

BOILER SCHEDULE																	
UNIT NO.	MBH CAPACITY			ASME PRESS. RATING	MAXIMUM WORKING TEMPERATURE	FLUE TYPE	COMBUSTION AIR INLET	FLUE SIZE	STEAM OUTLET	BOILER PRESS.	SIZE			OPERATING WT. (LBS.)	VOLTAGE & PHASE	NOTES	MANUFACTURER & MODEL NO.
	OUTPUT @ 6300	OUTPUT @ SEA LEVEL	INPUT @ SEA LEVEL								LENGTH	WIDTH	HEIGHT				
8	795.2	837.0	1,046.0	150 PSI	-	CAT. III	FROM FA DAMPER	10"	3"	15 psi	39"	39"	93"	4,374	120V/1Ø 19.8 AMPS	1 2 3 4 5	FULTON CLASSIC ICS-25

- NOTES:
- PROVIDE HIGH ALTITUDE FAN AND FRESH AIR DAMPER RELAY.
 - BOILER APPROVAL: HURST - CONTACT CLAYTON ROOP AT IHS 801-803-0796
 - GAS PRESSURE 7" TO 11" WC.
 - BOILER CONTROLS BY MECHANICAL CONTRACTOR.
 - PROVIDE FULTON VT-30 FEED WATER TANK WITH DUAL PUMPS, PREHEAT KIT AND PANEL BOX.

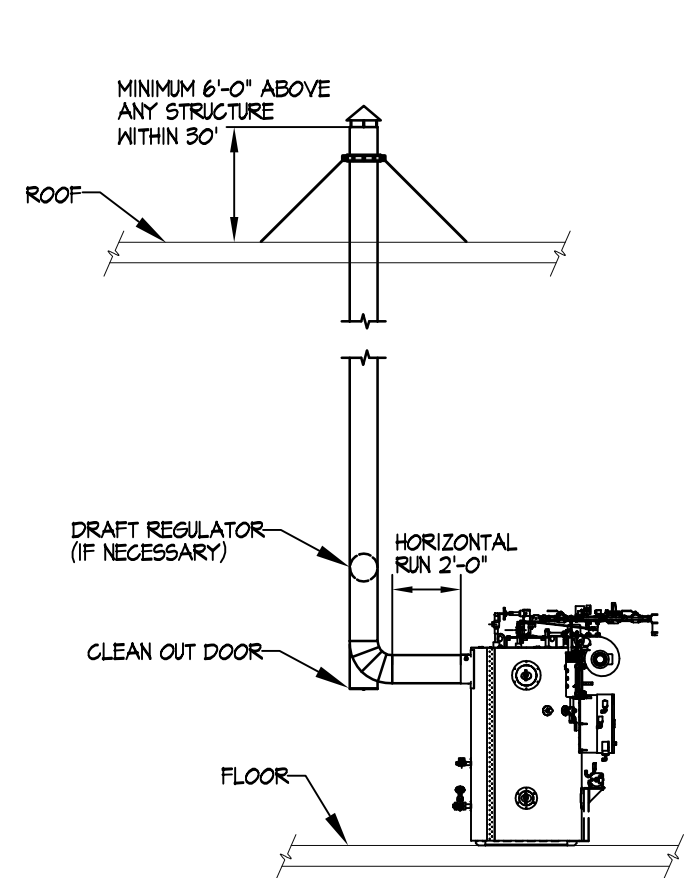
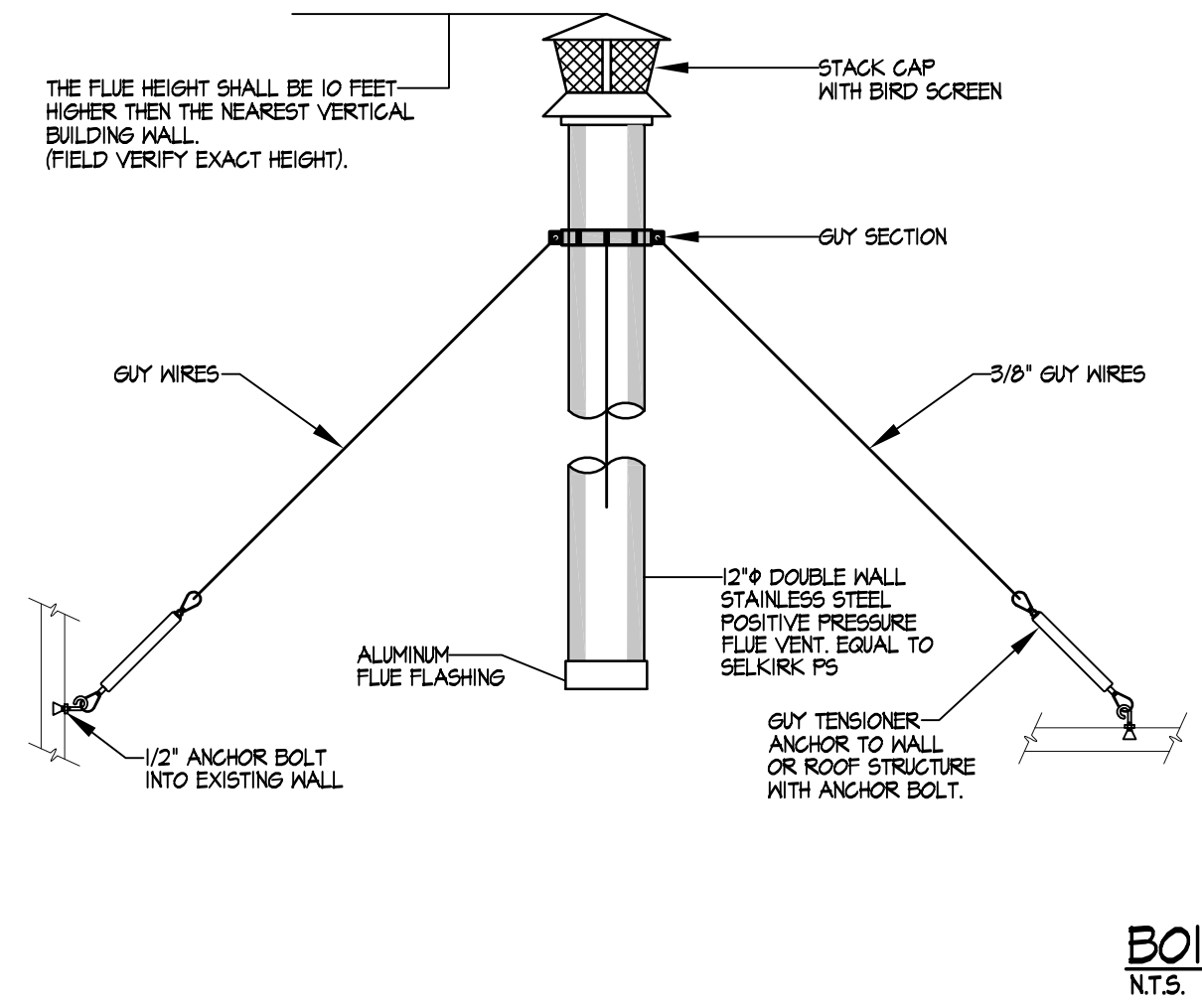
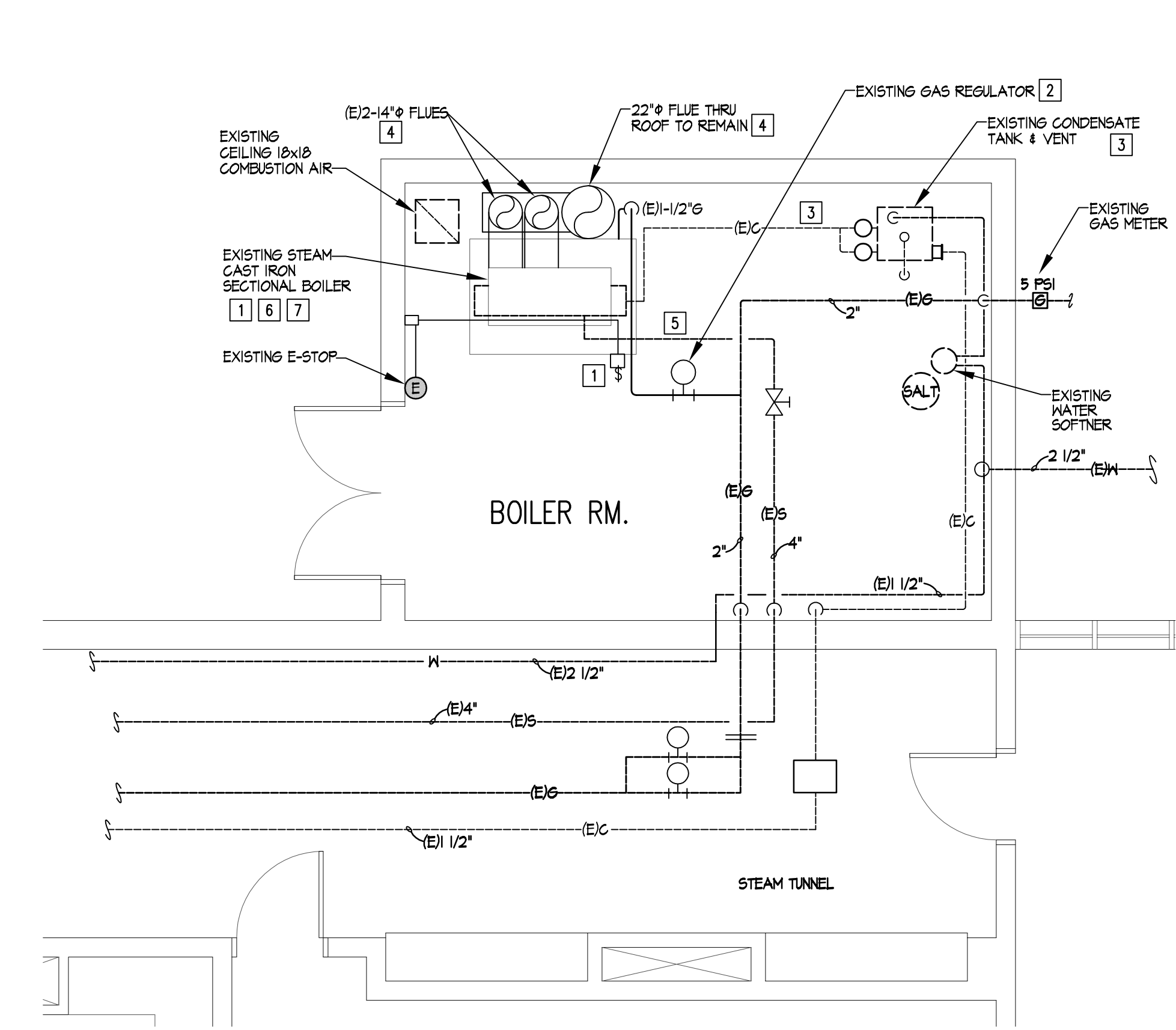
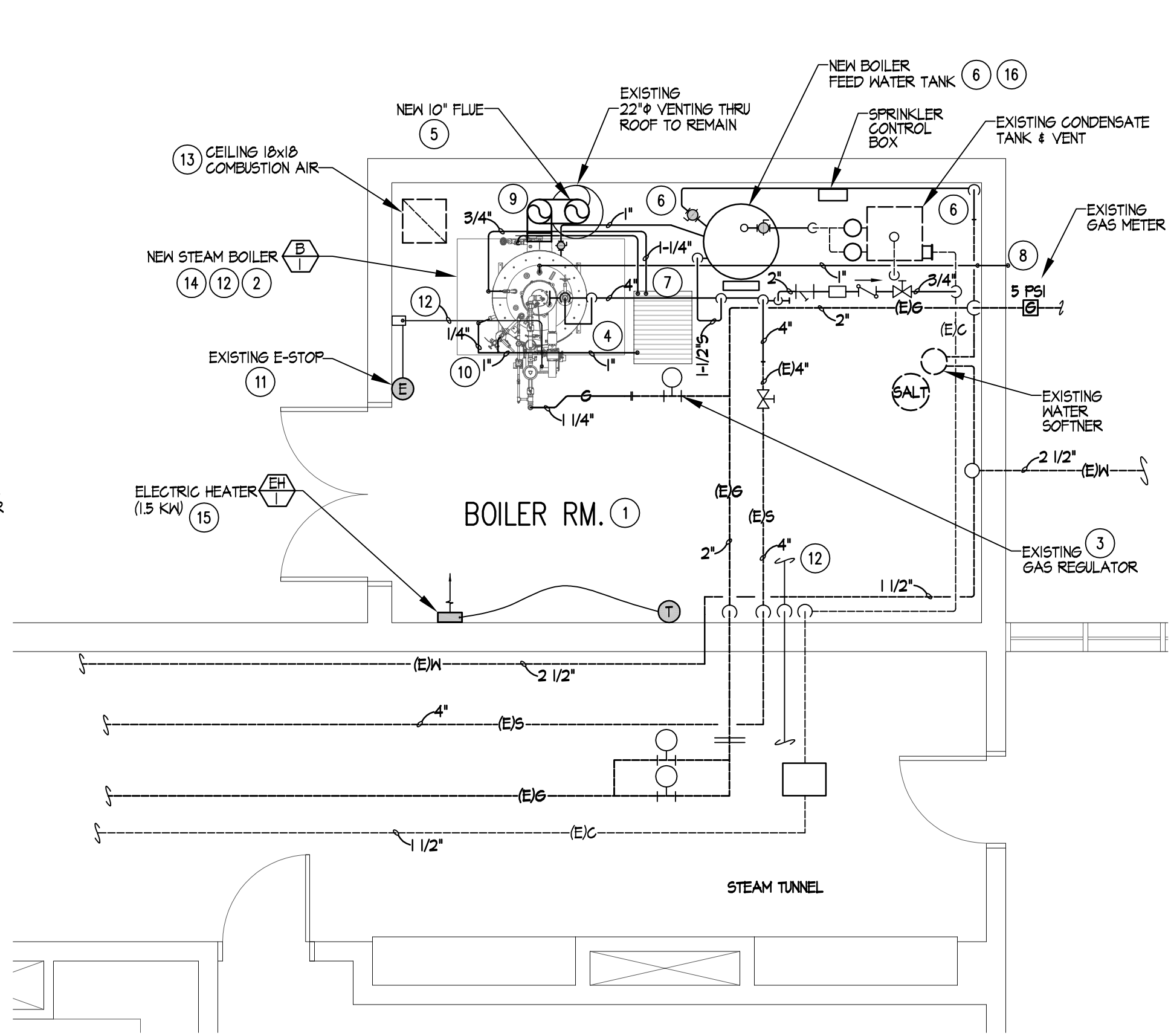
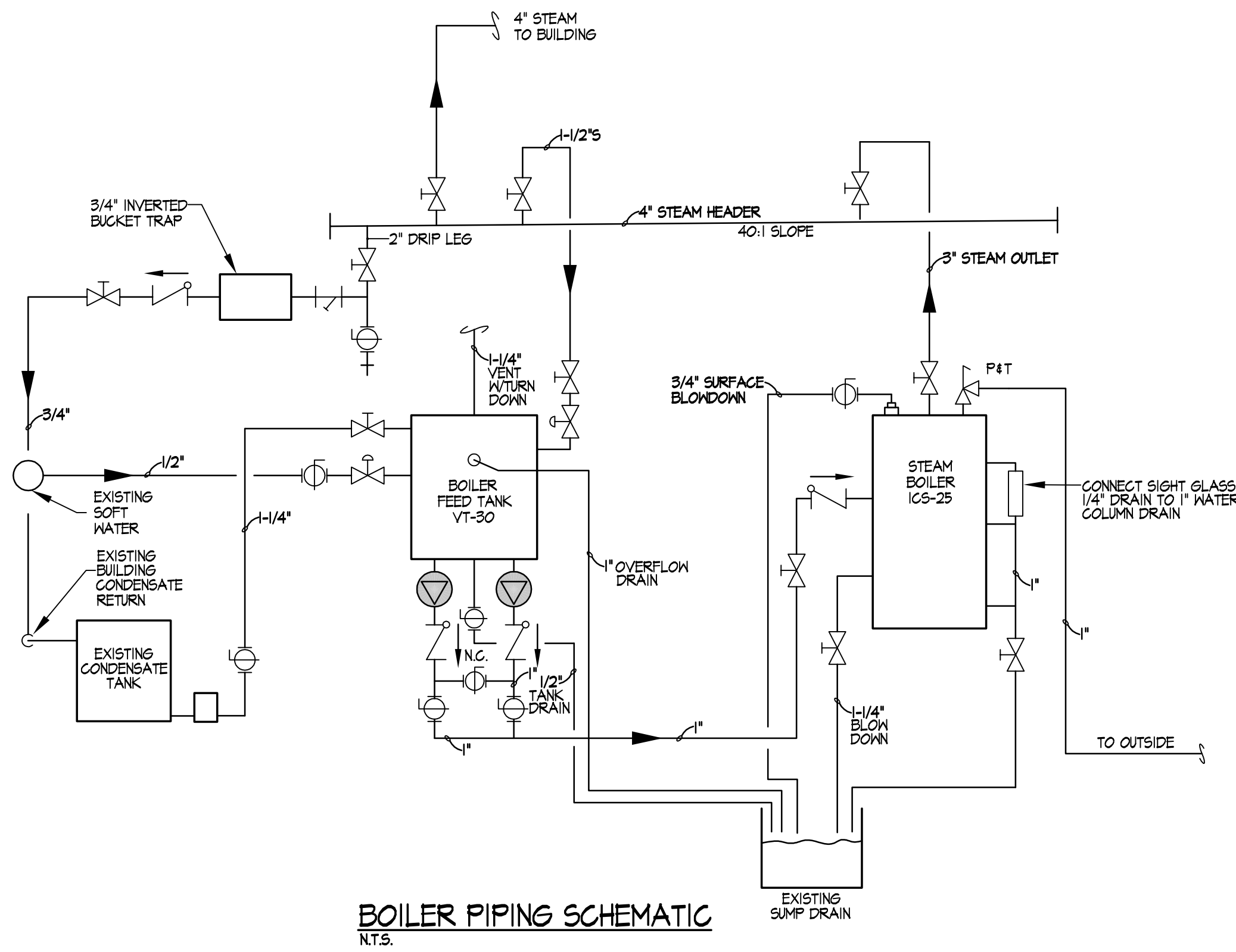
