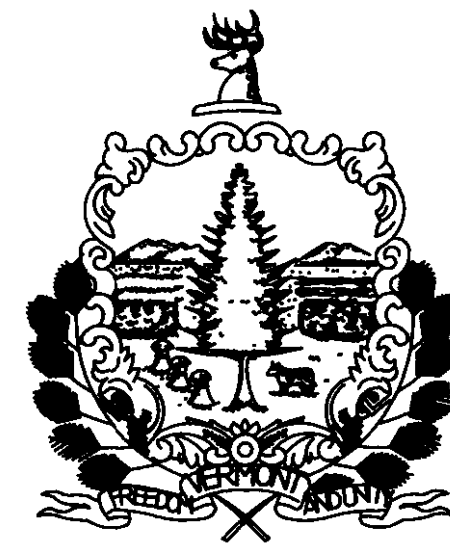


State of Vermont
Department of Buildings & General Services
VERMONT AGENCY OF TRANSPORTATION
EAST DORSET MAINTENANCE GARAGE
East Dorset, Vermont

AGENCY OF ADMINISTRATION
DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT 05633-5801
R. TASHA WALLIS, COMMISSIONER

AGENCY OF TRANSPORTATION
NATIONAL LIFE BUILDING
MONTPELIER, VERMONT 05633-5001
DAWN TERRILL, SECRETARY



James Douglas
Governor

July 2005

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E1	ELECTRICAL

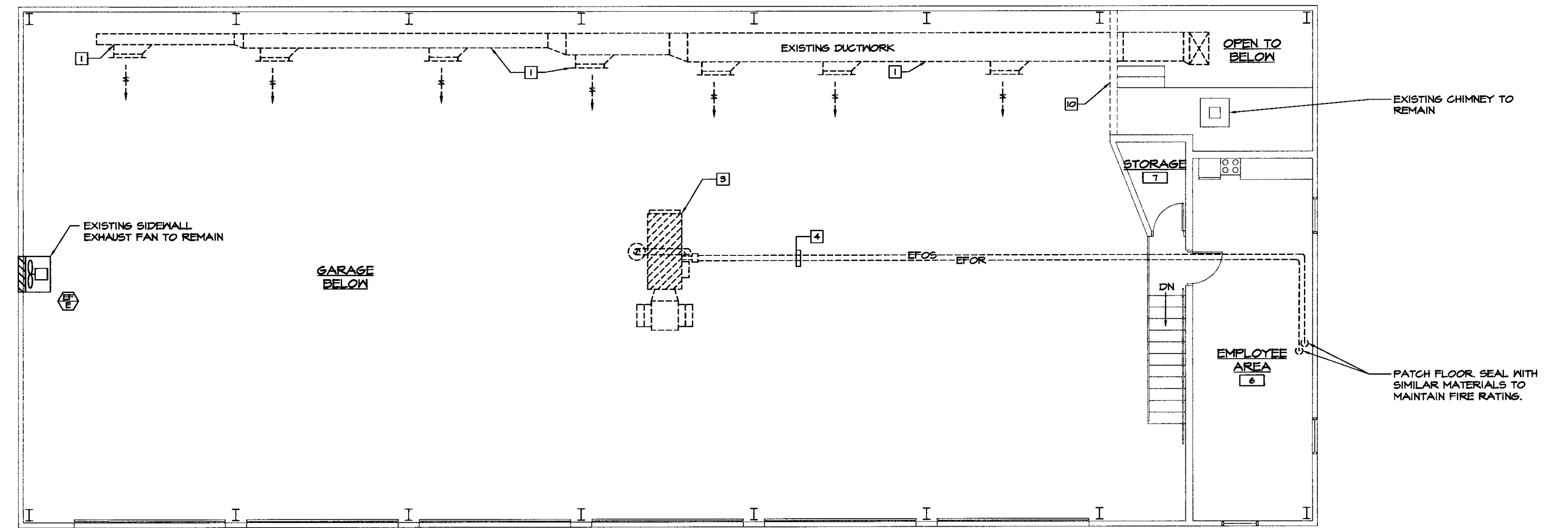
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MECHANICAL LEGEND & ABBREVIATIONS

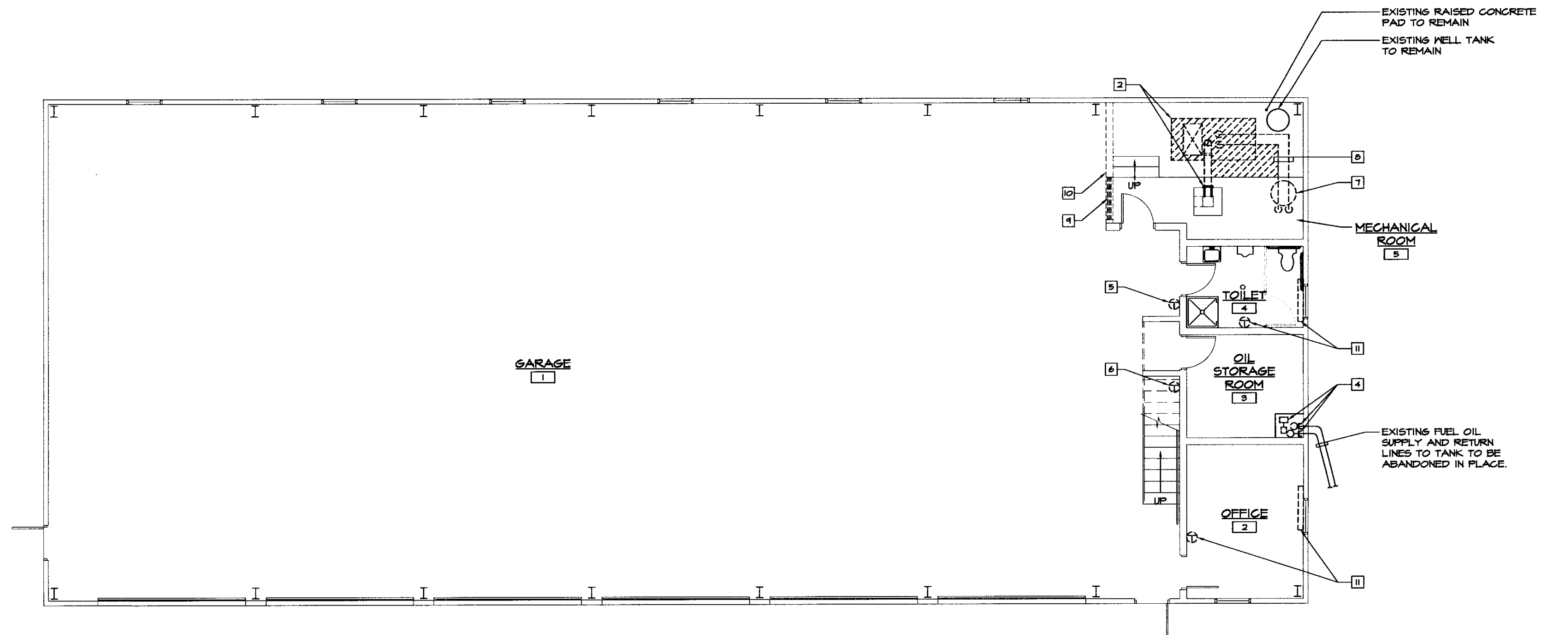
- ⊕ BALL VALVE
- PIPE RISER
- PIPE DROP
- PIPE CAP
- FOS FUEL OIL SUPPLY, E = EXISTING
- FOR FUEL OIL RETURN E = EXISTING
- LP GAS PIPING
- ⊕ LP GAS REGULATOR
- ⊕ THERMOSTAT
- ⊕ EXISTING THERMOSTAT TO BE REMOVED
- St SWITCH, SUBSCRIPT: T = TIMER
- NEW DUCTWORK
- - - EXISTING DUCTWORK TO BE REMOVED
- ⊗ SUPPLY DUCT DOWN
- ⊗ SUPPLY DUCT UP
- FLEXIBLE DUCT CONNECTOR
- AIR FLOW INDICATOR
- VOLUME DAMPER
- M.D. MOTORIZED DAMPER
- FD FIRE DAMPER
- E.C. ELECTRICAL CONTRACTOR
- G.C. GENERAL CONTRACTOR
- G.U.H. GAS FIRED UNIT HEATER
- ⊕ CONNECT TO EXISTING
- ① DRAWING NOTE TAG
- ⊕ DEMOLITION NOTE TAG
- ⊕ LOUVER
- ⊕ SUPPLY DIFFUSER
- ⊕ GAS FIRED UNIT HEATER
- ⊕ EQUIPMENT TYPE E=EXISTING
- ⊕ SECTION NUMBER
- ⊕ DWG. NUMBER

DEMOLITION NOTES: (APPLY TO THIS DRAWING ONLY)

