

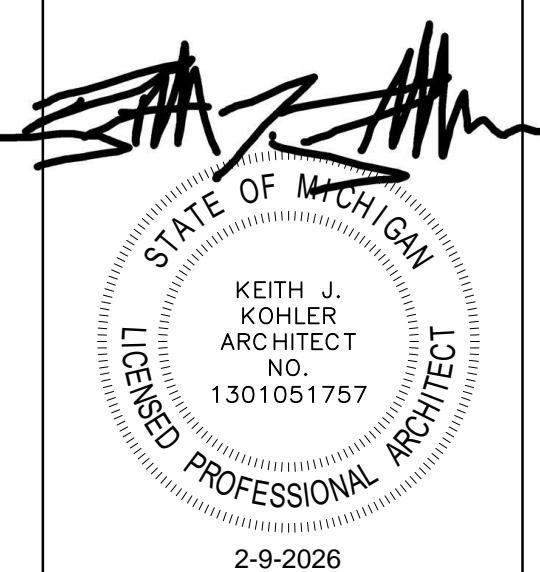


# BOILER REPLACEMENT & RELATED WORK AT ORCHARD CENTER HIGH SCHOOL

1750 OAK STREET, MONROE, MICHIGAN 48161

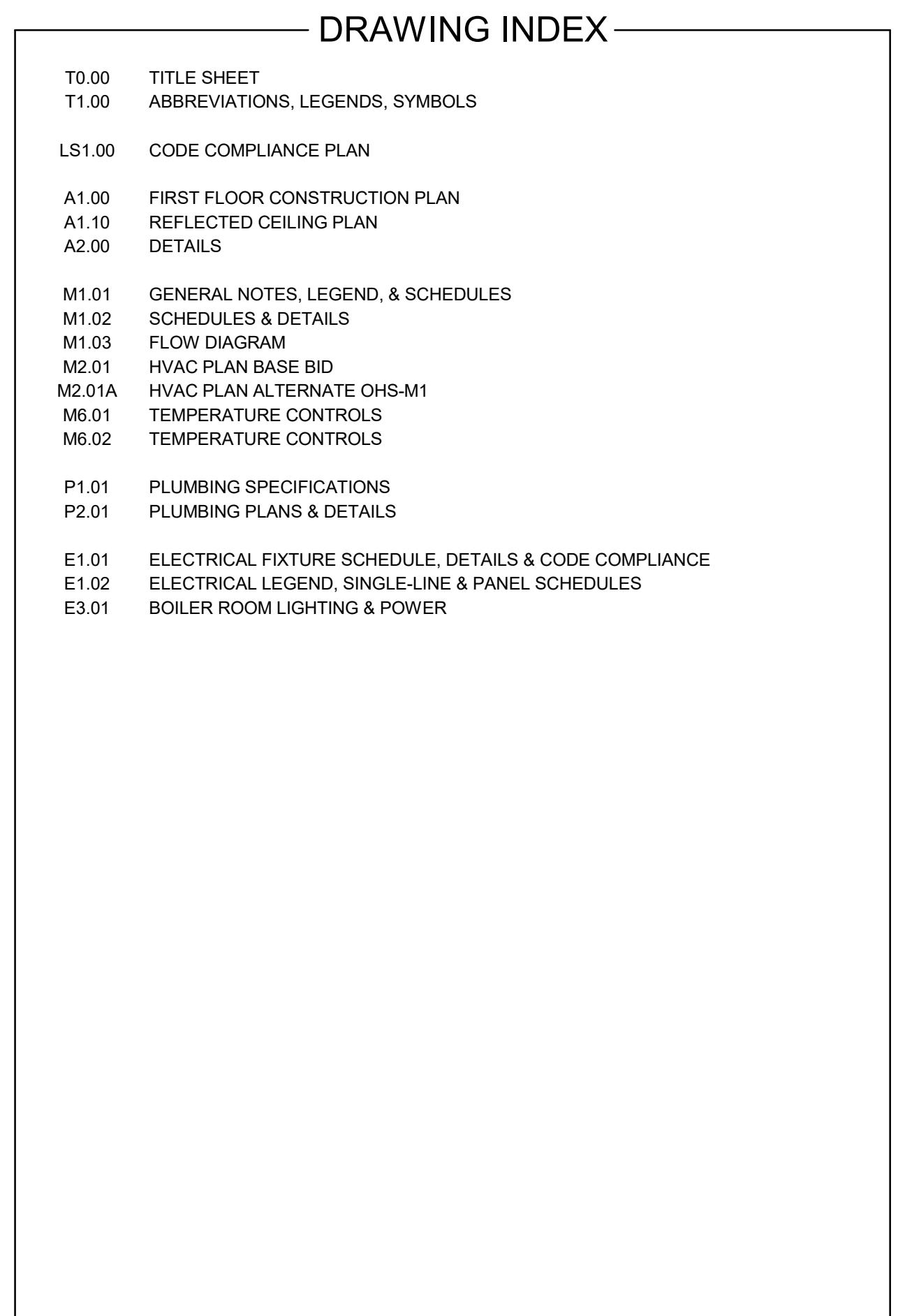
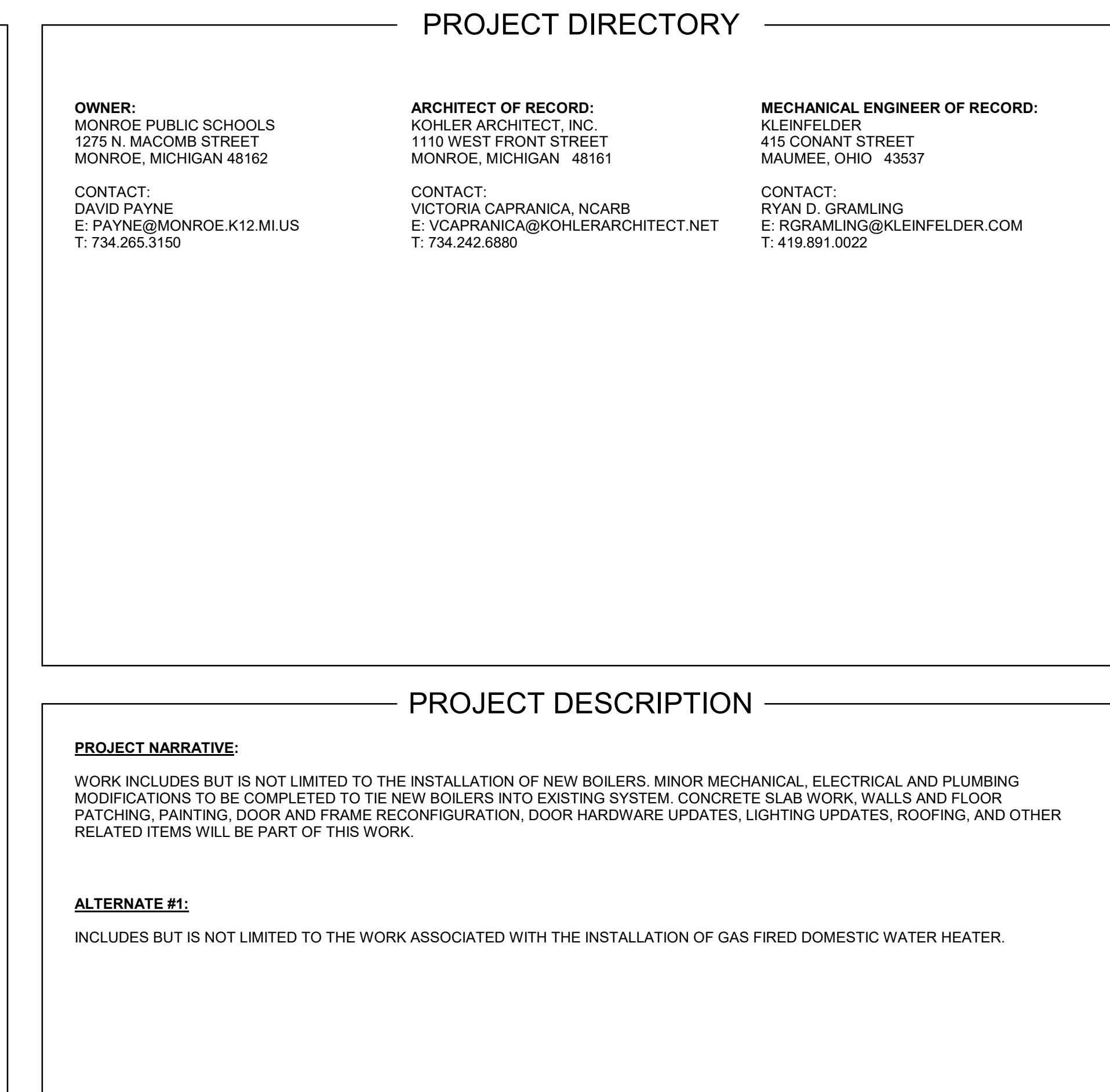
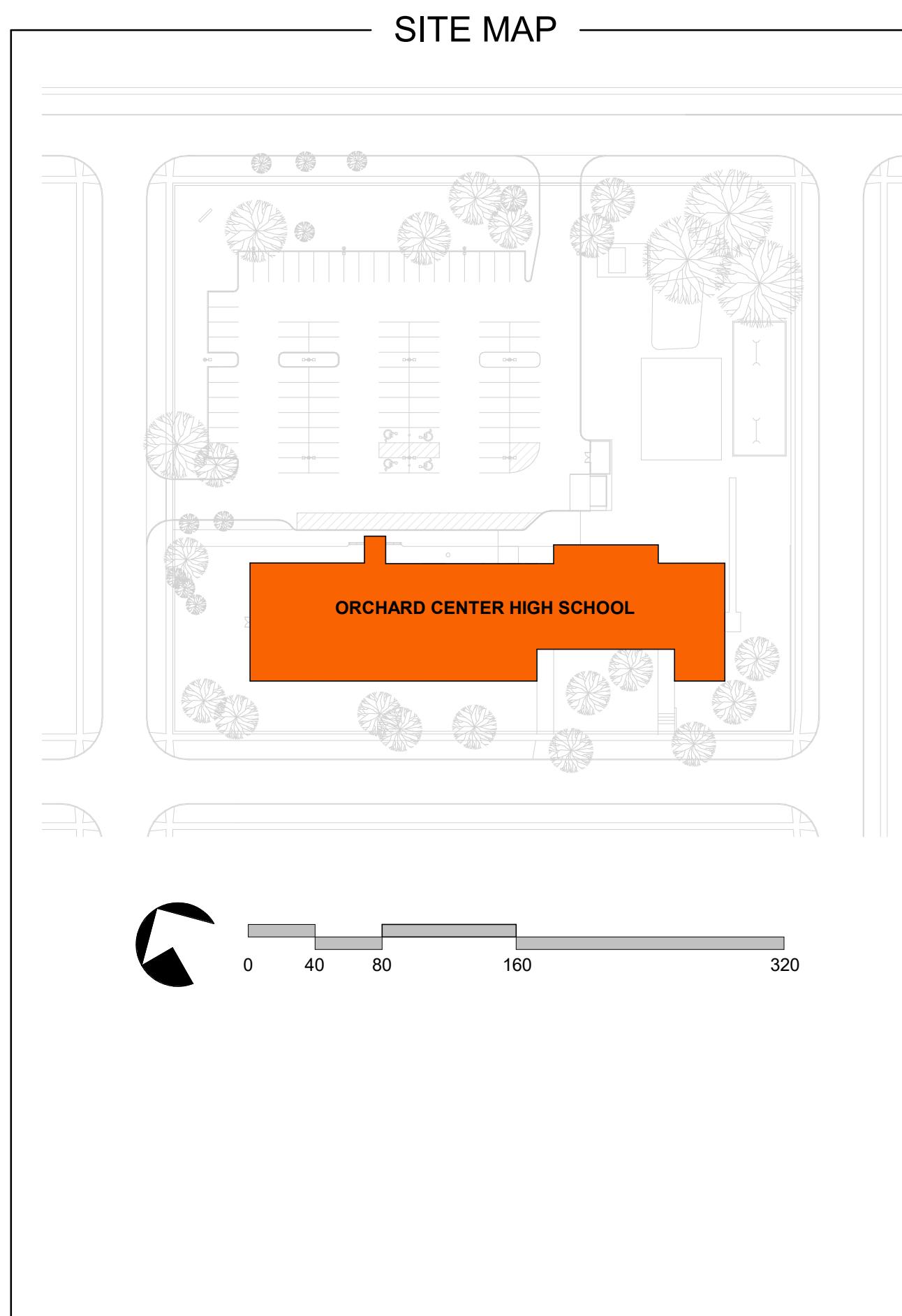
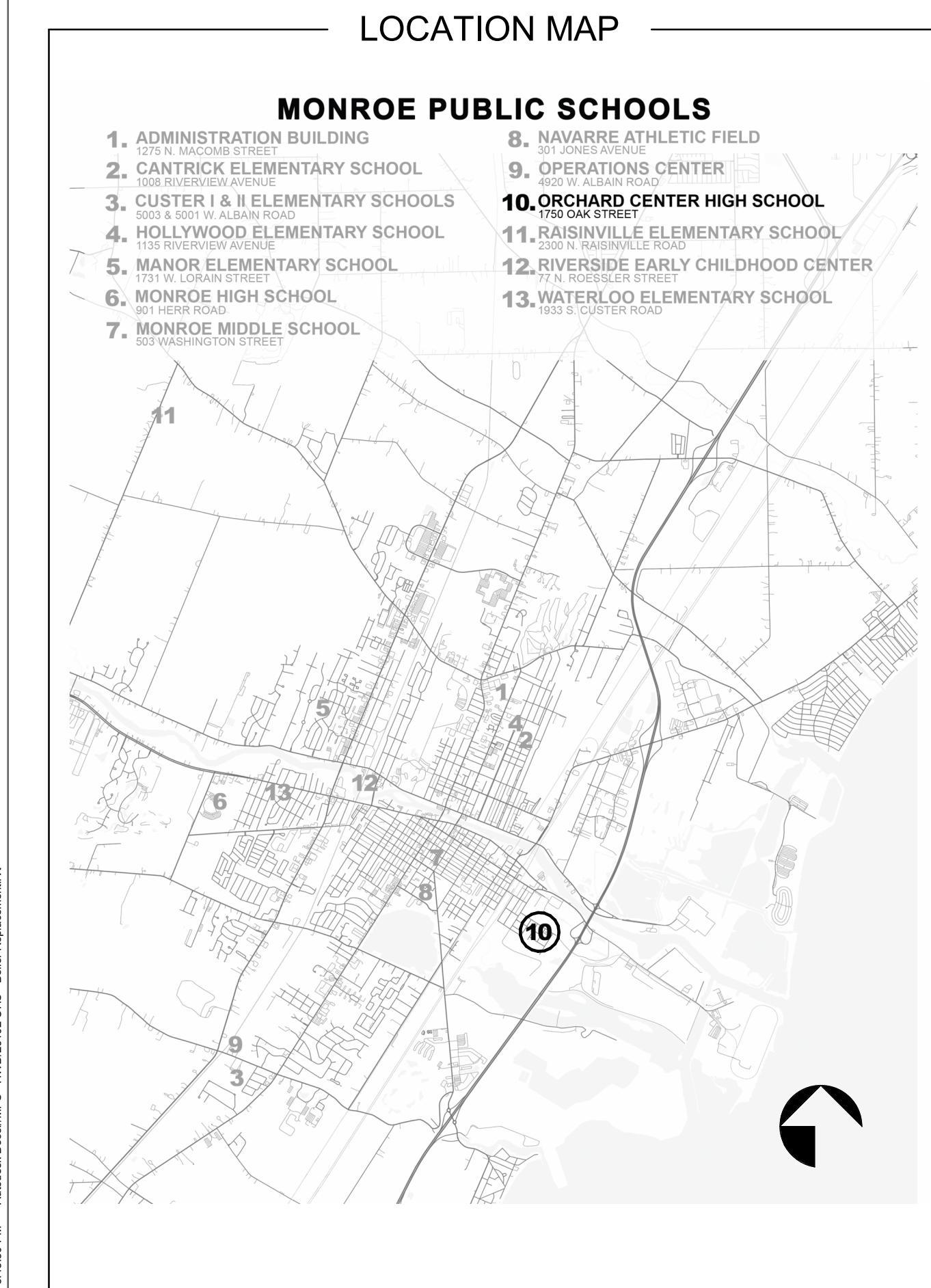


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DATE 02.09.2026 DESCRIPTION BIDDING & STATE REVIEW

**BOILER REPLACEMENT & RELATED WORK**  
**ORCHARD CENTER HIGH SCHOOL**  
1750 OAK STREET, MONROE, MICHIGAN 48161  
**MONROE PUBLIC SCHOOLS**  
1275 NORTH MACOMB STREET, MONROE, MICHIGAN 48162



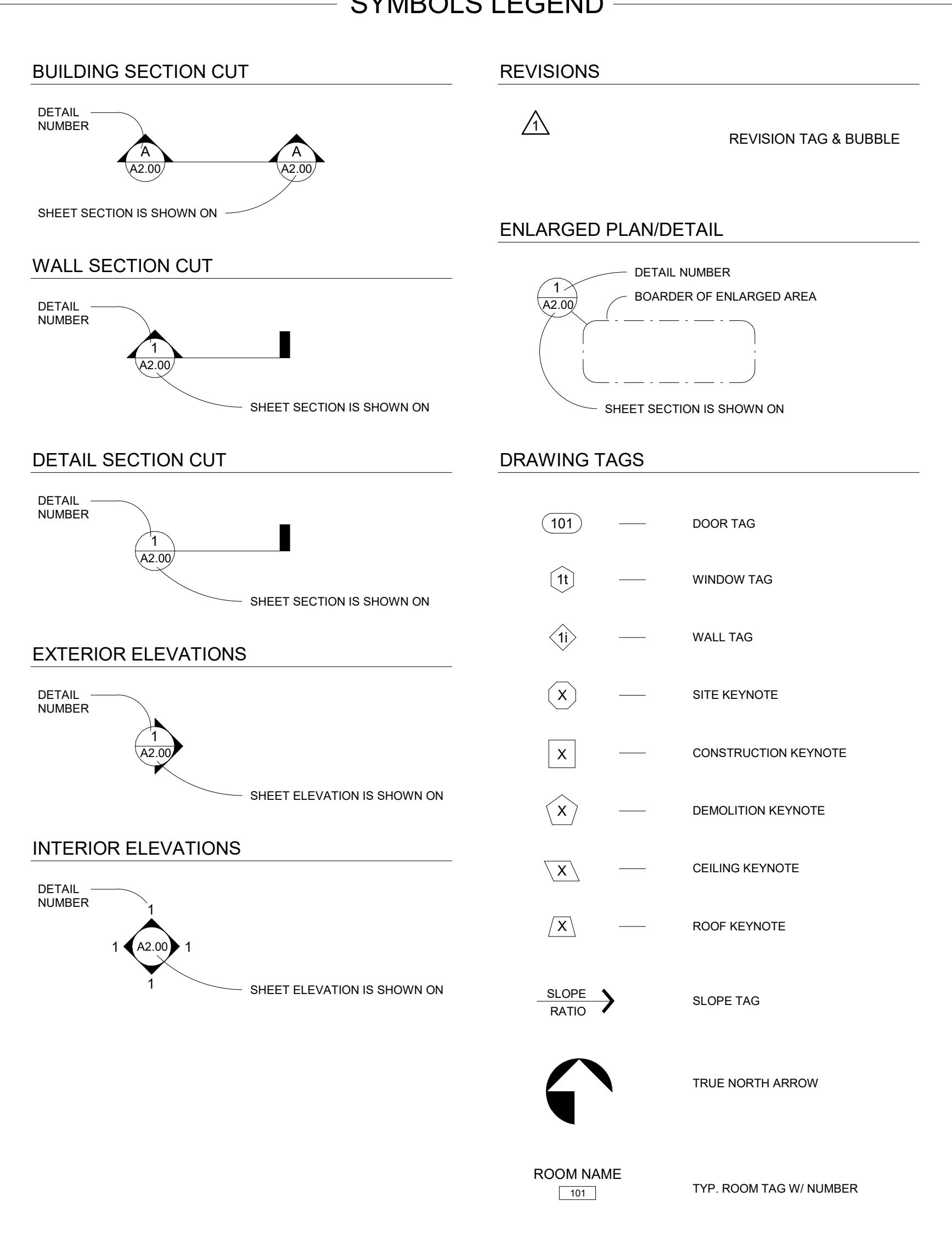
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## ABBREVIATIONS

" INCHES	GFI GROUND FAULT INTERRUPTED	RTU ROOF TOP UNIT
# POUND/NUMBER	GL GLASS	S SOUTH
% PERCENT	GYP. GYPSUM BOARD	S.F. STOREFRONT
& AND	BD. B.D.	SAN. SANITARY
' FEET		SCHED. SCHEDULED
< ANGLE	HB HOSE BIBB	STORM DRAIN / SMOKE
@ AT	HC HANDICAP ACCESSIBLE	SECT. SECTION
© COPYRIGHT	HDW HARDWARE	SGT. STRUCTURAL GLAZED TILE
° DEGREE	HWOD HARDWOOD	SHT. SHEET
± PLUS/MINUS	HM HOLLOW METAL	SHWR. SHOWER
Ø DIAMETER	HORIZ. HORIZONTAL	SIM. SIMILAR
	HR HOUR	SP. SPACES
A.C. AIR CONDITIONING	HSS HOLLOW STEEL SECTION	SPEC. SPECIFICATION
ACT ACOUSTICAL CEILING TILE	HT HEIGHT	SQ. SQUARE
ADD ADDITIONAL / ADDENDUM	HVAC HEATING / VENTILATING / AIR CONDITIONING	SS. STAINLESS STEEL
ADJ ADJACENT		STD. STANDARD
AFF ABOVE FINISHED FLOOR	IN INCH(ES)	STL. STEEL
AHU AIR HANDLING UNIT	INFO INFORMATION	STO. STORAGE
ALT ALTERNATE	INSUL. INSULATION	STRUC. STRUCTURAL
ALUM ALUMINUM	INT. INTERIOR	SUSP. SUSPENDED
ANOD ANODIZED		SYM. SYMMETRICAL
APPRO APPROXIMATE	JAN JANITOR	T. TOILET
X	JST. JOIST	T.G. TEMPERED GLASS
ARCH ARCHITECTURAL	JT JOINT	T.O. TOP OF
AUTO AUTOMATIC		T.O.C. TOP OF CONCRETE
B.O. BOTTOM OF	k KIP (1000 lbs)	T.S. TUBE STEEL
B.P.L. BASE PLATE	K.D. KNOCK DOWN	T.V. TELEVISION
BD BOARD	KIT KITCHEN	TECH TECHNICAL
BLDG BUILDING	KW KILOWATT	TELE TELEPHONE
BLK BLOCK	L LENGTH	TEMP TEMPERATURE
BLKG BLOCKING	L.G. LONG	THRU THROUGH
BOT BOTTOM	L.H. LEFT HAND	TRANS TRANSITION
BTV BETWEEN	L.L. LIVE LOAD	TYP. TYPICAL
C.G. CORNER GUARD	L.W.C. LIGHT WEIGHT CONCRETE	U.N.O. UNLESS NOTED
C.I. CAST IRON	LAB LABORATORY	UL UNDERWRITERS LABORATORIES, INC.
C.I.P. CAST-IN-PLACE	LAM LAMINATE	UNF UNFINISHED
C.J. CONTROL JOINT	LAV LAVATORY	UR URINAL
C.L. CENTERLINE	LB POUND	VB VAPOR BARRIER
C.O. CLEAN OUT	LT LIGHT	VCT VINYL COMPOSITION TILE
CL. CLOSET	LTL LINTEL	VERT VERTICAL
CLG CEILING	LVR LOUVER	VEST. VESTIBULE
CLKG CAULKING		VIF VERIFY IN FIELD
CLR CLEAR	M.O. MASONRY OPENING	VWC VINYL WALL COVERING
CLRM CLASSROOM	MAS MASONRY	W. WEST
CMU CONCRETE MASONRY UNIT	MATL MATERIAL	W.C. WATER CLOSET
COL COLUMN	MAX. MAXIMUM	W/ WITH
CONC CONCRETE	MBR MEMBER	W/O WITHOUT
COORD COORDINATE	MDF MEDIUM DENSITY	WD WOOD
CORR CORRIDOR	FIREBOARD	WF WIDE FLANGE
CPT CARPET	MECH MECHANICAL	WH WATER HEATER
CT CERAMIC TILE	MED MEDIUM	WT. WEIGHT
D.F. DRINKING FOUNTAIN	MEMB MEMBRANE	WTR WATER
D.L. DEAD LOAD	MEZZ MEZZANINE	WWF WELDED WIRE FIREBRIC
D.O. DOOR OPENING	MFR MANUFACTURER	
DEG DEGREE	MH MANHOLE	
DEPT DEPARTMENT	MIN. MINIMUM	
DIA DIAMETER	MIRR MIRROR	
DIM DIMENSION	MISC. MISCELLANEOUS	
DIV DIVISION	MTD MOUNTED	
DN DOWN	MTL METAL	
DR DOOR	MULL MULLION	
DS DOWNSPOUT	MULT MULTIPLE	
DTL DETAIL	XFMR TRANSFORMER	
DWG DRAWING		
E EAST	N NORTH	
E.J. EXPANSION JOINT	N.I.C. NOT IN CONTRACT	
E.S. EACH SIDE	N.O. NUMBER	
EA. EACH	N.R. NOT RATED	
EIFS EXTERIOR INSULATION AND FINISH SYSTEM	N.T.S. NOT TO SCALE	
EL. ELEVATION	NFPA NATIONAL FIRE PROTECTION ASSN	
ELEC ELECTRICAL	NOM NOMINAL	
ELEV. ELEVATOR	NORM NORMAL	
EPDM ETHYLENE PROPYLENE DIENE MONOMER	O.C. ON CENTER	
EQ EQUAL	O.D. OVERFLOW DRAIN	
EQUIP EQUIPMENT	O.H. OVERHEAD	
EXIST EXISTING	OFF. OFFICE	
EXP EXPANSION	OPNG OPENING	
EXT EXTERIOR	OPP OPPOSITE	
F.A. FIRE ALARM	PERF. PERFORATED	
F.D. FLOOR DRAIN	PL PLATE	
F.E. FIRE EXTINGUISHER	PLAM PLASTIC LAMINSTE	
F.E.C. FIRE EXTINGUISHER CABINET	PLUM PLUMBING	
F.HYD. FIRE HYDRANT	PLYWD PLYWOOD	
F.O. FACE OF	PSF POUNDS / SQUARE FOOT	
F.R. FIRE RATED	PT PAINT	
F.R.P. FIBER-REINFORCED PLASTIC	PVC POLYVINYL CHLORIDE	
F.R.T. FIRE RETARDANT TREATED	PVMT PAVEMENT	
FDC FIRE DEPARTMENT CONNECTION	PWR POWER	
FF FINISH FLOOR		
FIN. FINISH		
FIXT. FIXTURE	QT QUARRY TILE	
FLASH FLASHING	QTY QUANTITY	
FLR FLOORING	R.A. RETURN AIR	
FRMG FRAMING	R.B. RUBBER OR RESILIENT BASE	
FT FOOT / FEET	R.D. ROOF DRAIN	
FTG FOOTING	R.O. ROUGH OPENING	
FURR FURRING	RAD RADIUS	
G GAS	REF REFERENCE	
G.B. GRADE BEAM	REFG REFRIGERATOR	
G.C. GENERAL CONTRACTOR	REINF REINFORCED	
G.R. GUARDRAIL	REQD REQUIRED	
GA GAUGE	REV REVISED / REVISION	
GALV GALVANIZED	RH ROOF HATCH	
GB GRAB BAR	RM ROOM	
GEN GENERATOR		

