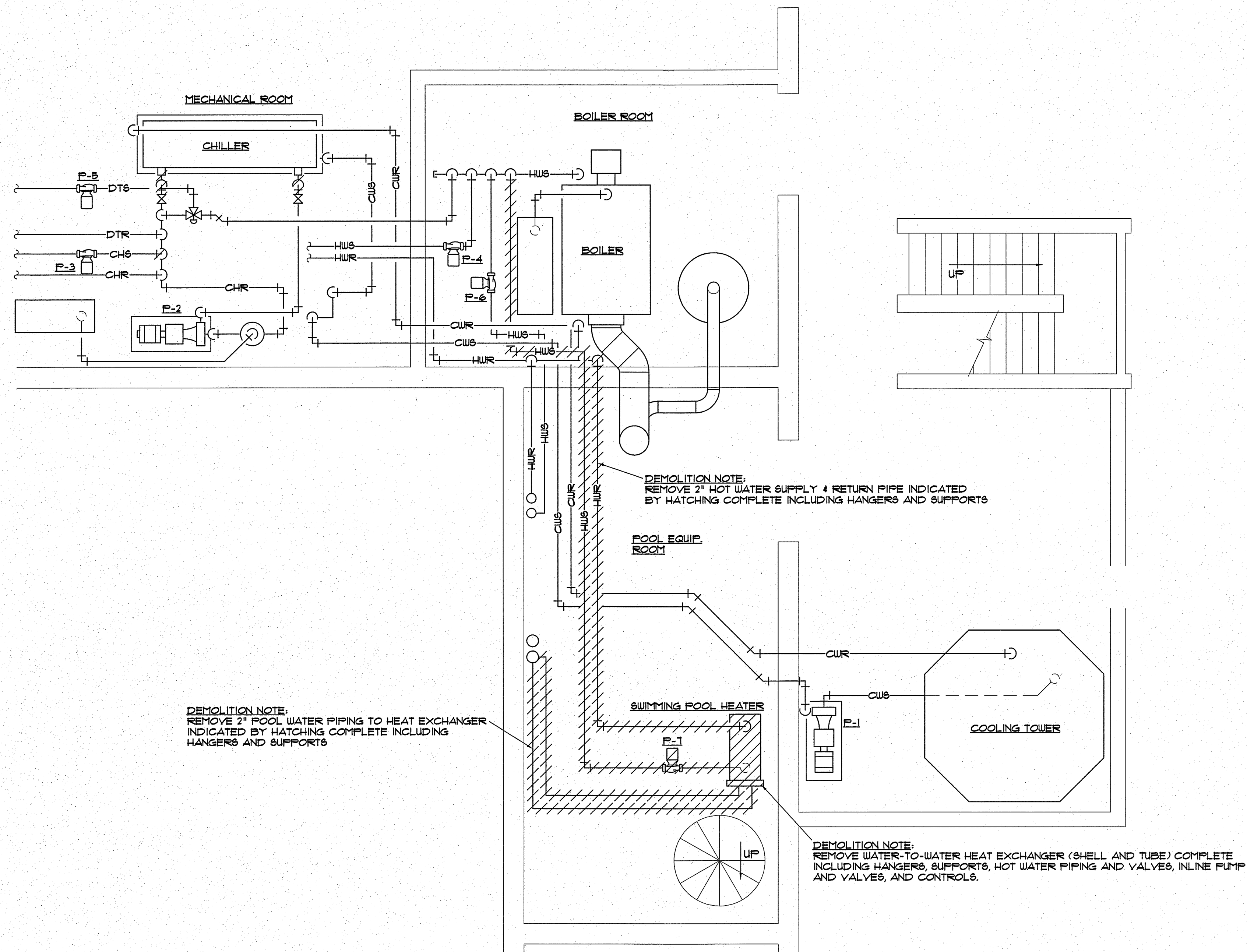


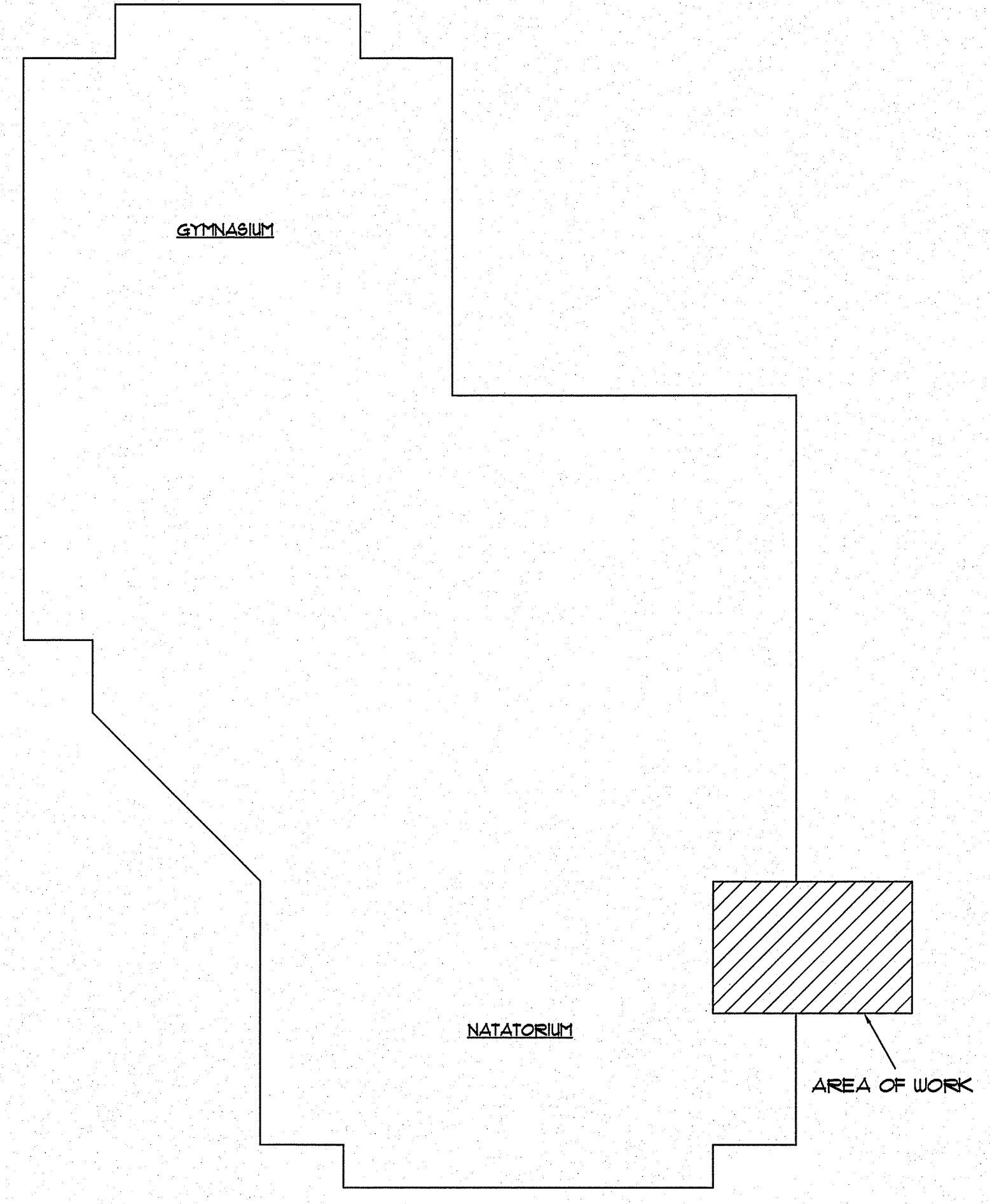
- NOTES**
- DO NOT SCALE DRAWINGS, ROUGH FROM ARCHITECTURAL, EXISTING CONDITIONS, AND EQUIPMENT MANUFACTURER'S DRAWINGS.
 - DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. DUCT SIZES SHOWN ON DRAWINGS ARE INTERIOR DIMENSIONS.
 - WHENEVER THE WORD "PROVIDE" IS USED IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.
 - INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING, INCLUDING VIBRATION ISOLATION SHALL COMPLY WITH 2009 INTERNATIONAL BUILDING CODE FOR SEISMIC PROTECTION. SEE SPECIFICATIONS.



DEMOLITION NOTE:
REMOVE 2" POOL WATER PIPING TO HEAT EXCHANGER
INDICATED BY HATCHING COMPLETE INCLUDING
HANGERS AND SUPPORTS

DEMOLITION NOTE:
REMOVE 2" HOT WATER SUPPLY & RETURN PIPE INDICATED
BY HATCHING COMPLETE INCLUDING HANGERS AND SUPPORTS

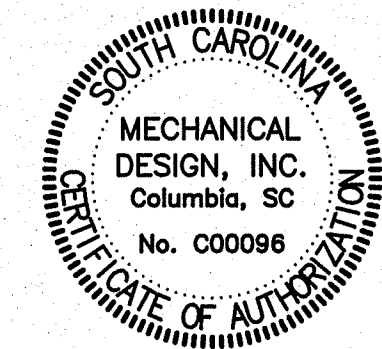
DEMOLITION NOTE:
REMOVE WATER-TO-WATER HEAT EXCHANGER (SHELL AND TUBE) COMPLETE
INCLUDING HANGERS, SUPPORTS, HOT WATER PIPING AND VALVES, INLINE PUMP
AND VALVES, AND CONTROLS.



