

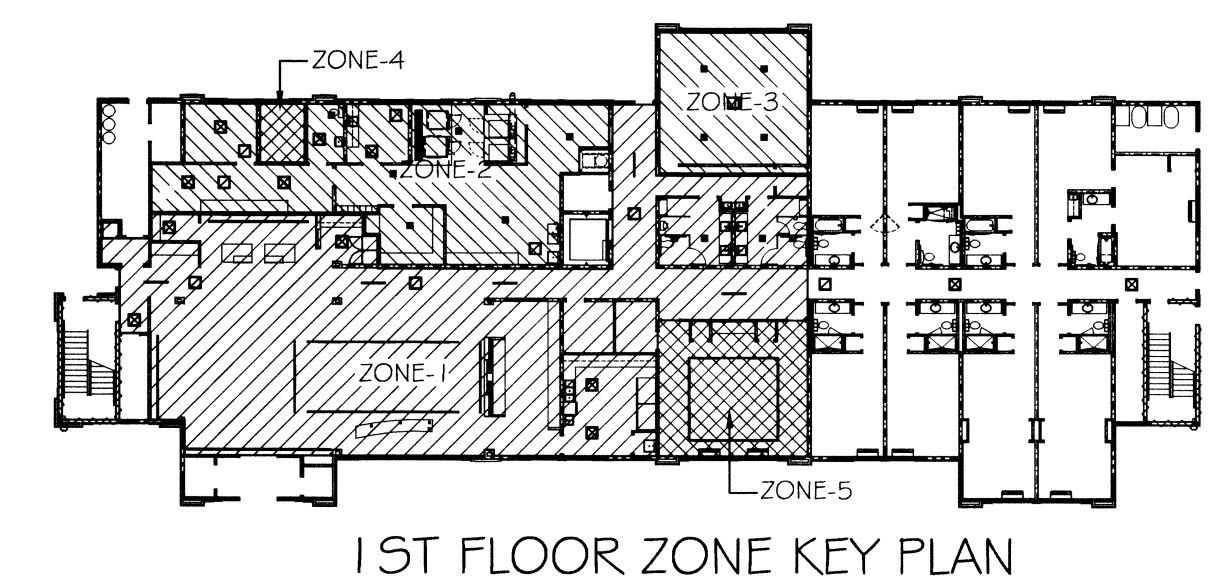
- LEGEND**
- ☒ - 24"x24" SUPPLY
 - ⊗ - FIRE DAMPER AT ALL FIRE WALLS
 - ⊠ - RETURN AIR GRILLE
 - ⊞ - 12"x12" SUPPLY
 - - LINEAR DIFFUSER
 - ⊕ - BALANCE DAMPER
 - ⊖ - EXHAUST FAN VENT
 - - 1 HOUR RATED INTERIOR WALL SEE UL# U333- SHEET A-2
 - - 1 HOUR RATED EXTERIOR WALL SEE UL# U356- SHEET A-2
 - - 2 HOUR RATED EXTERIOR WALL SEE UL# U301- SHEET A-2

NOTE: ALL OUTSIDE AIR INTAKES TO HAVE SCREENED LOUVER AT EXTERIOR WALLS

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

HVAC NOTES

1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, 1" THICK, MIN R-6. INSTALLED PER SMACNA STANDARDS.
2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, 1" THICK, MIN R-6. INSTALLED PER SMACNA STANDARDS.
3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
6. PROVIDE U.L. LISTED 1 25" FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
7. PROVIDE U.L. RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES.
8. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
9. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
10. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
11. EXHAUST FAN EQUAL TO BROAN MODEL NO. 100 CF. OR EQUAL. FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCH(S). PROVIDE BACK DRAFT DAMPER.
12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
13. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS.
14. LOCATE OUTDOOR UNITS AS SHOWN ON ARCH. DWGS.
15. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURERS' INSTRUCTIONS.
16. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
17. INSTALL FIRE DAMPER WHERE S.A. & R.A. DUCTS PENETRATE 1 HOUR RATED CEILINGS.
18. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E8-14).
19. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
20. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0".
21. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
22. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
23. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJ'S. PLACE NEAR R/A AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
24. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING. ALL THERMOSTATS MUST BE PROGRAMABLE. SEE SECTIONS 502.4.4 OR 503.2.4.3 OF THE 2012 INTERNATIONAL ENERGY CODE.



A/C UNIT SCHEDULE						
ZONE/ A/C #	TOTAL BTU	TON	ELECTRICAL			COMMENTS
			VOLTAGE	MCA	CKT BRKR'S	
1	180,000	15 TON	208V,3Ø	66.3	P1-1,3,5	NOTE: ALL A/C TO BE SPLIT-SYSTEM HVAC (TRANE OR EQUAL) EXCEPT A/C #4 WHICH IS A WALL-MTD. DUCTLESS "MINI" SPLIT SYSTEM UNIT WITH "COOLING ONLY"
2	60,000	5 TON	208V,1Ø	35	P1-2,4	
3	24,000	2 TON	208V,1Ø	12	P1-6,8	
4	12,000	1 TON	208V,1Ø	-	P1-7,9	
5	24,000	2 TON	208V,1Ø	12	P1-10,12	

AHU UNIT SCHEDULE								
ZONE/ A/C #	TOTAL BTU	CFM	O.A.	HEAT (KW)	ELECTRICAL			COMMENTS
					VOLTAGE	MCA	CKT BRKR'S	
1	180,000	6,000	849	22.4	208V,3Ø	89.8	P2-13,15,17	NOTE: ALL A/C TO BE SPLIT-SYSTEM HVAC (TRANE OR EQUAL) EXCEPT A/C #4 WHICH IS A WALL-MTD. DUCTLESS "MINI" SPLIT SYSTEM UNIT WITH "COOLING ONLY"
2	60,000	2,000	307	10.8	208V,3Ø	46	P2-19,21,23 # P2-20,22,24	
3	24,000	800	116	7.2	208V,3Ø	28	P2-25,27,29 # P2-26,28,30	
4	12,000	400	22	-	208V,1Ø	13	P1-7,9	
5	24,000	800	139	7.2	208V,3Ø	28	P2-31,33,35 # P2-32,34,36	

EXHAUST FAN SCHEDULE				
LOC	CFM	VOLTAGE	TYPE	MANF.
TOILETS	150	120	VENT/LIGHT	BROAN

P-TAC SLEEPING ROOM A/C UNIT SCHEDULE							
TOTAL BTU	CFM	O.A.	HEAT (KW)	ELECTRICAL			COMMENTS
				VOLTAGE	MCA	CKT BRKR	
9000	300	60	3	208V,3Ø	15.6	20A	FRIEDRICH



FIRST FLOOR MECHANICAL PLAN