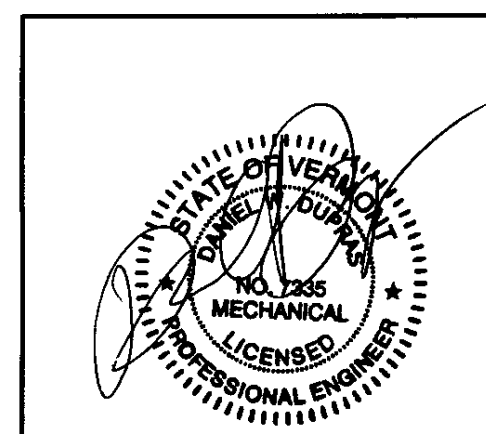
- 1] OWNER TO REMOVE EXISTING DUCTWORK AND DUCT HANGERS.
- 2] OWNER TO REMOVE EXISTING WOOD FIRED FURNACE AND FLUE. CONTRACTOR TO CAP AND SEAL FLUE CONNECTOR AT CHIMNEY.
- 3] OWNER TO REMOVE EXISTING OIL FIRED FURNACE AND FLUE. OWNER TO PATCH ROOF.
- 4] CONTRACTOR TO REMOVE EXISTING FUEL OIL SUPPLY AND RETURN LINES AND TRANSFER PUMP. CONTRACTOR TO CAP FUEL OIL SUPPLY AND RETURN LINES FROM OIL TANK. UNDERGROUND FOS AND FOR LINES TO TANK TO BE ABANDONED IN PLACE.
- 5] OWNER TO REMOVE EXISTING THERMOSTAT FOR WOOD FIRED FURNACE, INCLUDING ASSOCIATED WIRING.
- 6] OWNER TO REMOVE EXISTING THERMOSTAT FOR OIL FIRED FURNACE, INCLUDING ASSOCIATED WIRING.
- 7] CONTRACTOR TO REMOVE EXISTING DOMESTIC HOT WATER HEATER. SALVAGE AND RETURN TO OWNER.
- 8] CONTRACTOR TO REMOVE EXISTING DOMESTIC HOT WATER PIPING, PUMP, VALVES AND ASSOCIATED SPECIALTIES.
- 9] OWNER TO REMOVE EXISTING LOUVER.
- 10] OWNER TO REMOVE EXISTING WALL AS REQUIRED TO REMOVE WOOD FIRED FURNACE. SALVAGE DOOR AND FRAME FOR INSTALLATION IN NEW WALL.
- 11] CONTRACTOR TO REMOVE ELECTRIC HEATER, THERMOSTAT AND ASSOCIATED WIRING AND CONDUIT BACK TO JUNCTION BOX.



MEZZANINE FLOOR PLAN - MECHANICAL DEMOLITION
SCALE: 1/8"=1'-0"



MAIN FLOOR PLAN - MECHANICAL DEMOLITION
SCALE: 1/8"=1'-0"



NO.	ISSUED FOR	DATE
1	BIDDING AND CONSTRUCTION	07/2005



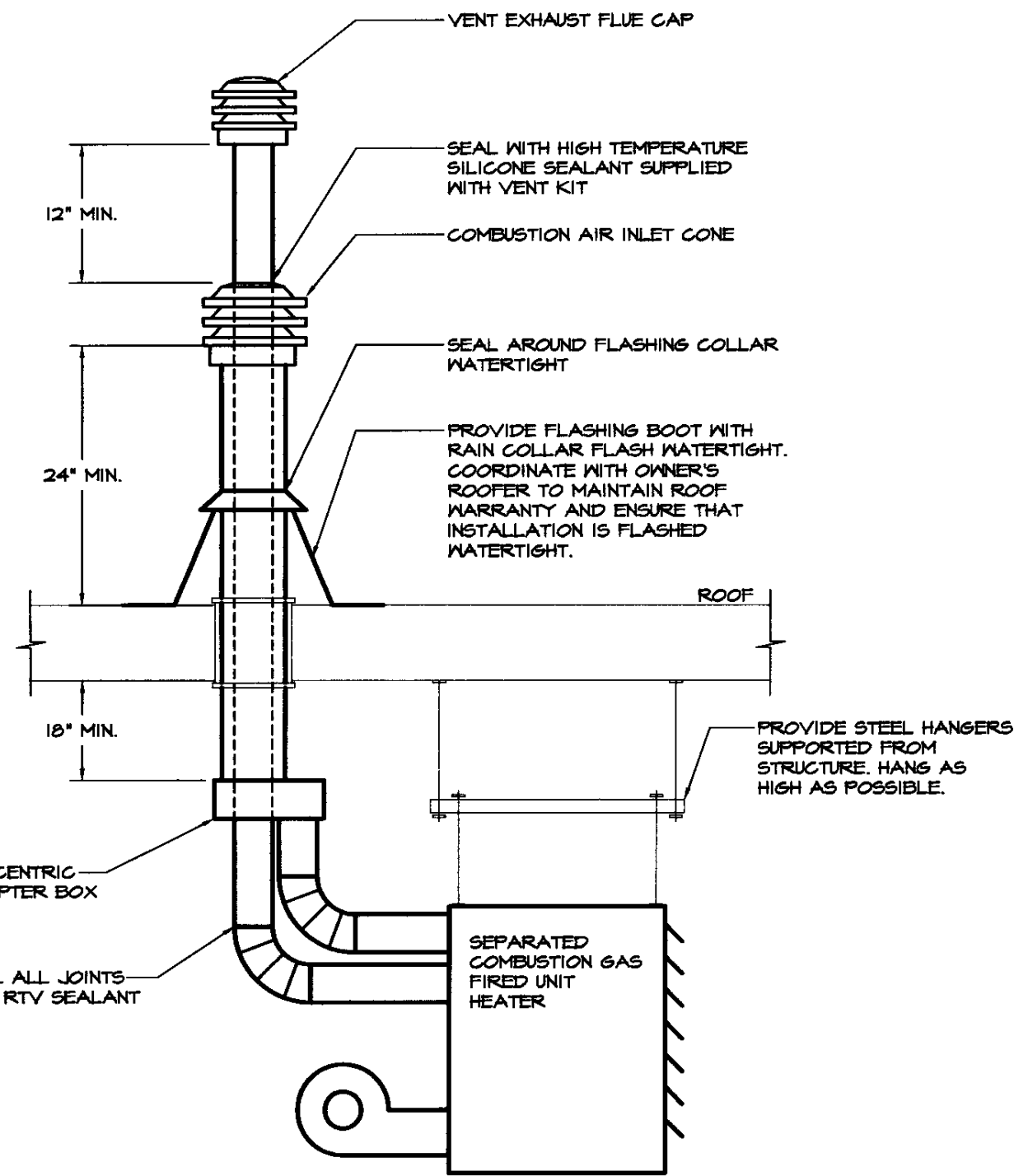
HEATING, VENTILATION, & AIR CONDITIONING,
PLUMBING, FIRE PROTECTION, & ELECTRICAL

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FLOOR PLANS - MECHANICAL DEMOLITION			
EAST DORSET AOT GARAGE VERMONT AGENCY OF TRANSPORTATION EAST DORSET, VERMONT			
APPR.	DVD	DRAWN:	TDL/KPC
SCALE:		AS NOTED	
PROJ. NO.			0312-17

