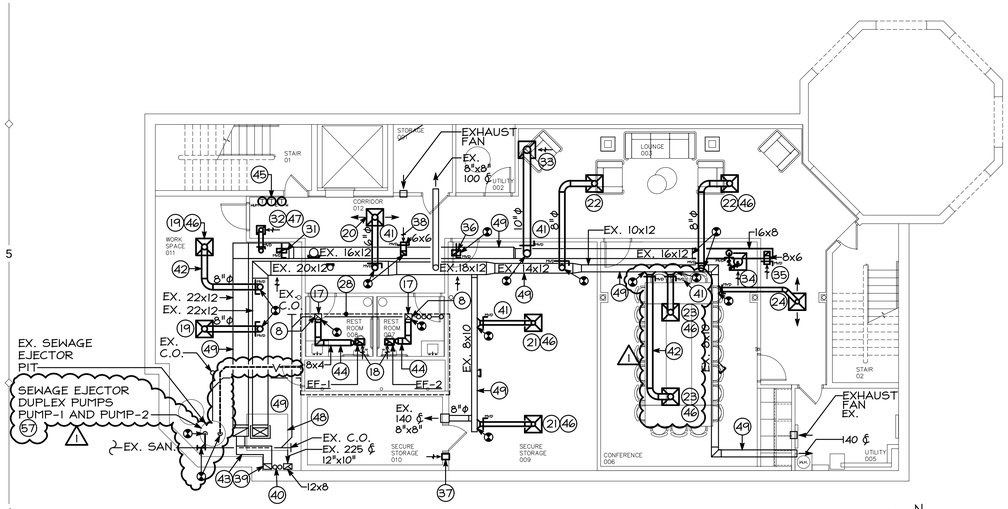
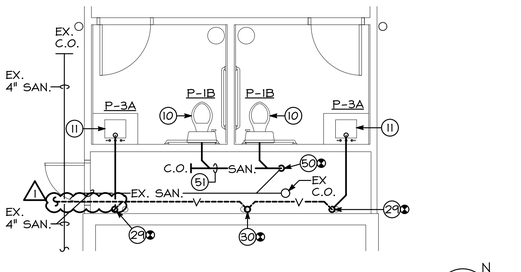


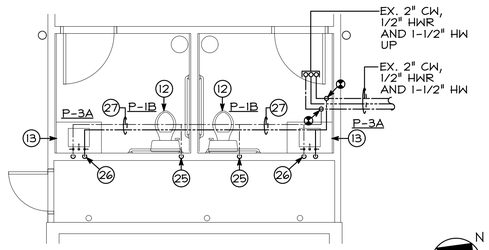
NEW WORK - BASEMENT FLOOR - MECHANICAL

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



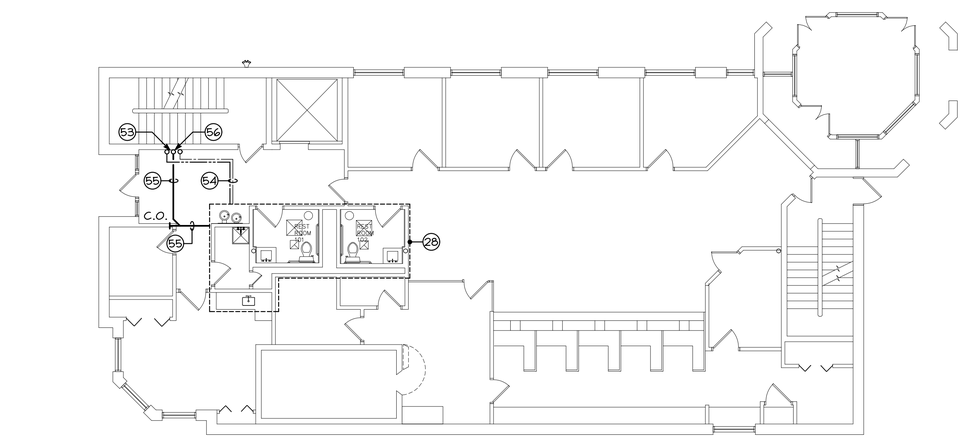
BASEMENT - SANITARY/VENT

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



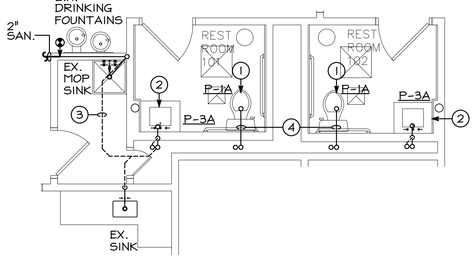
BASEMENT - DOMESTIC WATER

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



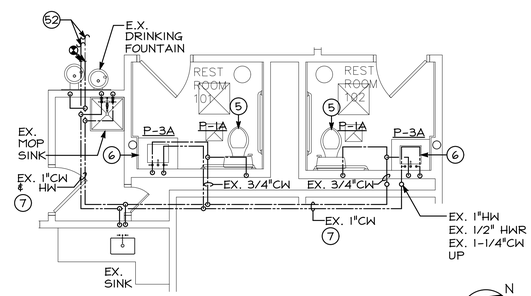
NEW WORK - FIRST FLOOR - MECHANICAL

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



FIRST FLOOR - SANITARY VENT

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



FIRST FLOOR - DOMESTIC WATER

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

DRAWING NOTES

1. INSTALL NEW WATER CLOSET AND WAX RING.
2. INSTALL NEW LAVATORY AND FAUCET. INSTALL NEW SANITARY PIPING AND P-TRAP.
3. EXISTING VENT PIPING SUPPORTED ABOVE CEILING.
4. EXISTING SANITARY PIPING BELOW FLOOR.
5. INSTALL NEW WATER CLOSET AND CW CONNECTION.
6. INSTALL NEW LAVATORY, FAUCET AND NEW CW & HW CONNECTION.
7. EXISTING DOMESTIC WATER PIPING SUPPORTED ABOVE CEILING.
8. EXISTING 10x10 EXHAUST DUCT UP TO EXISTING EXHAUST AIR VENT LOCATED ON ROOF.
9. REFER TO PLUMBING FLOOR PLANS AND RISER DIAGRAMS.
10. INSTALL NEW WATER CLOSET AND ALL ASSOCIATED SANITARY/VENT PIPING.
11. INSTALL NEW LAVATORY AND ALL ASSOCIATED SANITARY/VENT PIPING.
12. INSTALL NEW WATER CLOSET AND ALL ASSOCIATED DOMESTIC WATER PIPING.
13. INSTALL NEW LAVATORY AND ALL ASSOCIATED DOMESTIC WATER PIPING.
14. EXISTING DOMESTIC WATER PIPING SUPPORTED ABOVE CEILING.
15. EXISTING VENT PIPING SUPPORTED ABOVE CEILING.
16. EXISTING SANITARY PIPING BELOW FLOOR.
17. EXISTING 10x6 EXHAUST AIR DUCT UP.
18. CEILING EXHAUST FAN MOUNTED FROM CEILING STRUCTURE ABOVE. REFER TO DETAIL AND SCHEDULE FOR MORE INFORMATION.
19. 150 CFM, 8"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
20. 75 CFM, 8"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
21. 90 CFM, 6"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
22. 125 CFM, 8"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
23. 180 CFM, 8"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
24. 55 CFM, 6"ϕ NECK, 24x24 SUPPLY AIR DIFFUSER.
25. COORDINATE CW PIPE DOWN IN WALL.
26. COORDINATE CW & HW PIPE DOWN IN WALL.
27. DOMESTIC WATER SUPPORTED FROM STRUCTURE ABOVE.
28. REFER TO PLUMBING PART PLANS LOCATED ON THIS DRAWIING FOR WORK IN THIS AREA.
29. VENT PIPE DOWN IN WALL. CONNECT TO EXISTING VENT PIPE STUBBED UP.
30. EXISTING VENT PIPE UP.
31. 300 CFM, 14"x6" RETURN AIR REGISTER.
32. 75 CFM, 12"x12" RETURN AIR DIFFUSER, 6"ϕ NECK.
33. 305 CFM, 24"x24" RETURN AIR DIFFUSER, 10"ϕ NECK.
34. 360 CFM, 24"x24" RETURN AIR DIFFUSER, 12"ϕ NECK.
35. 140 CFM, 8"x6" RETURN AIR DUCT OPENING WITH 1"x1" WIRE MESH SCREEN OVER OPENING.
36. 320 CFM, 12"x8" RETURN AIR REGISTER.
37. 8"x6" TRANSFER AIR DUCT.
38. 100 CFM, 6"x6" RETURN AIR DUCT OPENING WITH 1"x1" WIRE MESH SCREEN OVER OPENING.
39. OUTSIDE AIR DUCT DN. TO EXISTING AIR HANDLING UNIT.
40. EXISTING REFRIGERANT PIPING FROM AIR HANDLING UNIT TO HEAT PUMP ON ROOF.
41. MANUAL BALANCING DAMPER (TYPICAL).
42. SUPPLY AIR DUCTWORK SUPPORTED FROM STRUCTURE ABOVE (TYPICAL).
43. EXISTING OUTSIDE AIR DUCTWORK SUPPORTED FROM STRUCTURE ABOVE (TYPICAL).
44. EXHAUST AIR DUCTWORK SUPPORTED FROM STRUCTURE ABOVE (TYPICAL).
45. EXISTING WALL MOUNTED THERMOSTAT MOUNTED 48" ABOVE FLOOR AND AND INTERLOCKED WITH UNIT INDICATED.
46. 24"x24" CEILING MOUNTED VANED SUPPLY AIR DIFFUSER WITH NECK SIZE AND AIR QUANTITY INDICATED (TYPICAL).
47. 12"x12" CEILING MOUNTED SUPPLY AIR DIFFUSER WITH NECK SIZE AND AIR QUANTITY INDICATED (TYPICAL).
48. EXISTING AIR HANDLING UNIT NO.3.
49. EXISTING DUCTWORK SUPPORTED FROM STRUCTURE ABOVE (TYPICAL).
50. CONNECT SANITARY PIPE TO EXISTING ROUGH IN LOCATED IN FLOOR. TEST PITT, FIELD VERIFY EXISTING CONDITIONS, PIPE SIZES, INVERT ELEVATION AND FLOW OF DIRECTION BEFORE COMMENCMENT OF WORK.
51. 3" SANITARY PIPE LOCATED ABOVE FLOOR. PROVIDE 2% SLOPE.
52. REFER TO FIRST FLOOR PLAN NEW WORK FOR CONTINUATION.
53. 1/2" CW AND 1/2" HW UP TO KITCHEN SINK. REFER TO SECOND FLOOR NEW WORK PLAN FOR CONTNUATION.
54. DOMESTIC WATER SUPPORTED FROM STRUCTURE ABOVE CEILING.
55. SANITARY PIPE SUPPORTED FROM STRUCTURE ABOVE CEILING.
56. 2" SANITARY PIPE UP TO KITCHEN SINK. REFER TO SECOND FLOOR NEW WORK PLAN FOR CONTNUATION.
57. LOCATE DUPLEX PUMPS 1 AND 2 IN EXISTING SEWAGE EJECTOR PIT.

