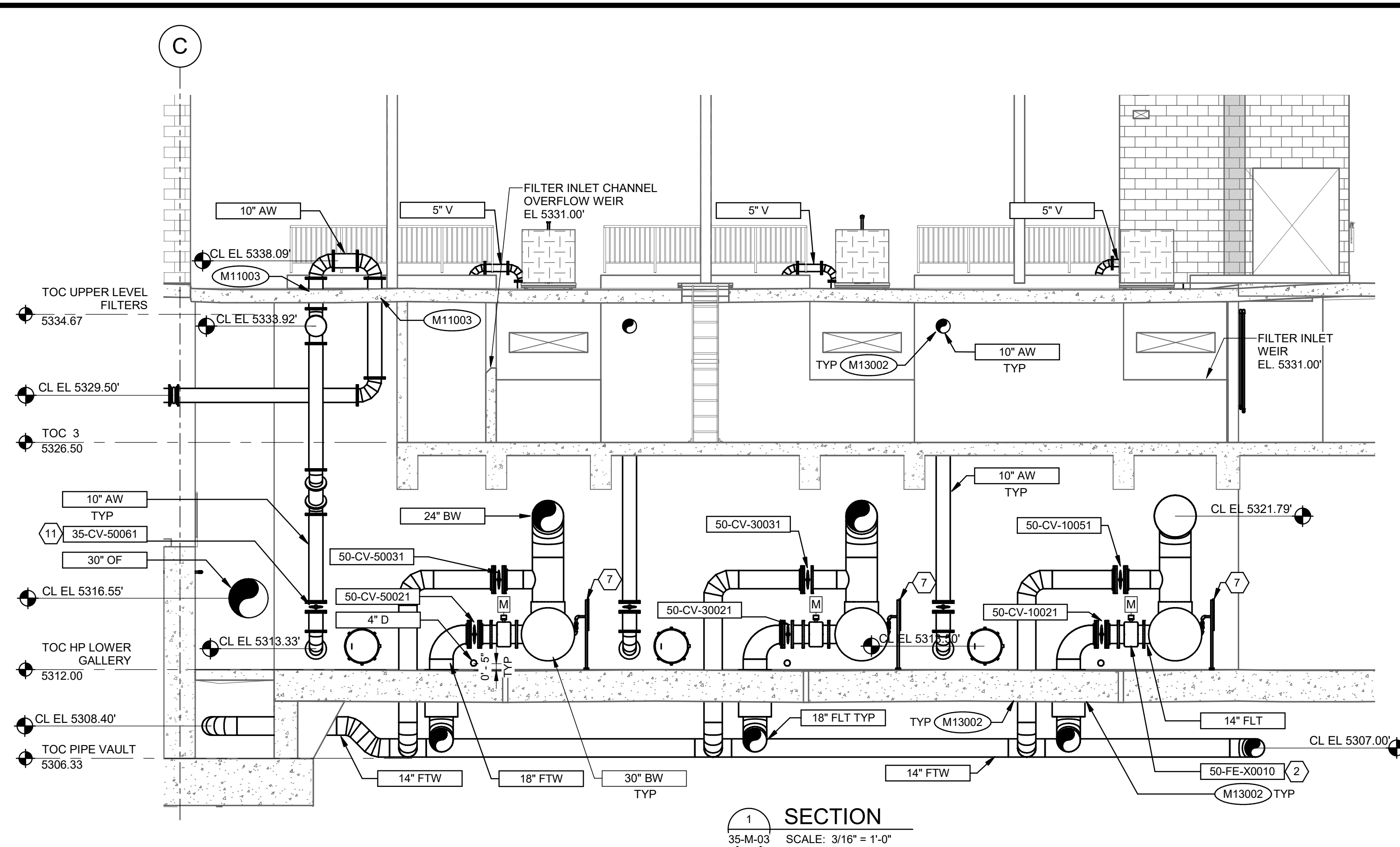


**Brown and Caldwell**

90% GMP

DRAWING NO.  
**35-M-14**

Plot Date: 6/12/2024 4:50:36 PM Path: R:\M-36\153020 - City Creek WTP\153020-M-3570\21.rvt



**GENERAL NOTES:**

1. CONCRETE ENCASE ALL PIPING BELOW GALLERY SLAB.
2. PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO PROVIDE PIPE SUPPORTS AND PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND INSPECTION PER SECTION 40 05 07.
3. NOT ALL REQUIRED VALVES, INSTRUMENTS, AND DRAINS MAY BE SHOWN. SEE PROCESS AND INSTRUMENTATION DIAGRAMS.
4. ROUTE ALL SAMPLE PIPES TO NEAREST DRAIN.
5. SEE PLUMBING DRAWINGS FOR FLOOR DRAINS AND ASSOCIATED PIPING.

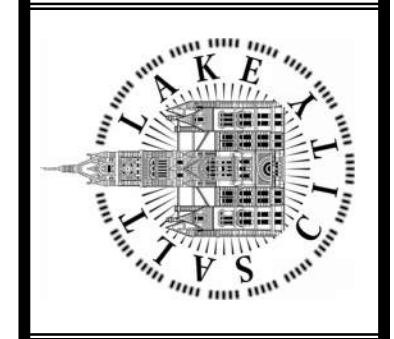
**KEYNOTES:**

1. PROVIDE GROOVED FITTING TO CONNECT CUSTOM TEE TO PIPE PENETRATING FILTER WALL, TYP 6 PLACES. PROVIDE TRUNNION SUPPORT INTEGRATED INTO CUSTOM TEE
2. PROVIDE 0 X DN MAGNETIC FLOW METER, TYPICAL 6 FILTERS. EQUIPMENT NUMBERS SHALL REPLACE X WITH FILTER NUMBER.
3. PROVIDE 4 FILTER TROUGHS PER FILTER, TYPICAL 6 FILTERS.
4. ROUTE ONE INCH SPD PIPE TO TREATMENT BUILDING RECYCLE SUMP. PROVIDE CHECK VALVE AND ISOLATION BALL VALVE AS SHOWN ON PROCESS AND INSTRUMENTATION DIAGRAM.
5. PROVIDE FABRICATED ELBOW, PER AWWA M11. MINIMUM RADIUS IN ACCORDANCE WITH C208 4 SEGMENT LENGTH OF 1.5.
6. PROVIDE CHECK VALVE, BALL VALVES, AND OTHER APPURTENANCES AS SHOWN ON PROCESS AND INSTRUMENTATION DIAGRAM.
7. SAMPLE PANEL. SEE DETAIL A/GM-03.
8. COAT CENTER GULLET FLOOR AND 6" UP GULLET WALL WITH FLEXIBLE CEMENTITIOUS COATING, W.R. MEADOWS, CEM-KOTE FLEX ST, OR APPROVED EQUAL, TYP 6 FILTERS. TERMINATE COATING AT 1/4" DEEP SAW-CUT GROOVE IN FILTER WALLS. ENSURE GROOVE IS COMPLETELY FILLED WITH COATING.
9. PROVIDE ACTUATOR EXTENSION FROM VALVE TO FILTER DECK. PROVIDE COVER PLATE FOR FLOOR PENETRATION TYPICAL 6 FILTERS
10. PROVIDE ACTUATOR EXTENSION FROM GATE TO FILTER DECK. PROVIDE COVER PLATE FOR FLOOR PENETRATION
11. PROVIDE AIR WASH CONTROL VALVES FOR EACH FILTER. SEE PROCESS AND INSTRUMENTATION DIAGRAMS FOR ALL FILTER AIR WASH VALVE NUMBERS.

SCALE: \_\_\_\_\_  
DESIGNED BY: A.JONES  
DRAWN BY: R.PERSHING  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: \_\_\_\_\_  
ACCOUNT NO: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 3

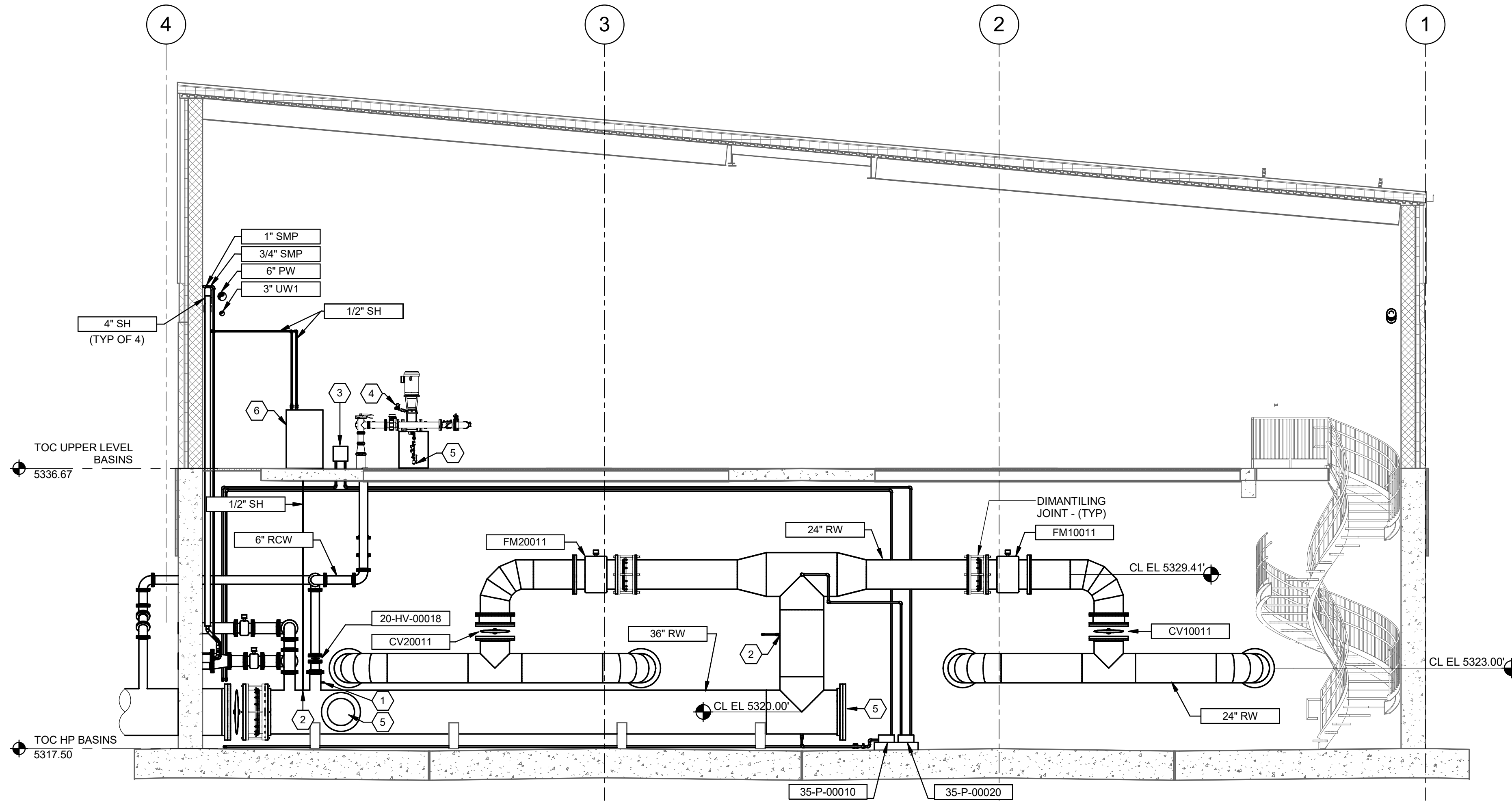


**Brown and Caldwell**

90% GMP

DRAWING NO.  
**35-M-15**

Plot Date: 6/12/2024 4:50:40 PM Path: R:\M\_360\1153020 - City Creek WTP\153020-M-3570\21.rvt



SECTION 35-M-10 SCALE: 3/16" = 1'-0"

**GENERAL NOTES:**

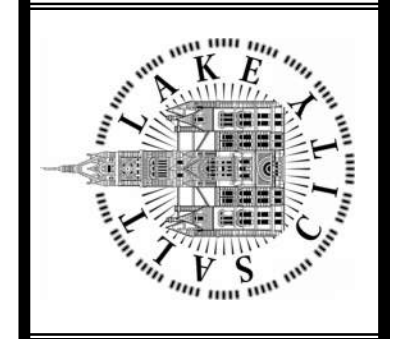
1. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN SECTION 40 05 17 13.
2. ALL ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 01 73 24 AND 05 05 20. INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURER AND THE EPOXY SYSTEM MANUFACTURER. EPOXY ANCHORING ONLY PERMITTED WHERE RIGID ANCHORS HAVE NOT BEEN SPECIFIED.

**KEYNOTES:**

1. PROVIDE INJECTION NOZZLE AND FERRIC CHLORIDE INJECTION POINT IN ACCORDANCE WITH DETAIL M00000 ON SHEET GM-02.
2. PROVIDE AN INJECTION QUILL IN LOCATION SHOWN FOR THE DESIGNATED CHEMICAL IN ACCORDANCE WITH DETAIL M00000.
3. COMPONENTS SHOWN AS PART OF THE SAMPLE PANEL SHOWN ON 35-PI-04 SHALL BE NEATLY ARRANGED, LABELED AND ATTACHED TO A STAINLESS STEEL BACKING PLATE. PLATE SHALL BE MOUNTED TO STAND ANCHORED TO THE DECK IN A LOCATION EASILY ACCESSIBLE TO THE OPERATOR. PANEL SHALL BE AT AN ELEVATION EASILY ACCESSIBLE TO AN OPERATOR WITHOUT BENDING DOWN OR REACHING. DRAINS SHALL BE ROUTED TO THE NEAREST FLOOR DRAIN BY PASSING THROUGH THE FLOOR AND RUNNING UNDER THE DECK TO THE DRAIN PIPE TO AVOID TRIPPING HAZARDS ON THE DECK.
4. PROVIDE SOLENOID VALVE AND CONDUCTIVITY SENSOR AS SHOWN ON 35-PI-02 USING THE VENT PORT ON THE PUMP.
5. PROVIDE CONNECTION (INCLUDING INSTRUMENTS AND VALVES) FOR CONNECTION TO UTILITY WATER LINE AND DRAIN AS SHOWN IN 35-PI-02. CONNECTION TO UTILITY WATER SHALL BE ROUTED UNDER THE DECK TO AVOID CREATING A TRIPPING HAZARD. ROUTE DRAIN LINE FROM EACH PUMP TO FLOCCULATION BASIN UNDER DECK. PROVIDE MANWAY IN ACCORDANCE WITH THAT SHOWN IN DETAIL M9001.
6. SODIUM HYPOCHLORITE INJECT SKID WITH TWO CHEMICAL FEED PERISTALTIC PUMP (DUTY / STANDBY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.

DESIGNED BY: A.JONES	AUTH BY: JH
DRAWN BY: R.PERSHING	MADE BY: AJ
CHECKED BY: J.HESBY	DATE: 06/14/24
APPROVED BY: J.HESBY	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

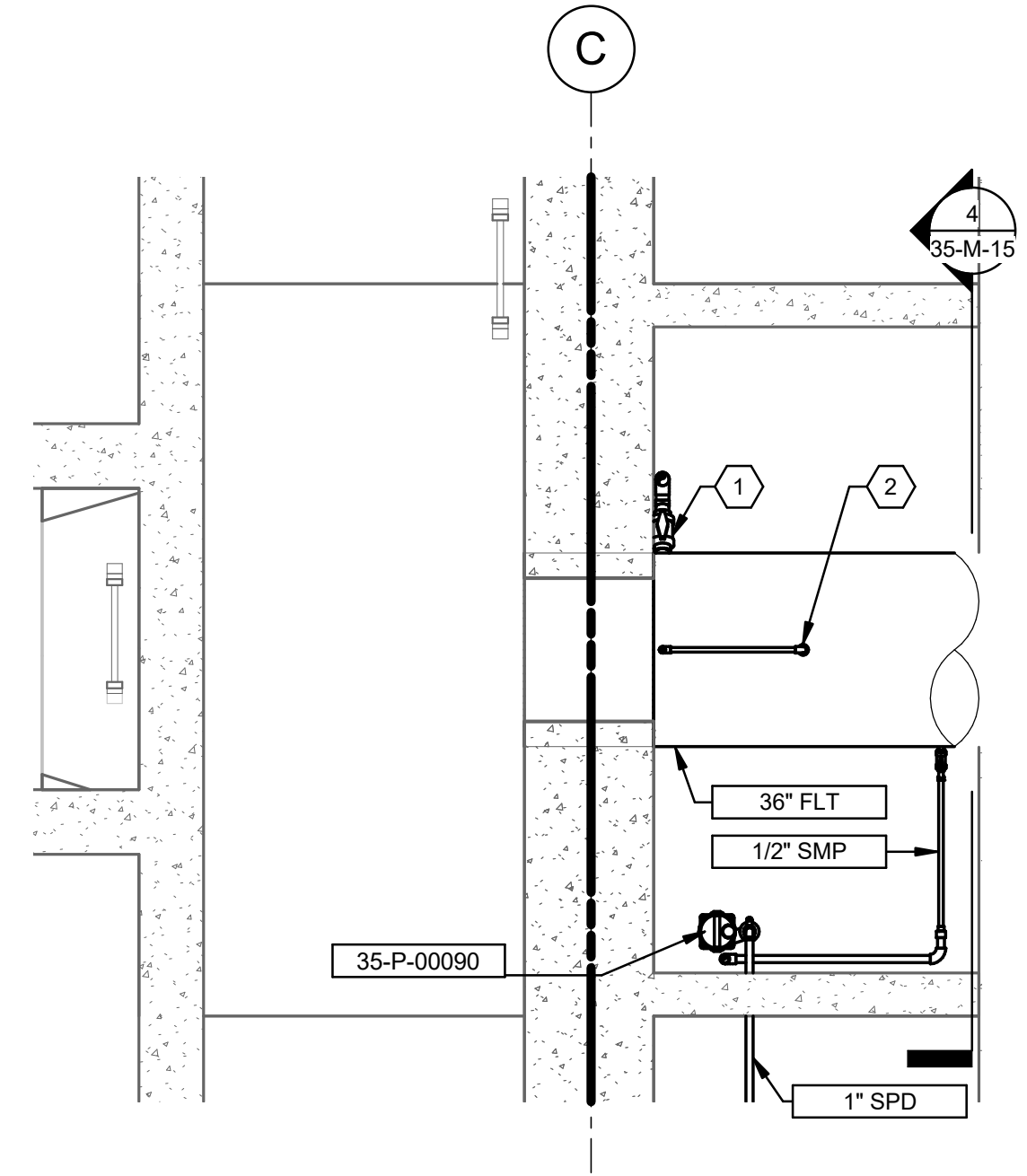
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 TREATMENT - SECTIONS 4



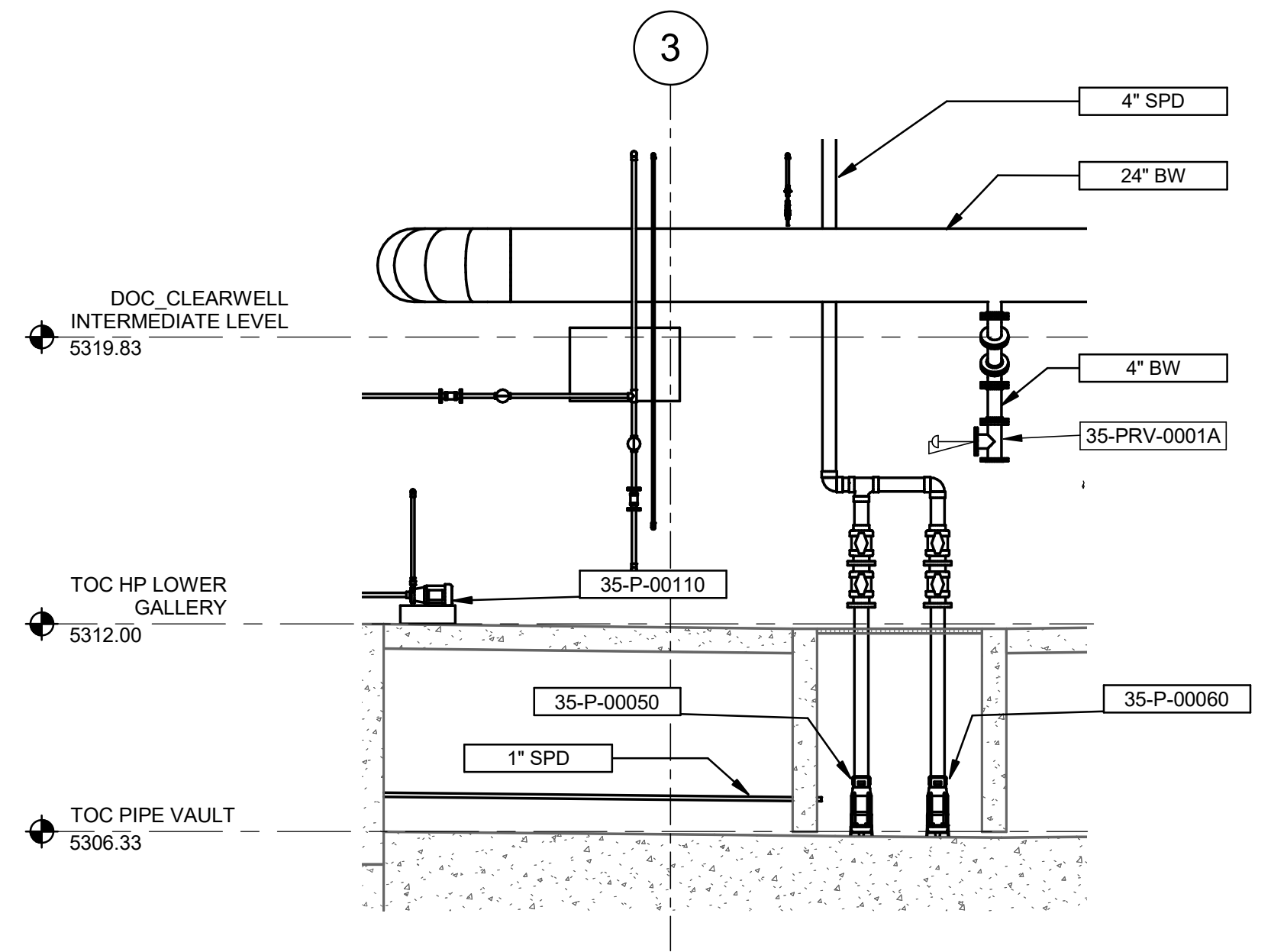
90% GMP

DRAWING NO. 35-M-16

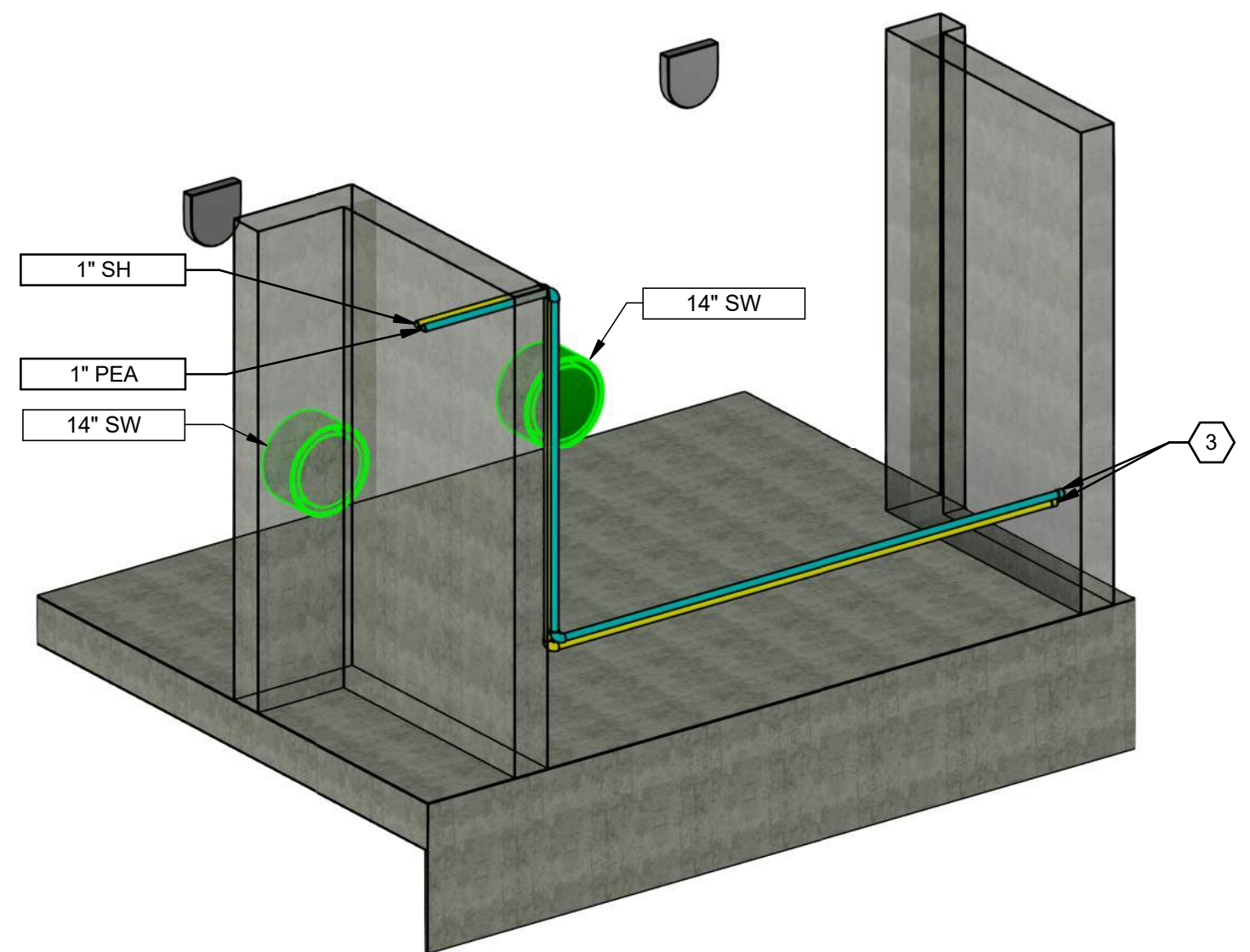
Brown and Caldwell



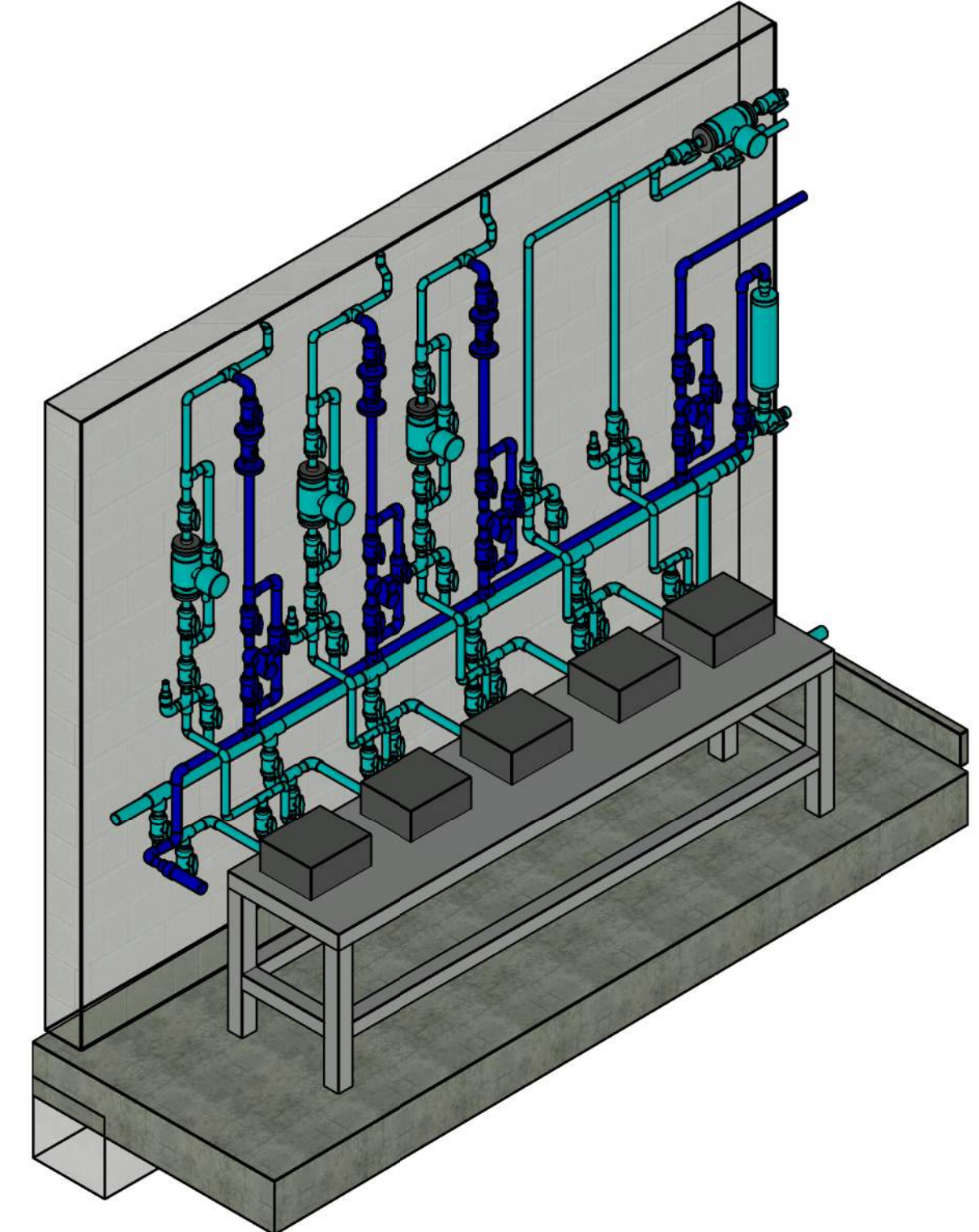
1 ENLARGED PLAN  
35-M-04 SCALE: 3/8" = 1'-0"



2 SECTION  
35-M-03 SCALE: 1/4" = 1'-0"



FILTER INLET DIFFUSER ISOMETRIC



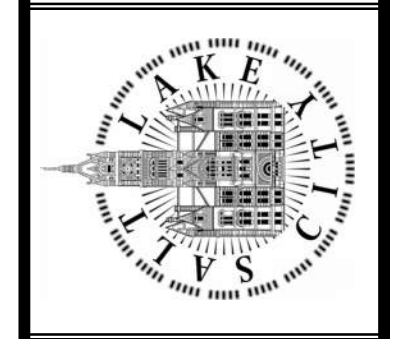
POLYMER ROOM FEED PUMP ISOMETRIC

KEYNOTES:

- 1 INSTALL FLUORIDE INJECTION QUILL. SEE DETAIL M00000.
- 2 INSTALL SODIUM HYPOCHLORITE INJECTION QUILL. SEE DETAIL M00000. FIELD ROUTE PIPING TO FEED PUMPS LOCATED IN STORAGE ROOM PER 70-M-02.
- 3 EVENLY SPACE AND DRILL SIX 1/2" DIAMETER HOLES IN SODIUM HYPOCHLORITE AND PEA DIFFUSER PIPES. CAP DIFFUSER ENDS. ANCHOR PIPE TO FILTER INLET FLOOR WITH FRP STRUT CHANNEL AND FRP POST BASE EVERY 2 FEET OF LENGTH OF PIPE. ANCHOR FRP BASE WITH (4) 3/8" DIAMETER HASTELLOY ADHESIVE ANCHORS WITH 4" MINIMUM EMBEDMENT. CONNECT PIPE TO UNISTRUT USING FRP PIPE CLAMP AND HASTELLOY C MOUNTING HARDWARE.

DESIGNED BY: A.JONES	AUTH BY: JH
DRAWN BY: R.PERSHING	BY: JH
CHECKED BY: J.HESBY	MADE BY: AJ
APPROVED BY: J.HESBY	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
DATE: JUNE 2024	NO. 0
EWO NO. ---	DATE: 06/14/24
ACCOUNT NO.: 512260079	0

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS & DETAILS

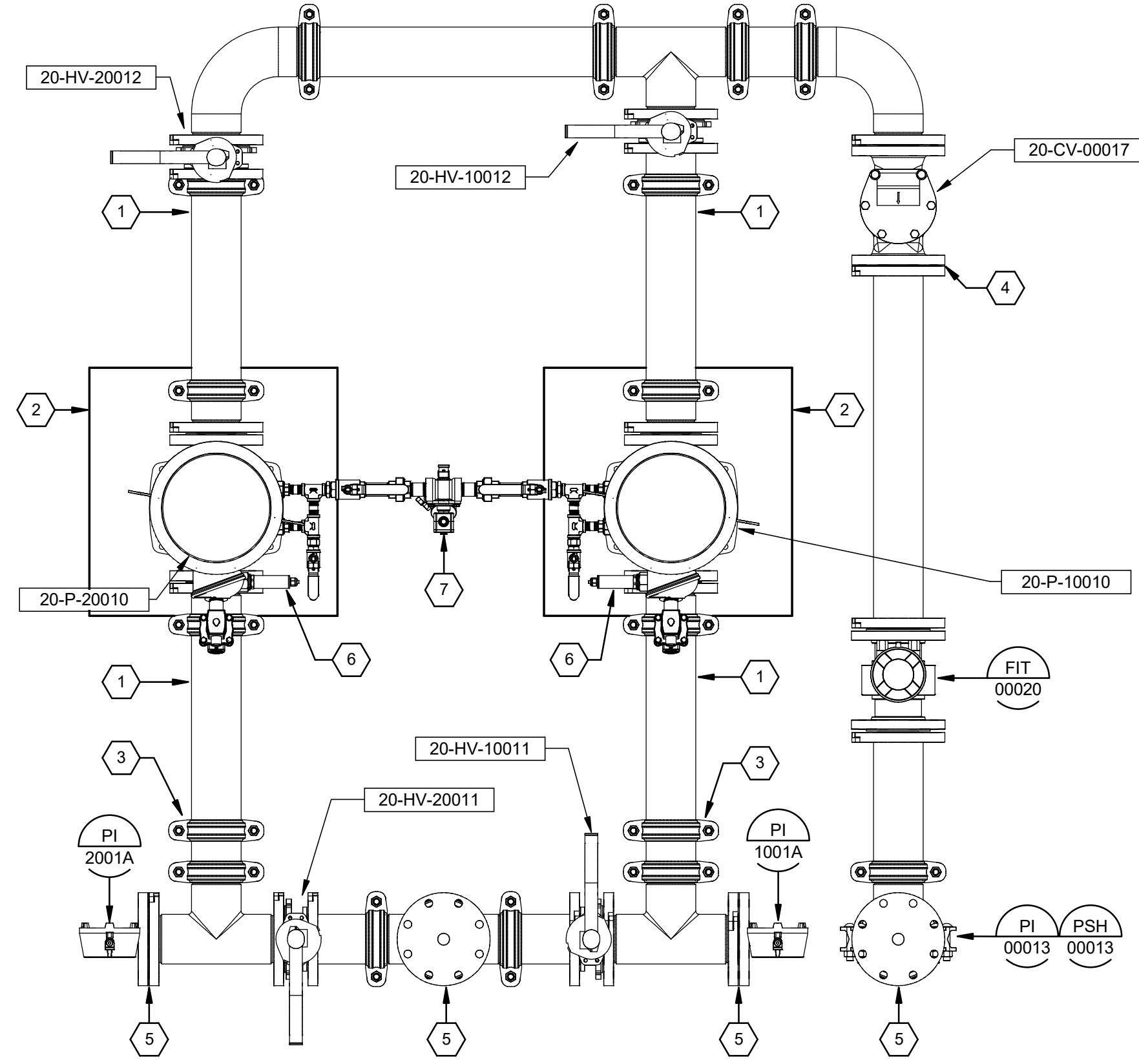


90% GMP

DRAWING NO.  
35-M-17

Brown and Caldwell

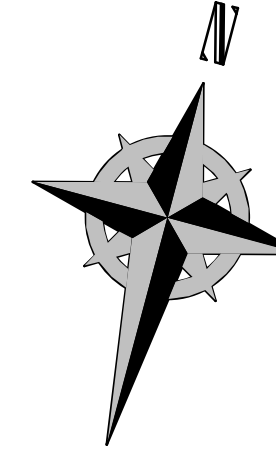




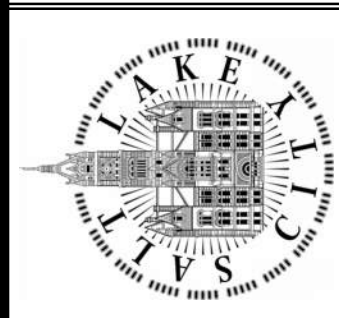
1 ENLARGED PLAN  
35-M-12 SCALE: 1" = 1'-0"

KEYNOTES:

- 1 REFER TO DETAIL A LOCATED ON SHEET GM-05 FOR INFORMATION ON SPACING AND LOCATIONS AND QUANTITIES OF COUPLINGS UPSTREAM AND DOWNSTREAM OF PUMP.
- 2 PROVIDE EQUIPMENT PAD IN ACCORDANCE WITH DETAIL M01009 AND THE STRUCTURAL SHEETS PROVIDED AS A PART OF THIS DRAWING PACKAGE. THE CONTRACTOR SHALL ALSO PROVIDE ANCHORAGE FOR PUMP IN ACCORDANCE WITH DETAIL M01002.
- 3 PROVIDE RIGID COUPLING (VICTAULIC OR EQUAL) AT THIS LOCATION. FLEXIBLE COUPLING DISCUSSED IN DETAIL M01009 IS A SEPARATE COMPONENT PROVIDED DOWNSTREAM OF THIS COUPLING.
- 4 PROVIDE FLANGE ADAPTER (VICTAULIC OR EQUAL) AT ALL CONNECTIONS TO VALVES AND PUMPS SHOWN ON THIS DETAIL.
- 5 PROVIDE BLIND FLANGE ADAPTER AND BLIND FLANGE WITH THREADED NIPPLE TO MATCH INSTRUMENTATION AND VALVES SHOWN ON P&ID'S.
- 6 PROVIDE CONDUCTIVITY SENSOR AND SOLENOID SHOWN ON SHEET 35-PI-02 ON VENT PORT OF PUMP CASE OF EACH PUMP.
- 7 PROVIDE CONNECTION (INCLUDING INSTRUMENTS AND VALVES) FOR CONNECTION TO UTILITY WATER LINE AND DRAIN AS SHOWN ON 35-PI-02. CONNECTION TO UTILITY WATER LINE SHALL BE ROUTED UNDER DECK TO AVOID CREATING A TRIPPING HAZARD. ROUTE DRAIN LINE FROM EACH PUMP TO FLOCCULATION BASIN UNDER TRIPPING DECK.



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - ENLARGED  
PLAN



90% GMP

DRAWING NO.  
35-M-18

**Brown and Caldwell**

REVISIONS		DATE	NO.	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0		06/14/24					

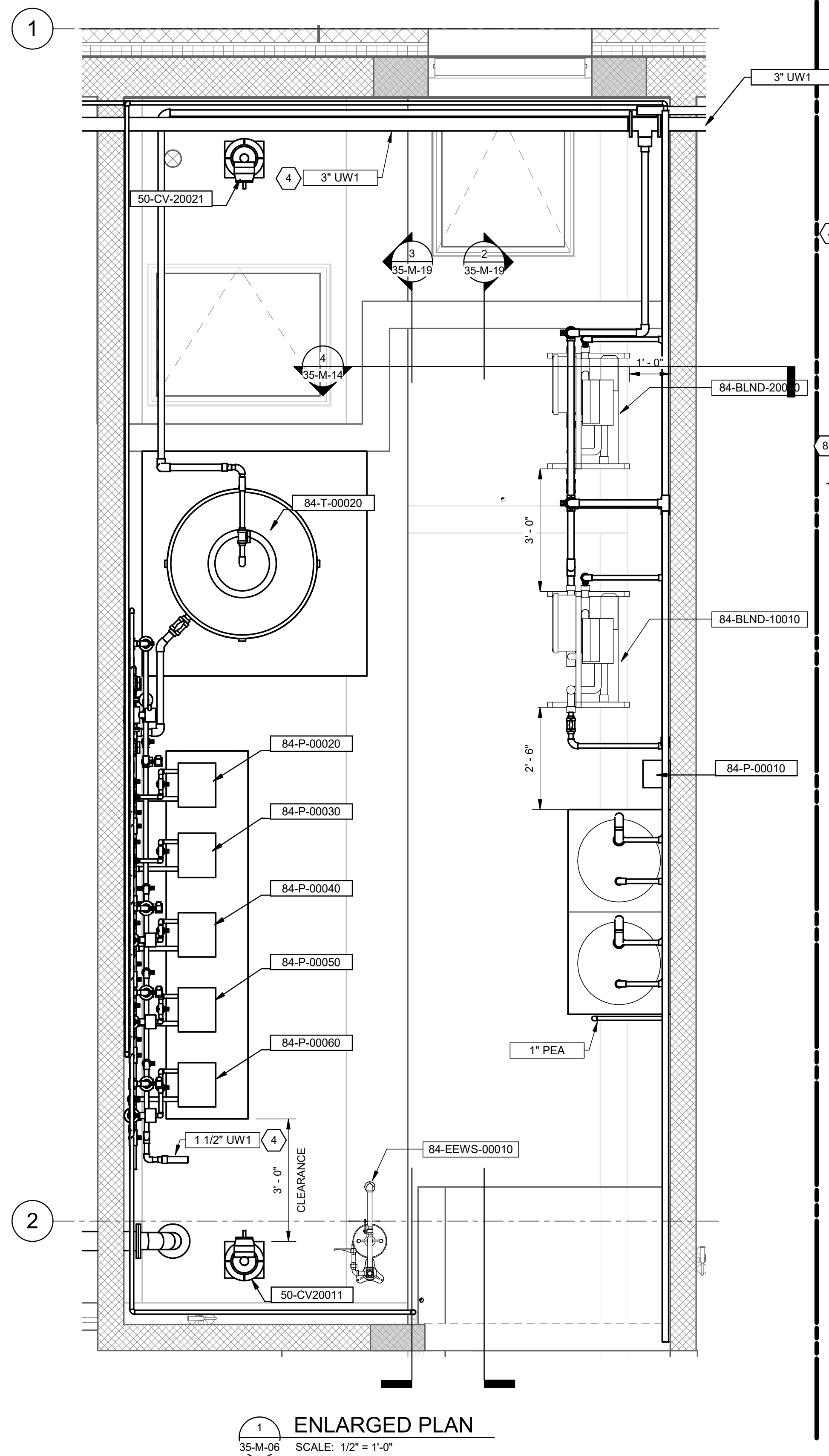
  

DESIGNED BY: A.JONES	AUTH BY: AJ
DRAWN BY: R.PERSHING	BY: JH
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

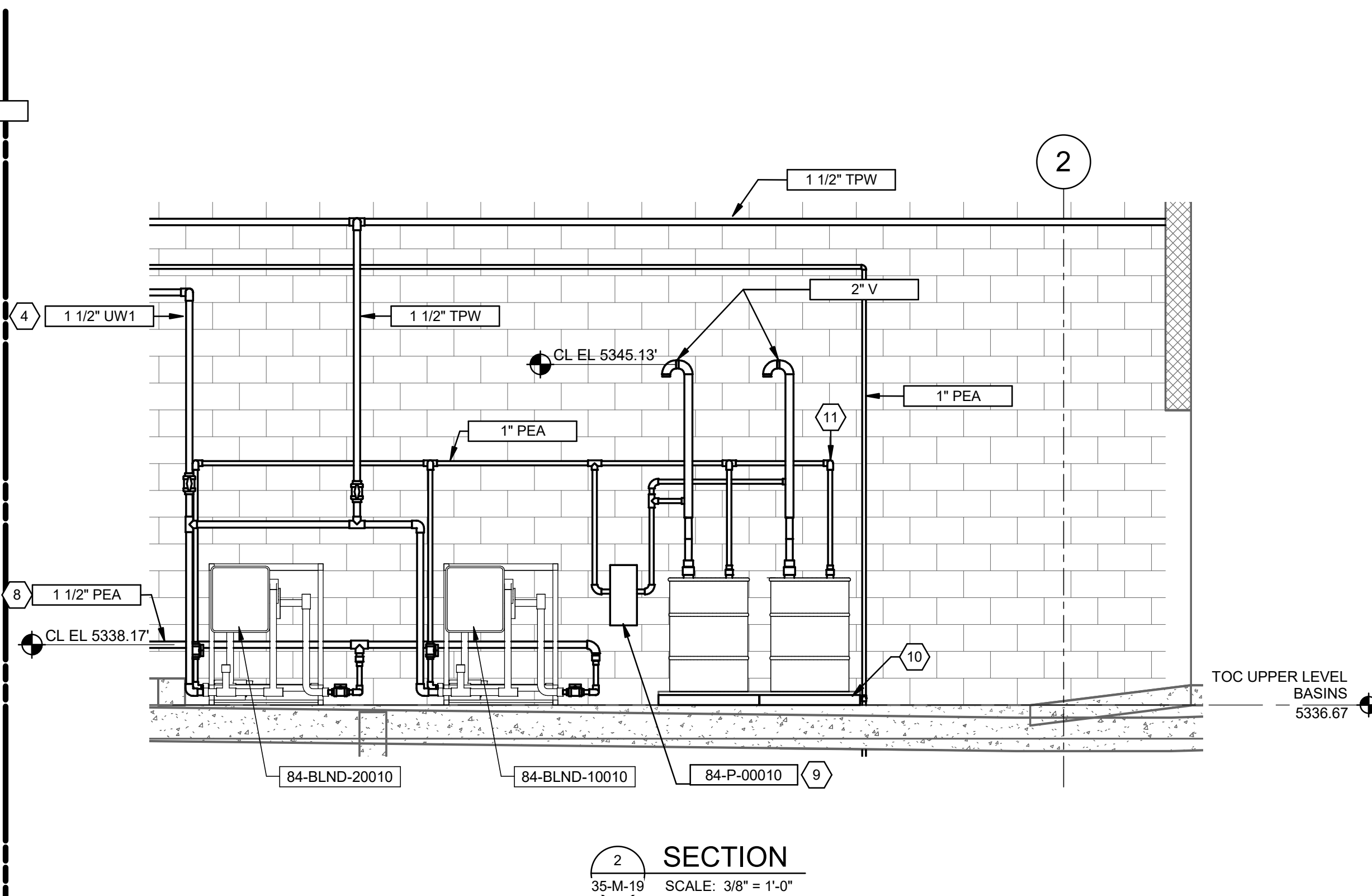
  

SCALE:	
VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING

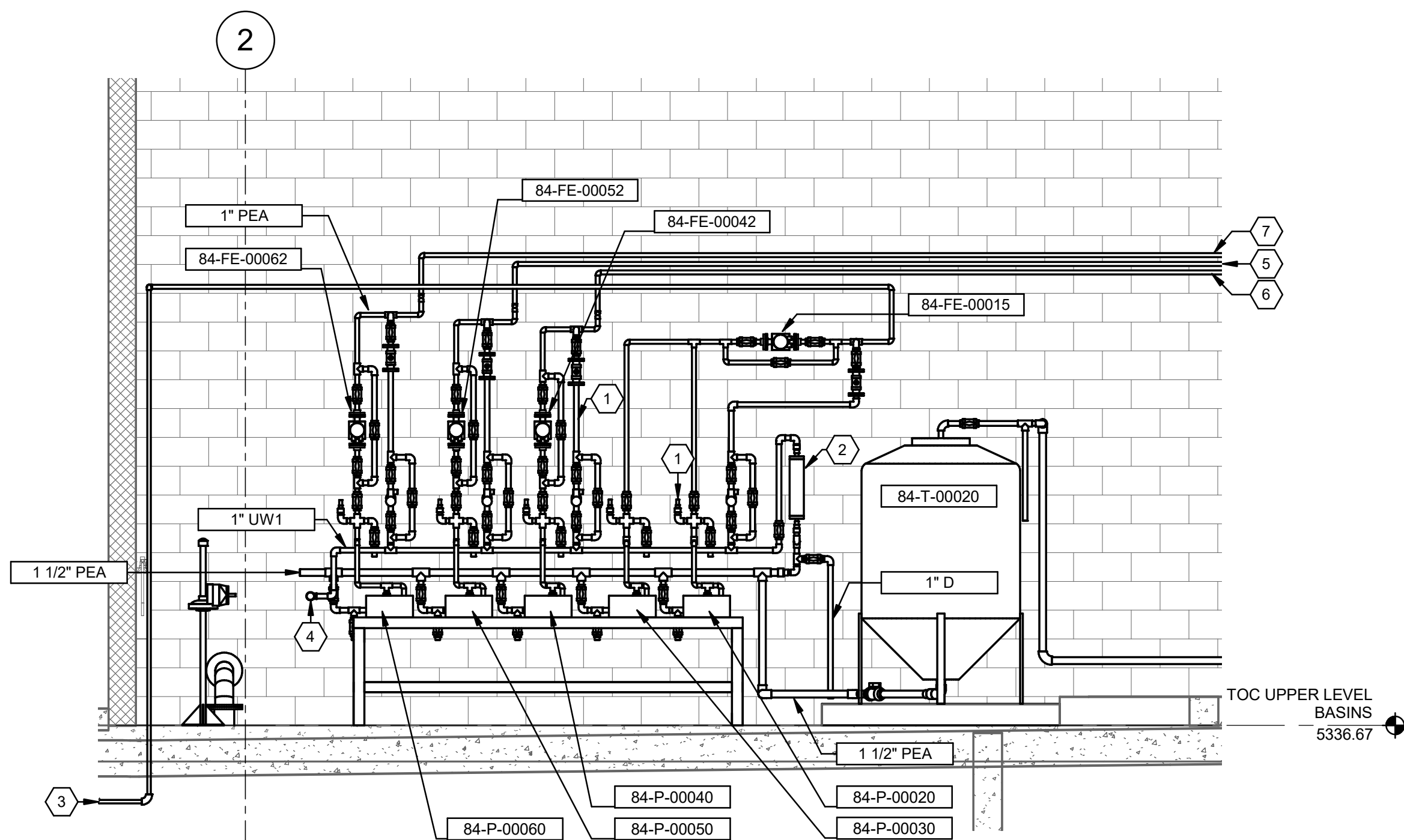
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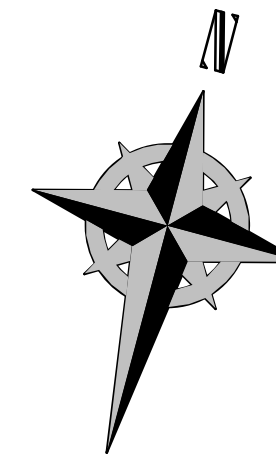
1 ENLARGED PLAN  
35-M-06 SCALE: 1/2" = 1'-0"



2 SECTION  
35-M-19 SCALE: 3/8" = 1'-0"



3 SECTION  
35-M-19 SCALE: 3/8" = 1'-0"



**GENERAL NOTES:**

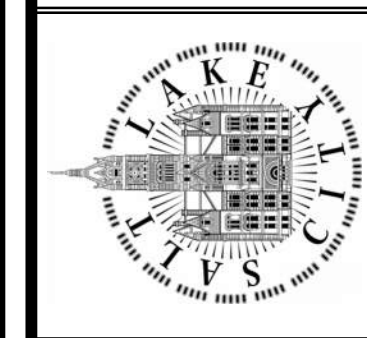
1. ALL VALVES, METERS, AND APPURTENANCES NOT SHOWN. SEE PROCESS AND INSTRUMENTATION DIAGRAMS. CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL ALL ITEMS SHOWN ON PROCESS AND INSTRUMENTATION DRAWINGS

**KEYNOTES:**

1. PROCESS ELEMENT NOT SHOWN. SEE PROCESS AND INSTRUMENTATION DIAGRAM. TYPICAL ALL POLYMER PUMPS.
2. INSTALL CALIBRATION COLUMN ABOVE ELEVATION OF PE LEVEL IN TANK. MAINTAIN AIR GAP BETWEEN COLUMN AND UW1 WATER.
3. ROUTE TO FILTER INLET CHANNEL DIFFUSER.
4. FIELD ROUTE 1 1/2" PIPE FROM NEAREST 3" UW1 PIPE TO POLYMER UW1 CONNECTION. TAP INTO UTILITY WATER PIPE USING TAPPING SADDLE OR FABRICATED REDUCING TEE. ROUTE PIPE USING 1 1/2" SCH 80 PVC PIPE. INCLUDE 1 1/2" BALL VALVE AT UTILITY WATER TAP. ANCHOR PIPING AS SPECIFIED. PROVIDE PROPOSED PIPE ROUTING TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
5. FIELD ROUTE 1 1/2" PIPE TO PENETRATION NEAR FILTER GALLERY AIR GAP STRUCTURE. SEE CIVIL DRAWINGS FOR CONTINUATION. PROVIDE EXTERIOR WALL PENETRATIONS PER M13002. PROVIDE INTERIOR WALL PENETRATIONS PER M12002.
6. FIELD ROUTE 1 1/2" PIPE TO FLOCCULATIONS BASIN STAGE 1 AND 2. PROVIDE INTERIOR WALL PENETRATIONS PER M12002. PROVIDE PROPOSED ROUTING TO ENGINEER FOR APPROVAL PRIOR TO INSTALLING.
7. FIELD ROUTE 1 1/2" PIPE TO SOLIDS COLLECTION BOX PIPING INFILTER GALLERY. PROVIDE INTERIOR WALL PENETRATIONS PER M12002. PROVIDE PROPOSED ROUTING TO ENGINEER FOR APPROVAL PRIOR TO INSTALLING.
8. FIELD ROUTE 1 1/2" PIPE TO POLYMER DAY TANK. ROUTE BELOW WINDOW ON NORTH WALL.
9. PROVIDE WALL MOUNTED PROGRESSING CAVITY DRUM MIXING PUMP. MOYNO GENERAL UTILITY PUMP, OR APPROVED EQUAL. PROVIDE WALL MOUNTING BRACKET.
10. DRUM SCALE. SEE PROCESS AND INSTRUMENTATION DIAGRAMS. TYPICAL TWO PLACES.
11. PROVIDE HOSEBIB AND VALVE.

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.PERSHING	VERIFY SCALE
CHECKED BY: J.HESBY	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - ENLARGED  
PLAN & SECTIONS**

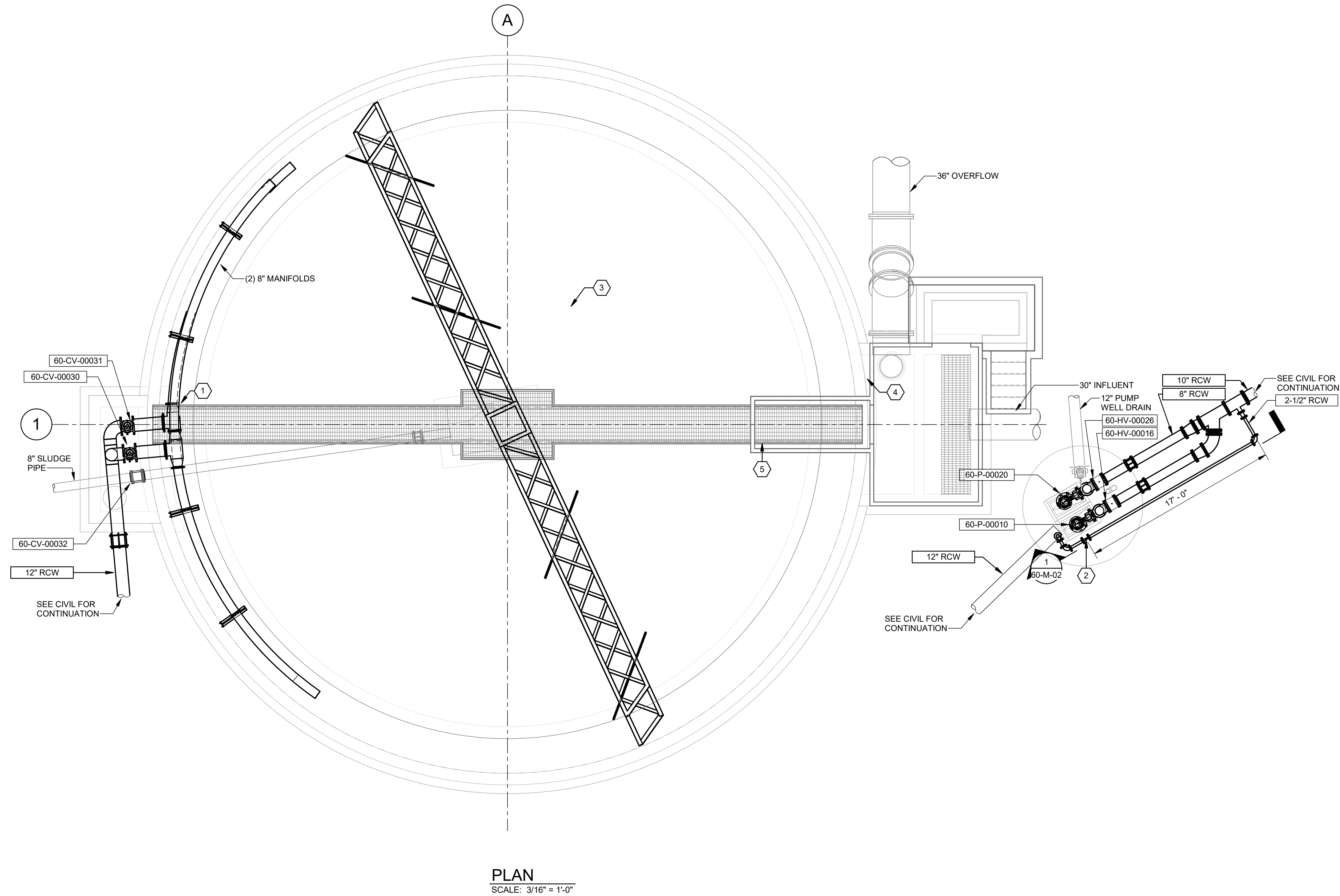


90% GMP

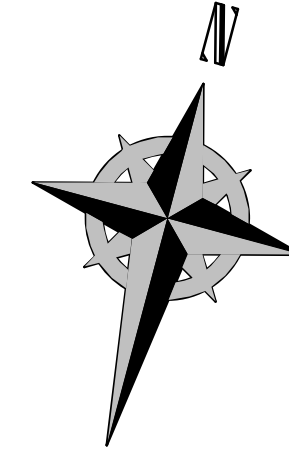
DRAWING NO.  
**35-M-19**

**Brown and Caldwell**

Plot Date: 6/13/2024 11:06:03 Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-M-60V21.rvt



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



**GENERAL NOTES:**

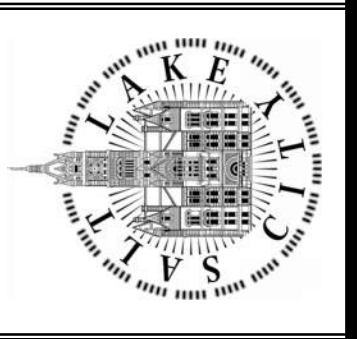
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FITTINGS. CONTRACTOR TO PROVIDE ALL FITTINGS, WHETHER SHOWN OR NOT.

**KEYNOTES:**

- INSTALL TURBIDIMETERS PER P&ID IN THIS LOCATION AT THE INVERT OF BOTH MANIFOLDS (5296 AND 5302.5 FT). VERIFY TURBIDIMETERS WILL NOT INTERFERE WITH THE OPERATION OF THE CLARIFIER RAKE ARM BEFORE CLARIFIER COMMISSIONING.
- PROVIDE 2-1/2" GLOBE VALVE WITH TWO SOLENOIDS, STAINLESS STEEL PILOT SYSTEM, AND VALVE POSITION TRANSMITTER, CLA-VALVE 131 SERIES CONTROL VALVE OR APPROVED EQUAL.
- ADD CONCRETE GROUT TOPPER PER SECTION 03 30 10.
- ROUTE 2" UW1 TO THIS LOCATION AND INSTALL UTILITY STATION PER M31002.
- INSTALL NEW LEVEL SENSOR IN THIS LOCATION PER P&ID AND MANUFACTURER'S INSTRUCTIONS.

DESIGNED BY: A.STOUDT	AUTH BY: J.H.	MADE BY: J.H.	REVISIONS
DRAWN BY: R.PERSHING	BY: J.H.	BY: J.H.	NO. DATE: 06/14/24
CHECKED BY: J.HESBY	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
APPROVED BY: J.HESBY			
DATE: JUNE 2024			
EWO NO: ---			
ACCOUNT NO: 512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLARIFIER - PLAN**

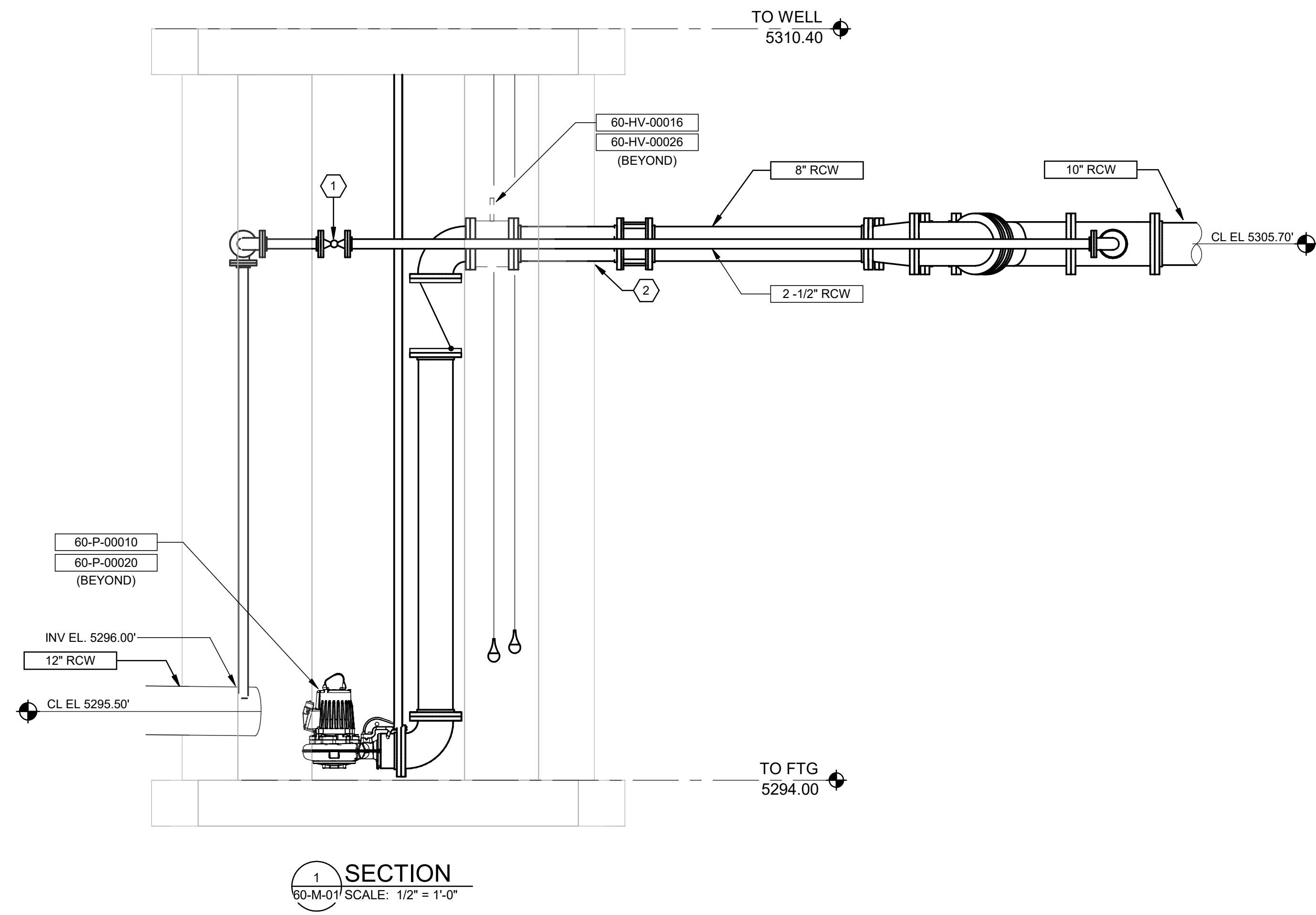


**90% GMP**

DRAWING NO.  
**60-M-01**

**Brown and Caldwell**

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



**SECTION**  
60-M-01 SCALE: 1/2" = 1'-0"

**GENERAL NOTES:**

- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FITTINGS. CONTRACTOR TO PROVIDE ALL FITTINGS, WHETHER SHOWN OR NOT.

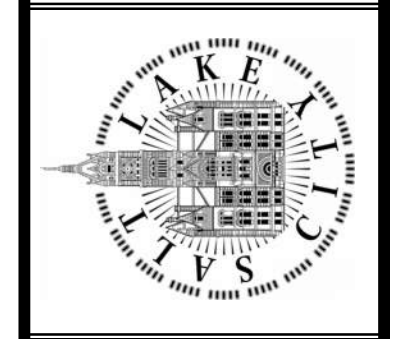
**KEYNOTES:**

- PROVIDE 2-1/2" GLOBE VALVE WITH TWO SOLENOIDS, STAINLESS STEEL PILOT SYSTEM, AND VALVE POSITION TRANSMITTER. CLA-VALVE 131 SERIES CONTROL VALVE OR APPROVED EQUAL.
- COORDINATE WALL PENETRATIONS WITH MANHOLE MANUFACTURER. SEAL WITH LINK SEAL AND NON-SHRINK GROUT.

**Brown and Caldwell**

DESIGNED BY: A. STOUT	AUTH BY: JH	MADE BY: AJ	REVISIONS
DRAWN BY: R. PERSHING	BY: JH	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
CHECKED BY: J. HESBY			
APPROVED BY: J. HESBY			
DATE: JUNE 2024			
EWO NO: ---			
ACCOUNT NO: 512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLARIFIER - SECTION**

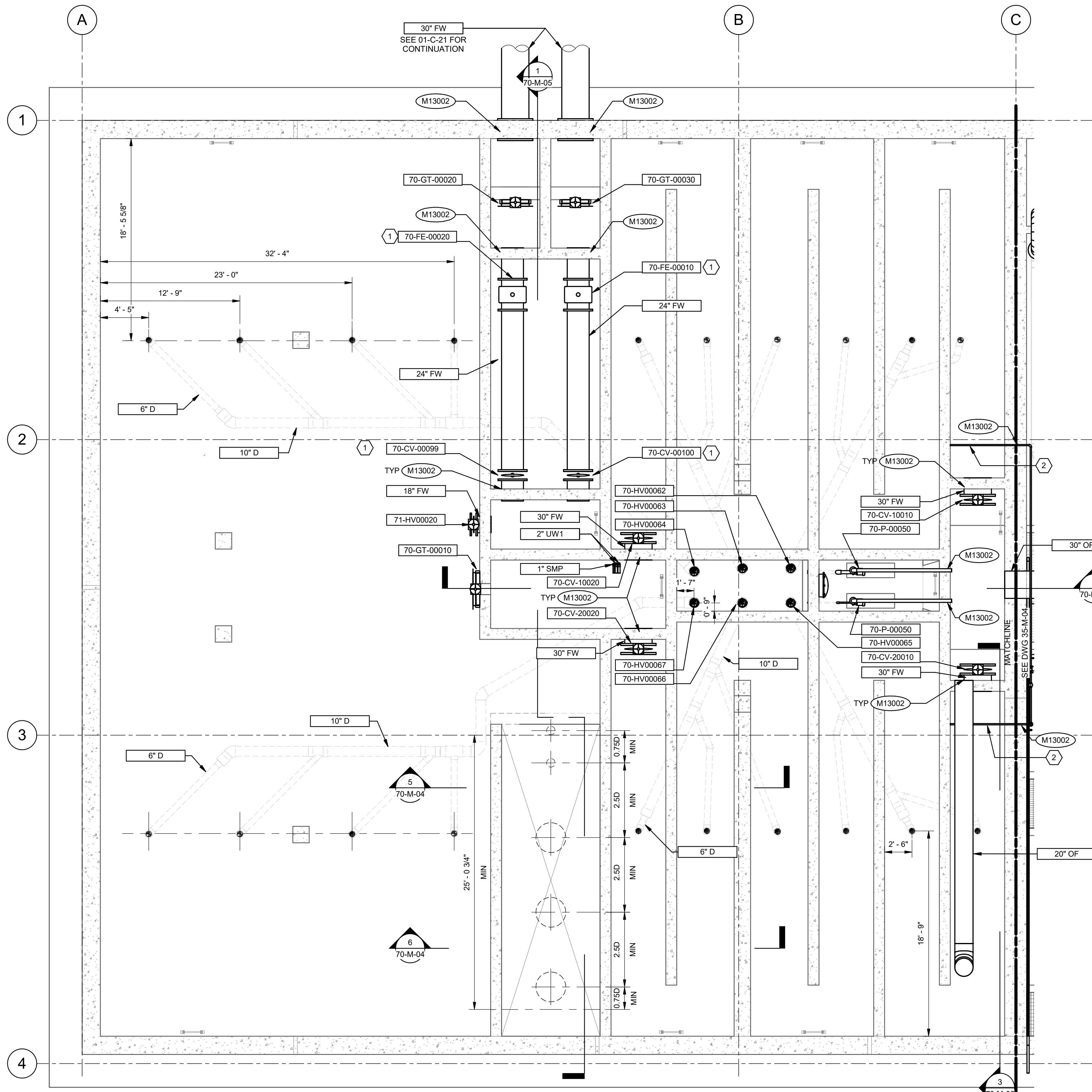


**90% GMP**

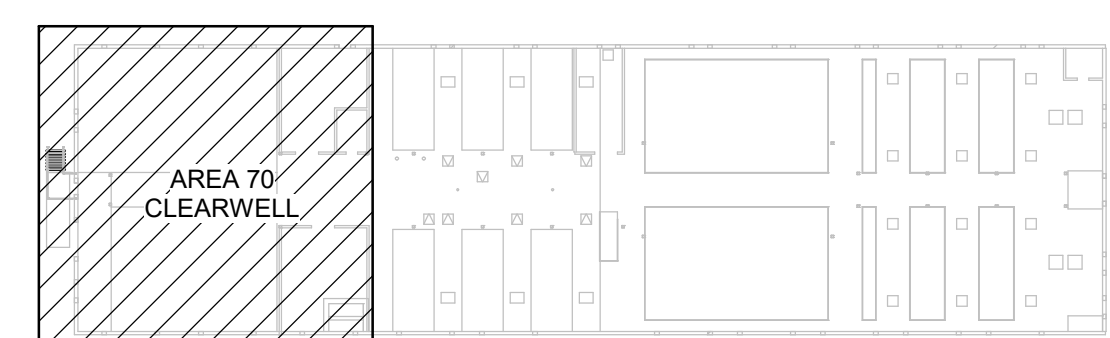
DRAWING NO.  
**60-M-02**

SCALE: \_\_\_\_\_  
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BAR IS ONE INCH ON ORIGINAL DRAWING

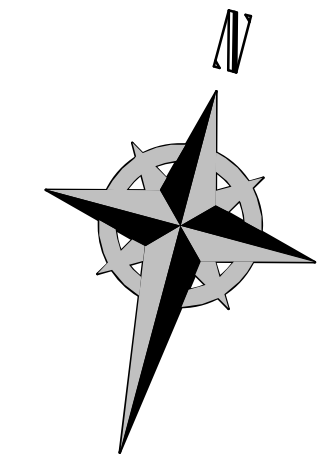
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



KEY PLAN



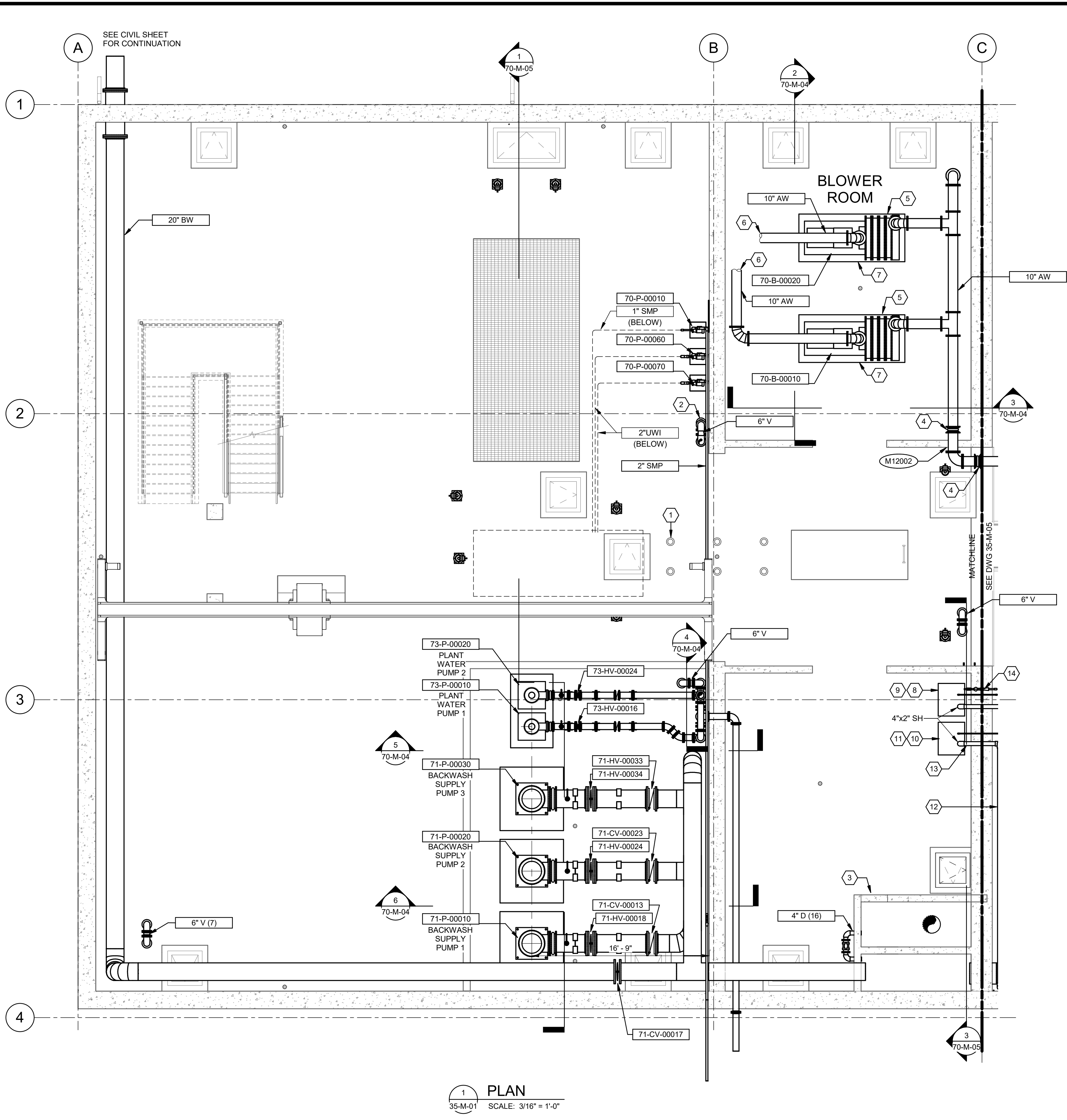
**KEYNOTES:**

- 1 CONNECT WITH GROOVED COUPLING.
- 2 PROVIDE 1" PVC SODIUM HYPOCHLORITE DIFFUSER 12" ABOVE FLOOR. EVENLY SPACE AND DRILL SIX (6) 1/2" DIAMETER HOLES IN DIFFUSER PIPES. CAP DIFFUSER END. ANCHOR PIPE TO CLEARWELL FLOOR WITH FRP STRUT CHANNEL AND FRP POST BASE EVERY 2 FEET OF LENGTH OF PIPE. ANCHOR FRP BASE WITH (4) 3/8" DIAMETER HASTELLOY ADHESIVE ANCHORS WITH 4" MINIMUM EMBEDMENT. CONNECT PIPE TO UNISTRUT USING FRP PIPE CLAMP AND HASTELLOY C MOUNTING HARDWARE.

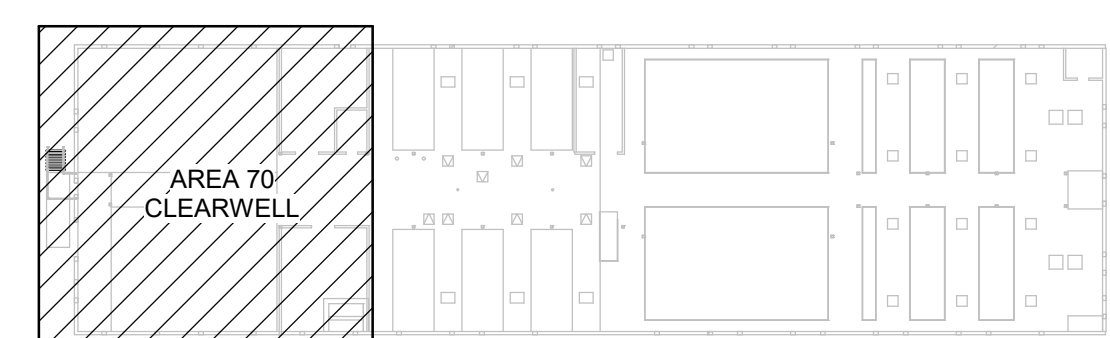
**Brown and Caldwell**

<p>DESIGNED BY: A.JONES DRAWN BY: R.PERSHING CHECKED BY: J.HESBY APPROVED BY: J.HESBY DATE: JUNE 2024 EWO NO: --- ACCOUNT NO: 512260079</p>	<p>SCALE: --- <b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING</p>												
<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>ISSUED FOR</th> <th>GUARANTEE</th> <th>MAXIMUM PRICE</th> <th>GMP</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>06/14/24</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP	0	06/14/24					<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>CLEARWELL - LOWER PLAN</b></p>
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP								
0	06/14/24												
<p>90% GMP</p>													
<p>DRAWING NO. <b>70-M-01</b></p>													

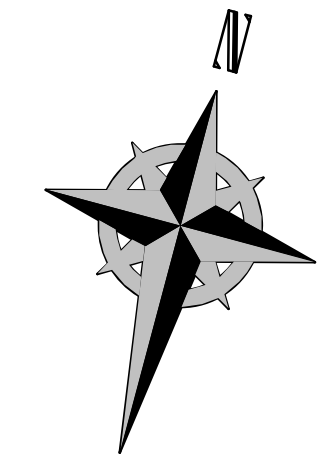
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1 PLAN  
35-M-01 SCALE: 3/16" = 1'-0"



KEY PLAN



**GENERAL NOTES:**

- PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO PROVIDE PIPE SUPPORTS, INCLUDING PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND INSPECTION, FOR ALL NEW PIPING ACCORDING TO SECTION 40 05 07.

**KEYNOTES:**

- SEALED CARBON STEEL FLOOR BOX WITH STEM NUT AND VALVE POSITION INDICATOR. SEE SPECIFICATION, TYP OF 6 PLACES.
- DOWNTURN VENTS A MINIMUM OF 2 INCHES BELOW ANY OPENING. PROVIDE AND INSTALL VENTSAFE® SECURITY CAGE BY VALVEMATIC OR APPROVED EQUAL. INSTALL ON END OF VENT WITH A STEEL FLAT FACE FLANGE.
- 30" INWARD OPENING MANWAY.
- CONTRACTOR TO PROVIDE EXPANSION CONTROL DESIGN PER SPECIFICATION 40 05 06.23 AND 43.11 17.16.
- PROVIDE A 6-INCH EQUIPMENT PAD PER M01007 AND M01008.
- CONNECT BLOWER INLET TO HVAC DUCTS. PROVIDE NECESSARY REDUCER DUCT FOR TRANSITION. TRANSITION FROM DUCT TO PIPING AT BLOWER INLET CONTROL VALVES.
- EQUIPMENT ANCHOR TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND SHALL CONFORM TO STANDARD DETAIL D01004 AND SPECIFICATION 43 05 18.
- SODIUM HYPOCHLORITE INJECT SKID WITH TWO CHEMICAL FEED PERISTALTIC PUMP (DUTY / STANDBY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- ROUTE PIPE FROM PUMPS TO SODIUM HYPOCHLORITE CHEMICAL INJECTION QUILL ON COMBINED FILTER EFFLUENT PIPE. SEE DETAIL 3/35-M-15. USE 2" PVC CARRIER PIPE WITH 1/2" PVC TUBING. PROVIDE PIPE PENETRATION PER M12003.
- SODIUM HYPOCHLORITE INJECT SKID WITH ONE CHEMICAL FEED PERISTALTIC PUMP (DUTY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- ROUTE PIPE FROM PUMPS TO BACKWASH INJECTION QUILL ON BACKWASH HEADER. SEE 35-M-03. USE 2" PVC CARRIER PIPE WITH 1/2" PVC TUBING. PROVIDE PIPE PENETRATION PER M12003.
- DOUBLE CONTAINMENT PIPING SHALL BE CONSTRUCTED WITH 2% SLOPE TOWARDS LOW POINT INSPECTION LOCATION.
- DOUBLE CONTAINMENT PIPING VISUAL LEAK DETECTION SEE DETAIL B/GM-05.
- PROVIDE SODIUM HYPOCHLORITE FEED STATION WITH ROTOMETER, VENTURI, QUICK CONNECTION, ETC. PER 70-PI-01.

**Brown and Caldwell**

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.PERSHING	VERIFY SCALE
CHECKED BY: J.HESBY	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**CLEARWELL - INTERMEDIATE PLAN**

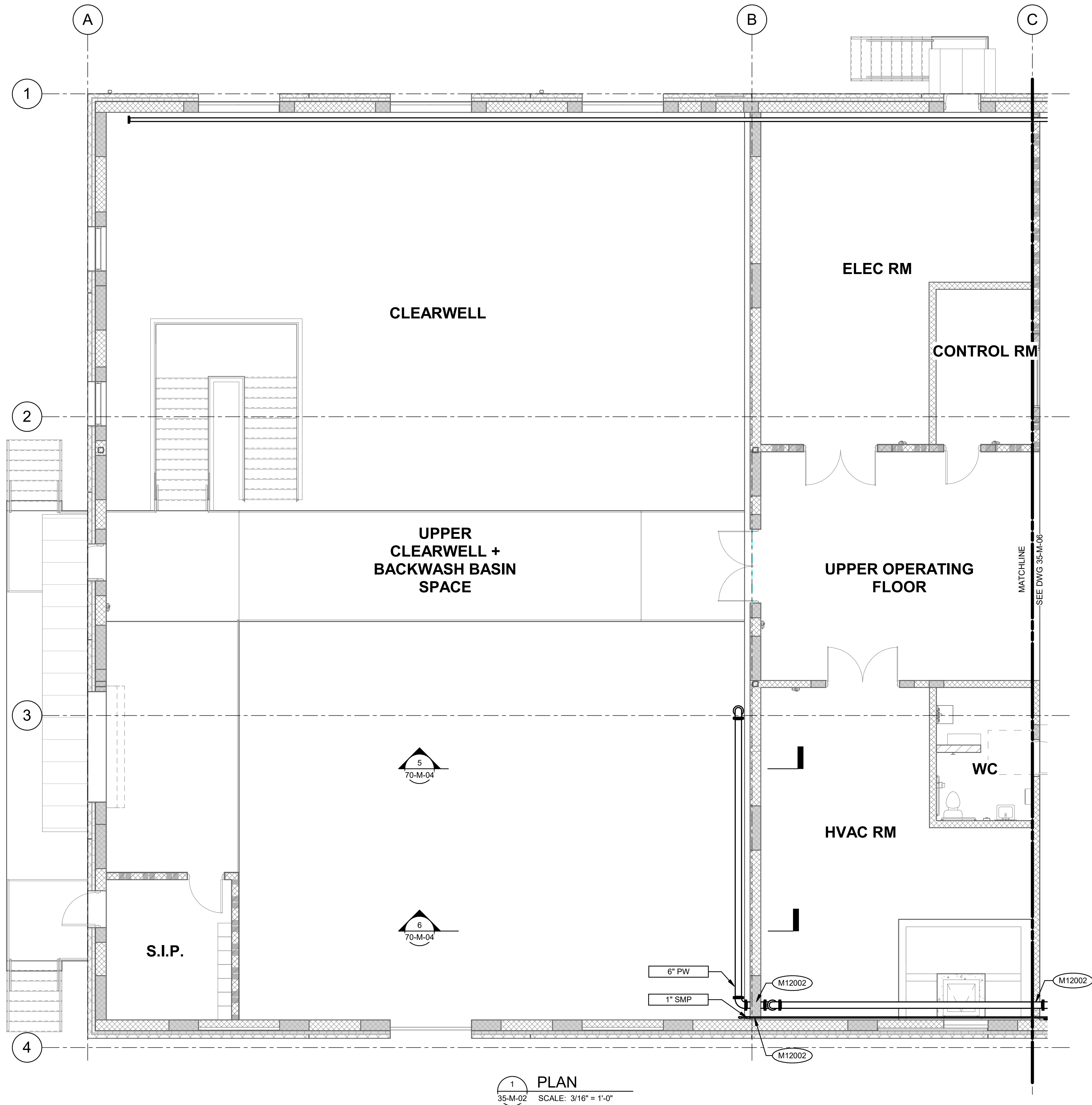
  

90% GMP

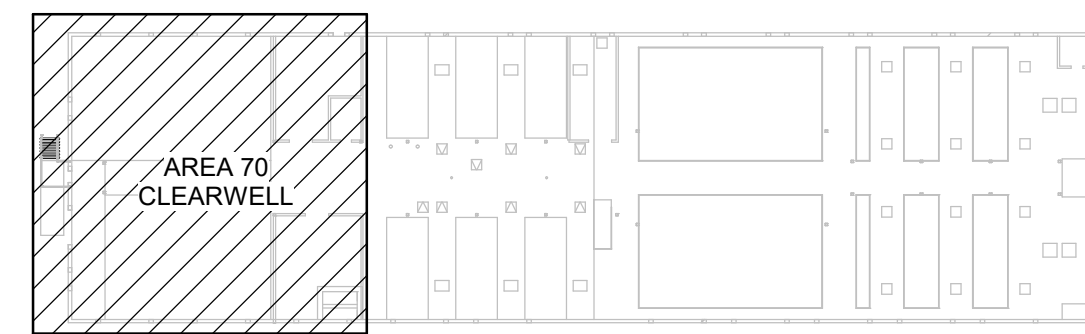
  

DRAWING NO.  
**70-M-02**

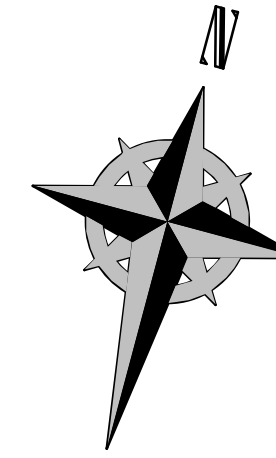
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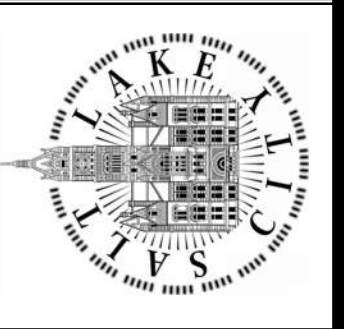
1 PLAN  
35-M-02 SCALE: 3/16" = 1'-0"



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - UPPER PLAN



90% GMP

DRAWING NO.  
70-M-03

**Brown and Caldwell**

REVISIONS		NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0		06/14/24				

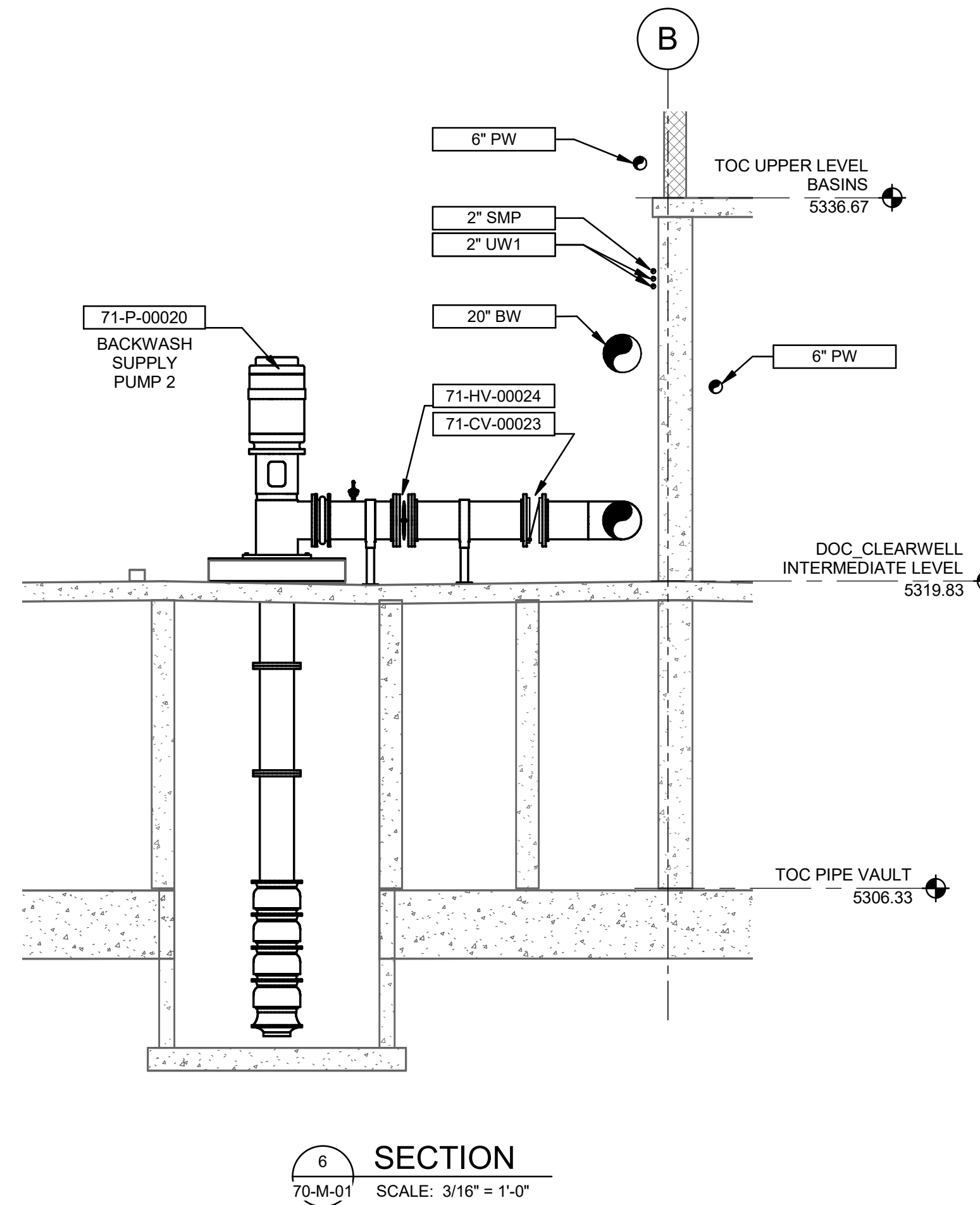
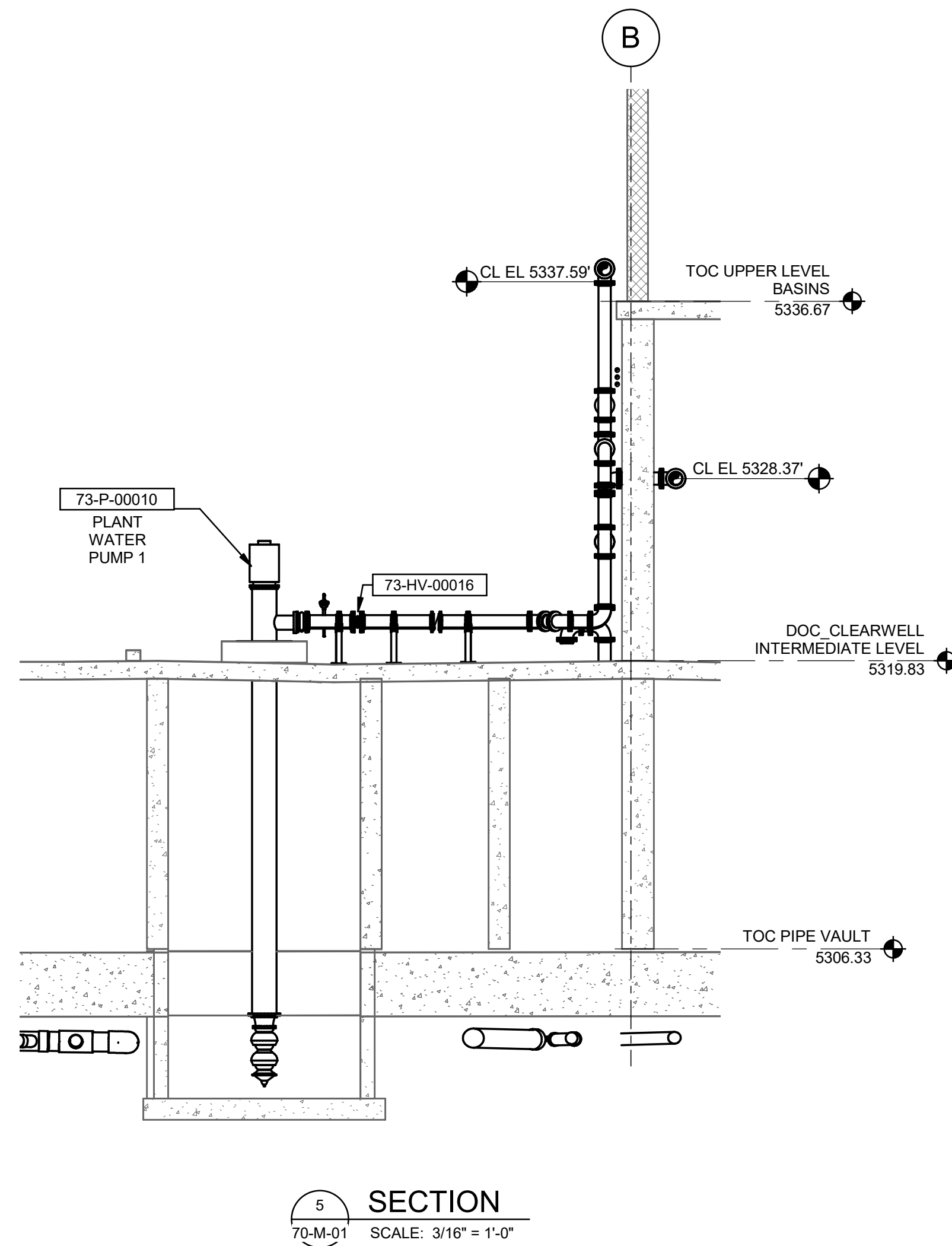
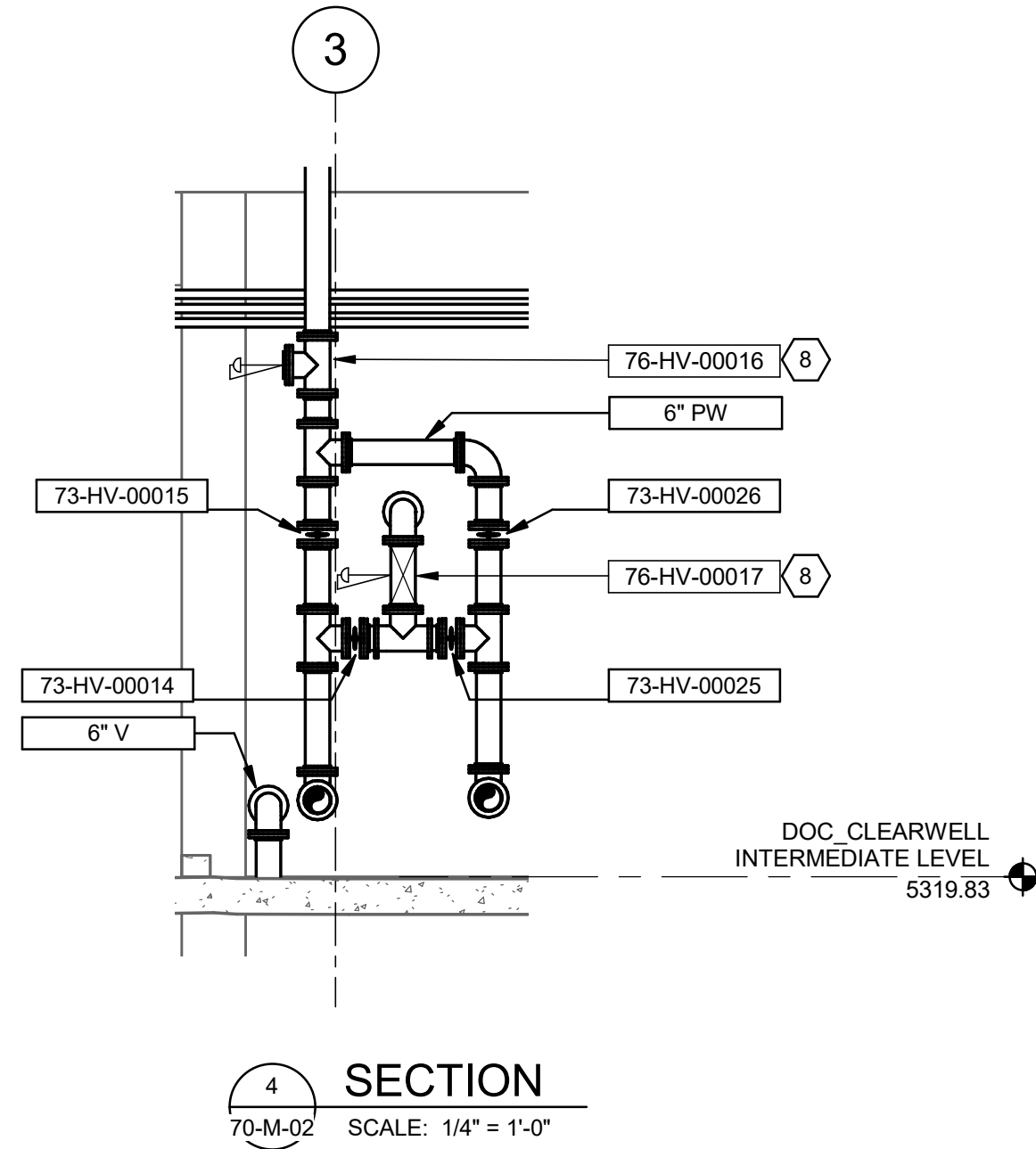
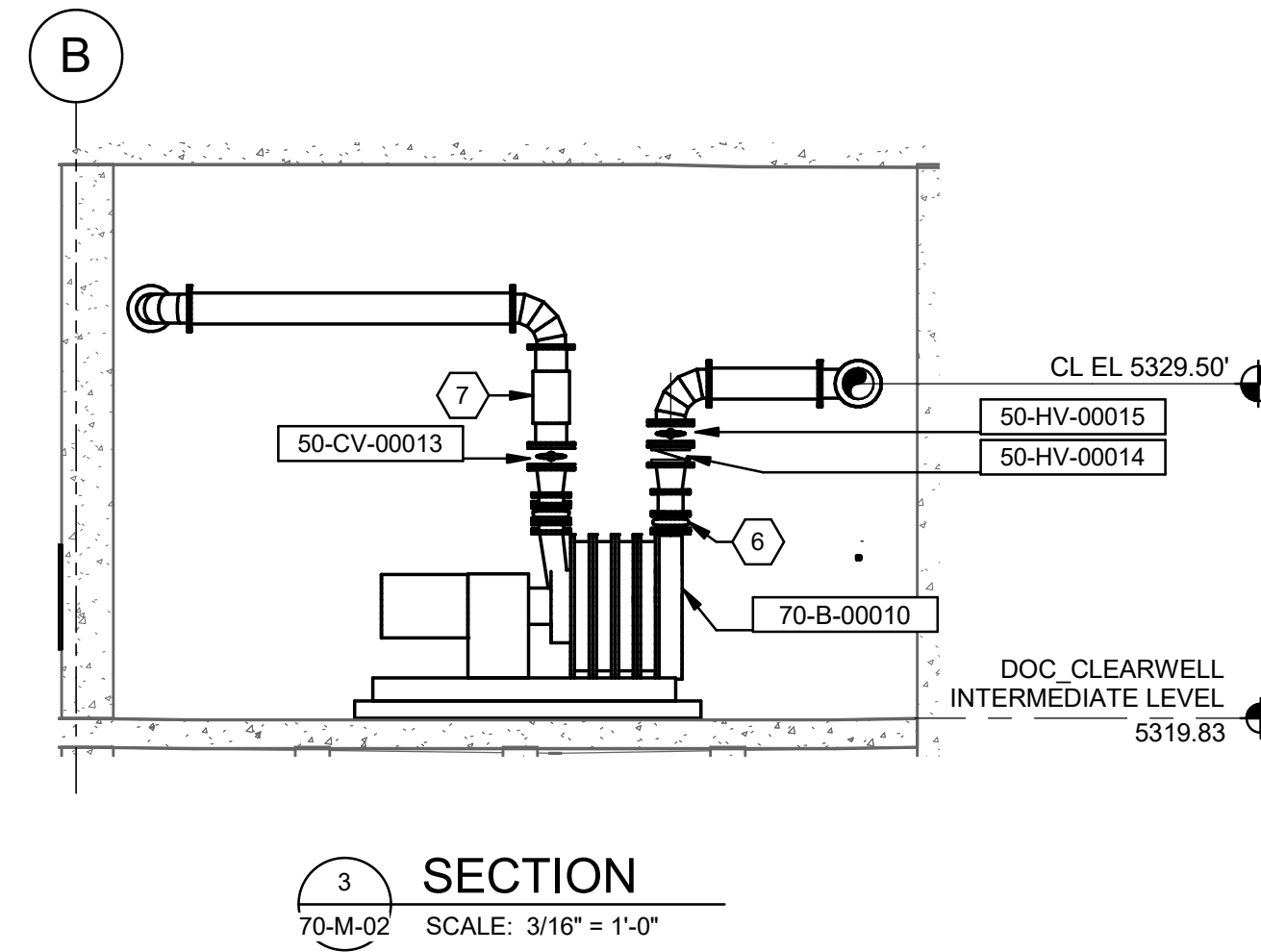
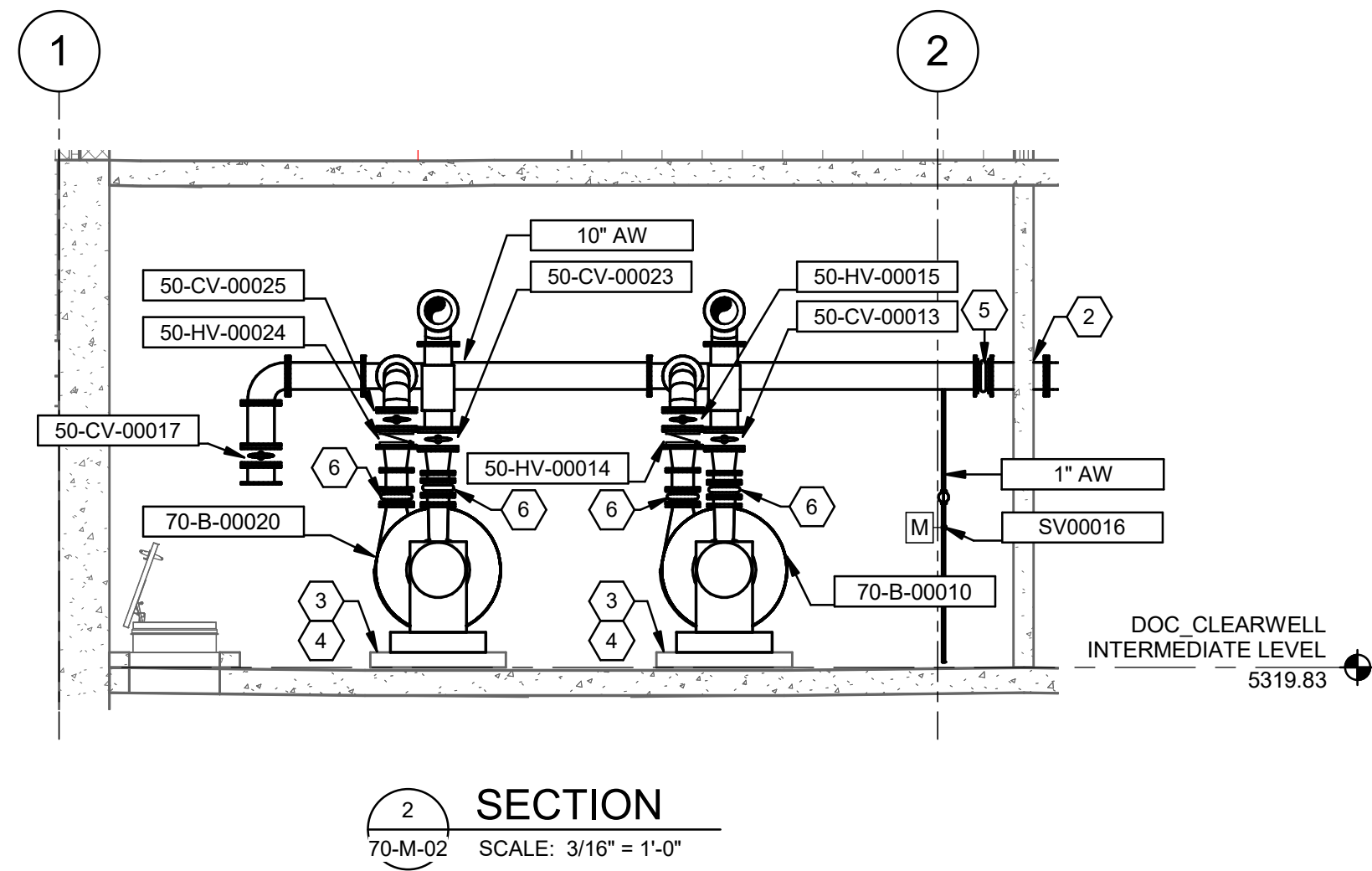
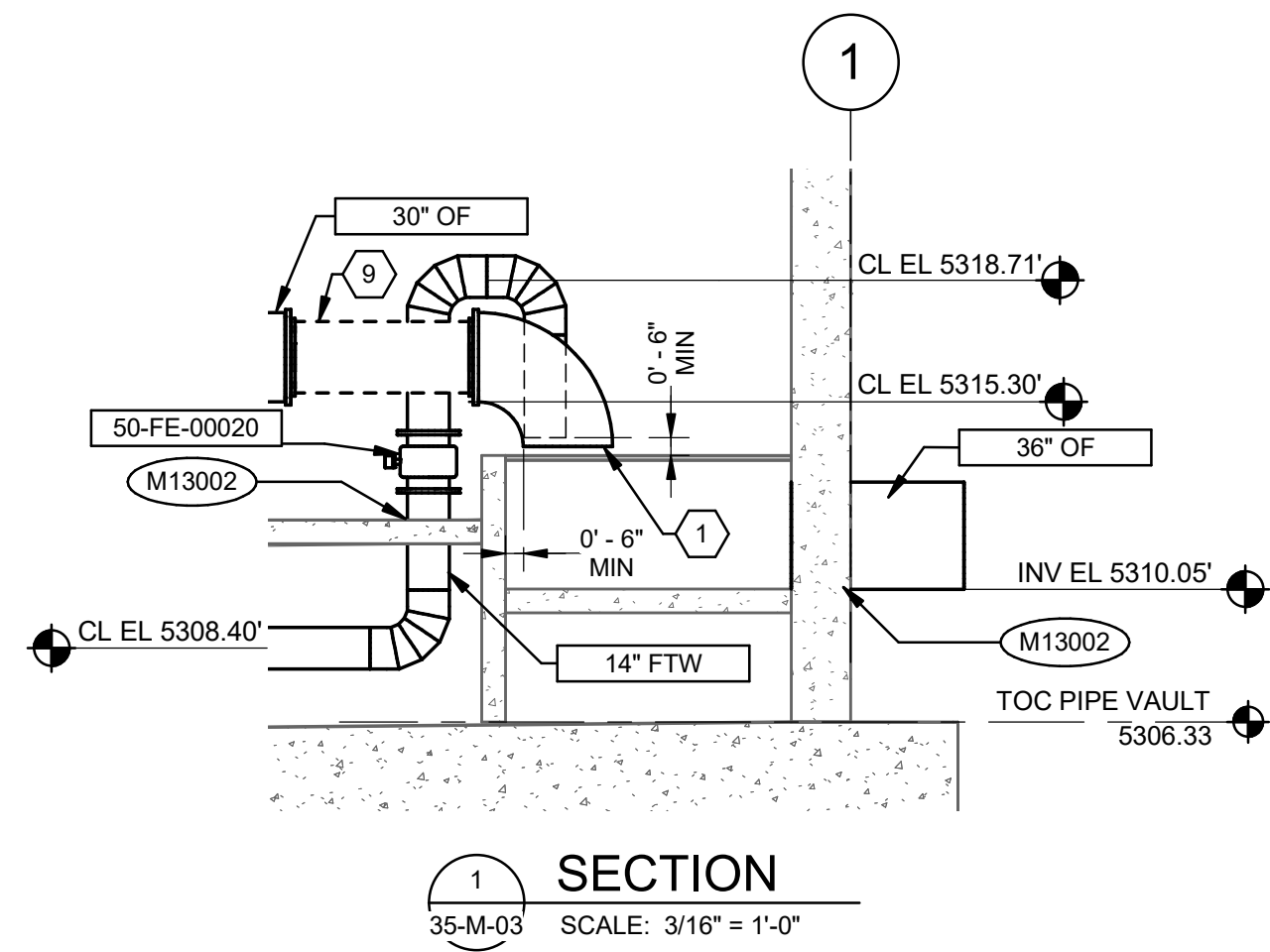
  

DESIGNED BY: A.JONES	AUTH BY: JH
DRAWN BY: R.PERSHING	BY: AJ
CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/12/2024 4:51:29 PM Path: R:\M\_360\153020 - City Creek WTP\153020-M-3570\21.rvt



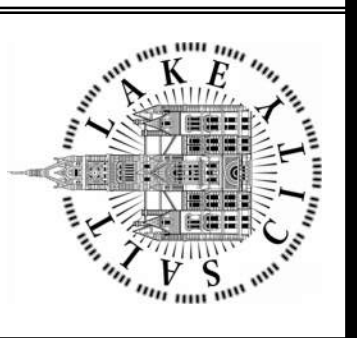
**GENERAL NOTES:**

- PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO PROVIDE PIPE SUPPORTS, INCLUDING PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND INSPECTION, FOR ALL NEW PIPING ACCORDING TO SECTION 40 05 07.

**KEYNOTES:**

- PROVIDE FABRICATED ELBOW, PER AWWA M11. MINIMUM RADIUS IN ACCORDANCE WITH C208 4 SEGMENT LENGTH OF 1.5.
- PROVIDE 16" PIPE PENETRATION FOR AIR WASH PIPE AND FLANGE. PIPE PENETRATION PER GM-02/D12002. OMIT LINK SEAL AND PROVIDE 1/4" THICK, 60 DUROMETER EPDM LINER TO ISOLATE NEW PIPE FROM PIPE SLEEVE.
- PROVIDE A 6-INCH EQUIPMENT PAD PER M01007 AND M01008.
- CONTRACTOR TO PROVIDE A 1/2" THICK 60 DUROMETER EPDM MAT ON TOP OF MOUNTING PAD FOR VIBRATION ISOLATION.
- CONTRACTOR TO PROVIDE EXPANSION CONTROL DESIGN PER SPECIFICATION 40 05 06.23 AND 43.11 17.16.
- PROVIDE 8" RESTRAINED FLEXIBLE JOINT FOR VIBRATION ISOLATION. FLEXIBLE JOINT SHALL BE EPDM GENERAL RUBBER SINGLE WIDE ARCH STYLE 1101, OR APPROVED EQUAL. PROVIDE STAINLESS STEEL GUSSETS, RODS, NUTS AND ALL NECESSARY APPURTENANCES TO PROVIDE AN OUTER WASHER, INNER BAR CONTROL UNIT.
- INSTRUMENTATION NOT SHOWN. CONTRACTOR TO PROVIDE BLOWER INSTRUMENTS WITH CORRESPONDING CONNECTIONS AS INDICATED ON 35-PI-24 AND SPECIFICATION 43 11 17.16.
- PROVIDE ANTI-CAVITATING BACK PRESSURE SUSTAINING VALVE. SET PRESSURE SUSTAINING VALVE TO MAINTAIN MINIMUM UPSTREAM PRESSURE OF 80 PSI.
- PROVIDE ELASTOMERIC SLIP-IN CHECK VALVE. TIDFLEX TECHNOLOGIES CMUF-SL SLIP-IN CHECKMATE ULTRAFLEX VALVE OR APPROVED EQUAL.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - SECTION &  
DETAILS I



90% GMP

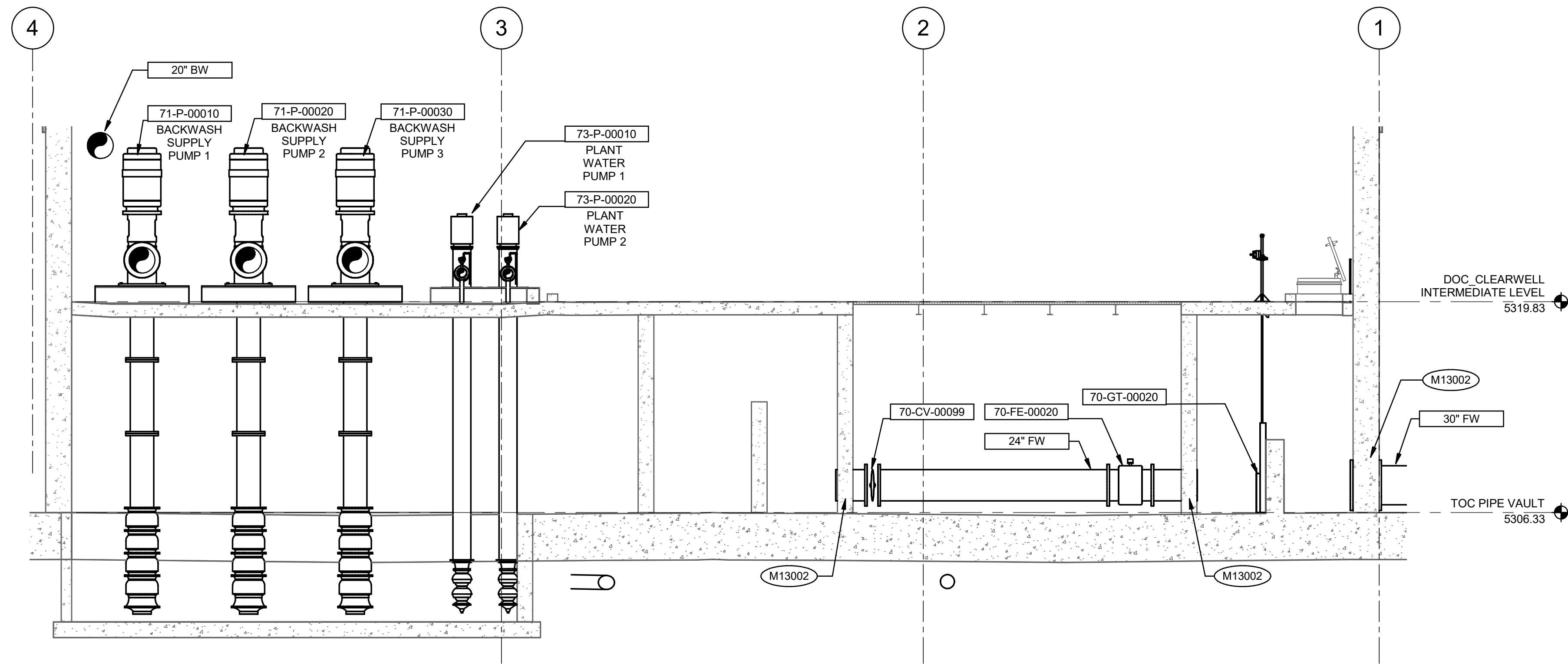
DRAWING NO.  
70-M-04

DESIGNED BY: A.JONES	SCALE:
DRAWN BY: R.PERSHING	VERIFY SCALE
CHECKED BY: J.HESBY	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: J.HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	
MADE BY: JH	
DATE: 06/14/24	
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
NO. 0	

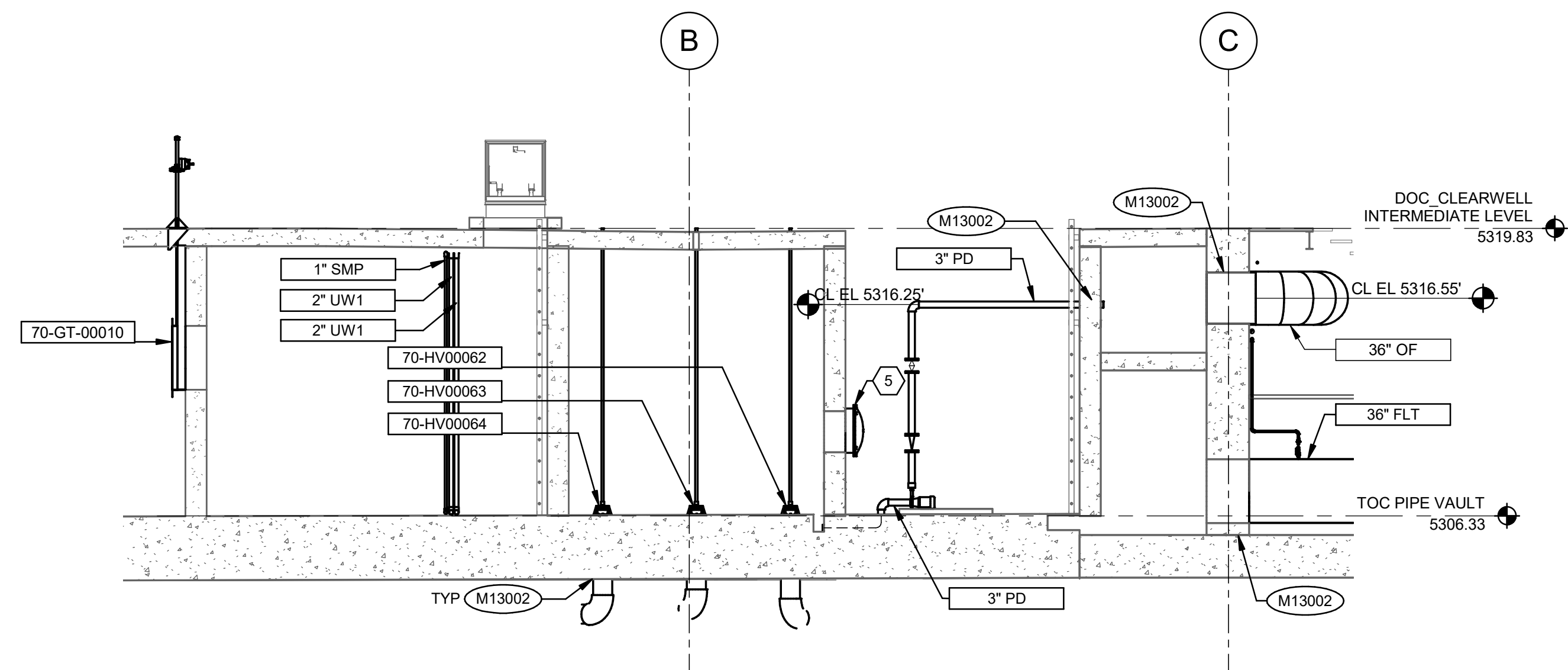
Brown and Caldwell



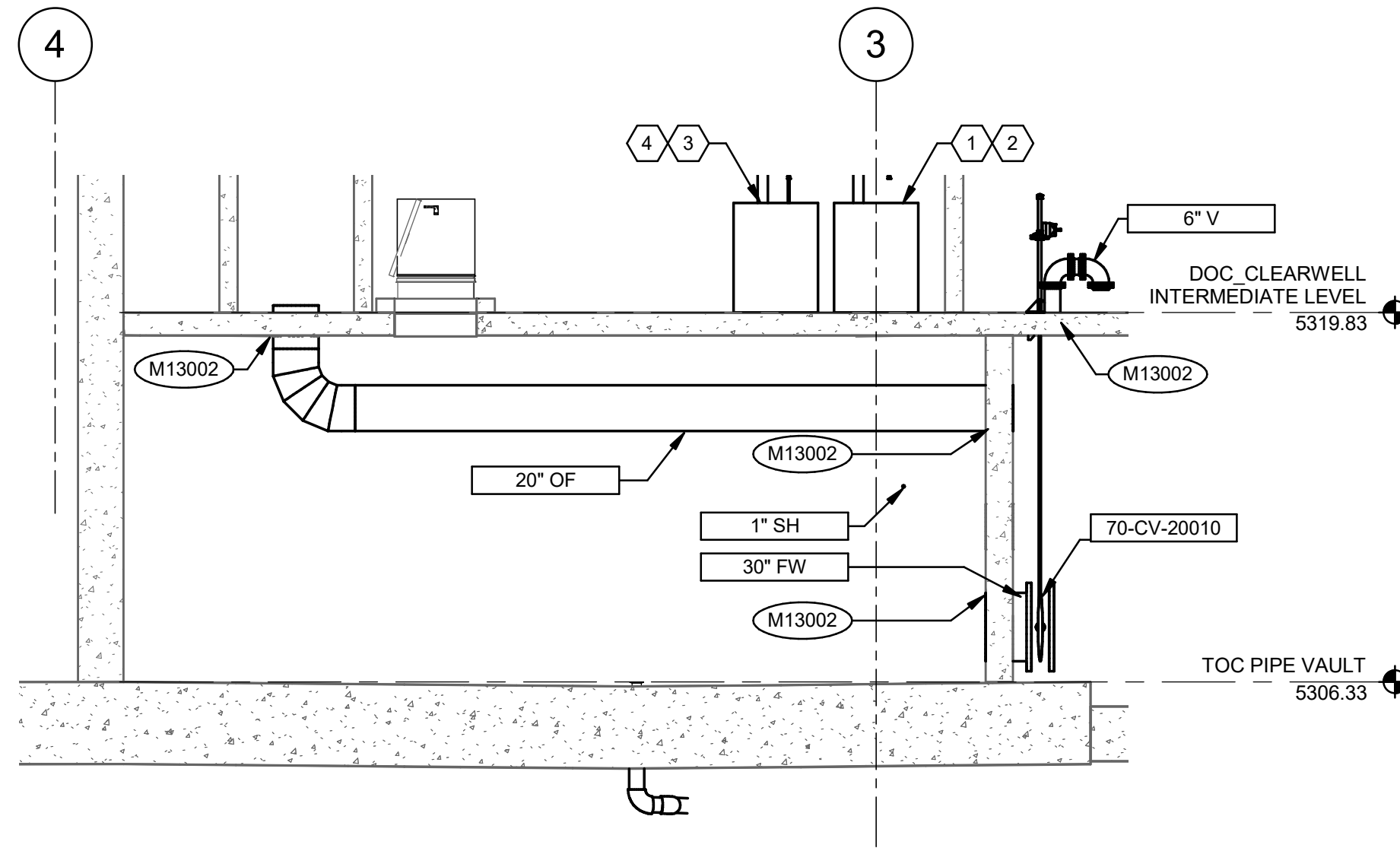
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1 SECTION  
70-M-01 SCALE: 3/16" = 1'-0"



2 SECTION  
70-M-01 SCALE: 3/16" = 1'-0"



3 SECTION  
70-M-01 SCALE: 3/16" = 1'-0"

**GENERAL NOTES:**

- PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO PROVIDE PIPE SUPPORTS, INCLUDING PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND INSPECTION, FOR ALL NEW PIPING ACCORDING TO SECTION 40 05 07.

**KEYNOTES:**

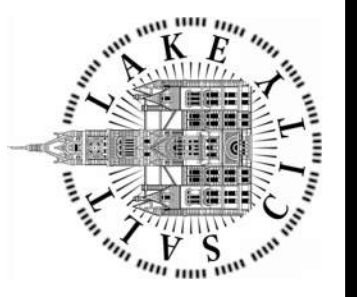
- SODIUM HYPOCHLORITE INJECT SKID WITH TWO CHEMICAL FEED PERISTALTIC PUMP (DUTY / STANDBY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- ROUTE PIPE FROM PUMPS TO SODIUM HYPOCHLORITE CHEMICAL INJECTION QUILL ON COMBINED FILTER EFFLUENT PIPE, SEE DETAIL 3/35-M-15. USE 2" PVC CARRIER PIPE WITH 1/2" PVC TUBING. PROVIDE PIPE PENETRATION PER M12003
- SODIUM HYPOCHLORITE INJECT SKID WITH ONE CHEMICAL FEED PERISTALTIC PUMP (DUTY). SKID SHALL BE FABRICATED FROM HDPE MATERIAL WITH BUILT-IN CONTAINMENT AND SPLASH GUARD.
- ROUTE PIPE FROM PUMPS TO BACKWASH INJECTION QUILL ON BACKWASH HEADER, SEE 35-M-03. USE 2" PVC CARRIER PIPE WITH 1/2" PVC TUBING. PROVIDE PIPE PENETRATION PER M12003.
- PROVIDE 24" OUTWARD SWINGING MANWAY.

SCALE: \_\_\_\_\_  
DESIGNED BY: A.JONES  
DRAWN BY: R.PERSHING  
CHECKED BY: J.HESBY  
APPROVED BY: J.HESBY  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

VERIFIED SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

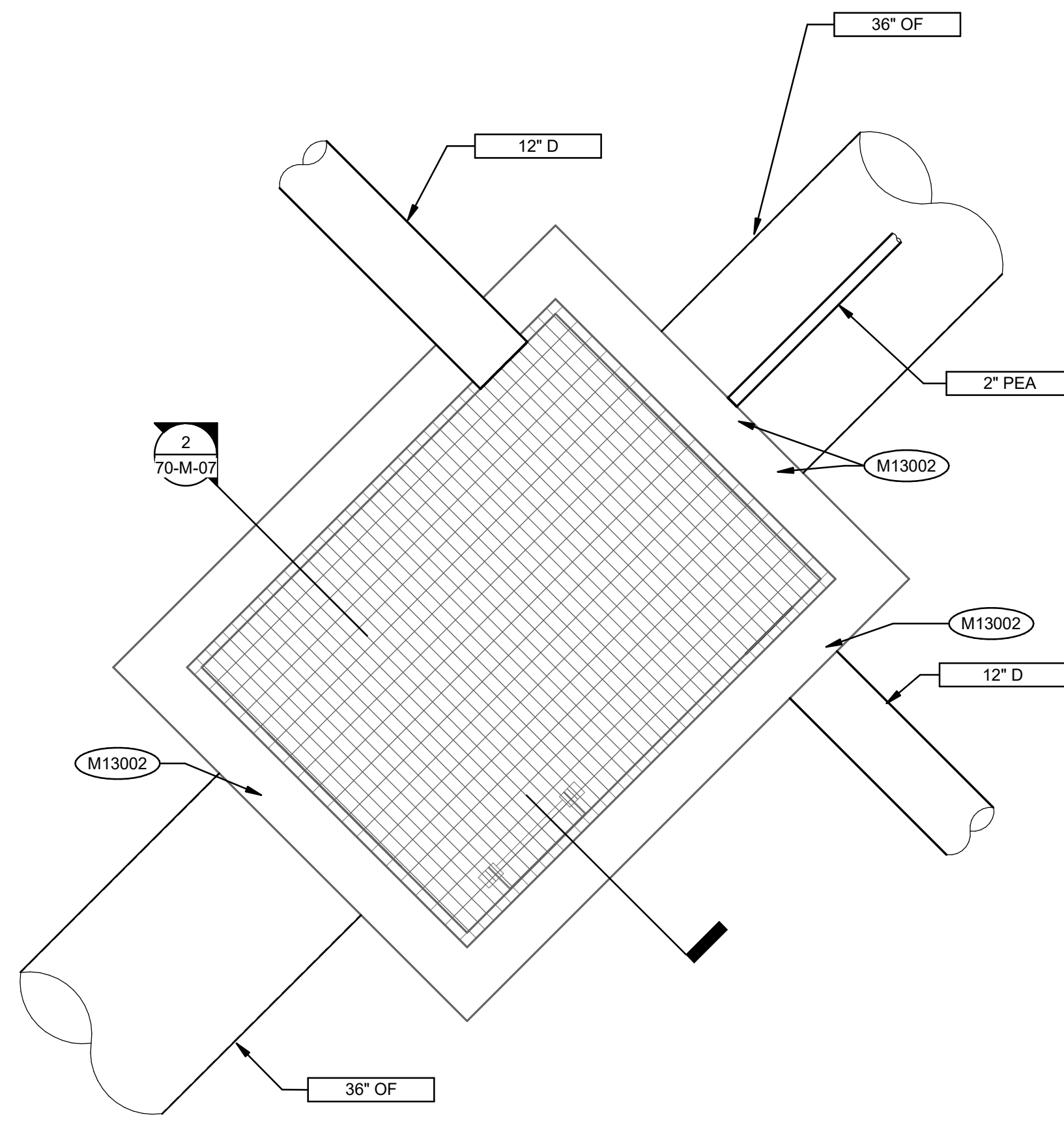
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - SECTION & DETAILS 2



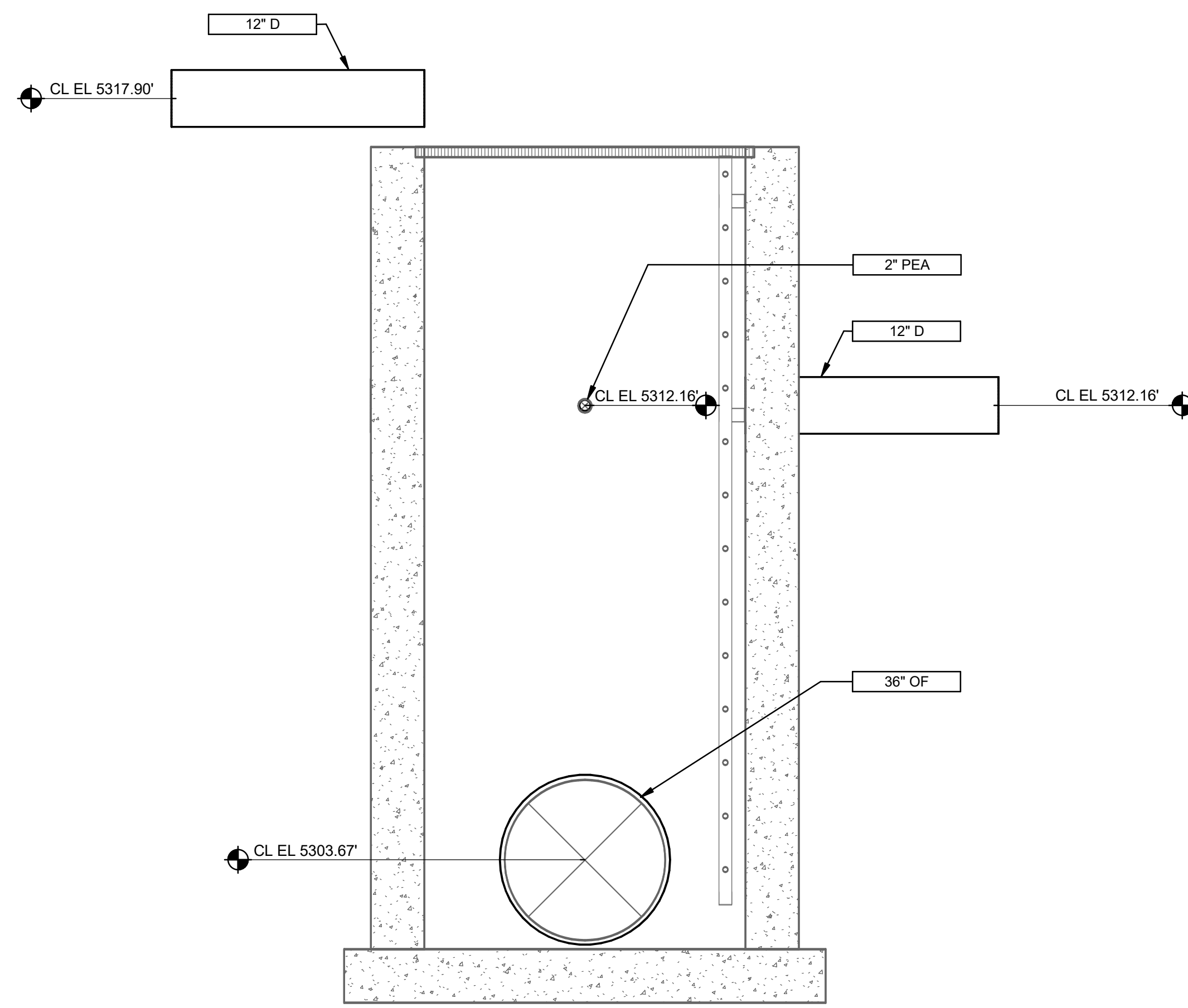
90% GMP

DRAWING NO.  
70-M-05

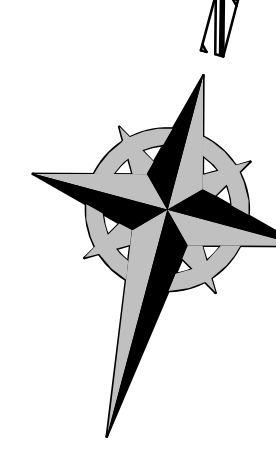
Brown and Caldwell



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

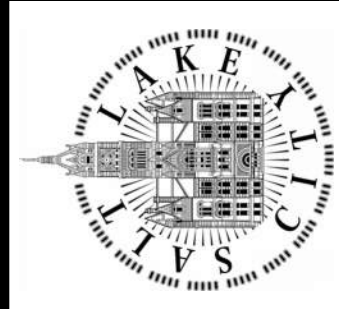


**SECTION**  
SCALE: 1/2" = 1'-0"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**COLLECTION BOX - PLAN &  
SECTION**



**90% GMP**

DRAWING NO.  
**70-M-07**

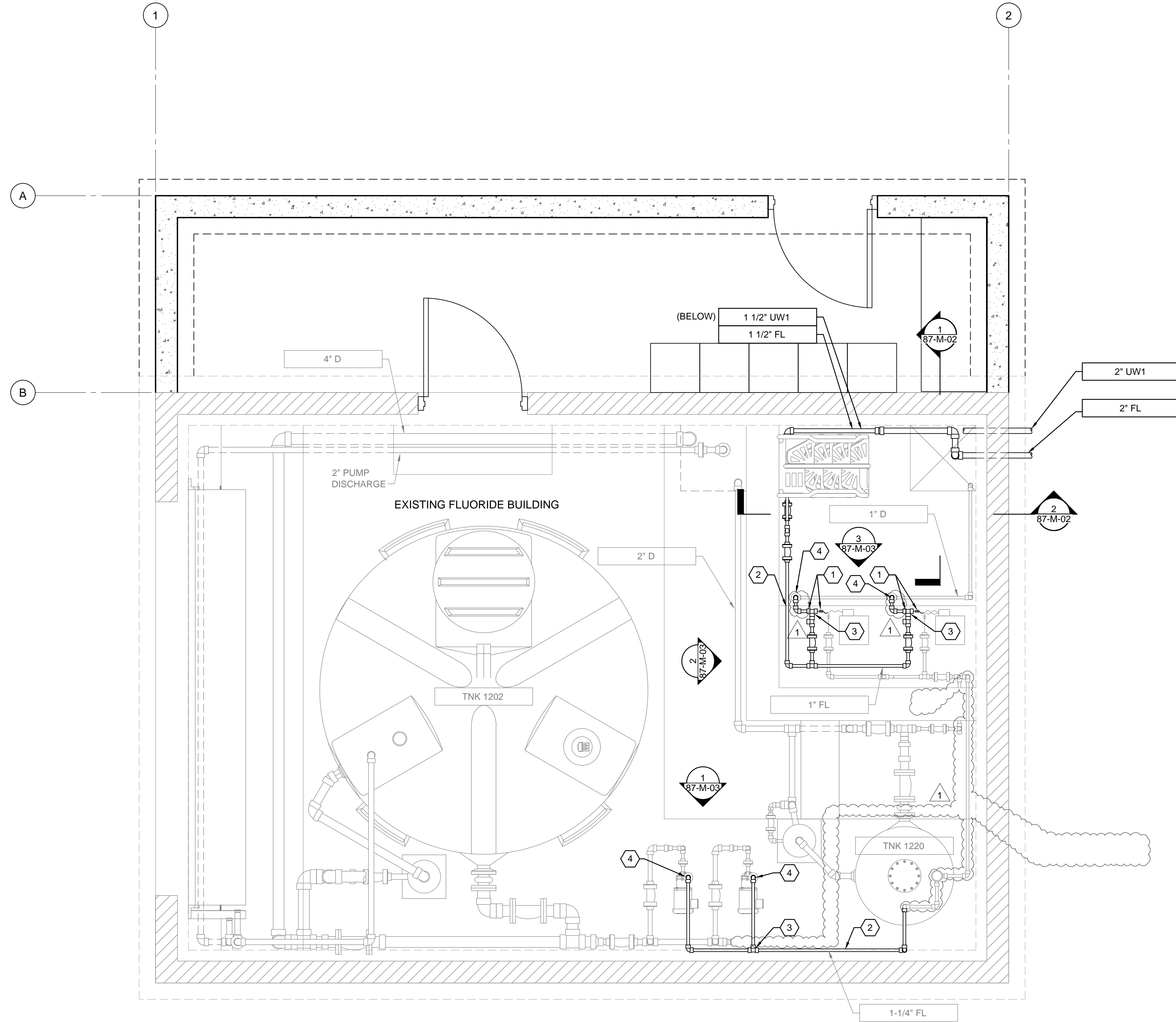
**REVISIONS**

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

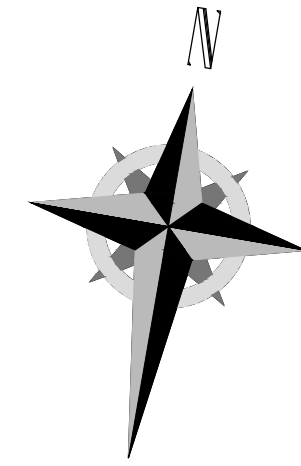
DESIGNED BY: A. JONES	AUTH BY: JH
DRAWN BY: R. PERSHING	BY: AJ
CHECKED BY: J. HESBY	
APPROVED BY: J. HESBY	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



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



**GENERAL NOTES:**

1. PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO PROVIDE PIPE SUPPORTS, INCLUDING PROFESSIONAL ENGINEERING SERVICES FOR DESIGN AND INSPECTION, FOR ALL NEW PIPING ACCORDING TO SECTION 40 05 07. PROVIDE CHEMICAL RESISTANT PIPE SUPPORTS FOR PIPING IN FLUORIDE BUILDING SUMP.

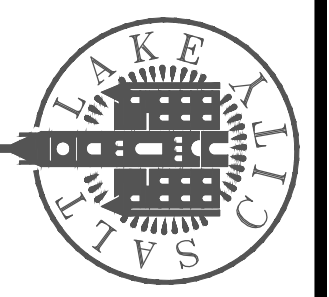
**KEYNOTES:**

1. ADD ANTI-SIPHON DEVICES ON EACH PUMP DISCHARGE AND APPLICATION POINT.
2. PIPING SHALL BE REPLACED WITH DOUBLE CONTAINMENT PIPE PER 40 05 31.19. NEW PIPE ROUTING SHALL MATCH EXISTING PIPE. INCLUDE ALL NECESSARY FITTINGS, UNIONS AND VALVES.
3. INSTALL VISUAL LEAK DETECTION FITTING PER GM-05/B.
4. INSTALL END TERMINATION FITTING PER 40 05 31.19.

DESIGNED BY: AJONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH
1	06/26/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH

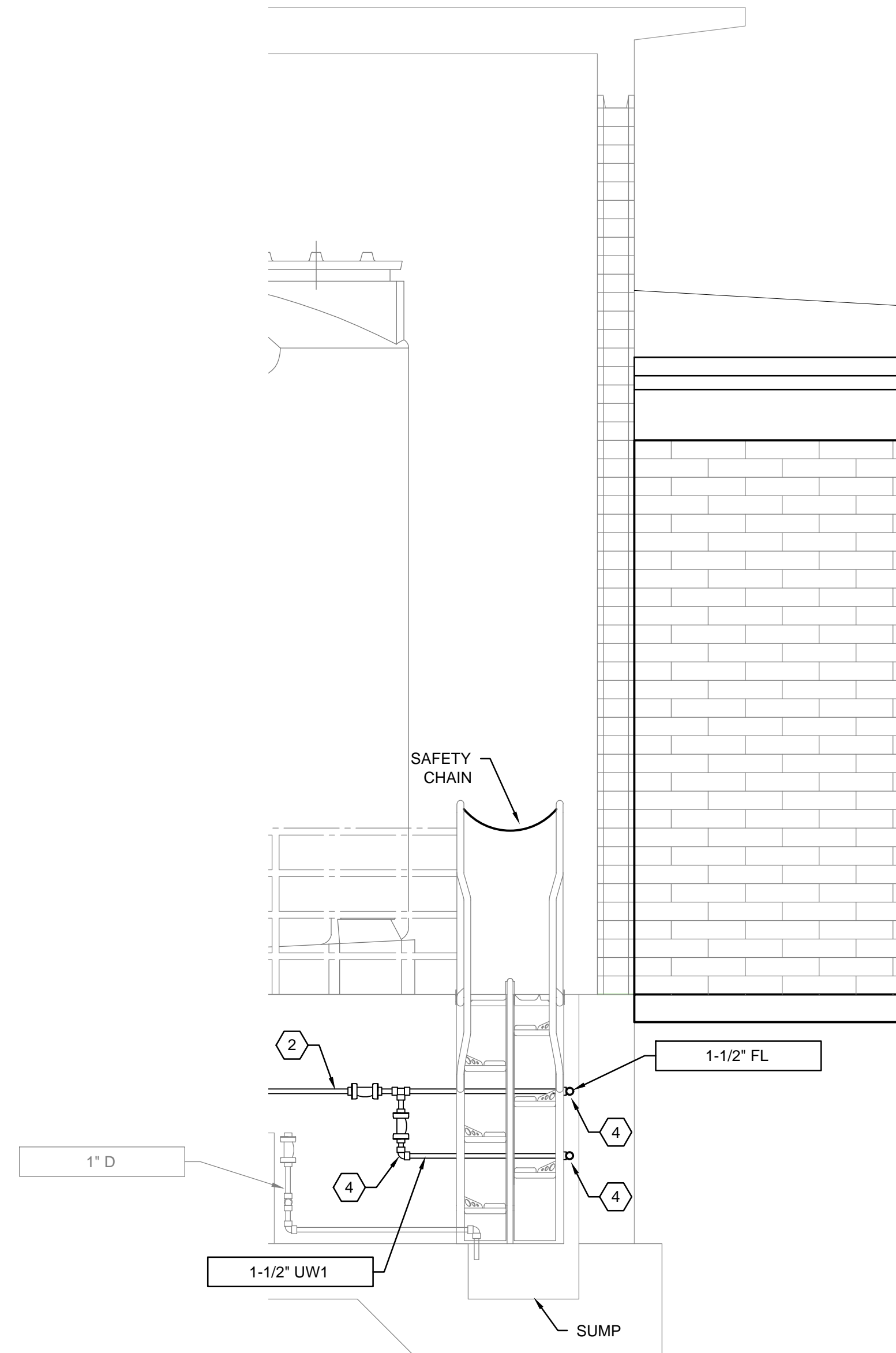
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - FLOOR PLAN**



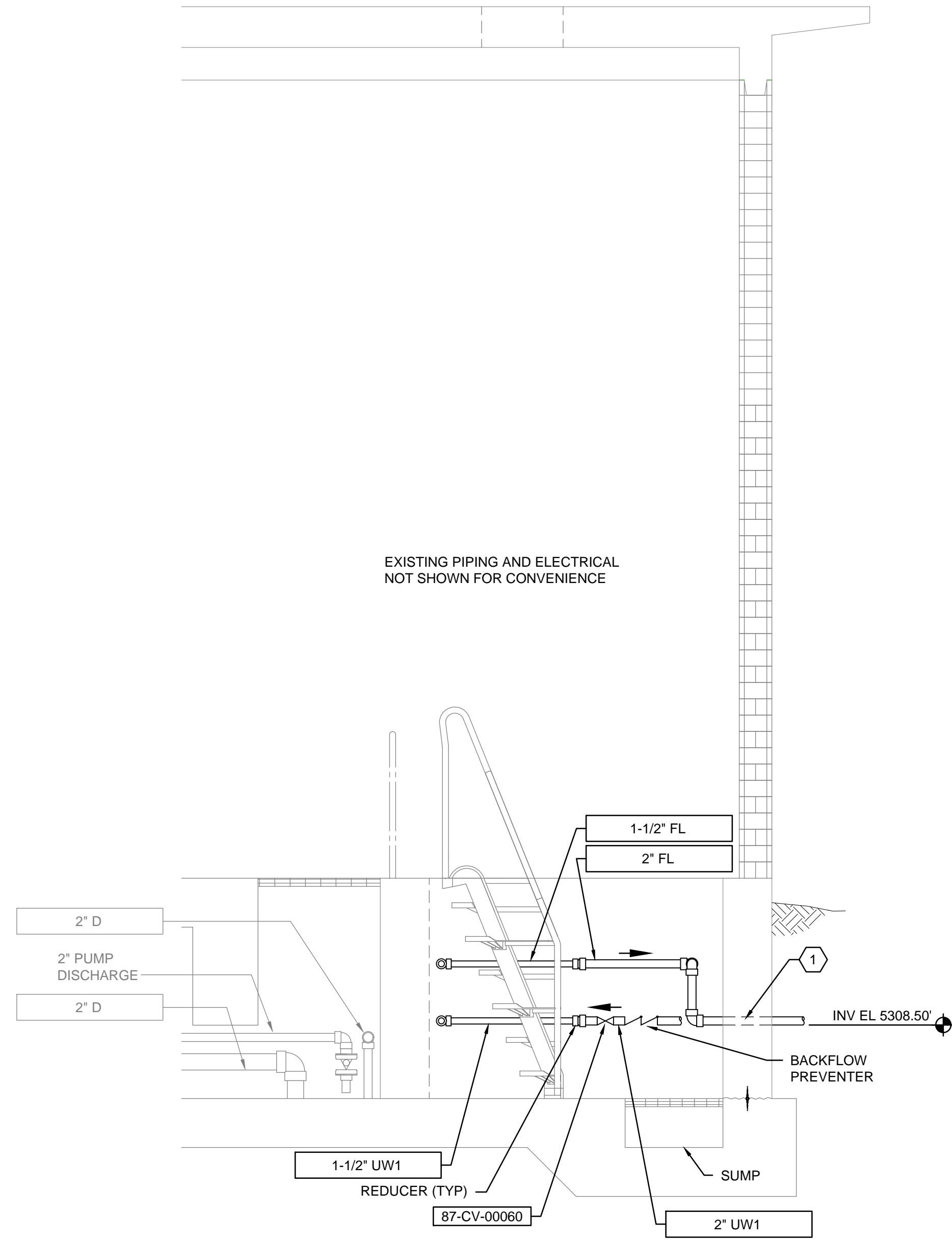
**90% GMP**

DRAWING NO.  
**87-M-01**

**Brown and Caldwell**



1 SECTION  
87-M-01 SCALE: 1/2" = 1'-0"



2 SECTION  
87-M-01 SCALE: 1/2" = 1'-0"

GENERAL NOTES:

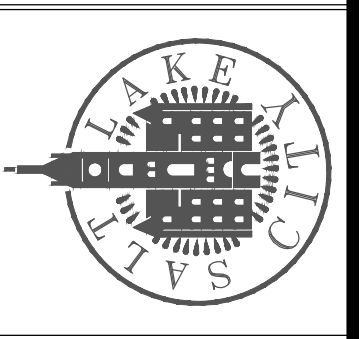
KEYNOTES:

- 1 PIPE PENETRATION PER GM-02/D12003. OMIT PIPE SLEEVE AND WEEP RING. TYPICAL 2 PLACES.
- 2 PIPING SHALL BE REPLACED WITH DOUBLE CONTAINMENT PIPE PER 40 05 31.19. NEW PIPE ROUTING SHALL MATCH EXISTING PIPE. INCLUDE ALL NECESSARY FITTINGS, UNIONS AND VALVES.
- 3 INSTALL VISUAL LEAK DETECTION FITTING PER GM-05/B.
- 4 TIE-POINT CONNECTION BETWEEN NEW AND EXISTING FLUORIDE LINES.

DESIGNED BY: AJONES  
 DRAWN BY: R.PERSHING  
 CHECKED BY: J.HESBY  
 APPROVED BY: J.HESBY  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH
1	06/26/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	AJ	JH

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - SECTIONS**



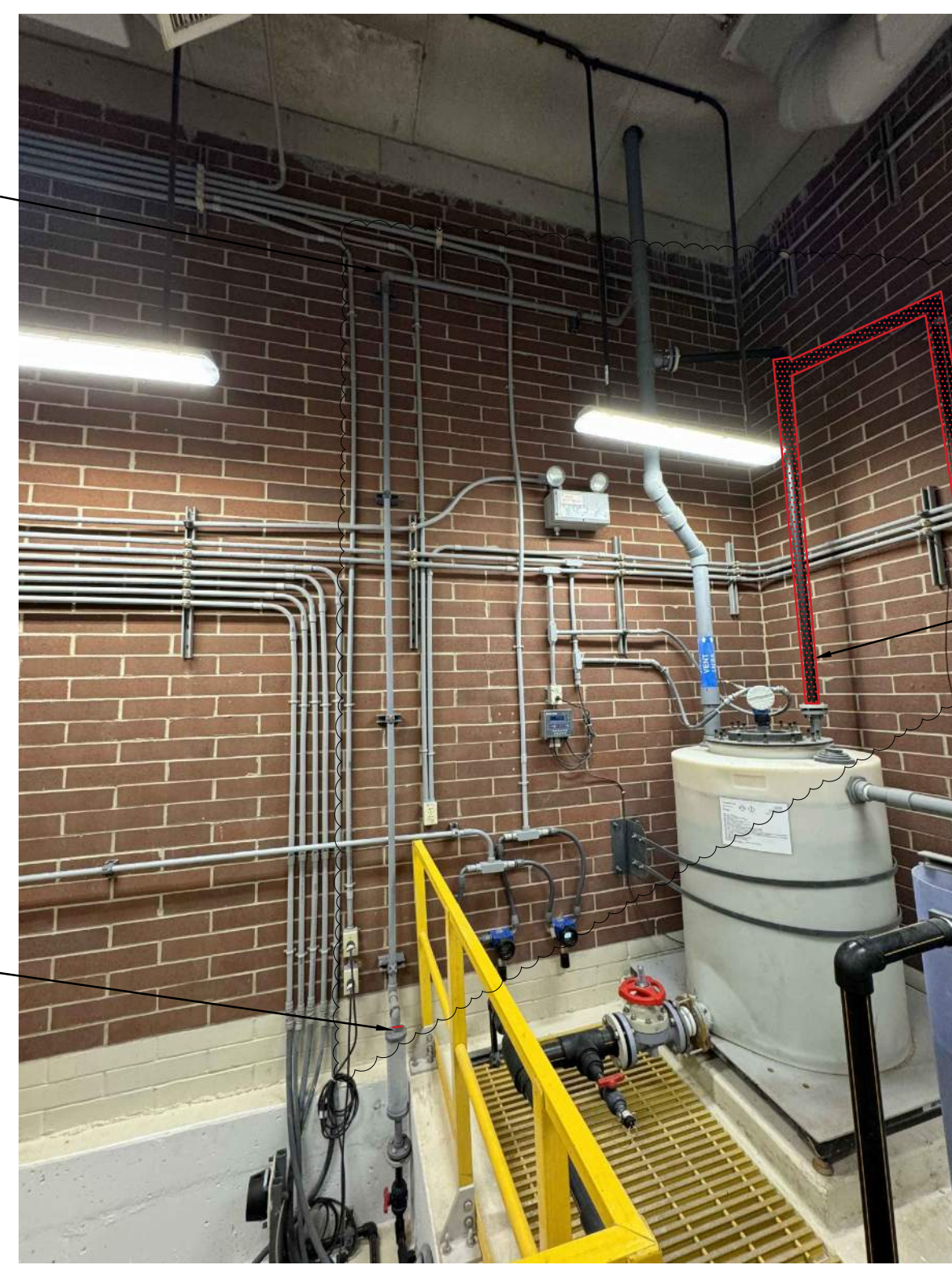
90% GMP

DRAWING NO.  
87-M-02

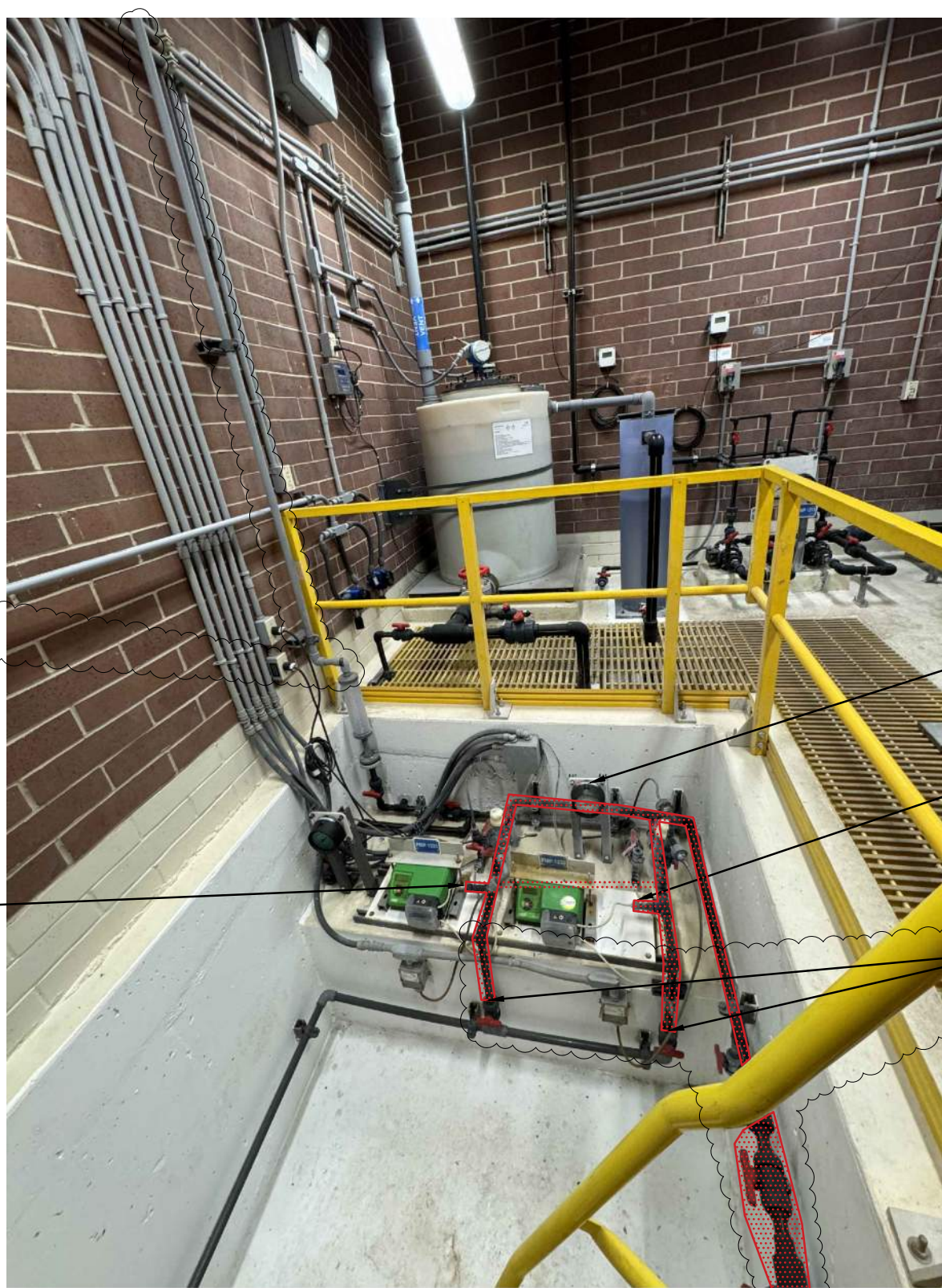
**Brown and Caldwell**



1 PHOTO DETAIL  
87-M-01 NTS



2 PHOTO DETAIL  
87-M-01 NTS



3 PHOTO DETAIL  
87-M-01 NTS

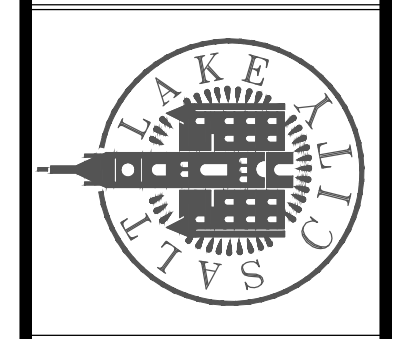
GENERAL NOTES:

KEYNOTES:

- 1 PIPING SHALL BE REPLACED WITH DOUBLE CONTAINMENT PIPE PER 40 05 31.19. NEW PIPE ROUTING SHALL MATCH EXISTING PIPE. INCLUDE ALL NECESSARY FITTINGS, UNIONS AND VALVES.
- 2 INSTALL VISUAL LEAK DETECTION FITTING PER GM-05/B.
- 3 INSTALL END TERMINATION FITTING PER 40 05 31.19.

DESIGNED BY: A.JONES		SCALE:	
NO.	DATE	MADE BY	AUTH BY
0	06/14/24	AJ	JH
1	06/26/24	AJ	JH
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)		REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	
DRAWN BY: R.PERSHING		CHECKED BY: J.HESBY	
APPROVED BY: J.HESBY		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
<b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**FLUORIDE - DETAILS**



90% GMP

DRAWING NO.  
**87-M-03**

**Brown and Caldwell**

PLUMBING LEGEND			
MEANING	SYMBOL OR ABBREVIATION	MEANING	SYMBOL OR ABBREVIATION
HOT WATER LINE	— HW —	WALL CLEANOUT	WCO
COLD WATER LINE	— CW —	CLEANOUT	CO
PLANT WATER LINE	— PW —	CLEANOUT TO GRADE	COTG
UTILITY WATER LINE	— UW —	FLOOR CLEANOUT	FCO
HOT WATER RECIRCULATING LINE	— HWREC —	BALL VALVE	ϕ
VENT LINE	--- V ---	UNION	— — —
WASTE LINE	--- SS ---	CONNECTION TO EXISTING PIPING	⊕
GAS LINE	G	REGULATOR	Ⓜ
VENT THRU ROOF	VTR	SOFT WATER	SW
UNDER FLOOR	UF	SECONDARY ROOF DRAIN	SRD
SANITARY SEWER	SS	FIXTURE CALLOUT ABOVE	wc
DRAIN LINE	DRAIN		
PRIMARY ROOF DRAIN	PRD		
FIXTURE CALLOUT	Ⓢ WC-1		

**PLUMBING GENERAL NOTES**

- G-1** - ALL PLUMBING SHALL BE INSTALLED AND CONFORM TO THE 2021 EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC) WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-2** - ALL PIPING MATERIALS SHALL MEET ALL REQUIREMENTS OF IPC AND LOCAL AUTHORITY. PLASTIC PIPING SHALL BE ALLOWED ONLY WHERE ALLOWED BY CODE. PLASTIC PIPING SHALL NOT BE ROUTED THROUGH RETURN AIR PLENUMS OR OTHER AREAS PROHIBITED BY THE IMC, IPC, OR NFPA CODES OR BY LOCAL AUTHORITY.
- G-3** - GAS PIPING INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH GAS COMPANY REGULATIONS, NFPA CODE REQUIREMENTS, AND LOCAL AUTHORITY.
- G-4** - ALL MATERIALS SHALL BE NEW AND SHALL BE DOMESTIC MADE UNLESS SPECIFICALLY APPROVED OTHERWISE IN WRITING BY ARCHITECT OR OWNER.
- G-5** - PROVIDE VACUUM BREAKERS AND BACK FLOW PREVENTERS WHERE REQUIRED BY CODE OR WHERE THERE MAY BE ANY POSSIBLE CHANCE FOR CROSS CONTAMINATION. PREVENTERS SHALL BE INSTALLED IN ACCORDANCE WITH UTAH CODE.
- G-6** - ALL PLUMBING INFORMATION IS NOT LIMITED TO THE PLUMBING DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING SPECIFICATIONS, ARCHITECTURAL DRAWING, STRUCTURAL DRAWINGS, MECHANICAL DRAWINGS, AND ELECTRICAL DRAWINGS.
- G-7** - THE WORKING DRAWINGS ARE DIAGRAMMATIC. BECAUSE OF THE SMALL SCALE OF THE DRAWING, THEY DO NOT SHOW EVERY OFFSET, BEND OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL PIPING SHALL BE CHECKED AND COORDINATED WITH THE SPECIFICATIONS, ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- G-8** - COORDINATE ALL PIPING AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AND/OR CONTRACTORS PRIOR TO INSTALLATION.
- G-9** - ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR AND ARCHITECT/ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- G-10** - GAS LINE FITTINGS SHALL BE STANDARD WELD FITTINGS WITH TAPERED REDUCERS. DO NOT USE VALVES, UNIONS, OR AUTO CONTROLS IN GAS LINES ROUTED IN INACCESSIBLE CONCEALED SPACES.
- G-11** - ALL WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF ANS/NSF STANDARD 61 SECTION 9 (1998), CONCERNING METAL CONTAMINANTS IN THE WATER SYSTEM.
- G-12** - WATER PIPING SHALL NOT BE ROUTED IN OUTSIDE WALLS OR ON EXTERIOR SIDE OF BUILDING INSULATION ENVELOPE.
- G-13** - WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ALL WATER LINES WITH QUICK OPEN OR QUICK CLOSE VALVES.

**WATER HAMMER ARRESTOR SCHEDULE:**  
 TYPE A 1-11 FIXTURE UNITS  
 TYPE B 12-32 FIXTURE UNITS  
 TYPE C 33-60 FIXTURE UNITS  
 TYPE D 61-113 FIXTURE UNITS

**G-14** - ALL PIPING, MATERIALS, ETC. SHALL BE NEW AND DOMESTIC MADE UNLESS SPECIFICALLY AUTHORIZED IN WRITING PRIOR TO BID.