ELECTRIC HEATER SCHEDULE											
MARK	DESCRIPTION	MANUFACTURER & MODEL #	HEATING WATTS	VOLTAGE	FLA	NCA	CFM	DIMENSIONS	WT.	NOTES	
EA	ELECTRIC HEATER	TP1-E3323TD-RP	1.5 KW	120V/1Ø	12.5	15.6	100	14.5x19.5x4	26	W/REMOTE HEATING STAT	

- ### REMODEL KEY NOTES
- CONNECT ONTO THE BOILER WATER COLUMN DRAIN & ROUTE 1" DOWN TO THE FLOOR AND ROUTE OVER TO THE EXISTING FLOOR SUMP DRAIN.
 - INTERLOCK BOILER WITH EXISTING EMERGENCY E-STOP LOCATED AT THE DOOR. ACTIVATION OF E-STOP SHALL DISCONNECT POWER TO BOILER.
 - PROVIDE AND INSTALL A 3/4" CONDUIT WITH TWO (2) #10 AWG PLUS ONE (1) #10 AWG GROUND FROM BOILER CONTROL PANEL TO EXISTING PANEL. INSTALL CONDUIT OVER HEAD, THEN DOWN TO THE TUNNEL THROUGH THE PIPE TUNNEL AND ON TO EXISTING PANEL. PROVIDE AND INSTALL A 1-POLE 25 AMP BREAKER IN EXISTING PANEL. UPDATE PANEL DIRECTORY PER NEC (TYPEWRITTEN). CONTRACTOR SHALL BE PERMITTED TO REUSE EXISTING CONDUIT IF IT MEETS NEC FOR CONDUIT FILL.