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

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

FARMERS & MERCHANTS BANK
25 WESTMINSTER PIKE
REISTERTOWN, MARYLAND, 21136
INTERIOR ALTERATION

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LICENSE NO.: 19994

EXP. DATE: 3/31/2027

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No.	Date	Revision
001	10/21/26	RFI's

Project No.:

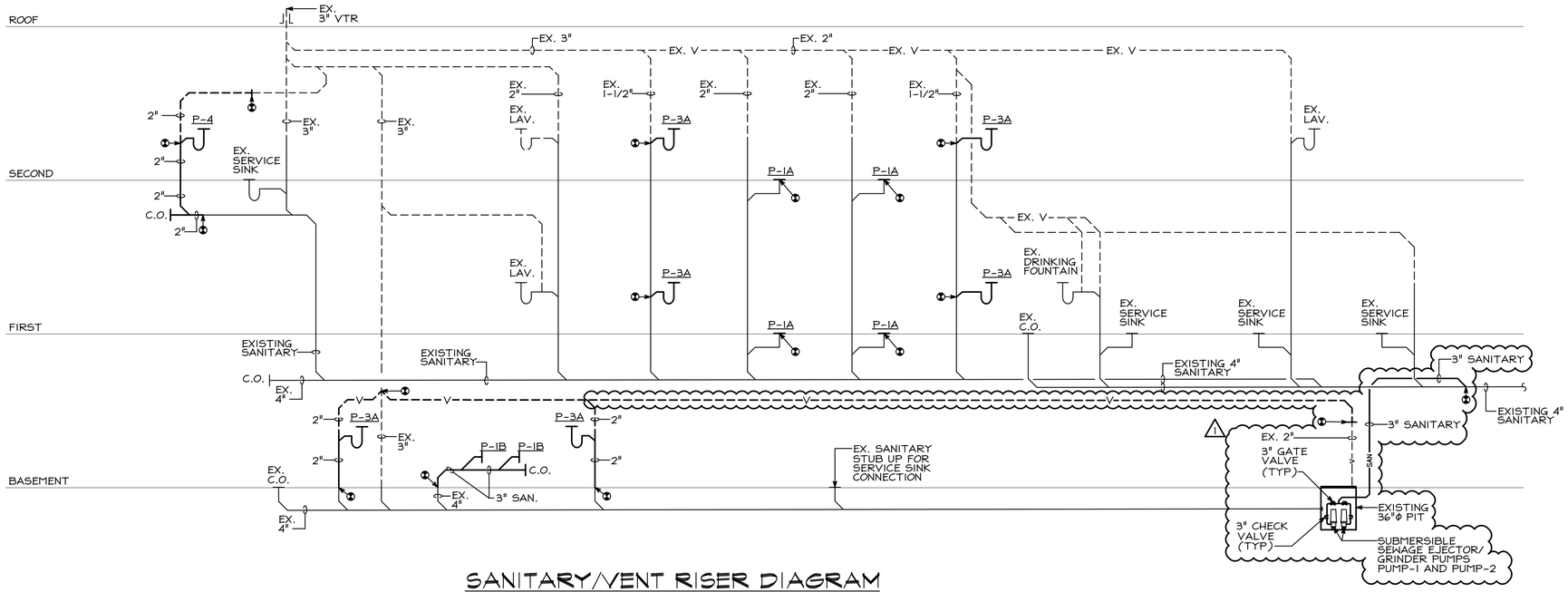
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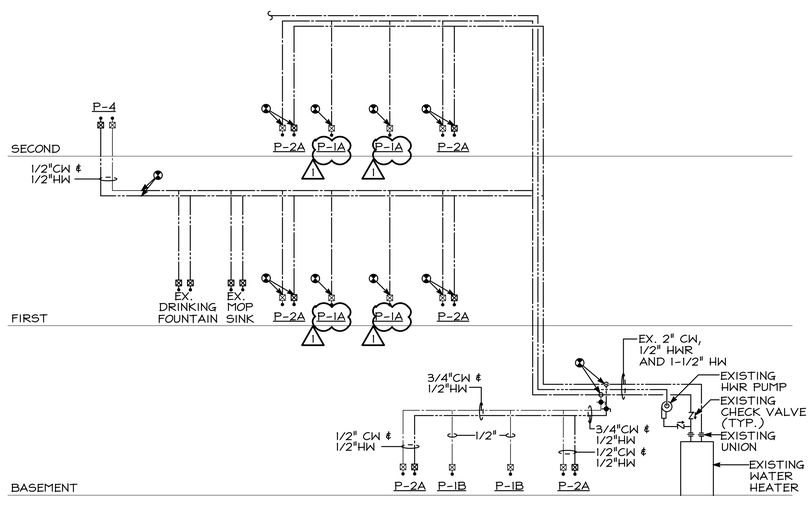
Drawing Name: NEW WORK FLOOR AND PART PLANS

Drawing Number: M-4



SANITARY/VENT RISER DIAGRAM

NOT TO SCALE



DOMESTIC WATER RISER DIAGRAM

NOT TO SCALE

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No.	Date	Revision
001	10/21/26	RFI's

Project No.:
Date:
Scale:
Edition: PERMIT SET
Drawing Name: **PLUMBING RISER DIAGRAMS**
Drawing Number: M-6