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

DESIGNED BY: J.BERTINELL  
DRAWN BY: J.BERTINELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO.: ---  
ACCOUNT NO.: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

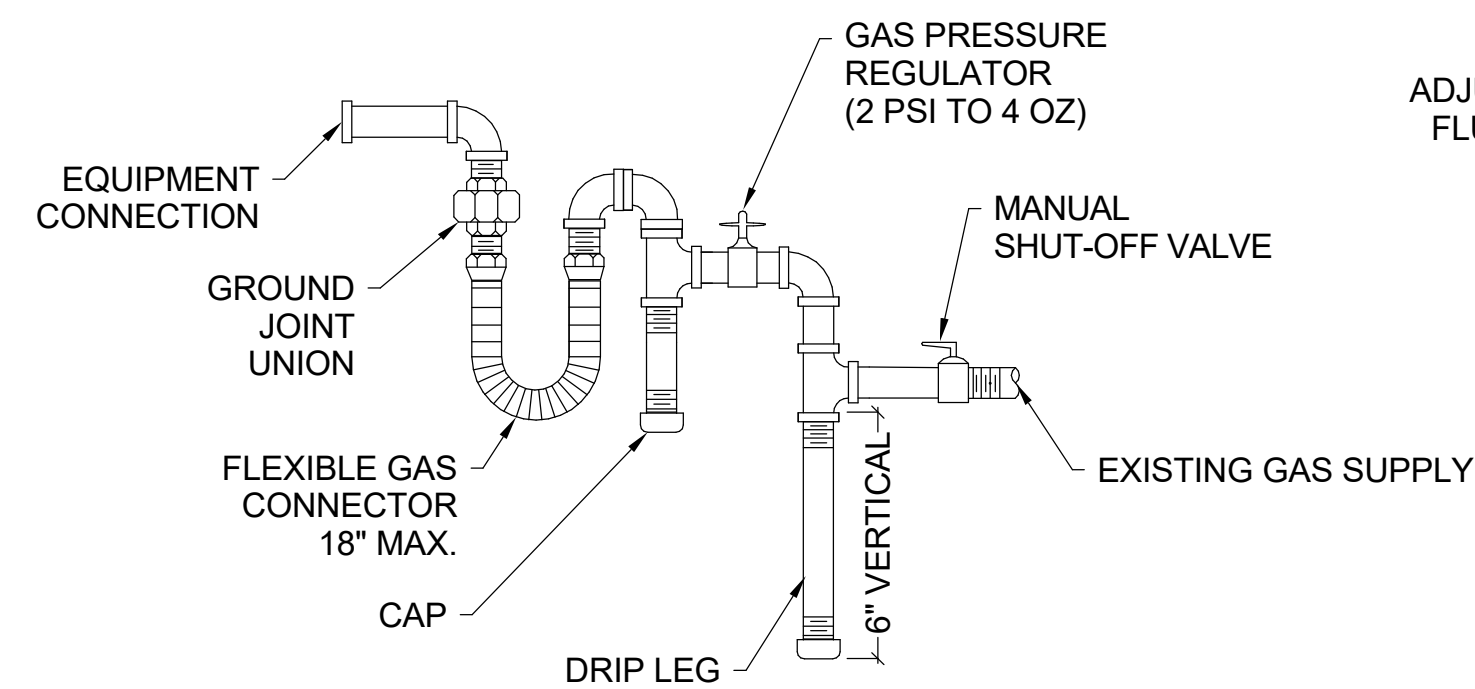
MADE BY: \_\_\_\_\_  
AUTH BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

GENERAL NOTES & SYMBOLS

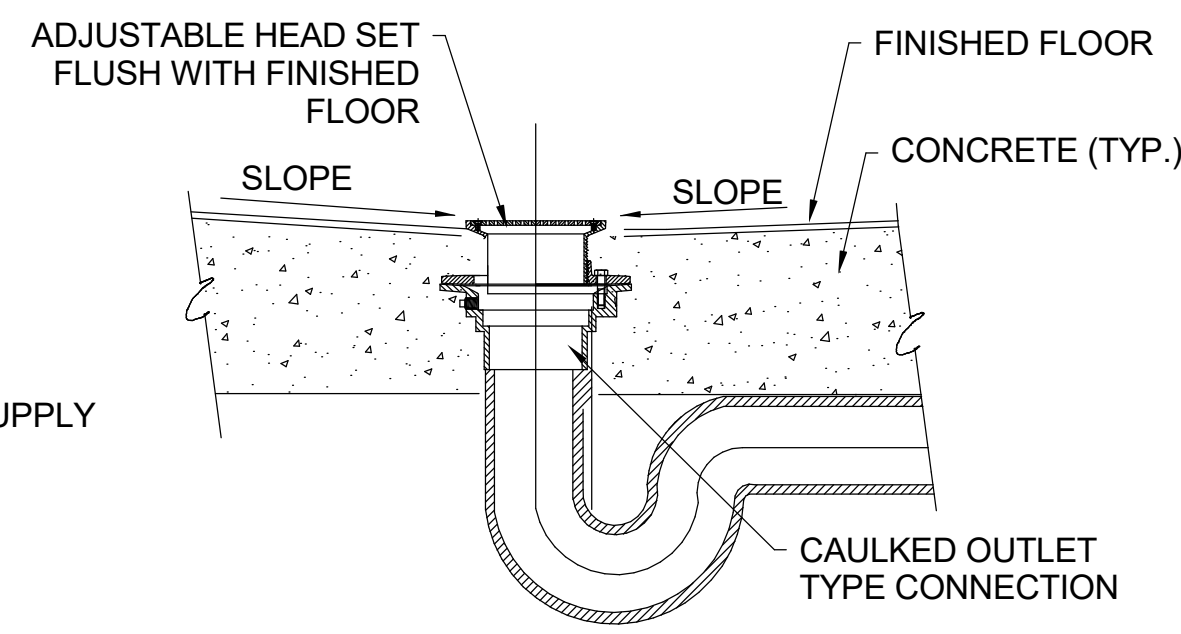
90% GMP

DRAWING NO. GP-01

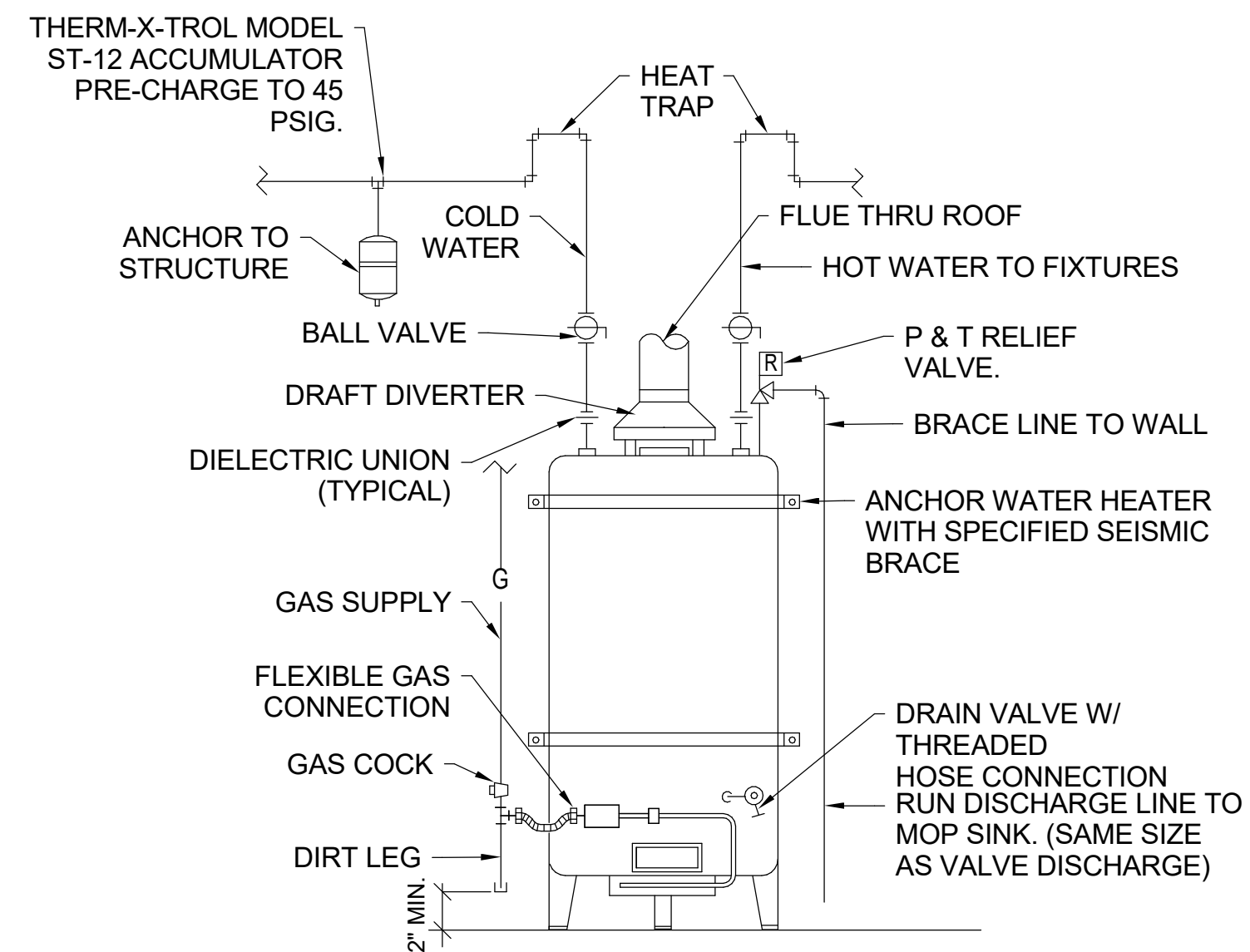
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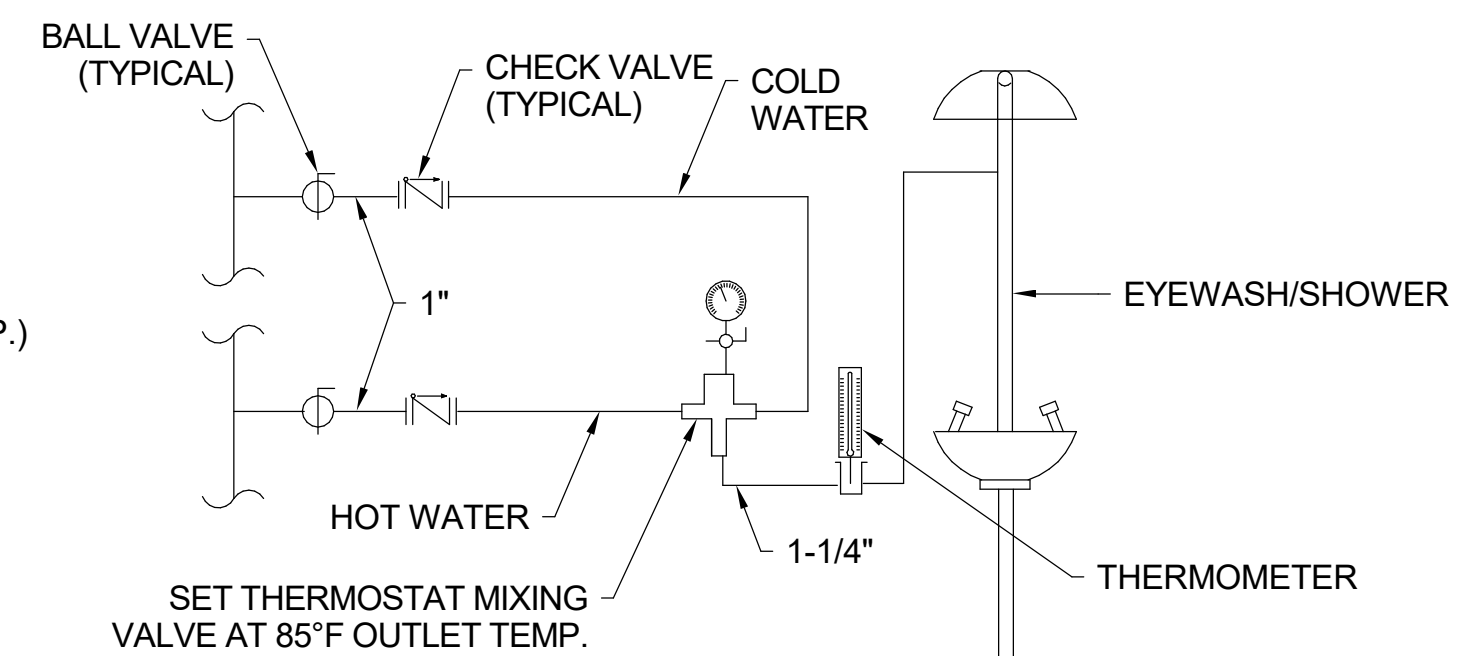
**4 GAS LINE CONNECTION DETAIL**  
SCALE: NONE



**3 FLOOR DRAIN DETAIL**  
SCALE: NONE



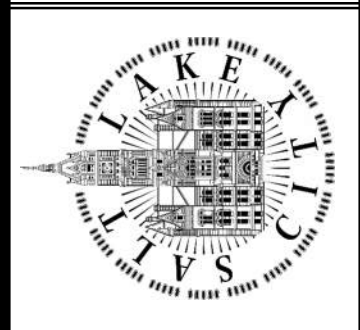
**1 WATER HEATER DETAIL**  
SCALE: NONE



**2 EMERGENCY EYE WASH DETAIL**  
SCALE: NONE



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
STANDARD PLUMBING  
DETAILS



90% GMP

DRAWING NO.  
**GP-02**

REVISIONS		DESIGNED BY: J. BERTINELLI	SCALE:
NO.	DATE	AUTH. BY: J. BERTINELLI	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
		DRAWN BY: W. PACKER	
		CHECKED BY: W. PACKER	
		APPROVED BY: W. PACKER	
		DATE: JUNE 2024	
		EWO NO: ---	
		ACCOUNT NO: 512260079	

Plot Date: 6/13/2024 8:44:29 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-H-3570V21.rvt

PLUMBING FIXTURE SCHEDULE									
EQUIPMENT NUMBER	FIXTURE	PLUMBING PIPE SIZES					POINT OF USE MIXING VALVE?	MAX OUTLET TEMP	REMARKS
		TRAP	WASTE	VENT	COLD WATER	HOT WATER			
ESEW-1	EMERGENCY SHOWER AND EYE WASH	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"			PROVIDE EMERGENCY SHOWER AND EYEWASH BRADLEY S19-310SBFW OR EQUAL. PROVIDE WITH THERMOSTATIC AND PRESSURE MIXING VALVE. BRADLEY S19-310 OR EQUAL.
FD-1	FLOOR DRAIN	3"	3"	1 1/2"	0"	0"	No		FLOOR DRAIN WITH TRAP GUARD. WATTS FD-100-A OR EQUAL.
FD-2	FLOOR DRAIN	4"	4"	2"	0"	0"	No		FLOOR DRAIN WITH TRAP GUARD. WATTS FD-100-A OR EQUAL.
L-1	WALL MOUNTED LAVATORY WITH MANUAL FAUCET	1 1/2"	1 1/2"	1 1/2"	1/2"	1/2"	Yes	110 °F	WALL-MOUNTED SINK WITH MANUAL FAUCET. PROVIDE THERMOSTATIC AND PRESSURE MIXING VALVE KOHLER GREENWICH K-2032 WITH SYMMONS S-20-1.5 OR EQUAL.
MS-1	MOP SINK	3"	3"	2"	3/4"	3/4"			FLOOR-MOUNTED MOP SINK. PROVIDE WITH DRAIN FITTING, SERVICE SINK FAUCET WITH VACUUM BREAKER, HOSE, 3 STATION MOP HOLDER, HOSE HANGER, AND STAINLESS STEEL SPLASH GUARD FIAT MSB 2424 WITH CHICAGO 540-LD897SCP OR EQUAL.
WC-1	FLOOR MOUNTED ADA WATER CLOSET WITH SENSOR FLUSH	3"	3"	2"	1"	0"	No		ADA COMPLIANT FLOOR-MOUNTED WATER CLOSET WITH SENSOR FLUSH VALVE. PROVIDE 1.6 GPF WATER CLOSET WITH FLUSH CONTROLS INSTALLED ON OPEN SIDE OF WATER CLOSET. AMERICAN STANDARD MADERA WITH SLOAN REGAL 111 DFSM OR EQUAL.

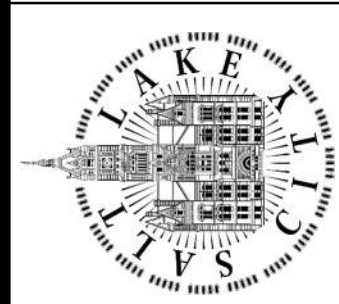
1. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.

WATER HEATER (GAS) SCHEDULE											
EQUIPMENT NUMBER	INPUT (BTU/HR)	OUTPUT (BTU/HR)	GPH RECOVERY @ 100 F	STORAGE CAPACITY	RELIEF VALVE BTU / PRESSURE RATING	TANK STORAGE TEMP	MASTER MIXING VALVE REQUIRED?	FLUE	OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES
70-WH-00001	199,900 Btu/h	189,900 Btu/h	230	100 gal	PER MANUFACTURER'S RECOMMENDATIONS	140 °F	Yes	3"	555 lb	A O SMITH BTH-199	1,2,3,4

- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- 120/1/60 - 20 AMP BREAKER
- HIGH ALTITUDE MODEL
- PROVIDE MASTER MIXING VALVE PER DETAIL.



**WHW**  
ENGINEERING LLC.  
PROFESSIONAL MECHANICAL ENGINEERING  
8078 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 680-4020 FAX 402-4026  
EMAIL: [esullivan@whw-engineering.com](mailto:esullivan@whw-engineering.com)



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
PLUMBING SCHEDULES

90% GMP

DRAWING NO.  
GP-03

DESIGNED BY: J.BIRINELL  
DRAWN BY: J.BIRINELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO.: ---  
ACCOUNT NO.: 512260079

SCALE: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

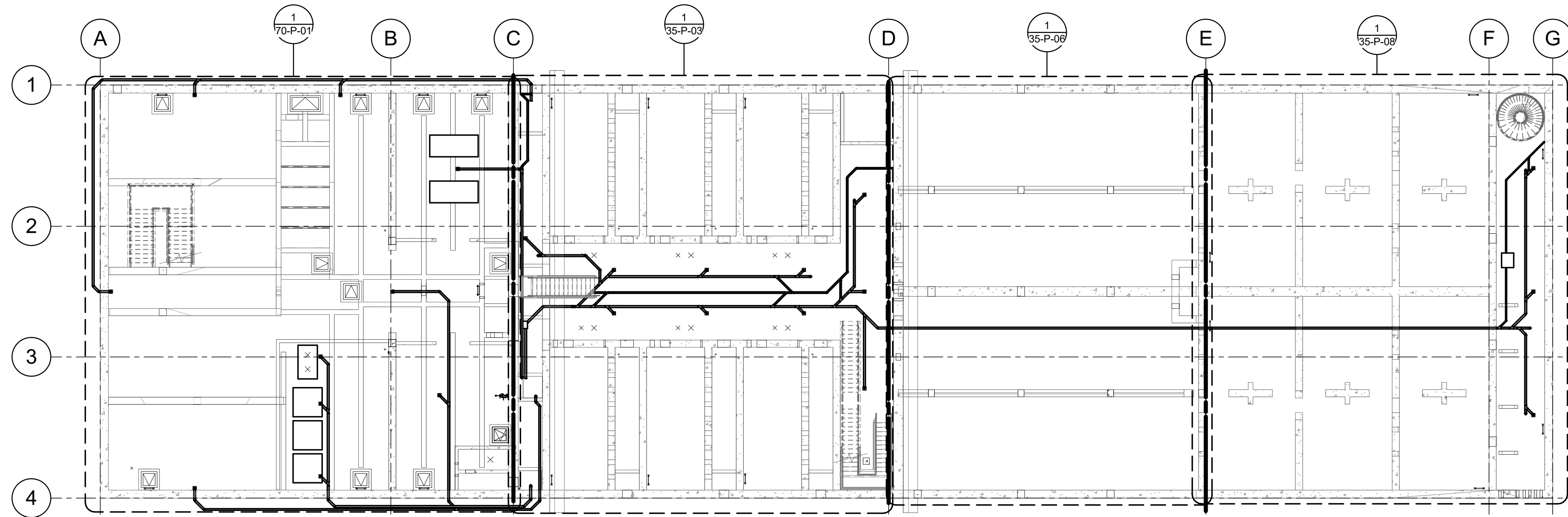
NO. DATE: 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY: WP  
AUTH BY: JB

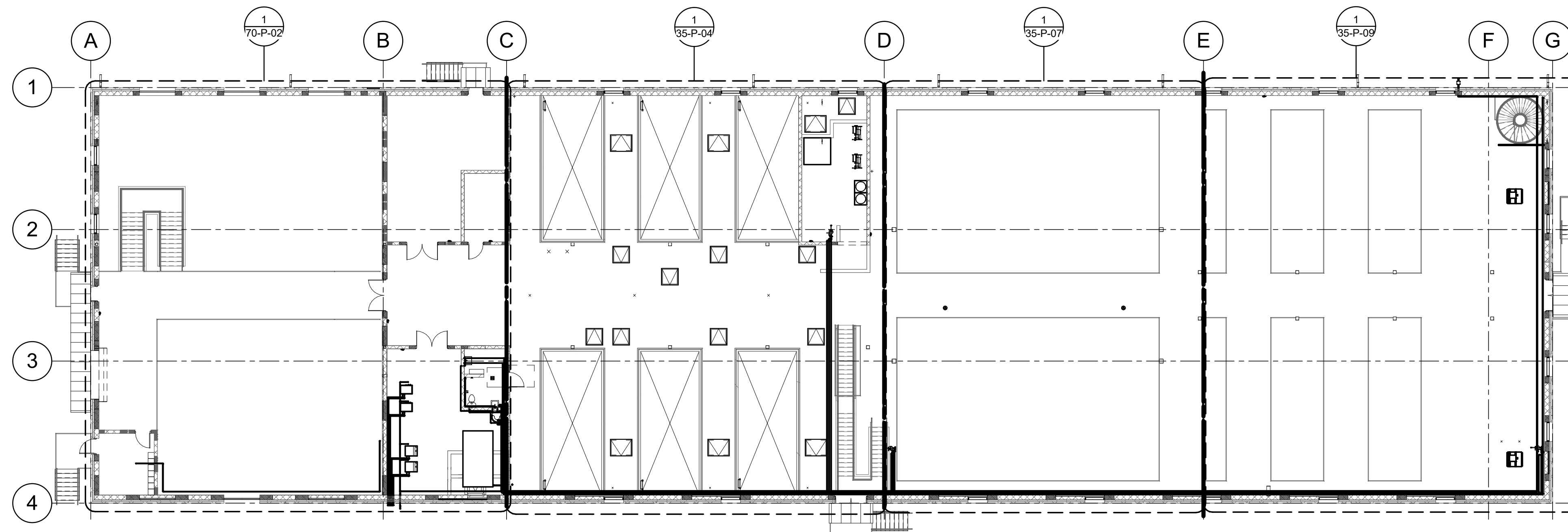
REVISIONS



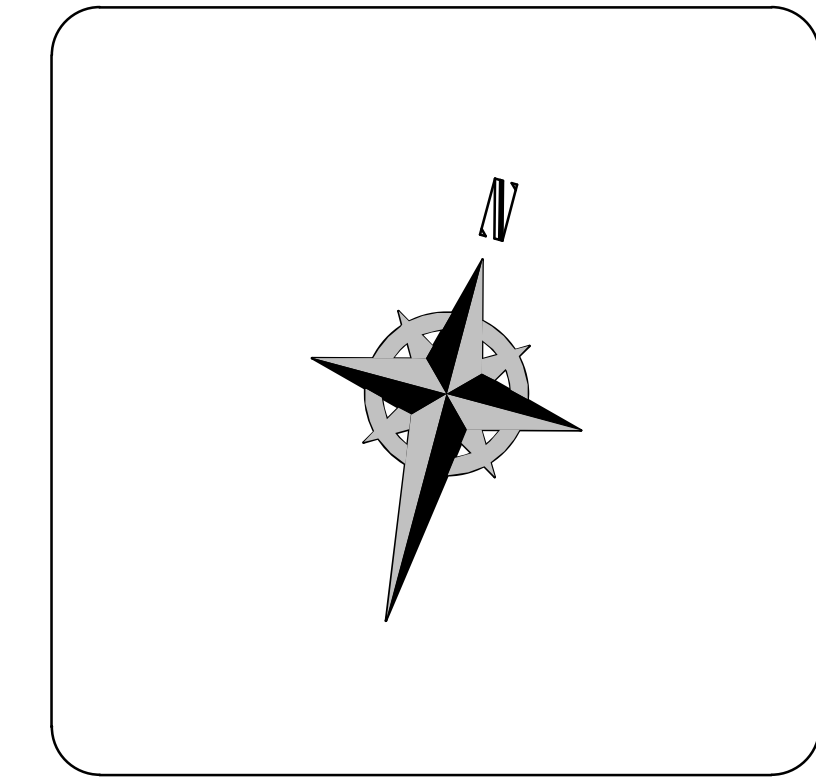
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OVERALL LOWER PLAN PLUMBING  
SCALE: 1/16" = 1'-0"



OVERALL UPPER PLAN PLUMBING  
SCALE: 1/16" = 1'-0"



**WHW**  
ENGINEERING LLC.  
PROFESSIONAL MECHANICAL ENGINEERING  
8978 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 680-4021 FAX (801) 680-4026  
EMAIL: [esullivan@whw-engineering.com](mailto:esullivan@whw-engineering.com)

DESIGNED BY: J.BRITNELL	AUTH BY: J.BRITNELL	DATE: 06/11/24	ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)
DRAWN BY: J.BRITNELL	BY: WP		
CHECKED BY: W.PACKER	JB		
APPROVED BY: W.PACKER			
DATE: JUNE 2024			
EWO NO: ---			
ACCOUNT NO: 512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
OVERALL PLANS 1

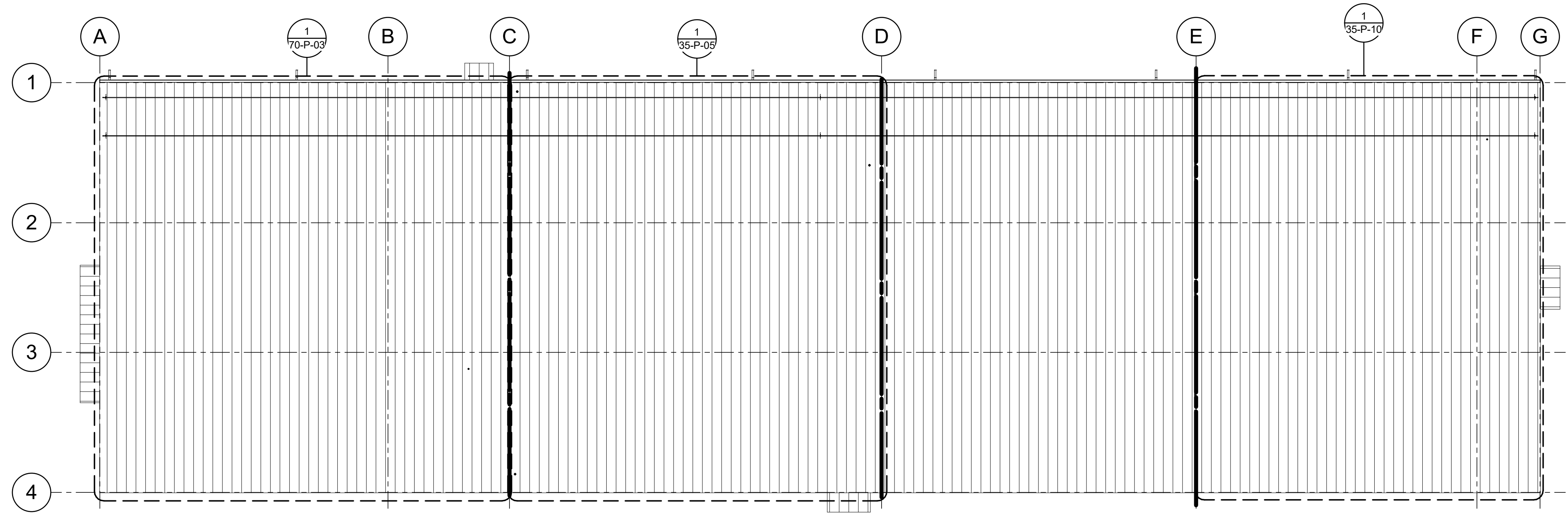


90% GMP

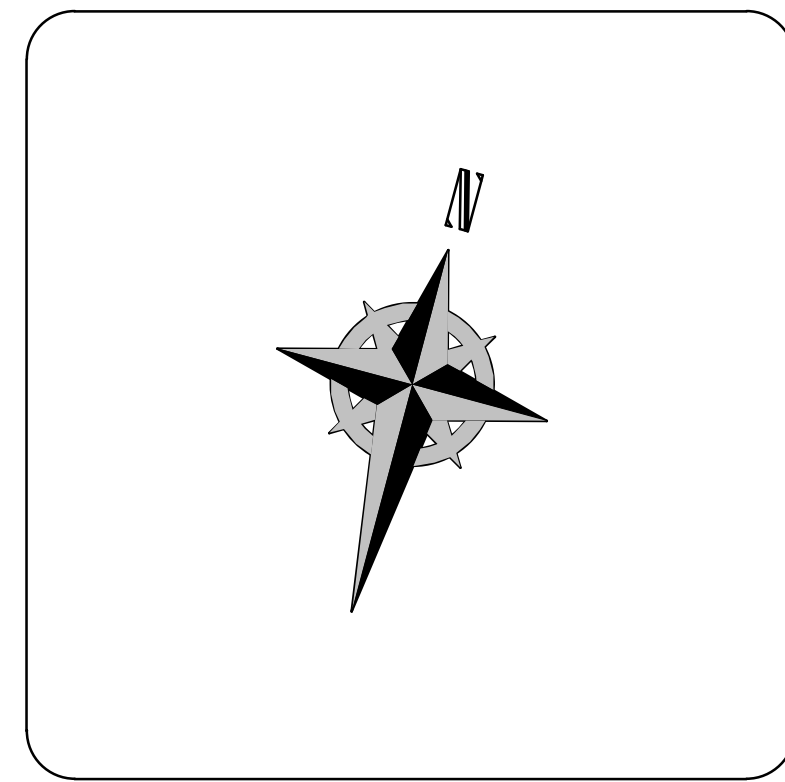
DRAWING NO.  
**35-P-01**

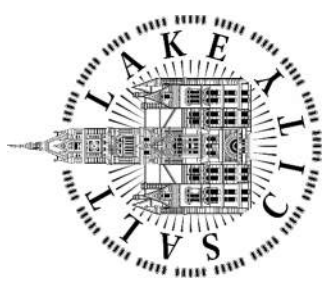
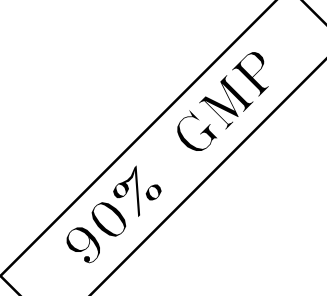
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 8:44:13 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt

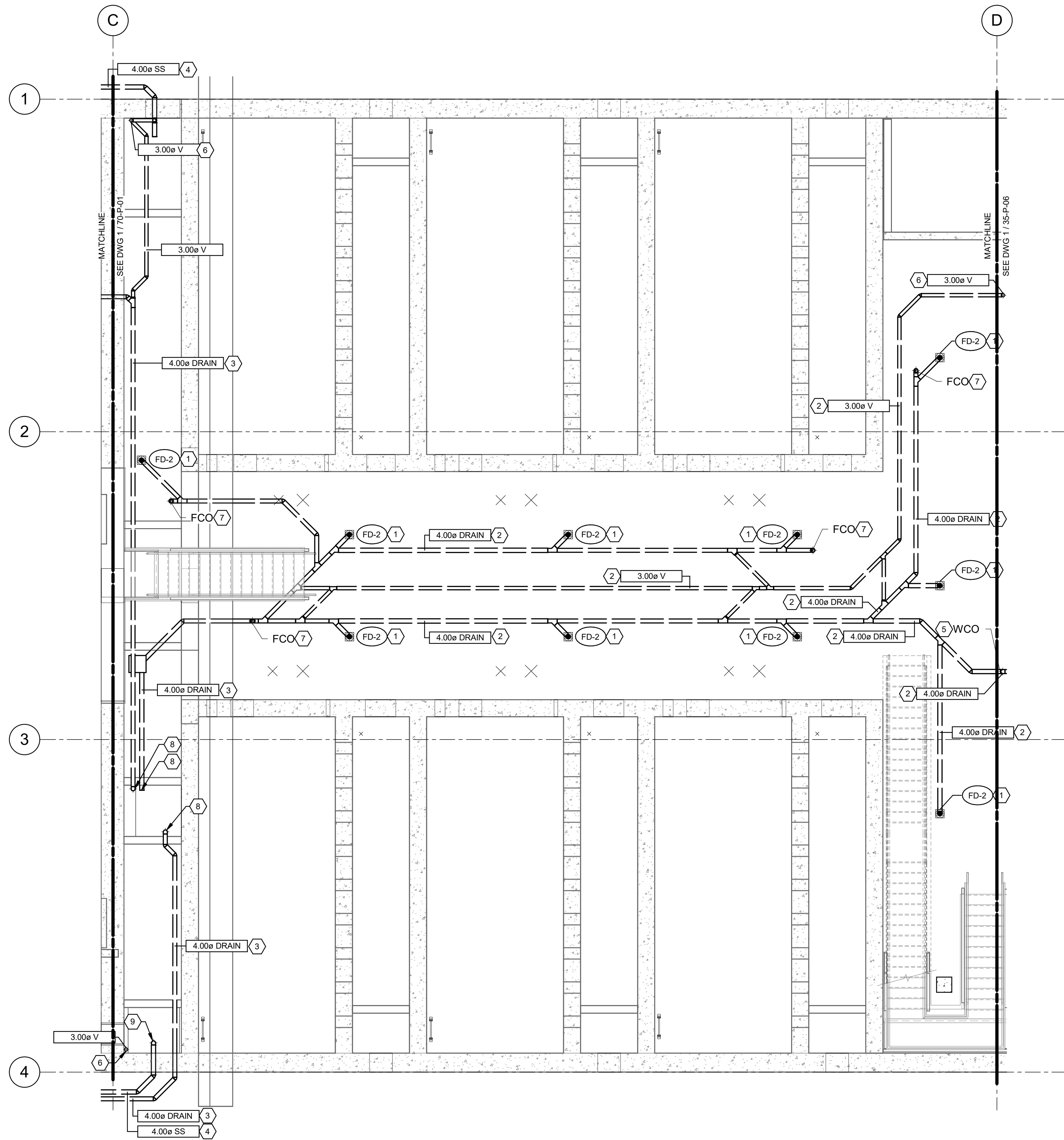


**OVERALL ROOF PLAN PLUMBING**  
 SCALE: 1/16" = 1'-0"

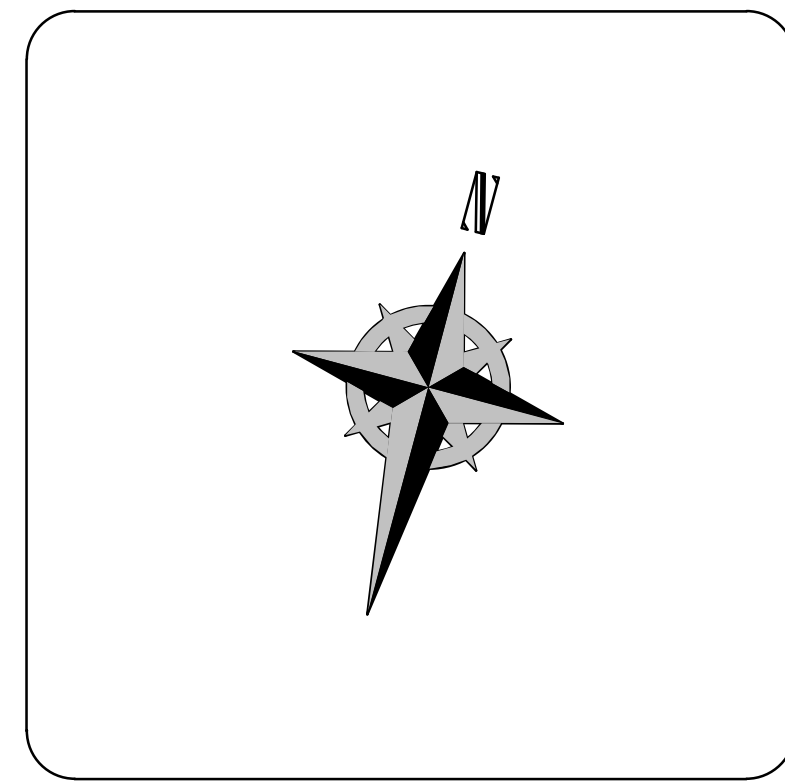
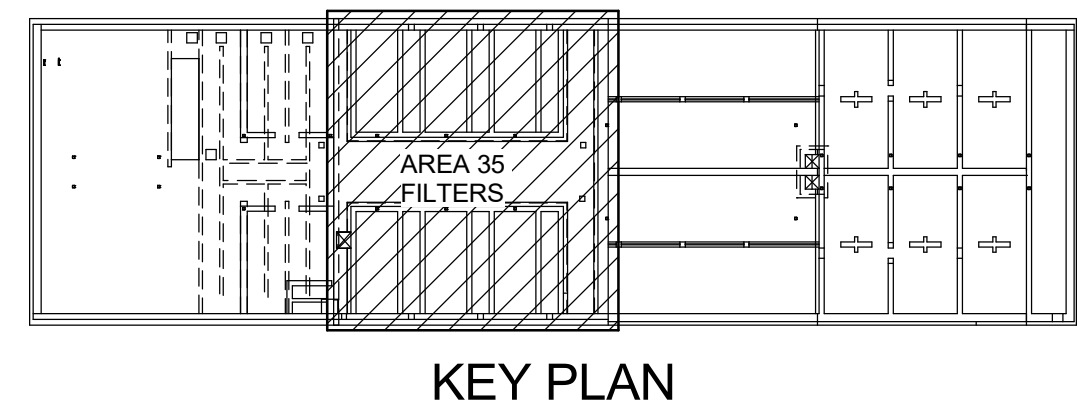


DESIGNED BY: J.BERTINELL		SCALE:
DRAWN BY: J.BERTINELL		
CHECKED BY: W.PACKER		
APPROVED BY: W.PACKER		
DATE: JUNE 2024		
EWO NO: ---		
ACCOUNT NO: 512260079		
<b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING		
REVISIONS		
NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	
MADE BY	AUTH BY	
J.B	WP	
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>OVERALL PLANS 2</b>		
		
		
DRAWING NO.		
<b>35-P-02</b>		

Plot Date: 6/13/2024 8:44:14 AM Path: R:\360\153020 - City Creek WTP\153020-H-3570V21.rvt



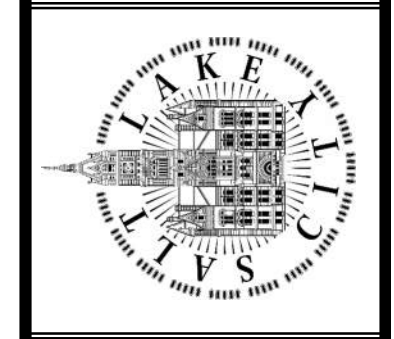
1 LOWER PLAN PLUMBING (FILTER BASINS)  
35-P-01 SCALE: 3/16" = 1'-0"



- KEYNOTES:**
- 1 PROVIDE FLOOR DRAIN AS SHOWN. COORDINATE EXACT LOCATION WITH ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
  - 2 PROVIDE DWV PIPING IN THIS APPROXIMATE LOCATION.
  - 3 PROVIDE DRAIN PIPING IN THIS APPROXIMATE LOCATION. ROUTE TO GRAYWATER TANK. FIELD VERIFY EXACT ROUTING.
  - 4 PROVIDE SANITARY SEWER PIPING IN THIS APPROXIMATE LOCATION. ROUTE TO BLACKWATER TANK. FIELD VERIFY EXACT ROUTING.
  - 5 PROVIDE WCO IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
  - 6 PROVIDE VENT PIPING TO UPPER FLOOR IN THIS APPROXIMATE LOCATION. SEE UPPER FLOOR PLANS FOR CONTINUATION TO ROOF. FIELD VERIFY EXACT ROUTING.
  - 7 PROVIDE FCO IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
  - 8 GRAYWATER TANK IN THIS APPROXIMATE LOCATION. FIELD VERIFY.
  - 9 BLACKWATER TANK IN THIS APPROXIMATE LOCATION. FIELD VERIFY.

DESIGNED BY: J.BRITNELL	AUTH BY: J.BRITNELL	MADE BY: J.BRITNELL	NO. 0	DATE: 06/11/24	ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)
DRAWN BY: J.BRITNELL	CHECKED BY: W.PACKER	APPROVED BY: W.PACKER	DATE: JUNE 2024	EWO NO.:	ACCOUNT NO.: 512260079
<p>SCALE: _____</p> <p><b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING</p>					

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER BASINS**  
**LOWER PLAN**

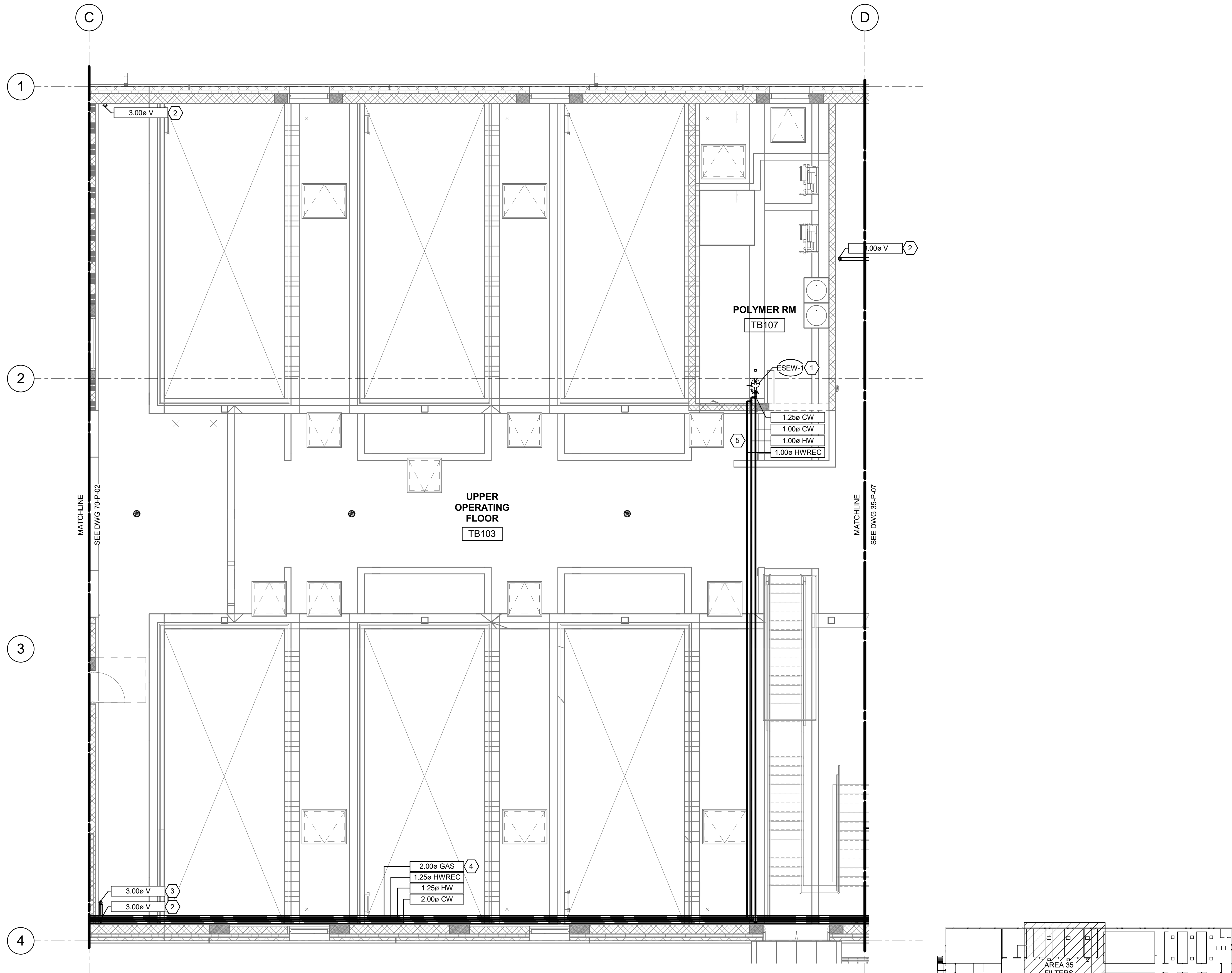


**90% GMP**

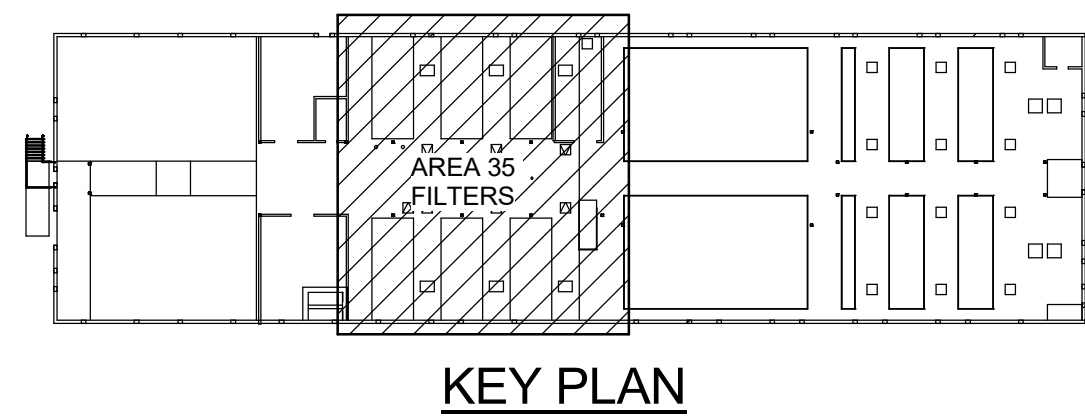
DRAWING NO.  
**35-P-03**



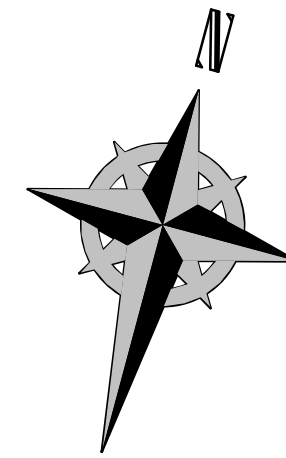
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1 UPPER PLAN PLUMBING (FILTER BASINS)  
35-P-01 SCALE: 3/16" = 1'-0"



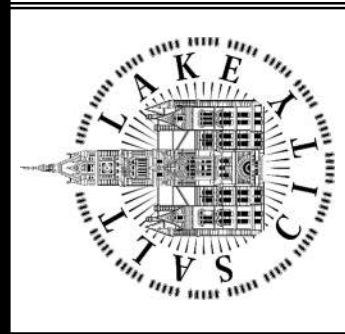
KEY PLAN



**KEYNOTES:**

- 1 PROVIDE COMBINATION EYEWASH / DRENCH SHOWER STATION IN THIS APPROXIMATE LOCATION. SEE PLUMBING DETAIL.
- 2 PROVIDE VENT PIPING FROM LOWER FLOOR IN THIS APPROXIMATE LOCATION. SEE LOWER FLOOR PLANS FOR CONTINUATION. FIELD VERIFY EXACT ROUTING.
- 3 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 4 PROVIDE PAINTED 2 PSIG GAS LINE IN THIS APPROXIMATE LOCATION.
- 5 INSTALL PIPING AS HIGH AS POSSIBLE TO AVOID CONFLICT WITH OTHER DISCIPLINES ELEMENTS. FIELD VERIFY EXACT ROUTING.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FILTER BASINS  
UPPER PLAN



90% GMP

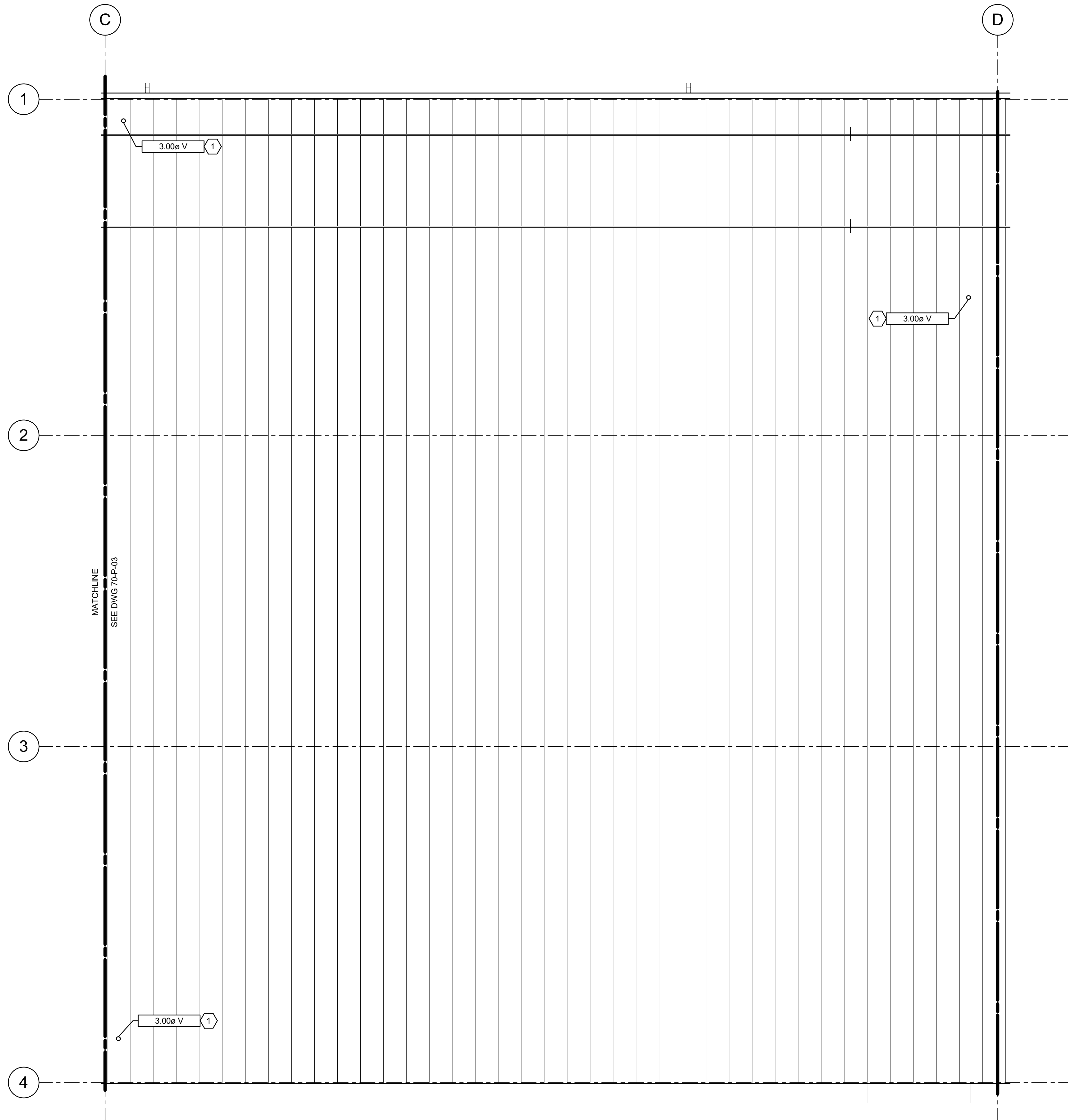
DRAWING NO.  
35-P-04

DESIGNED BY: J.BERTINELL  
DRAWN BY: J.BERTINELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	WP	WP

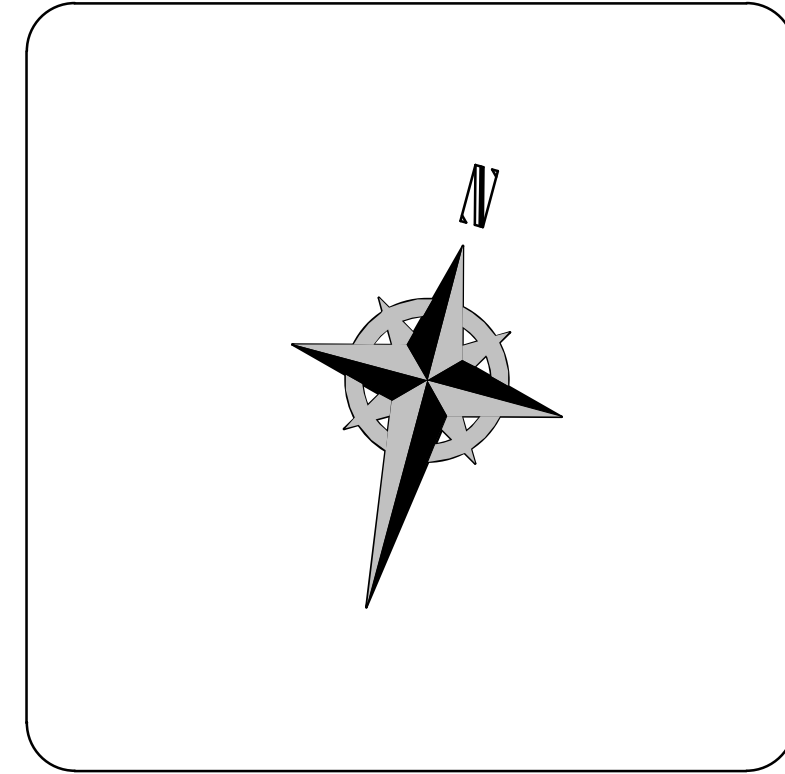
SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING





MATCHLINE  
SEE DWG 70-P-03

1 ROOF PLUMBING PLAN (FILTER BASINS)  
35-P-02 SCALE: 3/16" = 1'-0"

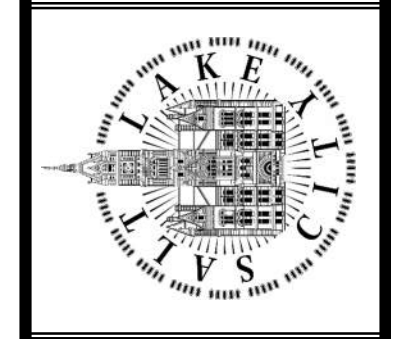


KEYNOTES:  
1 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.



**WHW**  
ENGINEERING LLC.  
PROFESSIONAL MECHANICAL ENGINEERING  
8978 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 466-4021 FAX: 466-4026  
EMAIL: [esullivan@whw-engineering.com](mailto:esullivan@whw-engineering.com)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FILTER BASINS  
ROOF PLAN



90% GMP

DRAWING NO.  
35-P-05

NO.	DATE	MADE BY	AUTH BY	REVISIONS
0	06/11/24			ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

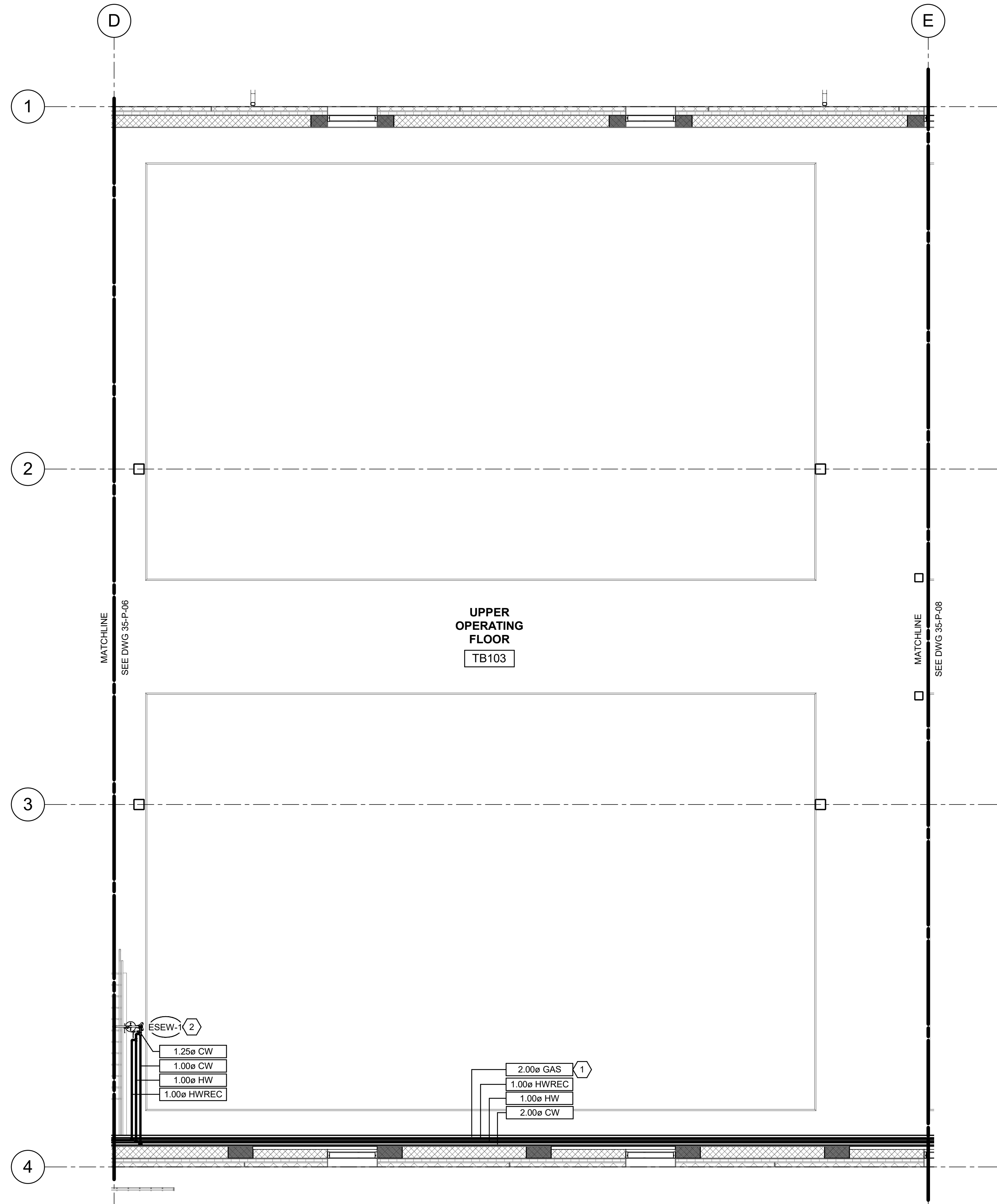
  

DESIGNED BY: J.BERTINELL	SCALE:
DRAWN BY: J.BERTINELL	
CHECKED BY: W.PACKER	
APPROVED BY: W.PACKER	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

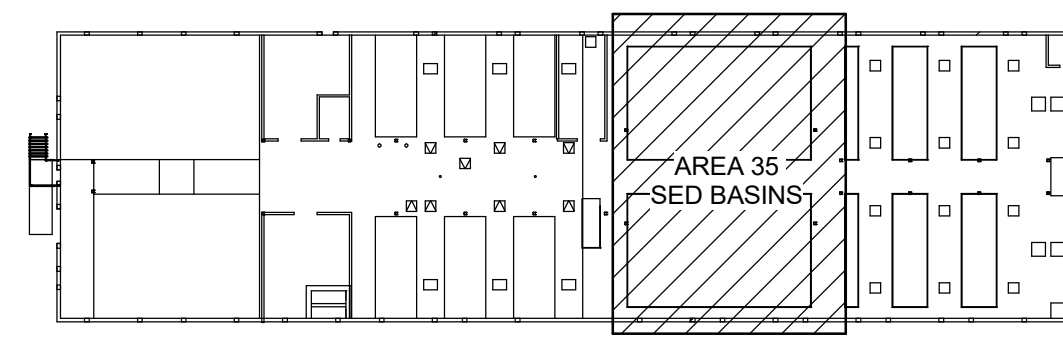
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING



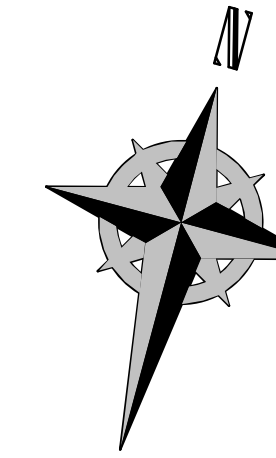
Plot Date: 6/13/2024 8:44:17 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt



1 UPPER PLAN PLUMBING (SED BASINS)  
 35-P-01 SCALE: 3/16" = 1'-0"



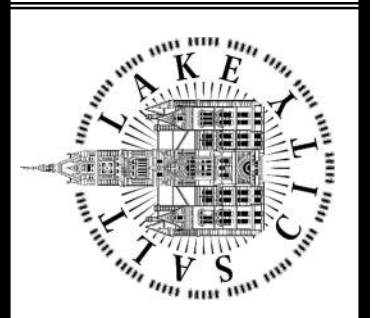
KEY PLAN



KEYNOTES:

- 1 PROVIDE PAINTED 2 PSIG GAS LINE IN THIS APPROXIMATE LOCATION.
- 2 PROVIDE COMBINATION EYEWASH / DRENCH SHOWER STATION IN THIS APPROXIMATE LOCATION. SEE PLUMBING DETAIL.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 TREATMENT - SED BASINS  
 UPPER PLAN



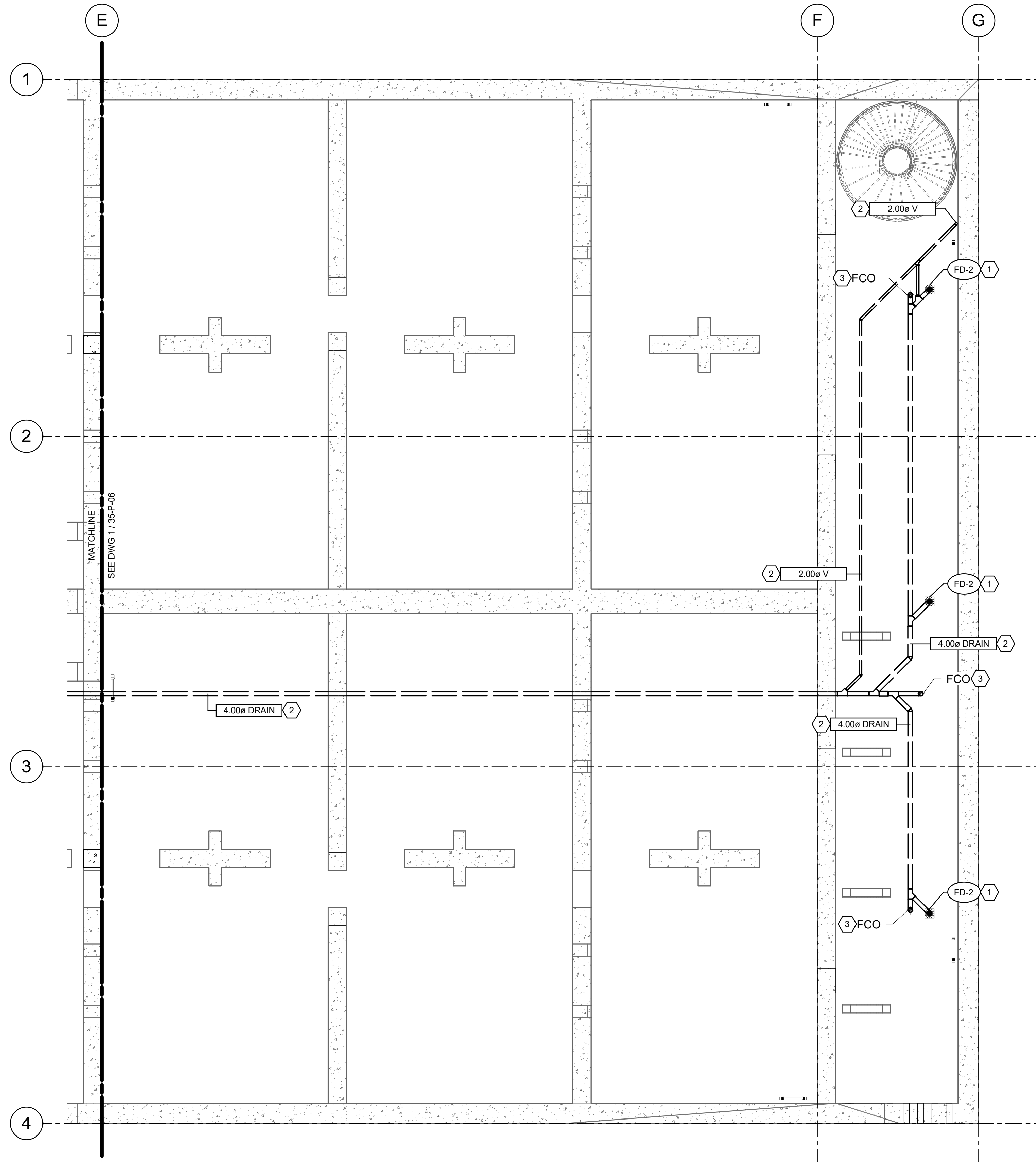
90% GMP

DRAWING NO.  
 35-P-07

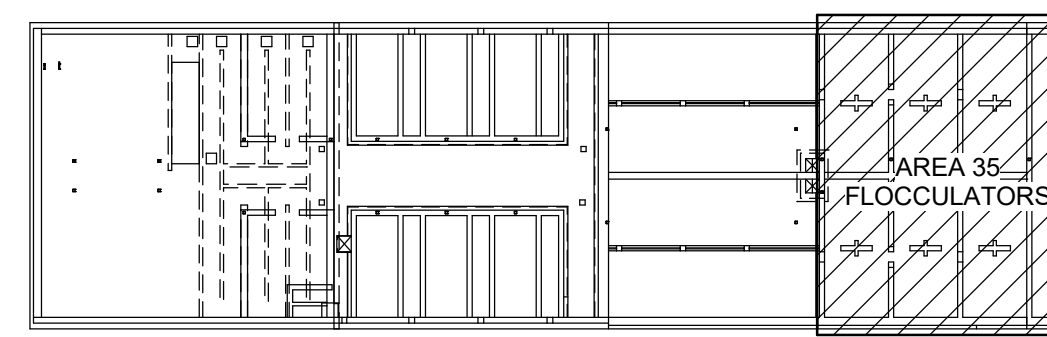
DESIGNED BY: J.BERTINELL		AUTH BY: J.BERTINELL		SCALE:	
DRAWN BY: J.BERTINELL		BY: WP		VERIFY SCALE	
CHECKED BY: W.PACKER		JOB:		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: W.PACKER		DATE: JUNE 2024		EWO NO: ---	
DATE: JUNE 2024		ACCOUNT NO: 512260079			
NO.	DATE:	MADE BY:	BY:		
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)		



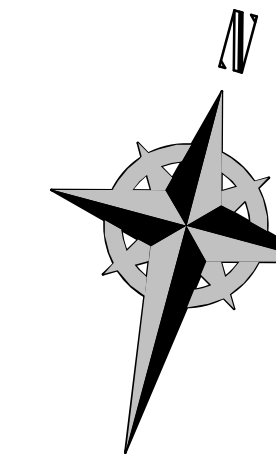
Plot Date: 6/13/2024 8:44:17 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570V2.Lvt



1 LOWER PLAN PLUMBING (FLOCCULATORS)  
35-P-01 SCALE: 3/16" = 1'-0"



KEY PLAN

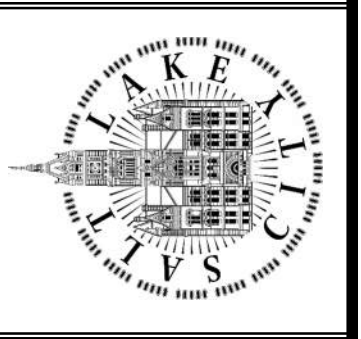


KEYNOTES:

- 1 PROVIDE FLOOR DRAIN AS SHOWN. COORDINATE EXACT LOCATION WITH ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
- 2 PROVIDE DWV PIPING IN THIS APPROXIMATE LOCATION.
- 3 PROVIDE FCO IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.

DESIGNED BY: J.BRITNELL	AUTH BY: J.BRITNELL
DRAWN BY: J.BRITNELL	MADE BY: J.BRITNELL
CHECKED BY: W.PACKER	BY: W.PACKER
APPROVED BY: W.PACKER	DATE: JUNE 2024
DATE: JUNE 2024	ACCOUNT NO: 512260079
EMO NO: ---	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FLOCCULATORS  
LOWER PLAN



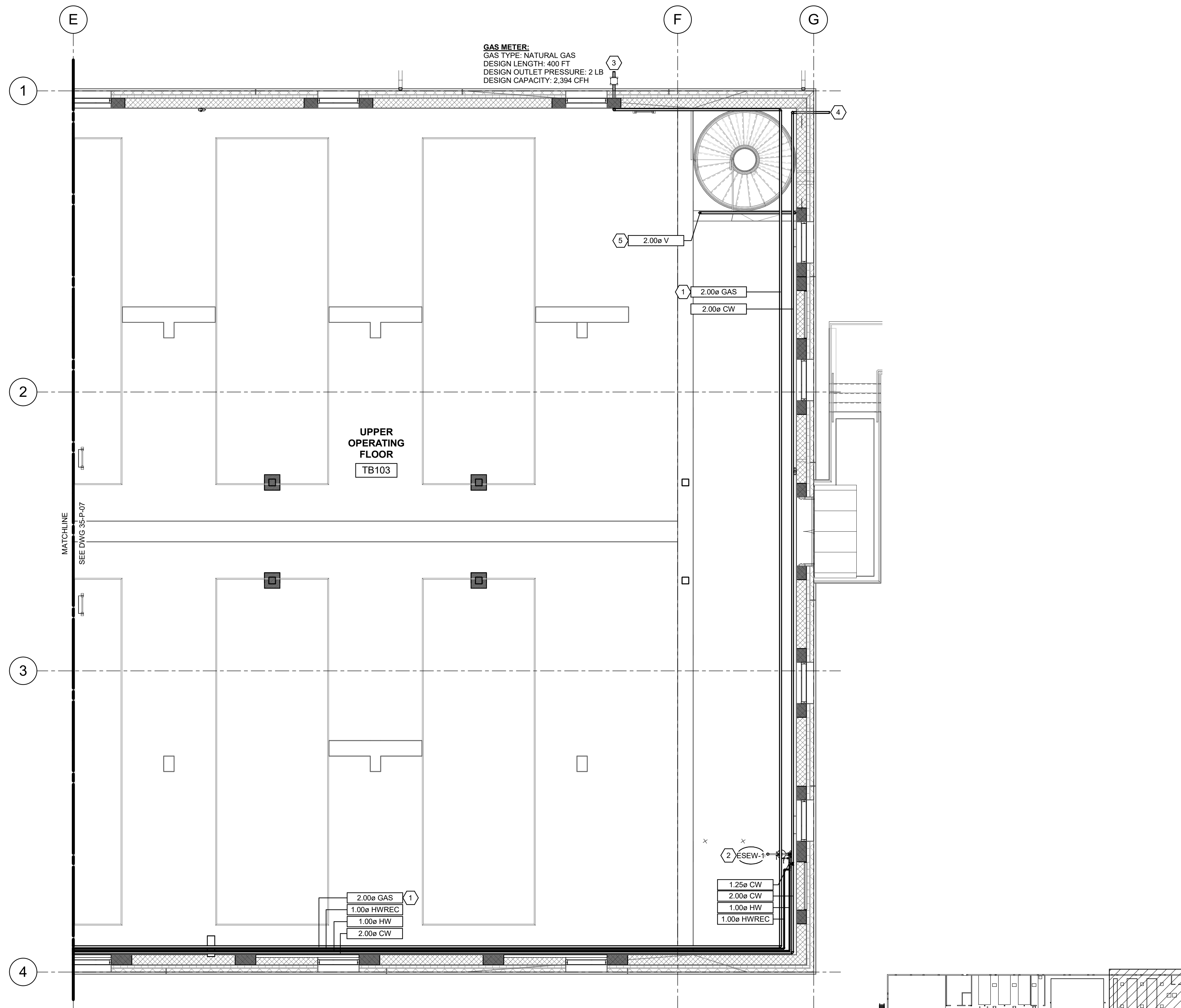
90% GMP

DRAWING NO.  
35-P-08

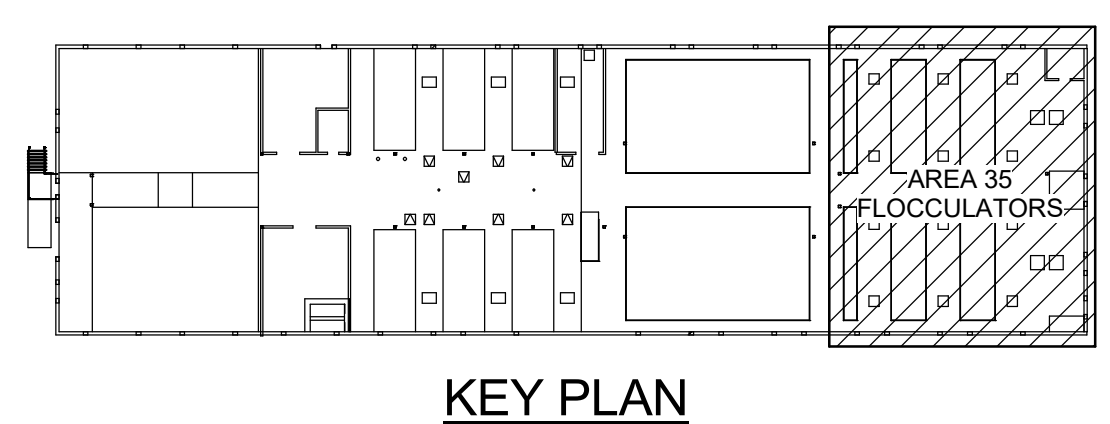




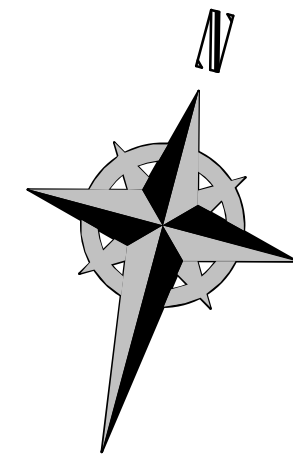
Plot Date: 6/13/2024 8:44:18 AM Path: R:\360\153020 - City Creek WTP\153020-H-3570\21.rvt



1 UPPER PLAN PLUMBING (FLOCCULATORS)  
35-P-01 SCALE: 3/16" = 1'-0"



KEY PLAN



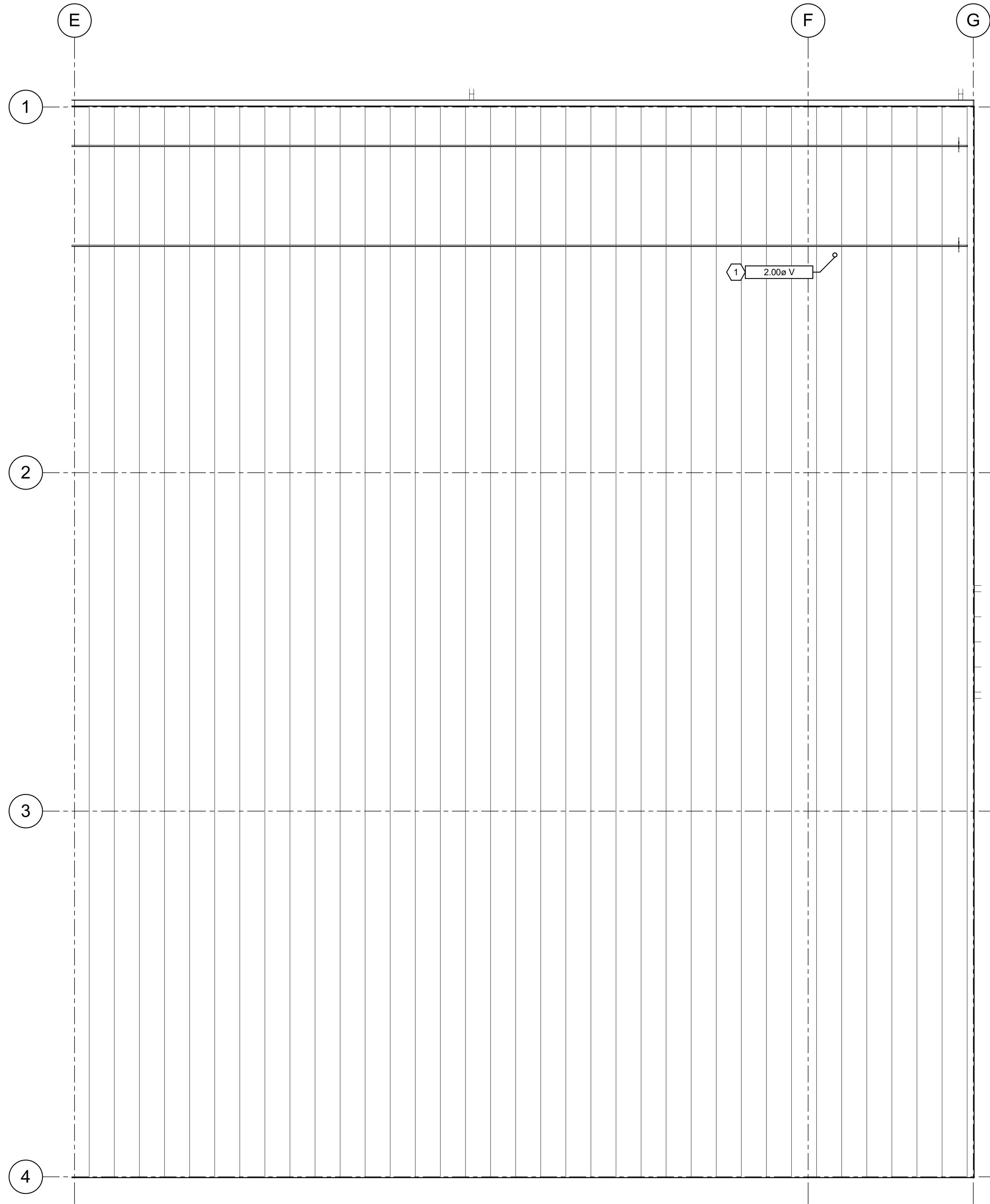
**KEYNOTES:**

- 1 PROVIDE PAINTED 2 PSIG GAS LINE IN THIS APPROXIMATE LOCATION.
- 2 PROVIDE COMBINATION EYEWASH / DRENCH SHOWER STATION IN THIS APPROXIMATE LOCATION. SEE PLUMBING DETAIL.
- 3 COORDINATE WITH DOMINION ENERGY TO PROVIDE NEW GAS METER IN THIS APPROXIMATE LOCATION. PROVIDE SEISMIC SHUTOFF VALVE. FIELD VERIFY EXACT LOCATION. COORDINATE WITH CIVIL DRAWINGS FOR CONTINUATION OF GAS PIPING.
- 4 COORDINATE WITH CIVIL PLANS FOR DOMESTIC WATER PIPING TO THIS AREA IN THIS APPROXIMATE LOCATION.
- 5 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.

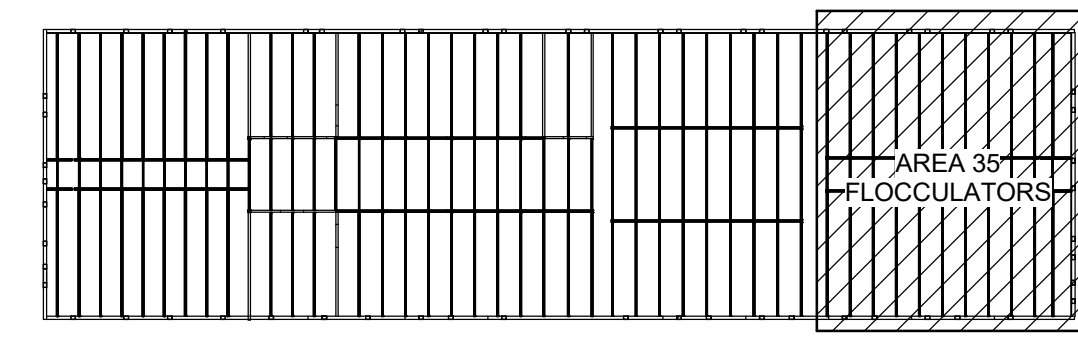


DESIGNED BY: J.BRITNELL DRAWN BY: J.BRITNELL CHECKED BY: W.PACKER APPROVED BY: W.PACKER DATE: JUNE 2024 EWO NO: --- ACCOUNT NO: 512260079		SCALE:  VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING
NO. 0 DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	REVISIONS
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FLOCCULATORS UPPER PLAN</b>		
90% GMP		
DRAWING NO.		35-P-09

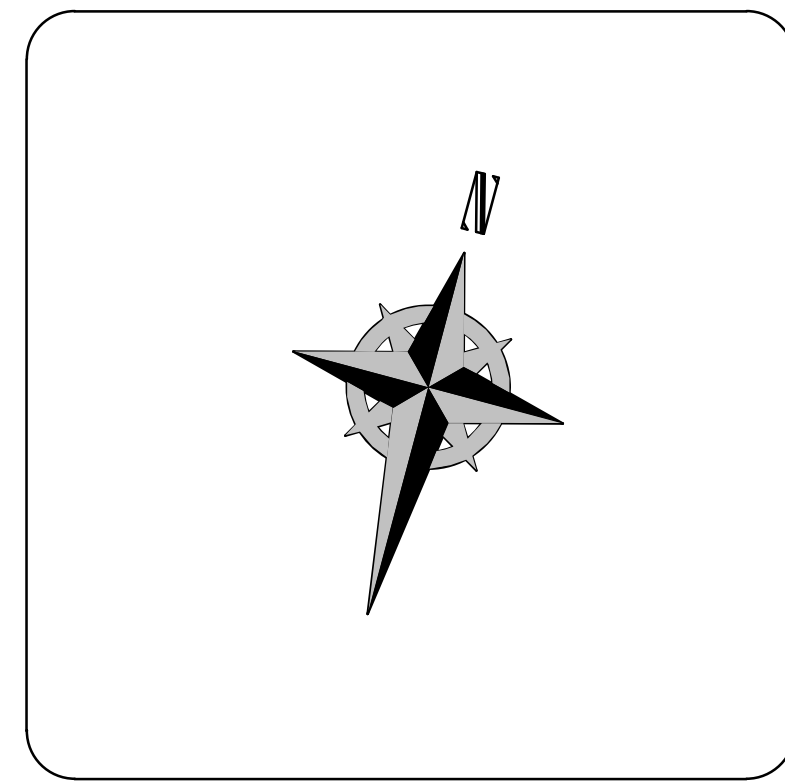
Plot Date: 6/13/2024 8:44:18 AM Path: RIM\_360//153020 - City Creek WTP/153020-H-3570V21.rvt



1 ROOF PLAN PLUMBING (FLOCCULATORS)  
 35-P-02 SCALE: 3/16" = 1'-0"



KEY PLAN

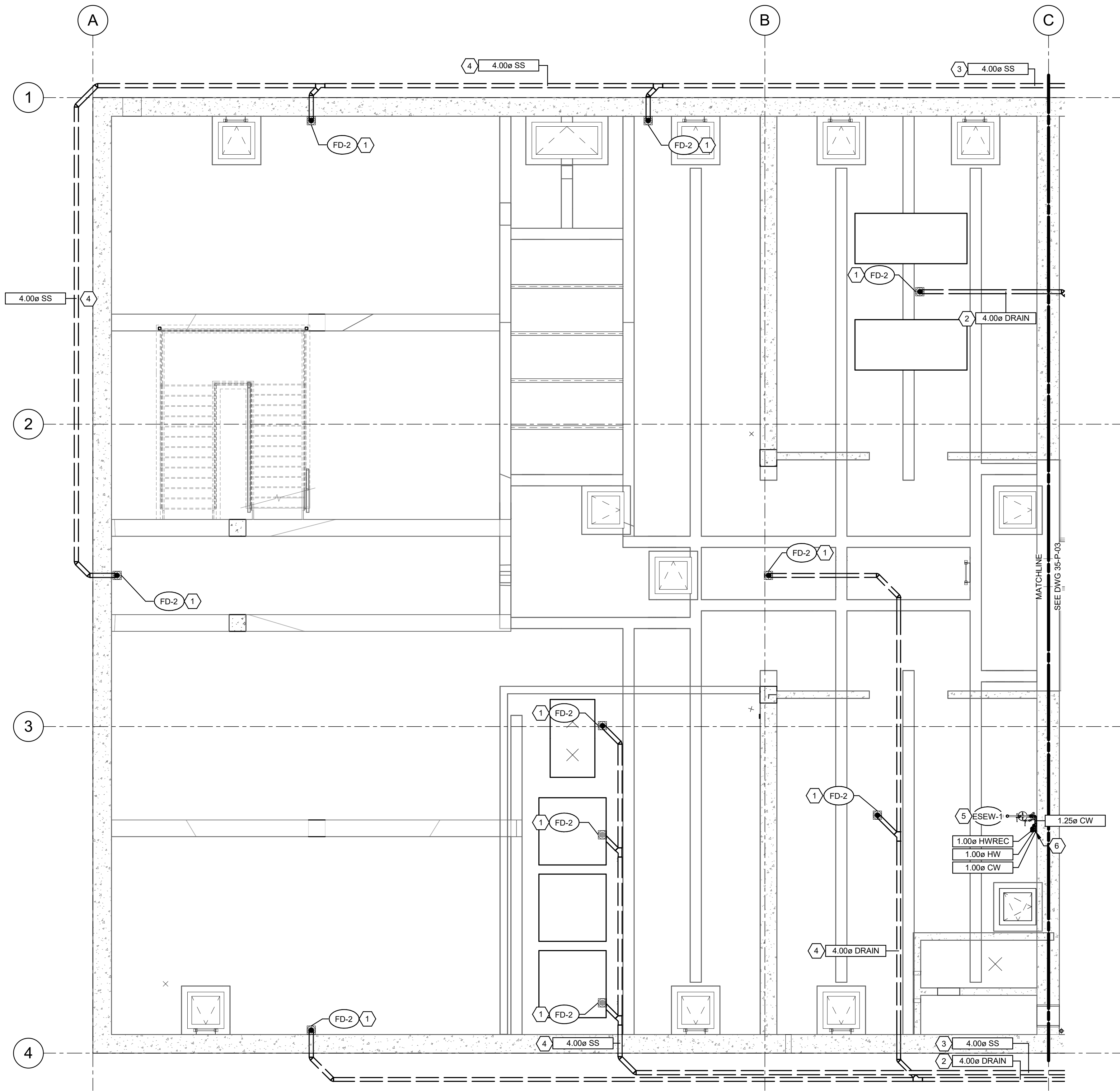


KEYNOTES:  
 1 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.

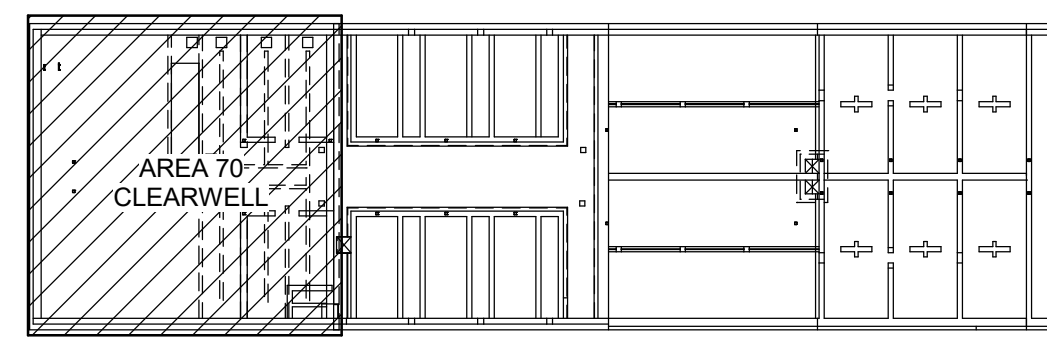


DESIGNED BY: J.BERTINELL		SCALE:
DRAWN BY: J.BERTINELL		
CHECKED BY: W.PACKER		
APPROVED BY: W.PACKER		
DATE: JUNE 2024		
EWO NO: ---		
ACCOUNT NO: 512260079		
<b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING		
REVISIONS		
NO.	DATE	ISSUED FOR
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
MADE BY	AUTH BY	BY
J.B	J.B	WP
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FLOCCULATORS</b> <b>ROOF PLAN</b>		
90% GMP		
DRAWING NO. <b>35-P-10</b>		

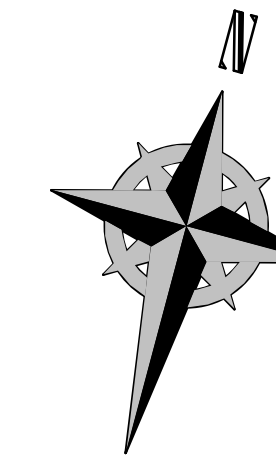
Plot Date: 6/13/2024 8:44:23 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-H-3570V21.rvt



1 LOWER PLUMBING PLAN (CLEARWELL)  
35-P-01 SCALE: 3/16" = 1'-0"



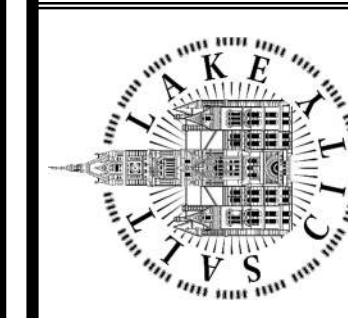
KEY PLAN



KEYNOTES:

- 1 PROVIDE FLOOR DRAIN IN THIS APPROXIMATE LOCATION. INCASE PIPE WITHIN A CONCRETE INCASEMENT. COORDINATE WITH STRUCTURAL AND PROCESS MECHANICAL SHEETS. FIELD VERIFY EXACT ROUTING.
- 2 PROVIDE DRAIN PIPING IN THIS APPROXIMATE LOCATION. ROUTE TO GRAYWATER TANK. FIELD VERIFY EXACT ROUTING.
- 3 PROVIDE SANITARY SEWER PIPING IN THIS APPROXIMATE LOCATION. ROUTE TO BLACKWATER TANK. FIELD VERIFY EXACT ROUTING.
- 4 PROVIDE DWV PIPING. COORDINATE ROUTING WITH CIVIL.
- 5 PROVIDE COMBINATION EYEWASH / DRENCH SHOWER STATION IN THIS APPROXIMATE LOCATION. SEE PLUMBING DETAIL.
- 6 DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND HOT WATER RECIRC PIPING TO CONTINUE UP INTO BATHROOM IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE 70-P-03 FOR CONTINUATION.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - LOWER PLAN



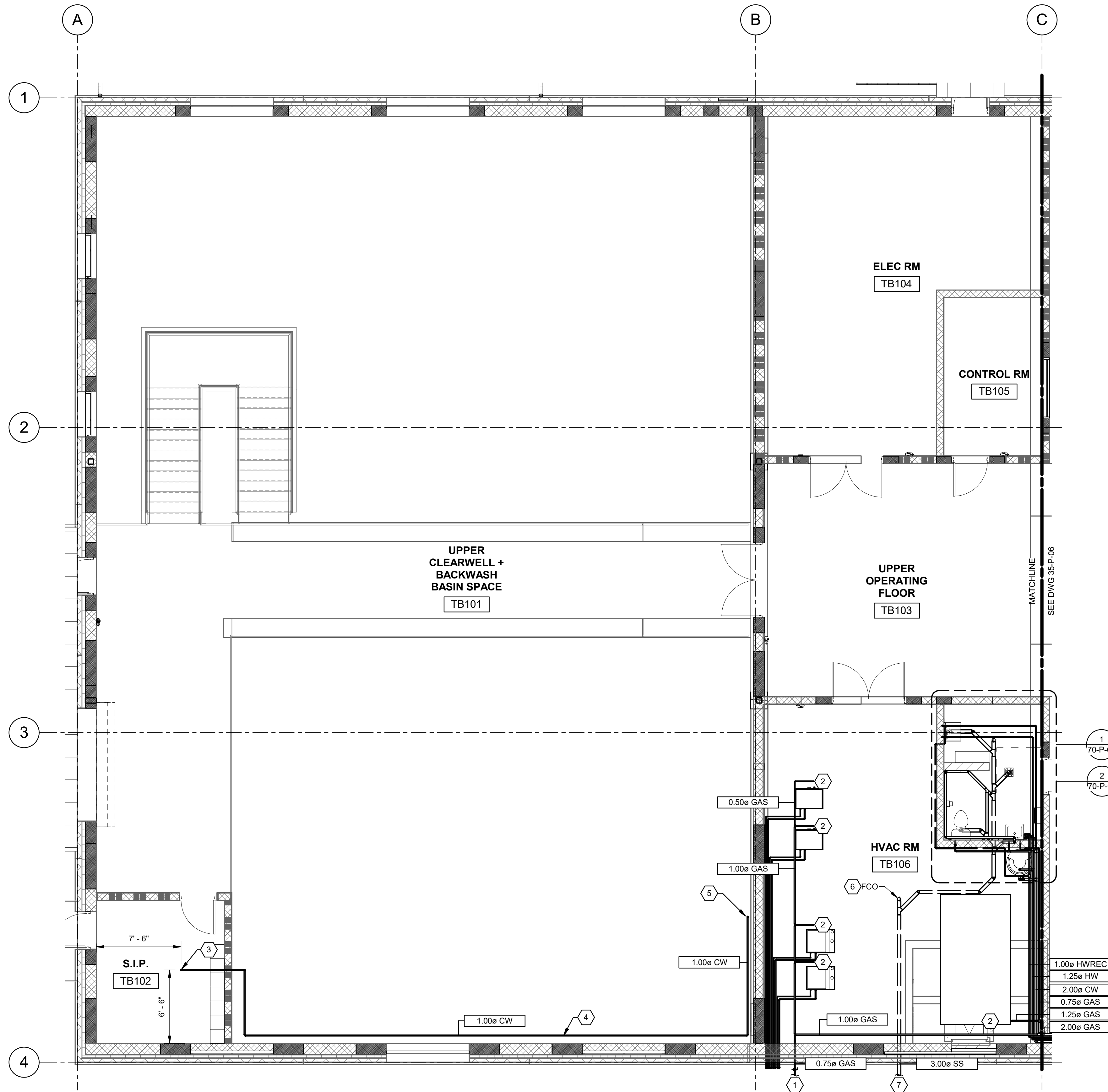
90% GMP

DRAWING NO.  
70-P-01

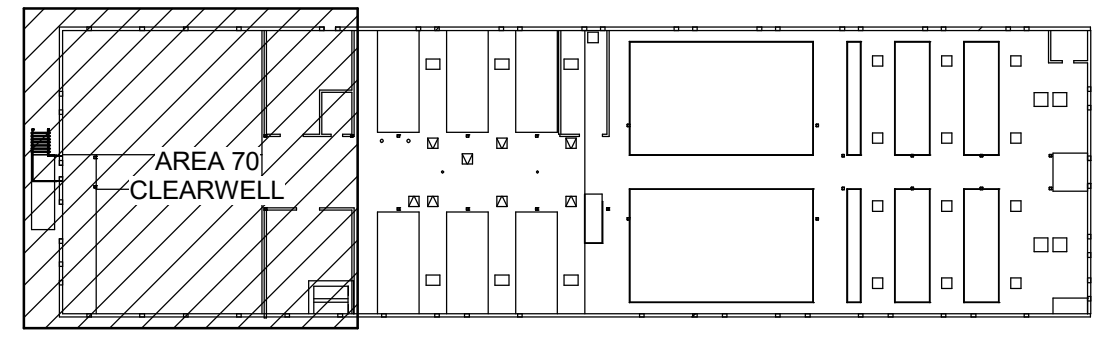
DESIGNED BY: J. BRINELL	SCALE:
DRAWN BY: J. BRINELL	VERIFY SCALE
CHECKED BY: W. PACKER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: W. PACKER	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	
NO. 0	DATE: 06/14/24
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
MADE BY: WP	
BY: JB	
REVISIONS	



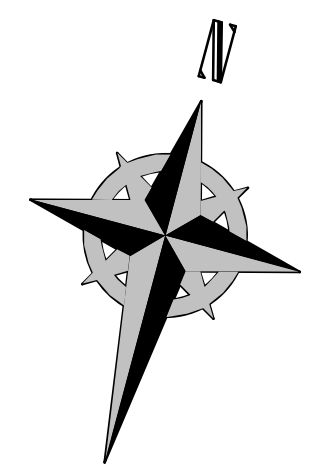
Plot Date: 6/13/2024 8:44:24 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt



1 UPPER PLAN PLUMBING (CLEARWELL)  
35-P-01 SCALE: 3/16" = 1'-0"



KEY PLAN



KEYNOTES:

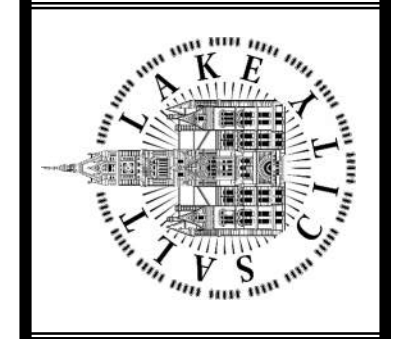
- 1 PROVIDE UNDERGROUND NATURAL GAS PIPING TO FLUORIDE BUILDING IN THIS APPROXIMATE LOCATION. PROVIDE ISOLATION VALVE WHERE IT LEAVES THE FILTER BUILDING. SEE CIVIL DRAWINGS FOR CONTINUATION OF PIPING. FIELD VERIFY EXACT ROUTING.
- 2 PROVIDE NATURAL GAS PIPING TO MECHANICAL EQUIPMENT. SEE GAS PIPING CONNECTION DETAIL.
- 3 INSTALL LIMITED AREA FIRE SPRINKLER SYSTEM TO PROTECT S.I.P. TB102. LIMITED AREA FIRE SPRINKLER SYSTEM WILL INCLUDE ONE FIRE SPRINKLER LOCATED WHERE SHOWN ON PLAN. SPRINKLER SHALL BE 1/2" ORIFICE (K-5.6), QUICK RESPONSE, ORDINARY TEMPERATURE, UPRIGHT OR PENDENT INSTALLED WITHIN 12" VERTICALLY FROM CEILING OF ROOM. SPRINKLER SHALL PRODUCE A MINIMUM FLOW OF 20 GPM TO PROVIDE A MINIMUM DISCHARGE DENSITY OF 0.10 GPM/SQ FT OVER ENTIRE ROOM.
- 4 INSTALL 1" DIAMETER COPPER PIPING CONFORMING TO ASTM B75 TO SUPPLY FIRE SPRINKLER. PIPE, JOINING METHOD AND SUPPORTS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF NFPA 13.
- 5 CONNECT LIMITED AREA FIRE SPRINKLER SYSTEM TO 6" PLANT WATER SUPPLY AS ALLOWED BY IBC 903.3.8.3. PROVIDE INDICATING TYPE CONTROL VALVE SECURED IN THE OPEN POSITION AT POINT OF CONNECTION TO 6" PLANT WATER SUPPLY. PLANT WATER SUPPLY WILL PROVIDE APPROXIMATELY 50 PSI AT 20 GPM. LIMITED AREA FIRE SPRINKLER SYSTEM REQUIRES 27.6 PSI AT 20 GPM.
- 6 PROVIDE FCO IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
- 7 COORDINATE WITH CIVIL PLANS FOR SANITARY WASTE PIPING TO THIS AREA IN THIS APPROXIMATE LOCATION.

DESIGNED BY: J.BERTINELL  
 DRAWN BY: J.BERTINELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	WP	JB

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - UPPER PLAN**

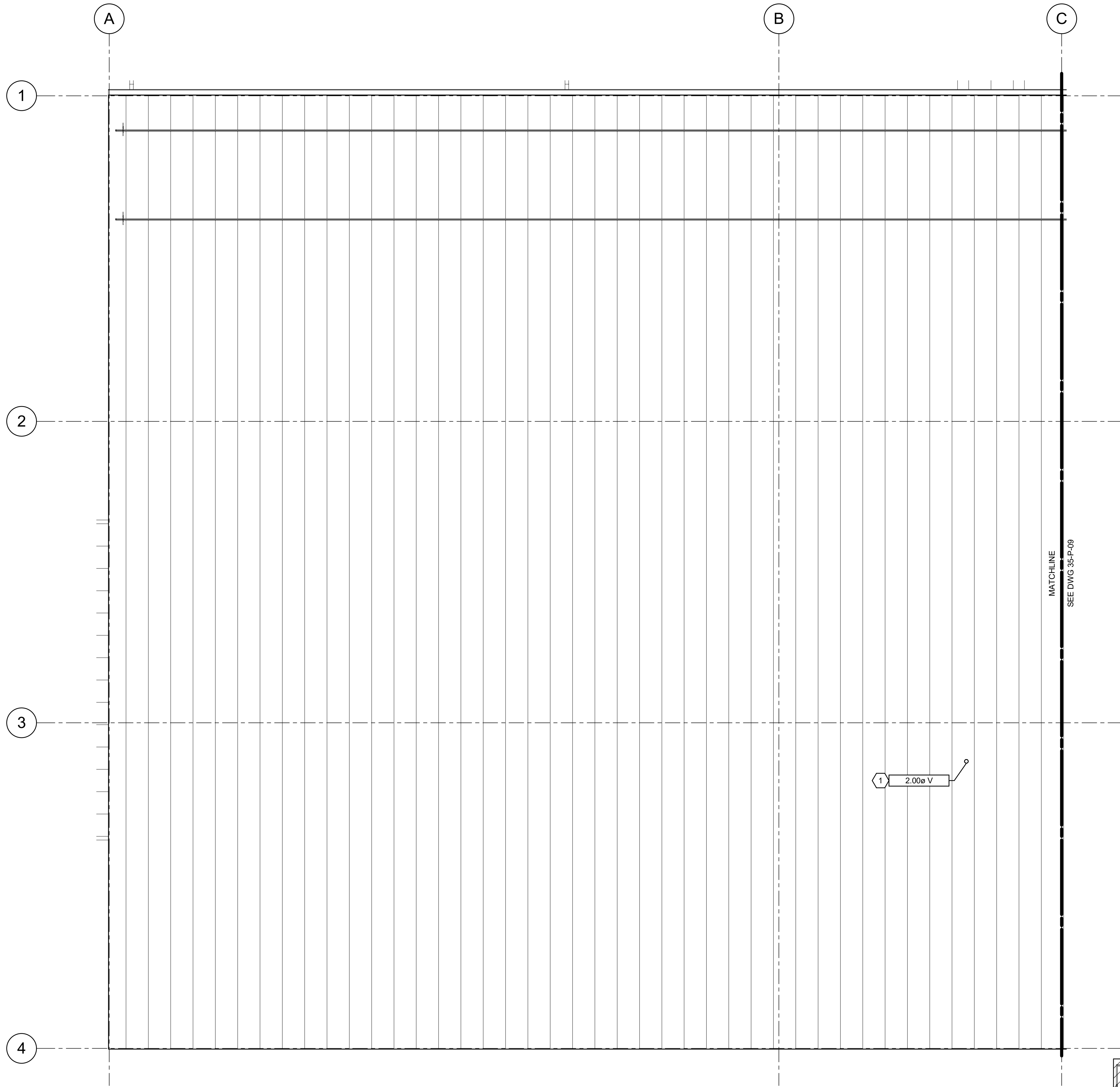


**90% GMP**

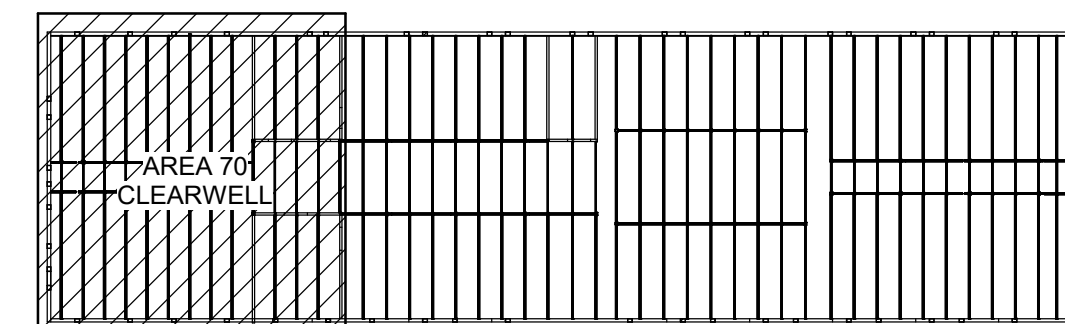
DRAWING NO.  
**70-P-02**



Plot Date: 6/13/2024 8:44:24 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-H-3570V21.rvt



1 ROOF PLUMBING PLAN (CLEARWELL)  
 35-P-02 SCALE: 3/16" = 1'-0"

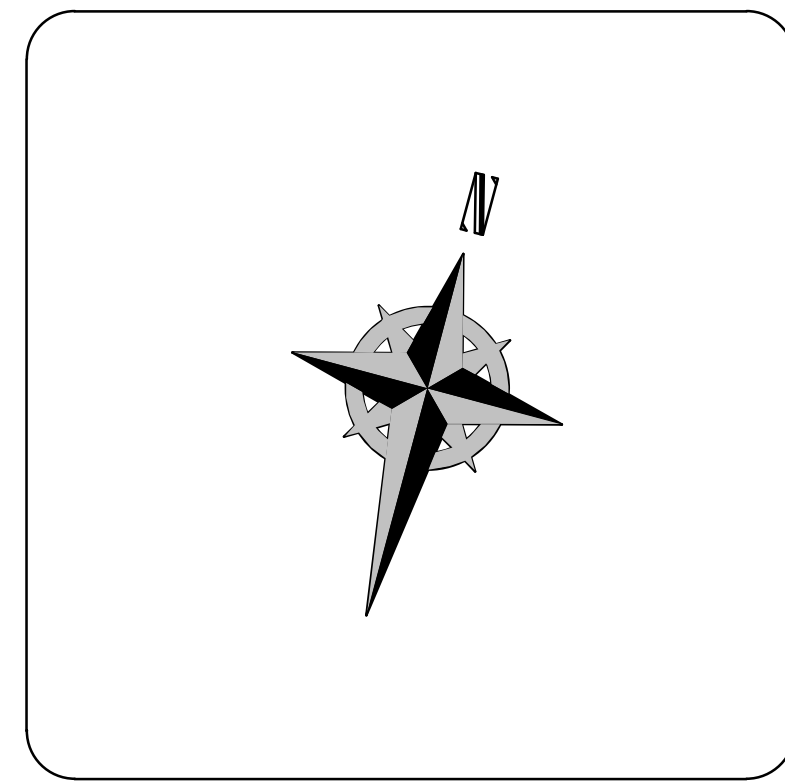


KEY PLAN

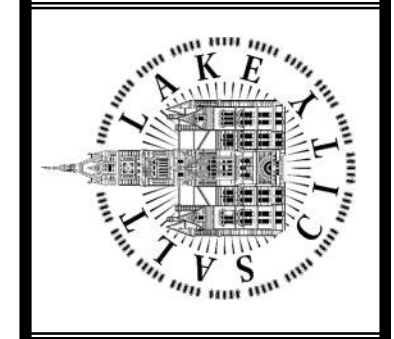


KEYNOTES:

- 1 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 CLEARWELL - ROOF PLAN



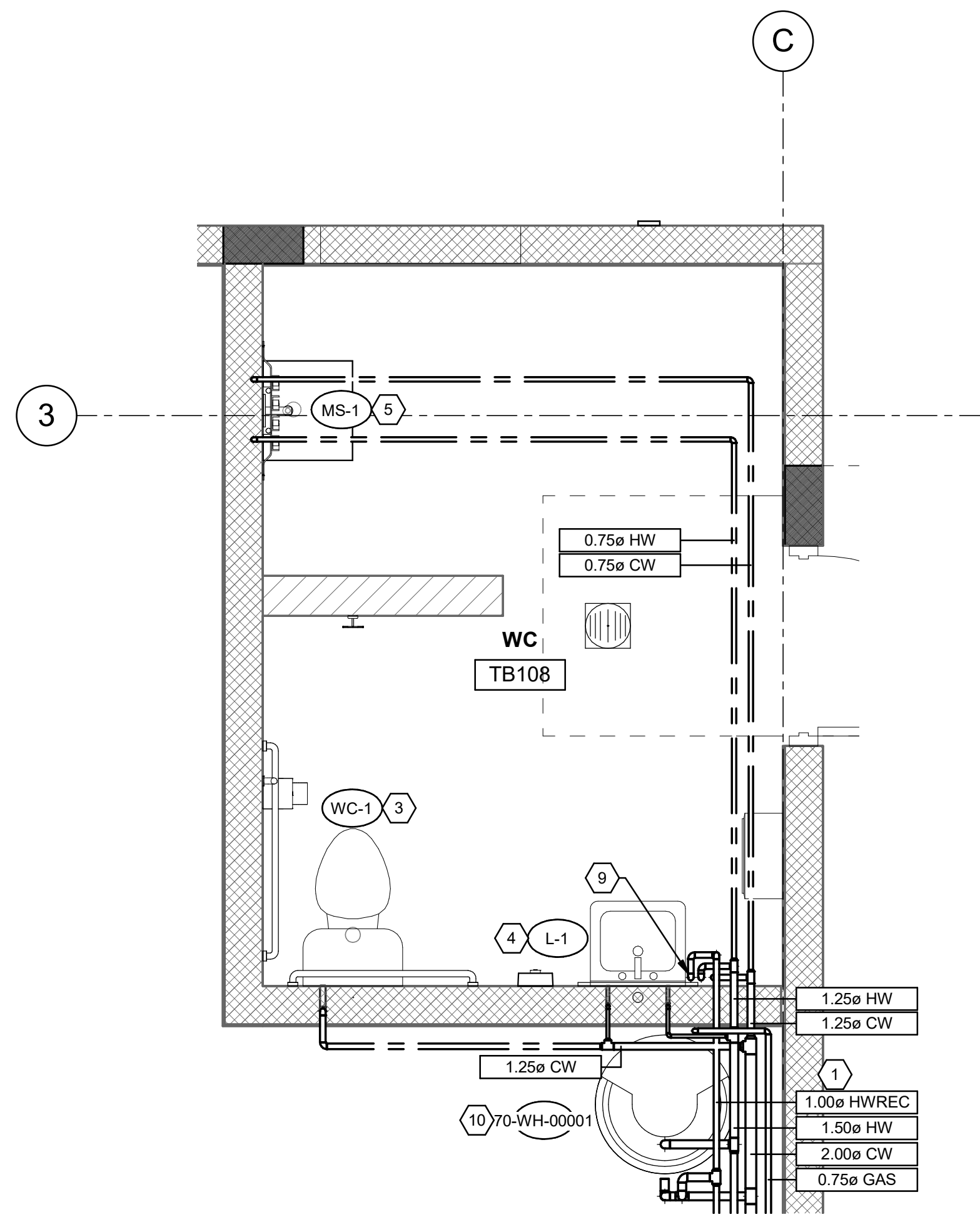
90% GMP

DRAWING NO.  
 70-P-03

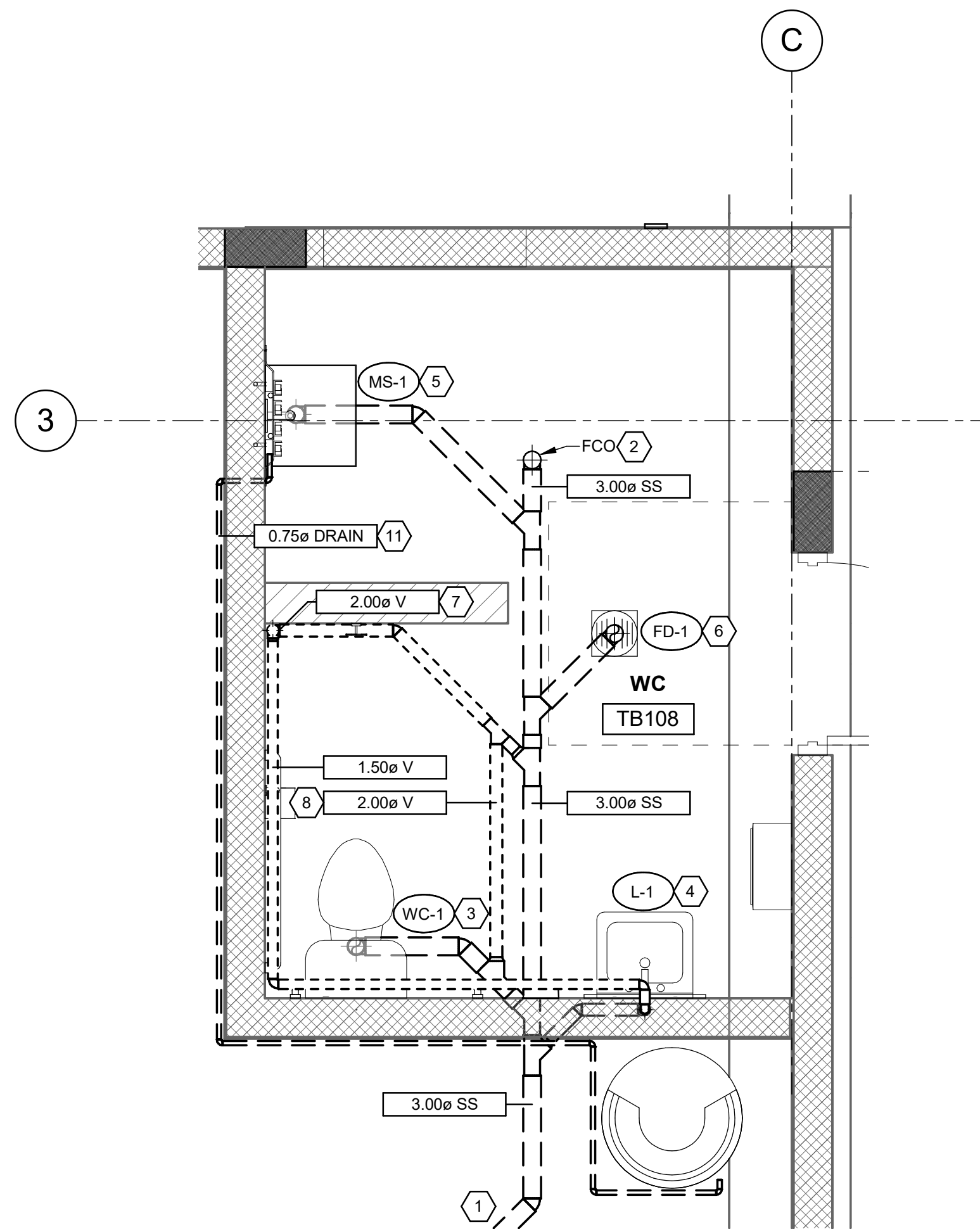
DESIGNED BY: J.BERTINELL	AUTH BY: J.BERTINELL	NO. 0	DATE: 06/11/24	ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)
DRAWN BY: J.BERTINELL	BY: WP	MADE BY: J.B	REVISIONS	
CHECKED BY: W.PACKER	APPROVED BY: W.PACKER			
DATE: JUNE 2024	EWO NO: ---			
ACCOUNT NO: 512260079				

SCALE: \_\_\_\_\_  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 8:44:25 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt



1 ENLARGED PLAN (CLEARWELL) - DOMESTIC WATER AND GAS  
70-P-02 SCALE: 1/2" = 1'-0"



2 ENLARGED PLAN (CLEARWELL) - SANITARY SEWER AND VENT  
70-P-02 SCALE: 1/2" = 1'-0"

**KEYNOTES:**

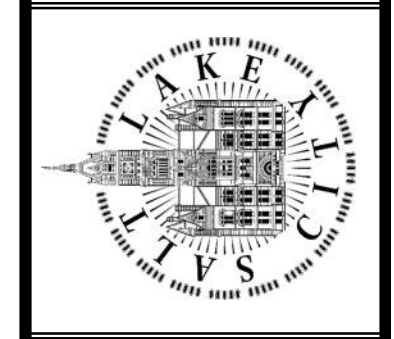
- 1 SEE SHEET 70-P-02 FOR CONTINUATION OF PIPING IN THIS APPROXIMATE LOCATION.
- 2 PROVIDE FCO IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
- 3 PROVIDE WATER CLOSET IN THIS APPROXIMATE LOCATION.
- 4 PROVIDE LAVATORY IN THIS APPROXIMATE LOCATION.
- 5 PROVIDE MOP SINK IN THIS APPROXIMATE LOCATION.
- 6 PROVIDE FLOOR DRAIN IN THIS APPROXIMATE LOCATION.
- 7 PROVIDE VENT TO ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 8 PROVIDE BELOW FLOOR VENT PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 9 DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND HOT WATER RECIRC PIPING TO CONTINUE TO EYEWASH AND SHOWER ON FLOOR BELOW IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE 70-P-01 FOR CONTINUATION.
- 10 PROVIDE GAS WATER HEATER IN THIS APPROXIMATE LOCATION. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN OR FLOOR SINK. FIELD VERIFY EXACT LOCATION. SEE PLUMBING SCHEDULE AND DETAILS.
- 11 PROVIDE CONDENSATE DRAIN PIPING FROM WATER HEATER TO MOP SINK. FIELD VERIFY EXACT ROUTING.



DESIGNED BY: J.BERTINELLI	AUTH BY: J.BERTINELLI	SCALE:
DRAWN BY: J.BERTINELLI	BY: WP	
CHECKED BY: W.PACKER	JB	
APPROVED BY: W.PACKER		
DATE: JUNE 2024		
EWO NO: ---		
ACCOUNT NO: 512260079		

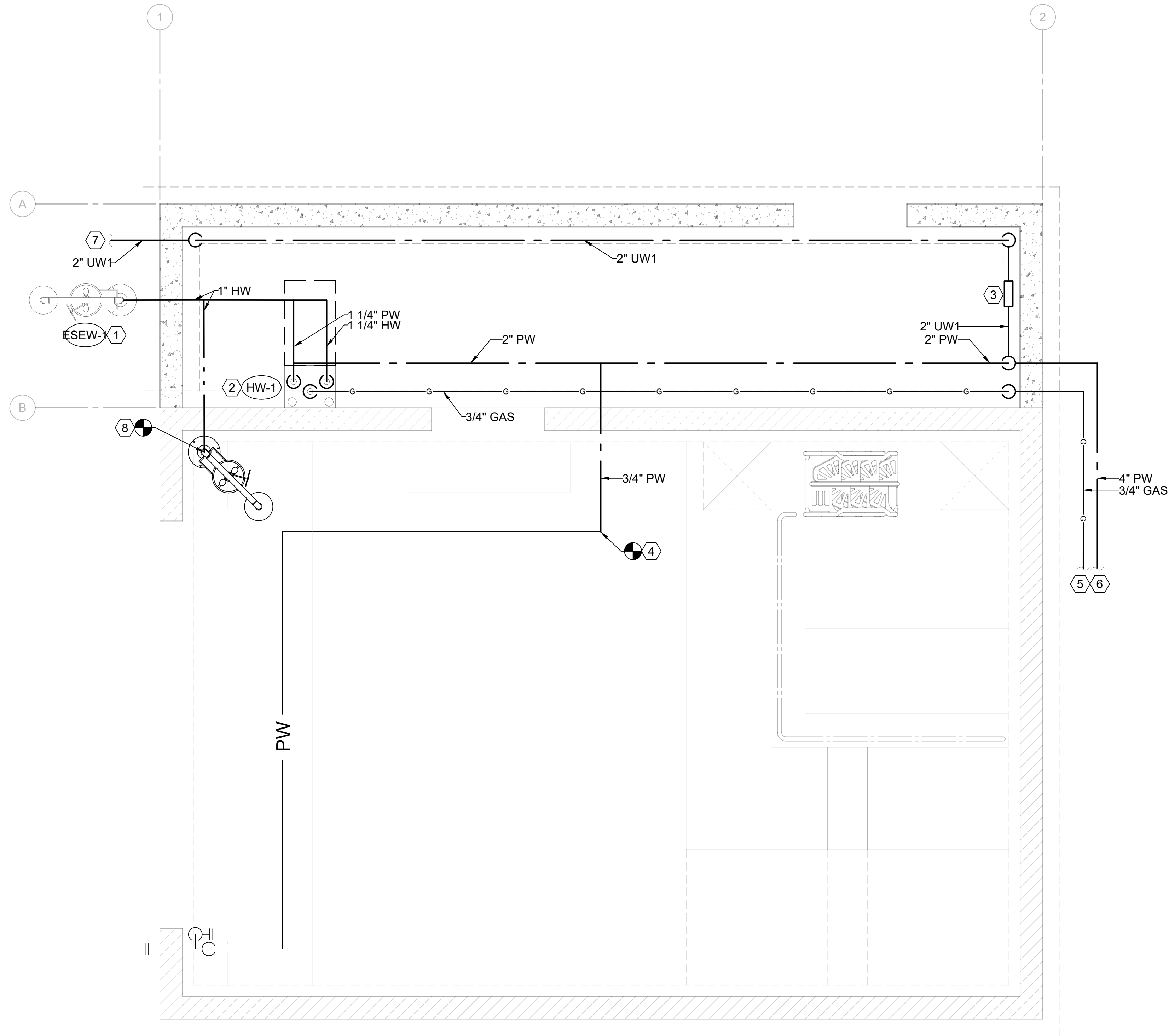
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - ENLARGED  
PLANS**

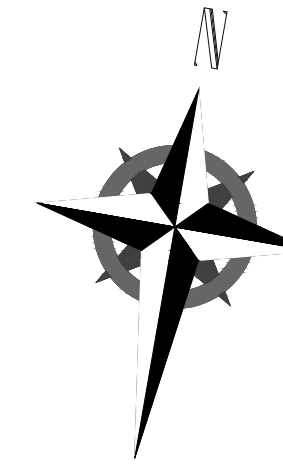


**90% GMP**

DRAWING NO.  
**70-P-04**



FLUORIDE - PLUMBING FLOOR PLAN  
SCALE 1/2" = 1'-0"



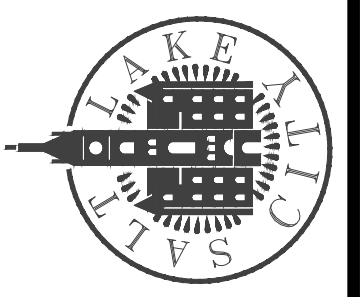
### KEYNOTES

- 1 PROVIDE EMERGENCY EYEWASH SHOWER STATION IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT PIPE ROUTING. SEE PLUMBING SCHEDULES AND DETAILS.
- 2 PROVIDE INSTANTANEOUS WATER HEATER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT PIPING ROUTING. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND CLEARANCES. PROVIDE COMBUSTION AIR AND FLUE AIR. SEE PLUMBING SCHEDULES AND DETAILS.
- 3 PROVIDE BACKFLOW PREVENTER FOR UTILITY WATER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT PLACEMENT.
- 4 PROVIDE DOMESTIC COLD WATER PIPING CONNECTION TO EXISTING PIPING INSIDE THE FLUORIDE BUILDING IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 5 PROVIDE GAS PIPING UNDERGROUND FROM WATER TREATMENT BUILDING. FIELD VERIFY EXACT ROUTING. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 6 PROVIDE PLANT WATER PIPING UNDERGROUND FROM WATER TREATMENT BUILDING. FIELD VERIFY EXACT ROUTING. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 7 PROVIDE UTILITY WATER PIPING UNDERGROUND IN THIS APPROXIMATE LOCATION TO CLARIFIER DOME. FIELD VERIFY EXACT ROUTING. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 8 CONNECT PIPING TO EXISTING EMERGENCY EYEWASH IN THIS APPROXIMATE LOCATION. COORDINATE WITH ARCHITECTURAL STRUCTURAL AND GC FOR PENETRATION THROUGH EXISTING WALL. FIELD VERIFY EXACT ROUTING.

DESIGNED BY: J.BRITNELL  
 DRAWN BY: J.BRITNELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO.: 512260079  
 ACCOUNT NO.: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 FLUORIDE - FLOOR PLAN



90% GMP

DRAWING NO.  
87-P-01

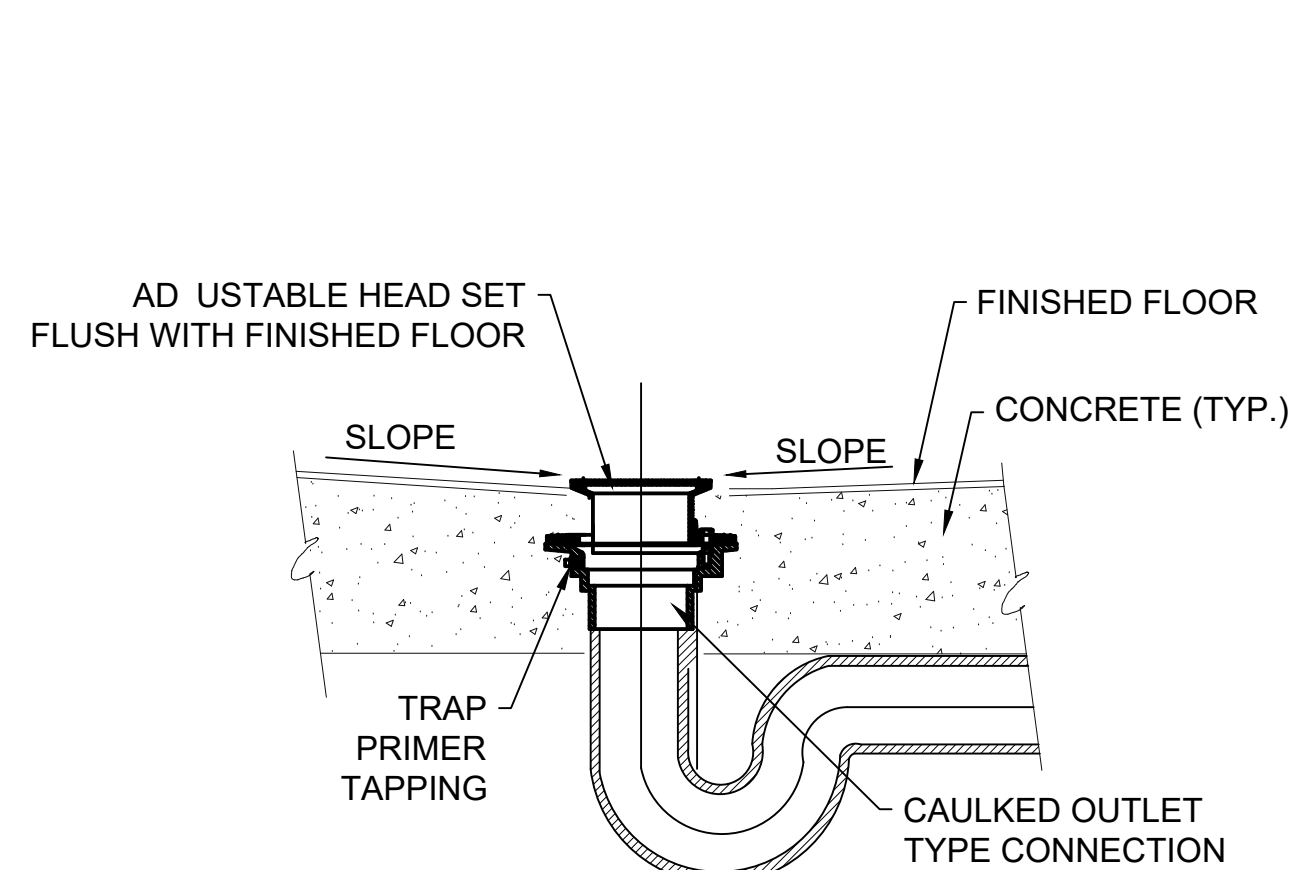


PLUMBING FIXTURE SCHEDULE									
EQUIPMENT NUMBER	FIXTURE	INDIVIDUAL LINE SIZES					POINT OF USE MIXING VALVE?	MAX OUTLET TEMP	REMARKS
		TRAP	WASTE	VENT	COLD WATER	HOT WATER			
ESEW-1	EMERGENCY SHOWER AND EYE WASH	1-1/4"	1-1/2"	1-1/4"	1-1/4"	1-1/4"	YES	80	COMBINATION EMERGENCY SHOWER AND EYEWASH. PROVIDE ANSI 358.1 CERTIFIED MIXING VALVE. INSTALL PER MANUFACTURERS RECOMMENDATION. BRADLEY S19-310 OR EQUAL.

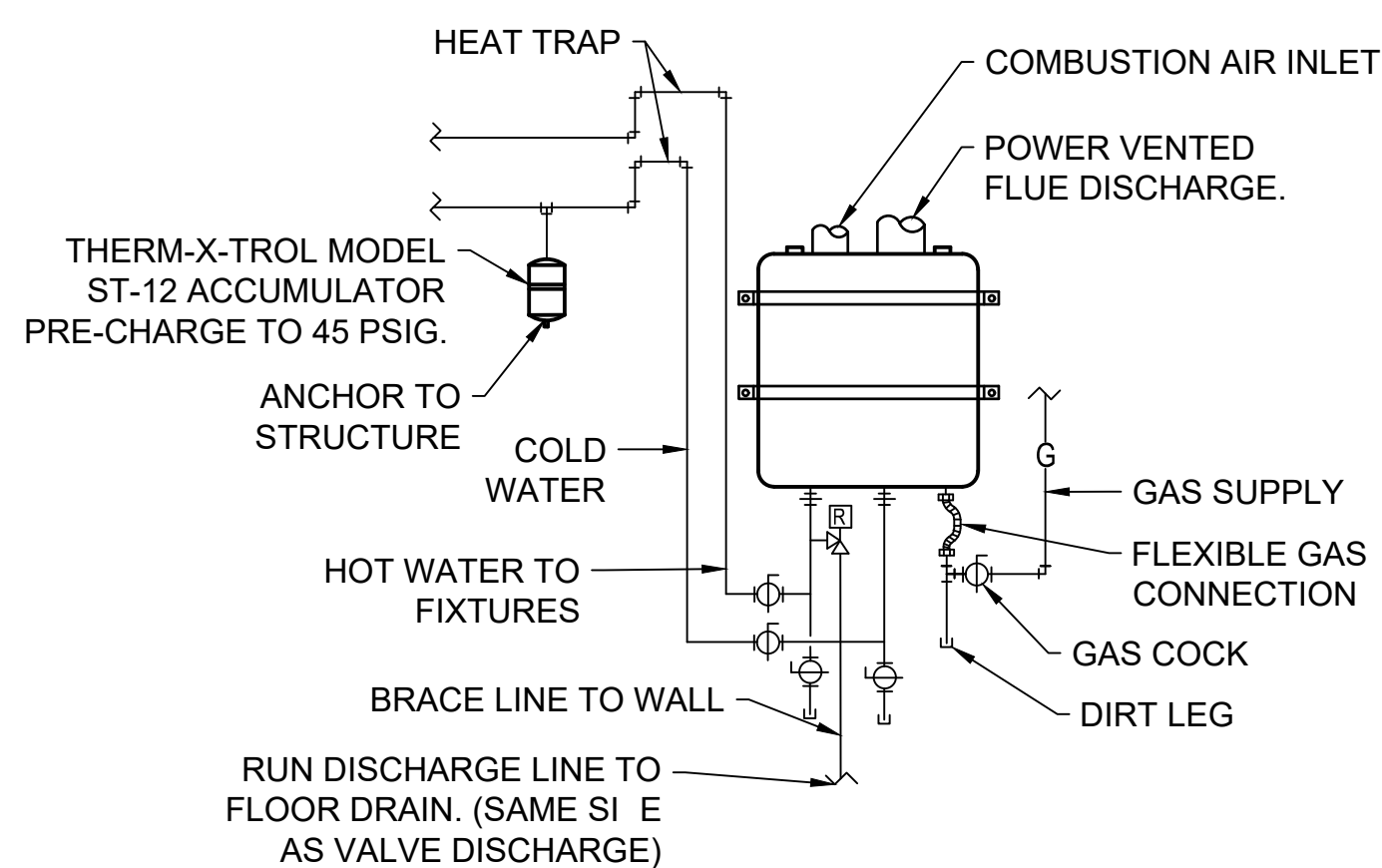
1. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.

WATER HEATER SCHEDULE												
EQUIPMENT NUMBER	INPUT (BTU/HR)	OUTPUT (BTU/HR)	FLOW @ 60 F RISE	ACTIVATION FLOW RATE	RELIEF VALVE		OUTLET TEMP	MASTER MIXING VALVE REQUIRED?	FLUE	OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES
					BTU RATING	PRESSURE						
WH-1	199 500 BTU/HR	190 000 BTU/HR	6.4 GPM	0.6 GPM	PER MANUFACTURER S RECOMMENDATIONS		120	YES	3"	93 LBS	INTELLIHOT 200	1 2 3

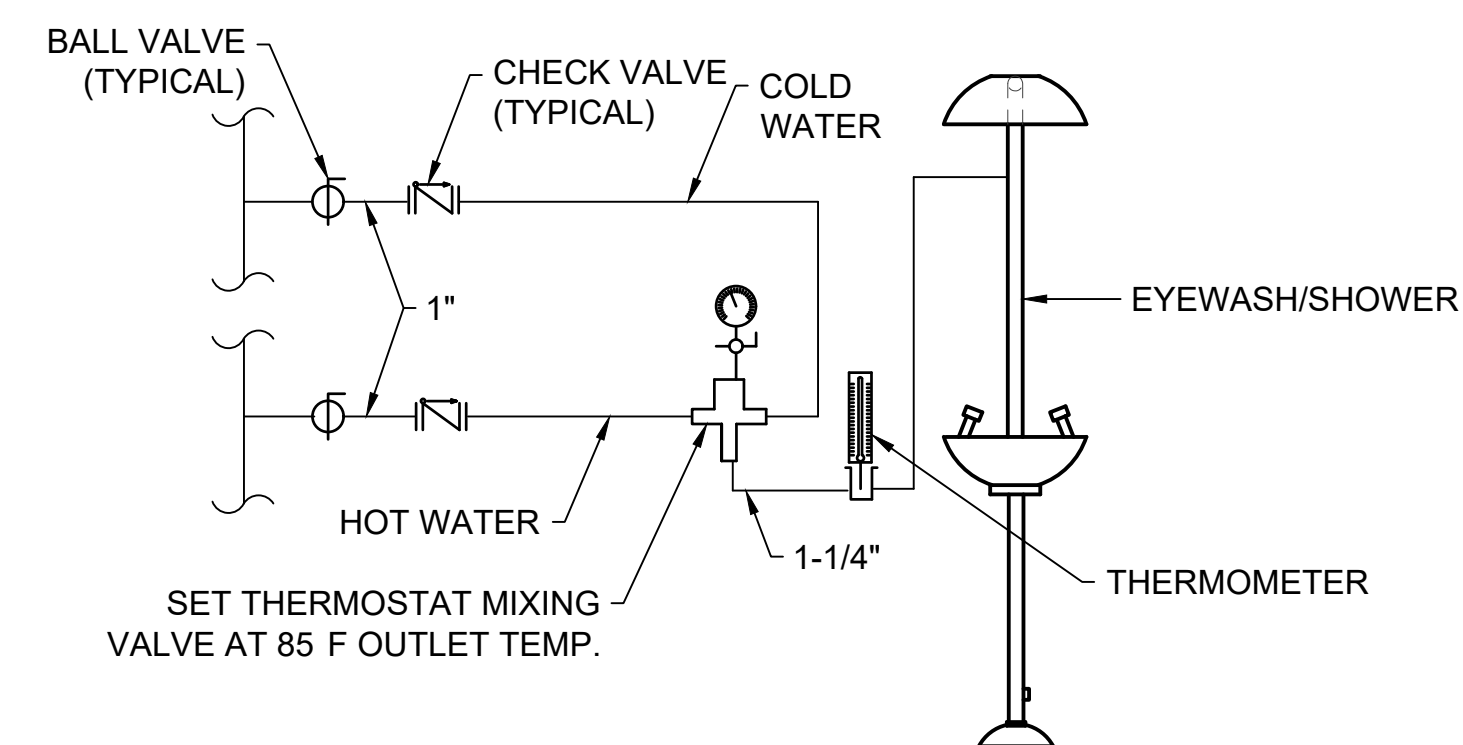
- 120/1 /60 - 30 AMPS
- HIGH ALTITUDE MODEL.
- WATER HEATER SHALL BE ULTRA-LOW NOX PER STATE RE QUIREMENTS.



3 FLOOR DRAIN DETAIL  
SCALE NONE



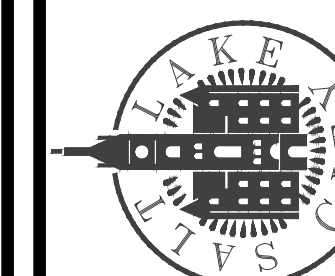
2 WALL MOUNTED TANKLESS WATER HEATER DETAIL  
SCALE NONE



1 EMERGENCY EYE WASH DETAIL  
SCALE NONE



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
FLUORIDE - SCHEDULES AND  
DETAILS



90% GMP

DRAWING NO.  
87-P-02

DESIGNED BY: J.BRITNELL  
DRAWN BY: J.BRITNELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO.: ---  
ACCOUNT NO.: 512260079

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	JB	WP

SCALE: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING



Plot Date: 6/13/2024 8:44:26 AM Path: R:\360\153020 - City Creek WTP\153020-H-3570\21.rvt

## MECHANICAL LEGEND

SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION
<b>GENERAL TERMINOLOGY</b>			<b>AIR SIDE</b>			<b>WET SIDE</b>			<b>WET SIDE</b>		
		SECTION LETTER DESIGNATION SECTION DRAWN ON THIS SHEET			EXISTING AIR DUCT TO BE REMOVED			PUMP			PITCH DOWN
		DETAIL NUMBER DESIGNATION CORRESPONDING WITH GRID LOCATION			EXISTING AIR DUCT TO REMAIN			REGULATOR			ELBOW UP/DN
		MECHANICAL EQUIPMENT DESIGNATION EQUIPMENT ITEM DESIGNATION			NEW AIR DUCT			UNION			TEE UP/DN
		REGISTER, GRILLE OR DIFFUSER DESIGNATION WITH BALANCING CFM LISTED BELOW			RECT TO RECT AIR DUCT TAKE-OFF			MANUAL ACTUATOR			EXISTING PIPING TO BE REMOVED
		GRILLE OR LOUVER DESIGNATION WHERE BALANCING NOT REQUIRED			RECT TO RND AIR DUCT TAKE-OFF			PNEUMATIC DIAPHRAM ACTUATOR			EXISTING PIPING TO REMAIN
		REGISTER, GRILLE OR DIFFUSER DESIGNATION WITH BALANCING CFM LISTED BELOW			RND TO RND AIR DUCT TAKE-OFF			ELECTRIC MOTOR ACTUATOR			NEW PIPING
		GRILLE OR LOUVER DESIGNATION WHERE BALANCING NOT REQUIRED			MEDIUM PRESSURE TAKE-OFF			SOLENOID ACTUATOR			PIPE CAP OR PLUG
		GRILLE OR LOUVER DESIGNATION WHERE BALANCING NOT REQUIRED			FLEXIBLE AIR DUCT			BUTTERFLY VALVE			REDUCER - CONCENTRIC / ECCENTRIC
		REVISION DESIGNATOR AND NUMBER			LINED DUCT			GATE VALVE			EXPANSION JOINT
		KEY NOTE DESIGNATOR AND NUMBER			RADIUS ELBOW			GLOBE VALVE - STRAIGHT PATTERN			FLEXIBLE CONNECTION
	POC	POINT OF CONNECTION			ECCENTRIC DUCT TRANSITION			GLOBE VALVE - ANGLE PATTERN			ANCHOR POINT
	POR	POINT OF REMOVAL			CONCENTRIC DUCT TRANSITION			MOTORIZED 2-WAY CONTROL VALVE		CD	CONDENSATE DRAIN
	AFF	ABOVE FINISHED FLOOR			VOLUME DAMPER			MOTORIZED 3-WAY CONTROL VALVE		G	NATURAL GAS PIPING
	AP	ACCESS PANEL			SUPPLY AIR DIFFUSER		PRV	PRESSURE REDUCING VALVE		CF	CHEMICAL FEED LINE
	C EL.	CENTERLINE ELEVATION			RETURN & TRANSFER AIR GRILLE			CHECK VALVE		GF	GLYCOL FILL LINE
	GC	GENERAL CONTRACTOR			EXHAUST GRILLE OR CEILING EXH. FAN			CIRCUIT BALANCING VALVE		MU	MAKE-UP WATER LINE
	MC	MECHANICAL CONTRACTOR			RETURN & OUTSIDE AIR DUCT UP/DN			BALL VALVE		CW	CULINARY COLD WATER
	ATC	CONTROLS CONTRACTOR			RETURN & OA ROUND DUCT UP/DN			PRESSURE RELIEF VALVE		HW	CULINARY HOT WATER
	EC	ELECTRICAL CONTRACTOR			SUPPLY AIR DUCT UP/DN			THERMAL RELIEF VALVE		HWREC	CULINARY HOT WATER RECIRC
	FPC	FIRE PROTECTION CONTRACTOR			SUPPLY AIR ROUND DUCT UP/DN			SAFETY RELIEF VALVE		HWS	HEATING WATER SUPPLY
	NIC	NOT IN CONTRACT			EXHAUST AIR DUCT UP/DN			PLUG VALVE		HWR	HEATING WATER RETURN
	NTS	NOT TO SCALE		AP	EXHAUST AIR ROUND DUCT UP/DN			NEEDLE VALVE		CHWS	CHILLED WATER SUPPLY
	VCP	VITRIFIED CLAY PIPE			ACCESS PANEL			TRIPLE DUTY VALVE		CHWR	CHILLED WATER RETURN
	C	COMMON			EXISTING EQUIPMENT TO BE REMOVED			AUTOMATIC AIR VENT		HTWS	HIGH TEMP HEATING WATER SUPPLY
	NC	NORMALLY CLOSED			EXISTING EQUIPMENT TO REMAIN			MANUAL AIR VENT		HTWR	HIGH TEMP HEATING WATER RETURN
	NO	NORMALLY OPEN			NEW EQUIPMENT			STRAINER		LPS	LOW PRESSURE STEAM
	EA	EXHAUST AIR			SUPPLY AIR			STRAINER W/ PLUG BLOW OFF		LPR	LOW PRESSURE STEAM RETURN
	OA	OUTSIDE AIR			RETURN AIR			VENTURI		HPS	HIGH PRESSURE STEAM
	MA	MIXED AIR			EXHAUST AIR			PRESSURE GAUGE W/ COCK - WATER		HPR	HIGH PRESSURE STEAM RETURN
	TA	TRANSFER AIR			OUTSIDE AIR			PRESSURE GAUGE W/ COCK - STEAM		CS	CONDENSER SUPPLY
	RF	RELIEF AIR			MIXED AIR			THERMOMETER & THERMOWELL		CR	CONDENSER RETURN
	FO	FLAT OVAL			TRANSFER AIR			THERMOMETER & THERMOWELL		PC	PUMPED CONDENSATE
	M	MOTORIZED VOLUME DAMPER			RELIEF AIR			WATER TEMP SENSOR & THERMOWELL		L	REFRIGERANT LIQUID
	BD	BACKDRAFT DAMPER			FLAT OVAL			FLOW SWITCH		S	REFRIGERANT SUCTION
	FD	FIRE DAMPER			MOTORIZED VOLUME DAMPER			PRESSURE SWITCH		HG	REFRIGERANT HOT GAS
	S	SMOKE DAMPER			BACKDRAFT DAMPER			THERMOWELL		FOS	FUEL OIL SUPPLY
	FS	FIRE & SMOKE DAMPER			FIRE DAMPER			PRESSURE & TEMP TAP		FOR	FUEL OIL RETURN
	T	T-STAT			SMOKE DAMPER			INVERTED BUCKET STEAM TRAP		FOV	FUEL OIL VENT
	S	WALL MOUNTED TEMP. SENSOR			FIRE & SMOKE DAMPER			THERMOSTATIC STEAM TRAP			
	H	H-STAT			WALL MOUNTED THERMOSTAT			FLOAT & THERMOSTATIC STEAM TRAP			
	F	F-STAT			WALL MOUNTED TEMP. SENSOR			DIRECTION OF FLOW			
					WALL MOUNTED HUMIDISTAT			BACKFLOW PREVENTING VALVE			
					WALL MOUNTED FIRESTAT						

### GENERAL NOTES

- G-1** - MECHANICAL INFORMATION IS NOT LIMITED TO THE MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION OF THE EXISTING BUILDING AND SITE CONDITIONS, EXISTING PIPING, EXISTING ELECTRICAL, AND EXISTING SUPPORTS.
- A** - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF EFFICIENCY, QUALITY OR GOVERNING CODE.
- B** - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.
- C** - THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS, SCHEDULES, AND DESIGN INTENT (ALL EQUIPMENT AND METHODS). THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY EQUIPMENT NOT IN COMPLIANCE.
- D** - THE CONTRACTOR SHALL CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR SIZES, METHODS, ACCESSORIES, AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT.
- E** - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.
- G-2** - ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO CHANGES FOR APPROVAL. CONTRACTOR SHALL NOT START ANY CHANGES UNTIL NOTIFIED IN WRITING. IF CHANGES ARE MADE PRIOR TO APPROVAL CONTRACTOR SHALL TAKE ALL RESPONSIBILITY FOR THE CHANGES MADE AND ALL COSTS RELATING TO FAILURE OR REPLACEMENT OF ALTERATIONS.
- G-3** - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.
- G-4** - THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS. THE CONTRACTOR SHALL PROVIDE OR COORDINATE WITH THE GENERAL CONTRACTOR PROVISIONS FOR BLOCKOUTS OR CORE DRILLS THROUGH STRUCTURE.
- G-5** - THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.
- G-6** - MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL SMOKE AND FIRE DAMPERS AS REQUIRED BY LOCAL CODES AND AUTHORITIES.
- G-7** - SHEET METAL DUCT SIZES SHOWN ON DRAWINGS ARE FREE AREA DIMENSIONS.
- G-8** - PROVIDE AND INSTALL BALANCING DAMPERS IN ALL SUPPLY AND EXHAUST AIR BRANCH DUCTS. BALANCE TO CFM SHOWN ON PLAN.
- G-9** - SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS AND GRILLES.
- G-10** - PROVIDE TURNING VANES IN ALL ELBOWS OF RECTANGULAR DUCT.
- G-11** - THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY IN HANDLING AND DISPOSING OF REFRIGERANTS, OILS, ETC. ALL SUCH MATERIALS SHALL BE HANDLED, DISPOSED, AND USED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.
- G-12** - THE MECHANICAL CONTRACTOR SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWING BEFORE ORDERING MOTORIZED EQUIPMENT AND CONTROLS.
- G-13** - C.F.M. LISTED IS ACTUAL AIR.
- G-14** - SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.
- G-15** - CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.
- G-16** - ALL MECHANICAL SHALL BE INSTALLED AND CONFORM TO THE 2021 EDITION OF THE IMC AND IPC WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-17** - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE DRAINING DOWN AND RE-FILLING OF ALL SYSTEMS NECESSARY TO COMPLETE THE WORK OUTLINED BY THIS PROJECT. THIS INCLUDES PROVIDING THE REQUIRED CHEMICAL TREATMENT WHEN RE-FILLING THE SYSTEM.
- G-18** - ALL PIPING, MATERIALS, ETC. SHALL BE NEW AND DOMESTIC MADE UNLESS SPECIFICALLY AUTHORIZED IN WRITING PRIOR TO BID.

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGNED BY: J.BERTINELL  
DRAWN BY: J.BERTINELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO: \_\_\_\_\_  
ACCOUNT NO: 512260079

REVISIONS

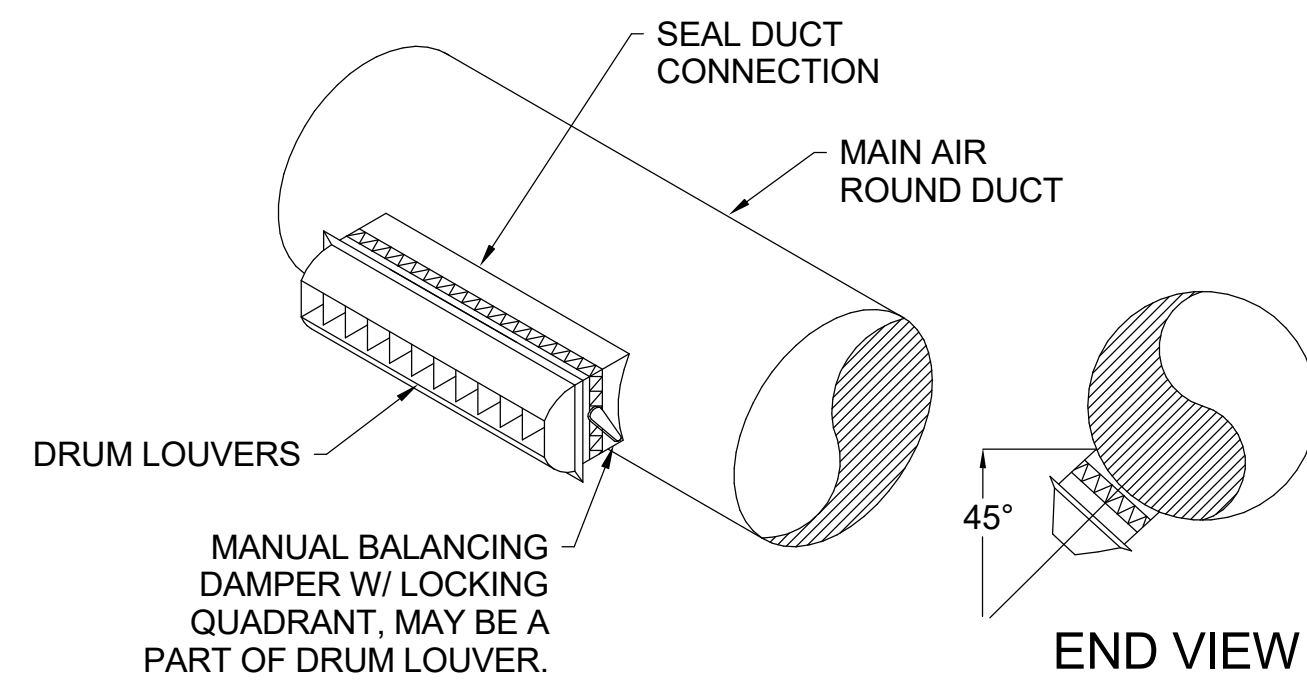
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0	06/14/24	J.BERTINELL	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
GENERAL NOTES & SYMBOLS

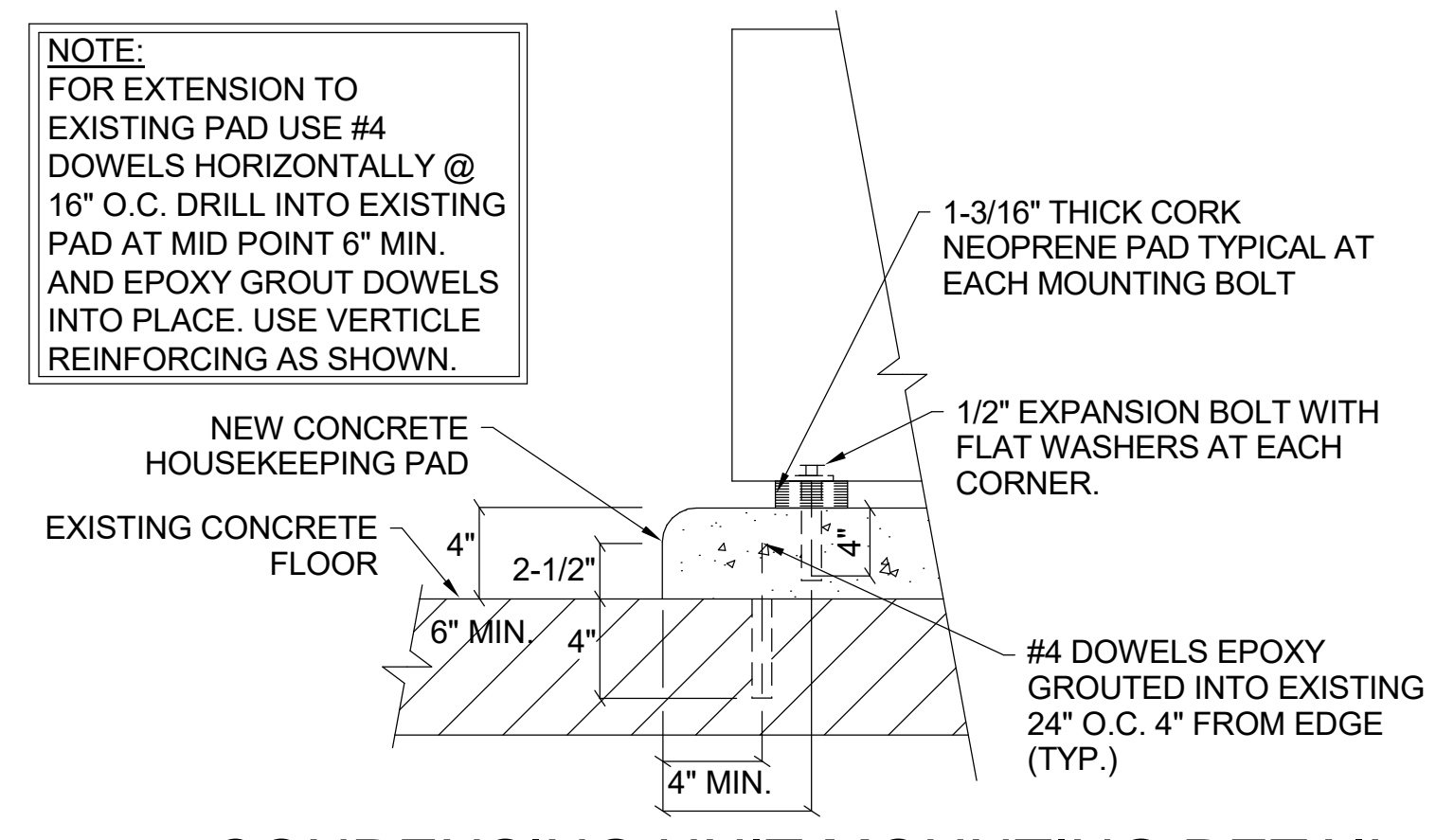
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DRAWING NO. **GH-01**

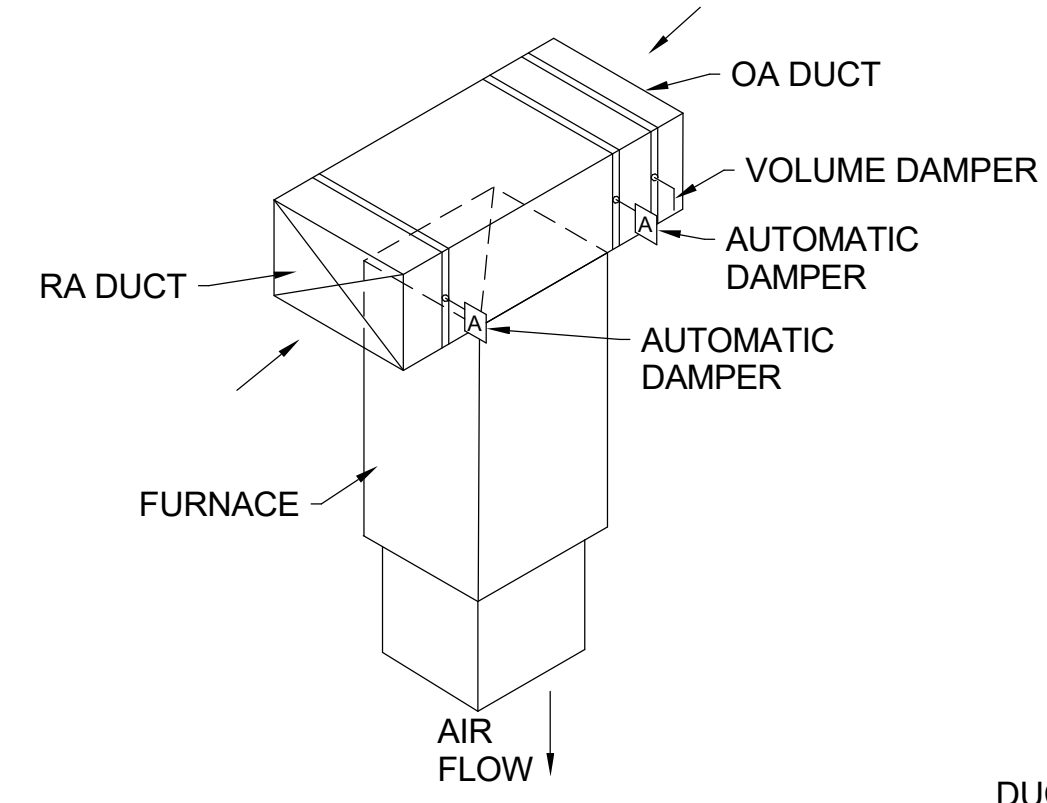




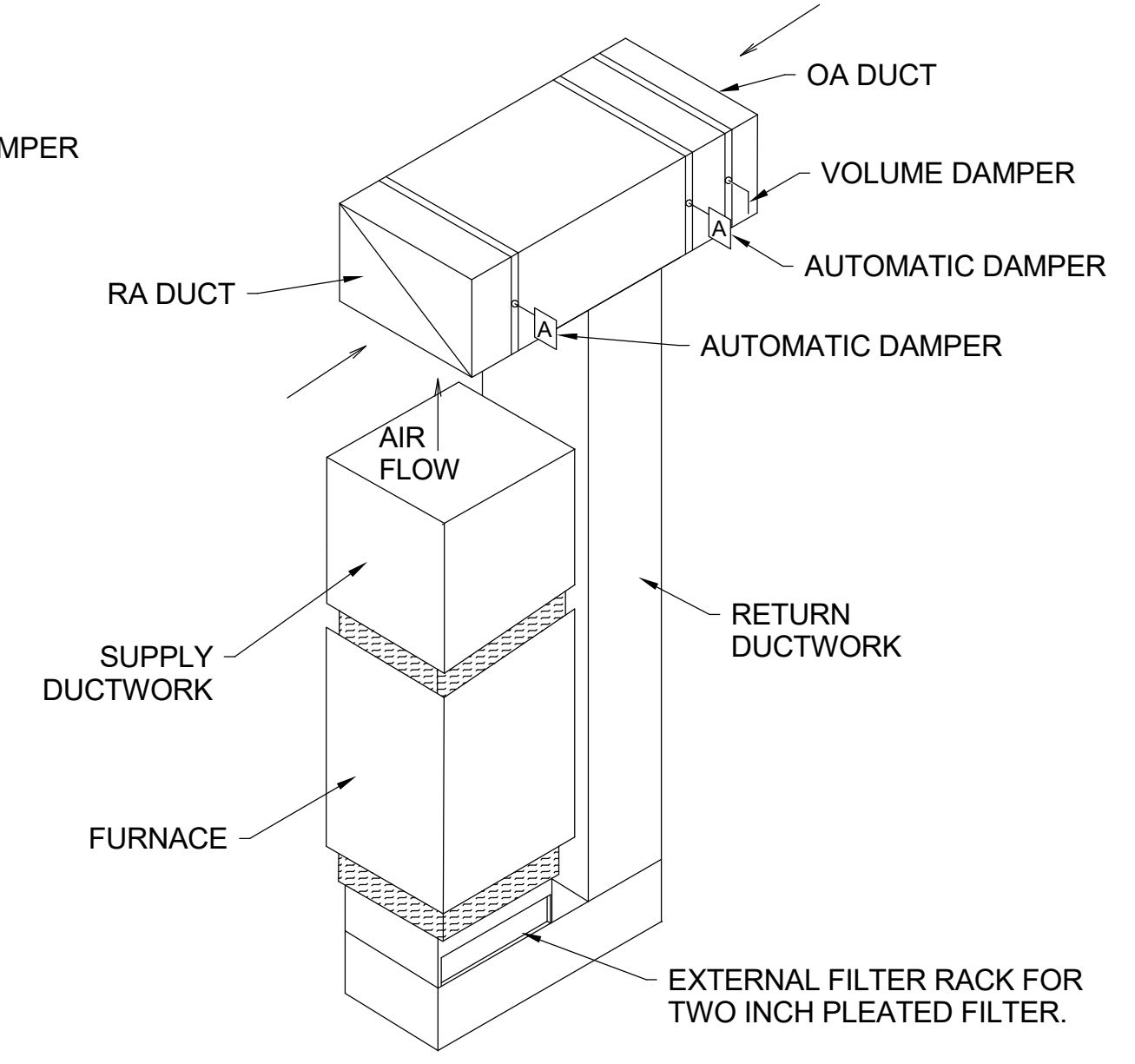
**4 DRUM LOUVER DETAIL**  
SCALE: NONE



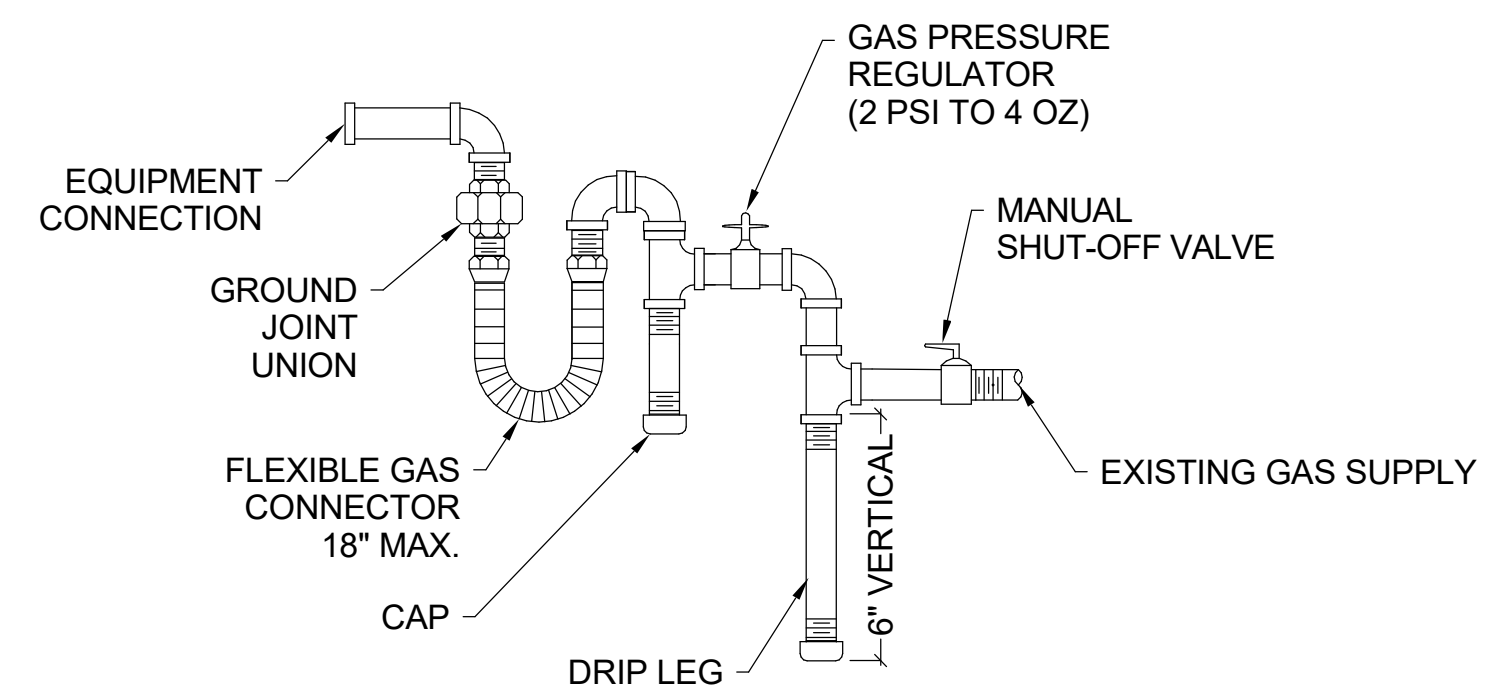
**3 CONDENSING UNIT MOUNTING DETAIL**  
SCALE: NONE



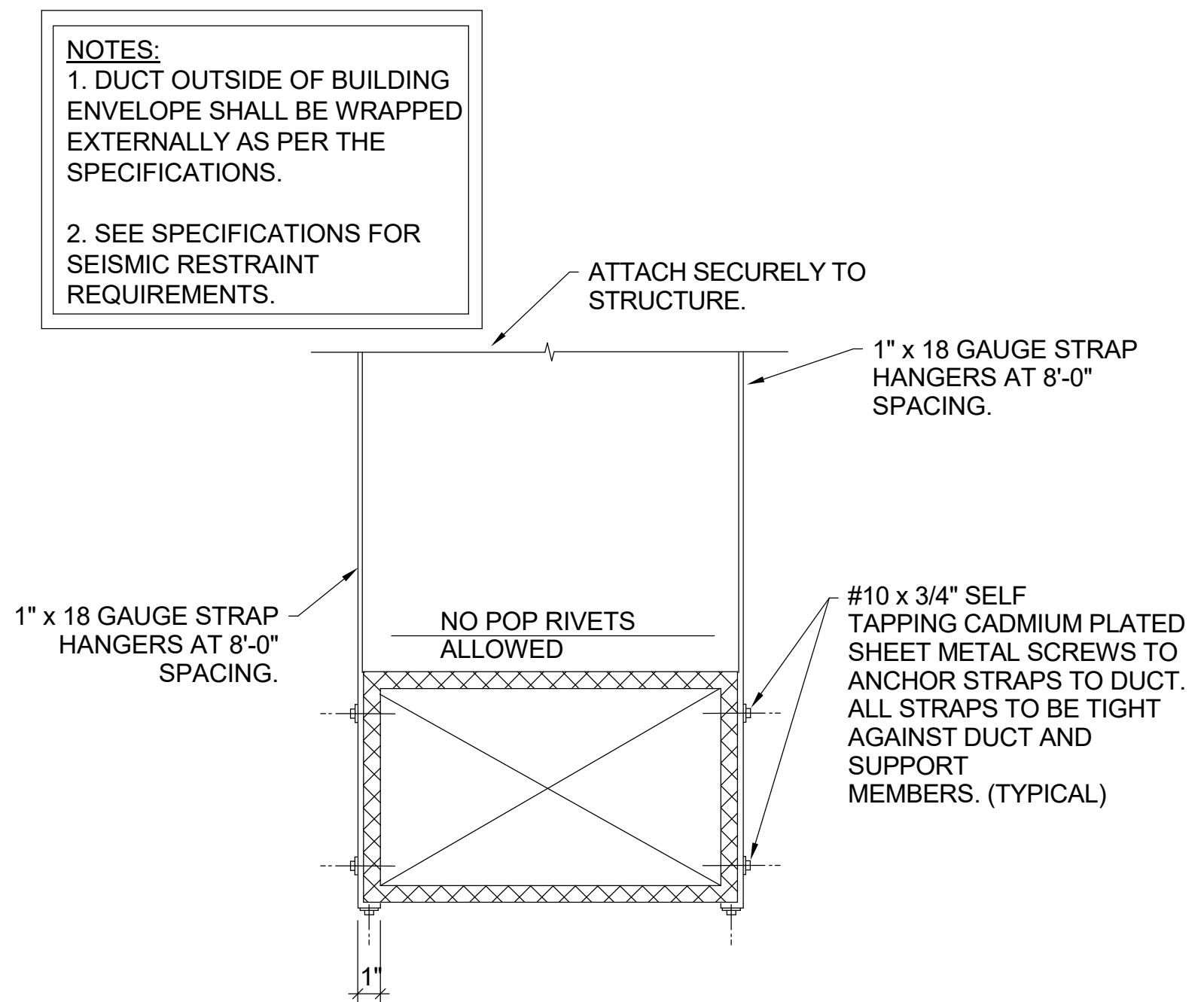
**2 DOWN FLOW FURNACE DETAIL**  
SCALE: NONE



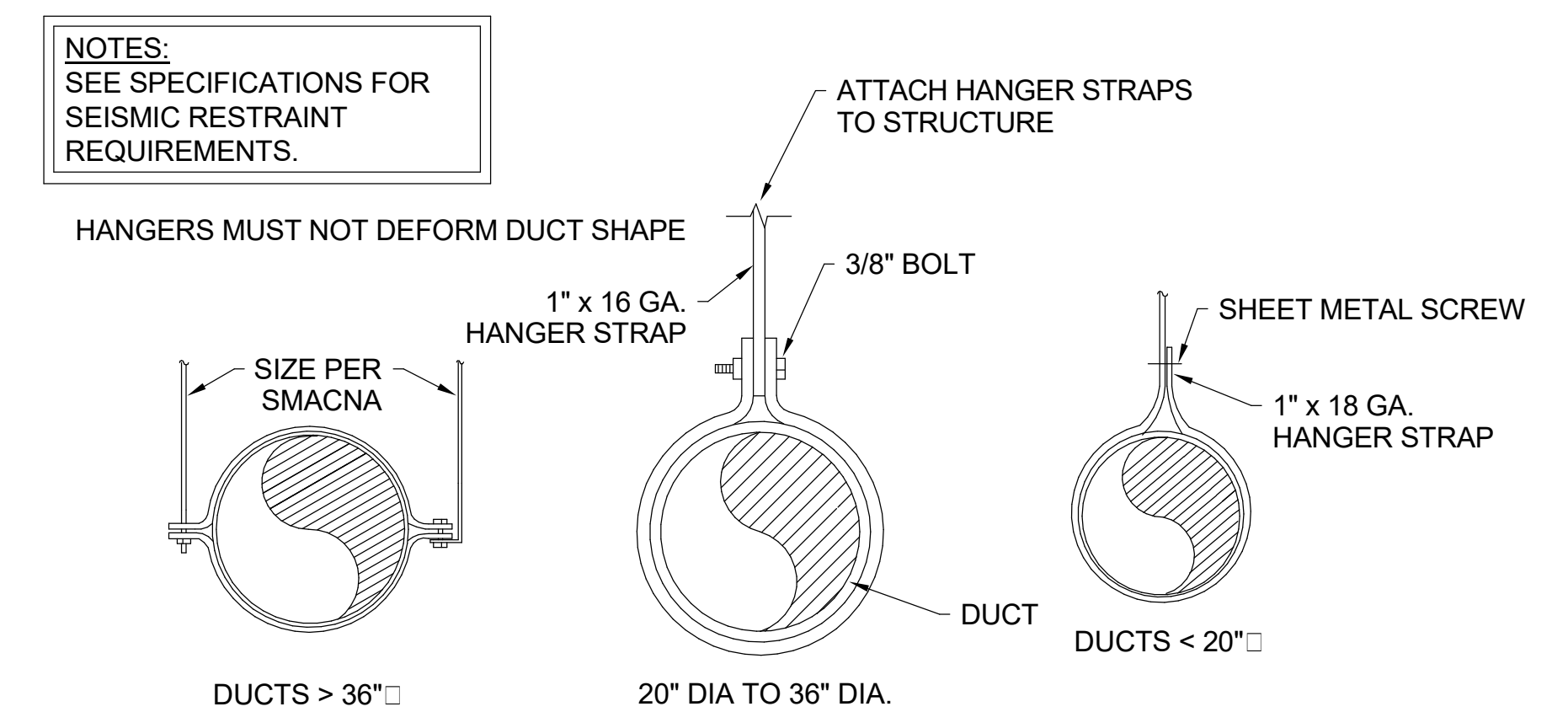
**1 UP FLOW FURNACE DETAIL**  
SCALE: NONE



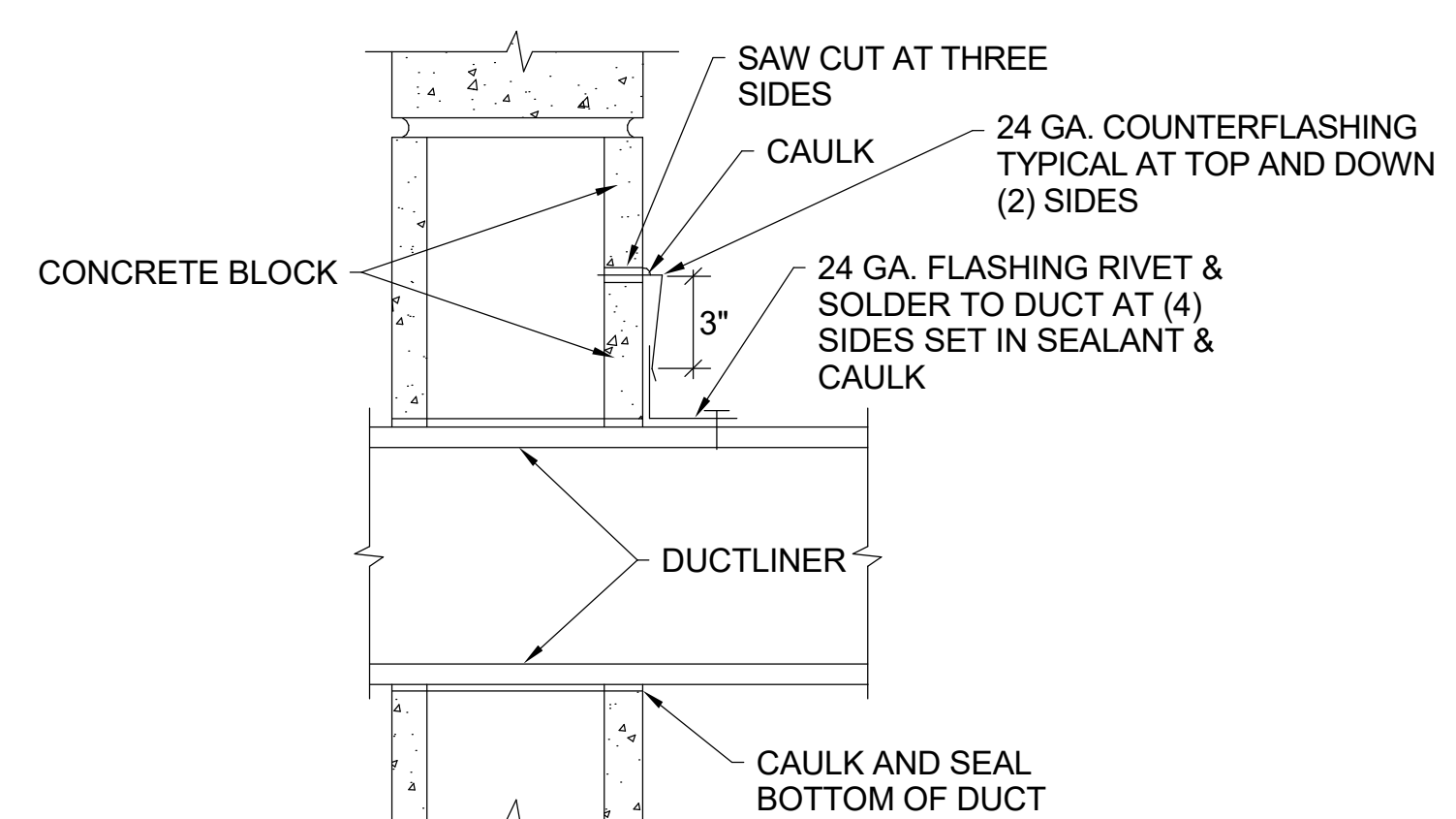
**7 GAS LINE CONNECTION DETAIL**  
SCALE: NONE



