

CITY OF SPARKS

AIR COMPRESSOR REPLACEMENT

TRUCKEE MEADOWS WATER RECLAMATION FACILITY

PO# 100015680

8500 CLEAN WATER WAY
RENO, NV 89502

LOCATION MAP

GENERAL NOTES

1. THE PROJECT SPECIFICATIONS AND DRAWINGS ARE A DOCUMENT SET AND SHOULD NOT BE SEPARATED. INFORMATION AND REFERENCES ARE CONTAINED IN ALL SPECIFICATIONS AND DRAWINGS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FULLY UNDERSTAND THE COMPLETE SET OF SPECIFICATIONS AND THE DRAWINGS FOR THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL OF THE INFORMATION CONTAINED IN THE SPECIFICATIONS AND DRAWINGS, INCLUDING ALL OTHER DISCIPLINES (ARCHITECTURAL, ELECTRICAL, STRUCTURAL, ETC.) PRIOR TO BID AND CONSTRUCTION.
3. THE CONTRACTOR SHALL INSTALL THE NEW EQUIPMENT, DUCTWORK, AND PIPING AROUND ALL EXISTING OBSTACLES INCLUDING: ELECTRICAL CONDUIT, DOMESTIC WATER PIPING, WASTE AND VENT PIPING, CHILLED AND HEATING WATER PIPING, AND FIRE SPRINKLER PIPING. PROVIDE OFFSETS TO AVOID RELOCATION OF OTHER UTILITIES. RELOCATE UTILITIES IF THEY ARE IN CONFLICT WITH THE MECHANICAL SYSTEM INSTALLATION, CAUSE DEVIATIONS IN THE DESIGN INTENT, UNSATISFACTORY OPERATION, NOISY CONDITIONS, OR INTERFERE WITH MAINTENANCE. IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE ANY UTILITY RELOCATION WITH THE APPROPRIATE SUBCONTRACTOR.
4. THE INFORMATION INDICATED ON THESE DRAWINGS AS EXISTING IS BASED UPON INFORMATION TAKEN FROM AS-BUILT DRAWINGS, FIELD INVESTIGATION, AND INFORMATION OBTAINED FROM SUBMITTAL DATA, ETC. THE PLANS DO NOT GUARANTEE ACCURACY BUT ARE ONLY AN INDICATION OF EXISTING CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT CONDITIONS SUCH AS EQUIPMENT PLACEMENT, DUCTWORK (SIZE, ROUTING, AND ELEVATION), PIPING (SIZE, ROUTING, AND ELEVATION), ETC. THE DRAWINGS ARE INTENDED TO PROVIDE THE CONTRACTOR AN INDICATION OF THE SYSTEM INSTALLED IN THE FACILITY TO DATE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ADJUSTMENTS TO THE DRAWING INFORMATION AS REQUIRED TO MATCH EXISTING FIELD CONDITIONS.

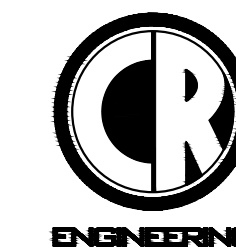
DIRECTORY

OWNER

CITY OF SPARKS
TRUCKEE MEADOWS WATER
RECLAMATION FACILITY
8500 CLEAN WATER WAY
RENO, NV 89502

CONTACT: KIM LABER
TMWRF MAINTENANCE
MANAGER
(775) 861-4125

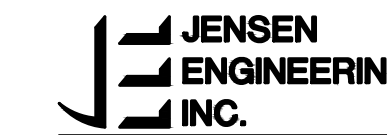
MECHANICAL CONSULTANT



5434 LONGLEY LANE
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CONTACT: GERALD JENSEN, P.E.

SHEET LIST

GENERAL

T0.1 TITLE SHEET

MECHANICAL

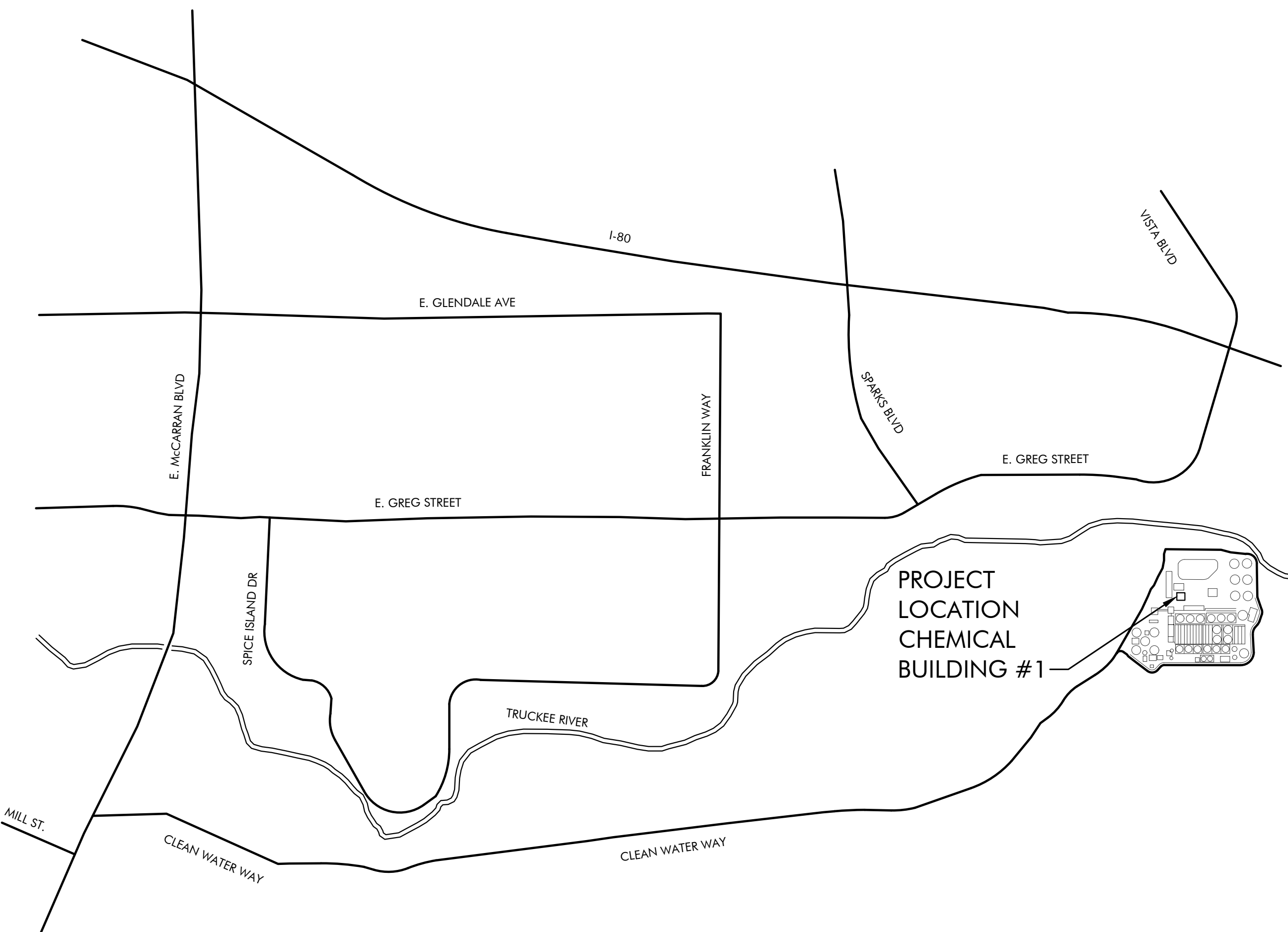
M0.1 MECHANICAL ABBREVIATIONS, LEGEND, AND SCHEDULES
M1.1 MECHANICAL DEMOLITION FLOOR PLAN
M2.1 MECHANICAL FLOOR PLAN
M4.1 MECHANICAL PIPING DIAGRAMS
M5.1 MECHANICAL CONTROL DIAGRAM

ELECTRICAL

E0.1 ELECTRICAL PARTIAL DEMOLITION FLOOR PLAN
E1.1 ELECTRICAL PARTIAL DEMOLITION FLOOR PLAN
E2.1 ELECTRICAL PARTIAL FLOOR PLAN
E3.1 ELECTRICAL PARTIAL FLOOR PLAN

BUILDING CODES

2012 INTERNATIONAL BUILDING CODE
2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE
2012 UNIFORM MECHANICAL CODE
2012 UNIFORM PLUMBING CODE
2011 NATIONAL ELECTRICAL CODE



DRAWING ON 11x17 SHEET IS HALF SCALE

BID DOCUMENTS								DESIGNED ELT DRAWN FMP CHECKED CLR DATE 3/16/2017	5434 LONGLEY LANE RENO, NEVADA 89511 PHONE: (775) 826-1919 FAX: (775) 826-1918 PROJECT NO: 115717		CITY OF SPARKS TMWRF AIR COMPRESSOR REPLACEMENT	VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 115717 DRAWING NO. T0.1 SHEET NO. 1 OF 10
											TITLE SHEET	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

FILENAME: W:\2017\115717\dwg\115717 T0.1 TITLE SHEET.dwg

REV	DATE	BY	DESCRIPTION	APVD	DATE

HEAT EXCHANGER SCHEDULE

EQUIPMENT ID	SERVICE	MANUFACTURER	MODEL	MAXIMUM DESIGN PRESS (PSI)	MAXIMUM DESIGN TEMPERATURE (°F)	SURFACE AREA (SF)	# OF PLATES	MINIMUM CAPACITY AT DESIGN CONDITION (MBH)	HOT SIDE - AIR COMPRESSOR				COLD SIDE - #2 WATER				OPERATING WEIGHT (LBS)	OPTIONS
									EWT (°F)	LWT (°F)	WATER FLOW (GPM)	MAXIMUM WPD (FT WC)	EWT (°F)	LWT (°F)	WATER FLOW (GPM)	MAXIMUM WPD (FT WC)		
HEX83186	WATER-COOLED AIR COMPRESSOR	SONDEX	SL32-BR-60-TL	135	150	21	60	300	127	100	20	5	85	112	20	5	30	N/A
HEX83187	WATER-COOLED AIR COMPRESSOR	SONDEX	SL32-BR-60-TL	135	150	21	60	300	127	100	20	5	85	112	20	5	30	N/A

GENERAL NOTES:

- ALL CAPACITIES ARE LISTED AT 4,400 FEET ELEVATION.
- DESCRIPTION: BRAZED PLATE HEAT EXCHANGER.
- CONSTRUCTION RATING: HEAT EXCHANGER SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE TO ASME SECTION VIII, "PRESSURE VESSELS".