SPLIT SYSTEM HEAT PUMP AIR HANDLING UNIT SCHEDULE

ITEM#	AREA SERVED	FAN DATA					DX COOLING DATA (R454B)					HEAT PUMP HEATING DATA (KW=TOTAL POWER)						INDOOR UNIT					OUTDOOR UNIT					
		C.F.M.	E.S.P.	H.P.	R.P.M.	C.F.M. O.A.	TOTAL BTU/HR.	SENS. BTU/HR.	# COIL ROWS	ENTERING AIR DB°F	ENTERING AIR WB°F	HI-TEMP HEAT 47 O.A.T. BTU/HR.	HI-TEMP HEAT 47 O.A.T. KW	HI-TEMP HEAT 47 O.A.T. C.O.P.	LOW-TEMP HEAT 17 O.A.T. BTU/HR.	LOW-TEMP HEAT 17 O.A.T. KW	LOW-TEMP HEAT 17 O.A.T. C.O.P.	ELECTRICAL DATA	MCA/ MOP	WEIGHT (LBS.)	MANUFACTURER	MODEL #	SEER	ELECTRICAL DATA	MCA/ MOP	WEIGHT (LBS.)	MANUFACTURER	MODEL #
AHU-2/HP-2	IT OFFICE	800	0.5"	1/3	HIGH	0	24,000	17,100	3	80	67	22,800	6.6	4.0	14,700	2.7	2.7	208V/1Φ	5/15	120	TRANE	5TEM4B02AC21SA	14.0	208V/1Φ	15/20	175	TRANE	5TWR4024A1000A

NOTE:
1) CAPACITIES ARE BASED ON 80°F DB/67°F WB ENTERING AIR.

EXISTING ELECTRIC WATER HEATER SCHEDULE

ITEM#	AREA SERVED	NOMINAL TANK SIZE (GAL.)	PIPE CONNECTIONS INLET	PIPE CONNECTIONS OUTLET	K.W. UPPER/ LOWER	ELECTRICAL DATA	MANUFACTURER	MODEL #
EXISTING WATER HEATER	ALL FLOORS	40	3/4"	3/4"	4.5/4.5	208V/1Φ	A.O. SMITH	DEN-40 110

EXHAUST FAN SCHEDULE

ITEM#	AREA SERVED	C.F.M.	SONES	H.P./ WATTS	FAN TYPE	E.S.P.	DRIVE TYPE	R.P.M.	ELECTRICAL DATA	CONTROL	WEIGHT (LBS.)	MANUFACTURER	MODEL #
EF-1	BASEMENT TOILET ROOM	100	3.0	45	CEILING	0.375	DIRECT	1,100	120V-1PH	LIGHT SWITCH	15	COOK	GN-148
EF-2	BASEMENT TOILET ROOM	100	3.0	45	CEILING	0.375	DIRECT	1,100	120V-1PH	LIGHT SWITCH	15	COOK	GN-148

EXISTING SPLIT SYSTEM HEAT PUMP SCHEDULE

ITEM#	AREA SERVED	FAN DATA C.F.M.	FAN DATA OUTSIDE AIR	FAN DATA H.P.	FAN DATA E.S.P.	COOLING DATA (BTUH) TOTAL	COOLING DATA (BTUH) ENTERING AIR DB°F	COOLING DATA (BTUH) ENTERING AIR WB°F	HEATING DATA (BTUH) INPUT	INTERIOR MODEL #	EXTERIOR MODEL #
EX. AHU-1/EX. HP-1	IT ROOM	800	-	1/3	0.375"	24,000	80	67	22,800	TRANE 5TEM4B02	TRANE 5TWR4024
EX. AHU-3/EX. HP-3	BASEMENT	1,600	470	3/4	0.50"	48,000	80	67	34,120	CARRIER FB4A-048	CARRIER 38YCKC48

SEWAGE EJECTOR PUMP SCHEDULE

ITEM#	SYSTEM SERVED	G.P.M.	HEAD (FT.)	H.P.	TYPE	ELECTRICAL	HEIGHT	DIA.	WEIGHT (LBS)	MFGR.	MODEL#
PUMP-1	BASEMENT PLUMBING	21	15'	1/2	SUBMERSIBLE	120V/1Φ	13.25"	11"	255	LIBERTY PUMPS	LE51AV-2
PUMP-2	BASEMENT PLUMBING	21	15'	1/2	SUBMERSIBLE	120V/1Φ	13.25"	11"	255	LIBERTY PUMPS	LE51AV-2

NOTES:
1) DUPLEX SYSTEM LEAD/LAG CONFIGURATION.

INTERNATIONAL MECHANICAL VENTILATION CODE

SPACE NAME	SQ.FT. (Az)	AREA OUTDOOR AIR RATE (Ra) table 403.3 CFM/ SQ.FT.	AREA OUTDOOR AIR (RaAz)	OCCUPANT LOAD RATE table 403.3 #PEOPLE/ 1,000 SQ.FT	TOTAL # OF PEOPLE (Pz)	OCCUPANT OUTDOOR AIR RATE (Rp) table 403.3 CFM/ PERSON	OCCUPANT OUTDOOR AIR (RpPz)	BREATHING ZONE OUTDOOR AIR (Vbz) =RpPz+RaAz	ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) table 403.3.1.2 (FACTOR)	ZONE OUTDOOR AIR (Voz) =Vbz/Ez	TOTAL "SUPPLY" AIR TO SPACE (Vpz)	OUTDOOR AIR FRACTION (Zp) =Voz/Vpz
215 Print Area	255	.06	15.3	5	1	5	6.4	21.7	0.8	27.1	375	0.07
216 Open Office	415	.06	24.9	5	2	5	10.4	35.3	0.8	44.1	760	0.06
209 Office	65	.06	3.9	5	0	5	1.6	5.5	0.8	6.9	145	0.05
210 Office	65	.06	3.9	5	0	5	1.6	5.5	0.8	6.9	145	0.05
TOTALS=	800		48.0		4		20.0	68.0		85.0	1,425	

Vot=Voz = 85
TOTAL REQUIRED OUTDOOR AIR FOR "MULTI-ZONE SYSTEM" BASED ON OCCUPANT DIVERSITY = 1

table 403.3.2.3.2
Ev = 1
SYSTEM VENTILATION EFFICIENCY (Ev) [based on max. (Zp)]

Vot=Vbz/Ev = 70
TOTAL REQUIRED OUTDOOR AIR FOR "SINGLE-ZONE SYSTEM"

INTERNATIONAL MECHANICAL VENTILATION CODE

SPACE NAME	SQ.FT. (Az)	AREA OUTDOOR AIR RATE (Ra) table 403.3 CFM/ SQ.FT.	AREA OUTDOOR AIR (RaAz)	OCCUPANT LOAD RATE table 403.3 #PEOPLE/ 1,000 SQ.FT	TOTAL # OF PEOPLE (Pz)	OCCUPANT OUTDOOR AIR RATE (Rp) table 403.3 CFM/ PERSON	OCCUPANT OUTDOOR AIR (RpPz)	BREATHING ZONE OUTDOOR AIR (Vbz) =RpPz+RaAz	ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) table 403.3.1.2 (FACTOR)	ZONE OUTDOOR AIR (Voz) =Vbz/Ez	TOTAL "SUPPLY" AIR TO SPACE (Vpz)	OUTDOOR AIR FRACTION (Zp) =Voz/Vpz
001 Storage	55	.12	6.6	0	0	0	0.0	6.6	0.8	8.2	100	0.08
003 Lounge	620	.06	37.2	10	6	5	31.0	68.2	0.8	85.3	305	0.28
005 Utility	120	.06	7.2	10	1	5	6.0	13.2	0.8	16.5	140	0.12
006 Conference Room	500	.06	30.0	50	25	5	125.0	155.0	0.8	193.8	360	0.54
007 Restroom	55	0	0.0	0	0	0	0.0	0.0	0.8	0.0	0	####
008 Restroom	55	0	0.0	0	0	0	0.0	0.0	0.8	0.0	0	####
009 Secure Storage	475	.12	57.0	0	0	0	0.0	57.0	0.8	71.2	180	0.40
010 Secure Storage	135	.12	16.2	0	0	0	0.0	16.2	0.8	20.2	140	0.14
011 Work Space	480	.06	28.8	5	2	5	12.0	40.8	0.8	51.0	300	0.17
012 Corridor	310	.06	18.6	0	0	0	0.0	18.6	0.8	23.3	75	0.31
TOTALS=	2,805		201.6		35		174.0	375.6		469.5	1,600	