## SYMBOLS LEGEND



## GENERAL NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH APPLICABLE SECTIONS OF THE FEDERAL, STATE AND LOCAL BUILDING CODES, ZONING ORDINANCE, HEALTH AND FIRE REGULATIONS AS ADOPTED BY THE LOCAL GOVERNING BUILDING AUTHORITY.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY BUILDING PERMITS FROM ALL GOVERNING AGENCIES INCLUDING THE CITY / TOWNSHIP AND SUBMIT FOR THEIR USE ANY CERTIFICATES OF INSURANCE, BONDS, ESCROW ACCOUNTS, LICENSES, PAY ALL FEES, OBTAIN ALL APPROVALS, ETC. ALL AS MAY BE REQUIRED TO COMPLETE THIS PROJECT.
- CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED THIRD PARTY AGENCY TO PERFORM ALL SPECIAL INSPECTIONS AND TESTING AS REQUIRED BY THE LOCAL GOVERNING BUILDING CODE, GOVERNING BUILDING AUTHORITY, OR AS CALLED OUT IN THESE CONSTRUCTION DOCUMENTS. NOTIFY OWNER / ARCHITECT IMMEDIATELY OF ANY FAILED TESTS OR INSPECTIONS AND PROVIDE OWNER WITH ALL WRITTEN REPORTS AND TEST RESULTS AT PROJECT COMPLETION.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK. IF ANY DIFFERENCES ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY, IN WRITING FOR CLARIFICATION PRIOR TO PROCESSING WITH WORK.
- THESE DOCUMENTS ARE DEVELOPED TO PROVIDE THE CONTRACTOR WITH A WORKING KNOWLEDGE OF THE SYSTEMS AND MATERIALS TO BE INSTALLED, AND THE SCOPE OF WORK, WHERE THESE DOCUMENTS ARE IN CONFLICT WITH THE JOB CONDITIONS, OR STANDARD DETAILS OR SPECIFICATIONS OF THE MANUFACTURED COMPONENT, OR AFFECT THE GUARANTEE, THEY SHALL BE MODIFIED AS REQUIRED BY THE CONTRACTOR AND APPROVED BY THE ARCHITECT.
- PROVIDE AND MAINTAIN SUITABLE TEMPORARY FENCES, BARRICADES, LIGHTS, WARNINGS, ETC., FOR PROTECTION OF PUBLIC AND OTHERS HAVING ACCESS TO THE SITE. CONTRACTOR SHALL KEEP CLEAN AND ADEQUATELY PROTECT ALL STREETS, DRIVES, WALKS, BLDGS, ETC., FROM DAMAGE DUE TO ANY ITEM INVOLVED WITH THIS WORK. ANY DAMAGED WORK SHALL BE REPAVED / REPAINTED AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL RELY ON WRITTEN DIMENSIONS (DO NOT SCALE DRAWINGS), WHERE NONE ARE PRESENT OR IN CONFLICT WITH WRITTEN, FIELD MEASURE AND/OR NOTIFY ARCHITECT FOR CLARIFICATION.
- SHOULD THE CONTRACT DOCUMENTS DISAGREE (DRAWINGS AND SPECIFICATIONS), THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING. THE BETTER QUALITY OR LARGER QUANTITY OF MATERIALS OR WORK SHALL BE INCLUDED IN THE BID AND UNLESS OTHERWISE ORDERED IN WRITING, SHALL BE FURNISHED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS AND ALL OTHER DATA OR INSTRUCTIONS PERTAINING TO THE WORK. BEFORE COMMENCING PHYSICAL WORK, THE CONTRACTOR SHALL LOCATE ALL GENERAL REFERENCE POINTS AND TAKE SUCH ACTION AS IS NECESSARY TO PREVENT THEIR DESTRUCTION; LAY OUT HIS WORK AND BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS OF BUILDINGS, GRADING, PAVING, UTILITIES AND OTHER WORK EXECUTED BY HIM UNDER THE CONTRACT. HE MUST EXERCISE PROPER PRECAUTIONS TO VERIFY FIGURES SHOWN ON DRAWINGS BEFORE LAYING OUT WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, HIS SUB-CONTRACTOR AND/OR SUPPLIER TO WORK FROM A FULL SET OF CONTRACT DOCUMENTS FOR BOTH THE WORK TO BE COMPLETED AND IN PREPARATION OF THE SHOP DRAWINGS, SO THAT EACH PART OR COMPONENT WILL WORK WITH THOSE PARTS AS FURNISHED OR FABRICATED BY OTHERS, AND THE ASSEMBLED WHOLE WORKS TOGETHER AS INTENDED.
- MATERIALS - SHALL BE NEW, SECONDS OR DAMAGED MATERIALS WILL BE REJECTED BY THE ARCHITECT, WHO RESERVES THE RIGHT TO DISAPPROVE AND REJECT ANY MATERIALS PROPOSED OR INSTALLED, WHICH IN HIS OPINION FAIL TO MEET QUALITY STANDARDS SPECIFIED.
- THE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL, OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO ASBESTOS AND HAZARDOUS MATERIALS IN ANY FORM FOR THE PROJECT.
- AS-BUILTS - THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ALL DEVIATIONS FROM THE CONTRACT DRAWINGS AND SPECIFICATIONS. HE SHALL NEATLY AND CORRECTLY DRAFT (NO FREEHAND) ANY DEVIATIONS ON THE DRAWINGS AFFECTED AND SHALL KEEP DRAWINGS AVAILABLE FOR INSPECTION. GIVE TO THE ARCHITECT AT COMPLETION.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE VARIOUS TRADE ITEMS WITHIN THE SPACE ABOVE ALL CEILINGS (INCLUDING, BUT NOT LIMITED TO: STRUCTURAL MEMBERS, MECHANICAL DUCTS AND INSULATION, CONDUITS, RACEWAYS, SPRINKLER SYSTEM, DRAINS, CEILING SYSTEMS, AND ANY SPECIAL STRUCTURAL SUPPORTS REQUIRED) AND SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISH CEILING HEIGHT ABOVE THE FINISHED FLOOR INDICATED IN THE DRAWINGS AND THE FINISH SCHEDULE. (CEILING HEIGHT DIMENSIONS ARE TO THE FINISH SURFACE OF THE CEILING).
- IN AREAS OF NEW WORK, ACCESS PANELS SHALL BE PROVIDED AND INSTALLED WHEREVER REQUIRED BY CODE OR FOR THE PROPER OPERATION OR MAINTENANCE OF MECHANICAL OR ELECTRICAL EQUIPMENT (I.E. TERMINAL BOXES, VALVES, DAMPERS, ETC.), WHETHER OR NOT INDICATED ON THE DRAWINGS. CONTRACTOR SHALL COORDINATE SIZE, LOCATION, AND TYPE OF ACCESS PANEL WITH OTHER CONTRACTORS WORK AND RECEIVE APPROVAL OF THE ARCHITECT. ACCESS PANEL SHALL NOT BE LOCATED, FRAMED OR INSTALLED WITHOUT EXPRESSED APPROVAL OF THE ARCHITECT.
- ALL DUCT PENETRATION THROUGH PARTITIONS AND CEILINGS SHALL BE PROVIDED WITH NECESSARY FRAMED OPENINGS, BRACING, AND FIRE DAMPERS AS REQUIRED BY CODE.
- THE ARCHITECT SHALL BE CONSULTED IN ALL CASES WHERE CUTTING INTO AN EXISTING STRUCTURAL PORTION OF ANY BUILDING PRIOR TO PROCEEDING WITH WORK.
- SIZE OF MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY DIMENSIONS WITH RESPECTIVE EQUIPMENT MANUFACTURER.

## BOILER REPLACEMENT & RELATED WORK

1780 OAK STREET, MONROE, MICHIGAN 48161

1275 NORTH MACOMB STREET, MONROE, MICHIGAN 48162

DATE  
02.09.2026

DESCRIPTION  
BIDDING & STATE REVIEW

JOB # 26102

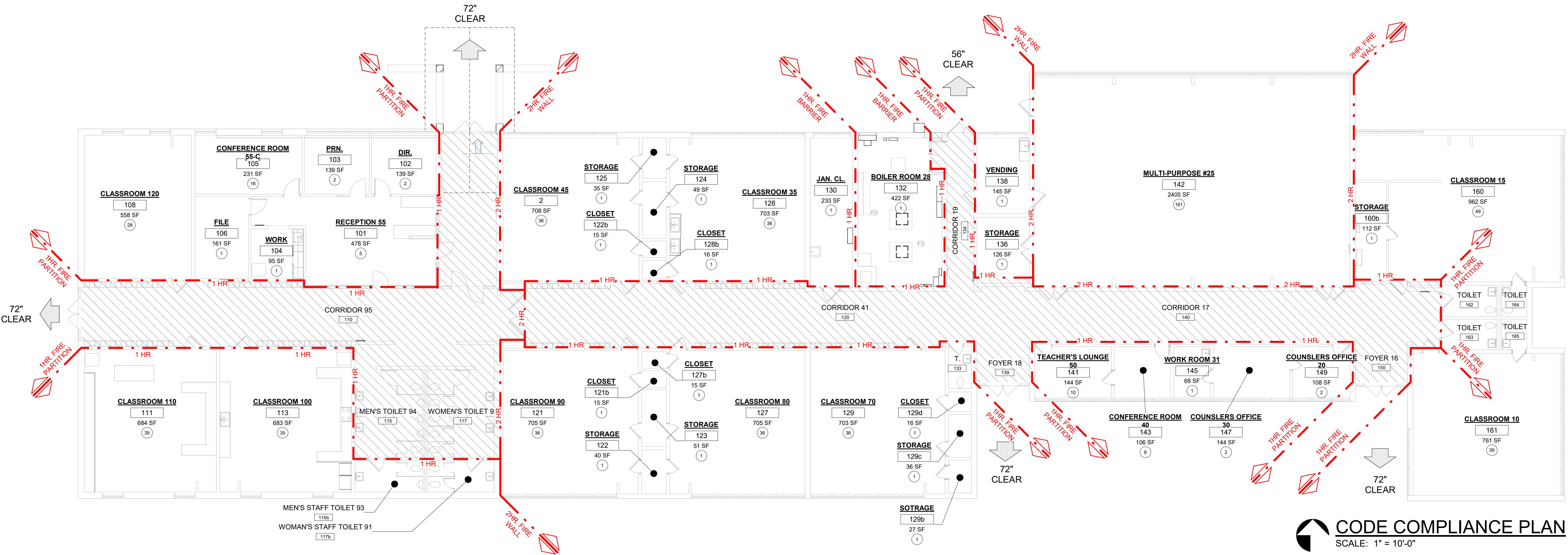
ABBREVIATIONS, LEGENDS, SYMBOLS

T1.00

AT

FOR

T1.00



 **CODE COMPLIANCE PLAN**  
SCALE: 1" = 10'-0"

DATE	DESCRIPTION
02.09.2026	BIDDING & STATE REVIEW

### ORCHARD CENTER HIGH SCHOOL

1750 Oak Street, Monroe, MI

#### BUILDING CODE REVIEW

PROJECT DESCRIPTION: EXISTING SCHOOL BUILDING - BOILER REPLACEMENT & RELATED WORK

BUILDING CODE: 2021 MICHIGAN BUILDING CODE  
2021 MICHIGAN REHABILITATION CODE  
2021 MICHIGAN MECHANICAL CODE  
2021 MICHIGAN PLUMBING CODE  
2021 MICHIGAN ENERGY CODE  
2023 NATIONAL ELECTRICAL CODE (NEC)  
2012 NFPA 101 LIFE SAFETY CODE  
2016 SCHOOL FIRE SAFETY RULES  
1991 / 2010 ADA STANDARDS

BUILDING AREA: EXISTING BUILDING (GROSS)  
(SEC. 305.1) = 18,917 S.F.  
BUILDING OCCUPANCY TYPE: TYPE IIB  
CONSTRUCTION TYPE: (SEC. 602.5, TABLE 601) NS  
Note: type V-ht @ Multi-Purpose Room

ALLOWABLE AREA: (TABLE 506.2)  
INCREASE ALLOWABLE: (SEC. 506.2.1)  
ALLOWABLE HEIGHTS: (TABLE 504.3)  
ALLOWABLE NUMBER OF STORIES: (TABLE 504.4)  
HEIGHT MODIFICATION: (SEC. 504.3)  
N.A.

FIRE RESISTIVE CONSTRUCTION:  
STRUCTURAL FRAMING: (TABLE 601) 0  
BEARING WALLS:  
EXTERIOR: (TABLE 601,602) 0 (NFPA 101, TABLE A.8.2.1.2) 0  
INTERIOR: (TABLE 601) 0 (NFPA 101, TABLE A.8.2.1.2) 0

NON-BEARING WALLS:  
EXTERIOR: (TABLE 601,602) 1 HR. <=5' (NFPA 5000, TABLE 7.3.2.1) 1 HR. < 3'  
INTERIOR: (TABLE 601) 0 (NFPA 101, TABLE A.8.2.1.2) 0

FLOOR CONSTRUCTION: (TABLE 601) 0 (NFPA 101, TABLE A.8.2.1.2) 0  
ROOF CONSTRUCTION: (TABLE 601) 0 (NFPA 101, TABLE A.8.2.1.2) 0

FIRE WALLS: (SEC. 706, TABLE 706.4) 2 HR. (AREA SEPARATION)

FIRE BARRIER:  
INT' EXIT STAIR/RAMP: (SEC. 1023.2) N/A  
EXIT ACCESS STAIR: (SEC. 713.4) N/A  
EXIT PASSAGEWAY: (SEC. 708) N/A  
HORIZ. EXIT (REFUGE AREA): (SEC. 1026.1) N/A  
ATRIUM: (SEC. 404.6) N/A  
INCIDENTAL USES: (TABLE 509)

CONTROL AREA: (SEC. 414.2.4)  
SEPARATED OCCUPANCIES: (SEC. 508.2.1, TABLE 508.4)

FIRE AREAS: (SEC. 707.3.10)  
EXT. DOORS + WINDOWS: (TABLE 705.8)

FIRE PARTITIONS:  
CORRIDOR WALLS: (SEC. 708, SEC. 1020.1) 1 HR. W/O SPRINKLER SYSTEM AND > 30 PEOPLE  
(NFPA 101, SEC. 15.3.6) 1/2 HR. W/O SPRINKLER SYSTEMS  
(SEC. 709.4) N/A

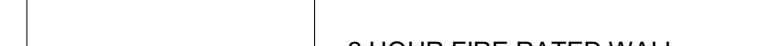
SMOKE BARRIERS  
OPENING PROTECTIVES:  
CORRIDOR DOORS: (TABLE 716.5) 20 MIN. IN (1) HR. WALLS  
CORRIDOR OPENINGS: (TABLE 716.5) 45 MIN.

DRAFTSTOPPING:  
FIRE BLOCKING:  
FIRE SPRINKLERS: (SEC. 901.7, SEC. 903.2.3) REQUIRED IF COMBUSTIBLE CONSTRUCTION IN FLOOR / CEILING  
FIRE ALARMS: (SEC. 907.2.3) REQUIRED IF COMBUSTIBLE CONSTRUCTION IN WALLS

FIRE EXTINGUISHERS: (SEC. 906)

PLATFORMS / STAGES: (SEC. 410.4, 410.7) EXISTING

MEANS OF EGRESS:	EGRESS CAPACITY	NFPA 101, SEC 7.3.1.1.2)	WHERE MORE THAN ONE MEANS OF EGRESS IS REQUIRED, THE MEANS OF EGRESS SHALL BE OF SUCH WIDTH AND CAPACITY THAT THE LOSS OF ANY ONE MEANS OF EGRESS LEAVES AVAILABLE NOT LESS THAN 50% OF THE REQUIRED CAPACITY.
WIDTH OF EGRESS:	(SEC. 1005) (NFPA 101, TABLE 7.3.3.1)	STAIRS = 0.3' / OCCUPANT (W/O SPRINKLERS) OTHER = 0.2' / OCCUPANT (W/O SPRINKLERS)	
NUMBER OF EGRESS:	(NFPA 101, SEC 7.4.1.2)	MIN. 3 FOR 500-1000 CCC LOAD MIN. 4 FOR 1000+ CCC LOAD	
CORRIDOR WIDTH:	(TABLE 1020.2)	44" MIN.; AREAS OF OCCUPANT LOAD < 50 PEOPLE = 36" MIN.; AREAS OF OCCUPANT LOAD > 100 PEOPLE = 72" MIN. MIN. 34" WIDE EXIT (36" WIDE FOR ADA)	
DOORS: ENCROACHEMENT	(SEC. 1010) (SEC. 1005.7)	DOORS IN ANY POSITION CANNOT REDUCE REQUIRED WIDTH BY MORE THAN 7" MAX. HANDRAL PROJECTION PER SIDE = 1-1/2"	
EXIT ACCESS:	(SEC. 1016)	MAX. 1 INTERVENING SPACE	
TRAVEL DISTANCE:	(TABLE 1017.2) (NFPA 101, TABLE A.7.6)	200' MAX. WITHOUT SPRINKLERS	
DEAD-END CORRIDORS:	(SEC. 1020.4) (NFPA 101, TABLE A.7.6)	DEAD-END CORRIDORS IN ANY AREA SHALL NOT EXCEED 20 FT.	
ELEVATOR/CONVEY SYSTEMS: ACCESSIBILITY:	(SEC. 1009.2.1) (SEC. 3001.2)	N/A ELEVATORS REQUIRED TO BE ACCESSIBLE OR SERVE ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH SEC. 1009 AND 1109.7	

FIRE RATED WALLS LEGEND	
	1 HOUR FIRE RATED BARRIER 1 HOUR FIRE RATED PARTITION
	2 HOUR FIRE RATED WALL

NOTE: CONTRACTOR SHALL STENCIL PAINT FIRE WALLS ABOVE ACCESSIBLE CEILINGS PER IBC 703.7

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AT FOR

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CODE COMPLIANCE PLAN

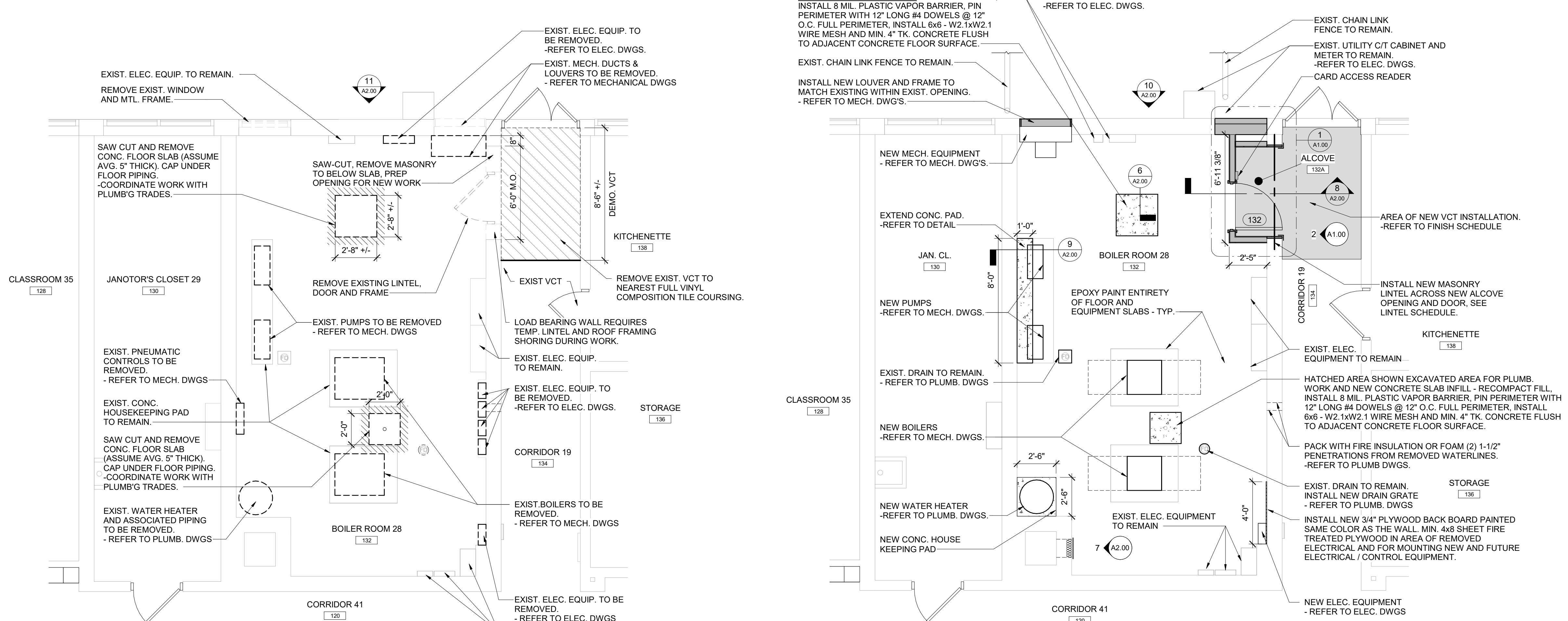
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**GENERAL DEMOLITION / PROTECTION NOTES:**

- COORDINATE ALL DEMOLITION WITH THE OWNER'S HAZARDOUS MATERIAL ABATEMENT DOCUMENTS AND SCOPE.
- CONTRACTOR TO PROTECT ALL AREAS ADJACENT TO CONSTRUCTION AND COMMON POINTS OF TRAVEL TO AND FROM CONSTRUCTION AREAS PROTECTION IN THESE AREAS TO INCLUDE AIR QUALITY, WALK SURFACES, EQUIPMENT, FURNISHINGS, BUILDING OCCUPANTS, ETC. FROM DUST / DEBRIS, EXCESSIVE NOISE, WEAR, OR DAMAGE OF ANY KIND. PRIOR TO ANY PHYSICAL WORK, THE CONTRACTOR MUST HAVE A WRITTEN PLAN FOR PROTECTION APPROVED BY THE ARCHITECT.
- AREA OF HIGH REPLACEMENT VALUE OR MORE LIKELY FOR DAMAGE ARE TO HAVE ADDED PROTECTION (I.E. GYM FLOORS, ROOFING, ETC.)
- ANY WORK UNDER THE CONTRACT THAT WILL INTERRUPT THE OWNER'S ACTIVITIES SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- ALL DEMOLITION WORK REQUIRED IS NOT LIMITED TO THAT INDICATED ON PLAN. THE INTENT IS TO REMOVE ALL MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
- PRIOR TO COMMENCEMENT OF DEMOLITION WORK, CONTRACTOR IS TO INSPECT ALL AREAS IN WHICH WORK WILL BE PERFORMED. DOCUMENT EXISTING CONDITIONS OF STRUCTURE, SURFACES, EQUIPMENT OR SURROUNDING AREAS WHICH COULD BE MISCONSTRUED AS DAMAGE RESULTING FROM DEMOLITION WORK AND FILE WITH ARCHITECT.
- NOTIFY ARCHITECT IF ANY EXISTING ITEM THAT CONFLICTS WITH THE INTENDED FINAL PRODUCT IS NOT SPECIFICALLY CALLED OUT. DEMOLITION CONTRACTOR TO NOTIFY ARCHITECT OF ANY DISCREPANCIES IN THE DOCUMENTS & FIELD CONDITIONS BEFORE PROCEEDING WITH DEMOLITION AND / OR CONSTRUCTION.
- ALL DEMOLITION WORK, UNLESS OTHERWISE NOTED IN THE PROJECT MANUAL, DRAWINGS OR DIRECTED BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. ALL DEBRIS CAUSED BY DEMOLITION AND CONSTRUCTION SHALL BE CLEARED AND REMOVED FROM THE SITE. DEBRIS STORAGE SHALL NOT INFRINGE ON CLEAR PATH OF EGRESS.
- PROTECT EXISTING STRUCTURES, FINISHES, UTILITIES AND OTHER ITEMS SCHEDULED TO REMAIN. AREAS THAT ARE DAMAGED BY SELECTIVE DEMOLITION SHALL BE PATCHED AND REPAIRED AND FINISHED OR REPLACED TO MATCH EXISTING ADJACENT SURFACES.
- PROVIDE SHORING, BRACING OR SUPPORT TO PREVENT MOVEMENT, SETTLEMENT, DAMAGE OR COLLAPSE OF STRUCTURE OR ANY OTHER ITEMS TO REMAIN WITHIN AND/OR AROUND DEMOLITION CONTRACT LIMITS.
- SHOULD HIDDEN FIELD CONDITIONS REQUIRE MODIFICATIONS TO THE LAYOUT, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT.
- STRIP EXIST. FLOORS IN AREA TO RECEIVE NEW FLOOR FINISHES. FOLLOW MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF FINISH MATERIAL ON EXIST. SUBSTRATES.
- AFTER DEMOLITION IS COMPLETE PATCH AND REPAIR EXIST. SURFACES TO REMAIN AS REQUIRED FOR NEW FINISHES.