KEY PLAN
NOT TO SCALE

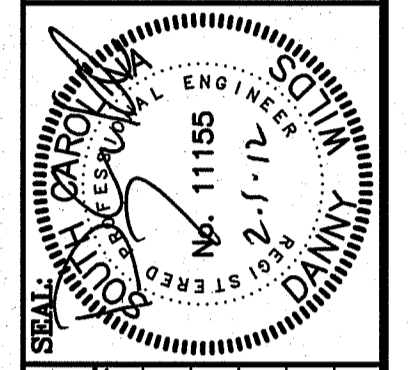
BUILDING:	DRAWING:	DATE:	CDW	CDW
REV:	DESCRIPTION	DATE	CHECKED BY:	ORIG. BY:
		01 JAN 12	CDW	BY

PARTIAL LOWER LEVEL MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



MECHANICAL DESIGN, INC.
4408 Broad River Road
Columbia, S.C. 29210
(803) 731-9834
(803) 731-9837 FAX
CONTACT: Danny Wilds
DATE: 02/01/12 COMM. NO. 112941

PROJECT TITLE: GREGORY CENTER POOL HEATER REPLACEMENT - USC LANCASTER
University of South Carolina

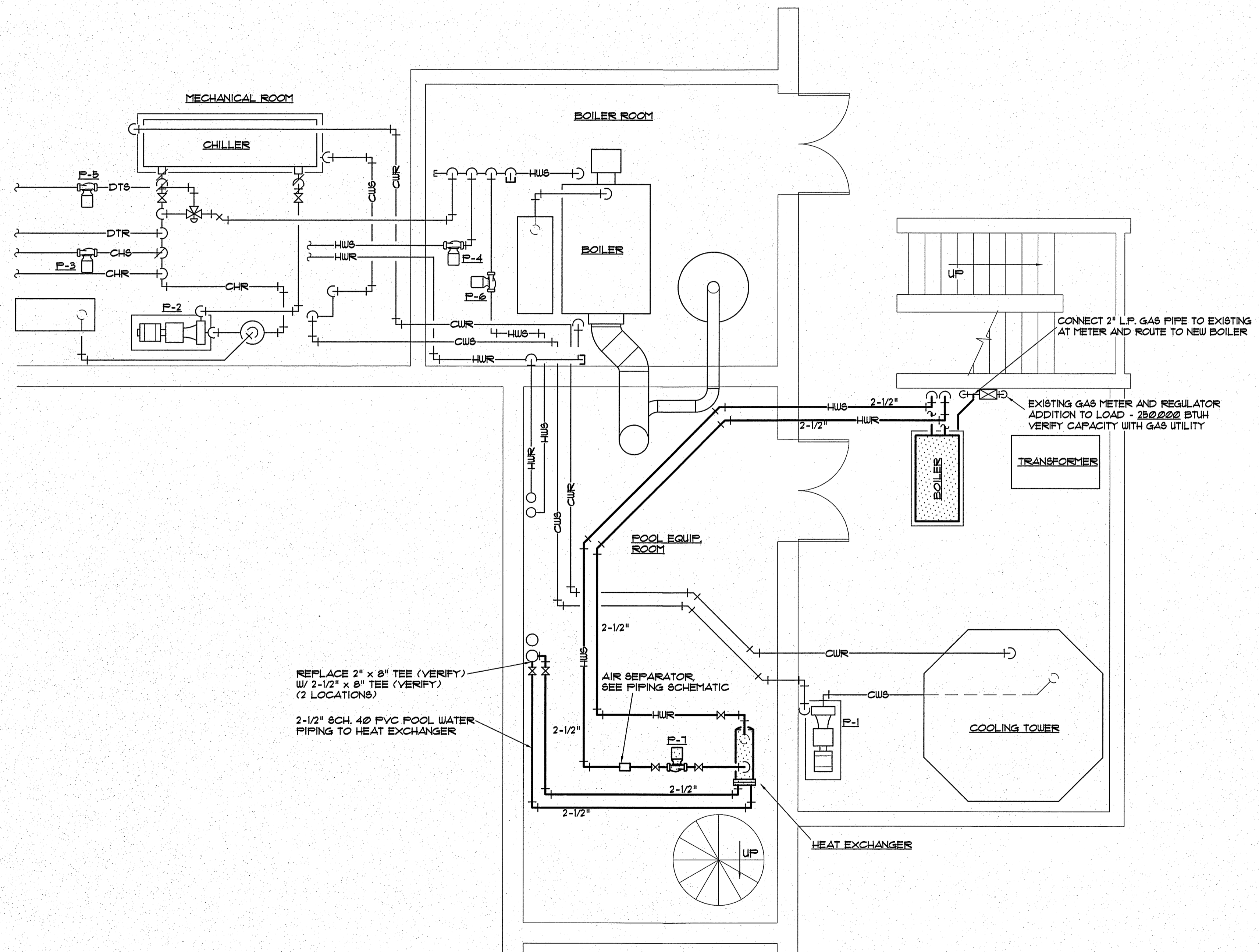


NOTES

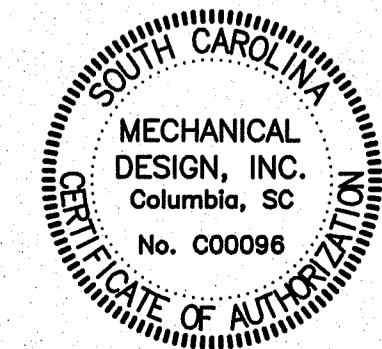
- DO NOT SCALE DRAWINGS. GROUND FROM EXISTING CONDITIONS, AND EQUIPMENT MANUFACTURER'S DRAWINGS.
- DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. DUCT SIZES SHOWN ON DRAWINGS ARE INTERIOR DIMENSIONS.
- WHENEVER THE WORD "PROVIDE" IS USED IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.
- INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING, INCLUDING VIBRATION ISOLATION SHALL COMPLY WITH 2003 INTERNATIONAL BUILDING CODE FOR SEISMIC PROTECTION. SEE SPECIFICATIONS.
- PROVIDE TEMPORARY HEAT EXCHANGER AS AVAILABLE IN STOCK IN MANUFACTURER'S WAREHOUSE. REMOVE AND INSTALL HE-1 AS SCHEDULED WHEN SHIPPED TO SITE.

SYMBOLS

	NEW MATERIAL
	MATERIAL TO BE REMOVED
GPM	WATER FLOWRATE, GALLONS PER MINUTE
	EXISTING PIPE
	NEW PIPE
	HWS HOT WATER SUPPLY PIPE
	HWR HOT WATER RETURN PIPE
	PW POOL WATER CIRCULATING PIPE
	5 LB 5 PSIG NATURAL GAS PIPE
	CONNECT NEW TO EXISTING



PARTIAL LOWER LEVEL MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

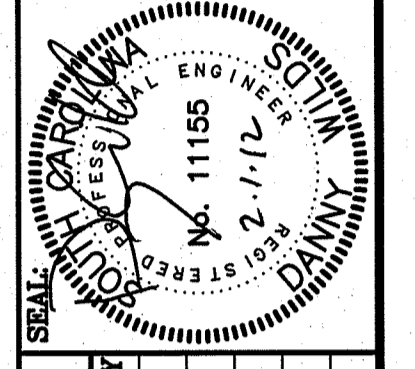


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DATE	DESCRIPTION	BY
01 JAN 12		

PROJECT TITLE: GREGORY CENTER POOL HEATER REPLACEMENT - USC LANCASTER

SHEET: M3 OF 3 SHEET IN SET: OF

University of South Carolina

MARK	RBI MODEL ②	INPUT MBH	OUTPUT MBH	EWT	LWT	GPM	UPD	REMARKS
POOL BOILER	LCD-1050	1050	861	155°F	180°F	69	3.5 FT.	FOR OUTDOOR INSTALLATION