Vot=Voz = 470
TOTAL REQUIRED OUTDOOR AIR FOR "MULTI-ZONE SYSTEM" BASED ON OCCUPANT DIVERSITY = 1

table 403.3.2.3.2
Ev = 1
SYSTEM VENTILATION EFFICIENCY (Ev) [based on max. (Zp)]

Vot=Vbz/Ev = 380
TOTAL REQUIRED OUTDOOR AIR FOR "SINGLE-ZONE SYSTEM"

PLUMBING FIXTURE SCHEDULE

ITEM#	DESCRIPTION	PIPE SIZES C.W.	PIPE SIZES H.W.	PIPE SIZES SAN.	PIPE SIZES VENT	TRAP TYPE	REMARKS
P-1A	WATERCLOSET (FLUSH TANK)	1/2"		4"	2"	INTEGRAL	HANDICAPPED
P-1B	WATERCLOSET (FLUSH TANK)	1/2"		4"	2"	INTEGRAL	HANDICAPPED
P-3A	COUNTERTOP LAVATORY	1/2"	1/2"	2"	2"	"P"	HANDICAPPED
P-4	KITCHEN SINK	1/2"	1/2"	2"	2"	"P"	

EXISTING GAS FIRED ROOFTOP UNIT SCHEDULE

ITEM#	AREA SERVED	FAN DATA C.F.M.	FAN DATA OUTSIDE AIR	FAN DATA H.P.	FAN DATA E.S.P.	COOLING DATA (BTUH) TOTAL	COOLING DATA (BTUH) ENTERING AIR DB°F	COOLING DATA (BTUH) ENTERING AIR WB°F	HEATING DATA (BTUH) INPUT	HEATING DATA (BTUH) TEMP. RISE °F	MODEL #
EX. RTU-1	FIRST FLOOR	5,500	680	1.0	0.80"	184,600	77.5	64.8	275,000	37.5	48HJD017
EX. RTU-2	SECOND FLOOR	6,900	440	1.0	0.55"	189,000	76.3	63.8	275,000	29.9	48HJD017

EXISTING SCHEDULE VARIABLE AIR ZONE DAMPERS

ITEM#	COOLING DATA MAX. C.F.M.	COOLING DATA MAX. F.P.M.	P.D. IN H^2O	INLET AREA SQ.FT.	DAMPER SIZE	MANUFACTURER	MODEL #
1	544	700	0.02	0.79	12"Φ	CARRIER	ZD12
2	320	700	0.02	0.55	10"Φ	CARRIER	ZD10
3	675	700	0.02	1.07	14"Φ	CARRIER	ZD14
4	1000	714	0.02	1.40	16"Φ	CARRIER	ZD16
5	550	700	0.02	0.79	12"Φ	CARRIER	ZD12
6	640	700	0.02	1.07	14"Φ	CARRIER	ZD14
7	295	700	0.02	0.55	10"Φ	CARRIER	ZD10
8	560	700	0.02	0.78	14"x8"	CARRIER	RD0814
9	745	600	0.02	1.07	14"Φ	CARRIER	ZD14
10	2745	1500	0.02	2.0	18"x16"	RUSKIN	-
11	2745	1500	0.02	2.0	18"x16"	RUSKIN	-
12	900	700	0.02	1.4	16"Φ	CARRIER	ZD16
13	1050	700	0.02	1.5	16"x14"	RUSKIN	-
14	240	700	0.02	0.35	8"Φ	CARRIER	ZD08
15	750	700	0.02	1.07	16"Φ	CARRIER	ZD14
16	1150	700	0.02	1.64	18"x14"	RUSKIN	-
17	640	700	0.02	0.35	8"Φ	CARRIER	ZD08
18	700	600	0.02	1.4	16"Φ	CARRIER	ZD16
19	190	600	0.02	0.35	8"Φ	CARRIER	ZD08
20	370	700	0.02	0.55	10"Φ	CARRIER	ZD10
21	760	700	0.02	1.07	14"Φ	CARRIER	ZD14
22	6900	1500	0.02	4.6	36"x18"	RUSKIN	-

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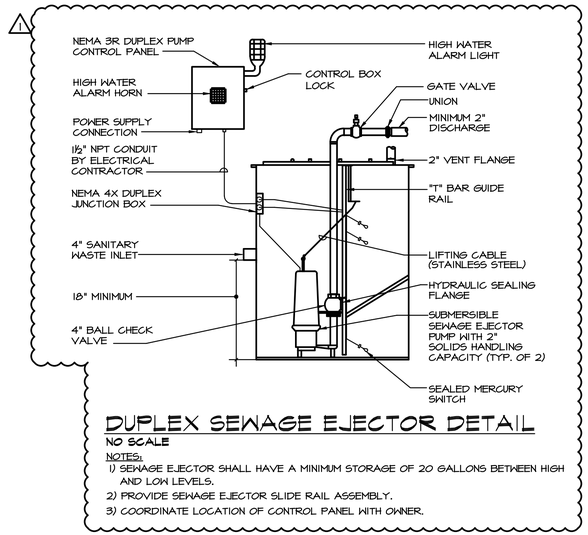
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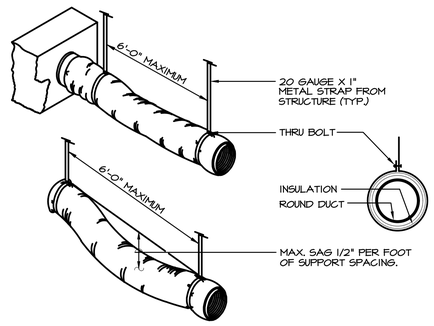
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Date:
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Edition: PERMIT SET
Drawing Name: MECHANICAL SCHEDULES
Drawing Number: M-7



DUPLEX SEWAGE EJECTOR DETAIL

NO SCALE

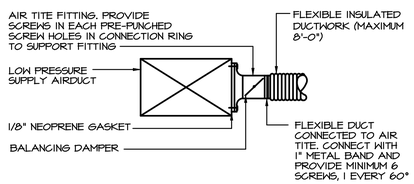
NOTES:
1) SEWAGE EJECTOR SHALL HAVE A MINIMUM STORAGE OF 20 GALLONS BETWEEN HIGH AND LOW LEVELS.
2) PROVIDE SEWAGE EJECTOR SLIDE RAIL ASSEMBLY.
3) COORDINATE LOCATION OF CONTROL PANEL WITH OWNER.



FLEXIBLE DUCT RUN-OUT SUPPORT DETAIL

NO SCALE

NOTES:
1) FLEXIBLE DUCT SHOULD EXTEND STRAIGHT FOR SEVERAL INCHES FROM RECTANGULAR DUCT CONNECTION BEFORE BENDING.
2) USE RIGID DUCTWORK WHEN FLEXIBLE DUCT LENGTH EXCEEDS 5'-0" IN LENGTH.



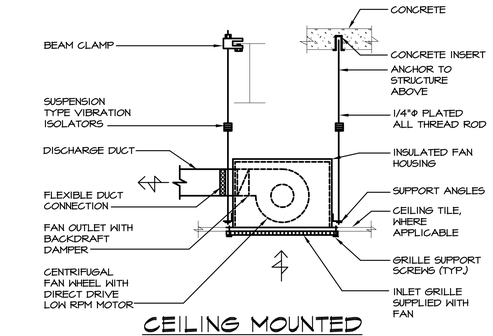
AIR TITE FITTING DETAIL

NO SCALE

AIR TITE SIZE CHART

DUCTSIZE	CONNECTION RING	DUCTSIZE	CONNECTION RING
5"	8"	9"	12"
6"	9"	10"	13"
7"	10"	11"	15"
8"	11"	12"	17"

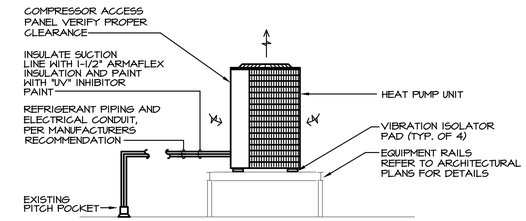
NOTE:
WHERE CONNECTION RING SIZE IS LARGER THAN SUPPLY DUCT, THEN CONNECTION RING SHALL BE CRIMPED OVER DUCT AND CONNECTED, SCREWED & SEALED ON TOP AND BOTTOM OF SUPPLY DUCT.