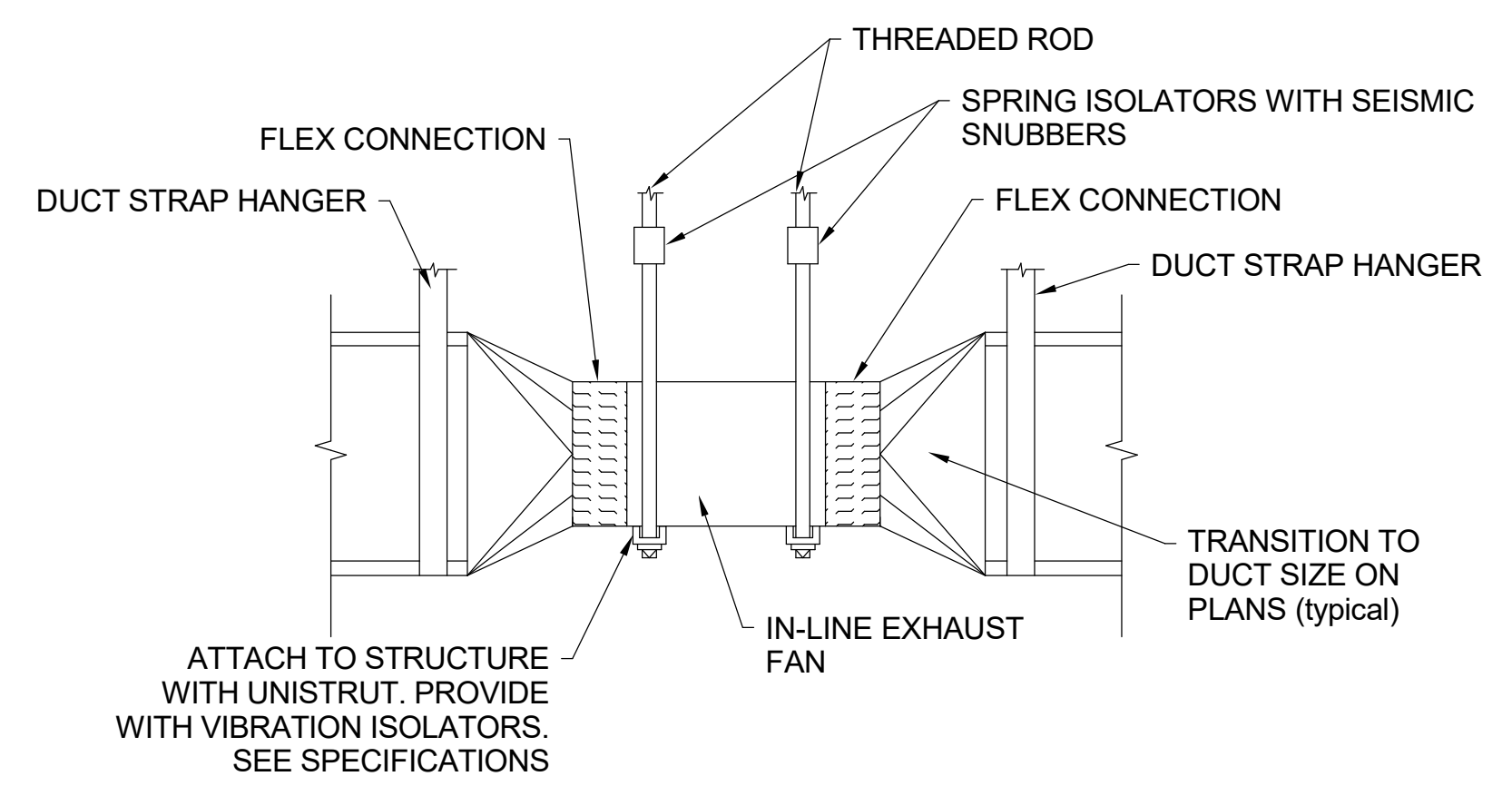
**6 DUCT STRAP HANGER DETAIL**  
SCALE: NONE



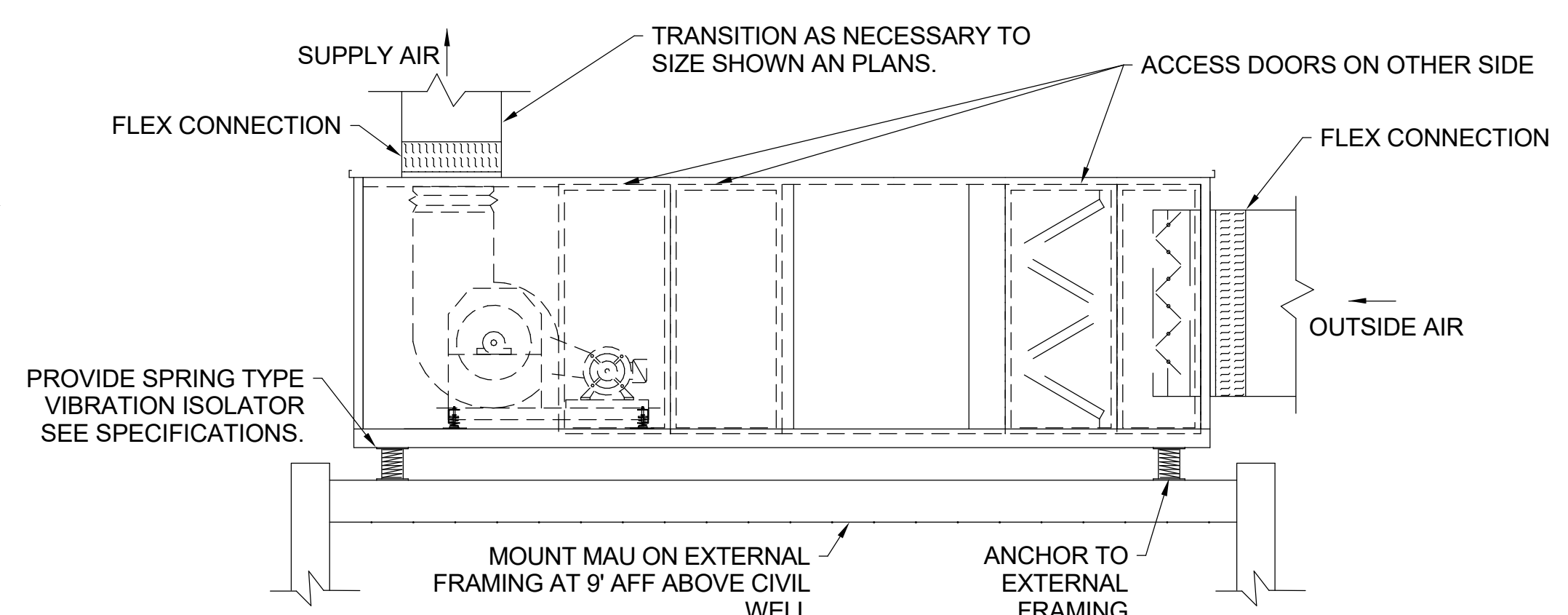
**5 ROUND DUCT SUPPORT DETAIL**  
SCALE: NONE



**10 DUCT THRU WALL DETAIL**  
SCALE: NONE



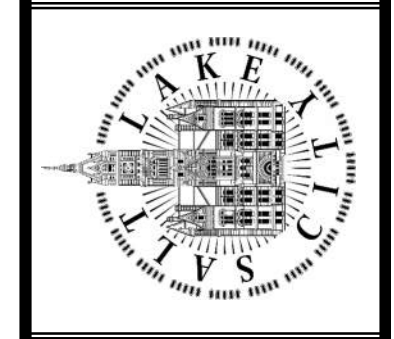
**9 IN-LINE EXHAUST FAN DETAIL**  
SCALE: NONE



**8 MAKE-UP AIR UNIT DETAIL**  
SCALE: NONE

DESIGNED BY: J.BRITNELL	AUTH BY: J.BRITNELL	DATE: JUNE 2024
DRAWN BY: J.BRITNELL	MADE BY: WP	EWO NO: 512260079
CHECKED BY: W.PACKER	DATE: JUNE 2024	ACCOUNT NO: 512260079
APPROVED BY: W.PACKER	DATE: JUNE 2024	
NO. 0	DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
STANDARD HVAC DETAILS 1

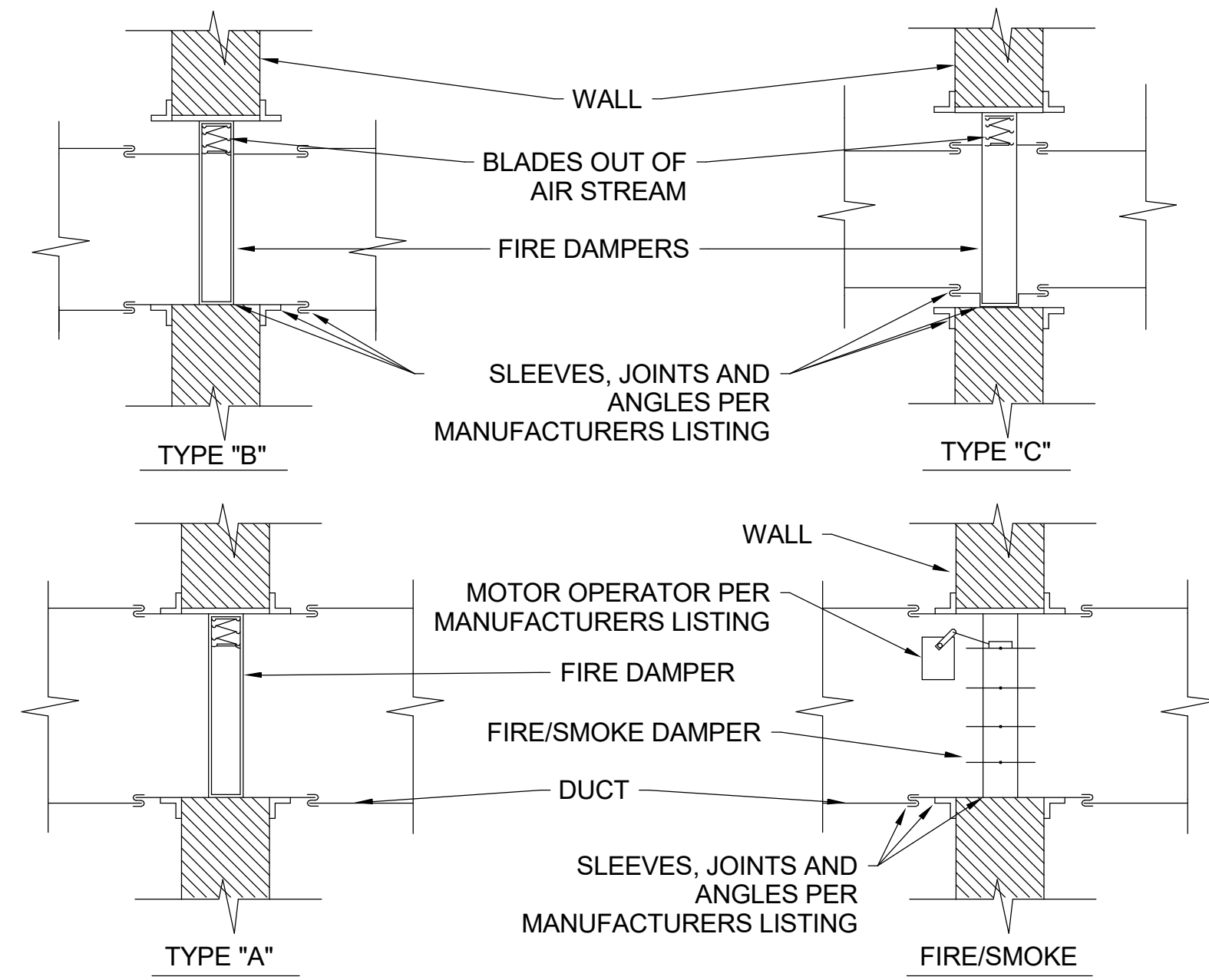


90% GMP

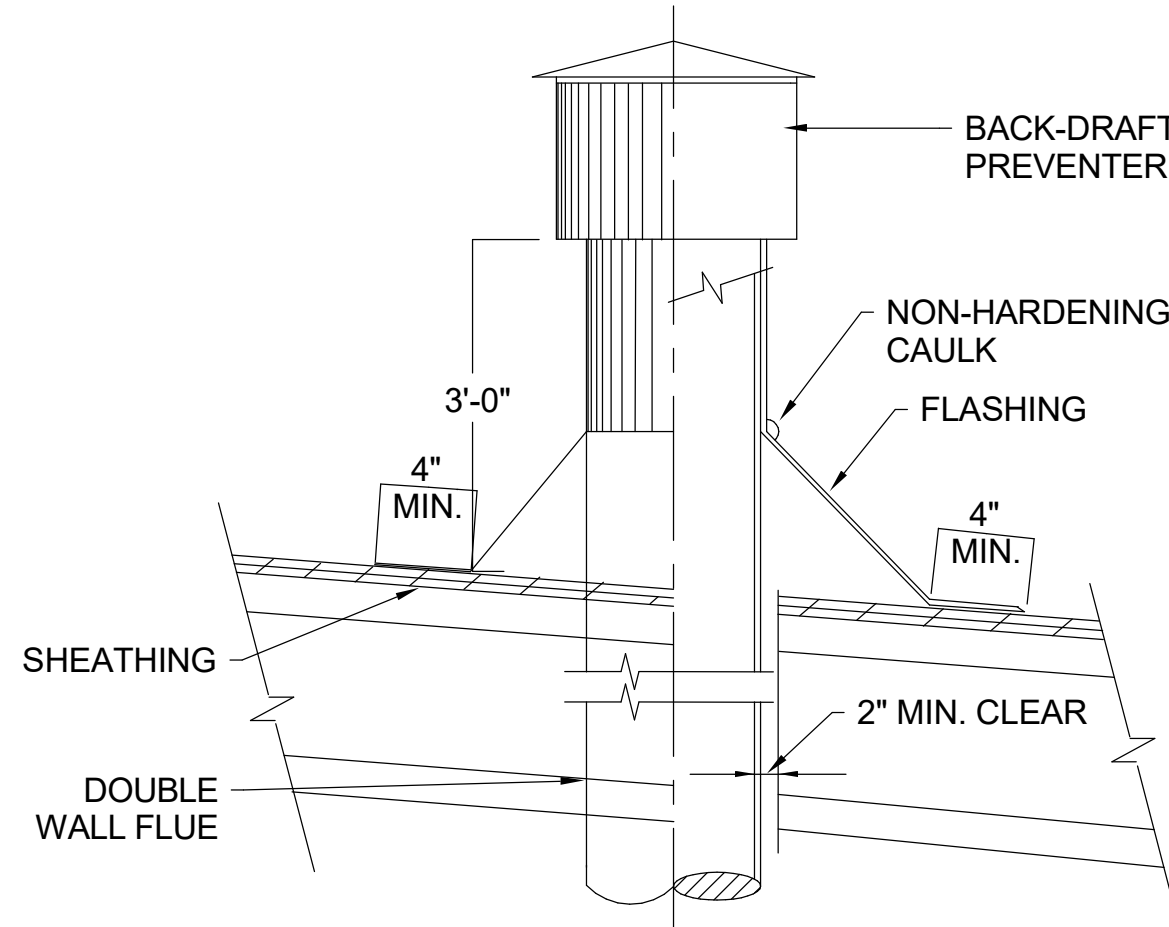
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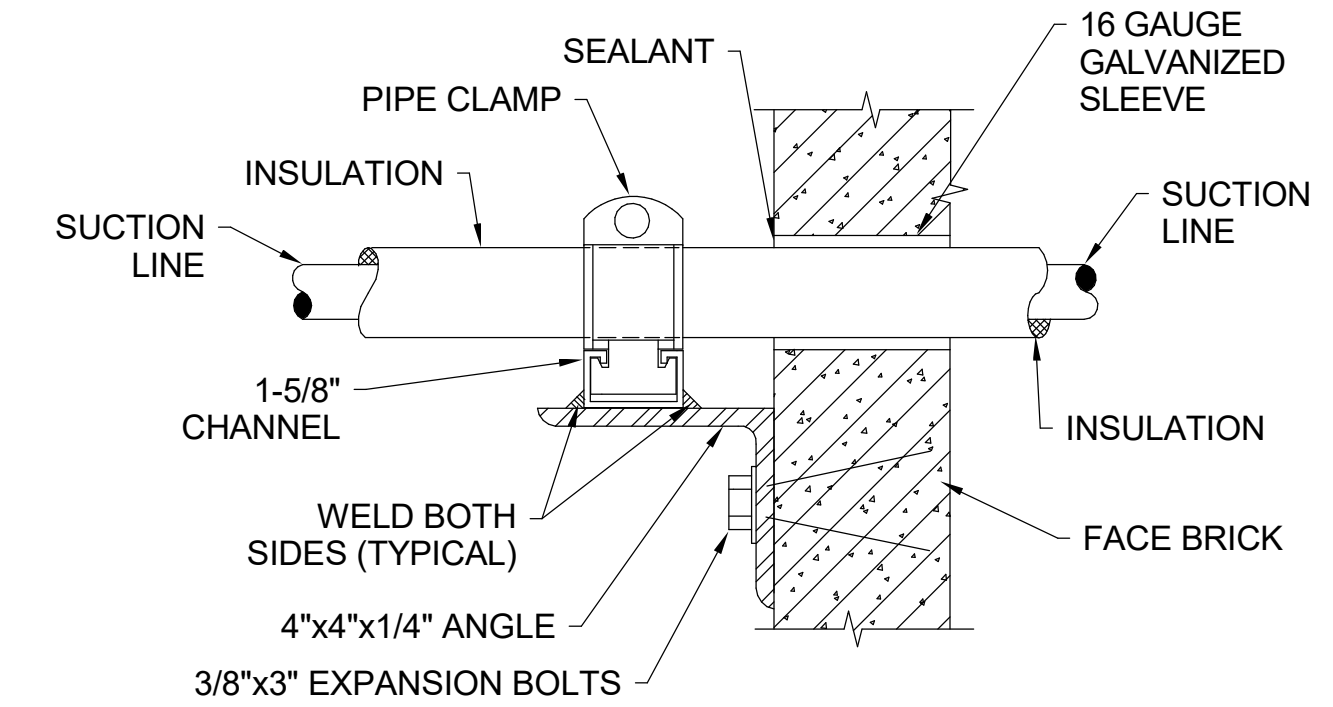
Plot Date: 6/13/2024 8:44:26 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt



**13 FIRE AND SMOKE DAMPER**  
SCALE: NONE

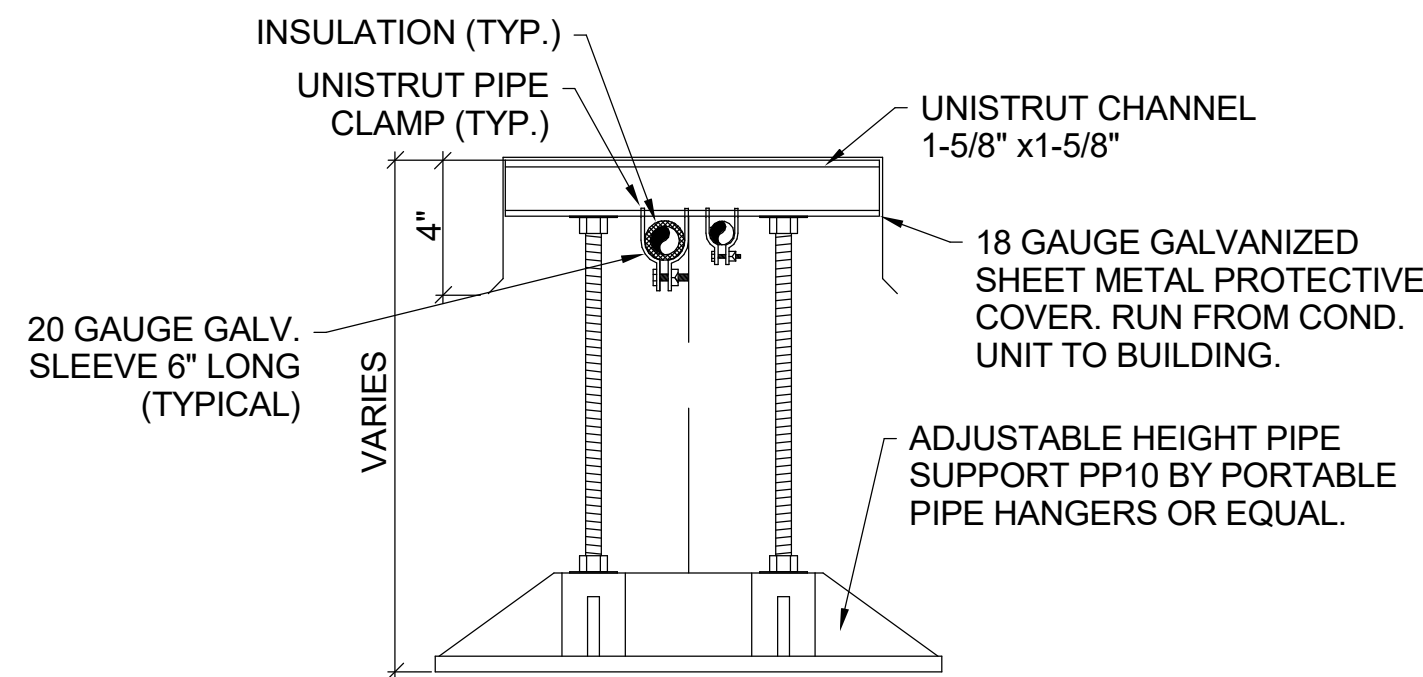


**12 FLUE THRU ROOF DETAIL**  
SCALE: NONE



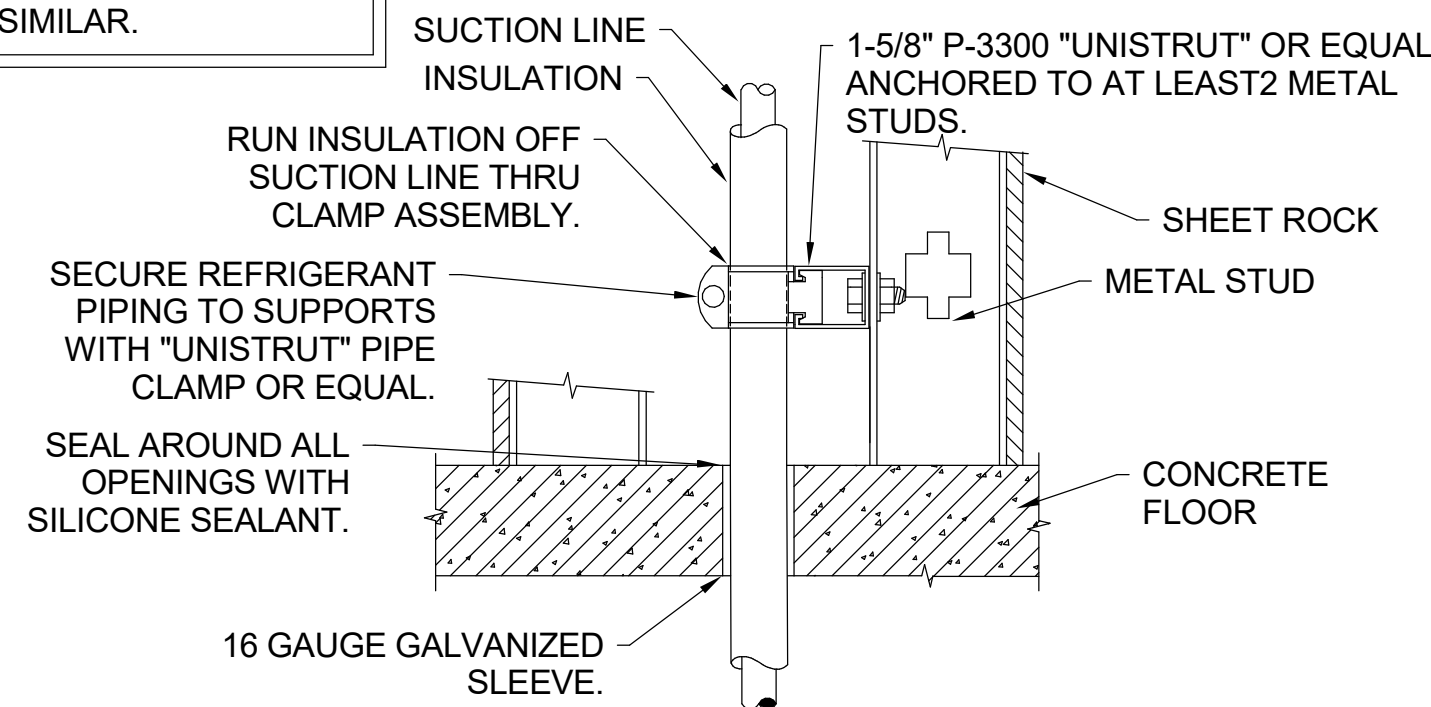
**11 REFRIGERANT PIPE SUPPORT AT WALL**  
SCALE: NONE

**NOTE:**  
RUN STEEL COVER CONTINUOUS FROM CONDENSING UNIT TO RISERS OR PENETRATIONS AT BUILDING WALL OR ROOF.



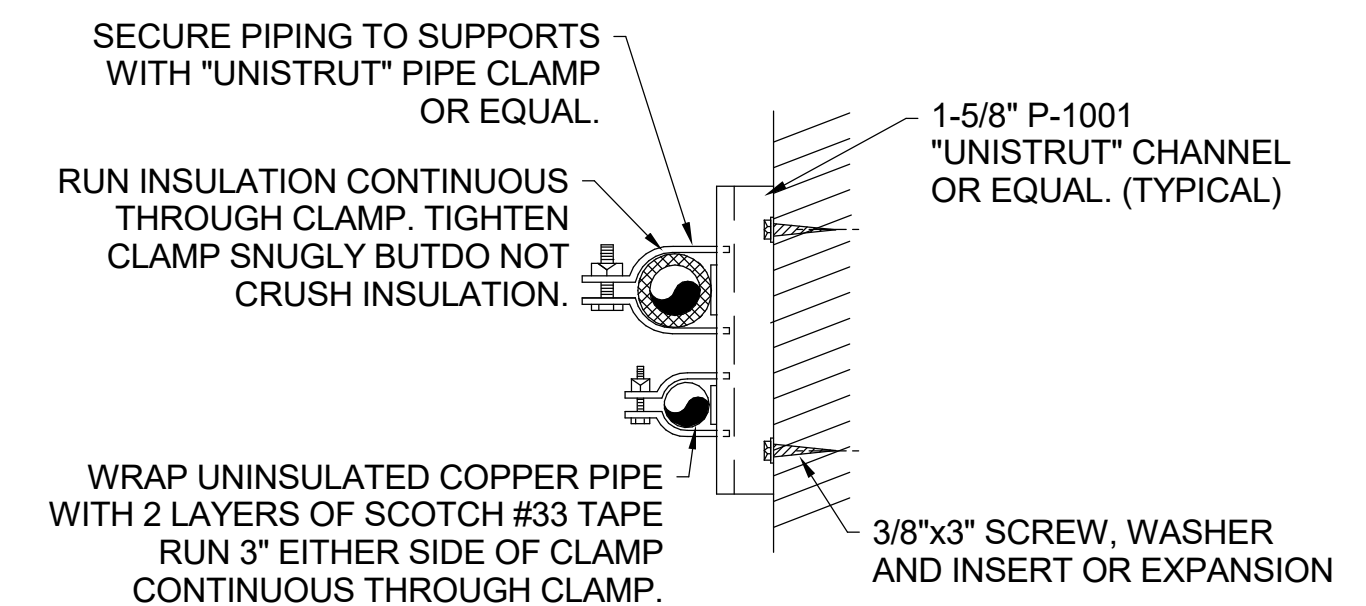
**16 EXTERIOR REFRIGERANT PIPE SUPPORT**  
SCALE: NONE

**NOTE:**  
LIQUID LINE & CONDENSATE DRAIN SIMILAR.



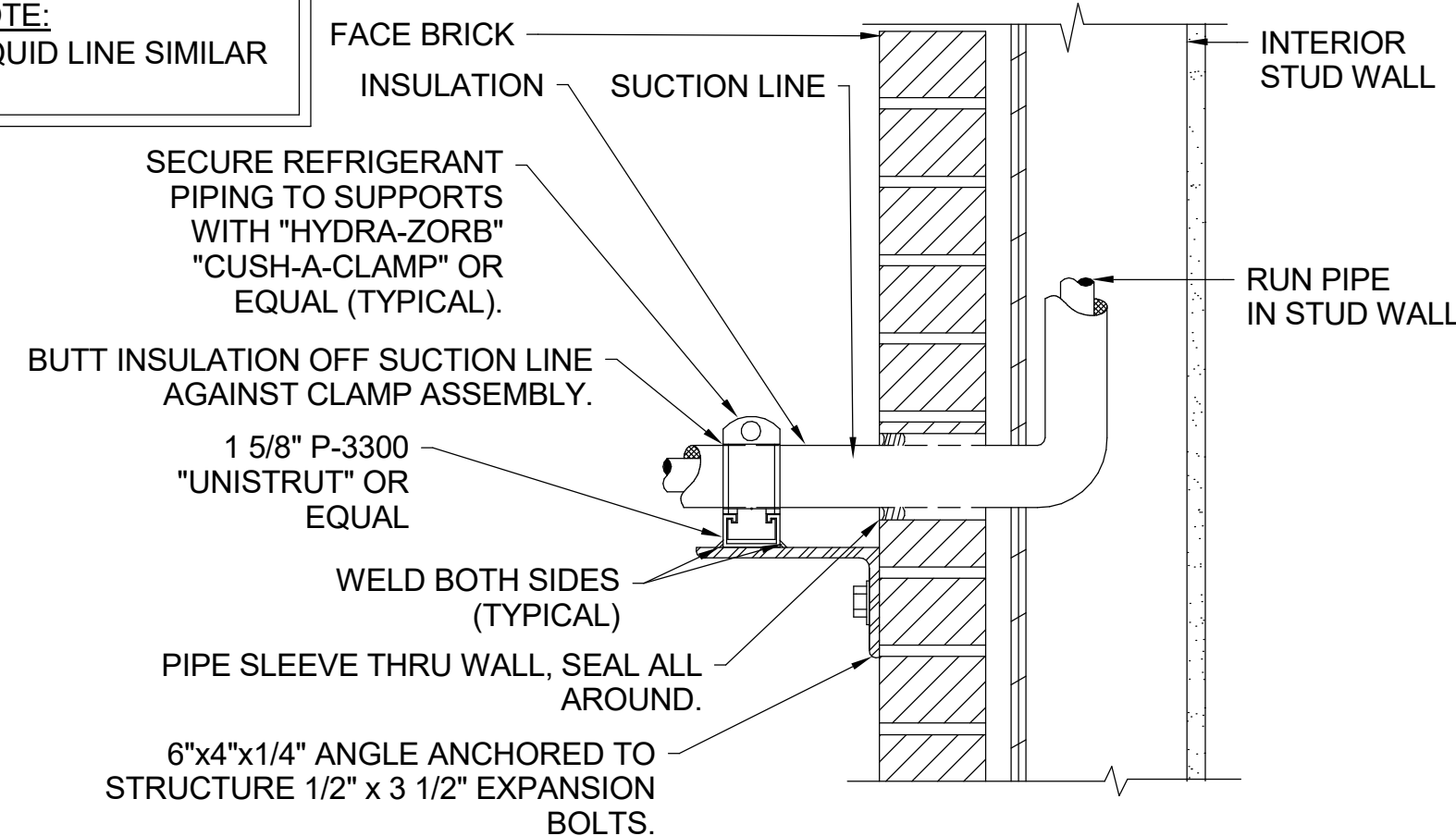
**15 REFRIGERANT PIPE FLOOR PENETRATION AND ANCHOR INSIDE WALL DETAIL**  
SCALE: NONE

**NOTE:**  
ADAPT TO SITE CONDITIONS IN A PROFESSIONAL MANNER.

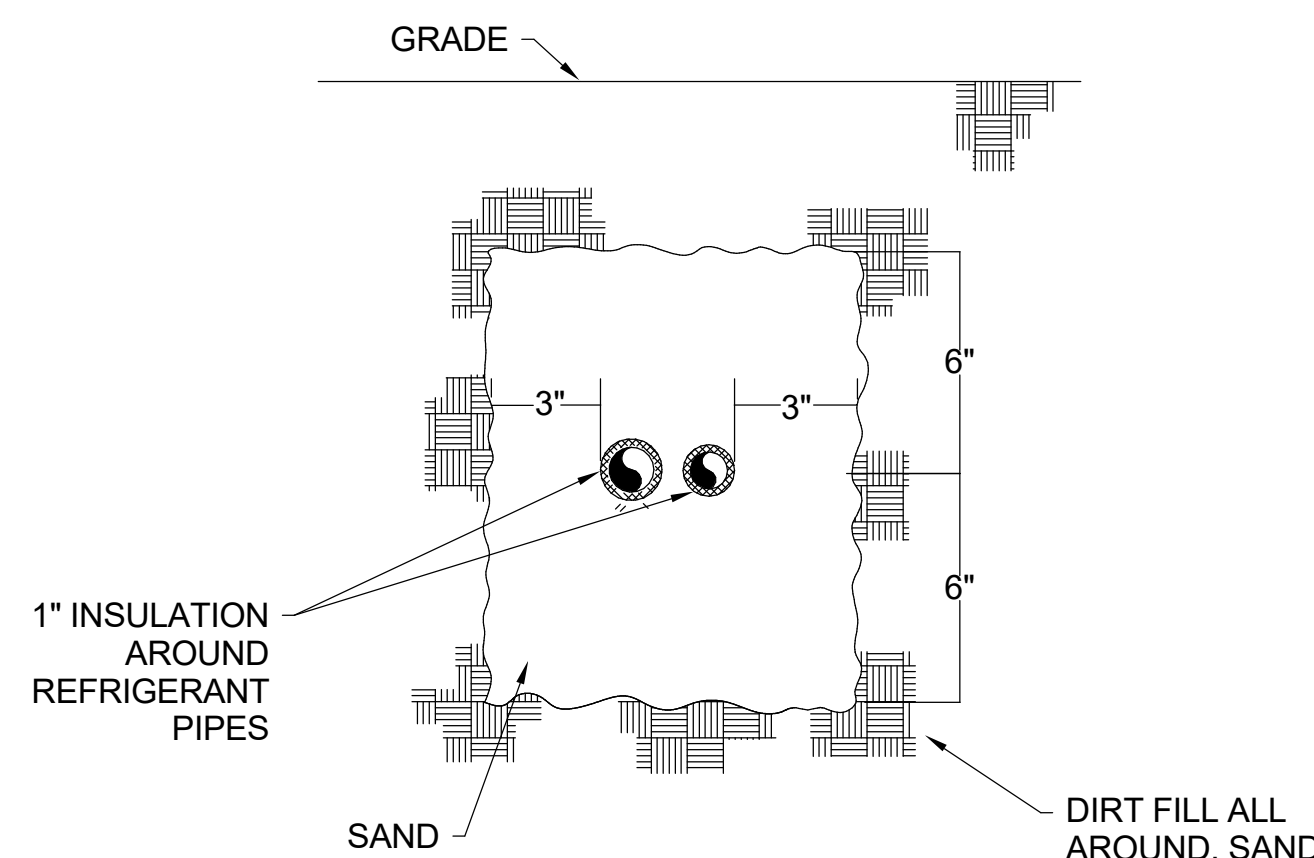


**14 SUSPENDED REFRIGERANT PIPE SUPPORT AT WALL**  
SCALE: NONE

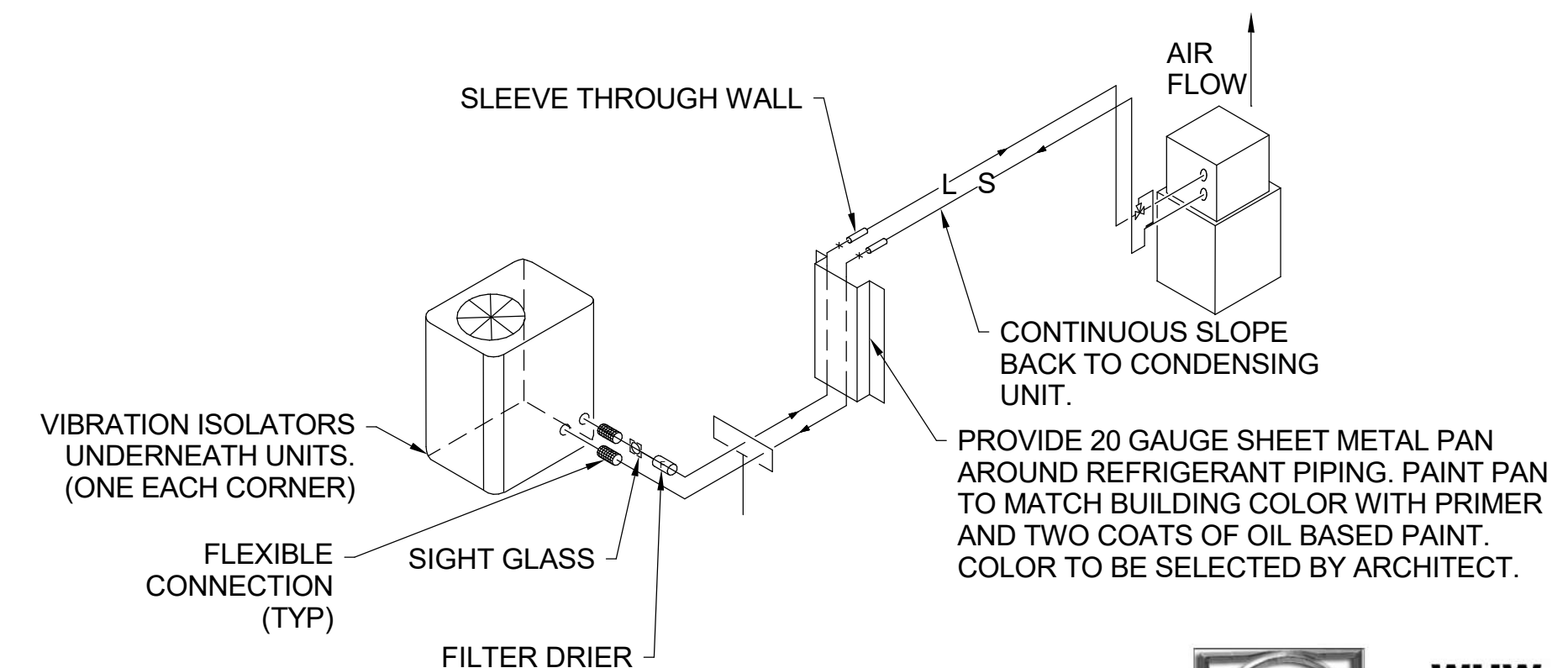
**NOTE:**  
LIQUID LINE SIMILAR



**19 REFRIGERANT PIPE SUPPORT AT WALL**  
SCALE: NONE



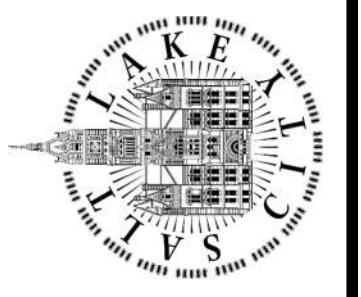
**18 UNDERGROUND REFRIGERANT PIPING DETAIL**  
SCALE: NONE



**17 TYPICAL REFRIGERANT SCHEME**  
SCALE: NONE

DESIGNED BY: J.BERTINELL	SCALE:
DRAWN BY: J.BERTINELL	VERIFY SCALE
CHECKED BY: W.PACKER	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: W.PACKER	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
STANDARD HVAC DETAILS 2



90% GMP

DRAWING NO.  
**GH-03**



Plot Date: 6/13/2024 8:44:28 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-H-3570V21.rvt

MAKEUP AIR UNIT SCHEDULE																				
TAG			CFM	ESP	HEATING			ELECTRICAL					DIMENSIONS			OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES		
AREA SERVED	TYPE	#			BTU/HR	EAT DB	TEMP RISE	VOLTAGE	PHASE	FREQUENCY	MOTOR HP	MOTOR BHP MAX	MCA	MOCP	LENGTH				WIDTH	HEIGHT
35	MAU	00010	SUMMER: 17,030 CFM WINTER: 5,675 CFM	0.5 in-wg	1,440,000 Btu/h	6 °F	90 °F	460 V	3	60 Hz	15	11.02	28.3 A	45 A	11' - 6"	6' - 2"	4' - 8"	2,675 lb	ABSOLUTAIRE AA5HV	1,2,3,4,5,6,7

- ALL UNITS OVER 2,000 CFM MUST BE EQUIPPED WITH SMOKE DETECTORS.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- PROVIDE DIRECT GAS FIRED HEAT EXCHANGER.
- 2 SPEED (SUMMER/WINTER) OPERATION WITH VFD WITH SHAFT GROUNDING.
- PROVIDE WITH FACTORY MAKE-UP AIR UNIT CONTROLLER AND NEMA 3R REMOTE PANEL. INTERLOCK MAU WITH EXHAUST FAN.
- PROVIDE WITH VFD.
- PROVIDE WITH INDEPENDENT STAND ALONE CONTROLLER WITH SUMMER/WINTER/OFF SELECTOR, AND HEATING TEMPERATURE ADJUSTMENT. PROGRAM SUMMER AND WINTER OPERATING MODES FOR ASSOCIATED AIRFLOW INDICATED.

FURNACE SCHEDULE																		
TAG			CFM	CFM (OUTSIDE AIR)	ESP	HEATING		HEATING EFFICIENCY	ELECTRICAL			DIMENSIONS			OPERATING WEIGHT	CONDENSING UNIT	MANUF & MODEL	SCHEDULE NOTES
AREA SERVED	TYPE	#				INPUT (BTU/HR)	OUTPUT (BTU/HR)		VOLTAGE	PHASE	FREQUENCY	LENGTH	WIDTH	HEIGHT				
70	F	00010	2,200 CFM	440 CFM	0.5 in-wg	120,000 Btu/h	117,000 Btu/h	96	115 V	1	60 Hz	2' - 5"	2' - 0"	2' - 11"	190 lb	CU-00010	CARRIER 59TP6B120V24--22	1,2,3,4,5,6,7
70	F	00020	2,200 CFM	440 CFM	0.5 in-wg	120,000 Btu/h	117,000 Btu/h	96	115 V	1	60 Hz	2' - 5"	2' - 0"	2' - 11"	190 lb	CU-00020	CARRIER 59TP6B120V24--22	1,2,3,4,5,6,7
70	F	00030	1,995 CFM	400 CFM	0.5 in-wg	100,000 Btu/h	97,000 Btu/h	96	115 V	1	60 Hz	2' - 5"	1' - 9"	2' - 11"	170 lb	CU-00030	CARRIER 59TP6B100V21--20	1,2,3,4,5,6
70	F	00040	1,995 CFM	400 CFM	0.5 in-wg	100,000 Btu/h	97,000 Btu/h	96	115 V	1	60 Hz	2' - 5"	1' - 9"	2' - 11"	170 lb	CU-00040	CARRIER 59TP6B100V21--20	1,2,3,4,5,6

- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- RATED AT SEA LEVEL.
- FURNACE SYMBOL CORRESPONDS WITH CONDENSING UNIT AND COOLING COIL UNLESS OTHERWISE NOTED. COOLING COIL CAPACITIES SHALL MATCH CONDENSING UNIT.
- CAPACITIES SHOWN ARE FOR INDIVIDUAL FURNACES AND NOT FOR TANDEM TOTALS.
- 2 STAGE HEATING.
- ECONOMIZER: FOR UNITS OVER 4.5 TONS PROVIDE FULL 100% OA ECONOMIZER. THIS INCLUDES 3 POSITION DAMPERS ON THE OUTSIDE AIR, RELIEF AIR, AND RETURN AIR DUCTS. PROVIDE OUTSIDE AIR TEMPERATURE SENSOR AND CONTROL CAPABLE OF PROVIDING THIS SEQUENCE OF OPERATIONS. DURING UNOCCUPIED. CLOSE ALL DAMPERS. DURING OCCUPIED MODE OPEN MINIMUM OUTSIDE AIR POSITION (RETURN INVERSE OPEN FROM OUTSIDE AIR AND RELIEF AIR). WHEN TEMPERATURE OUTSIDE IS LESS THAN 55 (ADJUSTABLE) AND UNIT IS CALLING FOR COOLING, FULLY OPEN OUTSIDE AIR AND RELIEF AIR DAMPERS AND CLOSE RETURN DAMPER.
- FOR UNITS 2,000 CFM AND GREATER, PROVIDE DUCT DETECTORS IN SUPPLY AND TIE UNIT INTO FIRE ALARM PANEL FOR FAN SHUT DOWN.

LOUVER SCHEDULE									
TAG	AREA SERVED	MAX FLOW	FACE SIZE		MIN FREE AREA	MAX VELOCITY	MAX NC	MANUF & MODEL	SCHEDULE NOTES
			HEIGHT	WIDTH					
L-1	MAKEUP AIR UNIT	17,030 CFM	54"	120"	26.2 ft²	605 ft/min	50	POTTORFF EDD-637	1,2
L-2	EXHAUST	8,400 CFM	56"	56"	9.8 ft²	860 ft/min	50	RUSKIN ELF811DD	1,2
L-3	RESTROOM	15 CFM	8"	9"	0.1 ft²	400 ft/min	50	POTTORFF EDD-637	1,2
L-4	BLOWER ROOM	1,450 CFM	24"	30"	2.4 ft²	605 ft/min	50	POTTORFF EDD-637	1,2

- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- FINISH SHALL BE SPECIFIED BY ARCHITECT.

EXHAUST FAN SCHEDULE														
TAG			CFM	ESP	ELECTRICAL			SONES	OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES			
AREA SERVED	TYPE	#			VOLTAGE	PHASE	FREQUENCY					RPM	HP	
35	EF	00010	SUMMER: 8,400 CFM WINTER: 3,280 CFM	0.35 in-wg	230 V	1	60 Hz	1305	3	24	423 lb	COOK 245SQNH11D	1,2	
35	EF	00020	SUMMER: 8,400 CFM WINTER: 3,280 CFM	0.35 in-wg	230 V	1	60 Hz	1305	3	24	423 lb	COOK 245SQNH11D	1,2	

- EXHAUST FAN SHALL BE TIED INTO CONTROLS OF MAKE-UP UNIT. PROVIDE WITH VFD.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.

DIFFUSER AND GRILLE SCHEDULE											
TAG	MAX FLOW	FACE SIZE		NECK SIZE		CEILING TYPE	BLOW PATTERN	THROW @ 50 FPM	MAX NC	MANUF & MODEL	SCHEDULE NOTES
		LENGTH	WIDTH	LENGTH/DIAMETER	WIDTH						
D-1	700 CFM	20"	12"	18"	10"	DUCT MOUNTED	1 WAY	61'	25	PRICE HCD	1,2
D-2	625 CFM	16"	12"	14"	10"	DUCT MOUNTED	1 WAY	42'	25	PRICE SDG	1,2
EG-1	1,350 CFM	22"	20"	20"	18"	DUCT MOUNTED	NA	0'	25	PRICE 510Z	1,2
SDR-1	2,100 CFM	34"	22"	32"	20"	DUCT MOUNTED	NA	0'	30	PRICE 535	1,2
SWR-1	4,500 CFM	34"	32"	30"	30"	SIDEWALL	NA	0'	45	PRICE 535	1,2
SWS-1	240 CFM	10"	8"	8"	6"	SIDEWALL	1 WAY	10'	25	PRICE 510	1,2
SWS-2	600 CFM	18"	10"	16"	8"	SIDEWALL	1 WAY	20'	25	PRICE 510	1,2
SWT-1	150 CFM	10"	8"	8"	6"	SIDEWALL	NA	0'	25	PRICE 535	1,2
SWT-2	560 CFM	18"	10"	16"	8"	SIDEWALL	NA	0'	35	PRICE 535	1,2
SWT-3	1,750 CFM	26"	18"	24"	16"	SIDEWALL	NA	0'	40	PRICE 535	1,2

- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- FINISH SHALL BE SPECIFIED BY ARCHITECT.

SPLIT SYSTEM SCHEDULE - OUTDOOR UNIT													
TAG		INDOOR UNIT SERVED	COOLING (BTU/HR)	HEATING (BTU/HR)	ELECTRICAL				SEER	OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES	
TYPE	#				VOLTAGE	PHASE	FREQUENCY	MCA					MOCP
CU	00010	SS-00010	60,000 Btu/h	0 Btu/h	230 V	1	60 Hz	35.7 A	50 A	16	306 lb	CARRIER 24SPA661W003	1,2,3,4
CU	00020	SS-00020	60,000 Btu/h	0 Btu/h	230 V	1	60 Hz	35.7 A	50 A	16	306 lb	CARRIER 24SPA661W003	1,2,3,4
CU	00030	SS-00030	48,000 Btu/h	0 Btu/h	230 V	1	60 Hz	25.9 A	40 A	16	302 lb	CARRIER 24SPA649W003	1,2,3,4
CU	00040	SS-00040	48,000 Btu/h	0 Btu/h	230 V	1	60 Hz	25.9 A	40 A	16	302 lb	CARRIER 24SPA649W003	1,2,3,4

- REFRIGERANT R-410A OR R-454B OR R-32.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- COORDINATE WITH ELECTRICAL TO PROVIDE EMERGENCY POWER.
- PROVIDE LOW AMBIENT KIT. UNIT SHALL PROVIDE COOLING OPERATION AT 0 DEGREES AMBIENT.

SPLIT SYSTEM SCHEDULE - FURNACE COIL												
TAG			COOLING (BTU/HR)	HEATING (BTU/HR)	ELECTRICAL				OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES	
AREA SERVED	TYPE	#			VOLTAGE	PHASE	FREQUENCY	MCA				MOCP
70	SS	00010	60,000 Btu/h	0 Btu/h	230 V	1	60 Hz	35.7 A	50 A	81 lb	CARRIER CNPHP6024ALA	1,2,3,4
70	SS	00020	60,000 Btu/h	0 Btu/h	230 V	1	60 Hz	35.7 A	50 A	81 lb	CARRIER CNPHP6024ALA	1,2,3,4
70	SS	00030	48,000 Btu/h	0 Btu/h	230 V	1	60 Hz	25.9 A	40 A	71 lb	CARRIER CNPHP4821ALA	1,2,3,4
70	SS	00040	48,000 Btu/h	0 Btu/h	230 V	1	60 Hz	25.9 A	40 A	71 lb	CARRIER CNPHP4821ALA	1,2,3,4

- REFRIGERANT R-410A OR R-454B OR R-32.
- SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
- PROVIDE WITH INTEGRAL CONDENSATE PUMP. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN OR FUNNEL DRAIN.
- PROVIDE WITH PROGRAMMABLE THERMOSTAT INCLUDING AUTO CHANGE OVER. THERMOSTAT SHALL CONTROL FURNACE, CONDENSING UNIT, AND COOLING COIL.



DESIGNED BY: J.BRITNELL  
DRAWN BY: J.BRITNELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: ---

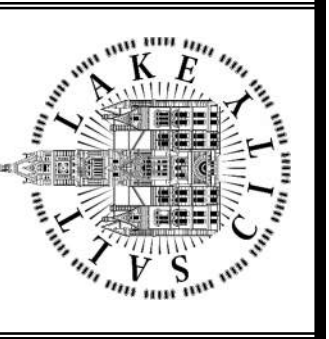
REVISIONS

NO.	DATE	BY	REVISION
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

MADE BY: ---  
AUTH BY: ---  
JOB: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

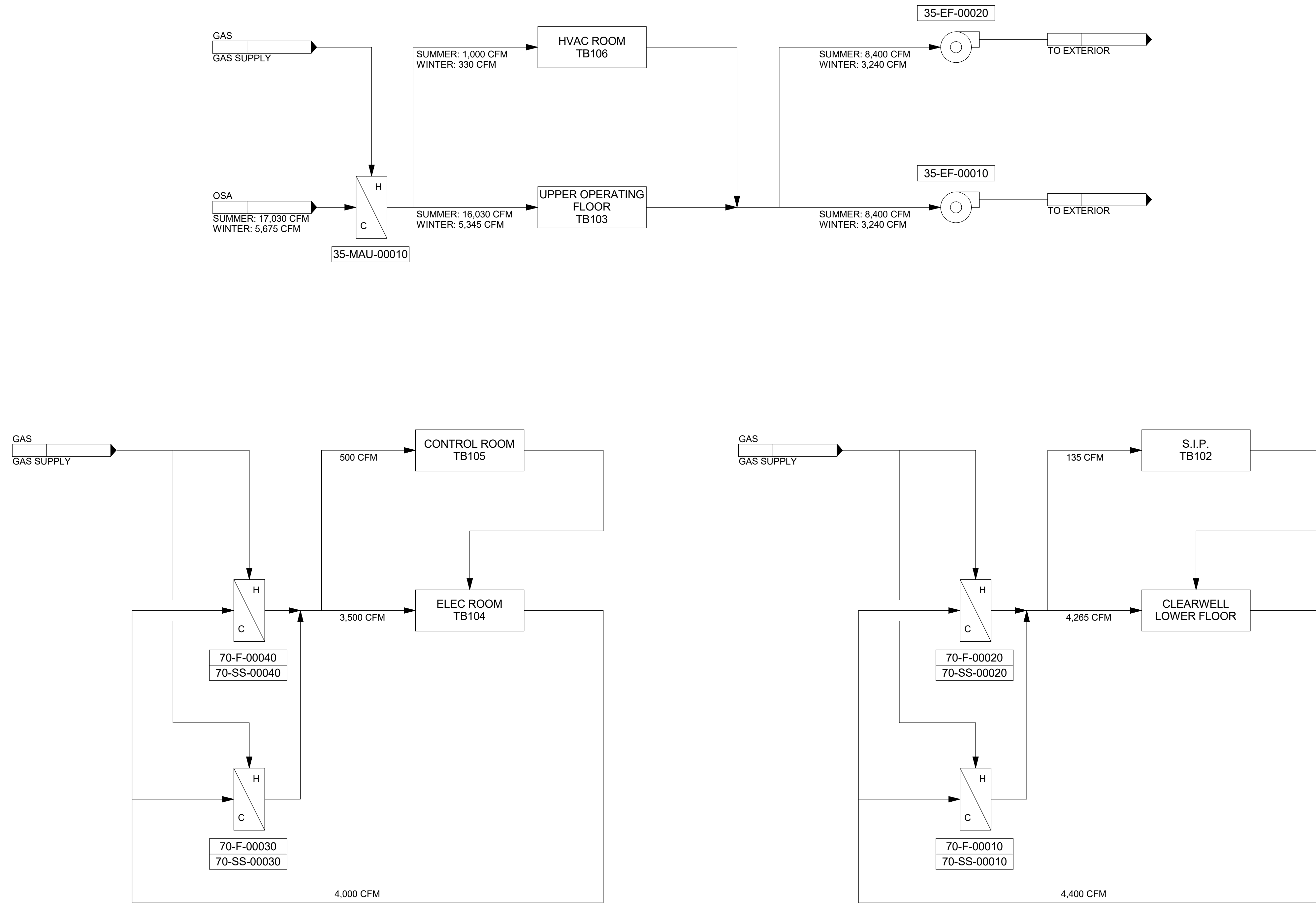
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
HVAC SCHEDULES



90% GMP

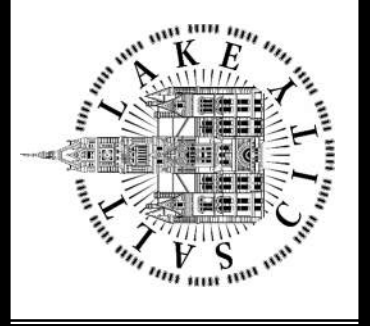
DRAWING NO.  
**GH-04**

Plot Date: 6/13/2024 10:08:26 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-H-3570\21.rvt



DESIGNED BY: J.BRITNELL		SCALE:		
DRAWN BY: J.BRITNELL		VERIFIED SCALE		
CHECKED BY: W.PACKER		BAR IS ONE INCH ON ORIGINAL DRAWING		
APPROVED BY: W.PACKER		DATE: JUNE 2024		
EWO NO: ---		ACCOUNT NO: 512260079		
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**AIRFLOW SCHEMATICS**



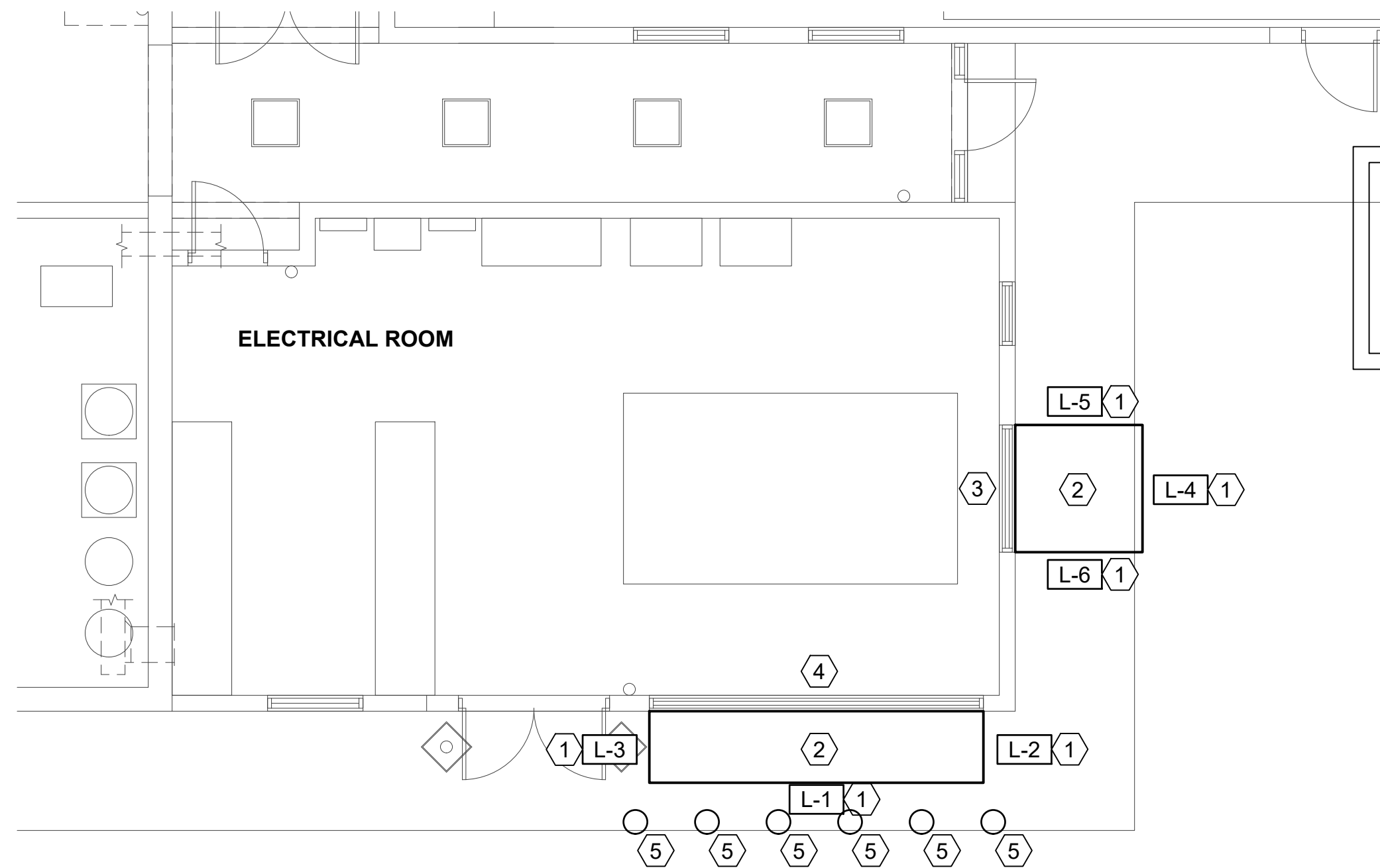
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DRAWING NO.  
**GH-05**

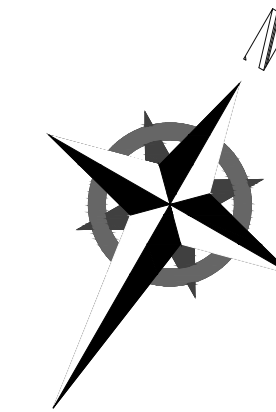
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LOUVER SCHEDULE									
EQUIPMENT NUMBER	AREA SERVED	MAX FLOW	FACE SIZE		MIN FREE AREA	MAX VELOCITY	MAX NC	MANUF. & MODEL	SCHEDULE NOTES
			HEIGHT	WIDTH					
L-1	GENERATOR ROOM - INTAKE	35 000 CFM	84"	168"	55.1 <sup>2</sup>	700 FPM	50	POTTORFF ELF-375D	1 2 3 4 5
L-2	GENERATOR ROOM - INTAKE	7 500 CFM	84"	36"	11.5 <sup>2</sup>	700 FPM	50	POTTORFF ELF-375D	1 2 3 4 5
L-3	GENERATOR ROOM - INTAKE	7 500 CFM	84"	36"	11.5 <sup>2</sup>	700 FPM	50	POTTORFF ELF-375D	1 2 3 4 5
L-4	GENERATOR ROOM - EXHAUST	17 000 CFM	84"	64"	21.0 <sup>2</sup>	900 FPM	50	POTTORFF ELF-375D	1 2 3 4 5
L-5	GENERATOR ROOM - EXHAUST	17 000 CFM	84"	64"	21.0 <sup>2</sup>	900 FPM	50	POTTORFF ELF-375D	1 2 3 4 5
L-6	GENERATOR ROOM - EXHAUST	17 000 CFM	84"	64"	21.0 <sup>2</sup>	900 FPM	50	POTTORFF ELF-375D	1 2 3 4 5

1. SHALL BE POTTORFF EL OR APPROVED E UAL.
2. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
3. FINISH SHALL BE SELECTED BY OWNER FROM MANUFACTURERS FULL RANGE.
4. PROVIDE WITH BAROMETRIC BACKDRAFT DAMPER.
5. LOUVER SHALL BE CONSTRUCTED OF ALUMINUM MATERIAL.



OPERATIONS BUILDING - LOWER PLAN  
SCALE 3/16" = 1'-0"

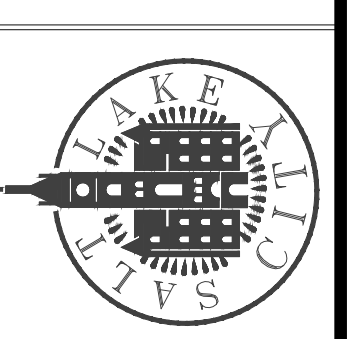


### KEYNOTES

1. PROVIDE LOUVER IN THIS APPROXIMATE LOCATION. SEE SCHEDULE FOR LOUVER SI E. FIELD VERIFY EXACT LOCATION.
2. PROVIDE LOUVER BOX IN THIS APPROXIMATE LOCATION. LOUVER BOX SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. REMOVE EXISTING LOUVER. ATTACH LOUVER BOX TO BUILDING. SUPPORT LOUVER BOX BY UNISTRUT LEGS.
3. PROVIDE GRAVITY DAMPER IN APPROXIMATE LOCATION. FIELD VERIFY EXISTING DAMPER CONDITIONS.
4. FIELD VERIFY MOTORI ED DAMPER CONTROLS. MOTORI ED DAMPER SHALL BE EITHER FULLY OPEN OR FULLY CLOSED. UPDATE DAMPER CONTROLS TO MEET NEW RE UIREMENTS.
5. PROVIDE BOLLARDS IN THIS APPROXIMATE LOCATION TO PROTECT LOUVER BOXES. CIVIL CONTRACTOR IS THE RESPONSIBLE PARTY FOR THE BOLLARDS. SEE CIVIL DRAWINGS FOR EXACT LOCATIONS AND DETAILS.

DESIGNED BY: J.BRITNELL	SCALE:
DRAWN BY: J.BRITNELL	
CHECKED BY: W.PACKER	
APPROVED BY: W.PACKER	
DATE: JUNE 2024	
EWO NO.:	
ACCOUNT NO. 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
OPERATIONS - LOWER PLAN

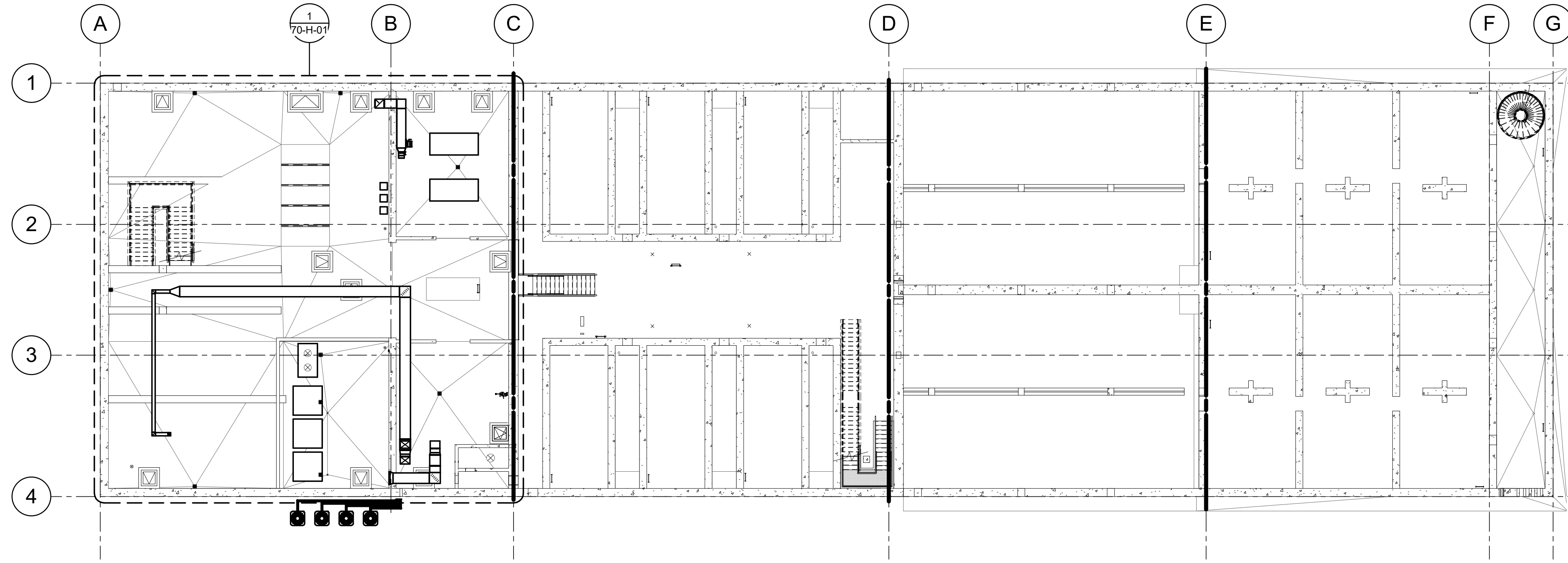


90% GMP

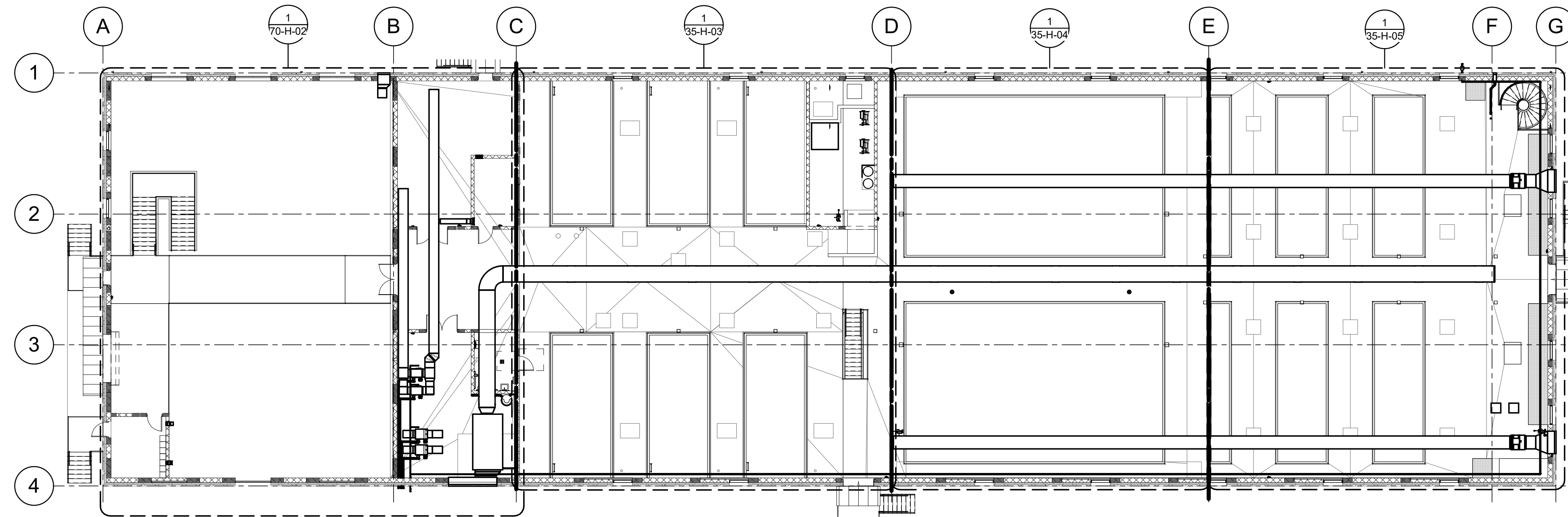
DRAWING NO.  
03-H-01



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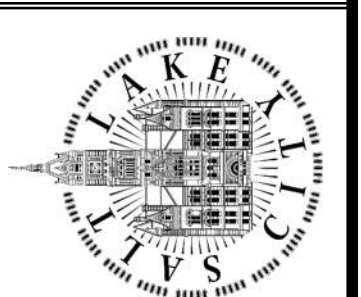
OVERALL LOWER PLAN  
SCALE: 1/16" = 1'-0"



OVERALL UPPER PLAN  
SCALE: 1/16" = 1'-0"



**WHW**  
ENGINEERING LLC.  
PROFESSIONAL MECHANICAL ENGINEERING  
8978 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 686-4021 FAX: (801) 686-4026  
EMAIL: [esullivan@whw-engineering.com](mailto:esullivan@whw-engineering.com)



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
OVERALL PLANS 1

90% GMP

DRAWING NO.  
**35-H-01**

REVISIONS

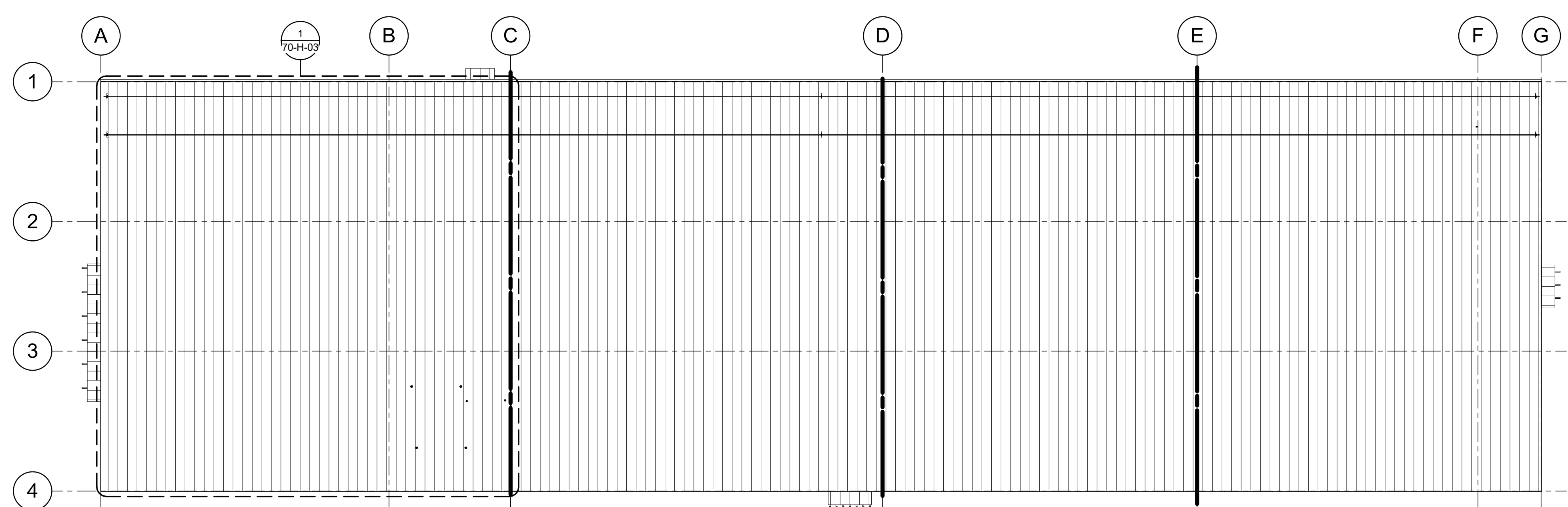
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	

DESIGNED BY: J.BRITNELL  
 DRAWN BY: J.BRITNELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

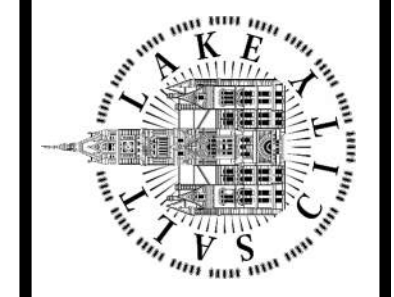
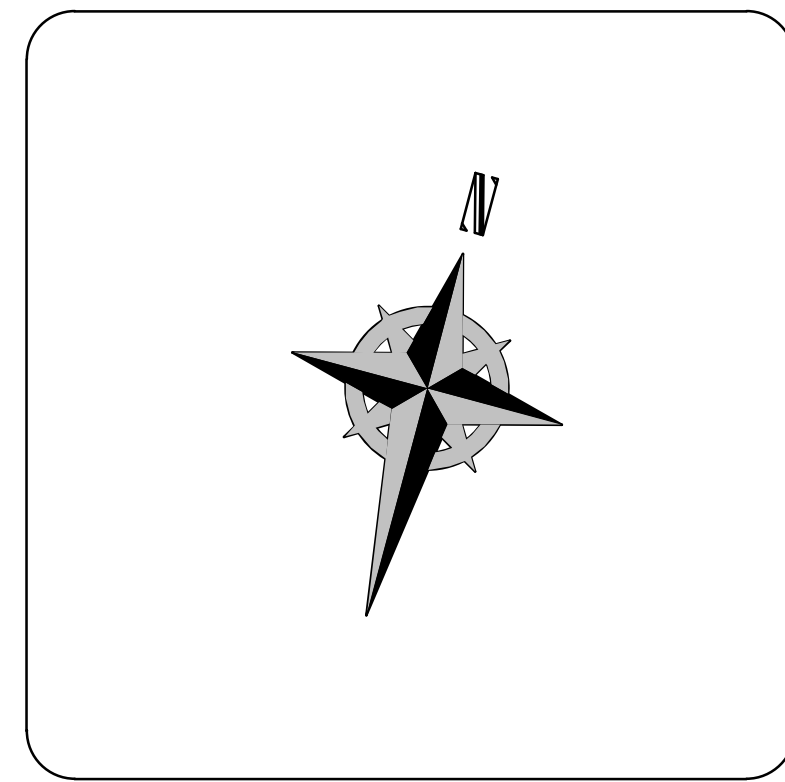
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VERIFY SCALE  
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Plot Date: 6/13/2024 8:44:06 AM Path: R:\M\_360\153020 - City Creek WTP\153020-H-3570\21.rvt



**OVERALL ROOF PLAN**  
SCALE: 1/16" = 1'-0"



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**OVERALL PLANS 2**

**90% GMP**

DRAWING NO.  
**35-H-02**

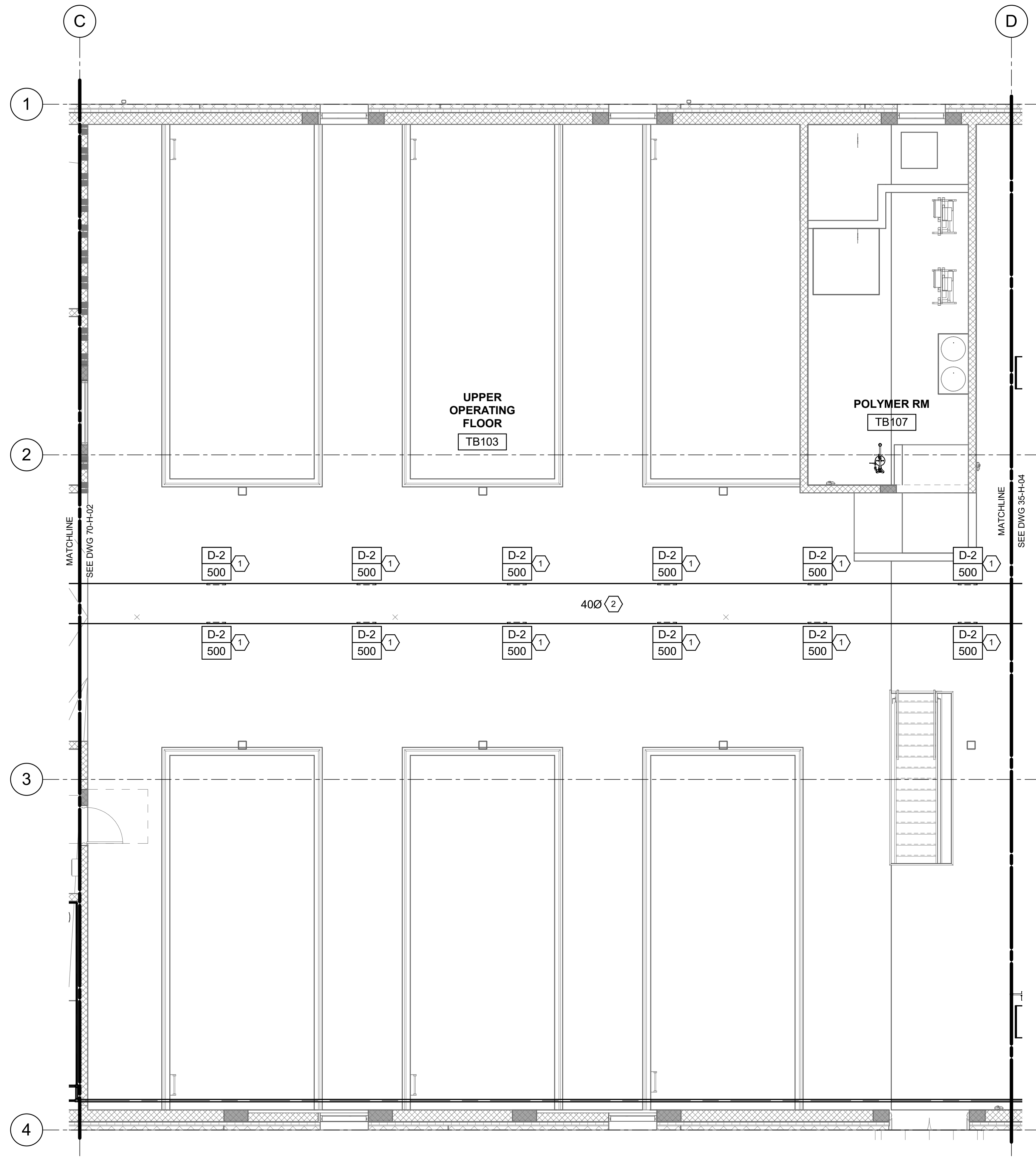
REVISIONS		NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
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DESIGNED BY: J.BERTINELL	AUTH BY: J.BERTINELL
DRAWN BY: J.BERTINELL	BY: WP
CHECKED BY: W.PACKER	J.B
APPROVED BY: W.PACKER	WP
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

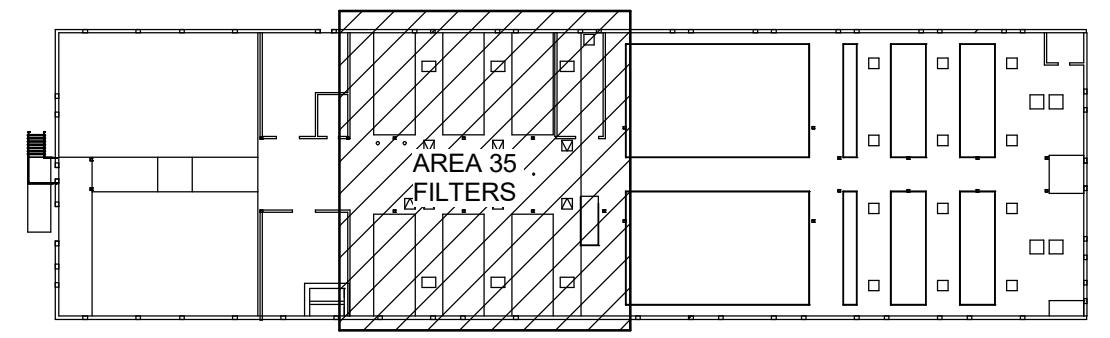
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



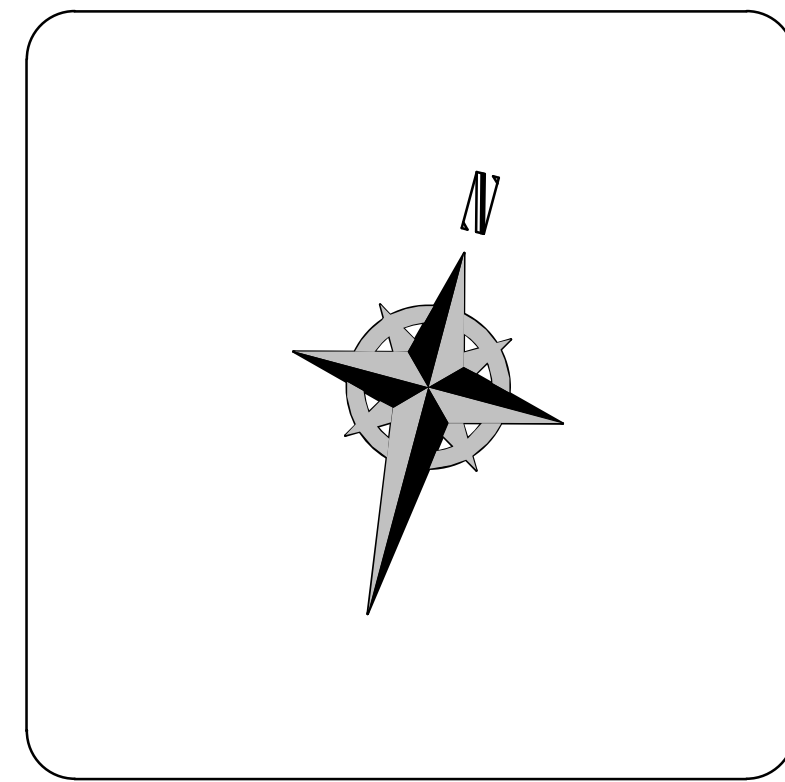
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1 UPPER PLAN (FILTERS)  
35-H-01 SCALE: 3/16" = 1'-0"



KEY PLAN

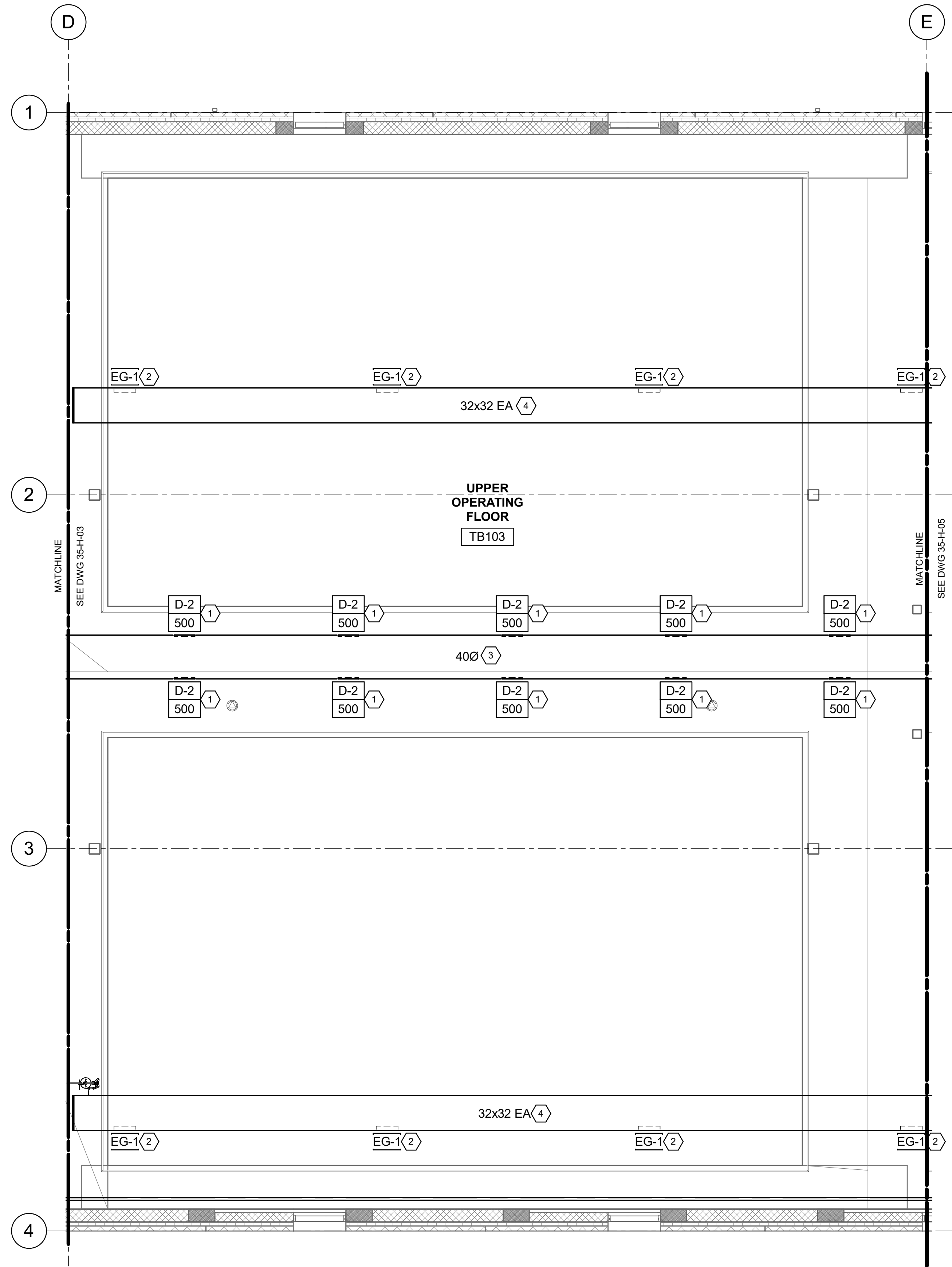


- KEYNOTES:**
- 1 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION, BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 2 PROVIDE EXPOSED SPIRAL SUPPLY DUCT MAIN.

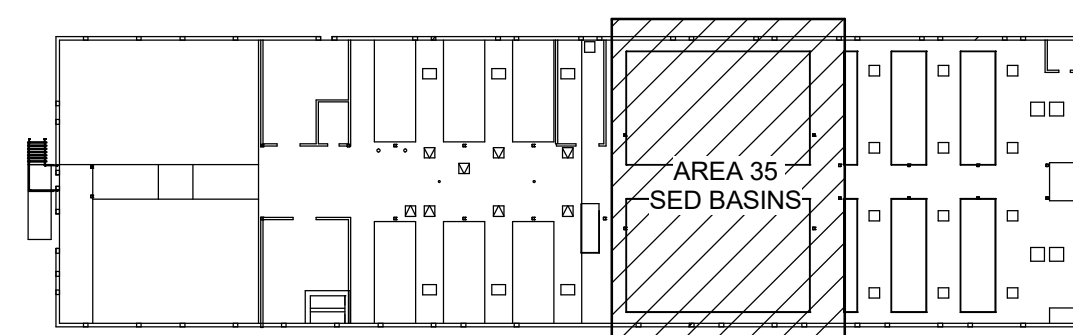


DESIGNED BY: J.BRITNELL		AUTH BY: J.BRITNELL		SCALE:
DRAWN BY: J.BRITNELL		MADE BY: J.BRITNELL		<b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING
CHECKED BY: W.PACKER		BY: W.PACKER		
APPROVED BY: W.PACKER		DATE: JUNE 2024		REVISIONS NO. DATE: 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
EWO NO: ---		ACCOUNT NO: 512260079		
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FILTER BASINS</b> <b>UPPER PLAN</b>				
<b>90% GMP</b>				
DRAWING NO.				
<b>35-H-03</b>				

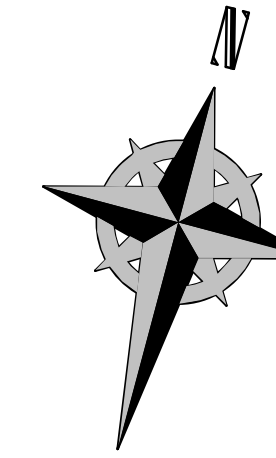
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1 UPPER PLAN (SED BASINS)  
35-H-01 SCALE: 3/16" = 1'-0"



KEY PLAN



KEYNOTES:

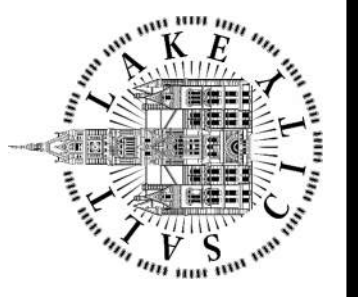
- 1 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
- 2 PROVIDE DUCT MOUNTED EXHAUST GRILLE IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
- 3 PROVIDE EXPOSED SPIRAL SUPPLY DUCT MAIN.
- 4 PROVIDE EXPOSED EXHAUST DUCT MAIN.



**WHW**  
ENGINEERING LLC.  
PROFESSIONAL MECHANICAL ENGINEERING  
8978 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 466-4021 FAX (801) 466-4026  
EMAIL: [esullivan@whw-engineering.com](mailto:esullivan@whw-engineering.com)

DESIGNED BY: J.BERTINELL	AUTH BY: J.BERTINELL	MADE BY: J.BERTINELL	NO.:	DATE:
DRAWN BY: J.BERTINELL	BY: J.BERTINELL	BY: J.BERTINELL	0	06/14/24
CHECKED BY: W.PACKER	WP	J.B	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
APPROVED BY: W.PACKER	DATE: JUNE	2024		
EWO NO.:	ACCOUNT NO.:	512260079		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SED BASINS  
UPPER PLAN

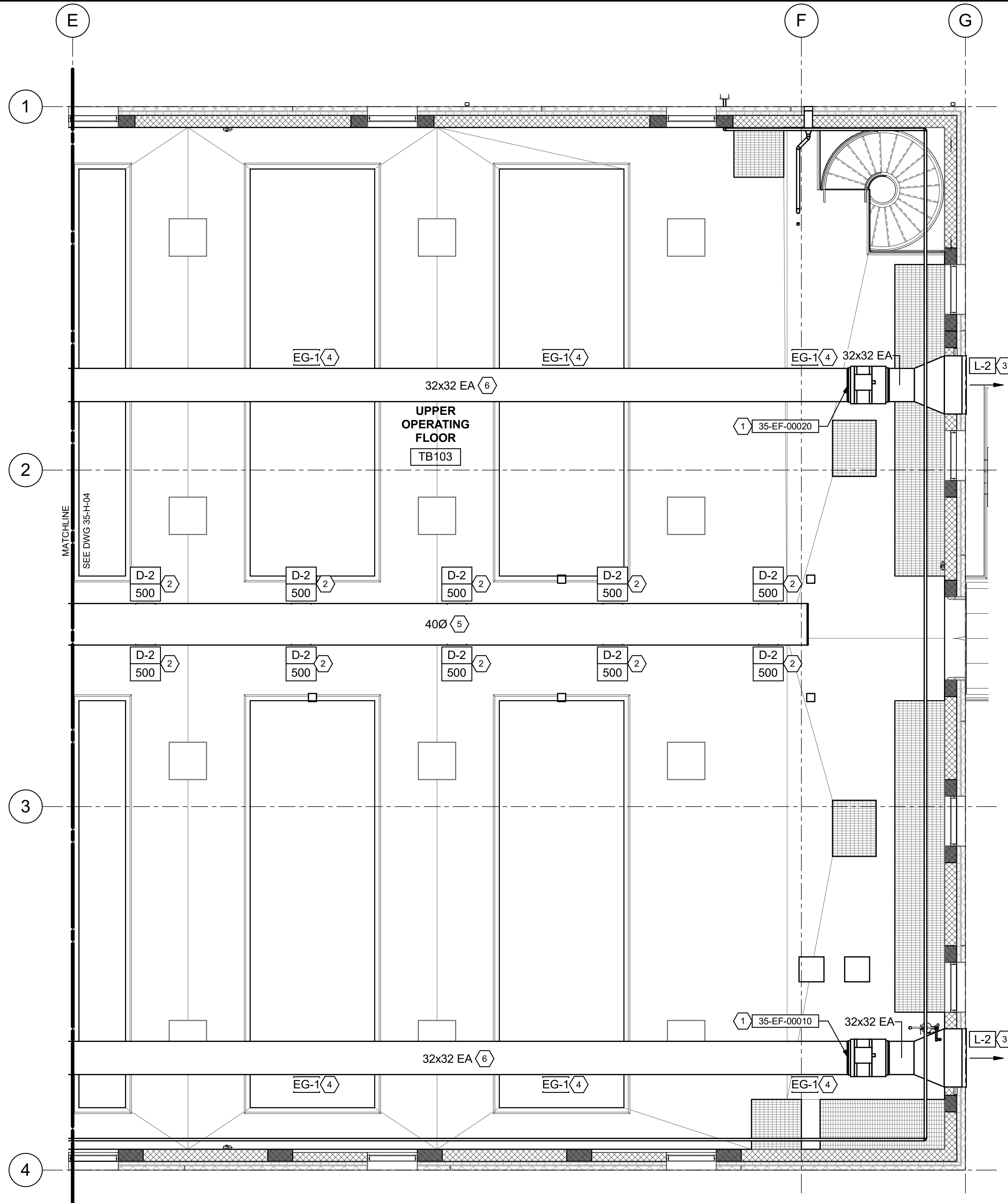


90% GMP

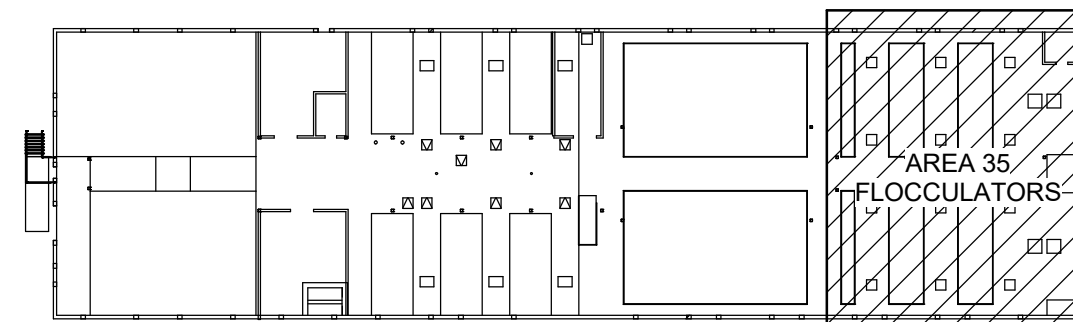
DRAWING NO.  
35-H-04

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/13/2024 8:44:10 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-H-3570V21.rvt



1 UPPER PLAN (FLOCCULATORS)  
35-H-01 SCALE: 3/16" = 1'-0"



KEY PLAN

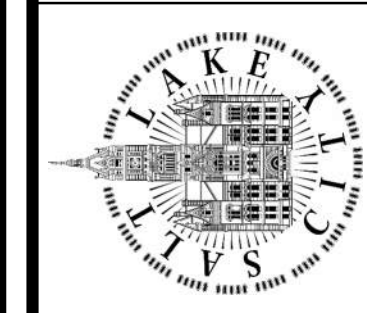


KEYNOTES:

- 1 PROVIDE NEW INLINE EXHAUST FAN WITH BACKDRAFT DAMPER. INSTALL PER MANUFACTURERS DETAILS AND RECOMMENDATIONS. SEE HVAC SCHEDULE AND DETAILS.
- 2 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
- 3 PROVIDE EXHAUST AIR LOUVER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS. SEE MECHANICAL SCHEDULE AND DETAILS.
- 4 PROVIDE DUCT MOUNTED EXHAUST GRILLE IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
- 5 PROVIDE EXPOSED SPIRAL SUPPLY DUCT MAIN.
- 6 PROVIDE EXPOSED EXHAUST DUCT MAIN.

DESIGNED BY: J.BERTINELL	AUTH BY: J.BERTINELL	MADE BY: J.BERTINELL	NO.:	DATE:
DRAWN BY: J.BERTINELL	CHECKED BY: W.PACKER	BY: W.PACKER	0	06/14/24
APPROVED BY: W.PACKER	DATE: JUNE 2024	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)		
EWO NO.:	ACCOUNT NO.:			
512260079	512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FLOCCULATORS  
UPPER PLAN

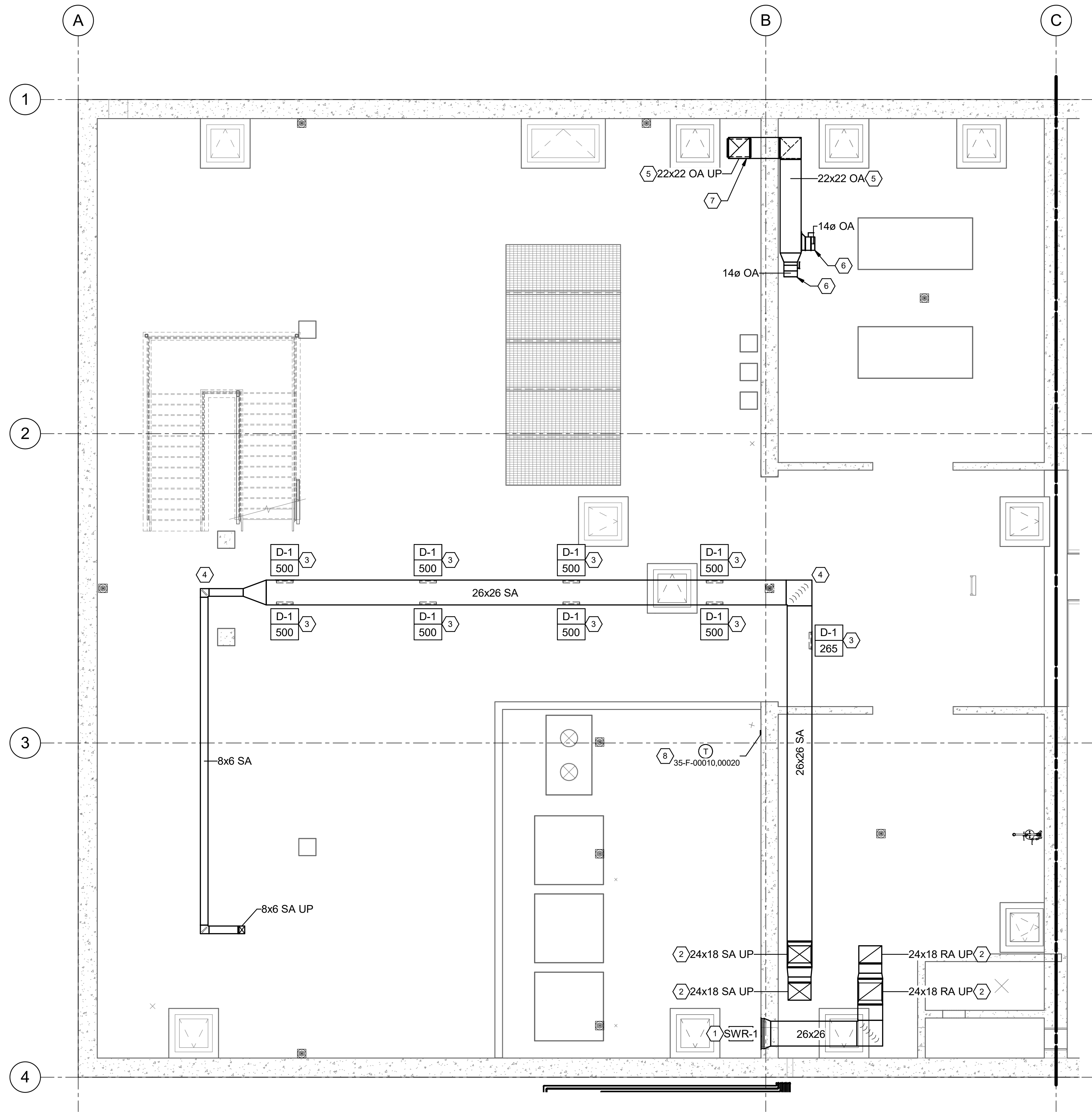


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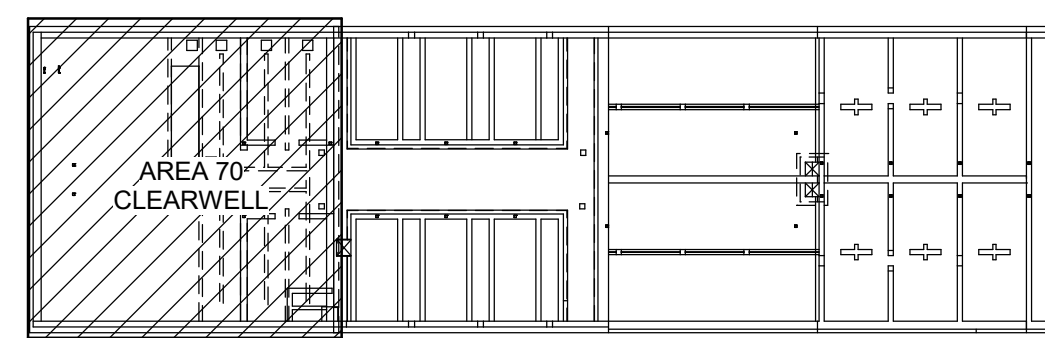
DRAWING NO.  
35-H-05



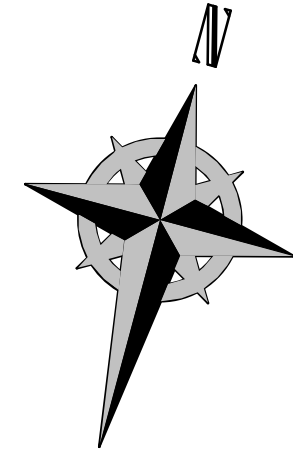
Plot Date: 6/13/2024 8:44:19 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-H-3570V21.rvt



1 LOWER PLAN (CLEARWELL)  
35-H-01 SCALE: 3/16" = 1'-0"



KEY PLAN



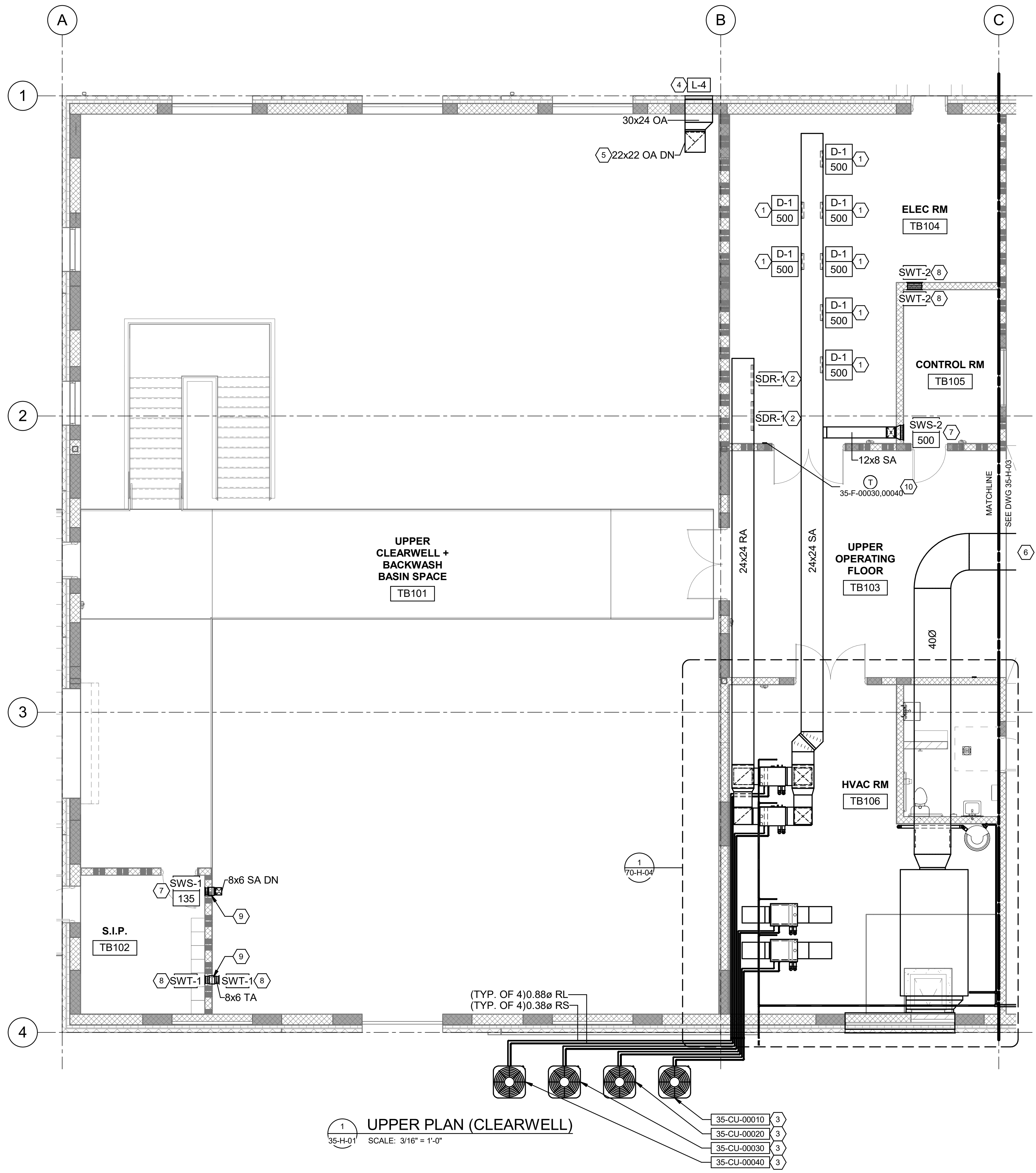
KEYNOTES:

- 1 PROVIDE SIDEWALL RETURN GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS. SEE MECHANICAL SCHEDULE AND DETAILS.
- 2 PROVIDE DUCT RISERS TO MECHANICAL ROOM ABOVE.
- 3 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
- 4 ROUTE DUCTWORK BELOW WALKWAY. COORDINATE WITH ARCHITECTURAL PLANS.
- 5 PROVIDE OUTSIDE AIR DUCT IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 6 CONNECT OUTSIDE AIR DUCT TO BLOWER IN THIS APPROXIMATE LOCATION. COORDINATE WITH PROCESS MECHANICAL PLANS FOR EXACT PLACEMENT.
- 7 PROVIDE ACCESSIBLE DUCT FILTER IN THIS APPROXIMATE LOCATION. DUCT FILTER SHALL BE PREPLEAT M13 18X24X4 FILTER OR EQUAL. FIELD VERIFY EXACT LOCATION.
- 8 PROVIDE NEW THERMOSTAT IN NEMA 4X HOUSING IN THIS APPROXIMATE LOCATION. MOUNT 54" A.F.F.

DESIGNED BY: J.BERTINELL DRAWN BY: J.BERTINELL CHECKED BY: W.PACKER APPROVED BY: W.PACKER DATE: JUNE 2024 EWO NO: --- ACCOUNT NO: 512260079	SCALE: --- <b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>ISSUED FOR</th> <th>GUARANTEE</th> <th>MAXIMUM PRICE (GMP)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>06/14/24</td> <td>ISSUED FOR</td> <td>GUARANTEE</td> <td>MAXIMUM PRICE (GMP)</td> </tr> </tbody> </table>	NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REVISIONS</th> <th>MADE BY</th> <th>DATE</th> <th>REASON</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS	MADE BY	DATE	REASON				
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REVISIONS	MADE BY	DATE	REASON																
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>CLEARWELL - LOWER PLAN</b>																			
DRAWING NO. <b>70-H-01</b>																			

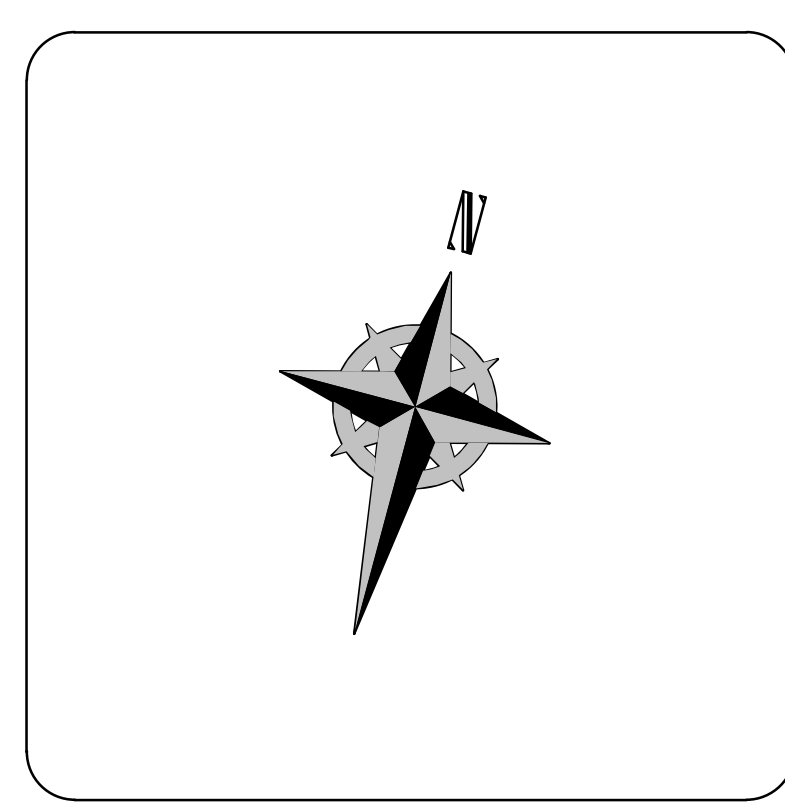
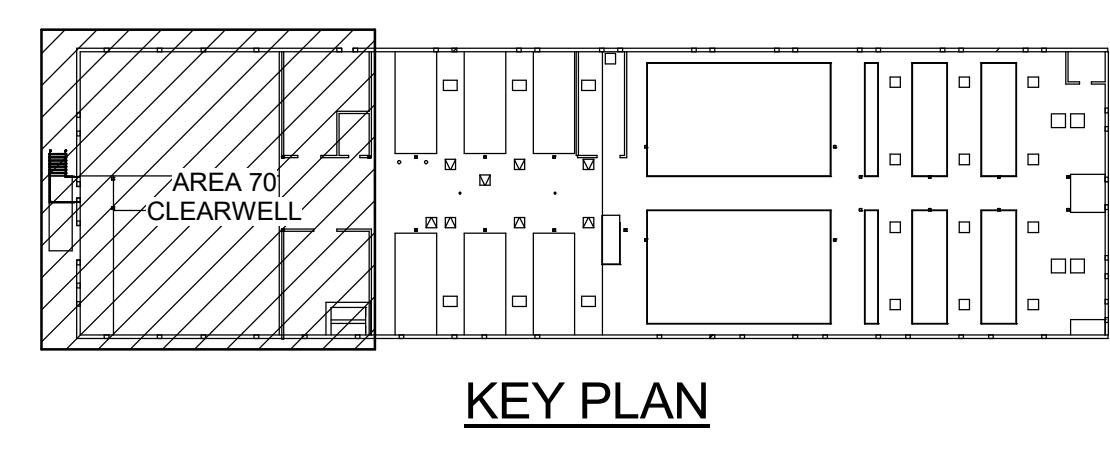
**WHW ENGINEERING LLC.**  
PROFESSIONAL MECHANICAL ENGINEERING  
8978 Sander Parkway Suite 101  
SANDY, UT 84070  
(801) 660-4021 FAX (801) 660-4026  
EMAIL: wpacker@whw-engineering.com

Plot Date: 6/13/2024 8:44:21 AM Path: R:\360\153020 - City Creek WTP\153020-H-3570V2.L.rvt



1 UPPER PLAN (CLEARWELL)  
 35-H-01 SCALE: 3/16" = 1'-0"

35-CU-00010	3
35-CU-00020	3
35-CU-00030	3
35-CU-00040	3

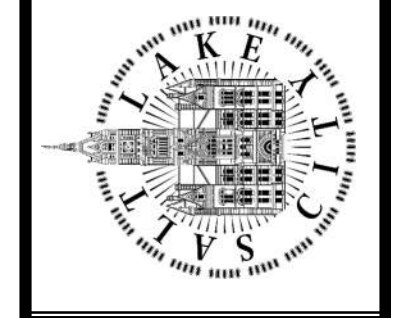


- KEYNOTES:**
- 1 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 2 PROVIDE DUCT MOUNTED RETURN GRILLE IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 3 PROVIDE OUTDOOR SPLIT SYSTEM CONDENSING UNIT IN THIS APPROXIMATE LOCATION. PROVIDE REFRIGERANT PIPING FROM OUTDOOR UNIT TO INDOOR UNIT. INSTALL PER MANUFACTURER RECOMMENDATIONS AND COORDINATE ROUTING WITH ARCHITECT AND GENERAL CONTRACTOR.
  - 4 PROVIDE OUTSIDE AIR LOUVER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 5 PROVIDE OUTSIDE AIR DUCT TO ROOM BELOW. SEE SHEET 70-H-01 FOR CONTINUATION.
  - 6 PROVIDE SPIRAL MAKE-UP AIR SUPPLY DUCT TO FILTER AREA. SEE SHEET 35-H-02 FOR CONTINUATION.
  - 7 PROVIDE SIDEWALL SUPPLY GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 8 PROVIDE SIDEWALL TRANSFER GRILLE IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 9 PROVIDE FIRE DAMPER IN DUCT IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION.
  - 10 PROVIDE NEW THERMOSTAT IN NEMA 4X HOUSING IN THIS APPROXIMATE LOCATION. MOUNT 54" A.F.F.

DESIGNED BY: J.BERTINELL  
 DRAWN BY: J.BERTINELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	WP	JB

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - UPPER PLAN**

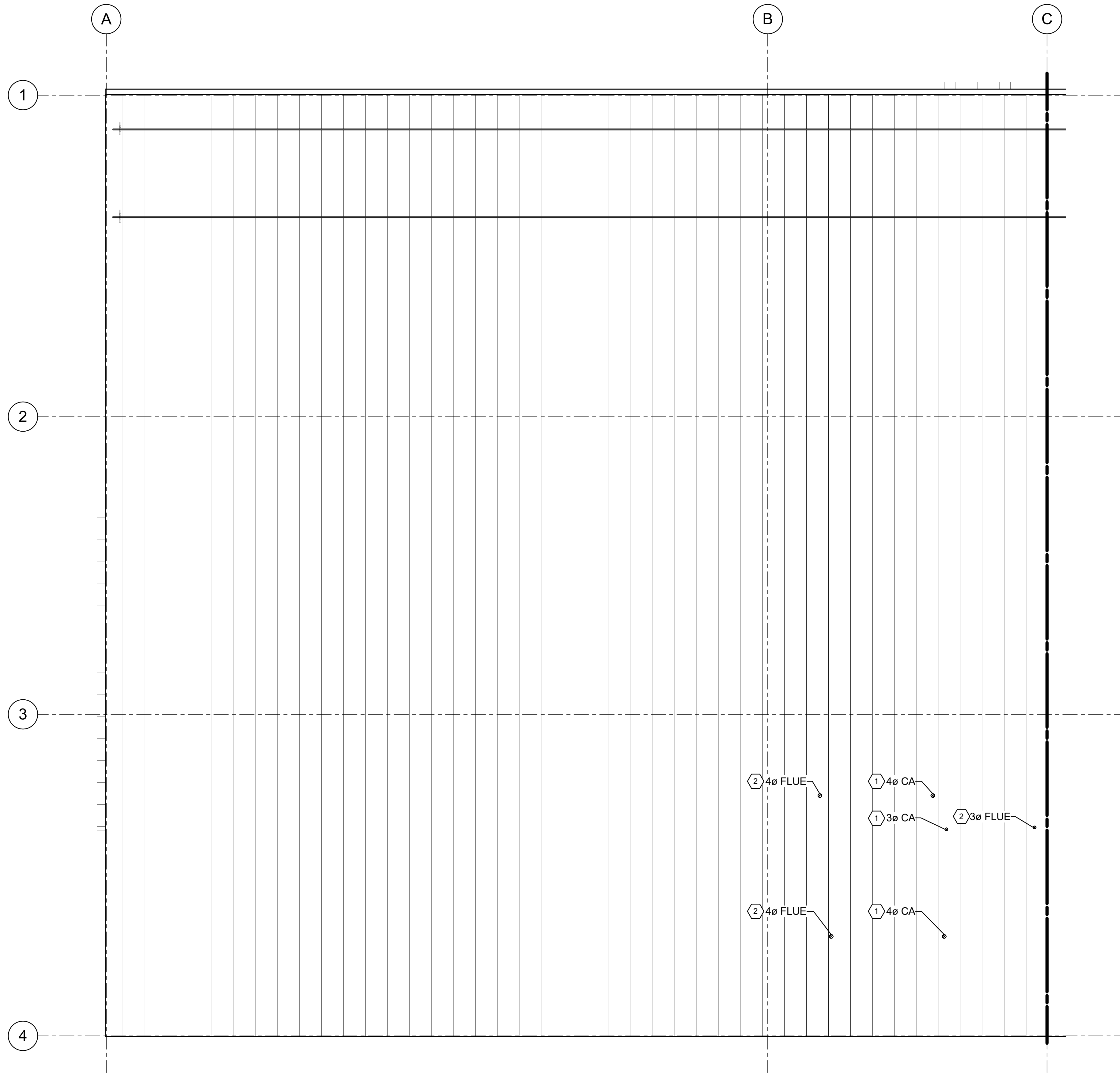


**90% GMP**

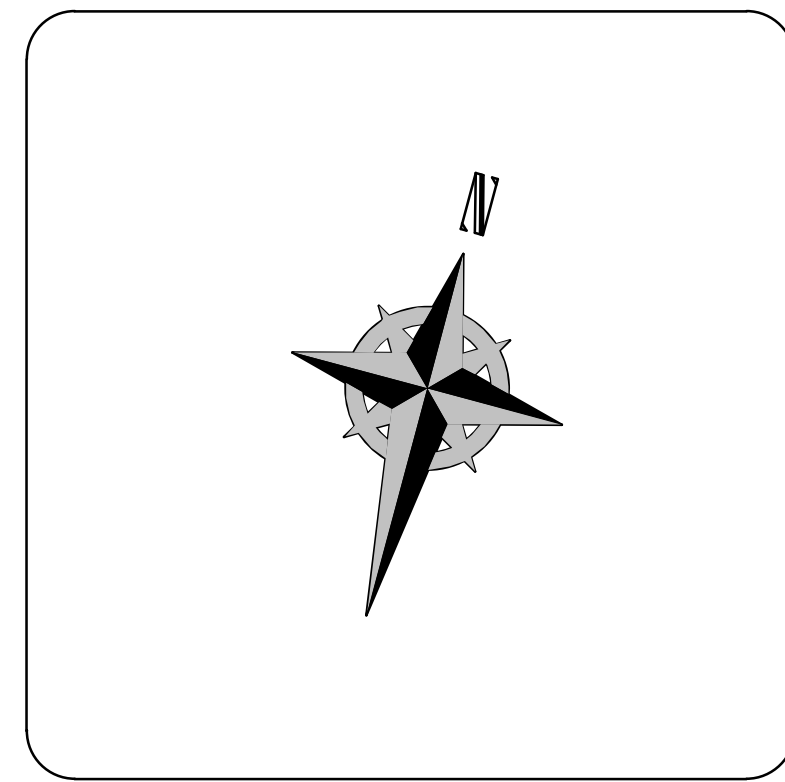
DRAWING NO.  
**70-H-02**



Plot Date: 6/13/2024 8:44:21 AM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-H-3570V21.rvt



1 ROOF PLAN - (CLEARWELL)  
 35-H-02 SCALE: 3/16" = 1'-0"



- KEYNOTES:**
- 1 PROVIDE COMBUSTION AIR DUCT THROUGH THE ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE HVAC DETAILS.
  - 2 PROVIDE FLUE DUCT THROUGH THE ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE HVAC DETAILS.



DESIGNED BY: J.BERTINELL		SCALE:
DRAWN BY: J.BERTINELL		
CHECKED BY: W.PACKER		
APPROVED BY: W.PACKER		
DATE: JUNE 2024		
EWO NO: ---		
ACCOUNT NO: 512260079		

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

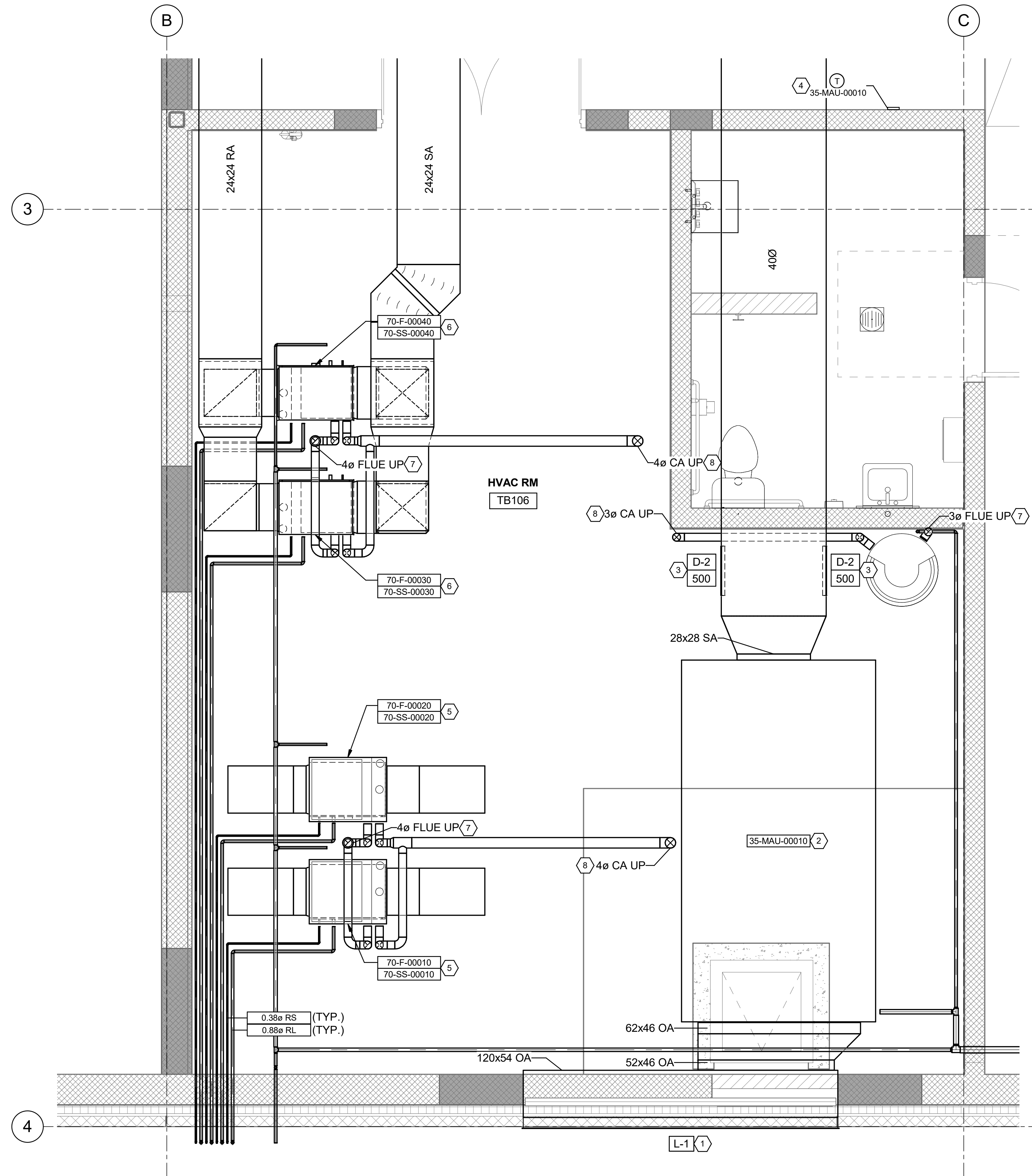
NO.	DATE	MADE BY	AUTH BY	REVISIONS
0	06/14/24		WP	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - ROOF PLAN**

**90% GMP**

DRAWING NO.  
**70-H-03**

Plot Date: 6/13/2024 8:44:22 AM Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-H-3570V21.rvt



1 UPPER PLAN (CLEARWELL) - ENLARGED PLAN  
70-H-02 SCALE: 1/2" = 1'-0"

- KEYNOTES:**
- 1 PROVIDE OUTSIDE AIR LOUVER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DETAILS. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 2 PROVIDE NEW DIRECT FIRED MAKE-UP AIR UNIT IN THIS APPROXIMATE LOCATION. PROVIDE EXTERNAL SUPPORT FRAME AND MOUNT ABOVE WELL FOR ADEQUATE SERVICE CLEARANCE. SEE HVAC SCHEDULE AND DETAILS.
  - 3 PROVIDE DUCT MOUNTED SUPPLY DIFFUSER IN THIS APPROXIMATE LOCATION. BALANCE TO CFM AS SHOWN. SEE MECHANICAL SCHEDULE AND DETAILS.
  - 4 PROVIDE NEW THERMOSTAT IN NEMA 4X HOUSING IN THIS APPROXIMATE LOCATION. MOUNT 54" A.F.F.
  - 5 PROVIDE DOWNFLOW GAS FIRED SPLIT SYSTEM FURNACE. SEE LEVEL BELOW FOR CONTINUATION OF DUCTWORK.
  - 6 PROVIDE UPFLOW GAS FIRED SPLIT SYSTEM FURNACE.
  - 7 PROVIDE FLUE DUCT THROUGH THE ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE HVAC DETAILS.
  - 8 PROVIDE COMBUSTION AIR DUCT THROUGH THE ROOF IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE HVAC DETAILS.

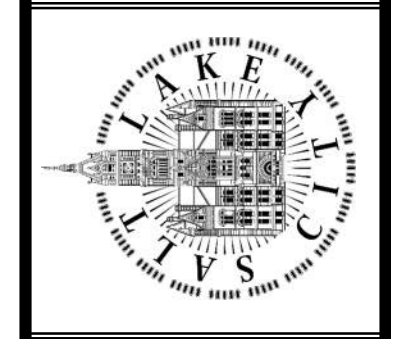


DESIGNED BY: J.BERTINELL  
DRAWN BY: J.BERTINELL  
CHECKED BY: W.PACKER  
APPROVED BY: W.PACKER  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

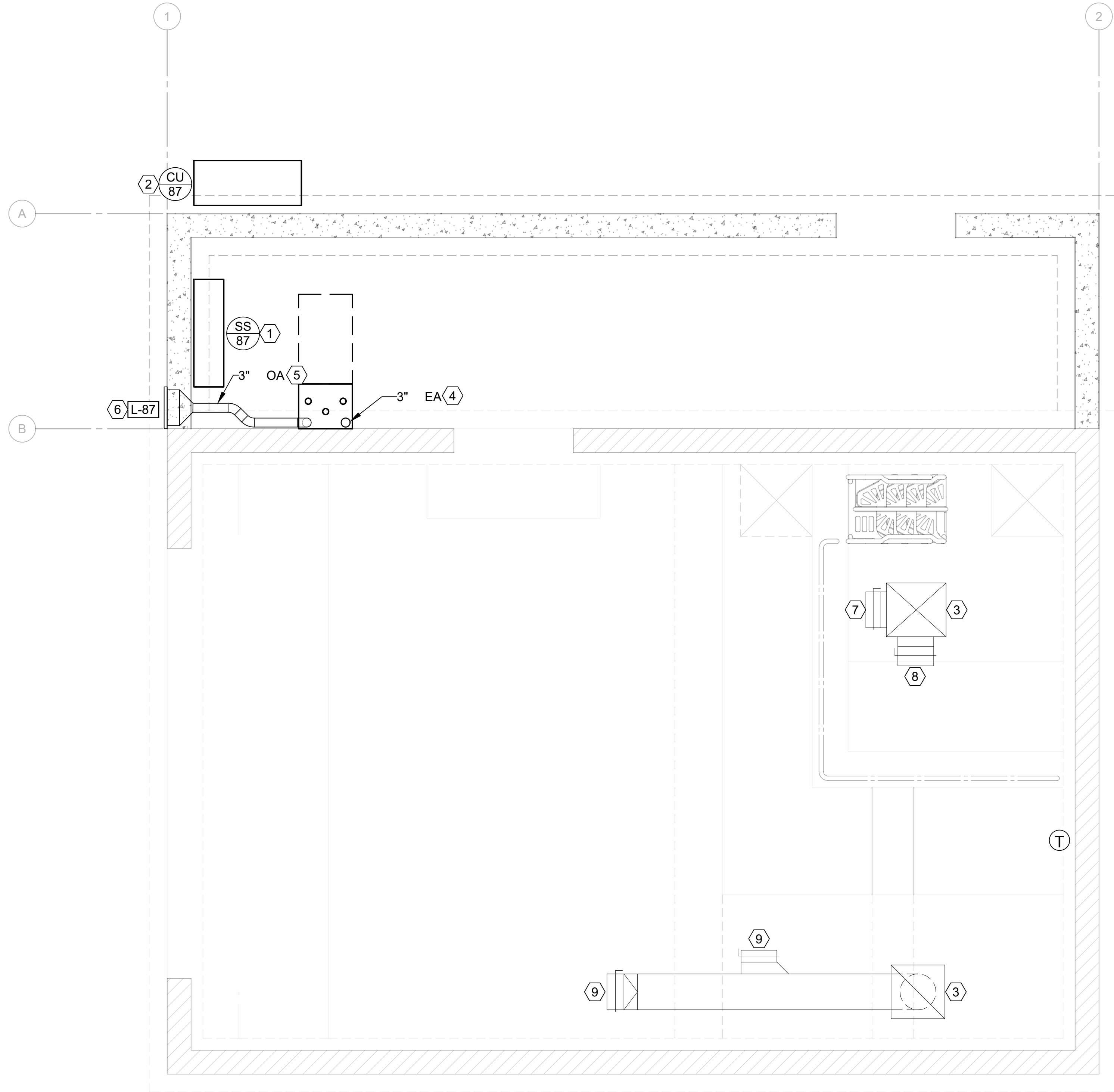
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - ENLARGED PLANS**



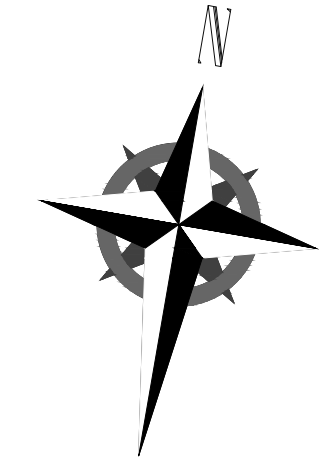
**90% GMP**

DRAWING NO.  
**70-H-04**

C:\users\jacob\bcopw\d1568912\87-H-01.dwg Jun 13, 2024 - 9:07am



**FLUORIDE - HVAC FLOOR PLAN**  
SCALE 1/2" = 1'-0"



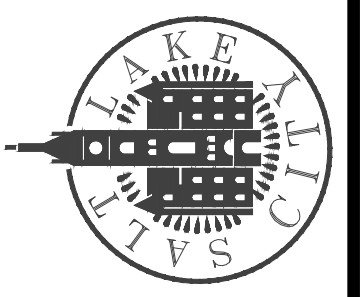
**KEYNOTES**

- 1 PROVIDE INDOOR SPLIT SYSTEM IN THIS APPROXIMATE LOCATION. INDOOR UNIT SHALL BE POWERED BY OUTDOOR UNIT. PROVIDE REFRIGERANT PIPING TO OUTDOOR UNIT. ROUTE CONDENSATE TO OUTSIDE BUILDING. FIELD VERIFY EXACT LOCATION AND ROUTING.
- 2 PROVIDE CONDENSING UNIT IN THIS APPROXIMATE LOCATION. MOUNT ON NEW CONCRETE PAD. FIELD VERIFY EXACT LOCATION.
- 3 EXISTING DUCTWORK TO REMAIN. CONTRACTOR TO CLEAN AND REPAIR DUCTWORK.
- 4 EXTEND FLUE EXHAUST THROUGH ROOF. FIELD VERIFY EXACT ROUTING.
- 5 PROVIDE OUTSIDE AIR DUCTWORK IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING.
- 6 PROVIDE COMBUSTION AIR LOUVER.
- 7 BALANCE SUPPLY DIFFUSER TO 440 CFM.
- 8 BALANCE SUPPLY DIFFUSER TO 435 CFM.
- 9 DUCT MOUNTED EXHAUST GRILLES TO REMAIN.

DESIGNED BY: J.BRITNELL  
 DRAWN BY: J.BRITNELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO.: ---  
 ACCOUNT NO.: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - FLOOR PLAN**



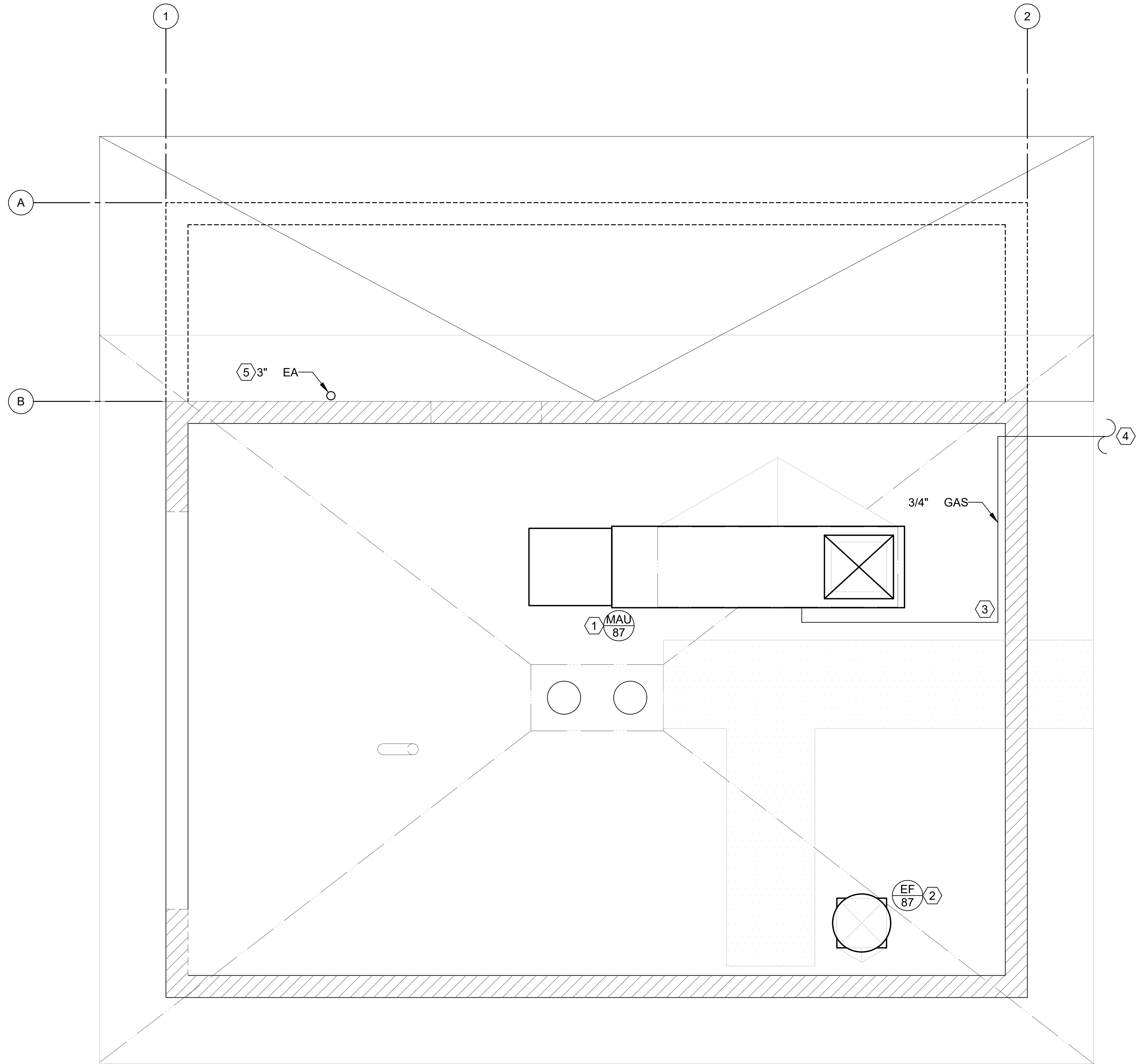
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DRAWING NO.  
**87-H-01**

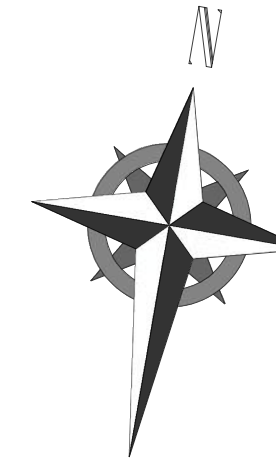




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**FLUORIDE - HVAC ROOF PLAN**  
SCALE 1/2" = 1'-0"



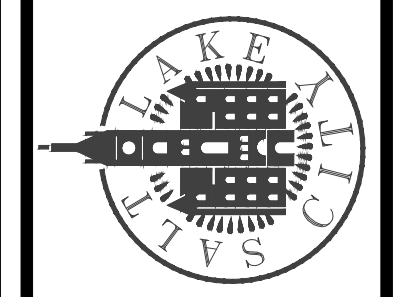
**KEYNOTES**

- 1 PROVIDE NEW MAKEUP AIR UNIT IN THIS APPROXIMATE LOCATION. PROVIDE CURB ADAPTER. CONTRACTOR TO FIELD VERIFY SIZE OF ROOF OPENING AND SIZE OF EQUIPMENT CURB. FIELD VERIFY THAT MAKEUP AIR UNIT INLET IS MINIMUM 10 FEET FROM EXHAUST FAN. MAKEUP AIR UNIT IS 106"L X 30"W X 39"H NOT INCLUDING THE OUTSIDE AIR HOOD. SEE HVAC SCHEDULES AND DETAILS.
- 2 PROVIDE EXHAUST FAN IN THIS APPROXIMATE LOCATION. PROVIDE CURB ADAPTER. FIELD VERIFY. SEE HVAC SCHEDULES AND DETAILS.
- 3 PROVIDE GAS PIPING AND ACCESSORIES IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT ROUTING. SEE HVAC DETAILS.
- 4 SEE CIVIL PLANS FOR CONTINUATION OF NATURAL GAS PIPING IN THIS DIRECTION. FIELD VERIFY EXACT ROUTING.
- 5 PROVIDE EXHAUST FLUE FOR WATER HEATER IN THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION. SEE ARCHITECTURAL AND STRUCTURAL SHEETS FOR ROOF PENETRATION.

DESIGNED BY: J.BRITNELL  
 DRAWN BY: J.BRITNELL  
 CHECKED BY: W.PACKER  
 APPROVED BY: W.PACKER  
 DATE: JUNE 2024  
 EWO NO.: 512260079  
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NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	BY
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	JB	WP

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - ROOF PLAN**



**90% GMP**

DRAWING NO.  
**87-H-02**



MAKE-UP AIR UNIT SCHEDULE														
TYPE	#	CFM	ESP	HEATING			ELECTRICAL				OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES	
				BTU/H	EAT DB	TEMP RISE	Ø	Hz	VOLTS	MCA				MOCP
MAU	87	875 CFM	0.3 -	80.5 B /	9 F	83 F	3	60 H	208 V	1.8 A	15 A	1 005	GREENHECK IGX-P109-H12-MF-C	1 2

1. PROVIDE WITH MODULATING GAS VALVE.
2. PROVIDE WITH PACKAGED STAND-ALONE CONTROLS INCLUDING SPACE THERMOSTAT, DISCHARGE AIR SENSOR, ETC. SEE SPECIFICATIONS.

SPLIT SYSTEM SCHEDULE - OUTDOOR UNIT													
TYPE	#	INDOOR UNIT SERVED	COOLING (BTU/HR)	HEATING (BTU/HR)	ELECTRICAL				SEER2	OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES	
					Ø	VOLTS	HERTZ	MCA					MOCP
CU	87	SS-87	18 000	19 000	1	208 V	60 H	11 A	28 A	20.2	100	MITSUBISHI PU -A18NKA7	1 2 3 4

1. REFRIGERANT R-410a OR R-454b OR R-32.
2. PROVIDE LOW AMBIENT KIT. UNIT SHALL PROVIDE COOLING OPERATION AT 0 DEGREES AMBIENT.
3. CONDENSING UNIT SYMBOLS CORRESPOND WITH COIL UNIT SYMBOLS.
4. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.

SPLIT SYSTEM SCHEDULE - INDOOR UNIT												
TYPE	#	AREA SERVED	COOLING (BTU/HR)	HEATING (BTU/HR)	ELECTRICAL				OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES	
					Ø	VOLTS	HERTZ	MCA				MOCP
SS	87	FLUORIDE VESTIBULE	18 000	19 000	1	208 V	60 H	1 A	15 A	28	MITSUBISHI PKA-A18LA1	1 2 3 4

1. REFRIGERANT R-410a OR R-454b OR R-32.
2. PROVIDE WITH INTEGRAL CONDENSATE PUMP. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN OR FUNNEL DRAIN.
3. PROVIDE WITH INDIVIDUAL ZONE THERMOSTAT.
4. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
5. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
6. WALL MOUNTED UNIT.

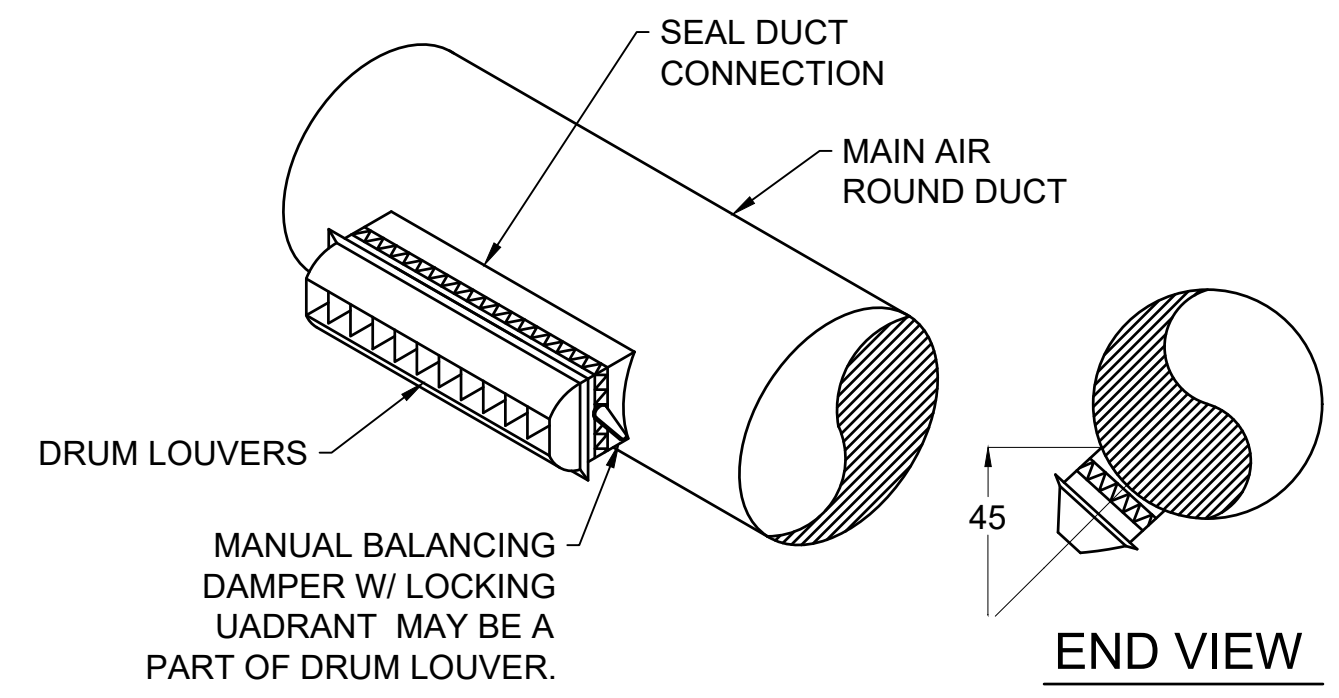
EXHAUST FAN SCHEDULE												
TYPE	#	AREA SERVED	CFM	ESP	SONES	MOTOR				OPERATING WEIGHT	MANUF & MODEL	SCHEDULE NOTES
						V - Ø - Hz	BHP	HP	RPM			
EF	87	FLUORIDE BUILDING	875 CFM	0.5 -	9.5	115-1-60	0.13	0.25	1300	45	COOK ACRU-D	1 2 3

1. INTERLOCK FAN WITH MAKEUP AIR UNIT.
2. PROVIDE CURB ADAPTER AS NECESSARY.
3. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.

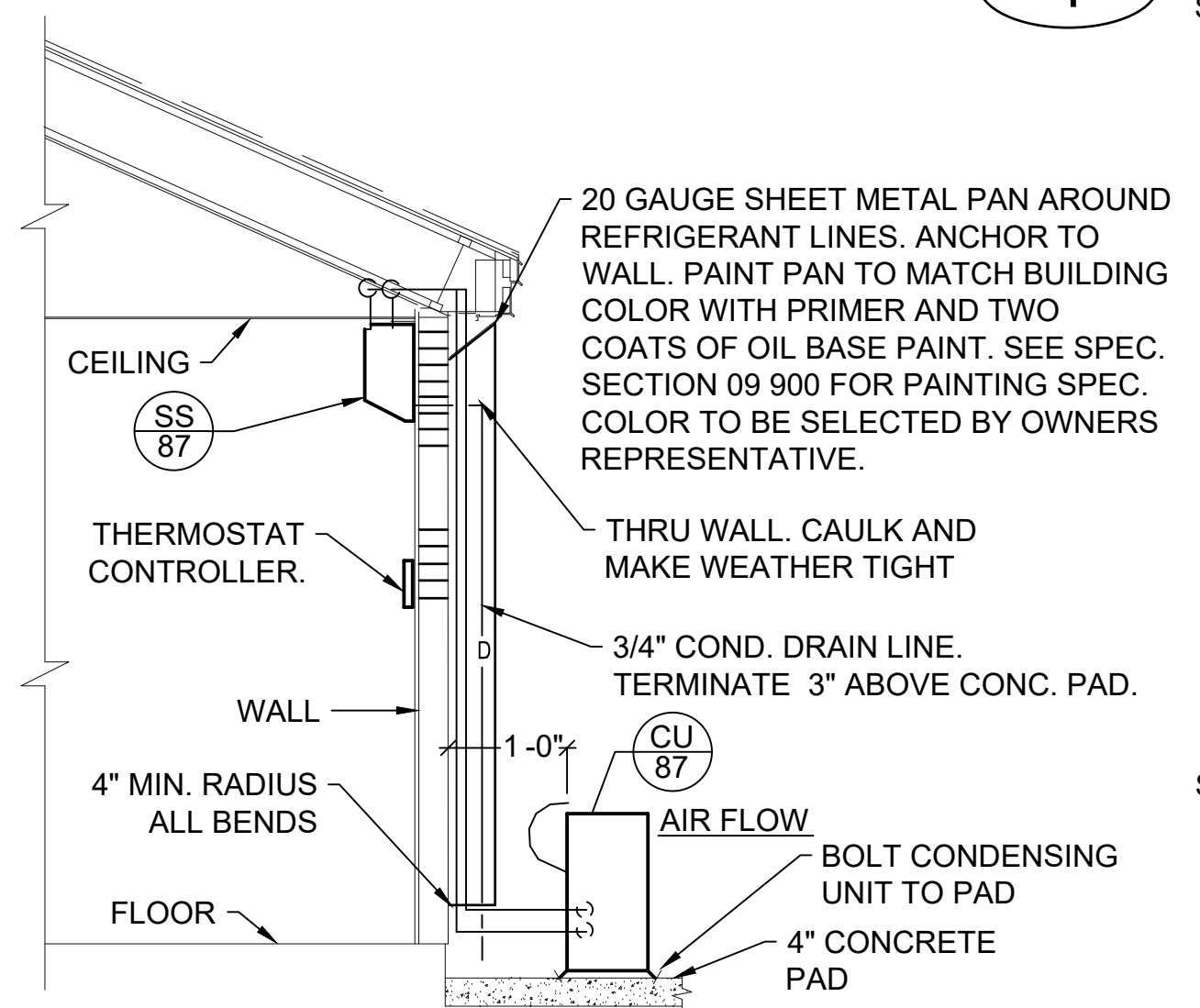
LOUVER SCHEDULE												
TYPE	#	AREA SERVED	MAX FLOW	FACE SIZE		MIN FREE AREA	MAX VELOCITY	MAX NC	MANUF & MODEL	SCHEDULE NOTES		
				HEIGHT	WIDTH							
L	87	FLUORIDE VESTIBULE	180 CFM	12"	12"	0.3 ²	600 FPM	25	POTTORFF EDD-637	1 2 3 4 5		

1. SHALL BE POTTORFF EDD-637 OR APPROVED E UAL.
2. SEE SPECIFICATIONS FOR OTHER APPROVED MANUFACTURERS.
3. FINISH SHALL BE SELECTED BY OWNER FROM MANUFACTURERS FULL RANGE.
4. PROVIDE WITH BAROMETRIC BACKDRAFT DAMPER.
5. SHALL BE CONSTRUCTED OF ALUMINUM MATERIAL.

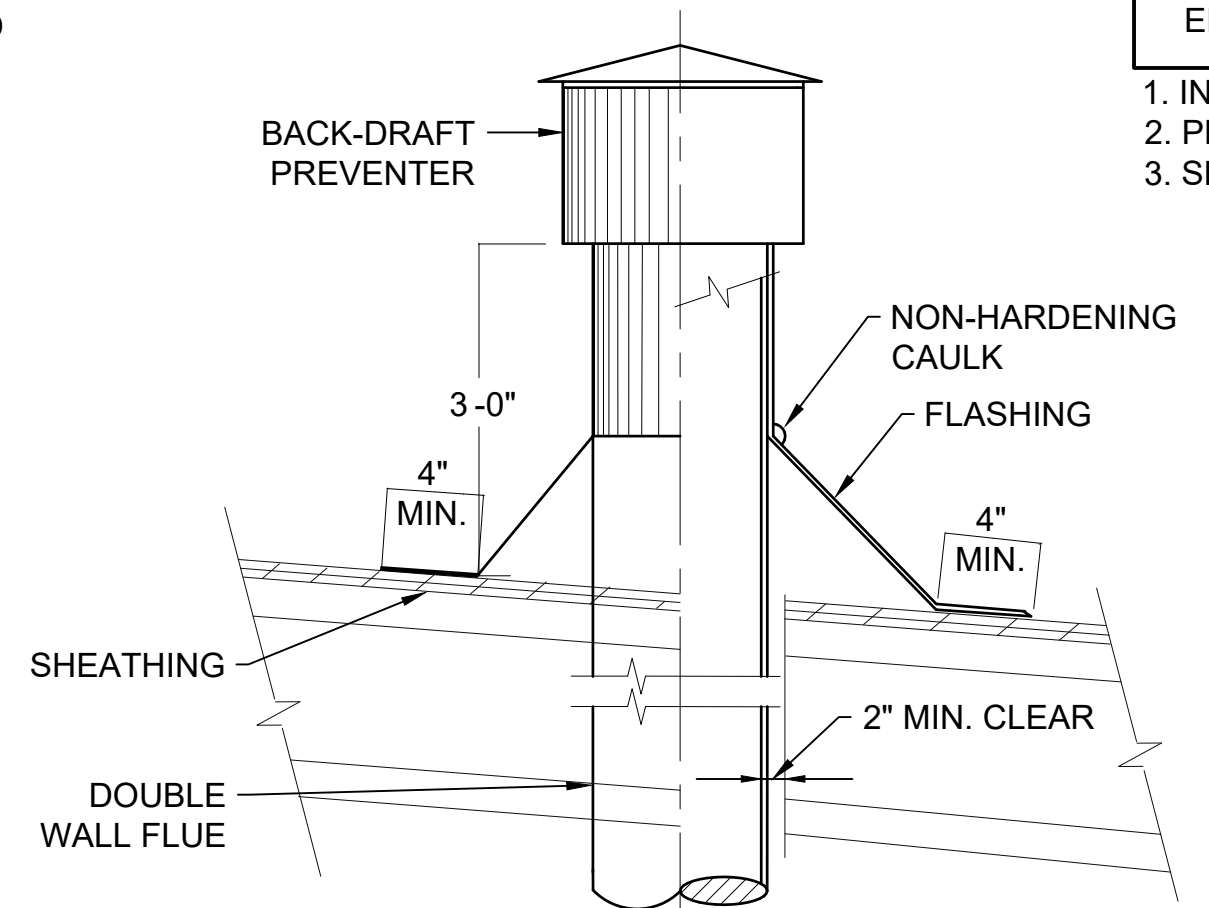
**NOTE**  
 DRY-CHARGED LINE SETS ARE AVAILABLE IN LENGTHS OF 16 22 32 49 FEET. LENGTHS ARE TO BE KEPT AS SHORT AS POSSIBLE. COILING OF LINES THAT ARE TOO LONG WILL NOT BE ACCEPTABLE AND WILL BE REPLACED AT THE CONTRACTORS EXPENSE. OPTIONAL HARD REFRIGERANT PIPING. ALL CONNECTIONS ARE TO BE FLARED.



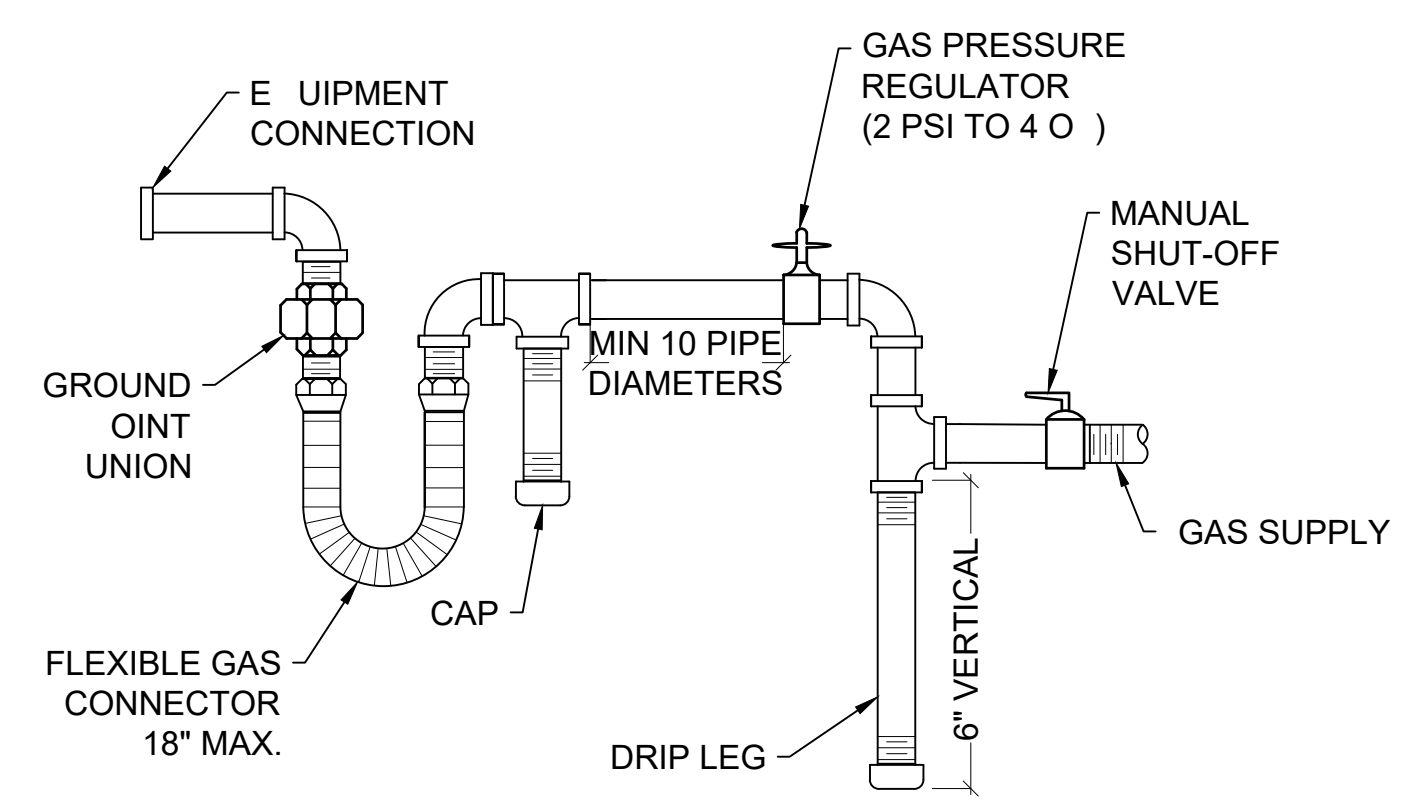
**1 DRUM LOUVER DETAIL**  
SCALE NONE



**3 HEAT PUMP UNIT DETAIL**  
SCALE NONE

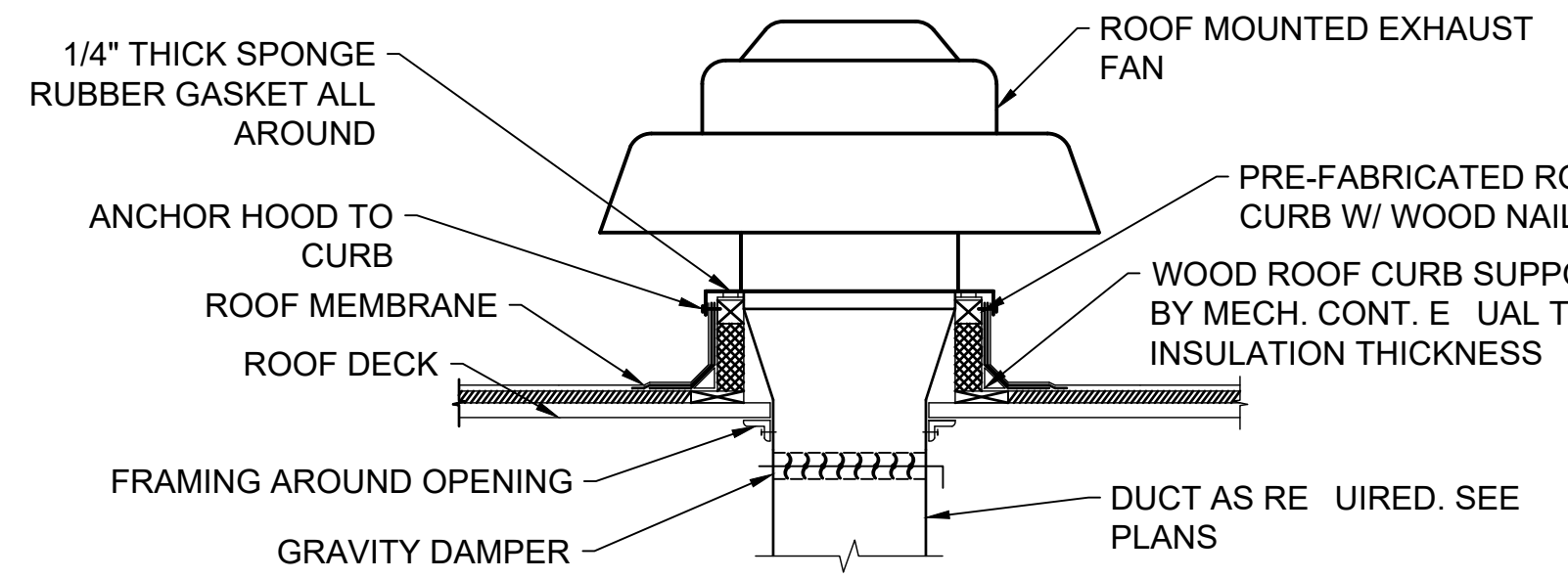


**2 FLUE THRU ROOF DETAIL**  
SCALE NONE

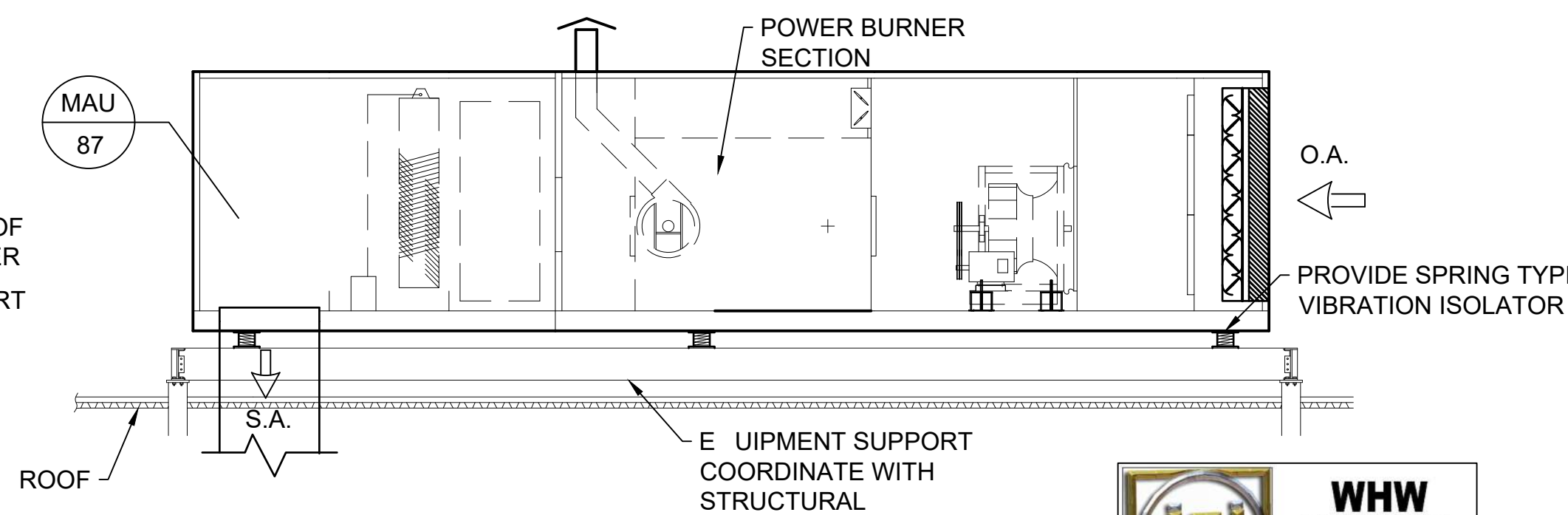


**6 GAS LINE CONNECTION DETAIL**  
SCALE NONE

**NOTE**  
 MECHANICAL E UIPMENT TO SET LEVEL. ORDER CURB TO COMPENSATE FOR ROOF SLOPE.



**5 ROOF MOUNTED EXHAUST FAN DETAIL**  
SCALE NONE

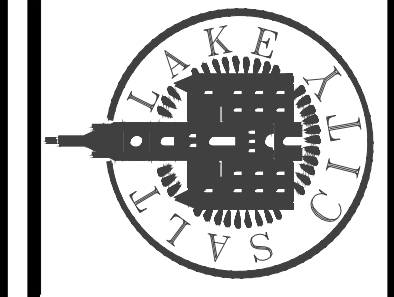


**4 MAKE-UP AIR UNIT DETAIL**  
SCALE NONE



DESIGNED BY: J.BRIDNELL	SCALE:
DRAWN BY: J.BRIDNELL	
CHECKED BY: W.PACKER	
APPROVED BY: W.PACKER	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	




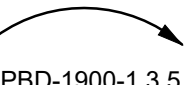
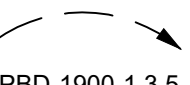
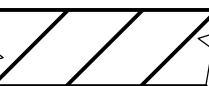
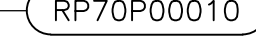
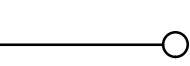
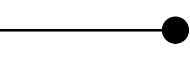
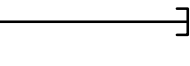
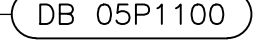

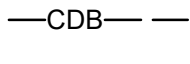
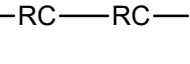
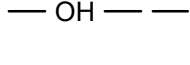
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 FLUORIDE - HVAC  
 SCHEDULES AND DETAILS




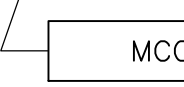
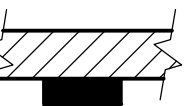
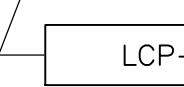
90% GMP  
 DRAWING NO.  
 87-H-03

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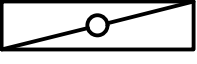
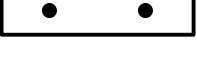
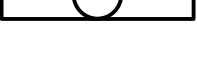
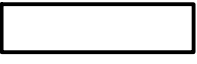
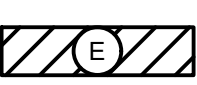





**RACEWAYS**

-  HH23 MANHOLE (MH), HANDHOLE (HH), PULLBOX (PB)
-  JB1900 JUNCTION BOX. OPTIONAL IDENTIFIER
-  TB-1301 TERMINAL BOX. OPTIONAL IDENTIFIER
-  HOME RUN EXPOSED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION  
EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5
-  HOME RUN CONCEALED - SEE PANELBOARD, SWITCHBOARD, OR MCC SCHEDULE FOR CIRCUIT INFORMATION.  
EXAMPLE: HOME TO PANELBOARD PBD-1900, CIRCUITS 1, 3, AND 5
- CABLE TRAY MODIFIERS:  
CTS - 24VDC OR LESS  
CTC - 120V CONTROL CONDUCTORS  
CTP - 600V POWER CONDUCTORS  
CABLE #4/0 AND LARGER SHALL NOT BE STACKED VERTICALLY
- WHEN TWO TRAY MODIFIERS IDENTIFY A SINGLE TRAY, THE CONTRACTOR MAY USE DIVIDER OR INSTALL SEPARATE TRAYS (CTC/CTS)
-  CABLE TRAY WITH COVER MODIFIER, AS ABOVE
-  RACEWAY TAG
- RACEWAY EXPOSED  
MODIFIERS FOR RACEWAY TAG:  
RP - POWER  
RC - CONTROL  
RS - SIGNAL, FIBER  
RX - SPARE
- RACEWAY CONCEALED
-  RACEWAY TURNED TOWARD THE THE VIEWER
-  RACEWAY TURNED DOWN
-  CONDUIT CAPPED
-  DUCT BANK IDENTIFIER (OPTIONAL)
-  DUCT BANK, DIRECT BURIED
-  DUCT BANK, CONCRETE ENCASED
-  DUCTBANK, REINFORCED CONCRETE ENCASED
-  OVERHEAD POWER LINE







**DISTRIBUTION EQUIPMENT**

- APPROXIMATE SHAPE AND SCALE REPRESENTED WHERE POSSIBLE. HOWEVER, EXACT SIZE AND NUMBER OF SECTIONS IS ESTIMATED
-  FLOOR-STANDING DISTRIBUTION ASSEMBLY, SUCH AS A SWITCHBOARD, TRANSFORMER, OR MOTOR CONTROL CENTER
  -  EQUIPMENT DESIGNATION (EXAMPLE)
  -  WALL-MOUNTED DISTRIBUTION ASSEMBLY, SUCH AS PANELBOARD, MOTOR STARTER PANEL, OR TERMINAL CABINET
  -  EQUIPMENT DESIGNATION (EXAMPLE)






**LIGHTING**

- FIXTURE IDENTIFIER:
- NUMBER OF FIXTURES (SHOWN ONLY WHEN REQUIRED FOR CLARITY)
  - FIXTURE TYPE. TYPE APPLIES TO ALL FIXTURES OF THE SAME SHAPE WITHIN A ROOM OR AREA.
  - MOUNTING:  
L = POLE R = RECESSED  
G = GROUND S = SURFACE  
P = PENDANT W = WALL
  - MOUNTING HEIGHT, FLOOR TO BOTTOM OF FIXTURE UON.  
AHAP= AS HIGH AS POSSIBLE.  
AD= ABOVE DOOR.
  - NUMBER OF LAMPS/LAMP WATTAGE
  - CONTROL: PHOTOCELL, SWITCH, CONTACTOR
- LIGHTING FIXTURE SHAPES AND SCALE ARE REPRESENTED WHERE POSSIBLE. THE EXAMPLES SHOWN BELOW ARE TYPICAL APPLICATIONS
-  RECESSED LIGHTING FIXTURE
  -  SUSPENDED PENDANT MOUNTED FIXTURE
  -  SURFACE MOUNTED FIXTURE
  -  EMERGENCY LIGHTING FIXTURES, FIXTURES WITH EMERGENCY BALLASTS, AND FIXTURES IDENTIFIED WITH AN 'NS' SHALL BE PROVIDED WITH NON-SWITCHED POWER SOURCE
  -  LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK
  -  LIGHT FIXTURE
  -  WALL MOUNTED FIXTURE
  -  DIRECTIONAL LIGHT
  -  POLE MOUNTED AREA LIGHT
  -  EMERGENCY LIGHTING UNIT SELF CONTAINED










**LIGHTING CONTINUED**

- EXIT LIGHTS:**
-  SURFACE ON CEILING
  -  WALL MOUNTED
  -  WITH DIRECTIONAL ARROWS
  -  CIRCUIT IDENTIFIER: WHEN SHOWN ADJACENT TO FIXTURE IDENTIFIES CIRCUIT NUMBER AND SWITCH. EXAMPLE: CIRCUIT 3, CONTROLLED BY SWITCH a
  -  PHOTO CELL
  -  OCCUPANCY SENSOR








**WIRING DEVICES**

- SWITCHES:**  
UNLESS OTHERWISE NOTED, ALL SWITCHES ARE WALL MOUNTED
-  TOGGLE SWITCH, SINGLE POLE
  -  GANGED SWITCHES IN COMMON BOX WITH COMMON WALL PLATE
  -  SUPERScript INDICATES CIRCUIT CONTROLLED: a, b, c, ETC. MAY BE COMBINED WITH CIRCUIT NUMBER. EXAMPLE: 1a, 4b, ETC
  -  SUBSCRIPT MODIFIER INDICATES:  
2 = DOUBLE POLE  
3 = THREE WAY  
4 = FOUR WAY  
k = KEY OPERATED  
MC = MOMENTARY CONTACT, THREE POSITION  
MS = MANUAL (MOTOR) STARTER OR SWITCH WITH OVERLOADS  
R = RHEOSTAT (DIMMER, SPEED CONTROL)  
O = OCCUPANCY SWITCH
  -  DIMMER











**RECEPTACLES:**

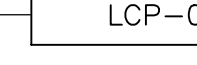
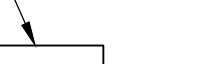
-  DUPLEX RECEPTACLE
- RECEPTACLE MODIFIERS:  
WP = WEATHER PROOF  
GFI = GROUND FAULT CIRCUIT INTERRUPTER
-  HAZARDOUS AREA; EXPLOSION PROOF
-  EXPLOSION PROOF, CLASS 1, DEAD FRONT, 45° ANGLE, TWO GANG
-  RECESSED FLOOR RECEPTACLE - ANY RECEPTACLE INSIDE A SQUARE
-  SURFACE FLOOR RECEPTACLE - ANY RECEPTACLE INSIDE A TRIANGLE
-  GANGED RECEPTACLES--IN COMMON BOX, WITH COMMON WALL PLATE
-  RECEPTACLE, CLOCK HANGER
-  RECEPTACLE, DUPLEX ON EMERGENCY
-  EQUIPMENT OR SPECIAL PURPOSE CONNECTION

**GROUNDING**

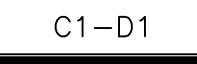
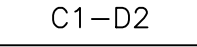
-  GROUND ROD
-  GROUND ROD WITH GROUND WELL
-  GROUND CONNECTION, COMPRESSION TYPE, EXOTHERMIC. SEE SPECIFIC
-  GROUNDING CONDUCTOR
-  GROUND CONNECTION
-  GROUND CONNECTION TO STRUCTURAL REINFORCEMENT
-  LIGHTNING ROD/AIR TERMINAL

**MOTORS AND EQUIPMENT**










-  MOTOR STARTER, INDIVIDUAL. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
-  COMBINATION MOTOR STARTER. NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
-  DISCONNECT SWITCH, NON-FUSED EXAMPLE: 30 AMP
-  DISCONNECT SWITCH, FUSED EXAMPLE: 100 AMP, 2P, 80 AMP FUSES
-  MOTOR
-  SOLENOID VALVE
-  HEATER
-  THERMOSTAT
-  WATER HEATER
-  FIELD INSTRUMENT
-  LOCAL CONTROL STATION

-  EQUIPMENT DESIGNATION
-  CONTROL PANEL, VFD, RVSS, APPROXIMATE SHAPE AND SCALE.