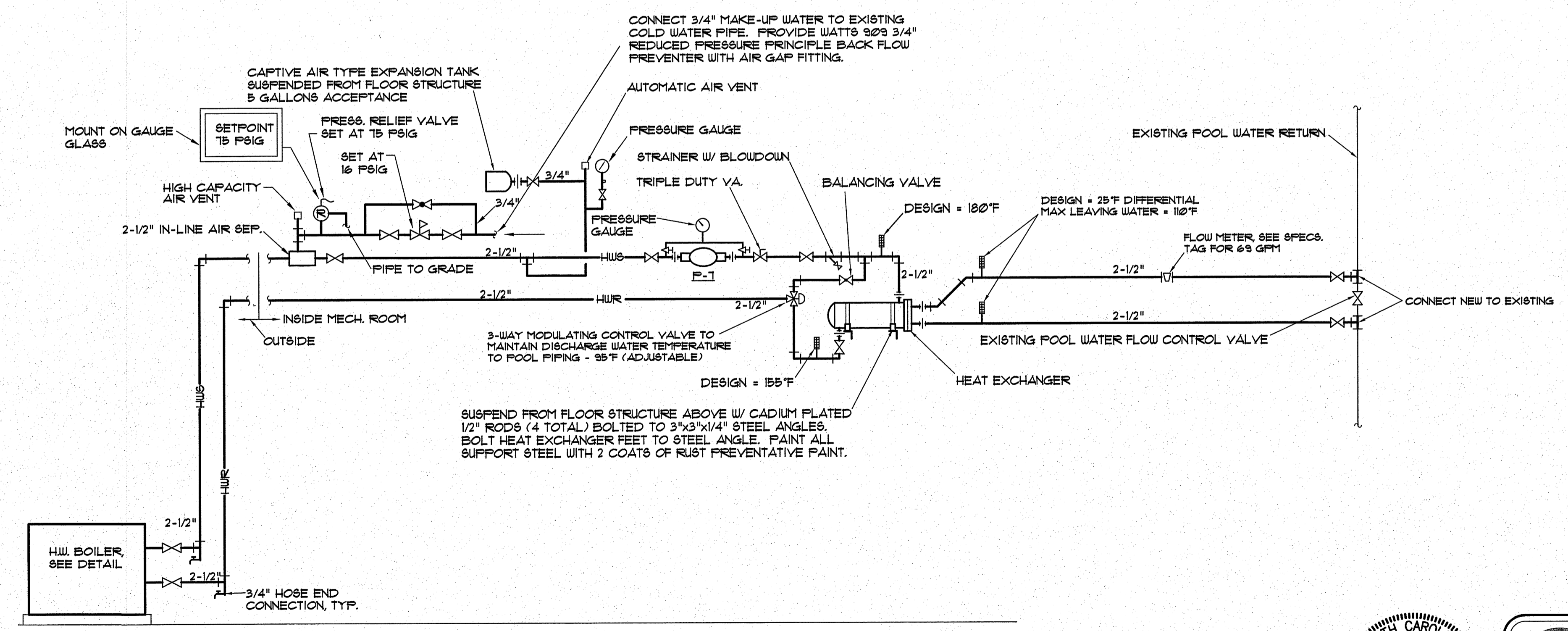
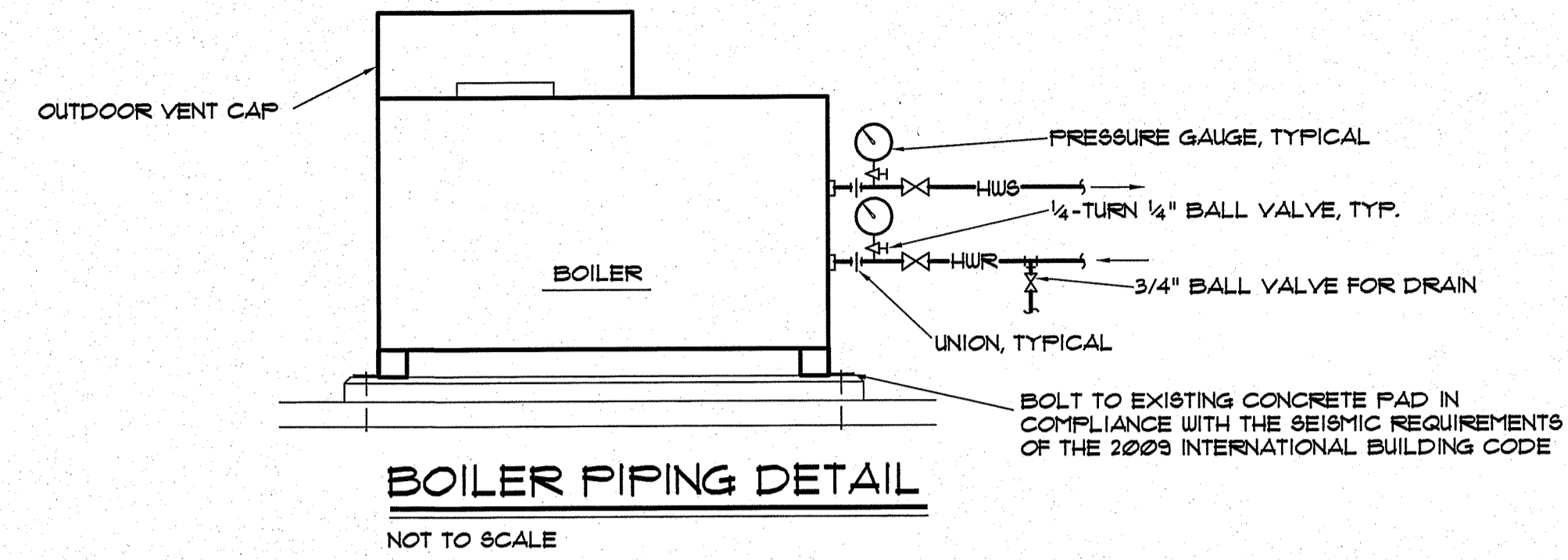
- ① UNIT TO MATCH AVAILABLE ELECTRICAL SERVICE.
- ② OR EQUAL BY TELEDYNE LAARS, RBI OR APPROVED EQUAL, SEE SPECIFICATIONS.