 - INSTALL NEW RUSKIN C050G5 18x18 FRESH AIR DAMPER AND ACTUATOR.
 - WIRE BOILER CONTROL PANEL WITH A 120V/1Ø/19.8A CIRCUIT. WIRE FRESH AIR DAMPER ACTUATOR TO OPEN ON CALL FOR BOILER TO FIRE. WIRE THE CONDENSATE TANK AND BOILER FEED WHEN THE BOILER NEEDS MAKE-UP WATER.
 - INSTALL WALL HEATER AT 6" AFF. PROVIDE AND INSTALL A 3/4" CONDUIT WITH TWO (2) #10 AWG PLUS ONE (1) #10 AWG GROUND FROM NEW WALL HEATER TO EXISTING PANEL. INSTALL CONDUIT OVER HEAD, THEN DOWN TO THE TUNNEL, THROUGH THE PIPE TUNNEL AND ON TO EXISTING PANEL. PROVIDE AND INSTALL A 1-POLE 20 AMP BREAKER IN EXISTING PANEL. UPDATE PANEL DIRECTORY PER NEC (TYPEWRITTEN).
 - PROVIDE AND INSTALL A 3/4" CONDUIT WITH TWO (2) #10 AWG PLUS ONE (1) #10 AWG GROUND FROM NEW BOILER FEED TANK PUMPS (QTY. 2) TO EXISTING PANEL. INSTALL CONDUIT OVER HEAD, THEN DOWN TO THE TUNNEL, THROUGH THE PIPE TUNNEL AND ON TO EXISTING PANEL. PROVIDE AND INSTALL A 1-POLE 25 AMP BREAKER IN EXISTING