**AREA IDENTIFICATION**

-  HAZARDOUS AREA CLASSIFICATION
-  HAZARDOUS AREA CLASSIFICATION

**TELEPHONE & COMMUNICATION SYSTEMS**

- UNLESS OTHERWISE NOTED, TELEPHONE OUTLETS SHALL BE MOUNTED AT SAME HEIGHT AS THE RECEPTACLES.
-  EXTERNAL LINE OR PLANT PHONE SYSTEM OUTLET
  -  OUTLET, DATA COMMUNICATION
  -  SECURITY CAMERA
  -  SPEAKER
  -  AUDIBLE HORN
  -  STROBE LIGHT (BLUE SHOWN)
  -  ELECTRONIC CARD SWIPE
  -  SMOKE DETECTOR
  -  RATE-OF-RISE DETECTOR

**CABLE TAG**

- MODIFIER
  - EQUIPMENT TAG
  - SUFFIX
- XX-XXXXXXXXX A
- NOTE:  
MODIFIERS FOR CABLE TAG:  
CP - POWER  
CC - CONTROL  
CS - SIGNAL, FIBER  
CV - VENDOR
- SUFFIX:  
A - LETTER TO CREATE UNIQUE ID

**GENERAL NOTES:**

1. SYMBOLS AND ABBREVIATION DRAWINGS ARE GENERAL IN NATURE. SOME SYMBOLS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2. SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.
3. IDENTIFICATIONS (ID), SIZES, RATINGS, LOCATIONS AND SIMILAR INFORMATION SHOWN ASSOCIATED WITH SYMBOLS ARE OPTIONAL; EXAMPLES OF SUCH INFORMATION ARE SHOWN WITH SOME SYMBOLS FOR CLARITY.

**Brown and Caldwell**

DESIGNED BY: D.STAR  
DRAWN BY: D.STAR  
CHECKED BY: M.PAGENDARM  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**GENERAL NOTES & SYMBOLS**  
**1**

90% GMP

DRAWING NO.  
**GE-01**

CONTROL DIAGRAM SYMBOLS

ONE LINE DIAGRAM SYMBOLS

GENERAL	
	CONDUCTORS CONNECTED
	CONDUCTORS NOT CONNECTED
	TERMINAL POINT FOR EXTERNAL CONNECTIONS
	EXISTING EQUIPMENT (SCREENED)
INDICATING LIGHTS	
	DIRECT CONNECTION
	PUSH TO TEST. TEST VOLTAGE TERMINAL SHOWN
	LENS COLOR: (L = LENS COLOR) A = AMBER B = BLUE G = GREEN R = RED W = WHITE
PUSHBUTTONS	
	HS-XXXX PUSHBUTTON, MOMENTARY CONTACT, NORMALLY OPEN
	HS-XXXX PUSHBUTTON, MOMENTARY CONTACT, NORMALLY CLOSED
	HS-XXXX PUSHBUTTON WITH MUSHROOM HEAD, EMERGENCY STOP
SELECTOR SWITCHES	
	HS-XXXXX 2 POSITION MAINTAINED CONTACT X = CONTACTS CLOSED O = CONTACTS OPEN
	HS-XXXXX 2 POSITION SPRING RETURNED TO RIGHT O = CONTACTS CLOSED X = CONTACTS OPENED CLOSED
	HS-XXXXX 3 POSITION MAINTAINED CONTACT X = CONTACTS CLOSED O = CONTACTS OPENED
CONTROL RELAYS	
	CR 1 FUNCTION OPERATION COIL: CR = CONTROL RELAY
	L 8 LR MECHANICALLY LATCHED RELAY WITH UNLATCHED COIL
	CR1 CR2 LINE 30 LINE 30 OUTPUT CONTACTS. LINE NUMBER OF RELAY COIL SHOWN (OPTIONAL)
	OL OVERLOAD RELAY
	OPERATING COIL FUNCTIONS: L = LATCH U = UNLATCH TR = TIMER RELAY LR = LATCH RELAY

INPUT SWITCHES		
NORMALLY OPEN	NORMALLY CLOSED	INITIATING VARIABLE
		SPEED
		TEMPERATURE
		FORCE OR TORQUE
		POSITION (LIMIT)
		FLOW
		LEVEL
		PRESSURE
TIMING RELAYS		
	TR 1 SEC / MIN	OPERATING COIL
	FUNCTION: ON OR OFF DELAY RANGE: SEC / MIN SET: SEC / MIN	
	NORMALLY OPEN	
	NORMALLY CLOSED	
	TR3 TO DELAY ON COIL ENERGIZATION (ON DELAY)	
	TR3 TO DELAY ON COIL DE-ENERGIZATION (ON DELAY)	
LINE = ID OF LINE OR RUNG NUMBER (LINE OR RUNG NUMBER 50 SHOWN)		
CONTACTORS		
	ID	OPERATING COIL: C = CONTACTOR, LIGHTING, OR GENERAL USE F = FAST OR FORWARD M = MAIN OR LINE 1M = FIRST MAIN OR WYE 2M = SECOND MAIN OR DELTA R = RUN OR REVERSE S = SLOW OR START IC = ISOLATION CONTROL
	ID SI EX	MAIN CONTACTS: MAIN CONTACTS AIR BREAK, NEMA SIZE OPTIONAL MODIFIERS: FVR = FULL VOLTAGE REVERSING RVS = REDUCED VOLTAGE STARTER RVSS = REDUCED VOLTAGE SOLID STATE STARTER RVAT = REDUCED VOLTAGE AUTOTRANSFORMER STARTER 2S2W = TWO SPEED, TWO WINDING STARTER
	M SIZE 1	VACUUM CONTACTOR, NEMA SIZE OPTIONAL

MISCELLANEOUS	
	FU 30 30A FUSE WITH SIZE AND OPTIONAL IDENTIFICATION
	FU 30, 30A FUSE WITH BLOWN FUSE INDICATOR
	480 VAC 250VA CONTROL TRANSFORMER PRIMARY/SECONDARY SIZE AS SHOWN OR AS SPECIFIED
	250/5 3 CURRENT TRANSFORMER PRIMARY/SECONDARY TURNS RATIO SHOWN (OPTIONAL)
	250 OHM RES RESISTOR
	RECTIFIER
	SURGE OR ARC SUPPRESSION
	55 KVAR CAPACITOR
	CONNECTOR
	XX INCOMING LINE POWER SUPPLY
	DRAWOUT MECHANISM
	CV-1000 SOLENOID VALVE: DEVICE ID 'CV-1000' SHOWN
	BUS DUCT
	GROUND CONNECTION
	POTENTIOMETER
	METER W/ ALPHA IDENTIFIER: A = AMMETER H = ELAPSED TIME V = VOLTMETER
	BATTERY
	CABLE ID SHIELDED CABLE
	LOCATED IN FIELD
	AC TERMINAL BLOCK
	DC TERMINAL BLOCK
	PLC I/O POINTS DI = DIGITAL INPUT DO = DIGITAL OUTPUT AI = ANALOG INPUT AO = ANALOG OUTPUT

	TRIP FRAME
	POWER CIRCUIT BREAKER (AIR, OIL, OR GAS) FRAME AND TRIP SETTING AND OPTIONAL I.D. SHOWN
	3P 100AT 100AF LSIG CIRCUIT BREAKER W/ ADJUSTABLE ELECTRONIC TRIP OVER BREAKER FRAME SIZE. SOLID STATE TRIP FEATURES SHOWN: L = LONG DELAY S = SHORT DELAY I = INSTANTANEOUS G = GROUND FAULT
	100AT 100AF 3P LSIG CIRCUIT BREAKER MCP MOTOR CIRCUIT PROTECTOR 3P 3-POLE THERMAL MAGNETIC TRIP
	30A 3P CLF FUSED SWITCH: FUSE RATING AND POLES SHOWN MODIFIERS: CLF = CURRENT LIMITING FUSE DE = DUAL ELEMENT F = CLASS 'F' E = E RATED
	FU 30 30A FUSE: 100A CLASS 'F' SHOWN
	ATS# 100A, 3P POWER TRANSFER SWITCH: DESIGNATION, AMP RATING, AND CONFIGURATION SHOWN ATS = AUTOMATIC TRANSFER SWITCH MTS = MANUAL TRANSFER SWITCH SUSE = SUITABLE FOR USE AS SERVICE ENTRANCE
	1 FVR AIR BREAK CONTACTOR, FVNR UNLESS OTHERWISE NOTED, NEMA SIZE 1 INDICATED FVR = FULL VOLTAGE, REVERSING STARTER 2S2W = TWO SPEED, TWO WINDING STARTER
	METERING (ANSI / IEEE FUNCTIONS SPECIFIED) POWER MONITOR (PM) POWER QUALITY MONITOR (HARMONIC ANALYSIS) (PQM) MOTOR MONITOR AND PROTECTION RELAY (MPR) FEEDER PROTECTION RELAY (FPR)
	5 KVA PACKAGED EQUIPMENT OR NON-MOTOR LOAD. KVA, KW, AMPS, AS NOTED.
	VFD VARIABLE FREQUENCY DRIVE (VFD) NORMAL DUTY HP IS INDICATED IF DIFFERENT THAN DRIVEN LOAD HP
	RVSS REDUCED VOLTAGE SOLID STATE STARTER
	SPD SURGE PROTECTION DEVICE
	64 N 3 ANSI C37.2 DEVICE & QUANTITIES SHOWN

	600kW 480V 60 Hz 3P, 4W GENERATOR WITH WINDING CONFIGURATION VOLTAGE, POWER, FREQUENCY SHOWN. POWER FACTOR OPTIONAL
	500 MOTOR, HORSE POWER SHOWN
	55 KVAR POWER FACTOR CORRECTIONS CAPACITOR KVAR RATING SHOWN
	POTHEAD
	STRESS CONE
	PORTABLE CABLE
	CABLE BUS
	BUS CONDUCTOR
	CABLE CONDUCTOR
	SURGE ARRESTOR
	LIGHTNING ARRESTOR
	TEST DEVICE
	DISCONNECT OR ISOLATING SWITCH 30A MINIMUM. SIZE AS INDICATED. 200 AMP SHOWN.
	480 VAC 30KVA 5% Z 208/120V POWER TRANSFORMER, VOLTAGES, SIZE, AND IMPEDANCE SHOWN
	1.5 KVA 480 VAC 2.5% Z 480 VAC ISOLATION TRANSFORMER, VOLTAGES, SIZE, AND IMPEDANCE SHOWN
	480VAC - 120VAC POTENTIAL TRANSFORMER, PT QUANTITY SHOWN (3) AND VOLTAGES SHOWN
	250/5 3 CURRENT TRANSFORMER, CT QUANTITY AND 250:5 TURNS RATIO SHOWN
	WINDING CONFIGURATIONS: DELTA WYE (GROUNDED)
	K KIRK KEY INTERLOCK
	50 AMP / 30 SEC GDR NEUTRAL GROUNDING RESISTOR. AMPS/TIME RATING SHOWN
	1 NEMA MINIMUM SIZE 1

DESIGNED BY: D.STAR  
DRAWN BY: D.STAR  
CHECKED BY: M.PAGENDARM  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

GENERAL NOTES & SYMBOLS  
2

90% GMP

DRAWING NO. GE-02

Brown and Caldwell

ABBREVIATIONS:

NOTES:

- ABBREVIATIONS SHOWN ON ELECTRICAL DRAWINGS ARE IN ACCORDANCE WITH ASME STANDARD Y14.38A
- ABBREVIATIONS ON THIS SHEET ARE IN ADDITION TO THE ABBREVIATIONS DEFINED ON OTHER DRAWINGS.
- ABBREVIATIONS HERE IN SHALL TAKE PRECEDENCE IN CASE OF CONFLICT.
- ABBREVIATIONS ARE NOT EQUIPMENT NUMBERING PREFIXES LISTED ON OTHER DRAWINGS.

A. AMP	AMP(S), AMPERE(S)	HTR	HEATER	PCP	PROCESS CONTROL PANEL
AC	ALTERNATING CURRENT	HV	HIGH VOLTAGE	PF	POWER FACTOR
AF	ARC FLASH	HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	PH	PHASE
AFD	ARC FLASH DETECTOR			PLC	PROGRAMMABLE LOGIC CONTROLLER
AFF	ABOVE FINISHED FLOOR	HWR	HOT WATER RETURN	PM	POWER MONITOR
AHAP	AS HIGH AS POSSIBLE	HWS	HOT WATER SUPPLY	PMM	POWER METERING MODULE
AIC	AMPS INTERRUPTING CAPACITY, SYMM.	HZ	HERTZ (CYCLES PER SECOND)	PNL	PANEL
AL	ALUMINUM			PP	POWER PANEL
ARCH	ARCHITECT(URAL)	I	INSTANTANEOUS	PQM	POWER QUALITY METER
ARMSARC	FLASH REDUCTION SWITCH	IAW	IN ACCORDANCE WITH	PR	PAIR
ASYM	ASYMMETRICAL	ICOM	IN ACCORDANCE WITH	PRI	PRIMARY
ATS	AUTOMATIC TRANSFER SWITCH	ID	INSIDE DIAMETER	PS	PUMP STATION
AUTO	AUTOMATIC	IMC	INTERMEDIATE METAL CONDUIT	PT	POTENTIAL TRANSFORMER
AUX	AUXILIARY	INCAND	INCANDESCENT	PVC	POLYVINYL CHLORIDE
AWG	AMERICAN WIRE GAUGE	INTLK	INTERLOCK	PWR	POWER
		INST	INSTANTANEOUS	QSB	QUARTZ STANDBY
BATT	BATTERY	I/O	INPUT-OUTPUT		
BC	BARE COPPER	IPB	INSTRUMENT PULLBOX		
BLDG	BUILDING			RC	REINFORCED CONCRETE
BOT	BOTTOM	JB	JUNCTION BOX	RCPT	RECEPTACLE
BPA	BONNEVILLE POWER ADMINISTRATION			REF	REFERENCE
		KCMIL	1000 CIRCULAR MIL	REQD	REQUIRED
C	CONDUCTOR, CONDUIT	KV	KILOVOLT	RE STL	REINFORCING STEEL
CB	CIRCUIT BREAKER	KVA	KILOVOLT-AMPERE	RMS	ROOT MEAN SQUARE
CKT	CIRCUIT	KVAR	KILOVOLT-AMPERE REACTIVE	RSC	RIGID STEEL CONDUIT
CLG	CEILING	KW	KILOWATT	RTD	RESISTANCE TEMPERATURE DETECTOR
CM	CENTIMETERS	KWH	KILOWATT-HOUR	RTU	REMOTE TERMINAL UNIT
CND	CONDUIT			RVSS	REDUCED VOLTAGE SOLID STATE STARTER
CNTL	CONTROL	L	LONG, LONG TIME	S	SHORT TIME
C.O.	CONDUIT ONLY, SPARE	LC	LIGHTING CONTACTOR	SA	SURGE ARRESTOR
CONC	CONCRETE	LCP	LOCAL CONTROL PANEL	SCR	SILICON CONTROLLED RECTIFIER
CPT	CONTROL POWER TRANSFORMER	LCS	LOCAL CONTROL STATION	SD	SMOKE DETECTOR
		LED	LIGHT EMITTING DIODE	SEC	SECONDARY
CT	CURRENT TRANSFORMER	LHH	LOW VOLTAGE HANDHOLE	SEL	SELECTOR
CU	COPPER	LL	LOAD REACTOR	SHH	SIGNAL HANDHOLE
		LMH	LOW VOLTAGE MANHOLE	SMH	SIGNAL MANHOLE
DB	DUCT BANK, DIRECT BURIAL	LP	LIGHTING PANEL	SPEC	SPECIFICATION
DC	DIRECT CURRENT, DATA CABLE	LR	LINE REACTOR	SPD	SURGE PROTECTION DEVICE
DCU	DISTRIBUTED CONTROL UNIT	LT	LONG TIME	SPKR	SPEAKER
DET	DETAIL	LTG	LIGHTING	SSP	SUBSTATION POWER
DIAG	DIAGRAM	LV	LOW VOLTAGE	ST	SHORT TIME
DIS	DISCONNECT	M	METER	STB	SHORTING TERMINAL BOARD
DWG	DRAWING	MA	MILLIAMPERE	STP	SHIELDED TWISTED PAIR
		MBS	MANUAL BYPASS SWITCH	SUB	SUBSTATION
EA	EACH	MCC	MOTOR CONTROL CENTER	SW	SWITCH
EC	EMPTY CONDUIT	MCP	MOTOR CIRCUIT PROTECTOR	SWBD	SWITCHBOARD
ECP	EQUIPMENT CONTROL PANEL	MPC	MOTOR CIRCUIT PROTECTOR	SWGR	SWITCHGEAR
EDB	ELECTRICAL DUCTBANK	MECH	MECHANICAL	SYMM	SYMMETRICAL
EG	ENGINE GENERATOR SET	MFR	MANUFACTURE(R)	SYS	SYSTEM
EL	ELEVATION	MH	MANHOLE, METAL HALIDE		
ELEC	ELECTRIC(AL)	MIC	MICROPHONE	TB	TERMINAL BOX
EMH	ELECTRICAL MANHOLE	MIS	MANAGEMENT INFORMATION STATION	TEL	TELEPHONE
EMER	EMERGENCY	MISC	MISCELLANEOUS	TEMP	TEMPERATURE
ENCL	ENCLOSURE/ENCLOSED	MM	MILLIMETER	TFR	TRANSFORMER
EPB	ELECTRICAL PULLBOX	MMH	MEDIUM VOLTAGE MANHOLE	TRI	TRIAD
ETM	ELAPSED TIME METER	MOV	MOTOR OPERATED VALVES	TS	TEST SWITCH
EP	EXPLOSION PROOF	MSC	MANUFACTURER SUPPLIED CABLE	TV	TELEVISION
EQUIP	EQUIPMENT	MTS	MANUAL TRANSFER SWITCH	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EX	EXISTING	MV	MILLIVOLT, MEDIUM VOLTAGE	TYP	TYPICAL
		MVMC	MEDIUM VOLTAGE MOTOR CONTROL	U/G	UNDERGROUND
FA	FORCED AIR/ FIRE ALARM			UON	UNLESS OTHERWISE NOTED
FACP	FIRE ALARM CONTROL PANEL	NEG	NEGATIVE SEQUENCE	UPS	UNINTERRUPTIBLE POWER SUPPLY
FBP	FOR BID PURPOSES	N/A	NOT APPLICABLE		
FDR	FEEDER	N.C.	NORMALLY CLOSED	V	VOLT
FL	FLUORESCENT	NEUT, N	NEUTRAL	VA	VOLTAMPERE
FLA	FULL LOAD AMPS	NF	NON-FUSED	VAR	VOLTAMPERE REACTIVE
FLEX	FLEXIBLE CONDUIT	NGR	NEUTRAL GROUNDING RESISTOR	VC	VACUUM CONTACTOR
F.O.	FAIL OPEN	NIC	NOT IN CONTRACT	VCP	VENDOR CONTROL PANEL
FO	FIBER OPTIC	N.O.	NORMALLY OPEN	VFD	VARIABLE FREQUENCY DRIVE
FOPP	FIBER OPTIC PATCH PANEL	NO.	NUMBER	VND	VENDOR
FUT	FUTURE	NOM	NOMINAL		
		NP	NAMEPLATE	W	WATT, WIRE, WIDE
G	GROUND	NS	NOT SWITCHED	W/	WITH
GDR	GROUNDING RESISTOR	NTS	NOT TO SCALE	W/O	WITHOUT
GEC	GROUND ELECTRODE CONDUCTOR			WW	WIREWAY
GEN	GENERATOR	OA	OPEN AIR	WG	WITH GROUND
GF	GROUND FAULT	OC	ON CENTER	WP	WEATHERPROOF
GFI	GROUND FAULT INTERRUPTER	OCC	OPERATION CONTROL CENTER		
GND, G	GROUND	OCP	OVER CURRENT PROTECTION	XFMR	TRANSFORMER
GRS	GALVANIZED RIGID STEEL	OD	OUTSIDE DIAMETER	XMTR	TRANSMITTER
		OH	OVERHEAD	XP	EXPLOSION PROOF
H	HIGH	OIS	OPERATOR INTERFACE STATION		
HEX	HEAT EXCHANGER	OT	OIL TIGHT	Z	IMPEDANCE
HGT	HEIGHT	OWS	OPERATOR WORKSTATION		
HH	HANDHOLE				
HID	HIGH INTENSITY DISCHARGE	P	POLE, PHASE		
HMI	HUMAN MACHINE INTERFACE	PBD	PANEL BOARD		
HP	HORSEPOWER	PB	PUSHBUTTON, PULLBOX		
HPS	HIGH PRESSURE SODIUM				
HRG	HIGH RESISTANCE GROUNDING				

GENERAL NOTES:

- THE ELECTRICAL DRAWINGS USE THE ONE LINE DIAGRAMS AND RISER DIAGRAMS AND PANEL SCHEDULES IN CONJUNCTION WITH SHOWING THE LOCATION OF THE ELECTRICAL/INSTRUMENTATION SOURCES AND LOADS/DEVICES SHOWN ON THE PLAN DRAWINGS TO DEPICT THE WORK. THE CONTRACTOR SHALL USE THESE DOCUMENTS TO DETERMINE AND PROVIDE THE NECESSARY RACEWAY AND WIRING SYSTEM FOR EACH CIRCUIT. ALL INDOOR RACEWAY SHALL BE RUN EXPOSED AND ROUTED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. THE TYPE OF RACEWAY AND WIRE USED SHALL BE AS SPECIFIED.
- IF EQUIPMENT SUPPLIED BY MANUFACTURER HAS A LARGER LOAD THAN INDICATED ON THE SINGLE LINE DIAGRAM, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED. THE CABLE, CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SIZED AS REQUIRED, TO ACCOMMODATE THE HIGHER VALUE AT NO COST TO THE OWNER OR ENGINEER.
- IN AREAS WHERE THERE ARE OVERHEAD CRANES, HOISTS, ETC., OR WHERE EQUIPMENT IS LIFTED AND MOVED FOR MAINTENANCE OR REPLACEMENT, NO CONDUITS SHALL BE RUN OVERHEAD THAT WILL INTERFERE WITH THE OPERATION OF THE EQUIPMENT OR ACCESS TO EQUIPMENT. COORDINATE OVERHEAD RACEWAY ROUTING WITH OWNER'S REPRESENTATIVE.
- THE LOCATION OF THE CONTROL STATIONS, LOCAL DISCONNECTS, RECEPTACLES, LIGHTING, ETC., SHOWN ON THE PLAN DRAWINGS ARE DIAGRAMMATIC ONLY. THE ACTUAL LOCATION SHALL BE COORDINATED IN THE FIELD WITH THE OWNER'S REPRESENTATIVE AND ADJACENT EQUIPMENT SUCH AS PIPING, PROCESS EQUIPMENT, ETC.
- THE CONTRACTOR SHALL COORDINATE WITH THE STRUCTURAL AND MECHANICAL DRAWINGS FOR CONDUIT STUB UP AND TERMINATION LOCATIONS.
- ALL DETAILS AND DIMENSIONS ASSOCIATED WITH THESE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO PERFORMING THE WORK THAT RELIES ON THIS INFORMATION. FINAL LOCATIONS SHALL BE APPROVED BY THE CONSTRUCTION MANAGER.
- ALL ELECTRICAL RACEWAY FLOOR AND WALL PENETRATIONS SHALL BE SEALED TO MAKE THEM WEATHER TIGHT AND FIRE RESISTANT, ALL SEALANTS SHALL BE UL LISTED.
- UNLESS OTHERWISE NOTED, LIQUID-TIGHT FLEXIBLE METAL CONDUIT WITH LISTED FITTINGS SHALL BE USED IN CLASS 1, DIVISION 2 AND UNCLASSIFIED LOCATIONS WHERE CONNECTIONS TO EQUIPMENT ARE SUBJECT TO VIBRATION.
- REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EQUIPMENT MOUNTING, VENTILATION, AND CONNECTION REQUIREMENTS.
- COORDINATE THE ELECTRICAL AND COMMUNICATION INSTALLATION WITH ALL OTHER TRADES PRIOR TO START OF ANY WORK.
- ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE APPROVED BY UNDERWRITERS LABORATORIES (UL) INC. FOR THE PURPOSE OF WHICH THEY ARE USED AND SHALL BEAR THEIR LABEL.
- ALL NEW EQUIPMENT SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES. LETTERS SHALL BE BLACK ON WHITE UNLESS ASSOCIATED WITH EMERGENCY CIRCUITS OR SHUTDOWN, IN WHICH CASE THE BACKGROUND SHALL BE RED.
- UNLESS OTHERWISE NOTED, CONTRACTOR SHALL PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT AND MATERIALS.
- ALL ELECTRICAL INDUSTRIAL CONTROL PANELS SHALL BEAR THE LABEL OF A UL 508A APPROVED PANEL SHOP. THE PANELS SHALL BE PROVIDED IN ACCORDANCE WITH NEC ARTICLE 409.
- CONTRACTOR SHALL FILL-IN OR PATCH EXISTING CONCRETE AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT. SEE DIVISION 3 SPECIFICATIONS FOR CONCRETE REQUIREMENTS.

DESIGNED BY: D.STAR	DRAWN BY: D.STAR	CHECKED BY: J.PAGENDARM	APPROVED BY: D.STAR	DATE: JUNE 2024	EWO NO: ---	ACCOUNT NO: 512260079
SCALE:						
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> <b>VERIFY SCALE</b>  <small>BAR IS ONE INCH ON ORIGINAL DRAWING</small> </div>						
NO.	DATE	ISSUED FOR	REVISIONS			
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	MADE BY	DATE	DESCRIPTION	BY
			DS	DS		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES

CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE

**GENERAL NOTES & SYMBOLS**

**3**

90% GMP

DRAWING NO.

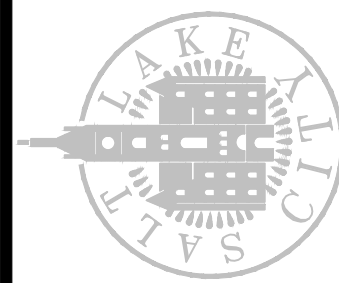
GE-03

**Brown and Caldwell**

LIGHTING FIXTURE SCHEDULE								
TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	MOUNTING	CKT. VOLTS	LAMP DATA	REMARKS	SYMBOL
A1	PREDATOR MEDIUM LED (PMLED) PMLED 3000K AUTO-SENSING (120-277V) 5X5 PRISMATIC GLASS TENON SLIPFITTER (KNUCKLE) WET LOCATION BLACK PAINT  HOLOPHANE RTS/AORTS ROUND TAPERED STEEL POLE	HOLOPHANE	PMLED P2 30K MVOLT 55 KO BKSDP WL	POLE	277	LED ARRAY		
AF1	WALL MOUNT LED MINI SCONCE	PHILIPS GARDCO	111L-16-750-NW-G3-4-120-F1-BK	WALL	120	LED ARRAY		
MF1	PHU ION LED HIGH BAY 35000 LUMENS PENDANT MOUNT	HOLOPHANE	PH 35000LM 277 35K 80CRI PM	PENDANT	277	LED ARRAY		
SF1	LED 4FT SUSPENDED LUMINAIRE	LITHONIA	MSL 4000LM L/LV 120 35K 80CRI	SUSPENDED	120	LED ARRAY		
X1	LED EXIT SIGN WITH BACKUP BATTERY RIGHT ARROW	HUBBELL	EVE-U-R-W-E	WALL	120	LED ARRAY		
X2	LED EXIT SIGN WITH BACKUP BATTERY	HUBBELL	EVE-U-R-W-E	WALL	120	LED ARRAY		
X3	LED EXIT SIGN WITH BACKUP BATTERY LEFT ARROW	HUBBELL	EVE-U-R-W-E	WALL	120	LED ARRAY		

NOTE  
FOR FIXTURES MOUNTING HEIGHT REFER TO LIGHTING SHEETS FOR EACH BLDG.

**Brown and Caldwell**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**LUMINAIRE SCHEDULE**

**90% GMP**

DRAWING NO.  
**GE-04**

**REVISIONS**

NO.	DATE	MADE BY	BY	DS	DS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)			

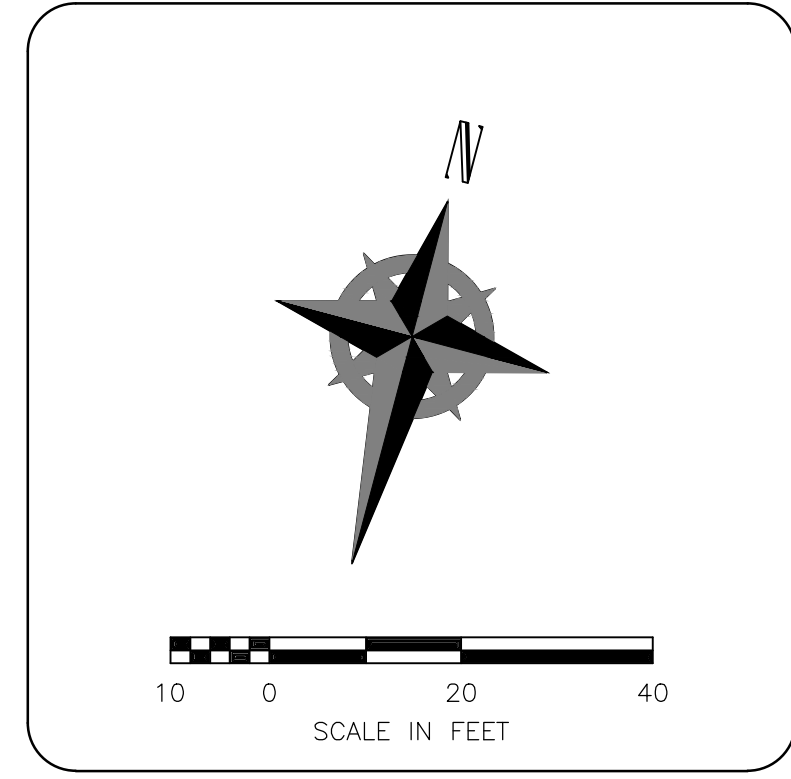
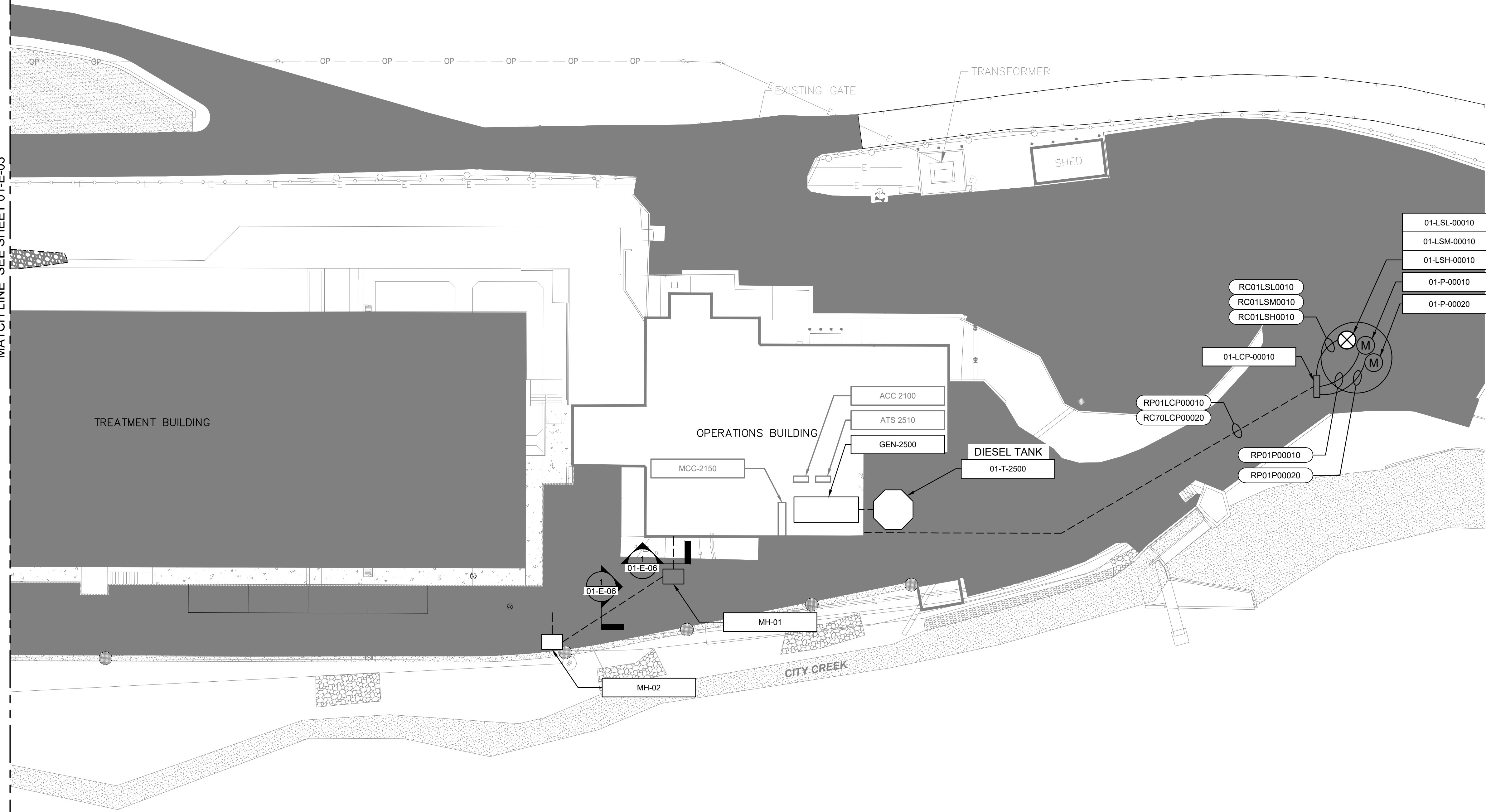
DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: J.STAR  
APPROVED BY: J.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

C:\bcpa\1569745\01-E-02.dwg Jun 12, 2024 - 1:54pm

MATCH LINE SEE SHEET 01-E-03



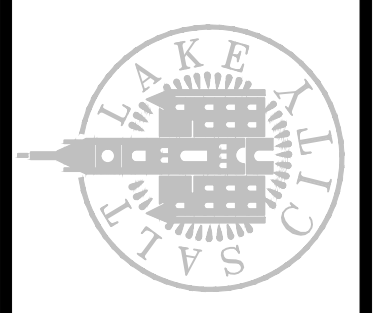
DESIGNED BY: J.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: J.STAR  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**ELECTRICAL SITE PLAN - AREA 1**



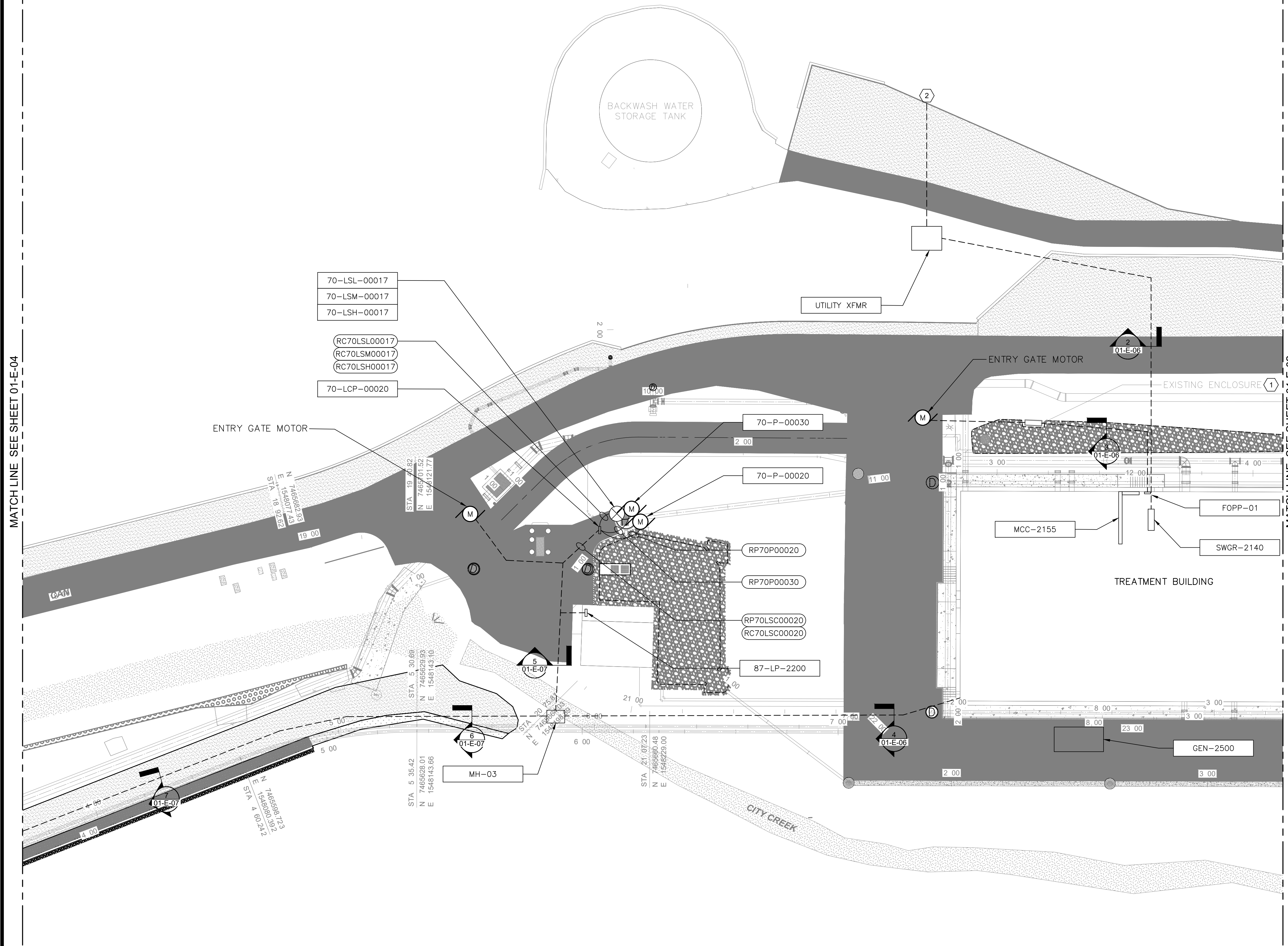
**Brown and Caldwell**

**90% GMP**

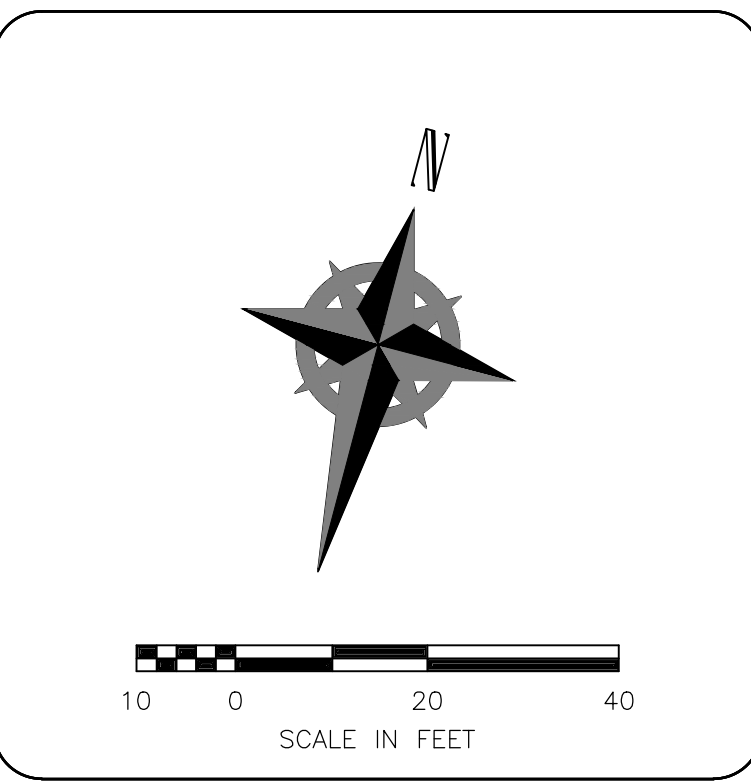
DRAWING NO.  
**01-E-02**

C:\bcpm\41569745\01-E-03.dwg Jun 12, 2024 -- 12:52pm

MATCH LINE SEE SHEET 01-E-04



MATCH LINE SEE SHEET 01-E-02



### KEYNOTES:

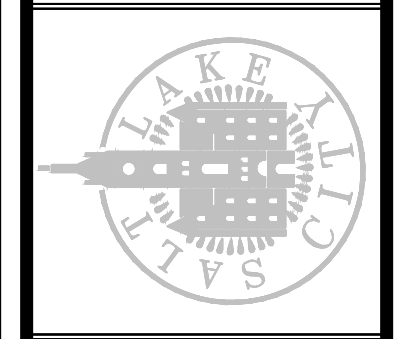
1. TIE IN TO EXISTING FIBER OPTIC CABLES WITH NEW FIBER OPTIC PATCH PANEL IN EXISTING JUNCTION BOX.
2. FROM OVERHEAD UTILITY POLES

**Brown and Caldwell**

DESIGNED BY: D.STAR	SCALE:
DRAWN BY: N.ANDERSON	
CHECKED BY: D.STAR	
APPROVED BY: D.STAR	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

NO.	DATE	REVISIONS	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**ELECTRICAL SITE PLAN - AREA 2**

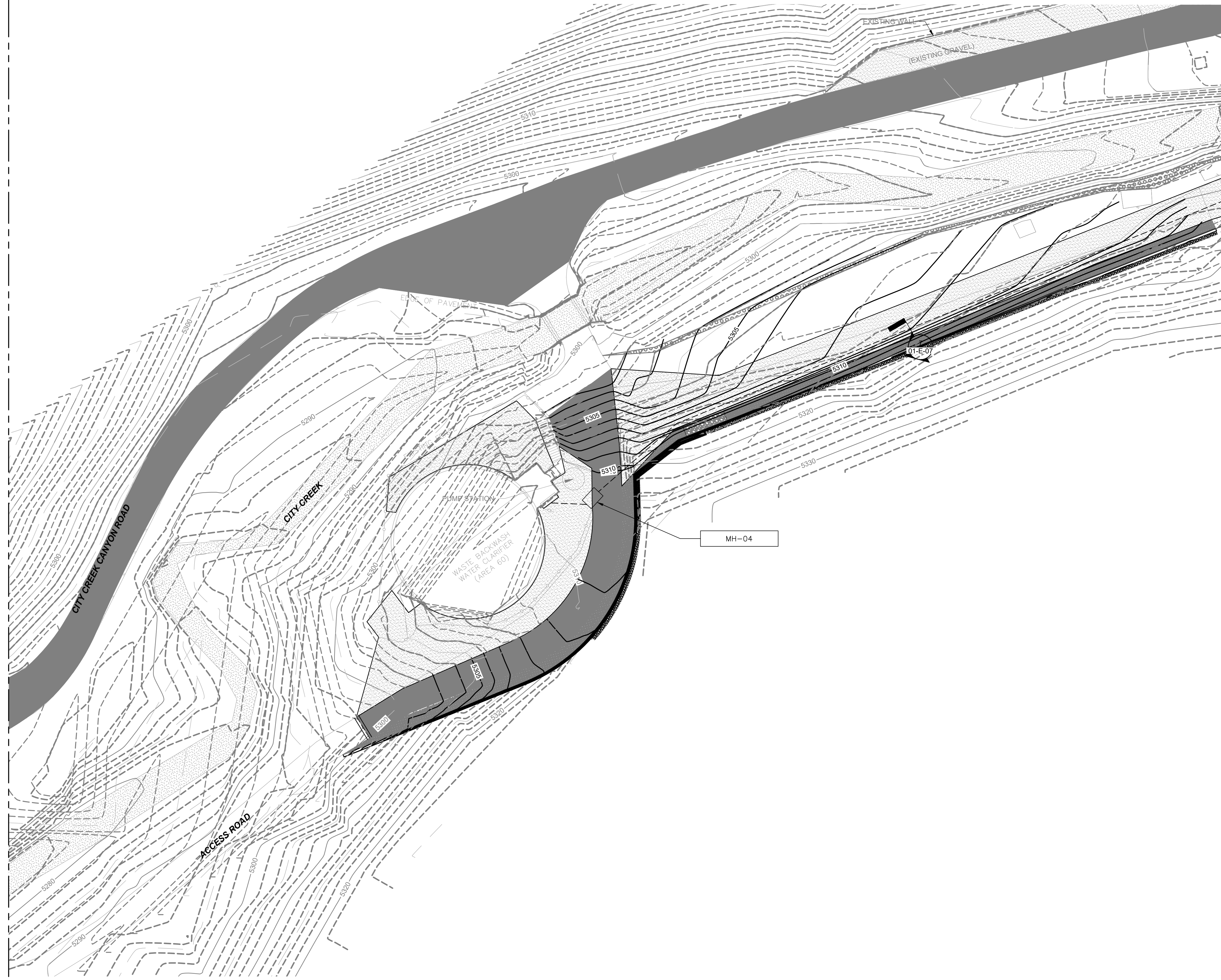


**90% GMP**

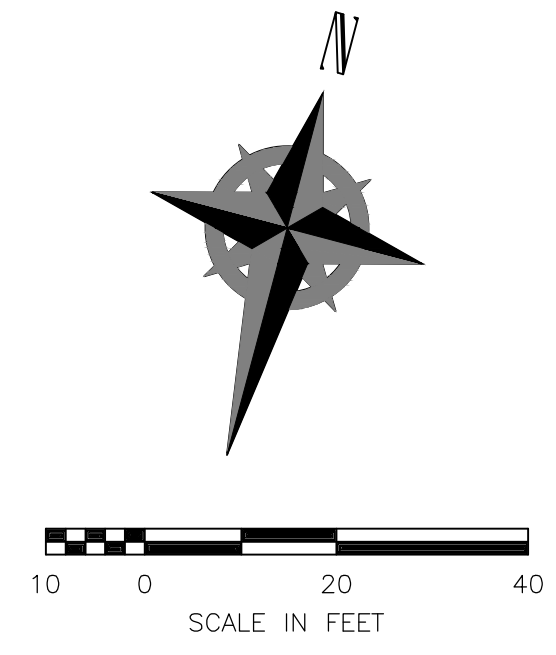
DRAWING NO.  
**01-E-03**

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING



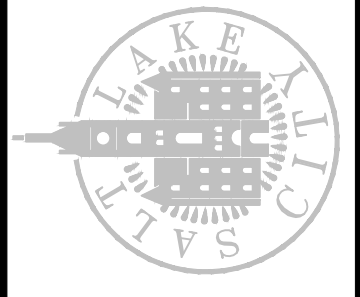


MATCH LINE SEE SEE DRAWING 01-E-03



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**ELECTRICAL SITE PLAN -  
 AREA 3**



**90% GMP**

DRAWING NO.  
**01-E-04**

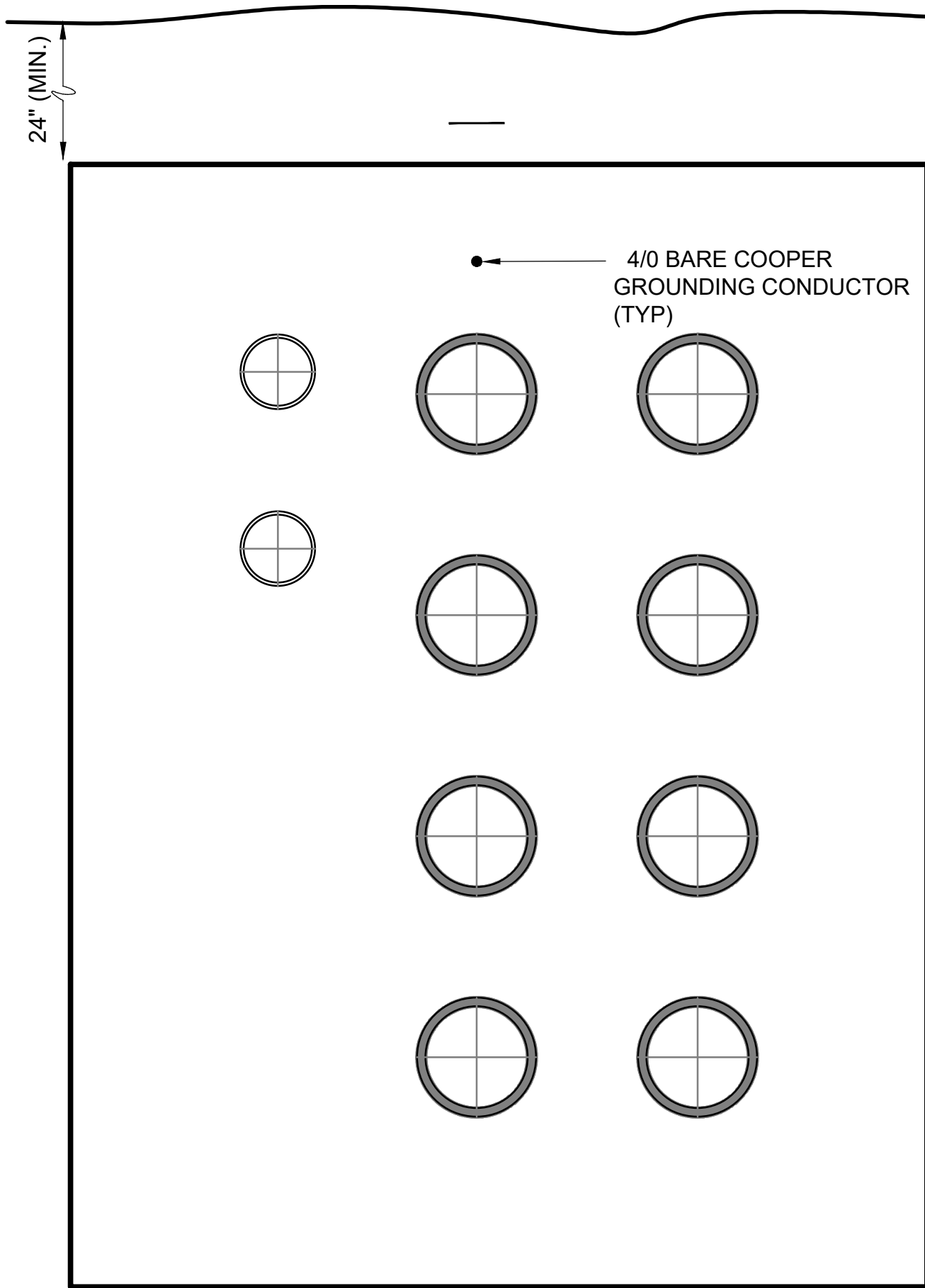
**REVISIONS**

NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	MADE BY	APPR. BY
0	06/14/24		DS	DS

DESIGNED BY: D.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

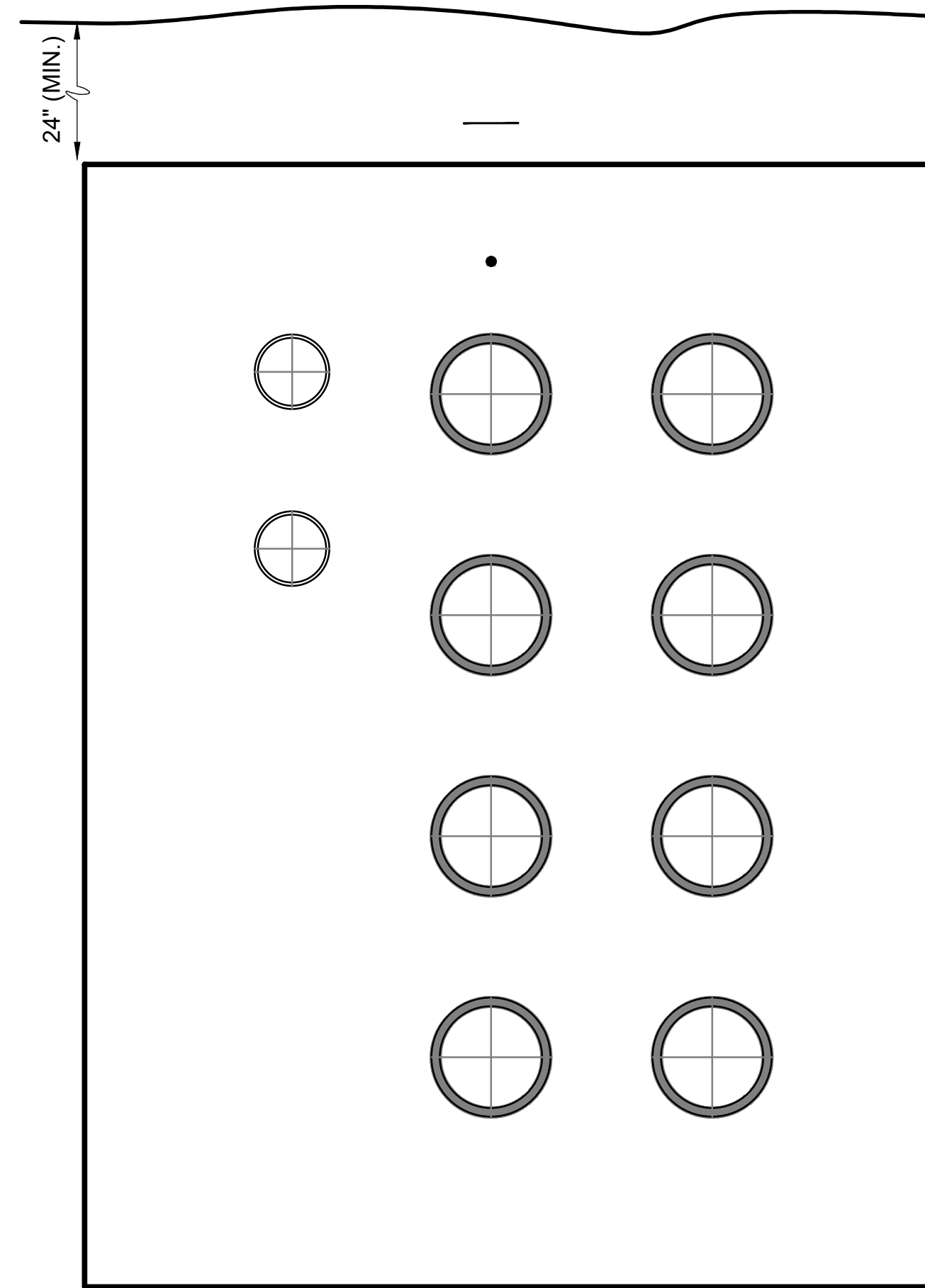
SCALE: \_\_\_\_\_



S 25.2" W X 33.0" H (8-3"C 2-2"C)  
DB-01

RS01FOPP01A	RP01MCC2155A	RP01MCC2160A
RS70PLC9000A	RP01MCC2155D	RP01MCC2160E
	RP01MCC2155G	RP01MCC2160I
	RP01MCC2155	RP01MCC2160M

1  
01-E-02

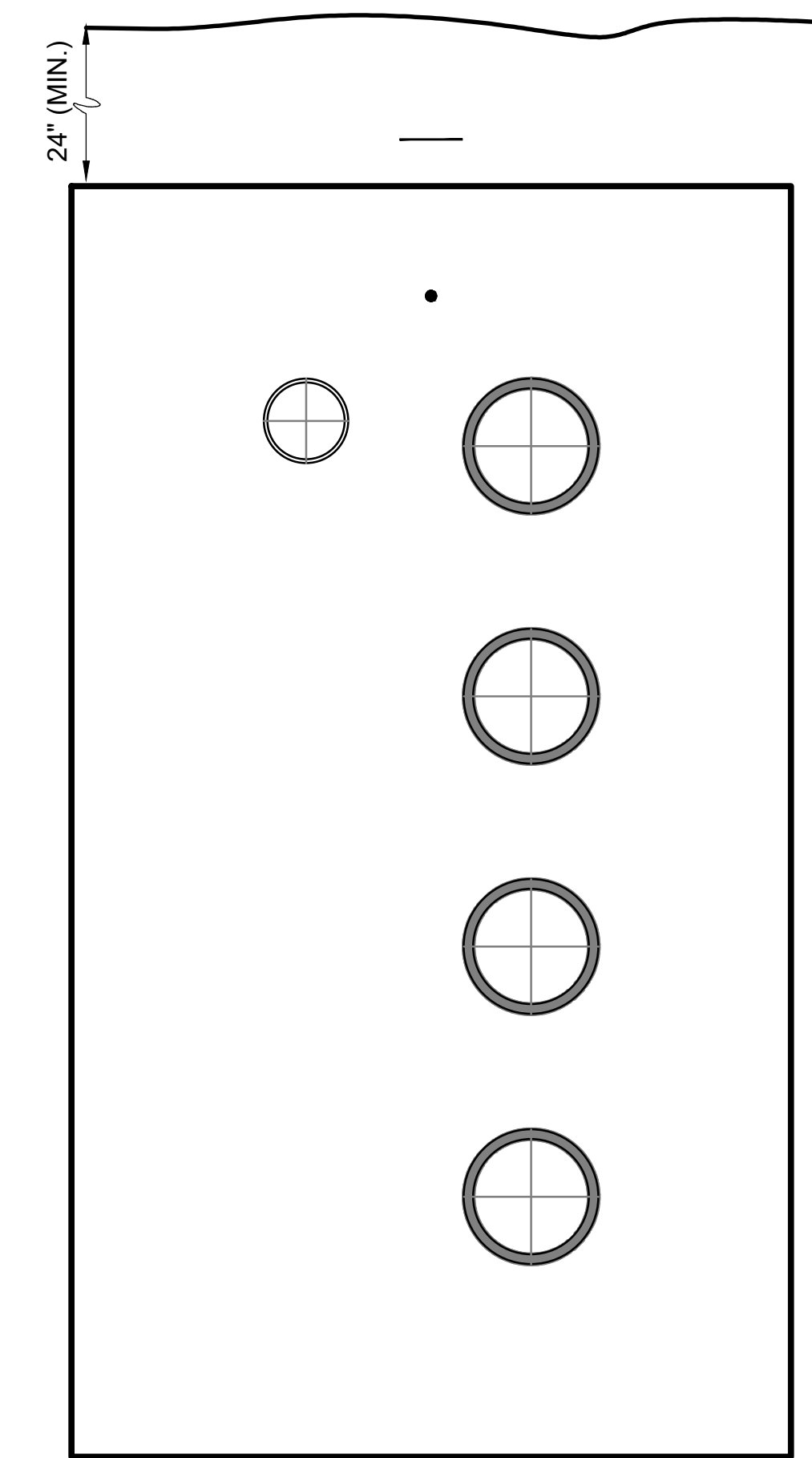


S 25.2" W X 33.0" H (8-3"C 2-2"C)

DB-02

RS01FOPP01B	RP01MCC2155B	RP01MCC2160B
RS70PLC9000B	RP01MCC2155E	RP01MCC2160F
	RP01MCC2155H	RP01MCC2160
	RP01MCC2155K	RP01MCC2160N

2  
01-E-02



S 18.7" W X 33.0" H (4-3"C 1-2"C)

DB-03

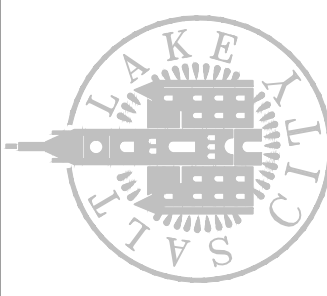
RS70PLC9000C	RP01MCC2160C
	RP01MCC2160G
	RP01MCC2160K
	RP01MCC2160O

3  
01-E-03

4  
01-E-03

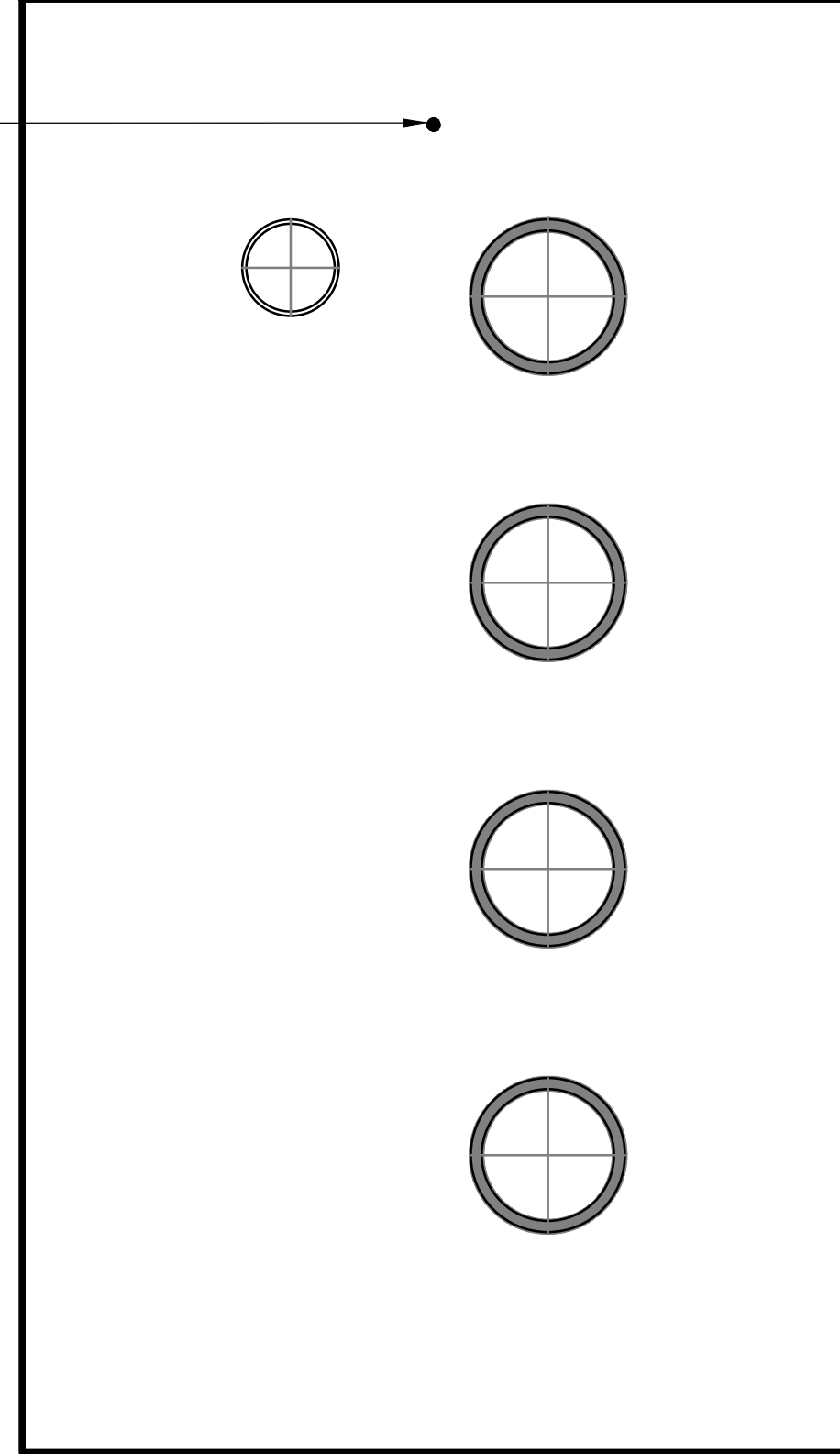
SHEET NOTES

**Brown and Caldwell**

	SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>DUCTBANK SECTIONS 1</b>	SCALE: _____ <b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING
<b>90% GMP</b>	DRAWING NO. <b>01-E-06</b>	DESIGNED BY: N.ANDERSON DRAWN BY: N.ANDERSON CHECKED BY: J.STAR APPROVED BY: J.STAR DATE: JUNE 2024 EMO NO: 512260079 ACCOUNT NO:
REVISIONS NO. DATE AUTH. BY MADE BY 0 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP) DS DS		

4/0 BARE COOPER  
GROUNDING CONDUCTOR  
(TYP)

24" (MIN.)



S 18.7" W X 33.0" H (4-3°C 1-2°C)

DB-05

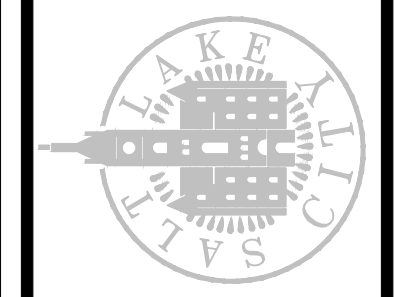
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	RP01MCC2155F
	RP01MCC2155I
	RP01MCC2155L

1  
01-E-03

SHEET NOTES

**Brown and Caldwell**

DRAWING NO.  
**01-E-07**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**DUCTBANK SECTIONS 2**

**90% GMP**

REVISIONS

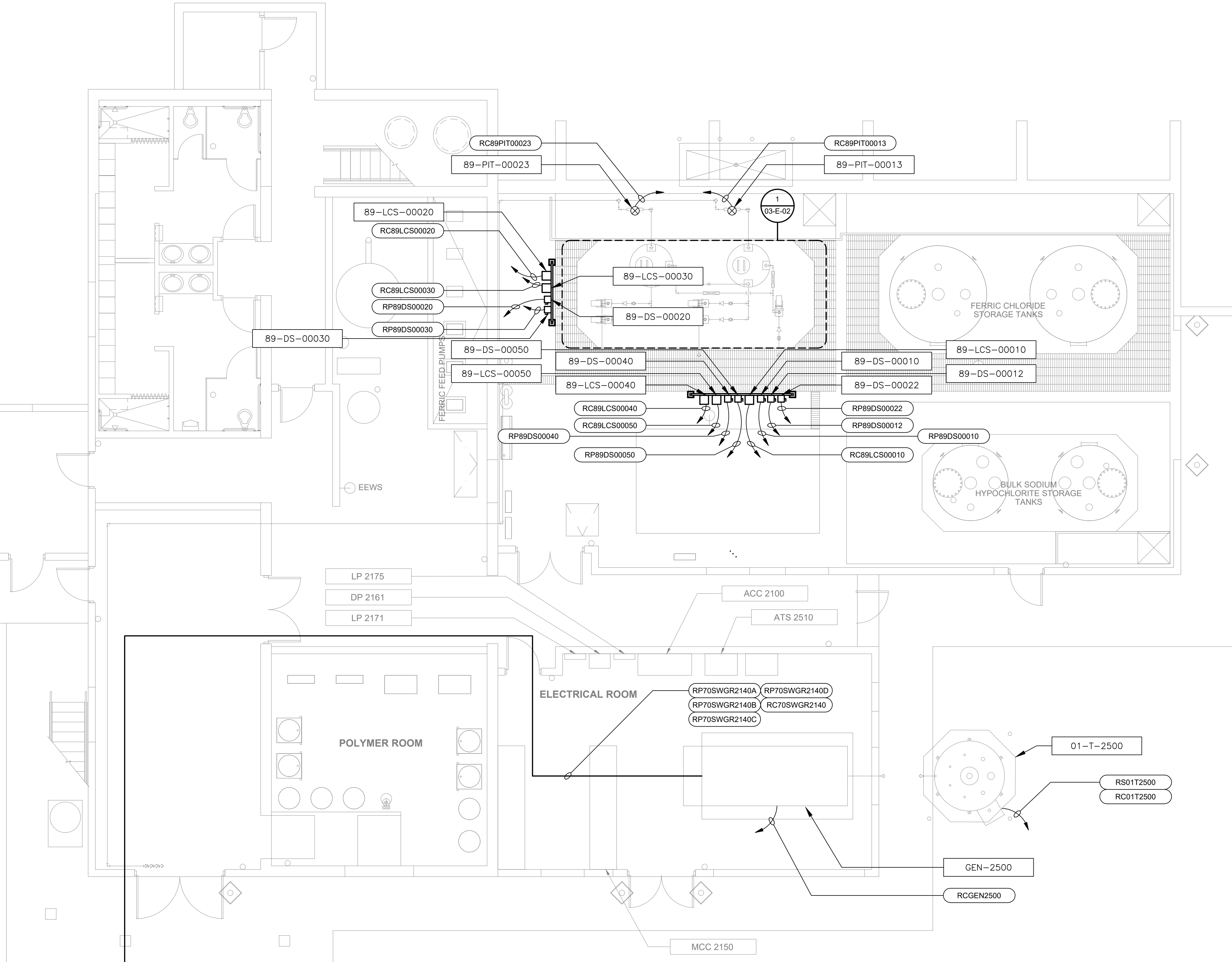
NO.	DATE	MADE BY	AUTH BY
0	06/14/24	DS	DS

DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: J.STAR  
APPROVED BY: J.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

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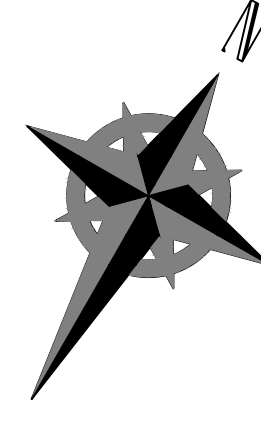
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C:\bcpw\41569745\03-E-01.dwg Jun 13, 2024 - 12:44pm



CONTINUED TO DRAWING 01-E-02

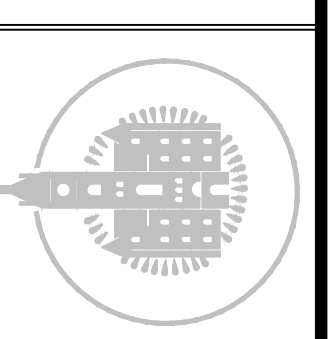
PLAN SCALE 3/16" = 1'-0"



DESIGNED BY: D.STAR  
 DRAWN BY: N.ROBERTS  
 CHECKED BY: D.STAR  
 DATE: JUNE 2024  
 EMO NO.: 512260079  
 ACCOUNT NO.: 512260079

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**OPERATIONS - FLOOR ELECTRICAL PLAN**



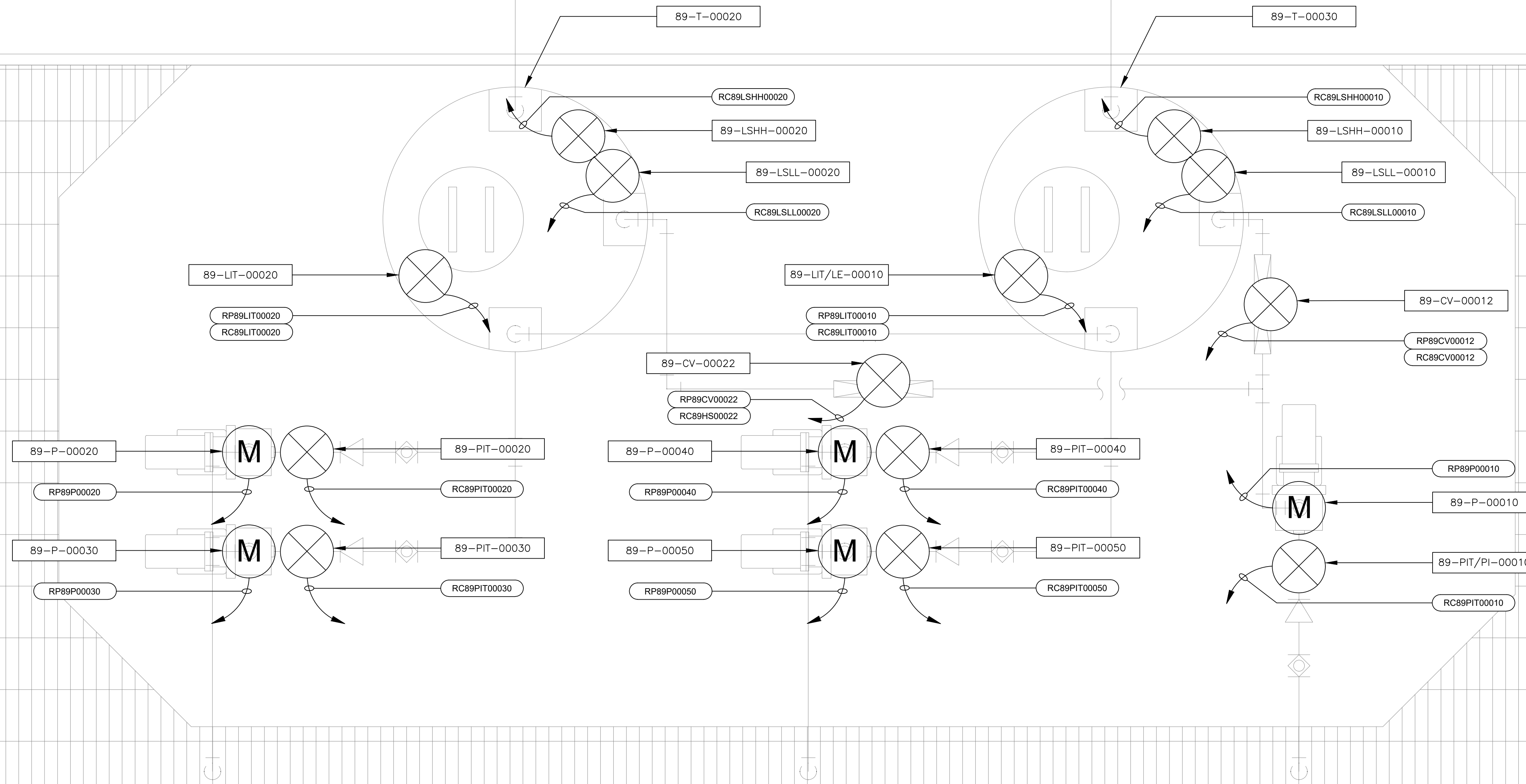
**Brown and Caldwell**

90% GMP

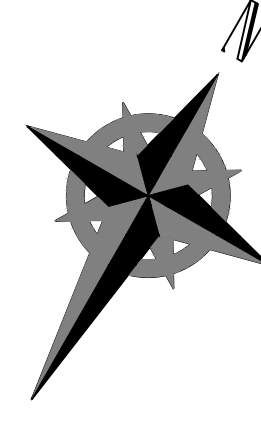
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SCALE: VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

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1 ENLARGED PLAN  
03-E-01 SCALE 1" = 1'-0"

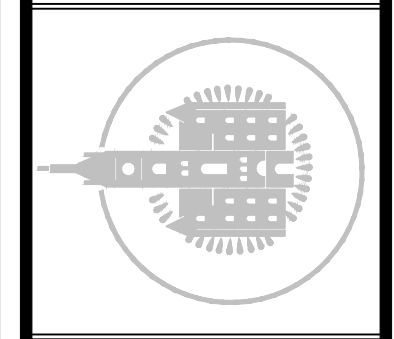


**Brown and Caldwell**

DESIGNED BY: D.STAR	SCALE:
DRAWN BY: A.ROBERTS	
CHECKED BY: D.STAR	
APPROVED BY: D.STAR	
DATE: JUNE 2024	
EVO NO: ---	
ACCOUNT NO: S12260079	

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**OPERATIONS - ENLARGED  
PLAN 1**



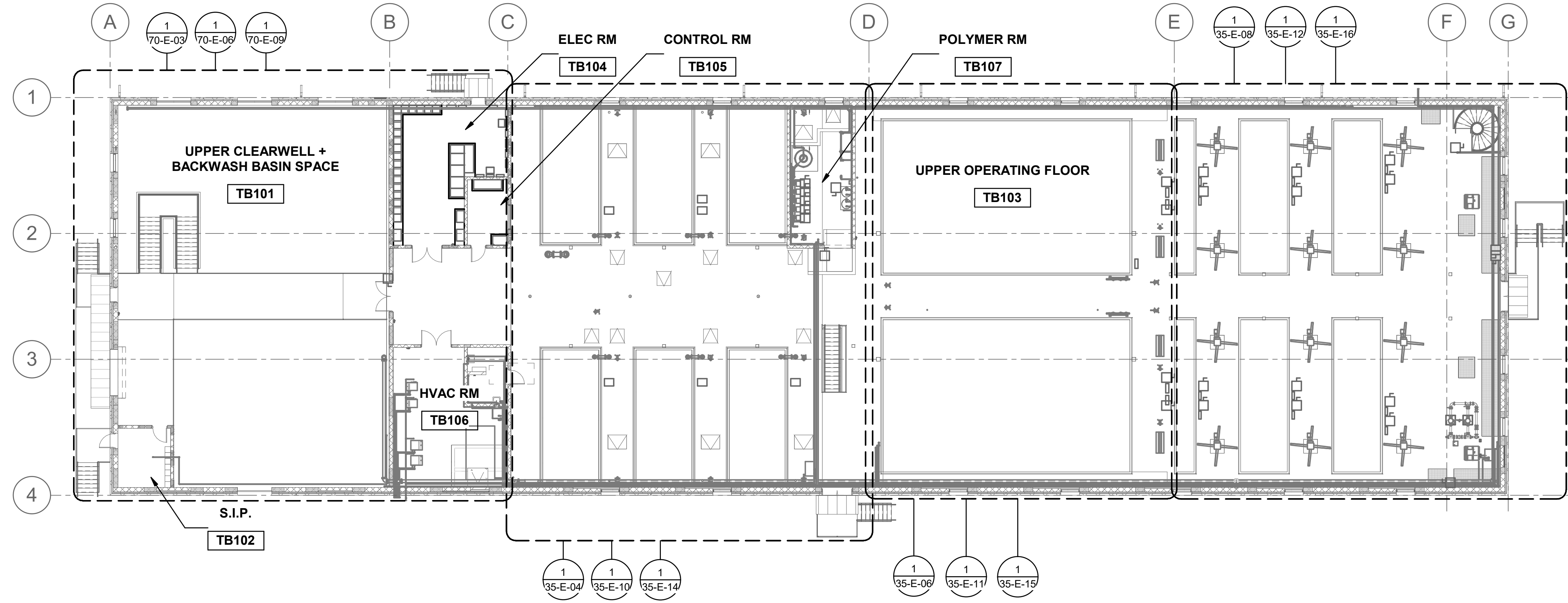
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DRAWING NO.  
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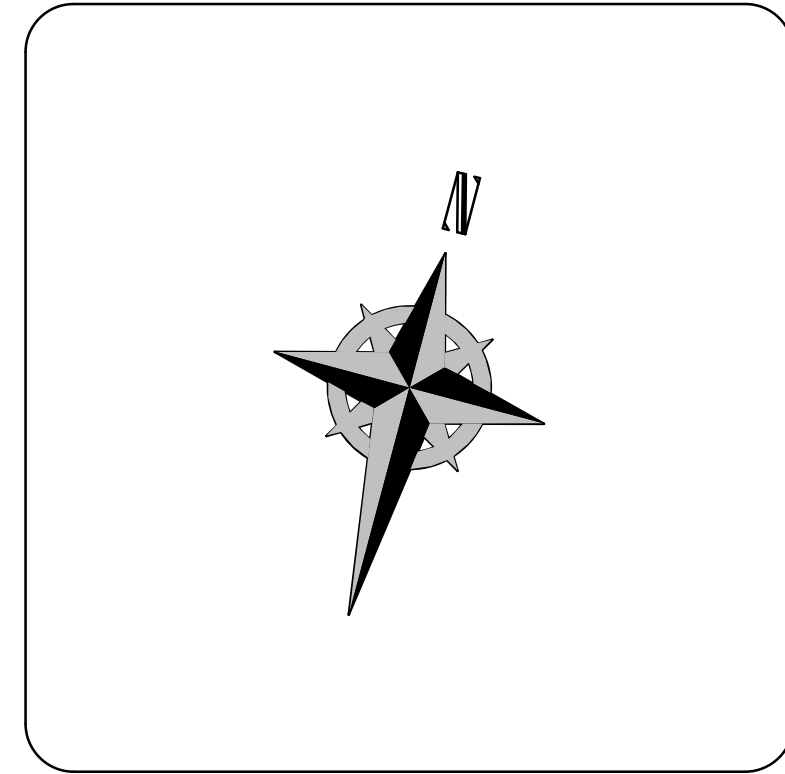
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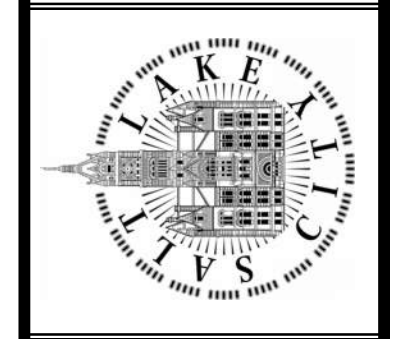


**OVERALL UPPER PLAN**  
SCALE: 1/16" = 1'-0"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - OVERALL PLAN**  
2



90% GMP

DRAWING NO.  
**35-E-02**

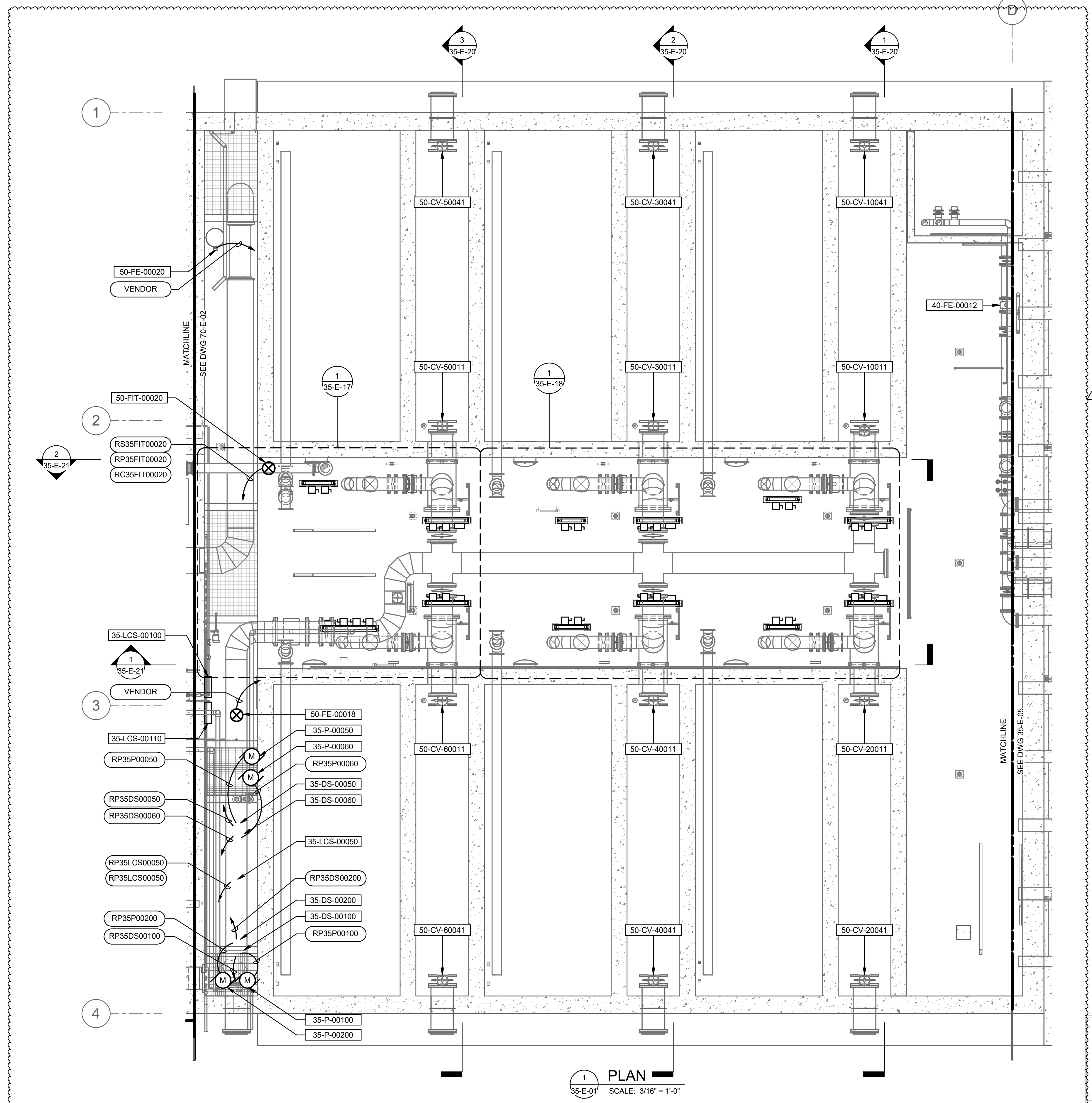
REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				DS	DS

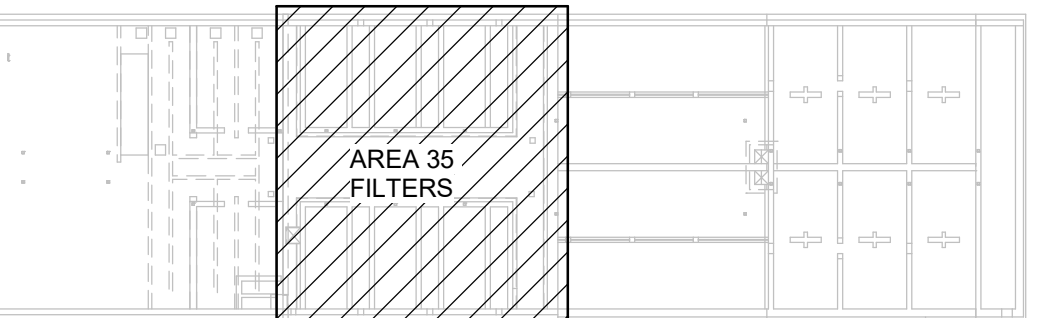
DESIGNED BY: D.STAR  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

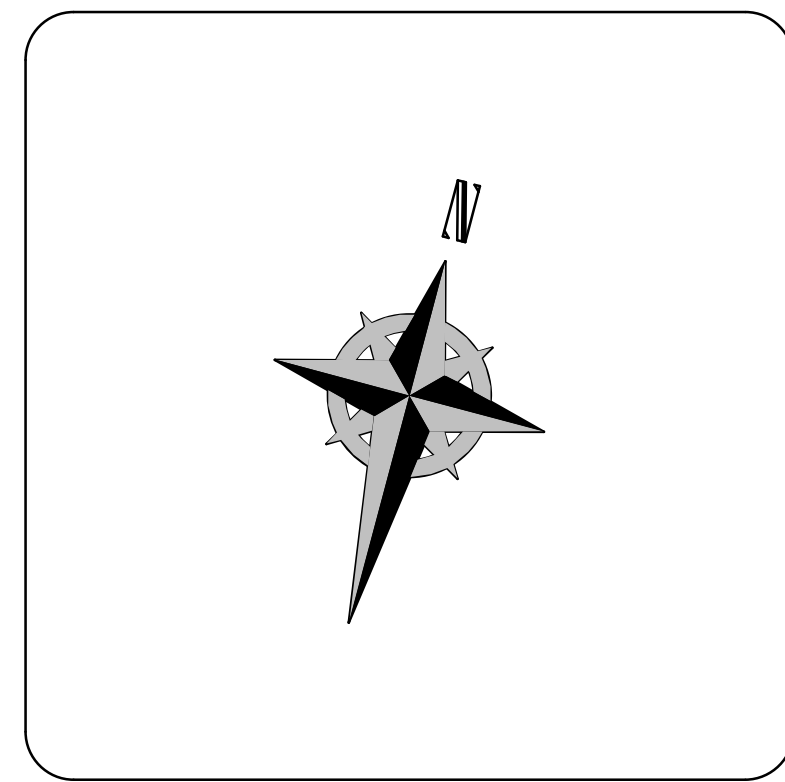
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



KEY PLAN



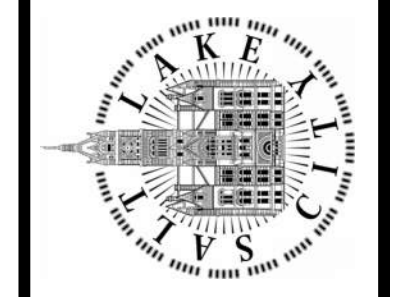
**KEYNOTES:**

1 THREE CABLE TRAYS CONNECT THE UPPER FLOOR ELECTRICAL ROOM TO THE LOWER FLOOR GALLERY. THE ROUTE OF THESE THREE CABLE TRAYS STARTS IN THE ELECTRICAL ROOM ON SHEET 35-E-07. THE ROUTE CONTINUES ON SECTION 3 OF SHEET 35-E-29. THEN, THE ROUTE CONTINUES ON SECTION 1 OF SHEET 35-E-28.

**Brown and Caldwell**

DESIGNED BY: D.STAR	AUTH BY: DS	MADE BY: DS	NO. 0	DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)
DRAWN BY: N.ANDERSON	BY: DS	BY: DS	1	06/27/24		
CHECKED BY: D.STAR	DS	DS				
APPROVED BY: D.STAR	DS	DS				
DATE: JUNE 2024						
EWO NO: ---						
ACCOUNT NO: 512260079						

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTERS**  
LOWER LVL ELECTRICAL PLAN



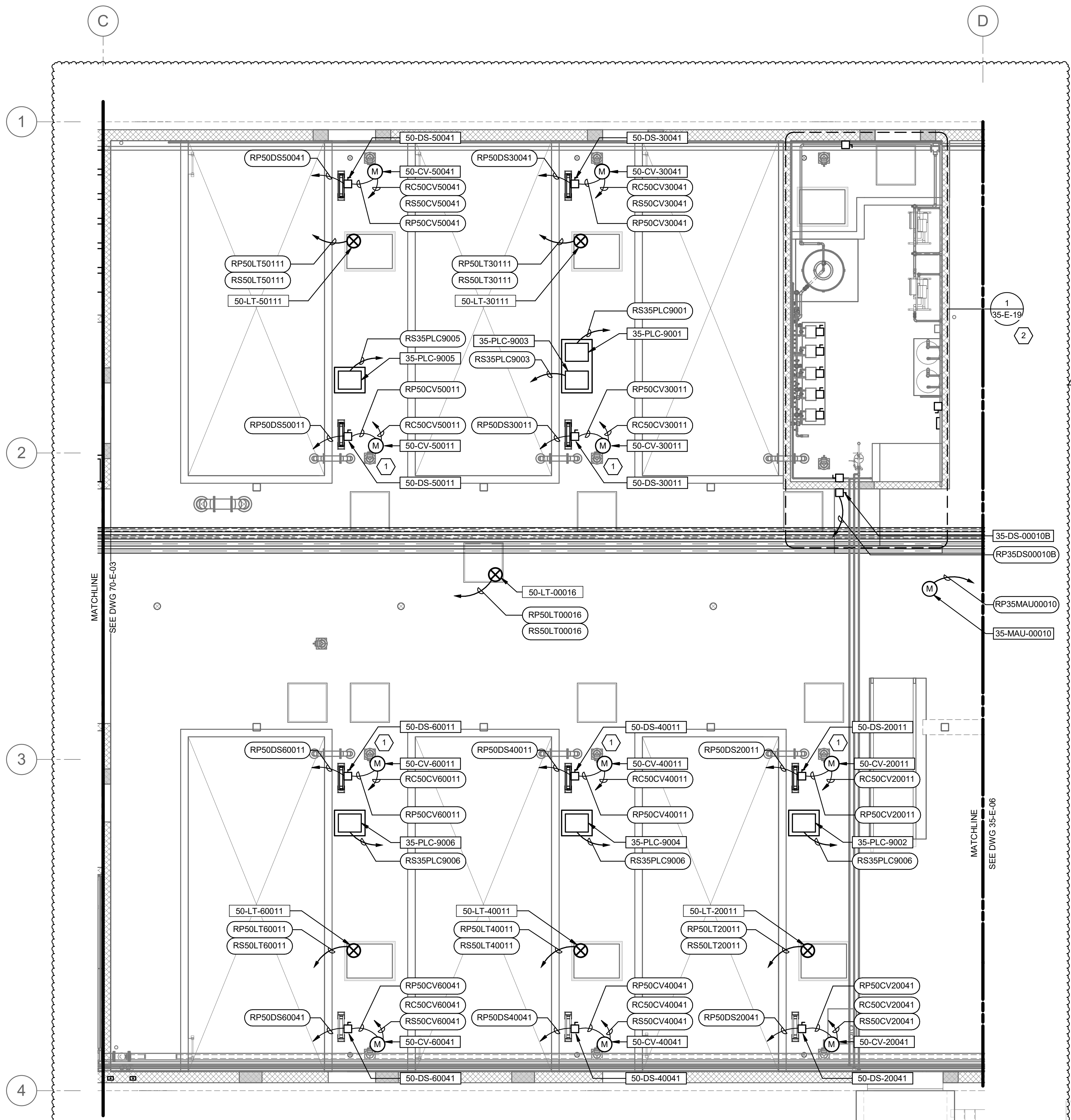
90% GMP

DRAWING NO.  
**35-E-03**

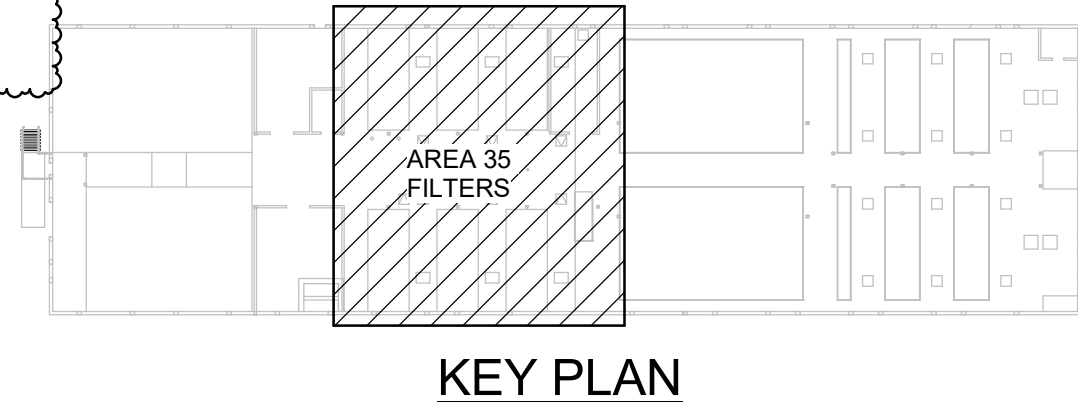
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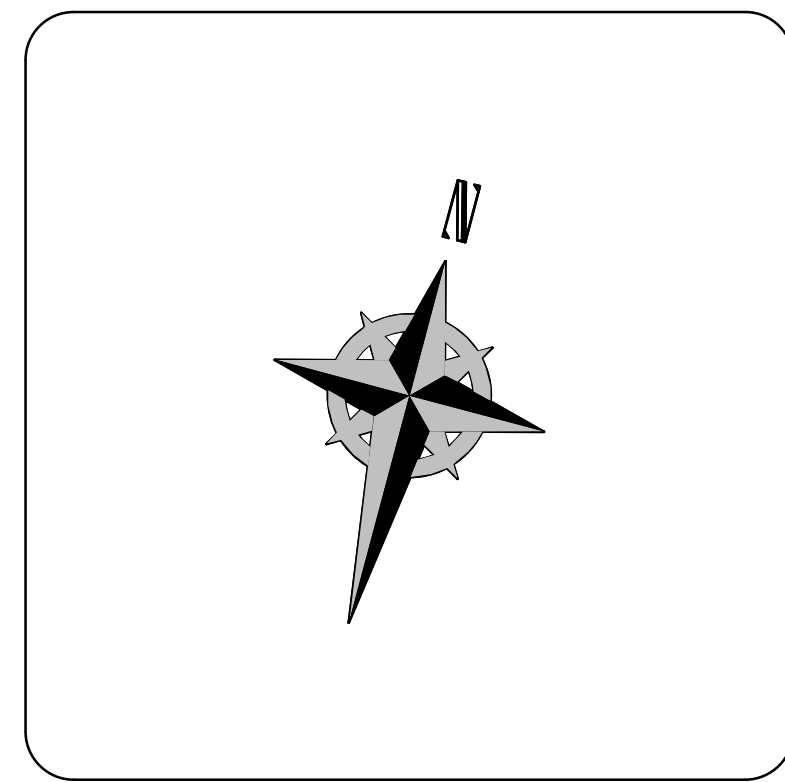
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1 PLAN  
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KEY PLAN

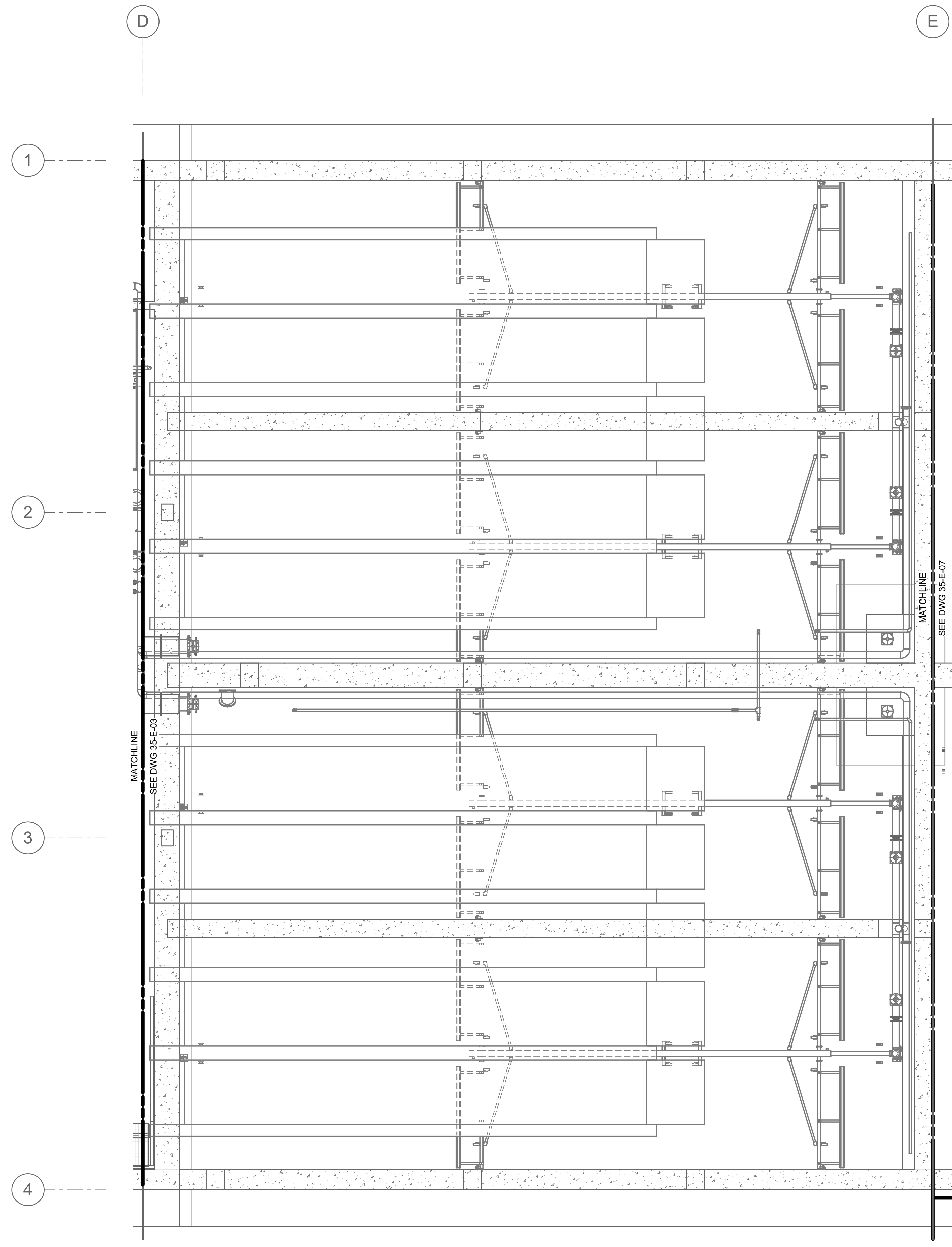


**KEYNOTES:**

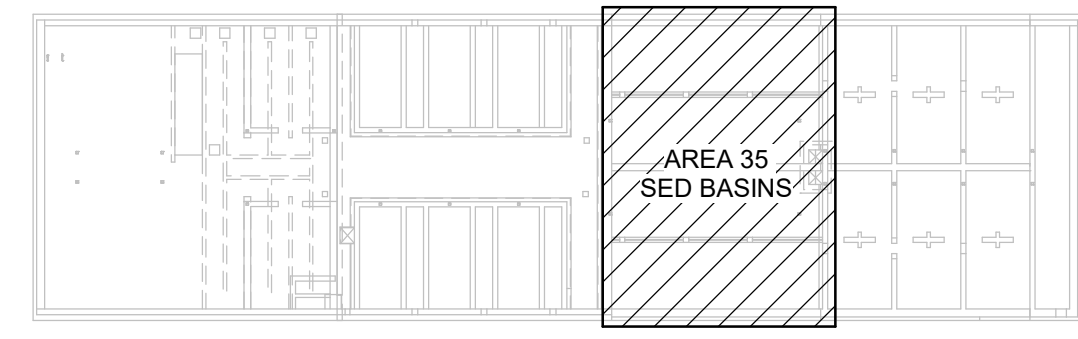
- 1 VALVE LOCATED BELOW BASIN DECK. PENETRATE AND EMBED CONDUIT IN SLAB DECK TO ROUTE FROM VALVE TO VALVE ACTUATOR.
- 2 VALVES AND ASSOCIATED EQUIPMENT FOR FILTER 1 SHOWN ON ENLARGED PLAN (DRAWING 35-E-19) WITH POLYMER FEED EQUIPMENT.

DESIGNED BY: D.STAR		SCALE:													
DRAWN BY: N.ANDERSON		VERIFY SCALE													
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING													
APPROVED BY: D.STAR		DATE: JUNE 2024													
EWO NO: ---		ACCOUNT NO: 512260079													
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NO.	DATE:	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)												
0	06/14/24														
1	06/27/24														
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NO.	DATE:	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)												
0	06/14/24														
1	06/27/24														
<p>REVISIONS</p> <p>MADE BY: DS</p> <p>BY: DS</p>															
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES</p> <p>CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE</p> <p>TREATMENT - FILTERS</p> <p>UPPER LVL ELECTRICAL PLAN</p>															
<p>90% GMP</p>															
<p>DRAWING NO. 35-E-04</p>															

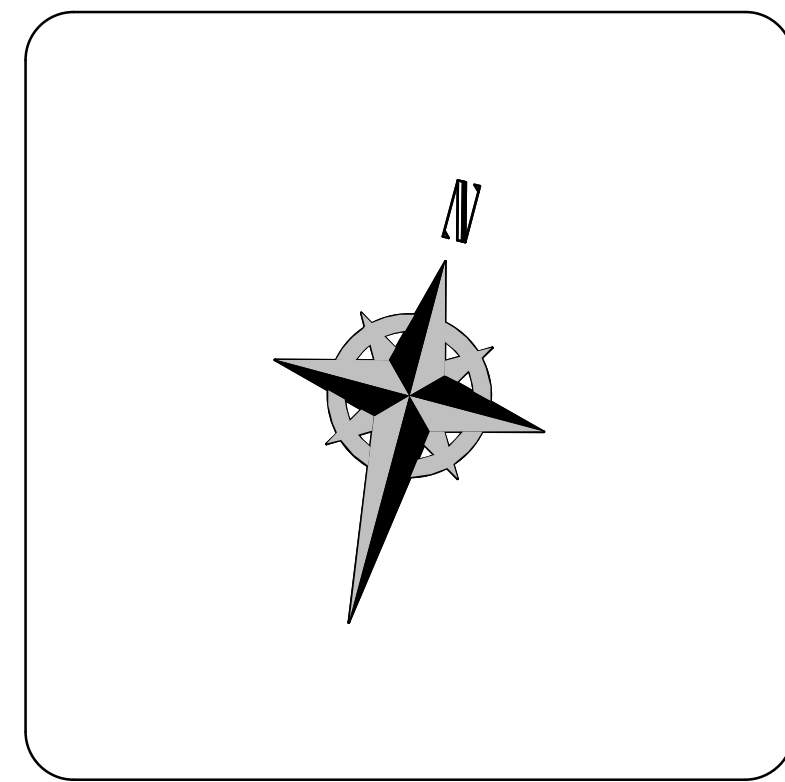
**Brown and Caldwell**



1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"

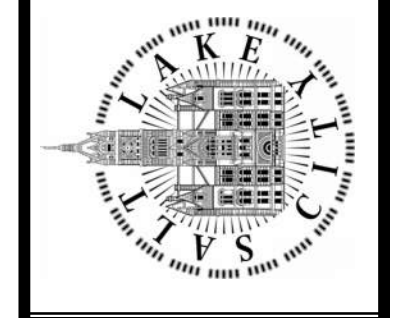


KEY PLAN



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SED BASINS  
LOWER LVL ELECTRICAL PLAN



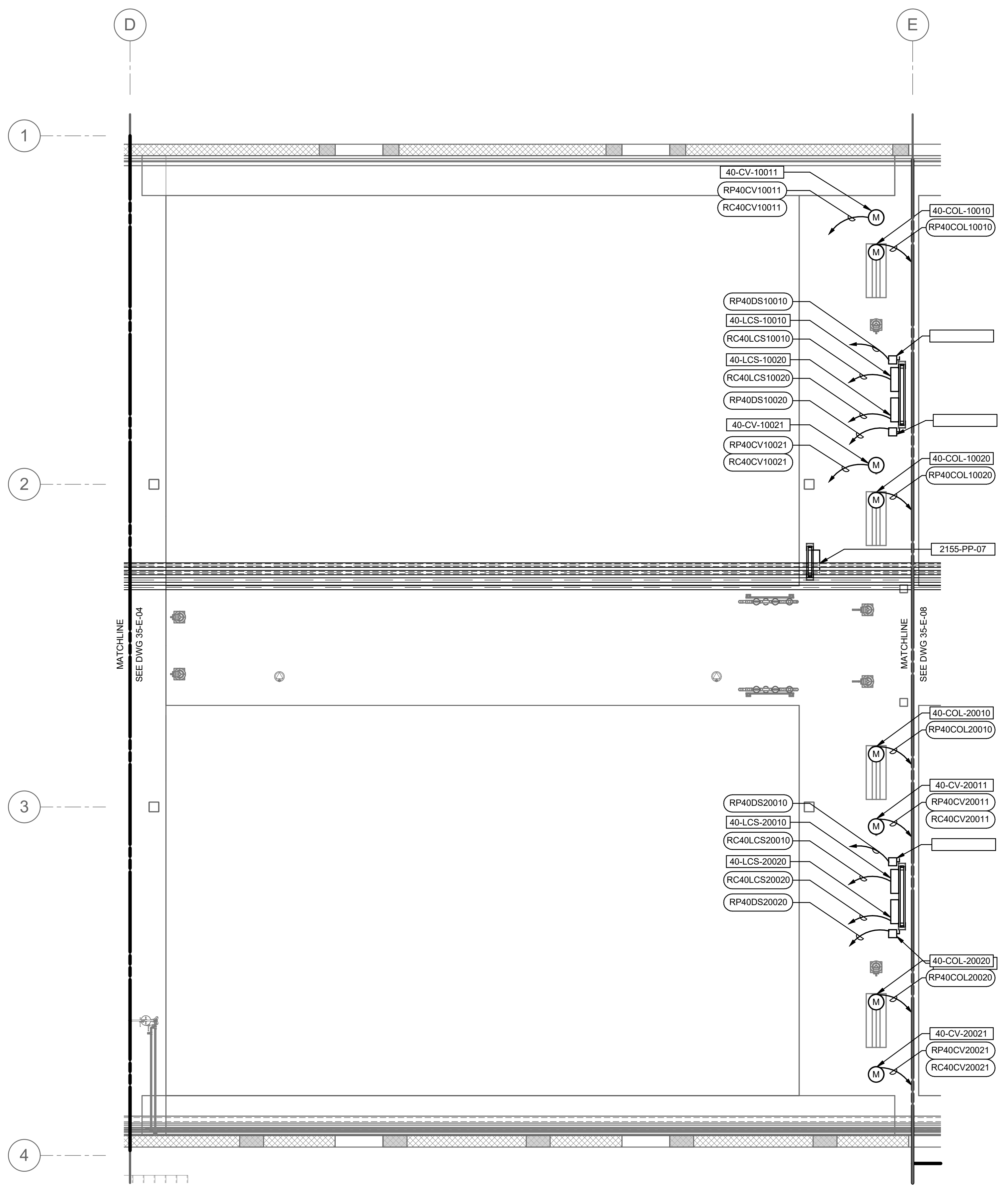
90% GMP

DRAWING NO.  
35-E-05

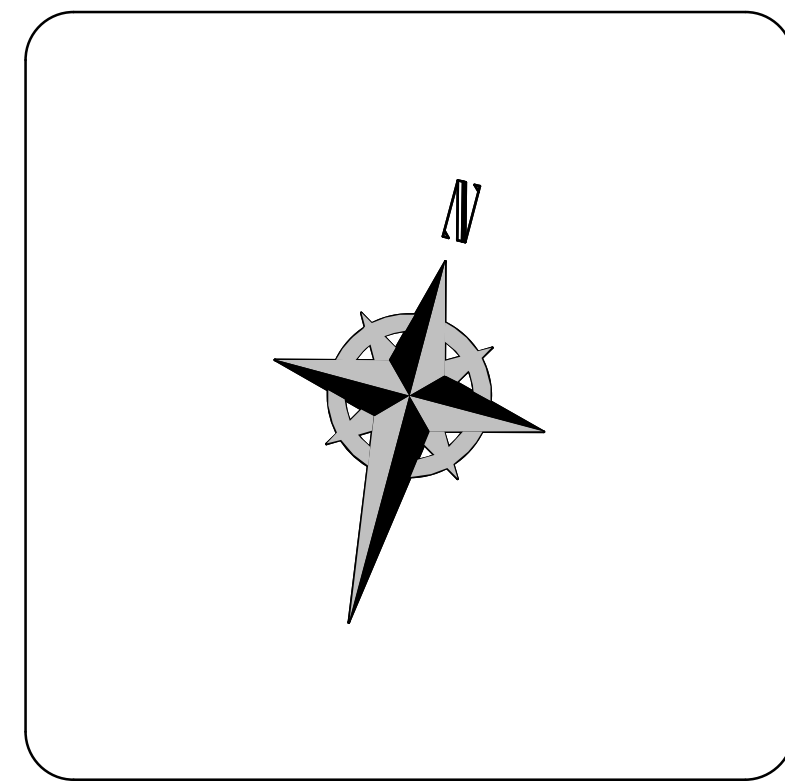
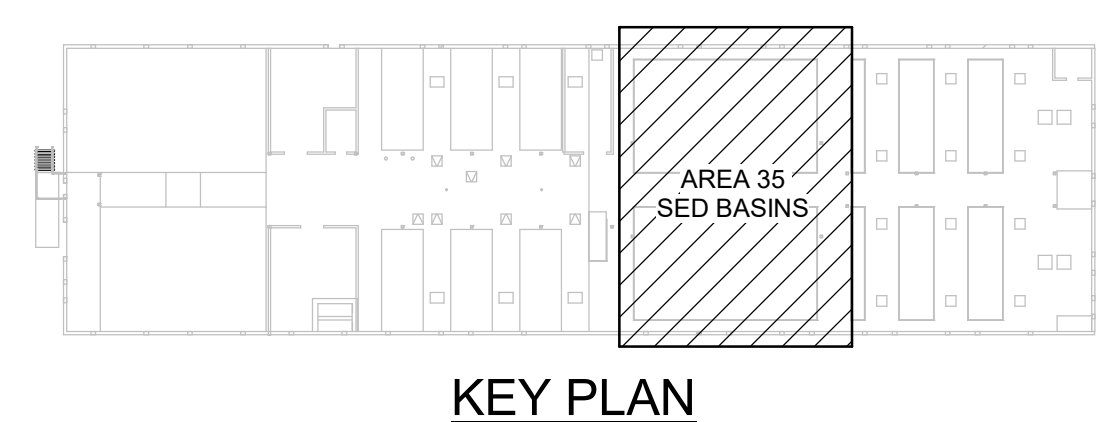
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NO.	DATE	AUTH BY	
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		MADE BY DS	
		BY DS	
		DRAWN BY: N.ANDERSON	
		CHECKED BY: D.STAR	
		APPROVED BY: D.STAR	
		DATE: JUNE 2024	
		EWO NO: --	
		ACCOUNT NO: 512260079	

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

Plot Date: 6/12/2024 3:54:54 PM Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



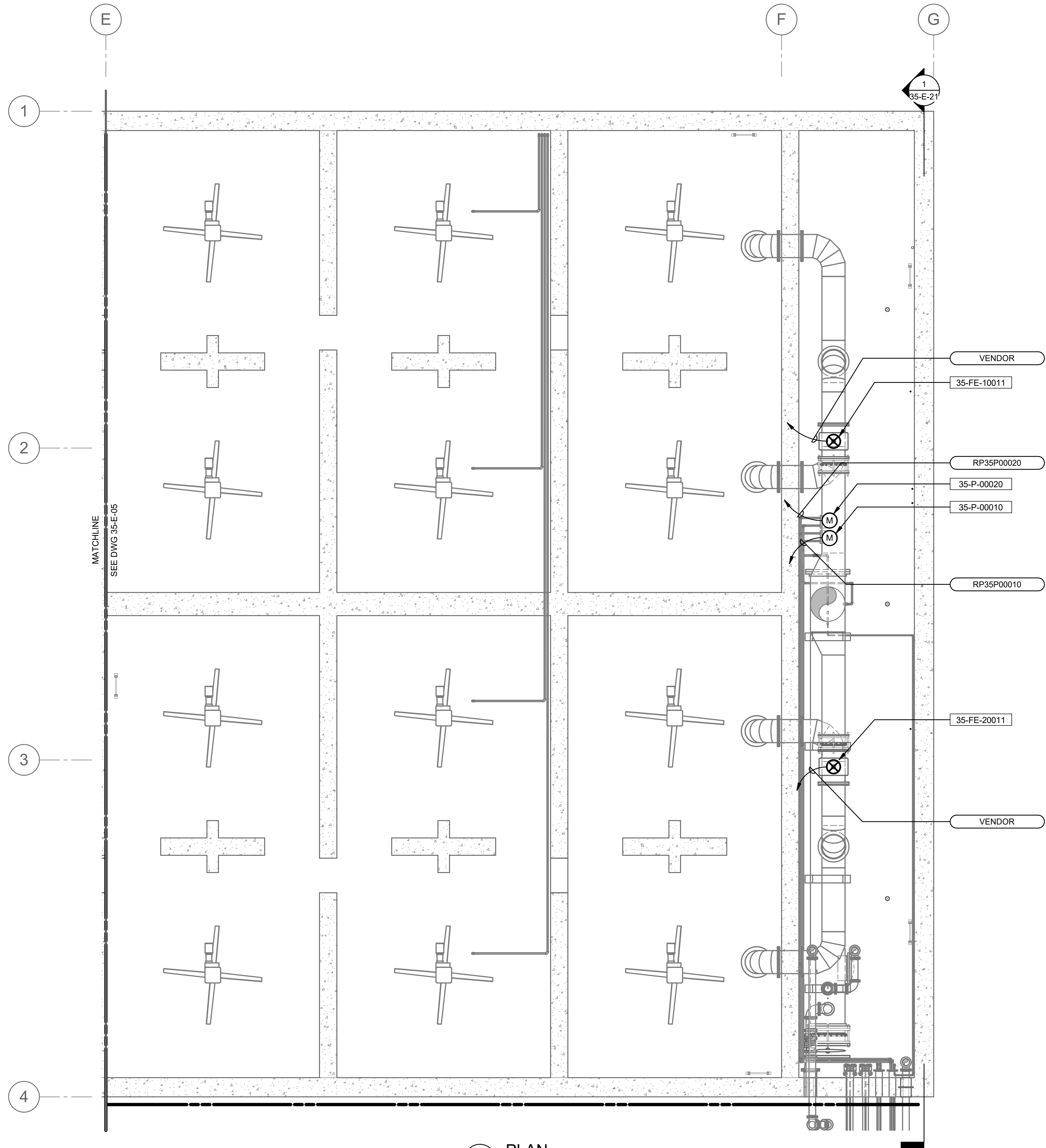
1 PLAN  
SCALE: 3/16" = 1'-0"



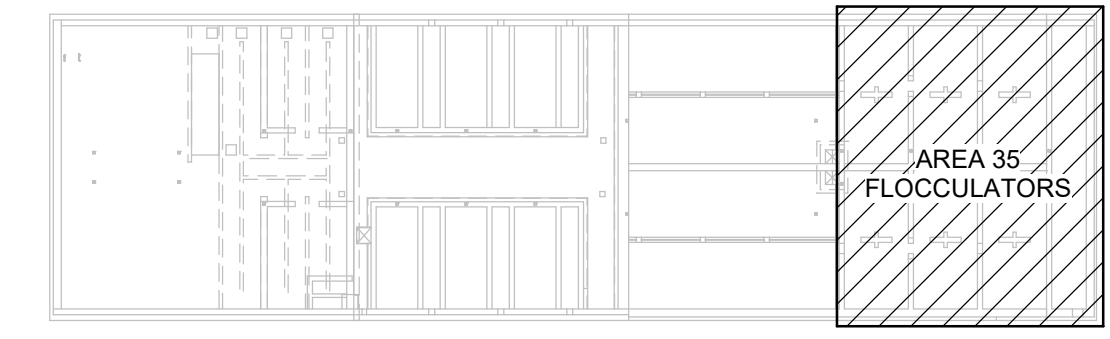
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DRAWN BY: N.ANDERSON		VERIFIED SCALE											
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING											
APPROVED BY: D.STAR		DATE: JUNE 2024											
EWO NO: ---		ACCOUNT NO: 512260079											
<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>ISSUED FOR</th> <th>GUARANTEE</th> <th>MAXIMUM PRICE (GMP)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>06/14/24</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	0	06/14/24			
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)									
0	06/14/24												
<p>REVISIONS</p>													
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE</p>													
<p>TREATMENT - SED BASINS UPPER LVL ELECTRICAL PLAN</p>													
<p>90% GMP</p>													
<p>DRAWING NO. 35-E-06</p>													

**Brown and Caldwell**

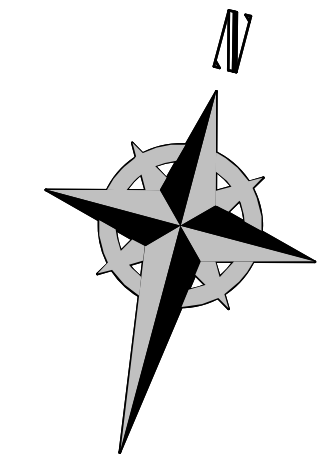
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



KEY PLAN



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS**  
LOWER LVL ELECTRICAL PLAN

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)
0	06/14/24				

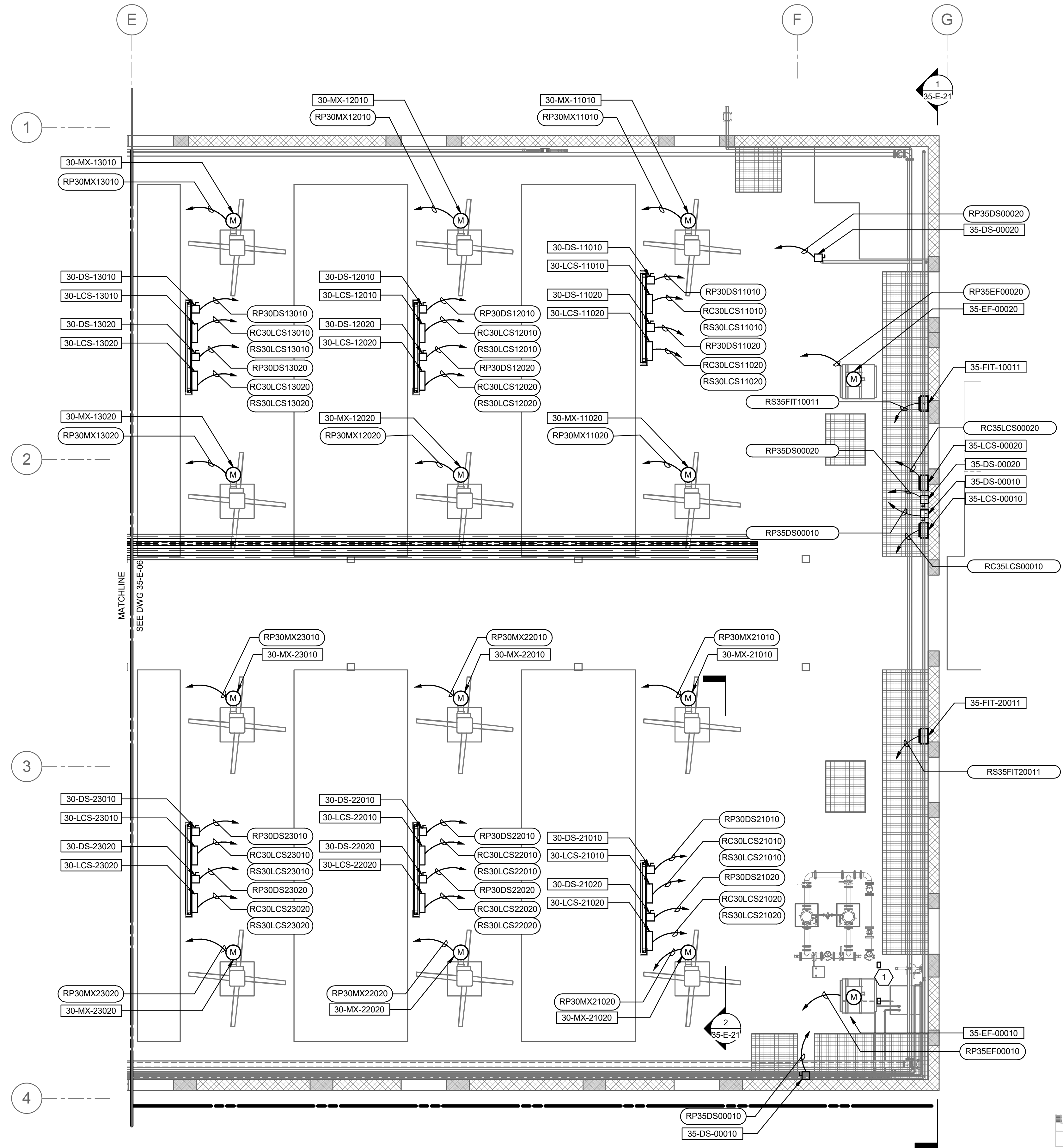
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DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

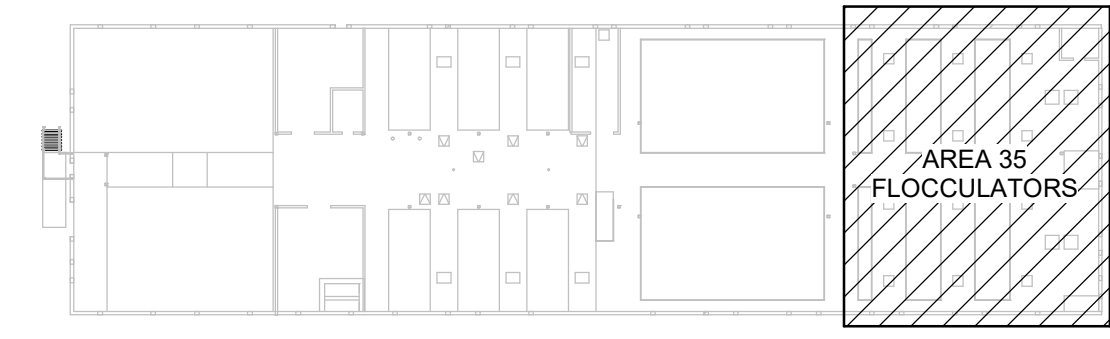
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DRAWING NO.  
**35-E-07**

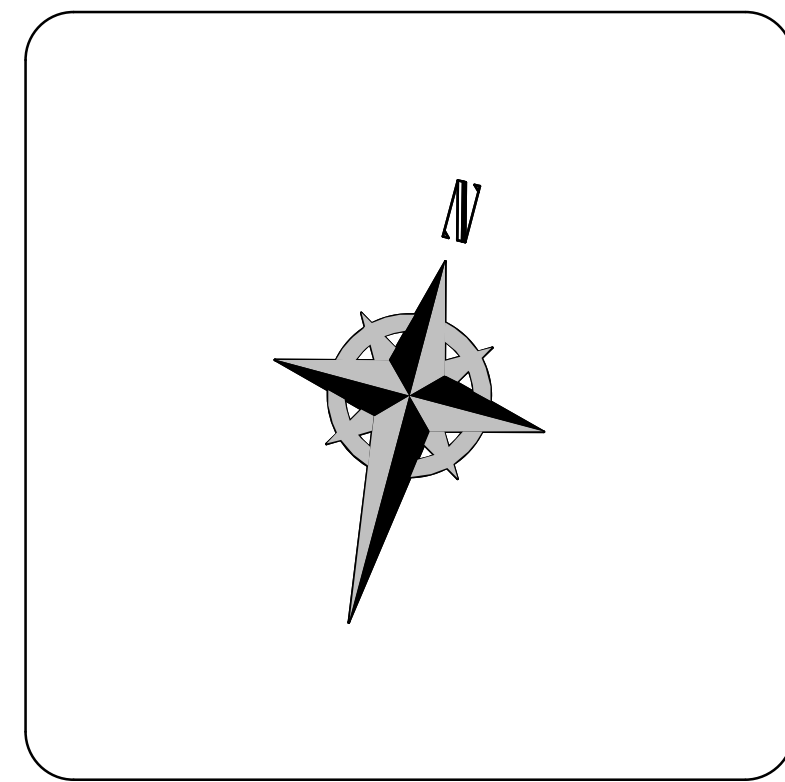
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1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



KEY PLAN



**KEYNOTES:**

1 SECTION 1 RACEWAY LAYOUT IS TYPICAL FOR FLOCCULATION BASIN MOTORS

- 30-MX-11010
- 30-MX-11020
- 30-MX-12010
- 30-MX-12020
- 30-MX-13010
- 30-MX-13020
- 30-MX-22010
- 30-MX-22020
- 30-MX-23010
- 30-MX-23020

DESIGNED BY: D.STAR	AUTH BY: DS
DRAWN BY: N.ANDERSON	BY: DS
CHECKED BY: D.STAR	DS
APPROVED BY: D.STAR	DS
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

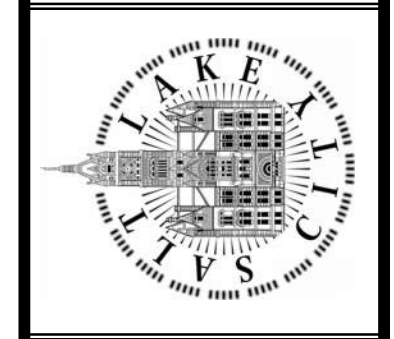
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)
0	06/14/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**TREATMENT - FLOC BASINS**  
UPPER LVL ELECTRICAL PLAN

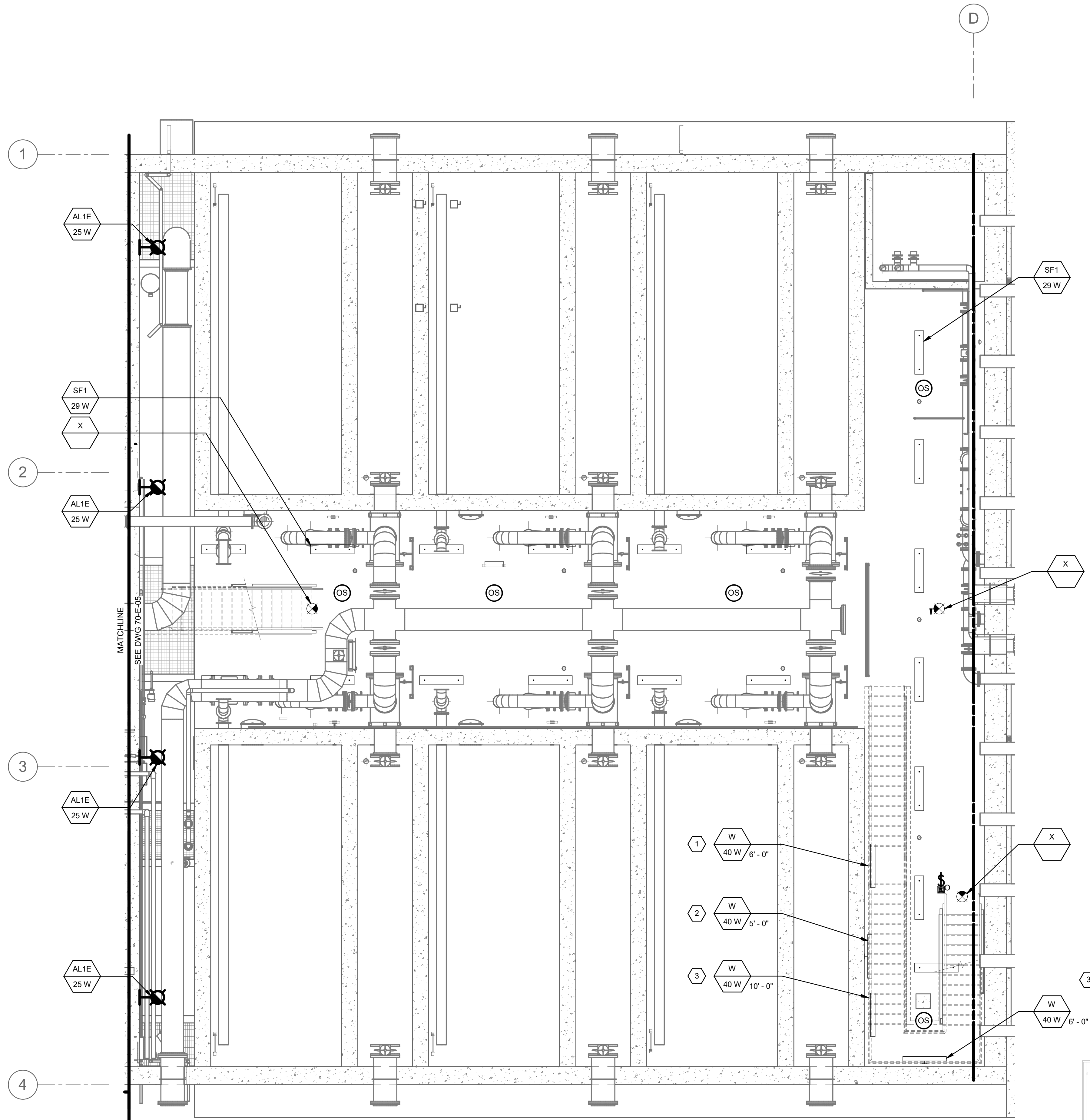


**90% GMP**

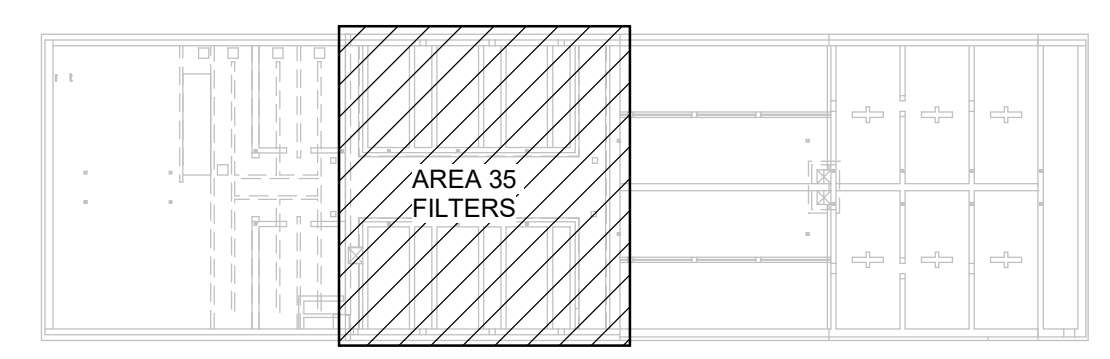
DRAWING NO.  
**35-E-08**

**Brown and Caldwell**

Plot Date: 6/12/2024 3:55:14 PM Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



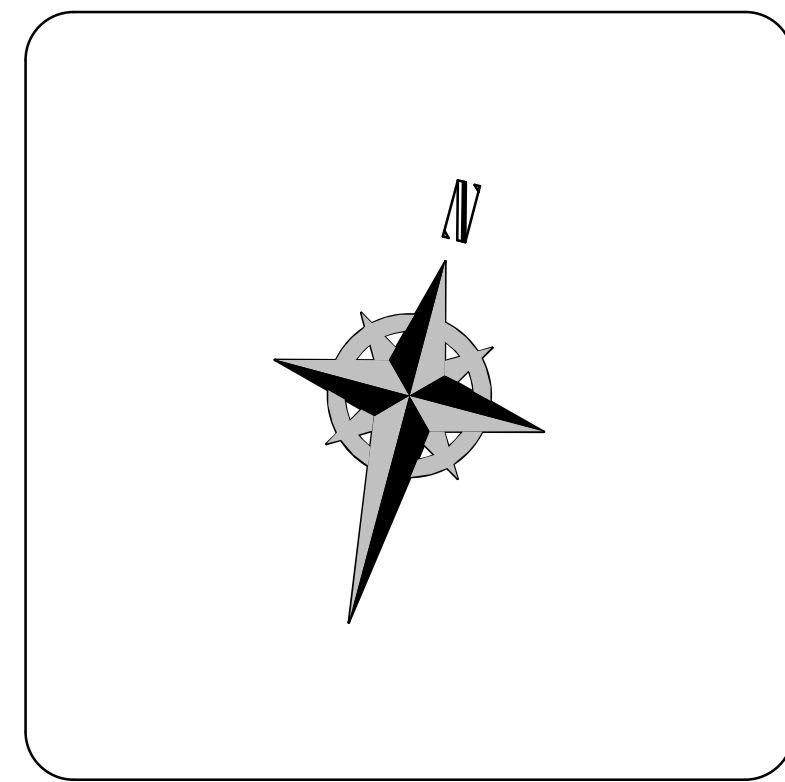
1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



KEY PLAN

**KEYNOTES:**

- 1 LUMINAIRE HEIGHT MEASURED FROM STAIR B UPPER LANDING.
- 2 LUMINAIRE HEIGHT MEASURED FROM FINISHED FLOOR.
- 3 LUMINAIRE HEIGHT MEASURED FROM STAIR B LOWER LANDING.



DESIGNED BY: N.ANDERSON		SCALE:	
DRAWN BY: N.ANDERSON		VERIFY SCALE	
CHECKED BY: N.ANDERSON		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: D.STAR		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)
0	06/14/24				

REVISIONS

MADE BY DS AUTH BY DS

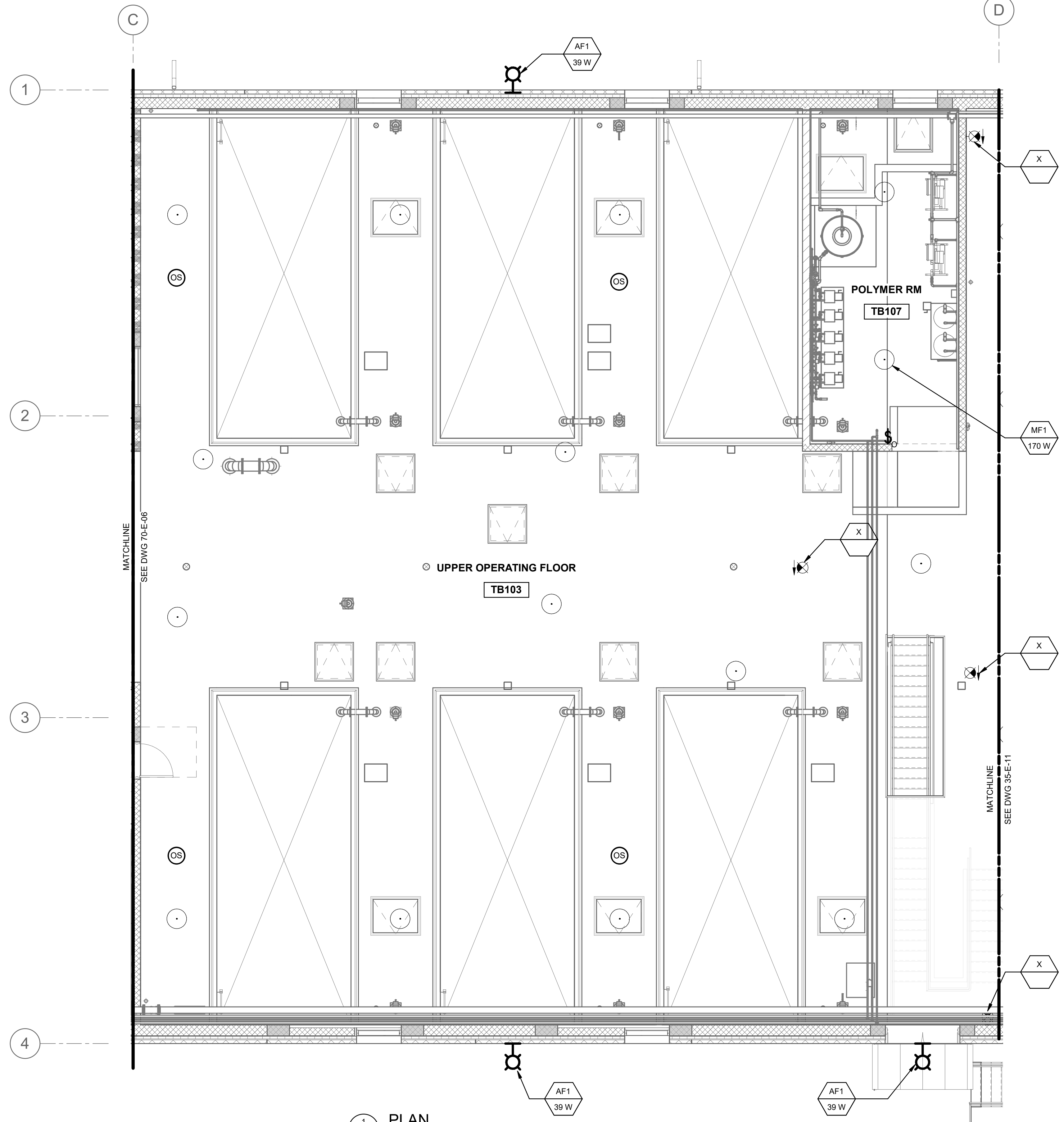
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTERS  
LOWER LVL LGT & RCP PLAN**

90% GMP

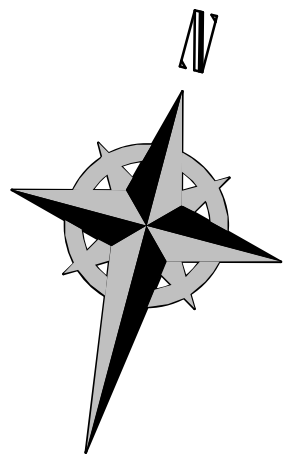
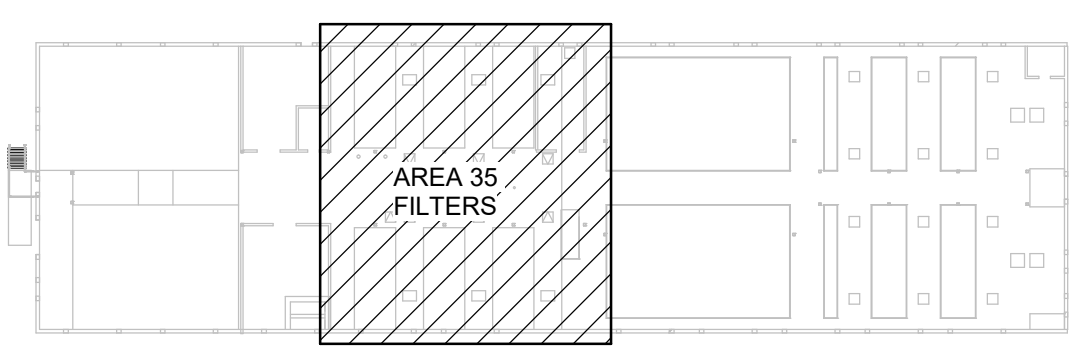
DRAWING NO.  
**35-E-09**

**Brown and Caldwell**

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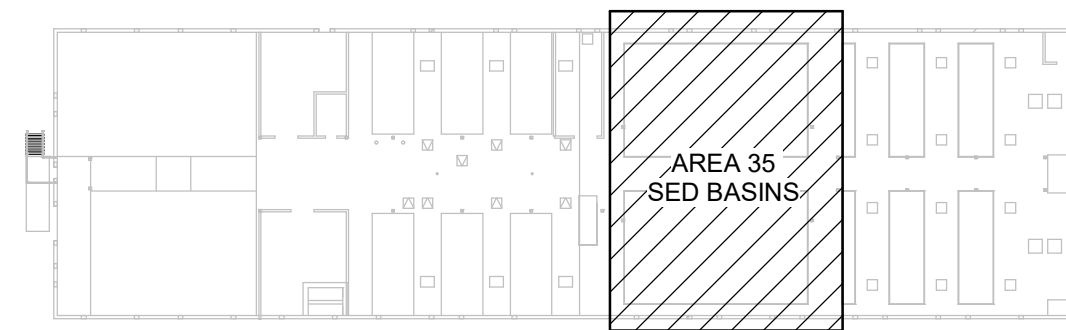
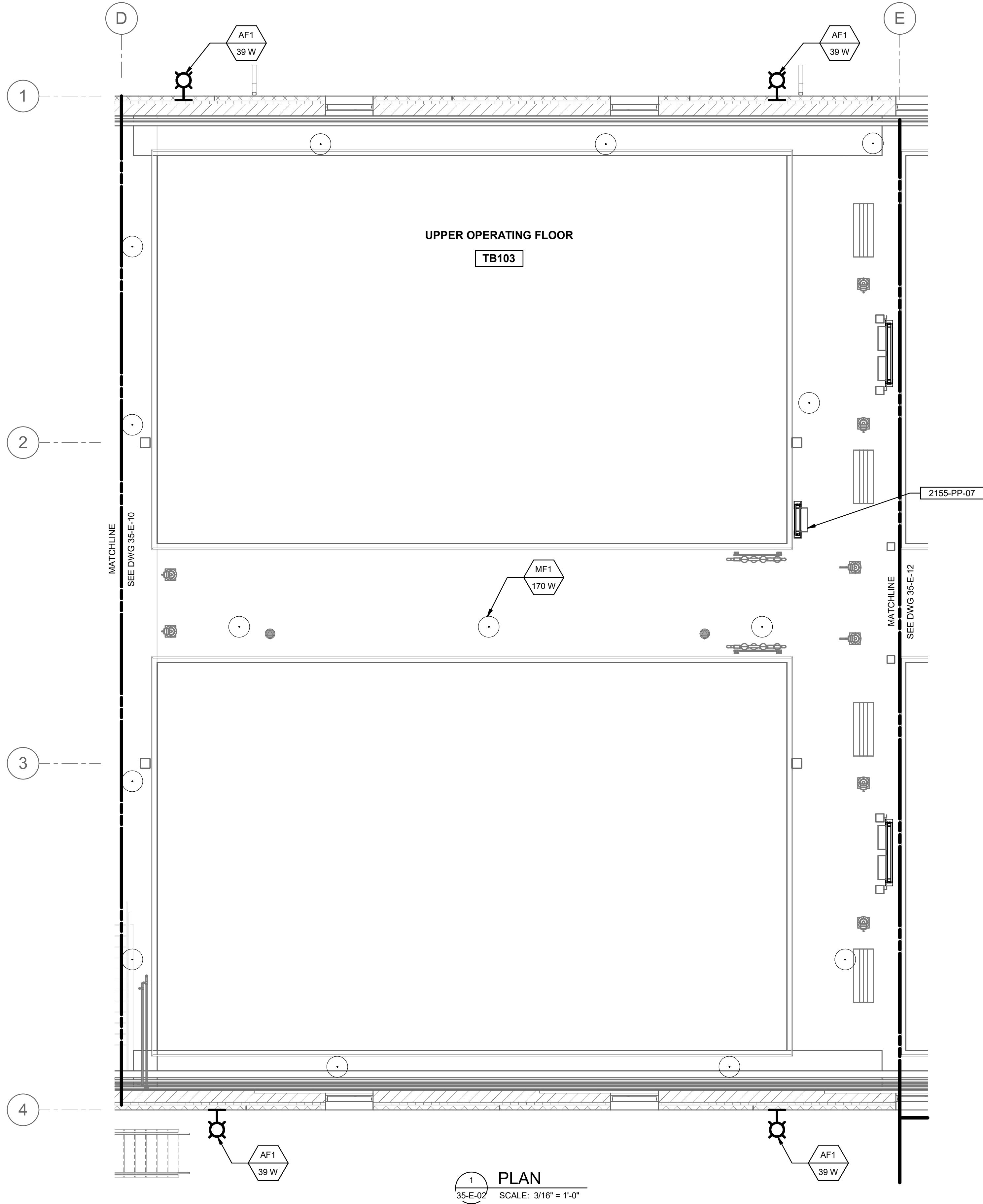
1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



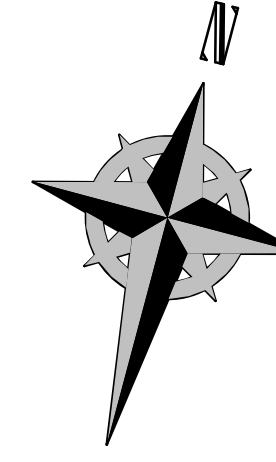
**Brown and Caldwell**

DESIGNED BY: N.ANDERSON		SCALE:	
DRAWN BY: N.ANDERSON		VERIFIED SCALE	
CHECKED BY: N.ANDERSON		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: D.STAR		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
NO.	DATE	ISSUED FOR	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES          CITY CREEK TREATMENT PLANT UPGRADES          BRIC PACKAGE  <b>TREATMENT - FILTERS</b>          UPPER LVL LGT &amp; RCP PLAN</p>			
<p>90% GMP</p>			
DRAWING NO.			
35-E-10			

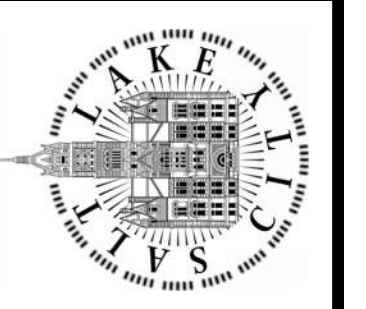
Plot Date: 6/12/2024 3:55:19 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-E-3570V21.rvt



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 TREATMENT - SED BASINS  
 UPPER LVL LGT & RCP PLAN



90% GMP

DRAWING NO.  
**35-E-11**

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				DS	DS

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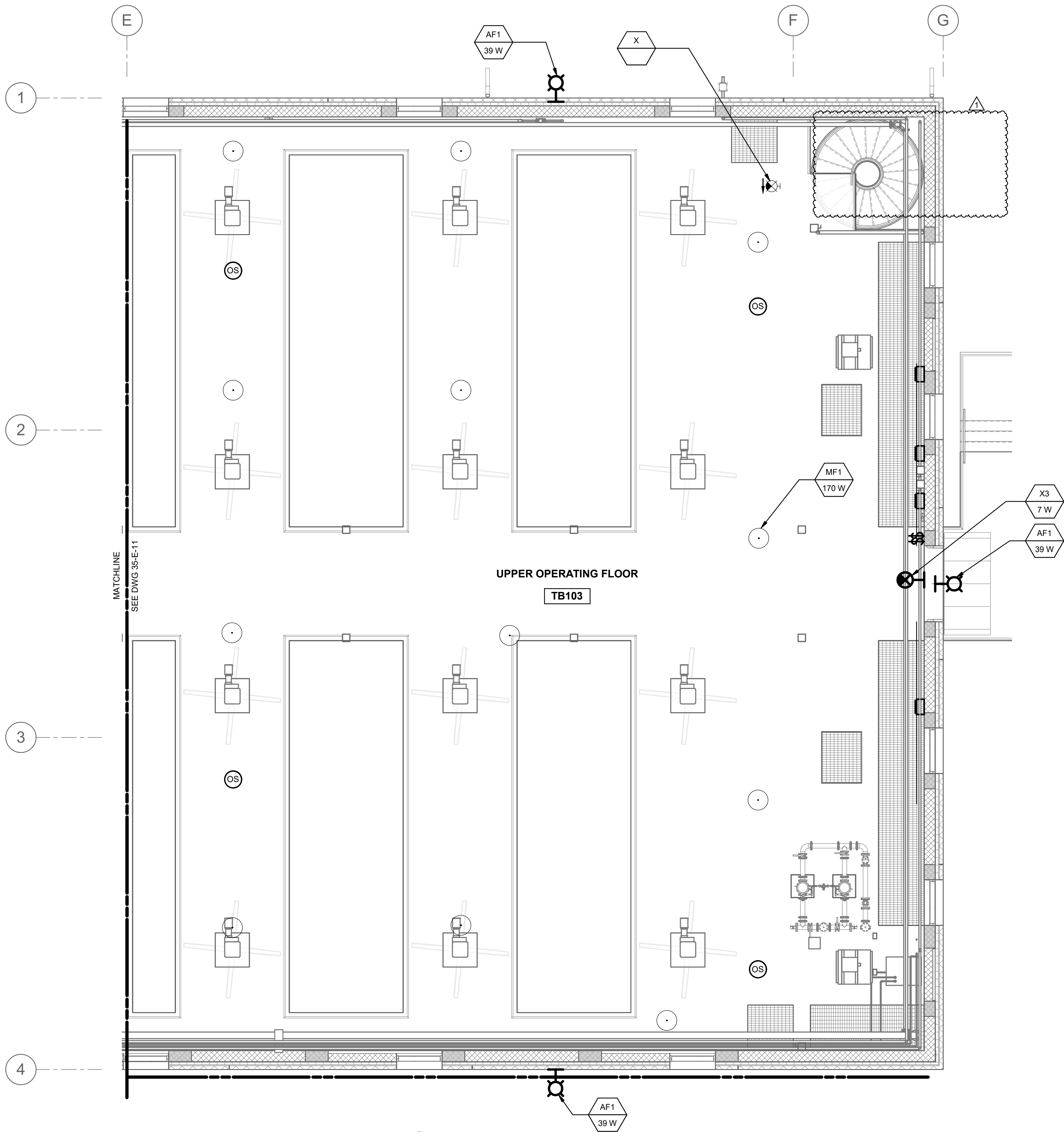
DESIGNED BY: N.ANDERSON  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: N.ANDERSON  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

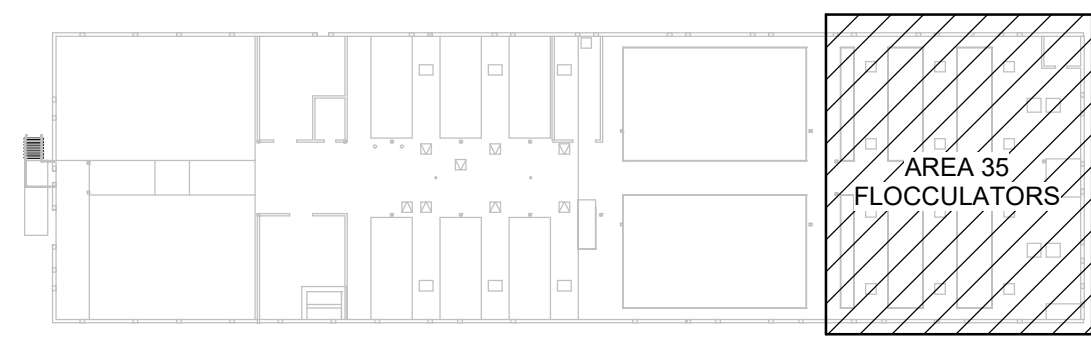
**Brown and Caldwell**



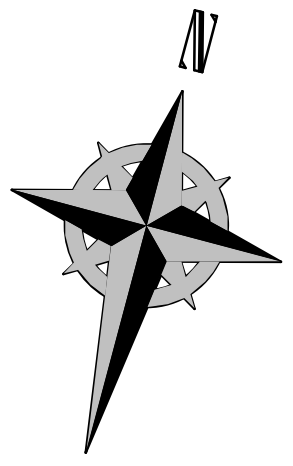
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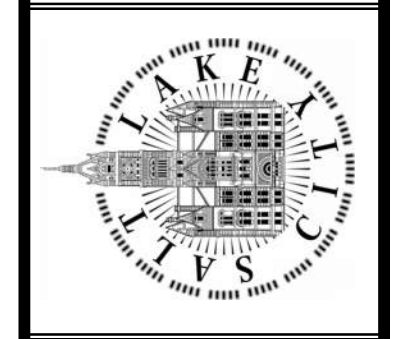
1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - FLOC BASINS  
UPPER LVL LGT & RCP PLAN



90% GMP

DRAWING NO.  
35-E-12

**Brown and Caldwell**

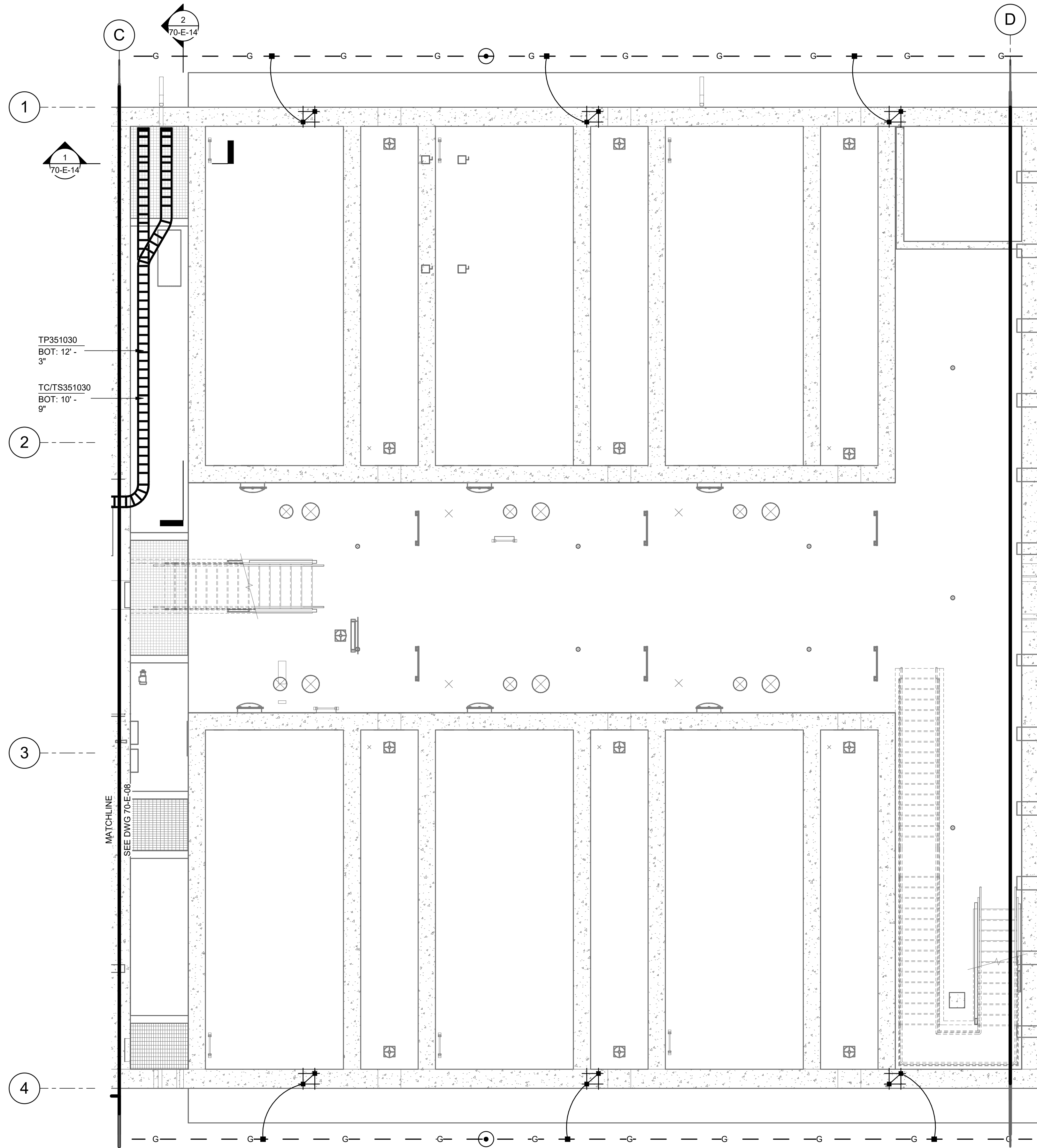
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1	REVISED FOR GUARANTEE	06/27/24	1	DS	DS

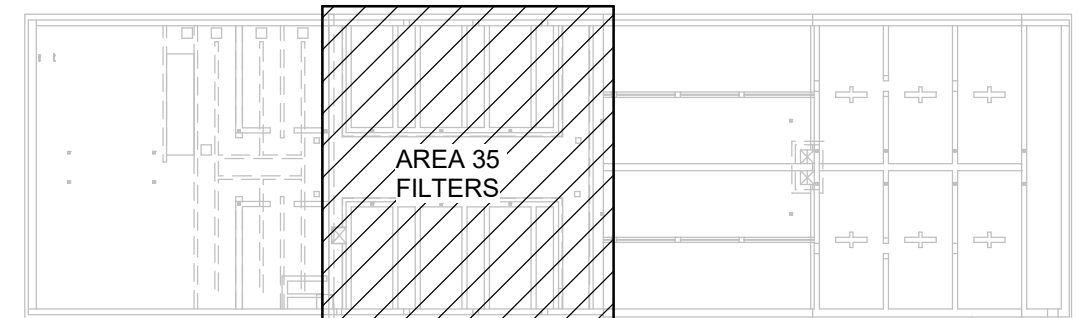
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DRAWN BY: N.ANDERSON	
CHECKED BY: N.ANDERSON	
APPROVED BY: D.STAR	
DATE: JUNE 2024	
EWO NO: ---	
ACCOUNT NO: 512260079	

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

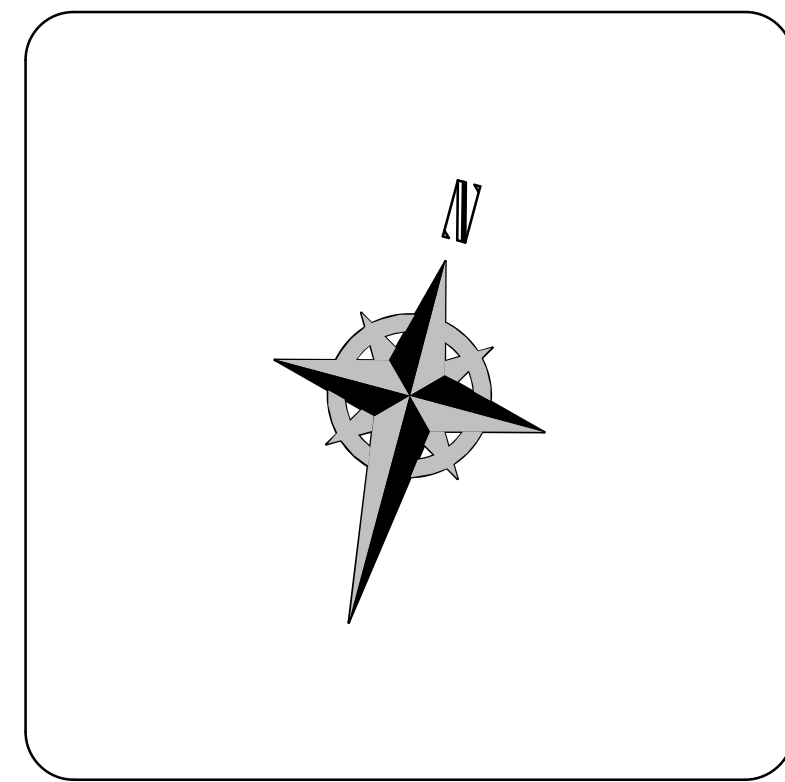
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



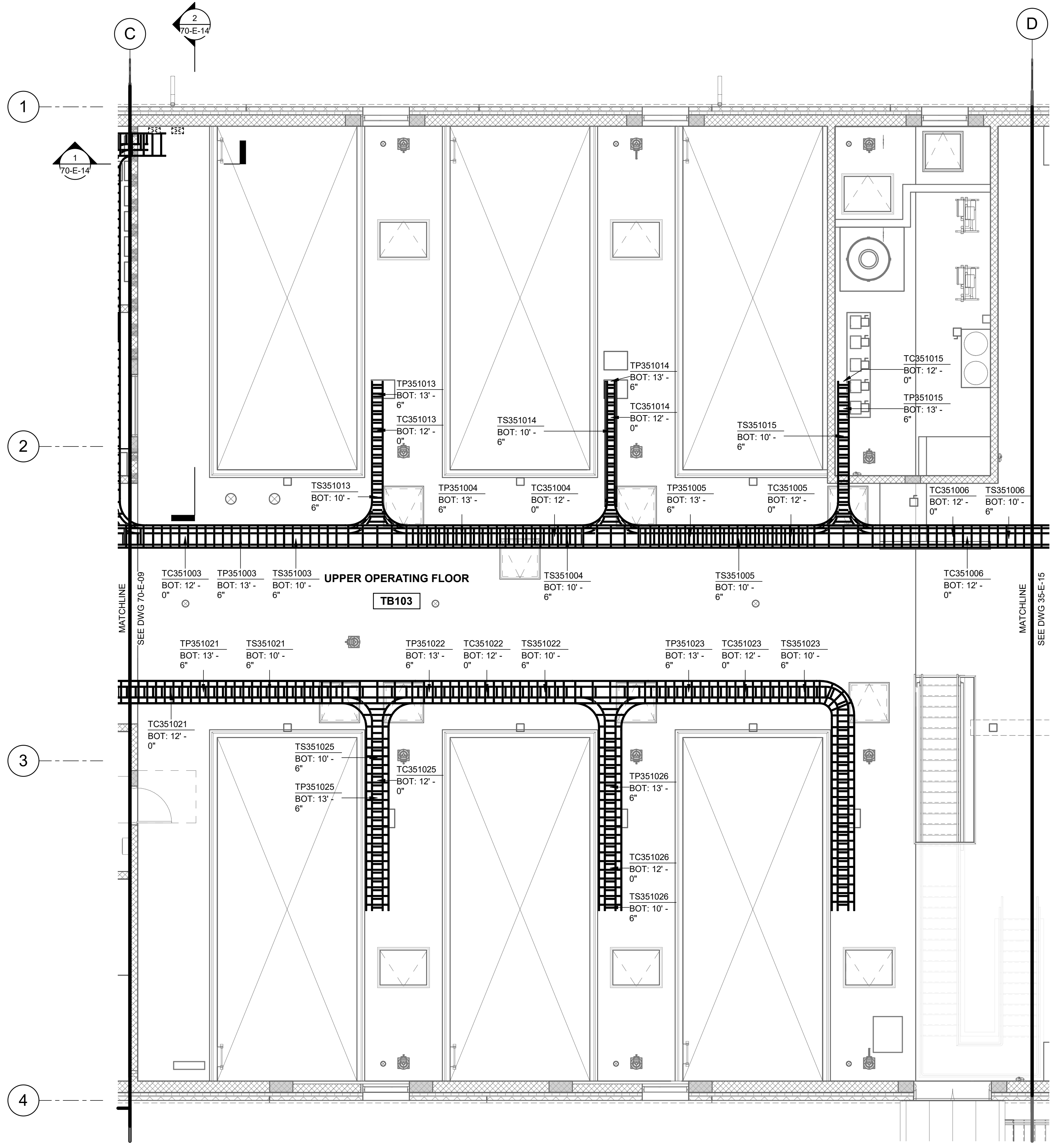
KEY PLAN



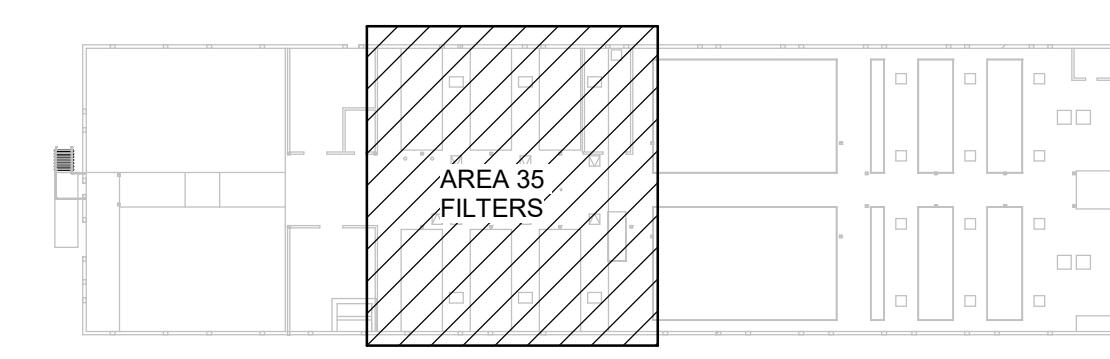
**Brown and Caldwell**

DESIGNED BY: N.ANDERSON		SCALE: _____											
DRAWN BY: N.ANDERSON		VERIFY SCALE											
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING											
APPROVED BY: D.STAR		DATE: JUNE 2024											
EWO NO: _____		ACCOUNT NO: 512260079											
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NO.	DATE	MADE BY	AUTH BY	REVISIONS									
0	06/14/24	DS	DS	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)									
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES          CITY CREEK TREATMENT PLANT UPGRADES          BRIC PACKAGE  <b>TREATMENT - FILTERS</b>          LOWER LVL TRY &amp; GRD PLAN</p>													
<p>90% GMP</p>													
DRAWING NO. <b>35-E-13</b>													

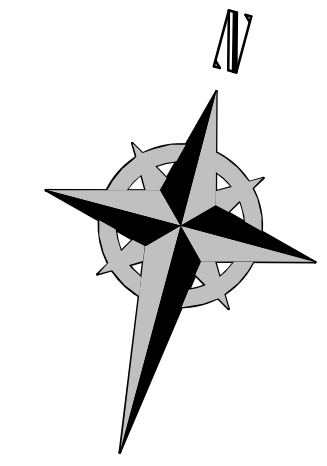
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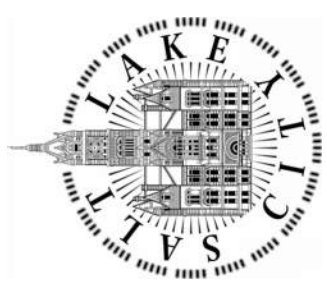


1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



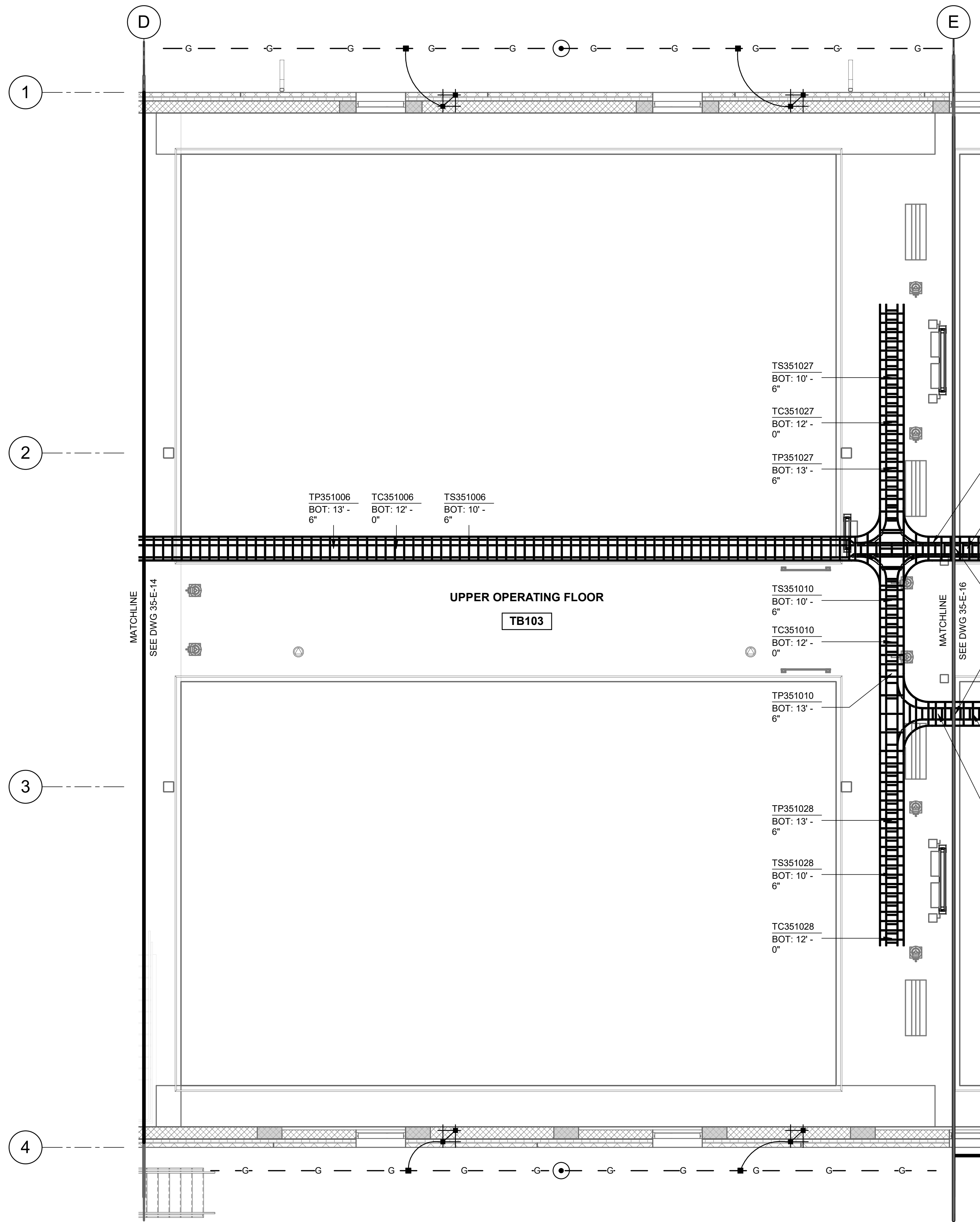
KEY PLAN



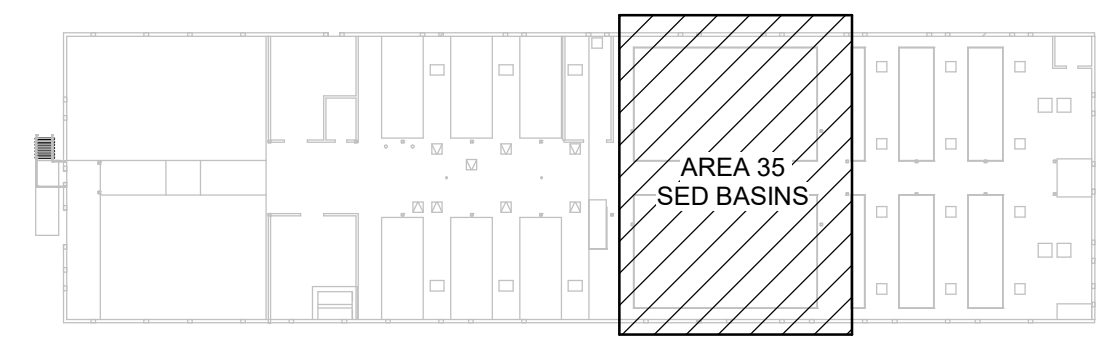
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CHECKED BY: D.STAR												
APPROVED BY: D.STAR												
DATE: JUNE 2024	EMO NO: --	ACCOUNT NO: 512260079										
NO. 0	DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)										
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NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	MADE BY	AUTH BY								
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE <b>TREATMENT - FILTERS</b> UPPER LVL TRY & GRD PLAN												
		<b>90% GMP</b>										
DRAWING NO. 35-E-14												

Brown and Caldwell

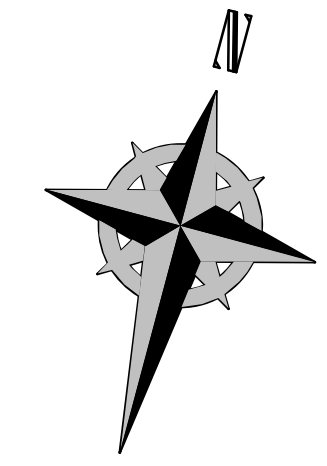
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1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



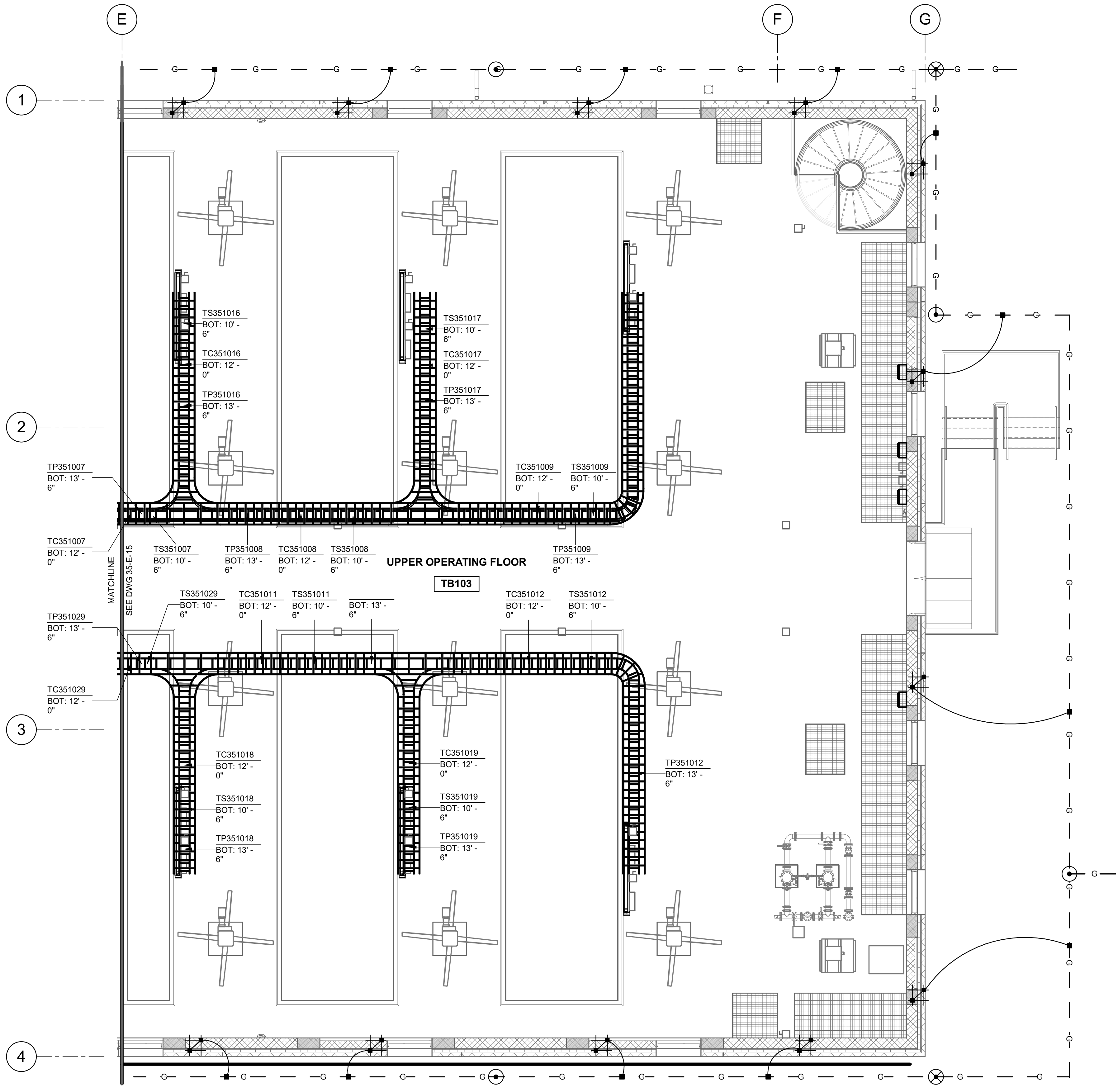
KEY PLAN



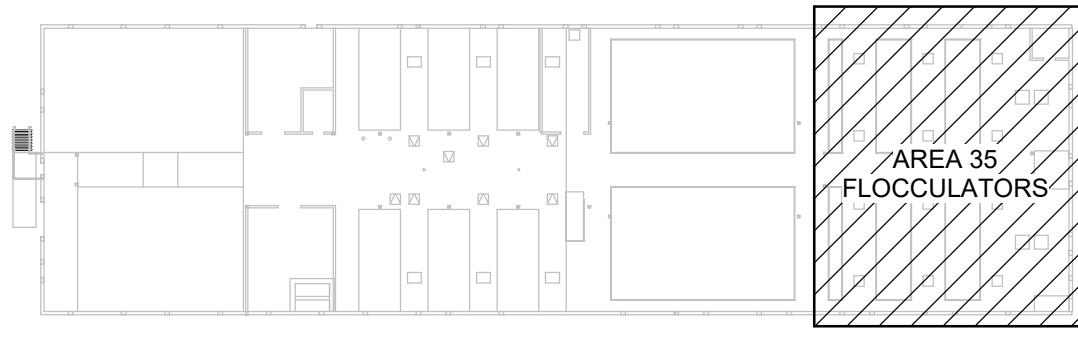
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DRAWN BY: N.ANDERSON		VERIFY SCALE									
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING									
APPROVED BY: D.STAR		DATE: JUNE 2024									
EWO NO: ---		ACCOUNT NO: 512260079									
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NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)								
0	06/14/24										
<table border="1"> <thead> <tr> <th>MADE BY</th> <th>AUTH BY</th> </tr> </thead> <tbody> <tr> <td>DS</td> <td>DS</td> </tr> </tbody> </table>				MADE BY	AUTH BY	DS	DS				
MADE BY	AUTH BY										
DS	DS										
<p>REVISIONS</p>											
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE TREATMENT - SED BASINS UPPER LVL TRY &amp; GRD PLAN</p>											
<p>90% GMP</p>											
<p>DRAWING NO. 35-E-15</p>											

**Brown and Caldwell**

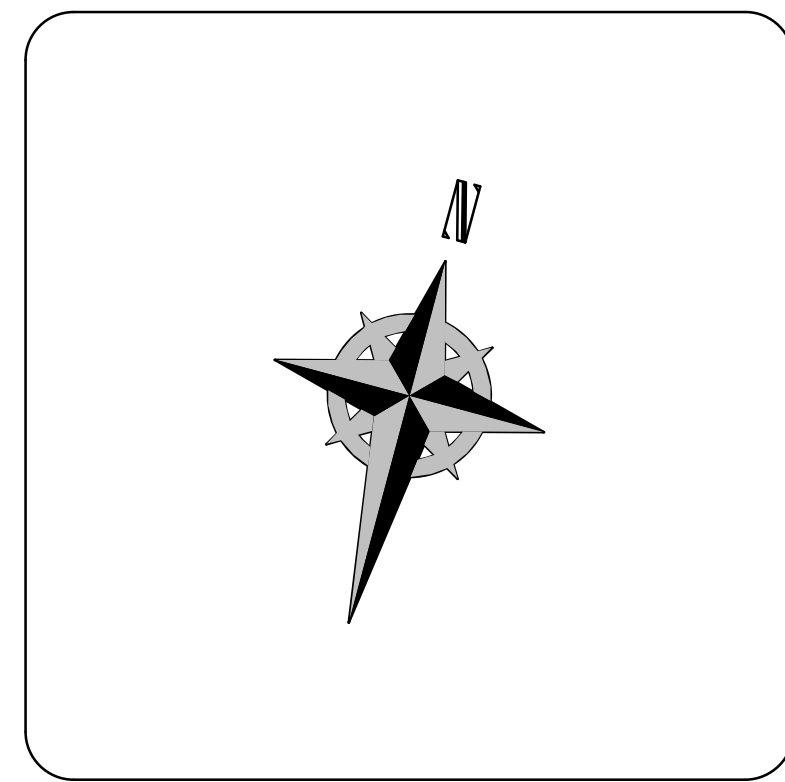
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1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



KEY PLAN

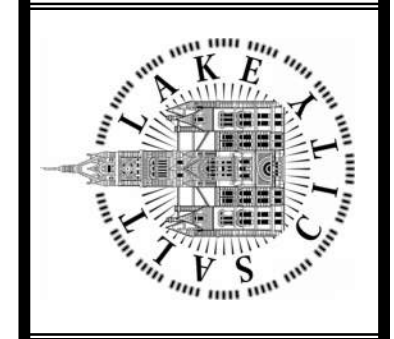


SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)		DS	DS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLOC BASINS**  
UPPER LVL TRY & GRD PLAN

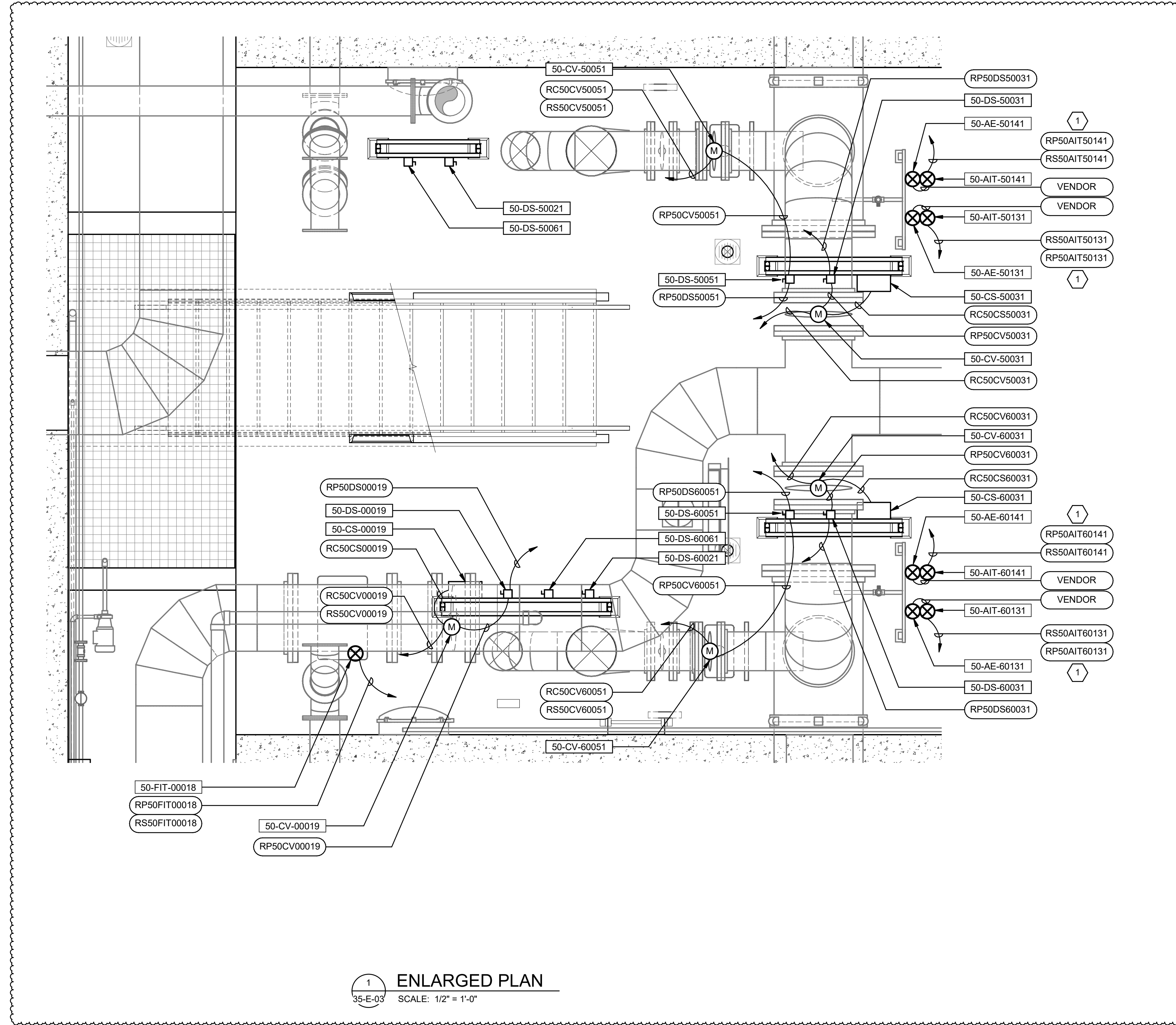


**90% GMP**

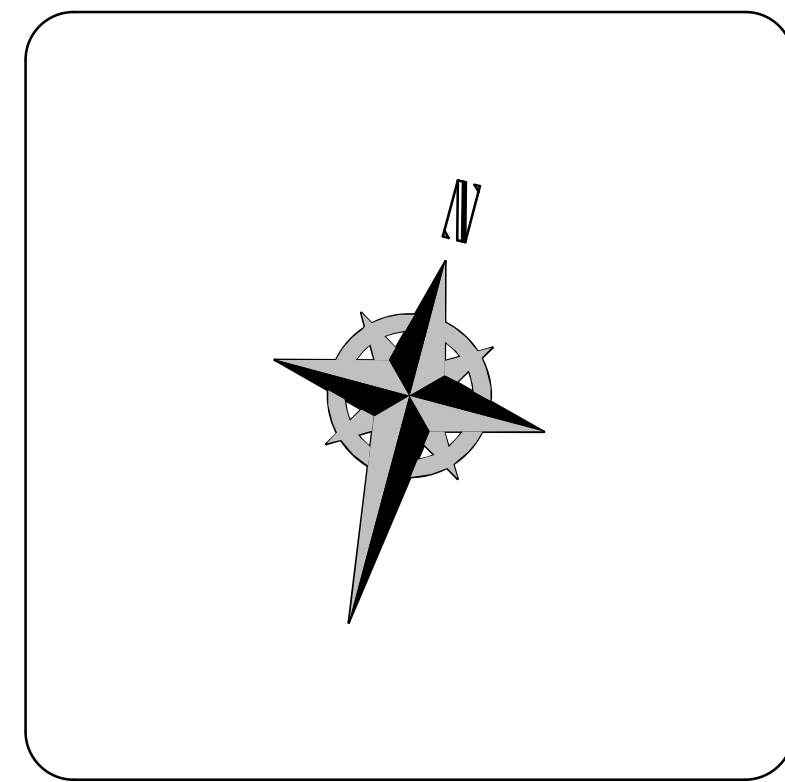
DRAWING NO.  
**35-E-16**

**Brown and Caldwell**

Plot Date: 6/26/2024 12:14:26 Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



1 ENLARGED PLAN  
 35-E-03 SCALE: 1/2" = 1'-0"



**KEYNOTES:**

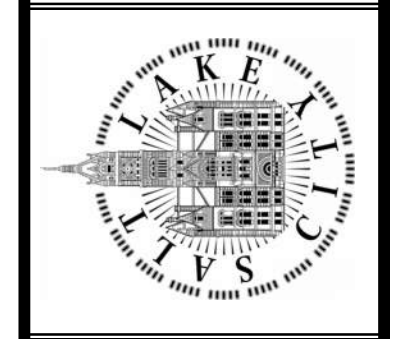
1 ANALYZER TRANSMITTER TO BE POWERED FROM DEDICATED RECEPTACLE MOUNTED ON BACK OF SAMPLE PANEL. REFERENCE CABLE AND PANEL SCHEDULES FOR CIRCUIT ROUTING AND POWER SOURCING.