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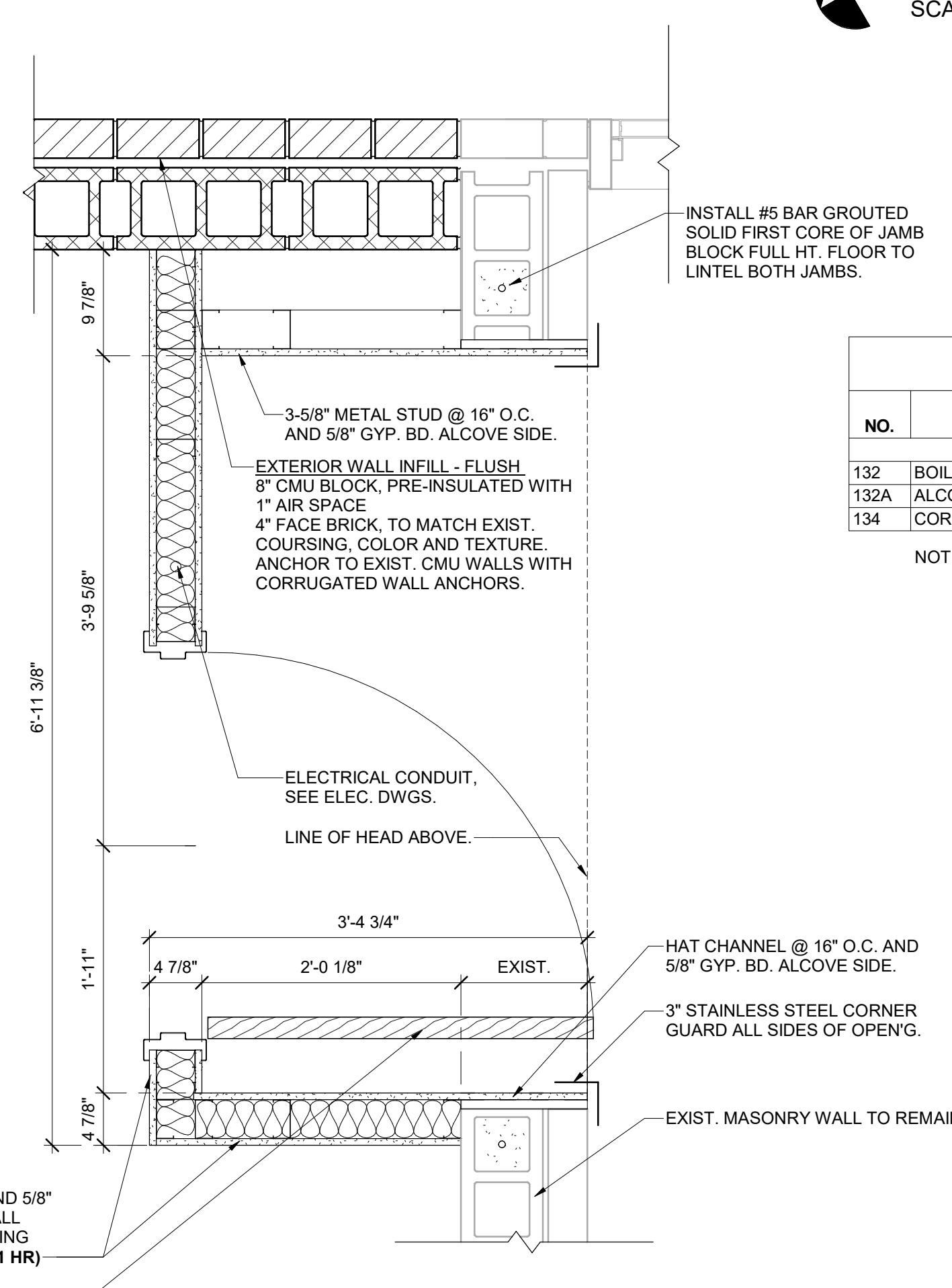
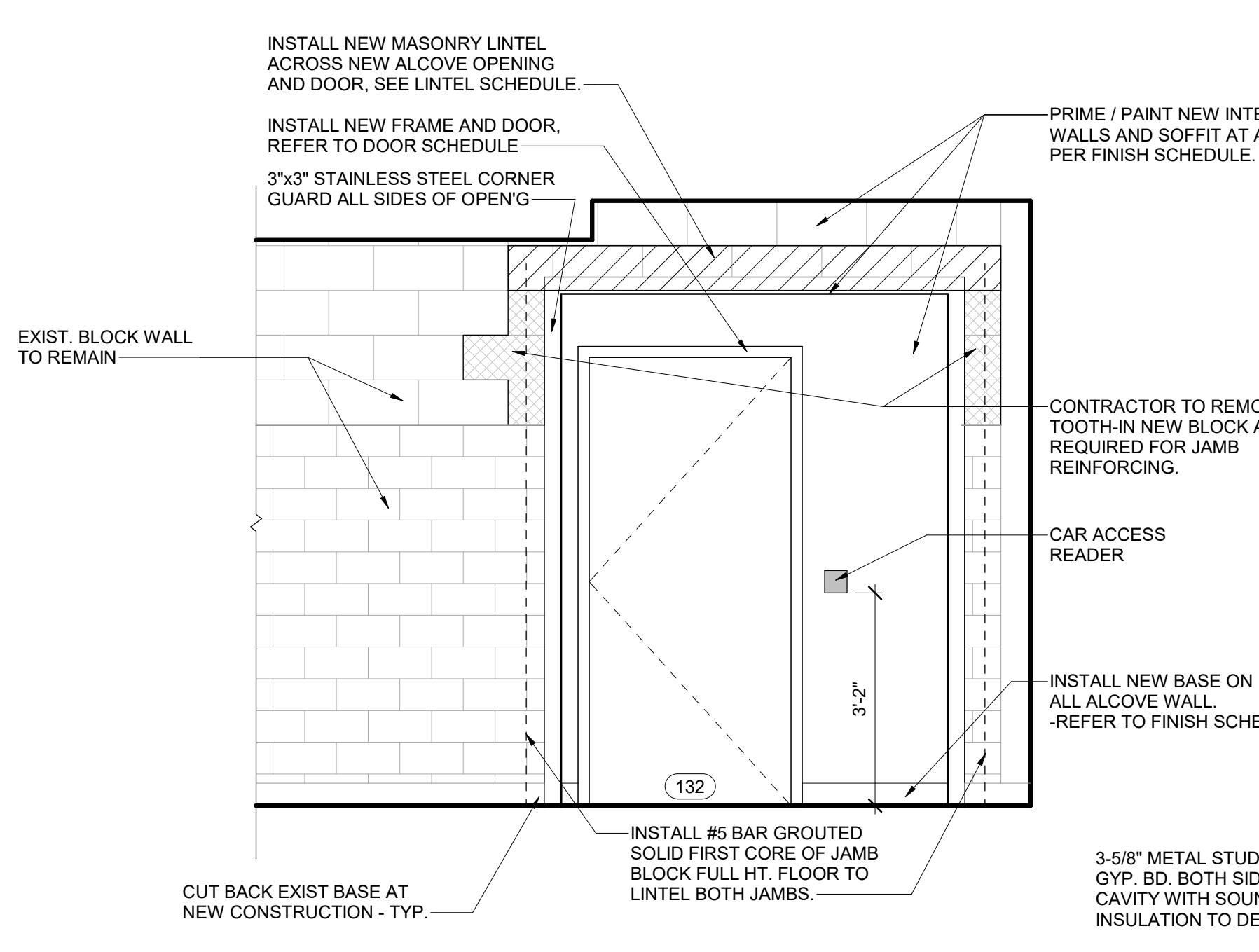
## FIRST FLOOR PLAN - DEMO

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

## FIRST FLOOR PLAN - NEW

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

PLAN LEGEND	
-----	DEMO WALLS AS NOTED ON PLAN
=====	NEW WALLS AS NOTED ON PLAN
-----	EXISTING WALLS AS NOTED ON PLAN
ROOM NAME	NEW ROOM NAME AND NUMBERS
0000	
101	
DOOR TAG - SEE DOOR & HARDWARE SCHEDULE	



2 CORRIDOR 19  
A1.00

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

1 DOOR ALCOVE DETAIL  
A1.00

SCALE: 1" = 1'-0"

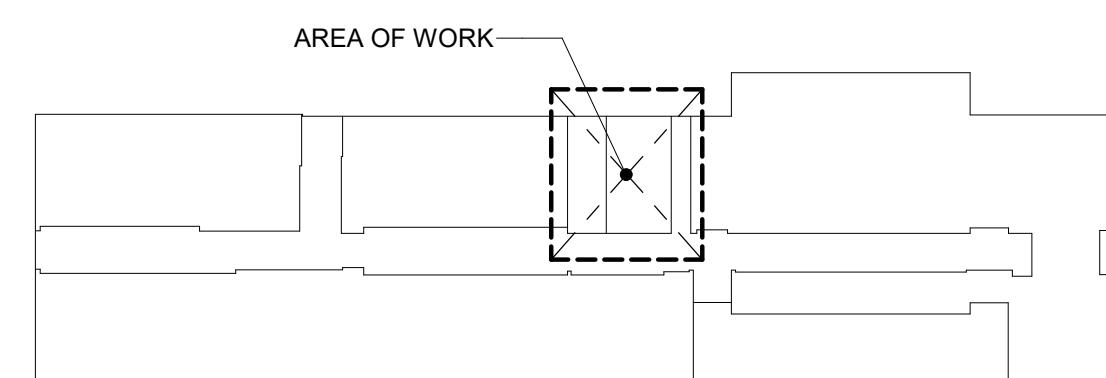
ROOM FINISH SCHEDULE														
NO.	ROOM NAME	MATERIAL				FINISH				COMMENTS				
		FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CL.G.	FLOOR	NORTH	EAST	SOUTH	WEST	CL.G.
132	BOILER ROOM 28	XC	-	XCB	XCB	XCB	XCB	EPOXY	-	PT-1	PT-1	PT-1	PT-1	
132A	ALCOVE	XC	-	GB	-	GB	GB	GB	VCT	RB	PT-2	-	PT-2	PT-2
134	CORRIDOR 19	XC	-	XCB	XCB	-	XCB	XACT	VCT	RB	-	-	-	NOTE #1

NOTE #1 - FLOORING LIMITED TO AREA SHOWN ON PLAN @ NEW ALCOVE. WALL PAINTING FROM CORNER TO CORNER ABOVE XTG. SPECTRAGLAZE BLOCK.

MATERIAL FINISH SCHEDULE							
MATERIAL	TAG	MANUFACTURER	STYLE	COLOR	MODEL NO.	SIZE	COMMENTS
PAINT	EPOXY	EUCLID CHEMICAL CO.	-	GRAY	-	-	FLOOR FINISH
	PT-1	SHERWIN WILLIAMS	-	SITE WHITE	SW7070	-	WALL PAINT
	PT-2	SHERWIN WILLIAMS	-	XX	SWXXXX	-	CORRIDOR WALL PAINT
VINYL COMPOSITION TILE	VCT	ARMSTRONG FLOORING	-	-	-	12" x 12"	CORRIDOR FLOOR FINISH
RUBBER BASE	RB	ARMSTRONG	-	-	-	-	-

NOTE: THIS SCHEDULE PROVIDES ALL NEW MATERIALS / FINISHES FOR BASES OF DESIGN. REFER TO SPECIFICATIONS TO ADDITIONAL INFORMATION.

MATERIAL TAG LEGEND:							
ACT	ACOUSTICAL CLG TILE						
C	CONCRETE SLAB						
EPOXY	FLOOR PAINT						
GB	GYPSUM BOARD						
PLAM-1	PLASTIC LAMINATE						
PT-1	INTERIOR WALL PAINT						
RB	RUBBER WALL BASE						
VCT	VINYL COMPOSITION TILE						

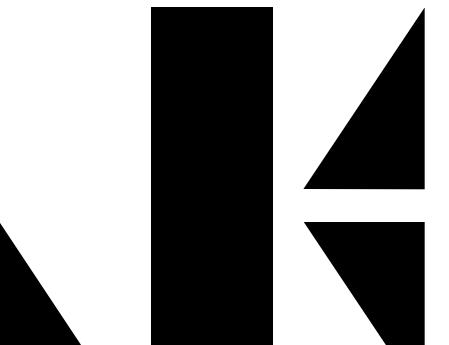


**BOILER REPLACEMENT & RELATED WORK**  
**MONROE PUBLIC SCHOOLS**  
1780 NORTH MACOMB STREET, MONROE, MICHIGAN 48162

AT FOR  
JOB # 26102

FIRST FLOOR  
CONSTRUCTION  
PLAN

A1.00  
KEY PLAN  
SCALE: 1" = 50'-0"



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MONROE PUBLIC SCHOOLS

1275 NORTH OAK STREET, MONROE, MICHIGAN 48162

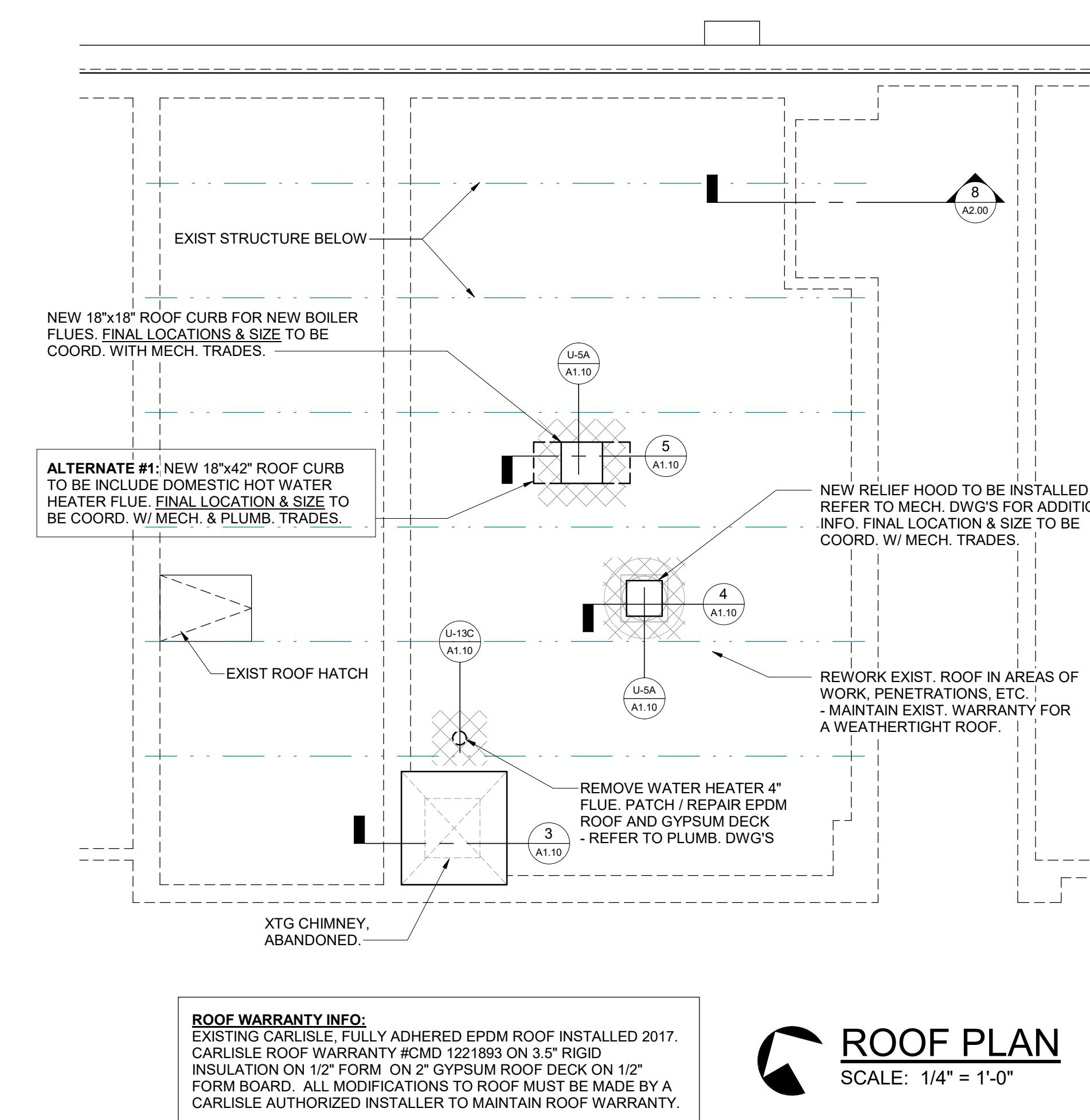
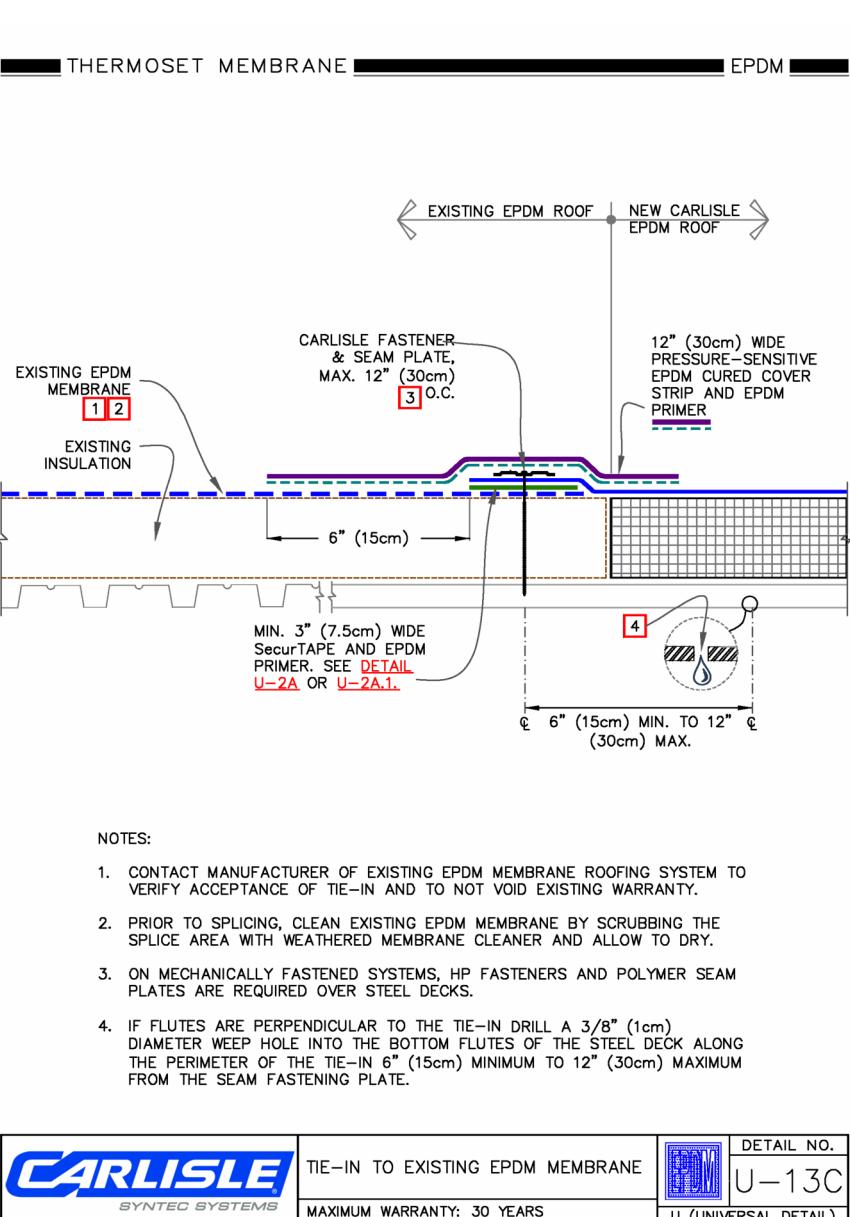
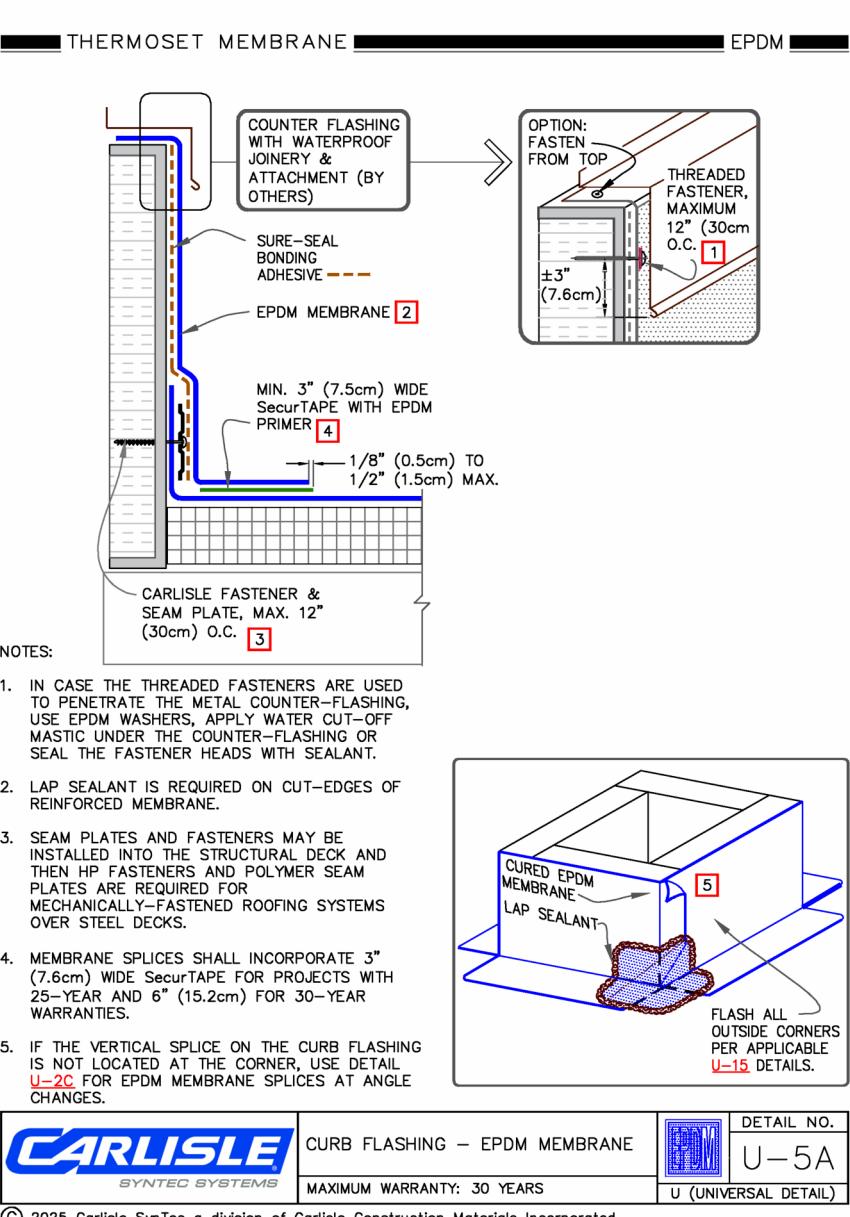
BOILER REPLACEMENT & RELATED WORK

FOR

JOB # 26102

REFLECTED CEILING  
PLAN

A1.10





PIPE MATERIAL CONSTRUCTION & INSULATION SCHEDULE (REFER TO SPECIFICATIONS SECTION 232113 FOR ADDITIONAL REQUIREMENTS.)								
SERVICE DESCRIPTIONS		ABBREVIATION		PIPING MATERIAL		MEANS OF CONNECT	FITTINGS	INSULATION
HEATING HOT WATER		HWS & HWR		2" & SMALLER: TYPE K, L OR M HARD COPPER		SOLDER *	WROUGHT	PIPE LESS THAN 1 1/2" INSULATE WITH A MINIMUM 1 1/2" FIBERGLASS
				OR		THREAD & COUPLE OR WELD	150 PSIG	PIPE 1 1/2" AND LARGER INSULATE WITH 2" FIBERGLASS
				2" & SMALLER: SCHEDULE 40 BLACK STEEL, ASTM A53-S-A-ERW		SCHEDULE 40		
CONDENSATE DRAIN LINES		CDL		2" & SMALLER: TYPE L HARD COPPER		THREAD & COUPLE	WROUGHT	3/4" FIBERGLASS

PUMP SCHEDULE (REFER TO SPECIFICATIONS SECTION 232123 FOR ADDITIONAL REQUIREMENTS.)															
TAG #	LOCATION	DWG.	ROOM	SERVICE	TYPE	FLUID	GPM	HEAD PRESS. (FT.)	IMPELLER DIAMETER (IN.)	INLET SIZE (IN.)	OUTLET SIZE (IN.)	MOTOR DATA	BELL & GOSSETT MODEL	REMARKS	
OC-HWP-1	M2.01	BOILER	HEATING WATER	END SUCTION	WATER	100	50	10.625	3	2	3	1,200	208/3	E-1532-2EB	1 THRU 5
OC-HWP-2	M2.01	BOILER	HEATING WATER	END SUCTION	WATER	100	50	10.625	3	2	3	1,200	208/3	E-1532-2EB	1 THRU 5
OC-HWS-3	M2.01	BOILER	DHW INDIRECT TANK	INLINE	WATER	14	10	3.375	1-1/4	1-1/4	1/4	1,800	115/1	E-90-1.25AAB	1, 2, 3, 6

REMARKS:  
1. PROVIDE TAPPED CONNECTIONS IN FLANGES FOR INSTALLATION OF PRESSURE GAUGES.  
2. PROVIDE GUARD OVER EXPOSED ROTATING COUPLINGS.  
3. PUMP SHALL NOT OVERLOAD MOTOR AT ANY POINT ON HEAD CAPACITY CURVE.  
4. FURNISH PUMP WITH END SUCTION DIFFUSER.  
5. PROVIDE PUMP WITH INVERTER DUTY MOTOR.  
6. **BASE DESIGN ONLY.** IN ALTERNATE OHS-M1, THIS PUMP SHALL NOT BE INSTALLED.

HOT WATER BOILER SCHEDULE (REFER TO SPECIFICATIONS SECTION 235216 FOR ADDITIONAL REQUIREMENTS.)																						
TAG #	LOCATION		THERMAL EFFICIENCY	FUEL	GAS PIPE CONN. SIZE	GAS PRESSURE	MBH INPUT	MBH OUTPUT	TURN DOWN	EWT (°F)	LWT (°F)	DESIGN GPM	MAX GPM	FLUID TYPE	MAX WPD (FT)	WATER VOLUME (GAL)	INLET SIZE	OUTLET SIZE	ELECTRICAL	APPROX. WEIGHT	MAKE/ MODEL	REMARKS
OC-B-1	M2.01	BOILER ROOM	97.7	NATURAL GAS	1" 4" 14"	500	489	10:1	160	180	49	105	WATER	4.8	11.9	2"	2"	6	120	560	LOCHINVAR FTX500N	1, 2, & 3
OC-B-2	M2.01	BOILER ROOM	97.7	NATURAL GAS	1" 4" 14"	500	489	10:1	160	180	49	105	WATER	4.8	11.9	2"	2"	6	120	560	LOCHINVAR FTX500N	1, 2, & 3

REMARKS:  
1. FURNISH BOILER WITH MODULATING FIRING CONTROL, STAINLESS STEEL BURNERS, DIAGNOSTIC CONTROL PANEL, LOW WATER CUT-OFF, FLOW SWITCH, OUTDOOR RESET, MANUFACTURER-APPROVED CONCENTRIC TERMINATIONS FOR ROOFTOP COMBUSTION AIR AND VENT PIPING, CONDENSATE TRAP, AND CONDENSATE NEUTRALIZATION KIT.  
2. FURNISH BOILER WITH THE PIPING INSTALLATION PROCEDURES ILLUSTRATED BY THE FLOW DIAGRAM ON DRAWING M1.03 AND IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS.  
3. FURNISH BOILER WITH BACNET MSTP NETWORK CARD; COORDINATE WITH TEMPERATURE CONTROL CONTRACTOR.

LOUVER SCHEDULE (REFER TO SPECIFICATIONS SECTION 235370 FOR ADDITIONAL REQUIREMENTS.)														
TAG #	DWG #	AREA SERVED	SERVICE	OVERALL SIZE ("W"X" H)	# OF PANELS	CFM	MAX. VELOCITY (FPM)	MIN. FREE AREA (SQ. FT.)	MAX PRESS. DROP (IN. W.C.)	DEPTH (IN.)	BLADE STYLE	FRAME/BLADE THICKNESS (IN.)	APPROX. MOUNTING ELEVATION TO BOTTOM (A.F.F.)	REMARKS
OC-L-1	M2.01	BOILER ROOM	INTAKE	40x60	1	500	55	9.02	0.001	6	FIXED DRAINABLE	0.081/0.081	3"-3"	1 THRU 5

REMARKS:  
1. BASIS OF DESIGN - 6" GREENHECK MODEL 603.  
2. FURNISH LOUVER WITH BIRD SCREEN INSTALLED ON INTERIOR SIDE OF LOUVER.  
3. FURNISH LOUVER WITH 70% KYNAR FINISH. COLOR SHALL BE SELECTED BY THE ARCHITECT FROM MANUFACTURER'S STANDARD COLOR CHART.  
4. FURNISH LOUVER WITH MOTORIZED DAMPER.  
5. LOUVER SHALL REPLACE EXISTING WINDOW. MATCH HEIGHT OF EXISTING WALL OPENING.

FAN SCHEDULE (REFER TO SPECIFICATIONS SECTION 233423 FOR ADDITIONAL REQUIREMENTS.)																	
TAG #	DWG #	AREA SERVED	SERVICE	CFM	ESP (IN. W.C.)	FAN RPM	DRIVE TYPE	DISC'T BY FAN MAN'F'T	BIRD SCREEN BY FAN MAN'F'T	BACK DRAFT DMPR BY FAN MAN'F'T	MAX. SOUND LEVEL (SONES)	FAN ELECT. DATA	MEANS OF CONTROL	APPROX. WEIGHT (LBS.)	GREENHECK MODEL	REMARKS	
OC-SF-1	M2.01	BOILER ROOM	VENTILATION	500	0.375	1,296	DIRECT	NO	YES	YES	1.4	140	115/1	A	40	CSP-A510-VG	1 THRU 4

MEANS OF CONTROL: FAN SHALL SEQUENCE IN CONJUNCTION WITH A WALL MOUNTED THERMOSTAT (T-STAT) & CONTROL WIRING BY TEMPERATURE CONTROL CONTRACTOR; POWER WIRING BY ELECTRICAL CONTRACTOR

REMARKS:  
1. FURNISH DUCTWORK CONNECTING TO FAN IN ACCORDANCE WITH THE "DUCTWORK MATERIAL CONSTRUCTION SCHEDULE" FOUND ON THIS DRAWING.  
2. FURNISH FAN WITH INTEGRAL GRAVITY BACKDRAFT DAMPER.  
3. FURNISH FAN MOTOR WITH THERMAL OVERLOADS.  
4. FURNISH FAN WITH VARGREEN, ECM MOTOR, AND VARGREEN HOA CONTROLLER FOR SOFT START AND BALANCING. COORDINATE CONTROLS WITH T.C.C.