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1

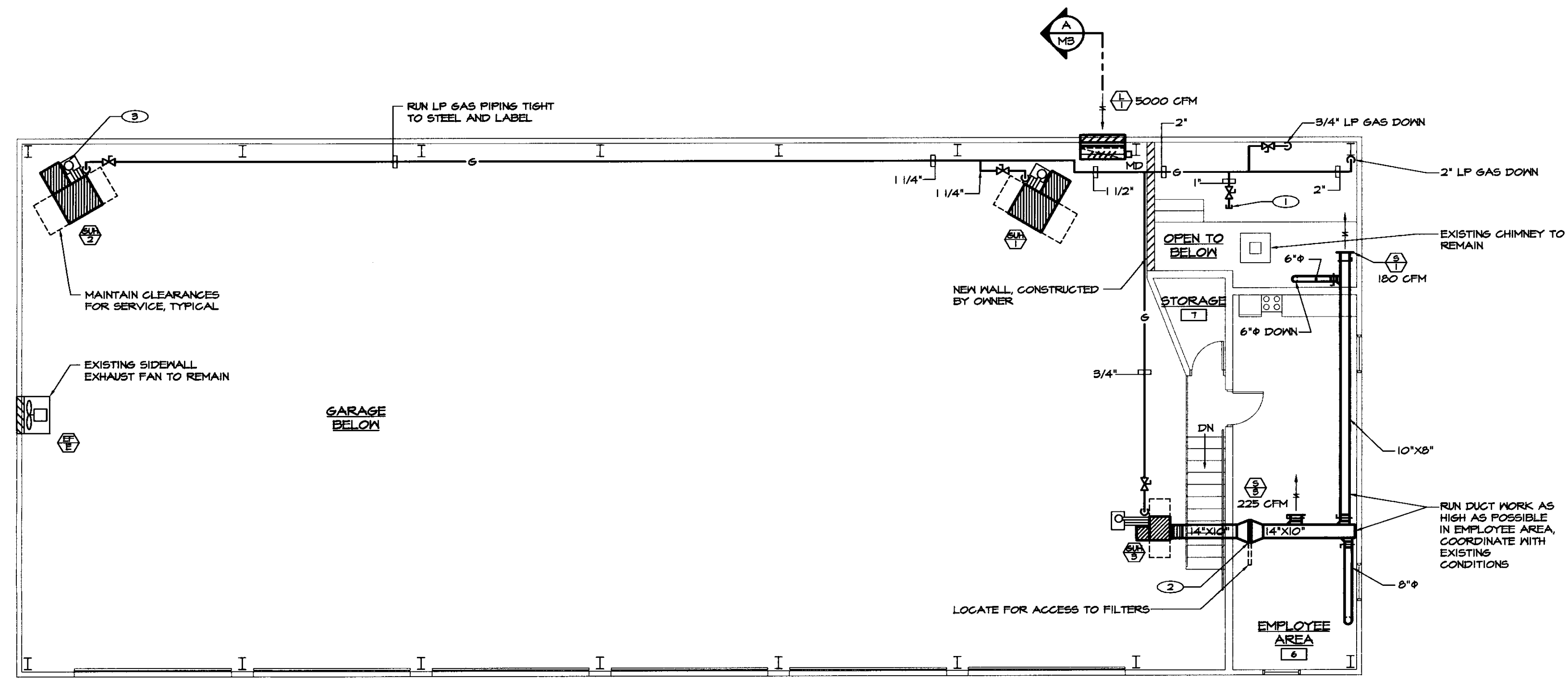


VERTICAL SEPARATED COMBUSTION / VENT DETAIL
NOT TO SCALE

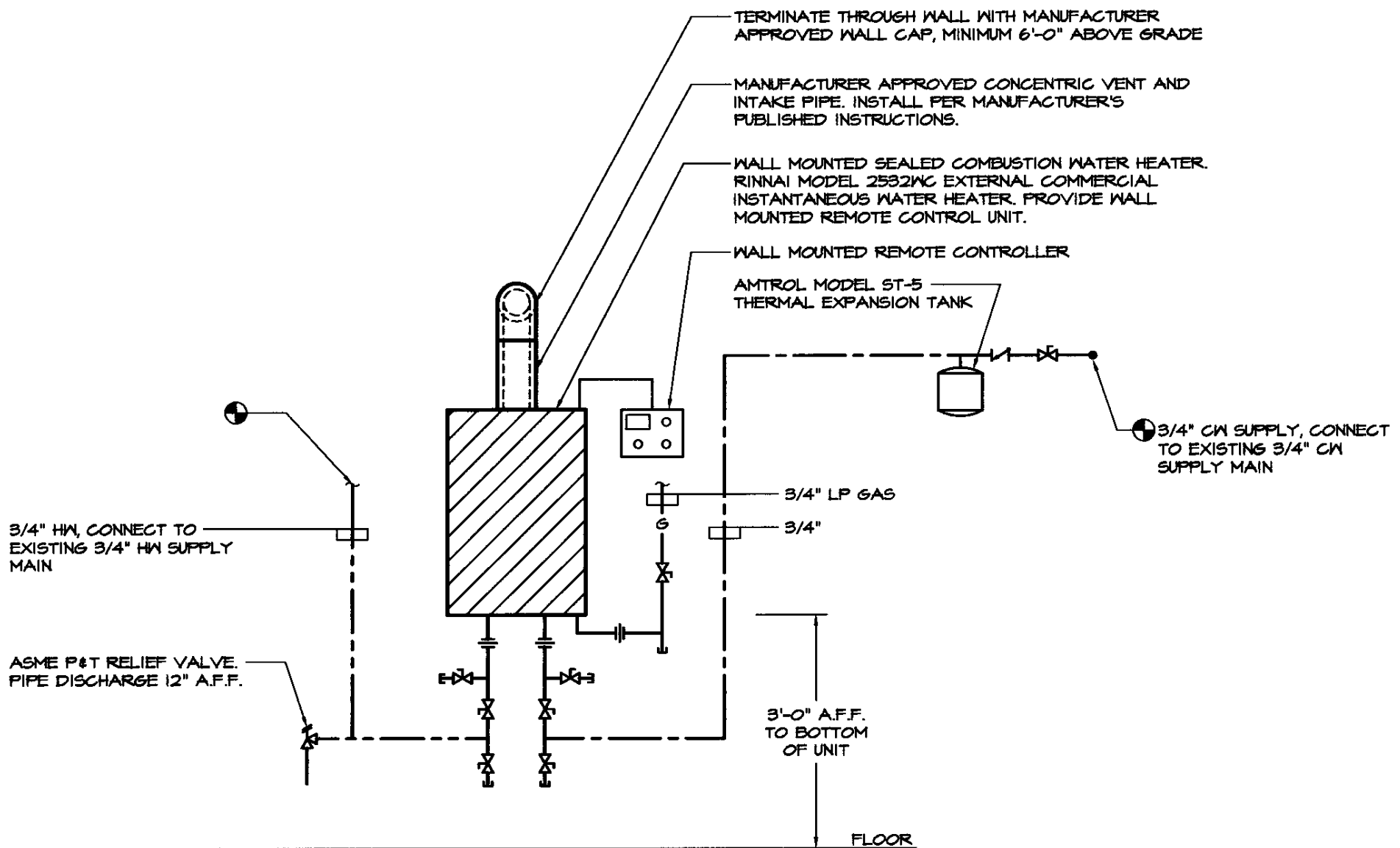
NOTE: SIZE VENT PIPE AND COMBUSTION AIR PIPE PER MANUFACTURER'S RECOMMENDATIONS. SUBMIT FOR REVIEW AND APPROVAL. INSTALL ALL COMPONENTS PER MANUFACTURER'S LATEST PUBLISHED INSTALLATION MANUAL AND IN ACCORDANCE WITH ALL STATE CODES.

DRAWING NOTES: (APPLY TO THIS DRAWING ONLY)

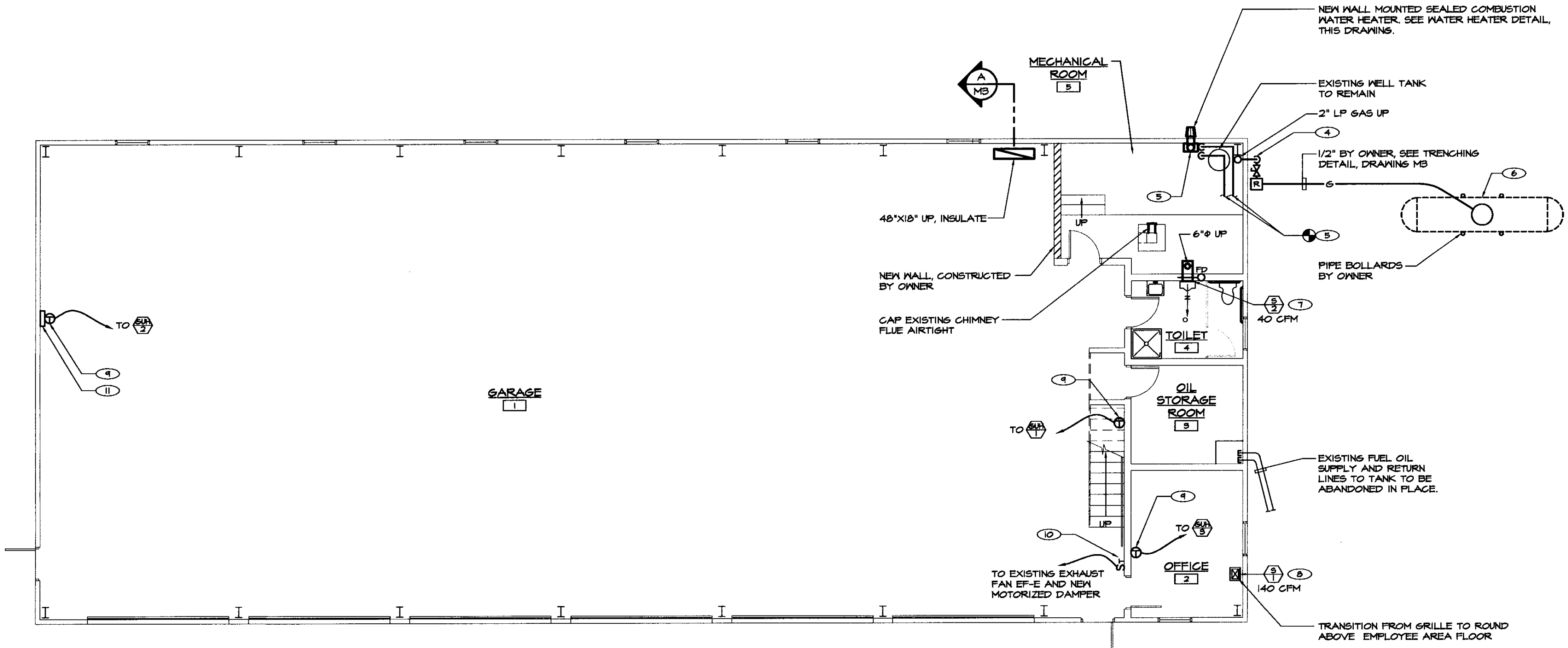
- 1 PROVIDE 1" LP GAS BRANCH VALVED AND CAPPED FOR FUTURE.
- 2 PROVIDE 24"x24" FILTER X 1" THICK, PROVIDE FILTER RACK WITH GASKETED HINGED ACCESS DOOR.
- 3 PROVIDE VERTICAL SEPARATED COMBUSTION / VENT. SEE DETAIL, THIS DRAWING. TYPICAL EACH GAS FIRED UNIT HEATER.
- 4 2" LP GAS UP. CONNECT TO SECOND STAGE REGULATOR. PROVIDE GAS SHUTOFF IN RISER. SEE LP GAS TANK DETAIL, DRAWING MS.
- 5 PROVIDE LP GAS FIRED WATER HEATER. SEE WATER HEATER DETAIL, THIS DRAWING. CONNECT 3/4" HX SUPPLY & CH SUPPLY TO EXISTING.
- 6 UNDERGROUND 1000 GALLON LP GAS TANK, BY OWNER. SEE DETAIL, DRAWING MS.
- 7 CUT AND PATCH EXISTING WALL. MOUNT SUPPLY DIFFUSER, IN TOILET (ROOM 4), 6" FROM CEILING TO TOP.
- 8 CUT AND PATCH EXISTING CEILING FOR NEW REGISTER. TRANSITION TO ROUND ON DUCT RISER.
- 9 MOUNT THERMOSTAT 54" A.F.F., TYPICAL.
- 10 FURNISH AND INSTALL NEW 15-MINUTE, SPRING-WOUND TIMER. ACTIVATION OF TIMER SWITCH SHALL OPEN MOTORIZED DAMPER FOR INTAKE LOUVER. WHEN DAMPER IS OPEN, END SWITCH SHALL START EXISTING EXHAUST FAN. WHEN TIMER SWITCH IS OFF, DAMPER SHALL CLOSE AND EXHAUST FAN SHALL TURN OFF. COORDINATE WIRING WITH ELECTRICAL CONTRACTOR.
- 11 PROVIDE INSULATED, BACK MOUNTING BLOCK FOR THERMOSTAT.