MARK	B & G MODEL ①	POOL WATER SIDE (TUBES)					BOILER WATER SIDE (SHELL)				TOTAL FOULING BASIS
		GPM	EWT	LWT	F.D.	MAX. WTR. VEL.	GPM	EWT	LWT	F.D.	
POOL HEATER	W1236-4B	69	80°F	105°F	3.0 FT.	5.0 FPS	69	180°F	155°F	2.5 FT.	0.0024

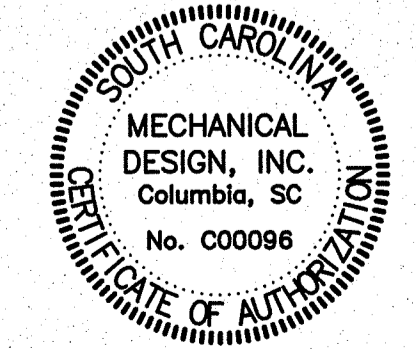
- ① OR EQUAL BY B & G OR APPROVED EQUAL.
- ② PROVIDE HEAT EXCHANGER WITH 90/10 CUPRO-NICKEL TUBES, 90/10 CUPRO-NICKEL TUBESHEET, CAST BRASS HEAD (BONNET), AND STEEL SHELL MEETING ASME CODE FOR PRESSURE VESSELS.
- ③ PROVIDE HEAT EXCHANGER WITH SADDLES W/ U-BOLT TIE-DOWN, UNION OR FLANGED PIPE CONNECTIONS, PRESSURE GAUGES ON HWS and HUR PIPES (FROM BOILER AND POOL), AND PIPE THERMOMETERS ON HWS and HUR PIPES (FROM BOILER AND POOL).

MARK	B & G MODEL ②	GPM	HEAD	RPM	MIN. EFFICIENCY	MAX. B.H.P.	MOTOR H.P.	SERVICE
P-1	SERIES 60	70	50 FT.	1750	62%	1.3	1.5 ①	BOILER HOT WATER

- ① PUMP TO MATCH AVAILABLE ELECTRICAL SERVICE, SEE ELECTRICAL
- ② OR EQUAL BY THRUSS, ARMSTRONG, PATTERSON OR APPROVED EQUAL, SEE SPECIFICATIONS



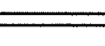
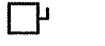