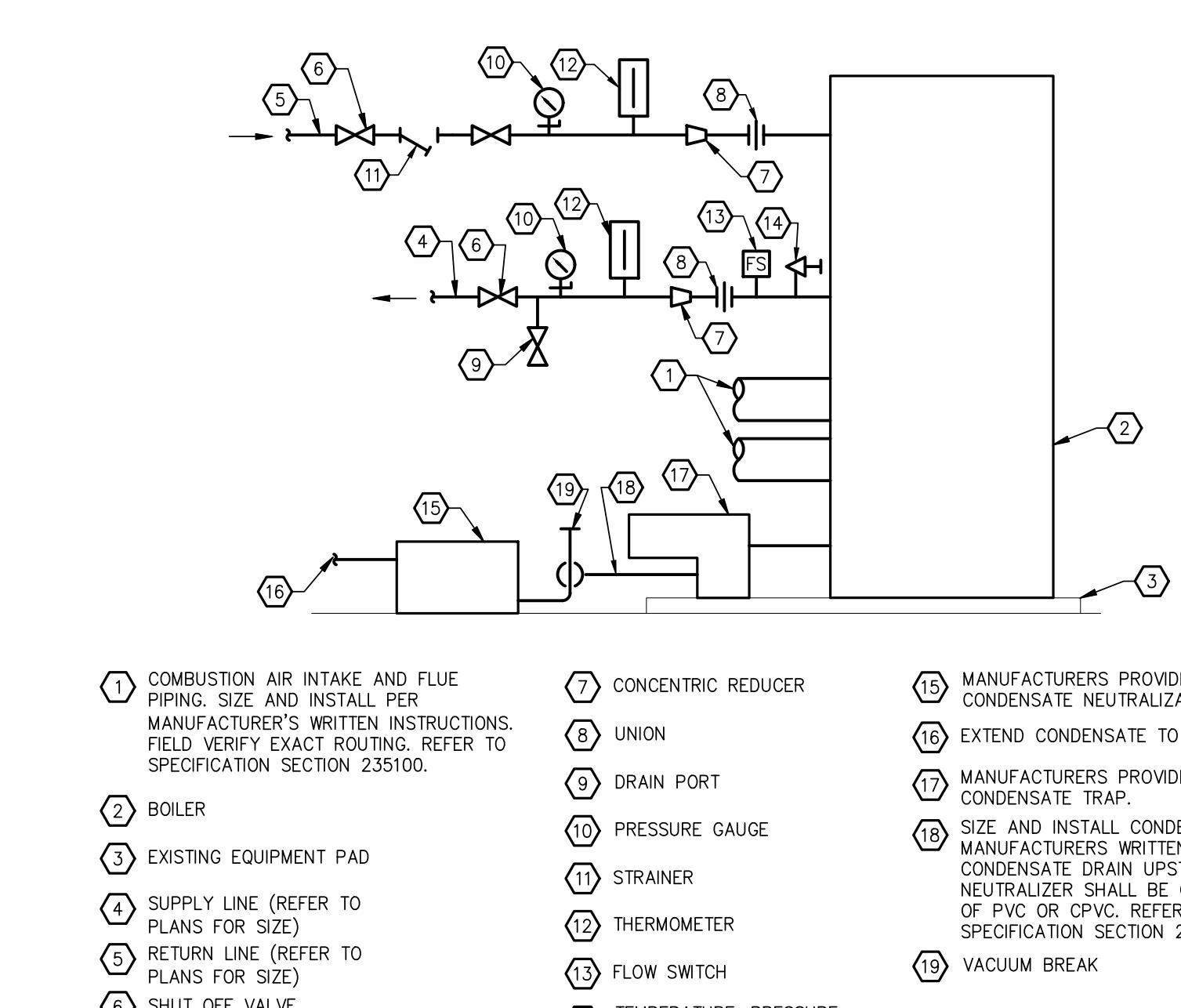
ELECTRIC UNIT HEATER SCHEDULE (REFER TO SPECIFICATIONS SECTION 238200 FOR ADDITIONAL REQUIREMENTS.)														
TAG #	DWG #	TYPE	MFG. TYPE	AREA SERVED	CFM	TEMP. RISE (°F)	HEATER AMPS	HEATER KW	MOUNT. HEIGHT (FT)	VOЛЬTS/ PHASE	APPROX. WEIGHT (LBS.)	MARKEL MODEL	REMARKS	
OC-UH-1	M2.01	FAN-FORCED UNIT HEATER	CEILING	BOILER ROOM	400	26	16	3.3	9'-0"	208/1	25	F1F5103N	1 THRU 6	

REMARKS:  
1. HEATER SHALL BE FURNISHED WITH UL LISTINGS.  
2. FURNISH HEATER WITH AUTOMATIC HIGH-LIMIT CUTOUT OVERLOAD PROTECTION AND AUTOMATIC RESET.  
3. FURNISH UNIT WITH CEILING MOUNTED BRACKET.  
4. FURNISH UNIT WITH WALL MOUNTED DISCONNECT SWITCH.  
5. FURNISH HEATER WITH FOUR-WAY ADJUSTABLE LOUVERS.  
6. SUSPEND HEATER FROM STRUCTURE ABOVE WITH ALL THREADED ROD AND ANGLE IRON.

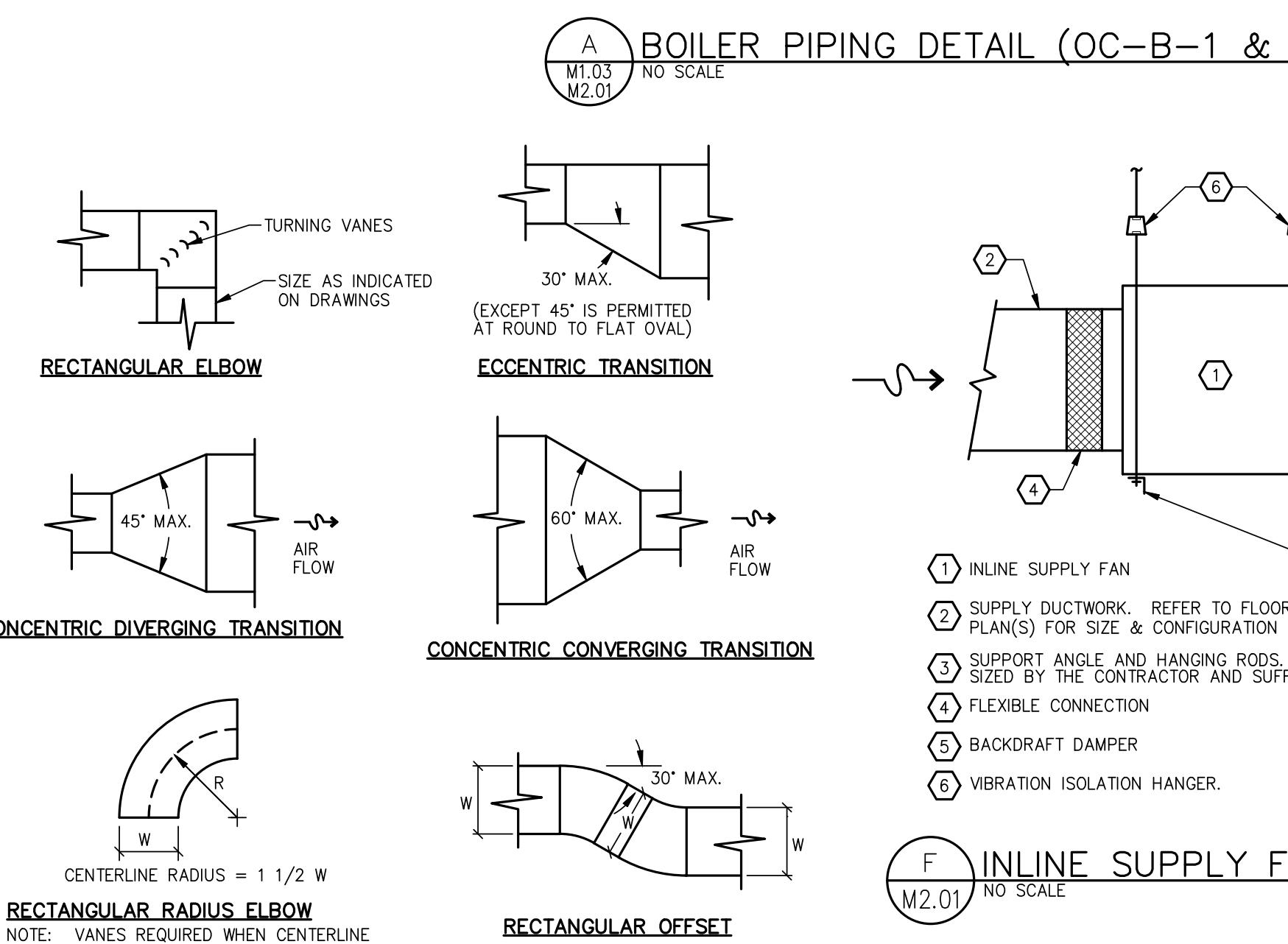
VFD SCHEDULE (REFER TO SPECIFICATIONS SECTION 230934 FOR ADDITIONAL REQUIREMENTS.)									
ITEM	LOCATION OF VFD		ELECTRICAL DATA		REMARKS		DWG.	ROOM	HP
DWG.	ROOM	PH	VOLTAGE/PH	REMARKS					



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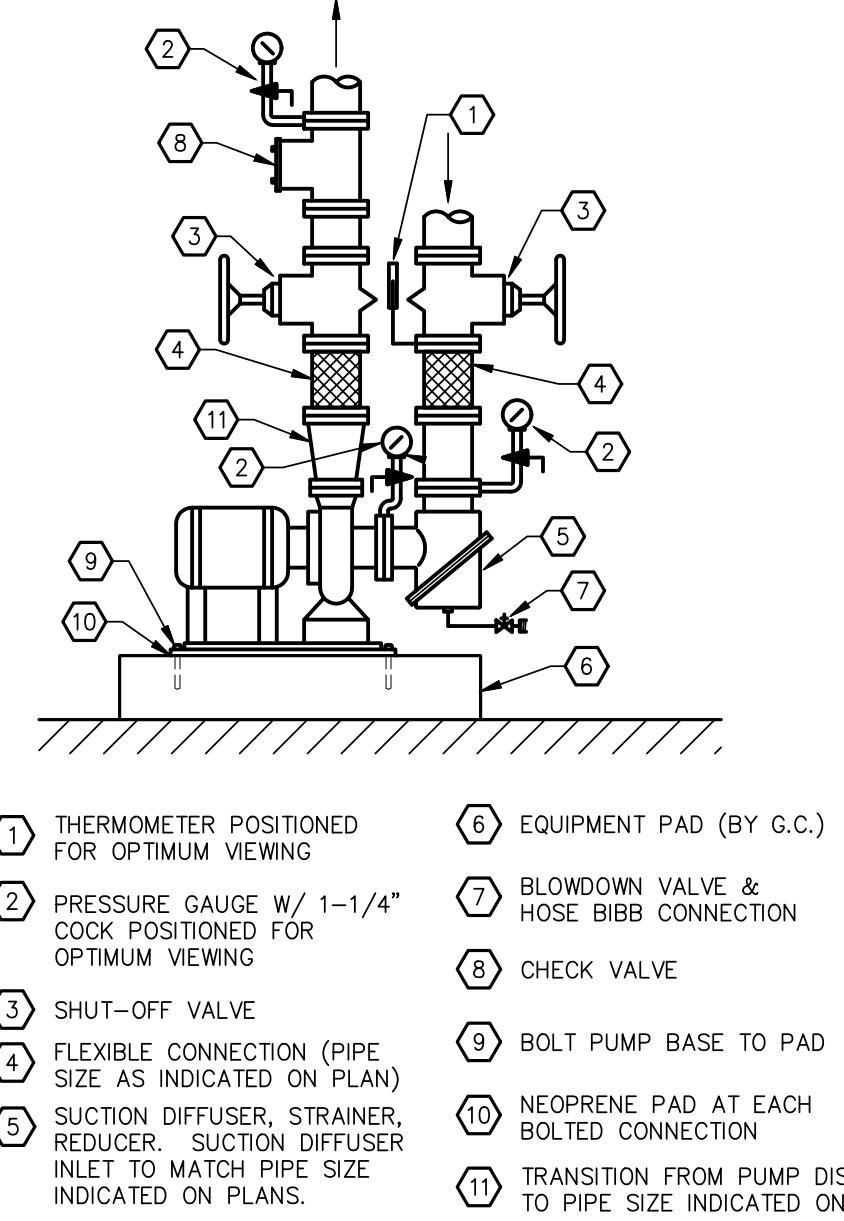


NOTE: ALL SUPPLY, RETURN AND BYPASS PIPING AND ASSOCIATED VALVES, ETC. INDICATED IN THIS DETAIL SHALL BE INSTALLED FULL SIZE FOR EACH BOILER.

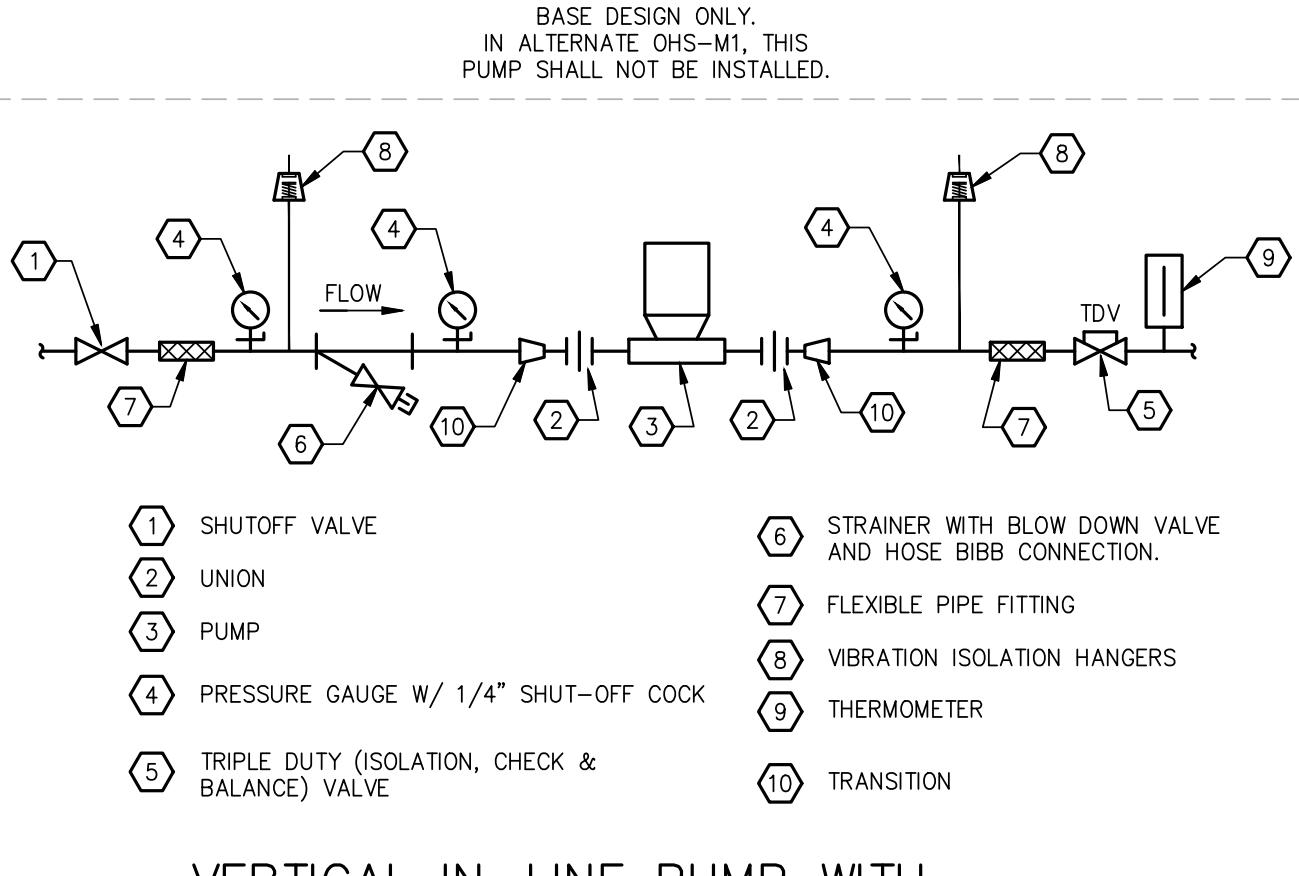


#### Ductwork transition details

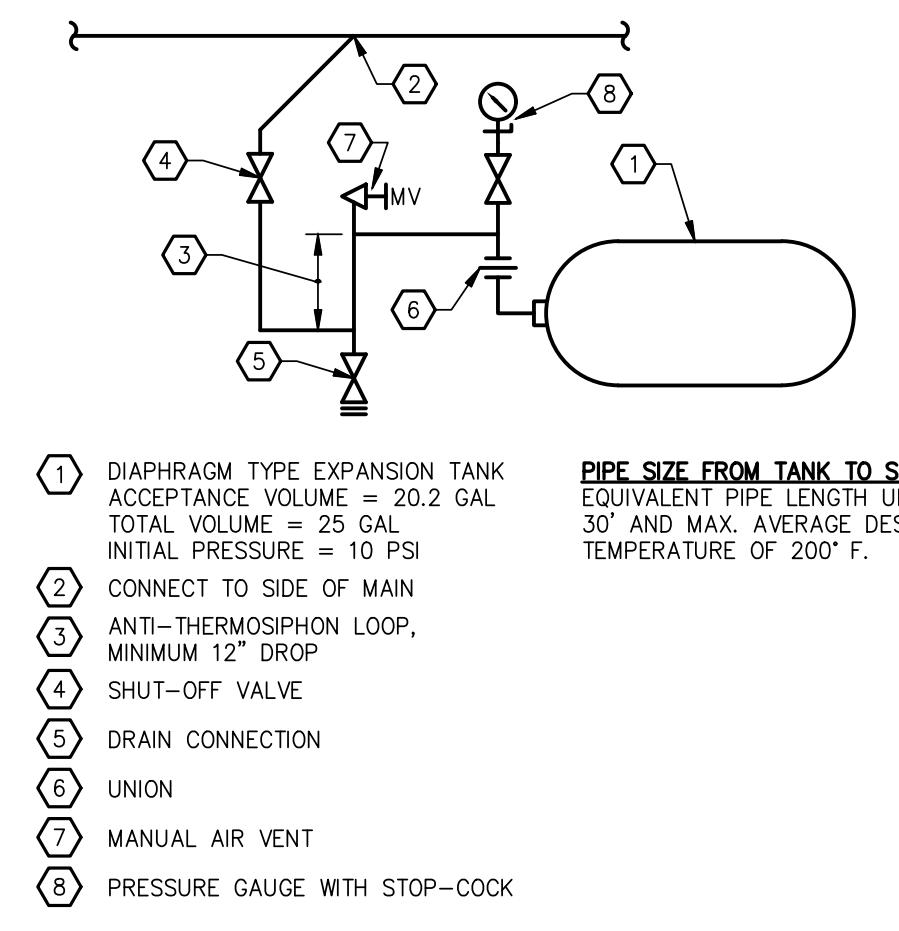
**ALTERNATE**  
ALTERNATE OHS-M1: STATE THE AMOUNT TO BE ADDED TO OR SUBTRACTED FROM THE BASE BID TO FURNISH ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY FOR THE FOLLOWING:  
1. OMISSION OF THE INSTALLATION OF INDIRECT WATER HEATER PIPING AND CIRCULATION PUMP OC-HWS-3 AS WELL AS ASSOCIATED TEMPERATURE CONTROLS.  
2. OMISSION OF THE DEMOLITION OF NATURAL GAS PIPING DISTRIBUTION TO EXISTING GAS-FIRED DOMESTIC WATER HEATER.  
3. INSTALLATION OF N.G. CONNECTION TO DOMESTIC GAS-FIRED WATER HEATER, 1-1/4" GAS PIPING AS SHOWN ON PLANS, NEW GAS PRESSURE REGULATOR, AND TEMPERATURE CONTROLS.



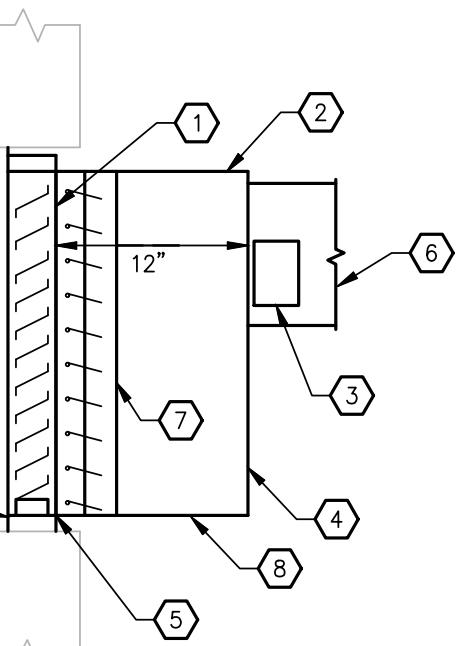
**B END SUCTION PUMP DETAIL (OC-HWP-1 & 2)**  
M1.03 NO SCALE  
M2.01



**C VERTICAL IN-LINE PUMP WITH HORIZONTAL PIPING DETAIL (OC-HWS-3)**  
M1.03 NO SCALE  
M2.01

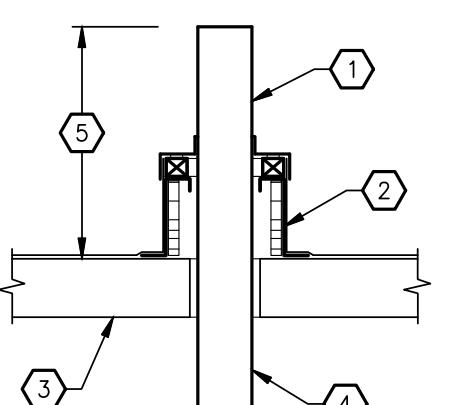


**D TYPICAL DIAPHRAGM EXPANSION TANK PIPING DETAIL**  
M1.03 NO SCALE  
M2.01



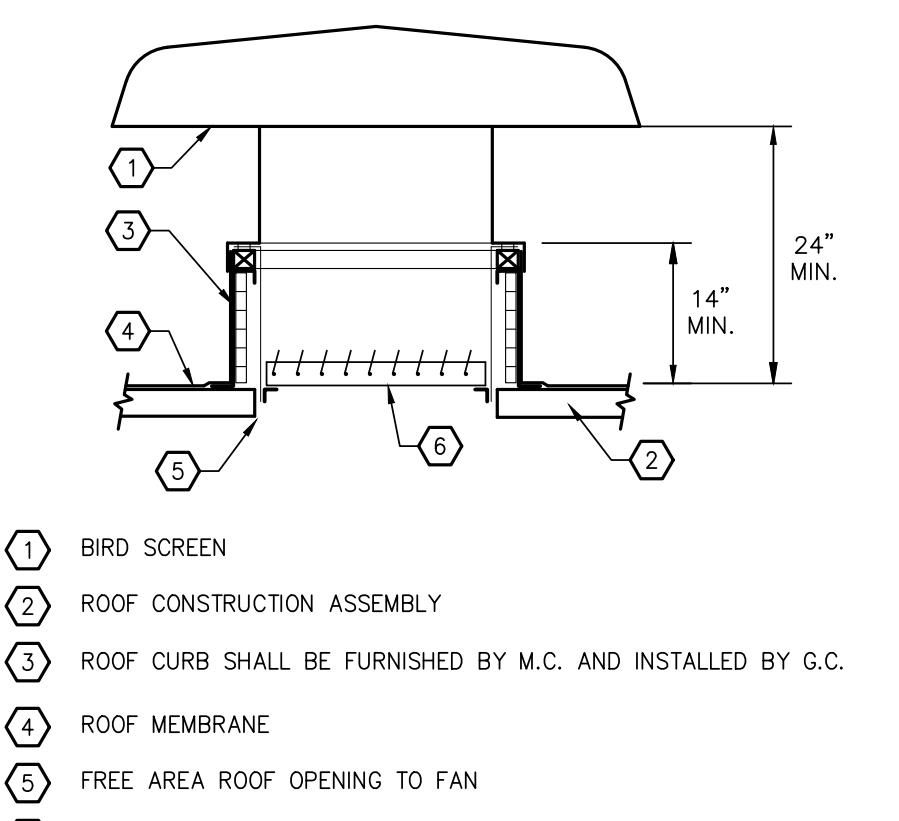
**F INLINE SUPPLY FAN (OC-L-1)**  
M2.01 NO SCALE

**G LOUVER DETAIL (OC-L-1)**  
M2.01 NO SCALE



1. SIZE AND INSTALL FLUE PER MANUFACTURER'S WRITTEN INSTRUCTIONS.  
2. PRE-FABRICATED ROOF CURB PROVIDED BY MECHANICAL CONTRACTOR. INSTALLED BY GENERAL CONTRACTOR.  
3. ROOF CONSTRUCTION ASSEMBLY.  
4. EXTEND FLUE DOWN TO GAS FIRED APPLIANCE. CONNECTION SHALL BE IN COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS.  
5. MINIMUM 3 FEET ABOVE THE ROOF AND 2 FEET HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10 FEET.