CEILING MOUNTED EXHAUST FAN DETAIL

NO SCALE

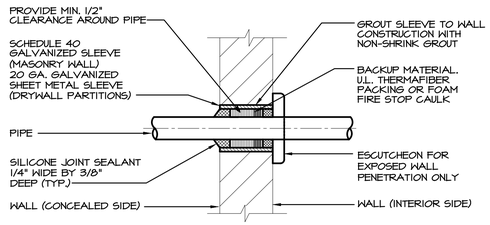
NOTE:
PROVIDE VARIABLE SPEED SWITCH ON THE SIDE OF THE CASING FOR FINAL AIR BALANCE.



ROOF MOUNTED HEAT PUMP DETAIL

NO SCALE

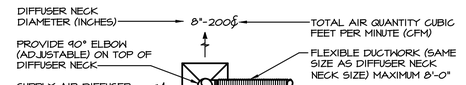
NOTES:
1) COORDINATE EXACT LOCATION OF "NEW" HEAT PUMP UNIT WITH "EXISTING" UNITS ON EXISTING EQUIPMENT FRAMING AND MAINTAIN PROPER CLEARANCE AROUND EACH UNIT PER MANUFACTURER'S RECOMMENDATIONS.
2) TRAP AND SIZE REFRIGERANT PIPING PER MANUFACTURE'S RECOMMENDATIONS.
3) PROVIDE GROSS BRACING SUPPORT AS REQUIRED.



PIPE SLEEVE THRU WALL DETAIL

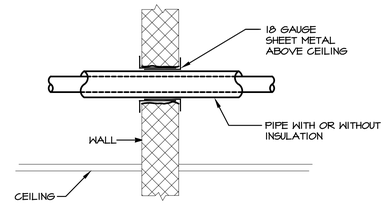
NO SCALE

NOTES:
1) AT THE CONTRACTORS' OPTION A U.L. LISTED/APPROVED FIRE STOP PIPE SLEEVE ASSEMBLY MAY BE SUBMITTED FOR APPROVAL.
2) FOR EXISTING POURED CONCRETED WALLS, CORE DRILL OR STAR DRILL OPENING THRU EXISTING WALL FOR PIPE SLEEVES AS DIRECTED.
3) GALVANIZED SLEEVE SHALL BE CAST INTO NEW CONCRETE WALL POURS.



SUPPLY AIR DIFFUSER KEY

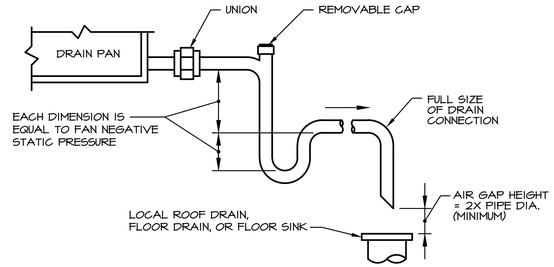
NO SCALE



PIPE PENETRATION THRU WALL ABOVE CEILING

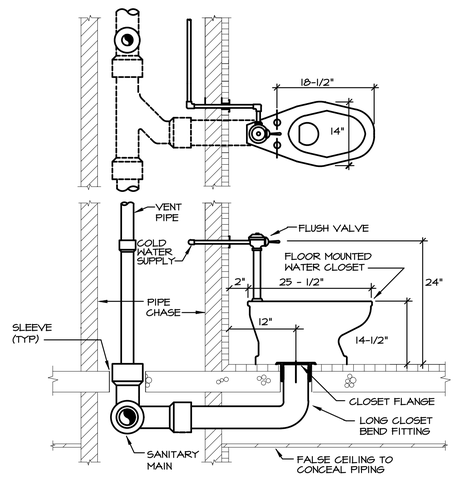
NO SCALE

NOTES:
1) TYPICAL FOR NON-INSULATED PIPE AND CONDUIT.
2) TYPICAL FOR MASONRY, CONCRETE OR DRYWALL WALL.
3) FIRE RATED WALLS MUST BE SEALED WITH APPROPRIATE FIRE RETARDED CAULKING.



CONDENSATE DRAIN DETAIL

NO SCALE



FLOOR MOUNTED WATER CLOSET

NO SCALE

FARMERS & MERCHANTS BANK
25 WESTMINSTER PIKE
REISTERTOWN, MARYLAND, 21136
INTERIOR ALTERATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 19994
EXP. DATE: 3/31/2027

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No.	Date	Revision
001	10/21/26	RFI's

Project No.:
Date:
Scale:
Edition: PERMIT SET
Drawing Name: MECHANICAL DETAILS
Drawing Number: M-8

MECHANICAL SPECIFICATIONS

I. SECTION 15010 - BASIC MECHANICAL REQUIREMENTS

A. The work of each of the mechanical sections includes furnishing and installing the material, equipment and systems complete as specified and/or indicated on the drawings. The mechanical installations, when finished, shall be complete and coordinated, ready for satisfactory service.

B. All work under this contract shall be done in strict accordance with all applicable municipal, state, Baltimore County, NFPA, International and local codes that govern each particular trade.

C. The contractor shall make applications and pay all charges for all necessary permits, licenses and inspections as required under the above codes. Upon completion of the work, the customary certifications of approval shall be furnished.

D. No materials or equipment shall be used in the work until approved. Before submission of the shop drawings, and not more than thirty(30) days after award of the contract, the contractor shall submit for approval a complete list of materials and equipment which he intends to furnish, giving manufacturer and catalog numbers. A complete list of proposed sub-contractors shall also be submitted.

E. The contractor shall examine all drawings and specifications and shall inspect the existing conditions of the site. Failure to comply with this requirement will not relieve the contractor of responsibility for complying with the intent of the contract documents.

F. The drawings indicate the general arrangement of the mechanical installations. Details of proposed departures due to actual field conditions or other causes shall be submitted for approval prior to installation. Reworking of completed items due to improper field coordination shall be at the contractor's expense.

G. Provide sufficient access and clearance for all items of equipment requiring servicing and maintenance, such as valves, dampers, controls, drives, drains, vents, starters, switches, filters, traps and major items of equipment.

H. The contractor shall perform all necessary cutting and patching as required to complete the installation of the mechanical work. Patching of walls, floors, ceilings, roof, etc. shall match the adjacent surfaces.

I. The contractor shall prepare three (3) copies of a record and information booklet. The booklet shall be bound in a three ring loose-leaf binder. Provide the following data in the booklet.

1) Catalog data on each piece of equipment furnished
2) Approved shop drawings on each piece of equipment furnished
3) Maintenance, operation and lubrication instruction on each piece of equipment furnished
4) Simplified temperature control diagram
5) Manufacturer's and contractor's guarantees
6) Air and water balancing reports
7) Commissioning reports
8) Schedule/description of all service work/maintenance inspections required by the paragraphs of this section

J. The entire new plumbing system shall be tested hydrostatically before insulation covering is applied and proved tight under the following gauge pressures:

Sanitary piping ..... as specified below
Domestic water piping ..... 100 psig
Refrigeration liquid and suction piping ..... 225/400 psig
Fire protection piping ..... Per NFPA

K. All soil, waste and vent piping shall be tested by the contractor. The entire new drainage system and venting system shall have all necessary openings plugged and filled with water to the level of ten (10) feet above the main or branch being tested. The system shall hold this water for thirty (30) minutes without showing a drop greater than four (4) inches.

Note: If any code or authority requires testing which is different than the test listed above, the more stringent test shall be performed.

L. All parts of the heating, ventilating, air conditioning and exhaust systems shall be adjusted, checked, balanced and tested by an independent A.A.B.C. certified testing and balancing contractor approved by the owner. The contractor shall put all systems and equipment into full operation, and shall test and balance all devices to within ten (10) percent of capacities indicated on the drawings. Submit copies of the balancing reports as required by the contract.Permanently mark the position of each balancing damper.

M. Upon completion of the mechanical installations, the contractor shall provide a complete set of prints of the mechanical contract drawings which shall be legibly marked in red pencil to show all changes and departures of the installation as compared with the original design. They shall be suitable for use in preparation of record drawings.

N. All piping and valve systems shall be identified with labels and tags. Materials shall be as manufactured by Seton name plate corporation.