STANDARD FEATURES:

- STAINLESS STEEL PLATES BRAZED WITH COPPER

AIR COMPRESSOR SCHEDULE

EQUIPMENT ID	UNIT DATA			PERFORMANCE DATA				ELECTRICAL DATA			COOLING DATA			OPTIONS
	MANUFACTURER	MODEL	OPERATING WEIGHT (LBS)	DISCHARGE PRESSURE (PSIG)	MINIMUM CAPACITY (CFM)	MAXIMUM CAPACITY (CFM)	COOLING WATER (GPM)	MOTOR (HP)	ELECTRICAL (VOLTS/Ø/Hz)	SPEED (RPM)	WATER FLOW (GPM)	EWT (°F)	LWT (°F)	
CMP83205	ATLAS COPCO	ZT-75-VSD	6,000	105	155	419	5	100	460/3/60	3,600	20	100	127	A

GENERAL NOTES:

- ALL CAPACITIES ARE LISTED AT 4,400 FEET ELEVATION
- ALL ELECTRICAL COMPONENTS SHALL BE UL OR ETL LISTED
- WATER-COOLED AIR COMPRESSOR

STANDARD FEATURES:

- INTEGRATED VARIABLE SPEED DRIVE
- 100% OIL-FREE ROTARY SCREW COMPRESSOR
- PNEUMATICALLY ACTUATED INLET THROTTLE VALVE FOR FULL LOAD/NO LOAD REGULATION
- PREMIUM EFFICIENCY TEFC COMPRESSOR MOTOR

OPTIONS:

- ANCHOR PADS
- IO2 EXPANSION MODULE TO PROVIDE ELECTRICAL POWER TO EXTERNAL EQUIPMENT
- GATEWAY MODULE FOR MODBUS COMMUNICATION WITH DCS

EQUIPMENT SCHEDULE

PMP83185	CIRCULATION PUMP - TACO 2400 SERIES CIRCULATING PUMP WITH STAINLESS STEEL CASING AND STAINLESS STEEL SHAFT. PUMP CAPACITY SHALL BE 20 GPM AND TOTAL HEAD PRESSURE OF 15 FT. ELECTRICAL: 120V/1Ø/60Hz, 1/6 HP. OPERATING WEIGHT: 10 LBS
TNK83238	CHEMICAL FEED TANK - NU-CALGON MODEL 100L FLAT BOTTOM, MILD STEEL, 10-GALLON MICROMET CHEMICAL FEEDER WITH 3/4" QUARTER TURN CAP AND TWO 3/4" NPT PORTS. SEE PIPING DIAGRAM FOR CONFIGURATION.
EXT83239	EXPANSION TANK - AMTROL THERM-X-TROL MODEL EX-15 PRE-CHARGED THERMAL EXPANSION TANK. 2.0 GALLON TANK WITH MAXIMUM ACCEPTANCE FACTOR OF 0.5. TANK SHALL HAVE A 100 PSI MAXIMUM WORKING PRESSURE, 240°F MAXIMUM WORKING TEMPERATURE, AND 12 PSI FACTORY PRESET PRESSURE
MOV83240	CONTROL VALVE - BELIMO MODEL G240(S) ON-OFF, TWO-WAY, THREADED WITH STAINLESS STEEL TRIM AND A STAINLESS STEEL PLUG. 1/2" NPT CONNECTIONS. SPRING-RETURN WITH NORMAL OPEN. ELECTRICAL: 24 VAC/60Hz

MECHANICAL ABBREVIATIONS

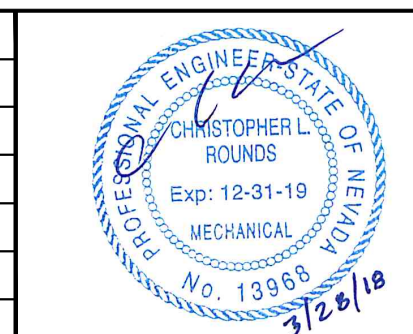
ACFM	ACTUAL CUBIC FEET PER MINUTE
AFF/AFG	ABOVE FINISHED FLOOR/GRADE
A	AMPERE
APD	AIR PRESSURE DROP
BFF/BFG	BELOW FINISHED FLOOR/GRADE
BTUH	BRITISH THERMAL UNITS PER HOUR
CA	COMPRESSED AIR
CFM	CUBIC FEET PER MINUTE
COP	COEFFICIENT OF PERFORMANCE
(D)	DEMOLISH
DIA	DIAMETER
DP	DIFFERENTIAL PRESSURE
EFF	EFFICIENCY
EER	ENERGY EFFICIENCY RATIO
(E)	EXISTING
ESP	EXTERNAL STATIC PRESSURE
FLA	FULL LOAD AMPERES
FPM	FEET PER MINUTE
FT	FOOT
FT ²	SQUARE FOOT
FT ³	CUBIC FOOT
GA	GAUGE
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HZ	HERTZ
IN	INCH
IN ²	SQUARE INCH
IN ³	CUBIC INCH
KW	KILOWATT
LBS	POUNDS
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MOC	MAXIMUM OVERCURRENT PROTECTION
(N)	NEW
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RPM	REVOLUTIONS PER MINUTE
SEER	SEASONAL ENERGY EFFICIENCY RATIO
TYP	TYPICAL
V	VOLTS
W	WATT
WC/WG	WATER COLUMN/GAUGE

MECHANICAL SYMBOL LEGEND

	M	MOTORIZED ACTUATOR
	TSTAT	THERMOSTAT OR TEMPERATURE SENSOR @ 48" AFF
	BV	BALL VALVE
	BFV	BUTTERFLY VALVE
	CV	CHECK VALVE
	FCV	FLOW CONTROL (BALANCE) VALVE
	PRV	PRESSURE REDUCING VALVE
	PTRV	PRESSURE AND TEMPERATURE RELIEF VALVE
	TCV	TEMPERATURE CONTROL VALVE (2-WAY OR 3-WAY)
	TDV	TRIPLE DUTY VALVE
	STR	STRAINER
		UNION
		PIPE BREAK
		PIPE CAP OR PLUG
	ELL	PIPE ELBOW
		PIPE ELBOW DOWN
		PIPE ELBOW UP
		PIPE TEE
		PIPE RISER
		PIPE DROP
		PIPE BRANCH, TOP CONNECTION
		PIPE BRANCH, BOTTOM CONNECTION
	FLEX	FLEXIBLE PIPE CONNECTOR
		WATER METER
		PRESSURE SENSOR, TEMPERATURE SENSOR WITH WELL
		PRESSURE GAUGE, TEMPERATURE GAUGE
	P	PUMP
	D	EQUIPMENT OR CONDENSATE DRAIN PIPING
	POC	POINT OF CONNECTION
		POINT OF DISCONNECT
	CCW	COMPRESSOR COOLING WATER
	#2 W	#2 EFFLUENT PLANT WATER