**Brown and Caldwell**

NO.	DATE	REVISIONS	MADE BY	AUTH BY	SCALE
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS	DS	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS	DS	

DESIGNED BY: D.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

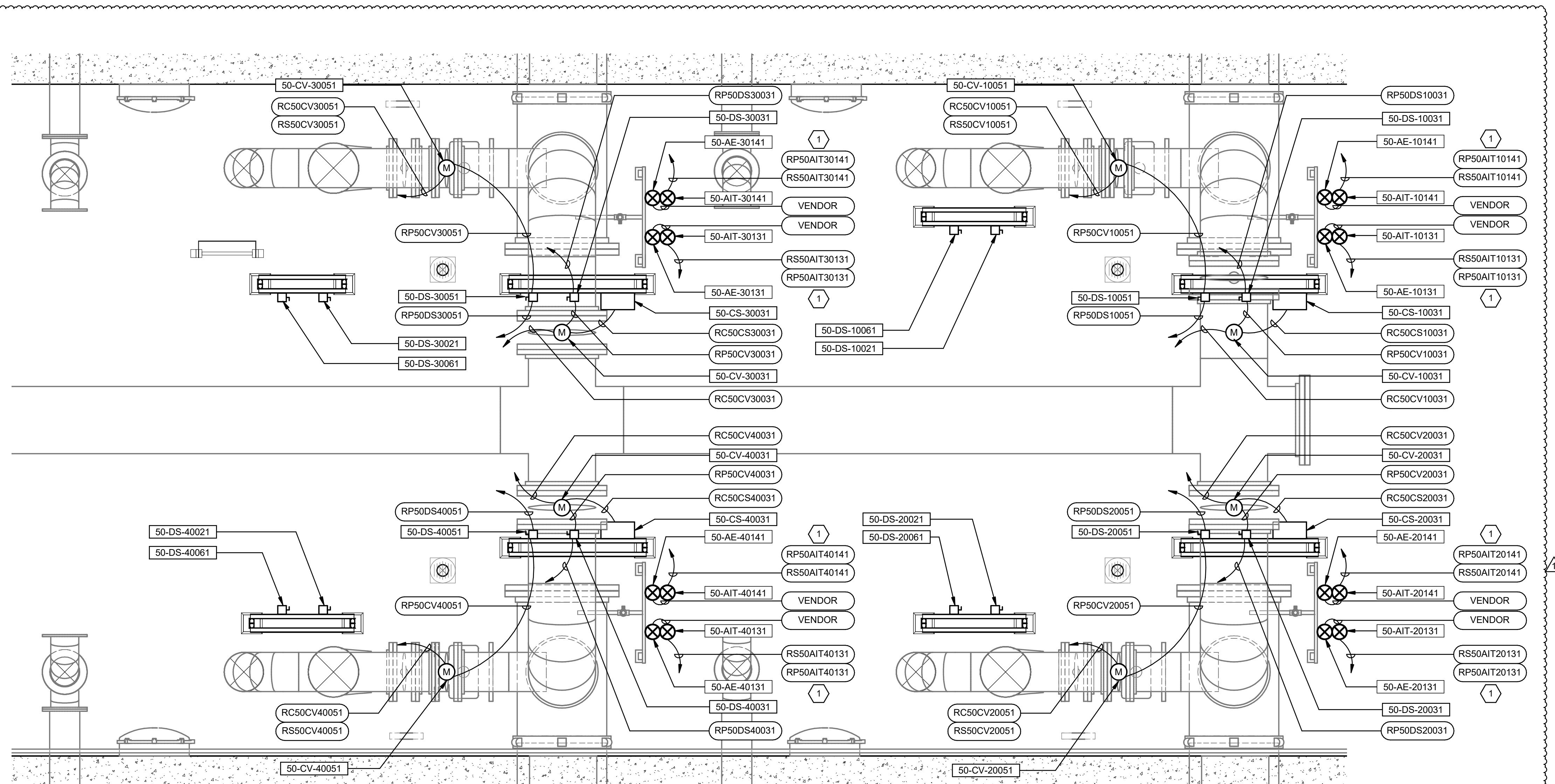
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - ENLARGED PLANS 1**



90% GMP

DRAWING NO.  
**35-E-17**

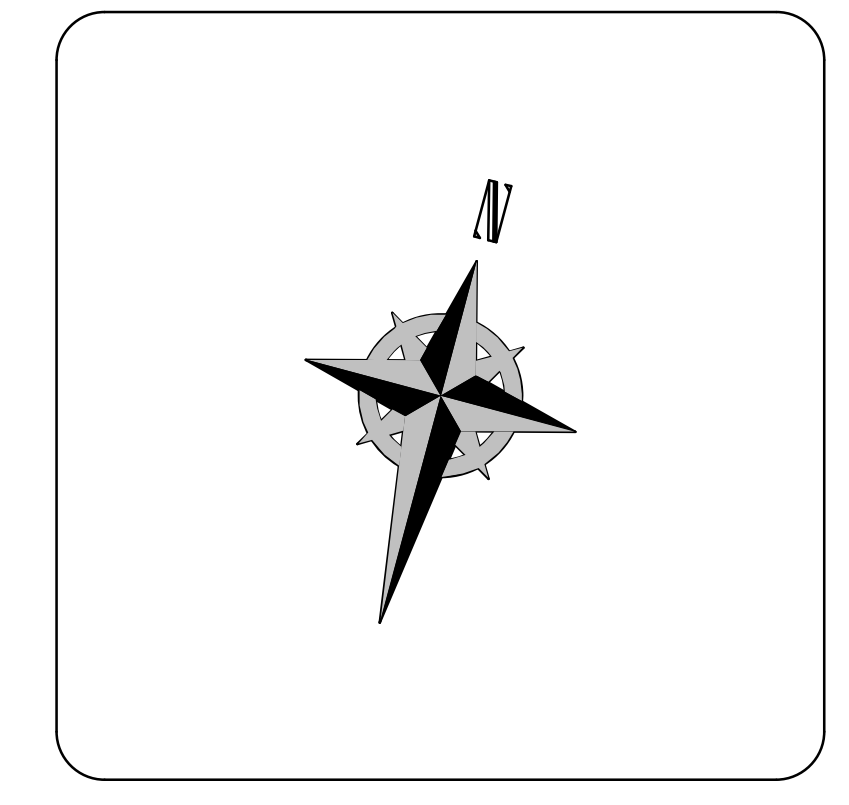
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1 ENLARGED PLAN  
 35-E-03 SCALE: 1/2" = 1'-0"

**KEYNOTES:**

1 ANALYZER TRANSMITTER TO BE POWERED FROM DEDICATED RECEPTACLE MOUNTED ON BACK OF SAMPLE PANEL. REFERENCE CABLE AND PANEL SCHEDULES FOR CIRCUIT ROUTING AND POWER SOURCING.



DESIGNED BY: N.ANDERSON		SCALE:	
DRAWN BY: N.ANDERSON		VERIFY SCALE	
CHECKED BY: N.ANDERSON		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: D.STAR		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	

NO.	DATE	ISSUED FOR	REVISION	REVISOR	REVISION
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	DS	
1	06/27/24	REVISED FOR GUARANTEE	MAXIMUM PRICE (GMP)	DS	

REVISIONS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE

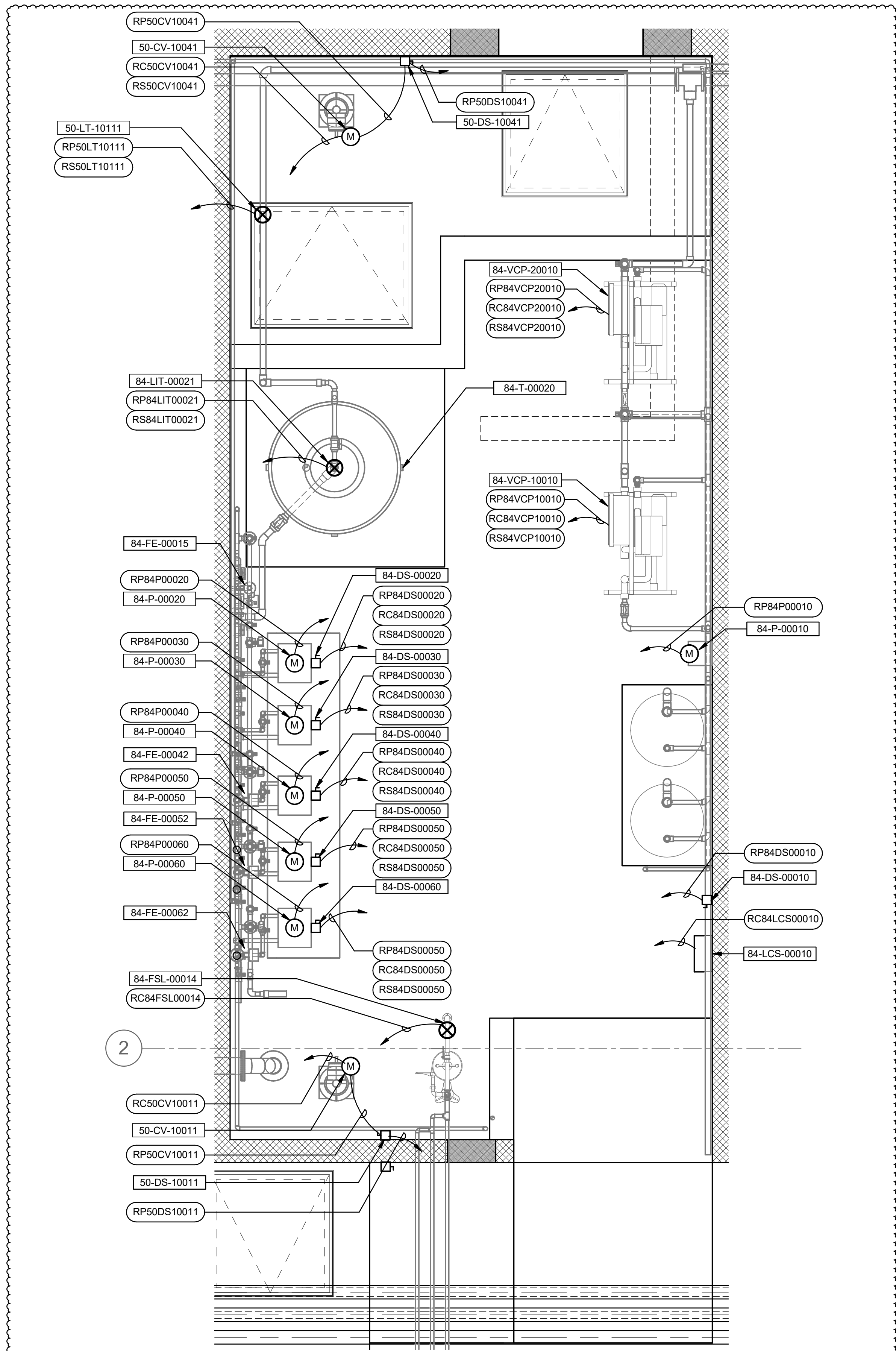
TREATMENT - ENLARGED  
 PLANS 2

90% GMP

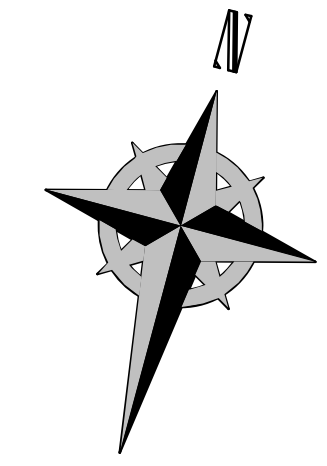
DRAWING NO.  
 35-E-18

**Brown and Caldwell**

Plot Date: 6/26/2024 12:14:38 Path: R:\M\_360\153020 - City\_Creek\_WTP\153020-E-3570V21.rvt



1 ENLARGED PLAN  
35-E-04 SCALE: 1/2" = 1'-0"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**TREATMENT - ENLARGED  
PLANS 3**

90% GMP

DRAWING NO.  
**35-E-19**

NO.	DATE	ISSUED FOR GUARANTEE	REVISION FOR GUARANTEE	MAXIMUM PRICE (GMP)	MAXIMUM PRICE (GMP)
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1	06/27/24				

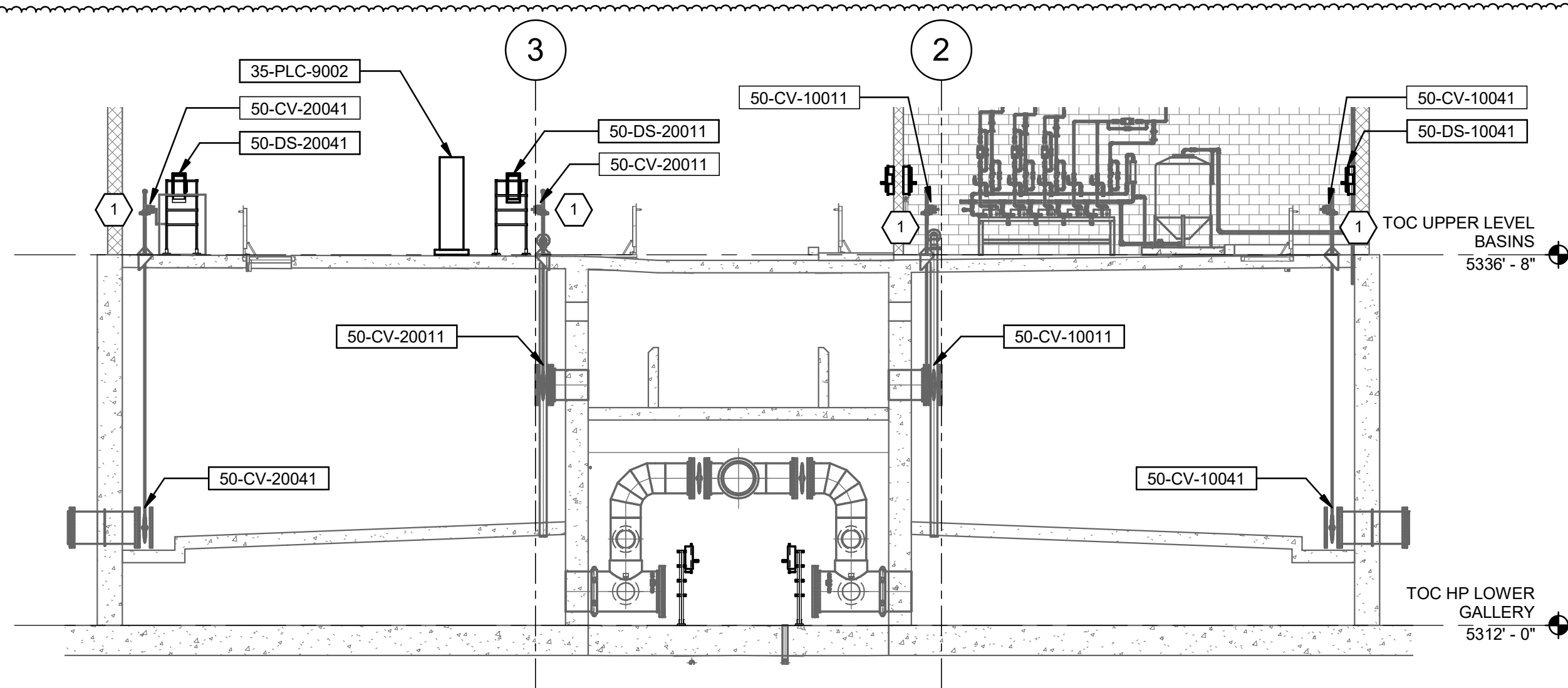
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DRAWN BY: DS  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

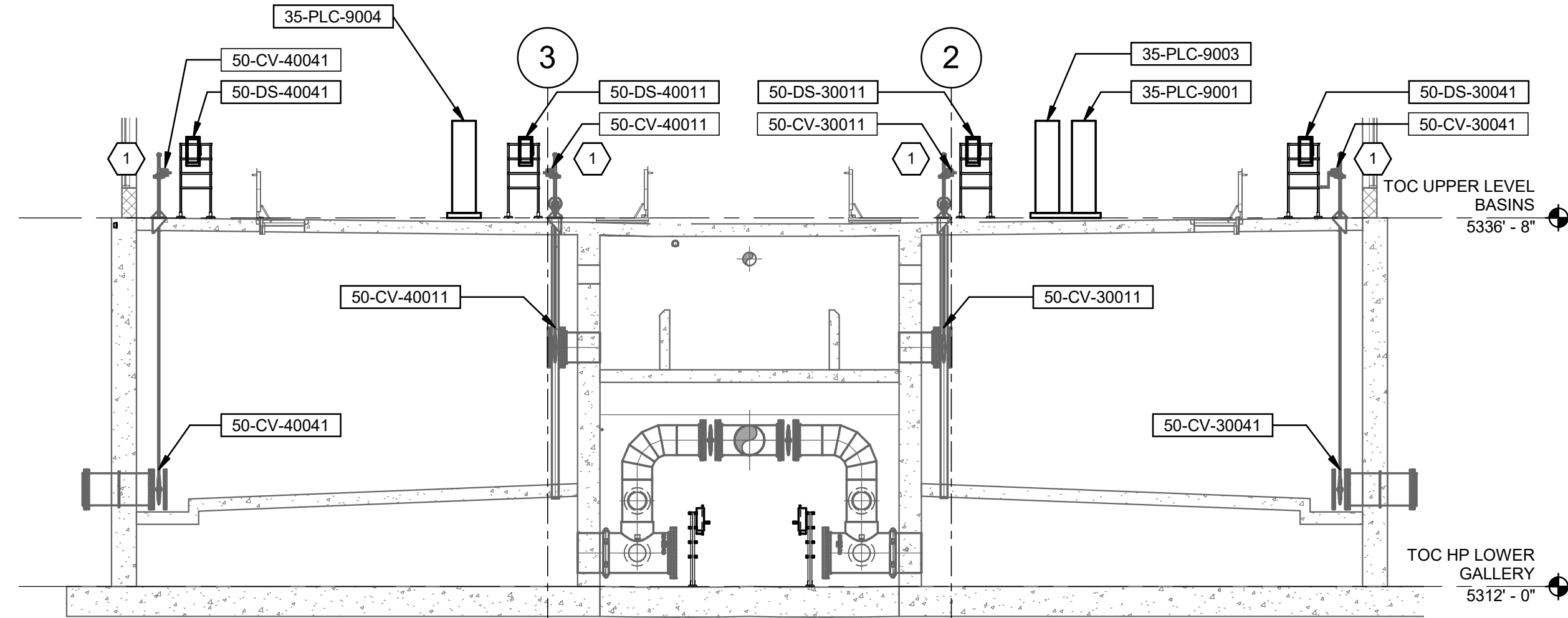
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BAR IS ONE INCH ON ORIGINAL DRAWING



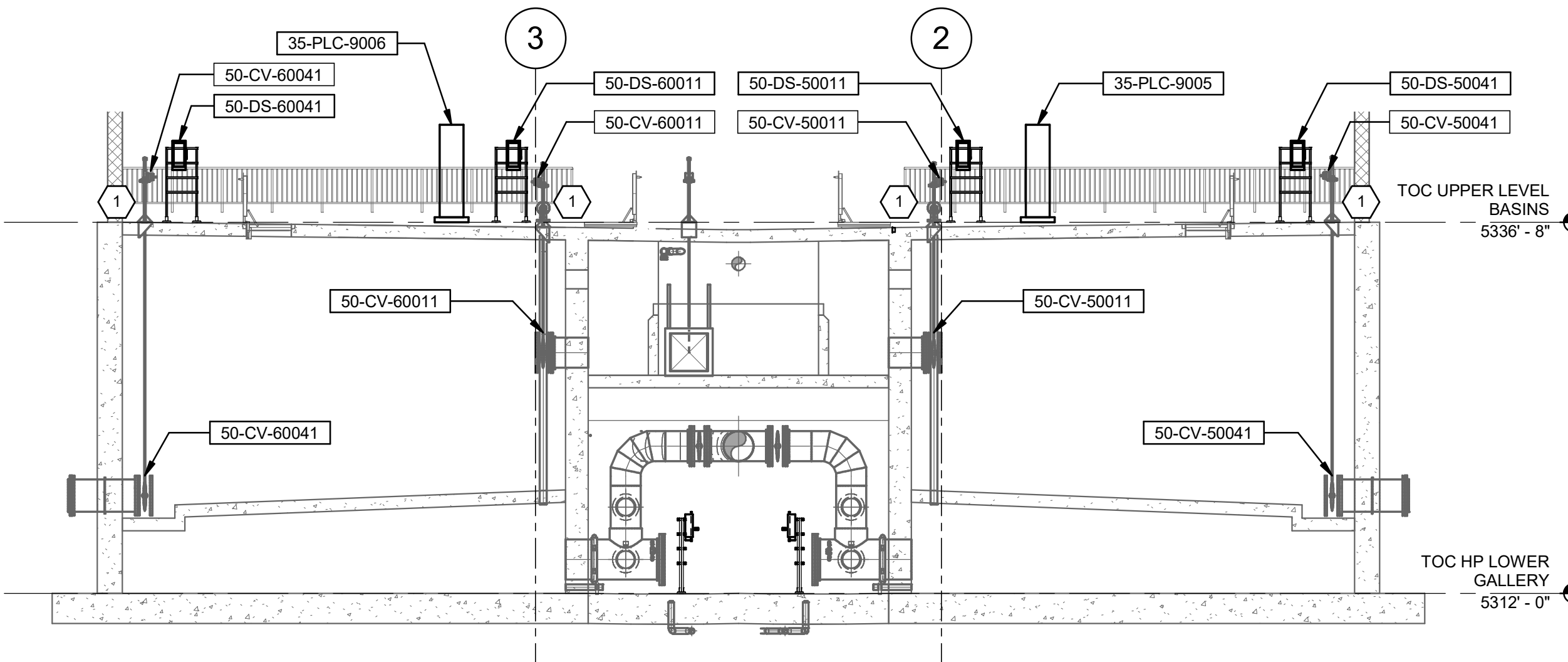
Plot Date: 6/26/2024 12:14:43 Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



SECTION 1  
35-E-03 SCALE: 1/8" = 1'-0"



SECTION 2  
35-E-03 SCALE: 1/8" = 1'-0"

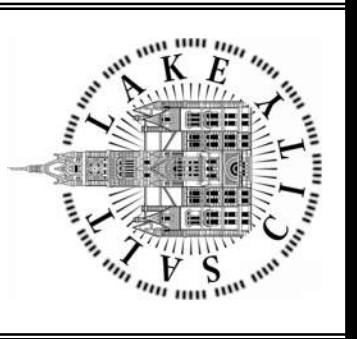


SECTION 3  
35-E-03 SCALE: 1/8" = 1'-0"

KEYNOTES:  
1 LOCATION OF VALVE ACTUATOR. VALVE LOCATED BELOW BASIN DECK, PENETRATE AND EMBED CONDUIT IN SLAB DECK TO ROUTE FROM VALVE TO VALVE ACTUATOR.

DESIGNED BY: N.ANDERSON	SCALE:				
DRAWN BY: N.ANDERSON	VERIFIED BY: N.ANDERSON				
CHECKED BY: N.ANDERSON	DATE: JUNE 2024				
APPROVED BY: D.STAR	ACCOUNT NO: 512260079				
NO.	DATE	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	REVISED FOR GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24				
1	06/27/24				

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 1

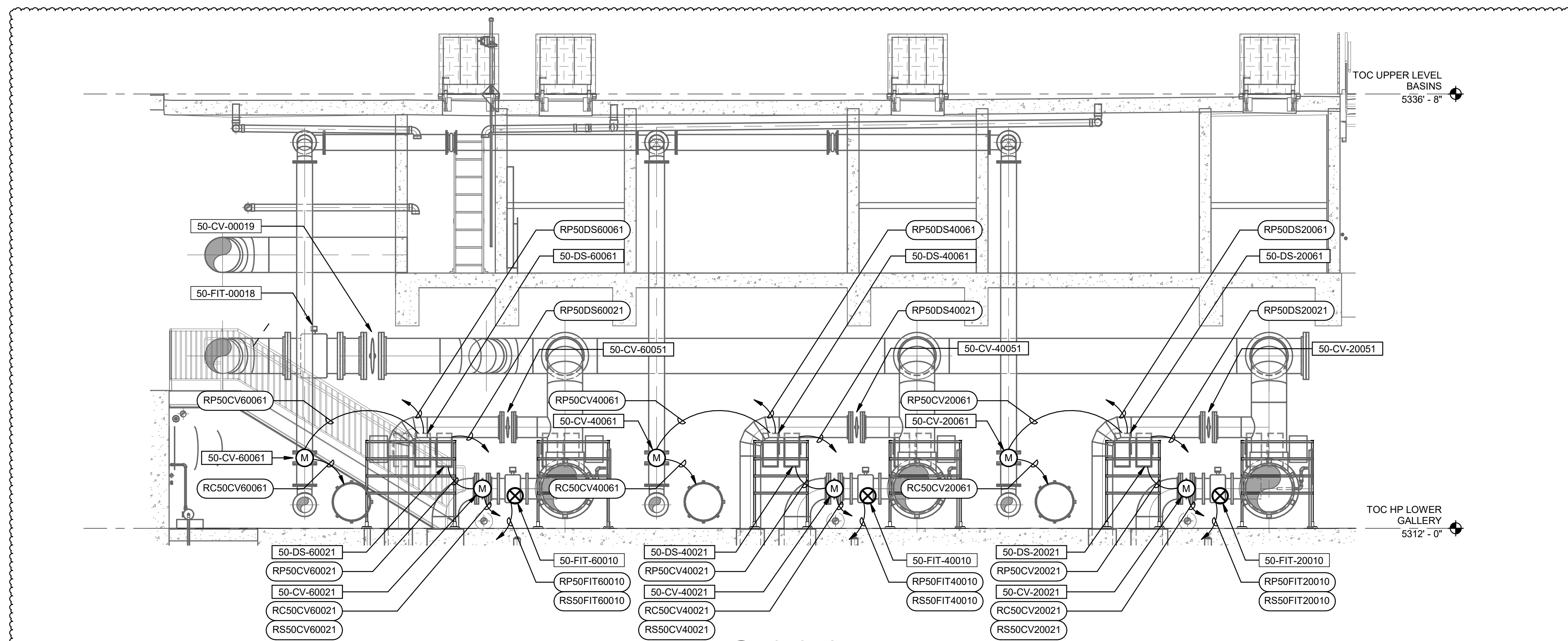


90% GMP

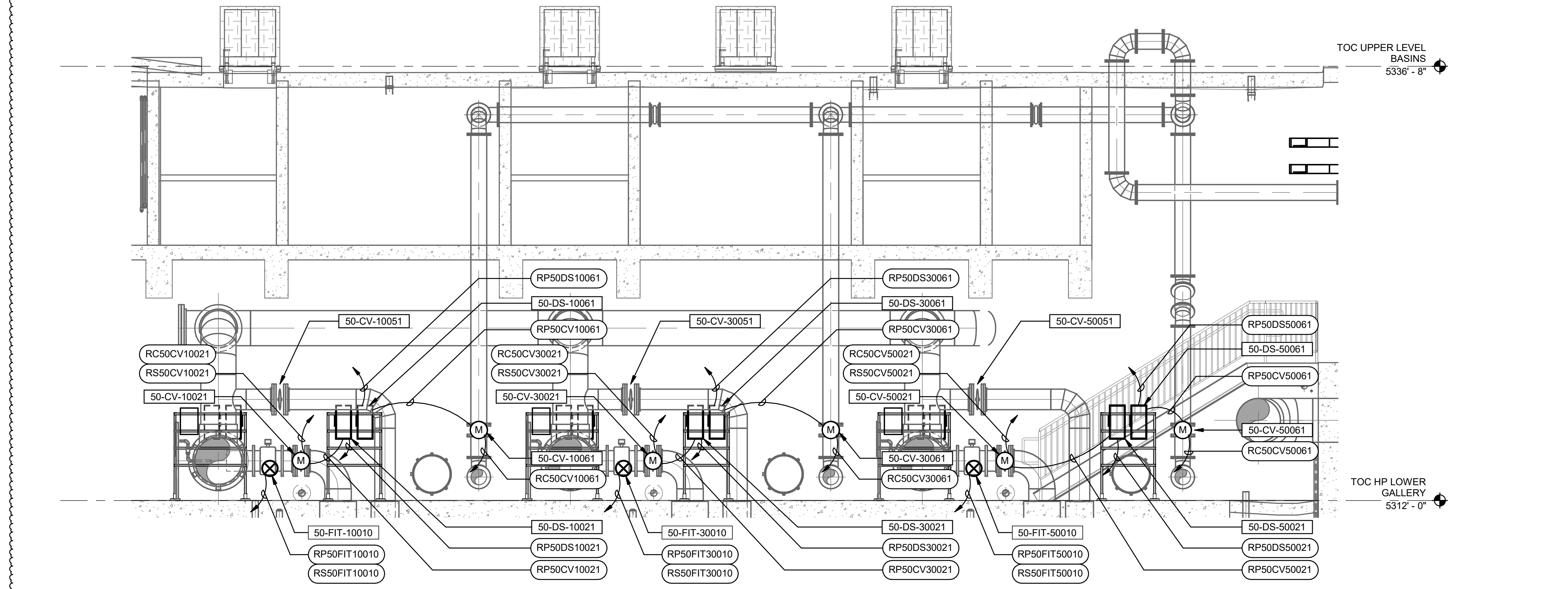
DRAWING NO.  
35-E-20

Brown and Caldwell

Plot Date: 6/26/2024 12:14:48 Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



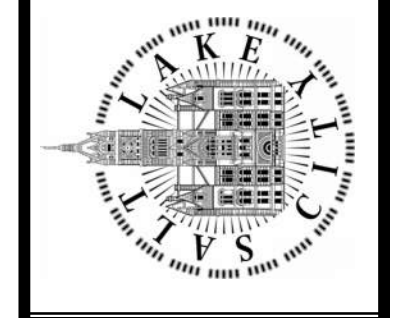
1 SECTION  
35-E-03 SCALE: 1/4" = 1'-0"



2 SECTION  
35-E-03 SCALE: 1/4" = 1'-0"

REVISIONS		DESIGNED BY: N.ANDERSON		SCALE:	
NO.	DATE	MADE BY	AUTH BY	DESIGNED BY	SCALE
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	N.ANDERSON	N.ANDERSON	VERIFY SCALE
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS	N.ANDERSON	BAR IS ONE INCH ON ORIGINAL DRAWING
				CHECKED BY: N.ANDERSON	
				APPROVED BY: D.STAR	
				DATE: JUNE 2024	
				EWO NO: ---	
				ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 TREATMENT - SECTIONS 2

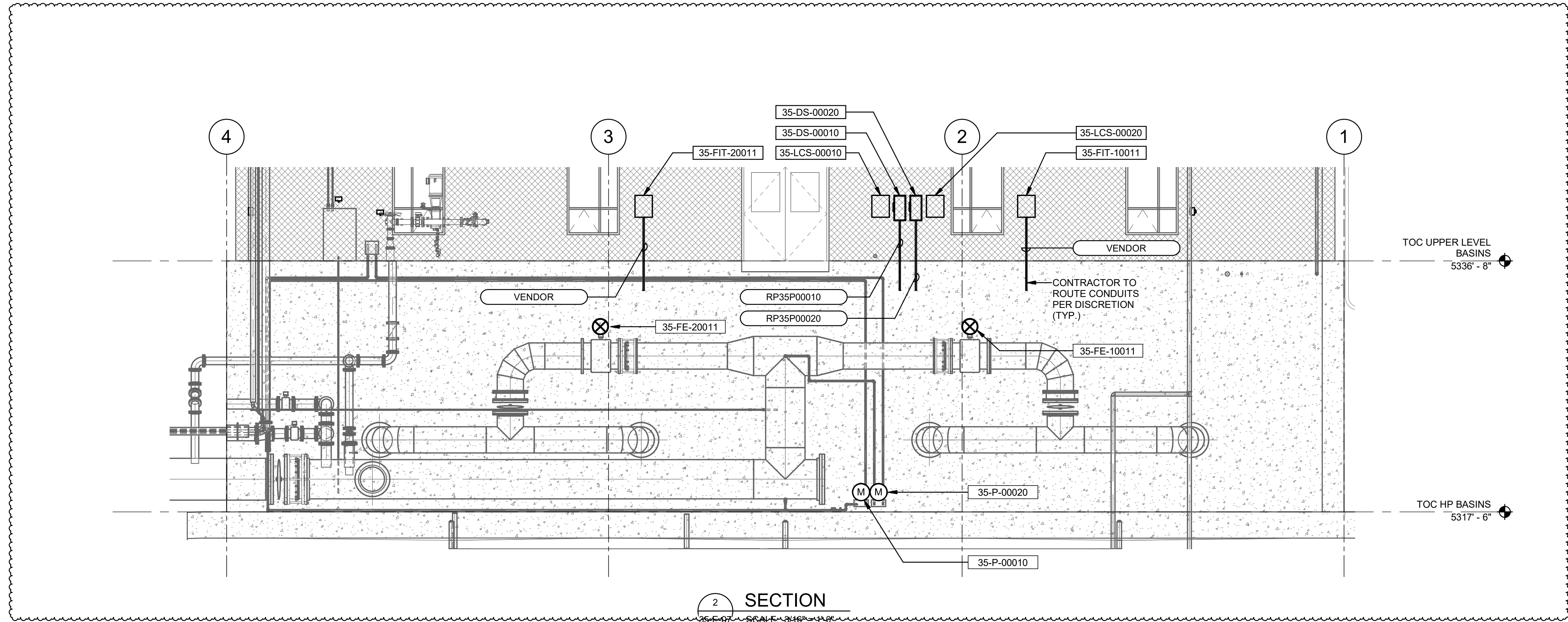


90% GMP

DRAWING NO.  
35-E-21

**Brown and Caldwell**

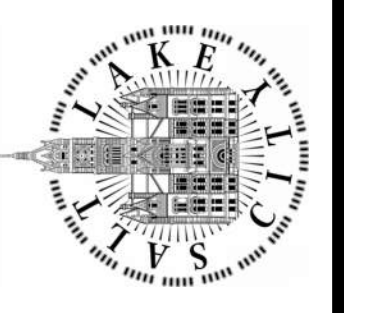
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SECTION 2  
SCALE: 3/4" = 1'-0"

**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
TREATMENT - SECTIONS 3

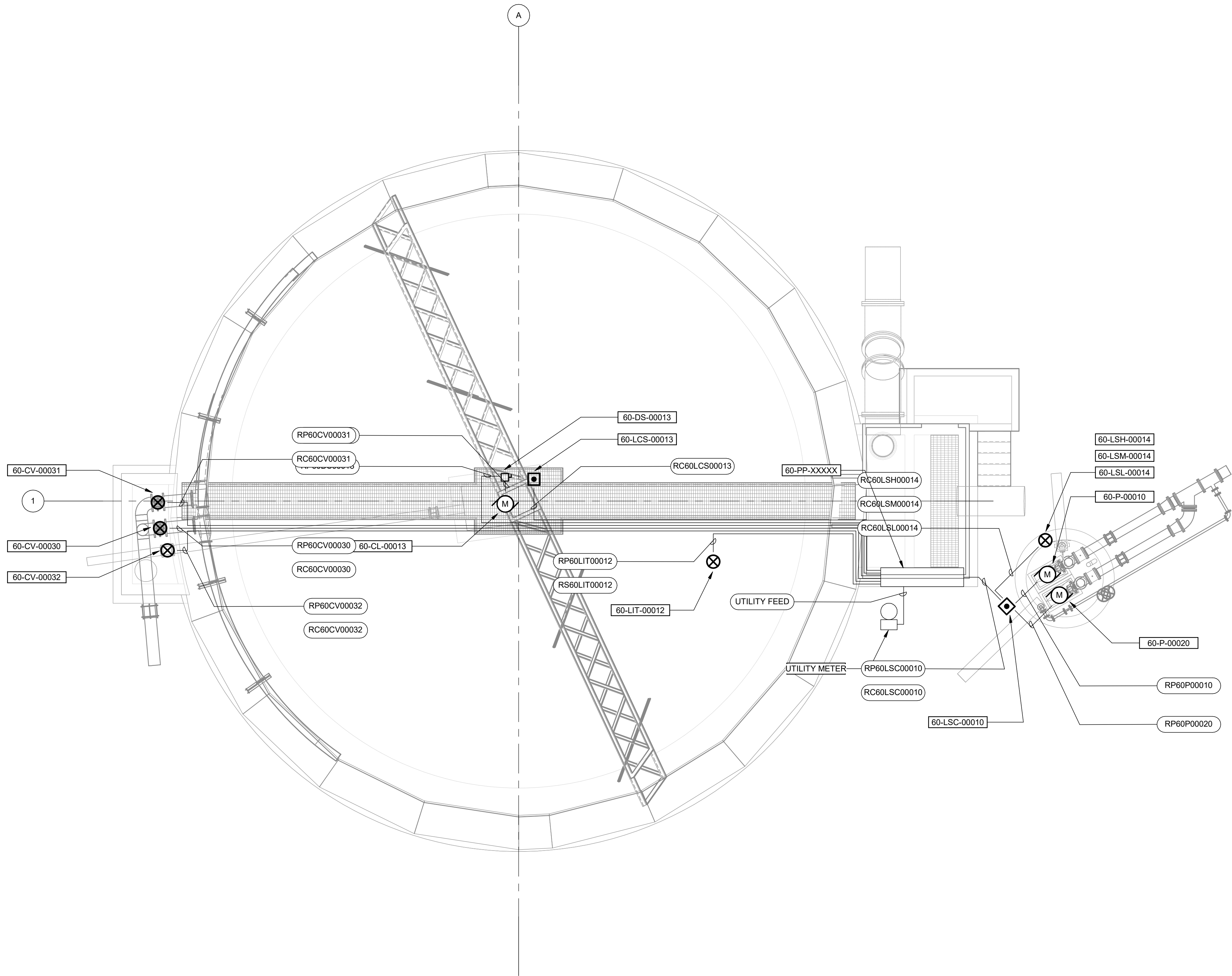


90% GMP

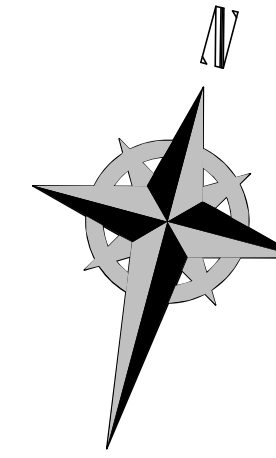
DRAWING NO.  
35-E-22

REVISIONS		MADE BY	AUTH BY	DESIGNED BY	SCALE:
NO.	DATE	BY	BY	N.ANDERSON	
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1	06/27/24	DS	DS	N.ANDERSON	
				CHECKED BY: N.ANDERSON	
				APPROVED BY: D.STAR	
				DATE: JUNE 2024	
				EWO NO: ---	
				ACCOUNT NO: 512260079	

Plot Date: 6/12/2024 4:21:06 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-E-60V21.rvt



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



**GENERAL NOTES:**

1. CONTRACTOR TO FIELD VERIFY ALL DIMENSION AND FITTINGS. CONTRACTOR TO PROVIDE ALL FITTINGS, WHETHER SHOWN OR NOT.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLARIFIER - ELECTRICAL  
PLAN**



**90% GMP**

DRAWING NO.  
**60-E-01**

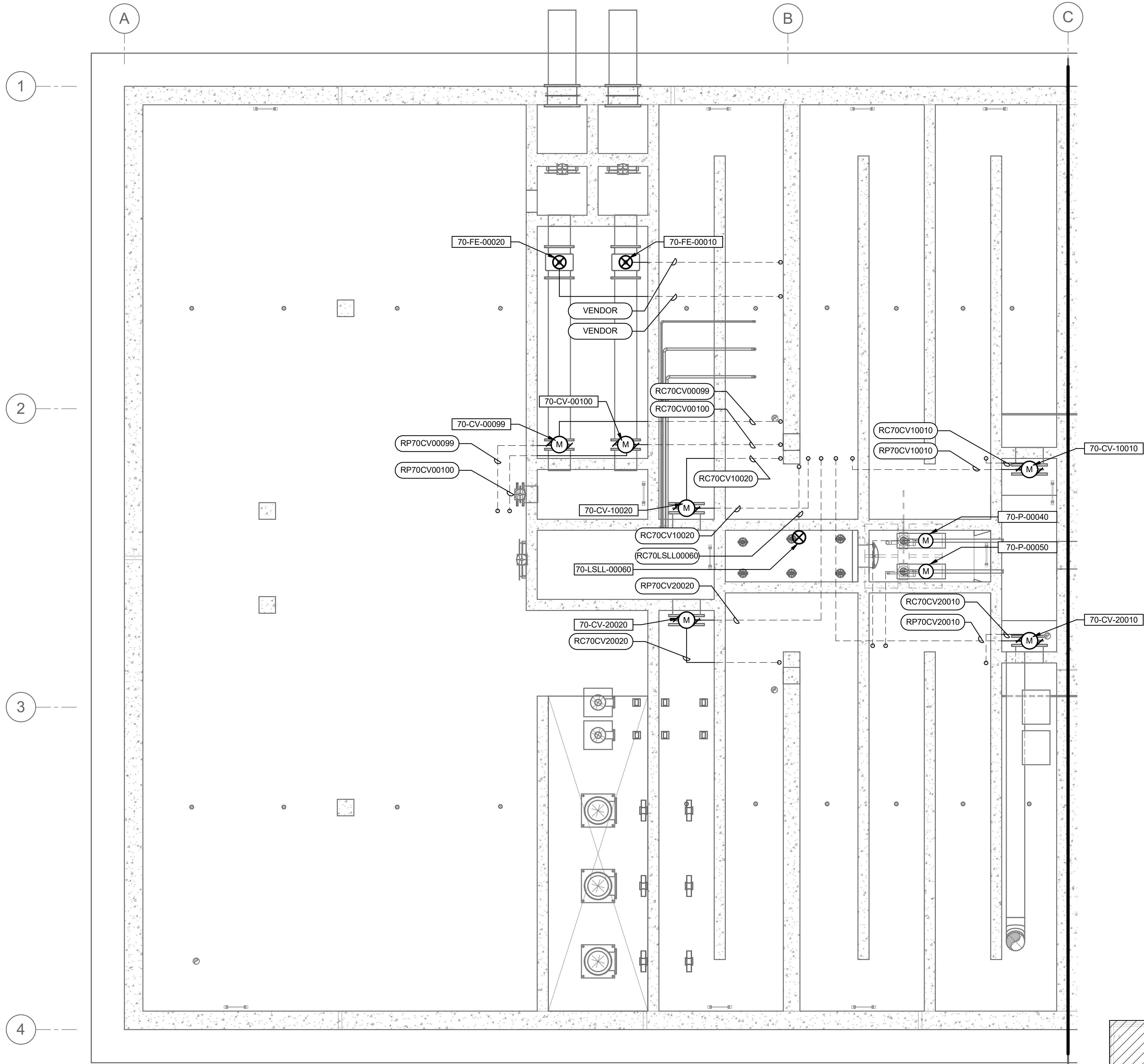
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)	MADE BY	AUTH BY
0	06/14/24					DS	DS

DESIGNED BY: D.STAR  
DRAWN BY: G.ALVAREZ  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

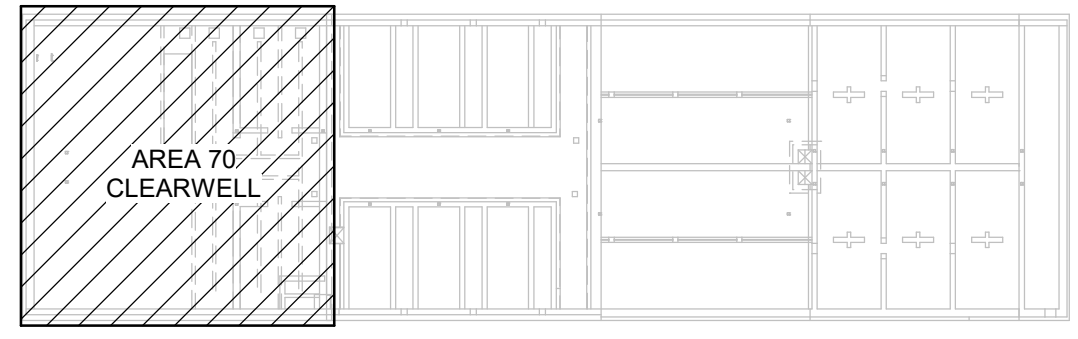
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**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

**Brown and Caldwell**

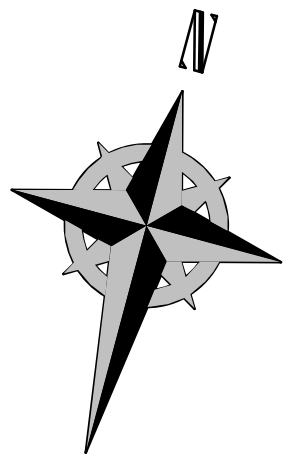
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



KEY PLAN



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - LOWER LVL  
ELECTRICAL PLAN**

DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

REVISIONS

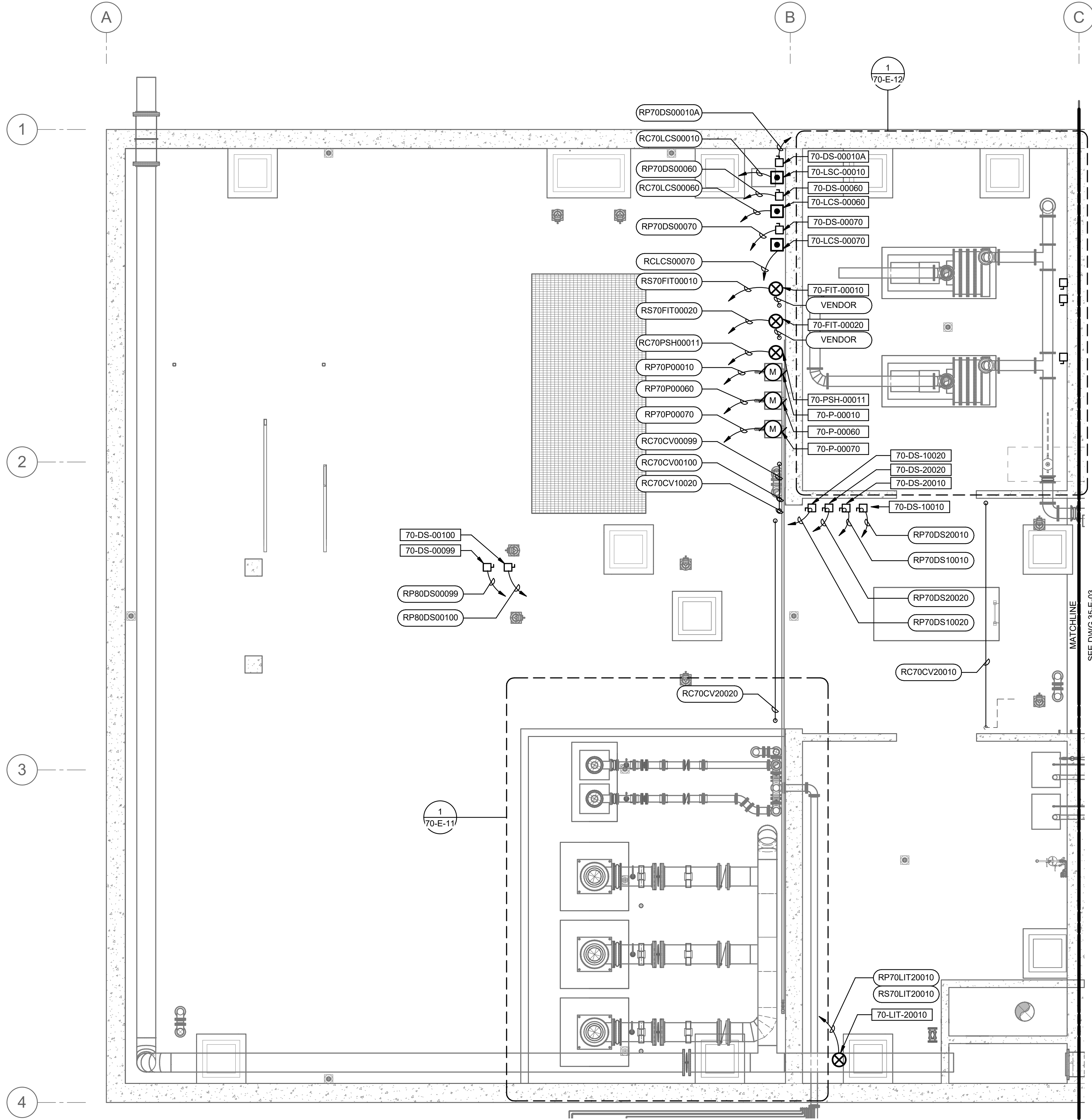
MADE BY	AUTH BY
DS	DS

90% GMP

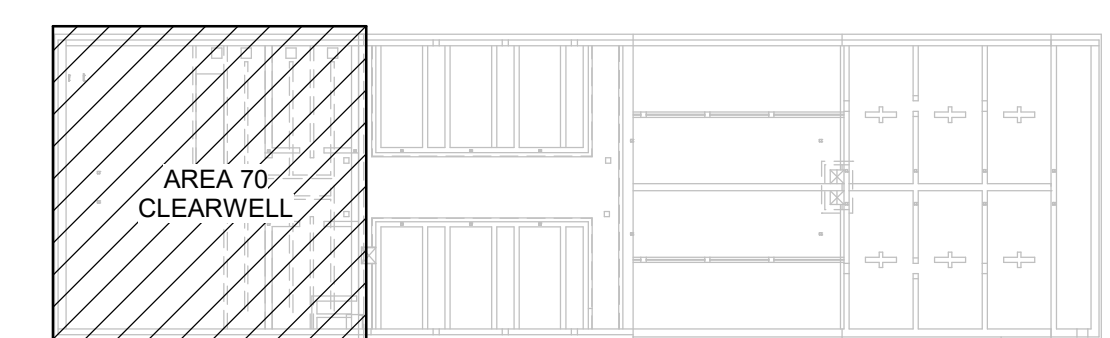
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**70-E-01**

**Brown and Caldwell**

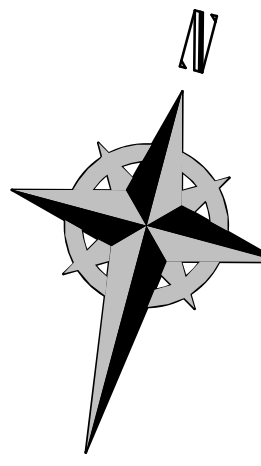
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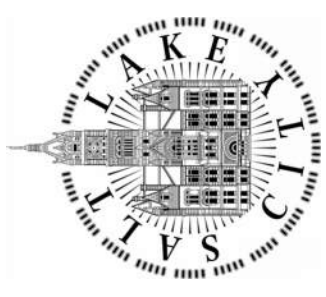
1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



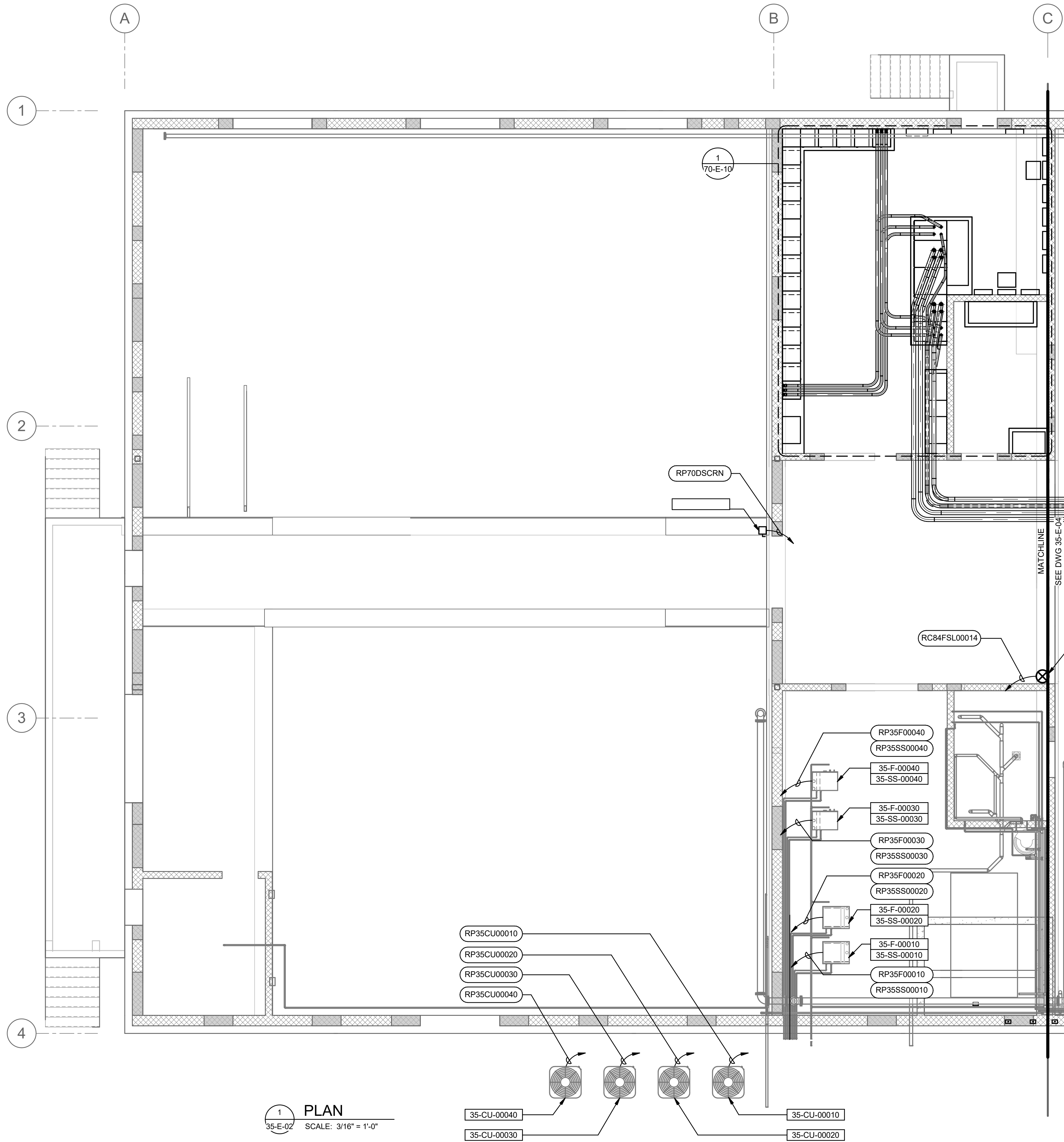
KEY PLAN



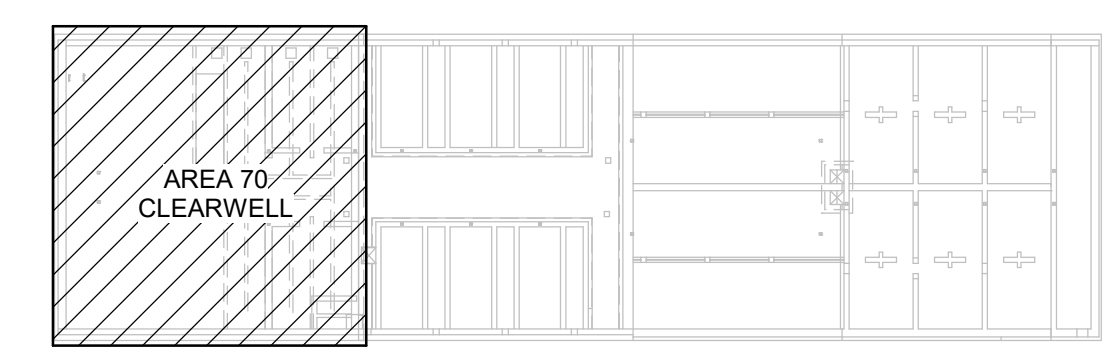
Brown and Caldwell

DESIGNED BY: N.ANDERSON		SCALE:	
DRAWN BY: N.ANDERSON		VERIFY SCALE	
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: D.STAR		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
REVISIONS			
NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE CLEARWELL - INTERMEDIATE LVL ELECTRICAL PLAN			
			
90% GMP			
DRAWING NO. 70-E-02			

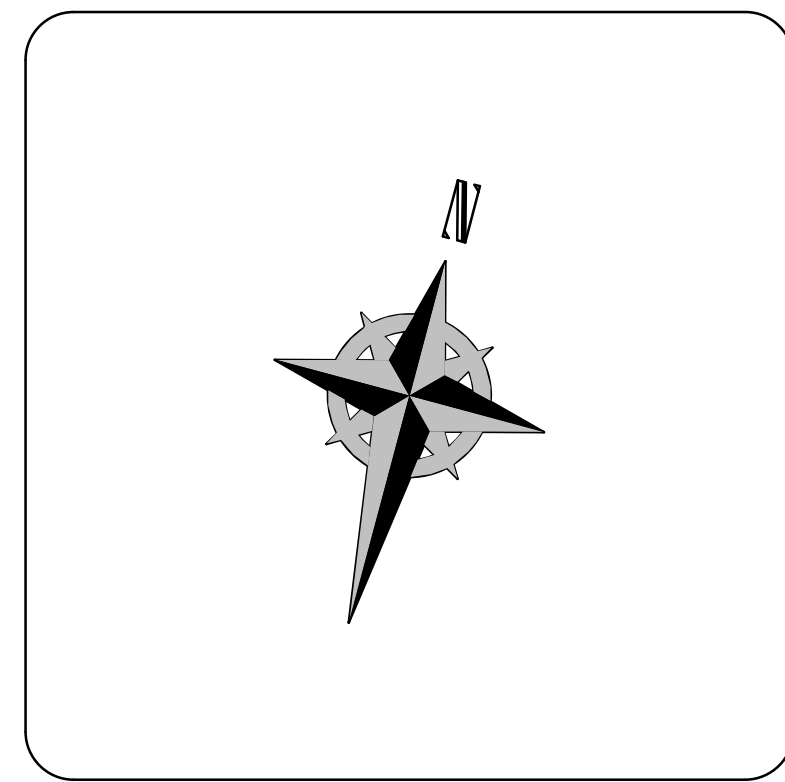
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1 PLAN  
 35-E-02 SCALE: 3/16" = 1'-0"



KEY PLAN



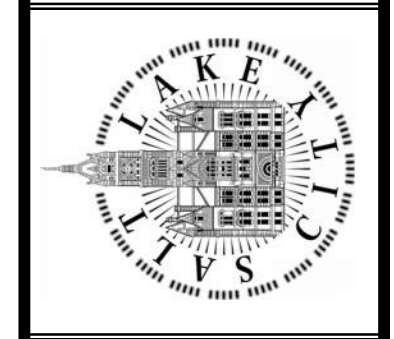
DESIGNED BY: D.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

REVISIONS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - UPPER LVL  
 ELECTRICAL PLAN**

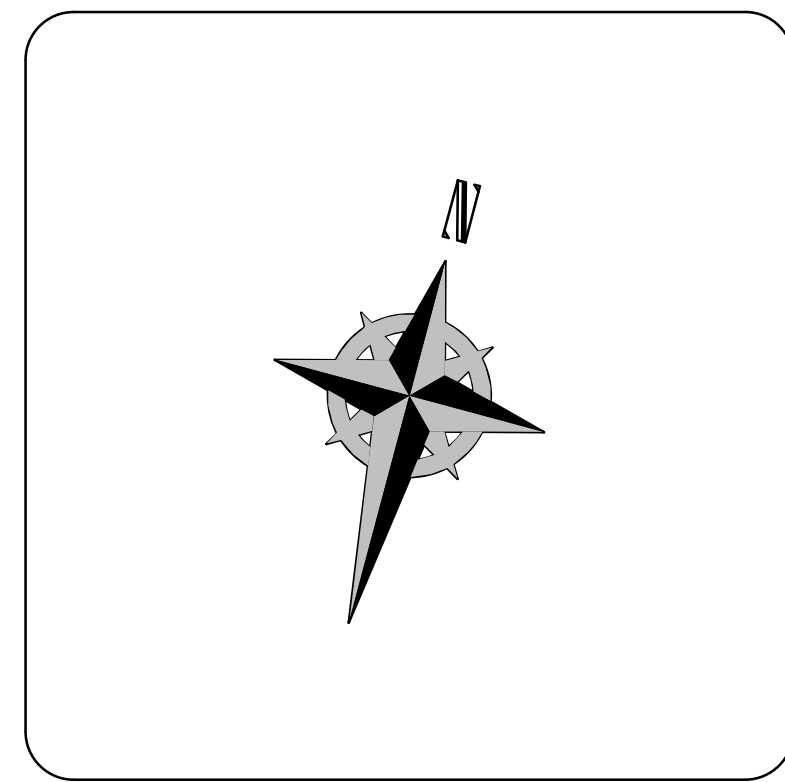
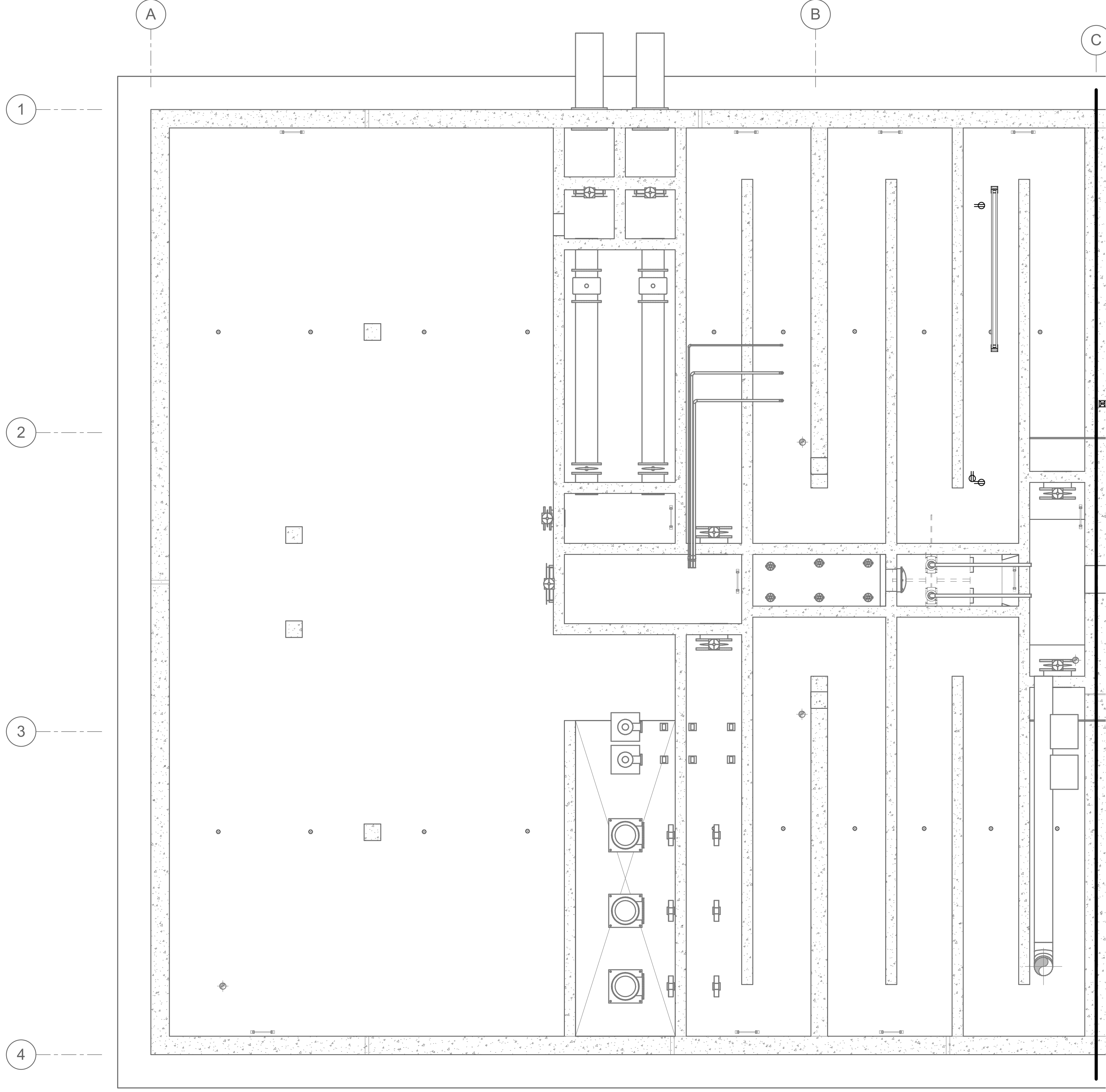


**90% GMP**

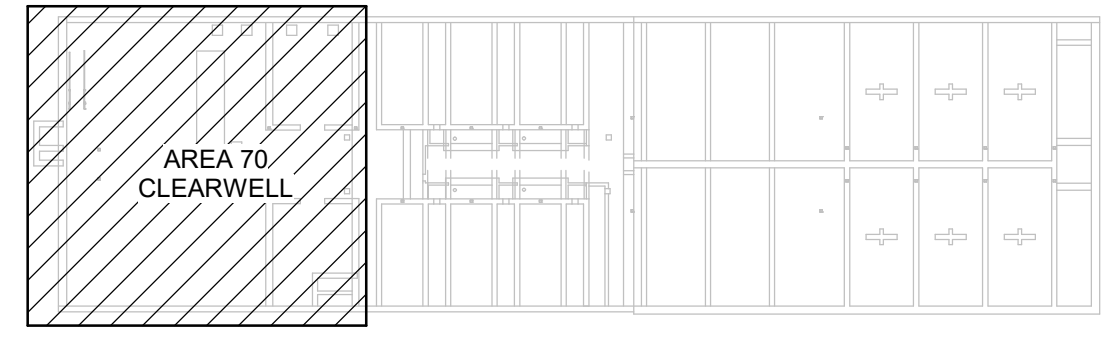
DRAWING NO.  
**70-E-03**

**Brown and Caldwell**

Plot Date: 6/12/2024 3:58:37 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-E-3570V21.rvt



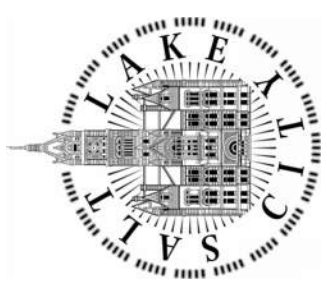
1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



KEY PLAN

**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - LOWER LVL**  
LGT & RCP PLAN



NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	(GMP)	MADE BY	AUTH BY
0	06/14/24					DS	DS

DESIGNED BY: GALVAREZ  
DRAWN BY: GALVAREZ  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

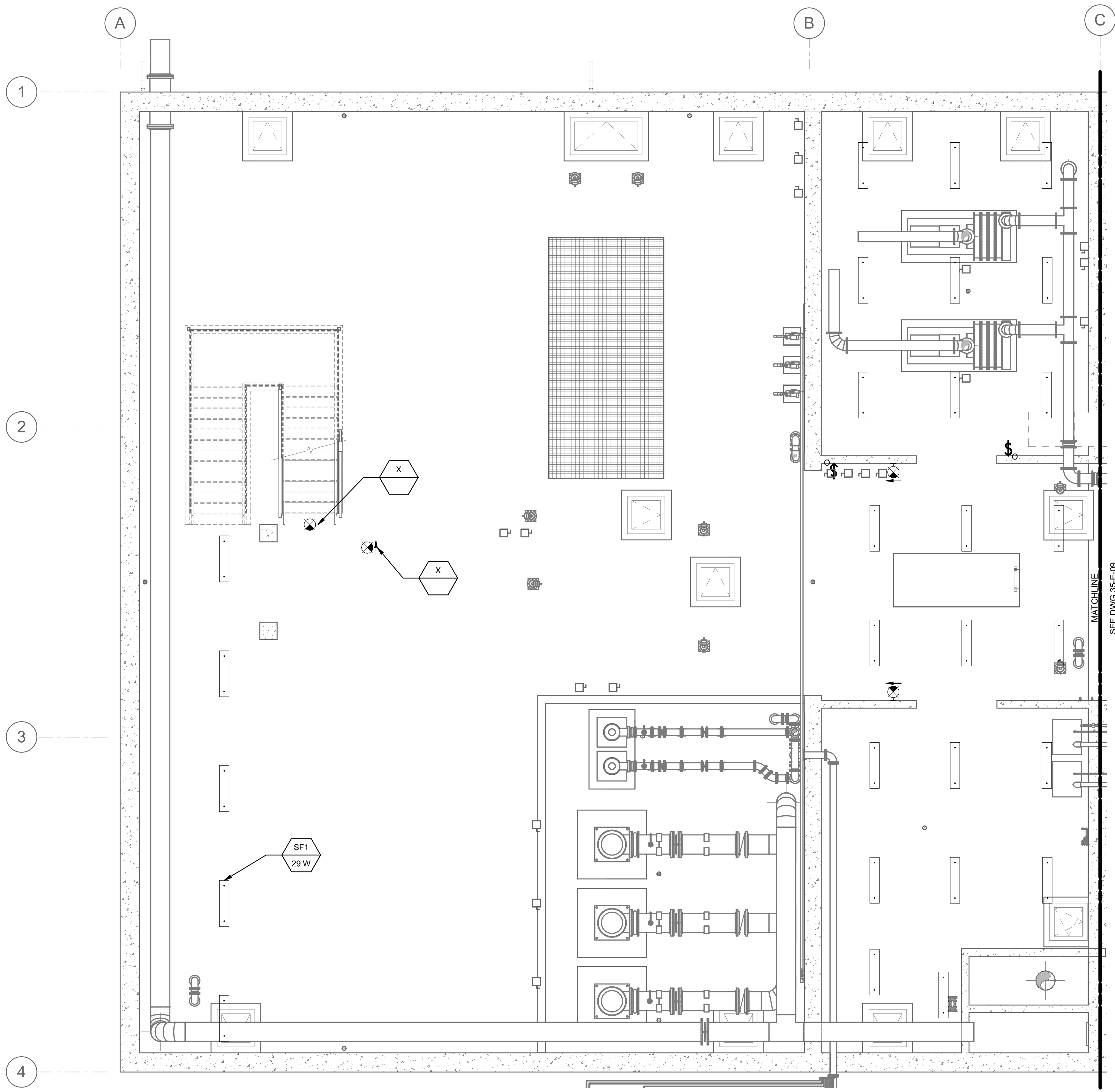
SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

90% GMP

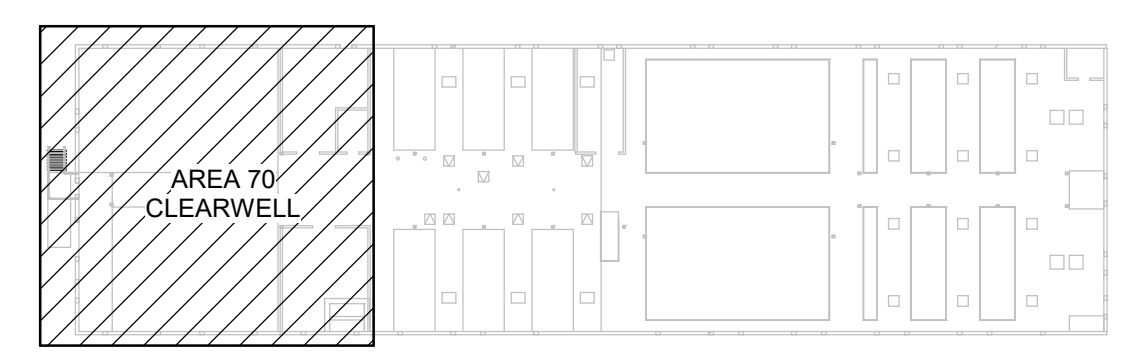
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**70-E-04**



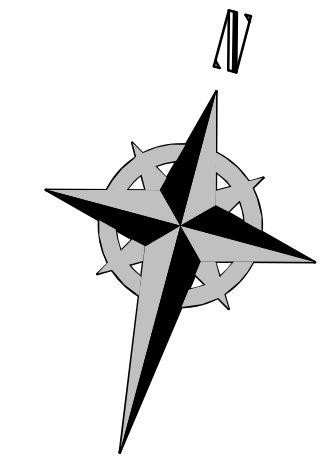
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"

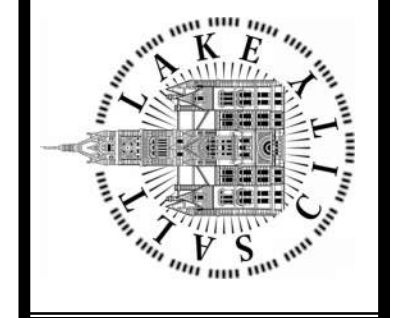


KEY PLAN



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - INTERMEDIATE  
LVL LGT & RCP PLAN**



90% GMP

DRAWING NO.  
**70-E-05**

REVISIONS

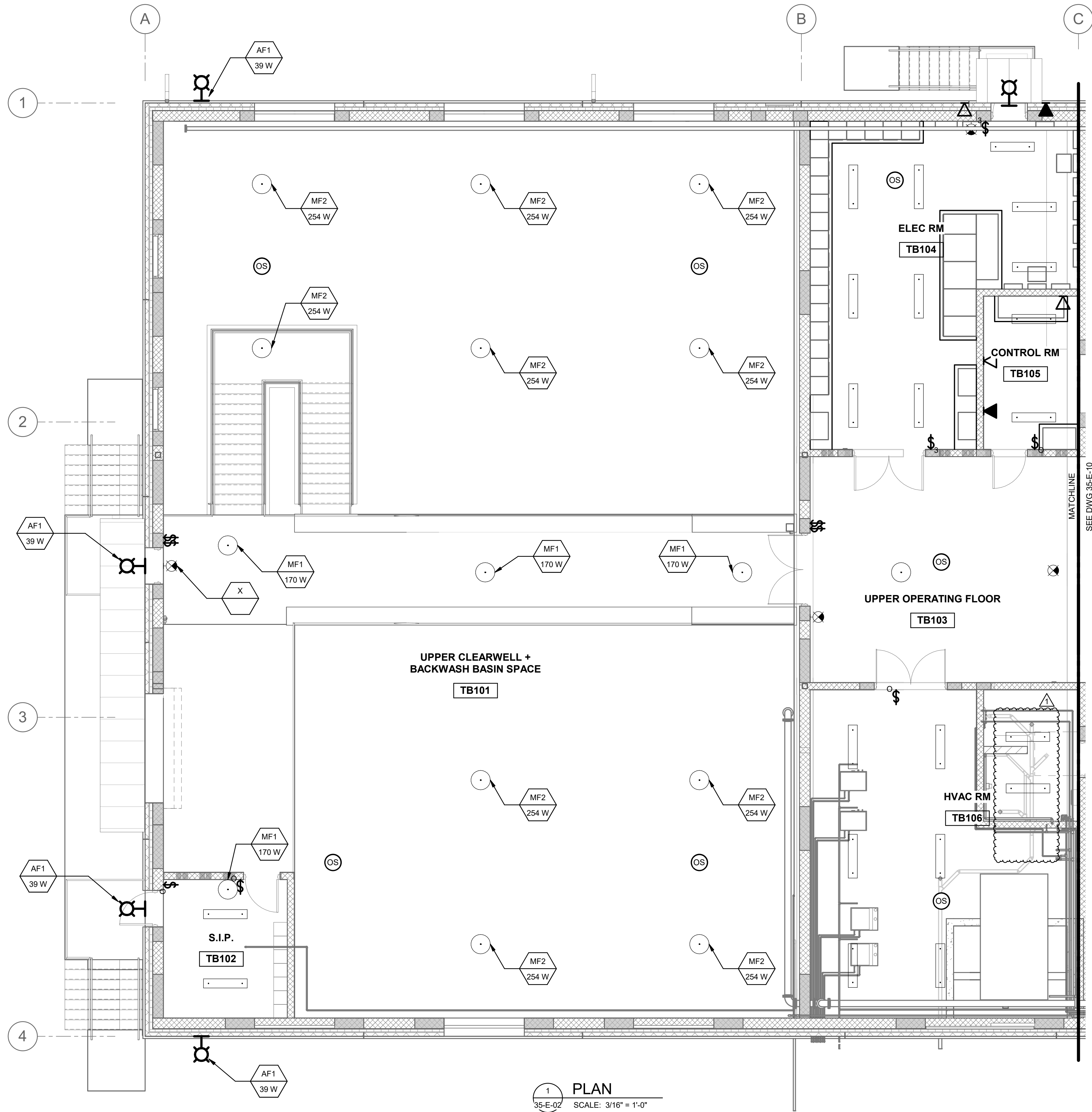
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				DS	DS

DESIGNED BY: D.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

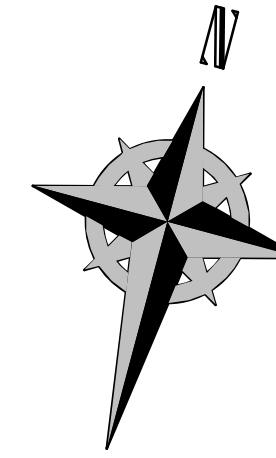
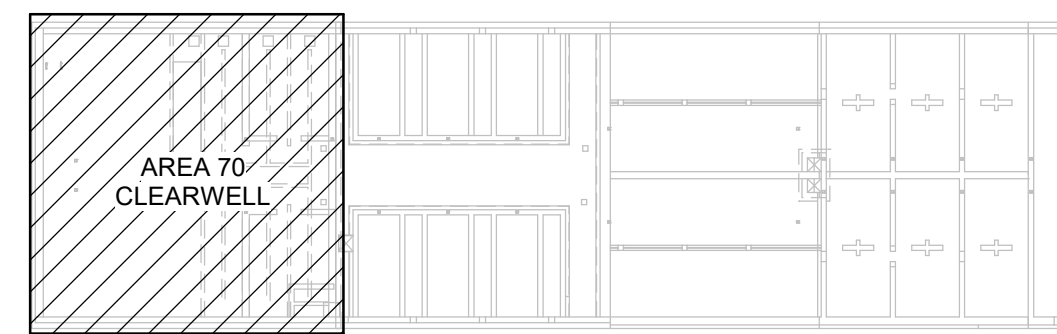
SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

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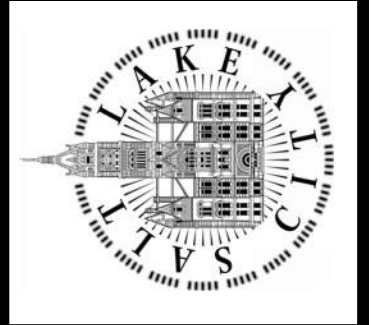


1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - UPPER LVL  
LGT & RCP PLAN

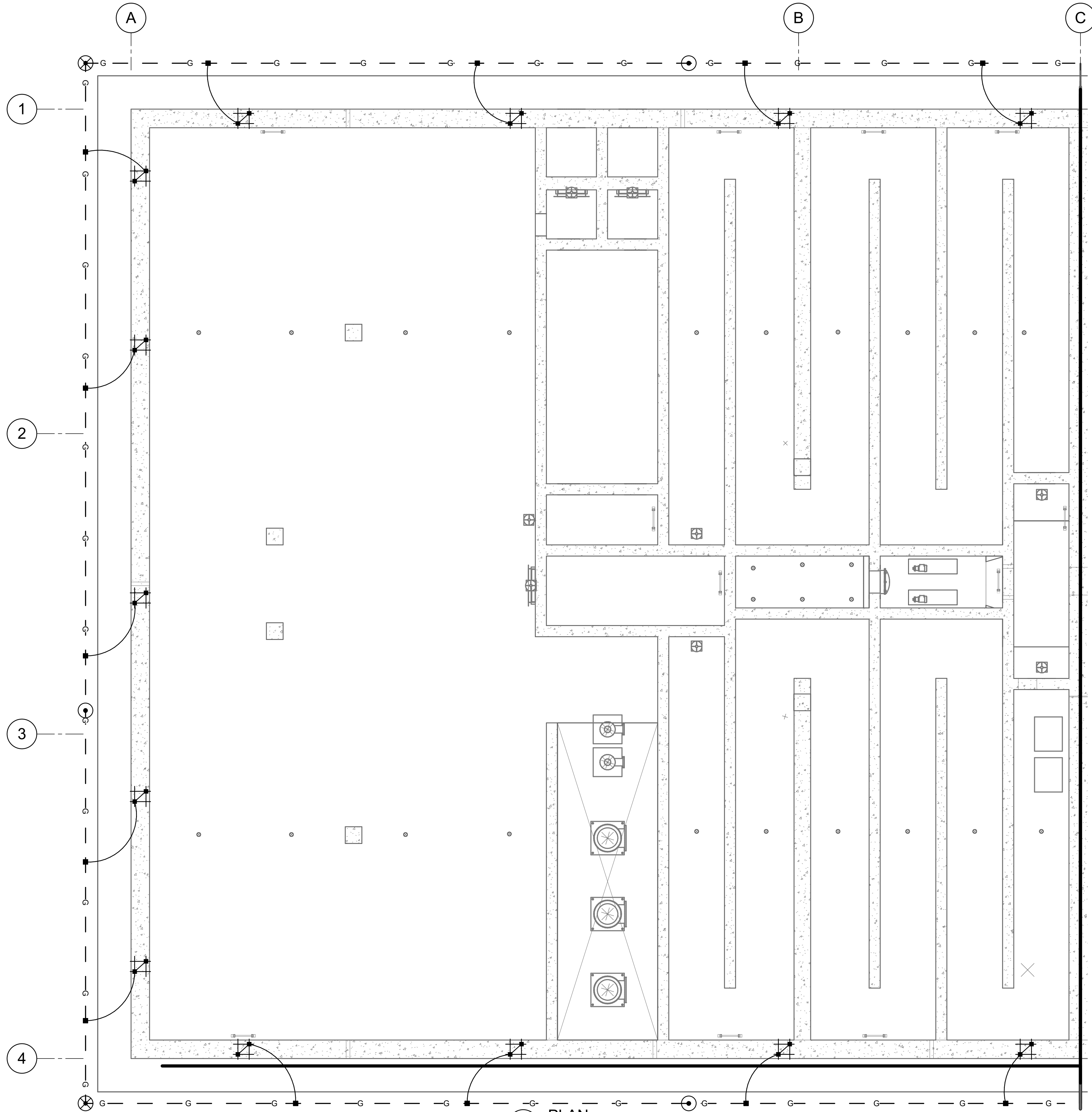


90% GMP

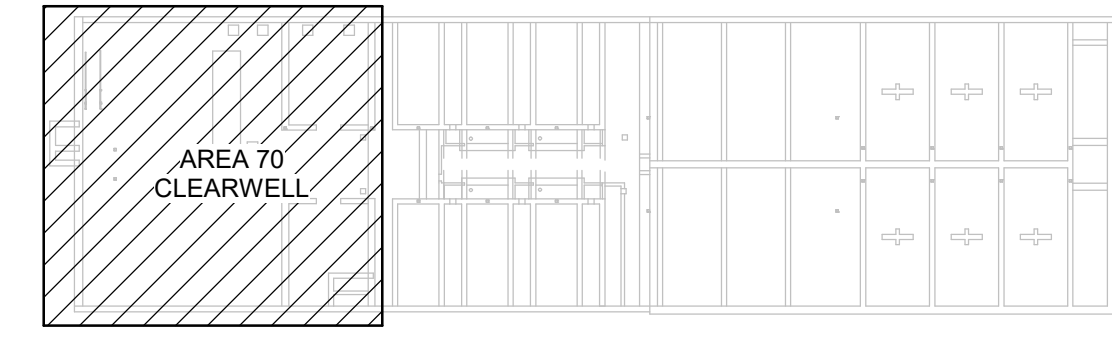
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70-E-06

REVISIONS		DESIGNED BY: N. ANDERSON	SCALE:
NO.	DATE	MADE BY	BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS
		DRAWN BY: N. ANDERSON	VERIFY SCALE
		CHECKED BY: D. STAR	BAR IS ONE INCH ON ORIGINAL DRAWING
		APPROVED BY: D. STAR	
		DATE: JUNE 2024	
		EWO NO: ---	
		ACCOUNT NO: 512260079	

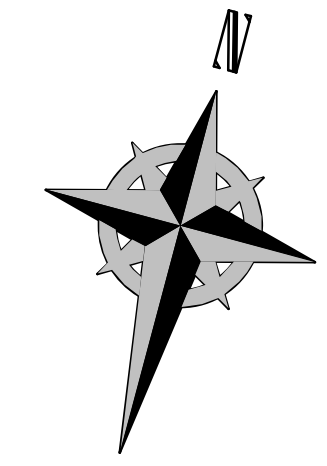
Plot Date: 6/12/2024 3:58:41 PM Path: RIM\_360//153020 - City\_Creek\_WTP/153020-E-3570V21.rvt



1  
35-E-01  
**PLAN**  
SCALE: 3/16" = 1'-0"

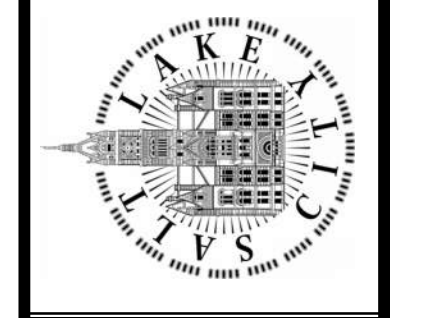


**KEY PLAN**



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - LOWER LVL  
TRY & GRD PLAN**



90% GMP

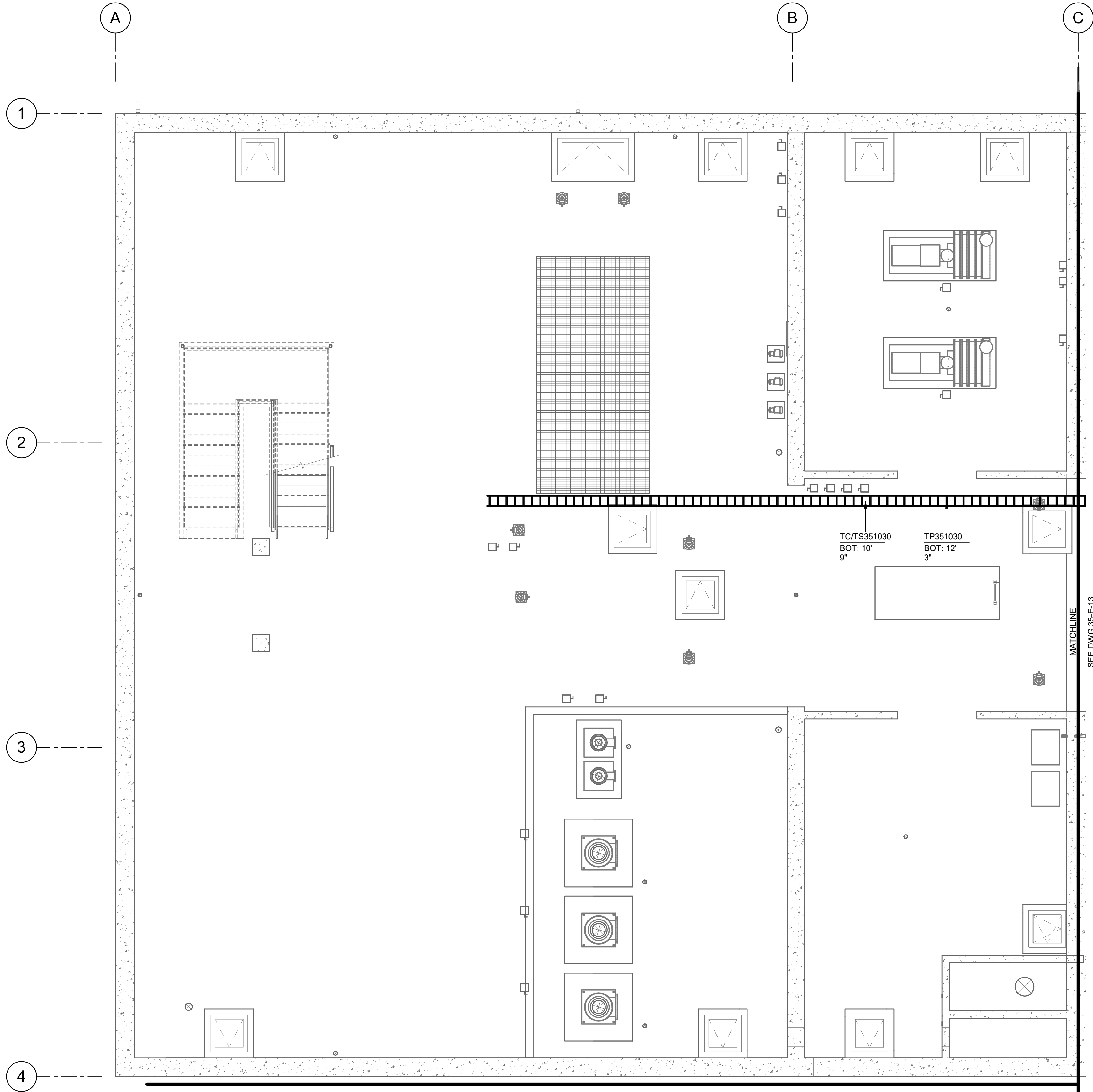
DRAWING NO.  
**70-E-07**

REVISIONS		MADE BY	AUTH BY	DATE	NO.
	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	DS	DS	06/14/24	0
DESIGNED BY: N.ANDERSON					
DRAWN BY: N.ANDERSON					
CHECKED BY: D.STAR					
APPROVED BY: D.STAR					
DATE: JUNE 2024					
EWO NO: ---					
ACCOUNT NO: 512260079					

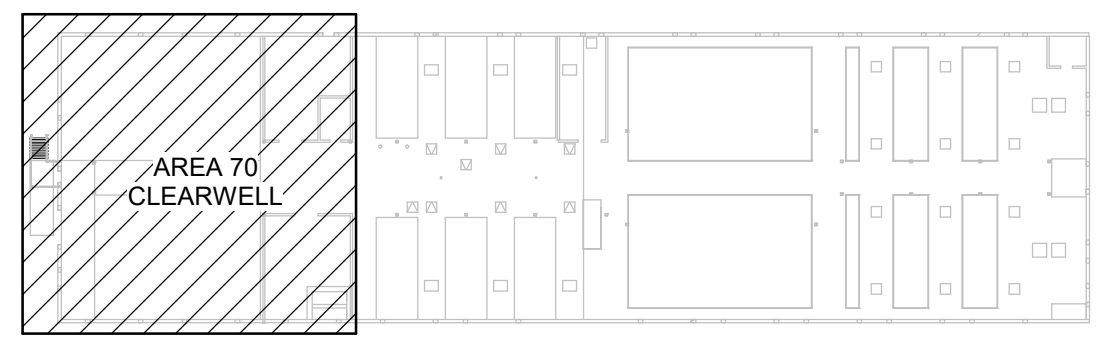
SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

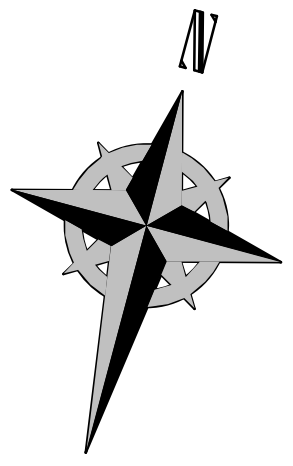
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1 PLAN  
35-E-01 SCALE: 3/16" = 1'-0"



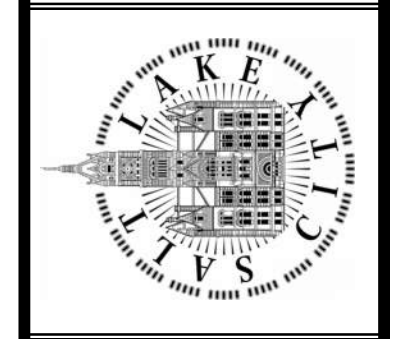
KEY PLAN



REVISIONS	
NO.	DATE
0	06/14/24

DESIGNED BY: N.ANDERSON	MADE BY: DS	AUTH BY: DS
DRAWN BY: N.ANDERSON	BY: DS	BY: DS
CHECKED BY: D.STAR	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
APPROVED BY: D.STAR		
DATE: JUNE 2024		
EWO NO: ---		
ACCOUNT NO: 512260079		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - INTERMEDIATE**  
 LVL TRY & GRD PLAN



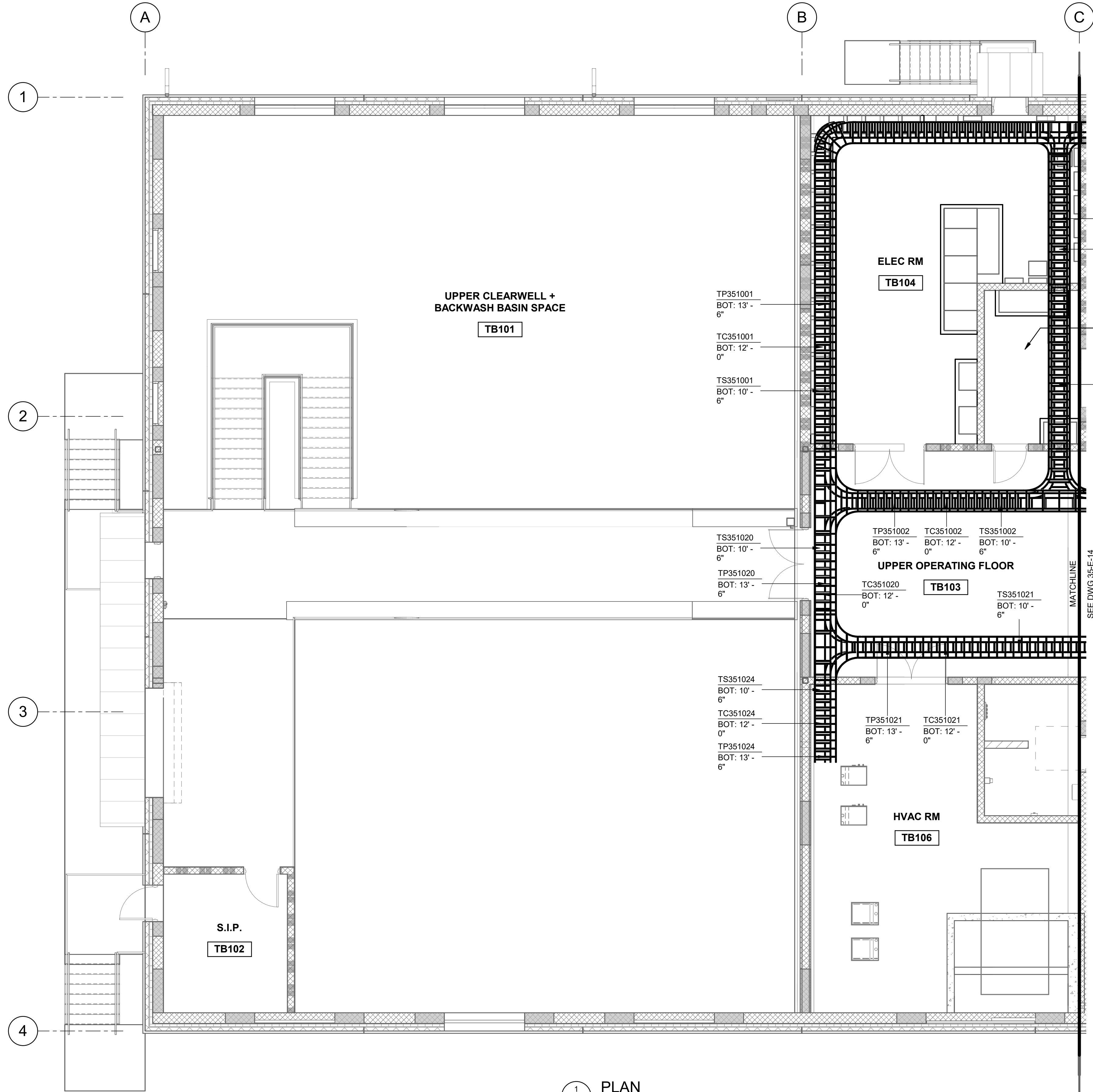
90% GMP

DRAWING NO.  
70-E-08

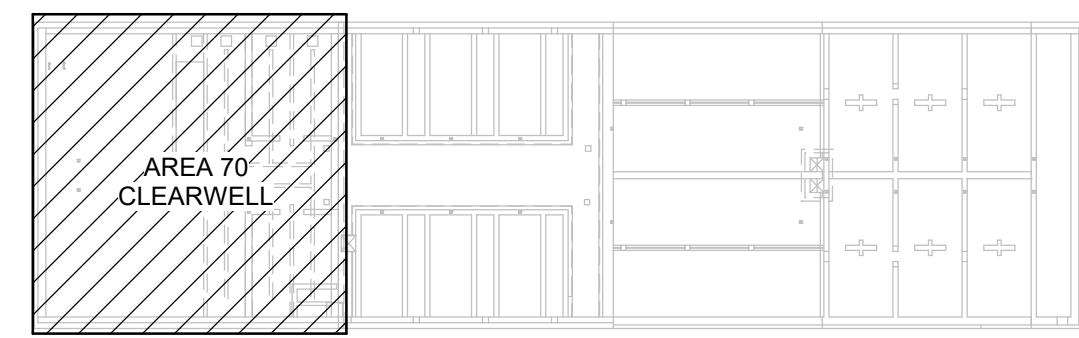
**Brown and Caldwell**

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

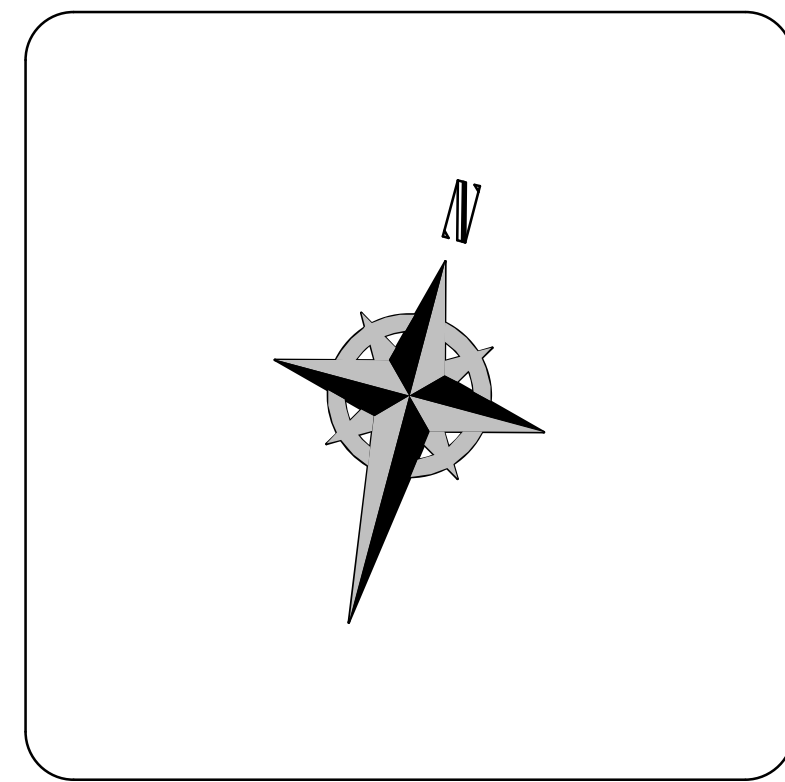
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1 PLAN  
35-E-02 SCALE: 3/16" = 1'-0"



KEY PLAN

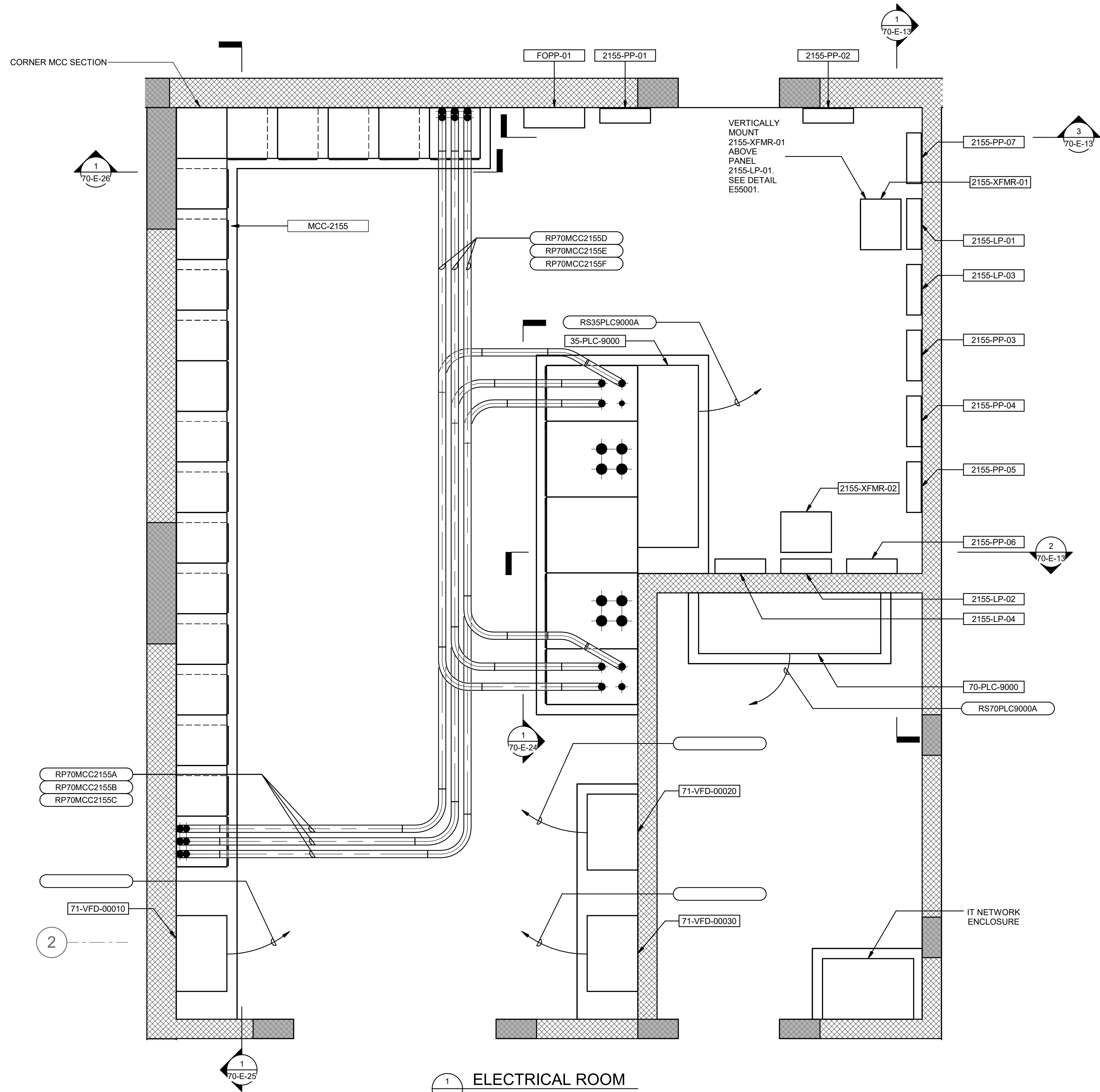


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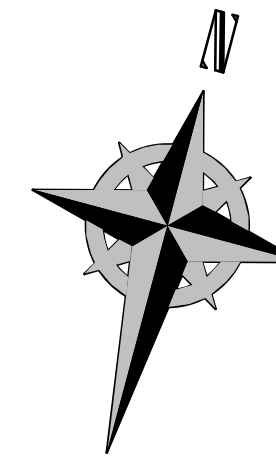
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DRAWN BY: N.ANDERSON		VERIFY SCALE									
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING									
APPROVED BY: D.STAR		DATE: JUNE 2024									
EWO NO: ---		ACCOUNT NO: 512260079									
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NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)								
0	06/14/24										
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MADE BY	AUTH BY										
DS	DS										
<p>REVISIONS</p>											
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE CLEARWELL - UPPER LVL TRY &amp; GRD PLAN</p>											
<p>90% GMP</p>											
<p>DRAWING NO. 70-E-09</p>											

Brown and Caldwell

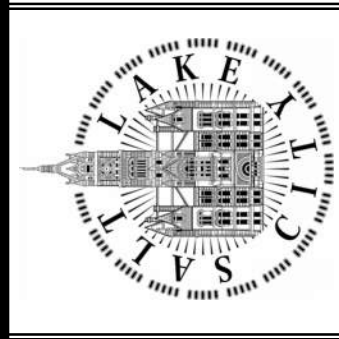
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**1** ELECTRICAL ROOM  
SCALE: 1/2" = 1'-0"



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - ENLARGED**  
**PLAN 1**



**90% GMP**

DRAWING NO.  
**70-E-10**

REVISIONS	
NO.	DATE
0	06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY	AUTH BY
DS	DS

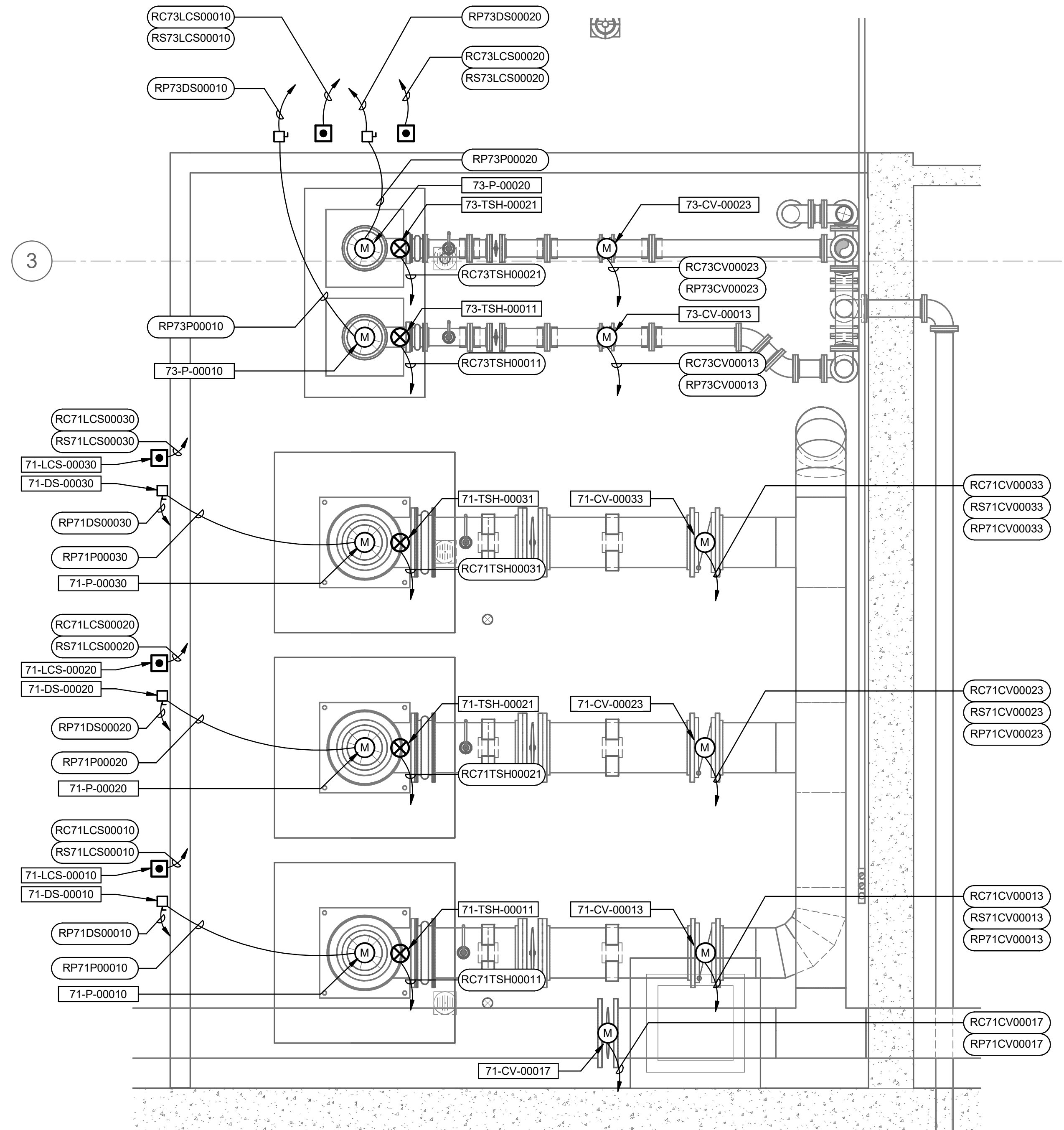
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DATE	EMO NO.	ACCOUNT NO.
N.ANDERSON	N.ANDERSON	N.ANDERSON	ID.STAR	JUNE 2024		512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

**Brown and Caldwell**

Plot Date: 6/12/2024 3:58:47 PM Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



1 ENLARGED PLAN  
 70-E-02 SCALE: 3/8" = 1'-0"

KEYNOTES:

DESIGNED BY: N.ANDERSON  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE	GMP
0	06/14/24				

MADE BY: DS  
 AUTH BY: DS

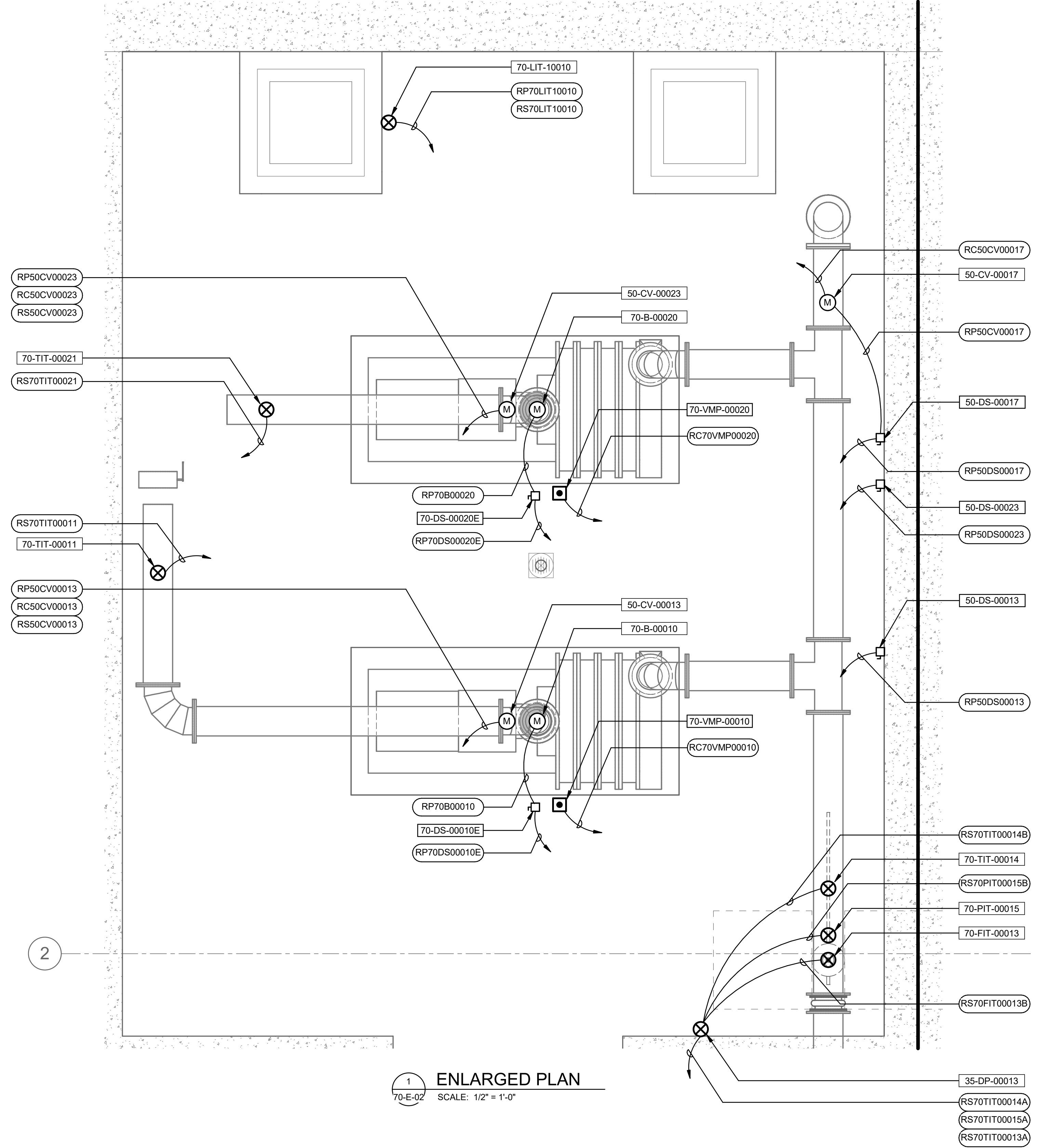
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 CLEARWELL - ENLARGED  
 PLAN 2

90% GMP

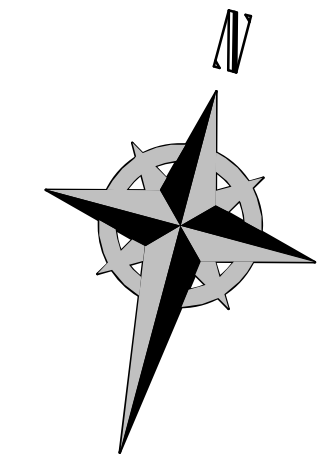
Brown and Caldwell

DRAWING NO.  
 70-E-11

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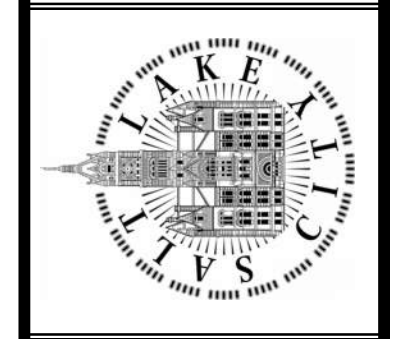


1 ENLARGED PLAN  
 70-E-02 SCALE: 1/2" = 1'-0"



DESIGNED BY: D.STAR		AUTH BY: DS	
DRAWN BY: N.ANDERSON	DATE: 06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	REVISIONS
CHECKED BY: D.STAR	DATE: JUNE 2024		
APPROVED BY: D.STAR	DATE: JUNE 2024		
EWO NO: 512260079	ACCOUNT NO: 512260079		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - ENLARGED  
 PLAN 3**



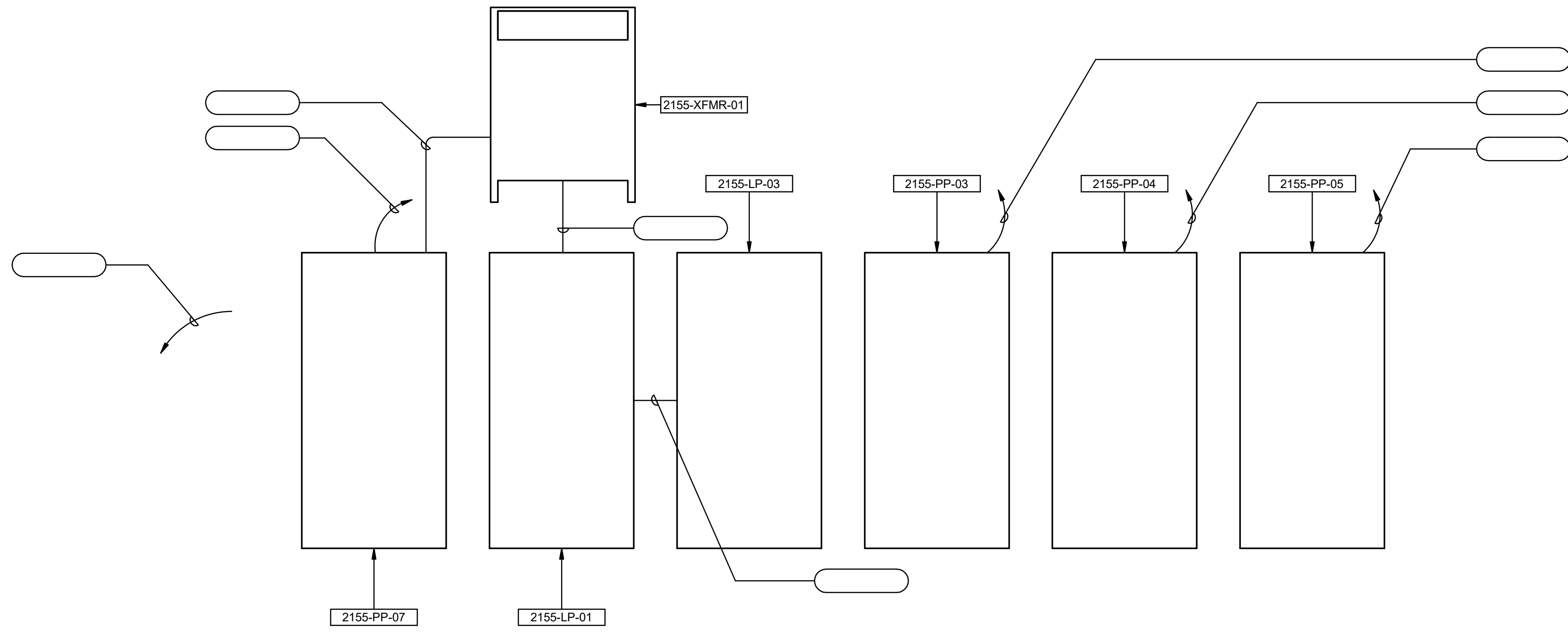
**90% GMP**

DRAWING NO.  
**70-E-12**

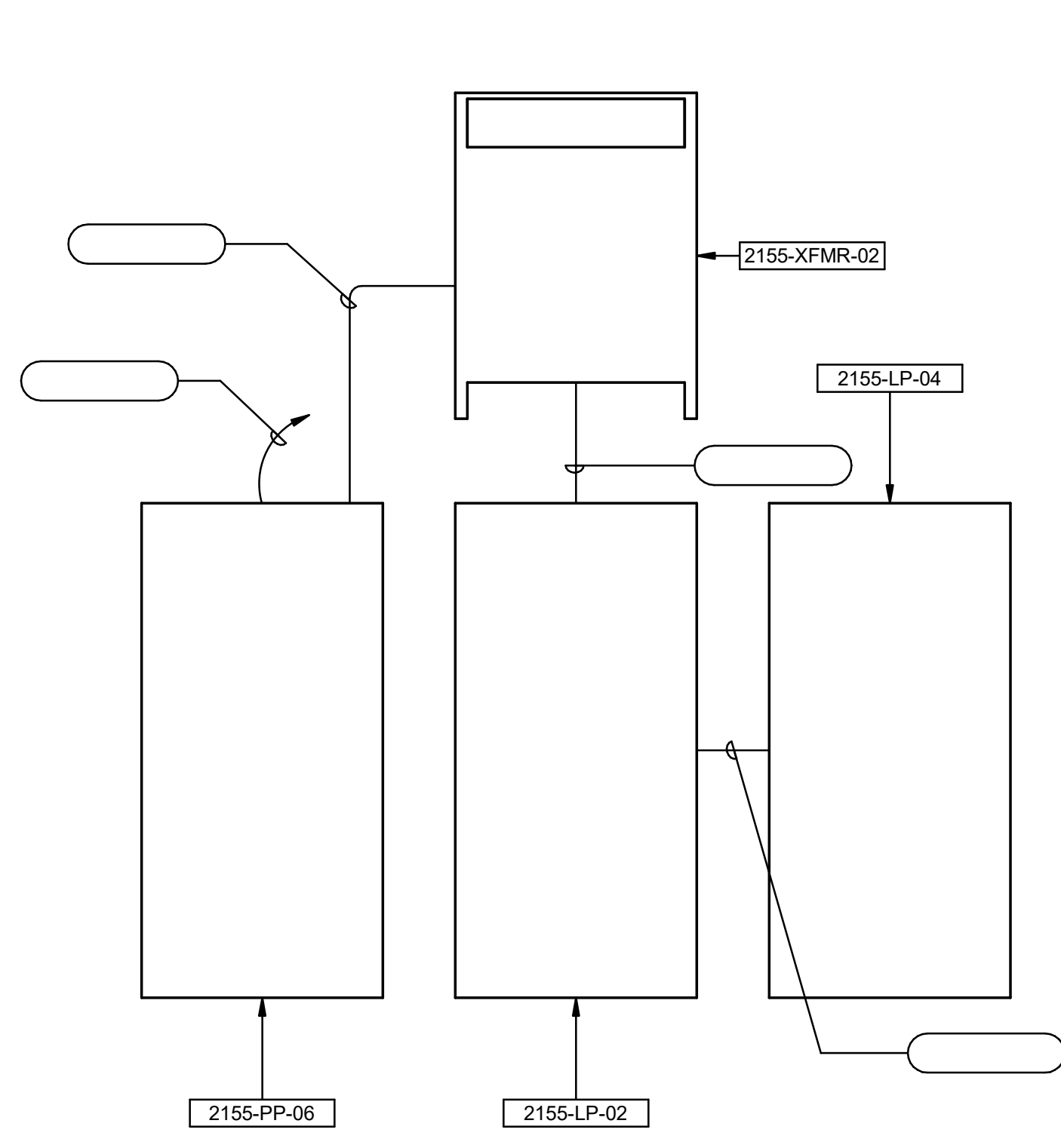
**Brown and Caldwell**



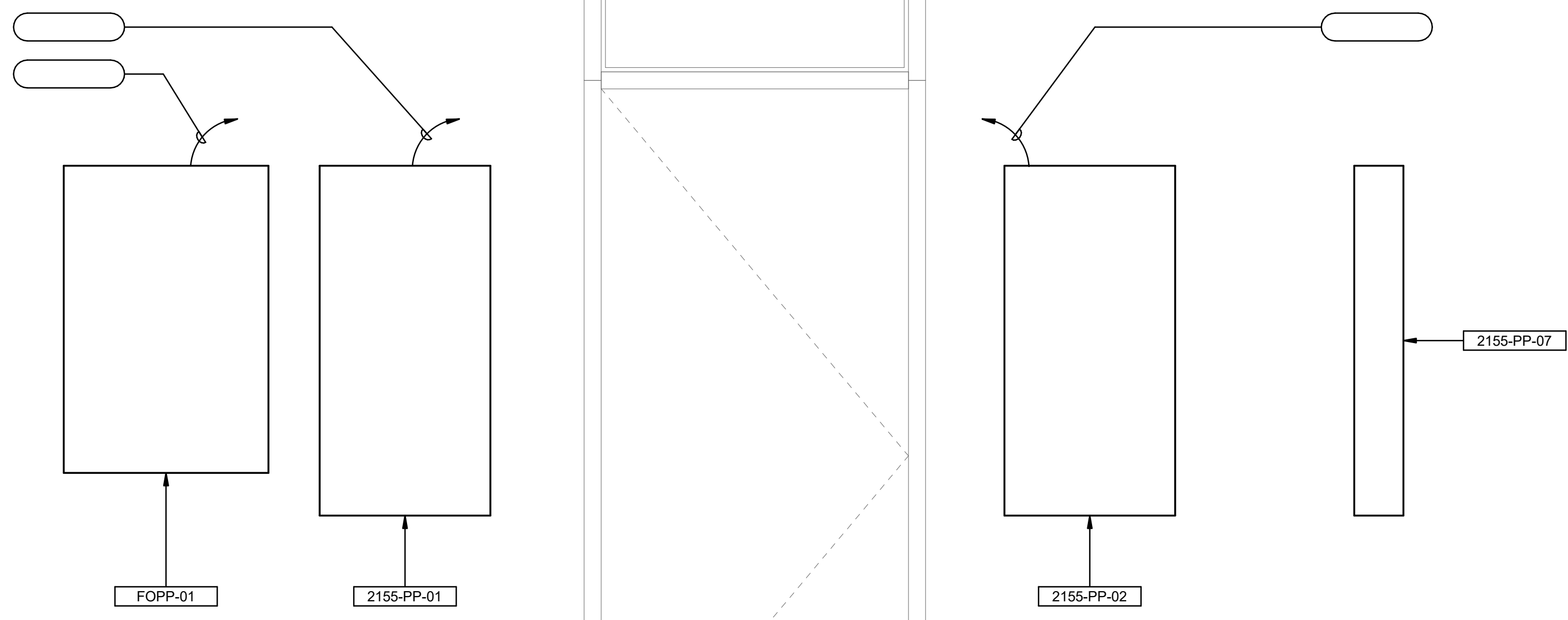
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1 ELECTRICAL ROOM EAST WALL  
70-E-10 SCALE: 1" = 1'-0"

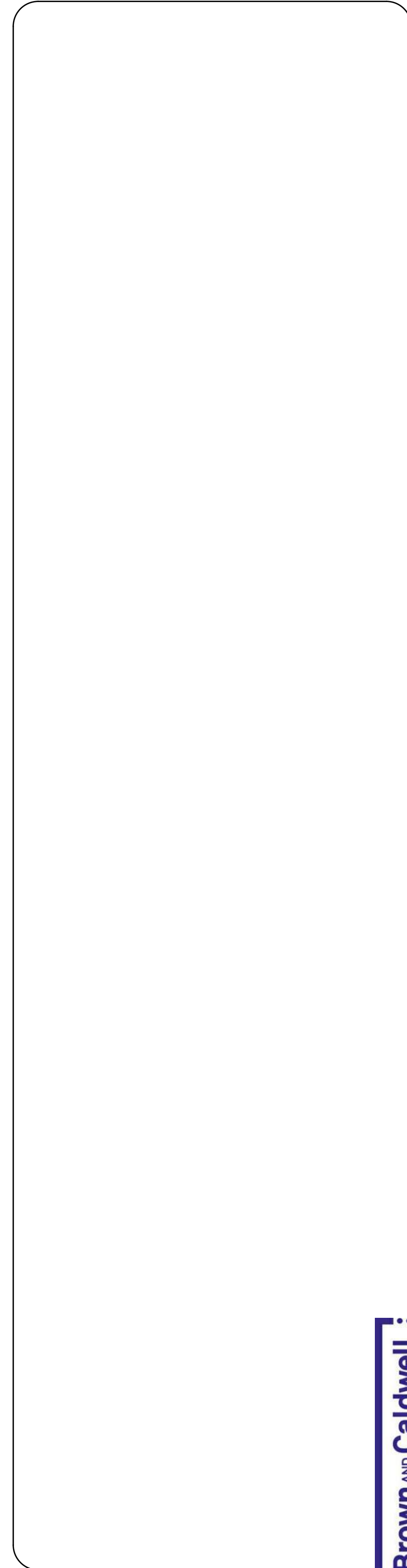


2 ELECTRICAL ROOM SOUTH WALL  
70-E-10 SCALE: 1" = 1'-0"



3 ELECTRICAL ROOM NORTH WALL  
70-E-10 SCALE: 1" = 1'-0"

TOC UPPER LEVEL  
BASINS  
5336' - 8"



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - SECTIONS 1

DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

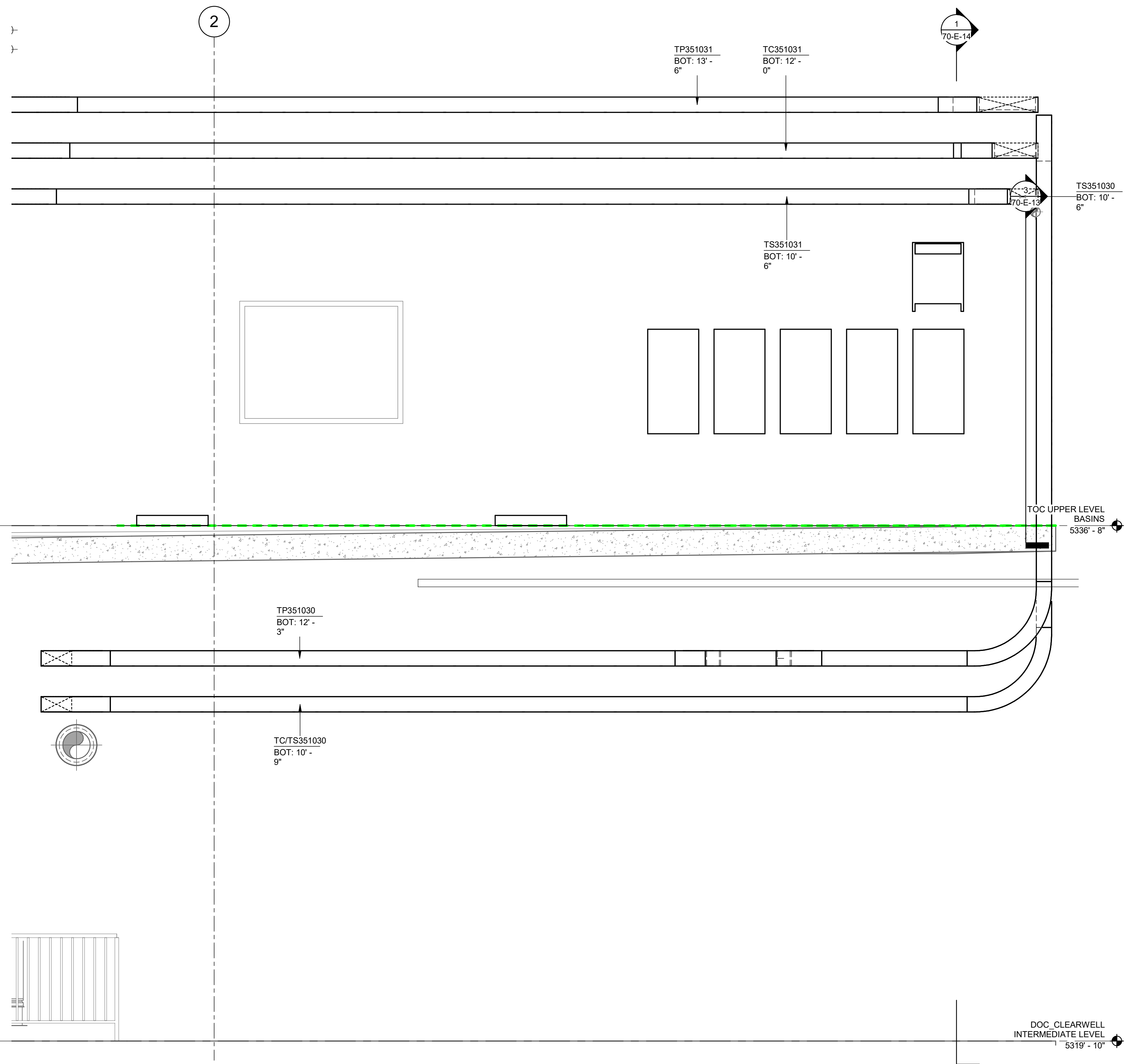
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				DS	DS

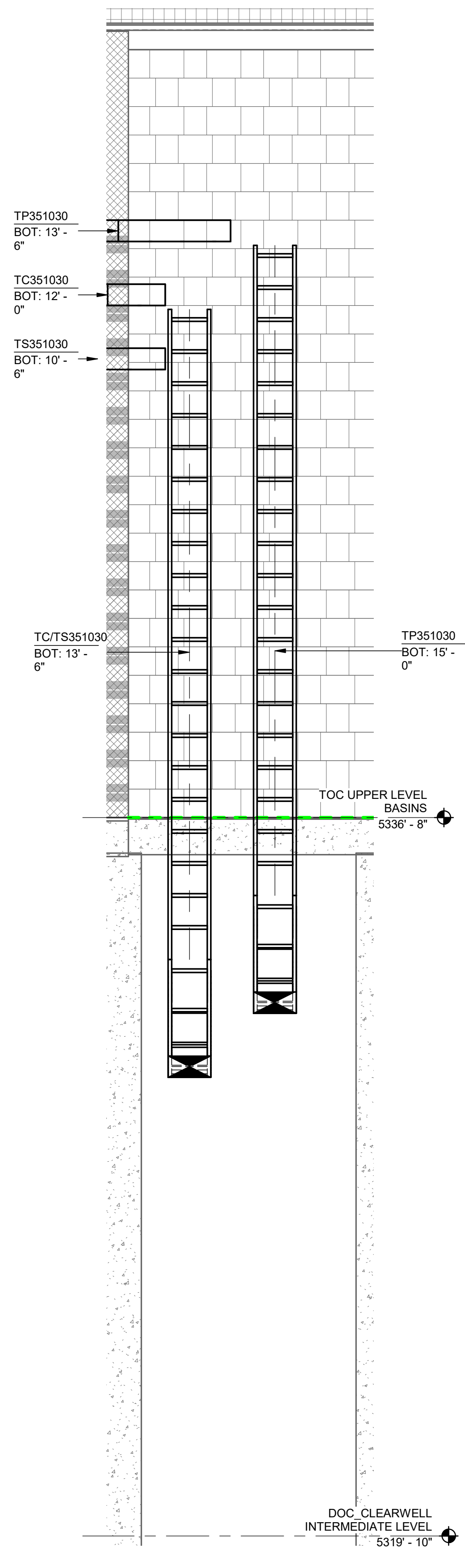
DRAWING NO.  
70-E-13

90% GMP

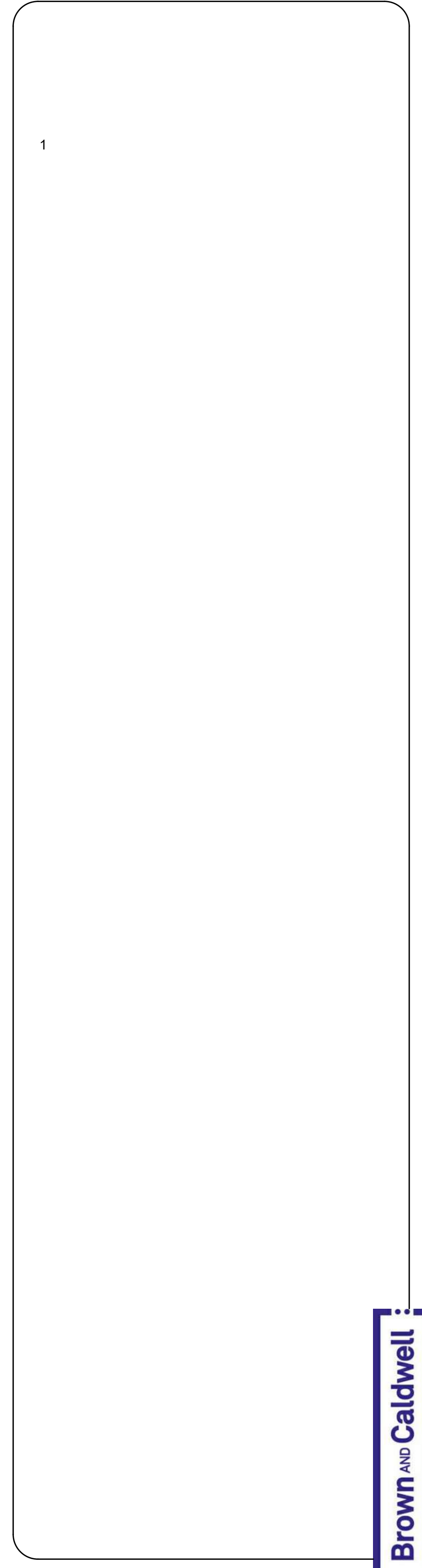
Plot Date: 6/12/2024 3:58:50 PM Path: R:\M\_360\153020 - City Creek WTP\153020-E-3570V21.rvt



2 SECTION  
35-E-13 SCALE: 1/2" = 1'-0"



1 SECTION  
35-E-13 SCALE: 1/2" = 1'-0"



**Brown and Caldwell**

DESIGNED BY: N.ANDERSON		SCALE:											
DRAWN BY: N.ANDERSON		VERIFY SCALE											
CHECKED BY: D.STAR		BAR IS ONE INCH ON ORIGINAL DRAWING											
APPROVED BY: D.STAR		DATE: JUNE 2024											
EWO NO: ---		ACCOUNT NO: 512260079											
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>ISSUED FOR</th> <th>GUARANTEE</th> <th>MAXIMUM PRICE (GMP)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>06/14/24</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	0	06/14/24			
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)									
0	06/14/24												
<p>SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE CLEARWELL - SECTIONS 2</p>													
<p>90% GMP</p>													
DRAWING NO. 70-E-14													

DESIGNATION: 2155-PP-01		MIN. AIC: 42k				FED FROM MCC-2155	
LOCATION: TREATMENT BLDG ELEC RM		BUS (AMP) 100				MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER			
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	CKT	BKR	LOAD DESCRIPTION
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	WH	0.0			15	50-CV-10041
	3		0.5		2		FILTER 1 WASTE BACKWASH WATER VALVE
	5		0.5		4		
	7		0.5		6		
50-CV-10011	7	15	0.5			15	50-CV-10051
FILTER 1 INLET VALVE	9		0.5		8		FILTER 1 FILTER TO WASTE VALVE
	11		0.5		10		
	13		0.5		12		
50-CV-10021	13	15	0.5			15	50-CV-10061
FILTER 1 OUTLET VALVE	15		0.5		14		FILTER 1 AIR WASH VALVE
	17		0.5		16		
	19		0.5		18		
50-CV-10021	19	15	0.5			15	71-CV-00013
FILTER 1 BACKWASH VALVE	21		0.5		20		BACKWASH SUPPLY PUMP 1 VALVE
	23		0.5		22		
	25		0.5		24		
40-CV-10011	25	15	0.5			15	71-CV-00023
SOLIDS COLLECTOR VALVE 1A	27		0.5		26		BACKWASH SUPPLY PUMP 2 VALVE
	29		0.5		28		
	31		0.5		30		
40-CV-10021	31	15	0.5			15	71-CV-00033
SOLIDS COLLECTOR VALVE 1B	33		0.5		32		BACKWASH SUPPLY PUMP 3 VALVE
	35		0.5		34		
	37		0.5		36		
40-CV-10012	37	15	0.5			15	71-CV-00017
SED BASIN 1 BACKFILL VALVE	39		0.5		38		BACKWASH TANK VALVE
	41		0.5		40		
			0.5		42		

CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma 100\%$	6.5	6.5	6.5
CONTINUOUS, TYPE "C", $\Sigma 12.5\%$	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", $\Sigma 12.5\%$	0.0	0.0	0.0
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>19.5</b>		
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>23.5</b>		

2155-PP-01  
SCALE N/A

DESIGNATION: 2155-PP-02		MIN. AIC: 42k				FED FROM MCC-2155	
LOCATION: TREATMENT BLDG ELEC RM		BUS (AMP) 100				MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER			
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	CKT	BKR	LOAD DESCRIPTION
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	WH	0.0			15	50-CV-20041
	3		0.5		2		FILTER 2 WASTE BACKWASH WATER VALVE
	5		0.5		4		
	7		0.5		6		
50-CV-20011	7	15	0.5			15	50-CV-20051
FILTER 2 INLET VALVE	9		0.5		8		FILTER 2 FILTER TO WASTE VALVE
	11		0.5		10		
	13		0.5		12		
50-CV-20021	13	15	0.5			15	50-CV-20061
FILTER 2 OUTLET VALVE	15		0.5		14		FILTER 2 AIR WASH VALVE
	17		0.5		16		
	19		0.5		18		
50-CV-20021	19	15	0.5			15	73-CV-00013
FILTER 2 BACKWASH VALVE	21		0.5		20		PLANT WATER PUMP 1 VALVE
	23		0.5		22		
	25		0.5		24		
40-CV-20011	25	15	0.5			15	73-CV-00023
SOLIDS COLLECTOR VALVE 2A	27		0.5		26		PLANT WATER PUMP 2 VALVE
	29		0.5		28		
	31		0.5		30		
40-CV-20021	31	15	0.5			15	70-CV-00013
SOLIDS COLLECTOR VALVE 2B	33		0.5		32		BLOWER 1 INTAKE VALVE
	35		0.5		34		
	37		0.5		36		
40-CV-20012	37	15	0.5			15	SPACE
SED BASIN 2 BACKFILL VALVE	39		-		38		
	41		-		40		
			-		42		

CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma 100\%$	6.0	6.0	6.0
CONTINUOUS, TYPE "C", $\Sigma 12.5\%$	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", $\Sigma 12.5\%$	0.0	0.0	0.0
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>18.0</b>		
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>21.7</b>		

2155-PP-02  
SCALE N/A

DESIGNATION: 2155-PP-03		MIN. AIC: 42k				FED FROM MCC-2155	
LOCATION: TREATMENT BLDG ELEC RM		BUS (AMP) 100				MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER			
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	CKT	BKR	LOAD DESCRIPTION
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	WH	0.0			15	50-CV-30041
	3		0.5		2		FILTER 3 WASTE BACKWASH WATER VALVE
	5		0.5		4		
	7		0.5		6		
50-CV-30011	7	15	0.5			15	50-CV-30051
FILTER 3 INLET VALVE	9		0.5		8		FILTER 3 FILTER TO WASTE VALVE
	11		0.5		10		
	13		0.5		12		
50-CV-30021	13	15	0.5			15	50-CV-30061
FILTER 3 OUTLET VALVE	15		0.5		14		FILTER 3 AIR WASH VALVE
	17		0.5		16		
	19		0.5		18		
50-CV-30021	19	15	0.5			15	50-CV-10011
FILTER 3 BACKWASH VALVE	21		0.5		20		FLOCCULATION BASIN 1 INLET VALVE
	23		0.5		22		
	25		0.5		24		
70-CV-10010	25	15	0.5			15	50-CV-20011
CLEARWELL 1 INLET VALVE	27		0.5		26		FLOCCULATION BASIN 2 INLET VALVE
	29		0.5		28		
	31		0.5		30		
70-CV-10020	31	15	0.5			15	70-CV-00023
CLEARWELL 1 OUTLET VALVE	33		0.5		32		BLOWER 2 INTAKE VALVE
	35		0.5		34		
	37		0.5		36		
SPACE	37		-		38		SPACE
	39		-		40		
	41		-		42		

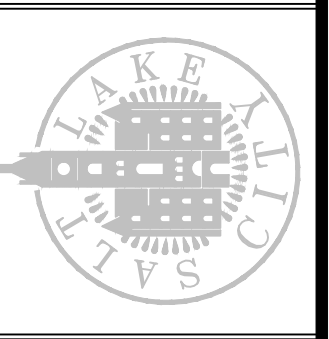
CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma 100\%$	5.5	5.5	5.5
CONTINUOUS, TYPE "C", $\Sigma 12.5\%$	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", $\Sigma 12.5\%$	0.0	0.0	0.0
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>16.5</b>		
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>19.8</b>		

2155-PP-03  
SCALE N/A

DESIGNED BY: D.STAR  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: 512260079  
ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24		DS		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - PANEL  
SCHEDULES 1**



**90% GMP**  
DRAWING NO.  
**70-E-15**

**Brown and Caldwell**

DESIGNATION: 2155-PP-04		MIN. AIG: 42k		FED FROM MCC-2155	
LOCATION: TREATMENT BLDG ELEC RM		BUS (AMP): 100		MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER	
LOAD DESCRIPTION	CKT	BKR	A	KVA	LOAD DESCRIPTION
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	XX	0.0		50-CV-40041
	3		0.5		FILTER 4 WASTE BACKWASH WATER VALVE
	5		0.5		
	7		0.5		
50-CV-40011 FILTER 4 INLET VALVE	7	15	0.5		50-CV-40051
	9		0.5		FILTER 4 FILTER TO WASTE VALVE
	11		0.5		
	13		0.5		
50-CV-40021 FILTER 4 OUTLET VALVE	13	15	0.5		50-CV-40061
	15		0.5		FILTER 4 AIR WASH VALVE
	17		0.5		
	19		0.5		
50-CV-40031 FILTER 4 BACKWASH VALVE	19	15	0.5		70-GT-00017
	21		0.5		BLOWERS OUTPUT TO ATMOSPHERE VALVE
	23		0.0		
	25		0.5		
70-CV-20010 CLEARWELL 2 INLET VALVE	25	15	0.5		70-GT-00010
	27		0.0		BACKWASH PUMP STATION INLET WEIR GATE
	29		0.5		
	31		0.5		
70-CV-20020 CLEARWELL 2 OUTLET VALVE	31	15	0.5		SPARE
	33		0.0		
	35		0.5		
	37		0.0		
SPACE	37		-		SPACE
	39		-		
	41		-		
	42		-		

CALCULATED LOAD TYPE, % DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, % 100%	4.0	4.0	4.0
CONTINUOUS, TYPE 'C', % 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE 'LM', % 125%	0.0	0.0	0.0
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>			<b>12.0</b>
<b>CALCULATED LOAD TOTAL (AMPS)</b>			<b>14.4</b>