MEZZANINE FLOOR PLAN - MECHANICAL NEW WORK
SCALE: 1/8"=1'-0"



WATER HEATER DETAIL
NOT TO SCALE



MAIN FLOOR PLAN - MECHANICAL NEW WORK
SCALE: 1/8"=1'-0"

	BIDDING AND CONSTRUCTION	01/2005	
NO.	ISSUED FOR	DATE	

LANE ASSOCIATES
CONSULTING ENGINEERS, P.C.

HEATING, VENTILATION, & AIR CONDITIONING, PLUMBING, FIRE PROTECTION, & ELECTRICAL

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FLOOR PLANS - MECHANICAL NEW WORK			
EAST DORSET AOT GARAGE VERMONT AGENCY OF TRANSPORTATION EAST DORSET, VERMONT			
APPR.	DVD	DRAWN:	TDL/KPC
SCALE:		AS NOTED	
PROJ. NO.	0312-17		

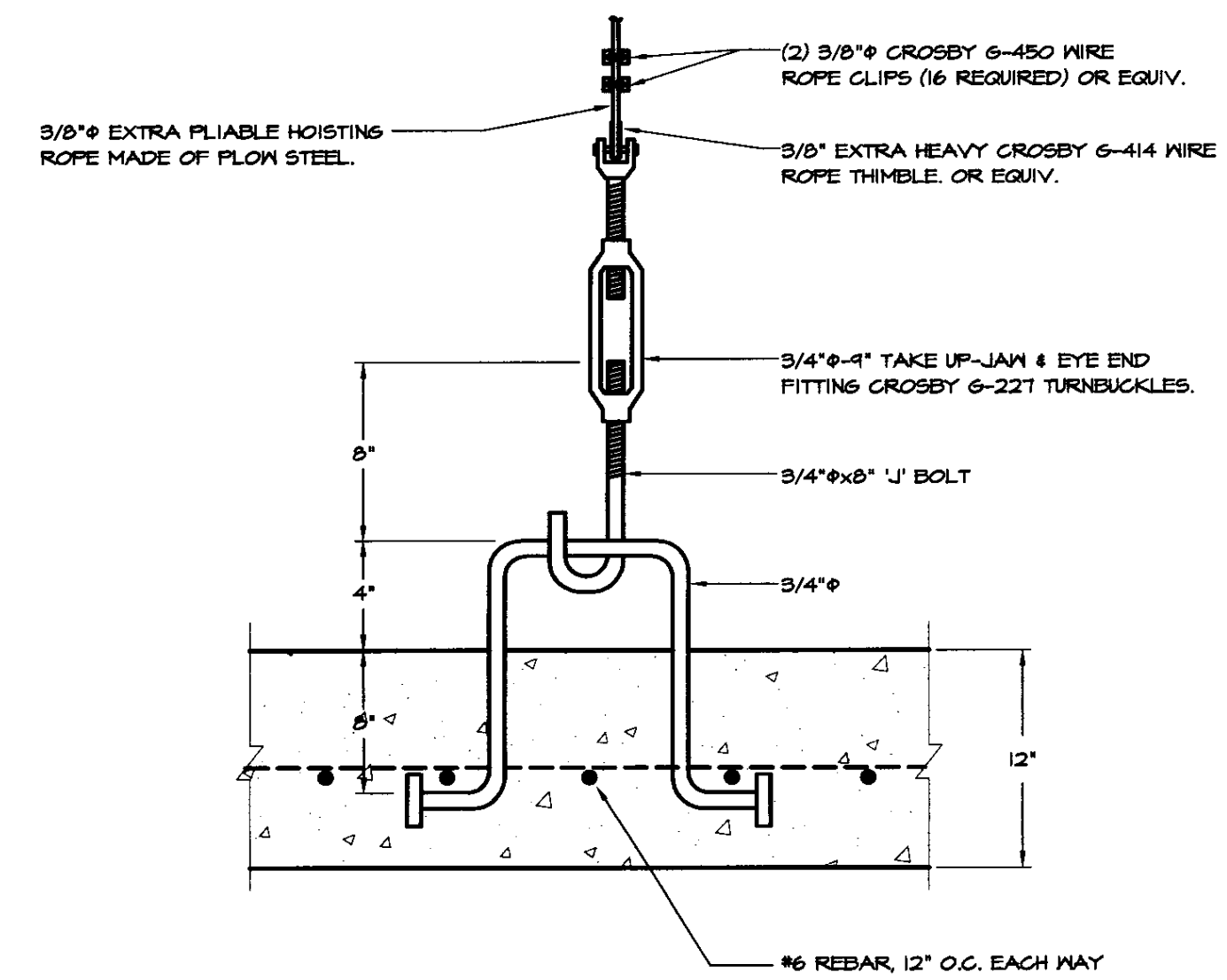
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2

DIFFUSER-GRILLE-REGISTER-LOUVER SCHEDULE								L = LOUVER S = SUPPLY	PLAN SYMBOL
No.	MANUFACTURER	SERIES	MODEL	SIZE	AIR FAT	DAMPER	FINISH	REMARKS	
S-1	METAL-AIRE	V4000	V4004	10"x8"	-	-	-		
S-2	METAL-AIRE	V4000	V4004	8"x4"	-	-	-		
S-3	METAL-AIRE	V4000	V4004	12"x6"	-	-	-		
L-1	RUSKIN	ELF	ELF3TSDX	48"x48"	-	-	B.E.	NOTE 1	