PANEL. AT EACH BOILER FEED TANK PUMP, INSTALL A THERMAL SWITCH WITH OVERLOADS SIZED TO PROTECT PUMP (SQ. "D" #2510 FG IP). UPDATE PANEL DIRECTORY PER NEC (TYPEWRITTEN).
 - BEFORE STARTING THE NEW BOILER INSTALLATION, CLEAN THE BOILER ROOM OF ALL CONSTRUCTION DEBRIS. FIELD VERIFY THE BOILER DIMENSIONS AND THE EXISTING UTILITY LOCATIONS TO BE RECONNECTED.
 - INSTALL NEW STEAM BOILER ON EXISTING CONCRETE PAD. COORDINATE BOILER POSITION WITH EXISTING UTILITY CONNECTIONS. (FLUE, GAS, STEAM, & FEED WATER) SEISMIC ANCHOR BOILERS TO CONCRETE PAD.
 - CONNECT BOILER TO EXISTING 2" GAS LINE AFTER THE EXISTING GAS REGULATOR (7 psi to 11" W.C.). PIPE NEW BOILER WITH 1-1/4" GAS LINE.
 - INSTALL NEW 4" BOILER STEAM HEADER. CONNECT NEW 1-1/2" PIPE FOR THE BOILER FEED WATER TANK AND A 3" BOILER STEAM PIPE TO THE STEAM HEADER AND CONNECT TO THE EXISTING 4" STEAM VALVE. SLOPE STEAM PIPE AWAY FROM THE BOILER. SUPPORT STEAM PIPING WITH SEISMIC SUPPORTS.