DRAWING ON 11x17 SHEET IS HALF SCALE

REV	DATE	BY	DESCRIPTION	APVD	DATE



DESIGNED	ELT
DRAWN	FMP
CHECKED	CLR
DATE	3/16/2017

ENGINEERING

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PROJECT NO: 115717



CITY OF SPARKS

TMWRF AIR COMPRESSOR REPLACEMENT

MECHANICAL ABBREVIATIONS, LEGENDS, AND SCHEDULES

VERIFY SCALES

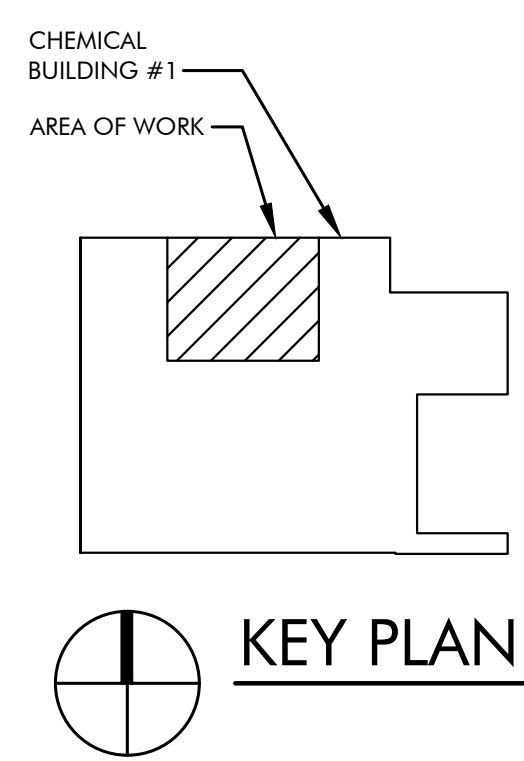
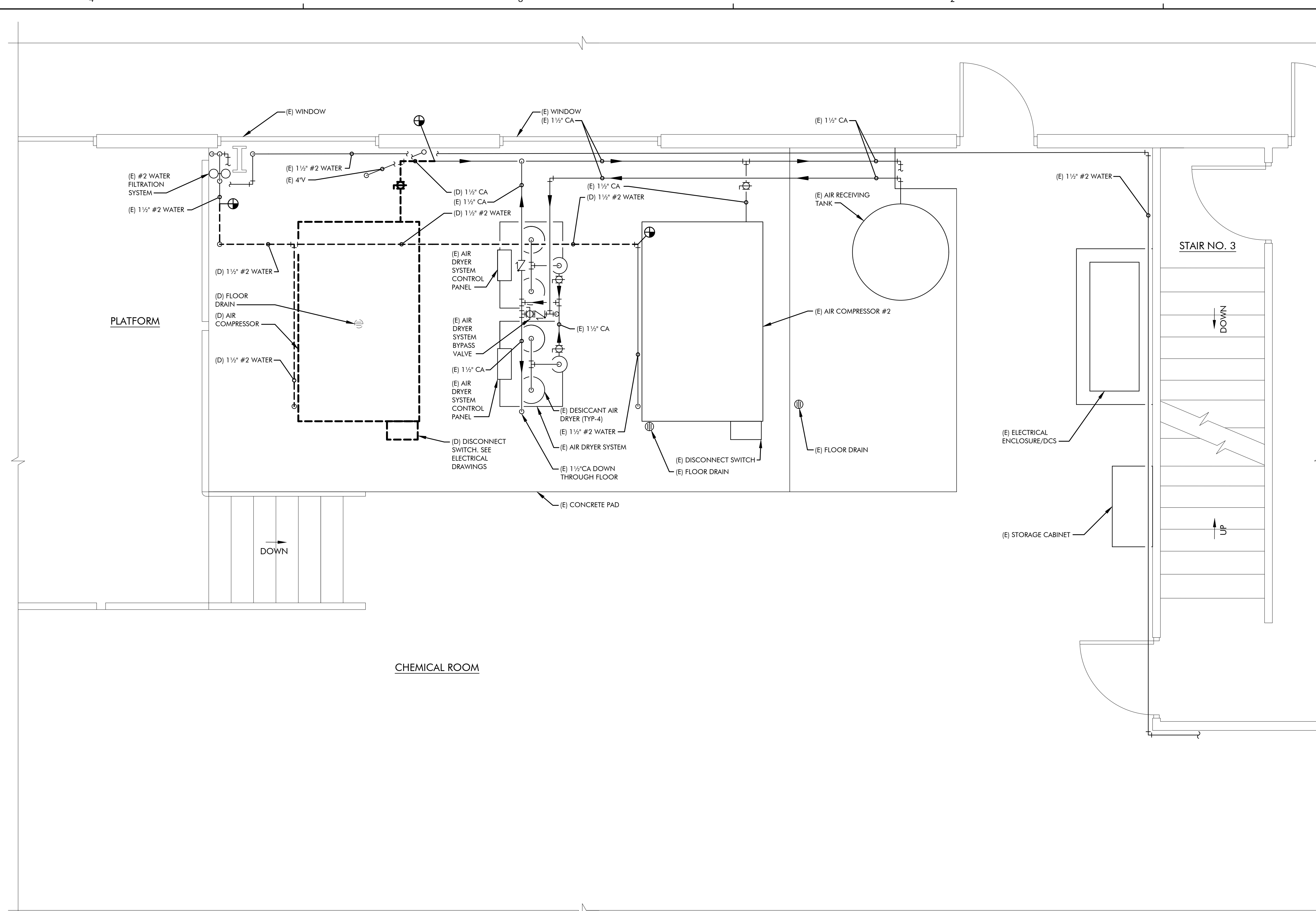
BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 115717

DRAWING NO. MO.1

SHEET NO. 2 OF 10



MECHANICAL PARTIAL DEMOLITION FLOOR PLAN
SCALE: 1/2" = 1'-0"

DRAWING ON 11x17 SHEET IS HALF SCALE

REV	DATE	BY	DESCRIPTION	APVD	DATE

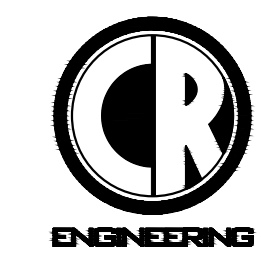


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MECHANICAL DEMOLITION FLOOR PLAN

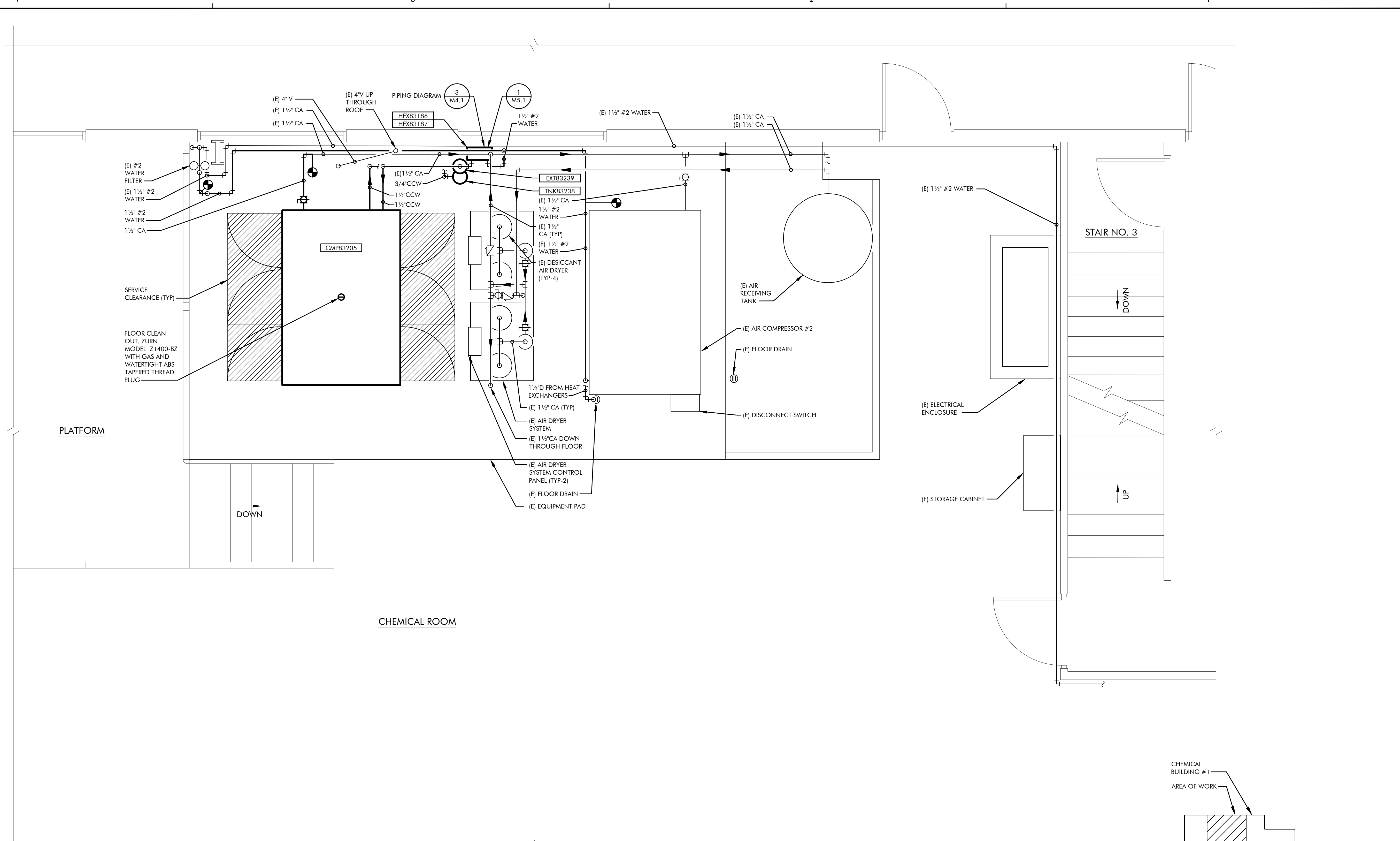
VERIFY SCALES
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JOB NO.
115717

DRAWING NO.
M1.1

SHEET NO.
3 OF 10



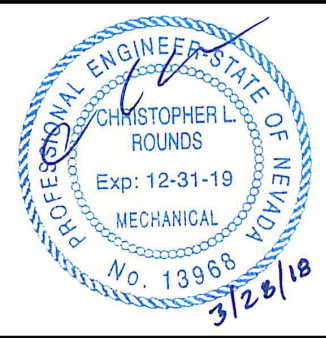
MECHANICAL PARTIAL FLOOR PLAN

SCALE: 1/2" = 1'-0" A
M2.1

KEY PLAN

DRAWING ON 11x17 SHEET IS HALF SCALE

BID DOCUMENTS	REV	DATE	BY	DESCRIPTION	APVD	DATE

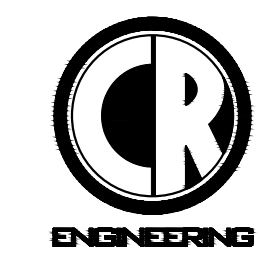


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ELT

DRAWN
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CLR

DATE
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TMWRF AIR COMPRESSOR REPLACEMENT