**L FLUE THRU ROOF DETAIL**  
M2.01 NO SCALE



**H RELIEF HOOD DETAIL (OC-RH-1)**  
M2.01 NO SCALE

**J NATURAL GAS PRESSURE REGULATOR DETAIL**  
M2.01 NO SCALE

**K GAS CONNECTION DETAIL**  
M2.01 NO SCALE

WORK	FURNISHED BY...	INSTALLED BY...	LOW VOLT. WIRING BY...	LINE POWER BY...	REMARKS
TCS LOW VOLTAGE & COMMUNICATION WIRING	T.C.C.	T.C.C.	T.C.C.	NOT APPLICABLE	
TCS CONDUIT & RACEWAYS	T.C.C.	T.C.C.	T.C.C.	NOT APPLICABLE	
TCS CURRENT SWITCHES	T.C.C.	T.C.C.	T.C.C.	T.C.C.	
TCS RELAYS	T.C.C.	T.C.C.	T.C.C.	T.C.C.	
TCS NODES, EQUIPMENT, HOUSINGS, ENCLOSURES & PANELS	T.C.C.	T.C.C.	T.C.C.	NOT APPLICABLE	
PRESSURE DIFFERENTIAL SWITCH	T.C.C.	M.C.	T.C.C.	NOT APPLICABLE	
TCS INTERFACE WITH BOILER CONTROLS	T.C.C.	T.C.C.	T.C.C.	T.C.C.	
BOILER CONTROLS INTERFACE WITH TCS	VIA BOILER MANUFACTURER	T.C.C.	T.C.C.	T.C.C.	
VARIABLE FREQUENCY DRIVES	T.C.C.	M.C.	T.C.C.	E.C.	1
UNIT HEATER CONTROLS	UNIT MOUNTED BY M.C.; OTHERWISE, T.C.C.	UNIT MOUNTED BY M.C.; OTHERWISE, T.C.C.	T.C.C.	T.C.C.	
DUCT MOUNTED MOTORIZED DAMPERS	T.C.C.	M.C.	T.C.C.	T.C.C.	
MOTORIZED DAMPERS INTEGRAL TO EQUIPMENT	M.C.	T.C.C.	T.C.C.	T.C.C.	
MOTORIZED DAMPER OPERATORS	T.C.C.	M.C.	T.C.C.	T.C.C.	
MOTORIZED VALVES & VALVE OPERATORS	T.C.C.	M.C.	T.C.C.	NOT APPLICABLE	
PIPE INSERTION DEVICES & TAPS INCLUDING THERMOWELLS, FLOW & PRESSURE STATIONS	M.C.	M.C.	NOT APPLICABLE	NOT APPLICABLE	
REMARKS:					
1. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL LINE-SIDE POWER TO VFD AND LOAD SIDE POWER CONNECTIONS BETWEEN VFD AND ASSOCIATED MOTOR.					
KEY:					
E.C.	ELECTRICAL CONTRACTOR				
M.C.	MECHANICAL CONTRACTOR				
T.C.C.	TEMPERATURE CONTROL SYSTEM CONTRACTOR				
T.C.U. MFTR.	TEMPERATURE CONTROL SYSTEM CONTRACTOR MANUFACTURER				
T.C.S.	TEMPERATURE CONTROL SYSTEM				
LIVE POWER ≥ 110 VOLTS					
LOW VOLT. ≤ 100 VOLTS					

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JOB # 26102

SCHEDULES  
AND  
DETAILS

M1.02

BOILER REPLACEMENT & RELATED WORK

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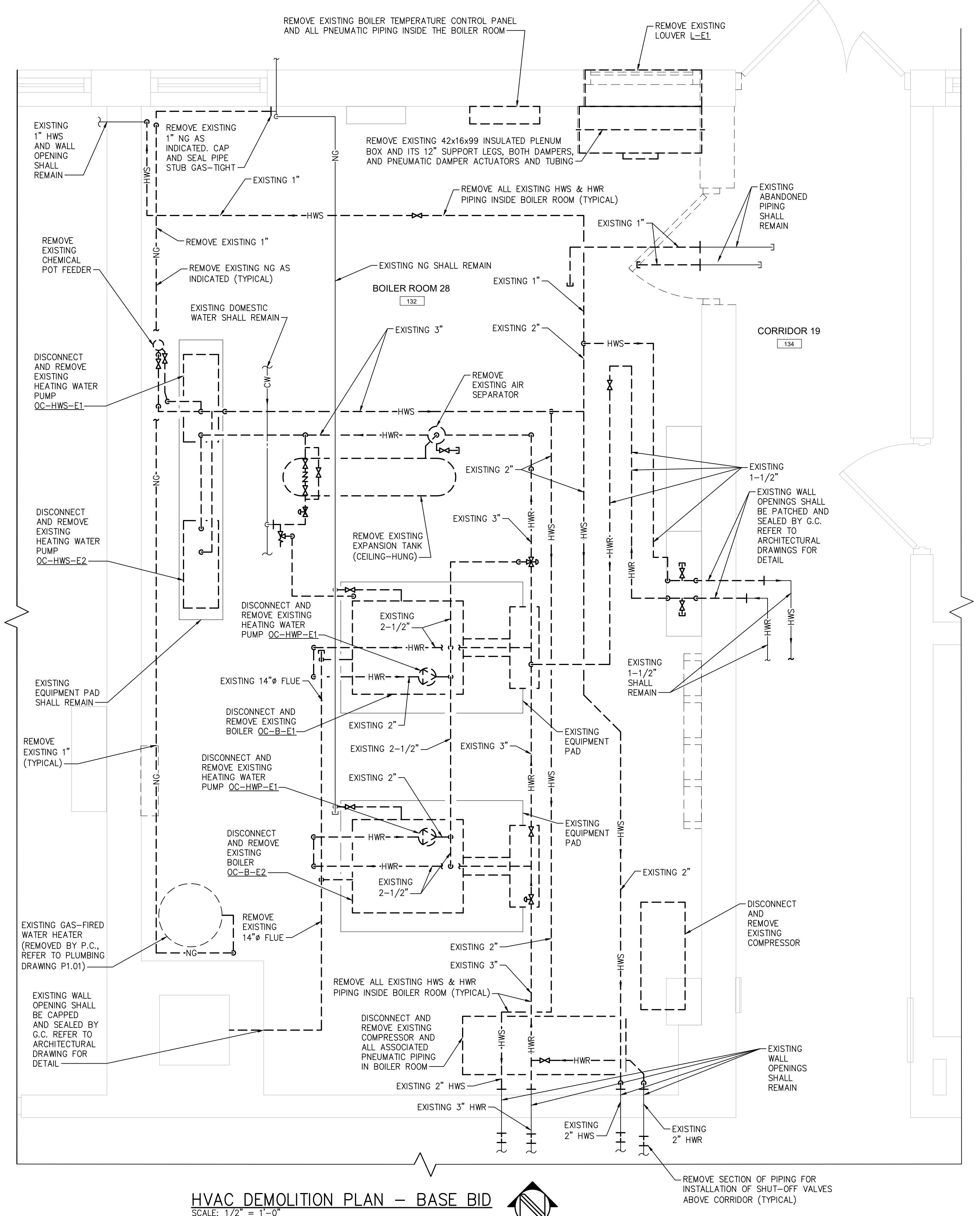
02/05/2026  
STATE OF MICHIGAN  
EMILY RENEE SCHWARZKOPF  
620106334  
REGISTERED PROFESSIONAL ENGINEER  
Emily R. Schwartzkopf  
DATE 02.09.2026 DESCRIPTION BIDDING & STATE REVIEW

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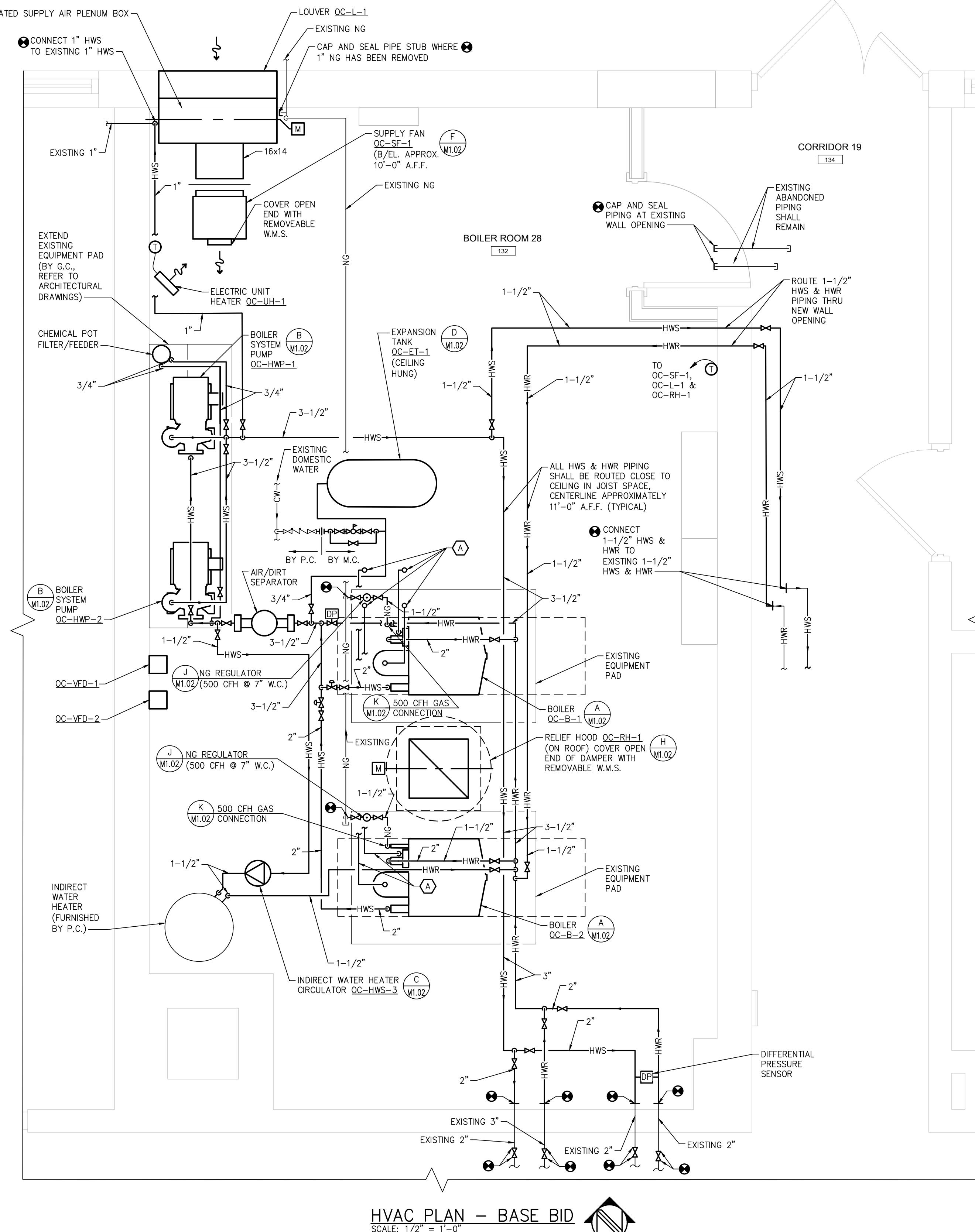


# HVAC DEMOLITION PLAN – BASE BID

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

## GENERAL NOTES

1. REFER TO DIVISION 23 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  2. REFER TO DRAWINGS M1.01, M1.02, AND M1.03 FOR SCHEDULES, DETAILS AND PIPING FLOW DIAGRAMS.
  3. PIPE PENETRATIONS THRU ALL FIRE RATED WALLS SHALL BE SEALED BY THE MECHANICAL CONTRACTOR, TO PREVENT SPREAD OF FIRE AND SMOKE AND INGRESS OF MOISTURE.
  4. PROVIDE ALL HANGERS, SUPPORTS AND MISCELLANEOUS STEEL REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE AND EQUIPMENT.
  5. MAINTAIN REQUIRED MANUFACTURERS' CLEARANCES ON ALL EQUIPMENT. AT NO POINT SHALL HYDRONIC PIPING BE ROUTED OVER ELECTRICAL EQUIPMENT OR BELOW ELECTRICAL LIGHTING FIXTURES.
  6. PREP AND PAINT ALL BARE METAL.
  7. ALL PNEUMATIC PIPING AND PNEUMATIC CONTROLS IN THE BOILER ROOM SHALL BE REMOVED.
  8. EXISTING TEMPERATURE CONTROL SYSTEM SHALL BE EXPANDED AS REQUIRED TO INCLUDE ALL NEW EQUIPMENT INDICATED ON THESE DRAWINGS. ALL EQUIPMENT REMOVED SHALL HAVE ALL ASSOCIATED GRAPHICS REMOVED FROM CONTROL SYSTEM.
  9. ALL ASSOCIATED TEMPERATURE CONTROL EQUIPMENT NOT SPECIFICALLY ASSOCIATED WITH A PIECE OF EQUIPMENT SHALL BE LOCATED IN EASILY ACCESSIBLE SPACE (I.E. STORAGE ROOM, MECHANICAL ROOM, ETC.) AND SHALL BE CLEARLY TAGGED.
  10. ALL EQUIPMENT AND PIPING ACCESSORIES SHALL BE INSTALLED IN A MANNER IN WHICH ALL ITEMS ARE EASILY ACCESSIBLE AND MAINTAINED. IN NO WAY SHALL MANUAL OR AUTOMATIC AIR VENTS BE LOCATED ABOVE POWERED EQUIPMENT.
  11. ALL EXISTING CONDITIONS SHALL BE FIELD VERIFIED.
  12. ALL ROOF MOUNTED EQUIPMENT REQUIRING SERVICE SHALL BE LOCATED A MINIMUM OF 10'-0" FROM THE EDGE OF ROOF.
  13. ROOF CURBS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF CONSTRUCTION.
  14. COORDINATE DUCTWORK, PIPING AND EQUIPMENT LOCATIONS WITH ALL OTHER TRADES



# HVAC PLAN - BASE BID

SCALE: 1/2" =

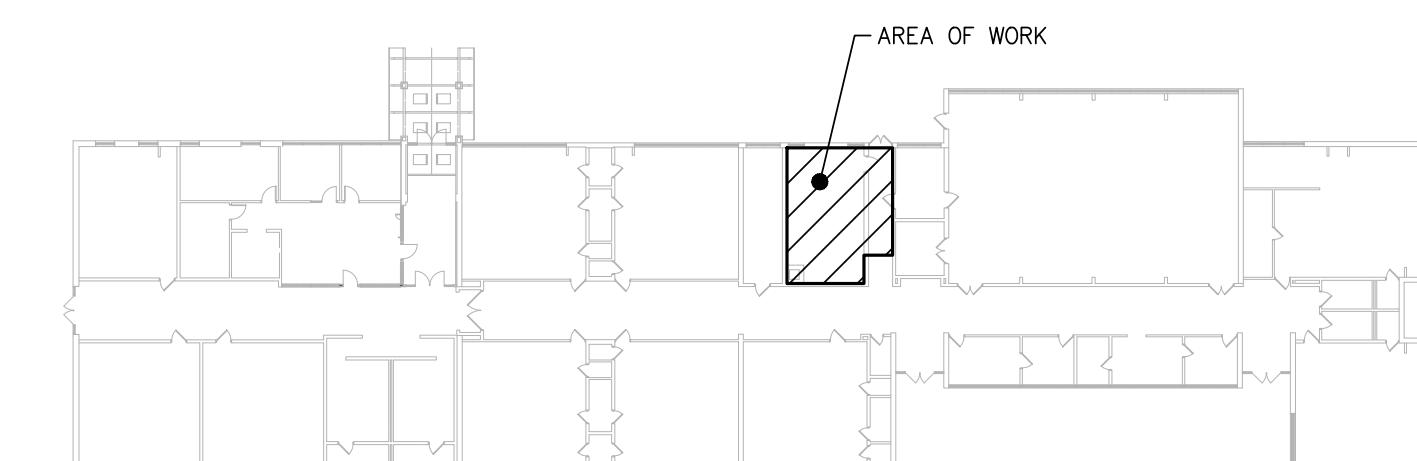
ERNALTE

**STATE OHS-M1: STATE THE AMOUNT TO BE ADDED TO OR SUBTRACTED  
THE BASE BID TO FURNISH ALL MATERIAL, LABOR AND EQUIPMENT  
READY FOR THE FOLLOWING:**

- MISSION OF THE INSTALLATION OF INDIRECT WATER HEATER PIPING AND CIRCULATION PUMP OC-HWS-3 AS WELL AS ASSOCIATED TEMPERATURE CONTROLS..

MISSION OF THE DEMOLITION OF NATURAL GAS PIPING DISTRIBUTION TO EXISTING GAS-FIRED DOMESTIC WATER HEATER.

INSTALLATION OF N.G. CONNECTION TO DOMESTIC GAS-FIRED WATER HEATER, 1" GAS PIPING AS SHOWN ON PLANS, NEW GAS PRESSURE REGULATOR, AND TEMPERATURE CONTROLS.



# KEY PLAN

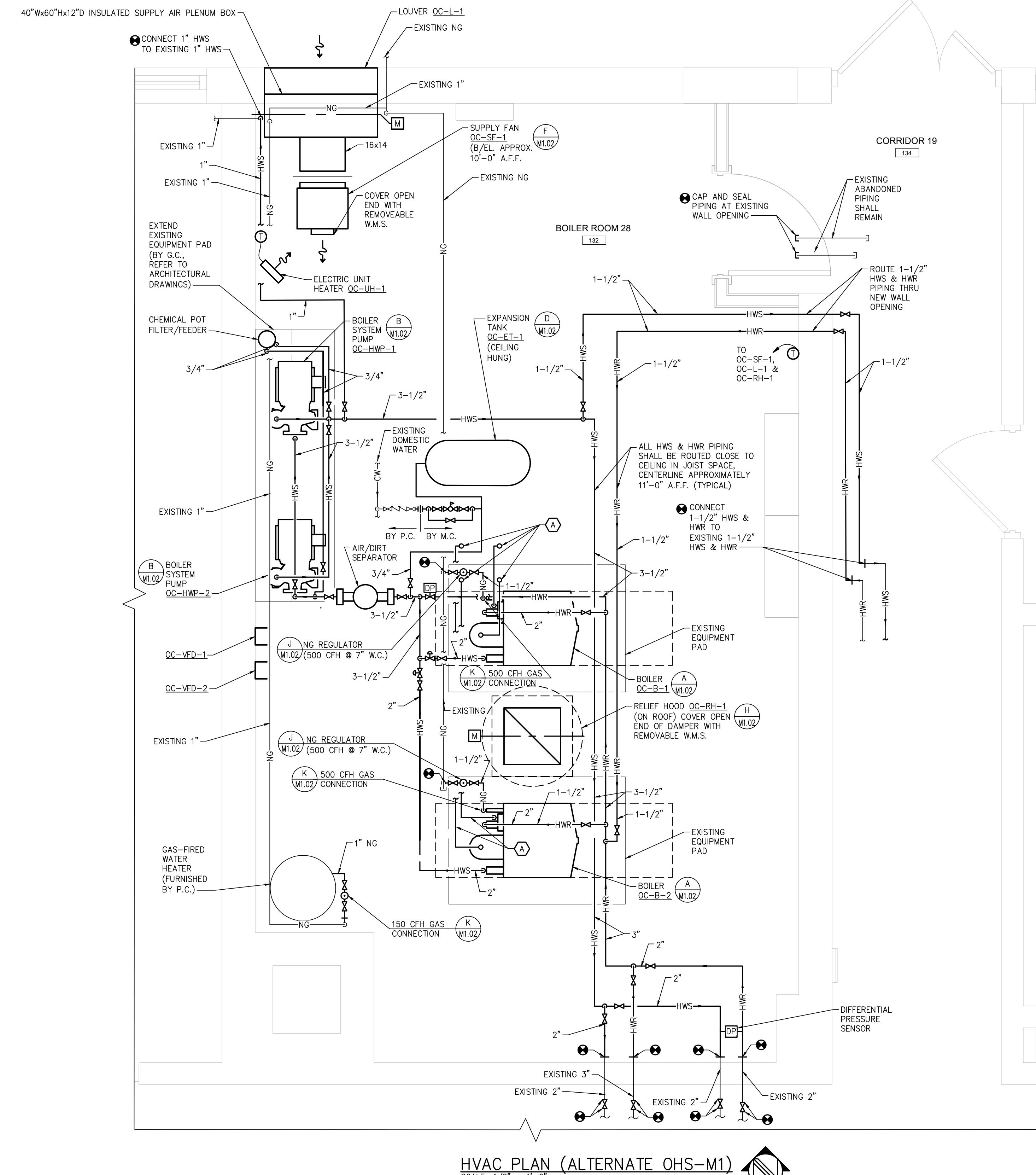
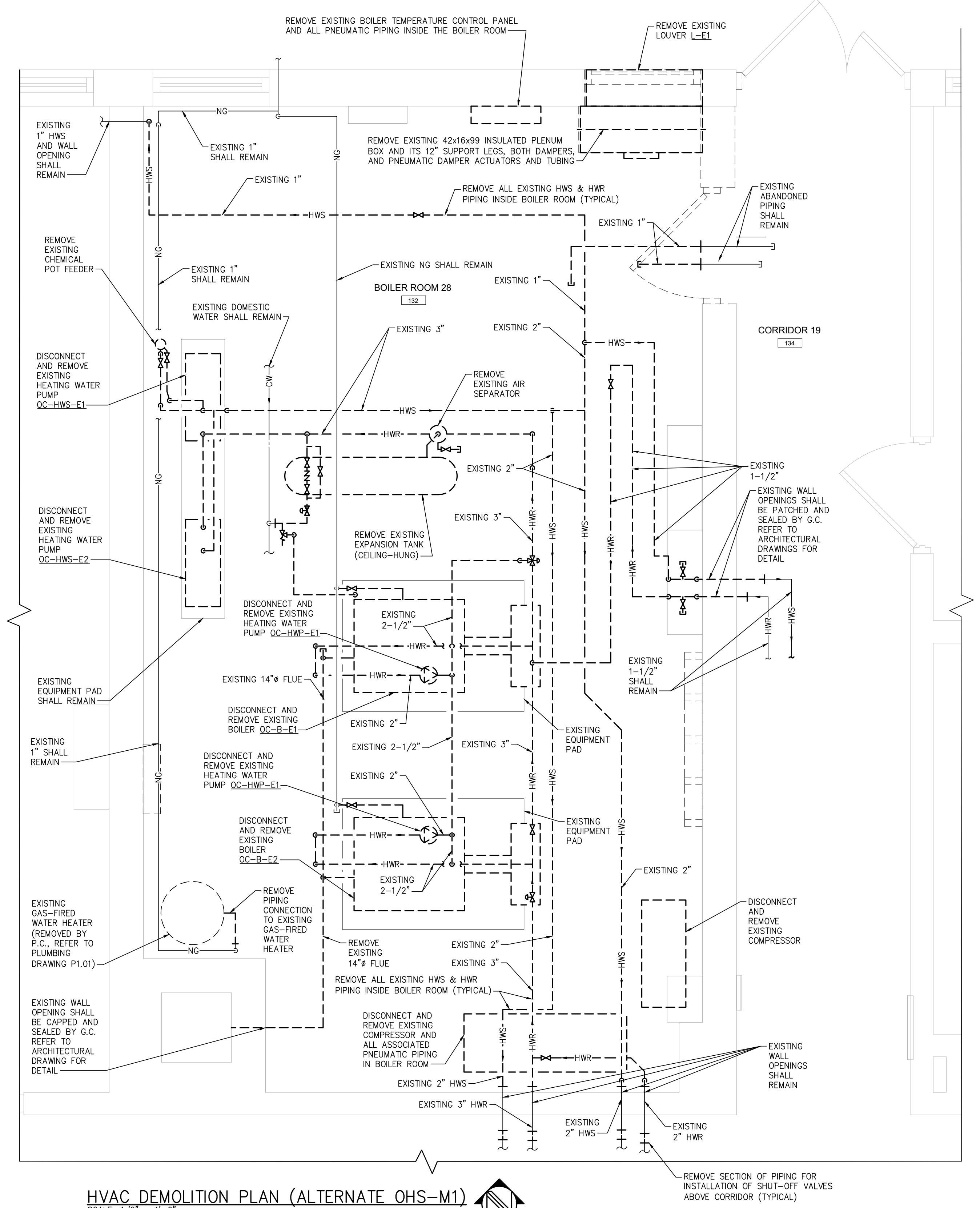
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AT&T FOR

# HVAC PLAN BASE RID

# M2.01



**BOILER REPLACEMENT & RELATED WORK**

**MONROE PUBLIC SCHOOLS**

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STATE OF MICHIGAN  
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REGISTERED PROFESSIONAL ENGINEER  
620106334  
Emily R. Schwartzkopf, P.E.

DATE 02.09.2026 DESCRIPTION BIDDING & STATE REVIEW

JOB # 26102

HVAC PLAN  
ALTERNATE  
OHS-M1

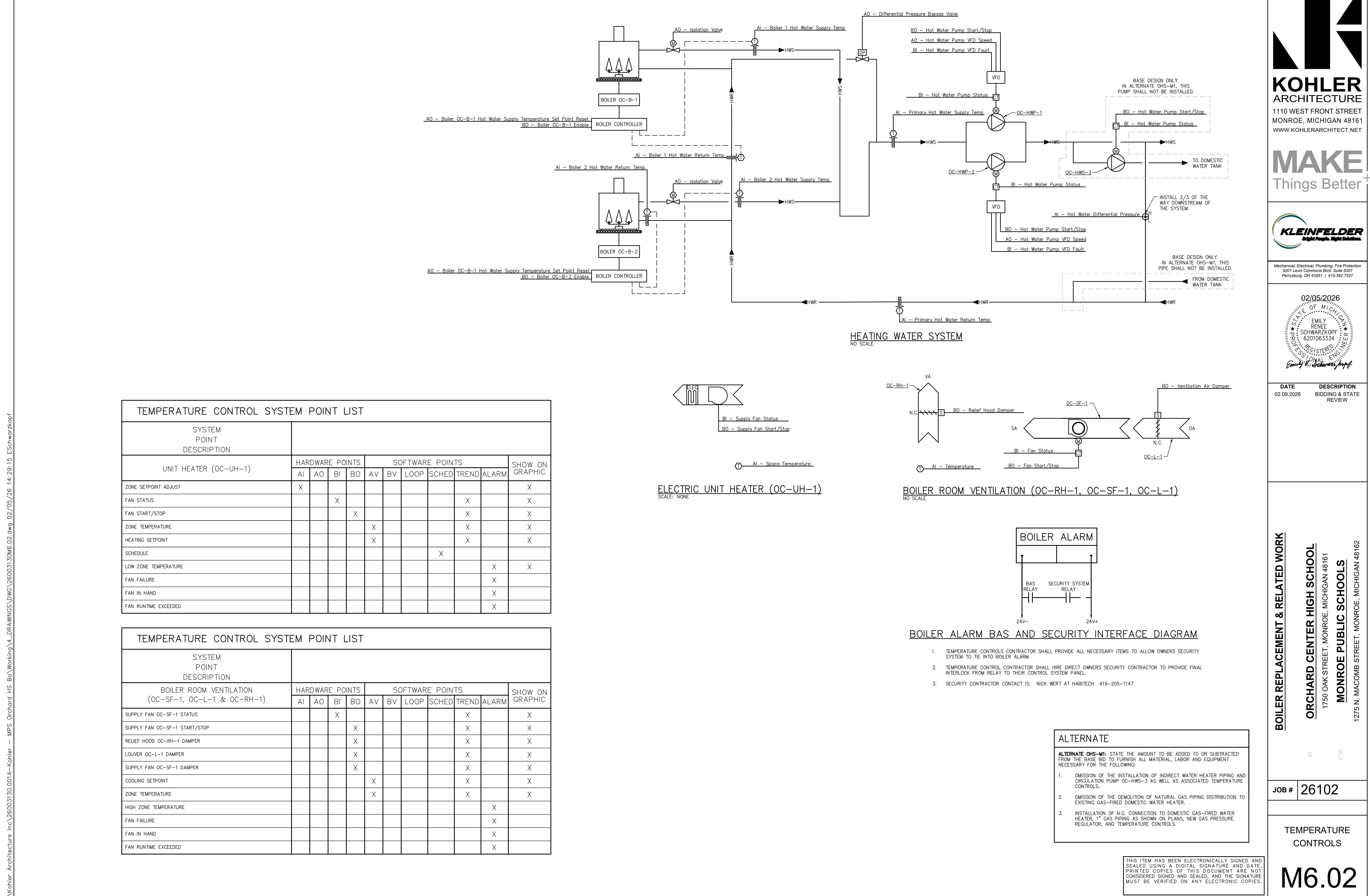
**M2.01A**

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TEMPERATURE CONTROL SYSTEM POINT LIST									
SYSTEM POINT DESCRIPTION									
	HARDWARE POINTS				SOFTWARE POINTS				SHOW ON GRAPHIC
	AI	AO	BI	BO	AV	BV	SCHED	TREND	
HEATING WATER SYSTEM									
BOILER OC-B-1 HOT WATER RETURN TEMP	X						X		X
BOILER OC-B-1 HOT WATER SUPPLY TEMP	X						X		X
BOILER OC-B-2 HOT WATER RETURN TEMP	X						X		X
BOILER OC-B-2 HOT WATER SUPPLY TEMP	X						X		X
BOILER OC-B-1 & OC-B-2 HOT WATER SUPPLY TEMP SETPOINT RESET (QTY. 2)		X					X		X
BOILER OC-B-1 STATUS			X				X		X
BOILER OC-B-2 STATUS			X				X		X
BOILER OC-B-1 ENABLE				X					X
BOILER OC-B-2 ENABLE				X					X
BOILER OC-B-1 FAILURE							X		
BOILER OC-B-2 FAILURE							X		
BOILER OC-B-1 RUNTIME EXCEEDED							X		
BOILER OC-B-2 RUNTIME EXCEEDED							X		
BOILER OC-B-1 HIGH HOT WATER SUPPLY TEMP							X		
BOILER OC-B-2 HIGH HOT WATER SUPPLY TEMP							X		
BOILER OC-B-1 LOW HOT WATER SUPPLY TEMP							X		
BOILER OC-B-2 LOW HOT WATER SUPPLY TEMP							X		
BOILER OC-B-1 ISOLATION VALVE CLOSE	X								
BOILER OC-B-1 ISOLATION VALVE OPEN	X								
BOILER OC-B-1 ISOLATION VALVE POSITION			X				X		
BOILER OC-B-2 ISOLATION VALVE CLOSE	X								
BOILER OC-B-2 ISOLATION VALVE OPEN	X								
BOILER OC-B-2 ISOLATION VALVE POSITION			X				X		
HW SYSTEM LOOP DIFFERENTIAL PRESSURE	X						X		X
HW SYSTEM LOOP DIFFERENTIAL PRESSURE SETPOINT			X				X		X
HW SYSTEM LOOP HIGH HOT WATER DIFFERENTIAL PRESSURE							X		
HW SYSTEM LOOP LOW HOT WATER DIFFERENTIAL PRESSURE							X		
BOILER LOOP DIFFERENTIAL PRESSURE	X						X		X
BOILER LOOP DIFFERENTIAL PRESSURE SETPOINT			X				X		X
BOILER LOOP DIFFERENTIAL PRESSURE VALVE FLOW SETPOINT			X				X		X
PRIMARY HOT WATER RETURN TEMP	X						X		X
PRIMARY HOT WATER SUPPLY TEMP	X						X		X
HIGH PRIMARY HOT WATER SUPPLY TEMP							X		
LOW PRIMARY HOT WATER SUPPLY TEMP							X		
HOT WATER PUMP OC-HWP-1 VFD SPEED	X						X		X
HOT WATER PUMP OC-HWP-2 VFD SPEED	X						X		X
HOT WATER PUMP OC-HWP-1 VFD FAULT	X						X	X	
HOT WATER PUMP OC-HWP-2 VFD FAULT	X						X	X	
HOT WATER PUMP OC-HWP-1 STATUS	X						X		X
HOT WATER PUMP OC-HWP-2 STATUS	X						X		X
HOT WATER PUMP OC-HWP-1 START/STOP		X					X		
HOT WATER PUMP OC-HWP-2 START/STOP	X						X		
HOT WATER PUMP OC-HWP-1 FAILURE							X		
HOT WATER PUMP OC-HWP-2 FAILURE							X		
HOT WATER PUMP OC-HWP-1 RUNNING IN HAND							X		
HOT WATER PUMP OC-HWP-2 RUNNING IN HAND							X		
HOT WATER PUMP OC-HWP-1 RUNTIME EXCEEDED							X		
HOT WATER PUMP OC-HWP-2 RUNTIME EXCEEDED							X		
MAKEUP WATER FILL		X			X		X		X