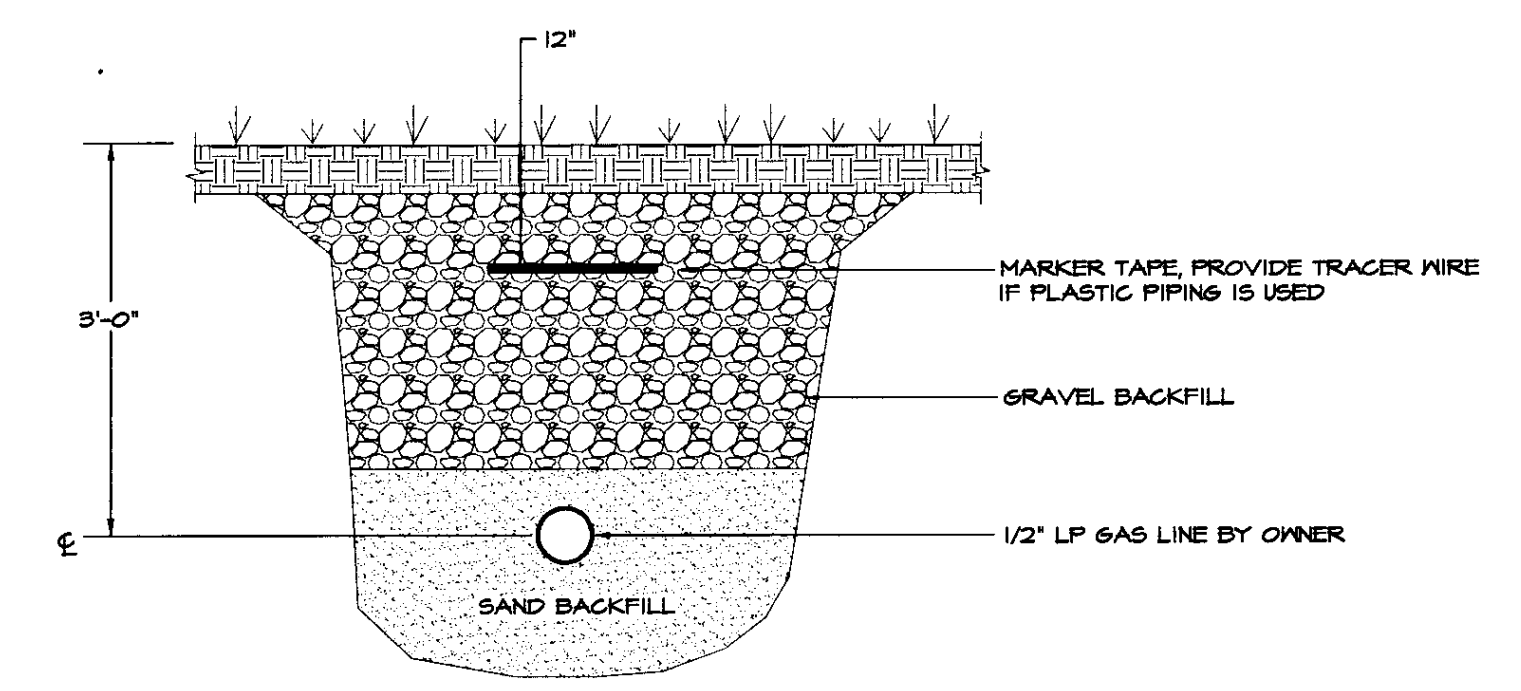
NOTES:
1) PROVIDE GALVANIZED BIRDSCREEN. BAKED ENAMEL FINISH, COLOR TO BE SELECTED BY ENGINEER.

GAS FIRED UNIT HEATER SCHEDULE										PLAN SYMBOL
No.	MANUFACTURER	MODEL	CFM AT 0" E.S.P.	MBH LP GAS INPUT	MBH LP GAS OUTPUT	FAN DRIVE	MODEL			REMARKS
							H.P.	VOLT	PH	
GUH-1	REZNOR	UDBS-300	3500	300	244	BELT	1 1/2	240	1	NOTE 1
GUH-2	REZNOR	UDBS-300	3500	300	244	BELT	1 1/2	240	1	NOTE 1
GUH-3	REZNOR	UDBS-45	456	45	36.1	DIRECT	1/6	115	1	NOTE 2

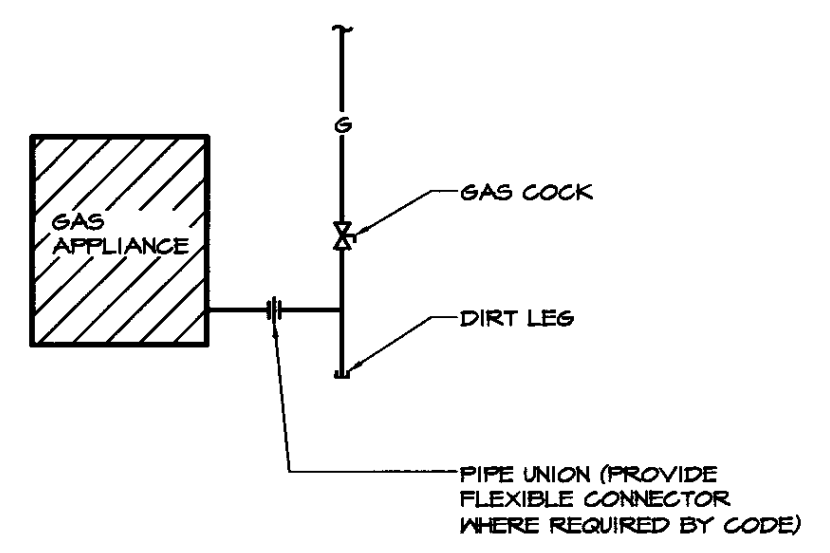
NOTES:
1) PROVIDE ALL STANDARD FEATURES INCLUDING THE FOLLOWING FACTORY INSTALLED OPTIONS: PROPANE CONVERSION KIT, TWO STAGE CONTROL, 409 STAINLESS STEEL HEAT EXCHANGER, ADJUSTABLE BELT DRIVE MOTOR, TOTALLY ENCLOSED MOTOR, BLOWER AND BELT GUARDS. PROVIDE THE FOLLOWING FIELD INSTALLED ACCESSORIES: COMBUSTION AND VENT KIT, TWO STAGE THERMOSTAT.
2) PROVIDE ALL STANDARD FEATURES INCLUDING THE FOLLOWING FACTORY INSTALLED OPTIONS: PROPANE CONVERSION KIT, TWO STAGE CONTROL, 409 STAINLESS STEEL HEAT EXCHANGER, ADJUSTABLE MULTI-TAP DIRECT DRIVE MOTOR, DUCT FLANGE, TOTALLY ENCLOSED MOTOR, BLOWER GUARD. PROVIDE THE FOLLOWING FIELD INSTALLED ACCESSORIES: COMBUSTION AND VENT KIT, TWO STAGE HEATING THERMOSTAT.