MECHANICAL FLOOR PLAN

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING

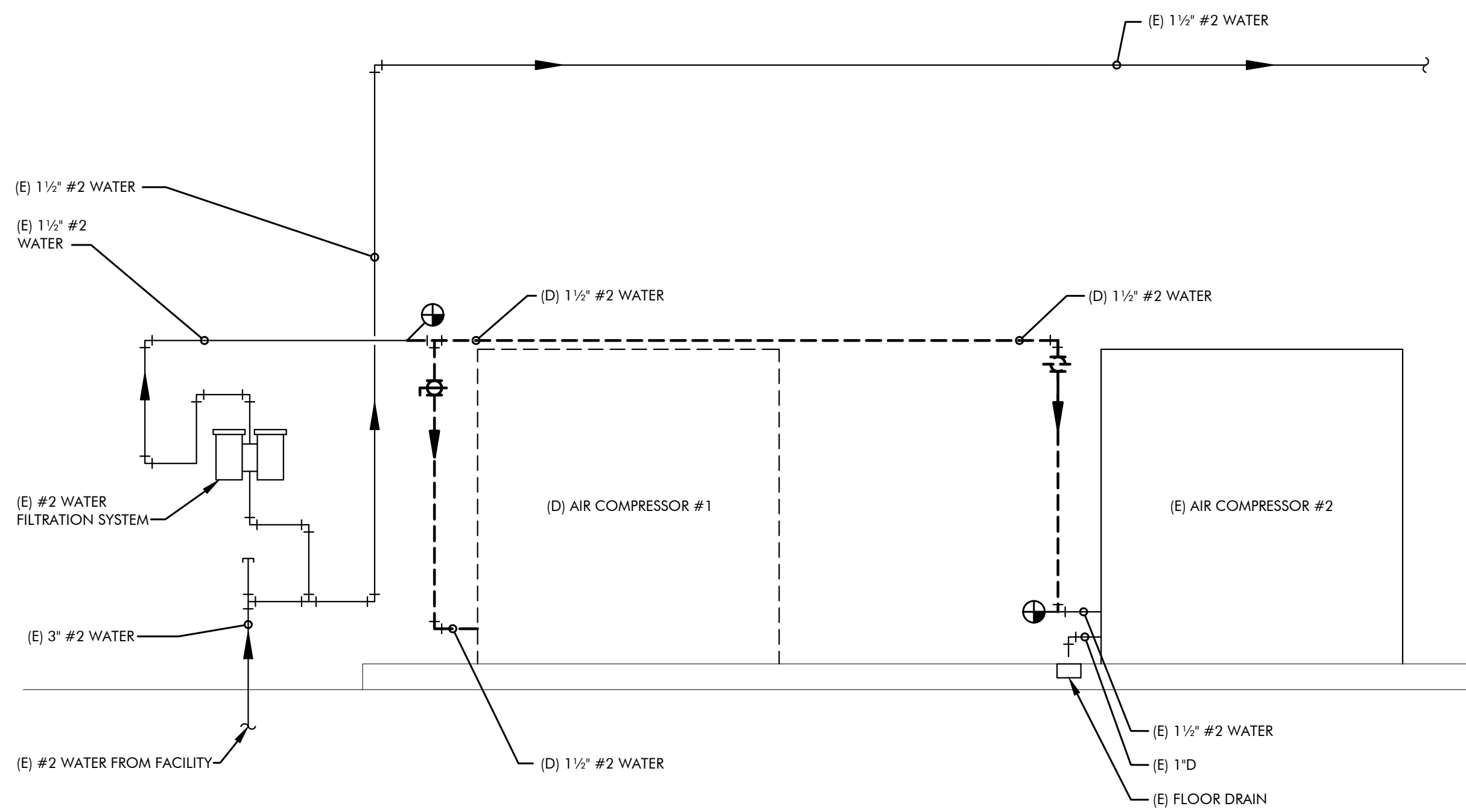
0 1"

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JOB NO.
115717

DRAWING NO.
M2.1

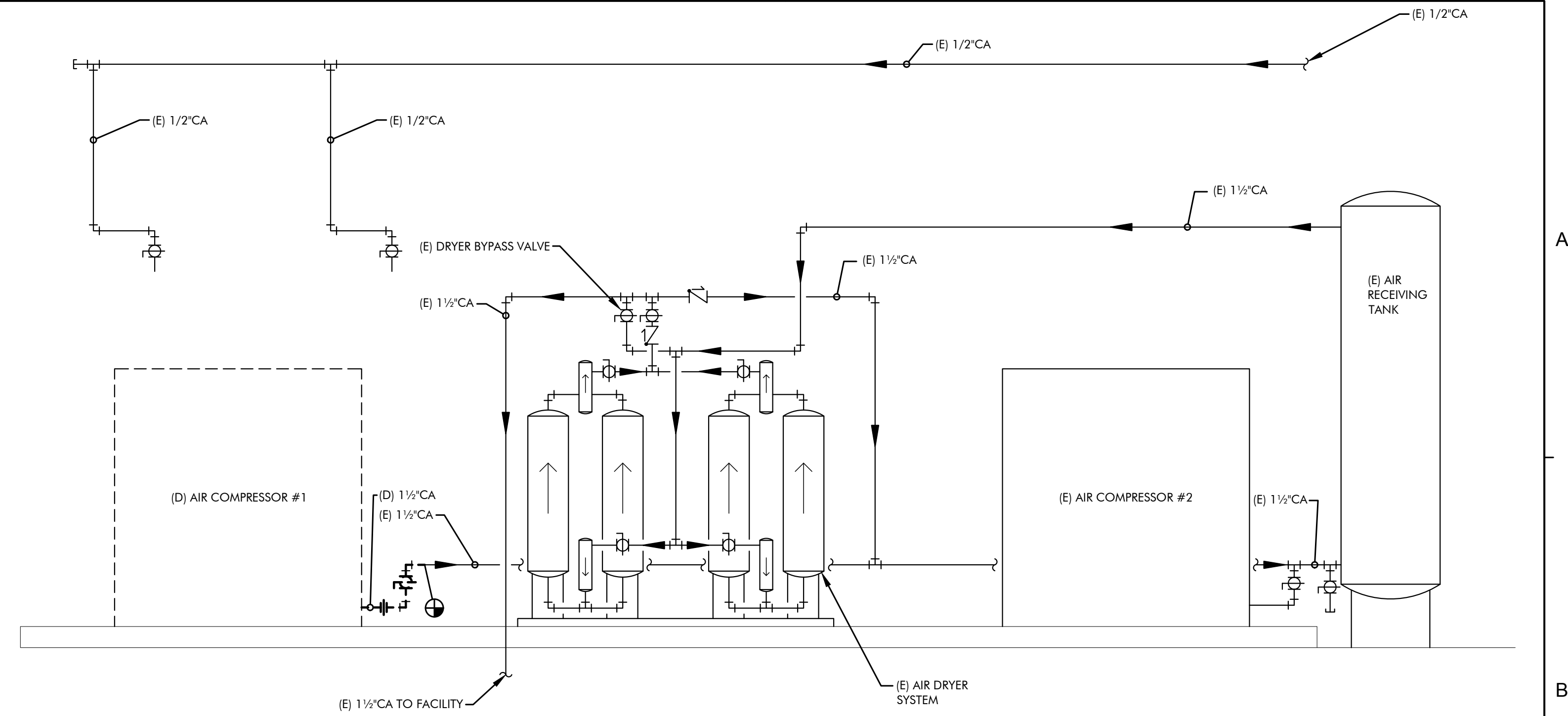
SHEET NO.
4 OF 10



MECHANICAL DEMOLITION #2 WATER PIPING DIAGRAM

SCALE: NONE

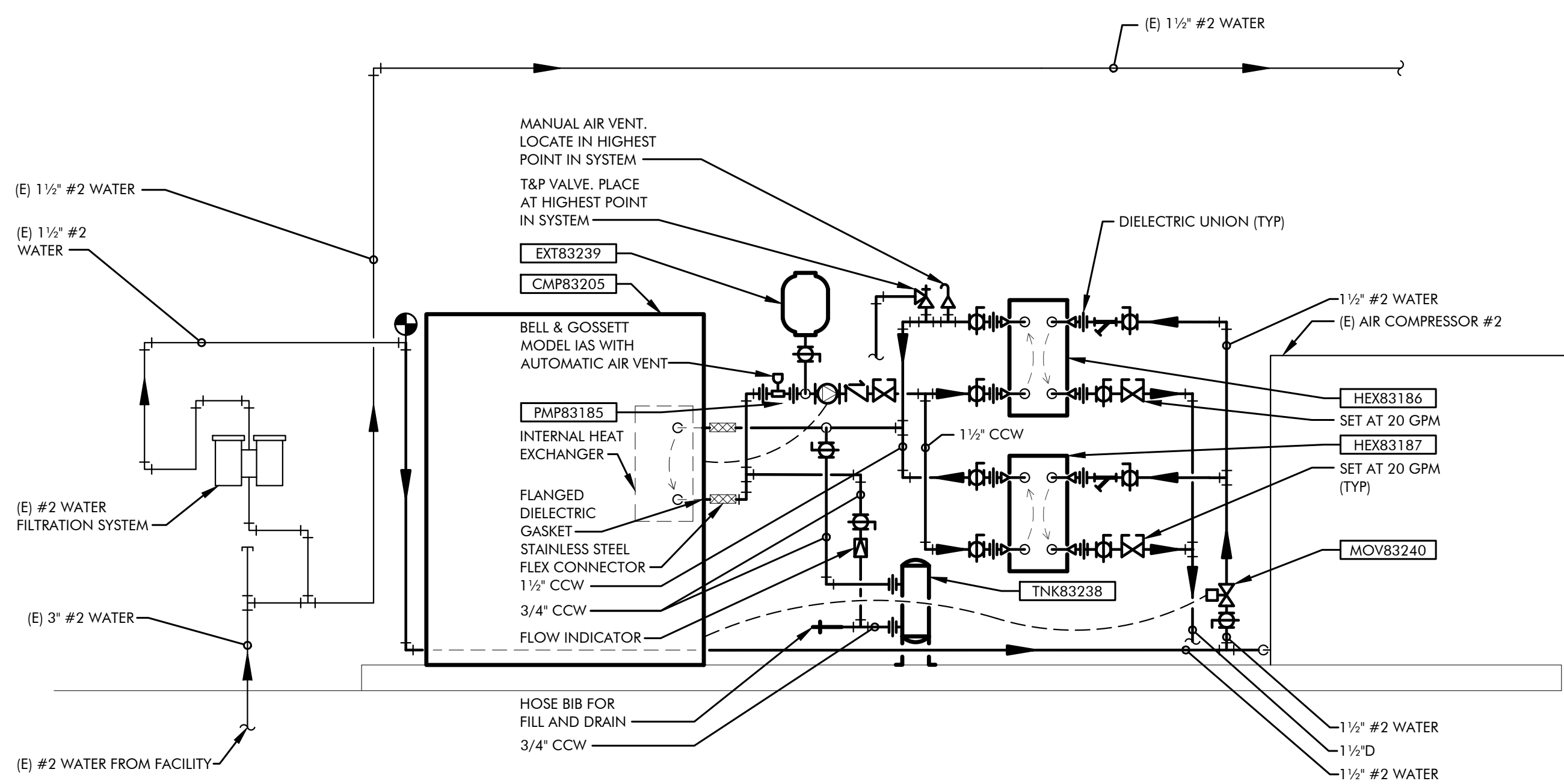
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M4.1