TEMPERATURE CONTROL SYSTEM POINT LIST									
SYSTEM POINT DESCRIPTION									
	HARDWARE POINTS				SOFTWARE POINTS				SHOW ON GRAPHIC
	AI	AO	BI	BO	AV	BV	LOOP	SCHED	
DOMESTIC WATER HEATER (BASE BID)									
STORAGE TANK TEMPERATURE	X							X	X
DOMESTIC HOT WATER SUPPLY TEMPERATURE	X							X	X
DOMESTIC HOT WATER RETURN TEMPERATURE	X							X	X
TANK SUPPLY TEMP SETPOINT RESET		X							
WATER HEATER STATUS			X					X	X
WATER HEATER ENABLE				X				X	X
HOT WATER DIFFERENTIAL PRESSURE	X							X	X
HOT WATER DIFFERENTIAL PRESSURE SETPOINT					X				
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 STATUS		X						X	X
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 START/STOP			X					X	X
TANK CIRCULATION PUMP OC-HWS-3 STATUS			X					X	X
TANK CIRCULATION PUMP OC-HWS-3 FAILURE								X	
TANK CIRCULATION PUMP OC-HWS-3 IN HAND								X	
TANK CIRCULATION PUMP OC-HWS-3 RUNTIME ALARM								X	
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 FAILURE								X	
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 STATUS		X						X	X
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 IN HAND			X					X	
DOMESTIC HOT WATER CIRCULATION PUMP OC-CP-1 RUNTIME ALARM								X	
BOILER ROOM HEATING AND VENTILATION SUPPLY FAN (OC-SF-1), LOUVER (OC-L-1), RELIEF HOOD (OC-RH-1) DAMPER, AND ELECTRIC UNIT HEATER (OC-UH-1)									
1. SPACE COOLING: LOUVER OC-L-1 DAMPER SHALL OPEN, SUPPLY FAN OC-SF-1 SHALL ENERGIZE, AND RELIEF HOOD OC-RH-1 DAMPER SHALL OPEN WHEN SPACE TEMP EXCEEDS 80 DEGREES F (ADJUSTABLE). WHEN SPACE TEMPERATURE DROPS BELOW SETPOINT, FAN SHALL DE-ENERGIZE AND DAMPERS SHALL CLOSE.									
2. SPACE HEATING: UNIT HEATER OC-UH-1 SHALL ENERGIZE AND SHALT HEAT THE ROOM WHEN SPACE TEMPERATURE FALLS BELOW 55 DEGREES F (ADJUSTABLE). SUPPLY FAN OC-SF-1 SHALL NOT OPERATE. LOUVER OC-L-1 DAMPER SHALL NOT OPEN, AND RELIEF HOOD OC-RH-1 DAMPER SHALL NOT OPEN WHEN SPACE TEMPERATURE DROPS BELOW HEATING SET POINT. WHEN SPACE TEMPERATURE EXCEEDS SETPOINT, UNIT HEATER SHALL DE-ENERGIZE.									
3. CONTRACTOR SHALL REMOVE GRAPHICS FOR ALL EXISTING EQUIPMENT DEMOLISHED IN THIS PROJECT.									
4. ALL EXISTING CONTROL SYSTEM GRAPHICS SHALL BE UPDATED TO INCLUDE ALL NEW EQUIPMENT ASSOCIATED WITH THIS SCHOOL BUILDING.									
5. ALL ASSOCIATED TEMPERATURE CONTROL EQUIPMENT NOT SPECIFICALLY ASSOCIATED WITH A PIECE OF EQUIPMENT SHALL BE LOCATED IN EASILY ACCESSIBLE SPACE (I.E. STORAGE ROOM, MECHANICAL ROOM, ETC.) AND SHALL BE CLEARLY TAGGED.									
6. COORDINATE ALL SYSTEM ALARMS WITH APPROPRIATE MONROE PUBLIC SCHOOLS CONTACT. VERIFY WITH OWNER IN WRITING UPON COMPLETION.									
7. COORDINATE ALL SYSTEM SET POINTS AND SCHEDULES WITH APPROPRIATE MONROE PUBLIC SCHOOLS CONTACT. VERIFY WITH OWNER IN WRITING UPON COMPLETION.									
TEMPERATURE CONTROL SYSTEM GRAPHICS SCOPE OF WORK:									
1. DISTRICT WIDE BOILER MONITOR PAGE: UPDATE EXISTING BUILDING BOILER AND SYSTEM PAGE FOR ASSOCIATED SCHOOL WITH NEW BOILER AND HEATING WATER SYSTEM.									
2. BUILDING PAGE: A. UPDATE BUILDING MAIN PAGE TO INCLUDE NEW BOILER MONITORING POINTS FOR ENABLE, HW PUMP STATUS AND HWS TEMP AND SETPOINT TEMPERATURE. INCLUDE LINK TO HOT WATER SYSTEM PAGE FOR ASSOCIATED BUILDING.									
3. CONTRACTOR SHALL REMOVE GRAPHICS FOR ALL EXISTING EQUIPMENT DEMOLISHED IN THIS PROJECT.									
4. ALL EXISTING CONTROL SYSTEM GRAPHICS SHALL BE UPDATED TO INCLUDE ALL NEW EQUIPMENT ASSOCIATED WITH THIS SCHOOL BUILDING.									
5. ALL ASSOCIATED TEMPERATURE CONTROL EQUIPMENT NOT SPECIFICALLY ASSOCIATED WITH A PIECE OF EQUIPMENT SHALL BE LOCATED IN EASILY ACCESSIBLE SPACE (I.E. STORAGE ROOM, MECHANICAL ROOM, ETC.) AND SHALL BE CLEARLY TAGGED.									
6. COORDINATE ALL SYSTEM ALARMS WITH APPROPRIATE MONROE PUBLIC SCHOOLS CONTACT. VERIFY WITH OWNER IN WRITING UPON COMPLETION.									
7. COORDINATE ALL SYSTEM SET POINTS AND SCHEDULES WITH APPROPRIATE MONROE PUBLIC SCHOOLS CONTACT. VERIFY WITH OWNER IN WRITING UPON COMPLETION.									
DOMESTIC HOT WATER:									
1. EACH BOILER IS PROVIDED WITH ALL NECESSARY SAFETY AND OPERATING CONTROLS BY THE BOILER MANUFACTURER. EACH BOILER'S OPERATING TEMPERATURE IS MANUALLY SET TO MAINTAIN 180F (ADJ.) WATER TEMPERATURE. THE HIGH LIMIT AGASTRAUT SUPPLIED WITH THE BOILER SHALL BE SET AT 210F (ADJ.).									
2. THE BOILER SYSTEM SHALL BE INITIATED BELOW 65F (ADJ.) OUTSIDE AIR TEMPERATURE. THE LEAD BOILER SHALL BE STARTED WITH THE FOLLOWING SEQUENCE:									
A. LEAD BOILER'S ASSOCIATED ISOLATION VALVE SHALL OPEN.									
B. UPON A CALL FOR HEAT FROM THE BOILER CONTROLS AND UPON A PROOF OF FLOW FROM A CURRENT SWITCH ON THE LEAD HOT WATER PUMP, THE BOILER SHALL BE ENABLED.									
C. BOILER SHALL FIRE ON LOW FIRE. BOILER SHALL MODULATE AS REQUIRED TO MAINTAIN LOOP TEMPERATURE. IF LEAD BOILER CAN NOT MAINTAIN LOOP TEMPERATURE, LEAD BOILER SHALL RAMP DOWN TO LOW FIRE, AND ISOLATION VALVE FOR SECOND BOILER SHALL OPEN AND SECOND BOILER SHALL FIRE ON LOW FIRE. BOTH BOILERS SHALL MODULATE TO MAINTAIN LOOP TEMPERATURE. ONCE LOOP IS SATISFIED LAG BOILER SHALL DE-ENERGIZE. AFTER FIVE MINUTES ISOLATION VALVE SHALL CLOSE. DIFFERENTIAL PRESSURE BYPASS VALVE SHALL MODULATE TO MAINTAIN SYSTEM PRESSURE.									
B. SHOULD LEAD HOT WATER PUMP FAIL TO PROVE FLOW, LAG PUMP SHALL ENABLE. IF LAG PUMP FAILS, THE BOILER SHALL BE DISABLED AND AN ALARM SHALL BE GENERATED THROUGH THE DDC SYSTEM.									
3. HOT WATER LOOP SHALL BE LINEARLY RESET BASED ON OUTDOOR AIR TEMPERATURE.									
4. PROVIDE LEAD/LAG CONTROL TO ALLOW SELECTION OF LEAD/LAG BOILER. BOILERS SHALL ALTERNATE BETWEEN LEAD AND LAG AUTOMATICALLY ON A WEEKLY BASIS (BY TCC).									







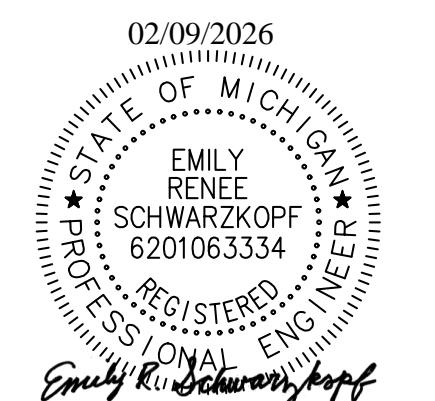
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1110 WEST FRONT STREET  
MONROE, MICHIGAN 48161  
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MAKE  
Things Better



Mechanical Electrical Plumbing Fire Protection  
201 Lapeer Commons Blvd. Suite 200  
Plymouth, MI 48170 | 248.587.7537



02/09/2026  
EMILY RENEE SCHWARZCOPE  
REGISTERED PROFESSIONAL ENGINEER  
Emily.R.Schwarzcope@KohlerArchitect.com

DATE 02.09.2026 DESCRIPTION BIDDING & STATE REVIEW

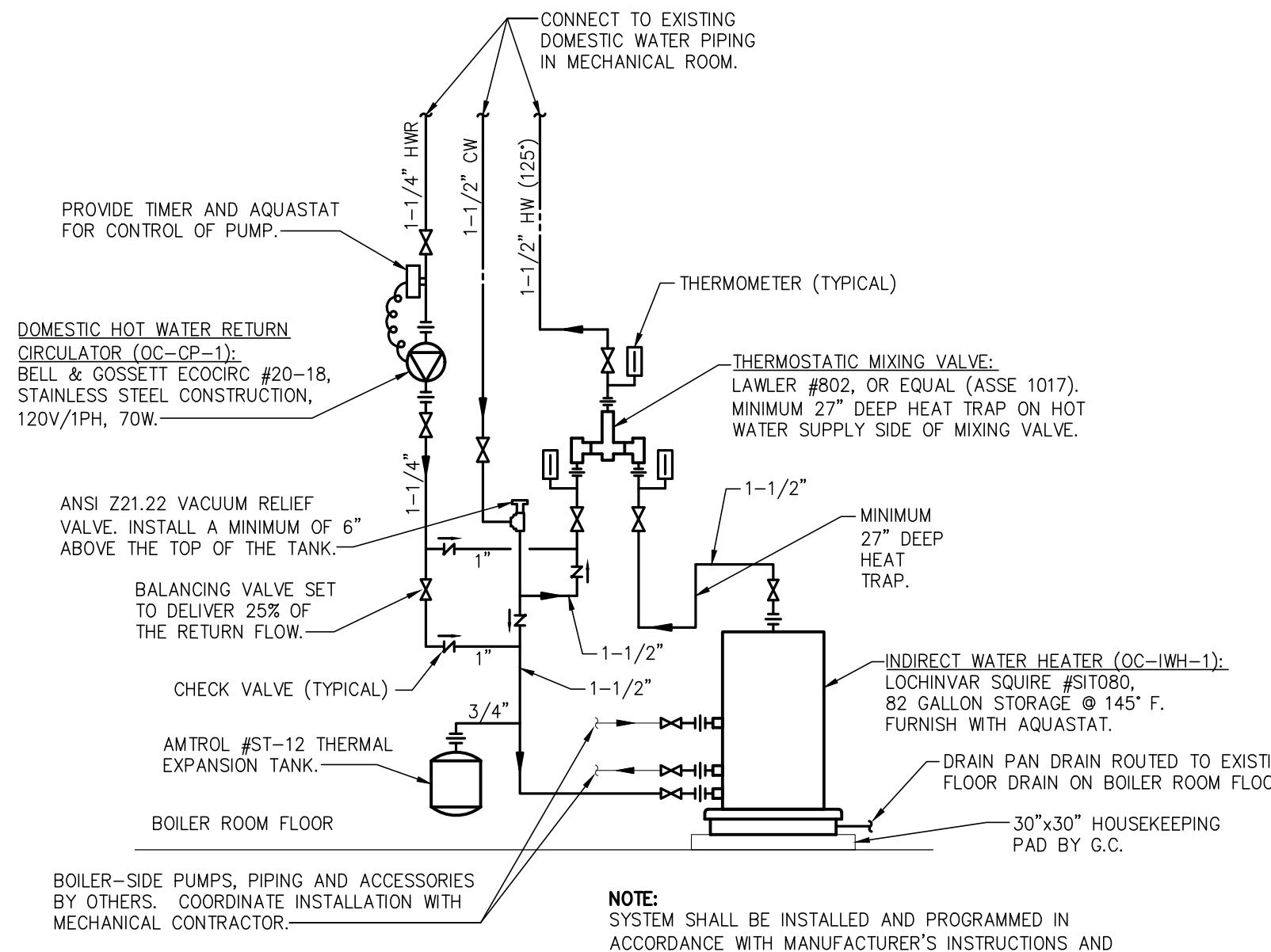
BOILER REPLACEMENT & RELATED WORK  
ORCHARD CENTER HIGH SCHOOL  
1750 N. MACOMB STREET, MONROE, MICHIGAN 48161

JOB # 26102

PLUMBING PLANS  
AND DETAILS

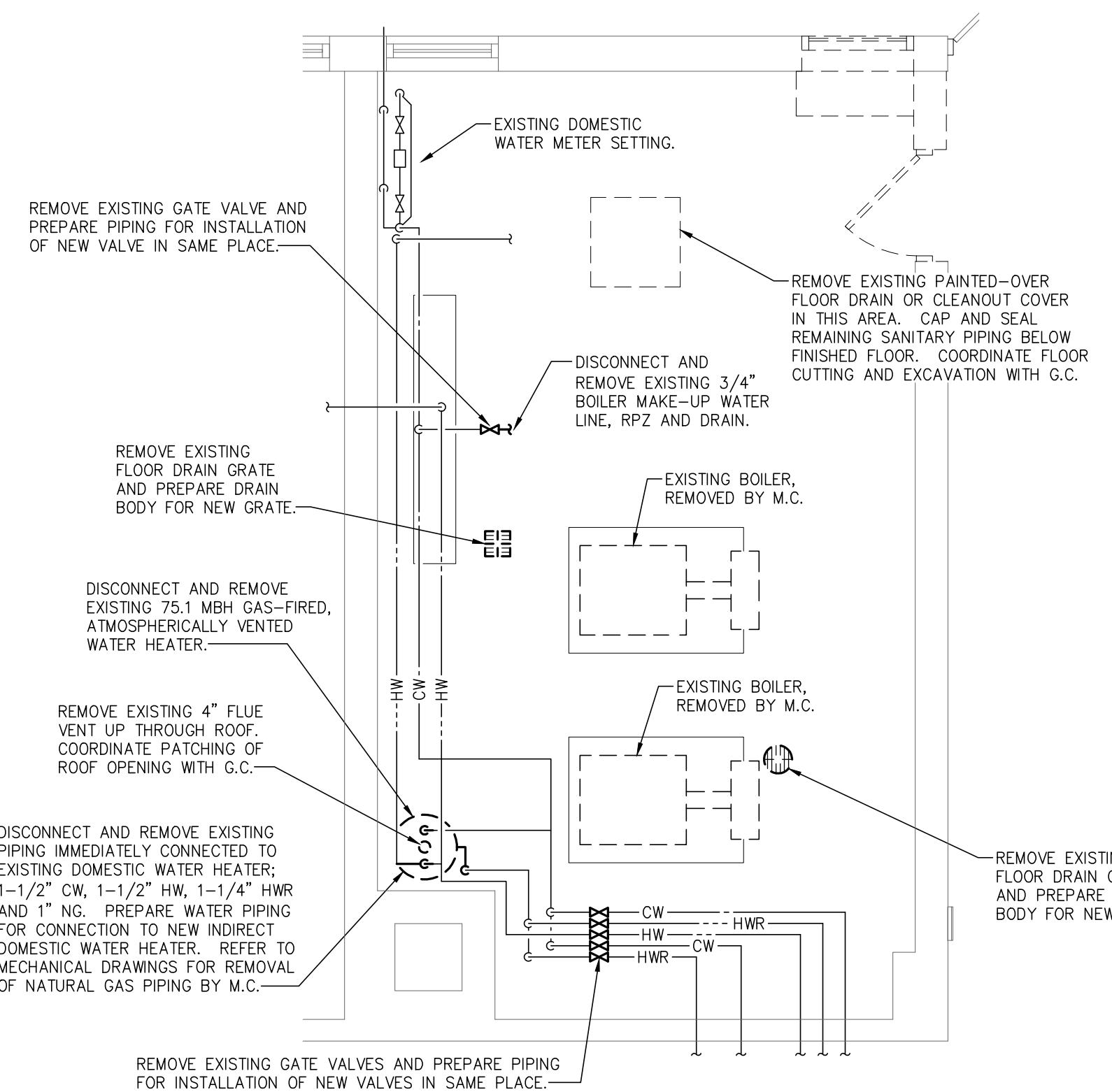
P2.01

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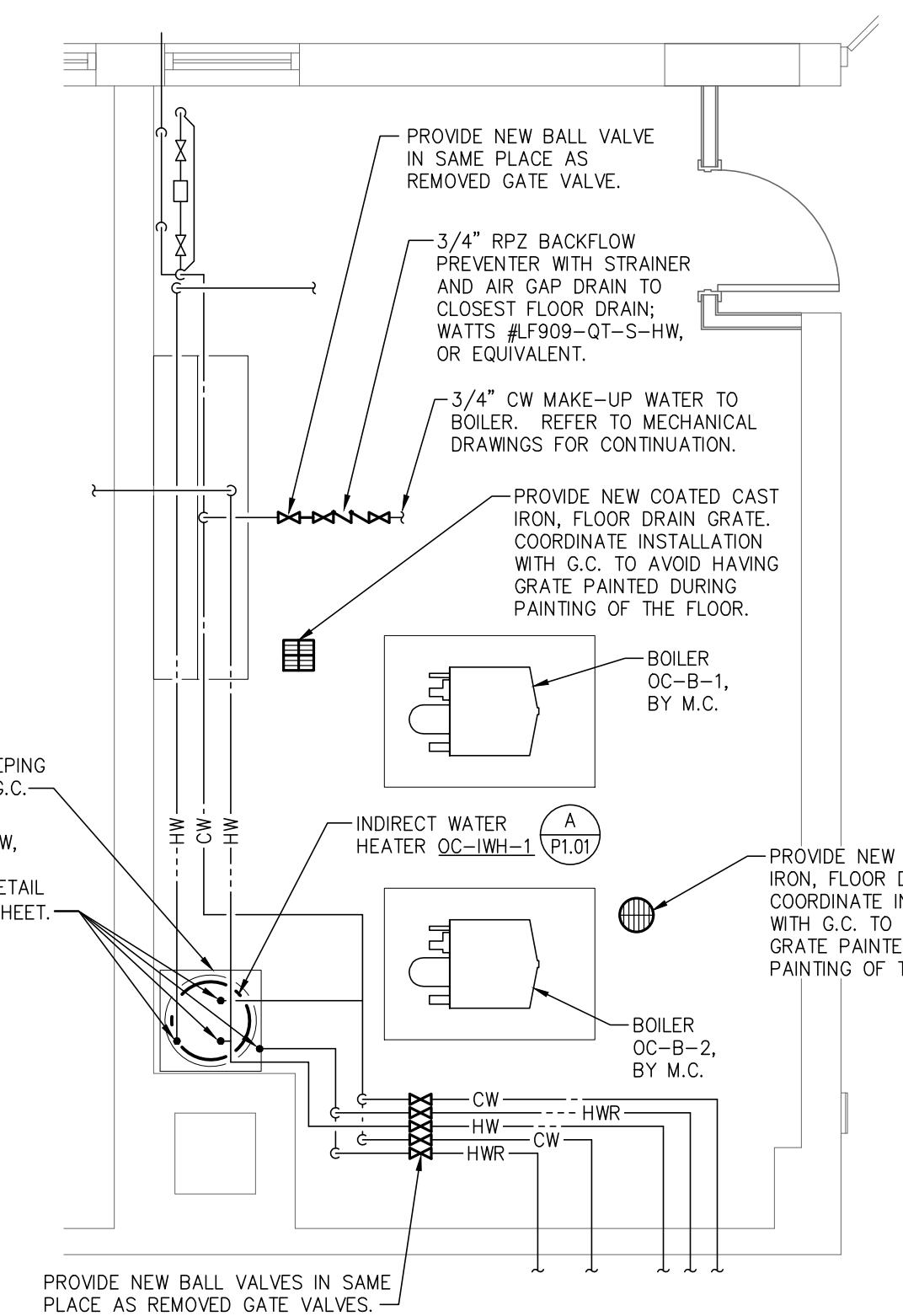


A INDIRECT DOMESTIC WATER HEATER DETAIL  
P1.01 SCALE: NONE

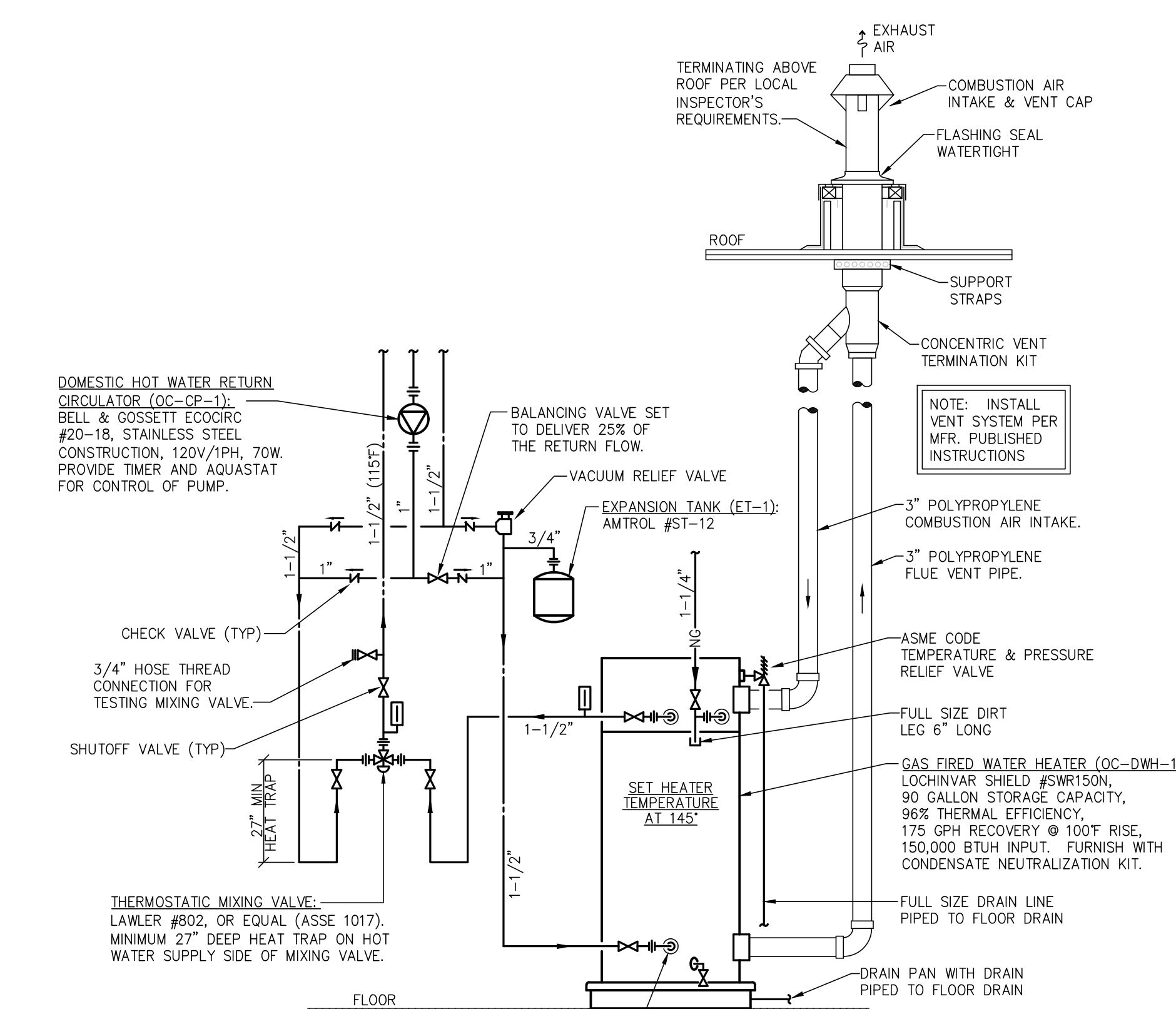
(BASE BID)



PLUMBING DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"

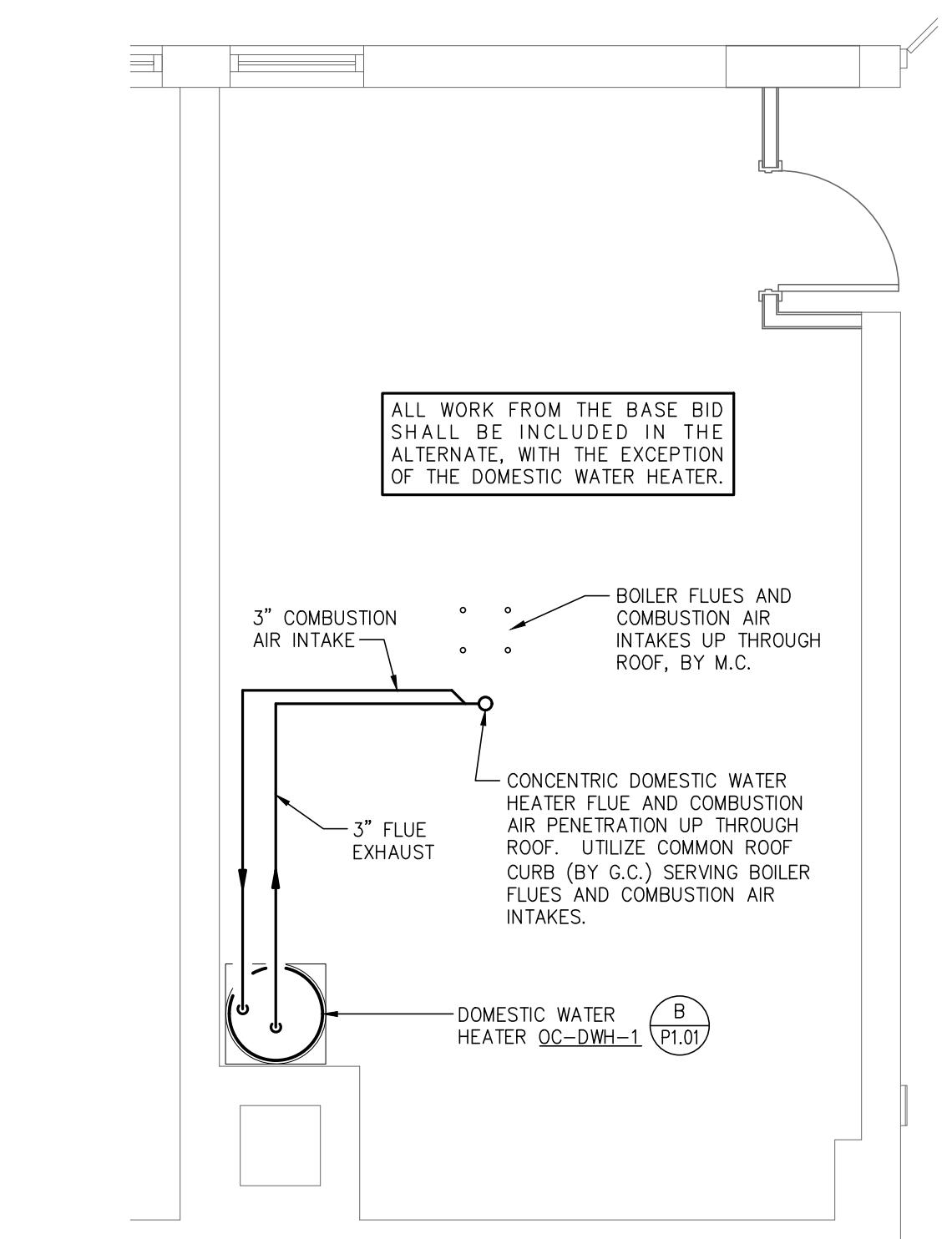


PLUMBING NEW WORK PLAN (BASE BID)  
SCALE: 1/4" = 1'-0"