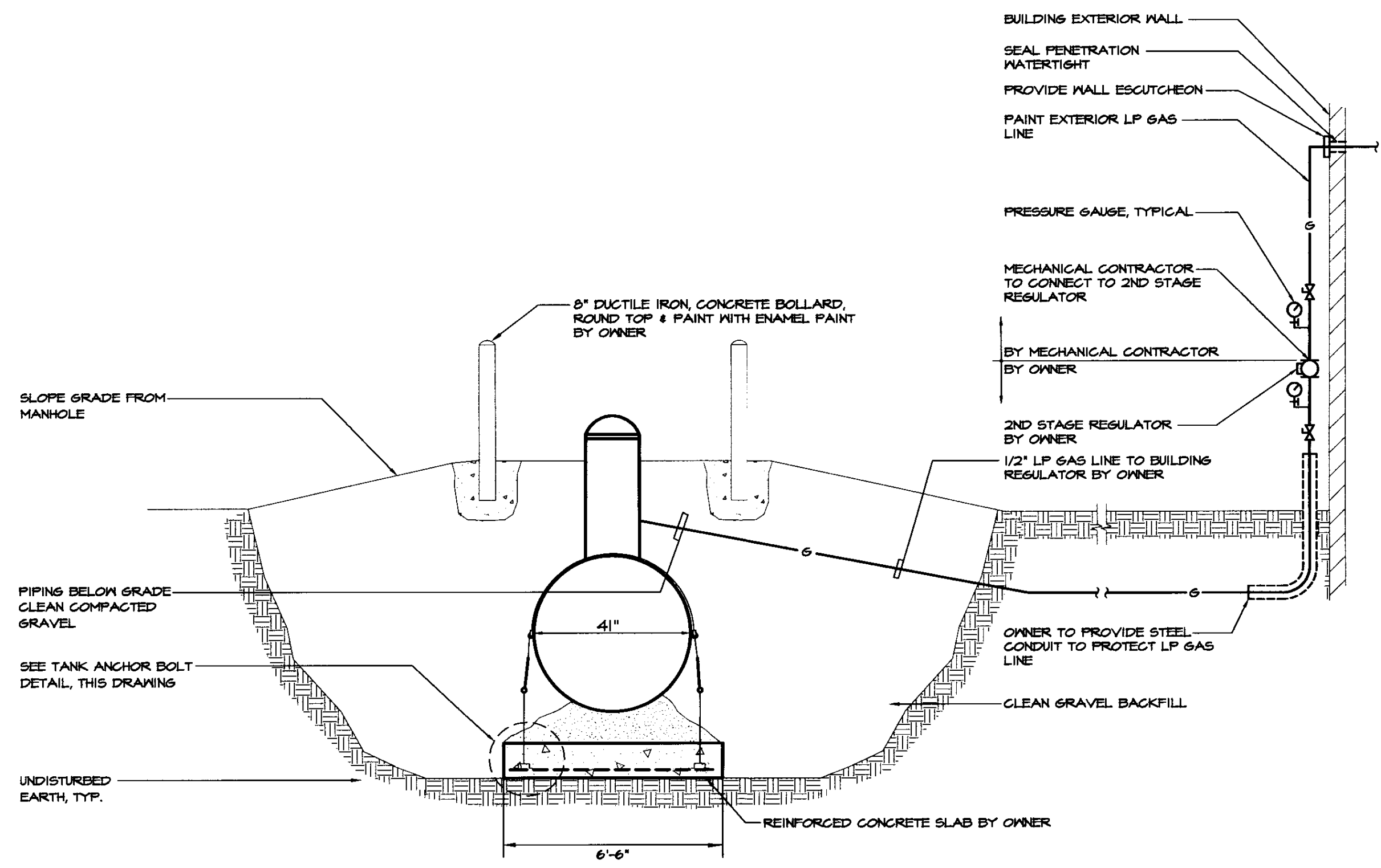
TANK ANCHOR BOLT DETAIL
NOT TO SCALE



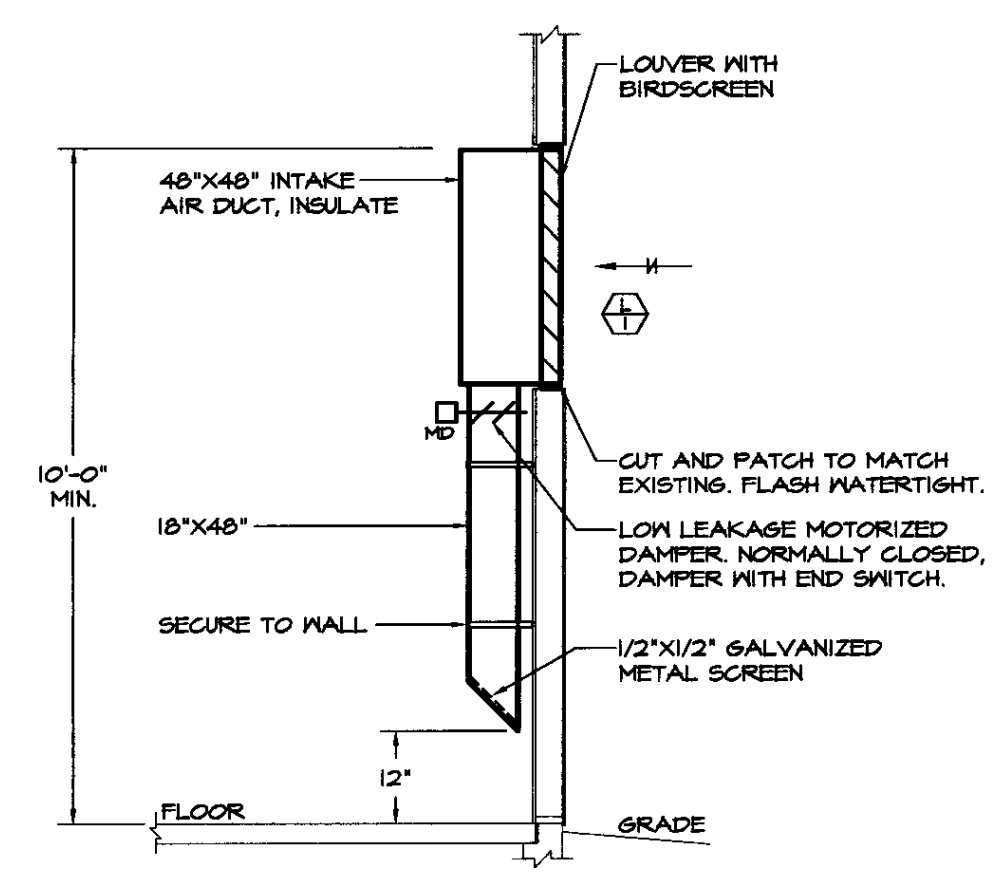
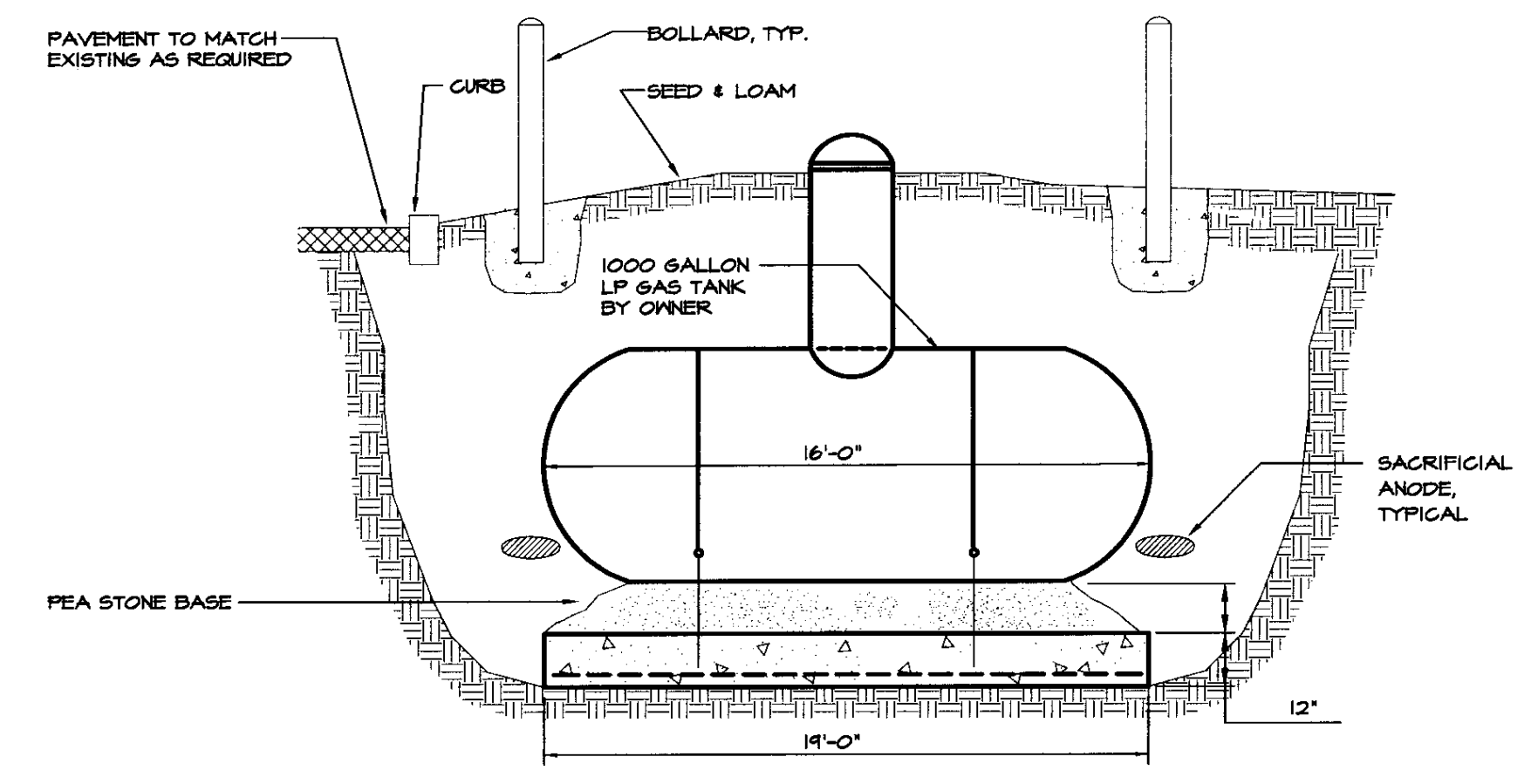
LP GAS SUPPLY PIPE TRENCHING DETAIL
NOT TO SCALE