MECHANICAL DEMOLITION COMPRESSED AIR PIPING DIAGRAM

SCALE: NONE

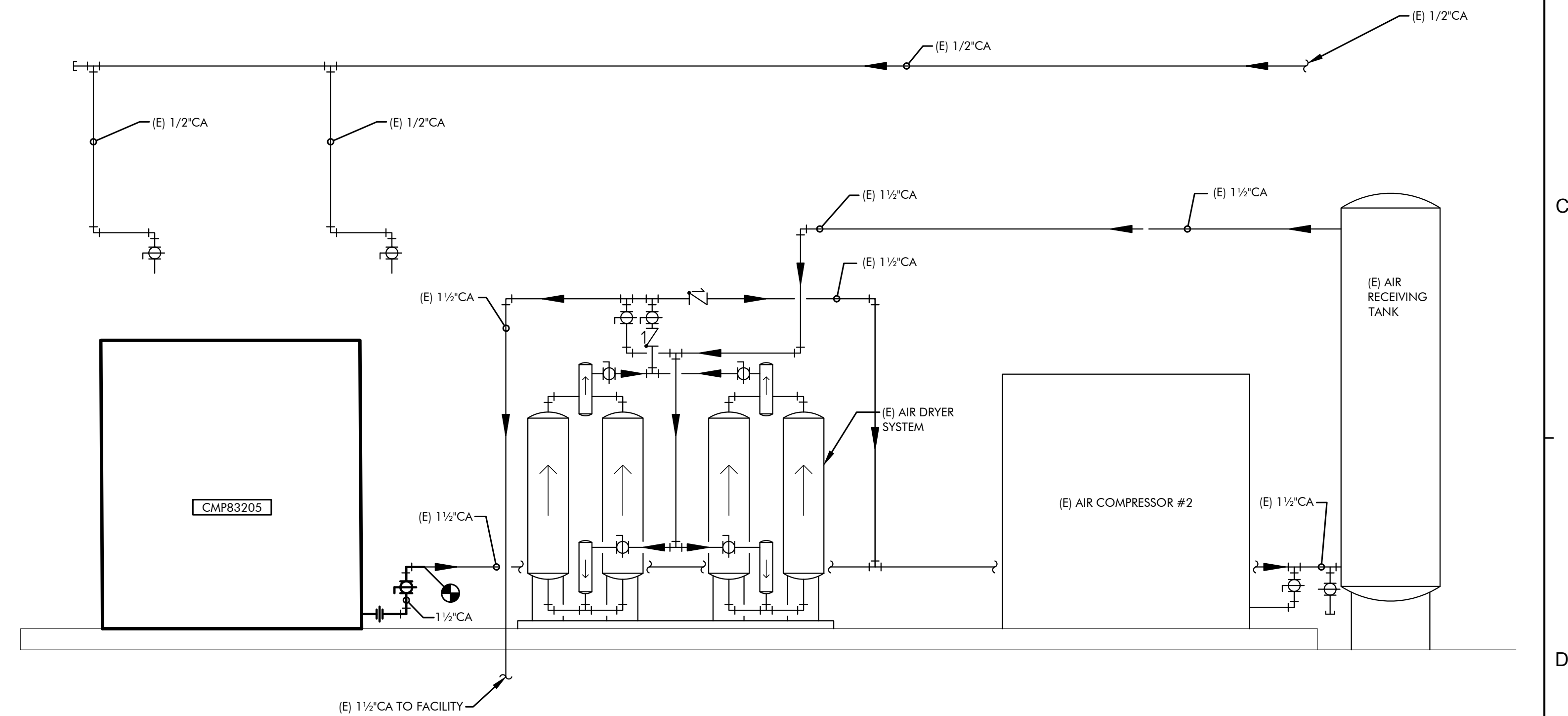
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M4.1



MECHANICAL #2 WATER PIPING DIAGRAM

SCALE: NONE

3
M4.1



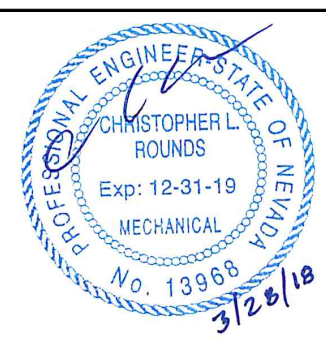
MECHANICAL COMPRESSED AIR PIPING DIAGRAM

SCALE: NONE

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M4.1

DRAWING ON 11x17 SHEET IS HALF SCALE

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CHECKED CLR
DATE 3/16/2017

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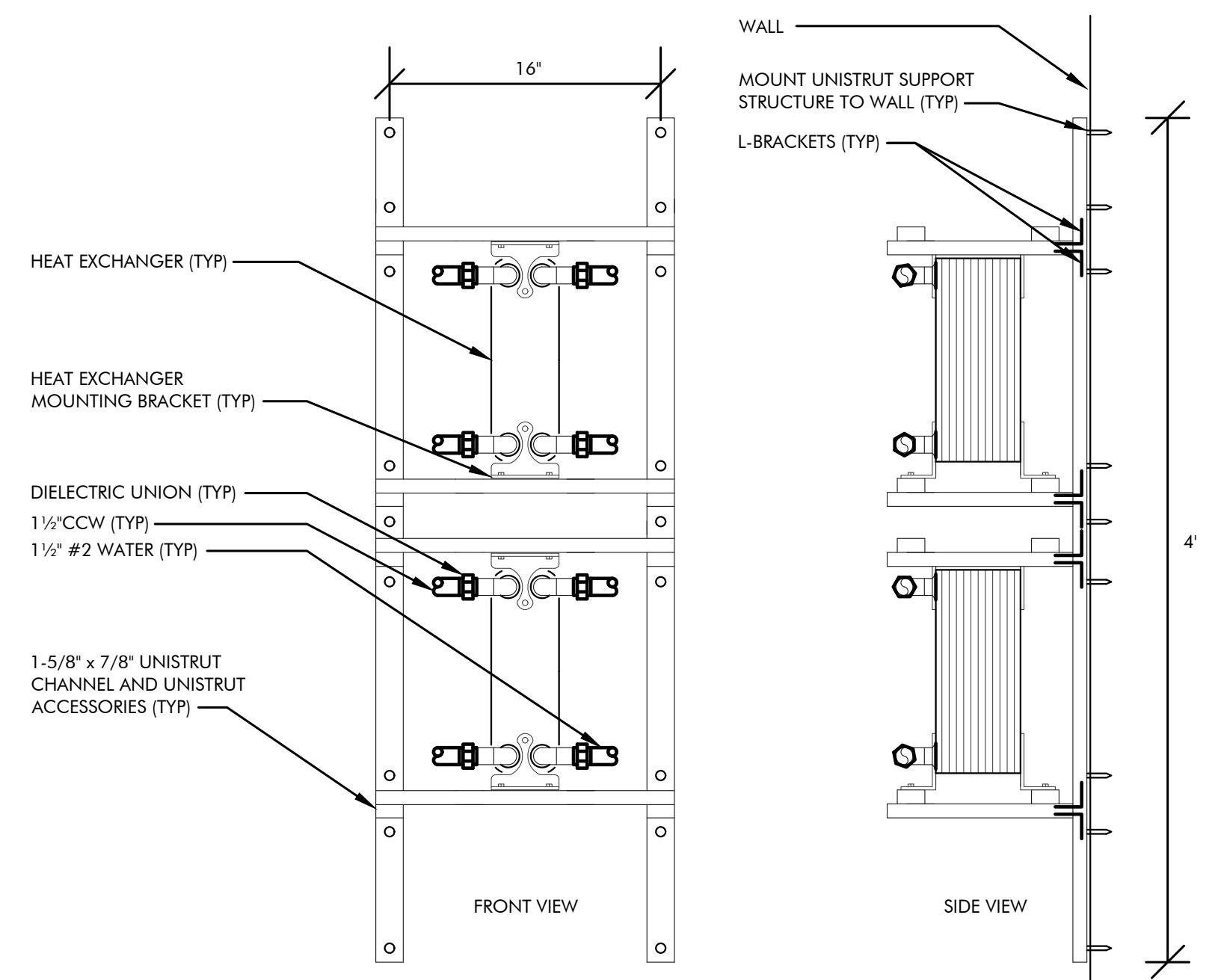


CITY OF SPARKS

TMWRF AIR COMPRESSOR REPLACEMENT

MECHANICAL PIPING DIAGRAMS

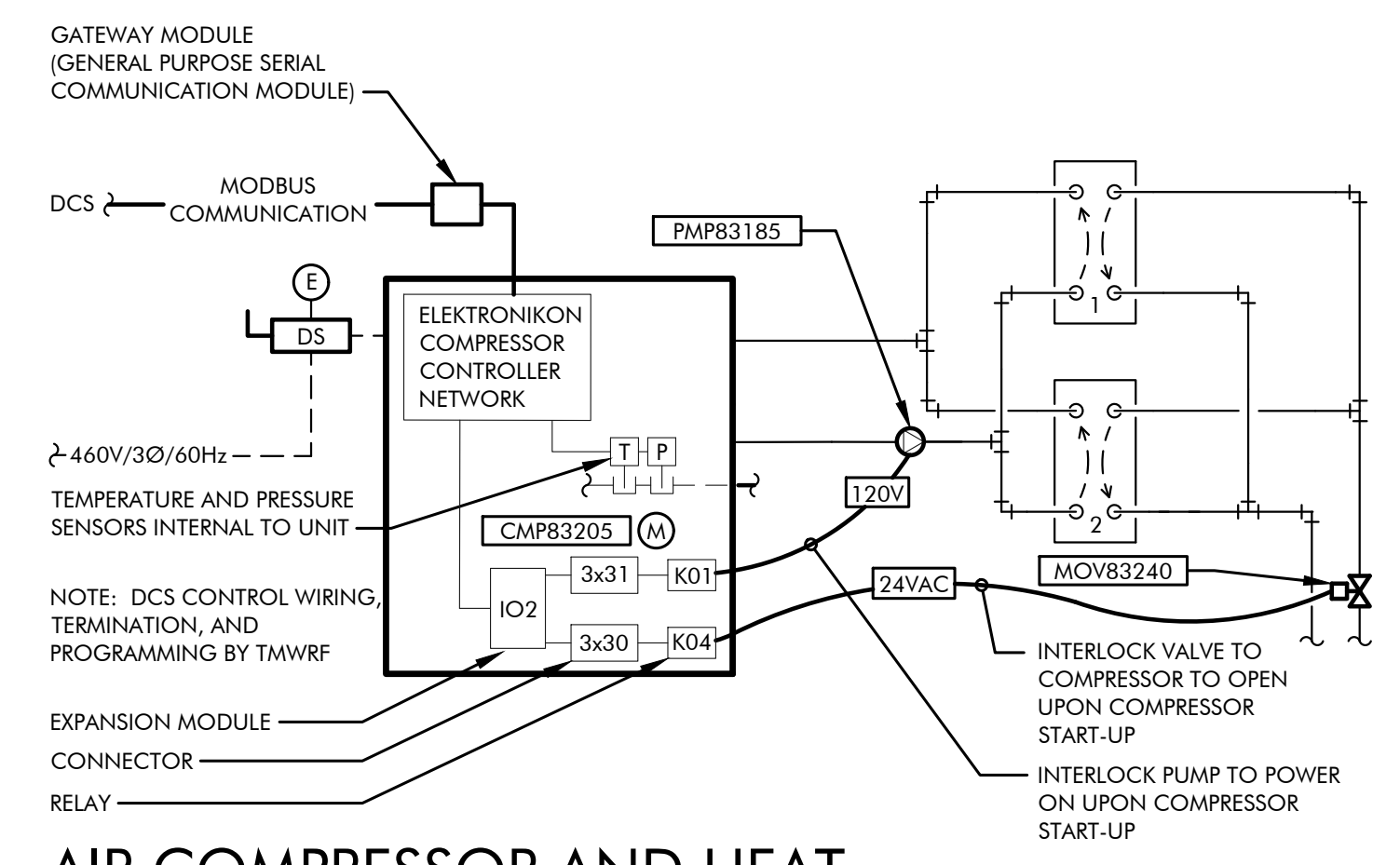
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING	JOB NO. 115717
0 1"	DRAWING NO. M4.1
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 5 OF 10