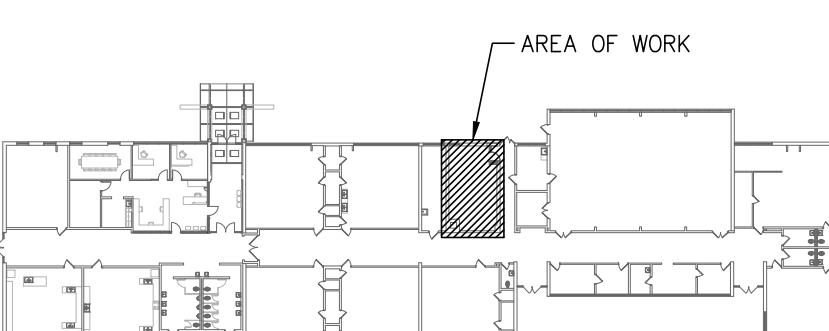


B GAS-FIRED DOMESTIC WATER HEATER DETAIL (OC-DWH-1)  
P1.01 SCALE: NONE

(ALTERNATE OC-P-1)



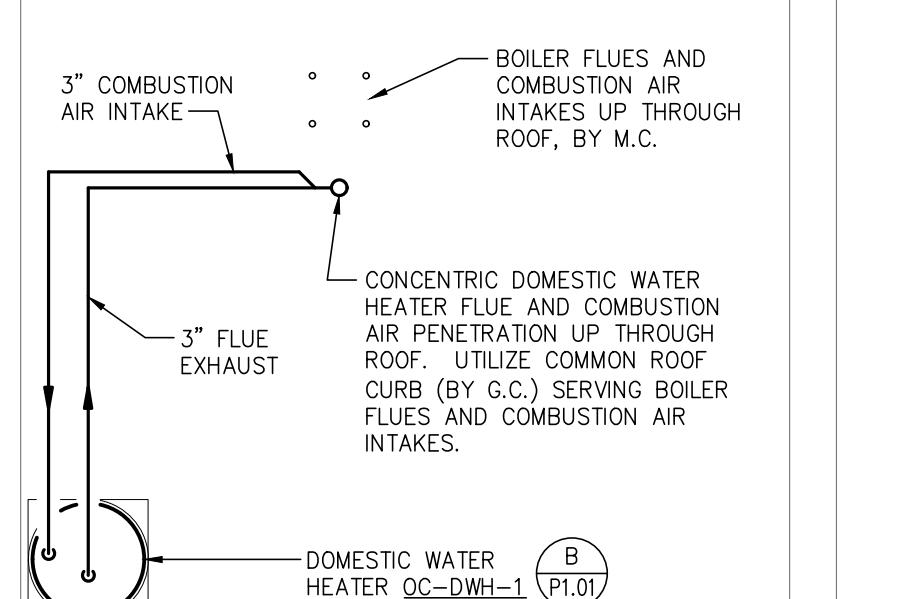
PLUMBING NEW WORK PLAN (ALTERNATE OC-P-1)  
SCALE: 1/4" = 1'-0"



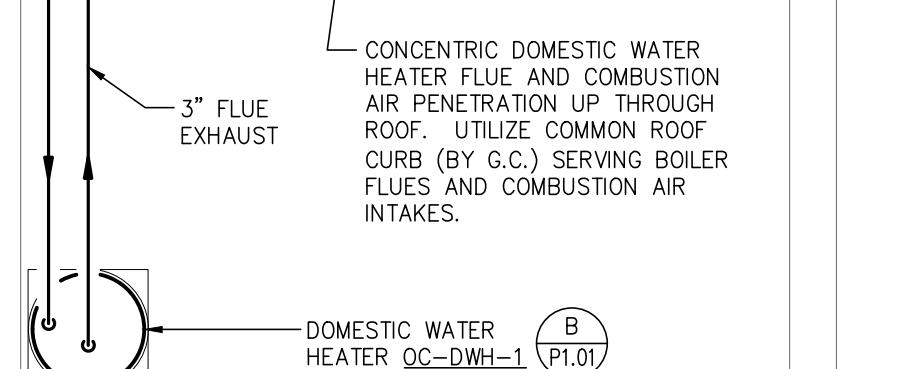
KEY PLAN  
NO SCALE



ALL WORK FROM THE BASE BID  
ALTERNATE, WITH THE EXCEPTION  
OF THE DOMESTIC WATER HEATER.



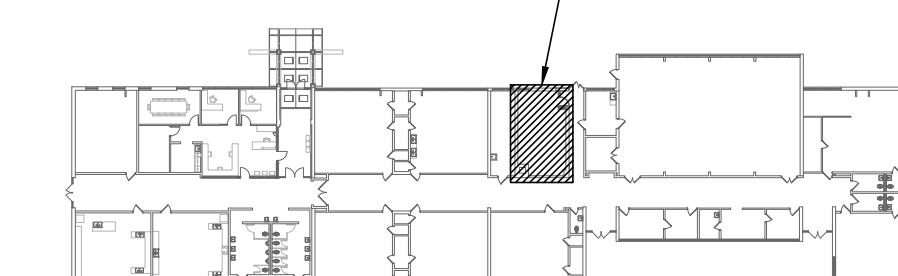
BOILER FLUES AND  
COMBUSTION AIR  
INTAKES UP THROUGH  
ROOF, BY M.C.



CONCENTRIC DOMESTIC  
WATER HEATER FLUE AND  
COMBUSTION AIR  
PENETRATION UP THROUGH  
ROOF. UTILIZE COMMON ROOF  
CURB (BY G.C.) SERVING BOILER  
FLUES AND COMBUSTION AIR  
INTAKES.

DOMESTIC WATER  
HEATER OC-DWH-1  
P1.01

- GENERAL NOTES:
1. NEW FLOOR DRAIN GRATES SHALL BE REMOVED AND/OR OMITTED UNTIL FLOOR PAINTING IS COMPLETE. PROTECT FLOOR DRAIN BODIES DURING FLOOR PAINTING.
  2. PIPE PENETRATIONS THRU ALL FIRE RATED WALLS SHALL BE SEALED BY THE PLUMBING CONTRACTOR, TO PREVENT SPREAD OF FIRE AND SMOKE AND INGRESS OF MOISTURE.
  3. PROVIDE ALL HANGERS, SUPPORTS AND MISCELLANEOUS STEEL REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPING AND EQUIPMENT.
  4. COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH ALL OTHER TRADES.
  5. MAINTAIN REQUIRED MANUFACTURERS' CLEARANCES ON ALL EQUIPMENT.
  6. CONTRACTOR SHALL VERIFY CLEARANCES ABOVE CEILING PRIOR TO INITIATING CONSTRUCTION. COORDINATE EXACT LOCATION OF PIPING WITH ELECTRICAL, MECHANICAL AND GENERAL CONTRACTORS.



KEY PLAN  
NO SCALE

**COMcheck Software Version COMcheckWeb**  
**Interior Lighting Compliance Certificate**

**Project Information**

Energy Code: 2021 IECC  
 Project Title: BOILER REPLACEMENT - OCHS  
 Project Type: Alteration

Construction Site:  
 1750 OAK ST.  
 Monroe, Michigan 48161

Owner/Agent:

Designer/Contractor:

**Allowed Interior Lighting Power**

A Area Category	B Floor Area (ft <sup>2</sup> )	C Allowed Watts / ft <sup>2</sup>	D Allowed Watts
1-Common Space Types: Electrical/Mechanical	422	0.43	181
Total Allowed Watts =			181

**Proposed Interior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D (C X D)	E Watt.
Common Space Types: Electrical/Mechanical (422 sq.ft.) LED: TYPE 'A': 4FT. STRIP FIXTURE: Other:	1	6	28	168
Total Proposed Watts =			168	

**Interior Lighting PASSES**

**Interior Lighting Compliance**

**Statement**  
 Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Nicolas Bruno - Electrical Designer *NicolasBruno* 02/04/2026  
 Name - Title Signature Date

Project Title: BOILER REPLACEMENT - OCHS Report date: 02/04/26  
 Data filename: Page 1 of 5

Fixture Schedule					
MARK	LAMP CATEGORY	LAMP QTY/TYPE	VOLTS	DESCRIPTION	MFR. AND CATALOG SERIES
A	LED	28W 4,014 LUMENS 4000K	120	4' LED STRIP, CHAIN MOUNTED, ROUND SEMI-FROSTED LENS, WHITE STEEL HOUSING, ELECTRIC DRIVER, 0-10V DIMMING. E.C. SHALL CHAIN MOUNT AT A MINIMUM OF 8'-0" A.F.T..	COOPER #4SNLED-L05-405L-LN-UNV-L840-CD-1-AYC-CHAIN/SET REV OR APPROVED EQUAL BY LITHONIA, CREE, ETC.
DA	FLUOR	2-40W-R5	120	DISCONNECT AND REMOVE EXISTING 4' SUSPENDED STRIP FIXTURE AND BALLAST. EXISTING BRANCH CIRCUITS SHALL BE REMOVED BACK TO SOURCE.	
E	LED	INCLUDED	120	COMBINATION EXIT/EGRESS LIGHT, WALL OR CEILING MOUNTED, SINGLE OR DOUBLE FACE AS REQUIRED, 6-INCH GREEN LETTERS IN WHITE STENCIL FACE, POLYCARBONATE HOUSING, ARROWS AS SHOWN, WITH TWO HI-INTENSITY ADJUSTABLE FLOOD LIGHT HEADS, UNIVERSAL MOUNTING CANOPY WITH BUILT-IN 90 MINUTE EXTRA CAPACITY BATTERY BACKUP AND OUTDOOR WEATHER PROOF REMOTE FLOODLIGHT HEAD WHERE SHOWN ON PLAN. M.H. 8'0" UNO	LITHONIA #LHOM LED-G-HO-M6-REV REMOTE HEAD ERE-W-T-SD-SO-M12 OR APPROVED EQUAL BY PHILLIPS, CREE, ETC.
EM	LED	2-5.3W INCLUDED	120	EMERGENCY EGRESS LIGHT, THERMOPLASTIC HOUSING, WHITE FINISH, LITHIUM IRON PHOSPHATE BATTERY, 90 MIN. BATTERY BACK-UP, M.H. 8'0" UNO	LITHONIA #ELMRE-SP1100L-T-REV OR APPROVED EQUAL BY PHILLIPS, CREE, ETC.

**PROJECT COORDINATION SCOPE:**

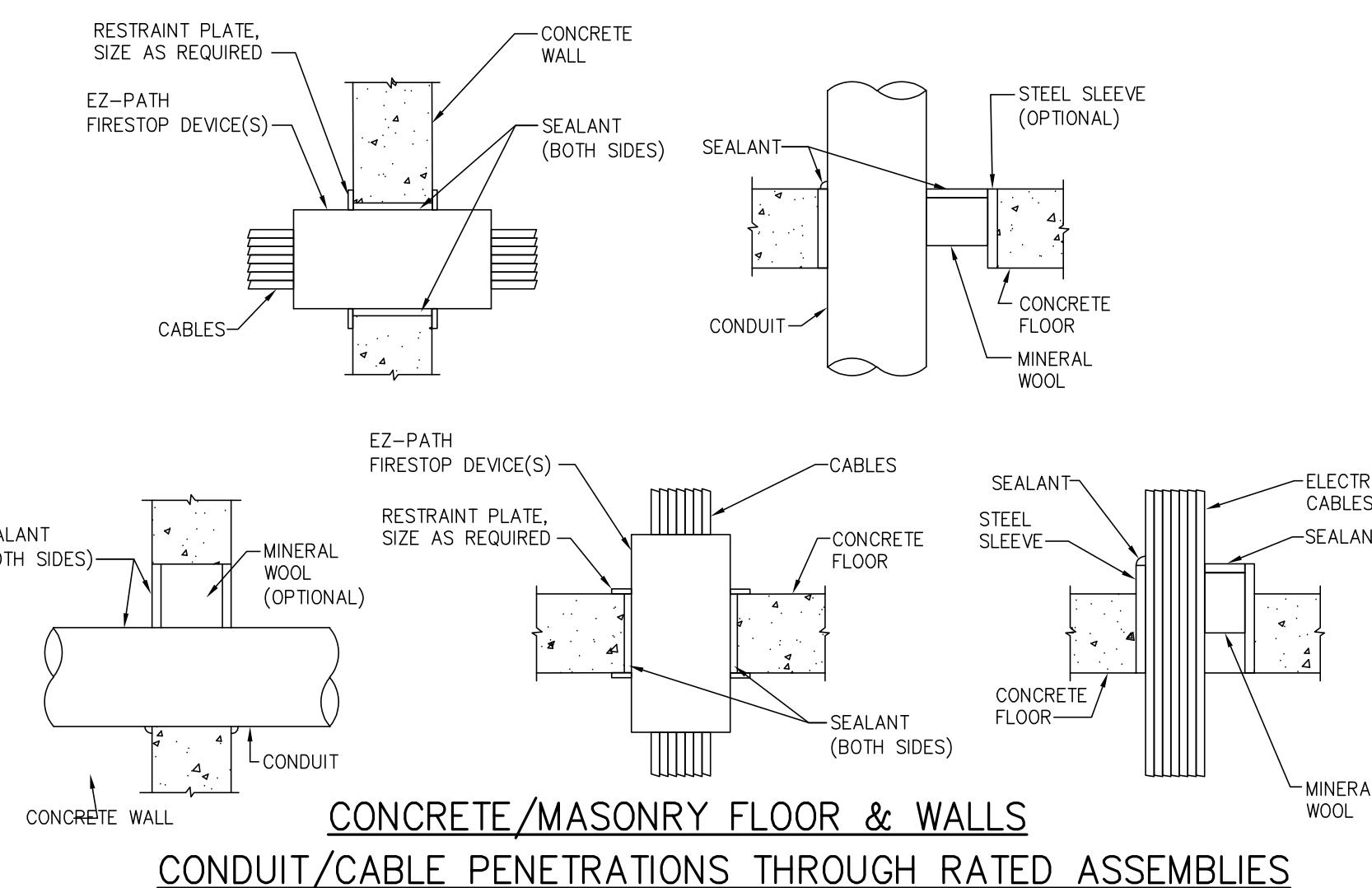
1. A SEPARATE FIRE ALARM REPLACEMENT PROJECT IS BEING PERFORMED SIMULTANEOUSLY WITH THIS BOILER PROJECT UNDER TWO (2) SEPARATE PERMITS. FULL COORDINATION BETWEEN ALL TRADES IS REQUIRED TO ENSURE UNINTERRUPTED SYSTEM OPERATION AND CODE COMPLIANCE. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL FIRE ALARM, SECURITY, AND LOW-VOLTAGE SYSTEM INTERFACES AND SHALL CONTACT AND HIRE THE FOLLOWING VENDORS FOR ALL SYSTEM TIE-INS, TESTING, PROGRAMMING, AND COORDINATION.
2. GENERAL TRADES SHALL BE RESPONSIBLE FOR ALL PATCHING, REPAIR, AND RESTORATION OF WALLS, CEILINGS, FLOORS, AND FINISHES IMPACTED BY THE BOILER PROJECT. THIS INCLUDES CUTTING, PATCHING, PAINTING, AND SURFACE RESTORATION NECESSARY TO RETURN AFFECTED AREAS TO EXISTING CONDITIONS. GENERAL TRADES SHALL ALSO PROVIDE CEILING ACCESS POINTS AND ANY OTHER MISCELLANEOUS CONSTRUCTION ITEMS REQUIRED TO SUPPORT THE WORK.
3. START UP TESTS, INITIAL SYSTEM PROGRAMMING AND DATA BASE ENTRIES SHALL BE PROVIDED BY RED LETTER & HABITEC SECURITY THROUGH THE ELECTRICAL CONTRACTOR. ALL FUNCTIONS SHALL BE DEMONSTRATED TO THE SATISFACTION OF THE OWNER'S DESIGNATED SYSTEM ADMINISTRATOR. AT PROJECT COMPLETION, RED LETTER & HABITEC SECURITY SHALL PROVIDE A LETTER INDICATING THAT ALL PARTS AND FUNCTIONS ARE OPERATING PROPERLY, TURN OVER TO OWNER ALL SOFTWARE LICENSING, PROVIDE RECOMMENDED MAINTENANCE AND INSPECTION SCHEDULES FOR EACH YEAR OF OPERATION, AND PROVIDE WRITTEN WARRANTY FOR EQUIPMENT AND SYSTEM FUNCTIONALITY FOR A PERIOD OF TWO YEARS. DOOR ACCESS SYSTEM TRAINING FOR THE OWNER SHALL BE PROVIDED.
4. CONTACT INFORMATION: **CONTACT AND HIRE RED LETTER (888) 564-5488. CONTACT AND HIRE HABITEC SECURITY, NICK WERT (419) 205-1147.**

**M.P.S. CABLING STANDARDS**

BRAND	PART NUMBER	DESCRIPTION	PURPOSE
ICC	IC1078F6BL	BLUE CAT6 KEYSTONE	KEYSTONE FOR DATA PORT DEVICES
ICC	IC1078F6RD	YELLOW CAT6 KEYSTONE	KEYSTONE FOR MISC. DATA PORT
ICC	IC1078F6YL	RED CAT6 KEYSTONE	KEYSTONE FOR AI PHONE SERVICES
ICC	IC1078F6ABL	BLUE CAT6 KEYSTONE	KEYSTONE FOR DATA PORT DEVICES
ICC		CLASSIC CONFIGURABLE FACEPLATES WITH STATION ID (IVORY)	WALL PLATES FOR DATA PORTS
ICC	ICMPP48C61	48 PORT HIGH-DENSITY PATCH PANEL, FEED THROUGH COUPLERS	PATCH BAY FOR DATA PORTS IN DATA CABINET
		LIGHT BLUE CABLING FIBEROPTIC MULTIMODE	FIBER OPTIC NETWORK SERVICES
		DARK GRAY CABLING	16-GAUGE CABLING FOR HABITEC SECURITY
		RED CABLING	CABLING FOR FIRE ALARM
		WHITE CABLING	CABLING FOR ACCESS CONTROL
		BEIGE CABLING	CABLING FOR HVAC / BOILER SERVICES
		CAT 6 550 MHZ PLENUM YELLOW	DATA CABLE FOR ALL CAT6 PORTS
		CATSE 350 MHZ PLENUM BLUE	DATA CABLE FOR ALL PORTS TELCO DEVICES
		CAT 6A 23 AWG, 4 PAIR SOLID RISER WHITE	PATCH CABLE FOR PORTS WITH DATA CABINET
		CAT6A PATCH CABLE - 1FT (RED, BLUE, YELLOW)	PATCH CABLE FOR PORTS WITH DATA CABINET

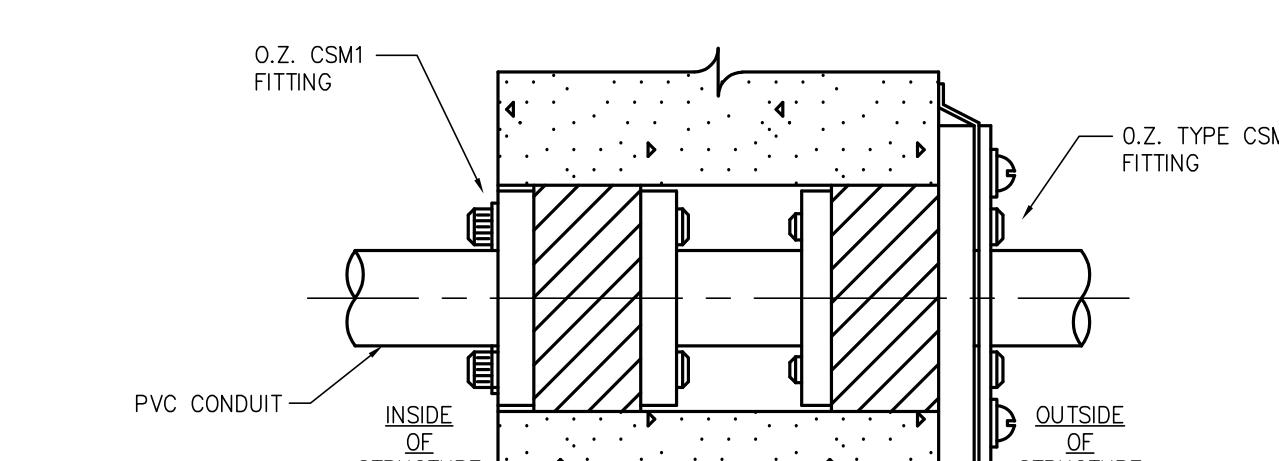
**ACCESS CONTROLS SYSTEM SCOPE:**

- REFERENCE LEGEND FOR MORE INFORMATION TO ACCOMMODATE THE INSTALLATION OF NEW COMPONENTS TO CONNECT TO EXISTING SYSTEMS WITHOUT DISRUPTING THE NEW BUILDING FINISHES. COORDINATE THE EXACT LOCATION OF ITEMS WITH THE OWNER PRIOR TO ROUGH-IN. COMPONENTS SHALL MATCH EXISTING MANUFACTURER.
1. ELECTRICAL CONTRACTOR: COORDINATE WITH OWNER'S ACCESS CONTROLS CONTRACTOR (RED LETTER) AND OWNER'S SECURITY CONTRACTOR (HABITEC SECURITY). BEFORE DISCONNECTION OF EXISTING ITEMS NOTED ON PLANS, BOXES, CONDUITS, SURFACE MOUNTED RACEWAY, INSTALL POWER SUPPLIES/ACCESS CONTROLLER, ACCESS HARDWARE, A.D.A. HARDWARE, AND CONNECT TO 120V POWER. ELECTRICAL CONTRACTOR TO **HIRE RED LETTER** TO FURNISH AND INSTALL CARD READERS, FURNISH POWER SUPPLIES/ACCESS PANEL OUTPUT FOR AUTOMATIC DOOR UNLOCK CONTROL TO DEDICATED DOORS AND TESTING/PROGRAMMING. **ELECTRICAL CONTRACTOR TO HIRE HABITEC SECURITY** FOR TIE-IN WITH THE EXISTING INTRUSION SYSTEM AND COORDINATION ON CONNECTION TO EXISTING ACCESS CONTROL SYSTEMS AND TESTING/PROGRAMMING.
  2. GENERAL TRADES: RESPONSIBLE FOR DOORS/FRAMES, FURNISH DOOR/ACCESS HARDWARE, A.D.A. HARDWARE, CEILING ACCESS POINTS, CONSTRUCTION ITEMS, ETC. AND COORDINATION WITH RED LETTER FOR A.D.A. OPERATOR FUNCTION SETTINGS.
  3. START UP TESTS, INITIAL SYSTEM PROGRAMMING AND DATA BASE ENTRIES SHALL BE PROVIDED BY RED LETTER & HABITEC SECURITY THROUGH THE ELECTRICAL CONTRACTOR. ALL FUNCTIONS SHALL BE DEMONSTRATED TO THE SATISFACTION OF THE OWNER'S DESIGNATED SYSTEM ADMINISTRATOR. AT PROJECT COMPLETION, RED LETTER & HABITEC SECURITY SHALL PROVIDE A LETTER INDICATING THAT ALL PARTS AND FUNCTIONS ARE OPERATING PROPERLY, TURN OVER TO OWNER ALL SOFTWARE LICENSING, PROVIDE RECOMMENDED MAINTENANCE AND INSPECTION SCHEDULES FOR EACH YEAR OF OPERATION, AND PROVIDE WRITTEN WARRANTY FOR EQUIPMENT AND SYSTEM FUNCTIONALITY FOR A PERIOD OF TWO YEARS. DOOR ACCESS SYSTEM TRAINING FOR THE OWNER SHALL BE PROVIDED.
  4. CONTACT INFORMATION: **CONTACT AND HIRE RED LETTER (888) 564-5488. CONTACT AND HIRE HABITEC SECURITY, NICK WERT (419) 205-1147.**



**GENERAL NOTES**

1. CABLE AND CONDUIT PENETRATION DETAILS ARE BASED ON A U.L. LISTED FIRE RATED ASSEMBLY (MINIMUM) UTILIZING STI FIRE STOP PRODUCTS. MANUFACTURERS SHALL BE STI, HILTI, 3M OR APPROVED EQUAL. REFER TO MANUFACTURER'S SPECIFICATIONS AND INSTALLATION DETAILS FOR EXACT INSTALLATION METHODS.
2. PACKING AND SEALANT DEPTHS SHALL BE PER MANUFACTURER'S SPECIFICATIONS FOR U.L. ASSEMBLY RATING COMPLIANCE.
3. ALL FIRE STOP LOCATIONS SHALL BE LABELED AT POINT OF PENETRATION. LABEL SHALL IDENTIFY FIRE STOPPING MATERIAL, U.L. LISTING NUMBER AND HOUR RATING OF WALL/FLOOR.