2155-PP-04  
SCALE N/A

DESIGNATION: 2155-PP-05		MIN. AIG: 42k		FED FROM MCC-2155	
LOCATION: TREATMENT BLDG ELEC RM		BUS (AMP): 100		MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER	
LOAD DESCRIPTION	CKT	BKR	A	KVA	LOAD DESCRIPTION
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	XX	0.0		50-CV-50041
	3		0.5		FILTER 5 WASTE BACKWASH WATER VALVE
	5		0.5		
	7		0.5		
50-CV-50011 FILTER 5 INLET VALVE	7	15	0.5		50-CV-50051
	9		0.5		FILTER 5 FILTER TO WASTE VALVE
	11		0.5		
	13		0.5		
50-CV-50021 FILTER 5 OUTLET VALVE	13	15	0.5		50-CV-50061
	15		0.5		FILTER 5 AIR WASH VALVE
	17		0.5		
	19		0.5		
50-CV-50031 FILTER 5 BACKWASH VALVE	19	15	0.5		70-CV-00099
	21		0.5		CLEARWELL FINISHED WATER VALVE 1
	23		0.5		
	25		0.5		
35-CV-00019 MASTER BACKWASH FLOW CONTROL VALVE 2	25	15	0.5		70-CV-00100
	27		0.5		CLEARWELL FINISHED WATER VALVE 2
	29		0.5		
	31		0.0		
SPACE	31	15	0.0		SPACE
	33		-		
	35		-		
	37		-		
SPACE	37		-		SPACE
	39		-		
	41		-		
	42		-		

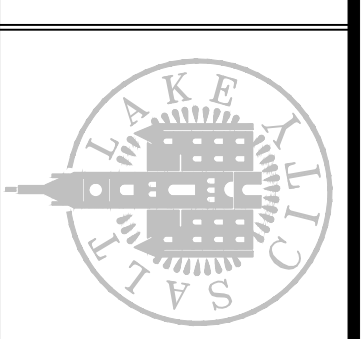
CALCULATED LOAD TYPE, % DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, % 100%	4.5	4.5	4.5
CONTINUOUS, TYPE 'C', % 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE 'LM', % 125%	0.0	0.0	0.0
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>4.5</b>	<b>4.5</b>	<b>4.5</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>			<b>13.5</b>
<b>CALCULATED LOAD TOTAL (AMPS)</b>			<b>16.2</b>

2155-PP-05  
SCALE N/A

DESIGNED BY: J. STAR  
DRAWN BY: N. ANDERSON  
CHECKED BY: J. STAR  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

MADE BY	DATE	REVISIONS
DS	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
DS		
DS		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - PANEL**  
**SCHEDULES 2**



**90% GMP**  
DRAWING NO.  
**70-E-16**

**Brown and Caldwell**

SCALE: ---  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGNATION: 2155-PP-06		MIN. AIC: 42k		FED FROM: M00-2155	
LOCATION: TREATMENT BLDG ELECRM		BUS (AMP) 100		MOUNTING SURFACE	
VOLTAGE: 480 3 PHASE, 3 WIRE		MAIN (AMP) 100		BREAKER	
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	15	0.0	0.0	0.0
	3	15	0.0	0.0	0.0
	5	15	0.0	0.0	0.0
50-CV-60011 FILTER & INLET VALVE	7	15	0.5	0.5	0.5
	9	15	0.5	0.5	0.5
	11	15	0.5	0.5	0.5
50-CV-60021 FILTER & OUTLET VALVE	13	15	0.5	0.5	0.5
	15	15	0.5	0.5	0.5
	17	15	0.5	0.5	0.5
50-CV-60031 FILTER & BACKWASH VALVE	19	15	0.5	0.5	0.5
	21	15	0.5	0.5	0.5
	23	15	0.5	0.5	0.5
84-VCP-10010 POLYMER BLENDING UNIT 1 CONTROL PANEL	25	15	0.5	0.5	0.5
	27	15	0.5	0.5	0.5
	29	15	0.5	0.5	0.5
84-VCP-20010 POLYMER BLENDING UNIT 2 CONTROL PANEL	31	15	0.5	0.5	0.5
	33	15	0.5	0.5	0.5
	35	15	0.5	0.5	0.5
SPACE	37	15	-	-	-
	39	15	-	-	-
	41	15	-	-	-
	42	15	-	-	-

CALCULATED LOAD TYPE, % DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, % 100%	5.5	5.5	5.5
CONTINUOUS, TYPE "C", % 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", % 125%	0.0	0.0	0.0
CALCULATED LOAD TOTALS EACH PHASE	5.5	5.5	5.5
CALCULATED LOAD TOTAL (KVA)	16.5		
CALCULATED LOAD TOTAL (AMPS)	19.9		

2155-PP-06  
SCALE N/A

DESIGNATION: 2155-LP-02		MIN. AIC: 65K		FED FROM: 2155-PP-06	
LOCATION: TREATMENT BLDG ELECRM		BUS (AMP) 100		MOUNTING SURFACE	
VOLTAGE: 208/120 3 PHASE, 4 WIRE		MAIN (AMP) 100		BREAKER	
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA
35-AIT-00021 COMBINED FTW TURB	1	15	0.5	0.5	0.5
35-CV-10055 COMBINED FILTER TO WASTE FLOW	3	15	0.5	0.5	0.5
40-FIT-00012 SOLIDS FLOW METER	5	15	0.5	0.5	0.5
40-LIT-00011 SOLIDS COLLECTION BOX LEVEL	7	15	0.5	0.5	0.5
60-LIT-00012 WASTE BACKWATER CLARIFIER LEVEL	9	15	0.5	0.5	0.5
70-AIT-00013 FINISHED WATER CLEARWELL FL	11	15	0.5	0.5	0.5
70-AIT-00014 FINISHED WATER CLEARWELL CL	13	15	0.5	0.5	0.5
70-AIT-00015 FINISHED WATER CLEARWELL FLR	15	15	0.5	0.5	0.5
70-FIT-00020 CLEARWELL FIT 2	17	15	0.5	0.5	0.5
SPARE	19	15	0.0	0.0	0.0
35-WH-00001 FLOCC BASIN BATHROOM WATER HEATER	21	15	0.5	0.5	0.5
35-F-00010 HVAC FURNACE 1	23	20	1.5	1.5	1.5
35-F-00030 HVAC FURNACE 3	25	20	1.5	1.5	1.5
35-CU-00010 OUTDOOR SPLIT UNIT 1 (INDOOR FED FROM OUTDOOR)	27	45	2.1	2.1	2.1
35-CU-00020 OUTDOOR SPLIT UNIT 3 (INDOOR FED FROM OUTDOOR)	31	35	1.6	1.6	1.6
SPARE	33	15	0.0	0.0	0.0
SPARE	35	15	0.0	0.0	0.0
SPARE	37	15	0.0	0.0	0.0
SPARE	39	15	0.0	0.0	0.0
SPARE	41	15	0.0	0.0	0.0
SPARE	42	15	0.0	0.0	0.0

CALCULATED LOAD TYPE, % DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, % 100%	7.6	8.7	7.6
CONTINUOUS, TYPE "C", % 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", % 125%	0.0	0.0	0.0
CALCULATED LOAD TOTALS EACH PHASE	7.6	8.7	7.6
CALCULATED LOAD TOTAL (KVA)	26.1		
CALCULATED LOAD TOTAL (AMPS)	72.4		

2155-LP-02  
SCALE N/A

DESIGNATION: 2155-LP-04		MIN. AIC: 65K		FED FROM: 2155-LP-02	
LOCATION: TREATMENT BLDG ELECRM		BUS (AMP) 100		MOUNTING SURFACE	
VOLTAGE: 208/120 3 PHASE, 4 WIRE		MAIN (AMP) 100		BREAKER	
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA
SPARE	1	15	0.0	0.0	0.0
SPARE	3	15	0.0	0.0	0.0
SPARE	5	15	0.0	0.0	0.0
SPARE	7	15	0.0	0.0	0.0
SPARE	9	15	0.0	0.0	0.0
SPARE	11	15	0.0	0.0	0.0
SPARE	13	15	0.0	0.0	0.0
SPARE	15	15	0.0	0.0	0.0
SPARE	17	15	0.0	0.0	0.0
SPARE	19	15	0.0	0.0	0.0
SPARE	21	15	0.0	0.0	0.0
SPARE	23	15	0.0	0.0	0.0
SPARE	25	15	0.0	0.0	0.0
SPARE	27	20	0.0	0.0	0.0
SPARE	29	20	0.0	0.0	0.0
SPARE	31	30	0.0	0.0	0.0
SPARE	33	30	0.0	0.0	0.0
SPARE	35	30	0.0	0.0	0.0
SPARE	37	15	0.0	0.0	0.0
SPARE	39	15	0.0	0.0	0.0
SPARE	41	15	0.0	0.0	0.0
SPARE	42	15	0.0	0.0	0.0

CALCULATED LOAD TYPE, % DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, % 100%	0.0	0.0	0.0
CONTINUOUS, TYPE "C", % 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE "LM", % 125%	0.0	0.0	0.0
CALCULATED LOAD TOTALS EACH PHASE	0.0	0.0	0.0
CALCULATED LOAD TOTAL (KVA)	0.0		
CALCULATED LOAD TOTAL (AMPS)	0.0		

2155-LP-04  
SCALE N/A

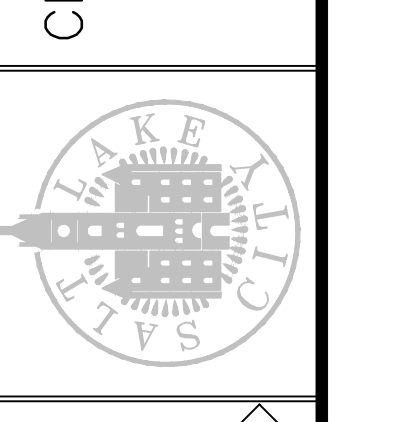
DESIGNED BY: D.STAR  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - PANEL  
SCHEDULES 3



90% GMP

DRAWING NO.  
70-E-17

Brown and Caldwell

DESIGNATION	2155-PP-07							MIN. AIC:	42k	FED FROM	MCC-2155
LOCATION:	TREATMENT BLDG ELECRM							BUS (AMP):	100	MOUNTING	SURFACE
VOLTAGE:	480/3 PHASE, 3 WIRE							MAIN (AMP)	100	MLO	
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA	CKT	BKR	LOAD DESCRIPTION			
SURGE PROTECTOR (CIRCUIT BREAKER SIZED BY MANUFACTURER)	1	N/A	0.0	0.0	0.0	2	15	SPARE			
	3		0.0	0.0	0.0	4	15				
	5		0.0	0.0	0.0	6	15				
SPARE	7	15	0.0	0.0	0.0	8	15	SPARE			
	9		0.0	0.0	0.0	10	15				
	11		0.0	0.0	0.0	12	15				
SPARE	13	15	0.0	0.0	0.0	14	15	SPARE			
	15		0.0	0.0	0.0	16	15				
	17		0.0	0.0	0.0	18	15				
SPARE	19	15	0.0	0.0	0.0	20	15	SPARE			
	21		0.0	0.0	0.0	22	15				
	23		0.0	0.0	0.0	24	15				
SPARE	25	15	0.0	0.0	0.0	26	15	SPARE			
	27		0.0	0.0	0.0	28	15				
	29		0.0	0.0	0.0	30	15				
SPARE	31		-	-	-	32	15	SPARE			
	33		-	-	-	34	15				
	35		-	-	-	36	15				
SPARE	37		-	-	-	40	15	2155-NFMR-01			
	39		-	-	-	40	15	2155-LP-01			
	41		-	-	-	42	15				

CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma$ 100%	0.0	0.0	0.0
CONTINUOUS, TYPE 'C', $\Sigma$ 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE 'LM', $\Sigma$ 125%	0.0	0.0	0.0
-	-	-	-
-	-	-	-
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

2155-PP-07  
SCALE N/A

DESIGNATION	2155-LP-01							MIN. AIC:	65K	FED FROM	2155-PP-07
LOCATION:	TREATMENT BLDG ELECRM							BUS (AMP):	100	MOUNTING	G
VOLTAGE:	208/120/3 PHASE, 4 WIRE							MAIN (AMP)	100		
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA	CKT	BKR	LOAD DESCRIPTION			
50-AIT-10131	1	15	0.5	0.5	0.5	2	15	35-AIT-00151			
FILTER 1 TURB			0.5	0.5	0.5	2	15	COMBINED FILTERED WATER TURB			
50-AIT-10141	3	15	0.5	0.5	0.5	4	15	35-FIT-00011			
FILTER 1 PARTICLE COUNT			0.5	0.5	0.5	4	15	CLARIFIER EFFLUENT FLOW			
50-LIT-10111	5	15	0.5	0.5	0.5	6	15	35-AIT-00023			
FILTER 1 LEVEL			0.5	0.5	0.5	6	15	FLASH MIX COAGULATED SAMPLE SC			
50-AIT-20131	7	15	0.5	0.5	0.5	8	15	35-FIT-00018			
FILTER 2 TURB			0.5	0.5	0.5	8	15	COMBINED FTW AND BW FLOW			
50-AIT-20141	9	15	0.5	0.5	0.5	10	15	35-FIT-00012			
FILTER 2 PARTICLE COUNT			0.5	0.5	0.5	10	15	INFILTRATION GALLERY'S EFFLUENT FLOW			
50-LIT-20111	11	15	0.5	0.5	0.5	12	15	40-AIT-10004			
FILTER 2 LEVEL			0.5	0.5	0.5	12	15	SEDIMENTATION BASIN 1A TURB			
50-AIT-30131	13	15	0.5	0.5	0.5	14	15	40-AIT-20004			
FILTER 3 TURB			0.5	0.5	0.5	14	15	SEDIMENTATION BASIN 2A TURB			
50-AIT-30141	15	15	0.5	0.5	0.5	16	15	50-LIT-00016			
FILTER 3 PARTICLE COUNT			0.5	0.5	0.5	16	15	FILTER INLET CHANNEL LEVEL			
50-LIT-30111	17	15	0.5	0.5	0.5	18	15	70-FIT-00010			
FILTER 3 LEVEL			0.5	0.5	0.5	18	15	CLEARWELL FLOW 1			
INDOOR 5 TON UNIT	19	50	3.6	3.6	3.6	20	50	71-LIT-00016			
			0.5	0.5	0.5	20	50	BACKWASH CONSTANT HEAD BOX LEVEL			
			3.6	3.6	3.6	21	50	73-LIT-00014			
			0.5	0.5	0.5	22	50	CLEARWELL PUMP STATION LEVEL			
INDOOR UNIT	23	20	4.8	4.8	4.8	24	20	2155-LP-03			
			0.5	0.5	0.5	24	20	LIGHTING AND RECEPTACLES			
50-FIT-10010	25	15	0.5	0.5	0.5	26	15				
FILTER 1 COMBINED FILTER WATER FLOW			0.5	0.5	0.5	26	15				
50-FIT-20010	27	15	0.5	0.5	0.5	28	15				
FILTER 2 COMBINED FILTER WATER FLOW			0.5	0.5	0.5	28	15				
50-FIT-30010	29	15	0.5	0.5	0.5	30	15	84-FSL-00014			
FILTER 3 COMBINED FILTER WATER FLOW			0.5	0.5	0.5	30	15	POLYMER RHEWASH SHOWER			
20-FIT-00020	31	15	0.5	0.5	0.5	32	15				
FLASH MIX INJECTION FLOW			0.5	0.5	0.5	32	15				
30-FIT-10011	33	15	0.5	0.5	0.5	34	15				
FLOC BASIN 1 INLET CHANNEL FLOW			0.5	0.5	0.5	34	15				
30-FIT-20011	35	15	0.5	0.5	0.5	36	15				
FLOC BASIN 2 INLET CHANNEL FLOW			0.5	0.5	0.5	36	15				
2155-LP-03	37	100	7.6	7.6	7.6	38	100				
			-	-	-	38	100				
			0.7	0.7	0.7	39	100				
			-	-	-	40	100				
			7.6	7.6	7.6	41	100				
			-	-	-	42	100				

CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma$ 100%	17.0	17.3	16.9
CONTINUOUS, TYPE 'C', $\Sigma$ 125%	4.5	4.5	0.0
LARGEST MOTOR, TYPE 'LM', $\Sigma$ 125%	0.0	0.0	0.0
-	-	-	-
-	-	-	-
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>21.5</b>	<b>22.3</b>	<b>16.9</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>66.9</b>	<b>66.9</b>	<b>66.9</b>
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>185.7</b>	<b>185.7</b>	<b>185.7</b>

2155-LP-01  
SCALE N/A

DESIGNATION	2155-LP-03							MIN. AIC:	65K	FED FROM	2155-LP-01
LOCATION:	TREATMENT BLDG ELECRM							BUS (AMP):	100	MOUNTING	SURFACE
VOLTAGE:	208/120/3 PHASE, 4 WIRE							MAIN (AMP)	100		
LOAD DESCRIPTION	CKT	BKR	KVA	KVA	KVA	CKT	BKR	LOAD DESCRIPTION			
70-F-00040	1	15	0.7	0.7	0.7	2	15	40-COL-10010			
CLEARWELL DRAIN PUMP 1			0.7	0.7	0.7	2	15	SOLIDS COLLECTOR 1A			
70-F-00050	3	15	0.7	0.7	0.7	4	15	40-COL-10020			
CLEARWELL DRAIN PUMP 2			0.7	0.7	0.7	4	15	SOLIDS COLLECTOR 1B			
35-F-00040	5	15	0.3	0.3	0.3	6	15	40-COL-20010			
TREATMENT BUILDING RECYCLE PUMP 3			0.3	0.3	0.3	6	15	SOLIDS COLLECTOR 2A			
35-F-00020	7	15	1.5	1.5	1.5	8	15	40-COL-20020			
HVAC FURNACE 2			1.5	1.5	1.5	8	15	SOLIDS COLLECTOR 2B			
35-F-00040	9	15	1.5	1.5	1.5	10	15	70-LIT-10010			
HVAC FURNACE 4			1.5	1.5	1.5	10	15	CLEARWELL 1 LEVEL			
35-CU-00020	11	45	2.1	2.1	2.1	12	45	70-LIT-20010			
INDOOR SPLIT UNIT 2 (INDOOR FED FROM OUTDOOR)			2.1	2.1	2.1	12	45	CLEARWELL 2 LEVEL			
35-CU-00040	13	35	2.0	2.0	2.0	14	35				
INDOOR SPLIT UNIT 4 (INDOOR FED FROM OUTDOOR)			2.0	2.0	2.0	14	35				
SPARE	15	35	1.6	1.6	1.6	15	35				
SPARE	17	35	0.0	0.0	0.0	16	35				
SPARE	19	15	0.0	0.0	0.0	17	15				
SPARE	21	15	0.0	0.0	0.0	18	15				
SPARE	23	15	0.0	0.0	0.0	19	15				
SPARE	25	15	0.0	0.0	0.0	20	15				
SPARE	27	20	0.0	0.0	0.0	21	20				
SPARE	29	20	0.0	0.0	0.0	22	20				
SPARE	31	20	0.0	0.0	0.0	23	20				
SPARE	33	20	0.0	0.0	0.0	24	20				
SPARE	35	30	0.0	0.0	0.0	25	30				
SPARE	37		-	-	-	26					
SPARE	39		-	-	-	27					
SPARE	41		-	-	-	28					
SPARE			-	-	-	29					
SPARE			-	-	-	30					
SPARE			-	-	-	31					
SPARE			-	-	-	32					
SPARE			-	-	-	33					
SPARE			-	-	-	34					
SPARE			-	-	-	35					
SPARE			-	-	-	36					
SPARE			-	-	-	37					
SPARE			-	-	-	38					
SPARE			-	-	-	39					
SPARE			-	-	-	40					
SPARE			-	-	-	41					
SPARE			-	-	-	42					

CALCULATED LOAD TYPE, DEMAND FACTOR, AND CALCULATED LOADS (KVA)			
NONCONTINUOUS OR OTHER SCHEDULE, $\Sigma$ 100%	4.9	4.6	4.8
CONTINUOUS, TYPE 'C', $\Sigma$ 125%	0.0	0.0	0.0
LARGEST MOTOR, TYPE 'LM', $\Sigma$ 125%	0.0	0.0	0.0
-	-	-	-
-	-	-	-
<b>CALCULATED LOAD TOTALS EACH PHASE</b>	<b>4.9</b>	<b>4.6</b>	<b>4.8</b>
<b>CALCULATED LOAD TOTAL (KVA)</b>	<b>14.7</b>	<b>14.7</b>	<b>14.7</b>
<b>CALCULATED LOAD TOTAL (AMPS)</b>	<b>40.8</b>	<b>40.8</b>	<b>40.8</b>

2155-LP-03  
SCALE N/A

DESIGNED BY: D.STAR  
DRAWN BY: G.ALVAREZ  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

SCALE:  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

---

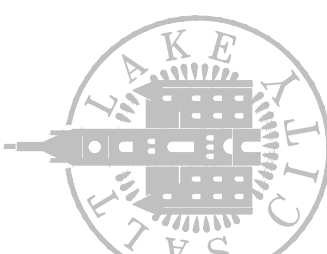
MADE BY: DS  
DATE: 06/14/24  
ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)

REVISIONS

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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

CLEARWELL - PANEL  
SCHEDULES 4



90% GMP

Brown and Caldwell

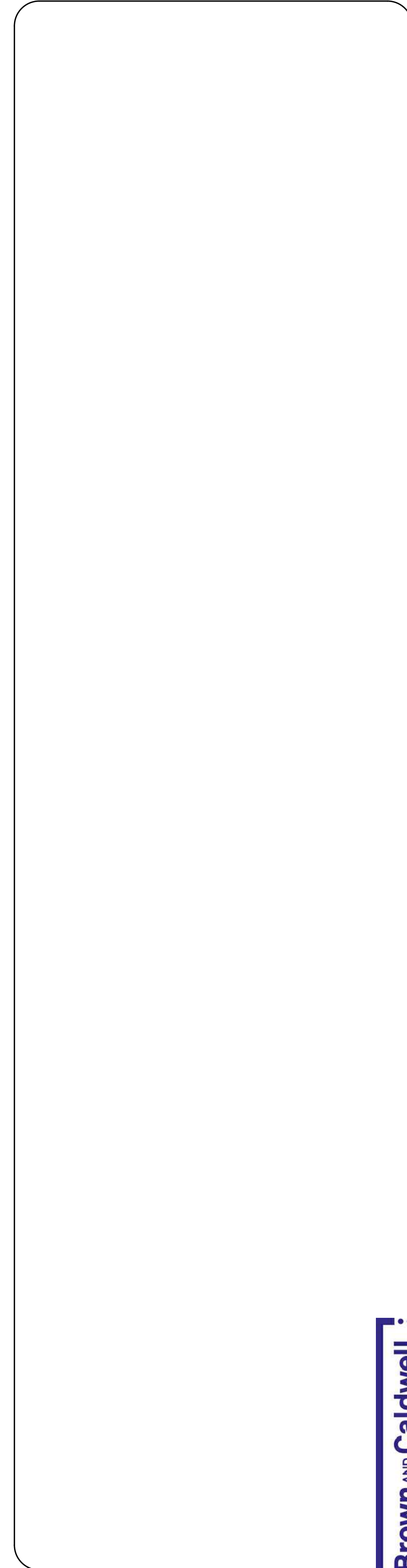
DRAWING NO.  
**70-E-18**

EQUIPMENT DESIGNATION: MCC 2155					
LOCATION: TREATMENT BLDG ELEC RM					
VOLTAGE: 480/277 3 PHASE, 4 WIRE					
MINIMUM AIC RATING: 65KAIC					
BUS RATING (AMPS): 800					
MAIN RATING (AMPS): 600					
MAIN TYPE: BREAKER					
FED FROM: MCC 2150					
LOAD DESCRIPTION	KVA	HP	CONNECTED LOADS (KVA)		
			AΦ	BΦ	CΦ
30-P-20010 FLOC INLET CHANNEL AGITATION PUMP		7.5	3.0	3.0	3.0
50-P-00010 FILTER INLET CHANNEL AGITATION PUMP		7.5	3.0	3.0	3.0
20-P-10010 FLASH MIX PUMP 1		7.5	3.0	3.0	3.0
20-P-20010 FLASH MIX PUMP 2 - STANDBY		7.5	3.0	3.0	3.0
50-P-00110 COMBINED FILTER WATER SAMPLE PUMP		1	0.6	0.6	0.6
35-P-00010 RAW WATER SAMPLE PUMP		1	0.6	0.6	0.6
35-P-00030 PLANT WATER PUMP 3 SEQUENCING PUMP FOR PUMP 1		15	5.8	5.8	5.8
35-P-00040 PLANT WATER PUMP 4 - STANDBY		15			
84-P-00010 NEAT PEA TRANSFER/MIXING PUMP		0.5	0.3	0.3	0.3
84-P-00020 PEA FEED PUMP 1		0.75	0.4	0.4	0.4
84-P-00030 PEA FEED PUMP 2		0.75	0.4	0.4	0.4
84-P-00040 PEA FEED PUMP 3		0.75	0.4	0.4	0.4
84-P-00050 PEA FEED PUMP 4		0.75	0.4	0.4	0.4
84-P-00060 PEA FEED PUMP 5		0.75	0.4	0.4	0.4
35-P-00070 STRUCTURAL UNDERDRAIN PUMP 1		3	1.1	1.1	1.1
35-P-00080 STRUCTURAL UNDERDRAIN PUMP 2		3	1.1	1.1	1.1
35-P-00100 TREATMENT BUILDING DRAINAGE PUMP 2		1	0.6	0.6	0.6
35-P-00110 TREATMENT BUILDING DRAINAGE PUMP 3		1	0.6	0.6	0.6
35-P-00020 BACKWASH PUMP 3 NOT IN OPERATION WITH PUMP 1 OR 2		20	7.5	7.5	7.5
87-P-00040 FLOURIDE FEED PUMP 1		0.75	0.4	0.4	0.4
87-P-00050 FLOURIDE FEED PUMP 2		0.75	0.4	0.4	0.4
35-P-00050 TREATMENT BUILDING RECYCLE PUMP 1		1	0.6	0.6	0.6
35-P-00060 TREATMENT BUILDING RECYCLE PUMP 2		1	0.6	0.6	0.6
2155-PP-01 FILTER 1 PANEL	9.00		3.0	3.0	3.0
2155-PP-02 FILTER 2 PANEL	9.00		3.0	3.0	3.0
2155-PP-03 FILTER 3 PANEL	9.00		3.0	3.0	3.0
2155-PP-04 FILTER 4 PANEL	9.00		3.0	3.0	3.0
2155-PP-05 FILTER 5 PANEL	9.00		3.0	3.0	3.0
2155-PP-06 FILTER 6 PANEL	9.00		3.0	3.0	3.0
2155-PP-07 SEDIMENTATION BASINS PANEL	3.00		1.0	1.0	1.0
2155-PP-08 TREATMENT BUILDING POWER PANEL	30.00		10.0	10.0	10.0
30-MX-11010 FLOCCULATOR 1A		3	1.3	1.3	1.3
30-MX-11020 FLOCCULATOR 1B		3	1.3	1.3	1.3
30-MX-12010 FLOCCULATOR 2A		1	0.6	0.6	0.6
30-MX-12020 FLOCCULATOR 2B		1	0.6	0.6	0.6
30-MX-13010 FLOCCULATOR 3A		1	0.6	0.6	0.6
30-MX-13020 FLOCCULATOR 3B		1	0.6	0.6	0.6
30-MX-21010 FLOCCULATOR 4A		3	1.3	1.3	1.3
30-MX-21020 FLOCCULATOR 4B		3	1.3	1.3	1.3
30-MX-22010 FLOCCULATOR 5A		1	0.6	0.6	0.6
30-MX-22020 FLOCCULATOR 5B		1	0.6	0.6	0.6
30-MX-23010 FLOCCULATOR 6A		1	0.6	0.6	0.6
30-MX-23020 FLOCCULATOR 6B		1	0.6	0.6	0.6
35-EF-00010		5	2.1	2.1	2.1
35-EF-00020		5	2.1	2.1	2.1
35-MAU-00010		15	5.8	5.8	5.8
87-MAU-00010		1	0.6	0.6	0.6

CALCULATED LOAD TYPE, X DEMAND FACTOR, AND CALCULATED LOADS (KVA)				
NONCONTINUOUS OR OTHER SCHEDULE, X 100%		73.3	73.3	73.3
CONTINUOUS, TYPE 'C', X 125%		0.0	0.0	0.0
LARGEST MOTOR, TYPE 'LM', X 125%		9.3	9.3	9.3
NONCOINCIDENT, TYPE 'NC', X 0%		0.0	0.0	0.0
CALCULATED LOAD TOTALS EACH PHASE		82.6	82.6	82.6
CALCULATED LOAD TOTAL (KVA)			247.9	
CALCULATED TOTAL LOAD TOTAL (AMPS)			298.2	

MCC-2155  
SCALE N/A



**Brown and Caldwell**

DESIGNED BY: J.STAR	SCALE:
DRAWN BY: N.ANDERSON	
CHECKED BY: J.STAR	
APPROVED BY: J.STAR	
DATE: JUNE 2024	
EWO NO: --	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	MADE BY	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	DS	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

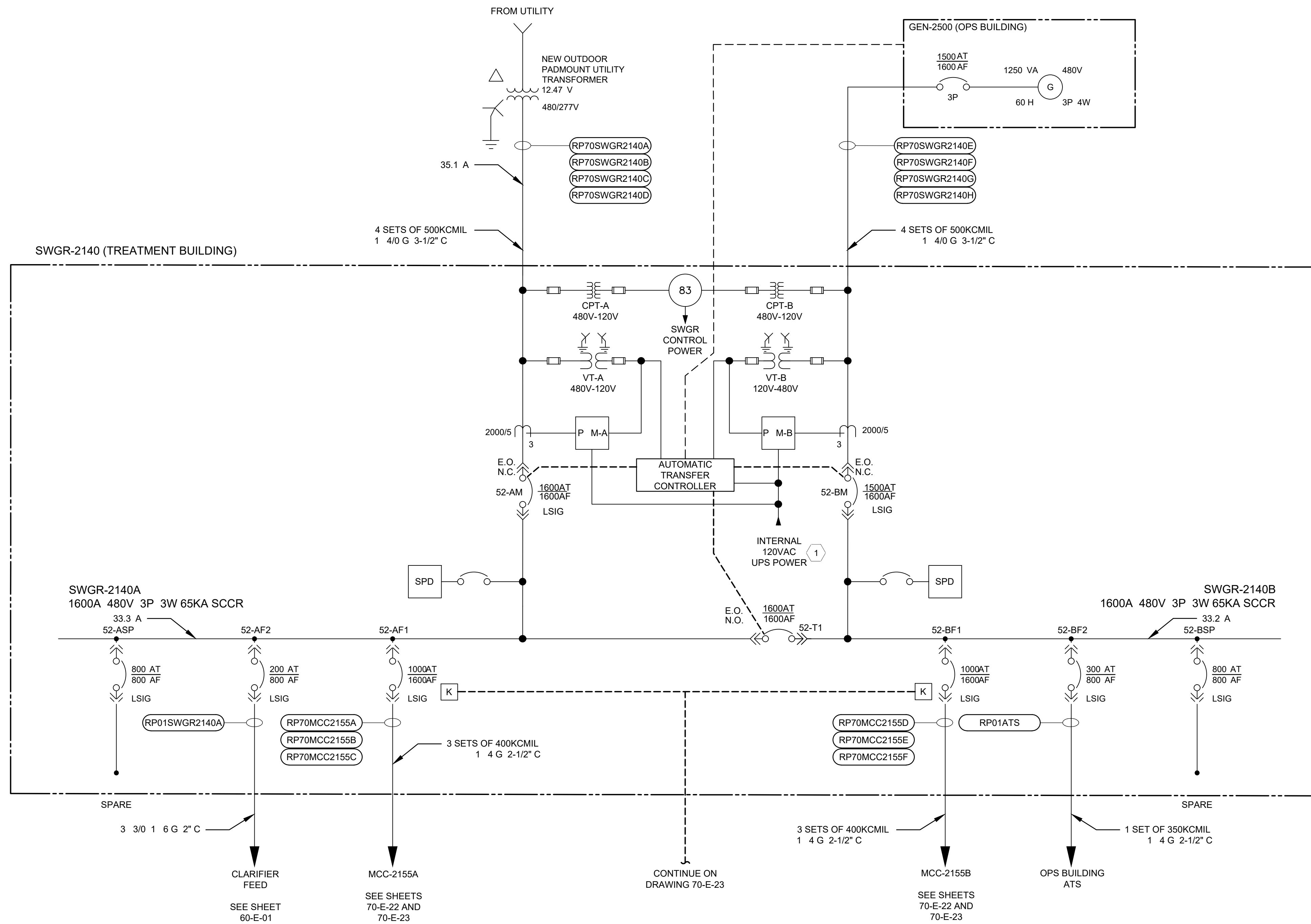
**CLEARWELL - MCC SCHEDULE 1**

90% GMP

DRAWING NO. **70-E-20**

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

C:\bcpm\41569745\70-E-21.dwg Jun 12, 2024 - 2:53pm



### SHEET NOTES

#### GENERAL NOTES:

1. PROVIDE TRANSFORMER PRIMARY CONDUITS TO THE LOCATION DESIGNATED BY THE ELECTRIC UTILITY (ROCKY MOUNTAIN POWER). TRANSFORMER PRIMARY CONDUCTORS, FUSES, AND ASSOCIATED EQUIPMENT PROVIDED BY ROCKY MOUNTAIN POWER.
2. PROVIDE PROVISIONS FOR ROCKY MOUNTAIN POWER TRANSFORMER, INCLUDING SITE PREP, CONCRETE PAD, AND GROUNDING, IN ACCORDANCE WITH ROCKY MOUNTAIN POWER SERVICE INSTALLATION GUIDELINES AND PROJECT-SPECIFIC REQUIREMENTS. TRANSFORMER PROVIDED BY ROCKY MOUNTAIN POWER.
3. PROVIDE INSTRUMENT TRANSFORMER/METERING CABINET, INCLUDING SITE PREP, CONCRETE PAD, AND GROUNDING, IN ACCORDANCE WITH ROCKY MOUNTAIN POWER SERVICE INSTALLATION GUIDELINES AND PROJECT-SPECIFIC REQUIREMENTS. INSTRUMENT TRANSFORMERS AND METER PROVIDED BY ROCKY MOUNTAIN POWER.
4. PROVIDE MECHANICAL KEY INTERLOCK BETWEEN 52-T1 AND 52-T2 (MCC-2155 TIE BREAKER) SUCH THAT ONLY TWO OF THE THREE BREAKERS CAN BE CLOSED AT A TIME.

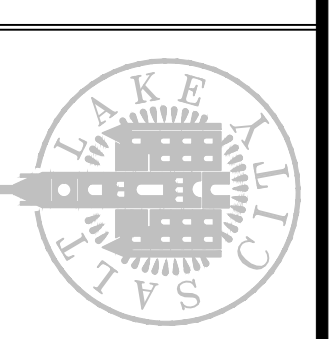
#### KEYNOTES:

1. 120VAC UPS TO BE PROVIDED BY SWITCHGEAR MANUFACTURER PER SPECIFICATION 26 23 00.

DESIGNED BY: D.STAR  
 DRAWN BY: N.ANDERSON  
 CHECKED BY: D.STAR  
 APPROVED BY: D.STAR  
 DATE: JUNE 2024  
 EWO NO: 512260079  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - SWITCHGEAR**  
**ONE-LINE 1**

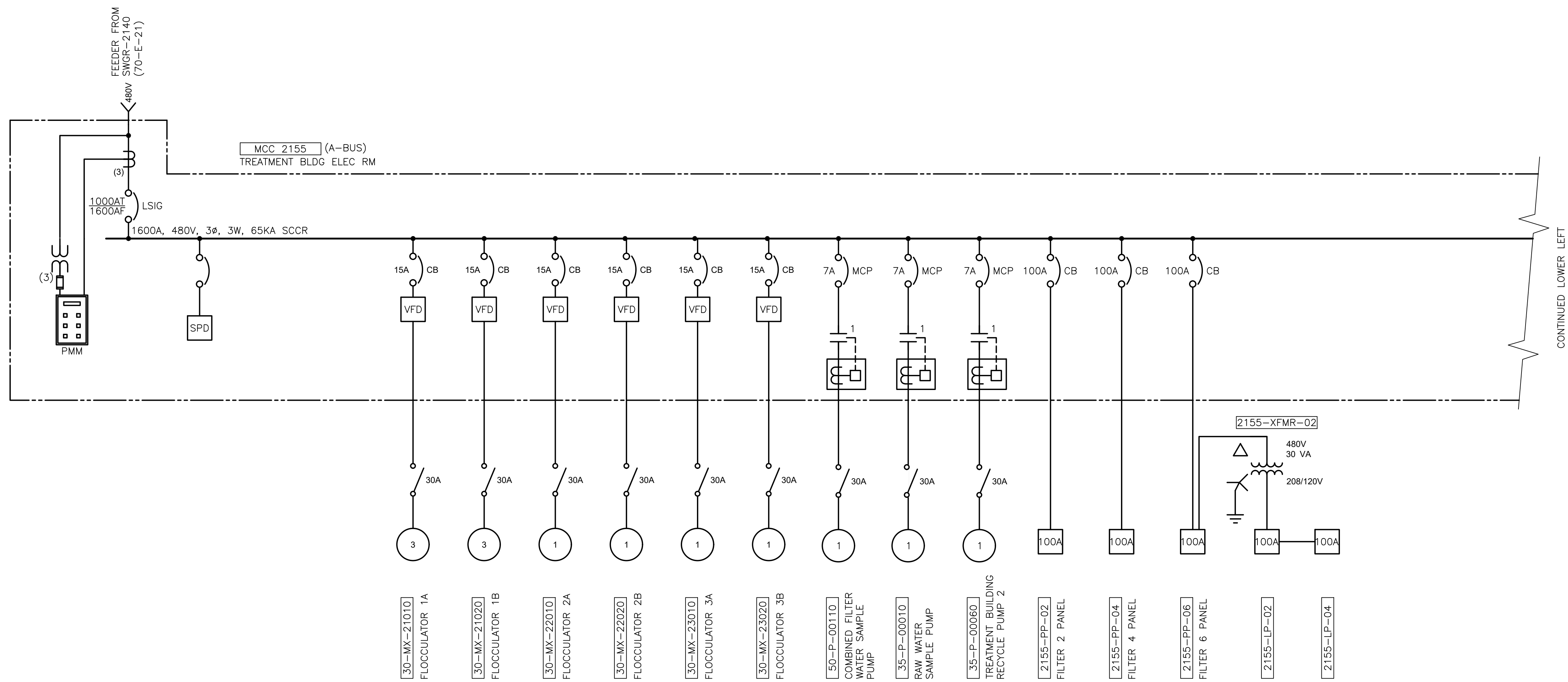


**90% GMP**

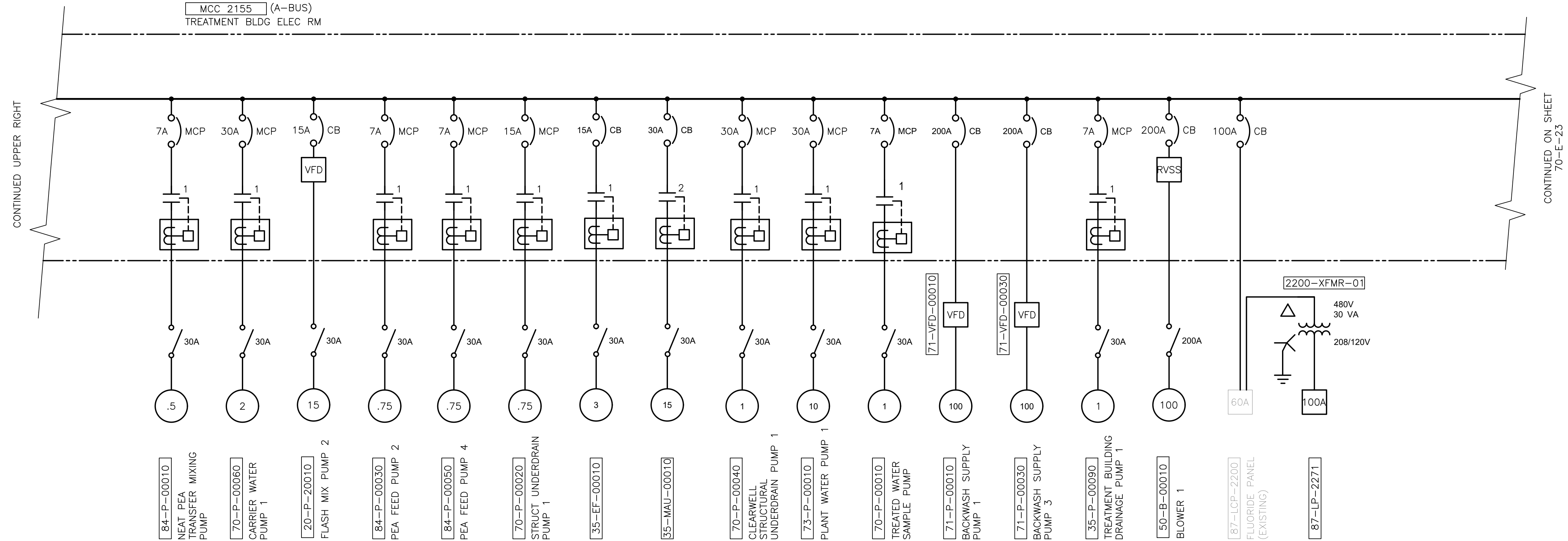
DRAWING NO.  
**70-E-21**

**Brown and Caldwell**





CONTINUED LOWER LEFT



CONTINUED ON SHEET 70-E-23

### SHEET NOTES

### GENERAL NOTES:

1. ALL SETTINGS SHALL BE CONFIRMED WITH SHORT CIRCUIT AND COORDINATION STUDY.

**Brown and Caldwell**

DESIGNED BY: D.STAR		AUTH. BY: DS	
DRAWN BY: N.ANDERSON		MADE BY: DS	
CHECKED BY: D.STAR		DATE: JUNE 2024	
APPROVED BY: D.STAR		EWO NO: --	
ACCOUNT NO: 512260079		SCALE: --	

REVISIONS

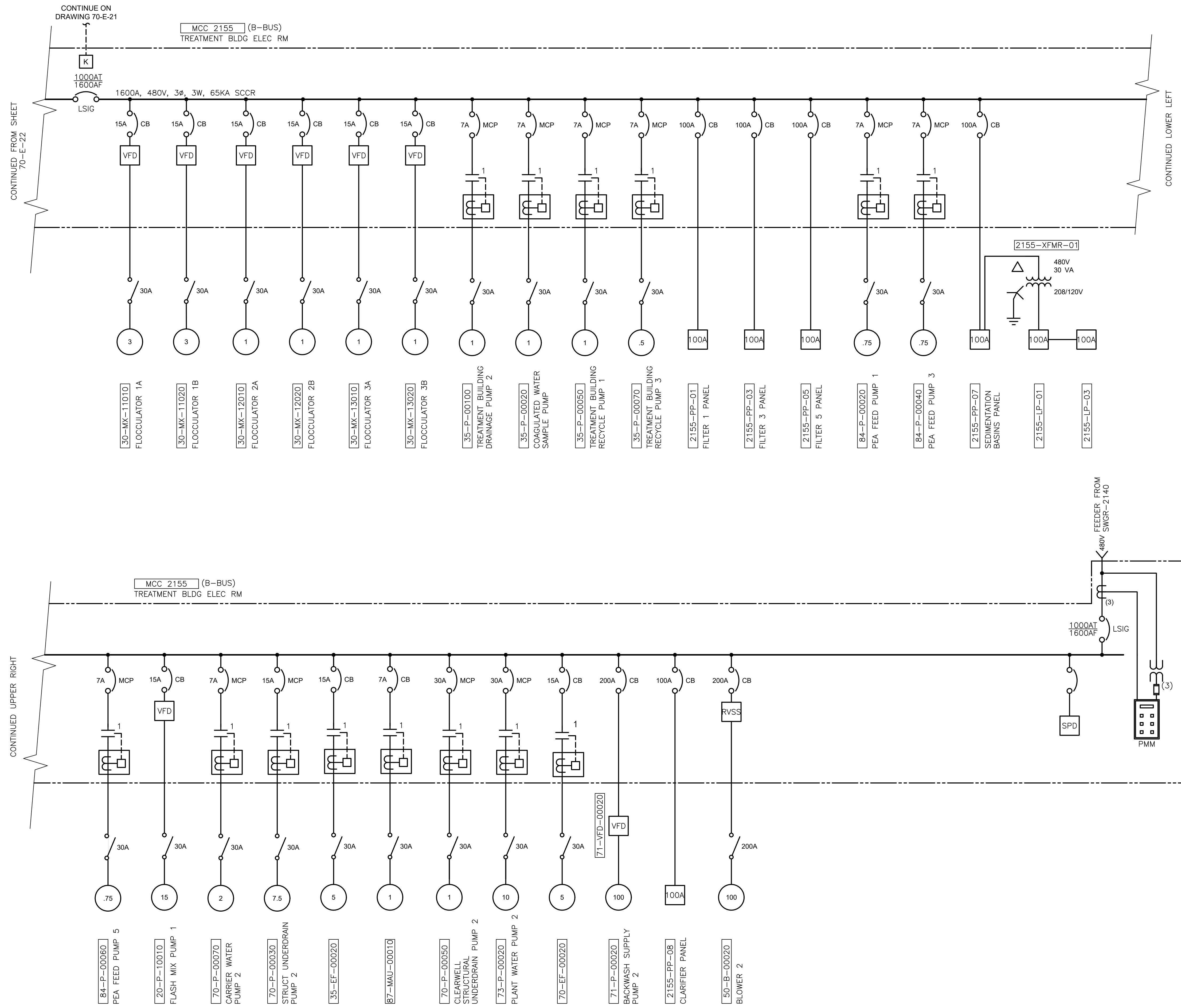
NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**CLEARWELL - MCC ONE-LINE 1**

90% GMP

DRAWING NO. **70-E-22**

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING



**SHEET NOTES**

**GENERAL NOTES:**

- ALL SETTINGS SHALL BE CONFIRMED WITH SHORT CIRCUIT AND COORDINATION STUDY.
- PROVIDE MECHANICAL KEY INTERLOCK BETWEEN 52-T1 AND 52-T2 MCC 2155 TIE BREAKER SUCH THAT ONLY TWO OF THE THREE BREAKERS CAN BE CLOSED AT A TIME.

**Brown and Caldwell**

DESIGNED BY: J.D. STAR		SCALE:	
DRAWN BY: N. ANDERSON			
CHECKED BY: J.D. STAR		VERIFY SCALE	
APPROVED BY: J.D. STAR		BAR IS ONE INCH ON ORIGINAL DRAWING	
DATE: JUNE 2024			
EWO NO: --			
ACCOUNT NO: 512260079			

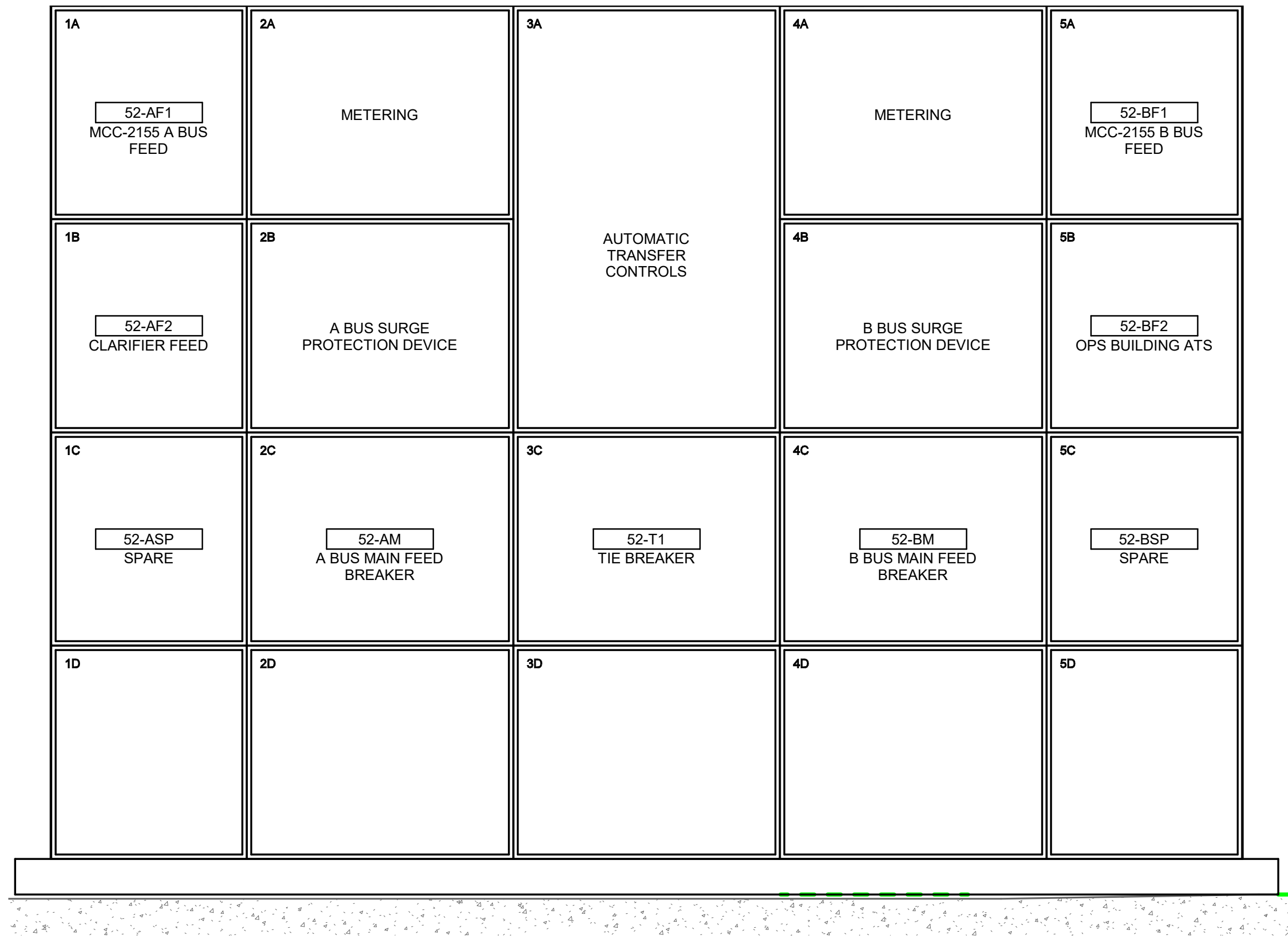
NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

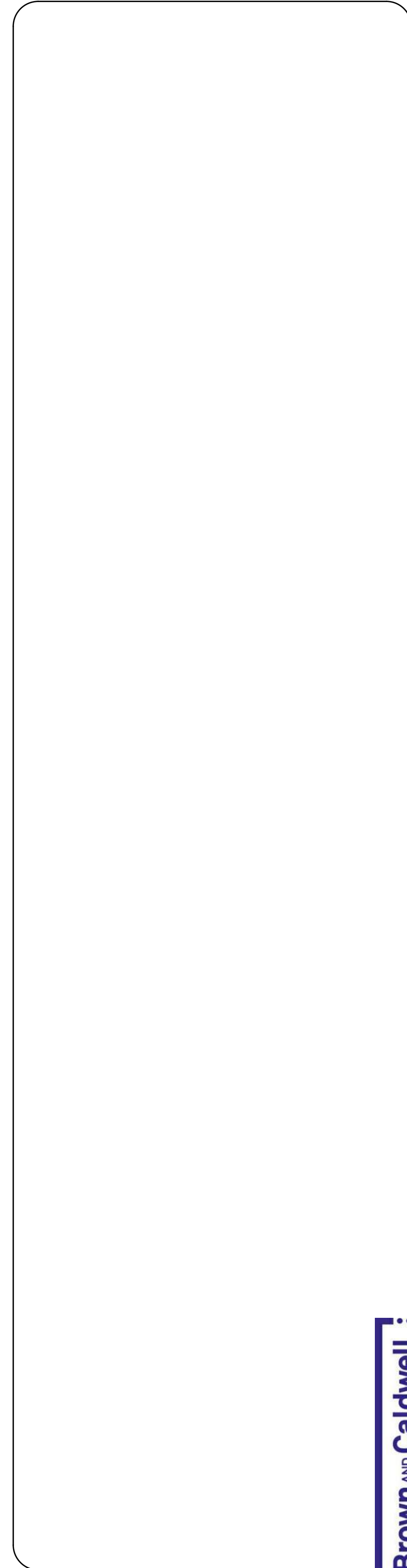
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**CLEARWELL - MCC ONE-LINE 2**

90% GMP

DRAWING NO. **70-E-23**



1 SWGR 2140 ELEVATION  
70-E-10 SCALE: 1" = 1'-0"



**Brown and Caldwell**

DESIGNED BY: D.STAR		AUTH BY: DS	
DRAWN BY: G.ALVAREZ		ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
CHECKED BY: D.STAR		DATE: 06/14/24	
APPROVED BY: D.STAR		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

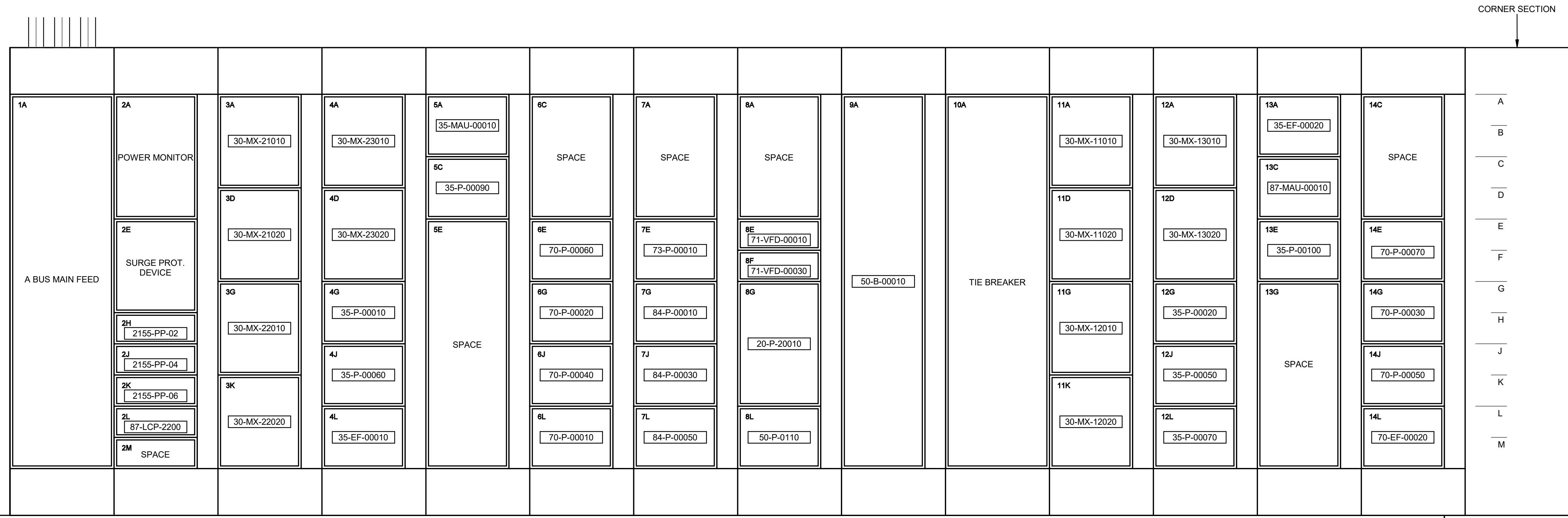
NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - SWITCHGEAR**  
ELEVATION 1

90% GMP

DRAWING NO.  
**70-E-24**

Plot Date: 6/12/2024 3:58:51 PM Path: RIM\_360/153020 - City\_Creek\_WTP/153020-E-3570V021.rvt



TOC UPPER LEVEL  
BASINS  
5336' - 8"

1 MCC-2155 WEST WALL ELEVATION  
70-E-10 SCALE: 1" = 1'-0"

MCC-2155 WEST Schedule		
BUCKET LOCATION	EQUIPMENT NUMBER	EQUIPMENT NAME
1A	MAIN A	A BUS MAIN FEED
2A	PMM-A	POWER MONITOR
2E	SPD-A	SURGE PROT. DEVICE
2H	2155-PP-02	FILTER 2 PANEL
2J	2155-PP-04	FILTER 4 PANEL
2K	2155-PP-06	FILTER 6 PANEL
2L	87-LCP-2200	FLUORIDE PANEL (EXISTING)
2M		SPACE
3A	30-MX-21010	FLOCCULATOR 1A
3D	30-MX-21020	FLOCCULATOR 1B
3G	30-MX-22010	FLOCCULATOR 2A
3K	30-MX-22020	FLOCCULATOR 2B
4A	30-MX-23010	FLOCCULATOR 3A
4D	30-MX-23020	FLOCCULATOR 3B
4G	35-P-00010	RAW WATER SAMPLE PUMP
4J	35-P-00060	TREATMENT BUILDING RECYCLE PUMP 2
4L	35-EF-00010	EXHAUST FAN
5A	35-MAU-00010	TREATMENT BUILDING DRAINAGE PUMP 1
5C	35-P-00090	SPACE
5E		SPACE
6C		SPACE
6E	70-P-00060	CARRIER WATER PUMP 1
6G	70-P-00020	STRUCT UNDERDRAIN PUMP 1
6J	70-P-00040	CLEARWELL STRUCTURAL UNDERDRAIN PUMP 1
6L	70-P-00010	TREATED WATER SAMPLE PUMP
7A		SPACE
7E	73-P-00010	PLANT WATER PUMP 1
7G	84-P-00010	NEAT PEA TRANSFER MIXING PUMP
7J	84-P-00030	PEA FEED PUMP 2
7L	84-P-00050	PEA FEED PUMP 4

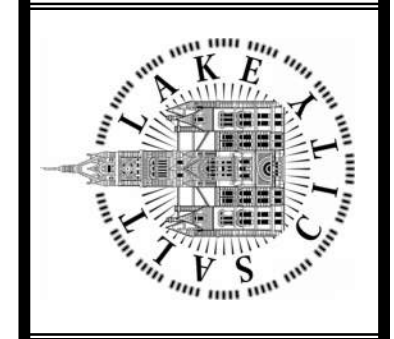
MCC-2155 WEST Schedule		
BUCKET LOCATION	EQUIPMENT NUMBER	EQUIPMENT NAME
8A		SPACE
8E	71-VFD-00010	BACKWASH SUPPLY PUMP 1
8F	71-VFD-00030	BACKWASH SUPPLY PUMP 3
8G	20-P-20010	FLASH MIX PUMP 2
8L	50-P-0110	COMBINED FILTER WATER SAMPLE PUMP
9A	50-B-00010	BLOWER 1
10A		TIE BREAKER
11A	30-MX-11010	FLOCCULATOR 1A
11D	30-MX-11020	FLOCCULATOR 1B
11G	30-MX-12010	FLOCCULATOR 2A
11K	30-MX-12020	FLOCCULATOR 2B
12A	30-MX-13010	FLOCCULATOR 3A
12D	30-MX-13020	FLOCCULATOR 3B
12G	35-P-00020	COAGULATED WATER SAMPLE PUMP
12J	35-P-00050	TREATMENT BUILDING RECYCLE PUMP 1
12L	35-P-00070	TREATMENT BUILDING RECYCLE PUMP 3
13A	35-EF-00020	EXHAUST FAN
13C	87-MAU-00010	TREATMENT BUILDING DRAINAGE PUMP 2
13E	35-P-00100	SPACE
13G		SPACE
14C		SPACE
14E	70-P-00070	CARRIER WATER PUMP 2
14G	70-P-00030	STRUCT UNDERDRAIN PUMP 2
14J	70-P-00050	CLEARWELL STRUCTURAL UNDERDRAIN PUMP 2
14L	70-EF-00020	EXHAUST FAN

Brown and Caldwell

DESIGNED BY: N. ANDERSON	SCALE:
DRAWN BY: N. ANDERSON	VERIFIED SCALE
CHECKED BY: D. STAR	BAR IS ONE INCH ON ORIGINAL DRAWING
APPROVED BY: D. STAR	DATE: JUNE 2024
EWO NO: ---	ACCOUNT NO: 512260079

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

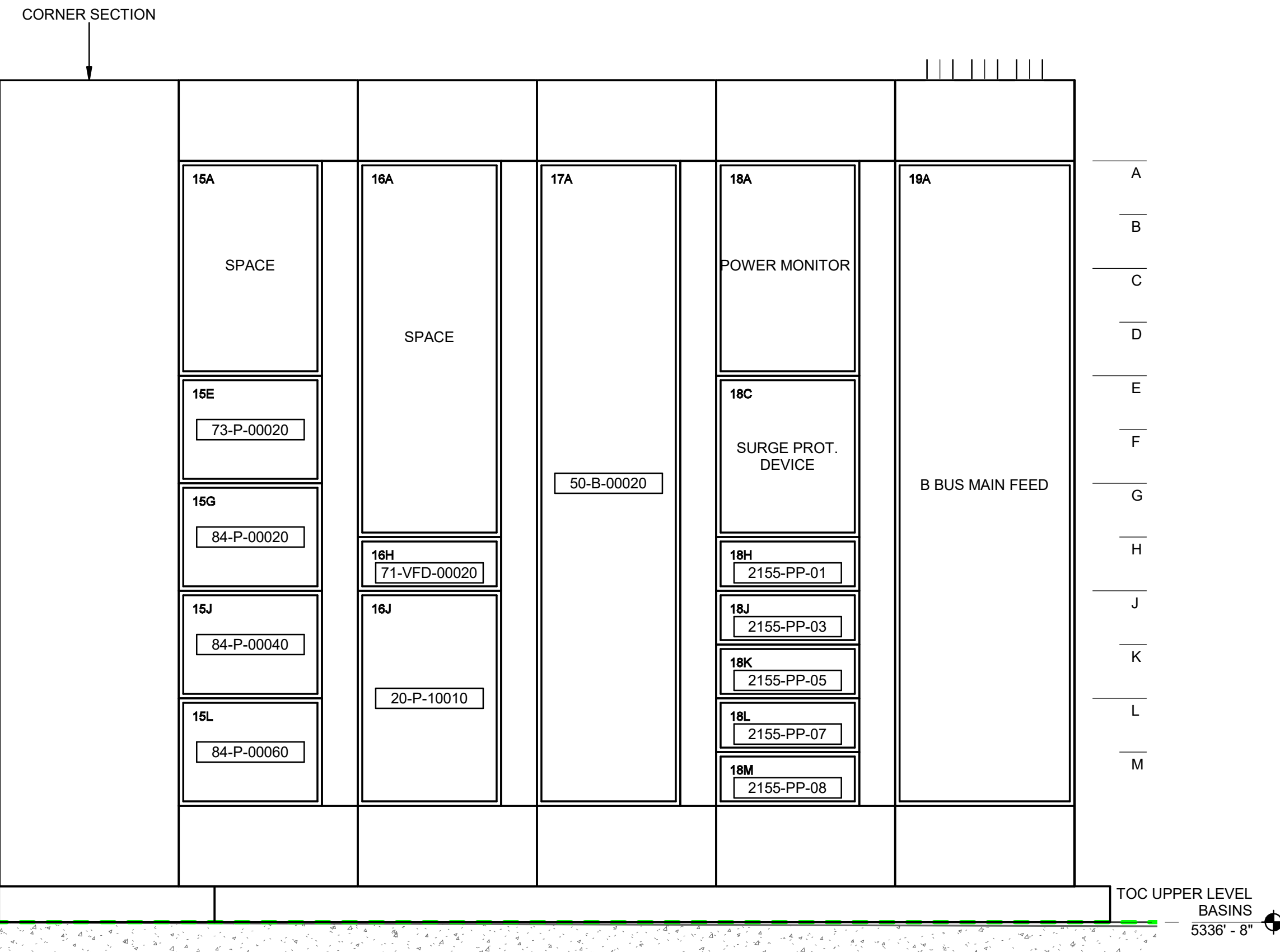


SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
CLEARWELL - MCC  
ELEVATION 1

DRAWING NO.  
70-E-25

90% GMP

Plot Date: 6/12/2024 3:58:52 PM Path: RIM\_360/153020 - City\_Creek\_WTP/153020-E-3570V021.rvt



1 MCC-2155 NORTH WALL ELEVATION  
70-E-10 SCALE: 1" = 1'-0"

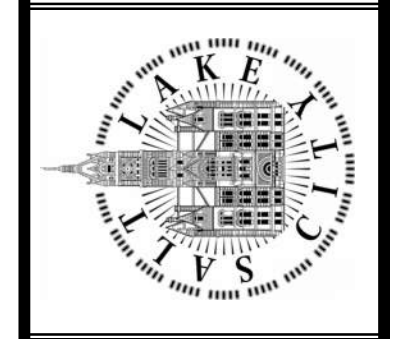
MCC-2155 NORTH Schedule		
BUCKET LOCATION	EQUIPMENT NUMBER	EQUIPMENT NAME
15A		SPACE
15E	73-P-00020	PLANT WATER PUMP 2
15G	84-P-00020	PEA FEED PUMP 1
15J	84-P-00040	PEA FEED PUMP 3
15L	84-P-00060	PEA FEED PUMP 5
16A		SPACE
16H	71-VFD-00020	BACKWASH SUPPLY PUMP 2
16J	20-P-10010	FLASH MIX PUMP 1
17A	50-B-00020	BLOWER 2
18A	PMM-B	POWER MONITOR
18C	SPD-B	SURGE PROT. DEVICE
18H	2155-PP-01	FILTER 1 PANEL
18J	2155-PP-03	FILTER 3 PANEL
18K	2155-PP-05	FILTER 5 PANEL
18L	2155-PP-07	SEDIMENTATION BASINS PANEL
18M	2155-PP-08	CLARIFIER PANEL
19A	MAIN B	B BUS MAIN FEED

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGNED BY: N.ANDERSON  
DRAWN BY: N.ANDERSON  
CHECKED BY: D.STAR  
APPROVED BY: D.STAR  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

REVISIONS	
NO.	DATE
0	06/14/24
	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - MCC  
ELEVATION 2**

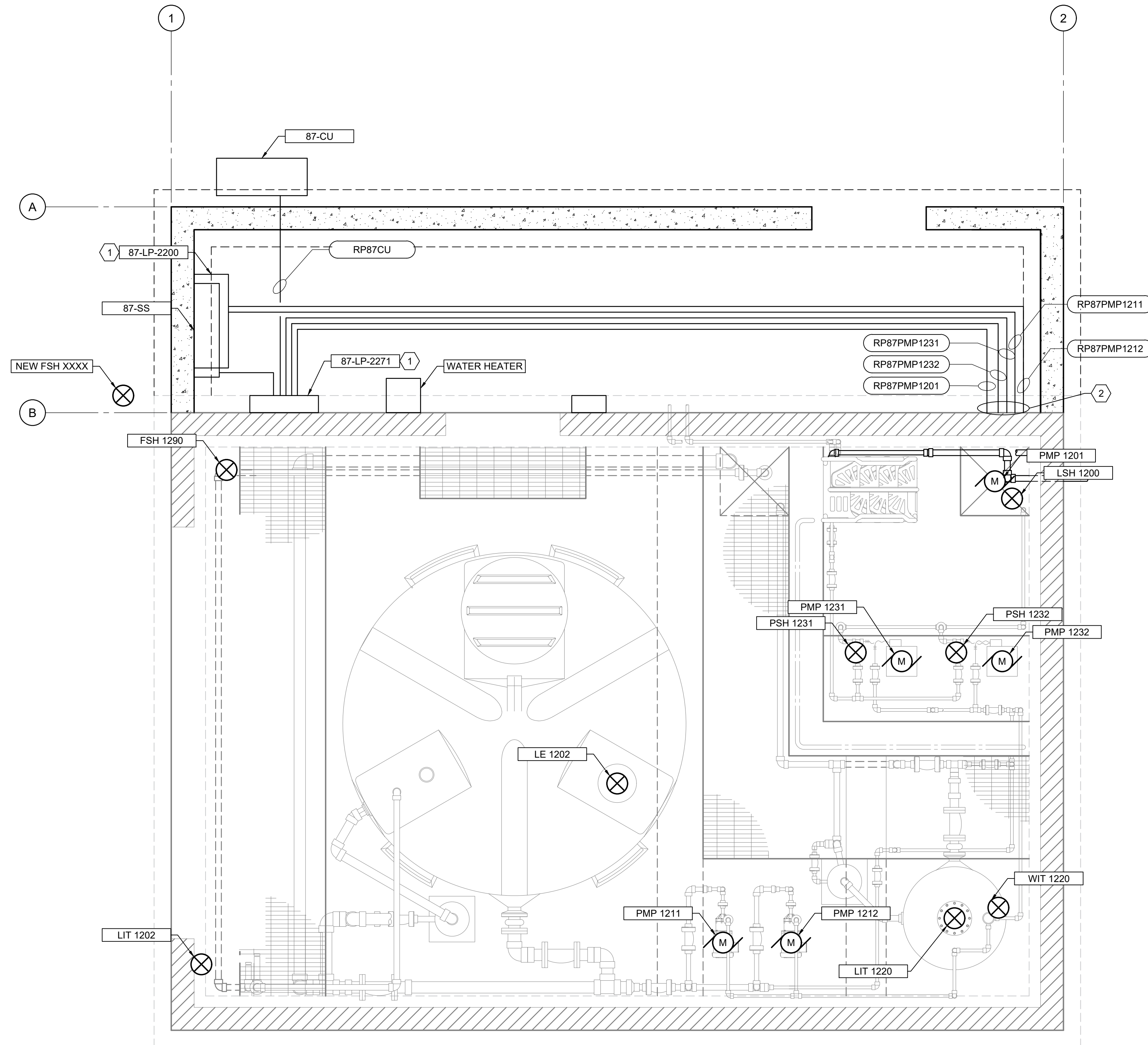


**90% GMP**

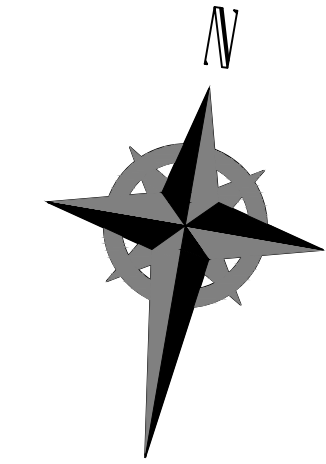
DRAWING NO.  
**70-E-26**

**Brown and Caldwell**

C:\epcra\41569745\87-E-01.dwg Jun 12, 2024 - 3:06pm



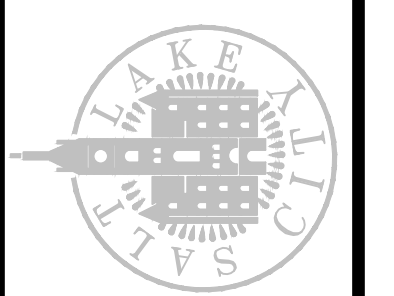
PLAN  
SCALE 1/2" = 1'-0"



### KEY NOTES

- EXISTING PANEL RELOCATED FROM PIPE GALLERY.
- INTERCEPT EXISTING CONDUIT AND CONDUCTORS FROM EXISTING FLUORIDE BUILDING AND REROUTE TO RELOCATED PANELS 87-LCP-2200 AND LP 2271.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FLUORIDE - FLOOR  
 ELECTRICAL PLAN**



**90% GMP**

DRAWING NO.  
**87-E-01**

**Brown and Caldwell**

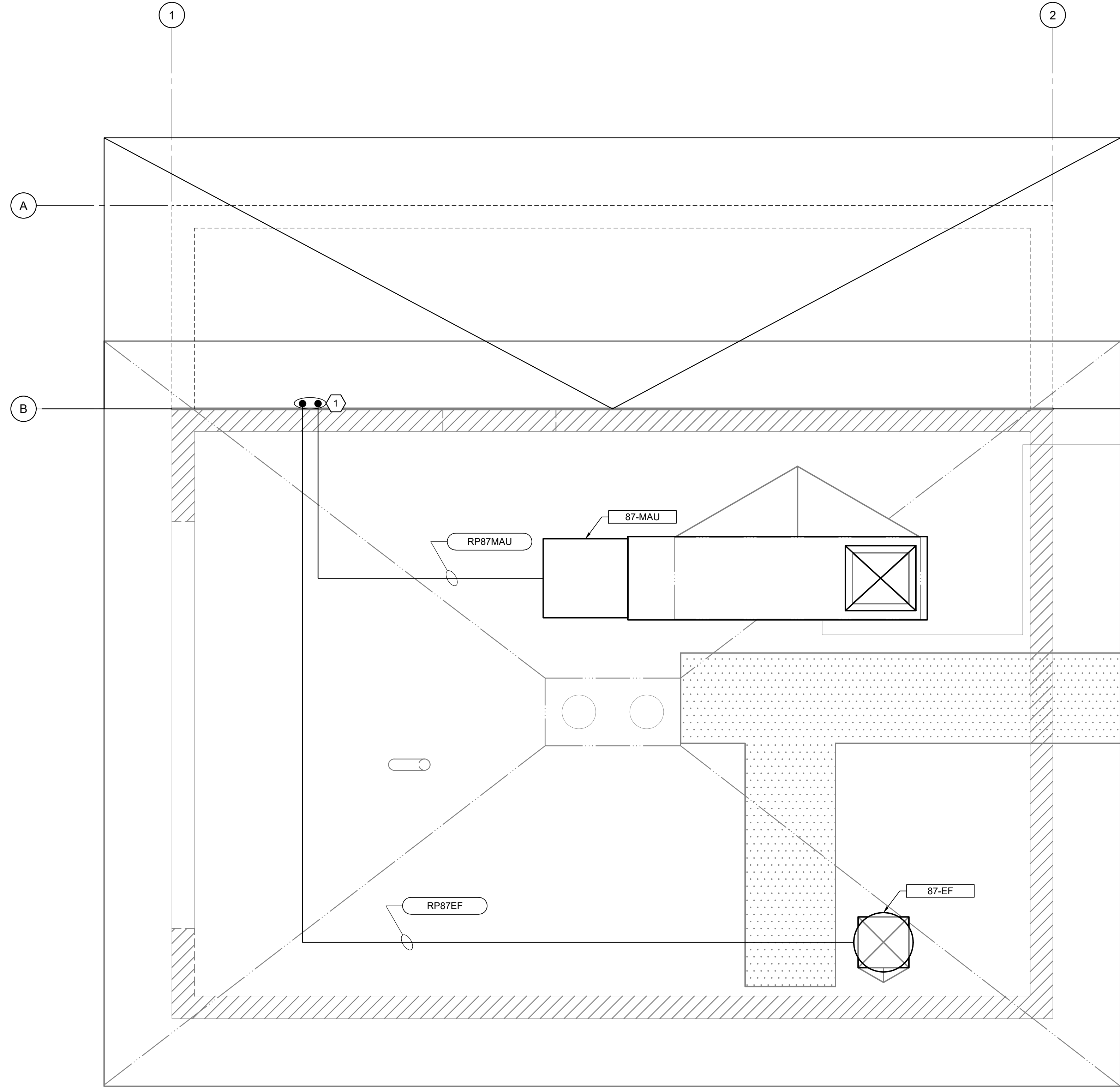
### REVISIONS

NO.	DATE	ISSUED FOR
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY	DATE
DS	DS

DESIGNED BY: D.STAR  
 DRAWN BY: G.ALVAREZ  
 CHECKED BY: D.STAR  
 APPROVED BY: M.PACENDARM  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

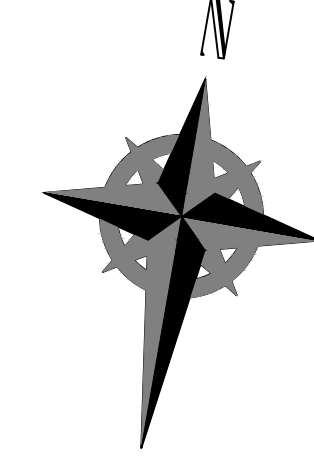
SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING



1 FLUORIDE - ROOF PLAN  
SCALE 1/2" = 1'-0"

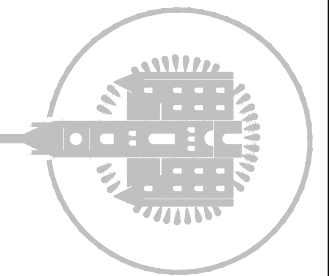
KEY NOTES

- 1 RUN CONDUIT AND CONDUCTORS THROUGH ROOF TO GROUND LEVEL TO CONNECT TO PANEL 87-LP-2271



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**FLUORIDE - ROOF  
ELECTRICAL PLAN**



**90% GMP**

DRAWING NO.  
**87-E-03**

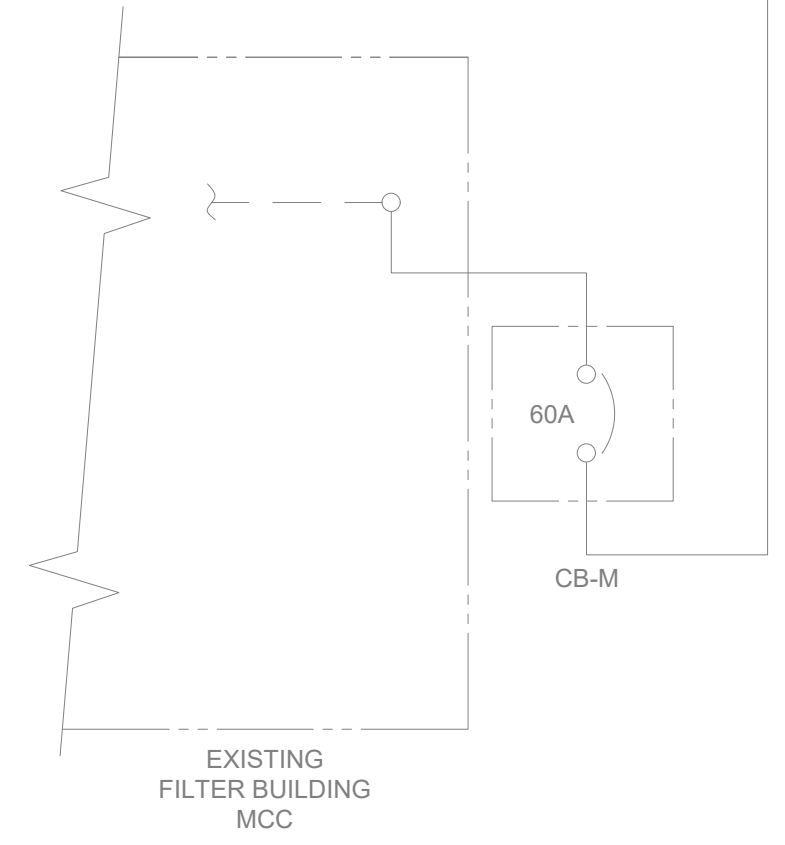
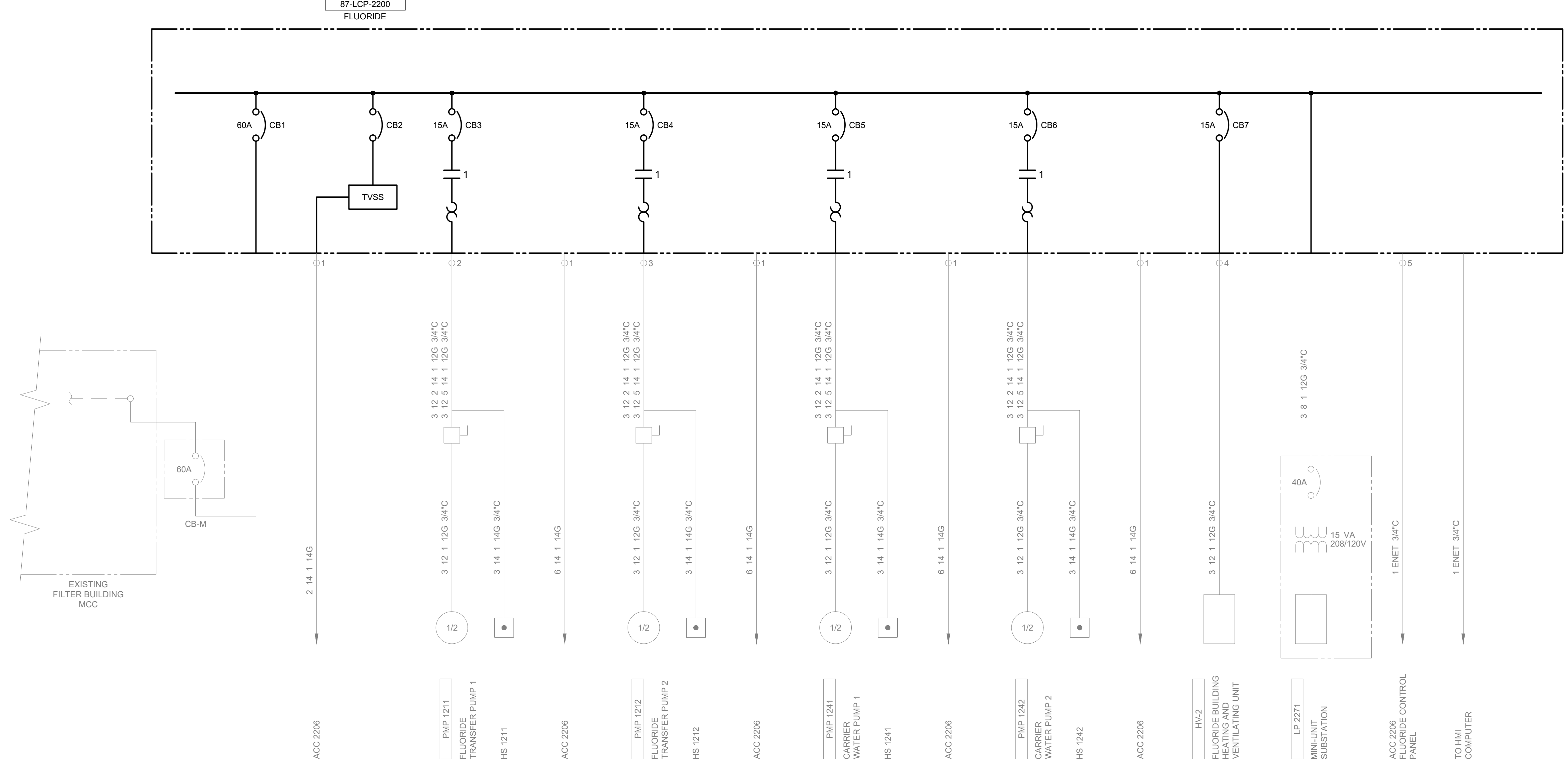
REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

DESIGNED BY: D.STAR  
DRAWN BY: G.ALVAREZ  
CHECKED BY: D.STAR  
APPROVED BY: M.PACENDARM  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

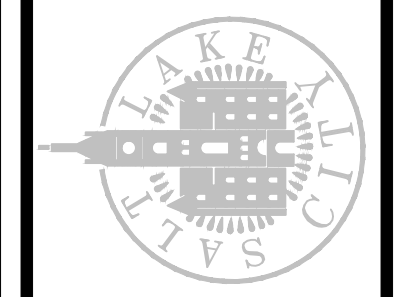


87-LCP-2200  
FLUORIDE



DRAWING NO.  
**87-E-10**

**90% GMP**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**FLUORIDE - ONE-LINE  
DIAGRAM**

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

MADE BY	DATE
DS	

AUTH BY	DATE
DS	

DESIGNED BY	DATE
J.STAR	

DRAWN BY	DATE
A.LAPIERRE	

CHECKED BY	DATE
J.STAR	

APPROVED BY	DATE
M.PAGENDARM	2024

DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

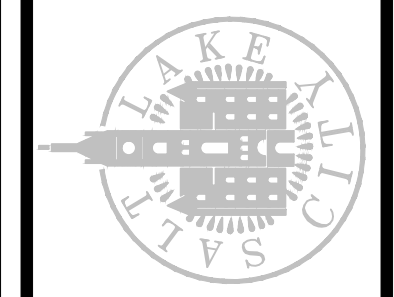
SCALE:

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING



PANEL SCHEDULE										
<b>DESIGNATION:</b>	87-LP-2271			<b>MIN. AIC:</b>	22K			<b>FED FROM:</b>	87-LCP-2200	
<b>LOCATION:</b>	FLUORIDE BUILDING			<b>BUS (AMPS):</b>	100			<b>MOUNTING:</b>	SURFACE	
<b>VOLTAGE:</b>	208/120 3 PHASE 4 WIRE			<b>MAIN (AMPS):</b>	100					
LOAD DESCRIPTION	CKT	BKR	A-KVA	B-KVA	C-KVA	CKT	BKR	LOAD DESCRIPTION		
EXISTING LCP 2200 UPS POWER	1	20	0.63				15	EXISTING FLUORIDE BUILDING LIGHTING		
		1	0.27			2	1			
EXISTING LCP2200 UTILITY POWER	3	20		1.25			15	EXISTING FLUORIDE BUILDING LIGHTING		
		1		0.27		4	1			
EXISTING PMP 1231 FLUORIDE FEED PUMP 1	5	15			0.13		20	EXISTING FLUORIDE BUILDING RECEPTACLES		
		1			0.36	6	1			
EXISTING PMP 1232 FLUORIDE FEED PUMP 2	7	15	0.13				20	EXISTING FLUORIDE BUILDING RECEPTACLES		
		1	0.36				8			
87-MAU-XXXX	9	15		0.00			15	EXISTING FLUORIDE BUILDING EF-3		
				0.84		10	1			
	11				0.00		20	EXISTING PMP 1201		
					0.83	12	1	FLUORIDE SUMP PUMP		
	13		0.00				15	87-EF-XXXX		
		3	0.00			14	1			
87-CU-XXXX	9	25		0.00			15	87-SS-XXXX		
				0.00		16				
	11				0.00					
					0.00	18				
	13		0.00							
		3	0.00			20	3			
SPARE	21	15		0.00			20	SPARE		
		1		0.00		22	1			
SPARE	23	15			0.00		20	SPARE		
		1			0.00	24	1			
SPARE	25	15	0.00				20	SPARE		
		1	0.00			26	1			
SPARE	27	20		0.00			20	SPARE		
		1		0.00		28	1			
SPARE	29	20			0.00		20	SPARE		
		1			0.0	30	1			
SPARE	31	30	0.0				20	SPARE		
		1	0.0			32	1			
SPARE	33	30		0.0			20	SPARE		
		1		0.0		34	1			
SPARE	35	30			0.0		20	SPARE		
		1			0.0	36	1			
SPACE	37		-					SPACE		
			-			38				
SPACE	39		-					SPACE		
			-			40				
SPACE	41		-					SPACE		
			-			42				

ORIGINAL DRAWING



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**FLUORIDE - PANEL SCHEDULE**

**90% GMP**

DRAWING NO.  
**87-E-11**

NO.	DATE	REVISIONS	MADE BY	DS	DS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)			

DESIGNED BY: J.STAR  
DRAWN BY: ALAPIERRE  
CHECKED BY: J.STAR  
APPROVED BY: M.FAGENDARM  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\elapierre\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\City\_Creek\WTP-V2021\PID\_DWG\GI-01.dwg Jun 12, 2024 - 2:03pm

FUNCTIONAL IDENTIFICATION					
VARIABLE	MEASURED OR INITIATING VARIABLE DESCRIPTION	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION				
C	CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY, SPECIFIC GRAVITY	DIFFERENTIAL			DEVIATION
E	VOLTAGE, SOLENOID		PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	FIRE, SMOKE		GLASS		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER		SCAN		
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOISTURE, HUMIDITY, MOTION	MOMENTARY			MIDDLE, INTERMEDIATE
N	EQUIPMENT STATUS				
O	DISSOLVED OXYGEN		ORIFICE		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE, TORQUE		WELL, PROBE		
X	UNCLASSIFIED	X AXIS			
Y	EVENT, STATE OR PRESENCE	Y AXIS		AUXILIARY DEVICES	
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, FINAL CONTROL ELEMENT	

INSTRUMENT SIGNAL LINES	
	INSTRUMENT SUPPLY, PROCESS TAPS
	PNEUMATIC SIGNAL
	ELECTRICAL SIGNAL (ANALOG OR DISCRETE)
	FIELD BUS (DEVICENET OR FOUNDATION)
	CAPILLARY TUBE OR FILLED SYSTEM
	ELECTROMAGNETIC OR SONIC SIGNAL (GUIDED)
	ELECTROMAGNETIC OR SONIC SIGNAL (UNGUIDED)
	SOFTWARE OR DATA LINK
	MECHANICAL LINK
	HYDRAULIC
ES >	ELECTRIC POWER SUPPLY 120 VAC 60 HZ UNLESS OTHERWISE NOTED. (e.g. ES-480 VAC)
SA >	SERVICE AIR SUPPLY
IA >	INSTRUMENT QUALITY AIR SUPPLY
C2 >	WATER SUPPLY C1, C2, C3, ETC.

PROCESS AND SIGNAL CROSS REFERENCE SYSTEM

WHEN A PROCESS LINE CROSSES FROM DRAWING TO DRAWING, THE P&ID DRAWING NUMBERS NEED TO BE REFERENCED. AS AN EXAMPLE, A PROCESS IS PUMPING TO A TANK ON A SEPARATE P&ID, SEE BELOW

IF THERE ARE MULTIPLE LINES CROSSING THE SAME TWO P&ID DRAWINGS, IT IS ACCEPTABLE TO ADD A LETTER FOR CLARITY

PROCESS LINES

- NEW PRIMARY PROCESS FLOW
- NEW SECONDARY PROCESS FLOW
- NEW UTILITY PROCESS FLOW
- FUTURE
- EXISTING PROCESS FLOW, EQUIPMENT, OR SIGNAL PATH (SCREENED)
- NEW/EXISTING CONNECTIONS
- TEMPORARY PIPING
- PROCESS AREA
- VENDOR PACKAGE BOUNDARY

INSTRUMENT TAG AND LOOP IDENTIFICATION

PLANT AREA  
INSTRUMENT ABBREVIATION  
SYSTEM NUMBER, TRAIN, OR BASIN

EXAMPLE: **BBB** **00** **9996** **-** **#**

INDEX (NUMBER)  
SUFFIX  
EQUIPMENT NUMBER

OPERATING FUNCTION

TYPICAL INSTRUMENT IDENTIFICATION

# = OPTIONAL

NETWORK TYPE	
F	FOUNDATION FIELDBUS
D	DEVICENET
E	ETHERNET
P	PROFIBUS
PN	PROFINET
M-RTU	MODBUS RTU
M-TCP	MODBUS TCP
CIP	CONTROL INDUSTRIAL PROTOCOL
E-SNMP	SIMPLE NETWORK MANAGEMENT PROTOCOL

CONTROL AND MEASUREMENT NOTATIONS

ACK	ACKNOWLEDGE	OCA	OPEN/CLOSE/AUTO
AM	AUTO/MAN	OCV	PURGE VALVE OP/CL/PC
BYP	BYPASS	OL	OVERLOAD
CL	CLOSE	OP	OPEN
CL2	CHLORINE	OSC/LP	OPEN/STOP/CLOSE WITH LOCAL/REMOTE SELECT
CMAT	COMPUTER/MANUAL/AUTO/TRACKING	PA	PAUSE
COMB	COMBUSTIBLE GAS	PAL	LOW PRESSURE
CP	CONTROL POWER	PB	PUSH BUTTON
COND	CONDUCTIVITY	pH	pH
		POT	POTENTIOMETER
DEC	DECREASE	RDY	READY
DO	DISSOLVED OXYGEN	REV	REVERSE
ESP	EMERGENCY STOP	RNG	RUNNING
FWD	FORWARD	ROF	REVERSE/OFF/FORWARD
F/R	FORWARD/REVERSE	RST	RESET
F/S	FAST/SLOW	SO2	SULFUR DIOXIDE
		SP	STOP
HLOA	HIGH/LOW/OFF/AUTO	ST	START
HOA	HAND/OFF/AUTO		
HOAL	HAND/OFF/AUTO/LOCAL	TCP	TEST/CLOSE/PC
HOR	HAND/OFF/REMOTE	T/S	TEST/NORMAL/SILENCE
		TBL	TROUBLE
INC	INCREASE		
JOA	JOG/OFF/AUTO		
LL	LEAD/LAG		
LOR	LOCAL/OFF/REMOTE		
LOS	LOCKOUT STOP		
L/R	LOCAL/REMOTE		
M/A LS	MAN/AUTO LOADING STATION		

EQUIPMENT IDENTIFICATION SYSTEM

AERATION BLOWER 1

OPTIONAL PER PROJECT

- PXXXX
- SPEC: 11486
- TYPE: MULTIPLE STAGE CENTRIFUGAL
- Q: 1500 SCFM
- HEAD: 5.5 PSIG
- HP: 50

EQUIPMENT NAME  
EQUIPMENT NUMBER  
SPECIFICATION REFERENCE  
EQUIPMENT TYPE  
CAPACITY RATING  
DISCHARGE PRESSURE RATING  
MOTOR POWER

GENERAL NOTES:

- THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS AND IDENTIFICATIONS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
- SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.

SCALE: \_\_\_\_\_

DESIGNED BY: BLOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BLOTANI  
DATE: JUNE 2024  
EWO NO: \_\_\_\_\_  
ACCOUNT NO: 512260079

REVISIONS

NO.	DATE	BY	DESCRIPTION
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

LEGEND & SYMBOLS 1

90% GMP

DRAWING NO. **GI-01**

Brown and Caldwell

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MISCELLANEOUS SYMBOLS	
	MCC (MOTOR CONTROL/STARTER)
	PURGE OR FLUSHING DEVICE
	RESET FOR LATCH-TYPE OPERATOR
	SEAL WATER CONTROL UNIT
	INTERLOCKING OR CONTROL FUNCTION
	INTRINSIC SAFETY BARRIER
	DISCRETE INPUT
	DISCRETE OUTPUT
	ANALOG INPUT
	ANALOG OUTPUT
	CAMERA (CCTV)
	VARIABLE FREQUENCY DRIVE
	VARIABLE SPEED DRIVE

ACTUATORS/MOTORS/POWER	
	ADJUSTABLE SPEED DRIVE (MECHANICAL)
	ROTARY PISTON ACTUATORS, VALVE OR GATE
	LINEAR PISTON ACTUATORS, VALVE OR GATE
	SOLENOID ACTUATOR, VALVE
	MANUAL OR HAND ACTUATOR, VALVE OR GATE (OR BLANK)
	MOTOR (ACTUATOR, VALVE, GATE OR EQUIPMENT)
	ELECTRIC DISCRETE ACTUATOR
	ELECTRIC MODULATING ACTUATOR
	ENGINE
	EJECTOR, PNEUMATIC
	GENERATOR

PRIMARY ELEMENT SYMBOLS	
	ORIFICE PLATE
	VENTURI OR FLOW TUBE
	NOZZLE FLOW
	PITOT TUBE
	PROPELLER OR TURBINE METER
	FLUME
	WEIR
	VARIABLE AREA FLOW INDICATOR (ROTAMETER)
	DIAPHRAGM SEAL
	IN-LINE ANNULAR SEAL
	MAGNETIC FLOWMETER
	SONIC FLOWMETER (DOPPLER OR TRANSIT TIME)
	POSITIVE DISPLACEMENT METER
	THERMAL FLOW ELEMENT
	VORTEX FLOW ELEMENT
	CORIOLIS FLOW ELEMENT
	FLOAT LEVEL ELEMENT
	ULTRASONIC LEVEL ELEMENT
	BUBBLER LEVEL TUBE
	SUBMERSIBLE LEVEL TRANSMITTER
	HYDROSTATIC LEVEL PROBE
	RADAR OR ULTRASONIC LEVEL ELEMENT
	ANNUBAR, PITOT TUBE
	AVERAGING PITOT TUBE

FUNCTION SYMBOLS	
	SHARED DISPLAY, PROCESS CONTROL SYSTEM
	SOFTWARE FUNCTIONALITY
	FIELD OR PANEL DEVICE
LOCATION AND ACCESSIBILITY MODIFIERS FOR FUNCTION SYMBOLS	
	STAND ALONE DEVICE, OPERATOR ACCESSIBLE
	LOCATED ON FRONT OF PANEL OR CONSOLE, OPERATOR ACCESSIBLE
	LOCATED IN REAR OF PANEL OR CONSOLE, OPERATOR INACCESSIBLE

INSTRUMENTATION SYMBOLS	
	INTEGRAL INSTRUMENT
	CLOSE COUPLED INSTRUMENT
	SEPARATE OR REMOTE MOUNTED INSTRUMENT
	MULTI VARIABLE INSTRUMENT
	SEPARATE OR REMOTE MOUNTED INSTRUMENT
	SEPARATE OR REMOTE MOUNTED INSTRUMENT
	SEPARATE OR REMOTE MOUNTED INSTRUMENT
	SINGLE VARIABLE INSTRUMENT
	FLANGE OR ELEMENT TAPS
	PIPE TAPS
	COMBINATION TAPS

VALVES	
	NORMALLY OPEN GATE VALVE
	NORMALLY CLOSED GATE VALVE
	PLUG VALVE
	BALL VALVE
	GLOBE VALVE
	NEEDLE VALVE
	KNIFE GATE VALVE
	DIAPHRAGM VALVE
	BUTTERFLY VALVE
	ANGLE VALVE
	THREE WAY VALVE
	FOUR WAY VALVE
	FLOAT VALVE
	PINCH VALVE
	BALANCING COCK
	THERMOSTATICALLY CONTROLLED VALVE
	SPLIT DISC CHECK VALVE
	CHECK VALVE
	BALL CHECK VALVE
	PUMP DISCHARGE VALVE
	GAUGE OR ROOT VALVE
	PRESSURE AND VACUUM RELIEF VALVE
	VACUUM RELIEF VALVE
	PRESSURE RELIEF VALVE
	IN-LINE SPRING LOADED RELIEF VALVE
	PRESSURE REGULATING VALVE (SELF-CONTAINED)
	BACK PRESSURE REGULATING VALVE (SELF-CONTAINED)
	FUSIBLE LINK
	SOLENOID VALVE
	DIAPHRAGM OPERATED VALVE
	PRESSURE BALANCE OPERATED VALVE
	MOTOR OPERATED VALVE
	MOTOR OPERATED VALVE, MODULATING
NOTE: USE VALVE BODY SYMBOL TO MATCH TYPE OF VALVE.	
	PISTON OPERATED VALVE
	TELESCOPING VALVE
	MUD VALVE
	ANTI SIPHON VALVE
	LIFT CHECK VALVE
	BRAIDED FLEX CONNECTOR

SLIDE AND SLUICE GATES	
	NORMALLY OPEN FLAP GATE
	NORMALLY CLOSED FLAP GATE
	NORMALLY OPEN BUTTERFLY GATE
	NORMALLY CLOSED BUTTERFLY GATE
	NORMALLY OPEN STOP GATE
	NORMALLY CLOSED STOP GATE
	NORMALLY OPEN SLIDE GATE
	NORMALLY CLOSED SLIDE GATE
	NORMALLY OPEN SLUICE GATE
	NORMALLY CLOSED SLUICE GATE

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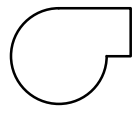
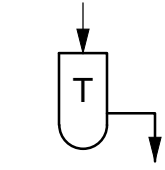

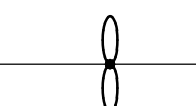
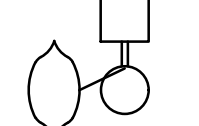
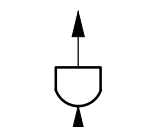

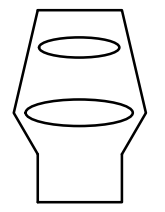
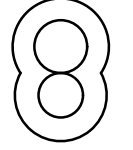
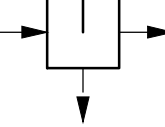
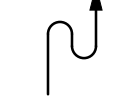
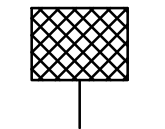

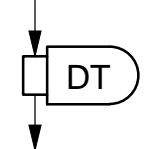
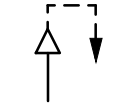
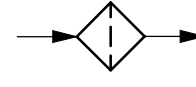
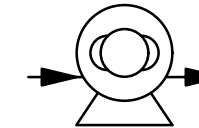
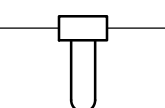
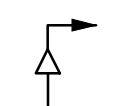
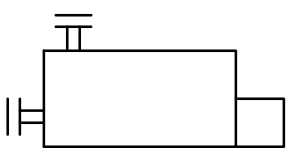
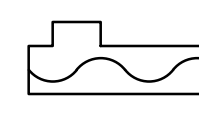
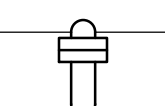
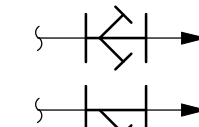
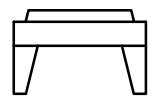

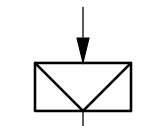
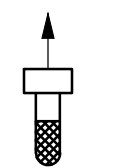
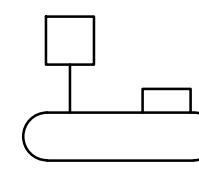
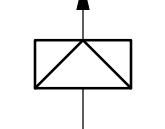
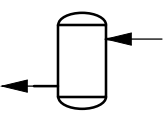
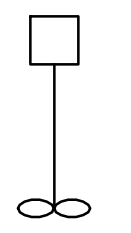
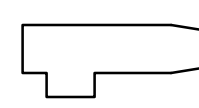

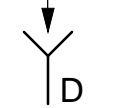
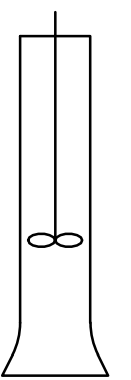
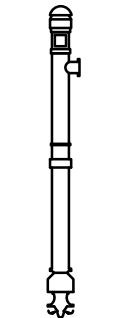
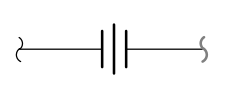
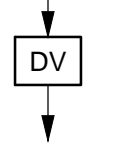
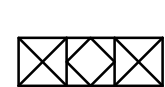
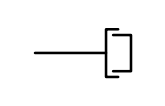
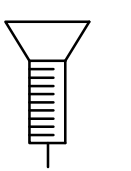
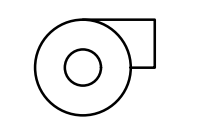
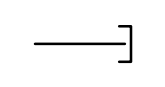
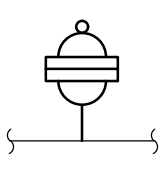
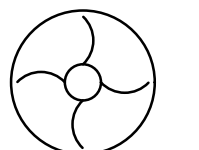
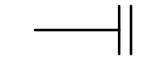
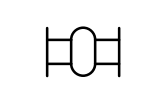
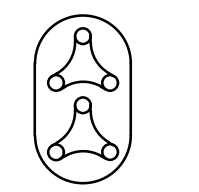
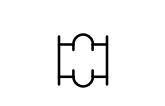
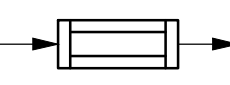
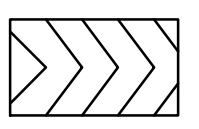
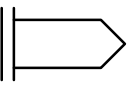
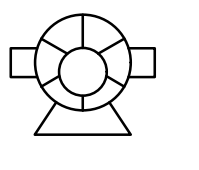

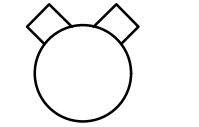

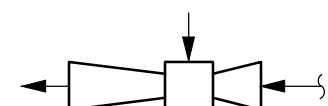

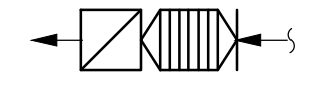
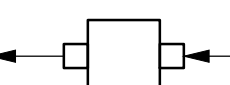
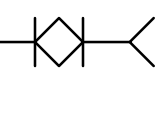
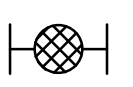
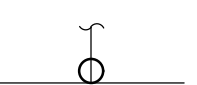
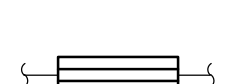

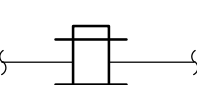
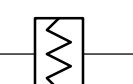
**LEGEND & SYMBOLS 2**

90% GMP

DRAWING NO. **GI-02**

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

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PUMPS		PIPE LINE DEVICES			HVAC RELATED		
	PUMP, CENTRIFUGAL		TRAP		VENT TO ROOF		FAN, INLINE
	PUMP, DIAPHRAGM		AIR RELIEF VALVE		VENT		CHILLER
	PUMP, GEAR		SEDIMENT TRAP		STEAM VENT		FILTER OR FILTER-SILENCER INLET AIR
	PUMP, METERING		GAS DRIP TRAP		AUTOMATIC VENT		INLET AIR FILTER
	PUMP, PERISTALTIC		SEPARATOR/ DRYER		MANUAL VENT		BOILER
	PUMP, PROGRESSING CAVITY		PIPELINE FILTER		STRAINERS		CHILLER
	PUMP, ROTARY LOBE		RUPTURE DISK (VACUUM RELIEF)		FOOT VALVE	<b>MIXERS</b>	
	PUMP, SUBMERSIBLE		RUPTURE DISK (PRESSURE RELIEF)		AIR SEPARATOR		MIXER
	PUMP, JET		CONNECTION BETWEEN NEW AND EXISTING PIPING		DRAIN		DRAFT TUBE MIXER
	PUMP, VERTICAL		UNION		DRAIN VALVE		MIXER, INLINE STATIC
<b>BLOWERS/COMPRESSORS</b>			QUICK CONNECTOR		CALIBRATION CHAMBER		
	BLOWER OR CENTRIFUGAL FAN		CAP OR PLUG		PULSATION DAMPENNER		
	BLOWER OR COMPRESSOR, LIQUID RING		BLIND FLANGE		FLEX CONNECTOR		
	BLOWER OR COMPRESSOR, ROTARY LOBE		FABRIC EXPANSION JOINT		SIGHT GLASS		
	COMPRESSOR, ROTARY SCREW				PIG LAUNCHER/ RECEIVER		
	COMPRESSOR, ROTARY SLIDING VANE				REDUCER		
	COMPRESSOR, PISTON				FLEX COUPLING		
						INJECTOR	
						FLAME TRAP	
						FLAME TRAP WITH THERMO SHUTOFF ASSEMBLY	
						FLAME CHECK	
						SAMPLING AND FLUSHING CONNECTIONS	
						SUCTION DIFFUSER	
						TEMPERATURE WELL	
						FLOW STRAIGHTENING VANES	
						PRESSURE REDUCING ASSEMBLY	
						AMMONIA UNION	
						DAMPER	

**GENERAL NOTES:**

- THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS AND IDENTIFICATIONS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
- SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.

**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**LEGEND & SYMBOLS 3**

90% GMP

DRAWING NO. **GI-03**

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: ALAPIERRE  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

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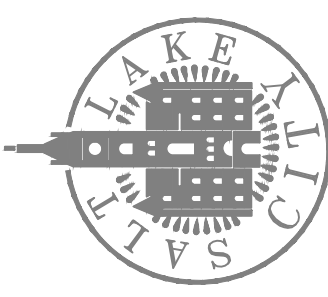
PIPING SYSTEMS				AREA NUMBER ASSIGNMENTS	
ABBREVIATION	SERVICE	ABBREVIATION	SERVICE	NUMBER	AREA DESCRIPTION
A	AERATION AIR	GAS	GASOLINE	SCR	STEAM CLEAN RINSE
AA	AGITATION AIR	GAV	GAS VAPOR RETURN	SCS	STEAM CLEAN SUPPLY
AFE	AIR FLOTATION EFFLUENT	GC	GAS CIRCULATION	SD	SANITARY DRAIN
AL	ALUM	GR	GRIT	SDG	SULFUR DIOXIDE GAS
AW	APPLIED WATER			SDL	SULFUR DIOXIDE LIQUID
B	BRINE	HOH	HIGH PRESSURE HYDRAULIC OIL	SDS	SULFUR DIOXIDE SOLUTION
BA	BACKWASH AIR	HRR	HEAT RESERVOIR RETURN	SDV	SULPHUR DIOXIDE VACUUM
BC	BIOFILTER CIRCULATION	HRS	HEAT RESERVOIR SUPPLY	SE	SECONDARY EFFLUENT
BCTL	BOILER CHEMICAL TREATMENT, LOW PRESSURE	HRW	RECIRCULATING POTABLE HOT WATER	SEP	SEPTAGE
BCTM	BOILER CHEMICAL TREATMENT, MEDIUM PRESSURE	HSG	HIGH PRESSURE SLUDGE GAS	SH	SODIUM HYPOCHLORITE
BDL	BOILER BLOWDOWN, LOW PRESSURE	HW	POTABLE HOT WATER	SN	SUPERNATANT
BDM	BOILER BLOWDOWN, MEDIUM PRESSURE	HWR	LOW TEMPERATURE HEATING RETURN	SS	SECONDARY SLUDGE
BFE	BIOFILTER EFFLUENT	HWS	LOW TEMPERATURE HEATING SUPPLY	SSC	SECONDARY SCUM
BFL	BIOFILTER FEEDWATER, LOW PRESSURE	IA	INSTRUMENT AIR	STA	STARTING AIR
BFM	BIOFILTER FEEDWATER, MEDIUM PRESSURE	JWR	JACKET WATER RETURN	STD	STORM DRAIN
BW	BACKWASH WATER	JWS	JACKET WATER SUPPLY	STML	STEAM, LOW PRESSURE
CCW	CONDENSER COOLING WATER			STMM	STEAM, MEDIUM PRESSURE
CD	CHEMICAL DRAIN	LOR	LUBE OIL RETURN	TD	TANK DRAIN
CEN	CENTRATE	LOS	LUBE OIL SUPPLY	TE	THICKENER EFFLUENT
CF	CENTRIFUGE FEED	LOW	LUBE OIL WASTE	THS	THICKENED SLUDGE
CL	CONDENSATE, LOW PRESSURE	LSG	LOW PRESSURE SLUDGE GAS	TO	THICKENER OVERFLOW
CLG	CHLORINE GAS			TPW	TEPID WATER
CLL	CHLORINE LIQUID	MG	MIXED GAS	TS	TRANSFER SLUDGE
CLS	CHLORINE SOLUTION	ML	MIXED LIQUOR	TSC	THICKENED SCUM
CLV	CHLORINE VACUUM	MS	MIXED SLUDGE	TWAS	THICKENED WASTE ACTIVATED SLUDGE
CM	CONDENSATE, MEDIUM PRESSURE	MSG	MEDIUM PRESSURE SLUDGE GAS	V	VENT
CS	CIRCULATING SLUDGE	MTWR	MEDIUM TEMPERATURE HEATING RETURN	VA	VACUUM
CSO	CAUSTIC SODA	MTWS	MEDIUM TEMPERATURE HEATING SUPPLY	VC	CHEMICAL VENT
CWR	CHILLED WATER RETURN			VP	PETROLEUM VENT
CWS	CHILLED WATER SUPPLY	NG	NATURAL GAS	VSL	STEAM VENT, LOW PRESSURE
D	DRAIN			VSM	STEAM VENT, MEDIUM PRESSURE
DCW	DECANT WATER	OF	OVERFLOW	WAS	WASTE ACTIVATED SLUDGE
DIW	DEIONIZED WATER	OLP	OXYGEN LOW PRESSURE	WML	WASTE MIXED LIQUOR
DS	DIGESTED SLUDGE				
DSF	DIESEL FUEL	PD	PUMPED DRAINAGE	1W	POTABLE WATER (CITY WATER)
DSS	SCREENED DIGESTED SLUDGE	PE	PRIMARY EFFLUENT	1WS	POTABLE SOFT WATER
DW	DISTILLED WATER	POL	POLYMER		
EE	ENGINE EXHAUST	PS	PRIMARY SLUDGE	2W	NONPOTABLE CITY WATER
ES	EQUALIZED SLUDGE	PSC	PRIMARY SCUM	2WHP	NO. 2 WATER HIGH PRESSURE
F	FLOAT	RAS	RETURN ACTIVATED SLUDGE	2WL	LANDSCAPE IRRIGATION
FA	FOUL AIR	RS	RAW SEWAGE	2WS	SOFTENED NONPOTABLE CITY WATER
FC	FERRIC CHLORIDE	RW	RAW WATER		
FLT	FILTRATE	RWP	RAINWATER PIPE	3W	NO.3 WATER (SECONDARY EFFLUENT)
FS	FLOTATION SLUDGE	RWR	RECLAIMED WATER	3WHP	NO. 3 WATER HIGH PRESSURE
FW	FILTERED WATER	SA	SERVICE AIR	3WLC	NO. 3 WATER LOW PRESSURE CHLORINATED
		SCR	STEAM CLEAN RINSE	3WLP	NO. 3 WATER LOW PRESSURE
				3WS	NO. 3 SPRAY WATER

EQUIPMENT PREFIXES							
A	AERATOR	E	ENGINE	MME	MISCELLANEOUS MECHANICAL	T	TANK
ACC	AIR CONDITION COIL	EB	ENGINE BLOWER MODULE		EQUIPMENT	TBN	TURBINE
ACU	AIR CONDITIONING UNIT	EG	ENGINE GENERATOR MODULE	MOP	MOTOR OPERATOR	TCV	TEMPERATURE CONTROL
AD	AIR DRYER	EPR	EVAPORATOR	MSP	MOTOR STARTER PANEL		VALVE
AF	AIR FILTER			MUX	MULTIPLEXER	TFR	TRANSFORMER
AHC	AIR HANDLING UNIT W/COIL	F	FAN	MX	MIXER	TM	TIMER
AHU	AIR HANDLING UNIT	FLC	FLOCCULATOR	MZ	MULTIZONE UNIT	TRS	TRANSFER SWITCH
ASC	ADJUSTABLE SPEED CONTROL	FLT	FILTER				
ASD	ADJUSTABLE SPEED DRIVE	FP	FILTER PRESS	ORT	ODOR REMOVAL TOWER	UH	UNIT HEATER
ATS	AUTOMATIC TRANSFER SWITCH	FPU	FLUID POWER UNIT			US	UTILITY STATION
		FUR	FURNACE	P	PUMP		
B	BLOWER			PBD	PANELBOARD, ELECTRICAL	VCP	VENDOR CONTROL PANEL
BFP	BELT FILTER PRESS	GEN	GENERATOR		LIGHTING	VEN	VENTILATOR
BLR	BOILER	GDR	GRINDER		AND BRANCH CIRCUIT	VMP	VENDOR MONITORING PANEL
BNR	BURNER	GT	GATE	PC	PROCESS OR PERSONAL	VP	VACUUM PUMP
BP	BACKFLOW PREVENTER				COMPUTER		
BSN	BAR SCREEN	H	HOIST	PEJ	PNEUMATIC EJECTOR	WH	WATER HEATER
		HEX	HEAT EXCHANGER	PLC	PROGRAMMABLE LOGIC	WHR	WASHER
C	COIL	HOP	HYDRAULIC OPERATOR		CONTROLLER	WSR	WATER SOFTENER UNIT
CDR	CONDENSOR	HP	HEAT PUMP	PNL	PANEL		
CFR	CHEMICAL FEEDER	HPU	HYDRAULIC POWER UNIT	POP	PNEUMATIC OPERATOR		
CHR	CHILLER	HTR	HEATER	PVL	PRESSURE VESSEL		
COL	COLLECTOR	HTT	HEAT TRACER TAPE				
COM	COMMUNOTOR	HV	HAND OPERATED VALVE	REC	RECEIVER		
CON	CONVEYOR						
CP	COMPRESSOR	INJ	INJECTOR	SCN	SCREEN (BAR, ETC.)		
CRN	CRANE			SCR	SCRUBBER		
CTF	CENTRIFUGE	LCP	LOCAL CONTROL PANEL	SEP	SEPARATOR		
CV	CONTROL VALVE	LCS	LOCAL CONTROL STATION	SLR	SILENCER		
CYL	CYLINDER	LVR	LOUVER	SMP	SAMPLER		
				SS	SAND SEPARATOR		
DIS	DISTRIBUTOR	M	MOTOR	ST	STEAM TRAP		
DPR	DAMPER	MCC	MOTOR CONTROL CENTER	SUB	SUBSTATION		
DS	DISCONNECT SWITCH	MEE	MISCELLANEOUS ELECTRICAL	SWBD	SWITCHBOARD		
DU	DRIVE UNIT	MIE	MISCELLANEOUS INSTRUMENTATION EQUIPMENT	SWGR	SWITCHGEAR		

GENERAL NOTES:	
1.	THIS DRAWING IS GENERAL IN NATURE. SOME SYMBOLS AND IDENTIFICATIONS SHOWN HEREON MAY NOT BE USED ON THE CONTRACT DRAWINGS.
2.	SYMBOLS ARE ARRANGED ON SPECIFIC DRAWINGS AND IN CATEGORIES FOR CONVENIENCE ONLY; SYMBOLS MAY BE USED ON ANY OF THE CONTRACT DRAWINGS.

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**ABBREVIATIONS**



**90% GMP**

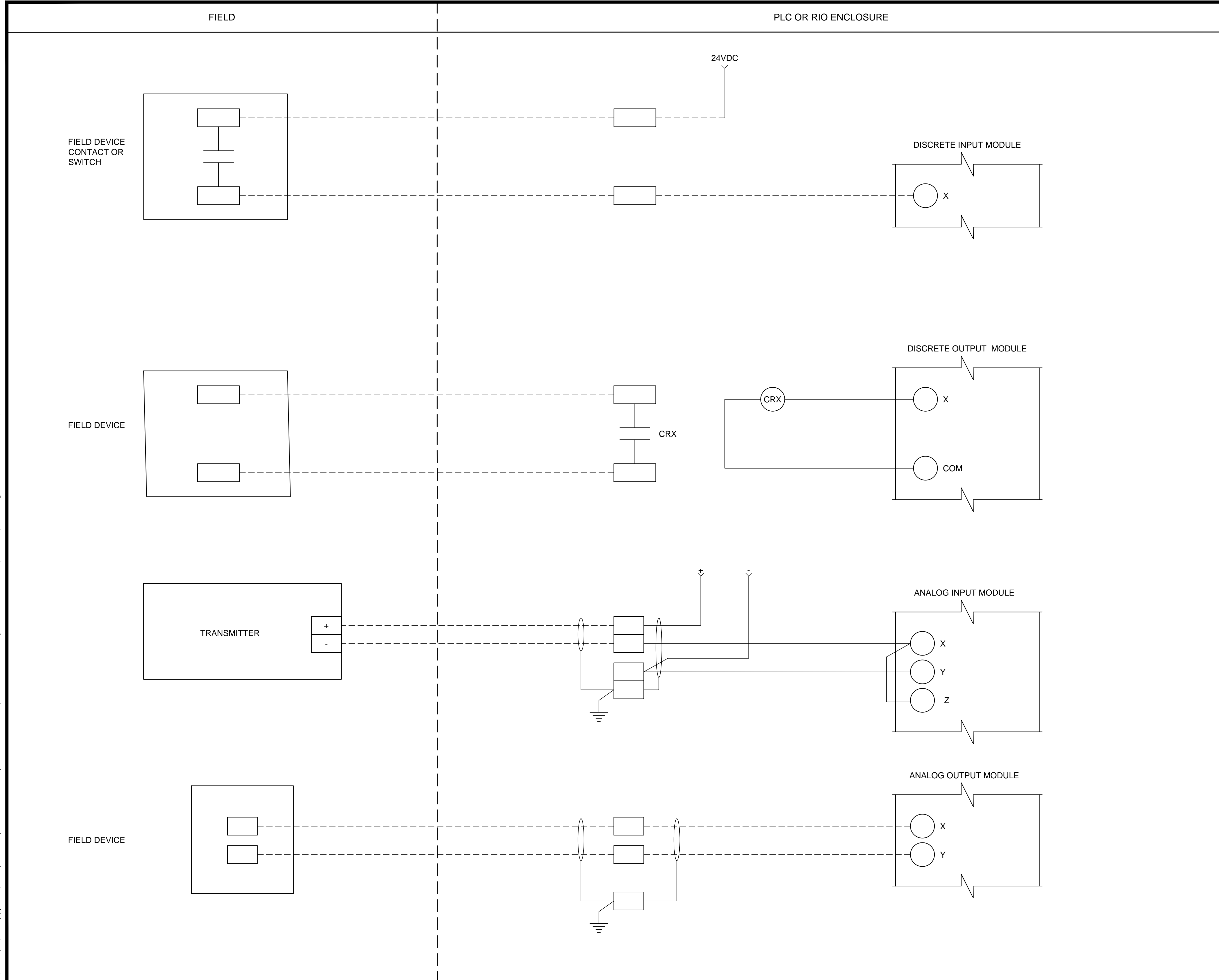
DRAWING NO.  
**GI-04**

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: JFAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: 512260079  
 ACCOUNT NO: 512260079

SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

**Brown and Caldwell**

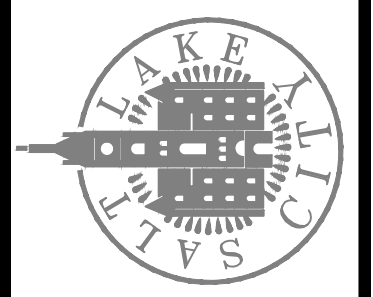
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**Brown and Caldwell**

DRAWING NO.  
**GI-05**

**90% GMP**



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TYPICAL I/O WIRING**

**REVISIONS**

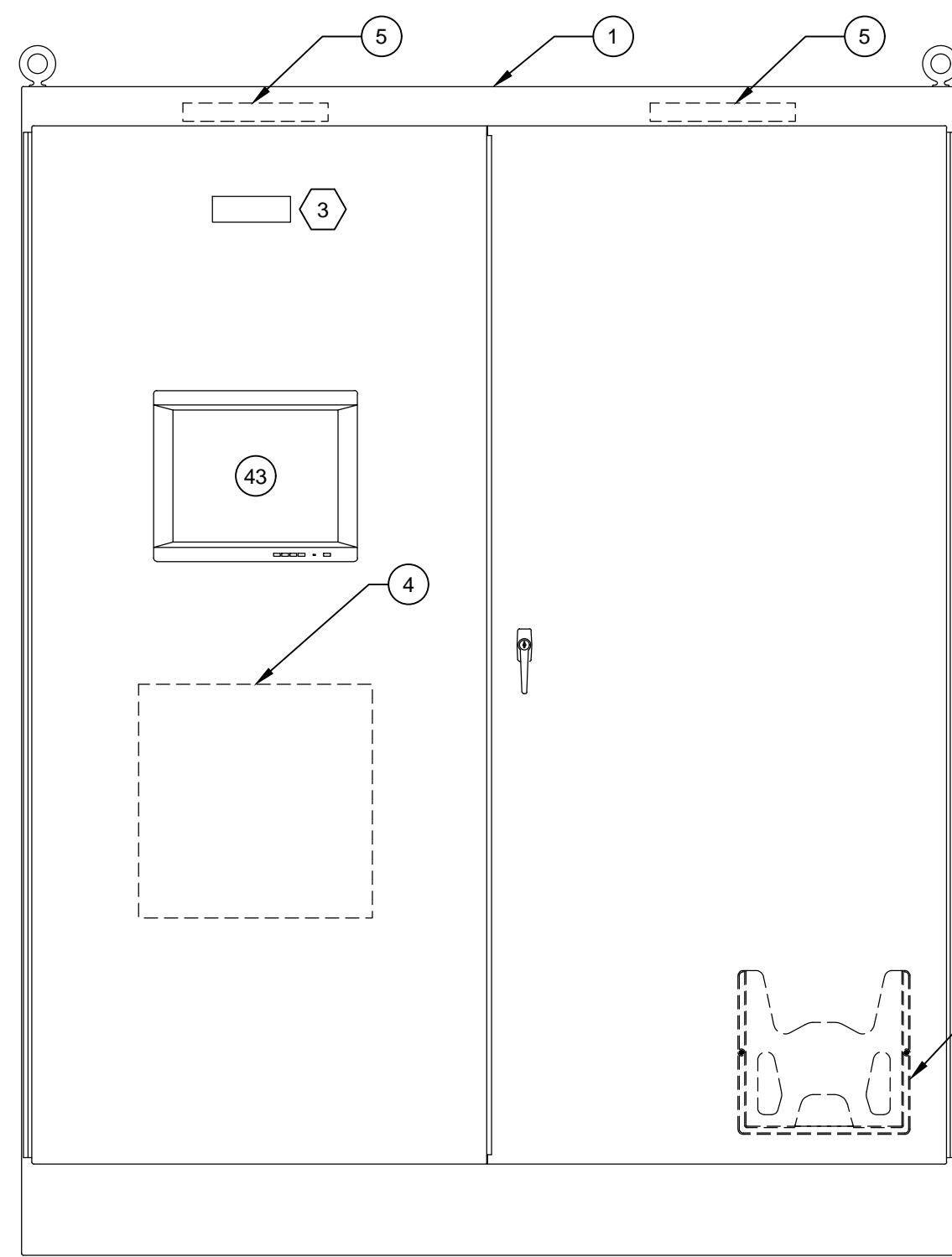
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24				BO	BO

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

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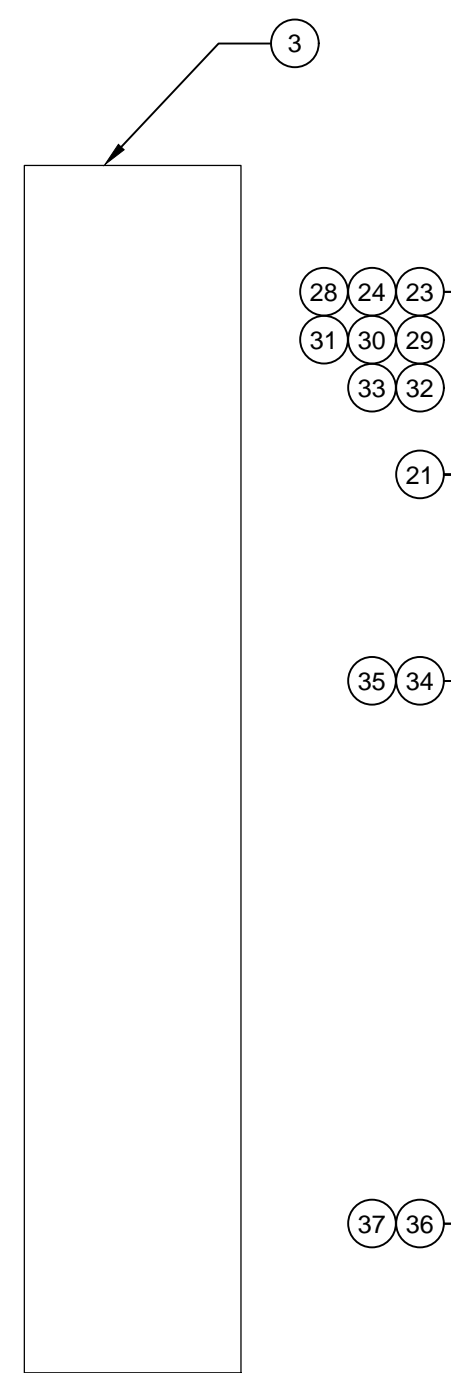
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

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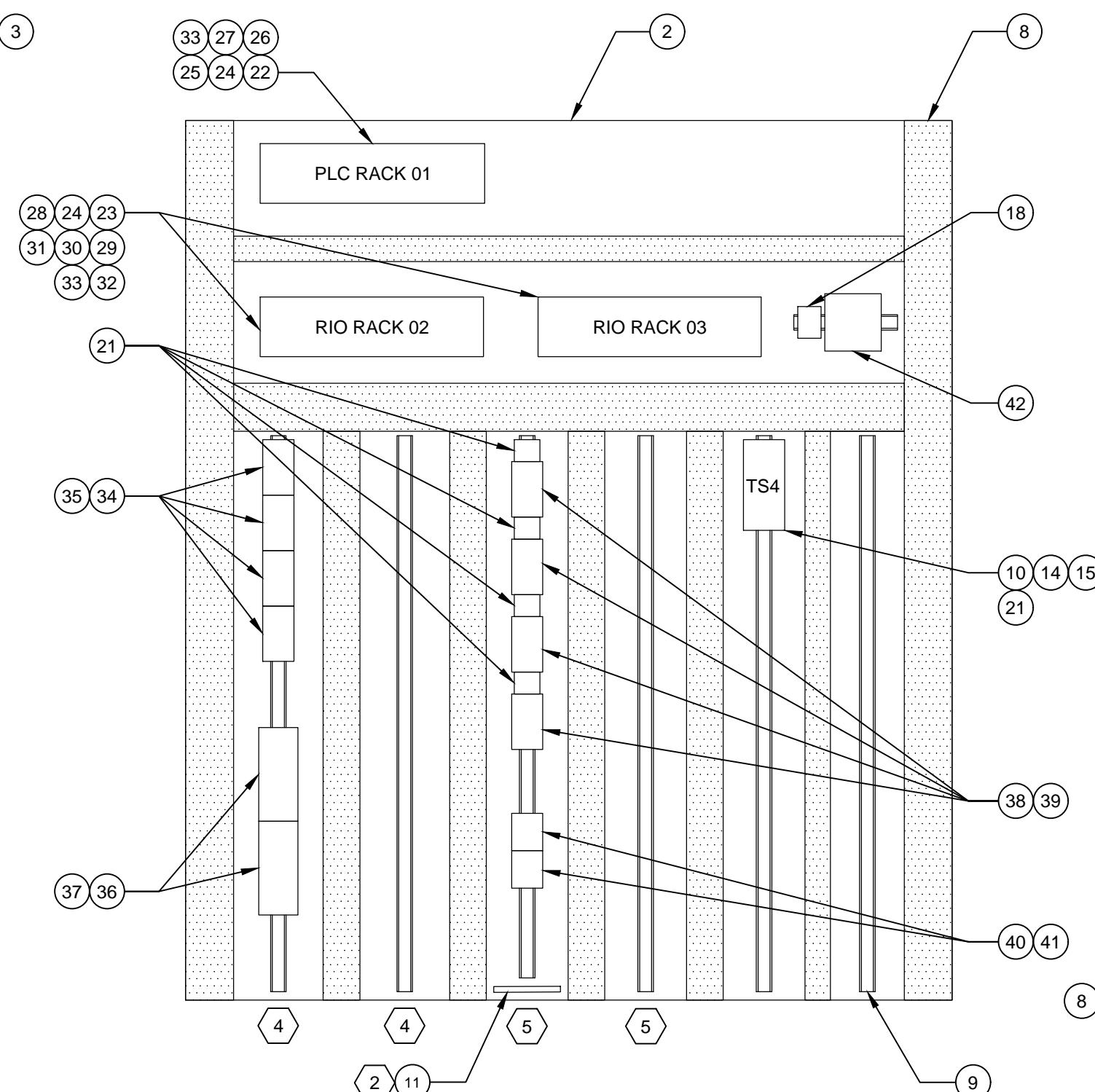
**ENCLOSURE EXTERIOR  
FRONT LAYOUT**

1" = 1'-0"



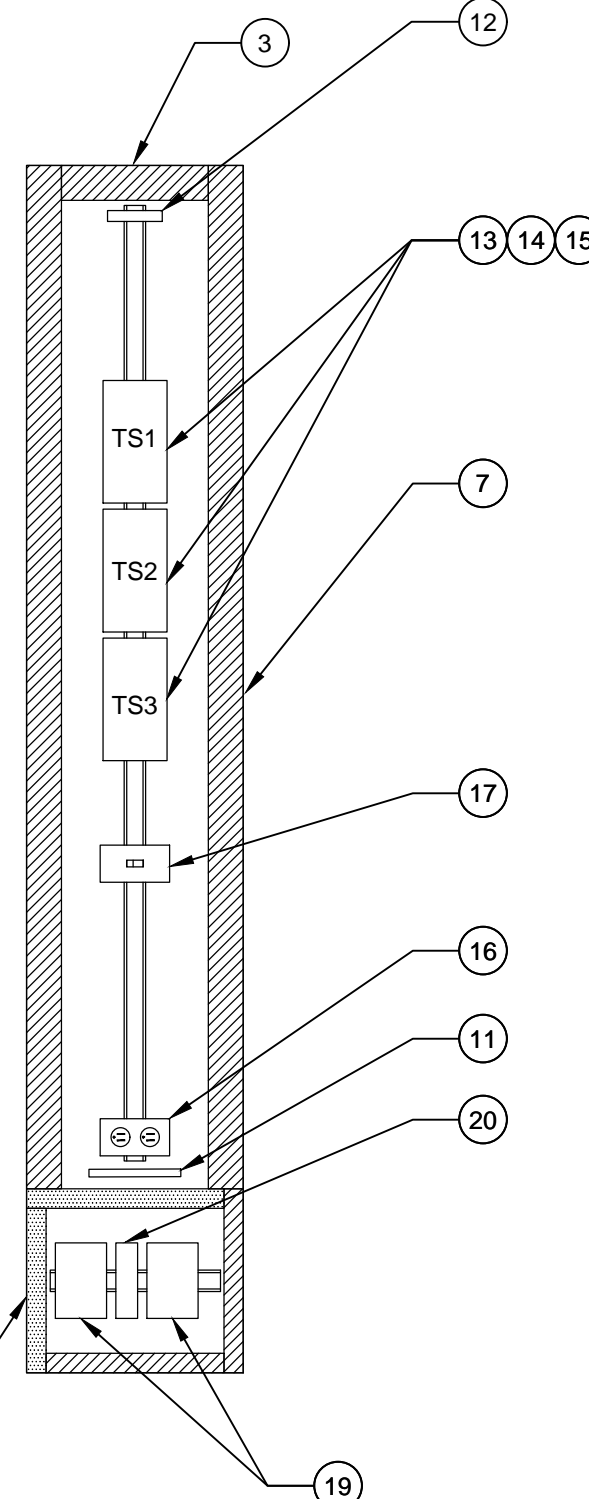
**ENCLOSURE INTERIOR  
LEFT SIDE PANEL LAYOUT**

1" = 1'-0"



**ENCLOSURE INTERIOR  
BACK PANEL LAYOUT**

1" = 1'-0"



**ENCLOSURE INTERIOR  
RIGHT SIDE PANEL LAYOUT**

1" = 1'-0"

**PLC RACK 01**

SLOT:	00	01	02	03	04	05	06	07	08	09
POWER SUPPLY 1										
POWER SUPPLY 2										
PROCESSOR										
EMPTY SLOT COVER										
CONTROL NETWORK MODULE ETHERNET										
COMMUNICATIONS MODULE ETHERNET										
EMPTY SLOT COVER										
EMPTY SLOT COVER										
EMPTY SLOT COVER										
EMPTY SLOT COVER										
EMPTY SLOT COVER										

**RIO RACK 02**

SLOT:	00	01	02	03	04	05	06	07	08	09	10	11
POWER SUPPLY												
RIO ADAPTER MODULE ETHERNET I/O												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
EMPTY SLOT COVER												

**RIO RACK 03**

SLOT:	00	01	02	03	04	05	06	07	08	09	10	11
POWER SUPPLY												
RIO ADAPTER MODULE ETHERNET I/O												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
I/O MODULE												
EMPTY SLOT COVER												

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
1	1	CONTROL PANEL ENCLOSURE - 90"X72"X24"
2	1	BACK PANEL - 78"X88"
3	2	SIDE PANEL - 78"X14"
4	1	FOLDING SHELF - 18"X18"
5	2	ENCLOSURE LIGHT - LED
6	1	DOCUMENT HOLDER
7	AS REQ'D	120 VAC WIREWAY WITH COVER
8	AS REQ'D	24 VDC AND COMMUNICATIONS WIREWAY WITH COVER
9	AS REQ'D	35 MM DIN RAIL
10	2	SIGNAL CONVERTER, 0-24 VDC TO 4-20 mA
11	2	GROUND BAR
12	1	SURGE PROTECTION DEVICE
13	AS REQ'D	CIRCUIT BREAKER - 120 VAC
14	AS REQ'D	TERMINAL BLOCK
15	AS REQ'D	END CLAMP
16	1	GFCI CONVENIENCE RECEPTACLE - 5 A
17	1	ENCLOSURE LIGHT SWITCH
18	1	UTILITY BOX FOR SPARE FUSES
19	2	24 VDC POWER SUPPLY
20	1	24 VDC POWER SUPPLY REDUNDANCY MODULE
21	AS REQ'D	FUSED TERMINAL BLOCK
22	2	10-SLOT, REDUNDANT POWER SUPPLY RACK
23	AS REQ'D	12-SLOT, SINGLE POWER SUPPLY RACK
24	AS REQ'D	24-48 VDC REDUNDANT POWER SUPPLY MODULE
25	1	CPU MODULE
26	1	ETHERNET CONTROL NETWORK MODULE
27	6	ETHERNET COMMUNICATIONS MODULE
28	AS REQ'D	ETHERNET I/O ADAPTER

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
29	AS REQ'D	DISCRETE INPUT MODULE, 24 VDC, 32-CHANNEL
30	AS REQ'D	DISCRETE OUTPUT MODULE, 24 VDC, 32-CHANNEL
31	AS REQ'D	ANALOG INPUT MODULE, 4-20 mA HART, 8-CHANNEL
32	AS REQ'D	ANALOG OUTPUT MODULE, 4-20 mA HART, 4-CHANNEL
33	AS REQ'D	PROTECTIVE COVER FOR EMPTY SLOT
34	AS REQ'D	DISCRETE INPUT FIELD TERMINAL SYSTEM, 16-CHANNEL, PASSIVE
35	AS REQ'D	DISCRETE INPUT FIELD TERMINAL SYSTEM CORD SET
36	AS REQ'D	DISCRETE OUTPUT FIELD TERMINAL SYSTEM, 16-CHANNEL, WITH PLUG-IN RELAYS
37	AS REQ'D	DISCRETE OUTPUT FIELD TERMINAL SYSTEM CORD SET
38	AS REQ'D	ANALOG INPUT FIELD TERMINAL SYSTEM, 8-CHANNEL, PASSIVE
39	AS REQ'D	ANALOG INPUT FIELD TERMINAL SYSTEM CORD SET
40	AS REQ'D	ANALOG OUTPUT FIELD TERMINAL SYSTEM, 4-CHANNEL
41	AS REQ'D	ANALOG OUTPUT FIELD TERMINAL SYSTEM CORD SET
42	AS REQ'D	MANAGED NETWORK SWITCH, 16-PORT WITH SM FO SFP PORT
43	1	PANEL MOUNT, FANLESS, TOUCHSCREEN PC, SCADA CLIENT

**GENERAL NOTES:**

- PANEL FABRICATION AND COMPONENTS SHALL CONFORM TO DIVISION 40 REQUIREMENTS.
- THIS DRAWING IS TYPICAL IN NATURE AND SPECIFIES GENERAL PANEL LAYOUT AND FABRICATION REQUIREMENTS FOR APPLICABLE CONTROL PANELS SPECIFIED IN THE DIVISION 40 SPECIFICATION SECTIONS. REMOTE I/O (RIO) RACK AND PLC COMPONENT QUANTITIES VARY DEPENDING ON THE REQUIREMENTS OF EACH PANEL. EQUIPMENT QUANTITIES SHOWN ON THIS TYPICAL DRAWING ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- PROVIDE VOLTAGE SEPARATION IN COVERED WIREWAYS AS DEPICTED.

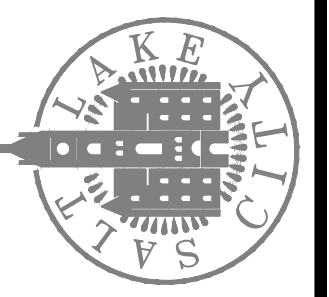
**KEYNOTES:**

- OWNER-FURNISHED EQUIPMENT. CONTRACTOR SHALL INSTALL AT THE PANEL SHOP AND INCLUDE EQUIPMENT IN THE UL 508A LISTING OF THE PANEL.
- SIGNAL GROUND BAR. PROVIDE INSULATED STANDOFFS.
- PROVIDE 2"x6" NAMEPLATE PER DIVISION 40 REQUIREMENTS.
- DIN RAIL TO BE USED FOR DISCRETE I/O FIELD TERMINAL SYSTEMS AND ASSOCIATED COMPONENTS.
- DIN RAIL TO BE USED FOR ANALOG I/O FIELD TERMINAL SYSTEMS AND ASSOCIATED COMPONENTS.

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
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 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**AREA PLC LAYOUT**



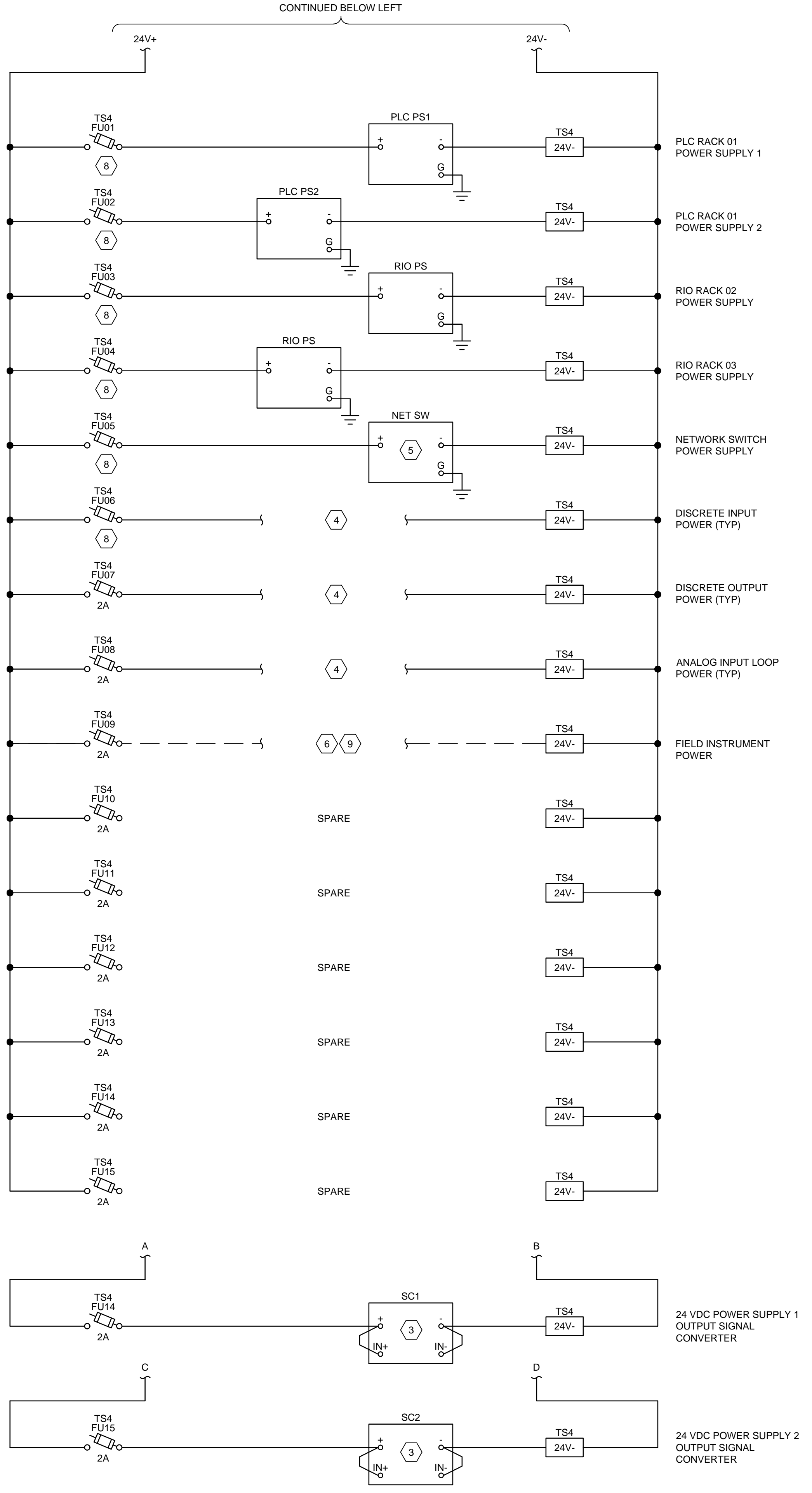
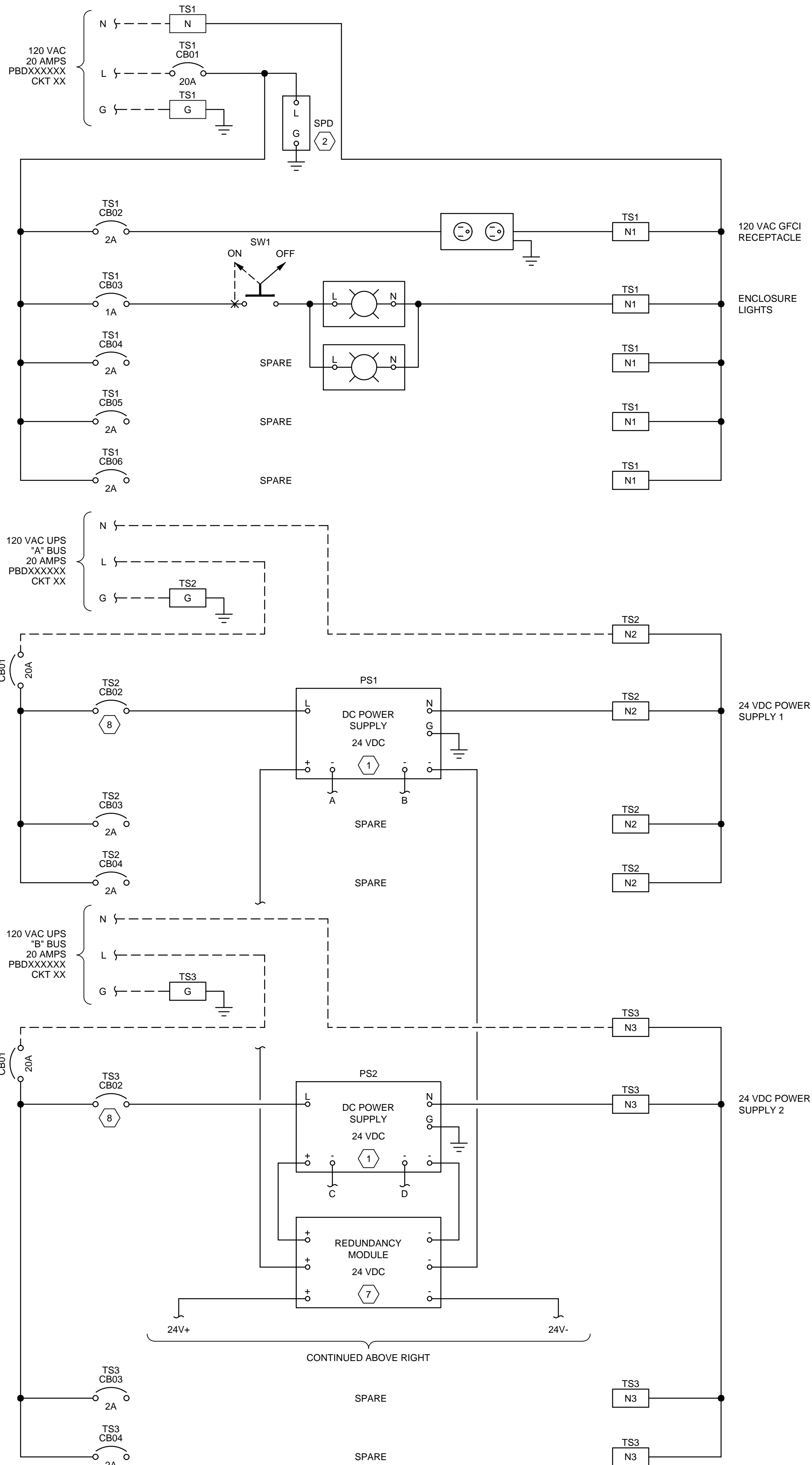
**Brown and Caldwell**

90% GMP

DRAWING NO.  
**GI-06**

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

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**GENERAL NOTES:**

- PANEL FABRICATION AND COMPONENTS SHALL CONFORM TO DIVISION 40 REQUIREMENTS. PROVIDE CONDUCTOR COLORS AND IDENTIFICATION AS SPECIFIED IN THE RESPECTIVE SECTION.
- THIS DRAWING IS TYPICAL IN NATURE AND SPECIFIES GENERAL PANEL DISTRIBUTION REQUIREMENTS FOR APPLICABLE CONTROL PANELS AS SPECIFIED IN DIVISION 40 SPECIFICATIONS. REMOTE I/O (RIO) RACK AND PLC I/O COMPONENT QUANTITIES VARY DEPENDING ON THE REQUIREMENTS OF EACH PANEL. REFER TO DIVISION 40 I/O LIST FOR I/O MODULE QUANTITIES. PROVIDE LOOP POWER TO I/O MODULES AND ASSOCIATED FIELD EQUIPMENT AS REQUIRED. QUANTITIES SHOWN ON THIS TYPICAL DRAWING ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- FINAL WIRING CONNECTIONS TO BE COORDINATED WITH COMPONENT MANUFACTURER RECOMMENDATIONS.

**KEYNOTES:**

- PROVIDE WIRING FROM 24 VDC POWER SUPPLY "DC OK" CONTACT TO PLC DISCRETE INPUT FOR ALARMING AT SCADA.
- PROVIDE WIRING FROM SURGE PROTECTION DEVICE (SPD) "FAULT" CONTACT TO PLC DISCRETE INPUT FOR ALARMING AT SCADA.
- PROVIDE 0-24 VDC TO 4-20 mA SIGNAL CONVERTER (SC) FOR MONITORING EACH 24 VDC POWER SUPPLY OUTPUT. PROVIDE WIRING FROM SC OUTPUT TO PLC ANALOG INPUT FOR MONITORING AT SCADA.
- DETAILED CONTROL WIRING FOR INDIVIDUAL DISCRETE AND ANALOG I/O MODULES NOT SHOWN. CONTRACTOR SHALL PROVIDE INDIVIDUAL MODULE DRAWINGS FOR EACH I/O MODULE. MODULE DRAWINGS SHALL SHOW ALL POWER AND CONTROL WIRING ASSOCIATED WITH THE MODULE AND EACH I/O LOOP ASSIGNED TO THE MODULE.
- PROVIDE WIRING FROM NETWORK SWITCH "ALARM" CONTACT TO PLC DISCRETE INPUT FOR MONITORING AT SCADA.
- DETAILED LOOP WIRING FOR INDIVIDUAL INSTRUMENTS AND FIELD EQUIPMENT IS NOT SHOWN. CONTRACTOR SHALL PROVIDE INDIVIDUAL LOOP DIAGRAMS FOR EACH FIELD INSTRUMENT AND FIELD EQUIPMENT WITH I/O CONNECTIONS TO THE PANEL. LOOP DIAGRAMS SHALL SHOW ALL POWER, CONTROL, AND SIGNAL WIRING ASSOCIATED WITH THE FIELD INSTRUMENT OR EQUIPMENT.
- PROVIDE WIRING FROM 24 VDC POWER SUPPLY REDUNDANCY MODULE "REDUNDANCY OK" CONTACT TO PLC DISCRETE INPUT FOR ALARMING AT SCADA.
- SIZED BY CONTRACTOR
- EACH INSTRUMENT REQUIRING A SEPARATE POWER FEED SHALL HAVE ITS OWN DEDICATED FUSE. MULTIPLE INSTRUMENTS USING ONE FUSE IS NOT PERMISSIBLE. CONTRACTOR TO VERIFY INSTRUMENT POWER REQUIREMENTS AND SIZE OF FUSED ACCORDINGLY. ALL INSTRUMENTS WHOSE SIGNALS TERMINATE AT THE PLC ENCLOSURE SHALL HAVE ITS POWER SUPPLIED FROM THE SAME ENCLOSURE.

**Brown and Caldwell**

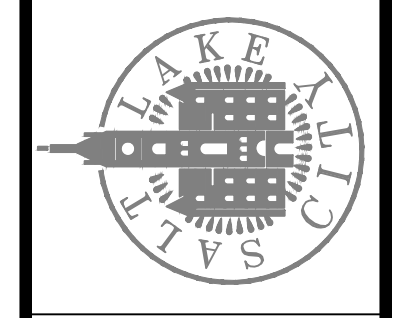
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: ALPAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO.:  
 ACCOUNT NO.: 51226079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	BO
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)		

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**AREA PLC POWER DISTRIBUTION**

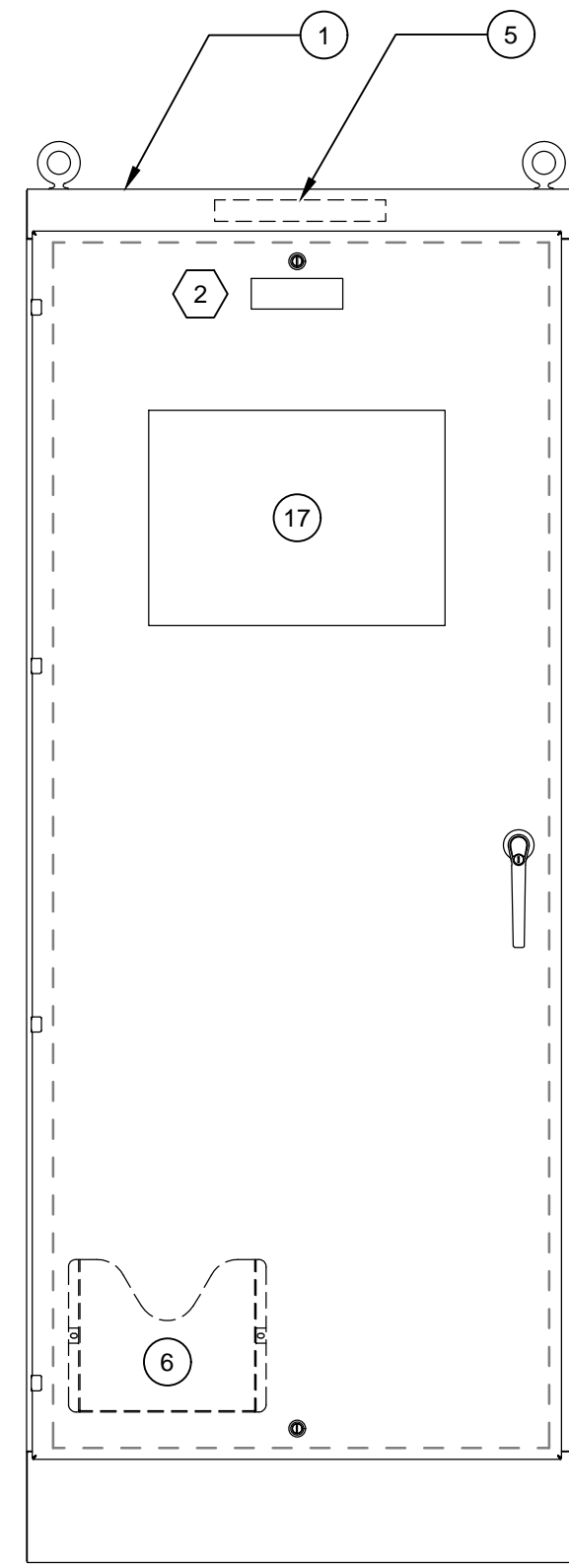


90% GMP

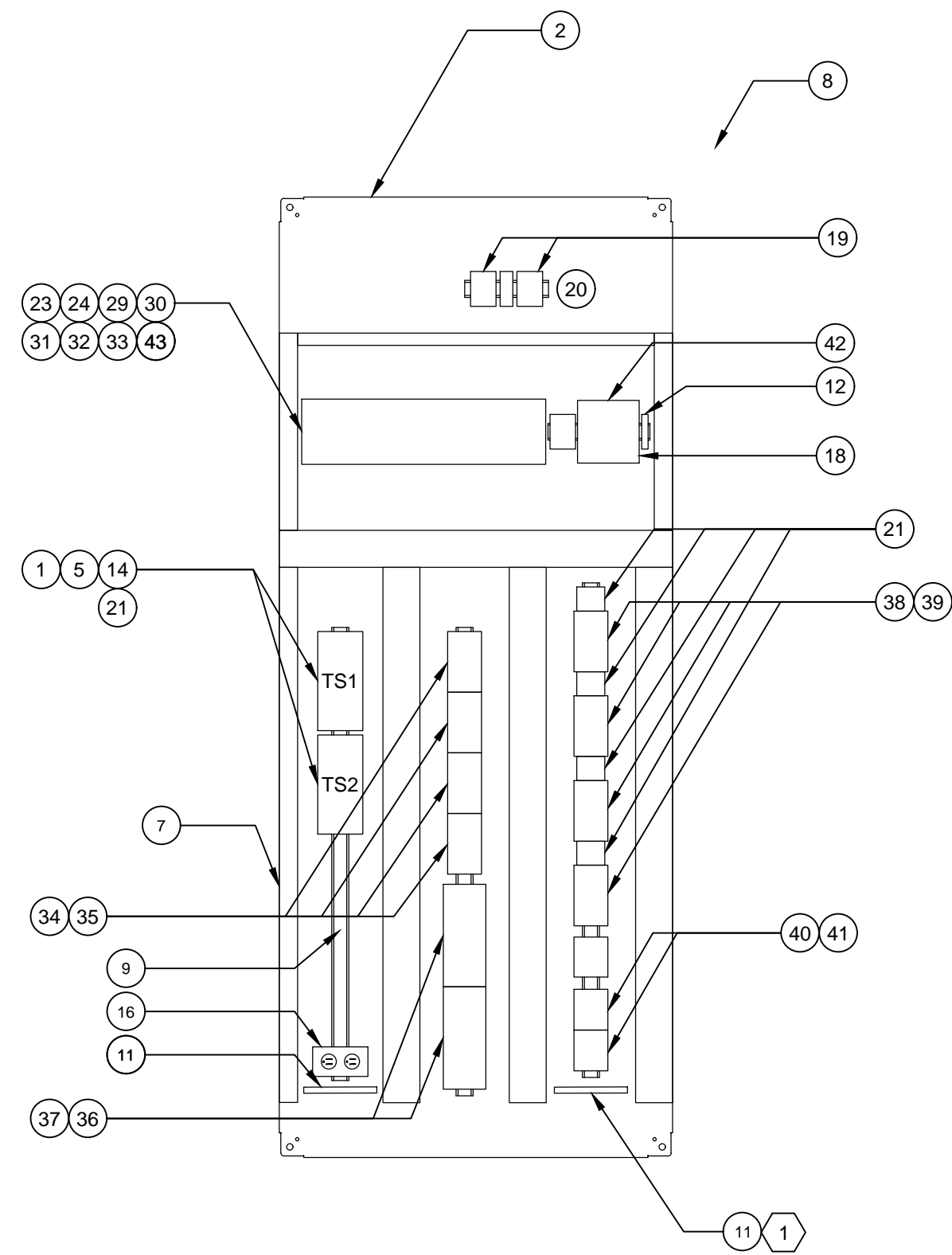
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**ENCLOSURE EXTERIOR  
FRONT LAYOUT**  
NTS



**ENCLOSURE INTERIOR  
BACK PANEL LAYOUT**  
NTS

**PLC RACK 01**

SLOT:	00	01	02	03	04	05	06	07	08	09	10	11
POWER SUPPLY												
PROCESSOR												
I/O												
I/O												
I/O												
I/O												
I/O												
I/O												
I/O												
I/O												
I/O												

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
1	1	CONTROL PANEL ENCLOSURE - 90"X36"X24", NEMA 4X
2	1	BACK PANEL - 90"X36"
3	X	NOT USED
4	X	NOT USED
5	2	ENCLOSURE LIGHT - LED, WITH DOOR SWITCH
6	1	DOOR POCKET
7	AS REQ'D	120 VAC WIREWAY WITH COVER
8	AS REQ'D	24 VDC AND COMMUNICATIONS WIREWAY WITH COVER
9	AS REQ'D	35 MM DIN RAIL
10	2	SIGNAL CONVERTER, 0-24 VDC TO 4-20 mA
11	2	GROUND BAR
12	1	SURGE PROTECTION DEVICE
13	AS REQ'D	CIRCUIT BREAKER - 120 VAC
14	AS REQ'D	TERMINAL BLOCK
15	AS REQ'D	END CLAMP
16	1	GFCI CONVENIENCE RECEPTACLE - 5 A
17	1	24" PANEL PC, MULTITOUCH DISPLAY, 4GB MEMORY, 80GB SSD
18	1	UTILITY BOX FOR SPARE FUSES
19	2	24 VDC POWER SUPPLY
20	1	24 VDC POWER SUPPLY REDUNDANCY MODULE
21	AS REQ'D	FUSED TERMINAL BLOCK
22	X	NOT USED
23	AS REQ'D	MODICON X80 12-SLOT, SINGLE POWER SUPPLY RACK
24	1	MODICON M340 CPU MODULE
25	X	NOT USED
26	X	NOT USED
27	X	NOT USED
28	X	NOT USED
29	AS REQ'D	MODICON X80 DISCRETE INPUT MODULE, 24 VDC, 32-CHANNEL
30	AS REQ'D	MODICON X80 DISCRETE OUTPUT MODULE, 24 VDC, 32-CHANNEL
31	AS REQ'D	MODICON X80 ANALOG INPUT MODULE, 4-20 mA HART, 8-CHANNEL
32	AS REQ'D	MODICON X80 ANALOG OUTPUT MODULE, 4-20 mA HART, 4-CHANNEL
33	AS REQ'D	MODICON X80 PROTECTIVE COVER FOR EMPTY SLOT
34	AS REQ'D	DISCRETE INPUT FIELD TERMINAL SYSTEM, 16-CHANNEL, PASSIVE
35	AS REQ'D	DISCRETE INPUT FIELD TERMINAL SYSTEM CORD SET
36	AS REQ'D	DISCRETE OUTPUT FIELD TERMINAL SYSTEM, 16-CHANNEL, WITH PLUG-IN RELAYS
37	AS REQ'D	DISCRETE OUTPUT FIELD TERMINAL SYSTEM CORD SET
38	AS REQ'D	ANALOG INPUT FIELD TERMINAL SYSTEM, 8-CHANNEL, PASSIVE
39	AS REQ'D	ANALOG INPUT FIELD TERMINAL SYSTEM CORD SET
40	AS REQ'D	ANALOG OUTPUT FIELD TERMINAL SYSTEM, 4-CHANNEL
41	AS REQ'D	ANALOG OUTPUT FIELD TERMINAL SYSTEM CORD SET
42	AS REQ'D	LAYER 2 INDUSTRIAL MANAGED SWITCH 8 TX 4 SFP

**GENERAL NOTES:**

- PANEL FABRICATION AND COMPONENTS SHALL CONFORM TO DIVISION 40 REQUIREMENTS.
- THIS DRAWING IS TYPICAL IN NATURE AND SPECIFIES GENERAL PANEL LAYOUT AND FABRICATION REQUIREMENTS FOR APPLICABLE CONTROL PANELS SPECIFIED IN DIVISION 40. REMOTE I/O (RIO) RACK AND MODICON X80 COMPONENT QUANTITIES VARY DEPENDING ON THE REQUIREMENTS OF EACH PANEL. REFER TO DIVISION 40 I/O LIST FOR MODICON X80 COMPONENT QUANTITIES. MODICON X80 COMPONENT QUANTITIES SHOWN ON THIS TYPICAL DRAWING ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- PROVIDE VOLTAGE SEPARATION IN COVERED WIREWAYS.

**KEYNOTES:**

- SIGNAL GROUND BAR. PROVIDE INSULATED STANDOFFS.
- PROVIDE 2"X6" NAMEPLATE PER DIVISION 40 REQUIREMENTS. REFER TO SECTION 40 67 00 PANEL SCHEDULE FOR ENGRAVING REQUIREMENTS SPECIFIC TO EACH PANEL.

**Brown and Caldwell**

90% GMP

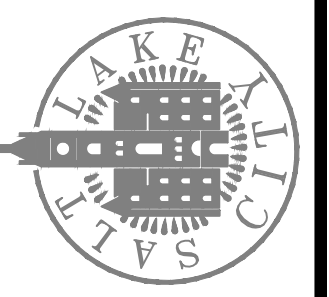
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**GI-10**

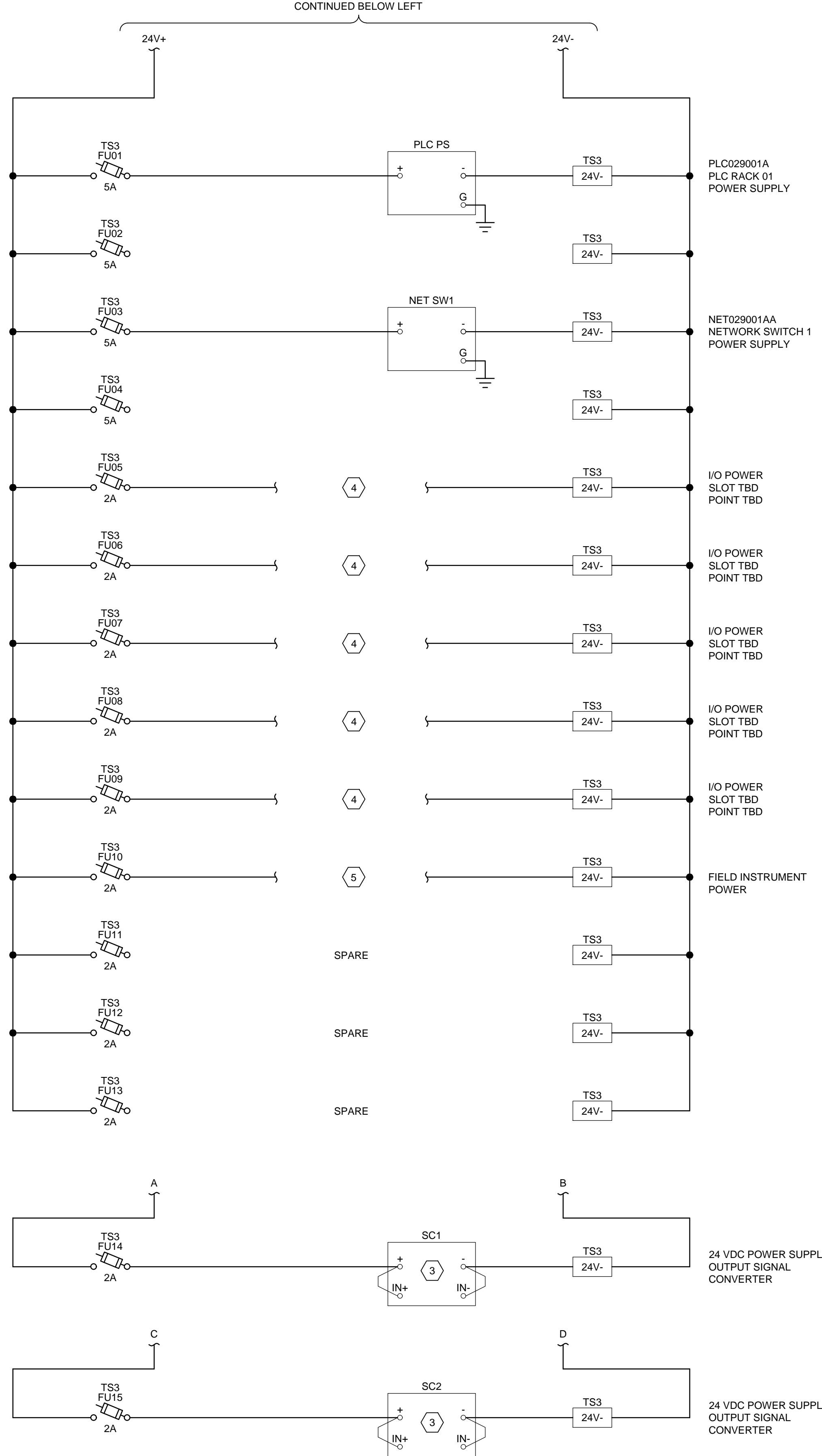
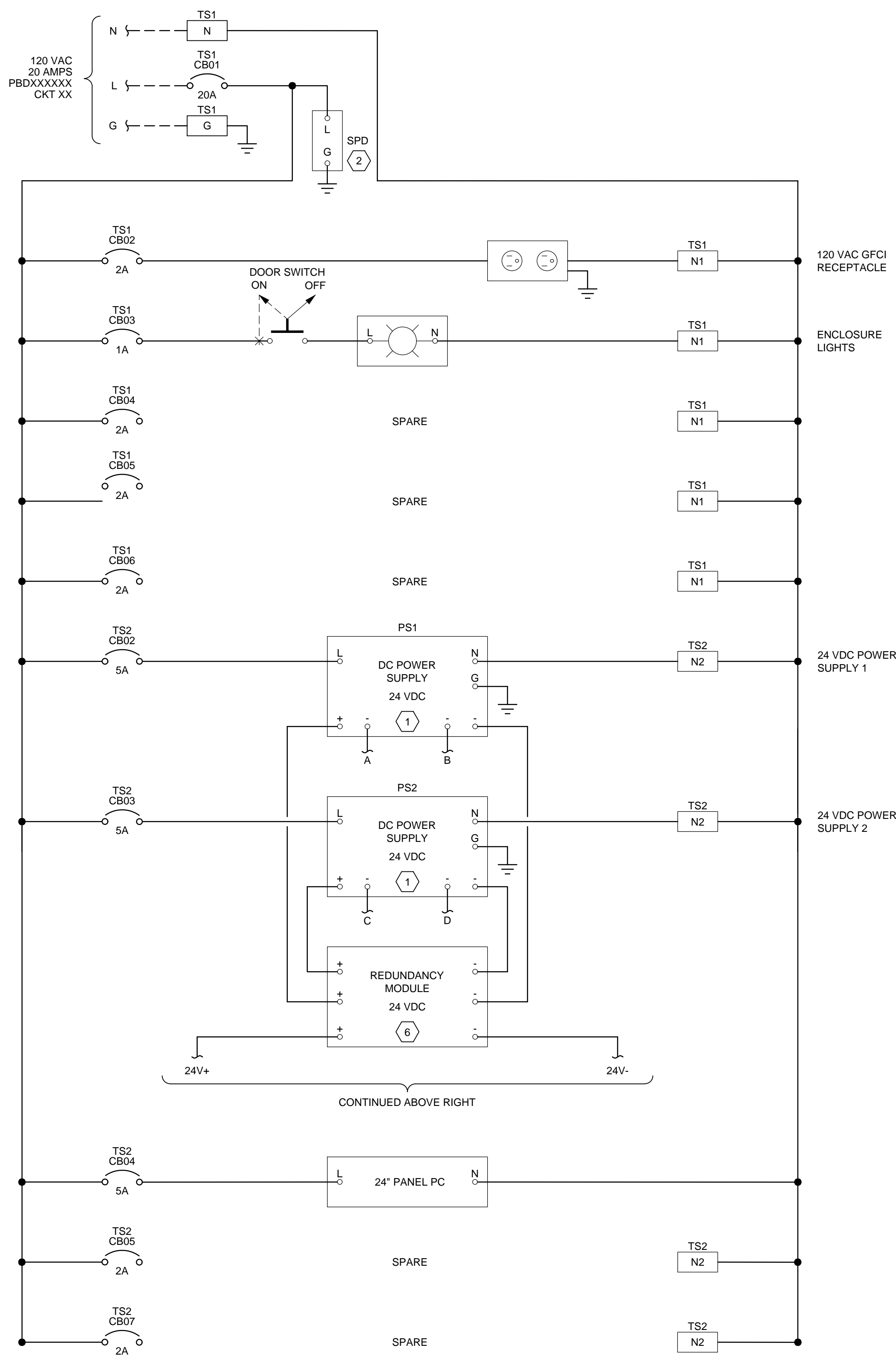
NO.	DATE	REVISIONS	MADE BY	AUTH BY	SCALE
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO	

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: ALAPIERRE  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TYPICAL FILTER PANEL PLC  
LAYOUT**





**GENERAL NOTES:**

- PANEL FABRICATION AND COMPONENTS SHALL CONFORM TO DIVISION 40 REQUIREMENTS. PROVIDE CONDUCTOR COLORS AND IDENTIFICATION ACCORDINGLY.
- THIS DRAWING IS TYPICAL IN NATURE AND SPECIFIES GENERAL PANEL POWER DISTRIBUTION REQUIREMENTS FOR APPLICABLE CONTROL PANELS SPECIFIED IN DIVISION 40. REMOTE I/O (RIO RACK AND MODICON X80 I/O COMPONENT QUANTITIES VARY DEPENDING ON THE REQUIREMENTS OF EACH PANEL. REFER TO DIVISION 40 I/O LIST FOR MODICON X80 I/O QUANTITIES. PROVIDE LOOP POWER TO MODICON X80 I/O MODULES AND ASSOCIATED FIELD EQUIPMENT AS REQUIRED. QUANTITIES SHOWN ON THIS TYPICAL DRAWING ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- FINAL WIRING CONNECTIONS TO BE COORDINATES WITH COMPONENT MANUFACTURER RECOMMENDATIONS.