HEAT EXCHANGER MOUNTING DETAIL

SCALE: NONE

1
M5.1



AIR COMPRESSOR AND HEAT EXCHANGER CONTROL DIAGRAM

SCALE: NONE

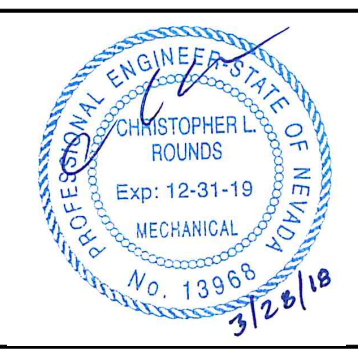
2
M5.1

CONTROLS SYMBOL LEGEND	
SYMBOL	DESCRIPTION
CS	CURRENT SENSOR
	2-WAY CONTROL VALVE
DS	DISCONNECT SWITCH
VFD	VARIABLE FREQUENCY DRIVE
	PUMP
	EQUIPMENT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
	EQUIPMENT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR
---	CONDUIT AND POWER WIRE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR
---	CONDUIT AND CONTROL WIRE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR

AIR COMPRESSOR SEQUENCE OF OPERATION	
AUTOMATIC OPERATION:	
1. THE AIR COMPRESSOR WILL BE ENABLED WHEN PRESSURE DROPS BELOW THE SETPOINT. THE SETPOINT IS 100 PSI WITH A ±5 PSI DEADBAND (ADJUSTABLE).	
2. WHEN THE COMPRESSOR IS POWERED-ON:	
A. #2 WATER CONTROL VALVE SHALL OPEN. 24VAC WILL BE SUPPLIED FROM EXPANSION MODULE (IO2) THROUGH RELAY (K04) TO VALVE (MOV83240).	
B. THE PUMP WILL POWER ON. 120V WILL BE SUPPLIED FROM EXPANSION MODULE (IO2) THROUGH RELAY (K01) TO PUMP (PMP83185).	
3. ONCE THE PLANTS COMPRESSED AIR SYSTEM PRESSURE REQUIREMENTS HAVE BEEN MET THE COMPRESSOR WILL SHUT-DOWN, PUMP WILL SHUT OFF, AND #2 WATER CONTROL VALVE WILL SHUT OFF.	
HEAT EXCHANGERS:	
1. HEAT EXCHANGERS ARE TO BE 100% REDUNDANT. ONCE HEAT EXCHANGER (1)* HAS FOULED UP, IT WILL BE COMPLETELY VALVED OFF AND HEAT EXCHANGER (2)* WILL BE VALVED ON. ONCE HEAT EXCHANGER (2)* IS WORKING, HEAT EXCHANGER (1)* IS TO BE REMOVED AND REPLACED.	
* HEAT EXCHANGER (1): HEX83186, HEAT EXCHANGER (2): HEX83187	

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TMWRF AIR COMPRESSOR REPLACEMENT
MECHANICAL CONTROL DIAGRAM

VERIFY SCALES
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JOB NO.
115717
DRAWING NO.
M5.1
SHEET NO.
6 OF 10

ELECTRICAL SYMBOLS AND NOMENCLATURE

	SINGLE-OUTLET RECEPTACLE		SINGLE-PHASE, 1-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - #10 Cu, UNLESS OTHERWISE NOTED) BELOW FLOOR
	DOUBLE-OUTLET 'DUPLEX' RECEPTACLE		SINGLE-PHASE, 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - #10 Cu, UNLESS OTHERWISE NOTED) BELOW FLOOR
	THREE-PHASE (3W) RECEPTACLE (CONFIGURATION AS NOTED)		THREE-PHASE, 1-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - #10 Cu, UNLESS OTHERWISE NOTED) BELOW FLOOR
	QUADRIPOLE-OUTLET 'QUAD' RECEPTACLE		RETURN CIRCUIT TO PANEL 'HOMERUN' (CIRCUIT AS NOTED) ABOVE FLOOR
	SPECIAL RECEPTACLE (VOLTAGE/CONFIGURATION AS NOTED)		CIRCUIT BREAKER (AMPS/POLES AS NOTED)
	JUNCTION BOX		FUSE (AMPS/POLES AS NOTED)
	FLOOR MOUNT RECEPTACLE		SHEET NOTE INDICATOR
	THERMOSTAT		EQUIPMENT NOTE INDICATOR
	SAFETY DISCONNECT SWITCH (SIZE/VOLTAGE/CONFIGURATION AS NOTED)		REVISION 'DELTA' NOTE INDICATOR
	COMBINATION SAFETY SWITCH/MAGNETIC STARTER		FEEDER NOTE INDICATOR
	TELEPHONE/DATA JUNCTION BACKBOX		48" 48" MOUNTING HEIGHT AFF. (ACTUAL HEIGHT AS NOTED)
	SINGLE-POLE TOGGLE SWITCH (VOLTAGE AS REQUIRED)		AFF. ABOVE FINISHED FLOOR
	PANELBOARD (NAME/AMP/PHASE/VOLTAGE/CONFIGURATION AS NOTED)		A.F.G. ABOVE FINISHED GRADE
	TRANSFORMER (NAME/KVA RATING/PHASE/VOLTAGE AS NOTED)		A.T.S. AUTOMATIC TRANSFER SWITCH
	INDICATES MECHANICAL EQUIPMENT		C CONDUIT
	PHOTO ELECTRIC CELL		CB CIRCUIT BREAKER
	TIME CLOCK		CLG CEILING
	CONTACTOR (CONFIGURATION AS NOTED)		(E) EXISTING
	DUCT DETECTOR FIRE ALARM SYSTEM COMPONENT		FACP FIRE ALARM CONTROL PANEL
	SINGLE-PHASE, 1-POLE CIRCUIT PATH (1/2" CONDUIT, (2) - #10 Cu, UNLESS OTHERWISE NOTED) ABOVE FLOOR		F.B.O. FURNISHED BY OTHERS
	SINGLE-PHASE, 2-POLE CIRCUIT PATH (1/2" CONDUIT, (3) - #10 Cu, UNLESS OTHERWISE NOTED) ABOVE FLOOR		GFI GROUND FAULT INTERRUPTING TYPE
	THREE-PHASE, 1-POLE CIRCUIT PATH (1/2" CONDUIT, (4) - #10 Cu, UNLESS OTHERWISE NOTED) ABOVE FLOOR		HID HIGH INTENSITY DISCHARGE
	RETURN CIRCUIT TO PANEL 'HOMERUN' (CIRCUIT AS NOTED) ABOVE FLOOR		L.T.G. LIGHTING
	MOTOR (HORSEPOWER AS NOTED)		N.T.S. NOT TO SCALE
	TYPICAL		M.C.B. MAIN CIRCUIT BREAKER
	UNDER GROUND		M.S.B. MAIN SWITCH BOARD
	UNLESS OTHERWISE NOTED		(N) NEW
	WEATHER PROOF		N.L. NIGHT LIGHT
	TRANSFORMER		O.A.A. OR APPROVED ALTERNATE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE:

MEQ #	DISCONNECTING MEANS	STARTER	VOLTS / PH	FED FROM	CONDUIT & WIRE	LOAD KVA	NOTES
PMP83185	20A MOTOR RATED SWITCH IN F.S. BOX	--	120 / 1	NOTE #4	1/2" C., (2) - #12 Cu & (1) - #12 Cu GND	0.53	1/6 HP
CMP83205	200A/175F/3P 600V, N12 DISC. SAFETY SWITCH	INCLUDED	480 / 3	MCC-19 POS# 5D	2" C., (3) - #2/0 Cu & (1) - #6 Cu GND	103.09	100 HP

MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES:

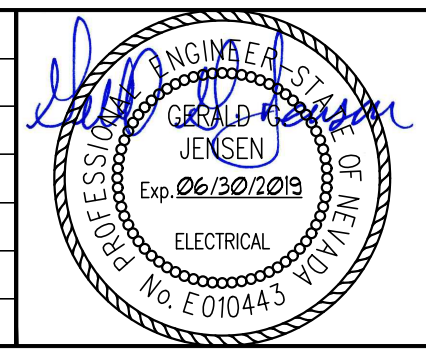
- ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL, TEMPERATURE CONTROLS AND DUCT DETECTOR CONNECTIONS AS REQUIRED BY THE MECHANICAL DRAWINGS AND DETAILS PRIOR TO SUBMITTING A BID.
- SEE MECHANICAL PLANS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT.
- CONTRACTOR'S BID SHALL INCLUDE NEW (OVERHEAD) CONDUITS AND PATHWAYS AS REQUIRED FOR ALL EQUIPMENT CONNECTIONS. NEVERTHELESS, CONTRACTOR MAY REUSE ANY EXISTING CONDUITS, BACK BOXES, AND PATHWAYS THAT ARE MADE AVAILABLE DURING THE DEMOLITION PHASE OF WORK.
- THE CIRCULATION PUMP (PMP83185) IS TO BE FED FROM AND CONTROLLED BY THE AIR COMPRESSOR (CMP83205) BUILT-IN CONTROL BOARD.