**CONDUIT THRU WALL SEAL DETAIL**  
NO SCALE

ELECTRICAL DRAWING LIST		
DWG NO.	TITLE	FILE NO.
E1.01	ELECTRICAL FIXTURE SCHEDULE, DETAILS AND CODE COMPLIANCE	26003130E1.01.dwg
E1.02	ELECTRICAL LEGEND, SINGLE-LINE & PANEL SCHEDULES	26003130E1.02.dwg
E2.01	BOILER ROOM LIGHTING AND POWER PLANS	26003130E2.01.dwg

**BOILER REPLACEMENT & RELATED WORK**  
**ORCHARD CENTER HIGH SCHOOL**  
**MONROE PUBLIC SCHOOLS**  
 1275 N. MACOMB STREET, MONROE, MICHIGAN 48162

**JOB # 26102**  
**ELECTRICAL FIXTURE SCHEDULE, DETAILS & CODE COMPLIANCE**  
**E1.01**

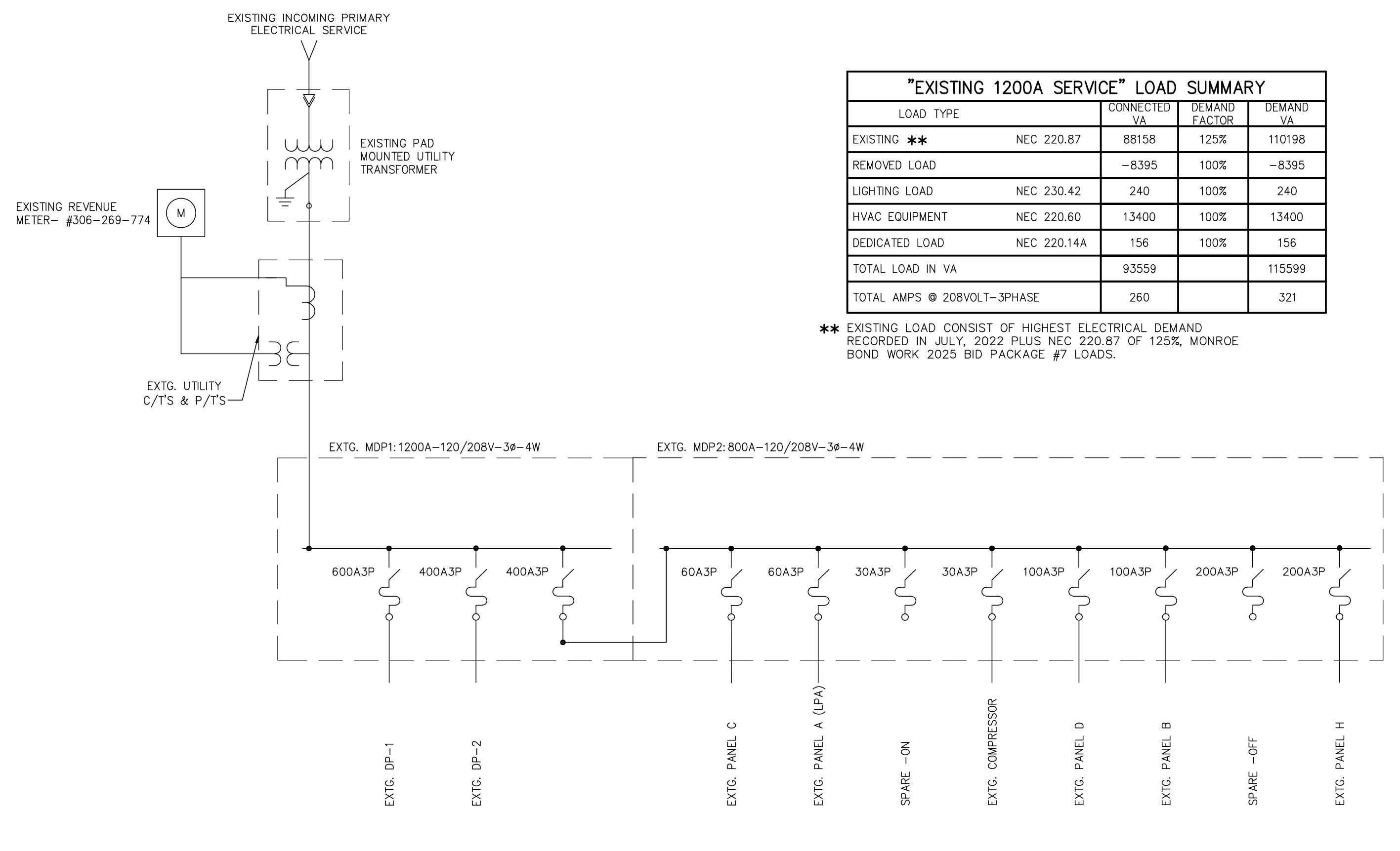
Digitally signed by Nicole L. Winhoven-Kamm  
 DN: C=US, E=nkamm@kleinfelder.com, O=Kleinfelder, OU=Kleinfelder, CN=Nicole L. Winhoven-Kamm  
 Date: 2026.02.05 11:30:56-05'00'

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED, AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



**DATE** 02.09.2026 **DESCRIPTION** BIDDING & STATE REVIEW





EXISTING SINGLE LINE DIAGRAM

N.T.S.

ELECTRICAL LEGEND	
CCT	CIRCUIT
E.C.	ELECTRICAL (SUB) CONTRACTOR
EXTG.	EXISTING
F.B.O.	FURNISHED BY OTHERS, INSTALLED AND/OR WIRED BY ELECTRICAL CONTRACTOR
G.C.	GENERAL (SUB) CONTRACTOR
HP.	HORSEPOWER
L.D.	LOCATE AS DIRECTED
MAX.	MAXIMUM
M.C.	MECHANICAL (HVAC, PLBG, FP, OR TC) (SUB) CONTRACTOR
M.H.	MINIMUM HEIGHT TO BOTTOM OF DEVICE, BOX, OR FIXTURE, UNO
MIN.	MINIMUM
N/L	NIGHT LIGHT, UNSWITCHED CIRCUIT
OREQ	OR, EQUAL
REV	REVIEW
R/M	REMOVE
R/L	RELOCATE/RELOCATED
UNO	UNLESS NOTED OTHERWISE
W/	WITH
WG	WIRE GUARD
WP	WEATHERPROOF DEVICE, ENCLOSURE OR COVER PLATE.
(XX,XXX)	INDICATES MAXIMUM RMS SHORT CIRCUIT FAULT AT NOTED BUS PER ENGINEER'S CALCULATIONS VIA ASSUMPTIONS ON UTILITY FAULT INFORMATION.
( )	INDICATES NOTE-SEE TABULATION ON SAME SHEET
S	SINGLE LAMP STRIP-SEE SCHEDULE-SHOW TO SCALE (APPROX.)
EMERGENCY EGRESS OR COMBINATION EXIT EGRESS LIGHT-SEE SCHEDULE	
LOCAL SWITCH-1 POLE-20A-120/277V-W/STAINLESS STEEL C.P. - M.H. 4" HUBBELL #CSB120W OREQ.	
VARIABLE SPEED DRIVE W/DISCONNECT AND FUSES-FURNISHED AND INSTALLED BY OTHERS, POWER WIRING BY E.C. PER SUPPLIERS WIRING DIAGRAMS, VFD LINE AND LOAD CONDUCTORS SHALL NOT BE ROUTED IN THE SAME RACEWAY. PROVIDE NEW ENGRAVED LABEL AT VFD TO MATCH MOTOR AND PANEL LABELING. COORDINATE FINAL VFD LOCATION IN FIELD.	
FUSED SAFETY SWITCH-AMP SIZE AS NOTED-VOLTAGE AS REQD-NEMA 1 ENCLOSURE U.N.O.-MH 6" TO TOP UNO (N=NON-FUSED, 3R=NEMA 3R ENCL; GK=NEMA 12 GASKETED ENCL; 4X=NEMA 4X STAINLESS STEEL ENCL)	
DISCONNECT SWITCH-HP RATED-TOGGLE TYPE-20 AMP-1 TO 3 POLES AS REQUIRED FOR EOPT-600 VOLT-NEMA 1 ENCLOSURE U.N.O.-LOCATE ADJACENT TO EQUIPMENT SERVED. (WP=WEATHERPROOF ENCLOSURE) SQUARE D CLASS 2510 SERIES OREQ	
DUPLEX GFCI AND TAMPER RESISTANCE RECEPT-15A-125V-NEMA 5-15R W/STAINLESS STEEL C.P. - M.H. 1" IN READILY ACCESSIBLE LOCATION. HUBBELL #GTR15SBK OREQ.	
WIRE TICKS INDICATE BRANCH CIRCUIT PHASE, NEUTRAL, & GROUND WIRES, RESPECTIVELY CONDUIT-CONCEALED IN CEILING, WALL OR FLOOR OF NEW CONSTRUCTION. CONCEALED WHEREVER POSSIBLE IN EXISTING CONSTRUCTION (1/2" DIA. MIN.)	
WIRE TICKS INDICATE BRANCH CIRCUIT PHASE, NEUTRAL, & GROUND WIRES, RESPECTIVELY CONDUIT-CONCEALED IN CEILING, WALL OR FLOOR OF NEW CONSTRUCTION. CONCEALED WHEREVER POSSIBLE IN EXISTING CONSTRUCTION (1/2" DIA. MIN.)	
INDICATES CONCEALED CONDUIT UNDERGROUND/UNDERFLOOR - 3/4" MIN.	
SURFACE MOUNTED RACEWAY-W/MATCHING FITTINGS, BOXES, ACCESSORIES, ETC. WIREMOLD #V700 SERIES, HUBBELL #BL7501W SERIES OREQ	
INDICATES LOW VOLT CABLING ROUTED THRU PLenum OR CEILING SPACE.	
WORKING CLEARANCE AREA PER NEC 110.26.	
EXISTING CONDUIT & WIRING-TO REMAIN	
EXISTING 120 VOLT MOTOR-TO REMAIN-UNO	
EXISTING ITEMS ARE TO REMAIN-UNO	
ALL EXISTING ITEMS "DASHED" ARE TO BE REMOVED-UNO	
REMOVE EXISTING ITEM INCLUDING ASSOCIATED CONDUIT AND WIRING NO LONGER IN SERVICE BACK TO SOURCE.	
*	

"EXISTING 1200A SERVICE" LOAD SUMMARY					
LOAD TYPE	CONNECTED VA	DEMAND FACTOR	DEMAND VA		
EXISTING ** NEC 220.87	88158	125%	110198		
REMOVED LOAD	-8395	100%	-8395		
LIGHTING LOAD NEC 230.42	240	100%	240		
HVAC EQUIPMENT NEC 220.60	13400	100%	13400		
DEDICATED LOAD NEC 220.14A	156	100%	156		
TOTAL LOAD IN VA	93559		115599		
TOTAL AMPS @ 208VOLTS-3PHASE	260		321		

\*\* EXISTING LOAD CONSIST OF HIGHEST ELECTRICAL DEMAND RECORDED IN JULY, 2022 PLUS NEC 220.87 OF 125% MONROE BOND WOR 2025 BID PACKAGE #7 LOADS.

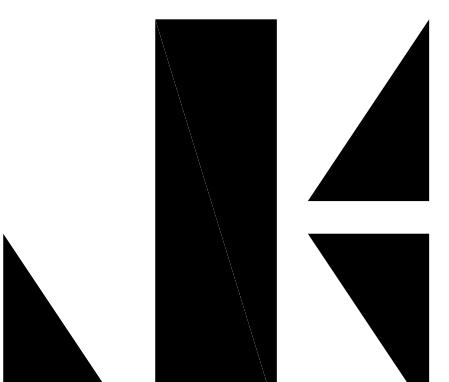
(EXISTING CIRCUITING) PANELBOARD SCHEDULE										
PANEL: LP-H		NOTES: EXISTING SIEMENS PANEL								
MAINS: 250A M.L.O.		MAIN: 250A M.L.O.								
VOLTS: 120/208V-3Ø-4W-SN		VOLTS: 120/208V-3Ø-4W-SN								
MOUNTING: SURFACE		MOUNTING: SURFACE								
LOAD DESCRIPTION		NOTES	VOLT	C.B.	VOLT	C.B.	VOLT	C.B.	NOTES	
LOAD DESCRIPTION			AMPS	AMP	AMPS	AMP	AMPS	AMP	LOAD DESCRIPTION	
(2) 1 CIRCULATION PUMP 1		580	20	3	2080		3	20	1500	PARKING LOT LIGHTING 2
3 -		580	20	3	2080		3	20	1500	- 4
5 -		580	20	3	2080		3	20	1500	- 6
(2) 7 CIRCULATION PUMP 2		580	20	3	1580		2	20	1000	PARKING LOT LIGHTING 8
9 -		580	20	3	1580		1	20	205	HOT WATER CIRC PUMP 12
11 -		580	20	3	1580		1	20	800	FIRE ALARM 14
(5) 13 BOILER 2 DISC.		1705	20	1	2205		1	20	1200	OUTLET SIGN 18
(5) 15 BOILER 1 DISC.		1705	20	1	2505		1	20	800	UNKNOWN 20
(2) 19 BOILER PUMP 1		300	20	1	1100		1	20	800	UNKNOWN 22
(2) 21 BOILER PUMP 2		300	20	1	1100		1	20	800	UNKNOWN 24
23 EXHAUST FAN STARTER		800	20	1	1600		1	20	800	UNKNOWN 26
25 BATH FANS STARTER		800	20	1	2300		2	30	1500	UNKNOWN 28
27 AIR COMPRESSOR		1500	20	2	3000		2	30	1500	- 30
29 -		1500	20	2	3000		2	30	1500	UNKNOWN 32
31 NETWORK 8000 PANEL		500	20	1	1300		1	20	800	UNKNOWN 34
33 LIGHTING CONTACTOR		500	20	1	2000		3	20	1500	UNKNOWN 36
35 LIGHTING CONTACTOR		500	20	1	2000		3	20	1500	- 38
37 LIGHTING CONTACTOR		500	20	1	2000		3	20	1500	UNKNOWN 40
39 SPACE		0			0		0		0	SPACE 42
41 SPACE		0			0		0		0	SPACE
HANDLE TIE		12565			12265		10465			
HANDLE LOCK							107%	104%	89%	
TOTAL LOAD:		35295								TOTAL AMPS: 98.0

BRANCH CIRCUIT CONDUCTOR SIZING CHART		
MAX. CIRCUIT LENGTH TO FARDEST OUTLET	CIRCUIT VOLTAGE	MINIMUM BRANCH CIRCUIT SIZE
100 FEET	120	#12 AWG
165 FEET	120	#10 AWG
265 FEET	120	#8 AWG
400 FEET	120	#6 AWG
250 FEET	277	#12 AWG
400 FEET	277	#10 AWG
550 FEET	277	#8 AWG
750 FEET	277	#6 AWG

ALTERNATE	
ALTERNATE OC-E1: STATE THE AMOUNT TO BE ADDED/SUBTRACTED TO THE BASE BID TO FURNISH ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE FOLLOWING:	
1.	ELECTRICAL WORK ASSOCIATED WITH THE GAS-FIRED DOMESTIC WATER HEATER (OC-DWH-1) WITH THE DETAILS INDICATED ON THE DESIGN DOCUMENTS.
2.	OMISSION OF ALL ELECTRICAL WORK ASSOCIATED WITH THE INLINE PUMP (OC-HWS-3)



DATE 02.09.2026  
DESCRIPTION BIDDING & STATE REVIEW



KOHLER  
ARCHITECTURE

1110 WEST FRONT STREET  
MONROE, MICHIGAN 48161  
WWW.KOHLERARCHITECT.NET

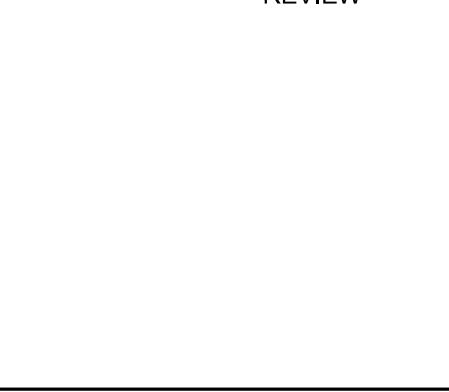
MAKE  
Things Better



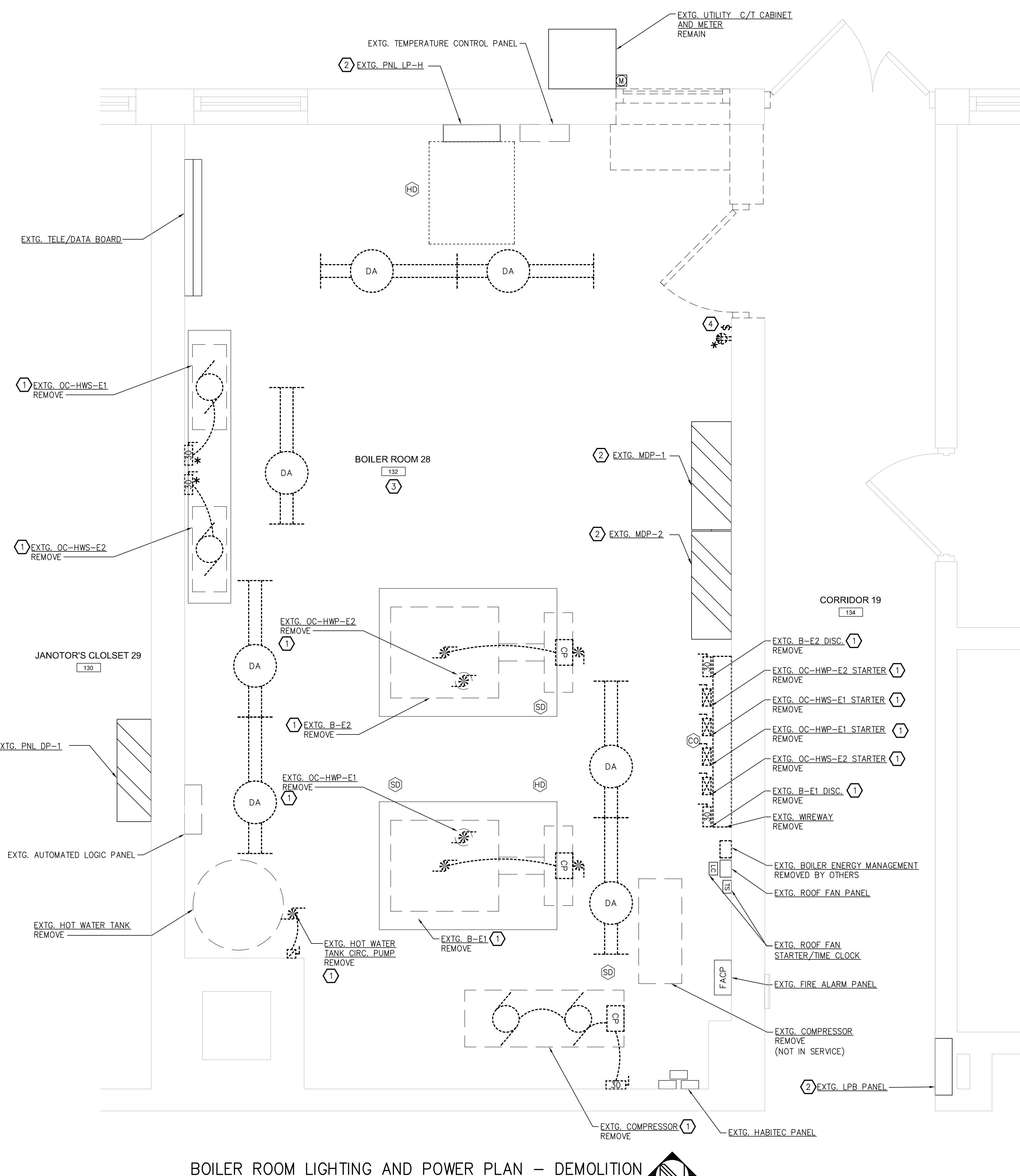
Mechanical, Electrical, Plumbing, Fire Protection  
5201 Lake Common Blvd, Suite 2300  
Perryburg, OH 43381 | 419.382.7537



02/05/2026  
DATE  
02.09.2026  
DESCRIPTION  
BIDDING & STATE  
REVIEW



BOILER REPLACEMENT & RELATED WORK  
ORCHARD CENTER HIGH SCHOOL  
1750 N. MACOMB STREET, MONROE, MICHIGAN 48161  
MONROE PUBLIC SCHOOLS  
1275 N. MACOMB STREET, MONROE, MICHIGAN 48162



BOILER ROOM LIGHTING AND POWER PLAN - DEMOLITION

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

PLAN NOTES

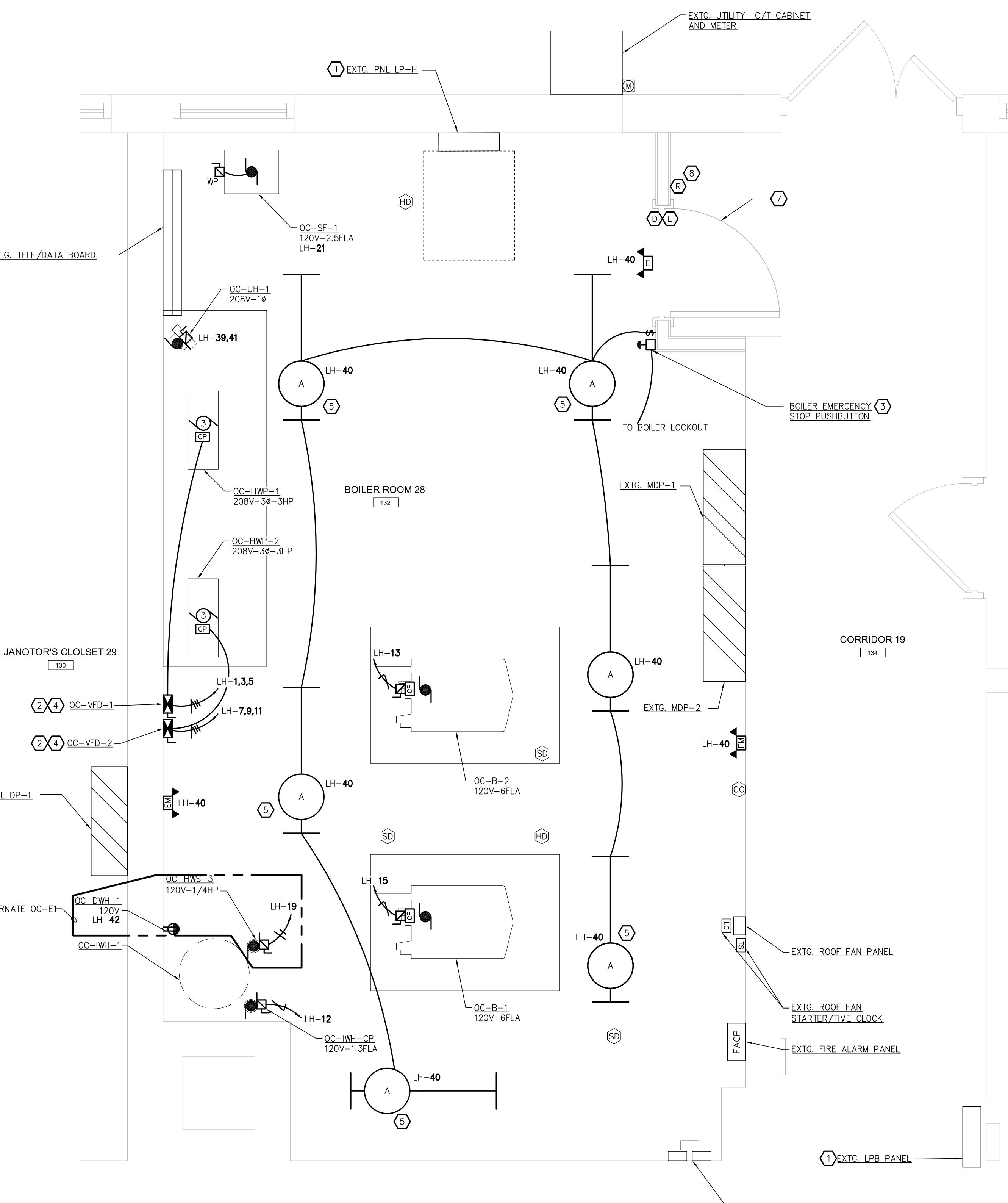
- DISCONNECT EXISTING ELECTRICAL CONNECTIONS TO ACCOMMODATE REMOVAL OF MECHANICAL EQUIPMENT BY OTHERS. COORDINATE WITH M.C. BEFORE COMMENCEMENT OF WORK. EXISTING BRANCH CIRCUITS SHALL BE REMOVED BACK TO SOURCE. ASSUMED SOURCE IS EXISTING PANEL LP-H.
- REFERENCE SHEET E1.02 FOR MORE INFORMATION.
- FIELD VERIFY EXISTING LIGHTING BRANCH CIRCUITS THAT SHALL BE REMOVED BACK TO SOURCE. ASSUMED SOURCE IS EXISTING PANEL LPB.
- DISCONNECT AND REMOVE INDICATED LIGHTING CONTROLS. REMOVE ALL ASSOCIATED CABLEING BACK TO SOURCE. EXISTING BACKBOX SHALL BE REMOVED TO ACCOMMODATE FOR NEW ARCHITECTURAL WALL.

GENERAL NOTES

- COORDINATE WITH MECHANICAL DRAWINGS AND CONTRACTOR FOR PROJECT SCOPE AND SEQUENCE OF CONSTRUCTION BEFORE COMMENCING ANY WORK.
- WHERE ACCESSIBLE CEILINGS ARE PRESENT, WIRING MAY BE RUN IN METAL RACEWAYS ONLY TO ABOVE ACCESSIBLE CEILINGS, WITH OPEN CABLING IN ACCESSIBLE CEILING AND PROPERLY SUPPORTED AS PER THE SPECIFICATIONS. WIRING IN AIR HANDLING PLENUMS SHALL BE PLENUM RATED AS REQUIRED. ALL WIRING RUN IN METAL RACEWAYS, SHALL BE IN RACEWAYS SEPARATE FROM ALL OTHER WIRING, UNLESS NOTED OTHERWISE.
- SEAL ALL PENETRATIONS THRU FIRE RATED ASSEMBLIES WITH APPROVED FIRE-STOPPING MATERIALS. REFER TO SPECIFICATIONS FOR FURTHER DETAILS AND SEE ARCHITECTURAL SHEET LS1.00 FOR RATED ASSEMBLY LOCATIONS.
- PATCH AND PAINT SHALL BE COVERED BY GENERAL TRADES. ALL RACEWAYS SHALL MATCH WALL FINISH. COORDINATE WITH ARCHITECT.
- A SEPARATE FIRE ALARM REPLACEMENT PROJECT IS BEING PERFORMED SIMULTANEOUSLY WITH THIS BOILER PROJECT UNDER TWO (2) SEPARATE PERMITS. FULL COORDINATION BETWEEN ALL TRADES IS REQUIRED TO ENSURE UNINTERRUPTED SYSTEM OPERATION AND CODE COMPLIANCE.

ALTERNATE

- ALTERNATE OC-E1: STATE THE AMOUNT TO BE ADDED/SUBTRACTED TO THE BASE BID TO FURNISH ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE FOLLOWING.
- ELECTRICAL WORK ASSOCIATED WITH THE GAS-FIRED DOMESTIC WATER HEATER (OC-DWH-1) WITH THE DETAILS INDICATED ON THE DESIGN DOCUMENTS.
  - OMISSION OF ALL ELECTRICAL WORK ASSOCIATED WITH THE INLINE PUMP (OC-HWS-3)

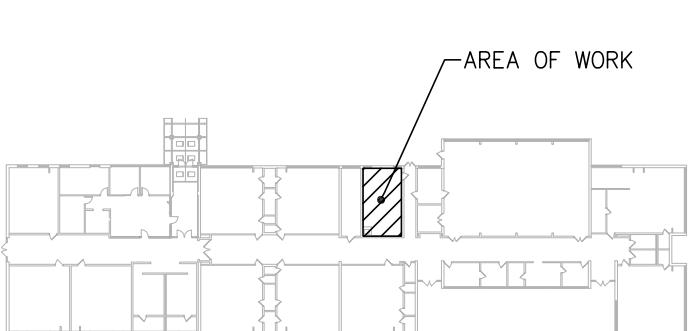


BOILER ROOM LIGHTING AND POWER PLAN

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

PLAN NOTES:

- REFERENCE SHEET E1.02 FOR MORE INFORMATION.
- VFD LINE AND LOAD CONDUCTORS SHALL NOT BE ROUTED IN THE SAME RACEWAY. PROVIDE ENGRAVED LABEL AT VFD TO MATCH MOTOR AND PANEL LABELING.
- PER THE REQUIREMENTS OF THE MICHIGAN BOILER CODE, EMERGENCY STOP PUSHBUTTON SHALL BE AT THE BOILER ROOM DOOR FOR EMERGENCY POWER SHUT-OFF OF BOTH OC-B-1 AND OC-B-2. PROVIDE AND INSTALL NECESSARY CONDUIT, WIRING AND RELAYS TO EACH PIECE OF EQUIPMENT FOR THE E-STOP PUSHBUTTON TO DE-ENERGIZES THE BOTH BOILERS. ADD RED NAMEPLATE ON E-STOP PANEL "EMERGENCY BOILER DISCONNECT". PUSHBUTTON M.H. AT 6'0" AFF TO TOP.
- 3#10 + #10G - 1/2"
- MOUNT LIGHTING FIXTURE AT 8'-0" A.F.F. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION TO ENSURE PROPER CLEARANCE WITH REGARDS TO MECHANICAL EQUIPMENT AND NEW DUCTWORK.
- NOT USED
- DOOR WILL BE LOCKED AT ALL TIMES. CARD READER ACCESS. DOOR SHALL UNLOCK AUTOMATICALLY DURING FIRE ALARM AND POWER LOSS (FAIL-SAFE FROM CONTROLLER). LOCK OUT OF DOORS CAN BE OVERRIDDEN DURING FIRE DRILLS OR OTHER EVENTS. COORDINATE WITH DOOR INSTALLER AND SUPPLIER FOR EXACT ROUGH-IN REQUIREMENTS FOR ALL ELECTRICAL COMPONENTS.
- REFERENCE ARCHITECTURAL DRAWINGS FOR LOCATION AND MOUNTING HEIGHT FOR DEVICES NOTED.



KEY PLAN

NO SCALE

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JOB # 26102

BOILER ROOM  
LIGHTING AND POWER  
PLANS

E2.01