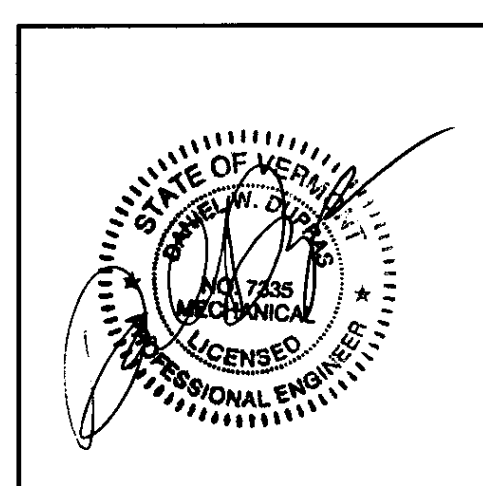
LP GAS APPLIANCE CONNECTION DETAIL
NOT TO SCALE



UNDERGROUND LP GAS TANK DETAILS
NOT TO SCALE



INTAKE LOUVER DETAIL
NOT TO SCALE



NO.	ISSUED FOR	DATE
1	BIDDING AND CONSTRUCTION	01/2005



HEATING, VENTILATION, & AIR CONDITIONING, PLUMBING, FIRE PROTECTION, & ELECTRICAL
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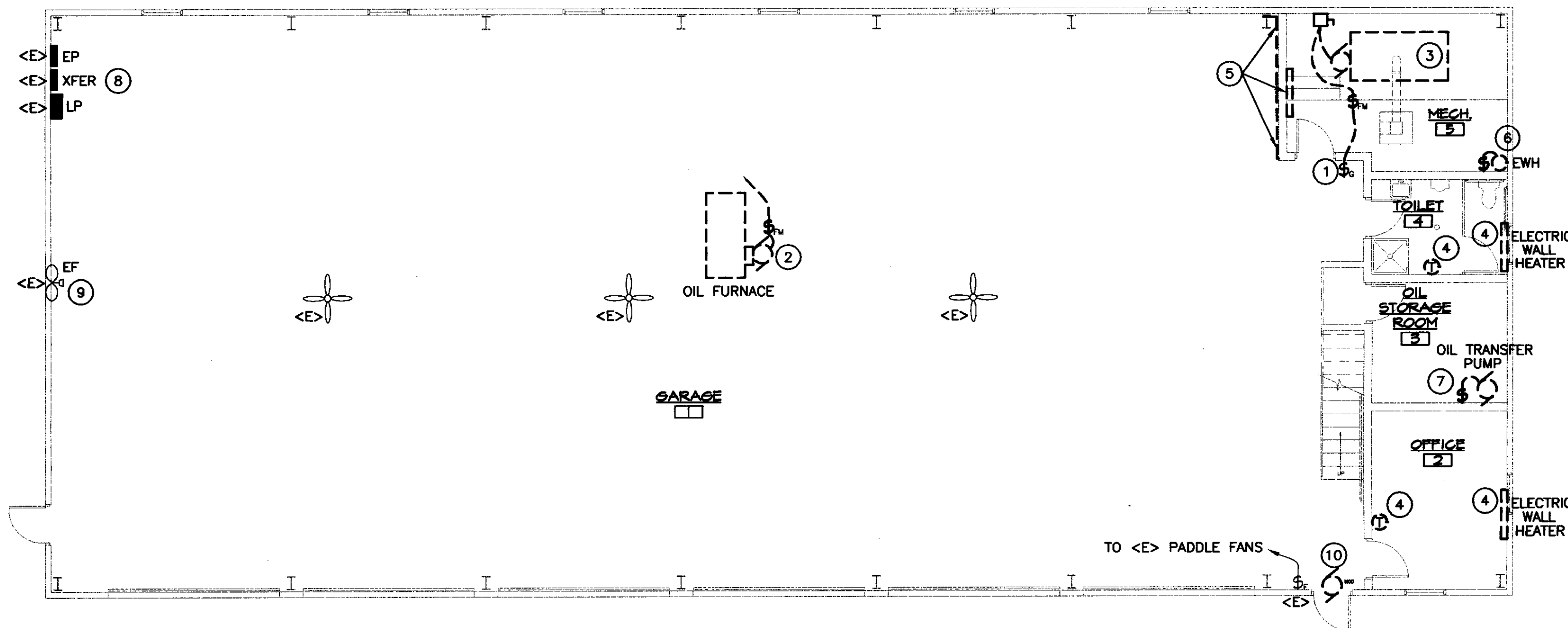
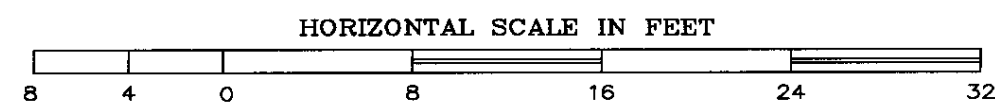
MECHANICAL SCHEDULES AND DETAILS			
EAST DORSET AOT GARAGE VERMONT AGENCY OF TRANSPORTATION EAST DORSET, VERMONT			
APPR.	DVD	DRAWN:	KFC
SCALE:	AS NOTED	PROJ. NO.	0312-17

M
3

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ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



KEYED NOTES:

- 1 EXISTING EMERGENCY SWITCH MAY BE REUSED FOR NEW WALL MOUNTED GAS WATER HEATER.
- 2 REMOVE ALL WIRING & ASSOCIATED CONTROLS FOR EXISTING OIL FURNACE.
- 3 REMOVE ALL WIRING & ASSOCIATED CONTROLS FOR EXISTING OIL FURNACE & STORAGE WATER HEATER INCLUDING ALL PUMPS & CONTROLS.
- 4 REMOVE EXISTING ELECTRIC HEATER, CONDUIT, & J-BOX BACK TO SOURCE.
- 5 TEMPORARILY REMOVE 1/2" CONDUIT, WIRING, & LIGHT FIXTURE TO ALLOW EQUIPMENT TO BE REMOVED FROM EXISTING BOILER ROOM. REPLACE AFTER WALL IS REPAIRED.
- 6 REMOVE ALL WIRING & ASSOCIATED CONTROLS FOR DOMESTIC WATER HEATERS.
- 7 REMOVE ALL WIRING & ASSOCIATED CONTROLS FOR OIL TRANSFER PUMPS.
- 8 REMOVE ALL BREAKERS FOR CIRCUITS THAT NO LONGER EXIST. USE SPACES FOR NEW CIRCUITS AS DESCRIBED.
- 9 REWIRE EXISTING EXHAUST FAN, REUSE EXISTING CIRCUIT, REFER TO NEW ELECTRICAL PLAN.
- 10 REMOVE ALL WIRING & ASSOCIATED MOTOR-OPERATED DAMPER.

DEMOLITION NOTES:

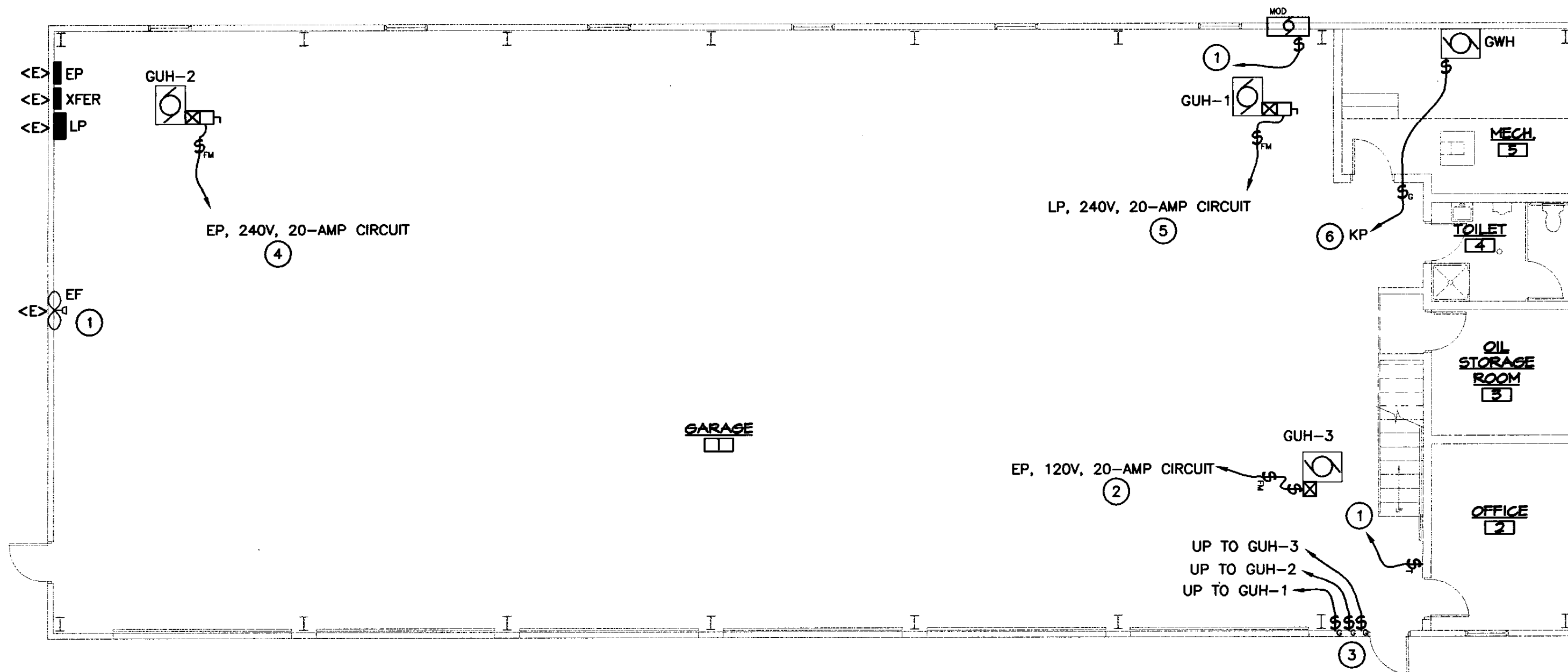
- A. EQUIPMENT AND MATERIALS REMOVED OR DEMOLISHED AND NOT TO BE REINSTALLED BY THE EC SHALL BE CLASSIFIED BY THE OWNER AS SALVAGE OR SCRAP. THOSE CLAIMED BY THE OWNER SHALL BE DELIVERED TO THE OWNER BY THE EC WHERE DIRECTED AT THE SITE. THOSE NOT CLAIMED BY THE OWNER SHALL BECOME PROPERTY OF THE EC AND SHALL BE LEGALLY REMOVED FROM THE SITE AND PREMISES.
- B. ANY PLACE WHERE THE CONTRACTOR PENETRATES, CUTS AND/OR REMOVES WALLS, CONTRACTOR IS TO REPLACE, PATCH AND PAINT WALLS TO ORIGINAL FINISHES.
- C. FIELD VERIFY ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK. NOTIFY ENGINEER OF ANY ERRORS.
- D. REFER TO THE MECHANICAL PLANS FOR EXTENT OF DEMOLITION WORK TO BE PERFORMED BY OTHER CONTRACTORS. ALL ITEMS THAT NEED TO BE REMOVED, SHALL HAVE THE POWER DISCONNECTED BY THE EC.
- E. NOT ALL DEVICES TO BE REMOVED OR DISCONNECTED ARE SHOWN. REFER TO MECH. PLANS FOR TOTAL EXTENT OF DEMOLITION WORK.
- F. BUILDING IS EXISTING. WIRING IN EXTERIOR WALLS SHALL BE FISHED OR SURFACE-MOUNTED AS NECESSARY. INTERIOR PARTITIONS ARE EXISTING. WIRING IN THESE WALLS MAY NEED TO BE FISHED. VISIT THE SITE FOR FULL EXTENT OF EXISTING CONDITIONS. NO SURFACE RACEWAY TO BE INSTALLED WITHOUT WRITTEN AUTHORIZATION FROM ARCHITECT.