DRAWING ON 11x17 SHEET IS HALF SCALE

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 Electrical Engineers
 9655 Gateway Drive Reno, Nevada 89521-2968
 Ph. (775) 852-2288 Fax (775) 852-3388
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BID DOCUMENTS

REV	DATE	BY	DESCRIPTION	APVD	DATE



DESIGNED KPJ/GGJ
DRAWN KPJ
CHECKED GGJ
DATE 03/16/2018

ENGINEERING

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 RENO, NEVADA 89511
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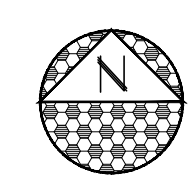
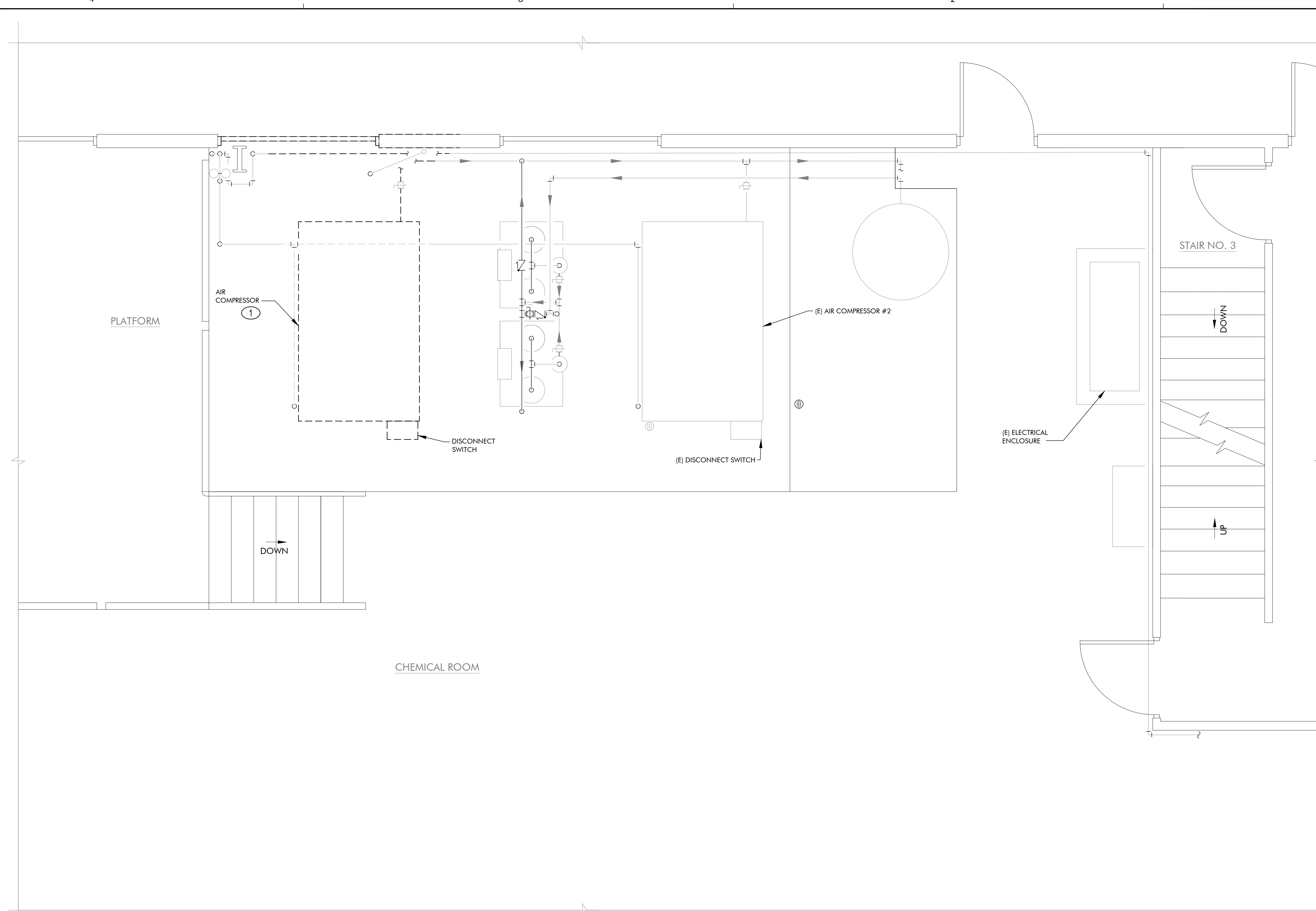
CITY OF SPARKS

TMWRF AIR COMPRESSOR REPLACEMENT

ELECTRICAL SYMBOLS AND MECHANICAL EQUIPMENT CONNECTION SCHEDULE

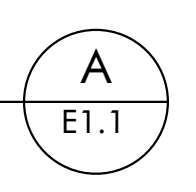
VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
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JOB NO. J146JK
DRAWING NO. E0.1
SHEET NO. 7 OF 10



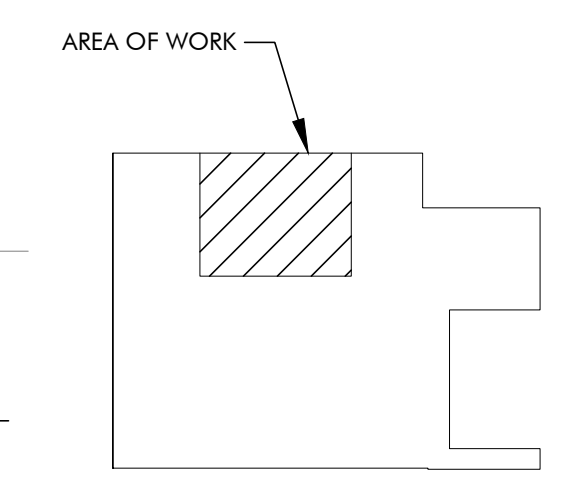
ELECTRICAL PARTIAL DEMOLITION FLOOR PLAN

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



SHEET NOTES: (THIS SHEET ONLY)

- ① REMOVE AND RETIRE (E) CONDUIT AND CONDUCTORS TO (E) AIR COMPRESSOR

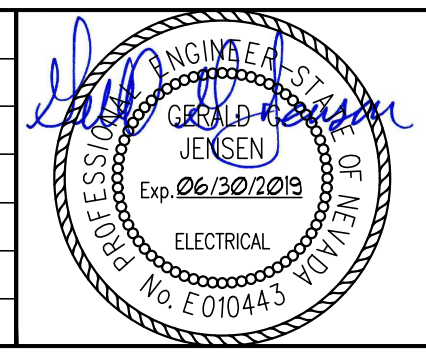


KEY PLAN

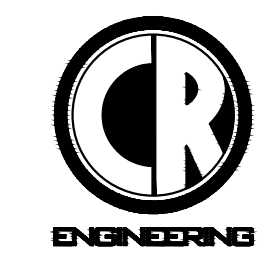
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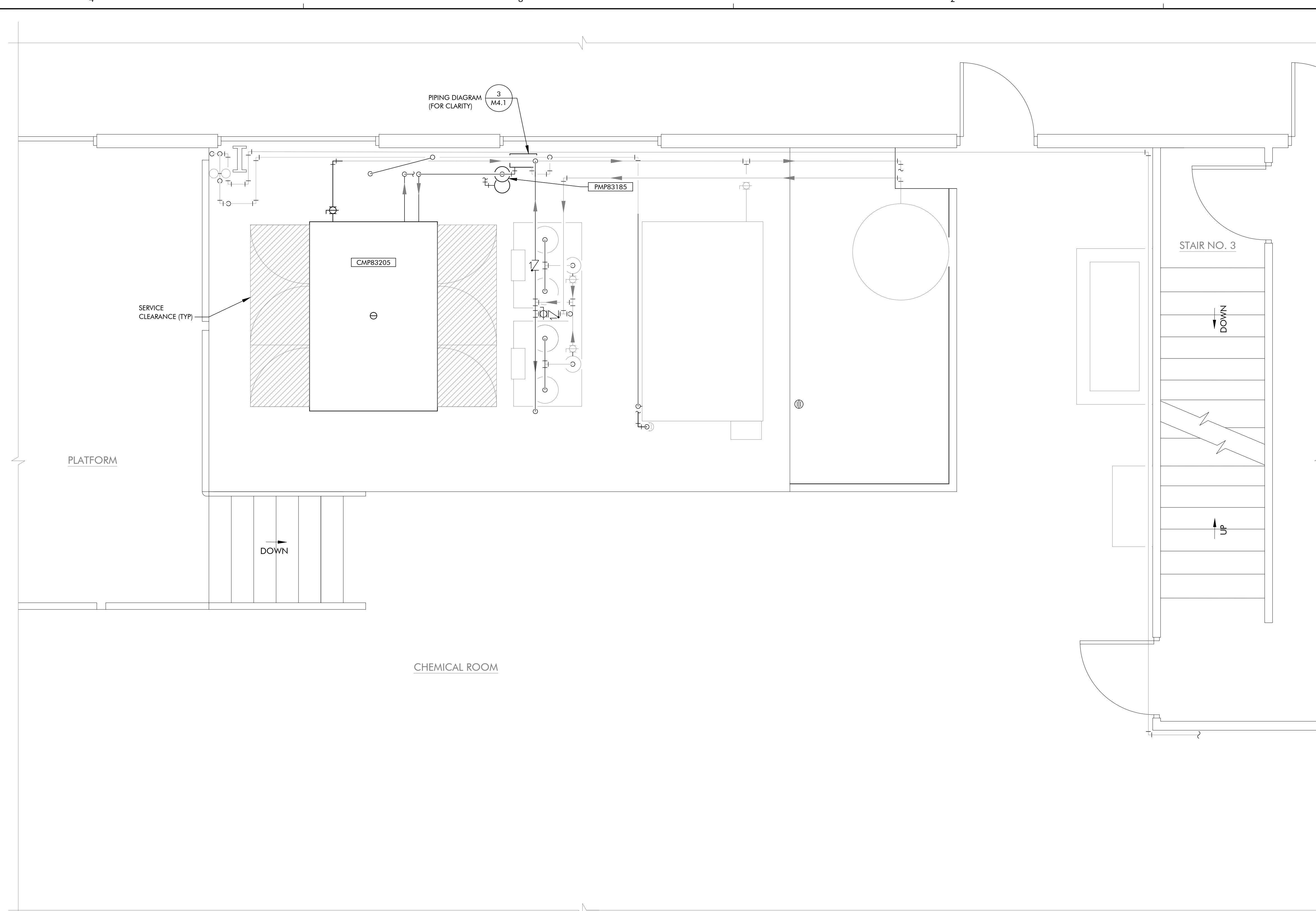