HOT WATER PIPING SCHEMATIC
NO SCALE



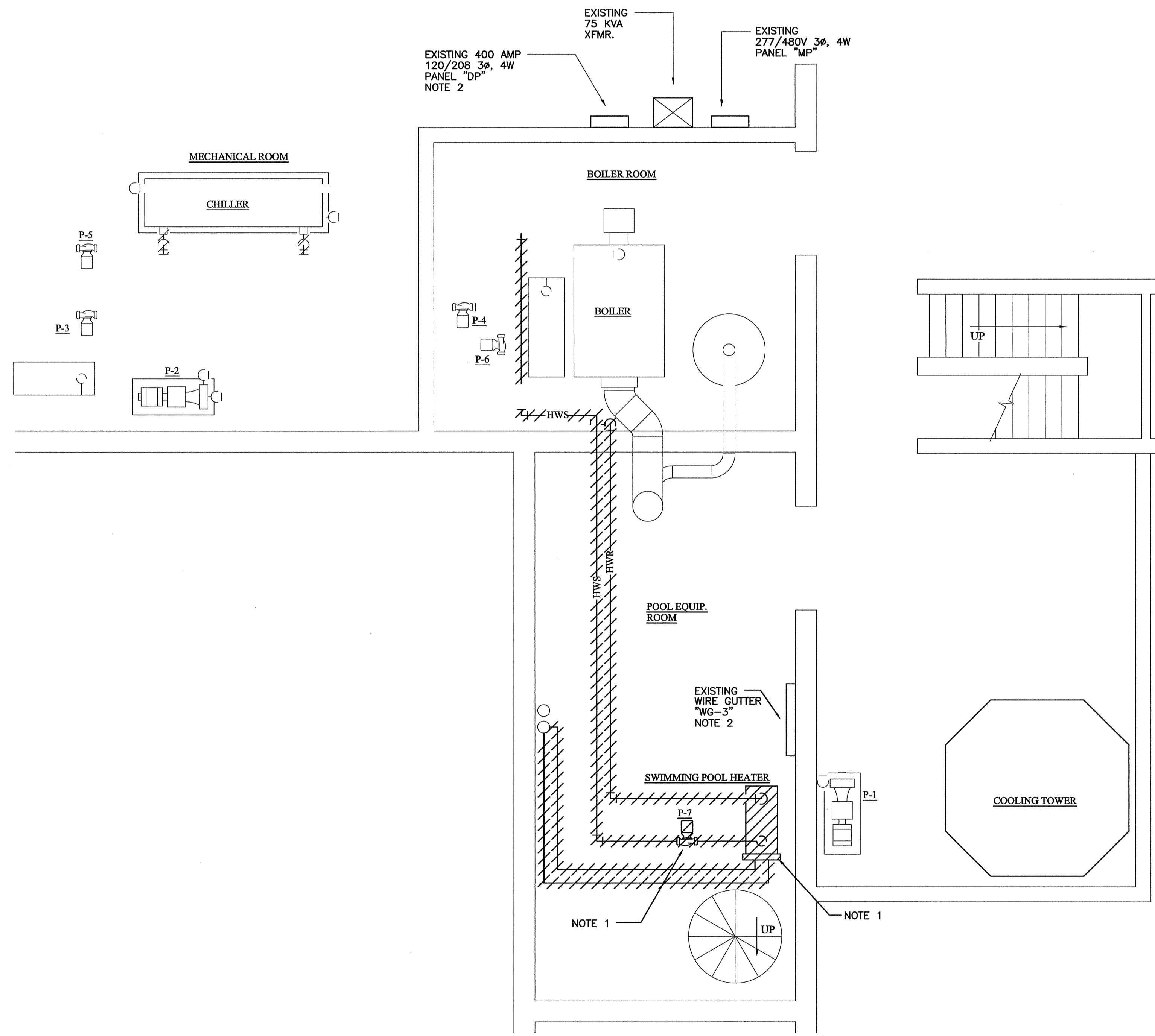
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ELECTRICAL SYMBOL LEGEND

	JUNCTION BOX
	EXISTING PANEL
	EXISTING WIRE GUTTER
	EXISTING DISCONNECT

NOTES

- EXISTING WATER HEAT EXCHANGER AND INLINE PUMP TO BE REMOVED. DISCONNECT EXISTING ELECTRICAL CONNECTIONS. RETAIN EXISTING CONDUCTORS, CONDUITS AND CONTROLS FOR INLINE PUMP IN ITS ENTIRETY FOR RE-USE IN RENOVATION PHASE.
- EXISTING 50 AMP 3 POLE BREAKER IN THIS PANEL FEEDS 3#8, 1#10 GROUND IN EXISTING WIRE GUTTER "WG-3". THIS PANEL ALSO CONTAINS 3 SPARE SINGLE POLE 20 AMP BREAKERS IN BREAKER SPACES 1, 5 AND 17 TO BE USED IN RENOVATION.
- "WG-3" CONTAINS THREE EXISTING #8, AND ONE EXISTING #10 GND TAPPED WITH 3#10, 1#10 GND TO FEED EXISTING 1.5 HP PUMP "P-7" THROUGH A 30 AMP DISCONNECT AND PUMP CONTROLS. RETAIN EXISTING CONDUCTORS, CONDUITS AND RACEWAY IN PLACE FOR CONNECTION TO NEW PUMP IN RENOVATION PHASE.