O. All new mechanical installations, including all materials and labor shall be guaranteed for a period of one (1) year from date of ouner acceptance. The above shall not in any way void or abrogate equipment manufacturer's guarantee or warranty. Certificates of guarantee shall be delivered to the owner.

P. Contractor shall also provide one (1) year free service to keep the eqiipment in operating condition. This service shall be provided per the following schedule and rendered upon request when notified of any equipment malfunction.

Q. In addition to the first year warranty period, the contractor shall provide, at no additional cost to the ouner, a minimum of four (4) service calls and maintenance inspections. A complete outline of the required maintenance and the proposed schedule shall be included in the "record and information booklet" detailed in Section 15010-Basic Mechanical Requirements, paragraph I, for review and acceptance by the owner/representative and engineer. The inspections are to be performed at three (3) month intervals for a total of four (4) service calls and inspections during the first year warranty period (three (3) times during the year plus the original system start-up commissioning. The service work and inspections shall include, but not be limited to the following:

- Replace all disposable air filters;
- Clean all permanent air filters;
- Lubricate all motor and fan bearings as required;
- Clean drain pans and drain lines;
- Check and tighten all electrical connections;
- Inspect all belts for adjustment and condition and replace as required;
- Inspect and clean all water strainers;
- Check operating pressures and refrigerant charge;
- Inspect all controls for correct operation and calibrate as required;
- Perform all maintenance as outlined in the equipment manufacturers operation and maintenance manuals.

Upon completion of each scheduled inspection, the contractor shall deliver to the building owner/ouner's representative within (48) hours of completion, two (2) copies the completed inspection report for record purposes.

R. The mechanical or service contractor shall, at the ninth month, advise the owner of the termination date of the above service. This contractor shall also provide the owner with a detailed proposal, reflecting annual escalation, for the continuation of the service and inspections described above.

2. SECTION 15050 - BASIC MECHANICAL PIPING MATERIAL & METHODS

A. Provide all labor and materials necessary to furnish and install all piping systems on this project, including interior storm, sanitary, sanitary vent, domestic water, condensate drainage, heating water, chilled water, condenser water, steam, steam condensate, natural gas, refrigerant and medical gas piping systems.

B. Piping and valves shall be as follows:

1) Storm and sanitary drains and sanitary vents above floor inside building:

Piping: Cast iron no-hub soil pipe and/or schedule 40 galvanized steel pipe and/or type DWV copper.

Fittings: Cast iron no-hub soil pipe fittings and/or galvanized drainage fittings and/or copper solder joint cast drainage fittings.

Joints: No-hub stainless steel gasketed fittings and/or solvent sealer and/or solder type wrought copper.

- OR -

Piping: Schedule 40 PVC DWV pipe.

Fittings: Solvent weld joints.

** Sanitary piping located above food prep/storage/display, serving or dining areas shall be copper piping with soldered connections. Any water closets located on floor above these same areas shall be wall mounted fixtures.

2) Domestic hot and cold water piping inside building:

Piping: All water pipings shall be hard copper, type L above ground, type K below ground.

Fittings: Lead free solder type wrought copper.

Gate Valves: 2-1/2" or 3"= 150 psi, union bonnet, rising stem,solid wedge, bronze body, bonnet and stem. Nibco S-134.

Ball Valves: 2" or smaller= 150 psi, two piece body, full port, blowout-proof stem, chrome plated ball, bronze body and stem, reinforced TFE seat ring. Nibco S-585-70.

Unions: 125 psi., wrought copper, ground joint solder ends.

3) T&P relief piping:
Piping: type DWV seamless copper tubing

Fittings: wrought copper solder drainage fittings

4) Atmospheric condensate and indirect waste:

Piping: 1-1/4" or smaller= type DWV seamless copper tubing or schedule 40 plastic pipe. 2" or larger= schedule 40 plastic pipe.

Fittings: 1-1/4" or smaller= wrought copper solder drainage fittings or solvent sealed plastic fittings. 2" or larger= solvent sealed plastic fittings.

** All indirect waste lines shall be bolted to wall/floor with supports and flanges.

** All indirect waste piping greater then 24" in horizontal developed length or 48" in total developed length shall be provided with trap at equipment drain connection.

5) Refrigerant piping:

Piping: Type L hard copper refrigerant tube, dehydrated and sealed.

Fittings: Wrought copper solder type with silfos.

6) Fire protection: Piping and fittings as required by N.F.P.A. regulations and as hereinafter specified.

3. SECTION 15250 - MECHANICAL INSULATION

A. All supply, return, make-up air, outside air ductwork and all storm water, domestic water, chilled water, heating water, dual temperature water and steam and steam condensate piping systems shall be insulated with fiberglass insulation.

B. Ductwork shall be wrapped with nominal 2" thick glass fiber blanket insulation with thermal conductivity 'K' value of 0.27 at 75°F mean temperature and "installed" thermal resistance 'R' value of 8.0 at 1-1/2" compressed/installed thickness. Ouens Corning "SOFTR" fiberglass type 150 with foil faced vapor barrier. Insulation shall be neatly installed and suitable for 40°F-250°F duct temperatures.

C. Pipe insulation shall be premolded fiberglass insulation with an all service jacket, Owens Corning fiberglass SSL-II. Fittings shall be insulated and covered with PVC covers. All piping 1-1/4" and smaller shall have 1" of insulation and all piping between 1-1/2" and 3-1/2" shall have 1-1/2" of insulation.

D. All refrigerant piping shall be wrapped with 1-1/2" armaflex insulation. Insulation exposed to the weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall have shielding from solar radiation that can cause degradation of material. Adhesive tape shall not be permitted.

E. (per 2021 IECC) All refrigerant suction piping (compressor outdoor) shall have 1" of insulation and all suction piping (compressor indoors) shall have 1-1/2" insulation. Liquid line piping shall not require insulation.

F. Interior duct lining shall be as specified under section 15880.

4. SECTION 15300 - FIRE PROTECTION

A. All work, materials, equipment and accessories shall comply with the standards of the National Fire Protection Association and all state and local regulations. System shall be in accordance with NFPA 13 for sprinkler design, NFPA 13 for general storage protection and NFPA 13 for rack storage.

B. Under the existing/new addition design the plumbing contractor shall coordinate the incoming combination water system and split inside the building. The plumbing contractor shall install the OS&Y valves and a double U.L. double check valve/backflow preventer. The final rough in from the plumber for the sprinkler contractor shall be a flanged/ capped connection in the sprinkler room.

C. Install a new wet pipe sprinkler system to properly cover/protect the new architectural design. System shall generally be light hazard, except ordinary hazard in all storage rooms, electrical rooms, etc. The sprinkler contractor shall extend the wet pipe sprinkler system from stub, to properly cover/protect entire building. Final density flow per square foot shall be determined by fire marshal.

D. The new installation shall include, but are not limited to valves, flow switches, sprinkler heads and escutcheons, piping, fittings, hangers,signs and other identification markings, as required.

E. The sprinkler contractor shall carefully examine all documents during the bidding period. He shall familiarize himself with project conditions such as building construction, pipe and ductwork locations and elevations.

F. All new sprinkler heads shall be as required per NFPA 13. Sprinkler heads shall be installed to properly cover and protect the entire building. Any sprinkler heads installed in finished ceilings shall be brushed chrome semi recessed type. All heads in open structure or bay areas with no ceiling shall be bronze upright type.

G. The sprinkler contractor shall arrange for approval of the new sprinkler systems and conduct tests in accordance with NFPA 13.

H. The sprinkler contractor shall provide a detailed shop drawing showing piping layout, head locations, elevations and coordination with all building structure, electrical and plumbing trades. The contractor shall submit detailed sprinkler shop drawings with actual heads for architect approval prior to any fabrication.

I. The sprinkler contractor must submit one sepia of sprinkler shop drawings and hydraulic calculations to the local county fire marshal and/or fire department.

J. The sprinkler contractor shall apply for and obtain a county permit for the work. The permit submittals usually include three copies of shop drawings, hydraulic calculations and catalog documentation of sprinklers and other system components.

5. SECTION 15400 - PLUMBING

A. The work covered by this section of the specifications consists of furnishing all labor, equipment and materials in connection with the rough-in, final setting and connections to all plumbing fixtures. The contractor shall carefully review the conditions at the site and all of the contract drawings to determine the extent of the new and renovation plumbing work required.