TRUCKEE MEADOWS
 WATER RECLAMATION FACILITY

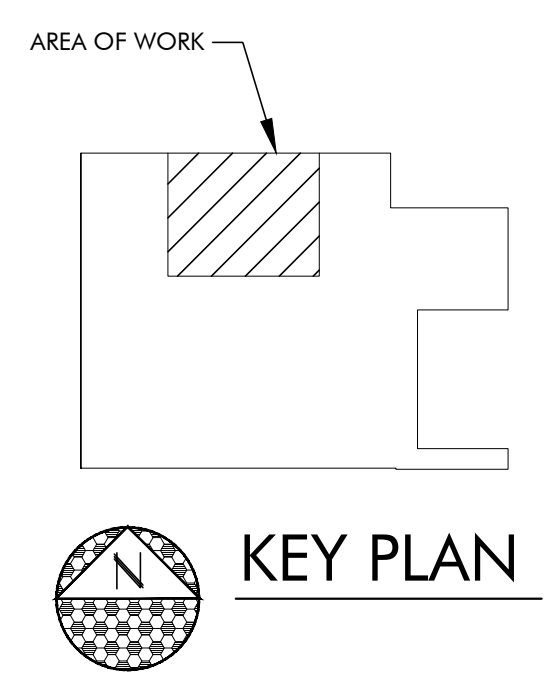
CITY OF SPARKS
TMWRF AIR COMPRESSOR REPLACEMENT
ELECTRICAL PARTIAL DEMOLITION FLOOR PLAN

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JOB NO. J146JK
 DRAWING NO. E1.1
 SHEET NO. 8 OF 10



ELECTRICAL PARTIAL FLOOR PLAN
 SCALE: 1/2" = 1'-0" A E2.1

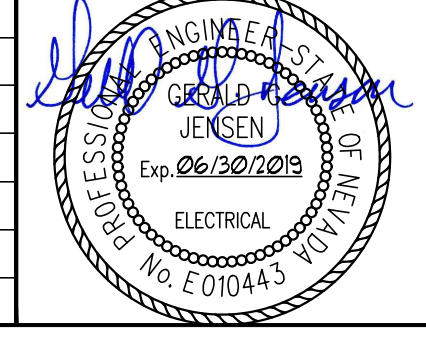


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CITY OF SPARKS
 TMWRF AIR COMPRESSOR REPLACEMENT

ELECTRICAL PARTIAL FLOOR PLAN

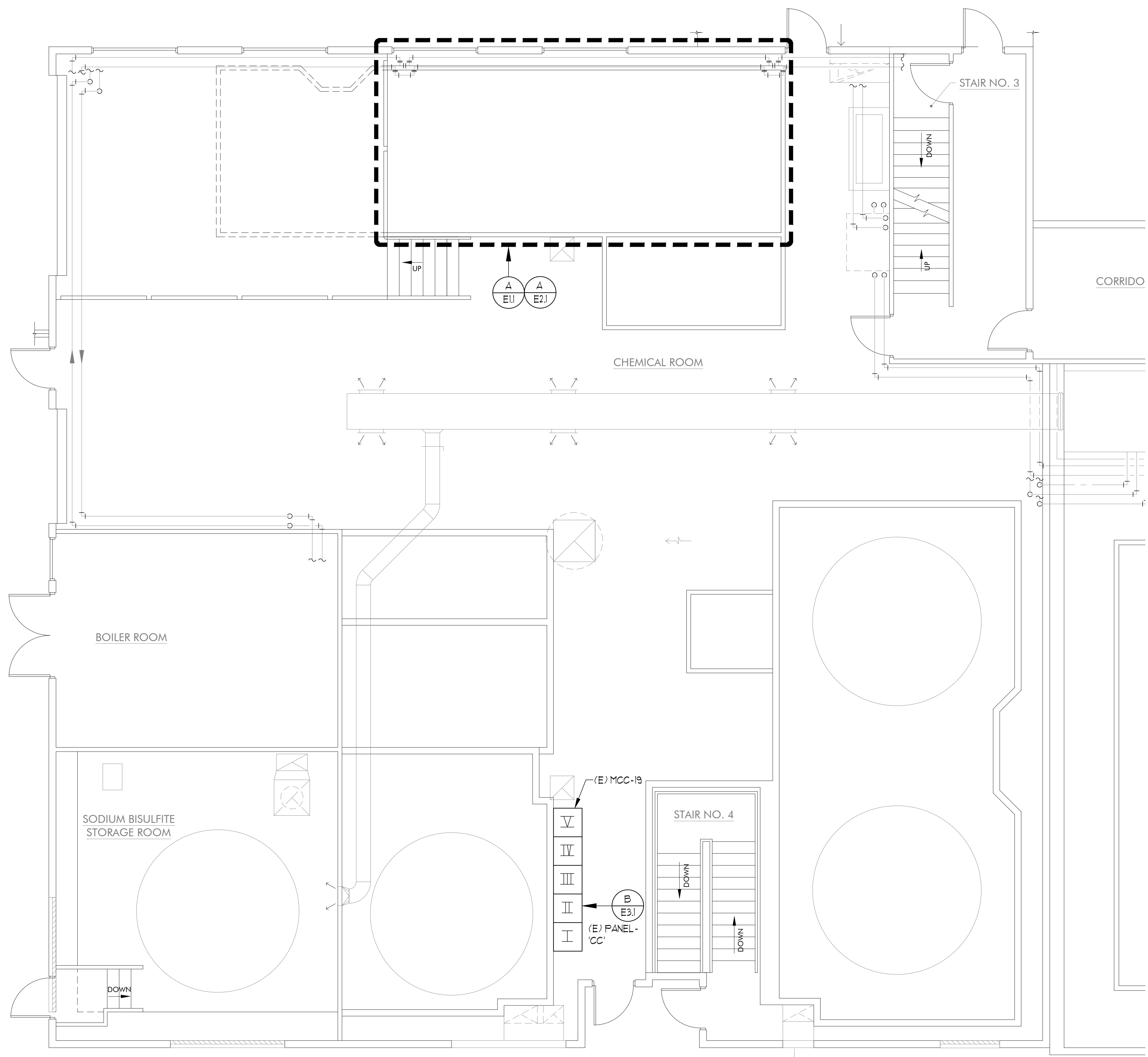
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JOB NO.
J146JK

DRAWING NO.
E2.1

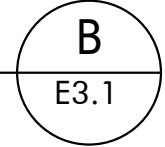
SHEET NO.
9 OF 10



	SECTION I 600A	SECTION II 300A	SECTION III 300A	SECTION IV 300A	SECTION V 300A
A					
B	400A	100A (E) MAIN CIRCUIT BREAKER PANEL 'CC'	1A (E) EXHAUST FAN EF-86 & (E) EXHAUST FAN EF-83/21		
C	(E) 400A MAIN CIRCUIT BREAKER		OFF	(E) PANEL 'MM' PB 83631	(N) AIR COMPRESSOR #1
D			OFF		1 2
E			OFF		90A 150A (E) MAIN BREAKER PANEL 'MM' & MCC-24
F	15A				
G	(E) MAIN CIRCUIT BREAKER	(E) DISTRIBUTION PANEL 'CC' 480V DP 83625	(E) BOILER UNIT #1 BU 83071 & #2 BU 83072		(E) TRANSFORMER 'DD' 30KVA PRIMARY BREAKER
H	15A				PANEL 'DD' MAIN BREAKER
I	(E) MAIN CIRCUIT BREAKER		60A (E) LCP P8310/2	(E) PANELBOARD 'DD' 120/200V PB 83627	
J					
K	(E) MOTOR CAPACITORS 2KVAC FOR P 83074 2KVAC FOR P83075				
L					
M					

MCC-19 ELEVATION

SCALE: 1" = 1'-0"

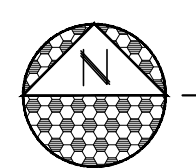


SHEET NOTES: (THIS SHEET ONLY)

- ① REMOVE AND RETIRE (E) 150A BREAKER IN MCC-19 AT POSITION #5D FEEDING (E) AIR COMPRESSOR #1.
- ② PROVIDE AND INSTALL (N) 175A BREAKER IN MCC-19 AT POSITION #5D TO FEED (N) AIR COMPRESSOR #1.

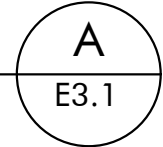
MCC-19: 480Y/277V

LOAD SUMMARY:	
DESCRIPTION:	LOAD kVA:
SECTION - I 600A:	22.25 kVA
SECTION - II 300A:	60.00 kVA
SECTION - III 300A:	45.71 kVA
SECTION - IV 300A:	45.00 kVA
SECTION - V 300A:	196.44 kVA
* LOAD TOTAL:	369.40 kVA
LINE AMPS:	445.



ELECTRICAL PARTIAL FLOOR PLAN

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

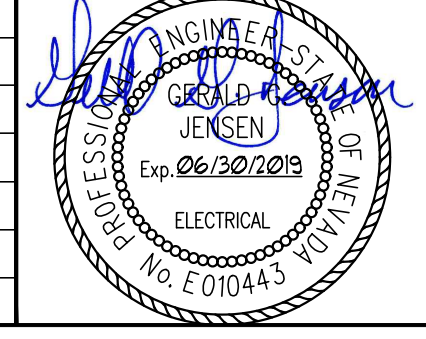


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 ELECTRICAL PARTIAL FLOOR PLAN

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