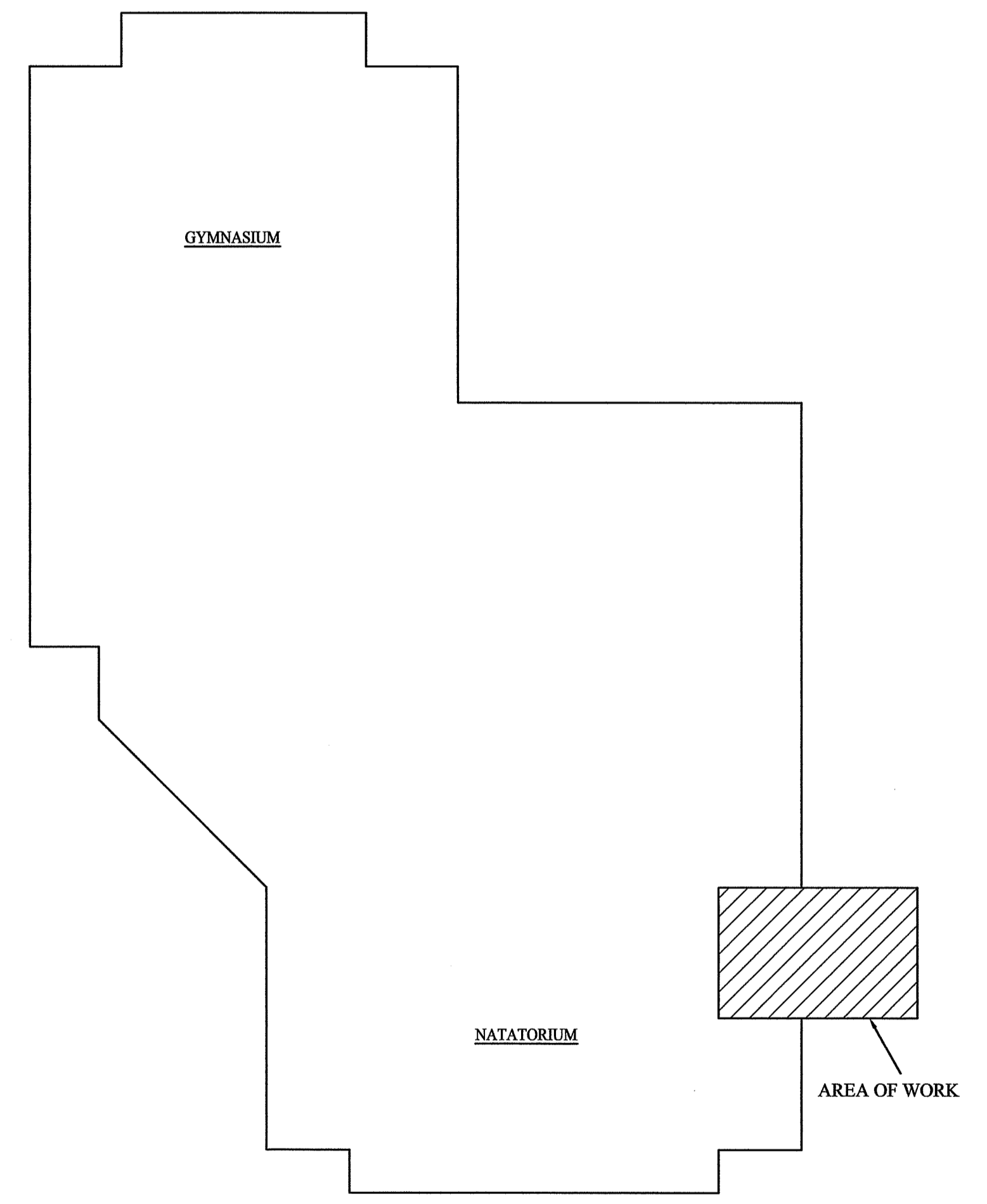


PARTIAL LOWER LEVEL
ELECTRICAL DEMOLITION PLAN



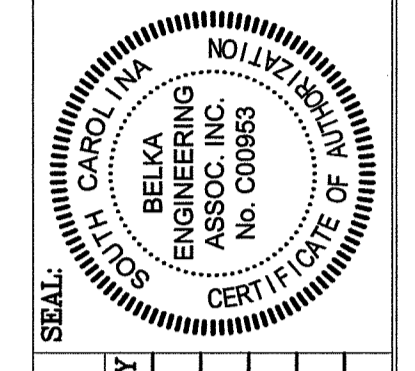
1
E1

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



KEYPLAN
SCALE: N.T.S.

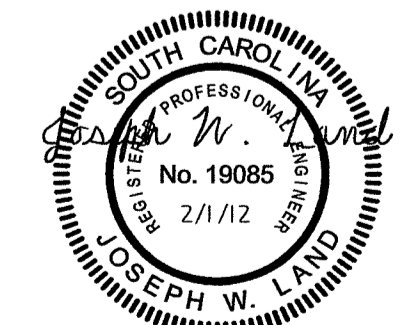
CAMPUS PLANNING
AND CONSTRUCTION
COLUMBIA, SC 29208



REV.	DESCRIPTION	DATE	BY	DATE	BY

PROJECT TITLE: GREGORY CENTER POOL HEATER
REPLACEMENT - USC LANCASTER

University of South Carolina



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COLUMBIA, SOUTH CAROLINA 29210
(803) 731-0650 fax (803) 731-2880
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SHEET:
E1
OF 2
SHEET IN SET:
OF