B. All plumbing fixtures shall be complete in every detail with all trimmings and connections. All fixtures shall be designed to prevent the backflow of polluted water or waste into the water supply system. Fixtures shall be as listed below or approved equal:

P-1A Water Closet (handicapped): American Standard #2467.100.020 Cadet, floor mounted, bottom outlet, elongated rim bowl, 1.1 GPF with vitreous china construction, 2" trapway, 16-5/8" high, pressure-assisted EcoFlush technology, trim bolt caps, closet flange, 12" rough-in, Church open front white seat with cover, rigid supply with angle stop valve. Tank mounted flush handle must be on the side of the ADA turning radius.

P-1B Water Closet (handicapped): Kohler #K-3578
floor mounted, rear outlet, elongated rim bowl, 1.0 GPF with vitreous china construction, 2" trapway, 16-5/8" high, flush mate technology, trim bolt caps, closet flange, 12" rough-in, Church open front white seat with cover, rigid supply with angle stop valve. Tank mounted flush handle must be on the side of the ADA turning radius.

P-3A Counter Top Lavatory (handicapped): Formica Everform Model #1513 Acrylic undermount single bowl rectangular vanity sink. Acrylic white finish. 7-1/6" deep x 16-3/4"Length x 14-15/16" Width Provide escutcheons, chrome tailpiece, offset 1¼" trap and trap nipple. Provide Moen #4925 "Chateau" 4" center set lavatory faucet with lever handles, brushed chrome finish plated deck mounted faucet with 1.2 gpm flow rate.
Provide ASSE 1070 listed thermostatic mixing valve with optional thermal gauge.

P-4 Kitchen Sink (handicapped): Elkay #ECTSRAD33226TBG "Crosstown" double compartment with 18 gauge, type 304 stainless steel, self-rimming, 4 hole, with undercoating, 33"x22"x6" overall size. Sink shall be fitted with Elkay #LK100ICR faucet with ADA single lever handle, swing spout and side spray. Sink shall be complete with crumb cup strainer, rigid supplies with loose key stops, cast brass clean out, tubing to wall and escutcheons.

C. Undersink thermostatic mixing valve shall be Nibco H-7721IW-TG or approved equal with ASSE1070 listing. Valve shall have lead free bronze body construction with adjustment cap, internal check valves, temperature gauge, and complete with 3/8" compression, elbow, and tee fittings. Temperature setting range shall be 80°F-120°F with a flow range of 0.5-2.5 gpm.

1 D. Sewage ejector pump shall have cast iron housing with stainless steel shaft and bronze impeller. Pump shall be complete with controls and as manufactured by Liberty Pumps.

E. Potable water systems shall be disinfected prior to use. The method to be followed shall be that prescribed by the health authority and code requirements.

6. SECTION 15500 - HEATING, VENTILATING & AIR CONDITIONING (HVAC)

A. The work to be performed shall include all labor, materials and equipment necessary to furnish and install complete, all H.V.A.C. mechanical equipment as shown on drawings and/or hereinafter specified. It is the intent that the systems be installed complete with all items necessary to provide satisfactory service.

B. All heating, ventilating and air conditioning equipment which contains compressors shall be provided with extended warranties covering the compressors for a minimum of four (4) years.

Air Cooled Heat Pump Unit:

Unit shall be outdoor mounted, air cooled, split system heat pump unit suitable for roof or grade installation. Unit shall consist of a hermetic compressor, an air cooled coil, propeller type condenser fan and a control box and shall discharge supply air as shown on the drawings. Unit shall be used in a refrigerant circuit to match up to a packaged fan coil or coil unit.

Unit shall be rated in accordance with the latest edition of ARI standard 210 and 270 and shall be certified for capacity, efficiency and sound. Unit shall also be listed in the latest ARI directory.

Unit construction shall comply with latest edition of ANSI/ASHRAE and with NEC. The Unit shall be constructed in accordance with U.L. standards and shall carry the U.L. label of approval. Unit cabinet shall be capable of withstanding Federal Test Method Standard No. 141(method 6061) 500-hour salt spray test. Air cooled condenser coils shall be leak tested at 150 psig and pressure tested at 300 psig.

Unit shall be factory assembled, single piece, air cooled air conditioner unit, contained within the unit enclosure is all factory wiring, piping, control compressor, refrigerant charge (R-410A) and special features required prior to field start-up.

Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a powder coat paint. Condenser fan shall be direct drive propeller type, discharging air upward. Condenser fan motors shall be totally enclosed with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant. Fan blades shall be statically and dynamically balanced. Condenser fan openings shall be equipped with PVC coated steel wire safety guards.

Unit Compressor shall be hermetically sealed and mounted on rubber vibration isolators.

The heat pump coil shall be air cooled. Coil shall be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated and sealed.

Refrigeration circuit components shall include liquid line shut- off valve with sweat connections, suction shut-off valves with sweat connections, system charge of refrigerant R-410A and compressor oil.

Nominal unit electrical characteristics shall be as indicated on the drawings. Unit electrical power shall be single point connection. Control circuit will be 24v.

Unit accessories shall include Motor master head pressure control which shall permit unit to operate down to -20 degrees F and maintain normal system pressure operation. Low outdoor ambient temperatures, service sentry shall lock out compressor in case of safety switch trip and light a 24 volt signal light. Compressor shall have a 5 year warranty.

Unit shall be Trane, York, Carrier, or approved equal.

7. SECTION 15880 - AIR DISTRIBUTION

A. Furnish all labor and materials necessary to complete the sheet metal work associated with the heating, ventilating, air conditioning and exhaust systems, and other miscellaneous items shown and required.

B. All supply, return, make-up air, exhaust and Type 2 ductwork shall be constructed and installed in accordance with the sheet metal and air conditioning contractors national association (SMACNA) standards and ASHRAE standards.

C. Flexible ductwork shall be ATCO # 031 or approved equal. Flexible duct shall comply with NFPA bulletin 90A and shall be U.L. Listed as class 1 air duct and connector, standard 181. Ductwork shall be insulated with R-8.0 insulation.

D. Support horizontal ducts with hangers spaced not more than six (6) feet apart. Use straphangers for ducts up to thirty (30) inches wide, angle hangers or rods for ducts over thirty (30) inches wide. Straphangers to be one (1) inch wide, 20 gauge minimum; fasten to sides and bottom of duct with sheet metal screws.

E. Ducts shall be straight and smooth on the inside, with joints neatly finished. Ducts shall be suspended from the construction and shall be free from vibration. Curved elbows shall have a center radius equal to one and one-half (1-1/2) times the width of the duct. All square turns shall be vaned. Vanes consisting of curved metal blades shall permit the air to make abrupt turns without turbulence.

F. All joints in the heating, ventilating, and air conditioning and exhaust system ductwork shall be sealed. Sealant shall be as manufactured by Hard Cast Inc. or approved equal and shall consist of a mineral impregnated woven fiber tape and an actuator adhesive.

Sealant shall be SMACNA and U.L. approved, with a flame spread of 10 and a smoke developed of 0, non-toxic and non-flammable. Sealant shall be approved for operating temperatures from 0 degreesf.to 200 degrees f.

Sealant system shall be installed in strict accordance with the manufacturer's recommendations and when applied shall provide a permanent seal without any deterioration.

G. All supply and return air ductwork within fifteen (15) feet of each air handling unit shall be lined on the interior for sound attenuation. Lining shall have a one (1) inch thickness and shall be glued with one hundred (100) percent coverage and additionally secured with pins. Increase duct sizes indicated two (2) inches direction to accommodate the interior lining. Dimensions shown on drawings are clear inside dimensions. Liner shall be a non-fibrous elastomeric thermal (and acoustical) material, closed cell, moisture resistant with anti-microbial agent. Material shall meet ASTM E84 25/50 fire rating (NFPA 90A & 90B), ASTM G 21 # 22, VOC guidelines, ASTM C 518, etc.. Lining shall be Nomaco K-Flex Gray, Evonikfoams Solcoustic or approved equal.

H. Supply air diffusers shall have all steel construction with louvered face and finished with #26 off-white enamel. Titus model TMS, Metal-Aire, Krueger or approved equal.

I. Supply air diffusers shall have all steel construction with perforated face and finished with #26 off-white enamel. Titus model PSS, Metal-Aire, Krueger or approved equal.