**KEYNOTES:**

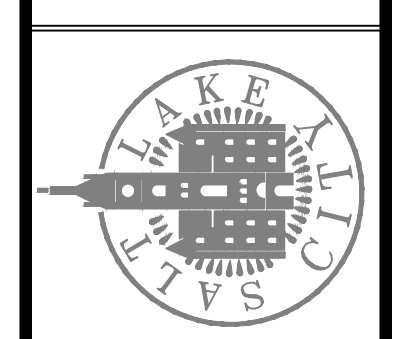
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- PROVIDE WIRING FROM 24VDC POWER SUPPLY REDUNDANCY MODULE "REDUNDANCY OK" CONTACT TO PLC DISCRETE INPUT FOR ALARMING AT SCADA.

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: M.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO.:  
 ACCOUNT NO.: 512260079

REVISIONS

NO.	DATE	AUTH. BY	MADE BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

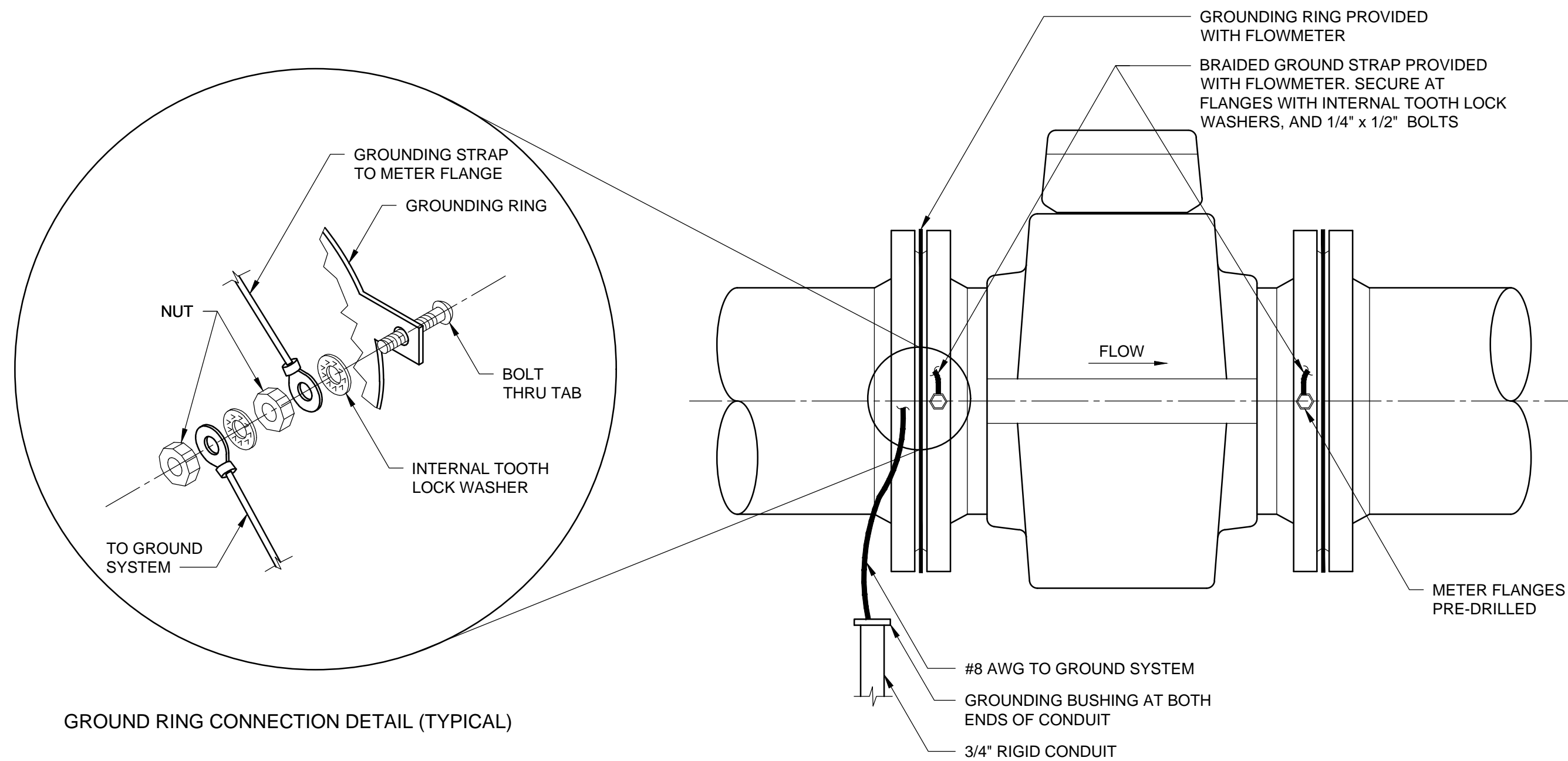
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**FILTER PANEL WIRING  
 SCHEMATIC**



**90% GMP**

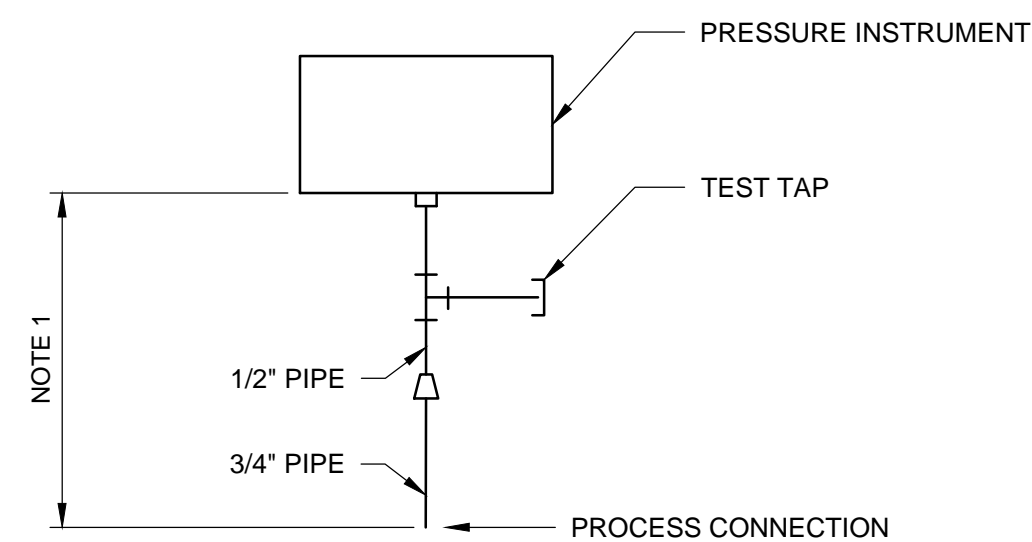
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**Brown and Caldwell**



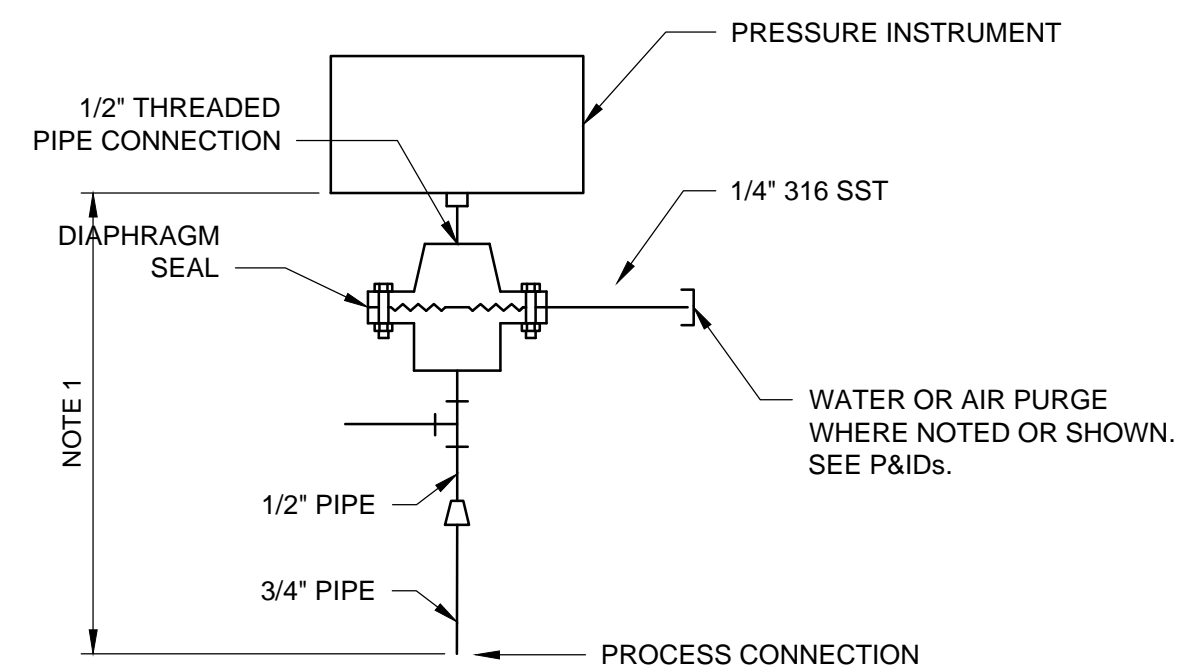
GROUND RING CONNECTION DETAIL (TYPICAL)

111001 FLOW TRANSMITTER MAGNETIC - GROUNDING  
NTS



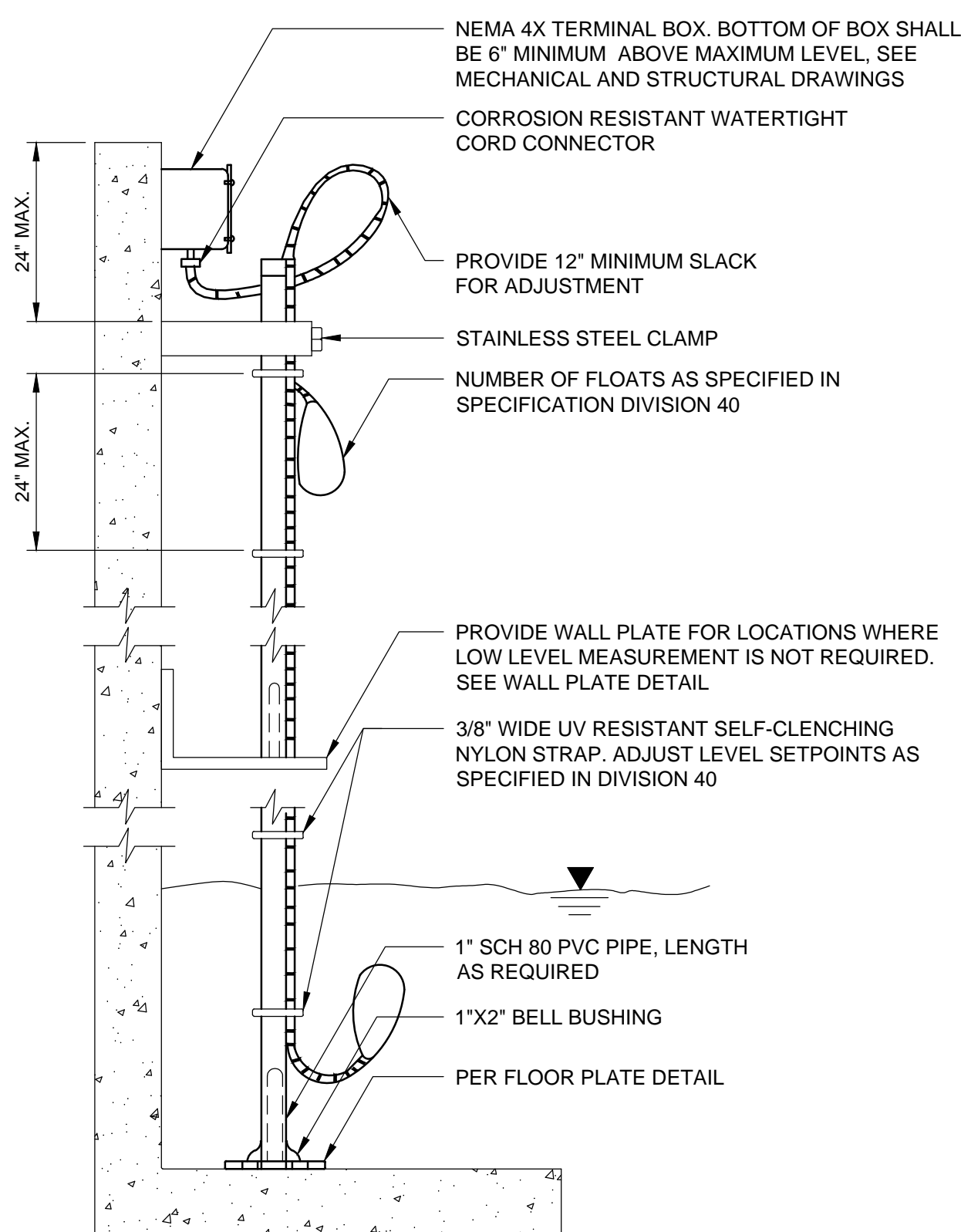
- NOTES:
- 8" MAX BETWEEN PROCESS PIPELINE AND PRESSURE INSTRUMENT.
  - ALL MATERIAL TO BE COMPATIBLE WITH PROCESS FLUID.
  - DETAIL SHOWN WITH BALL VALVES; IF GAUGE/ROOT VALVES ARE REQUIRED, SUBSTITUTE VALVES AS APPROPRIATE.
  - THIS INSTALLATION DETAIL IS INTENDED FOR CLEAN WATER APPLICATIONS. SEE SEPARATE DETAIL FOR SUSPENDED SOLIDS APPLICATIONS.

131001 PRESSURE INSTRUMENT - DIRECT MOUNT  
SCALE: NONE

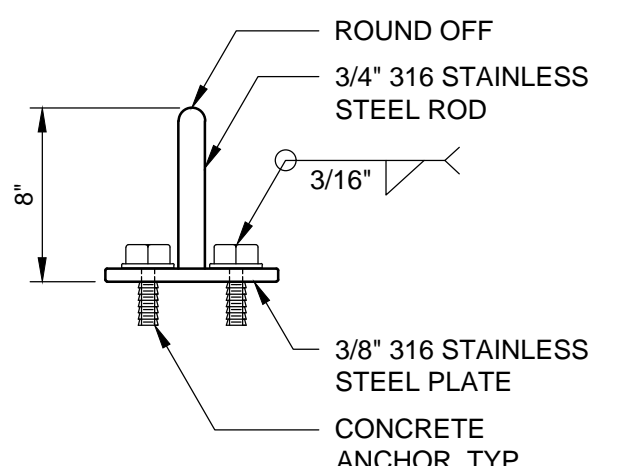
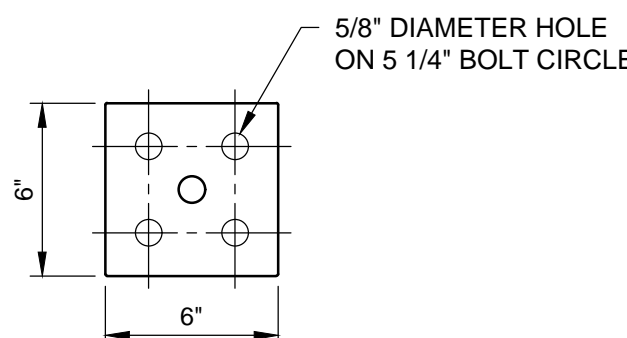
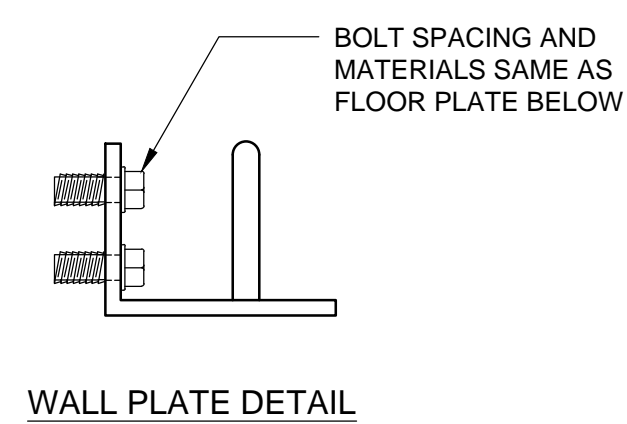


- NOTES:
- 10" MAX BETWEEN PROCESS PIPELINE AND PRESSURE INSTRUMENT.
  - ALL MATERIAL TO BE COMPATIBLE WITH PROCESS FLUID.
  - REFER TO SPECIFICATIONS FOR DIAPHRAGM SEAL.
  - DETAIL SHOWN WITH BALL VALVES; IF GAUGE/ROOT VALVES ARE REQUIRED, SUBSTITUTE VALVES AS APPROPRIATE.
  - THIS INSTALLATION DETAIL IS INTENDED FOR CLEAN WATER/CHEMICAL APPLICATIONS. SEE SEPARATE DETAIL FOR SUSPENDED SOLIDS APPLICATIONS.

131002 PRESSURE INSTRUMENT - DIRECT MOUNT WITH DIAPHRAGM SEAL  
SCALE: NONE

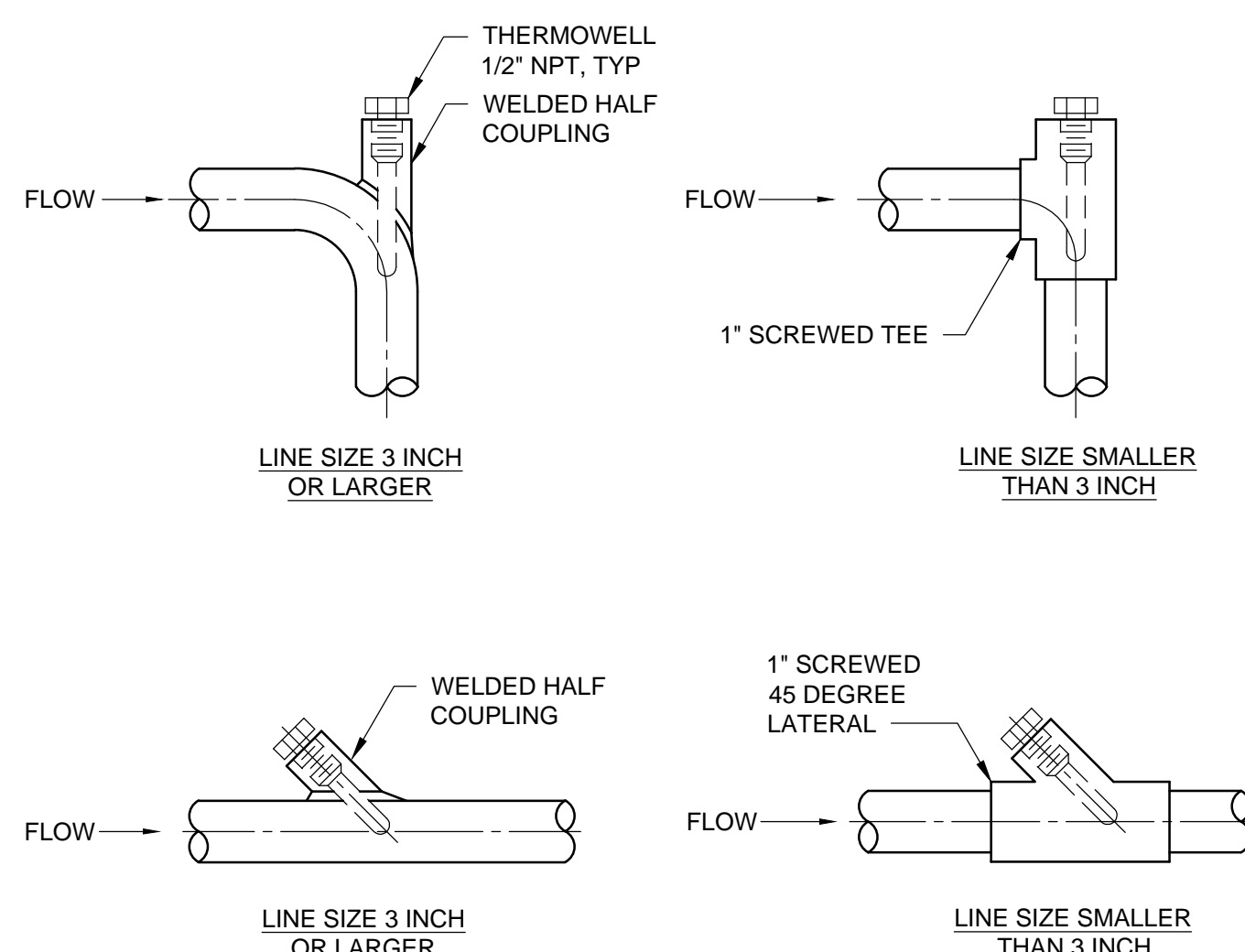


125001 LEVEL SWITCH FLOAT SWITCH - PIPE MOUNTED  
SCALE: NONE



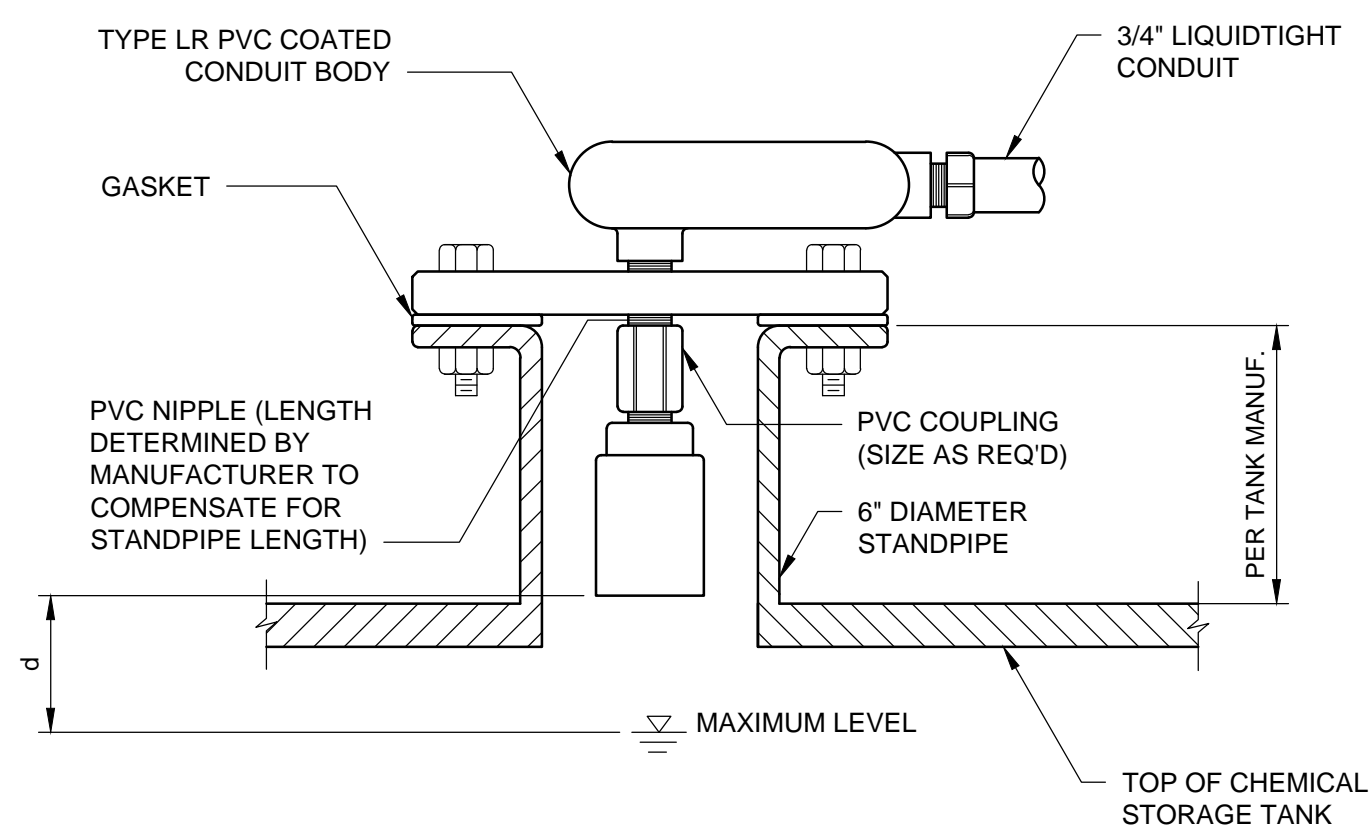
ATTACH TO FLOOR WITH STAINLESS STEEL ANCHORS (4) AND 1/2"x4" 316 STAINLESS STEEL BOLTS AND FLAT WASHERS (4)

FLOOR PLATE DETAIL



NOTE:  
1. INSTALL THERMOWELL (TW) AT 1/2 THE INSIDE DIAMETER OF THE PROCESS PIPE.

141001 PROCESS LINE TAP THERMOWELLS  
SCALE: NONE



- NOTES:
- DISTANCE FROM TRANSDUCER SENSOR HEAD TO MAXIMUM LIQUID LEVEL: (d) AS REQUIRED BY TRANSDUCER MANUFACTURER FOR PROPER LEVEL MEASUREMENT, MINIMUM 10 INCHES.
  - PROVIDE AN UNOBSTRUCTED SOUND PATH PERPENDICULAR TO THE LIQUID SURFACE, PER TRANSDUCER MANUFACTURER INSTRUCTIONS.
  - COORDINATE FLANGE UNIT AND STAND PIPE WITH TANK SUPPLIER

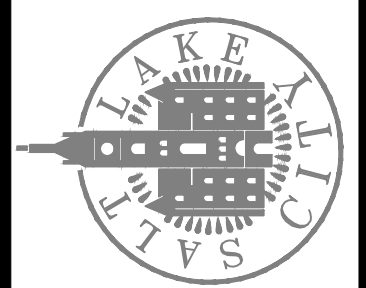
121003 LEVEL TRANSMITTER ULTRASONIC - FLANGED - ON TANK  
SCALE: NONE

DESIGNED BY: BOTANI	SCALE:
DRAWN BY: ALAPIERRE	
CHECKED BY: J.PAGENDARM	
APPROVED BY: BOTANI	
DATE: JUNE 2024	
EWO NO: 512260079	
ACCOUNT NO: 512260079	

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

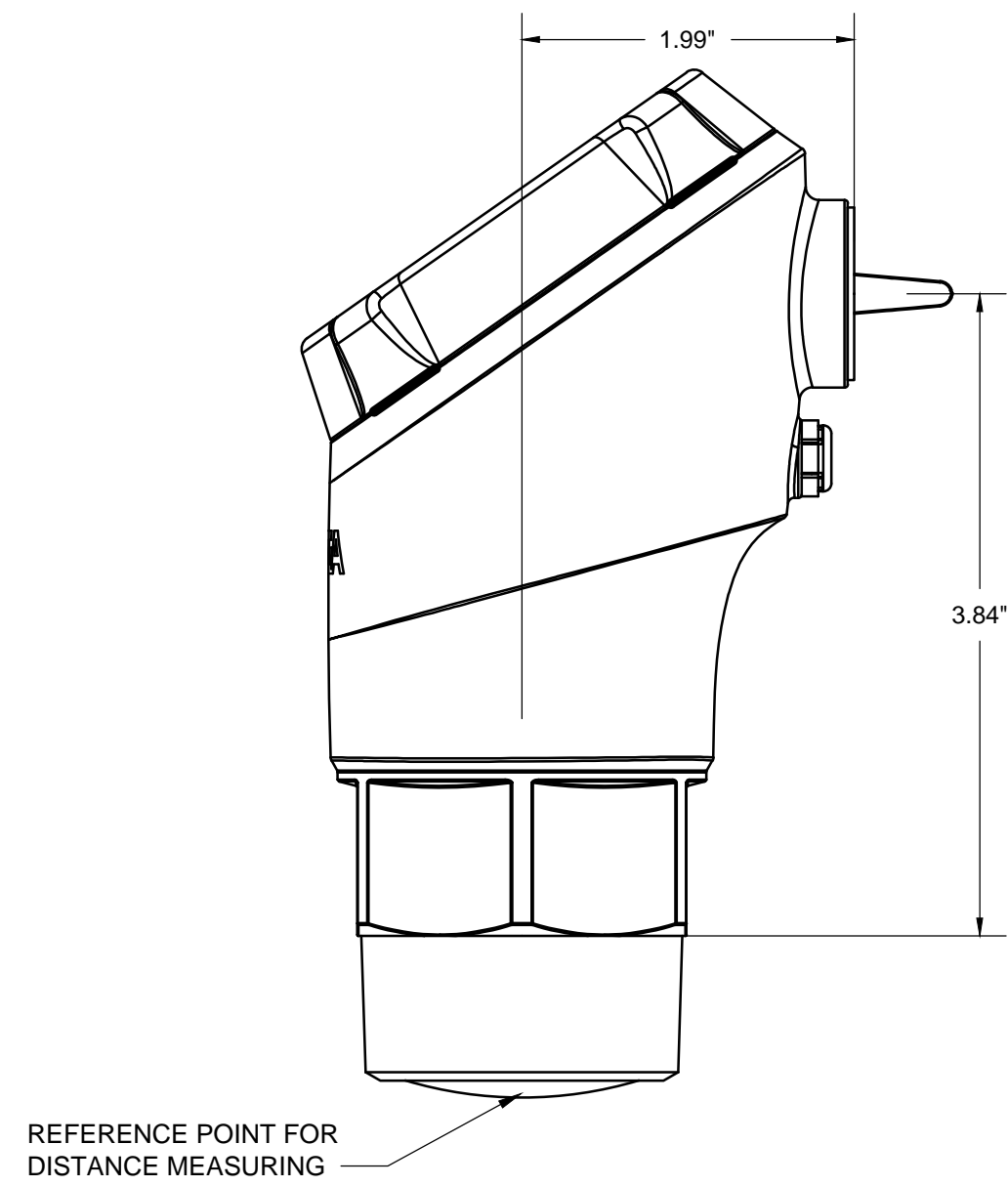
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
STANDARD DETAILS



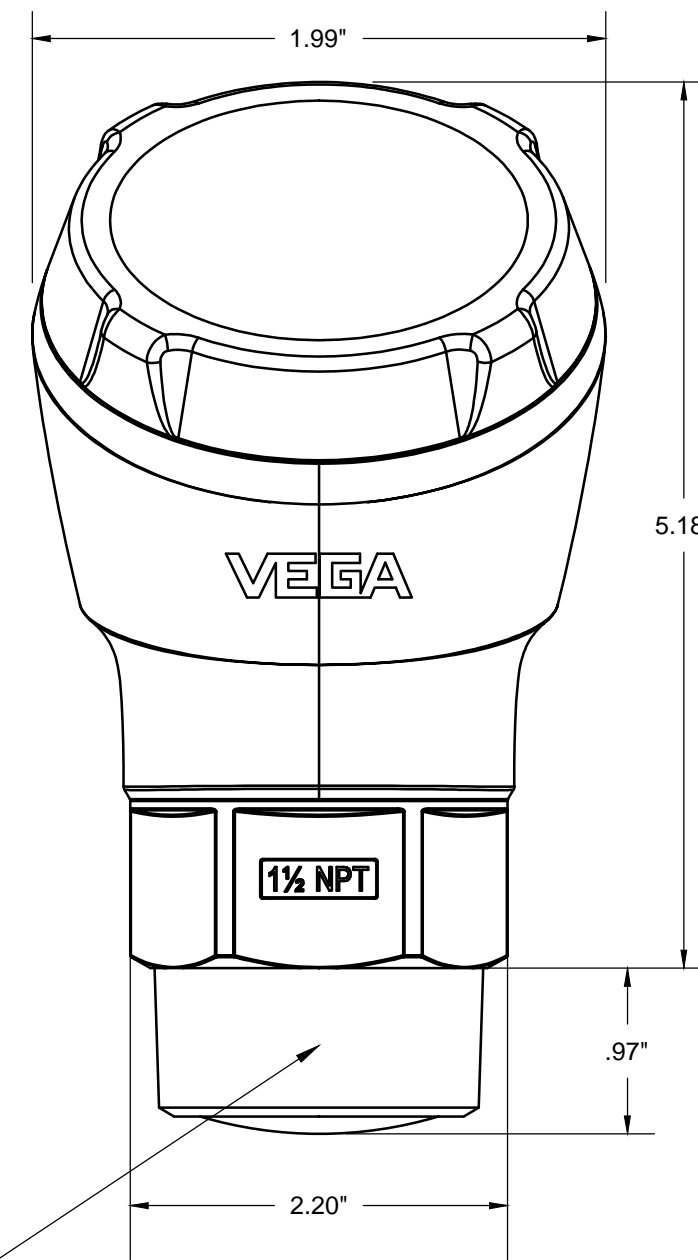
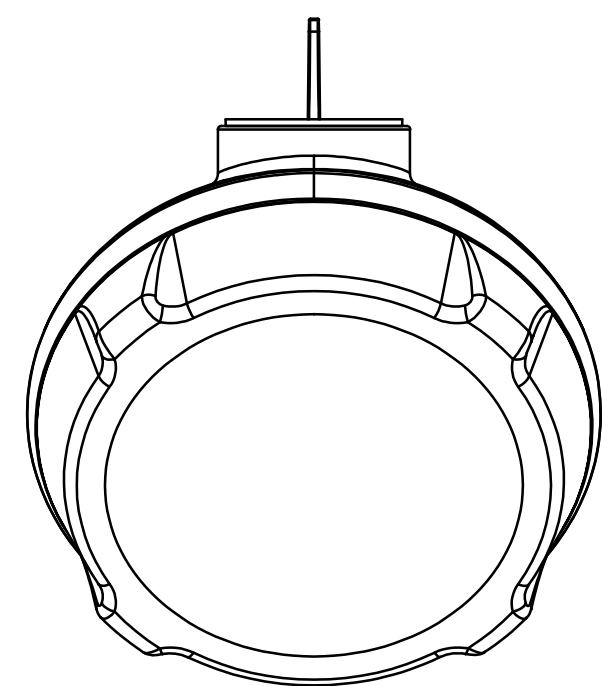
90% GMP

DRAWING NO.  
GI-12

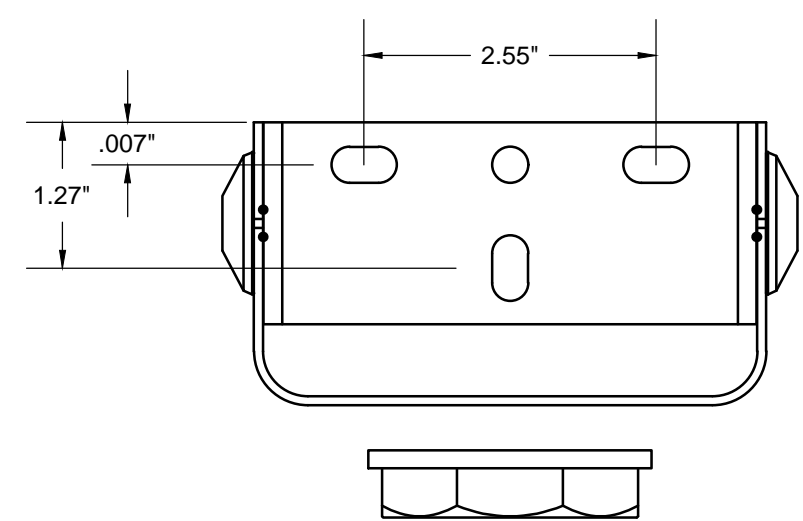
Brown and Caldwell



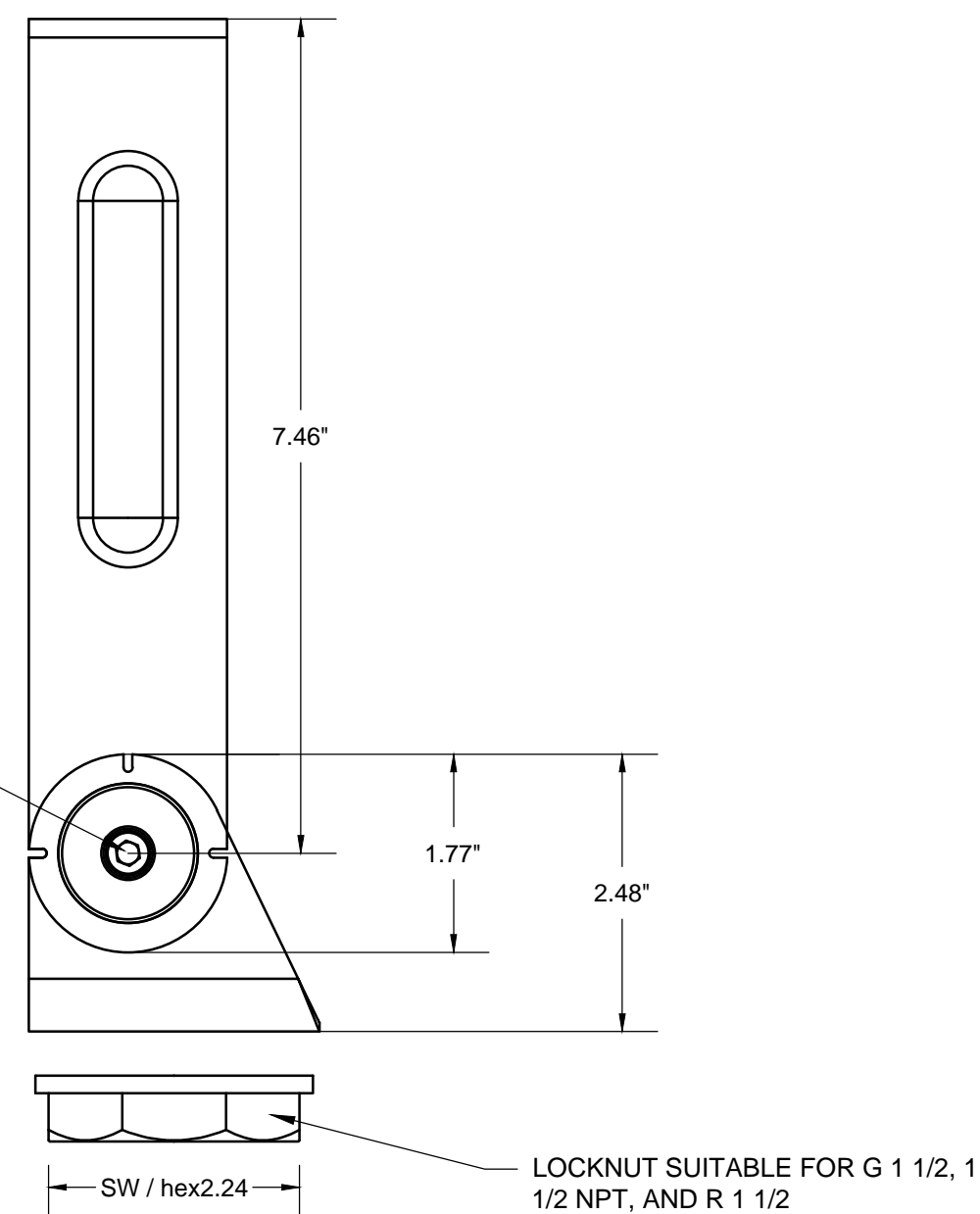
**RADAR LEVEL TRANSMITTER**  
 lxxxxx  
 NTS



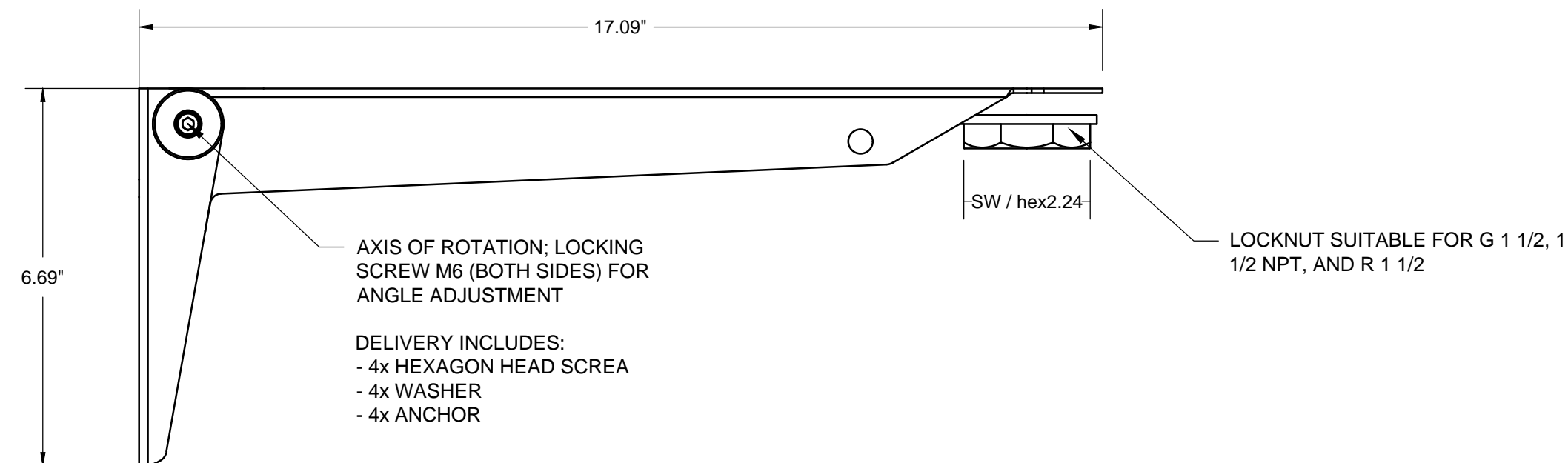
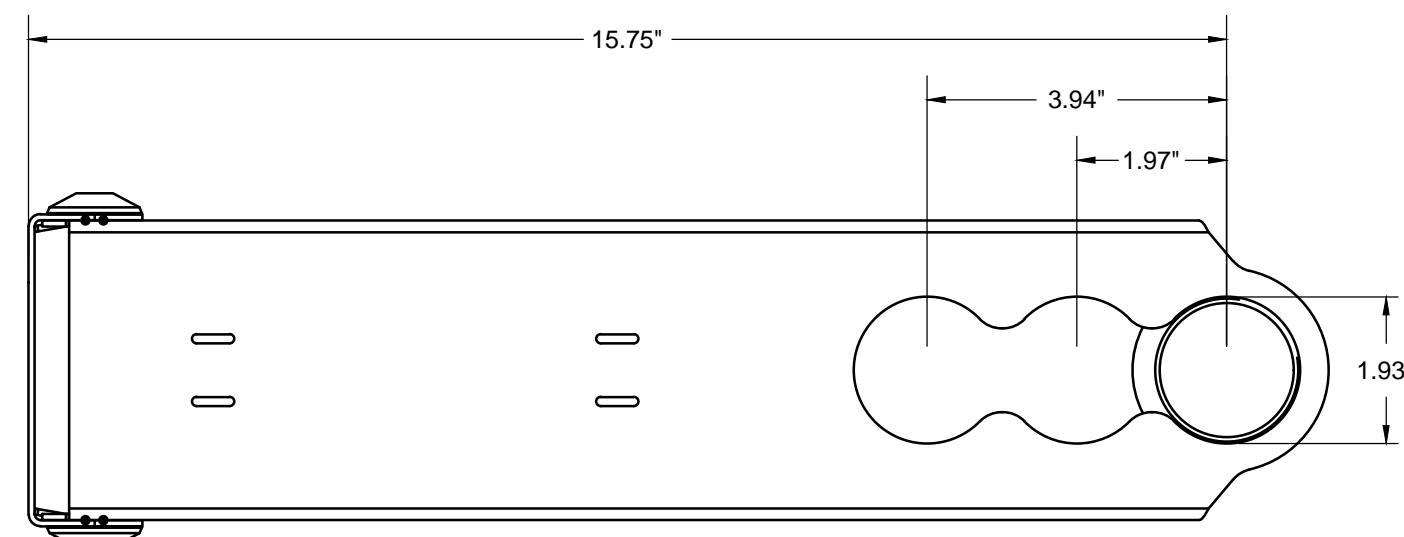
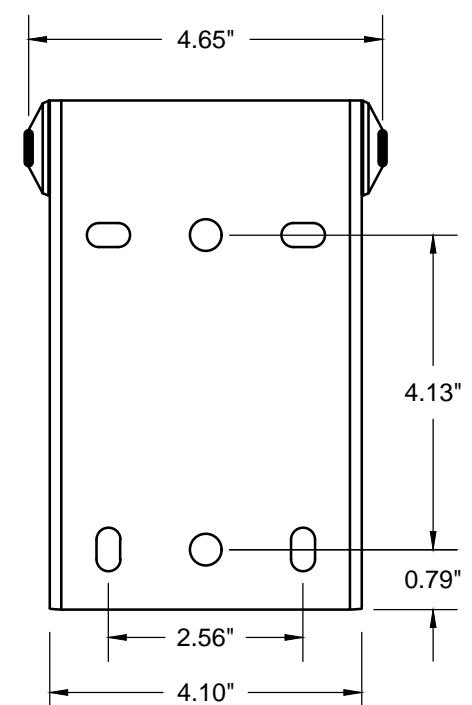
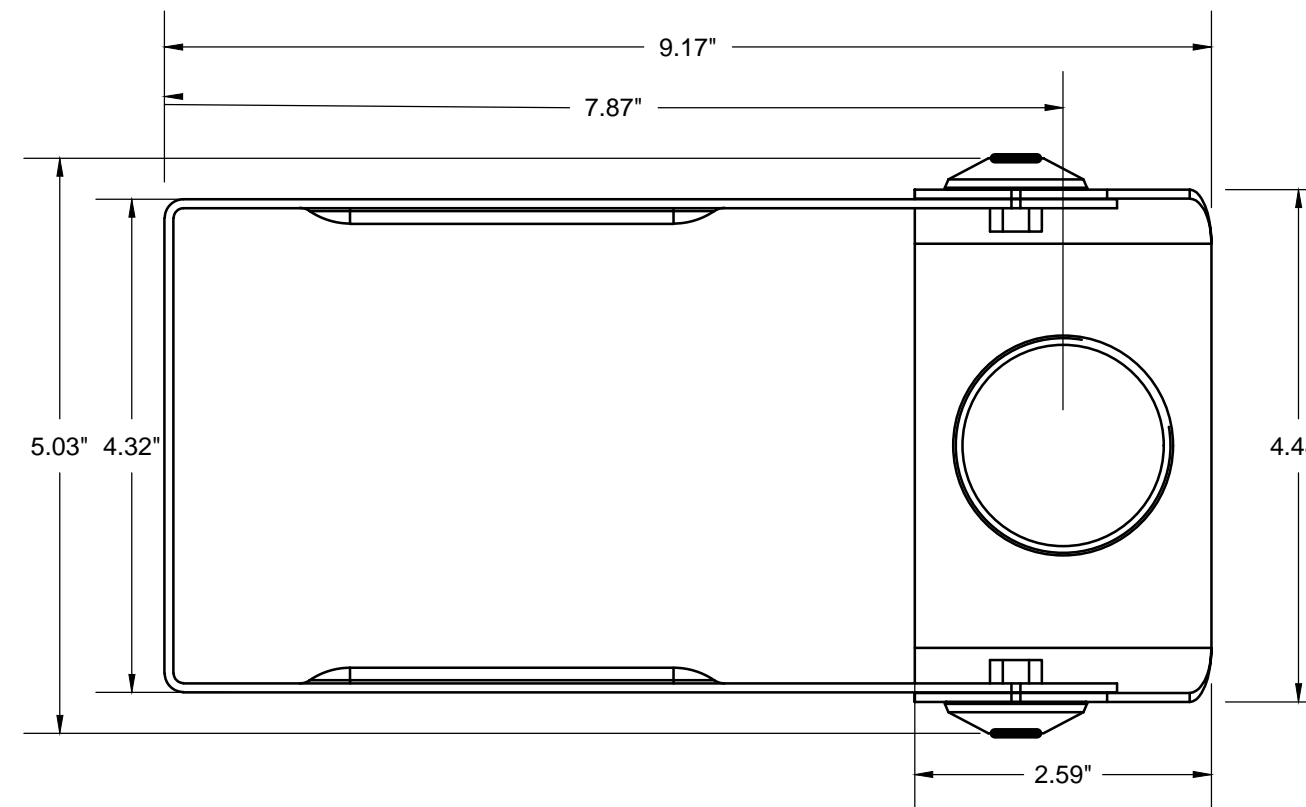
1 1/2 NPT (ASME B1.20.1) SW50



AXIS OF ROTATION; LOCKING SCREW M6 (BOTH SIDES) FOR ANGLE ADJUSTMENT  
 DELIVERY INCLUDES:  
 - 4x HEXAGON HEAD SCREW  
 - 4x WASHER  
 - 4x ANCHOR



**RADAR LEVEL TRANSMITTER - BRACKET MOUNT**  
 lxxxxx  
 NTS



**RADAR LEVEL TRANSMITTER - BUCKET/SWING ARM MOUNT**  
 lxxxxx  
 NTS

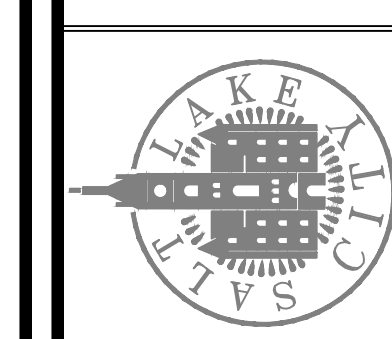
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**PROJECT DETAILS**



**90% GMP**

DRAWING NO.  
**GI-13**

**Brown and Caldwell**

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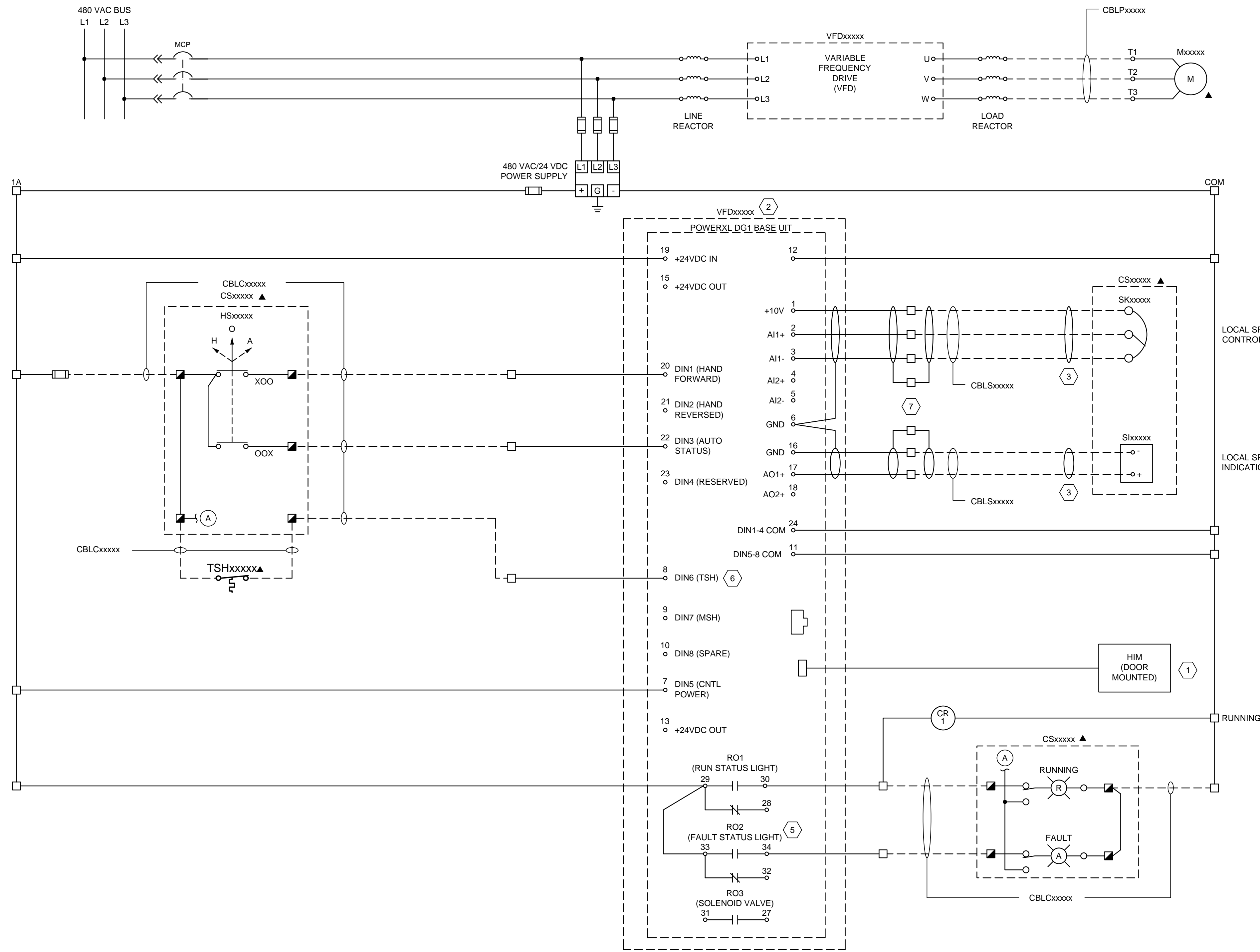


TABLE 1: CONTROL LOCATION SETTINGS

DESIRED CONTROL LOCATION	HOA POSITION	HIM LOCAL/REMOTE SETTING
LOCAL CONTROL STATION	HAND/OFF (START/STOP)	REMOTE
VFD HIM	ANY	LOCAL
SCADA	AUTO	REMOTE

**GENERAL NOTES:**

- CONTACTS ARE SHOWN IN A DE-ENERGIZED STATE.
- CONTROL DIAGRAM IS DESIGNED BASED ON EATON-CUTLER HAMMER POWERXL DG1 VARIABLE FREQUENCY DRIVE (VFD) WITH EXPANSION I/O FOR EXTENDING THE I/O CAPABILITY OF THE VFD. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MODIFICATIONS REQUIRED FOR ANY OTHER APPROVED VFD MANUFACTURER TO MEET SPECIFIED FUNCTIONALITY.
- VFD AND EXPANSION I/O MODULE DIGITAL OUTPUTS SHALL BE FULLY PROGRAMMABLE AND CAPABLE OF CHANGING STATE BASED ON VFD AND EXPANSION I/O MODULE DIGITAL INPUT STATUS AND NETWORK DATA EXCHANGE WITH THE PCS.
- VFD PROTECTIVE SETTINGS SHALL BE SET PER MANUFACTURER RECOMMENDATIONS FOR THE APPLICATION.
- SCHEMATIC IS REPRESENTATIVE. VFD SUBMITTAL TO SHOW ALL I/O AS SHOWN IN PROJECT DOCUMENTATION.
- CONTRACTOR/SYSTEM INTEGRATOR SHALL REDLINE MCC NUMBER AND BUCKET FOR RECORD SET.
- CONTRACTOR/SYSTEM INTEGRATOR SHALL VERIFY FINAL CONNECTIONS AND REDLINE THIS DRAWING ACCORDINGLY. REDLINE TERMINAL BLOCK NUMBERS WITH FINAL TERMINATIONS FOR RECORD SET.

**KEYNOTES:**

- HIM LOCATED ON FRONT OF MCC BUCKET. PROVIDE MANUFACTURER CABLE OF SUFFICIENT LENGTH FOR INTERCONNECTION.
- CONFIGURE VFD FOR START/STOP AND SPEED CONTROL VIA SCADA, HIM, OR LOCAL CONTROL STATION AS SPECIFIED IN TABLE BELOW.
- CUT AND TAPE SHIELD.
- NOT USED.
- CONFIGURE OUTPUT TO CLOSE WHEN ANY OF THE FOLLOWING CONDITIONS ARE ACTIVE.  
- VFD FAULT  
- MOTOR HIGH TEMPERATURE
- CONFIGURE INPUT AS NORMALLY CLOSED (NC) EXTERNAL FAULT. INPUT SHALL SHUT DOWN EQUIPMENT UNTIL MANUALLY RESET AT VFD HIM.
- PROVIDE SIGNAL CONVERTER(S) IN VFD MCC BUCKET IF DISTANCE BETWEEN VFD AND LOCAL CONTROL STATION EXCEEDS DISTANCE LIMITATIONS OF VFD ANALOG INPUTS AND OUTPUTS.

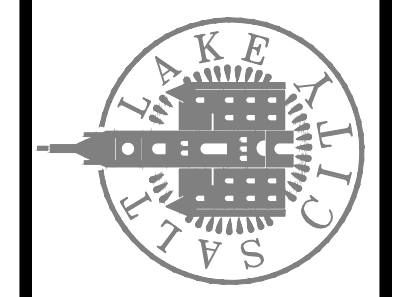
**LEGEND:**

- ▲ EQUIPMENT LOCATED IN FIELD
- MCC TERMINAL
- TERMINALS IN CONTROL STATION
- FIELD WIRING

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: JFAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

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SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**MOTOR SCHEMATIC 1**

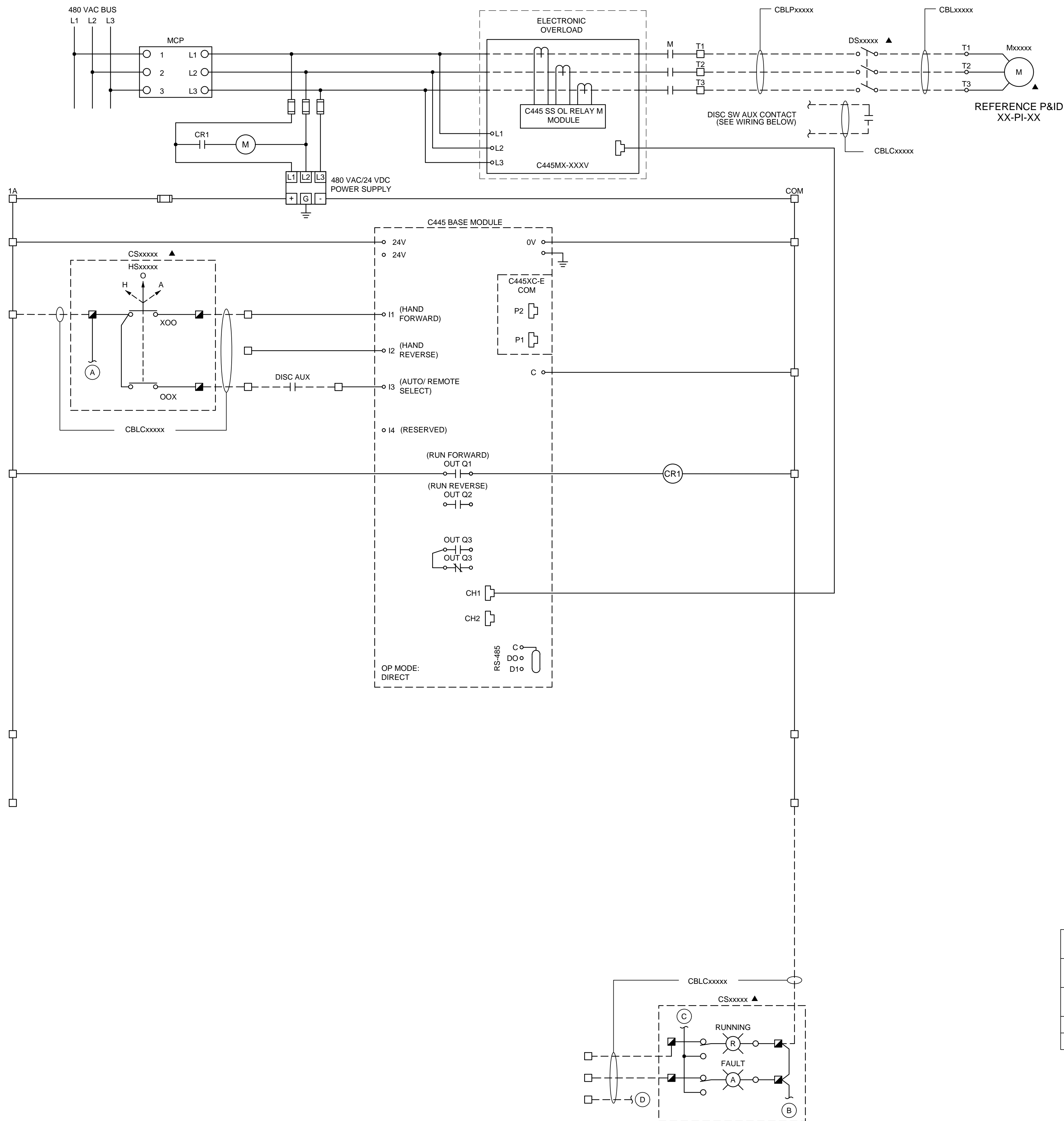


**90% GMP**

DRAWING NO.  
**GI-20**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\GI-21.dwg Jun 12, 2024 - 2:32pm



**GENERAL NOTES:**

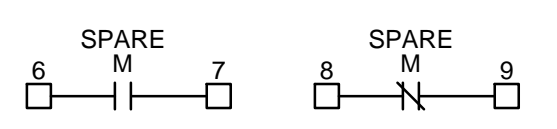
- CONTACTS ARE SHOWN IN A DE-ENERGIZED STATE.
- CONTROL DIAGRAM IS DESIGNED BASED ON EATON-CUTLER HAMMER C445 MOTOR OVERLOAD RELAY. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MODIFICATIONS REQUIRED FOR ANY OTHER APPROVED MOTOR STARTER OVERLOAD RELAY MANUFACTURER TO MEET SPECIFIED FUNCTIONALITY.
- OVERLOAD RELAY PROTECTIVE SETTINGS SHALL BE SET PER MANUFACTURER RECOMMENDATIONS FOR THE APPLICATION.
- SCHEMATIC IS REPRESENTATIVE. MOTOR STARTER SUBMITTAL TO SHOW ALL I/O AS SHOWN IN PROJECT DOCUMENTATION.
- CONTRACTOR/SYSTEM INTEGRATOR SHALL RELINE MCC NUMBER AND BUCKET FOR RECORD SET.
- CONTRACTOR/SYSTEM INTEGRATOR SHALL VERIFY FINAL CONNECTIONS AND REDLINE THIS DRAWING ACCORDINGLY. REDLINE TERMINAL BLOCK NUMBERS WITH FINAL TERMINATIONS FOR RECORD SET.

**LEGEND:**

- ▲ EQUIPMENT LOCATED IN FIELD
- MCC TERMINAL
- TERMINALS IN CONTROL STATION
- FIELD WIRING

**TABLE 1: CONTROL LOCATION SETTINGS**

DESIRED CONTROL LOCATION	HOA POSITION	HIM LOCAL/REMOTE SETTING
LOCAL CONTROL STATION	HAND/OFF (START/STOP)	REMOTE
OVERLOAD HIM	ANY	LOCAL
SCADA	AUTO	REMOTE



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**MOTOR SCHEMATIC 2**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: J.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

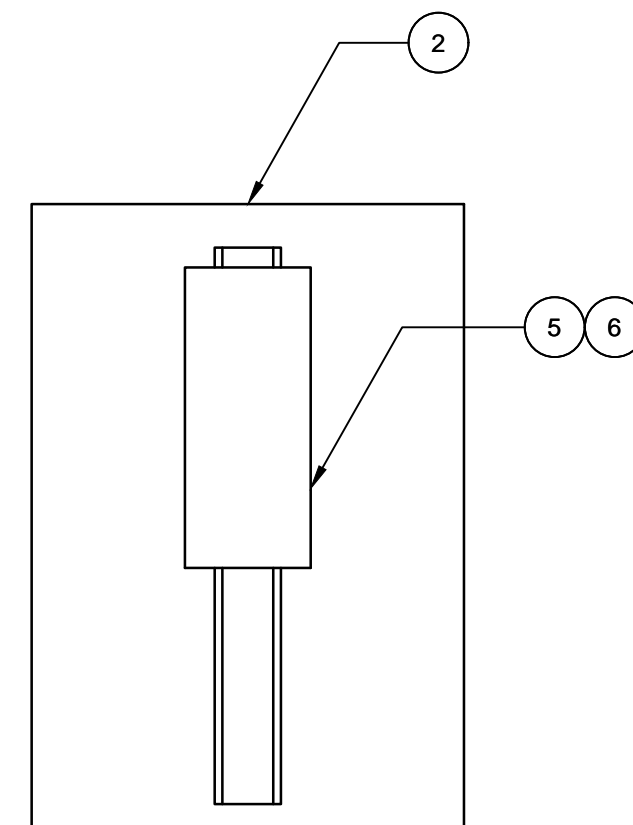
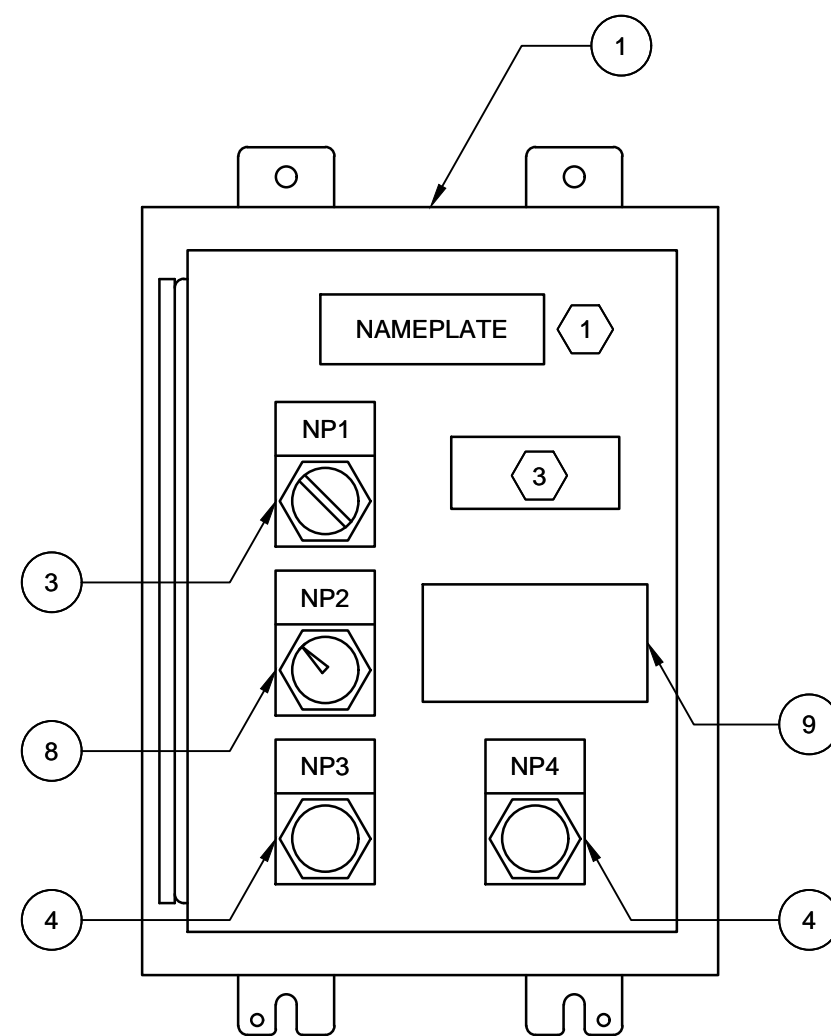
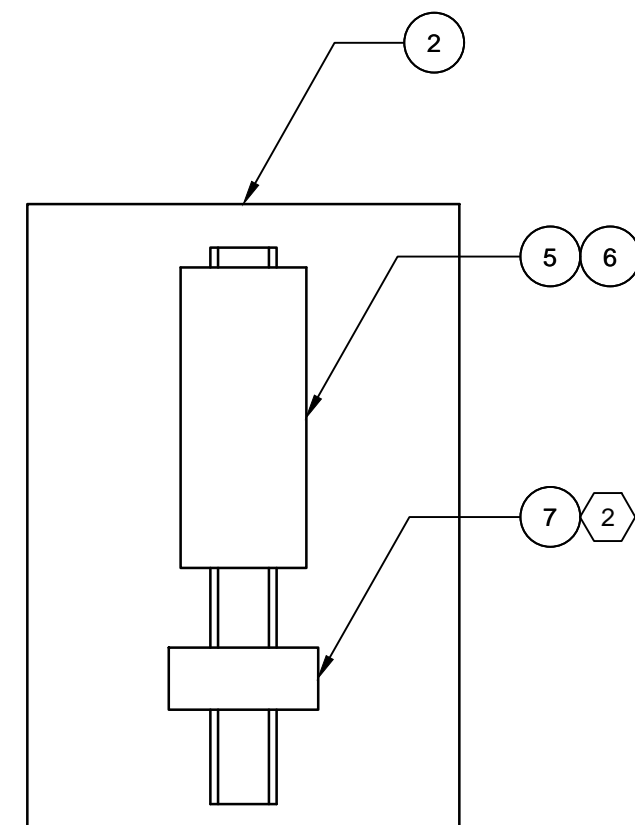
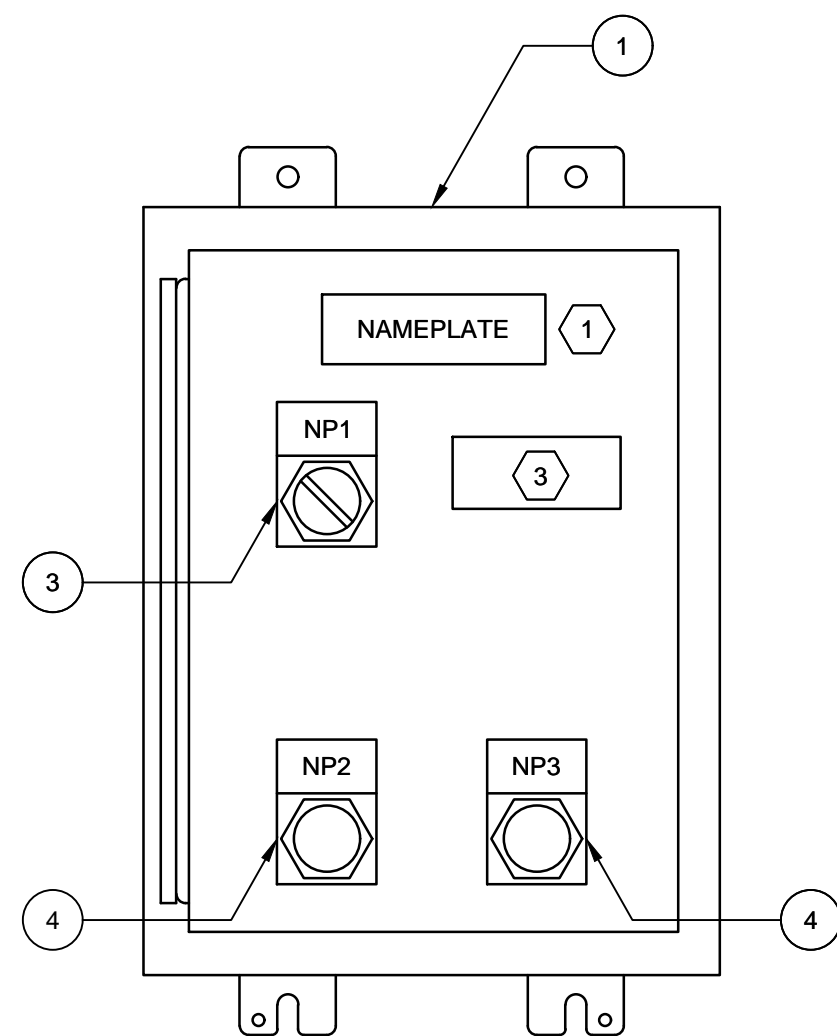
SCALE: ---  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

**90% GMP**

DRAWING NO. **GI-21**

**Brown and Caldwell**



PILOT DEVICE NAMEPLATE	
NP	INSCRIPTION
NP2	RUNNING
NP3	FAULT

SELECTOR SWITCH NAMEPLATE				
NP	POS 1	POS 2	POS 3	
NP1	HAND	OFF	AUTO	

PILOT DEVICE NAMEPLATE	
NP	INSCRIPTION
NP2	SPEED ADJUSTMENT
NP3	RUNNING
NP4	FAULT

SELECTOR SWITCH NAMEPLATE				
NP	POS 1	POS 2	POS 3	
NP1	HAND	OFF	AUTO	

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
1	1	CONTROL PANEL ENCLOSURE - 16"x12"x8"
2	1	BACK PANEL - 13"x9"
3	1	SELECTOR SWITCH - 3-POSITION
4	AS REQ'D	INDICATING LIGHT
5	AS REQ'D	TERMINAL BLOCK
6	AS REQ'D	END CLAMP
7	1	MOTOR PROTECTION RELAY
8	1	SPEED POTENTIOMETER
9	1	DIGITAL INDICATOR

### GENERAL NOTES:

- PANEL FABRICATION AND COMPONENTS SHALL CONFORM TO DIVISION 40 SPECIFICATIONS.
- THIS DRAWING IS TYPICAL IN NATURE AND SPECIFIES GENERAL PANEL LAYOUT AND FABRICATION REQUIREMENTS FOR APPLICABLE CONTROL PANELS SPECIFIED IN THE SECTION 40 67 00 PANEL SCHEDULE.
- ENCLOSURE AND BACK PANEL DIMENSIONS SHOWN ON DRAWING ARE APPROXIMATE. CONTRACTOR SHALL PROVIDE DIMENSIONS SUITABLE FOR ACCOMMODATING THE COMPONENTS PROVIDED.

### KEYNOTES:

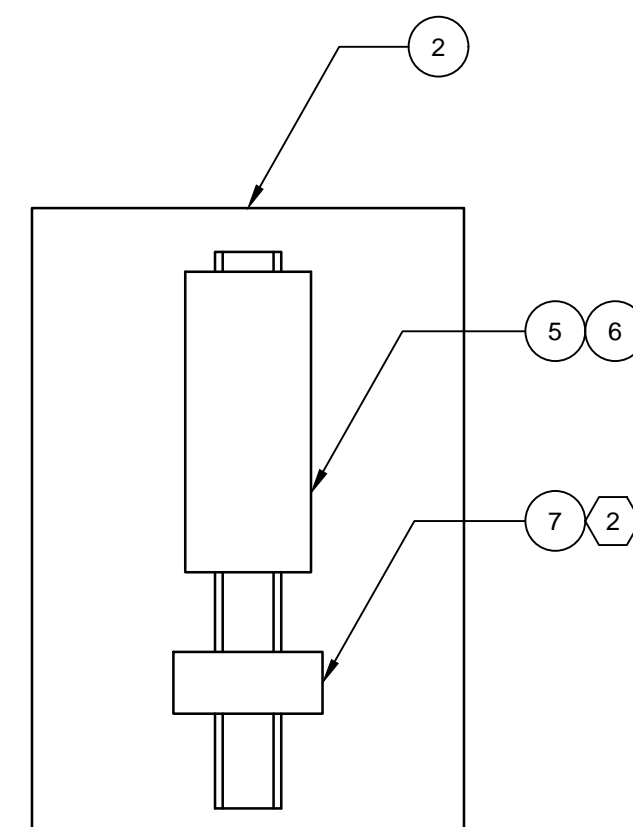
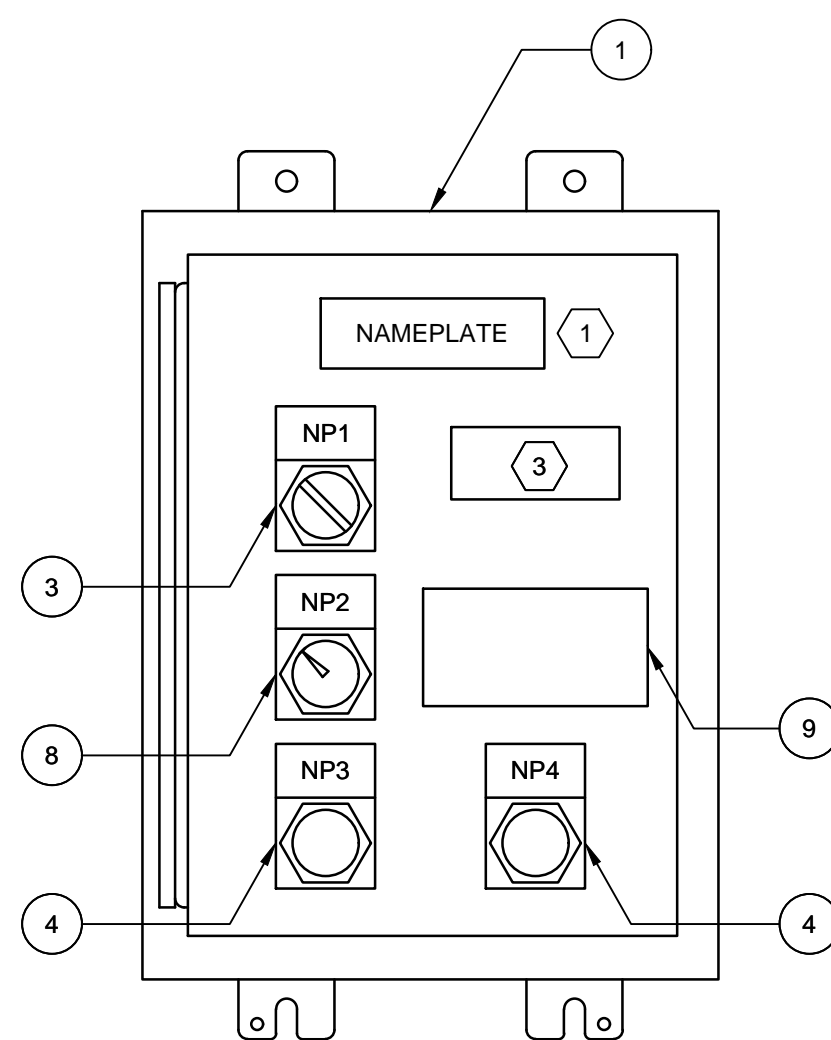
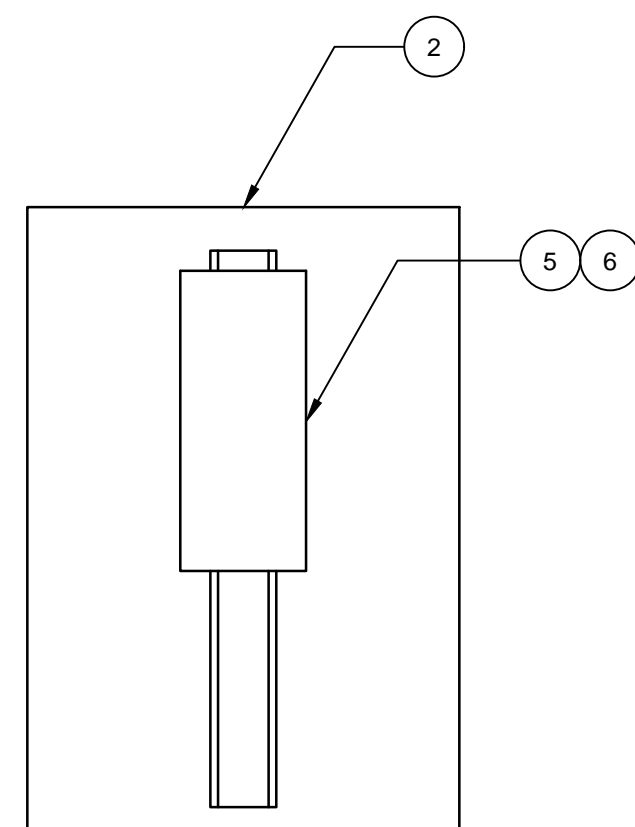
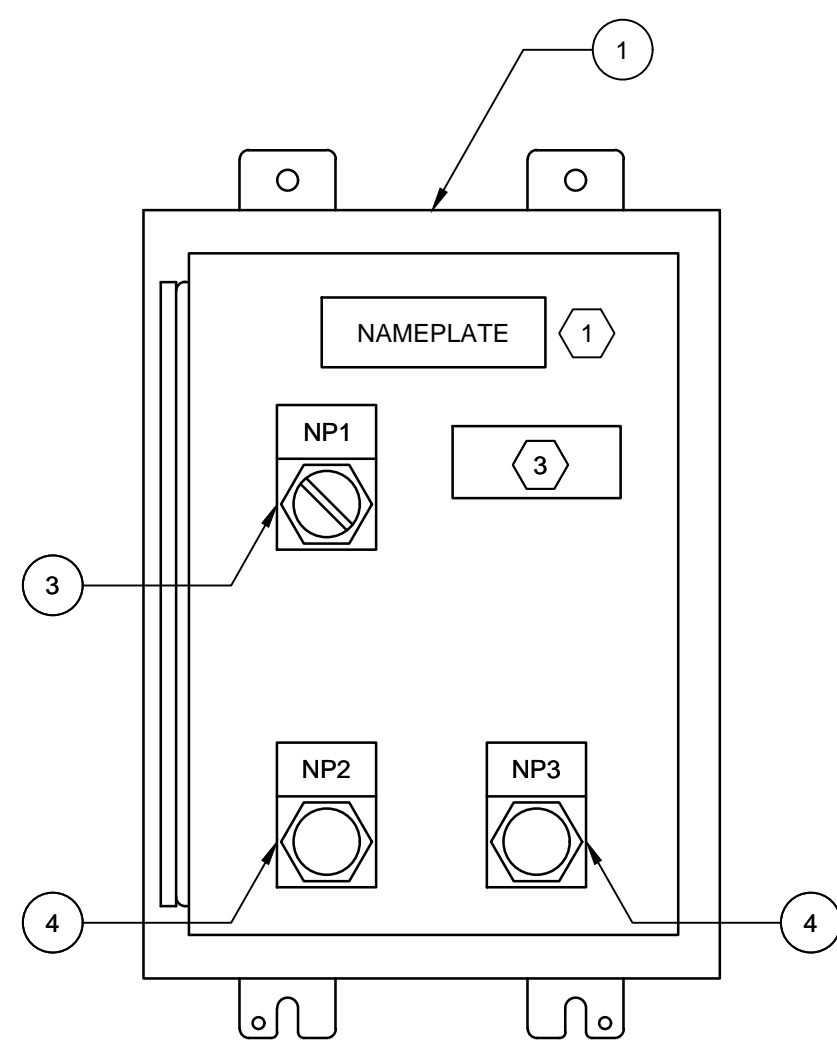
- PROVIDE 2"x6" NAMEPLATE PER DIVISION 40 REQUIREMENTS. REFER TO SECTION 40 67 00 PANEL SCHEDULE FOR ENGRAVING REQUIREMENTS SPECIFIC TO EACH PANEL.
- MOTOR PROTECTION RELAY FURNISHED BY EQUIPMENT MANUFACTURER. CONTRACTOR SHALL INSTALL AT THE PANEL SHOP AND INCLUDE EQUIPMENT IN THE UL 508A LISTING OF THE PANEL.
- PROVIDE RED WARNING NAMEPLATE WITH WHITE LETTER ENGRAVING PER DETAIL 'E' THIS DRAWING.

#### A LOCAL CONTROL STATION TYPE 1

SCALE: NO SCALE

#### B LOCAL CONTROL STATION TYPE 2

SCALE: NO SCALE

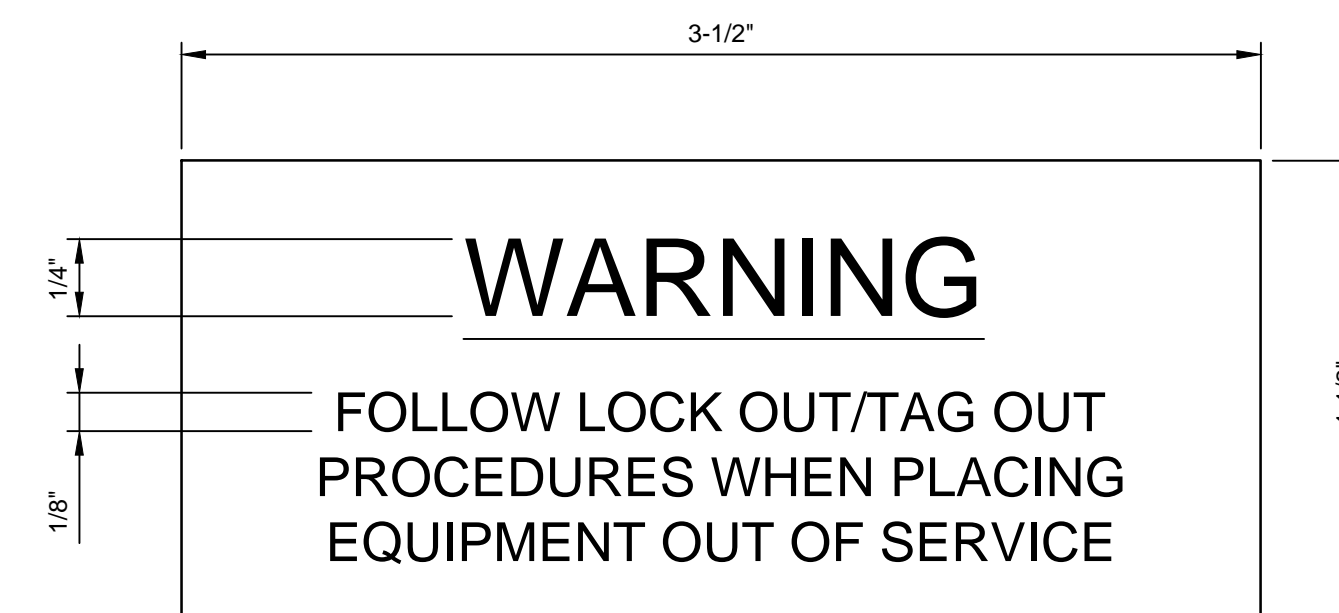


PILOT DEVICE NAMEPLATE	
NP	INSCRIPTION
NP2	RUNNING
NP3	FAULT

SELECTOR SWITCH NAMEPLATE				
NP	POS 1	POS 2	POS 3	
NP1	HAND	OFF	AUTO	

PILOT DEVICE NAMEPLATE	
NP	INSCRIPTION
NP2	SPEED ADJUSTMENT
NP3	RUNNING
NP4	FAULT

SELECTOR SWITCH NAMEPLATE				
NP	POS 1	POS 2	POS 3	
NP1	HAND	OFF	AUTO	



#### C LOCAL CONTROL STATION TYPE 3

SCALE: NO SCALE

#### D LOCAL CONTROL STATION TYPE 4

SCALE: NO SCALE

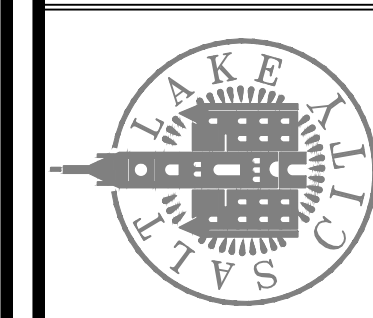
#### E WARNING NAMEPLATE SCHEDULE

SCALE: NO SCALE

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TYPICAL LOCAL CONTROL STATION 1**



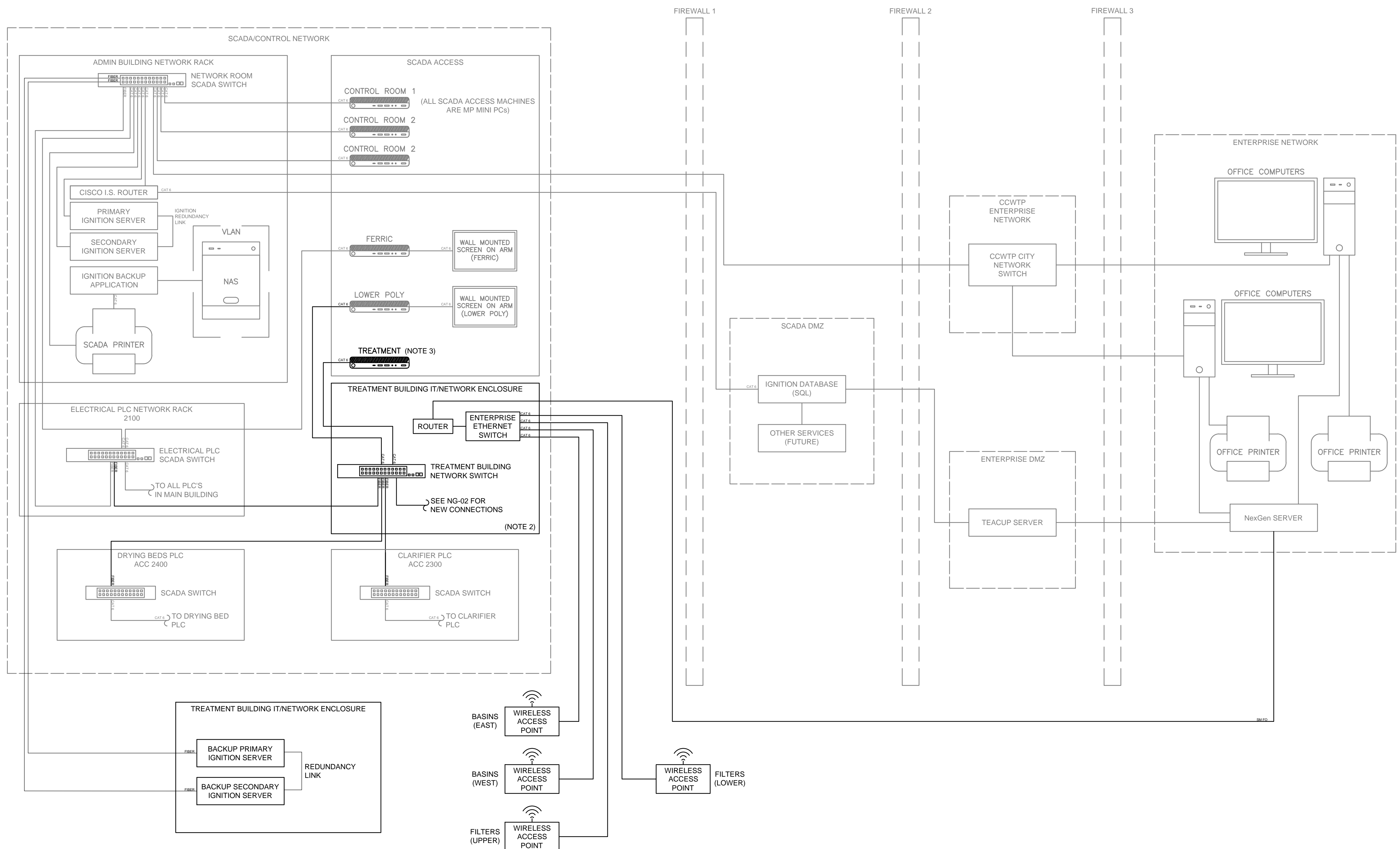
**90% GMP**

DRAWING NO.  
**GI-22**

**Brown and Caldwell**

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**GENERAL NOTES:**

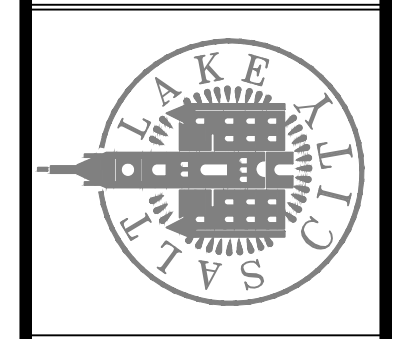
- WHERE REQUIRED, CONTRACTOR TO PROVIDE MEDIA CONVERTERS IN THE EXISTING ELECTRICAL PLC PATCH PANEL.
- THE TREATMENT BUILDING PLC WILL EVENTUALLY REPLACE THE GENERAL FILTER PLC RACK (ACC 2200). NEW SM FO CABLE TO BE INSTALLED FROM THE TREATMENT BUILDING PLC TO THE EXISTING ELECTRICAL, DRYING BED, CLARIFIER AND LOWER POLY CONTROLLERS.
- LOCATE SCADA CLIENT IN LOWER LEVEL OF TREATMENT BUILDING IN ROOM BENEATH THE HVAC ROOM.

**Brown and Caldwell**

DESIGNED BY: BOTANI	AUTH. BY: BO	SCALE:
DRAWN BY: ALAPIERE	MADE BY: BO	
CHECKED BY: J.PAGENDARM	NO. 0	
APPROVED BY: BOTANI	DATE: 06/14/24	ISSUED FOR: GUARANTEE MAXIMUM PRICE (GMP)
DATE: JUNE 2024		
EWO NO: 512260079		
ACCOUNT NO: 512260079		

NO.	DATE	REVISIONS

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
**CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE**  
**NETWORK DIAGRAM**



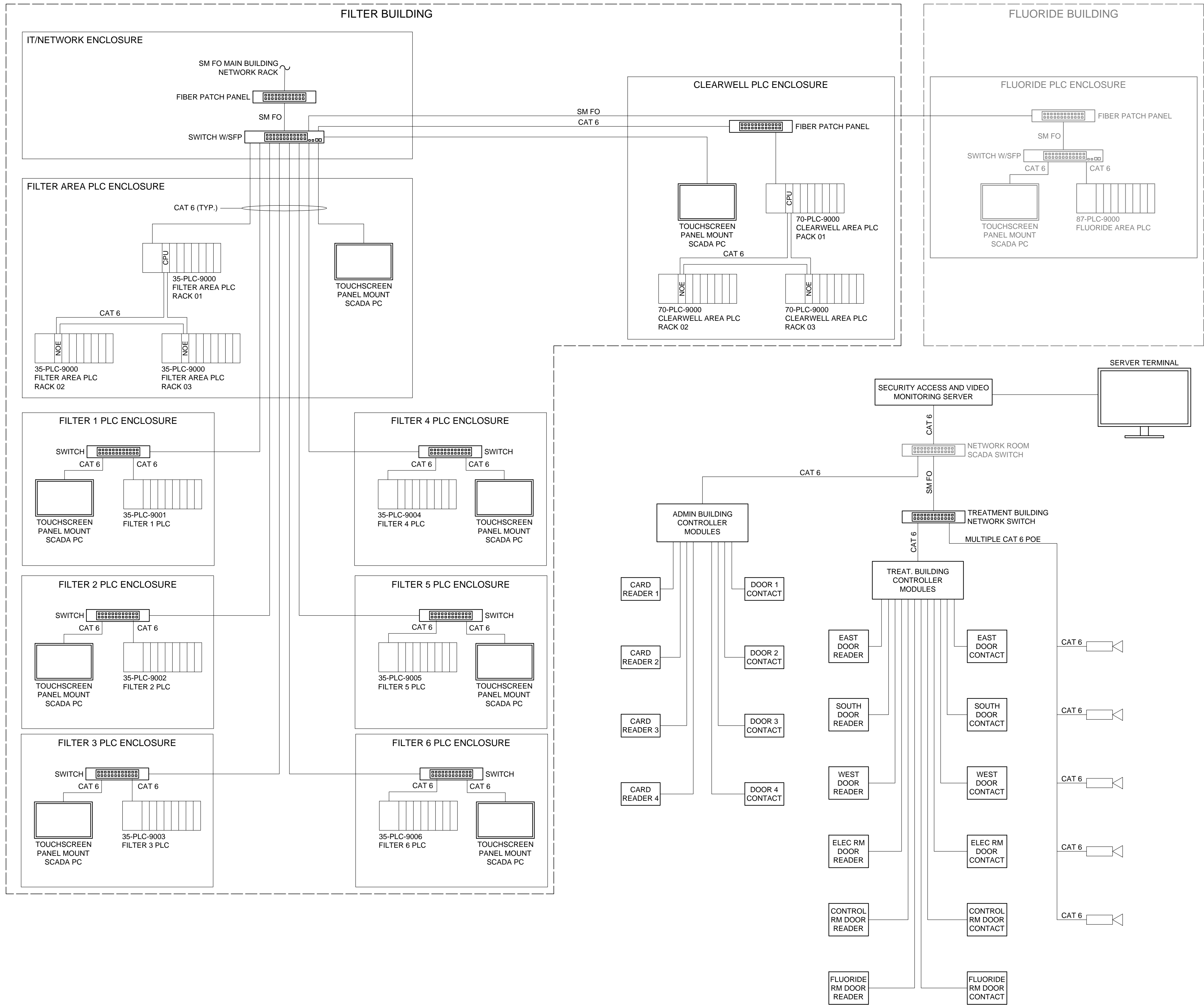
**90% GMP**

DRAWING NO.  
**NG-01**

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING



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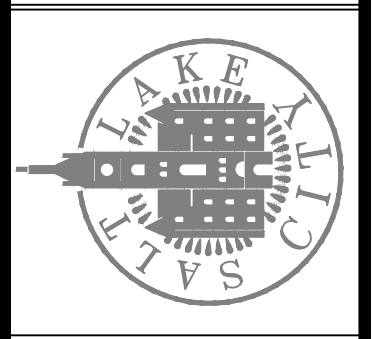


DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: M.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: --  
 ACCOUNT NO: 512260079

SCALE: ---  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

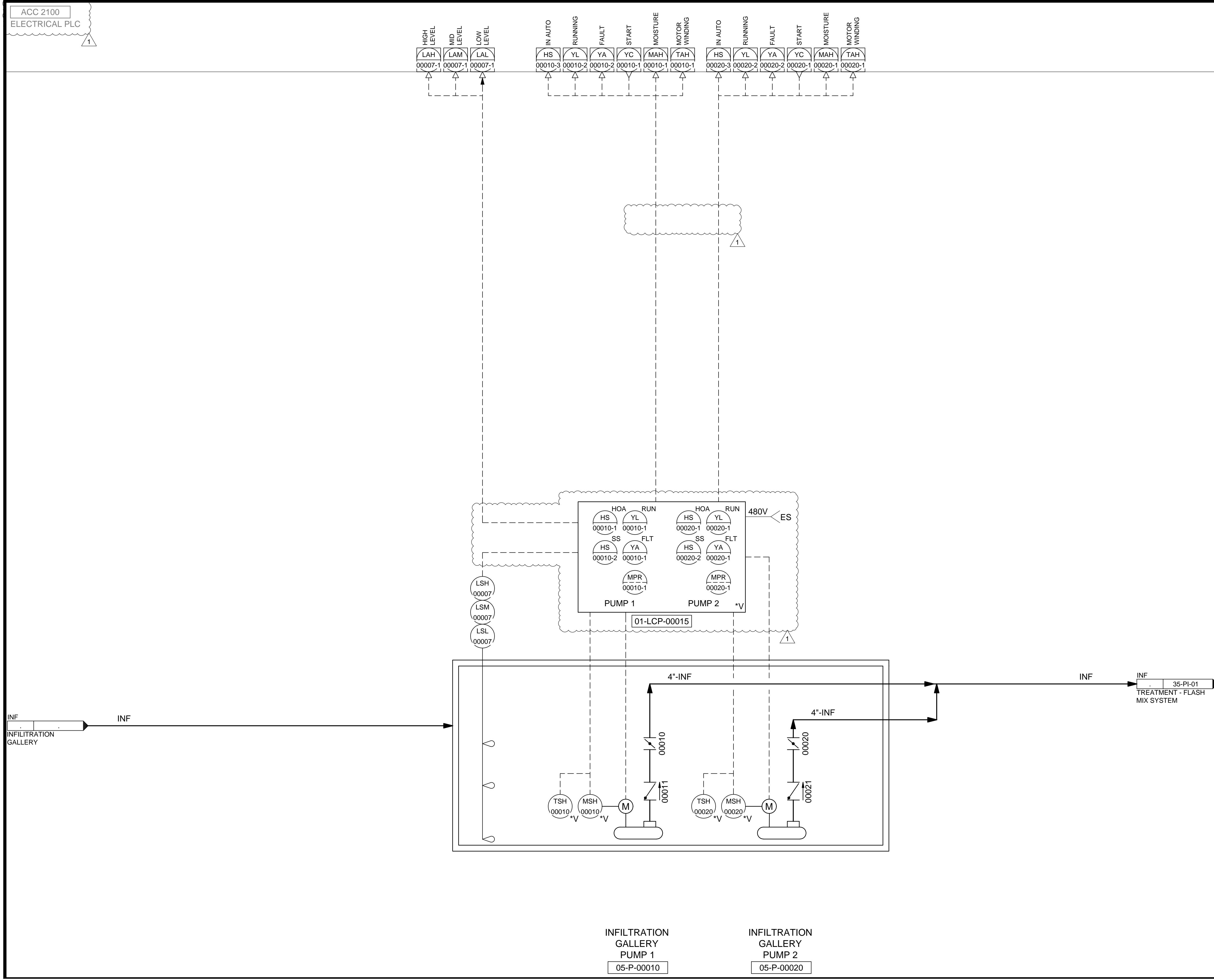
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**NETWORK DIAGRAM**



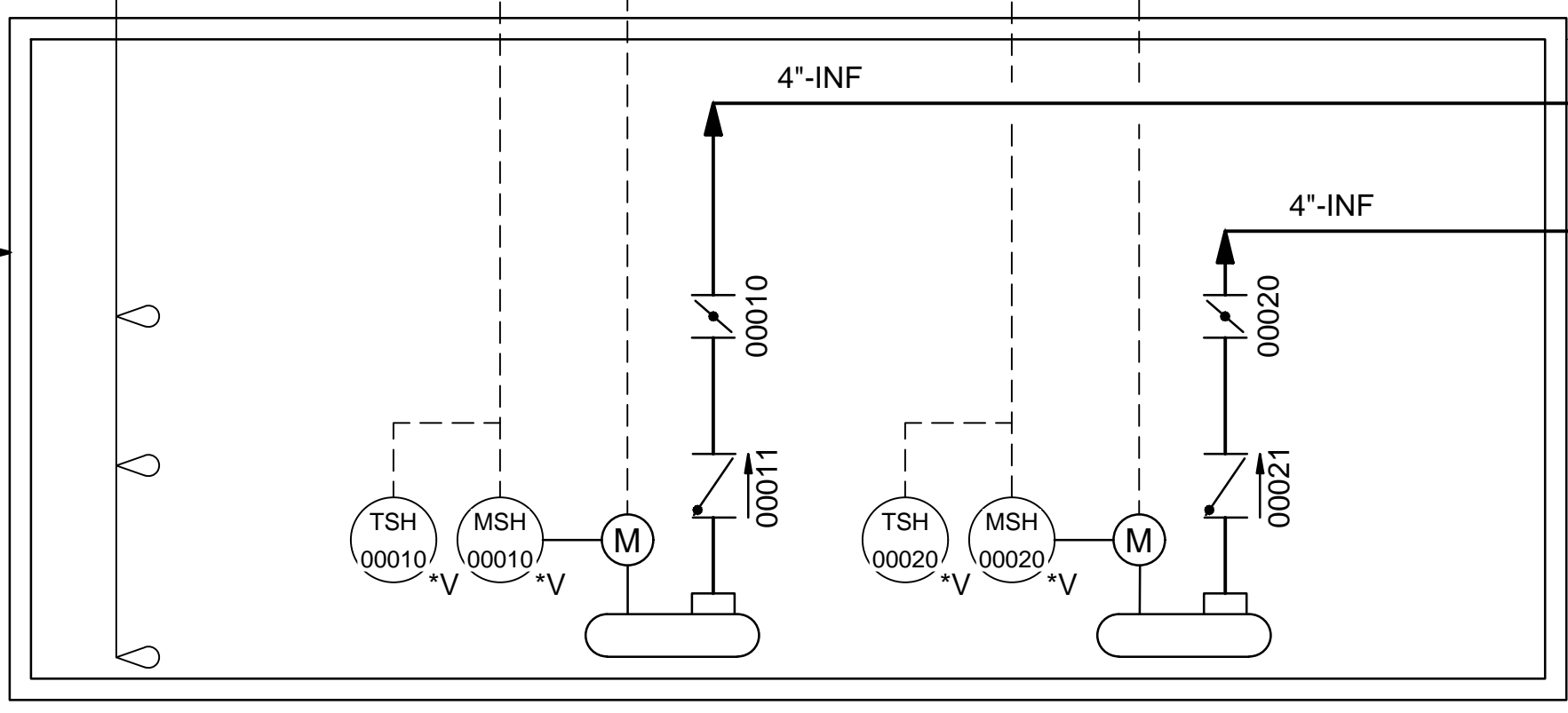
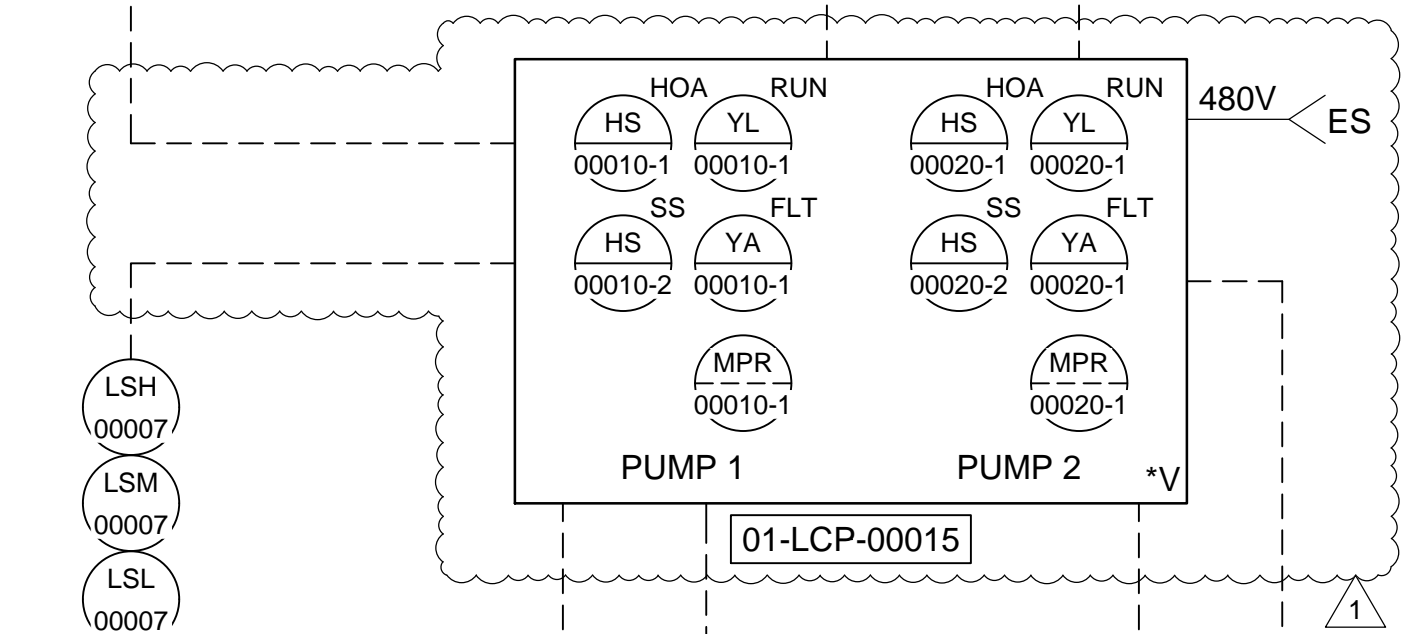
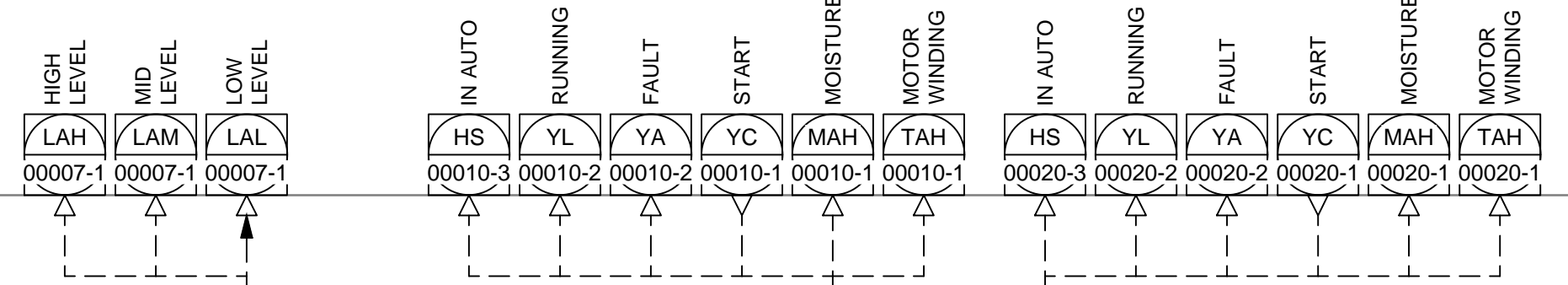
**Brown and Caldwell**

90% GMP  
 DRAWING NO. NG-02

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ACC 2100  
ELECTRICAL PLC



INFILTRATION GALLERY PUMP 1  
05-P-00010

INFILTRATION GALLERY PUMP 2  
05-P-00020

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**INFILTRATION GALLERY PUMP STATION**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: J.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

SALT LAKE CITY

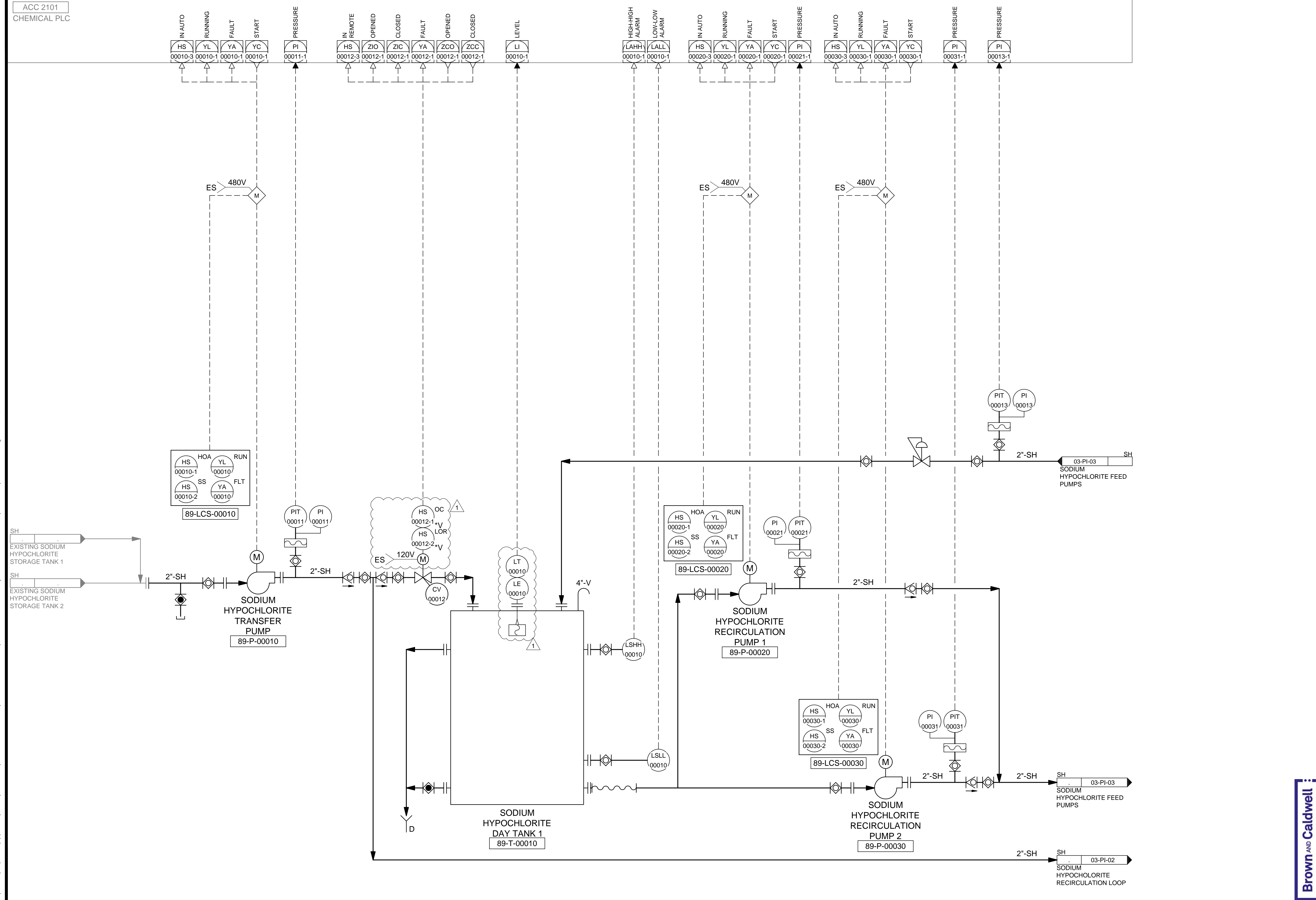
90% GMP

DRAWING NO.  
**01-PI-01**

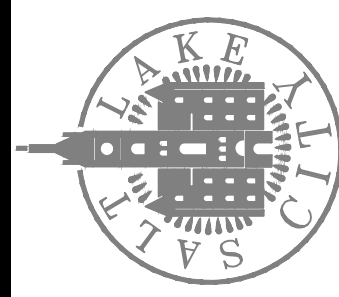
**Brown and Caldwell**

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ACC 2101  
CHEMICAL PLC



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**SODIUM HYPOCHLORITE  
 RECIRCULATION LOOP 1**



**90% GMP**

DRAWING NO.  
**03-PI-01**

**Brown and Caldwell**

REVISIONS		DATE	NO.	DESCRIPTION
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1	06/27/24	REVISED FOR GUARANTEE	MAXIMUM PRICE (GMP)	

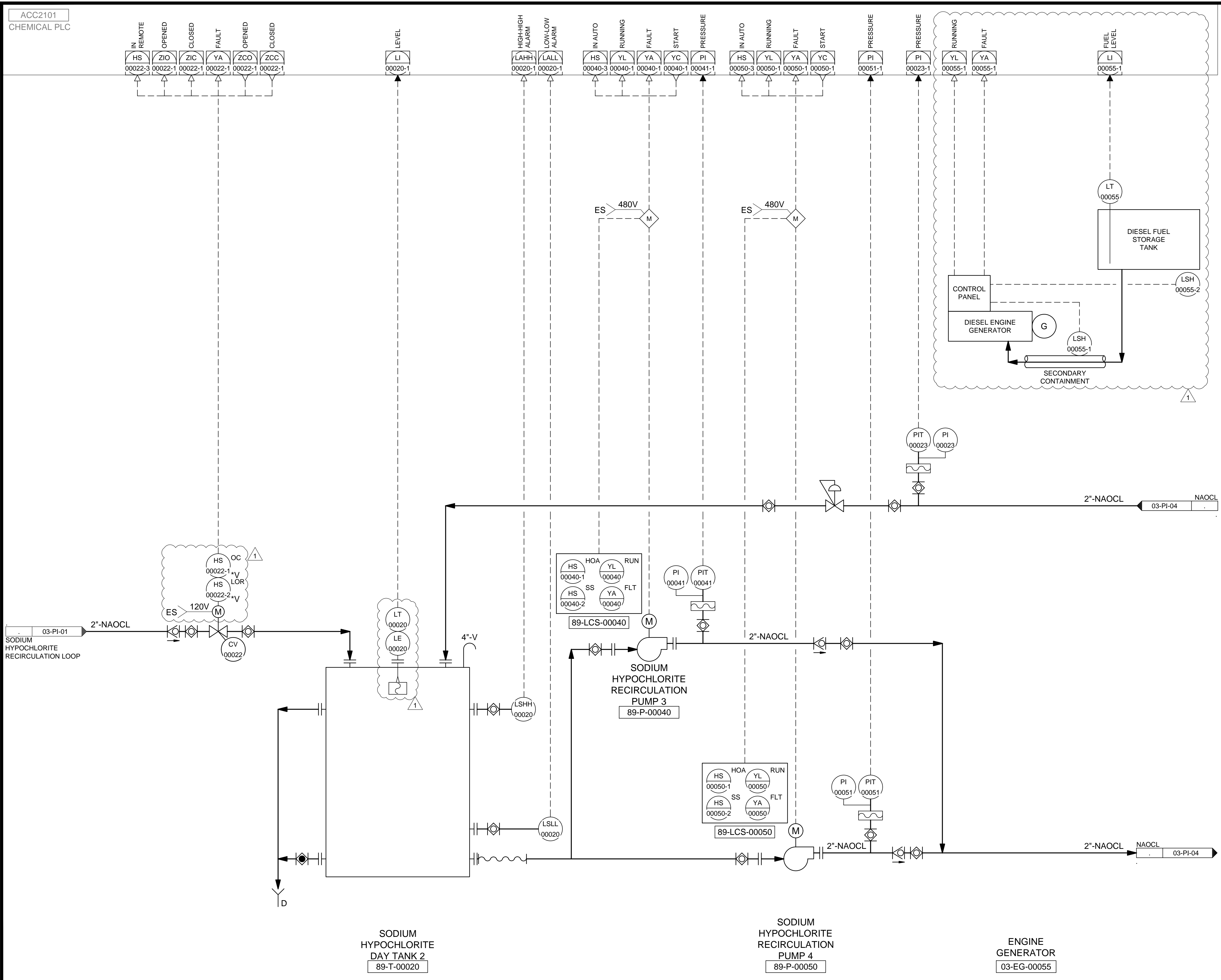
  

DESIGNED BY:	BOTANI
DRAWN BY:	ALAPIERRE
CHECKED BY:	ALPAGENDARM
APPROVED BY:	BOTANI
DATE:	JUNE 2024
EWO NO.:	---
ACCOUNT NO.:	512260079

SCALE:	
VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLCPPL\_City\_Creek\_WTP-v2021\PID\_DWG\03-PI-02.dwg Jun 25, 2024 -- 11:05am



ACC2101  
CHEMICAL PLC

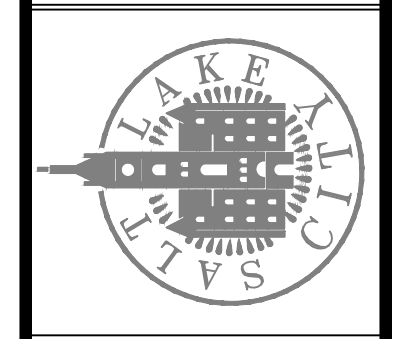
DESIGNED BY: BOTANI		SCALE:	
NO.	DATE	MADE BY	AUTH BY
0	06/14/24	BO	BO
1	06/27/24	BO	BO

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)  
REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALAPIERE  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO.:  
ACCOUNT NO.: 512260079

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**SODIUM HYPOCHLORITE  
RECIRCULATION LOOP 2**

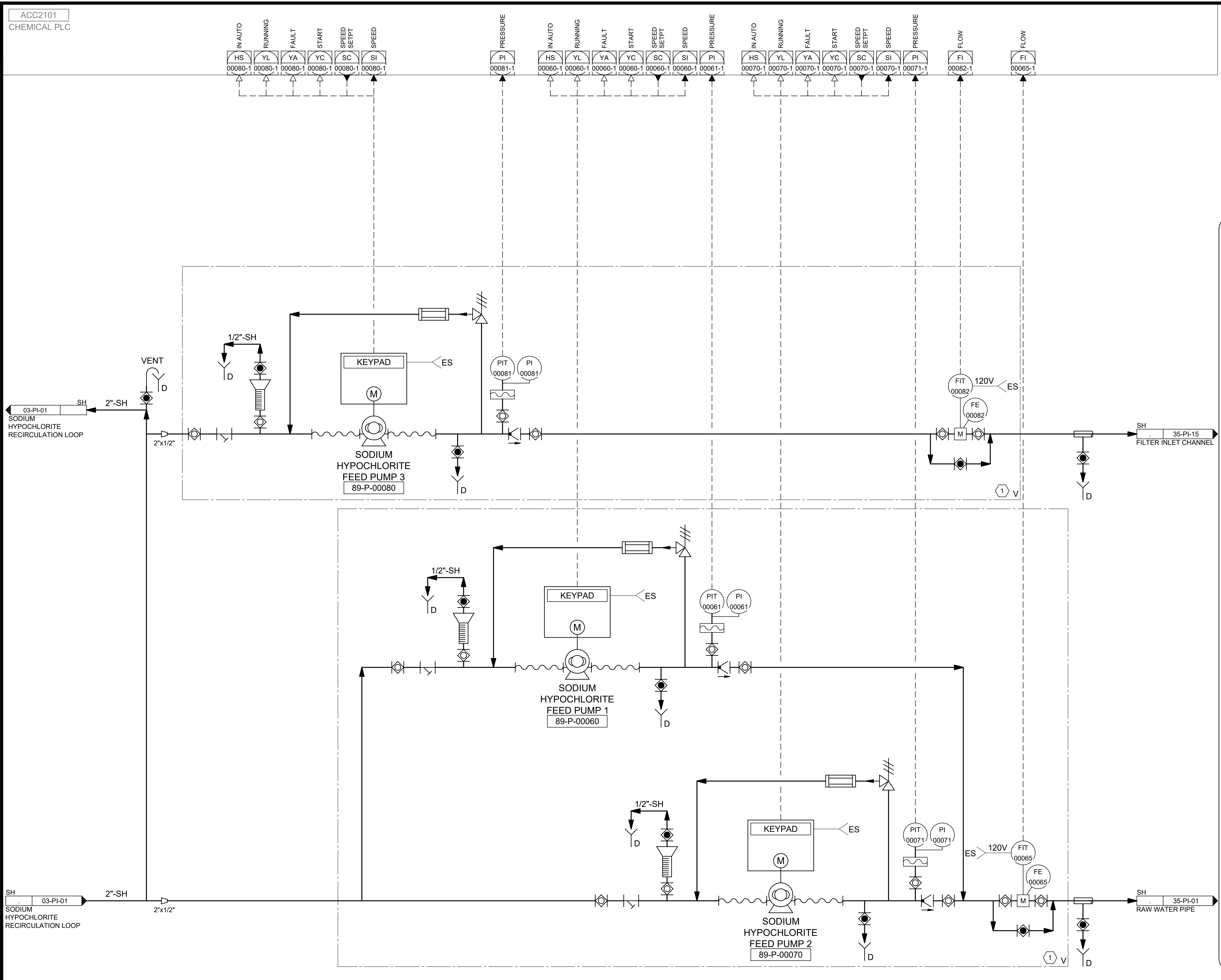


**90% GMP**

DRAWING NO.  
**03-PI-02**

**Brown and Caldwell**

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ACC2101 CHEMICAL PLC	IN AUTO HS 00080-1	RUNNING YL 00080-1	FAULT YA 00080-1	START YC 00080-1	SPEED SETPT SC 00080-1	SPEED SI 00080-1	PRESSURE PI 00081-1	IN AUTO HS 00060-1	RUNNING YL 00060-1	FAULT YA 00060-1	START YC 00060-1	SPEED SETPT SC 00060-1	SPEED SI 00060-1	PRESSURE PI 00061-1	IN AUTO HS 00070-1	RUNNING YL 00070-1	FAULT YA 00070-1	START YC 00070-1	SPEED SETPT SC 00070-1	SPEED SI 00070-1	PRESSURE PI 00071-1	FLOW FI 00082-1	FLOW FI 00065-1
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**KEYNOTES:**

1 VENDOR PACKAGED CHEMICAL PUMP SKID SEE SECTION 46 33 44.

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: J.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)

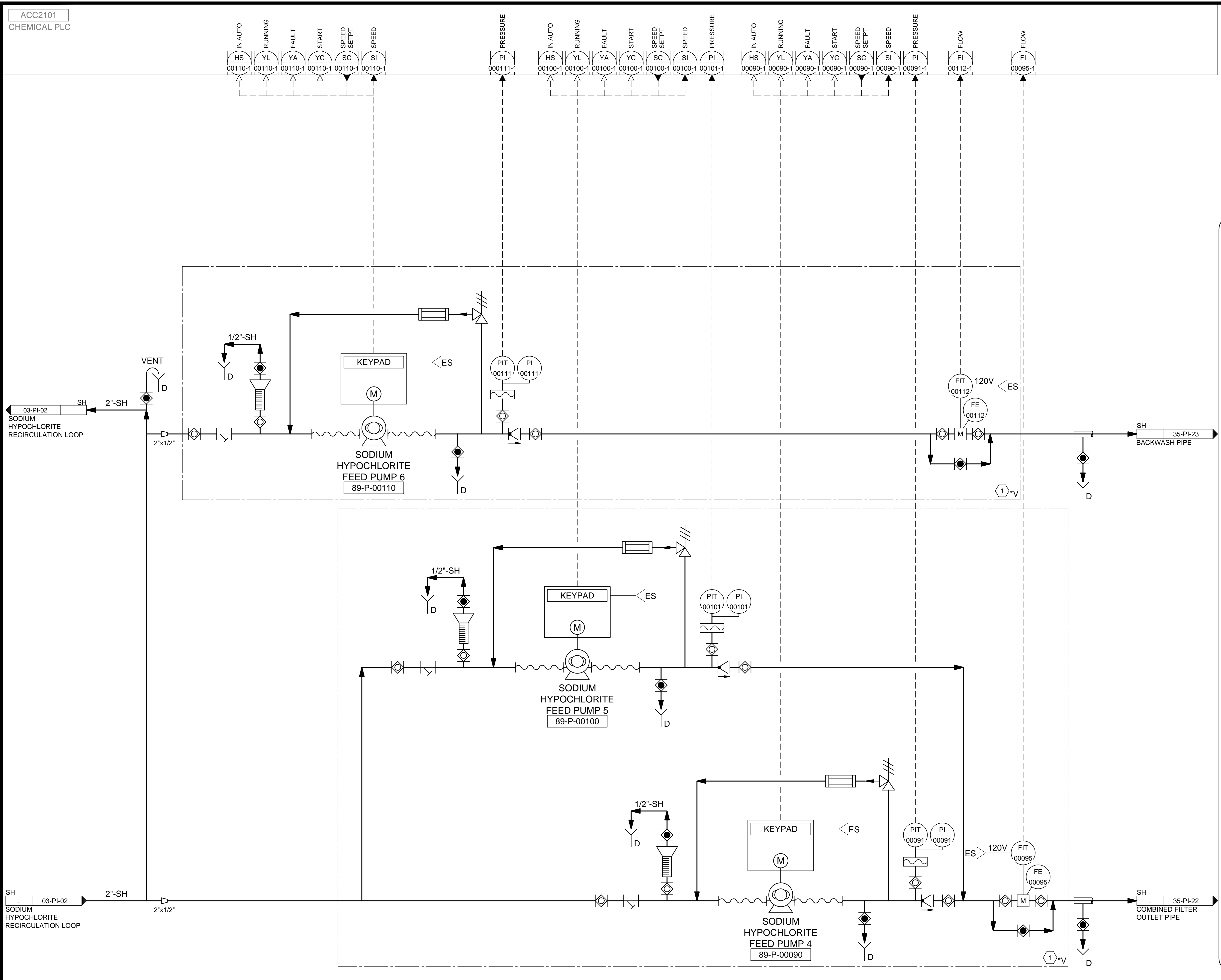
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**SODIUM HYPOCHLORITE FEED**  
**1**

**90% GMP**

DRAWING NO.  
**03-PI-03**

**Brown and Caldwell**

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ACC2101 CHEMICAL PLC	IN AUTO HS 00110-1	RUNNING YL 00110-1	FAULT YA 00110-1	START YC 00110-1	SPEED SETPT SC 00110-1	SPEED SI 00110-1	PI 00111-1	IN AUTO HS 00100-1	RUNNING YL 00100-1	FAULT YA 00100-1	START YC 00100-1	SPEED SETPT SC 00100-1	SPEED SI 00100-1	PI 00101-1	IN AUTO HS 00090-1	RUNNING YL 00090-1	FAULT YA 00090-1	START YC 00090-1	SPEED SETPT SC 00090-1	SPEED SI 00090-1	PI 00091-1	FI 00112-1	FI 00095-1
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**KEYNOTES:**  
 1 VENDOR PACKAGED CHEMICAL PUMP SKID, SEE SECTION 46 33 44.

DESIGNED BY: BOTANI	AUTH. BY: BO
DRAWN BY: ALAPIERE	MADE BY: BO
CHECKED BY: J.PAGENDARM	DATE: JUNE 2024
APPROVED BY: BOTANI	DATE: JUNE 2024
EWO NO: 512260079	ACCOUNT NO: 512260079

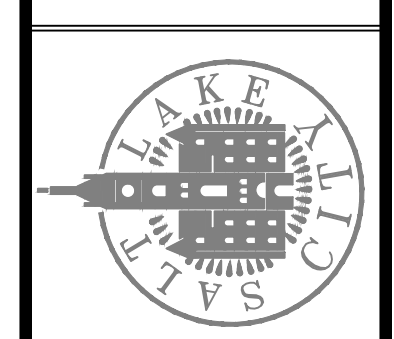
SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**SODIUM HYPOCHLORITE FEED**  
 2

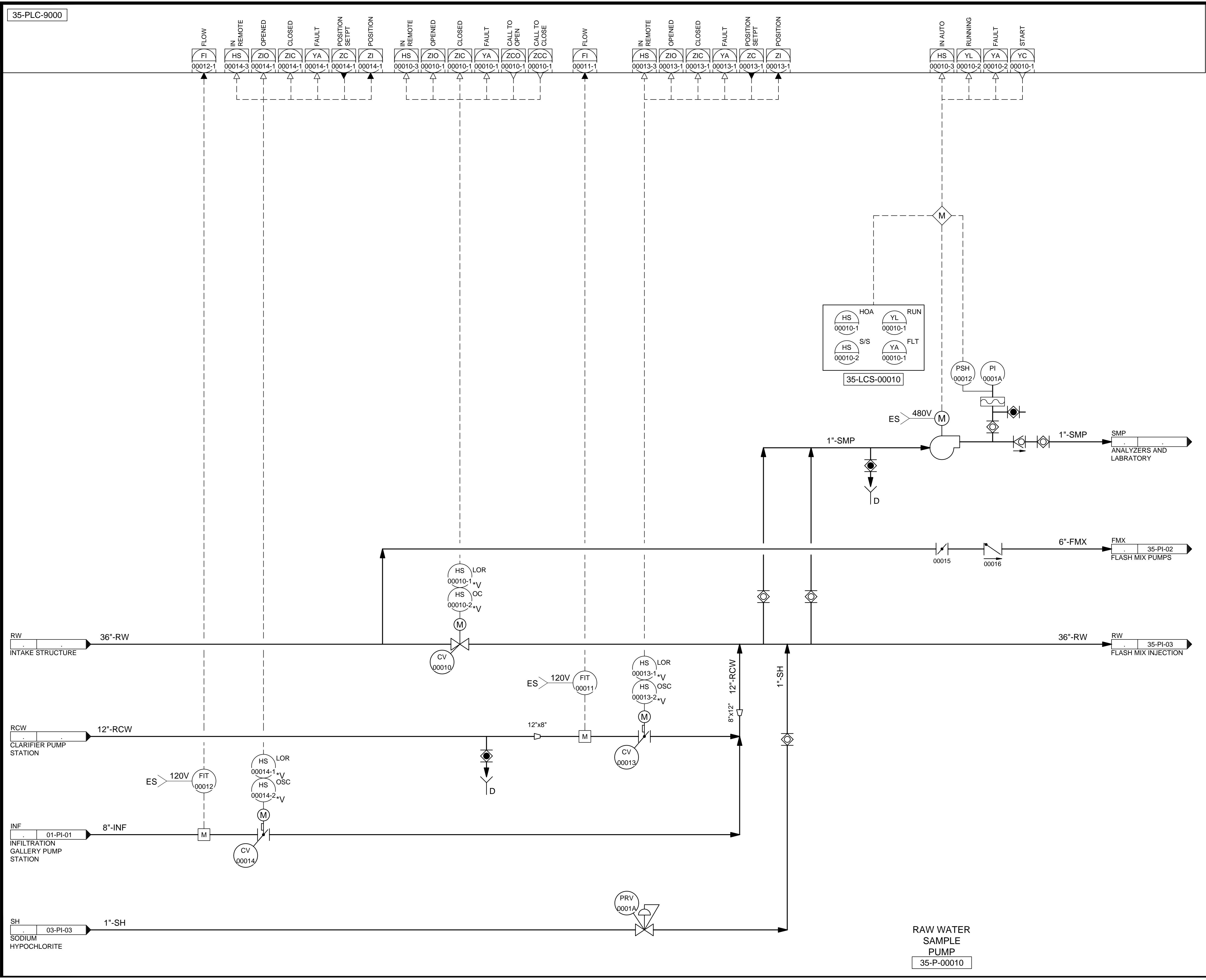


**90% GMP**

DRAWING NO.  
**03-PI-04**

**Brown and Caldwell**

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DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

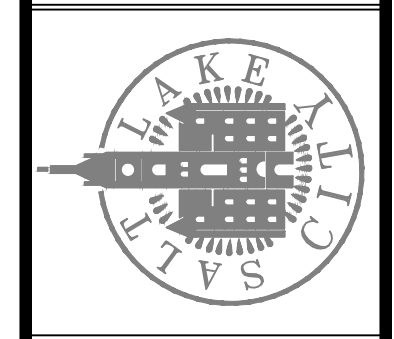
SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
0	06/14/24	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLASH MIX SYSTEM**



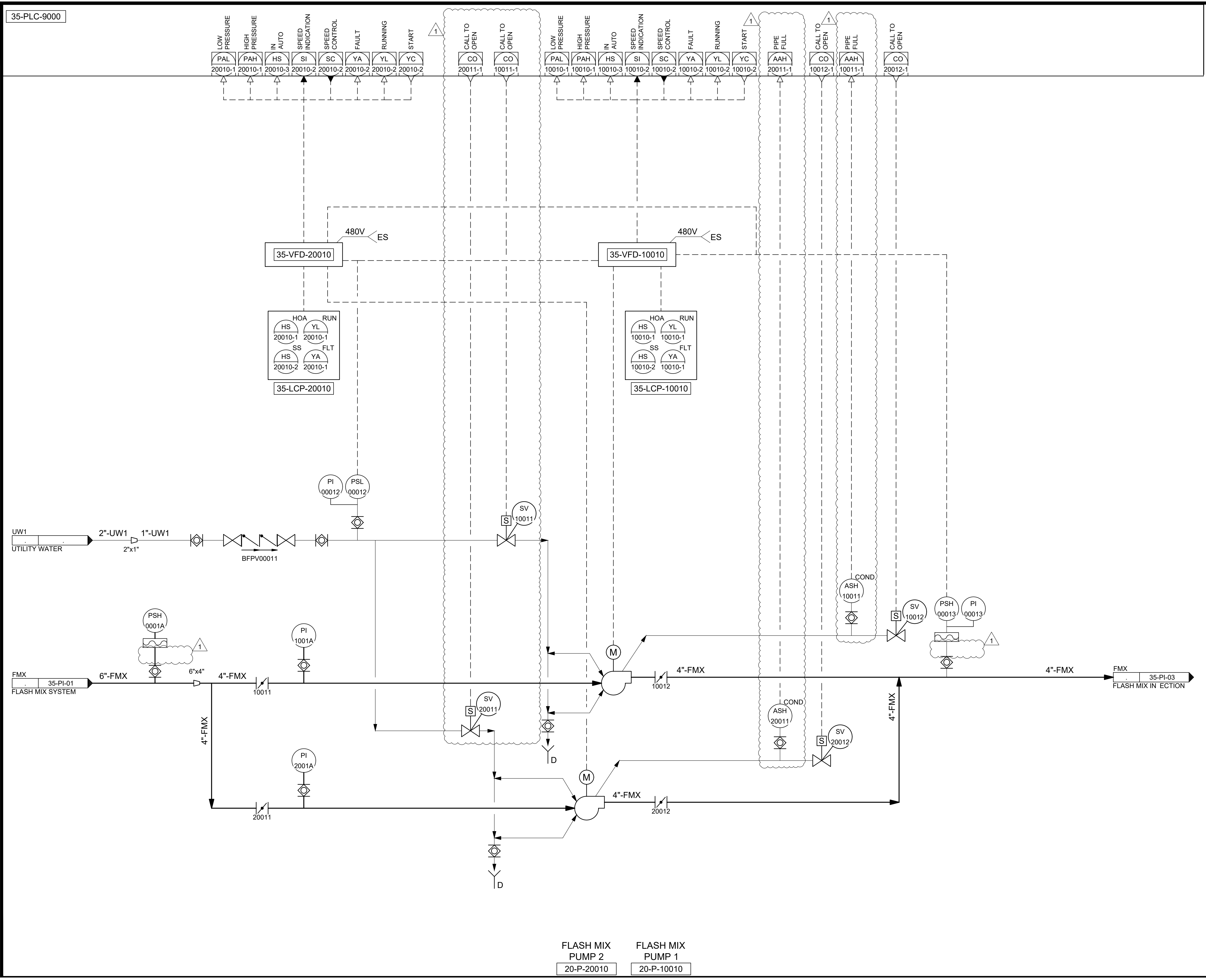
90% GMP

DRAWING NO.  
**35-PI-01**

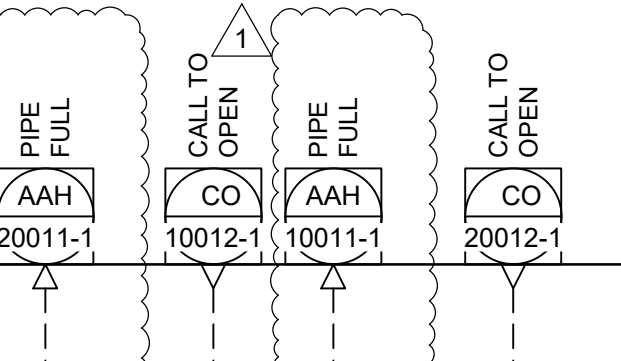
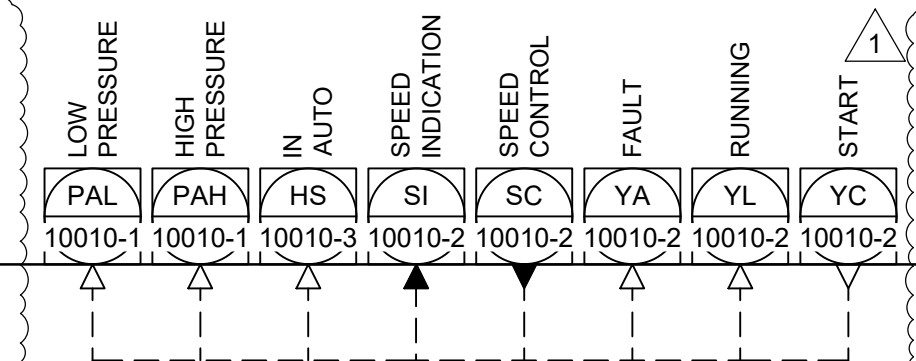
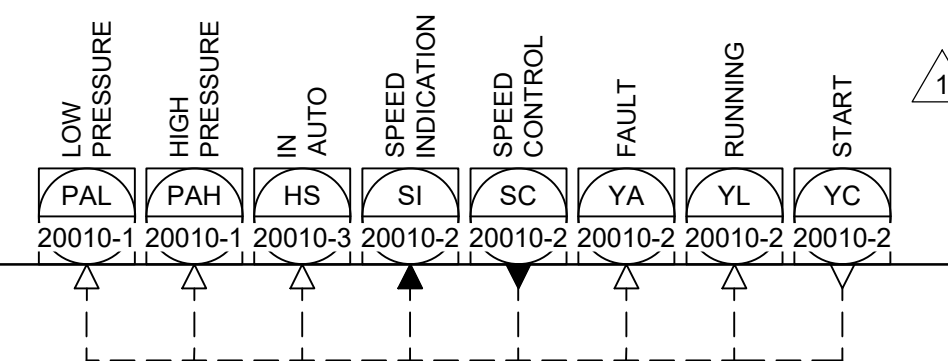
**Brown and Caldwell**

RAW WATER  
 SAMPLE  
 PUMP  
 35-P-00010

C:\Users\alopierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-02.dwg Jun 24, 2024 -- 9:08am



35-PLC-9000



FLASH MIX PUMP 2  
20-P-20010

FLASH MIX PUMP 1  
20-P-10010

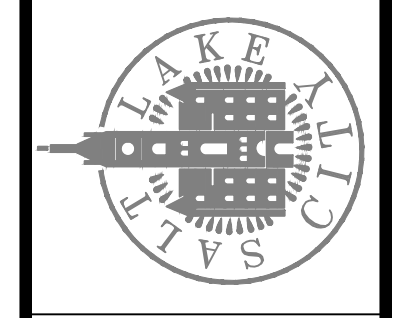
DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: 512260079  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FLASH MIX PUMP**



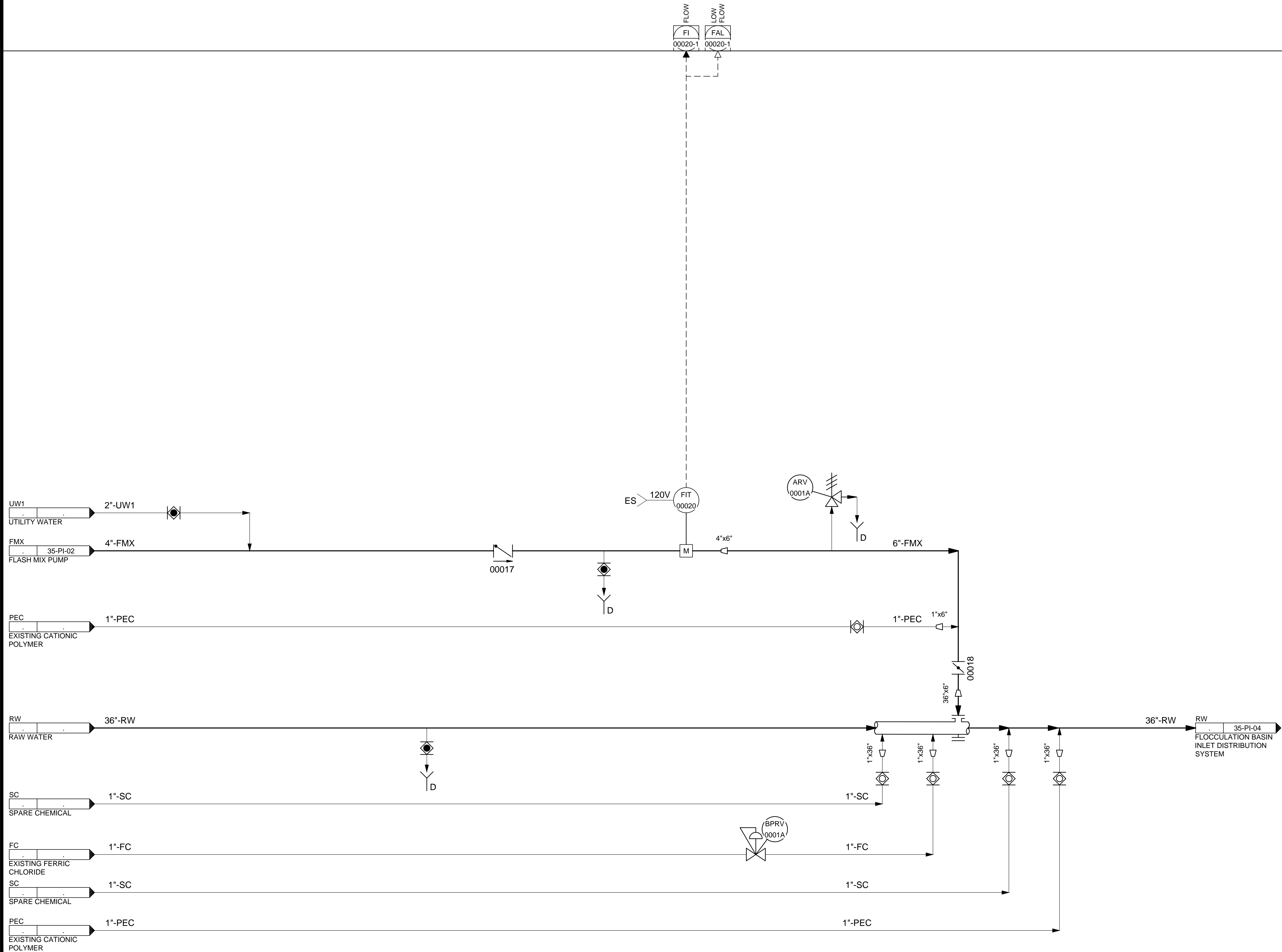
**90% GMP**

**Brown and Caldwell**

DRAWING NO.  
**35-PI-02**



35-PLC-9000



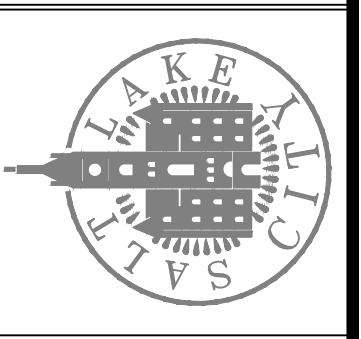
### GENERAL NOTES:

- ALL SAMPLE DRAIN LINES ON THIS DRAWING SHALL BO TO THE TREATMENT RECYCLE PUMP STATION.