ELECTRICAL LEGEND

\$	SWITCH - SINGLE POLE	TYP.	TYPICAL OF ALL
\$ _M	SWITCH - FIREMATIC	<E>	EXISTING TO REMAIN
\$ _S	EMERGENCY SHUT-OFF SWITCH WITH RED PLATE	EC	ELECTRICAL CONTRACTOR (DIVISION 16)
\$ _F	SWITCH - FAN SPEED CONTROLLER	MC	MECHANICAL CONTRACTOR (DIVISION 15)
\$ _T	TIMER SWITCH - PROVIDED BY MC	MOD	MOTOR-OPERATED-DAMPER
☒	MOTOR STARTER PROV. BY MC, INSTALLED BY EC	⊗	MOTOR
☐	SAFETY DISCONNECT PROV. AND INSTALLED BY EC.	☐	ITEMS TO BE REMOVED
▨	PANEL		
→	BRANCH CIRCUIT		
☐ _{JB}	JUNCTION BOX		
⊙	THERMOSTAT, PROVIDED & WIRED BY MC		

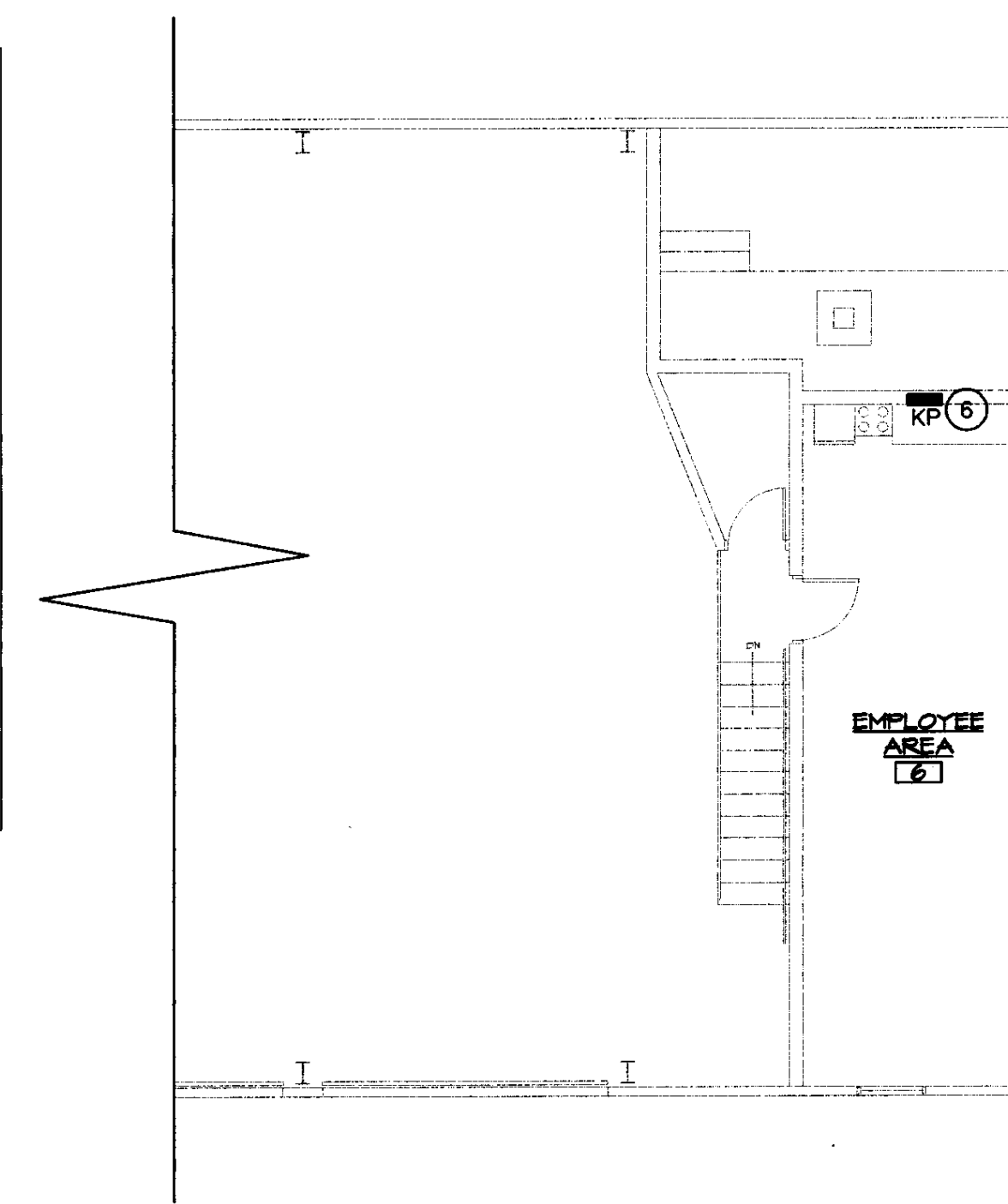
KEYED NOTES:

- 1 TIMER SWITCH PROVIDED BY MC. INSTALLED & WIRED BY EC. TIMER SWITCH SHALL OPEN MOTORIZED DAMPER. EXHAUST FAN MOTOR STARTER/CONTACTOR COIL SHALL BE WIRED TO THE END SWITCH ON THE MOTORIZED DAMPER, TO OPERATE ONLY WHEN THE DAMPER IS OPEN. ALL LINE VOLTAGE WIRING BY EC. REUSE SAME EXISTING CIRCUIT.
- 2 PANEL EP IS A SQUARE D NQOD PANEL. PROVIDE NEW 20A, SINGLE-POLE BREAKER FOR NEW GAS UNIT HEATER #3. USE SPACE LEFT OPEN FROM REMOVED OIL FURNACE.
- 3 PROVIDE EMERGENCY SHUT-OFF SWITCHES FOR EACH GAS HEATER, SWITCH SHALL HAVE RED "GAS" PLATE. USE 2-POLE SWITCHES FOR 240V UNITS.
- 4 PROVIDE NEW 20A, 2-POLE BREAKER FOR NEW GAS UNIT HEATER #2. USE SPACE LEFT OPEN FROM REMOVED WOOD FURNACE.
- 5 PANEL LP IS A SQUARE D NQOD PANEL. PROVIDE NEW 20A, 2-POLE BREAKER FOR NEW GAS UNIT HEATER #1. USE SPACE LEFT OPEN FROM BASEBOARD HEATERS.
- 6 PANEL KP IS A SQUARE D NQOD LOADCENTER. PROVIDE NEW 20A, SINGLE-POLE BREAKER FOR NEW GAS WALL-MOUNTED WATER HEATER.



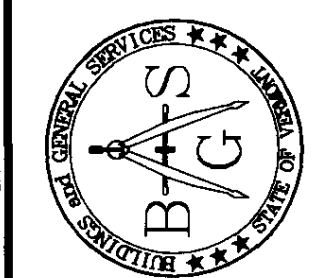
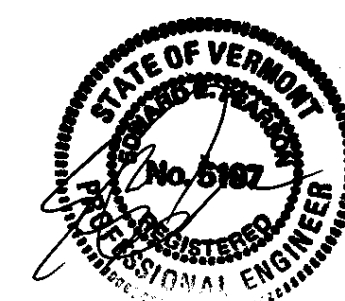
FIRST FLOOR ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

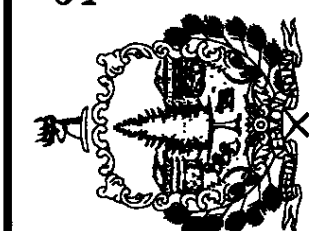


MEZZANINE ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"



STATE OF VERMONT
Department of Buildings
and General Services
Agency of Administration
Montpelier, Vermont



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AGENCY OF TRANSPORTATION
EAST DORSET MAINTENANCE
GARAGE HEATING RENOVATIONS
EAST DORSET VERMONT

REVISIONS	
SCALE: AS SHOWN	
DATE: JULY 2005	
DRAWN BY: ASG	
APPR. BY: EEP	

AGENCY OF TRANSPORTATION
GARAGE & OFFICES
ELECTRICAL DEMO PLAN