 - INSTALL NEW DURAVENT 10" BOILER FLUES. FOLLOW MANUFACTURER INSTALLATION MANUAL FOR FLUE CLEAN OUT, HORIZONTAL & VERTICAL LENGTHS FOR PROPER VENTING & BACK PRESSURE. ROUTE NEW 10" FLUE VENTING UP THRU EXISTING 22" VENTING AND INSTALL A NEW ROOF VENT AND WEATHER FLASHING. SEAL AROUND NEW 10" FLUE AND EXISTING 22" FLUE THIMBLE. FOLLOW MANUFACTURER'S INSTALL MANUAL.
 - CONNECT NEW 1-1/4" PIPING FROM EXISTING CONDENSATE TANK PUMPS TO NEW BOILER FEED TANK INLET. PIPE FROM BOTH THE 1" BOILER FEED TANK PUMPS TO THE 1" BOILER FEED CONDENSATE INLET. CONNECT EXISTING SOFT WATER TO THE NEW BOILER FEED 1/2" COLD WATER INLET.
 - CONNECT TO THE BOILER 1-1/4" BLOW DOWN OUTLET AND ROUTE TO EXISTING FLOOR SUMP DRAIN.
 - CONNECT TO THE BOILER SAFETY RELIEF VALVE AND ROUTE IT TO THE FLOOR. ROUTE ALONG THE FLOOR, THRU THE WALL TO THE OUTSIDE AND TERMINATE WITH AN ELBOW POINTING DOWNWARD.
 - CONNECT ONTO THE BOILER SURFACE BLOW DOWN & ROUTE 3/4" DOWN TO THE FLOOR & ROUTE OVER TO THE EXISTING FLOOR SUMP DRAIN.

- ### DEMOLITION KEY NOTES
- DISCONNECT AND REMOVE THE POWER AND CONTROLS TO THE BOILER.
 - SHUT OFF THE GAS MAIN SERVING THE BOILER. REMOVE ALL THE GAS PIPING FROM THE GAS REGULATOR TO THE BOILER GAS TRANS.
 - DISCONNECT THE CONDENSATE PIPING FROM THE HARTFORD LOOP TO THE CONDENSATE PUMPS.
 - REMOVE THE TWO (2) 14" BOILER FLUES FROM THE BOILER TO THE 22" FLUE. REMOVE THE 22" BOILER FLUE SECTION. STOP AT CEILING, REMOVE FLUE SECTION ON ROOF.
 - CLOSE THE 4" ZONE STEAM VALVES. REMOVE ALL THE STEAM PIPING CONNECTED TO THE BOILER UP TO THE FOUR 4" ZONE VALVES.