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLASH MIX INJECTION**



**90% GMP**

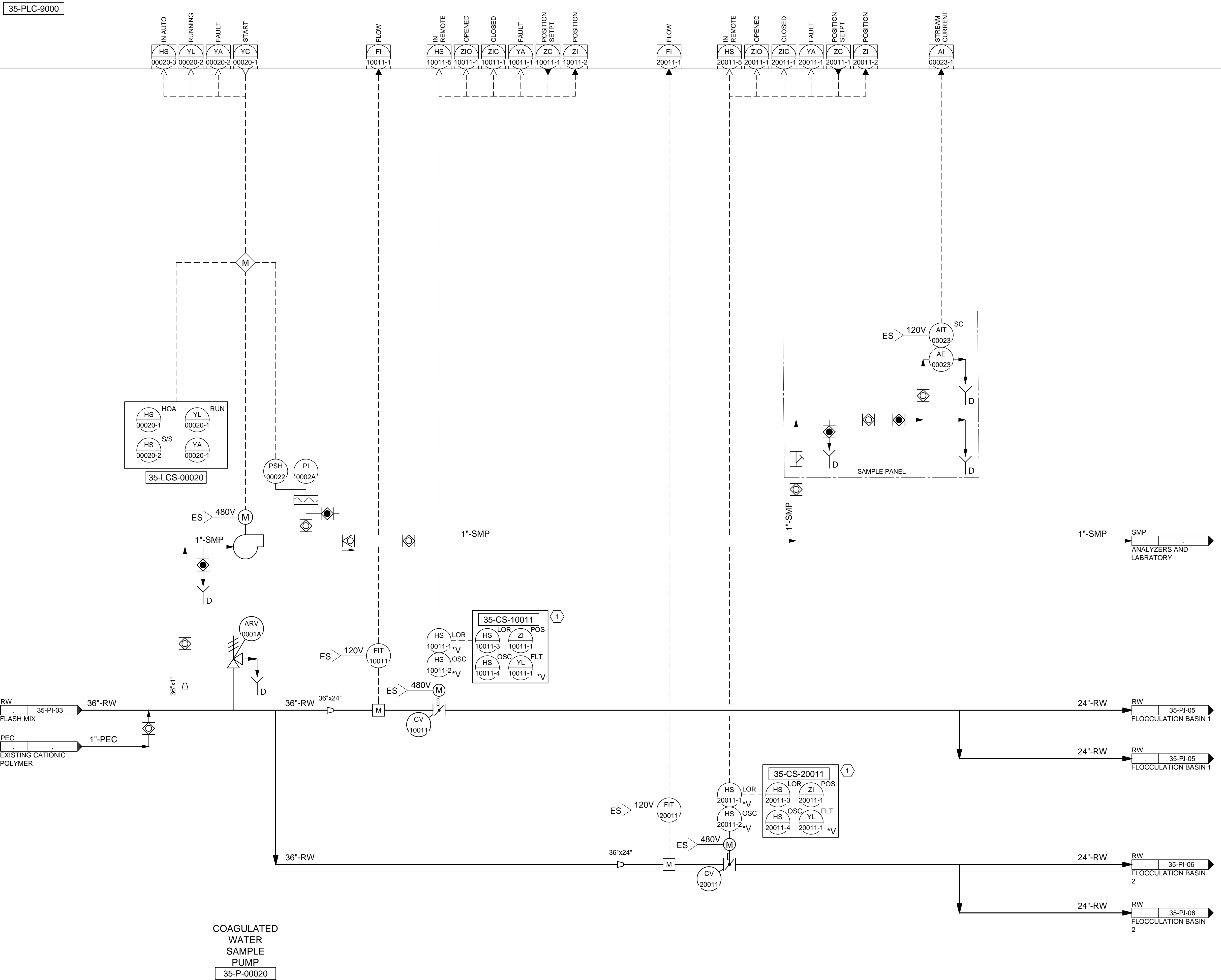
DRAWING NO.  
**35-PI-03**

**Brown and Caldwell**

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\Collaboration\Coche\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-03.dwg Jun 12, 2024 -- 3:46pm

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\Cache\153020-SICDPIU\_City\_Creek\_WTP-v2021\PID\_DWG\35-PI-04.dwg Jun. 12, 2024 -- 9:10pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

DESIGNED BY: B.OTANI  
 DRAWN BY: A.LAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: B.OTANI  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

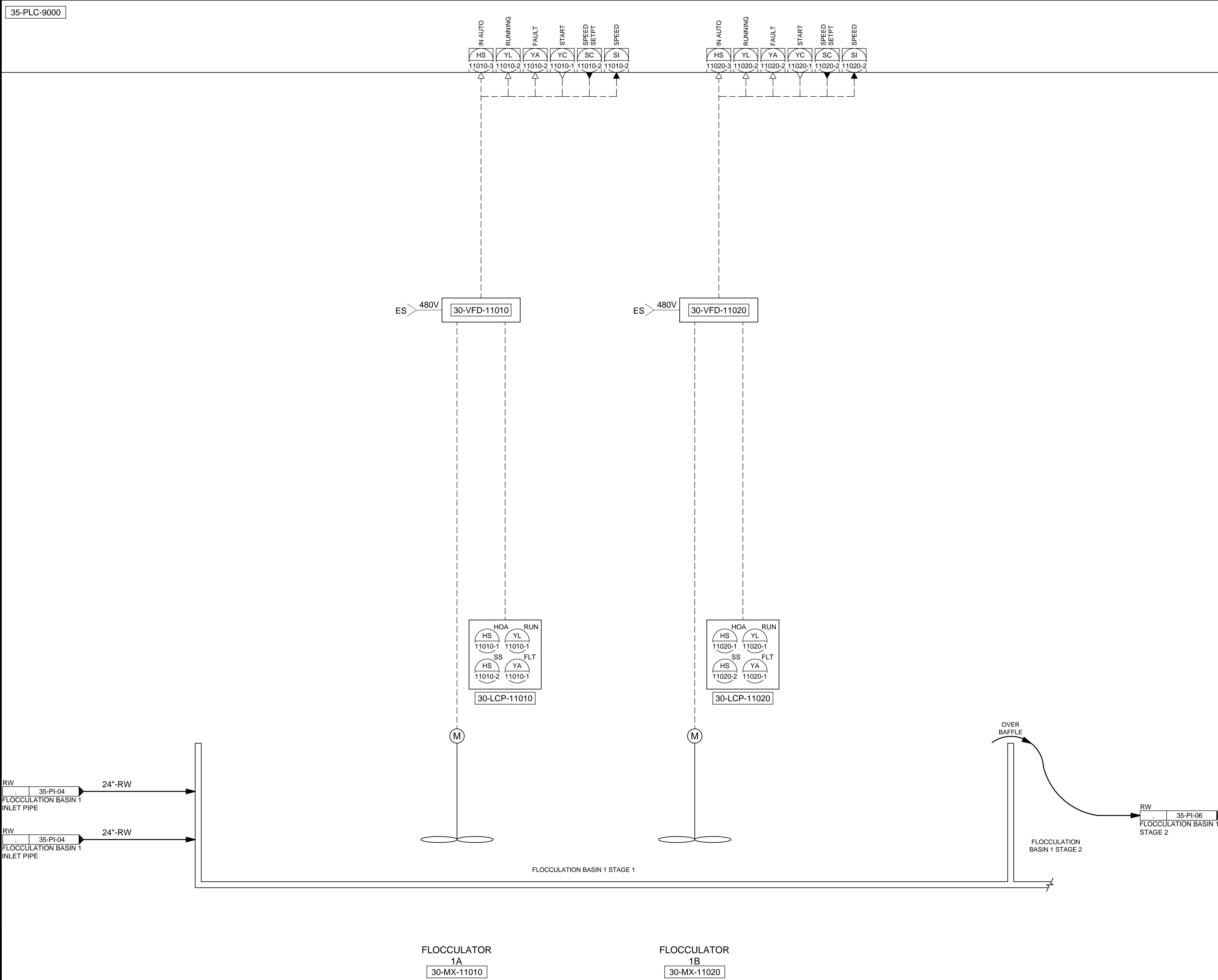
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOCCULATION  
 BASIN INLET CHANNEL**

**90% GMP**

DRAWING NO.  
**35-PI-04**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\Cache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-05.dwg Jun 12, 2024 -- 3:51pm



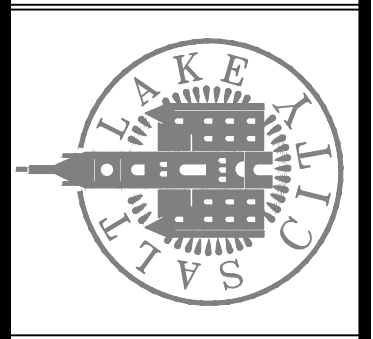
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: 512260079  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)



CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOCCULATION  
 BASIN 1, STAGE 1**

DRAWING NO.  
**35-PI-05**

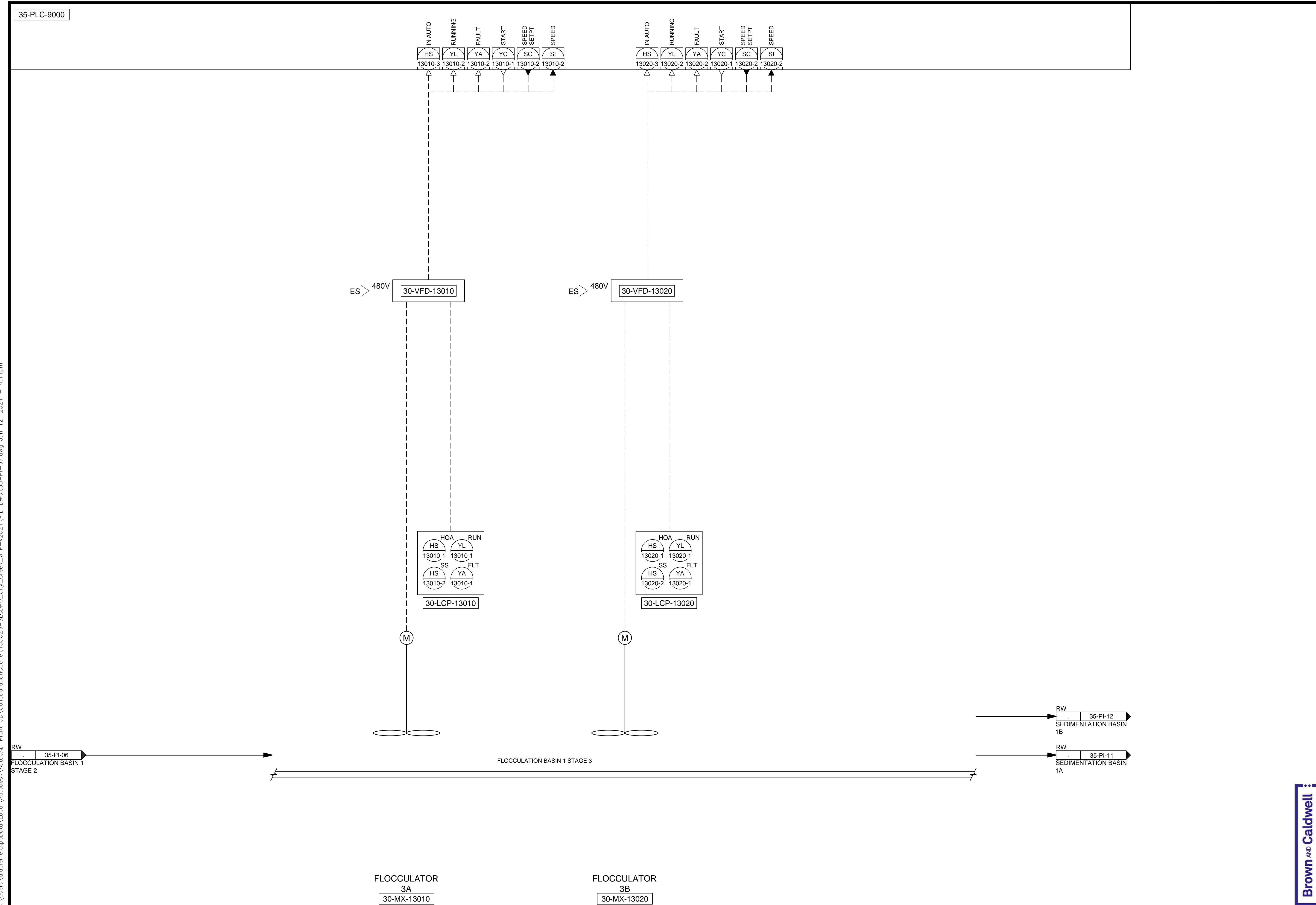
**Brown and Caldwell**

**90% GMP**



C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-07.dwg Jun 12, 2024 -- 4:11pm

35-PLC-9000



FLOCCULATOR  
3A  
30-MX-13010

FLOCCULATOR  
3B  
30-MX-13020

FLOCCULATION BASIN 1 STAGE 3

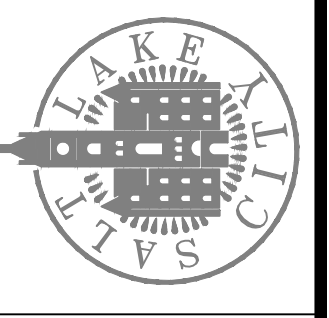
RW  
35-PI-06  
FLOCCULATION BASIN 1  
STAGE 2

RW  
35-PI-12  
SEDIMENTATION BASIN  
1B

RW  
35-PI-11  
SEDIMENTATION BASIN  
1A

REVISIONS	
NO.	DATE
0	06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOCCULATION  
 BASIN 1, STAGE 3**



**90% GMP**

DRAWING NO.  
**35-PI-07**

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

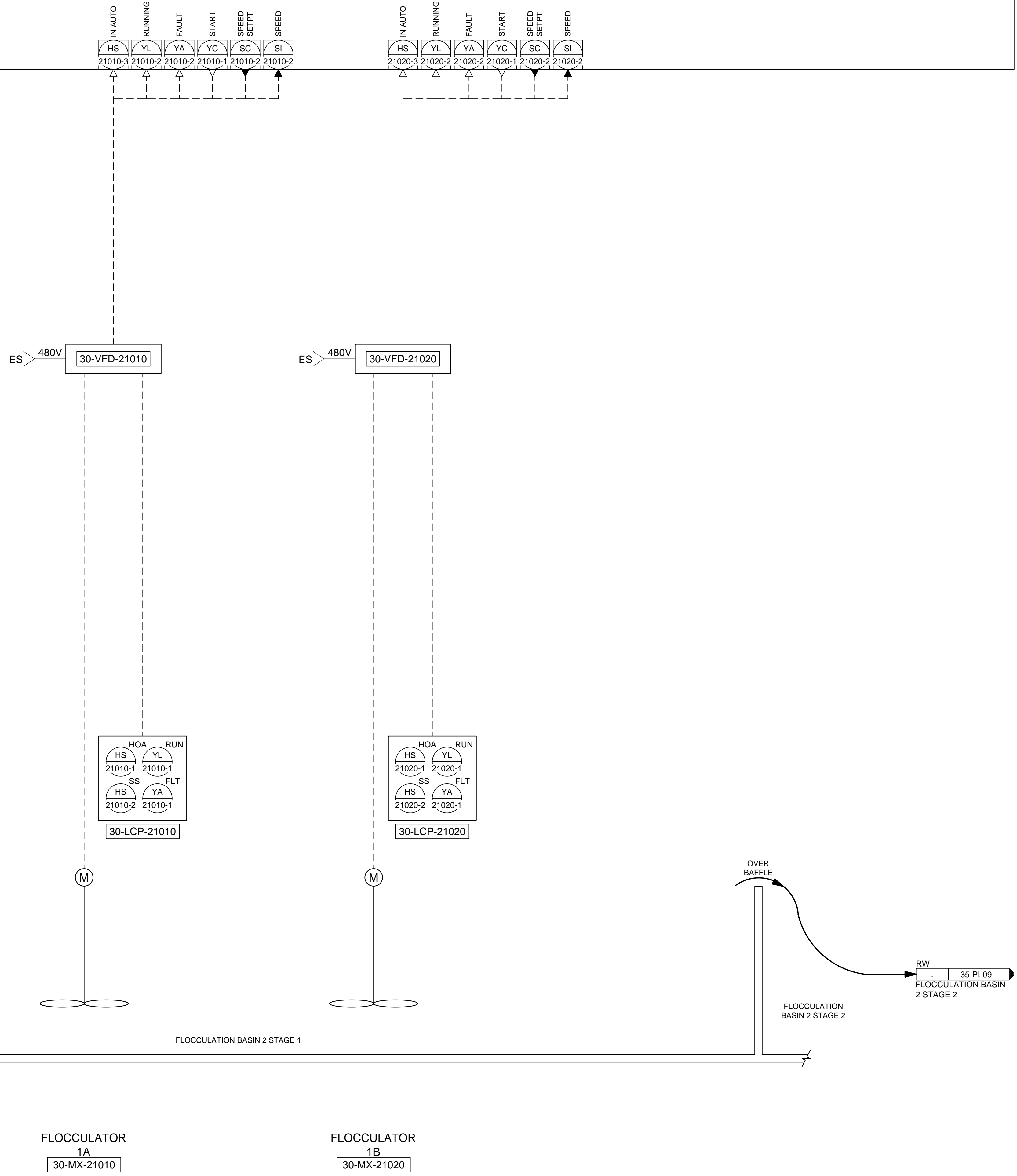
MADE BY	AUTH BY
BO	BO

SCALE:

**VERIFY SCALE**  
 BAR IS ONE INCH ON  
 ORIGINAL DRAWING

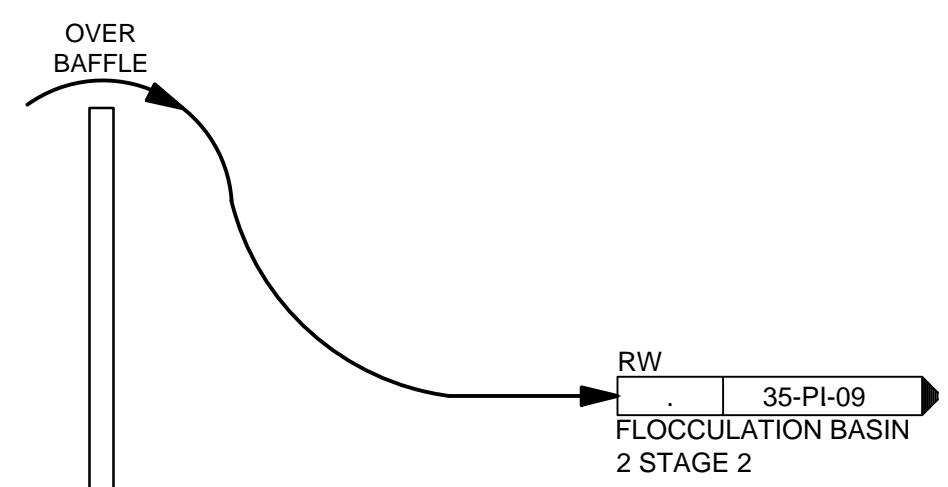
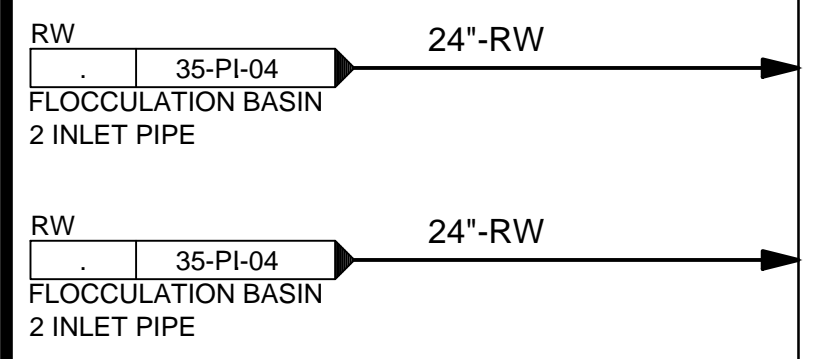
**Brown and Caldwell**

35-PLC-9000



FLOCCULATOR 1A  
30-MX-21010

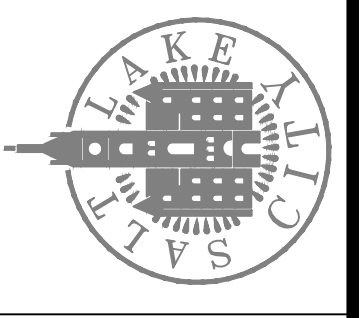
FLOCCULATOR 1B  
30-MX-21020



REVISIONS	
NO.	DATE
0	06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOCCULATION  
 BASIN 2, STAGE 1**



**90% GMP**

DRAWING NO.  
**35-PI-08**

**Brown and Caldwell**

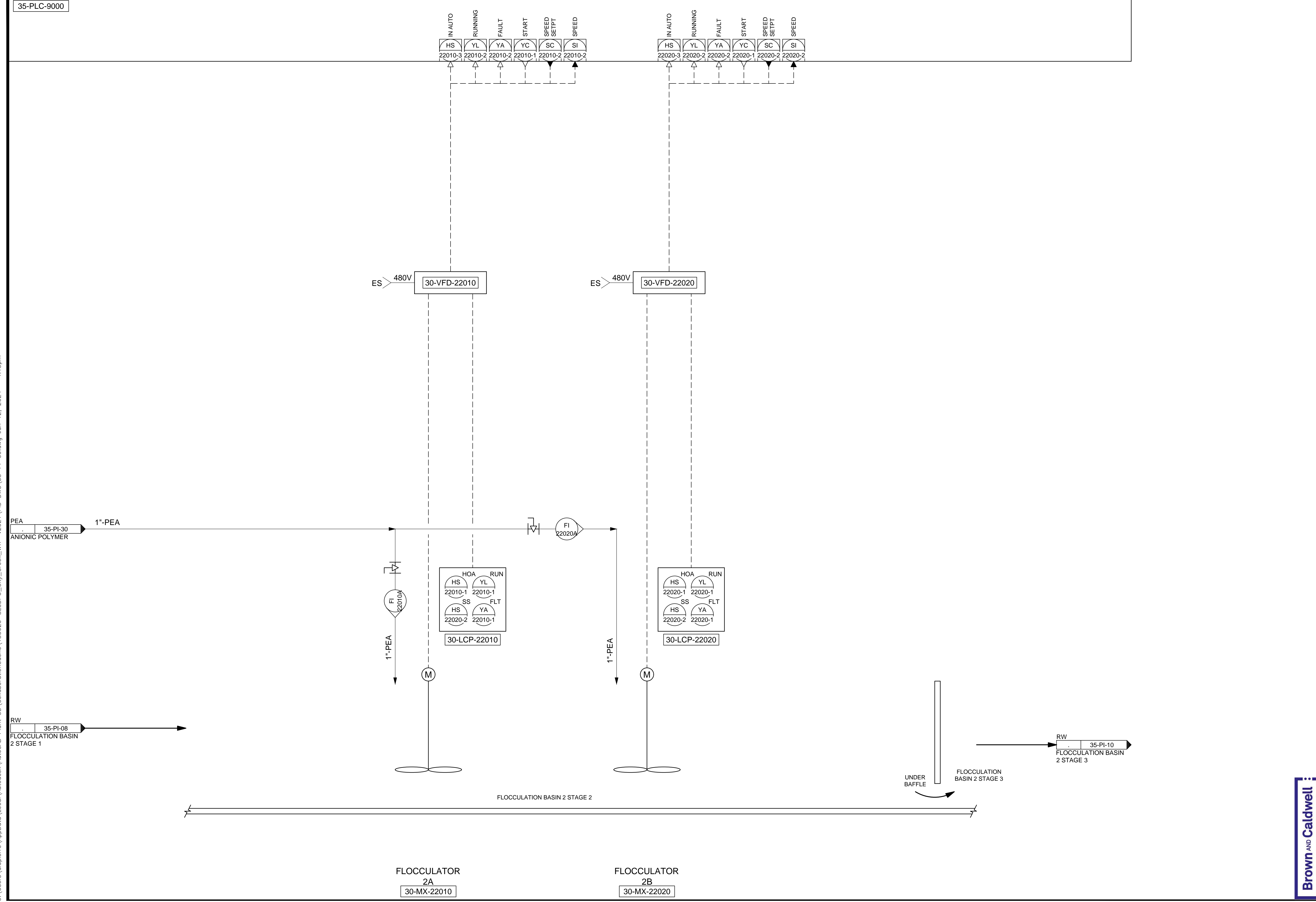
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-v2021\PID\_DWG\35-PI-09.dwg Jun 12, 2024 -- 4:15pm

35-PLC-9000

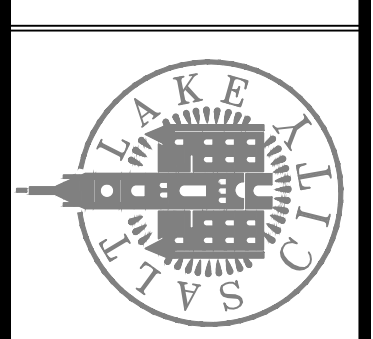


REVISIONS	
NO.	DATE
0	06/14/24
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

DESIGNED BY: BOTANI	AUTH. BY: BO
DRAWN BY: ALAPIERE	BY: BO
CHECKED BY: J.PAGENDARM	
APPROVED BY: BOTANI	
DATE: JUNE 2024	
EWO NO: --	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FLOCCULATION  
 BASIN 2, STAGE 2**



**90% GMP**

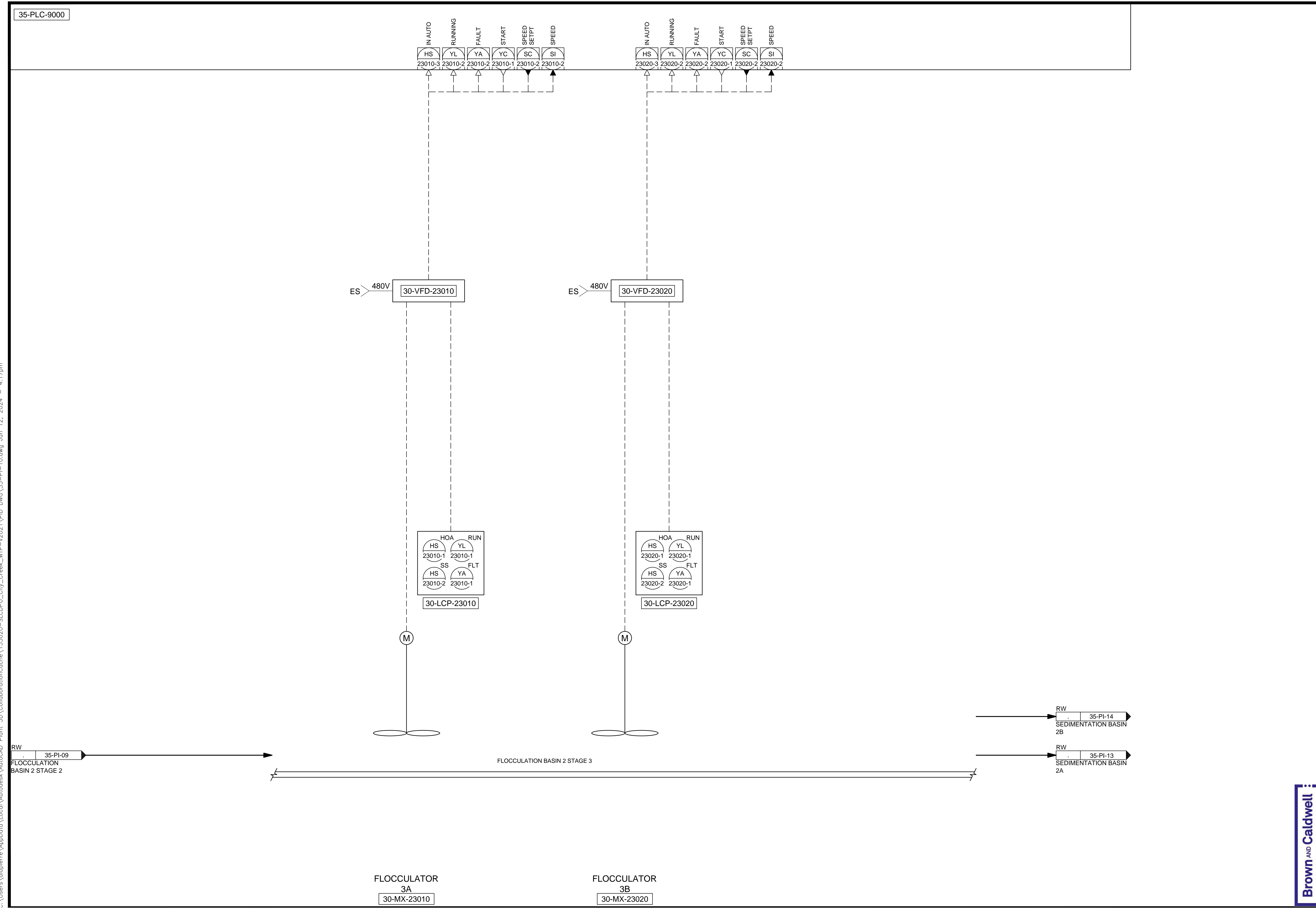
DRAWING NO.  
**35-PI-09**

**Brown and Caldwell**

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

35-PLC-9000

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-10.dwg Jun 12, 2024 -- 4:17pm



RW  
35-PI-09  
FLOCCULATION  
BASIN 2 STAGE 2

RW  
35-PI-14  
SEDIMENTATION BASIN  
2B

RW  
35-PI-13  
SEDIMENTATION BASIN  
2A

FLOCCULATOR  
3A  
30-MX-23010

FLOCCULATOR  
3B  
30-MX-23020

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**TREATMENT - FLOCCULATION  
BASIN 2, STAGE 3**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: M.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: --  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

MADE BY: BO  
BY: BO

NO. DATE  
0 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

REVISIONS

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

SALT LAKE CITY

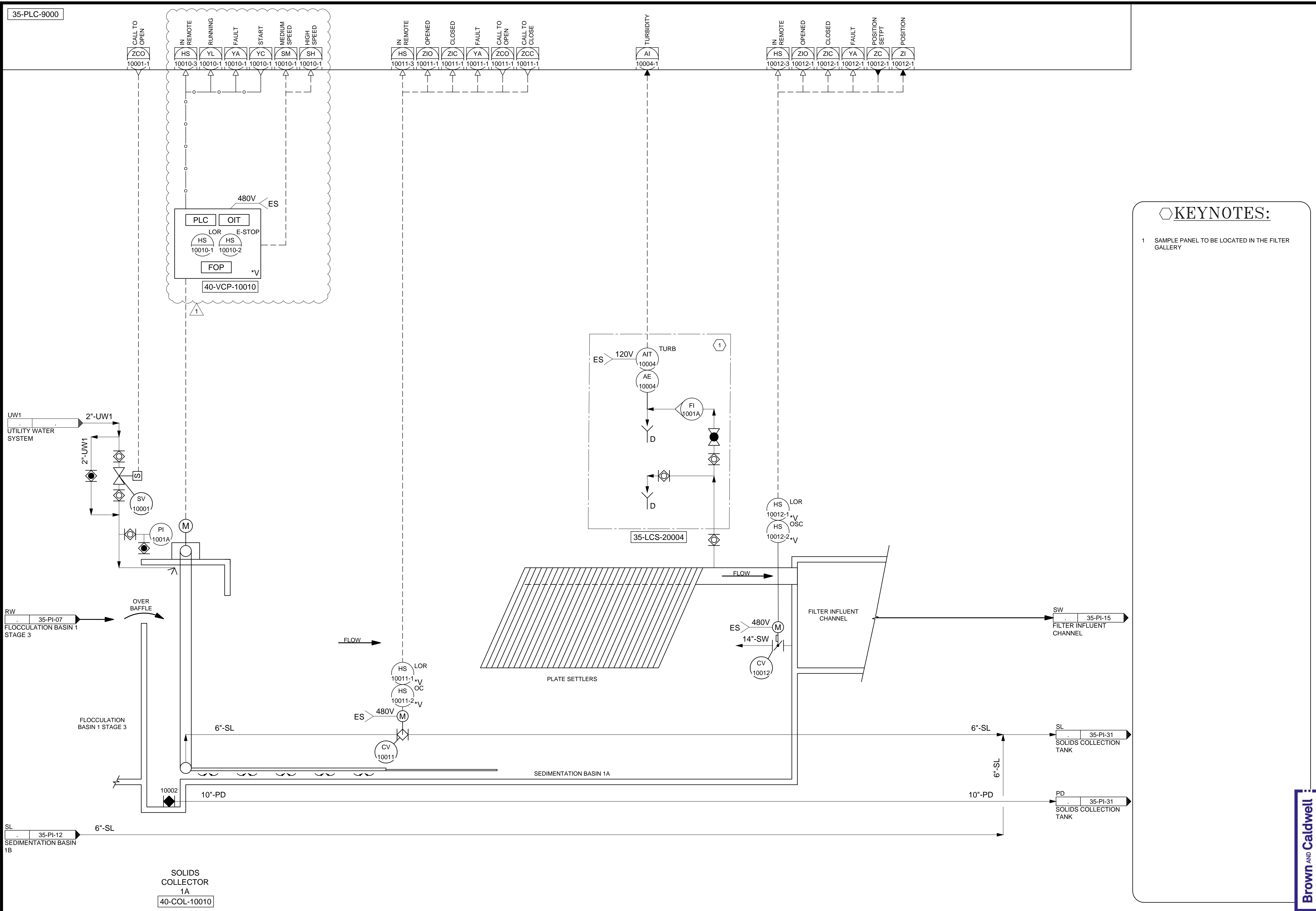
**90% GMP**

DRAWING NO.  
**35-PI-10**

**Brown and Caldwell**



C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\153020-SLDCPPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-11.dwg Jun 21, 2024 -- 3:16pm



DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: ALPAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: 512260079  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	DESCRIPTION	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

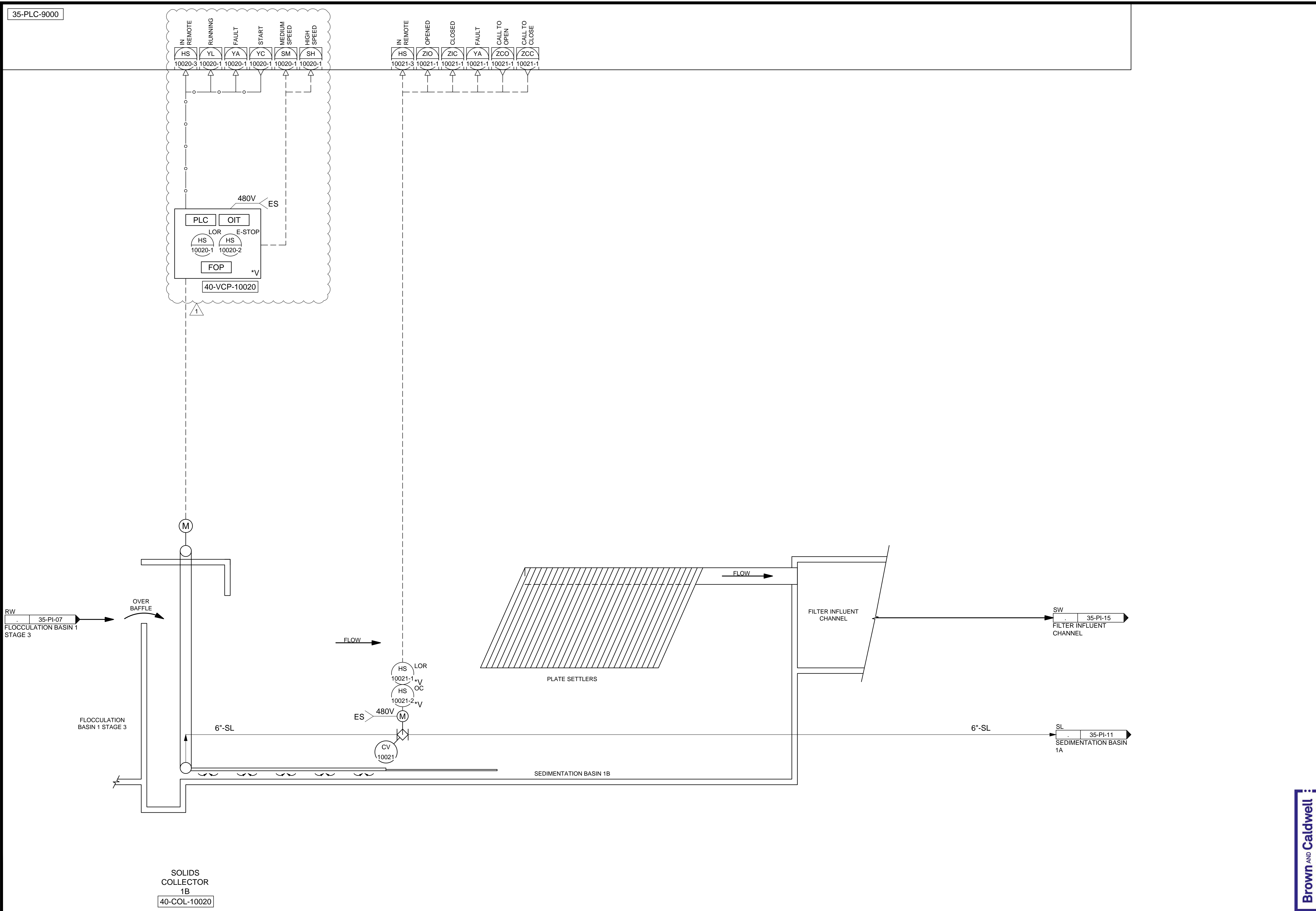
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - SEDIMENTATION  
 BASIN 1A**

**90% GMP**

DRAWING NO.  
**35-PI-11**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\153020-SUCOPL City\_Creek\_WTP-V2021\PID\_DWG\35-PI-12.dwg Jun 21, 2024 -- 2:32pm



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SEDIMENTATION  
BASIN 1B**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

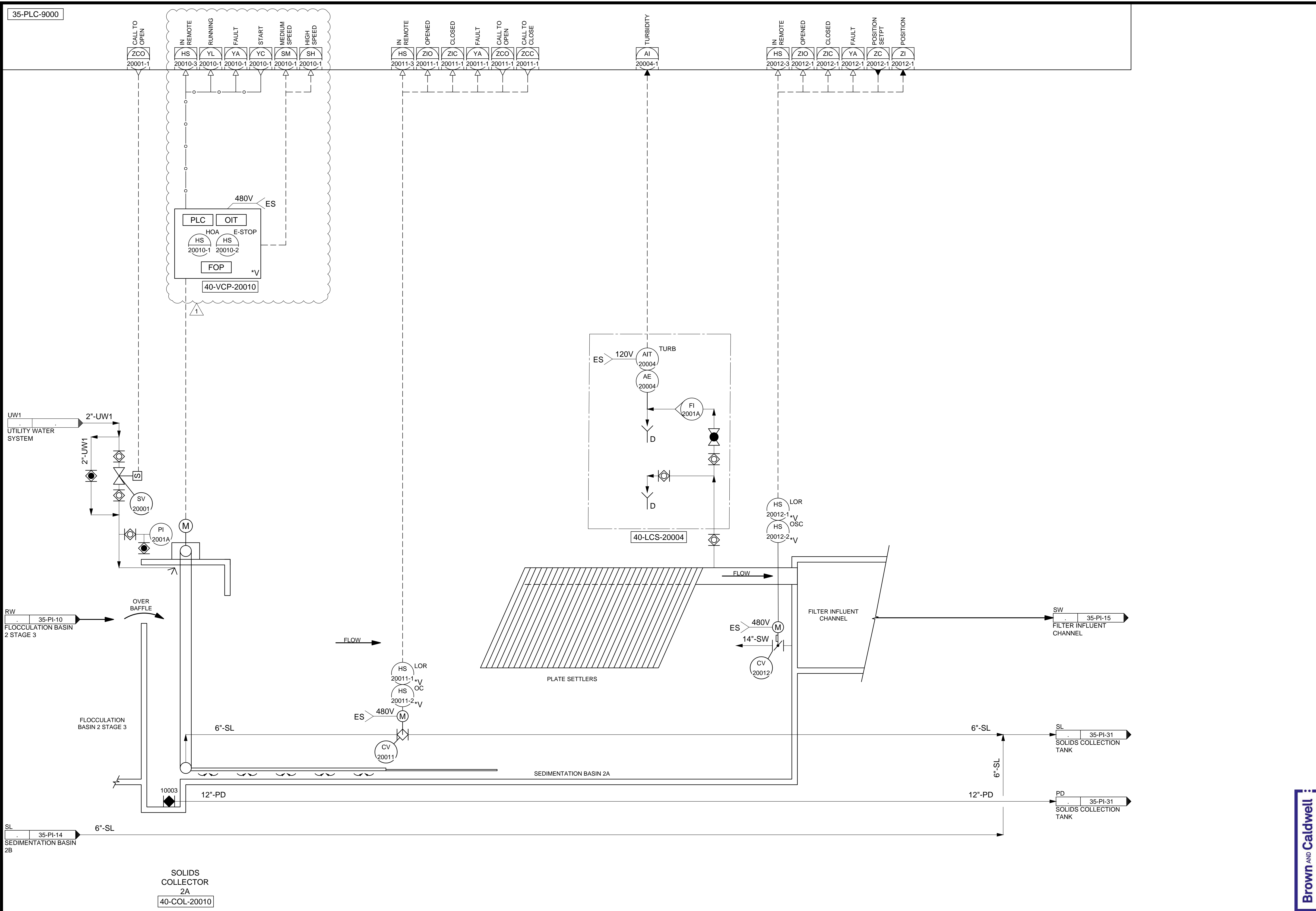
SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	AUTH. BY	MADE BY	REVISIONS
0	06/14/24	ALAPIERE	BO	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
1	06/27/24	BOTANI	BO	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

90% GMP

DRAWING NO.  
**35-PI-12**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLDCPPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-13.dwg Jun 21, 2024 -- 3:18pm



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SEDIMENTATION  
BASIN 2A**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: 512260079  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

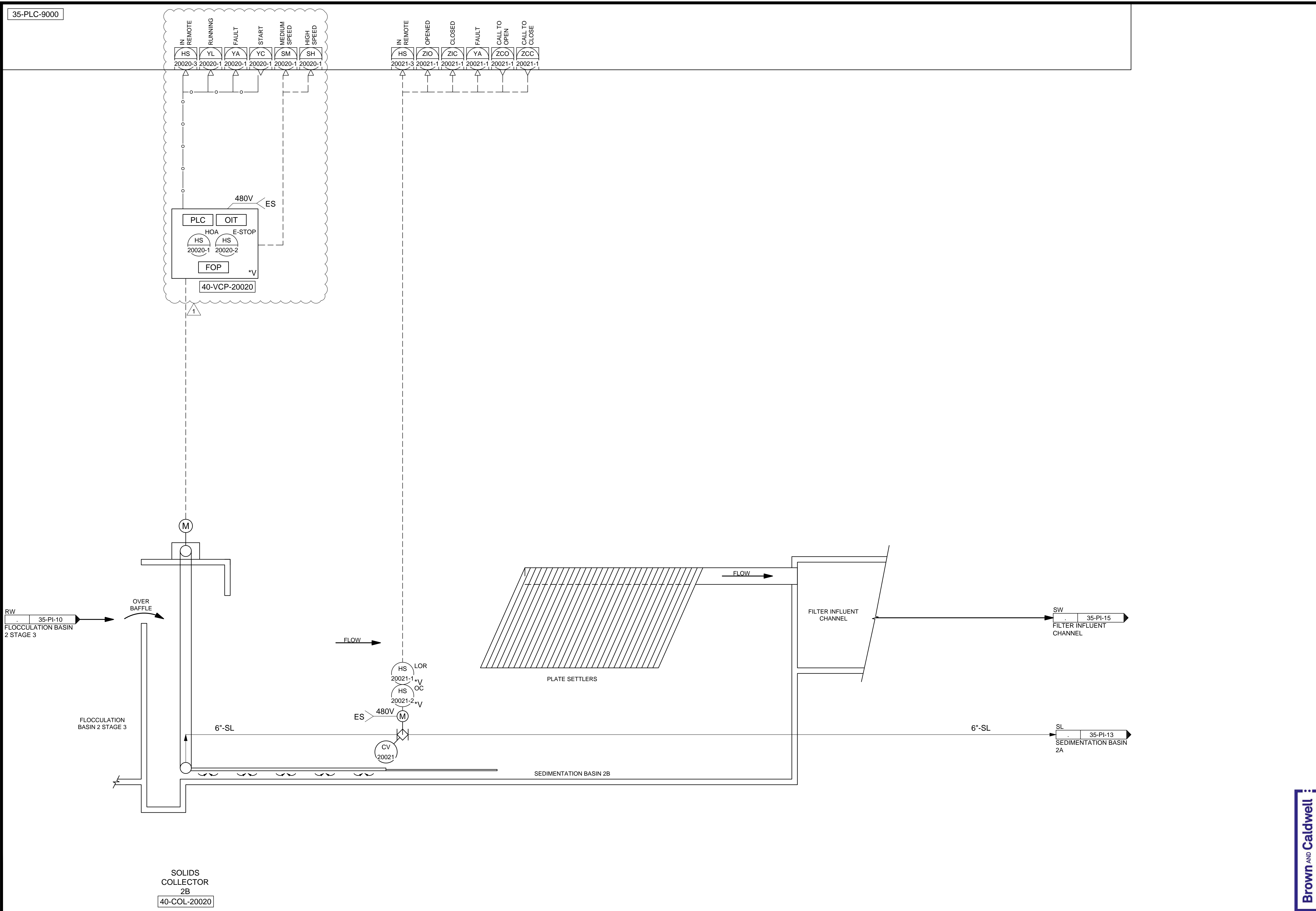
REVISIONS	
NO.	DATE
0	06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
1	06/27/24 REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

**90% GMP**

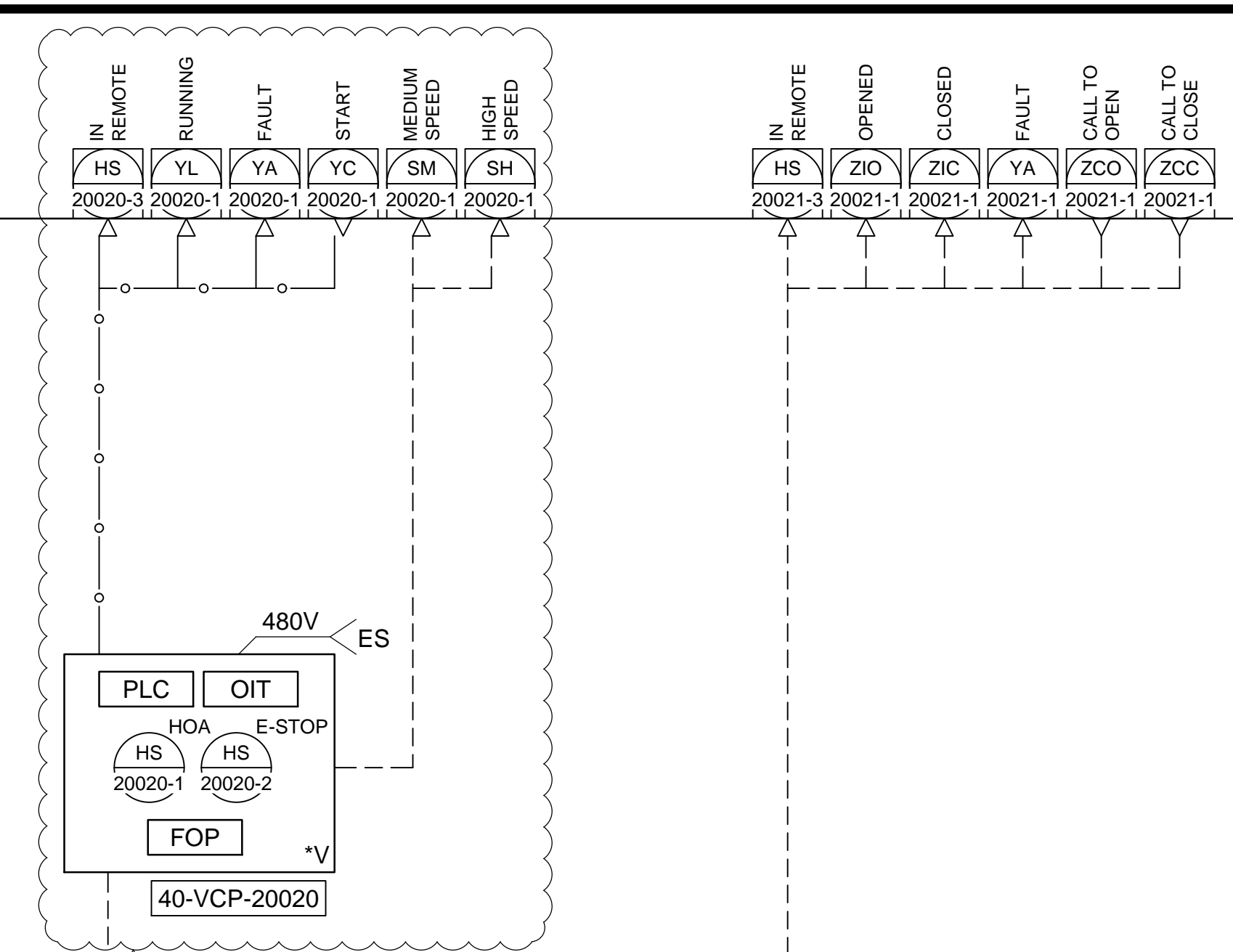
DRAWING NO.  
**35-PI-13**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\153020-SUCDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-14.dwg Jun 21, 2024 -- 2:37pm



35-PLC-9000



SOLIDS COLLECTOR 2B  
40-COL-20020

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - SEDIMENTATION BASIN 2B**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: ---

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

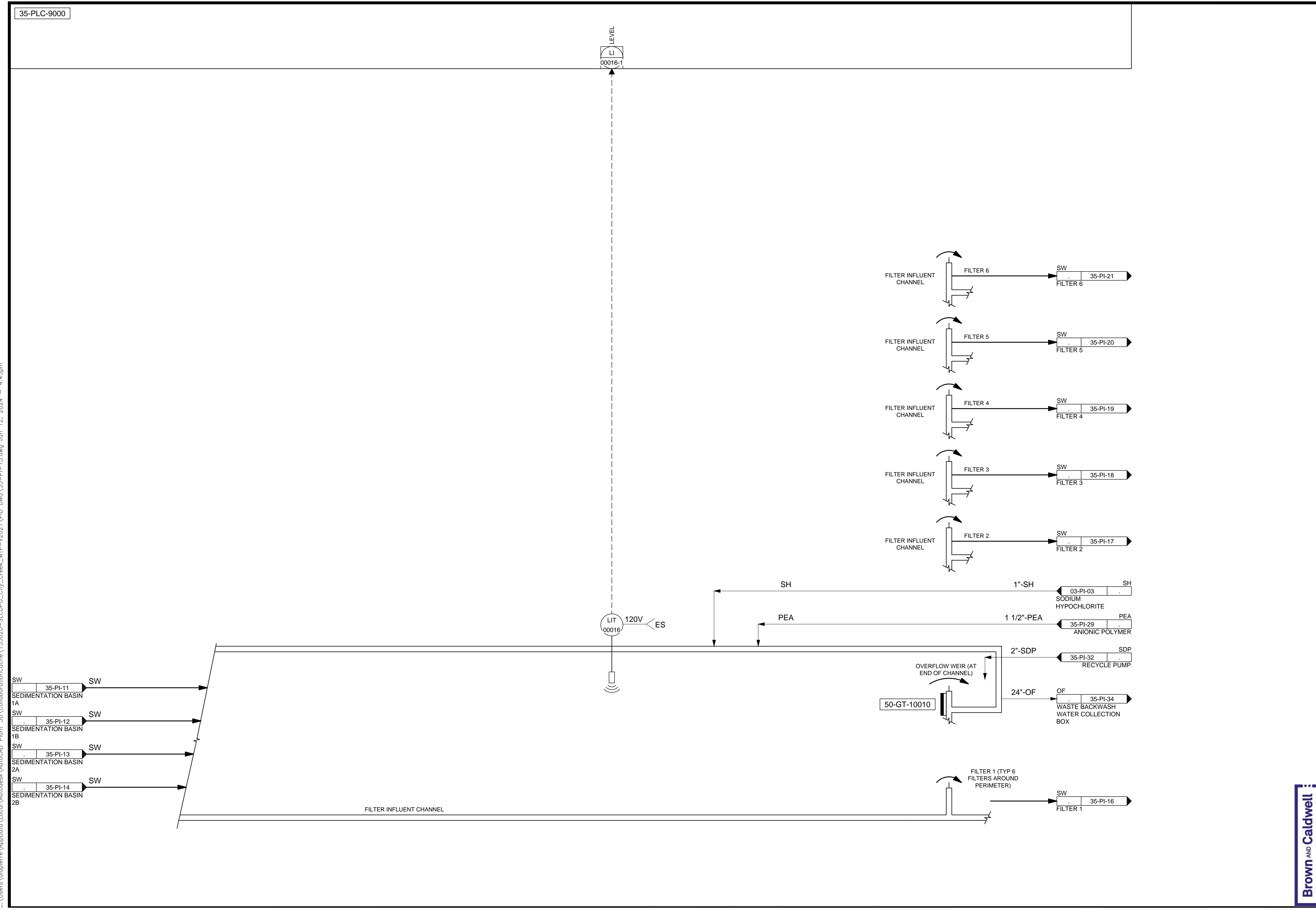
90% GMP

DRAWING NO.  
**35-PI-14**

**Brown and Caldwell**

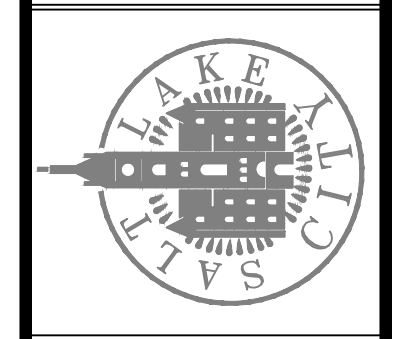
35-PLC-9000

C:\Users\lapierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICD\PUL\_City\_Creek\_WTP-v2021\PID\_DWG\35-PI-15.dwg Jun 12, 2024 -- 4:45pm



NO.	DATE	REVISIONS	MADE BY	AUTH BY	DESIGNED BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO	B. OTANI

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER INLET CHANNEL**



**90% GMP**

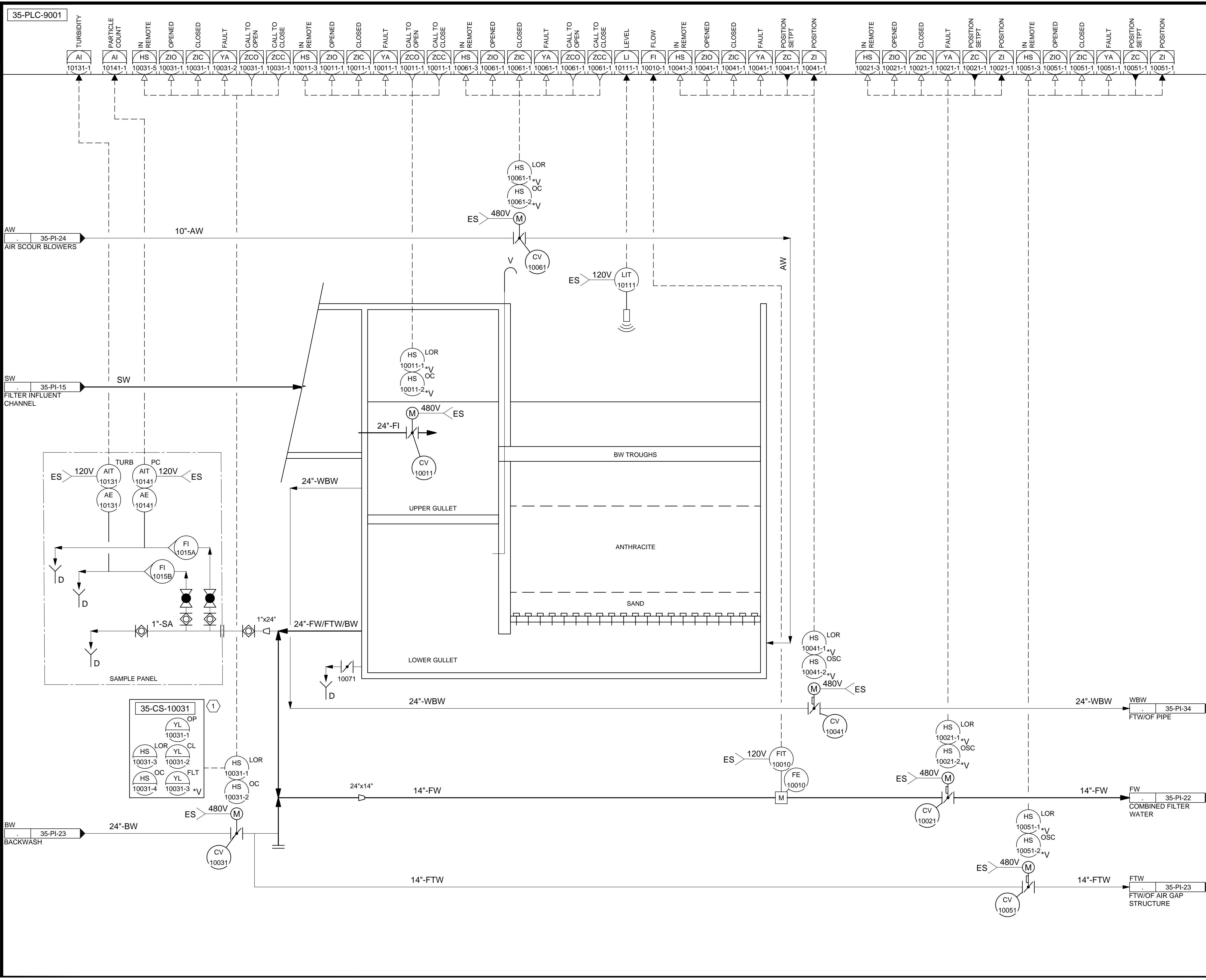
DRAWING NO.  
**35-PI-15**

**Brown and Caldwell**

SCALE: \_\_\_\_\_  
 AUTH. BY: \_\_\_\_\_  
 MADE BY: \_\_\_\_\_  
 DESIGNED BY: B. OTANI  
 DRAWN BY: A. LAPIERRE  
 CHECKED BY: M. PAGEKARM  
 APPROVED BY: B. OTANI  
 DATE: JUNE 2024  
 EWO NO: \_\_\_\_\_  
 ACCOUNT NO: 512260079

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-16.dwg Jun 12, 2024 -- 4:46pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: --  
 ACCOUNT NO: 512260079

SCALE: ---

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER 1**

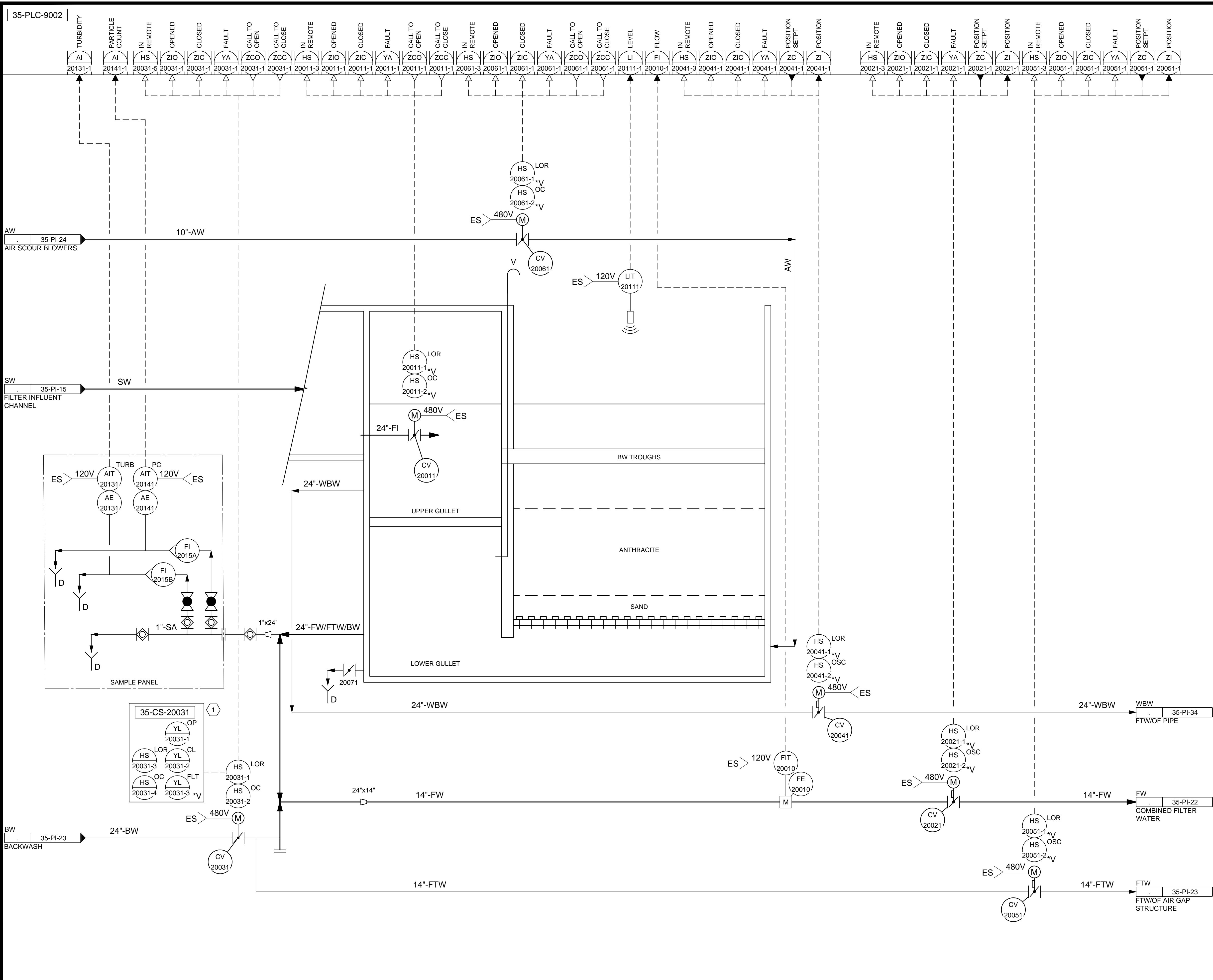
**90% GMP**

DRAWING NO.  
**35-PI-16**

**Brown and Caldwell**

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\Collaboration\AutoCAD Plant\_3D\Collaboration\35-PL-17.dwg Jun 12, 2024 -- 4:47pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

35-PLC-9002	TURBIDITY	AI	20131-1	IN REMOTE	HS	20031-5	OPENED	ZIO	20031-1	CLOSED	ZIC	20031-1	FAULT	YA	20031-1	CALL TO OPEN	ZCO	20031-1	CALL TO CLOSE	ZCC	20031-1	IN REMOTE	HS	20011-3	OPENED	ZIO	20011-1	CLOSED	ZIC	20011-1	FAULT	YA	20011-1	CALL TO OPEN	ZCO	20011-1	CALL TO CLOSE	ZCC	20011-1	IN REMOTE	HS	20061-3	OPENED	ZIO	20061-1	CLOSED	ZIC	20061-1	FAULT	YA	20061-1	CALL TO OPEN	ZCO	20061-1	CALL TO CLOSE	ZCC	20061-1	LEVEL	LI	20111-1	FLOW	FI	20010-1	IN REMOTE	HS	20041-3	OPENED	ZIO	20041-1	CLOSED	ZIC	20041-1	FAULT	YA	20041-1	POSITION SETPT	ZC	20041-1	POSITION	ZI	20041-1	IN REMOTE	HS	20021-3	OPENED	ZIO	20021-1	CLOSED	ZIC	20021-1	FAULT	YA	20021-1	POSITION SETPT	ZC	20021-1	POSITION	ZI	20021-1	IN REMOTE	HS	20051-3	OPENED	ZIO	20051-1	CLOSED	ZIC	20051-1	FAULT	YA	20051-1	POSITION SETPT	ZC	20051-1	POSITION	ZI	20051-1
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DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

SCALE: ---

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

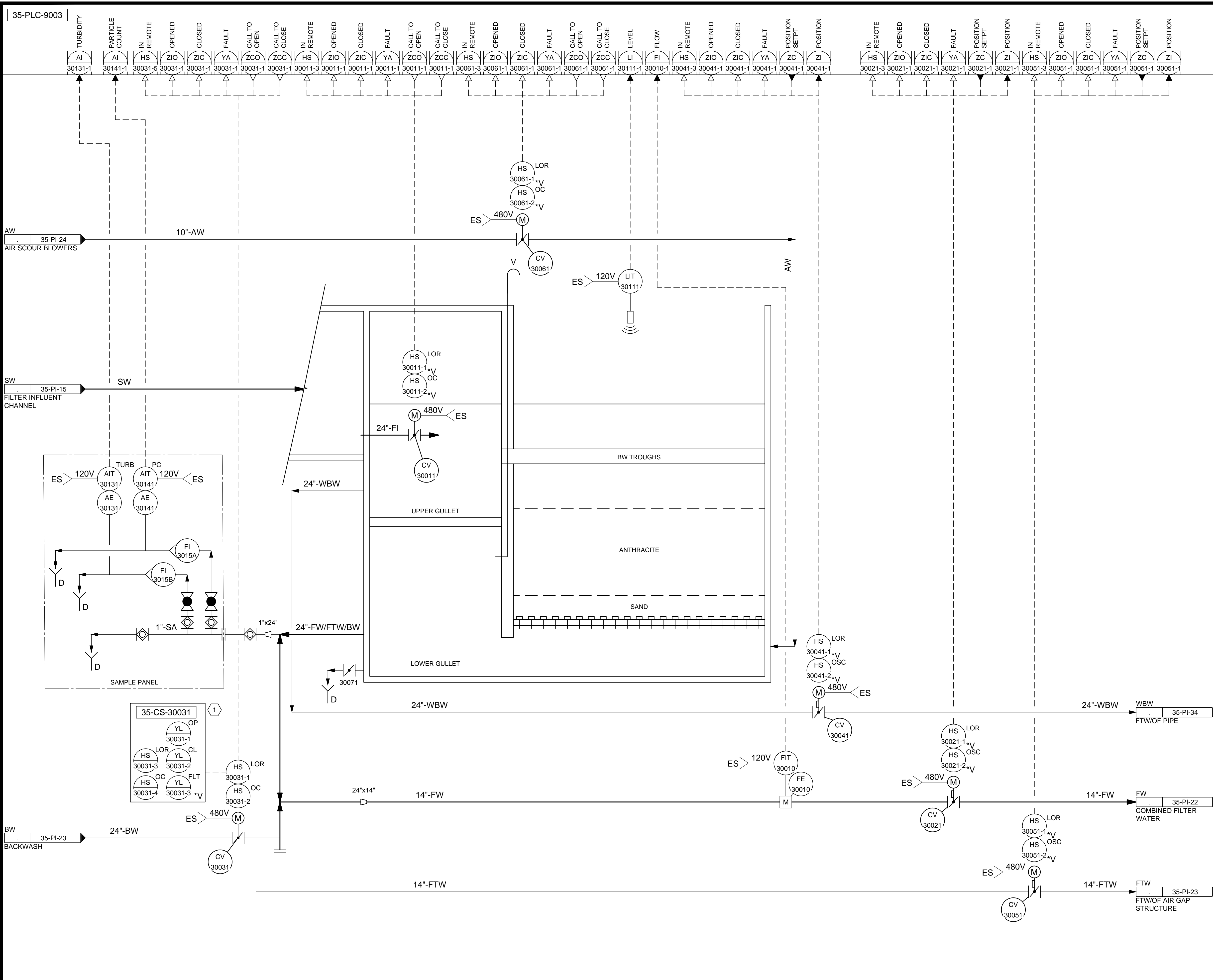
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER 2**

90% GMP

DRAWING NO.  
**35-PI-17**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\Collaboration\AutoCAD Plant\_3D\Collaboration\35-PL-18.dwg Jun 12, 2024 -- 4:46pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

**Brown and Caldwell**

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

SCALE: ---

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER 3**

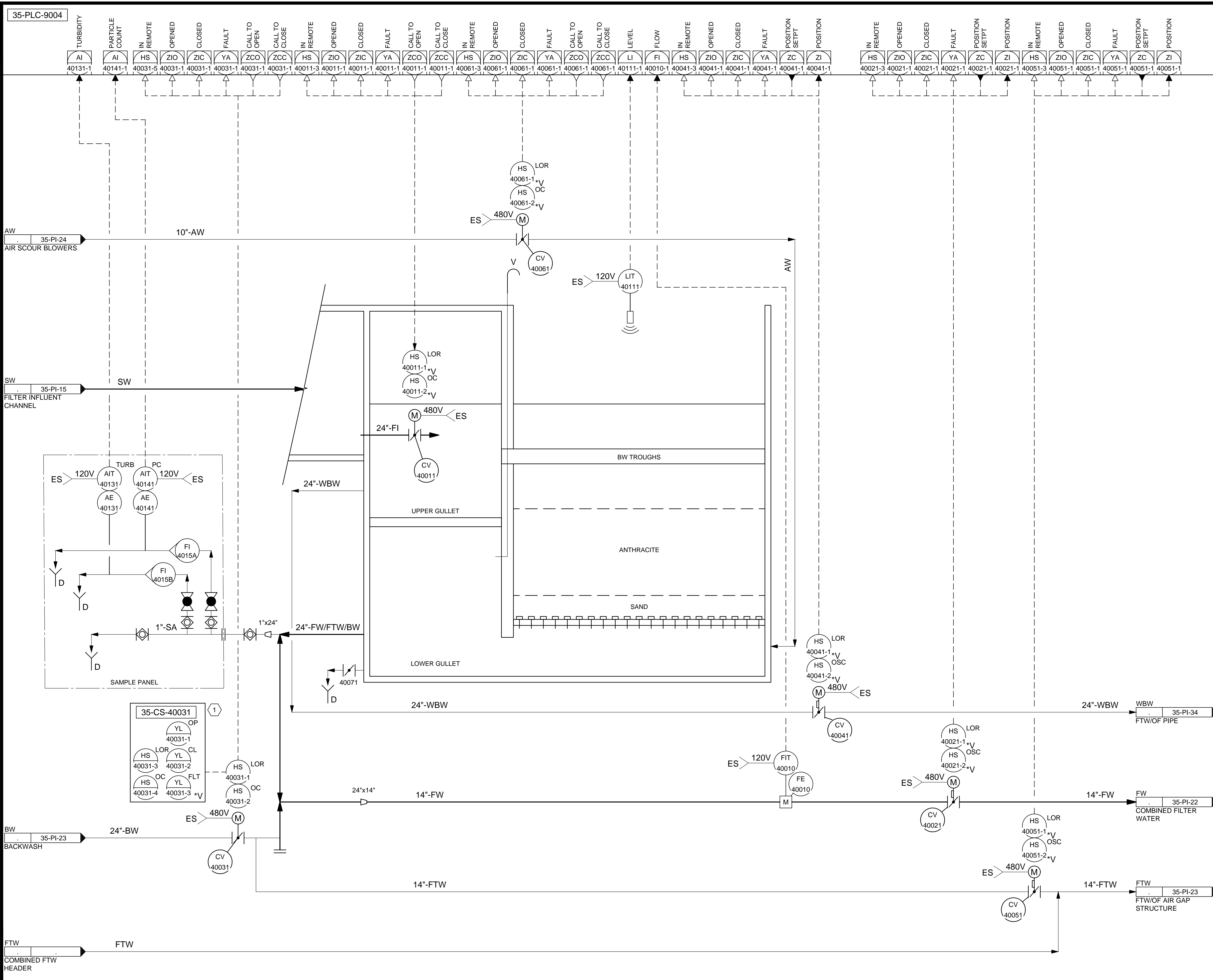
90% GMP

DRAWING NO.  
**35-PI-18**

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

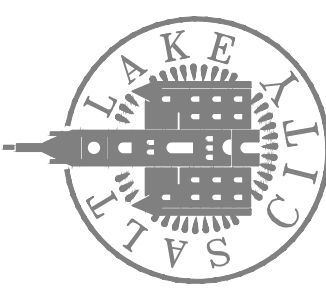


C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-19.dwg Jun 12, 2024 -- 4:46pm



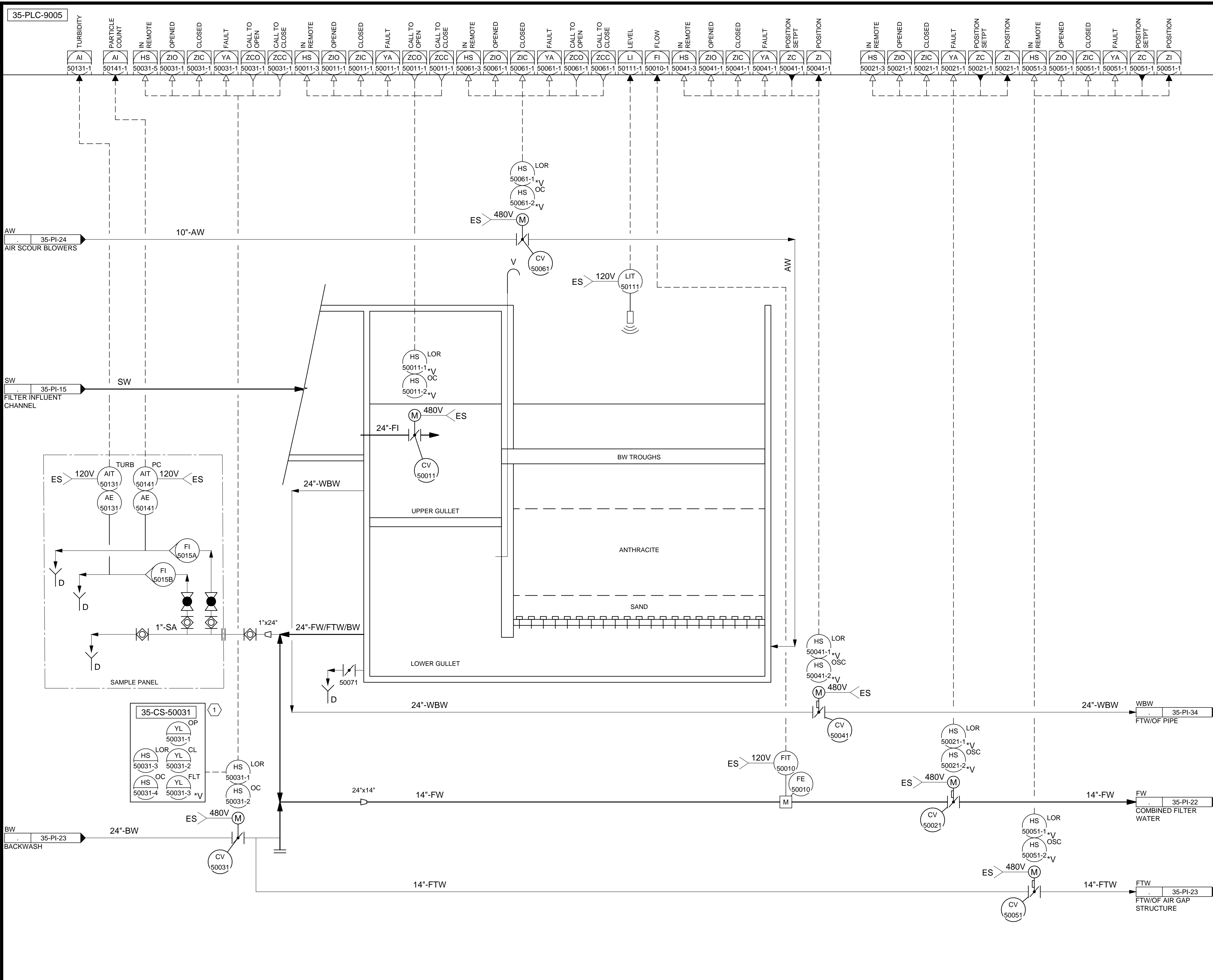
**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

DESIGNED BY: BOTANI		SCALE:	
DRAWN BY: ALAPIERE			
CHECKED BY: J.PAGENDARM			
APPROVED BY: BOTANI		DATE: JUNE 2024	
EWO NO: ---		ACCOUNT NO: 512260079	
<b>VERIFY SCALE</b> BAR IS ONE INCH ON ORIGINAL DRAWING			
<b>REVISIONS</b>			
NO.	DATE	AUTH. BY	MADE BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES			
CITY CREEK TREATMENT PLANT UPGRADES			
BRIC PACKAGE			
<b>TREATMENT - FILTER 4</b>			
			
<b>90% GMP</b>			
DRAWING NO.			
<b>35-PI-19</b>			

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-20.dwg Jun 12, 2024 - 4:50pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

35-PLC-9005	TURBIDITY	AI	50131-1	PARTICLE COUNT	AI	50141-1	IN REMOTE	HS	50031-5	OPENED	ZIO	50031-1	CLOSED	ZIC	50031-1	FAULT	YA	50031-1	CALL TO OPEN	ZCO	50031-1	CALL TO CLOSE	ZCC	50031-1	IN REMOTE	HS	50011-3	OPENED	ZIO	50011-1	CLOSED	ZIC	50011-1	FAULT	YA	50011-1	CALL TO OPEN	ZCO	50011-1	CALL TO CLOSE	ZCC	50011-1	IN REMOTE	HS	50061-3	OPENED	ZIO	50061-1	CLOSED	ZIC	50061-1	FAULT	YA	50061-1	CALL TO OPEN	ZCO	50061-1	CALL TO CLOSE	ZCC	50061-1	LEVEL	LI	50111-1	FLOW	FI	50010-1	IN REMOTE	HS	50041-3	OPENED	ZIO	50041-1	CLOSED	ZIC	50041-1	FAULT	YA	50041-1	POSITION SETPT	ZC	50041-1	POSITION	ZI	50041-1	IN REMOTE	HS	50021-3	OPENED	ZIO	50021-1	CLOSED	ZIC	50021-1	FAULT	YA	50021-1	POSITION SETPT	ZC	50021-1	POSITION	ZI	50021-1	IN REMOTE	HS	50051-3	OPENED	ZIO	50051-1	CLOSED	ZIC	50051-1	FAULT	YA	50051-1	POSITION SETPT	ZC	50051-1	POSITION	ZI	50051-1
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DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

SCALE: ---

REVISIONS

NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - FILTER 5**

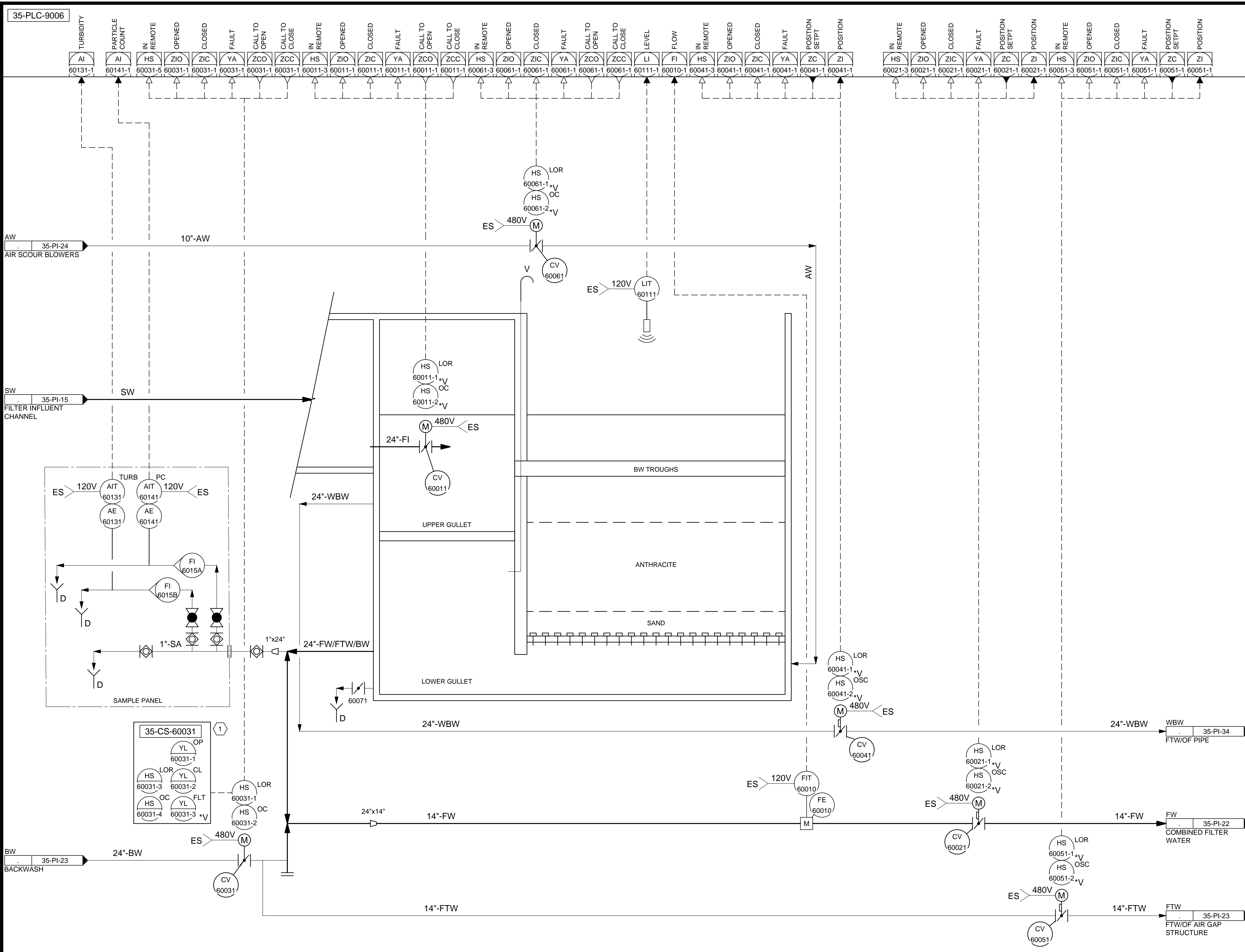
90% GMP

DRAWING NO.  
**35-PI-20**

**Brown and Caldwell**

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\AutoCAD Plant 3D\Collaboration\35-PL-21.dwg Jun 12, 2024 4:24pm



**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

DESIGNED BY: BOTANI		SCALE:	
DRAWN BY: ALAPIERE		VERIFY SCALE	
CHECKED BY: J.PAGENDARM		BAR IS ONE INCH ON ORIGINAL DRAWING	
APPROVED BY: BOTANI		DATE: JUNE 2024	
EWO NO: --		ACCOUNT NO: 512260079	

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

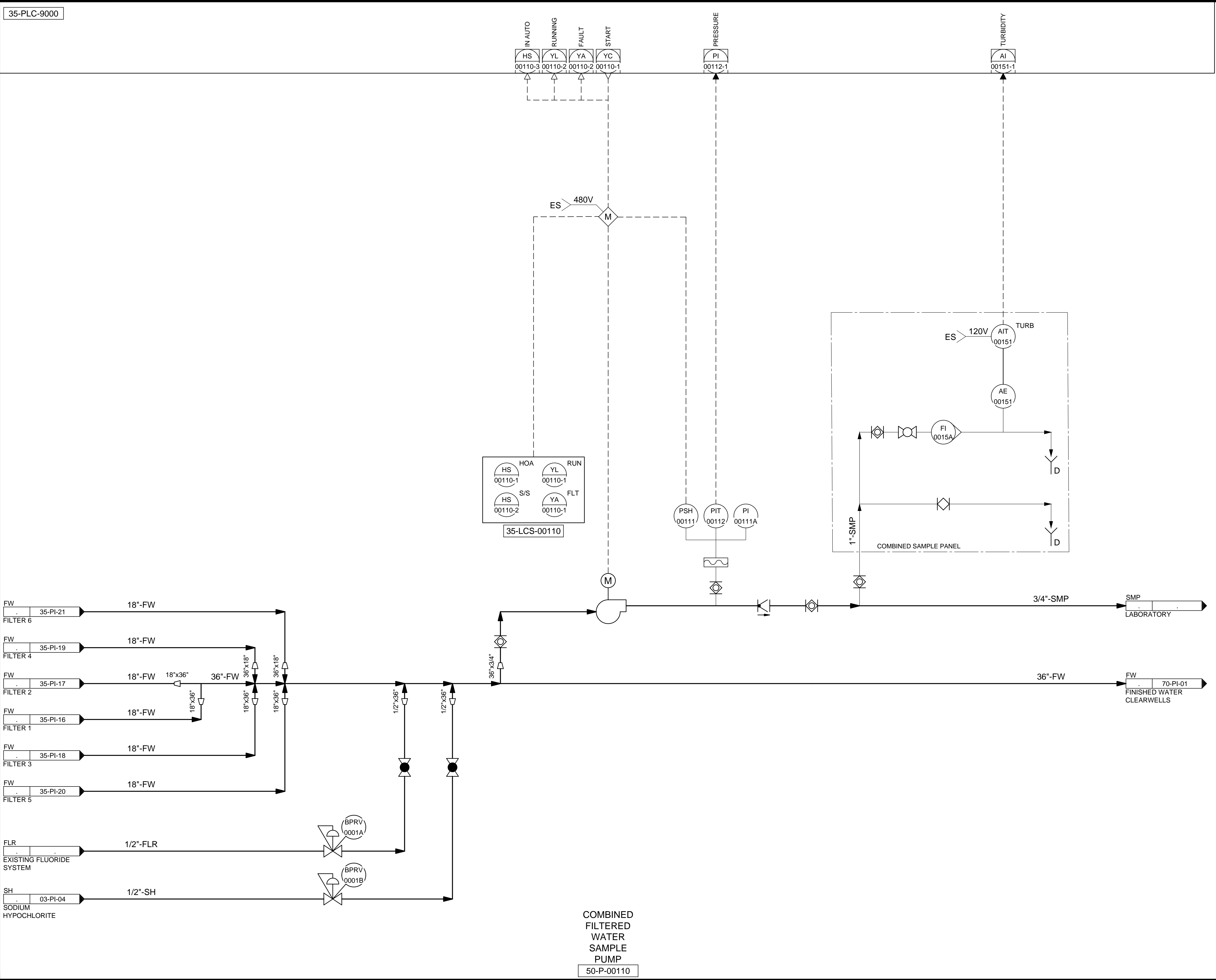
SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES BRIC PACKAGE  
**TREATMENT - FILTER 6**

**90% GMP**

DRAWING NO.  
**35-PI-21**

**Brown and Caldwell**

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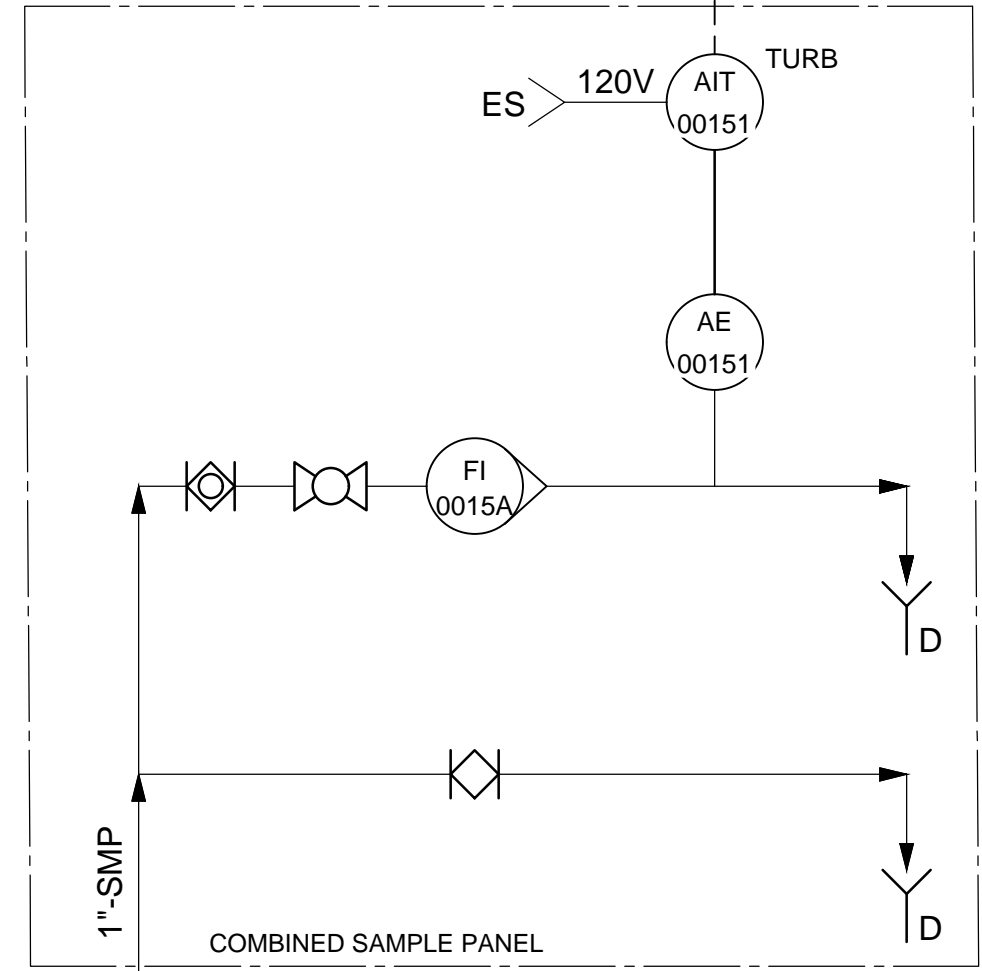
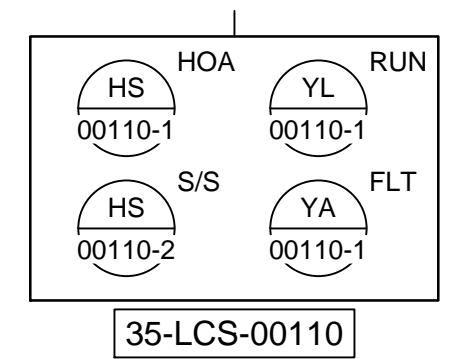
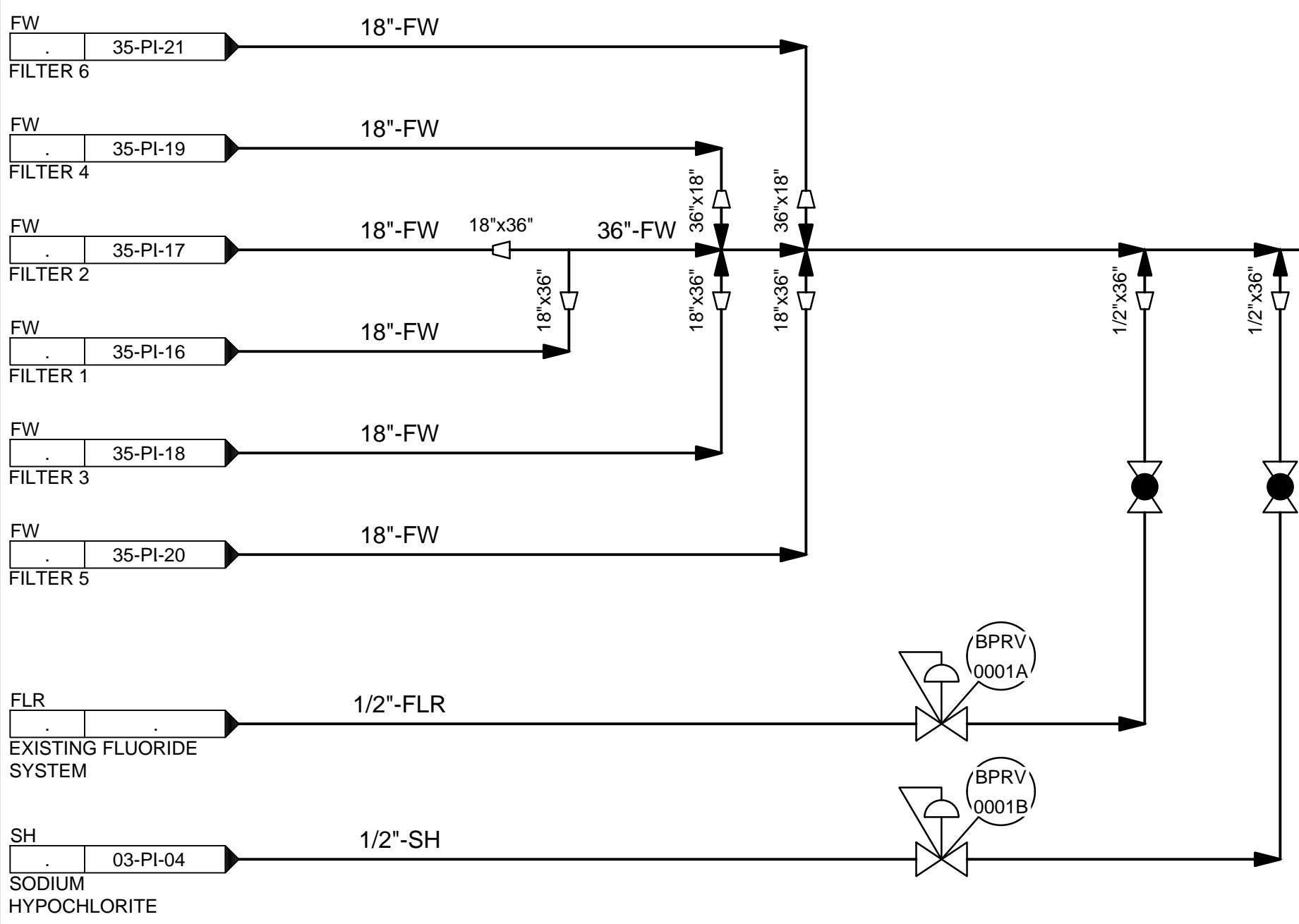


35-PLC-9000

IN AUTO HS 00110-3  
 RUNNING YL 00110-2  
 FAULT YA 00110-2  
 START YC 00110-1

PI 00112-1

TURBIDITY AI 00151-1



COMBINED  
 FILTERED  
 WATER  
 SAMPLE  
 PUMP  
 50-P-00110

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - COMBINED  
 FILTERED WATER**

DESIGNED BY: B. OTANI  
 DRAWN BY: A. LAPIERRE  
 CHECKED BY: M. PAGENDARM  
 APPROVED BY: B. OTANI  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

REVISIONS

NO.	DATE	DESCRIPTION
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

MADE BY: BO  
 AUTH BY: BO

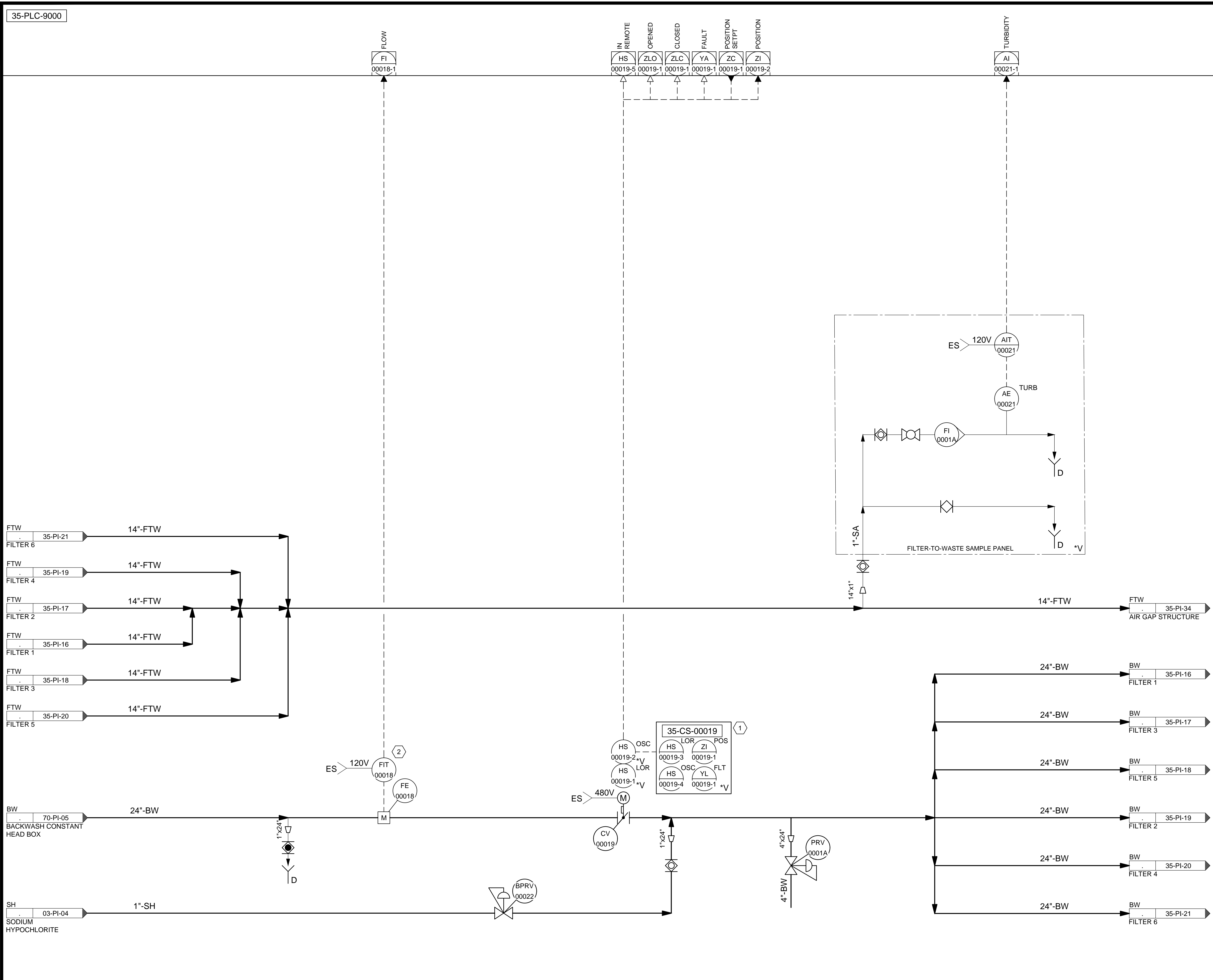
VERIFY SCALE  
 BAR IS ONE INCH ON  
 ORIGINAL DRAWING

90% GMP

DRAWING NO.  
**35-PI-22**

Brown and Caldwell

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-S\CDPPL\_City\_Creek\_WTP-v2021\PID\_DWG\35-PI-23.dwg Jun 12, 2024 7:41 pm



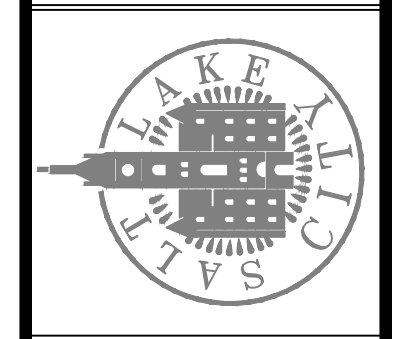
**KEYNOTES:**

- 1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.
- 2 INSTALL FLOW TRANSMITTER NEXT TO THE BACKWASH REMOTE STATION, 35-CS-00019. TRANSMITTER TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. CONTRACTOR TO ENSURE SUFFICIENT CABLE FROM THE TRANSMITTER TO THE FLOW TUBE IS SUPPLIED.

**Brown and Caldwell**

DESIGNED BY: BOTANI		AUTH. BY: BO	
DRAWN BY: ALAPIERE		MADE BY: BO	
CHECKED BY: J.PAGENDARM		NO. DATE	
APPROVED BY: BOTANI		0 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
DATE: JUNE 2024			
EWO NO: 512260079			
ACCOUNT NO: 512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - COMBINED  
 FILTER-TO-WASTE & BW**

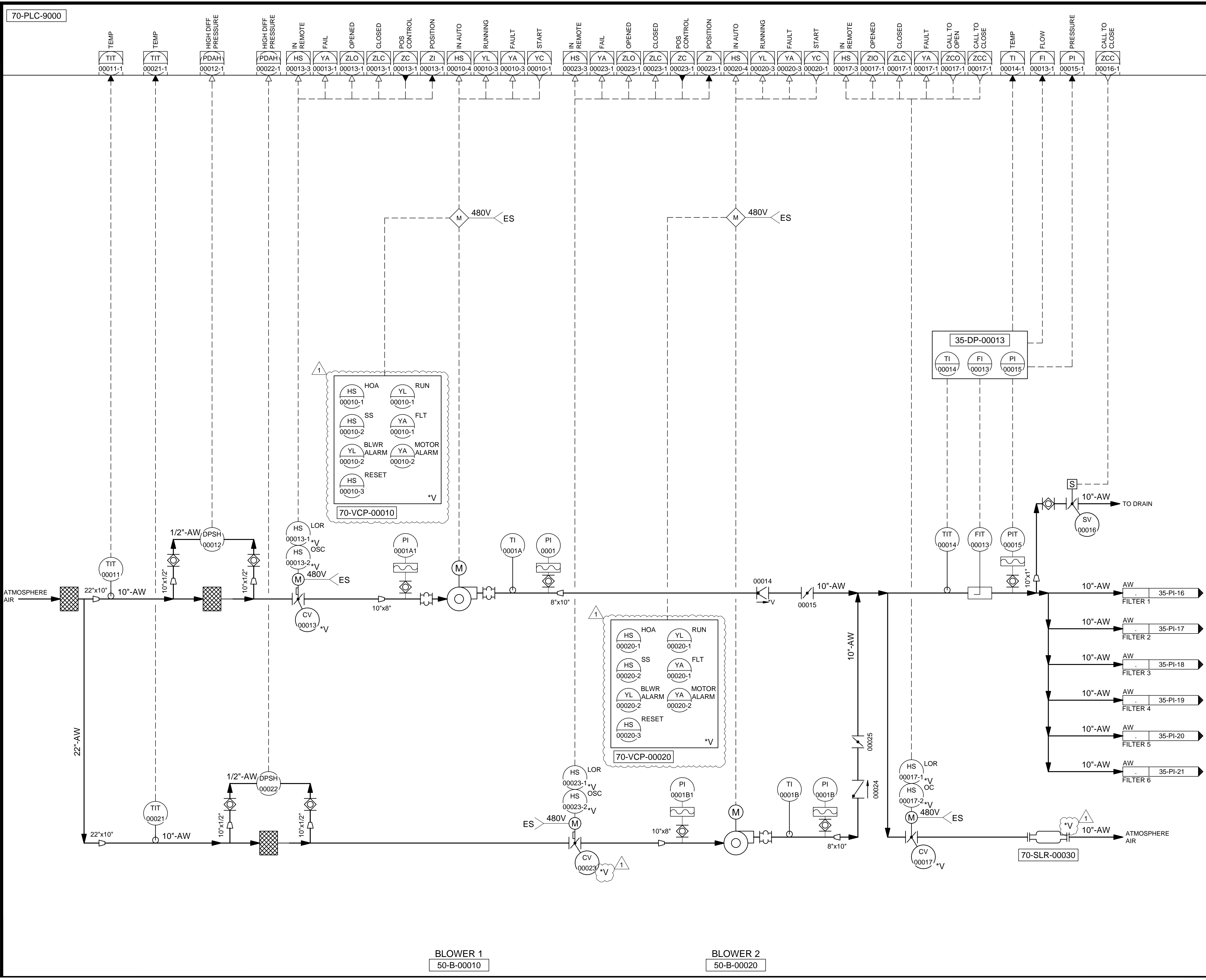


**90% GMP**

DRAWING NO.  
**35-PI-23**

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\FID\_DWG\35-PI-24.dwg Jun 24, 2024 9:43am



BLOWER 1  
50-B-00010

BLOWER 2  
50-B-00020

**GENERAL NOTES:**

- 1. VMPs, CSs, AND DP ARE TO BE FIELD LOCATED.

DESIGNED BY: BOTANI		AUTH. BY:	
NO.	DATE	NO.	DATE
0	06/14/24	BO	BO
1	06/27/24	BO	BO

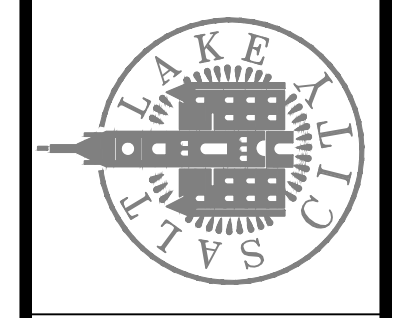
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)  
REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI

DATE: JUNE 2024  
EWO NO.: ---  
ACCOUNT NO.: 512260079

SCALE: ---  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**TREATMENT - FILTER AIR  
SCOUR BLOWERS**

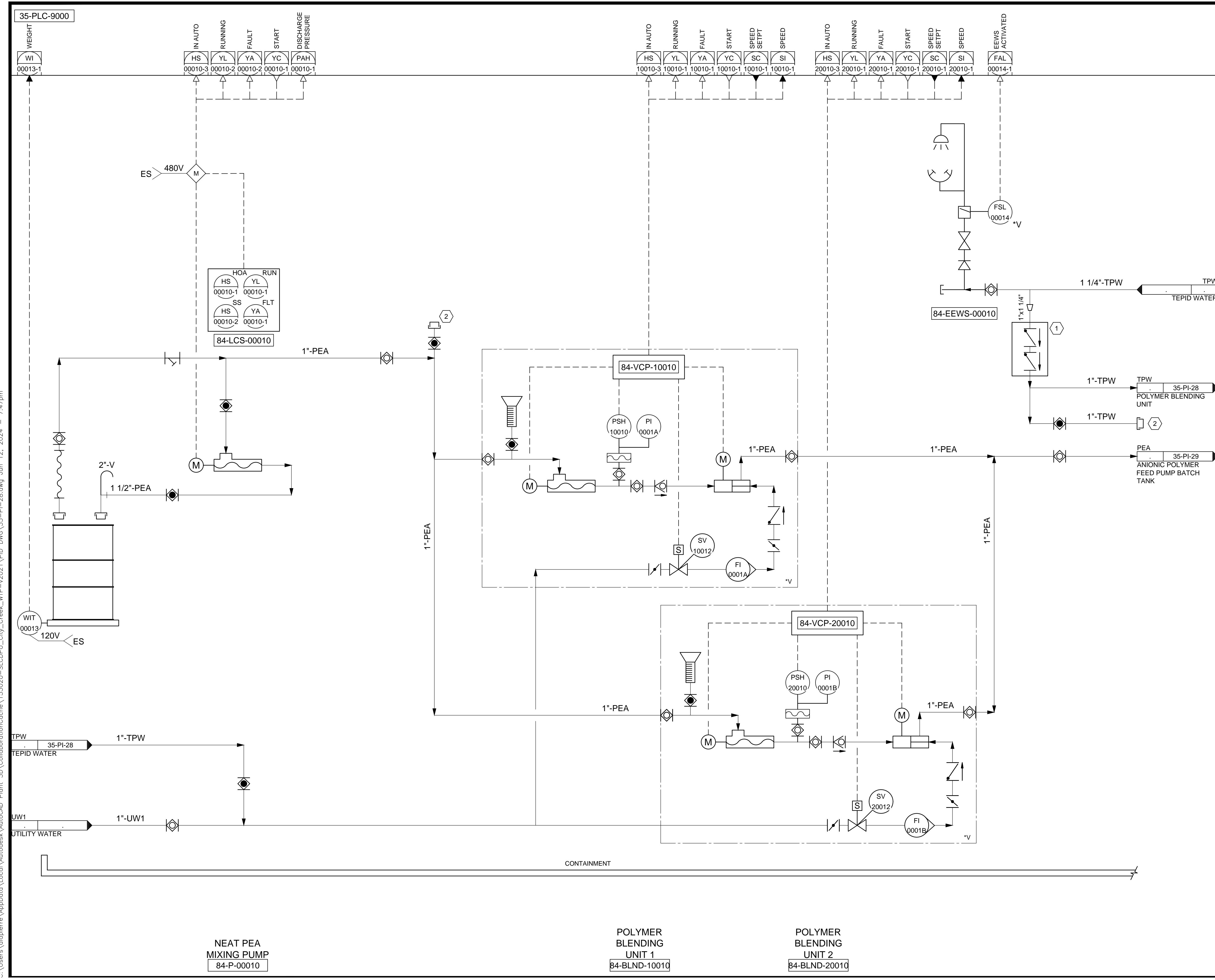


**90% GMP**

DRAWING NO.  
**35-PI-24**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-28.dwg Jun 12, 2024 -- 7:47pm



**KEYNOTES:**

- 1 PROVIDE BACKFLOW PREVENTER
- 2 PROVIDE HOSEBIB IN POLYMER ROOM

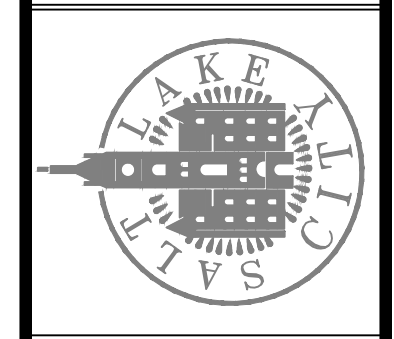
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: ---  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - ANIONIC  
 POLYMER STORAGE & FEED**

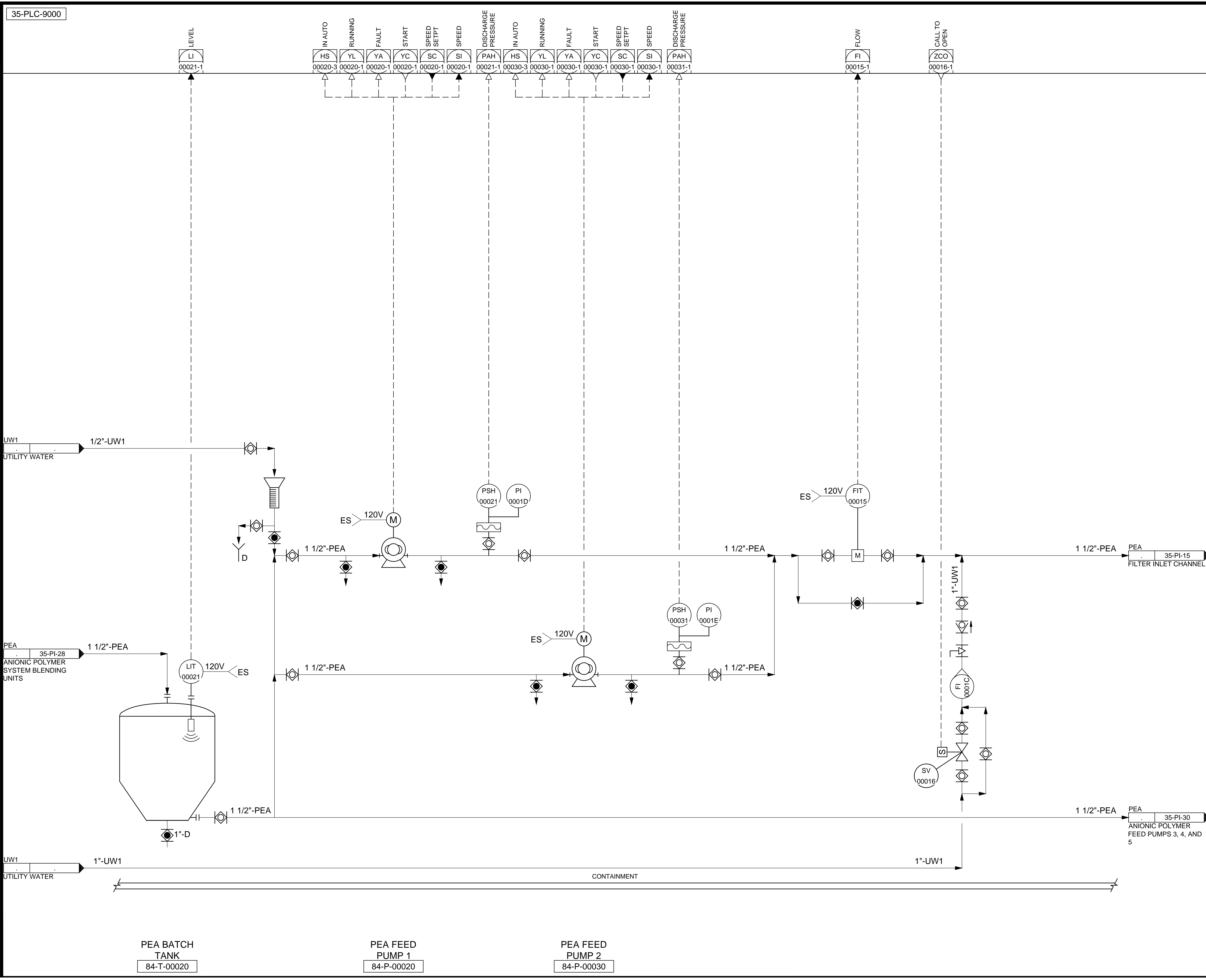


**90% GMP**

DRAWING NO.  
**35-PI-28**

**Brown and Caldwell**

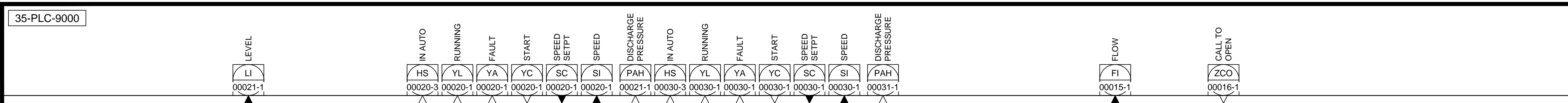
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PEA BATCH TANK  
84-T-00020

PEA FEED PUMP 1  
84-P-00020

PEA FEED PUMP 2  
84-P-00030

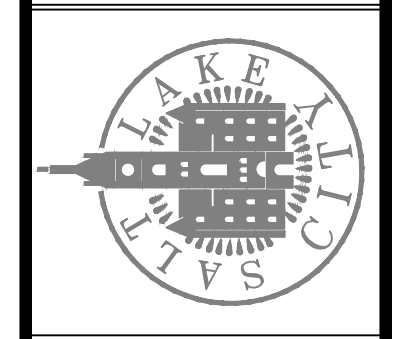


REVISIONS	
NO.	DATE
0	06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

DESIGNED BY:	B. OTANI
DRAWN BY:	A. LAPIERE
CHECKED BY:	M. PAGENDARM
APPROVED BY:	B. OTANI
DATE:	JUNE 2024
EWO NO.:	---
ACCOUNT NO.:	512260079

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - ANIONIC  
 POLYMER FEED PUMPS 1 & 2**



**90% GMP**

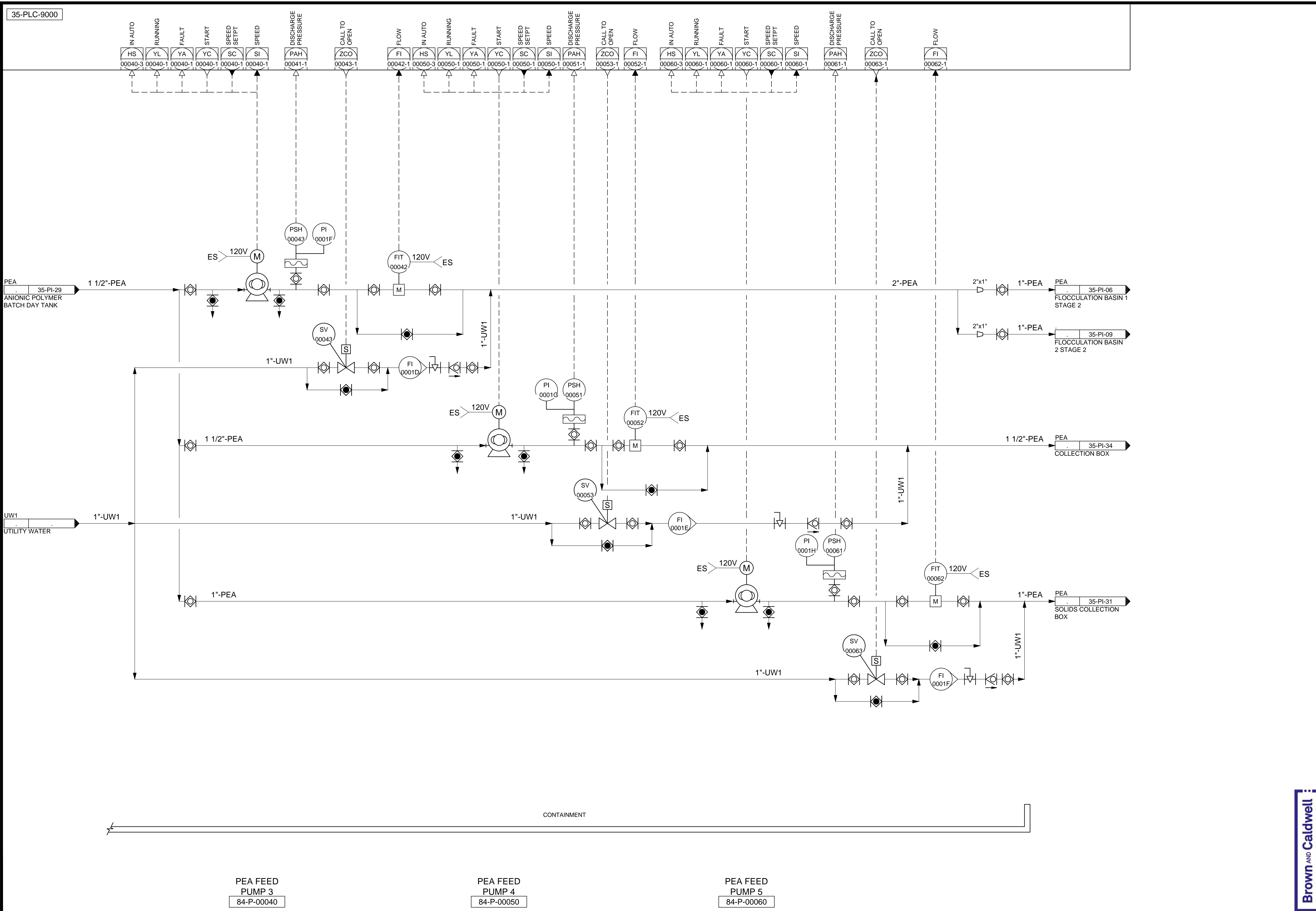
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**35-PI-29**

**Brown and Caldwell**

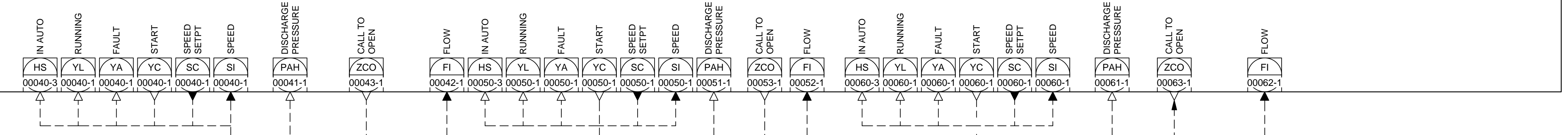
SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING



C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-30.dwg Jun 12, 2024 -- 7:50pm



35-PLC-9000



PEA FEED  
PUMP 3  
84-P-00040

PEA FEED  
PUMP 4  
84-P-00050

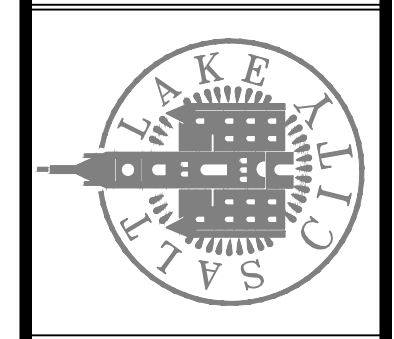
PEA FEED  
PUMP 5  
84-P-00060

Brown and Caldwell

REVISIONS	
NO.	DATE
0	06/14/24

ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - ANIONIC  
 POLYMER FEED PUMPS 3 & 4**



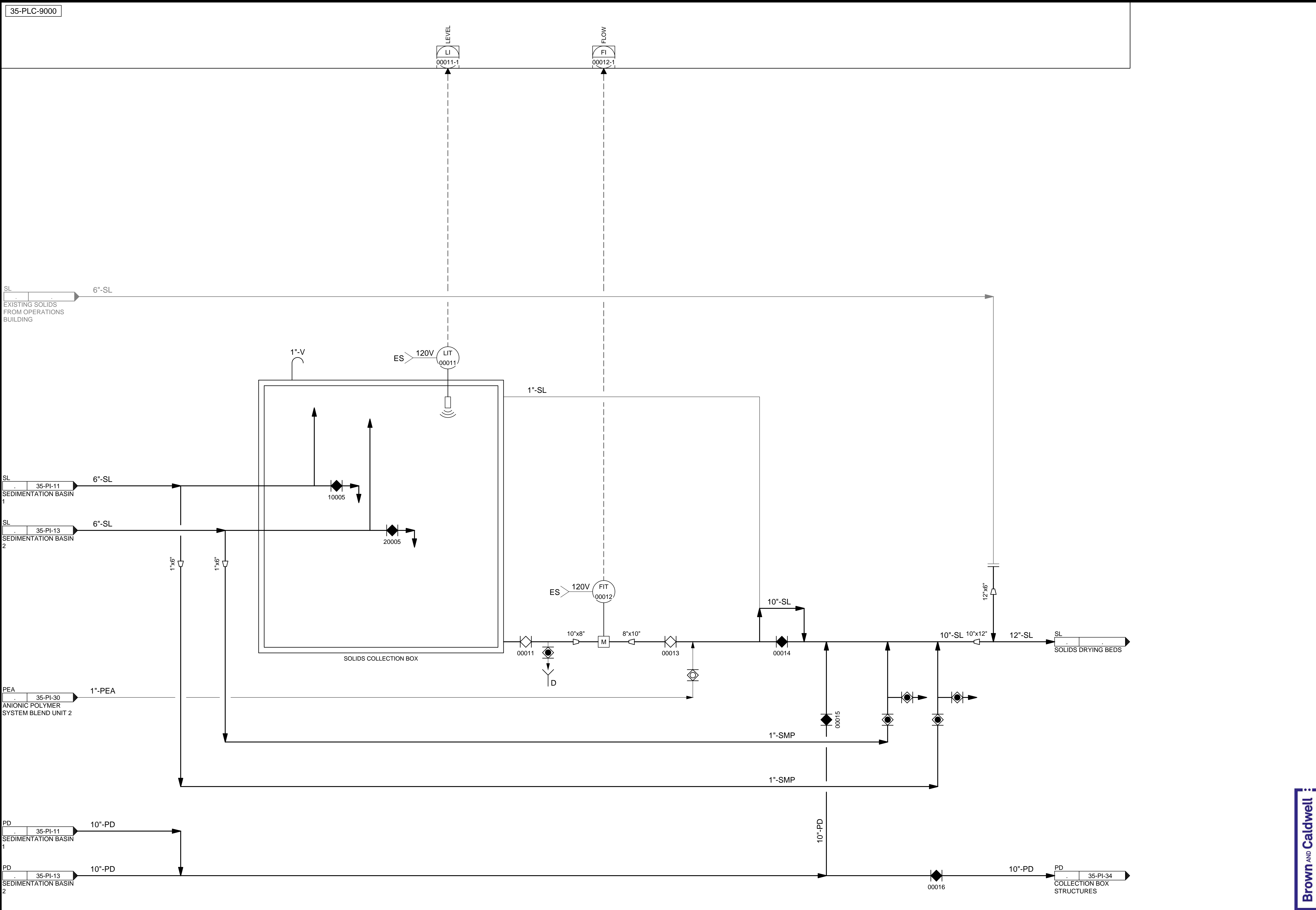
DRAWING NO.  
**35-PI-30**

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: ALPAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: 512260079  
 ACCOUNT NO: 512260079

SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

90% GMP

35-PLC-9000

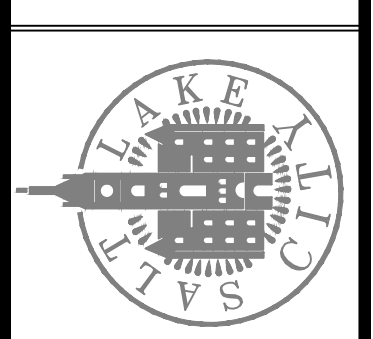


C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-31.dwg Jun 12, 2024 -- 7:52pm

REVISIONS	
NO.	DATE
0	06/14/24
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	

DESIGNED BY: BOTANI	AUTH. BY: BO
DRAWN BY: ALAPIERE	BY: BO
CHECKED BY: J.PAGENDARM	
APPROVED BY: BOTANI	
DATE: JUNE 2024	
EWO NO: 512260079	
ACCOUNT NO: 512260079	

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - SED BASINS  
 SOLIDS COLLECTION BOX**



**90% GMP**

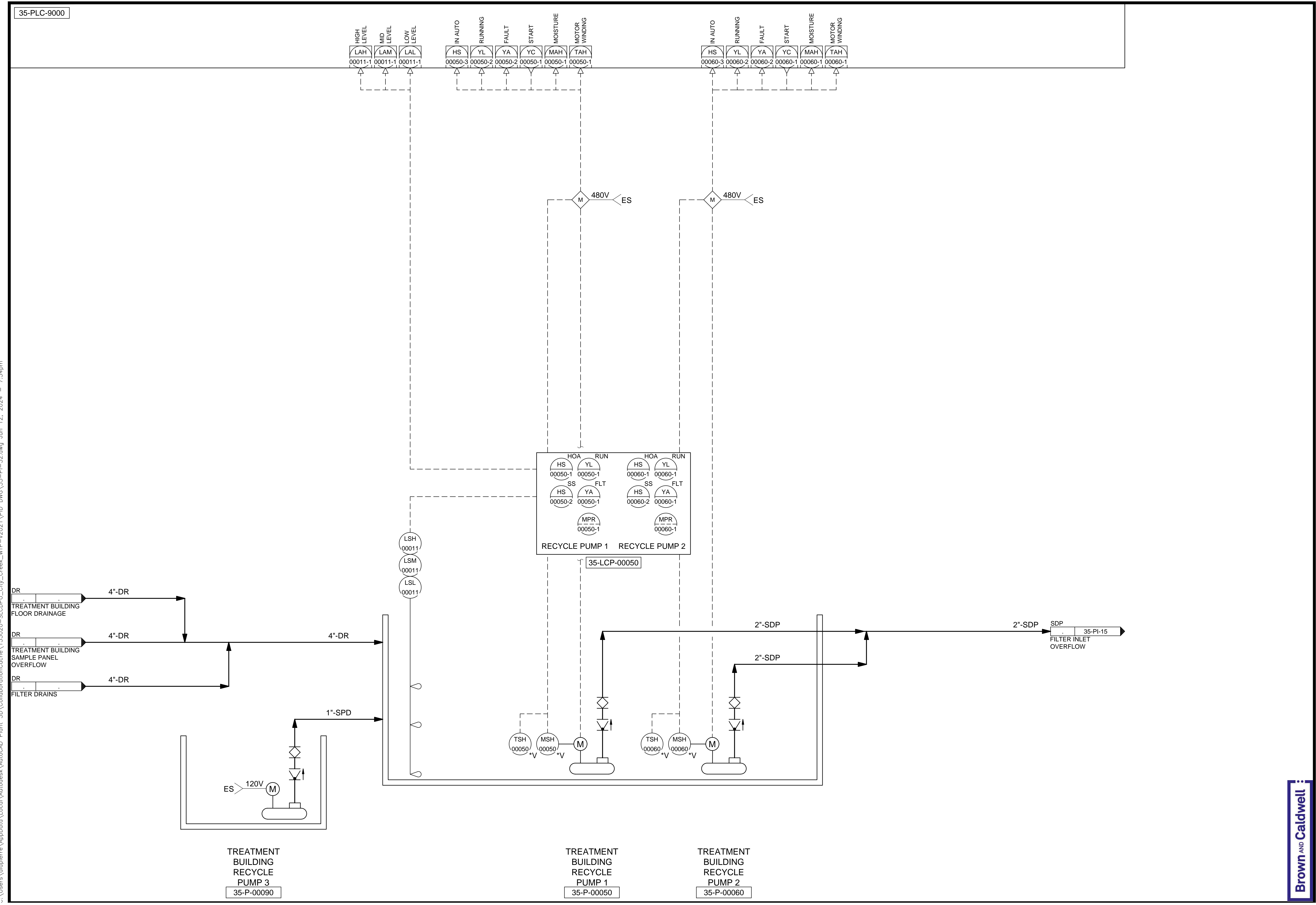
DRAWING NO.  
**35-PI-31**

**Brown and Caldwell**

SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

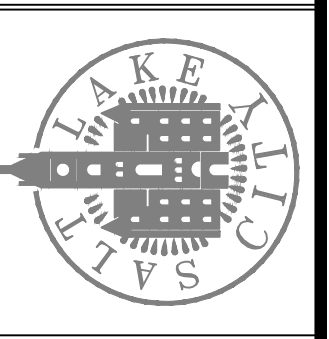
35-PLC-9000

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NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - RECYCLE PUMP STATION**



**90% GMP**

DRAWING NO.  
**35-PI-32**

**Brown and Caldwell**

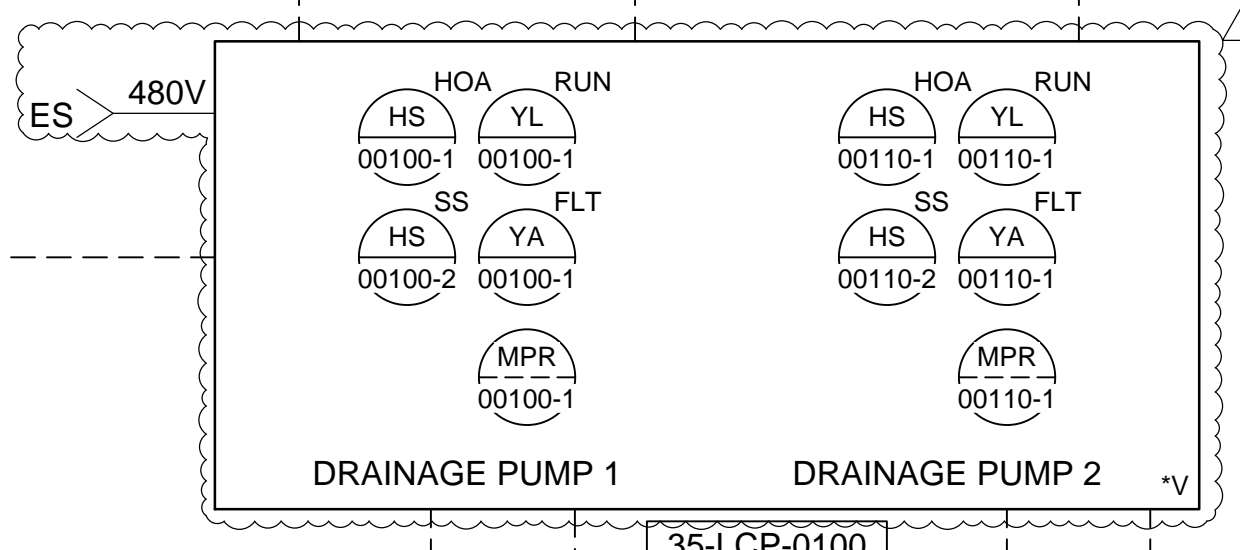
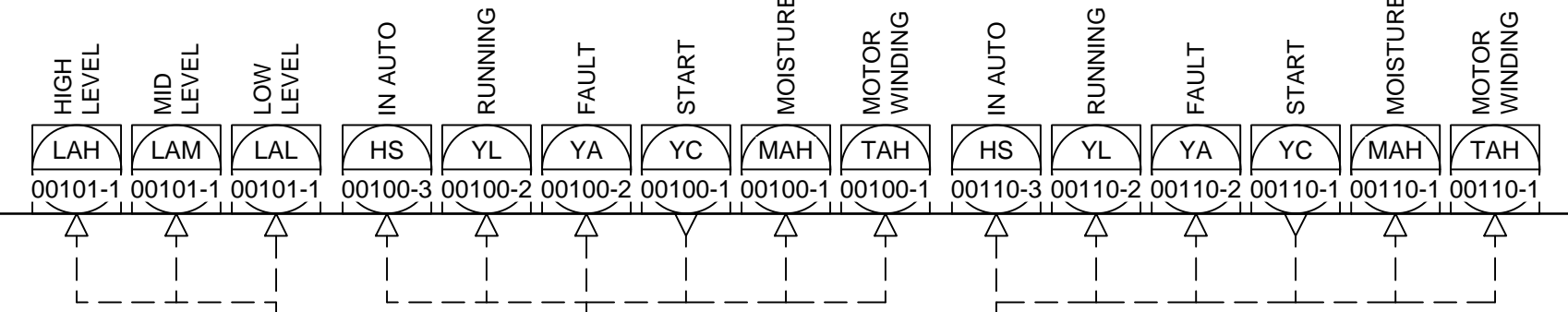
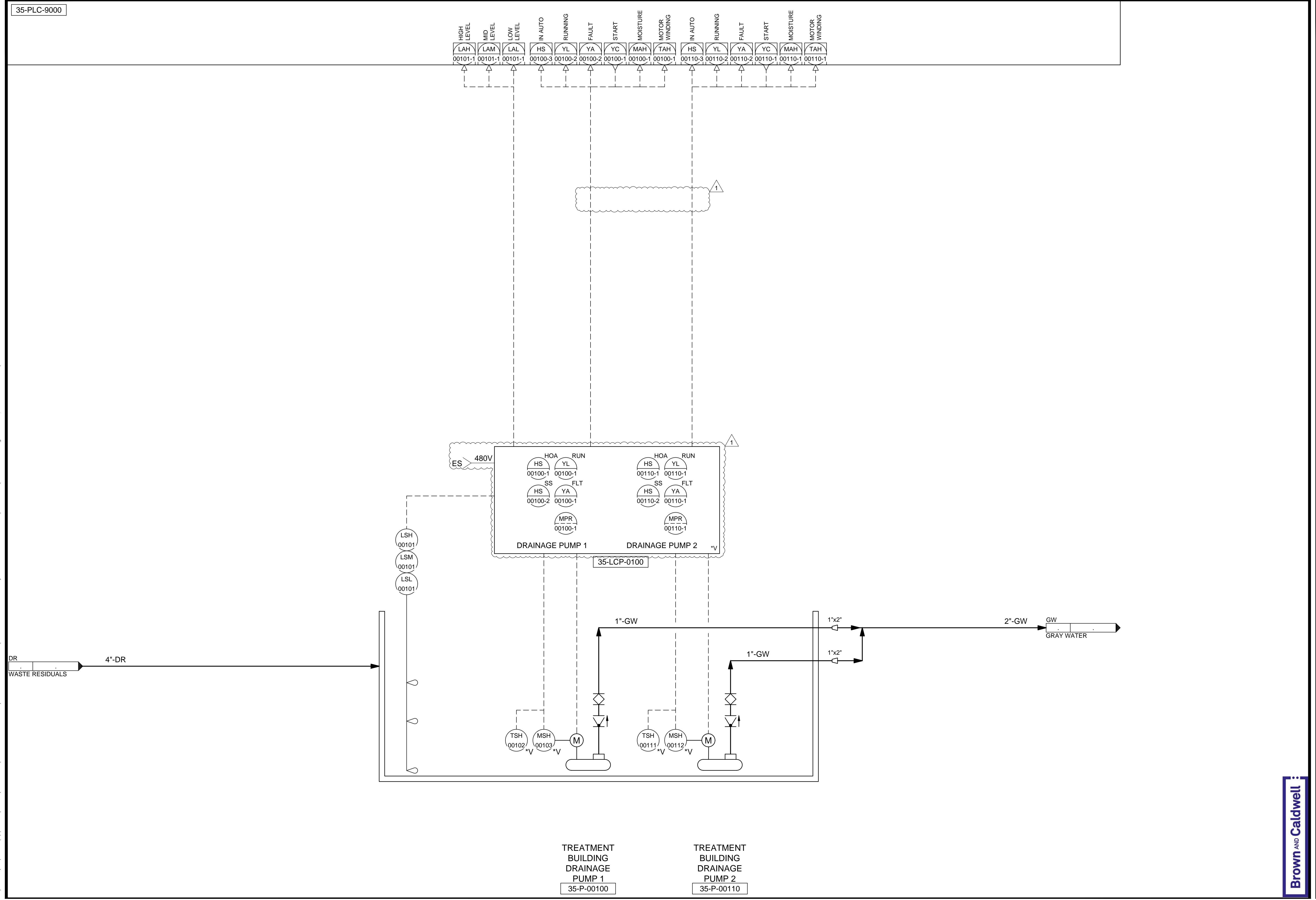
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EWO NO: ---  
 ACCOUNT NO: 512260079

SCALE:  
 AUTH. BY: BO  
 MADE BY: BO

VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

35-PLC-9000

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\35-PI-33.dwg Jun 24, 2024 -- 2:14pm



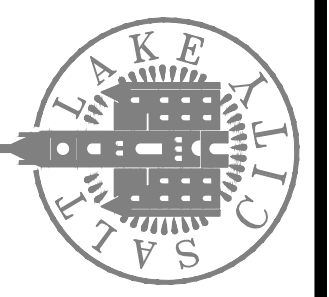
TREATMENT BUILDING DRAINAGE PUMP 1  
35-P-00100

TREATMENT BUILDING DRAINAGE PUMP 2  
35-P-00110

REVISIONS	
NO.	DATE
0	06/14/24
1	06/27/24

DESIGNED BY:	BOTANI
DRAWN BY:	ALAPIERE
CHECKED BY:	ALPAGENDARM
APPROVED BY:	BOTANI
DATE:	JUNE 2024
EWO NO.:	---
ACCOUNT NO.:	512260079

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
 TREATMENT - SUMP PUMPS



90% GMP

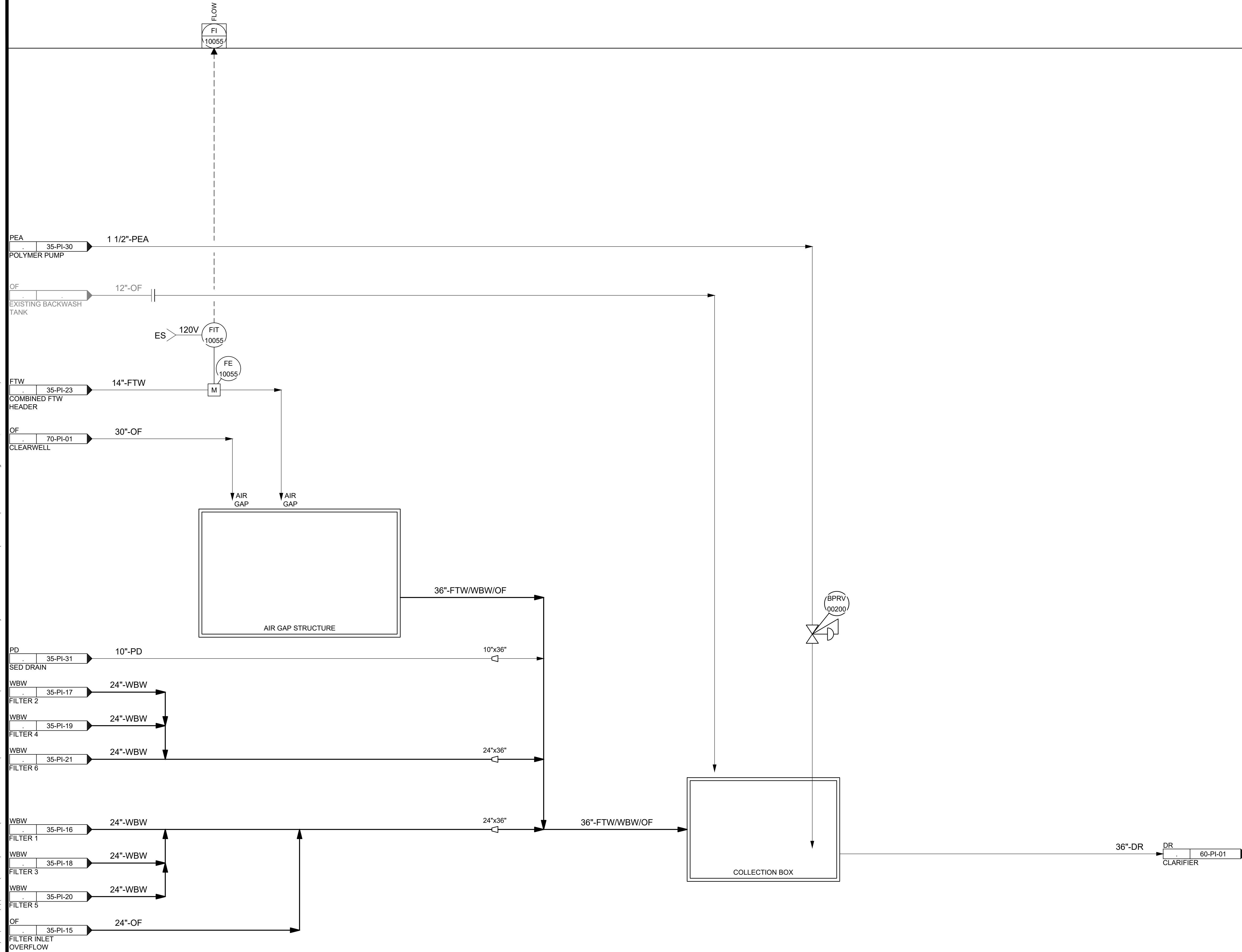
DRAWING NO.  
35-PI-33

Brown and Caldwell

SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

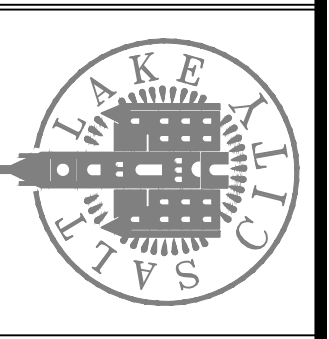
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35-PLC-9000



NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**TREATMENT - AIR GAP AND  
 COLLECTION BOX STRUCTURES**



**90% GMP**

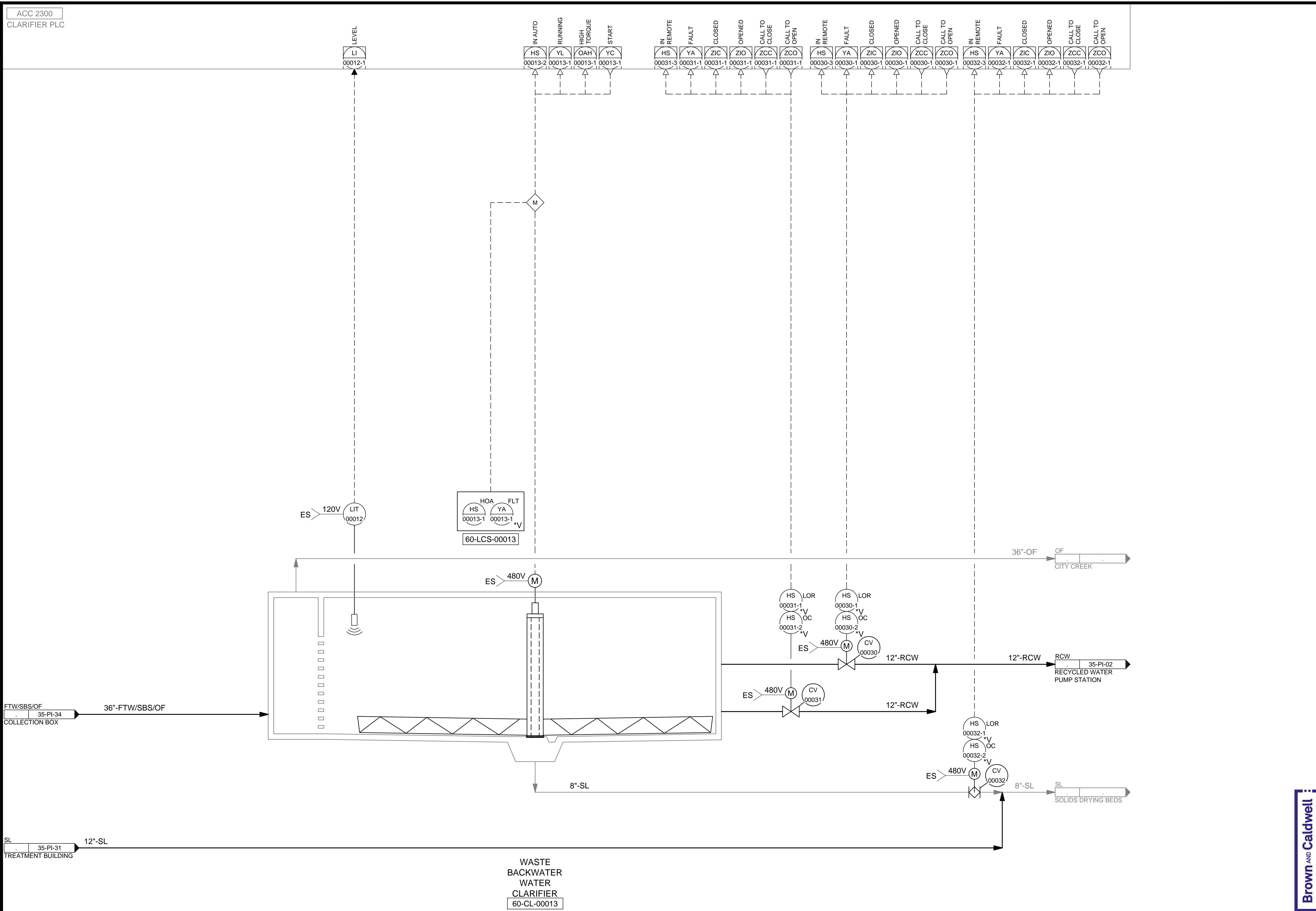
DRAWING NO.  
**35-PI-34**

**Brown and Caldwell**

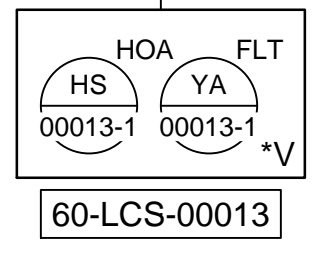
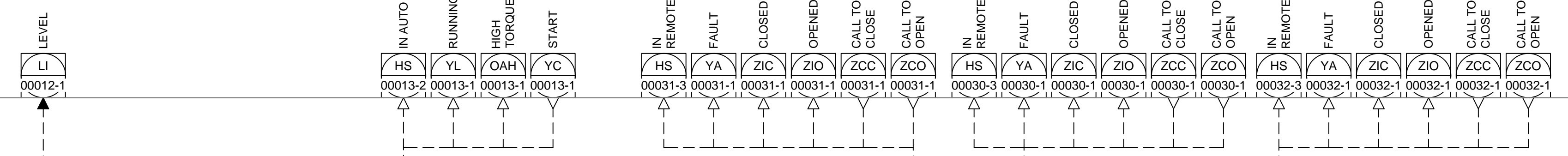
DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: ALPAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO: 512260079  
 ACCOUNT NO: 512260079

SCALE:  
 VERIFY SCALE  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alopierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\60-PI-01.dwg Jun 12, 2024 -- 8:47pm



ACC 2300  
CLARIFIER PLC



WASTE  
BACKWATER  
WATER  
CLARIFIER  
60-CL-00013

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**WASTE BACKWASH WATER  
CLARIFIER**

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: J.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

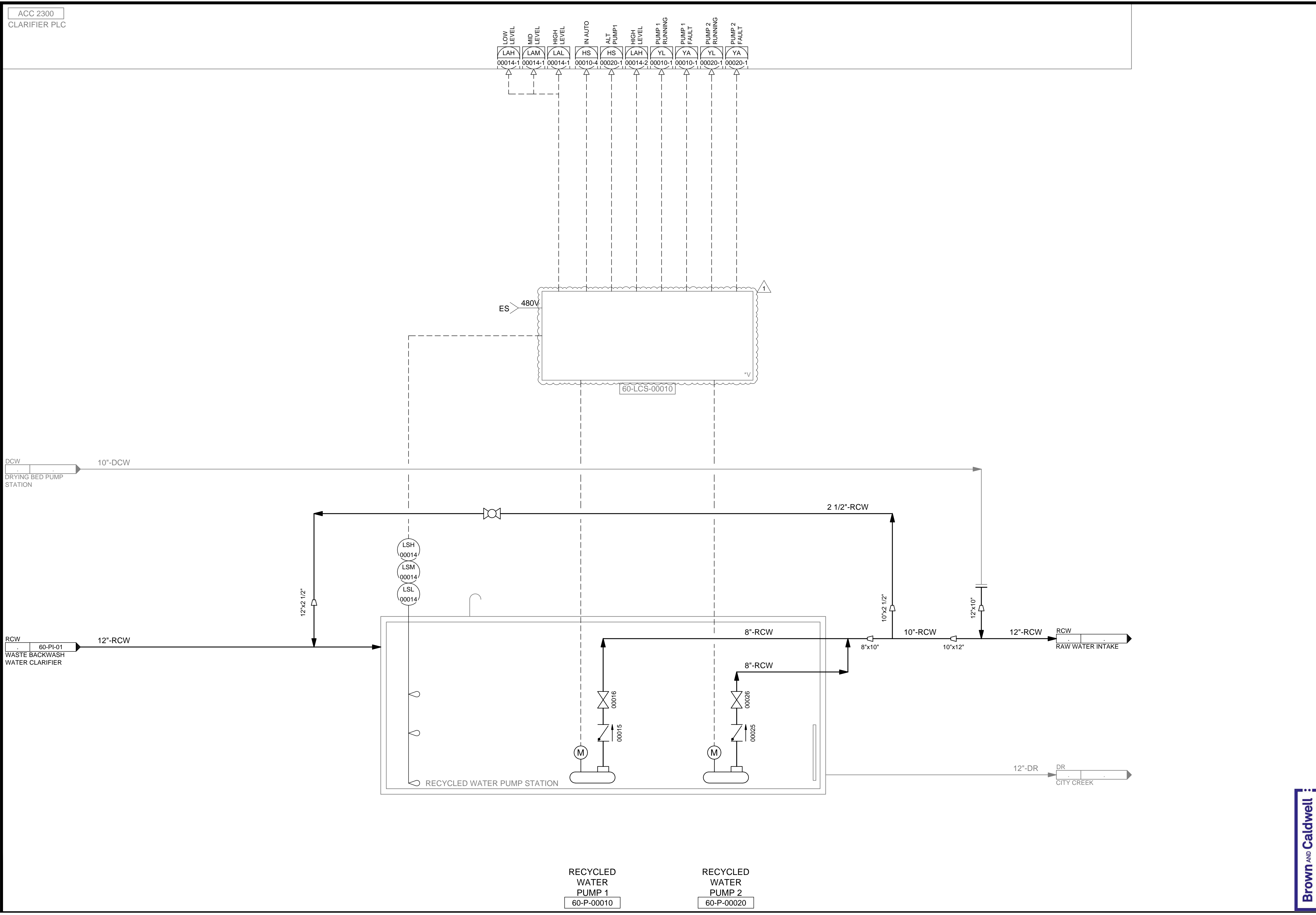
NO.	DATE	AUTH. BY	MADE BY	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	

**90% GMP**

DRAWING NO.  
**60-PI-01**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant 3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\60-PI-02.dwg Jun 24, 2024 - 1:37pm



ACC 2300  
CLARIFIER PLC

LOW LEVEL  
LAH 00014-1  
MID LEVEL  
LAM 00014-1  
HIGH LEVEL  
LAL 00014-1  
IN AUTO  
HS 00010-4  
ALT PUMP1  
HS 00020-1  
HIGH LEVEL  
LAH 00014-2  
PUMP 1 RUNNING  
YL 00010-1  
PUMP 1 FAULT  
YA 00010-1  
PUMP 2 RUNNING  
YL 00020-1  
PUMP 2 FAULT  
YA 00020-1

ES 480V

60-LCS-00010

LSH 00014  
LSM 00014  
LSL 00014

RECYCLED WATER PUMP STATION

RECYCLED WATER PUMP 1  
60-P-00010

RECYCLED WATER PUMP 2  
60-P-00020

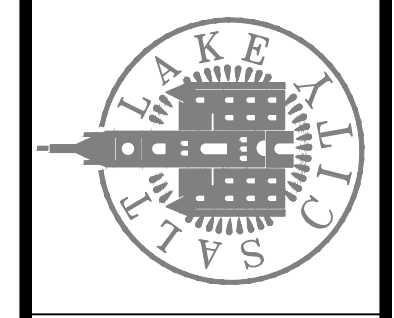
DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: 512260079  
ACCOUNT NO: 512260079

SCALE:

VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)
1	06/27/24	REVISED FOR GUARANTEE MAXIMUM PRICE (GMP)

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**RECYCLED WATER PUMP STATION**



90% GMP

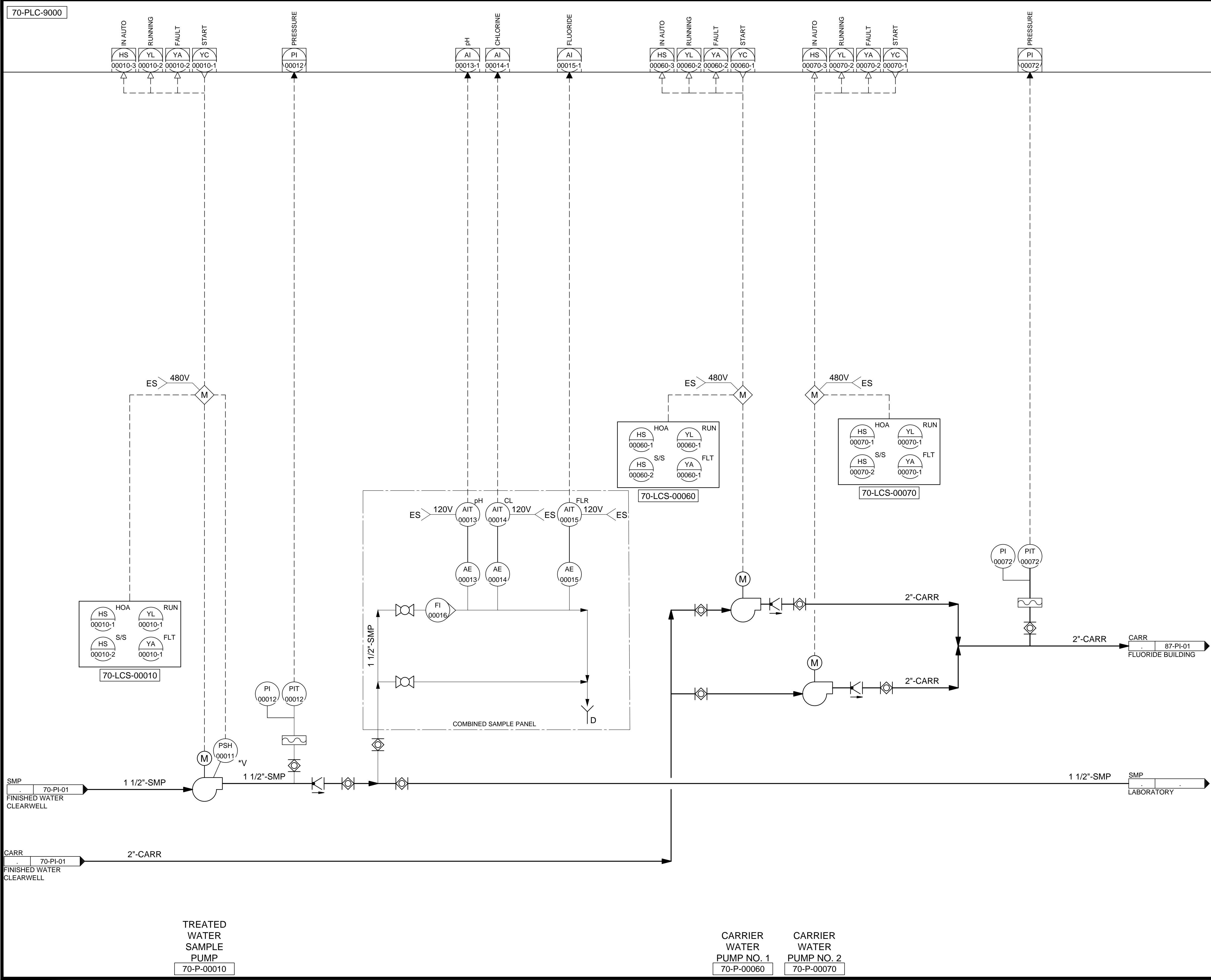
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**60-PI-02**

**Brown and Caldwell**

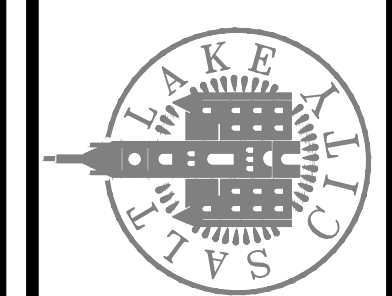




C:\Users\Volpierre\AppData\Local\Autodesk\AutoCAD Plant 3D\Collaboration\Coche\153020-SLCDPLU\_City\_Creek\_WTP-V2021\PID\_DWG\70-PI-02.dwg Jun 12, 2024 - 8:53pm



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - CARRIER PUMPS  
 AND SAMPLE PUMP**



90% GMP

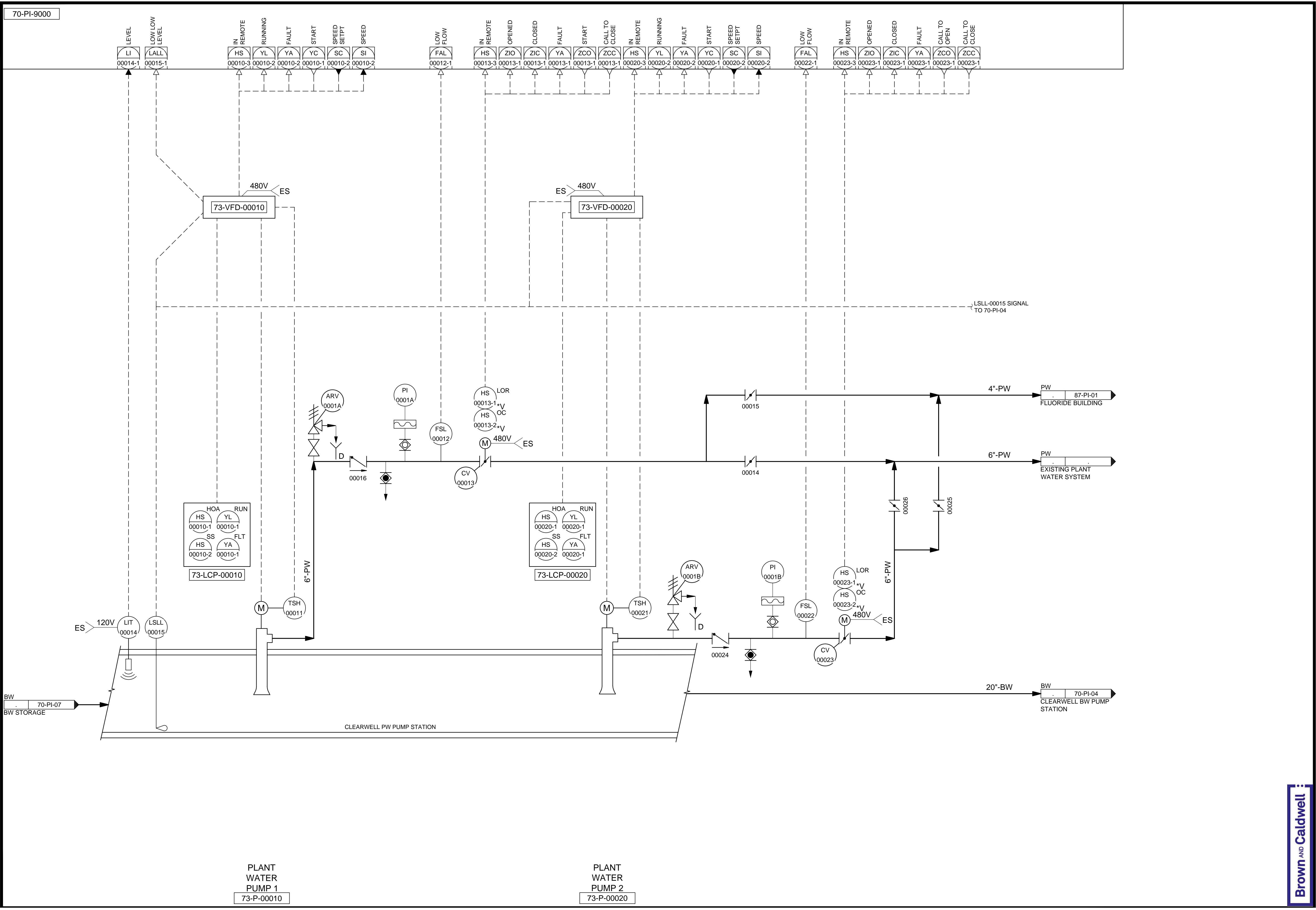
DRAWING NO.  
**70-PI-02**

**Brown and Caldwell**

REVISIONS	
NO.	DATE
0	06/14/24
ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
MADE BY	BO
AUTH BY	BO
DESIGNED BY: B.GTANI	
DRAWN BY: A.LAPIERRE	
CHECKED BY: M.PAGENDARM	
APPROVED BY: B.GTANI	
DATE: JUNE	2024
EWO NO: --	
ACCOUNT NO: 512260079	

SCALE: \_\_\_\_\_  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICD\PUL\_City\_Creek\_WTP-v2021\PID\_DWG\70-PI-03.dwg Jun 12, 2024 -- 8:55pm



70-PI-9000

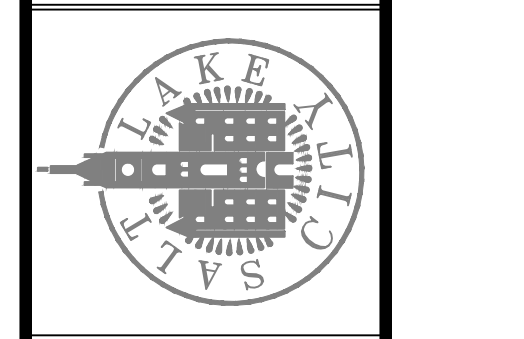
NO.	DATE	REVISIONS
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)

DESIGNED BY: BOTANI  
 DRAWN BY: ALAPIERRE  
 CHECKED BY: J.PAGENDARM  
 APPROVED BY: BOTANI  
 DATE: JUNE 2024  
 EMO NO.:  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - PW PUMP STATION**

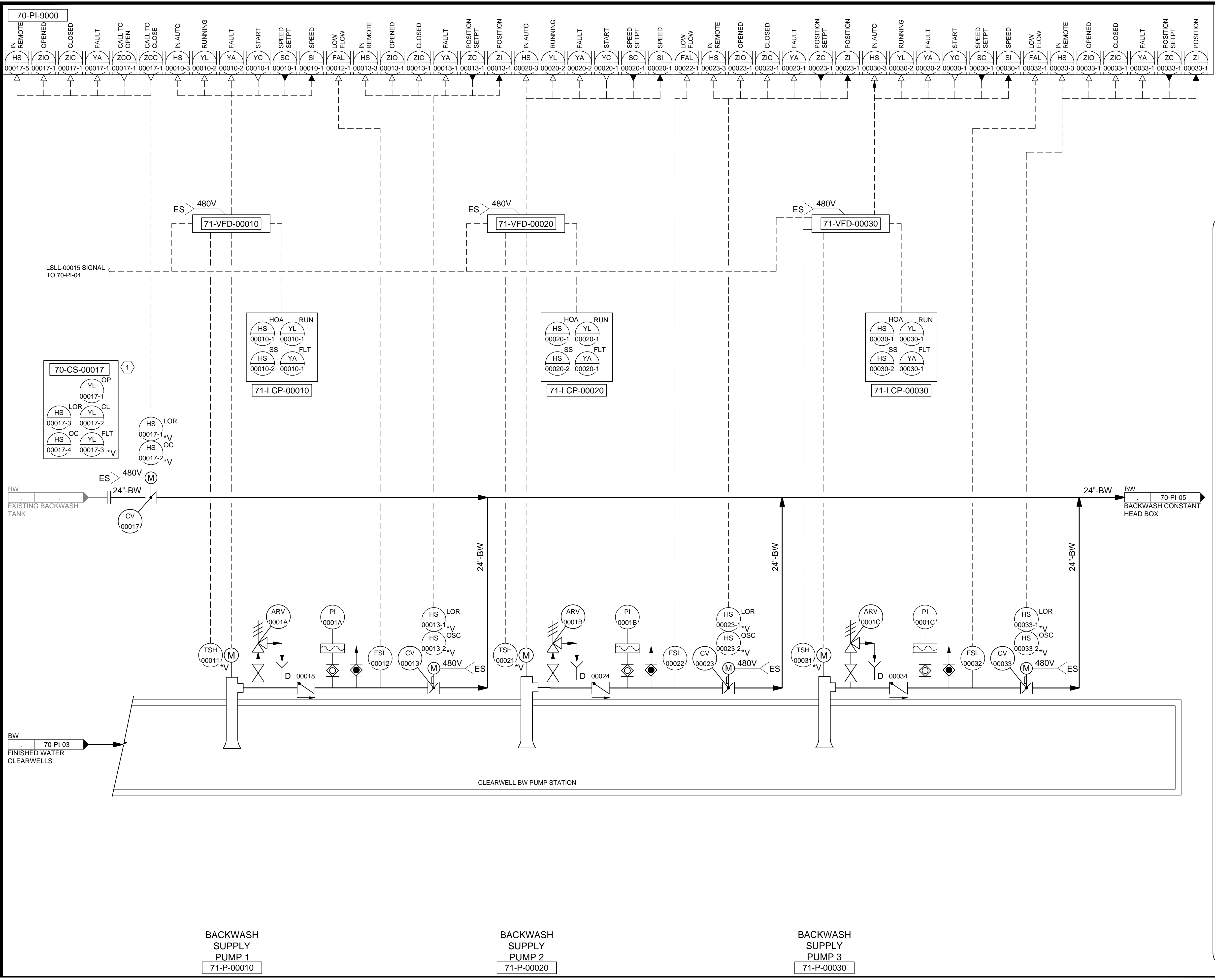


**90% GMP**

DRAWING NO.  
**70-PI-03**

**Brown and Caldwell**

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\70-PI-04.dwg Jun 12, 2024 -- 9:05pm

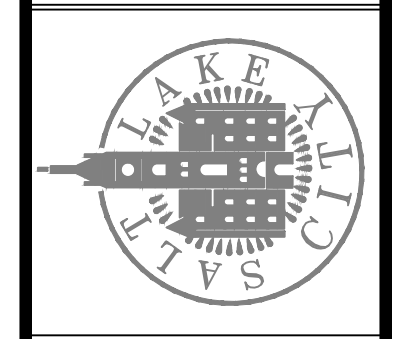


**KEYNOTES:**

1 PROVIDE A REMOTE CONTROL STATION FOR THE ACTUATOR TO BE MOUNTED 48" ABOVE THE FLOOR ELEVATION. REMOTE CONTROL STATION SHALL BE RATED FOR NEMA 4X AND HAVE THE SAME FUNCTIONALITY AS THE ACTUATOR FACEPLATE.

DESIGNED BY: BOTANI		AUTH. BY: BO	
DRAWN BY: ALAPIERE		MADE BY: BO	
CHECKED BY: J.PAGENDARM		NO. DATE	
APPROVED BY: BOTANI		0 06/14/24 ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	
DATE: JUNE 2024			
EWO NO.:			
ACCOUNT NO. 512260079			

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - BACKWASH  
 SUPPLY PUMP STATION**



**90% GMP**

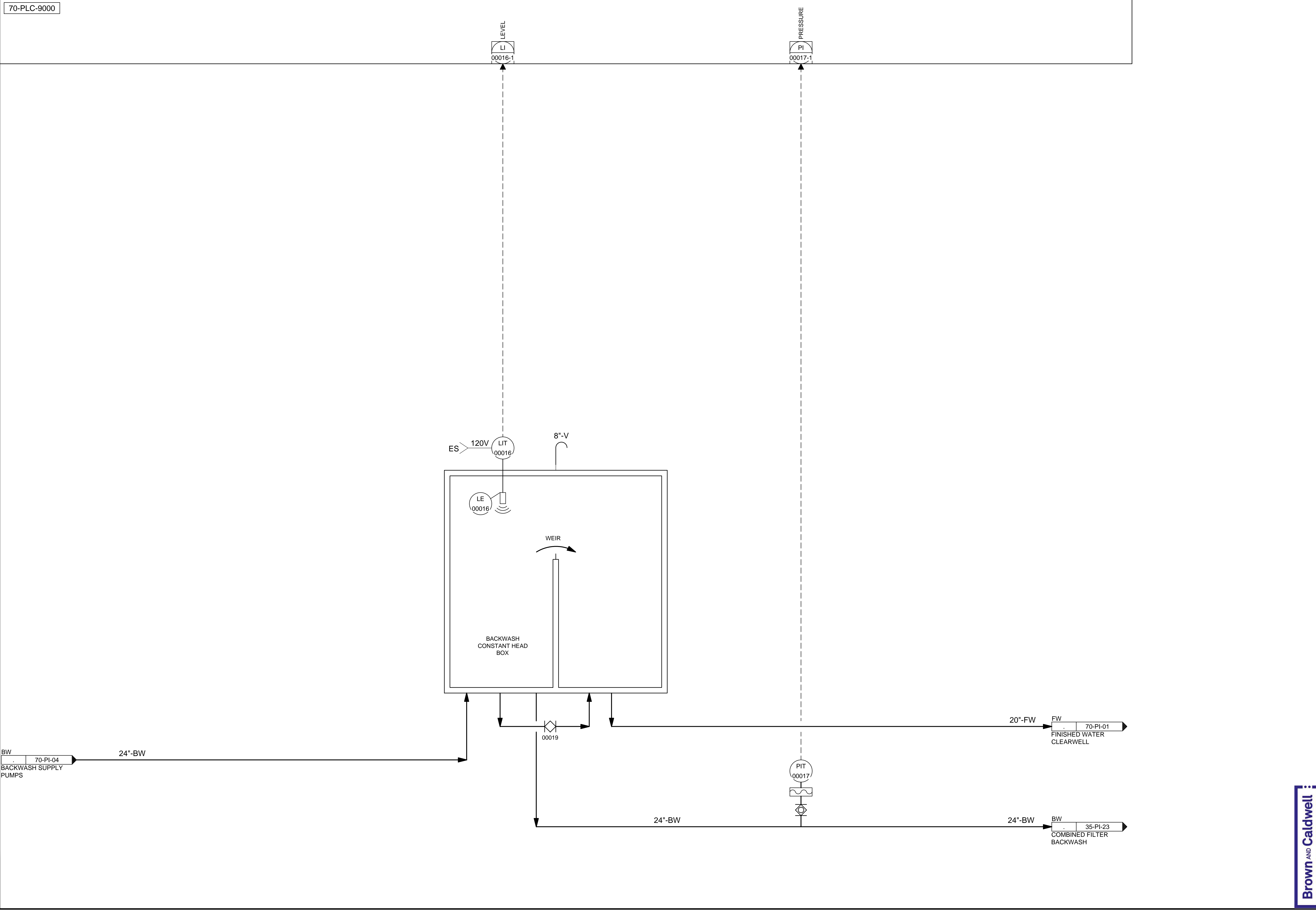
DRAWING NO.  
**70-PI-04**

**Brown and Caldwell**

SCALE:  
**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\70-PI-05.dwg Jun 12, 2024 -- 9:03pm

70-PLC-9000



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE

**CLEARWELL - BACKWASH  
CONSTANT HEAD STRUCTURE**

NO.	DATE	REVISIONS	MADE BY	AUTH. BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

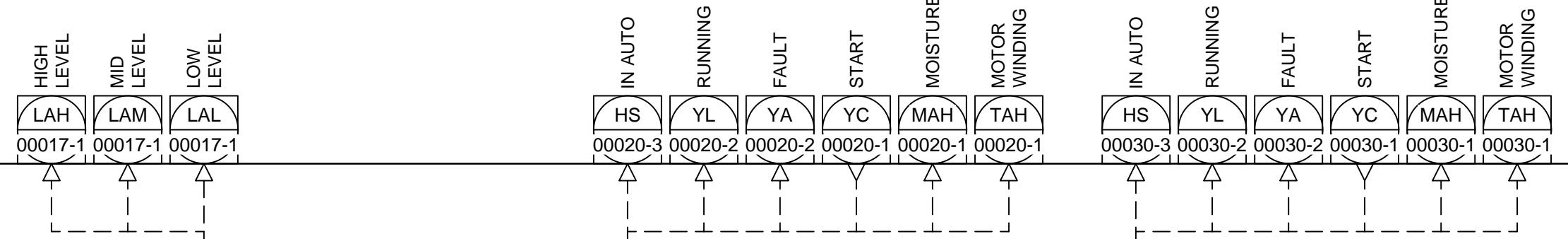
**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

**90% GMP**

DRAWING NO.  
**70-PI-05**

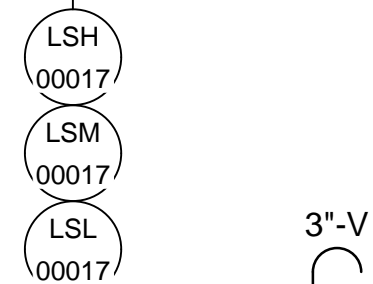


70-PLC-9000

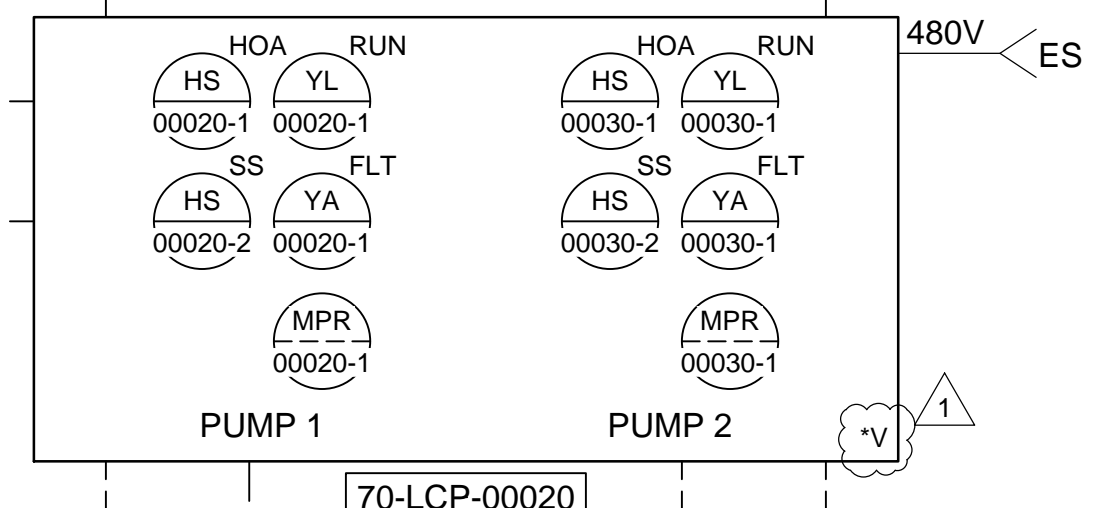


SU  
TREATMENT BUILDING  
STRUCTURAL  
UNDERDRAIN SYSTEM

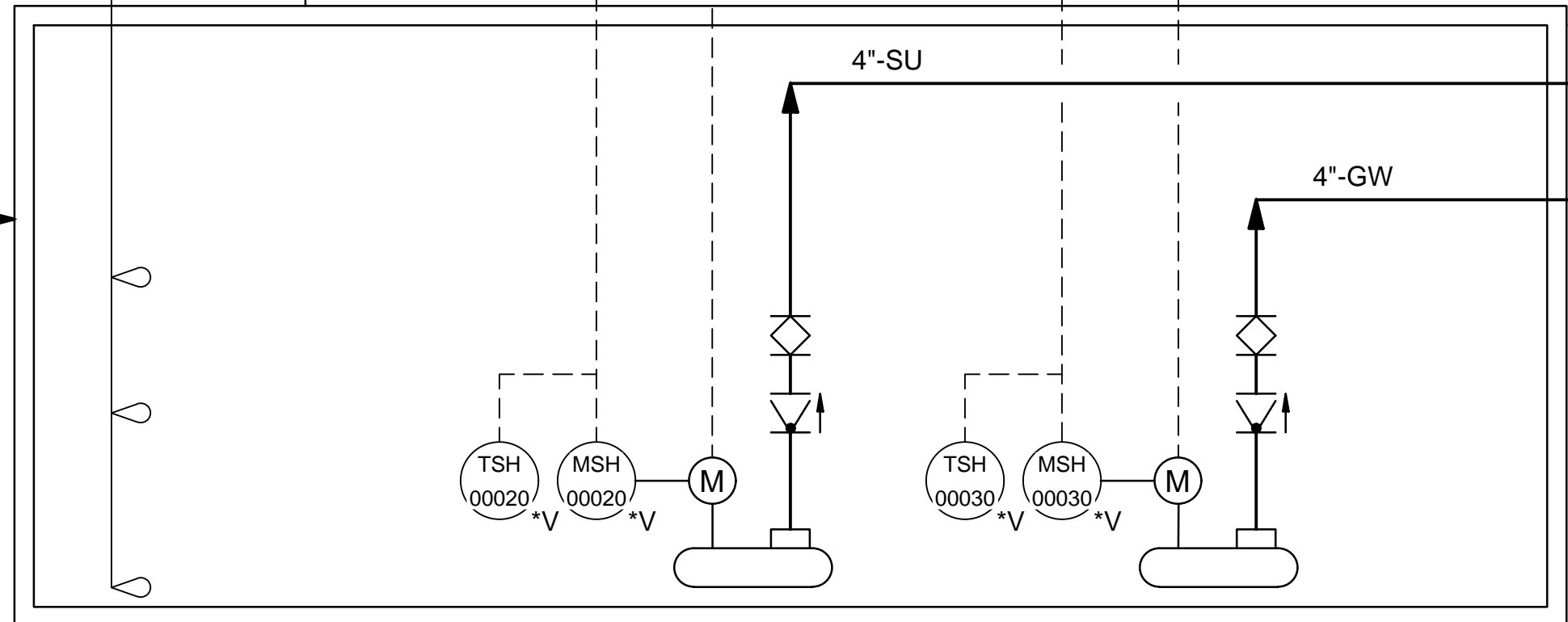
18"-SU



3"-V



480V ES



4"x8"

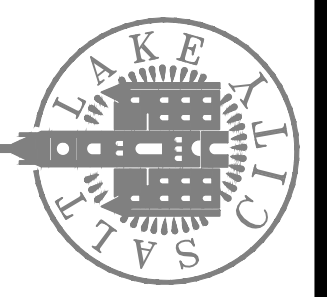
8"-SU

SU  
PLANT INTAKE  
STRUCTURE

STRUCTURAL  
UNDERDRAIN  
PUMP  
STATION  
PUMP 1  
70-P-00020

STRUCTURAL  
UNDERDRAIN  
PUMP  
STATION  
PUMP 2  
70-P-00030

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**CLEARWELL - STRUCTURAL  
UNDERDRAIN PUMP STATION**



90% GMP

DRAWING NO.  
**70-PI-06**

**Brown and Caldwell**

REVISIONS

NO.	DATE	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE	MAXIMUM PRICE (GMP)	BO	BO
1	06/27/24	REVISED FOR GUARANTEE	MAXIMUM PRICE (GMP)	BO	BO

SCALE:

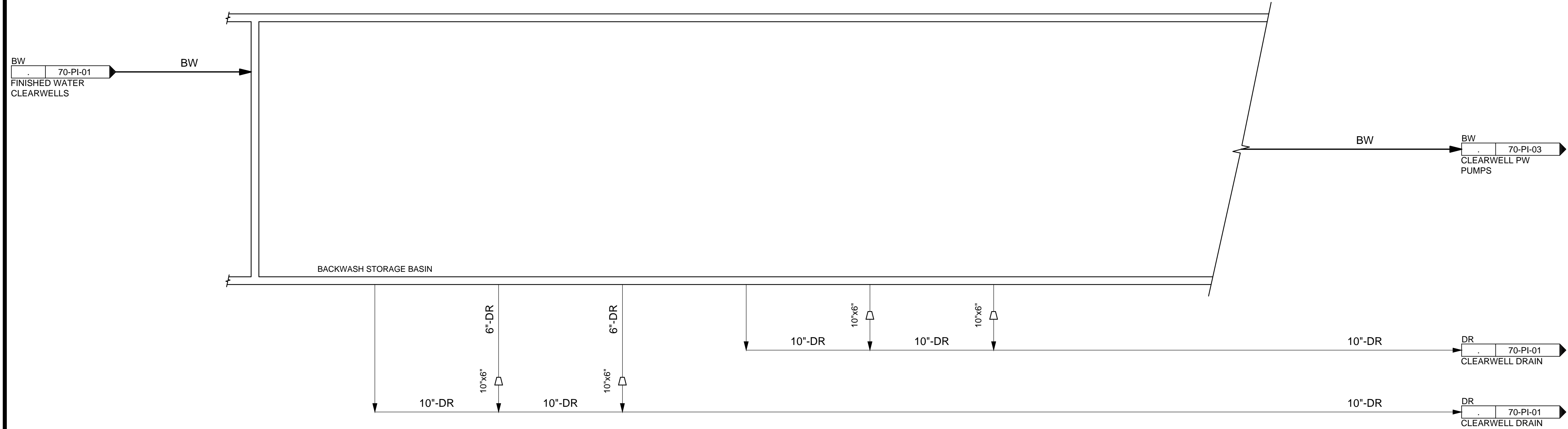
DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERRE  
CHECKED BY: ALPAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: 512260079  
ACCOUNT NO: 512260079

**VERIFY SCALE**  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

C:\Users\alapierre\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\70-PI-06.dwg Jun 24, 2024 9:56am

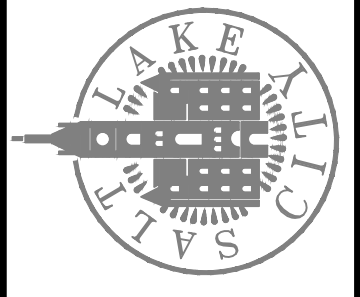
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70-PLC-9000



**Brown and Caldwell**

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
 CITY CREEK TREATMENT PLANT UPGRADES  
 BRIC PACKAGE  
**CLEARWELL - BW STORAGE  
 BASIN**



**90% GMP**

DRAWING NO.  
**70-PI-07**

**REVISIONS**

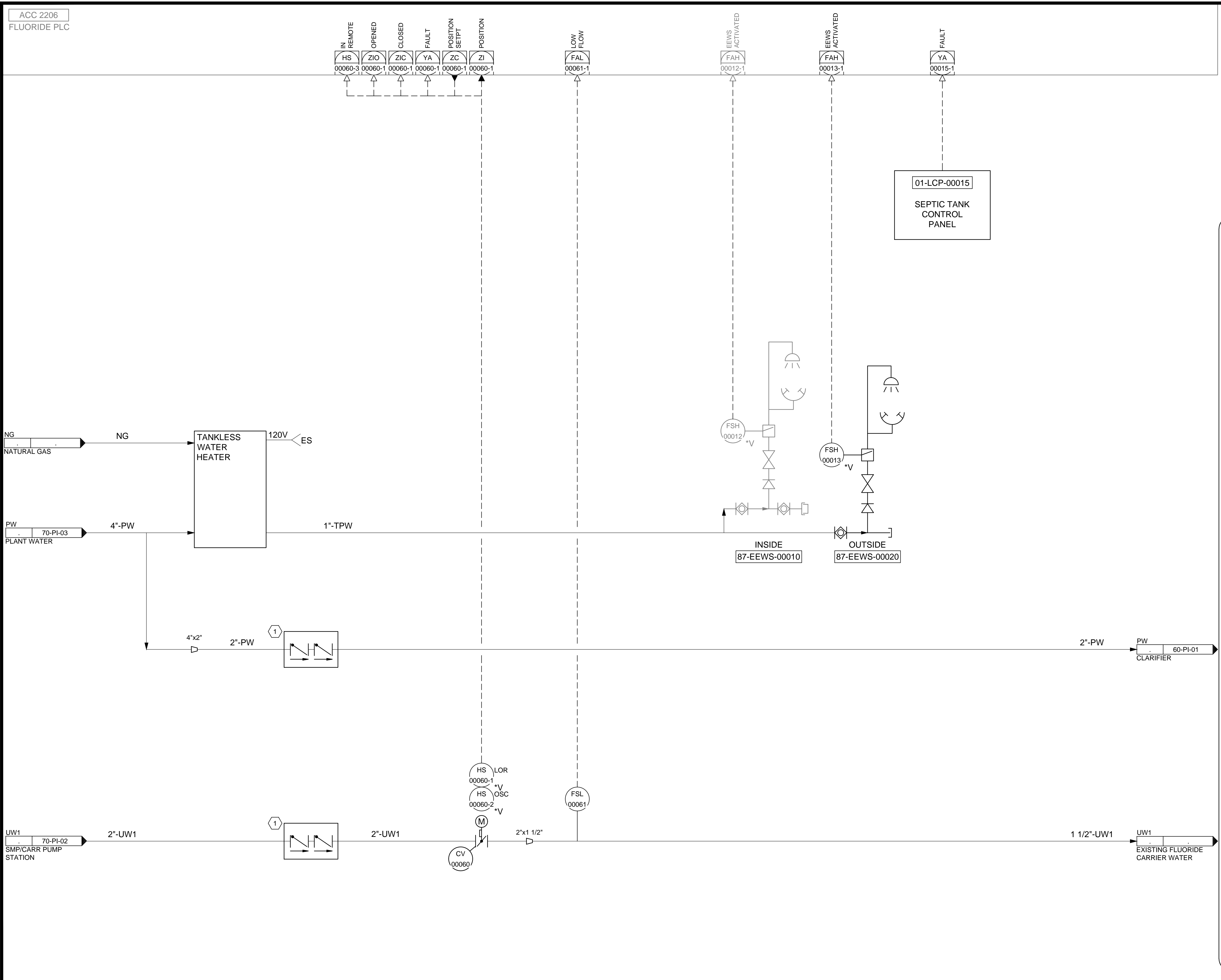
NO.	DATE	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR	GUARANTEE	MAXIMUM PRICE (GMP)	BO	BO

DESIGNED BY: B.GTANI  
 DRAWN BY: A.LAPIERRE  
 CHECKED BY: M.PAGENDARM  
 APPROVED BY: B.GTANI  
 DATE: JUNE 2024  
 EWO NO: --  
 ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
 BAR IS ONE INCH ON ORIGINAL DRAWING

C:\Users\alapiere\AppData\Local\Autodesk\AutoCAD Plant\_3D\CollaborationCache\153020-SLICDPL\_City\_Creek\_WTP-V2021\PID\_DWG\87-PI-01.dwg Jun 12, 2024 - 8:58pm



ACC 2206  
FLUORIDE PLC

IN REMOTE (HS 00060-3)  
OPENED (ZIO 00060-1)  
CLOSED (ZIC 00060-1)  
FAULT (YA 00060-1)  
POSITION SETPT (ZC 00060-1)  
POSITION (ZI 00060-1)

LOW FLOW (FAL 00061-1)

EWS ACTIVATED (FAH 00012-1)

EWS ACTIVATED (FAH 00013-1)

FAULT (YA 00015-1)

01-LCP-00015  
SEPTIC TANK  
CONTROL  
PANEL

**KEYNOTES:**

1 PROVIDE BACKFLOW PREVENTER

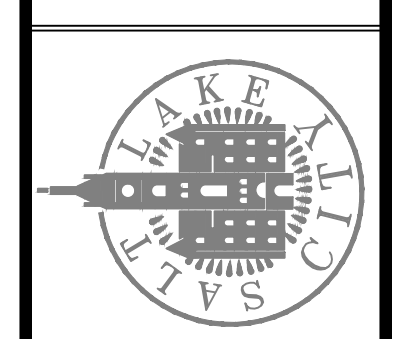
DESIGNED BY: BOTANI  
DRAWN BY: ALAPIERE  
CHECKED BY: J.PAGENDARM  
APPROVED BY: BOTANI  
DATE: JUNE 2024  
EWO NO: ---  
ACCOUNT NO: 512260079

SCALE: \_\_\_\_\_

**VERIFY SCALE**  
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REVISIONS	MADE BY	AUTH BY
0	06/14/24	ISSUED FOR GUARANTEE MAXIMUM PRICE (GMP)	BO	BO

SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES  
CITY CREEK TREATMENT PLANT UPGRADES  
BRIC PACKAGE  
**EXISTING FLUORIDE STORAGE**



**90% GMP**

DRAWING NO.  
**87-PI-01**

**Brown and Caldwell**