 - REMOVE ALL THE STEAM BOILER CONTROLS, BLOW DOWNS, P&T VALVES.
 - TOTALLY REMOVE THE WHOLE BOILER. WASH AND CLEAN EXISTING PAD, CLEAN CONCRETE FLOOR & MAKE READY TO INSTALL THE NEW BOILER.

PIPING NOTES

STEAM PIPING - SCHEDULE 40 BLACK STEEL
CONDENSATE PIPING - SCHEDULE 80 BLACK STEEL

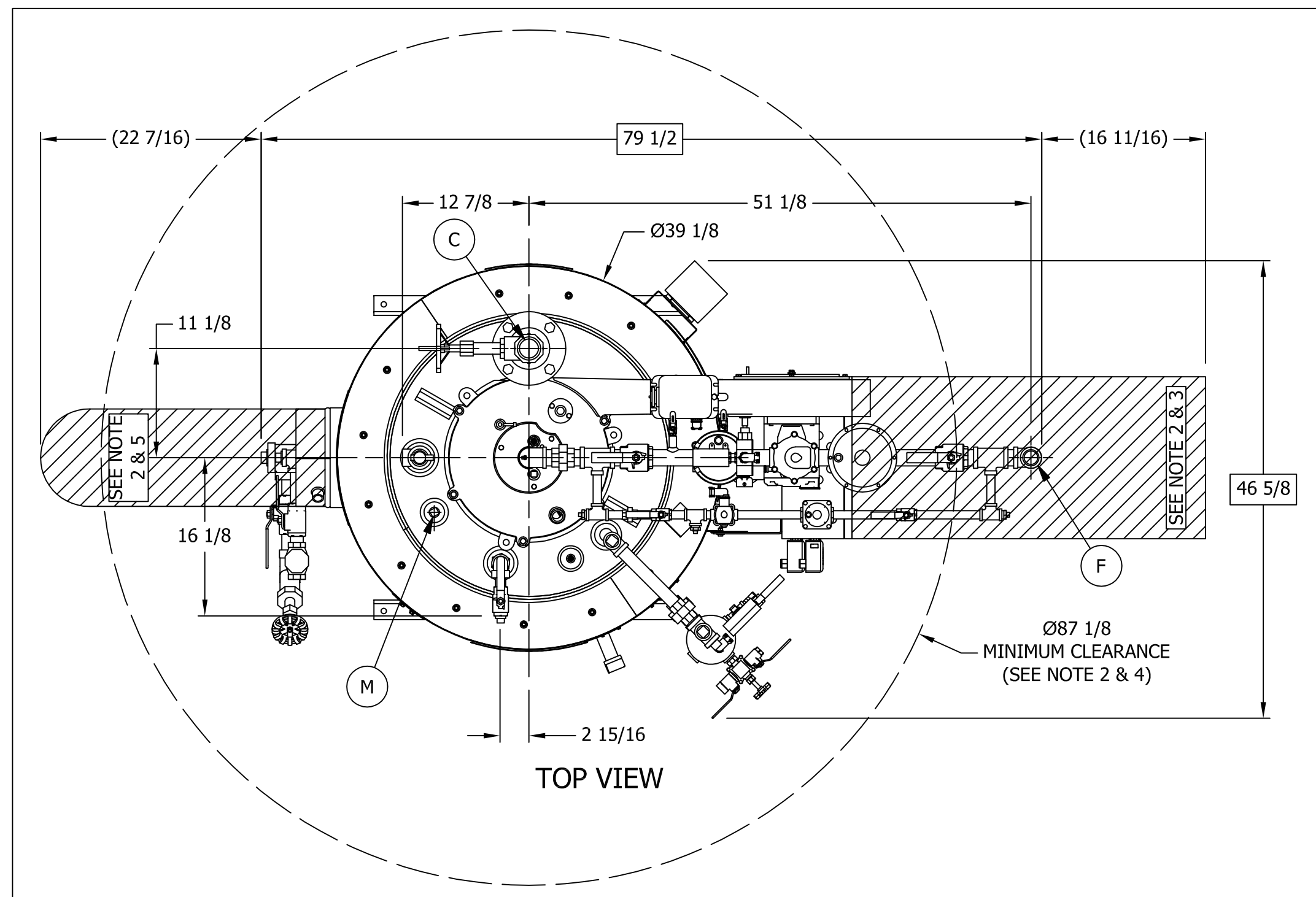


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BOILER ROOM MECHANICAL DEMO
project: SOUTH CACHE MIDDLE SCHOOL BOILER REPLACEMENT HYRUM, UTAH
sheet title: S. CACHE
job no.: 2417
date: APRIL, 2024
drawn by: SVB
sheet: M-1
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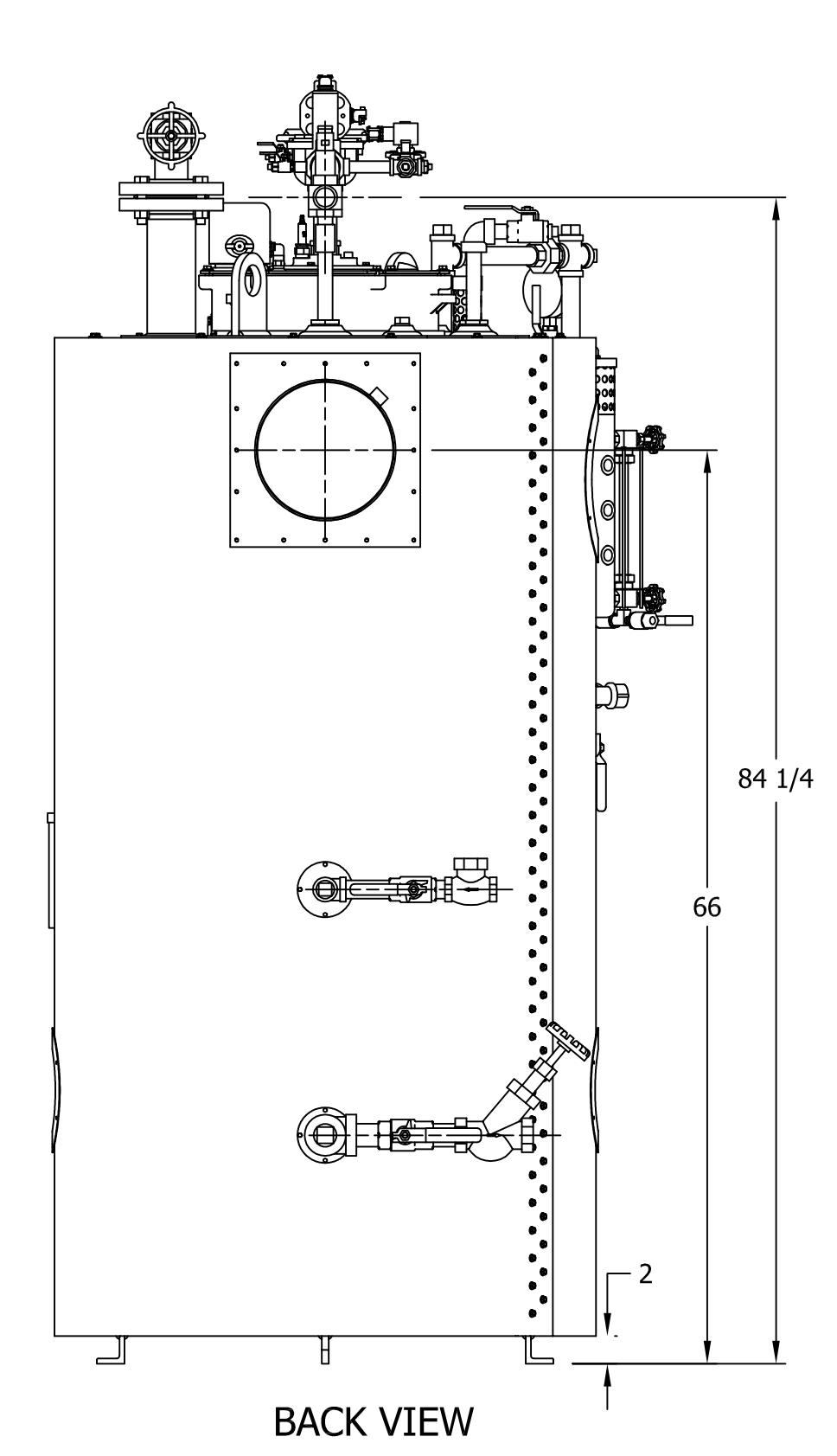
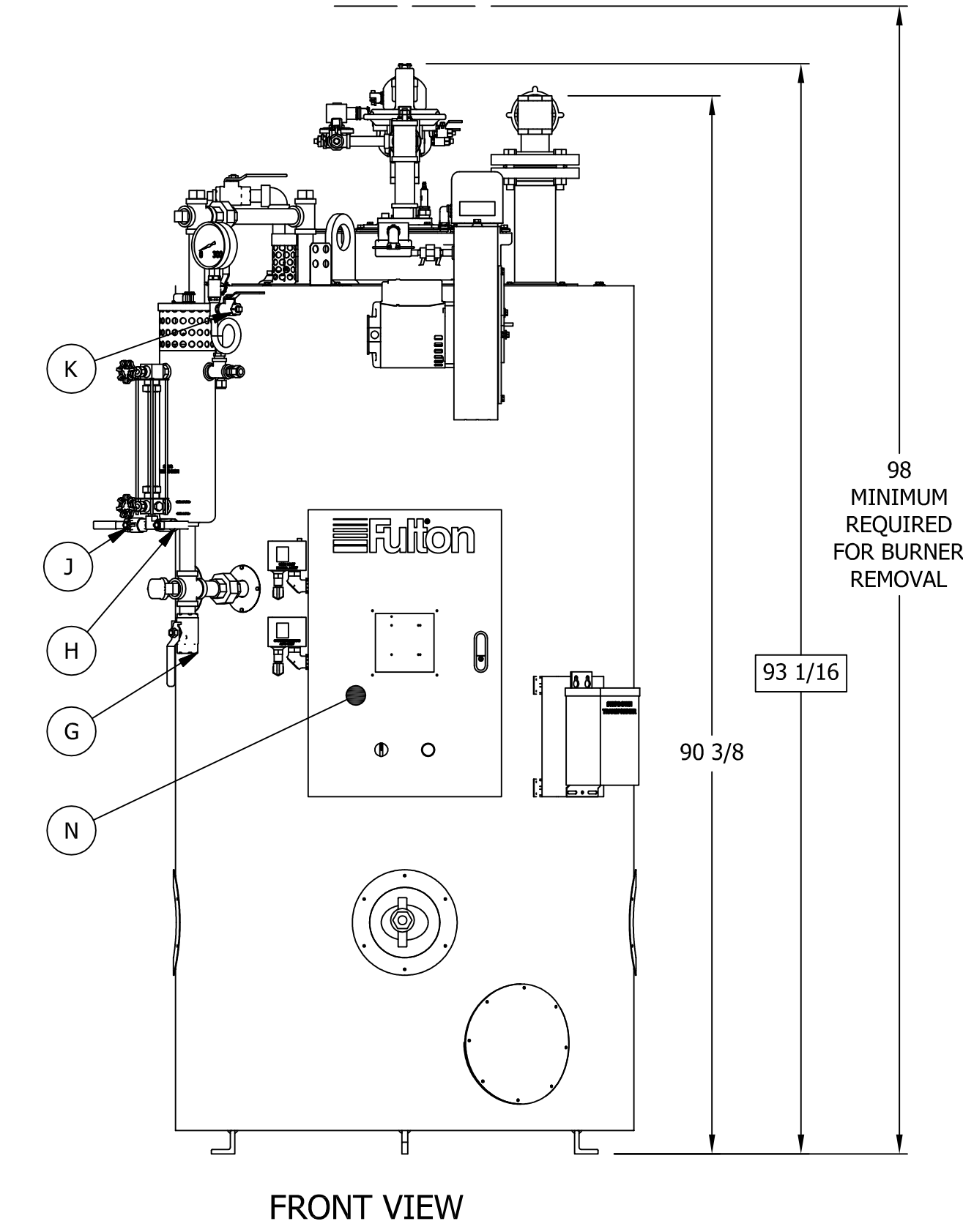
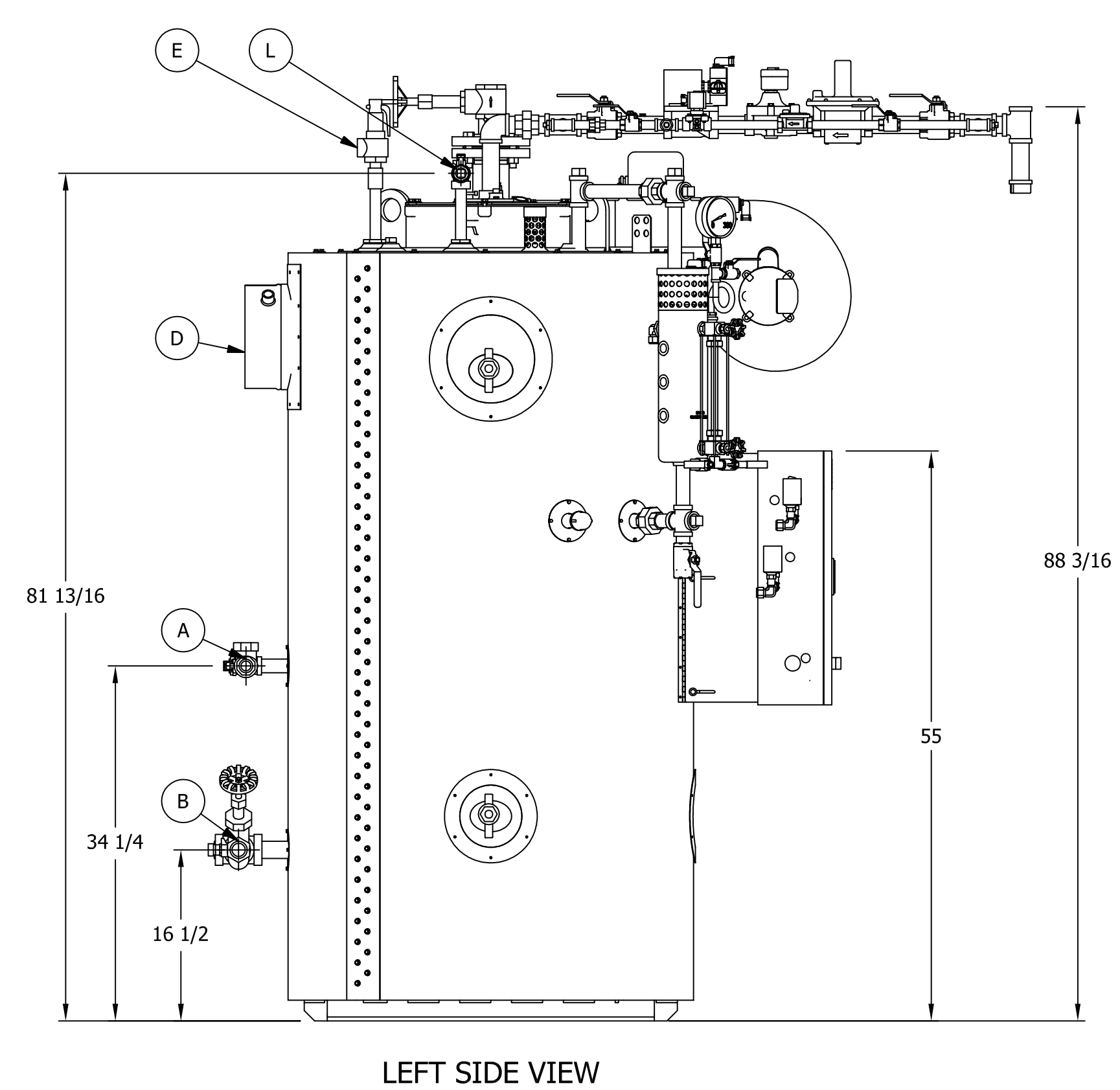


CUSTOMER CONNECTIONS			
ITEM	DESCRIPTION	SIZE	TYPE
A	FEED WATER INLET	1"	N.P.T.
B	BLOWDOWN OUTLET	1 1/4"	N.P.T.
C	STEAM OUTLET	2"	N.P.T.
D	EXHAUST STACK	10"	----
E	SAFETY RELIEF VALVE	1"	N.P.T.
F	FUEL INLET	1 1/4"	N.P.T.
G	WATER COLUMN DRAIN	1"	N.P.T.
H	SIGHT GLASS DRAIN	1/4"	N.P.T.
J	WATER SAMPLE PORT	1/4"	N.P.T.
K	STEAM SAMPLE PORT	1/4"	N.P.T.
L	SURFACE BLOWDOWN (PLUGGED)(SEE NOTES)	3/4"	N.P.T.
M	HIGH WATER PROTECTION (PLUGGED)	3/4"	N.P.T.
N	PANEL BOX	----	----

EQUIPMENT SPECIFICATION CHART	
FUEL TYPE:	GAS
MAX ALLOWABLE WORKING PRESSURE:	150 PSI
BOILER INPUT: (NATURAL GAS)	1046 CU FT/HR
BOILER INPUT: (PROPANE)	419 FT ³ /HR
BOILER OUTPUT:	837,000 BTU/HR
STEAM OUTPUT/MIN. SRV CAPACITY:	863 LBS/HR
NET EFFECTIVE HEATING SURFACE:	75 SQ FT
WATER CAPACITY (OPERATING):	82 GAL
APPROXIMATE SHIPPING WEIGHT:	3690 LBS
APPROXIMATE OPERATING WEIGHT:	4375 LBS
BURNER MOTOR:	3/4 HP



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- NOTES:
- STEAM OUTPUT LB/HR: FROM 0 PSIG AT 212°F (0 KG/CM AT 100°C)
 - ALL CLEARANCES ARE FACTORY RECOMMENDATIONS. CONSULT LOCAL JURISDICTION FOR EXACT CODE COMPLIANCE.
 - FULTON RECOMMENDS MINIMUM CLEARANCE OF 36" IN FRONT OF ELECTRICAL PANELS.
 - FULTON RECOMMENDS MINIMUM CLEARANCE OF 24" ALL AROUND BOILER.
 - FULTON RECOMMENDS 24" OF STRAIGHT, HORIZONTAL FLUE BEFORE ANY BENDS OR TURNS.
 - PLEASE REFER TO THE O&M MANUAL FOR ADDITIONAL INFORMATION REGARDING CLEARANCES AND INSTALLATION INSTRUCTIONS.
 - ALL DIMENSIONS INSIDE () DENOTE REFERENCE DIMENSIONS.
 - ALL DIMENSIONS INSIDE ○ DENOTE OVERALL DIMENSIONS.
 - OVERALL SIZE MAY VARY BASED ON TRIM AND OPTIONS.
 - SURFACE BLOWDOWN CONNECTION IS 1 1/4" IN VESSEL, 3/4" WITH DIPTUBE INSTALLED.

- INITIAL RELEASE -						UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES FRACTIONS: 1/8" = 3mm DECIMALS: 0.03" = 0.7mm 0.015" = 0.38mm 0.005" = 0.127mm ANGLE: 0.5 DEG = 0.5 DEG		This design and drawings are the exclusive property of The Fulton Companies. The corporation does not permit their use except with prior written consent.		DRAWN BY: S. WOODS 9/4/2018		MECHANICAL REVIEW: W.W. 10/10/2018		JOB NUMBER:		DESCRIPTION: STANDARD ICS 25 HP HIGH PRESSURE WITH LOW PRESSURE OPENINGS GAS FIRED ON/OFF END ASSEMBLY			
REV	REVISION DESCRIPTION	B.O.M.	ELEC. ENG	MECH. ENG	CHECKED	APPROVED	THIRD ANGLE PROJECTION		CHECKED BY: N/A		ELECTRICAL REVIEW: N/A		PROJECT NAME:		DRAWING NUMBER: 6-91-C25111 - PDS		REVISION: -		
REVISION HISTORY						SURFACE FINISH: 250 MICRO-INCHES / 6.35 MICRO-METERS		APPROVED BY: K.H. 10/10/2018		PROJECT MANAGER:		SHEET 1 OF 1							

BOILER DETAILS & NOTES
 SOUTH CACHE MIDDLE SCHOOL
 BOILER REPLACEMENT
 HYRUM, UTAH
 S. CACHE
 2417
 APRIL, 2024
 SVB
 M-2
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