J. Return air grilles shall have all steel construction with perforated face and finished with #26 off-white enamel. Titus model PAR, Metal-Aire, Krueger or approved equal.

K. Ceiling mounted fans shall be as manufactured by Cook. Fans shall have acoustically insulated housings and shall have a maximum sound level rating of 6.0 sones. Air deliveries shall be as indicated on the drawings and all fans shall bear the AMCA certified ratings seal and the U.L. label. Integral backdraft damper shall be totally chatter proof with no metal contact. Fan shall have true centrifugal wheels with inlet perpendicularto, or remote from, inlet grille. Grille shall be of aerodynamic design of white molded plastic eggcrate shape and provide eighty-five (85) percent free open area, terminal box shall be provided on the housing with cord, plug, and receptacle inside the housing. Entire fan, motor and wheel assembly shall be easily removable without disturbing the housing. Motor speeds shall not exceed 1600 rpm and all fan motors shall be suitably grounded and mounted on rubber-in-shear vibration isolators.

8. SECTION 15950 - CONTROLS

A. The controls contractor under this heading shall furnish and install all wiring necessary for a complete system of automatic temperature control, ventilation systems, exhaust systems, etc. as indicated on the drawings. The system shall include all necessary thermostats, relays, switches, transformers, contactors, etc. required for successful operation of all equipment as described in the sequence of operations. Electrical work in connection with all control systems shall be performed by the controls contractor and coordinated with the electrical contractor as needed to provide a full and complete package.

B. Each (rooftop, split-systems, heat pumps, hot/chilled water systems) shall be controlled by a wall mounted heating/ cooling thermostat with a (7) day/(24) hour program clock capable of (2) occupied/ non-occupied periods, with (2) heating/ (2) cooling set points, remote temperature sensor capability and auxiliary contact for economizer controls. Thermostat shall have a 5 degree dead band during occupied mode and set for 70°F heating and 75°F cooling. During unoccupied mode, unit shall maintain 55°F heating and 85°F cooling. Thermostat shall be compatible with the unit's economizer and/or accessory package as specified under section 15500. Coordinate control requirements with the proposed H.V.A.C. Equipment.

C. The automatic temperature control contractor shall be responsible for the commissioning of the project to assure a fully functional, fine-tuned H.V.A.C. system upon occupancy. The commissioning of the project shall be performed in accordance with american society of heating, refrigerating and air conditioning engineers, inc. (ASHRAE) pamphlet 1-1989 guideline for commissioning of H.V.A.C. systems. Commissioning is defined as verification of the proper operation of all equipment, alarms, safeties and control and energy management systems serving mechanical systems installed or modified on this project as defined within the specifications and indicated on the contract drawings.

Proper operation is defined as the activation of all controls, field or factory installed, to assure the correct sequencing of equipment and systems, including activation of all operating and safety controls, as hereinbefore described.

The automatic temperature control contractor shall report all system deficiencies to the mechanical contractor. The mechanical contractor shall instruct the proper trade to correct any deficiencies reported by the automatic temperature control contractor so that the project commissioning can be completed.

Prior to the commencement of any commissioning work, the automatic temperature control contractor shall provide the engineer with a commissioning report format for review and approval. The report format shall be delivered to the engineer not more than thirty (30) days after award of the A.T.C. contract or not less than sixty (60) days prior to start of A.T.C. work, whichever is earlier.

Commissioning report format shall include a list of all items to be verified, with the initials of the mechanic who verified the particular item/control and the date on which each item/control operation was verified.

Three (3) commissioning reports are required. The first report shall be completed during the initial commissioning of the project prior to occupancy. The second and third reports shall be completed no mor than two (2) months (1 report/month) after occupancy of the building. All controls/safeties shall be verified in the presence of the owner or the owner's representative. The final report shall also contain the signature of the owner or owner's representative for each item verified.

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25 WESTMINSTER PIKE
REISTERTOWN, MARYLAND, 21136
INTERIOR ALTERATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 19994

EXP. DATE: 3/31/2027

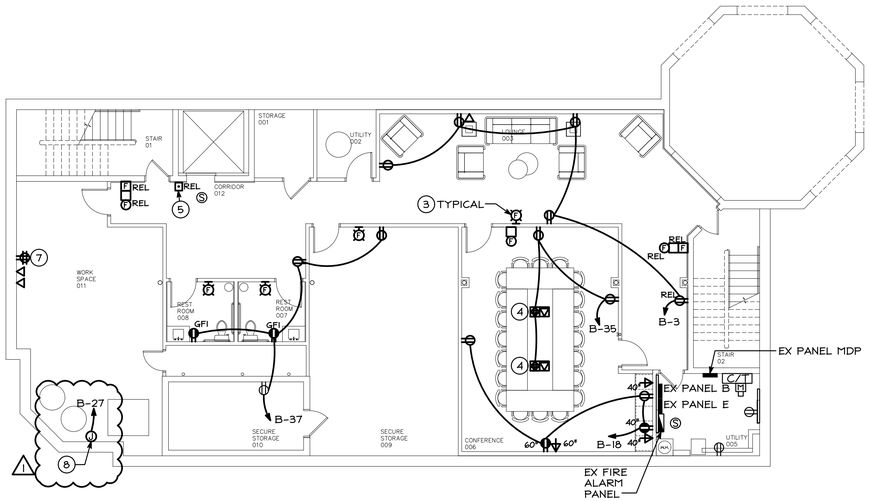
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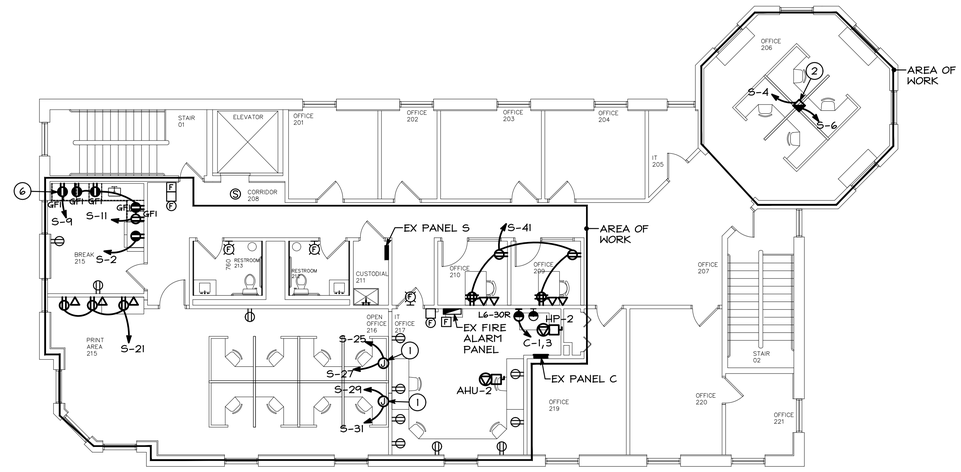
No.	Date	Revision
001	10/21/26	RFI's

Project No.:
Date:
Scale:
Edition:
PERMIT SET
Drawing Name:
MECHANICAL SPECIFICATIONS
Drawing Number:
M-9



NEW WORK - BASEMENT FLOOR - POWER

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



NEW WORK - SECOND FLOOR - POWER

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

GENERAL NOTES

1. RECEPTACLES INSTALLED IN ENCLOSED OFFICES, CONFERENCE ROOMS, COPY ROOMS, BREAK ROOMS, AND WORKSTATIONS, SHALL BE CONTROLLED SPLIT TYPE RECEPTACLE. RECEPTACLE TO BE CONTROLLED VIA WALL/CEILING VACANCY SENSOR. PROVIDE ADDITIONAL RELAYS AS REQUIRED.
2. 25% OF BRANCH CIRCUIT FEEDERS FOR MODULAR FURNITURE SHALL BE CONTROLLED VIA CONTACTOR/TIME CLOCK.
3. COORDINATE EXACT LOCATION/MOUNTING HEIGHT OF RECEPTACLES/DATA BOXES WITH OWNER PRIOR TO ROUGH-IN.
4. CONNECT MOTOR OPERATED DAMPERS (MOD'S) LOCATED IN BASEMENT TO B-42. REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS/QUANTITIES.

FIRE ALARM SYSTEM LAYOUT AND ZONING IS SCHEMATIC FOR BIDDING PURPOSES ONLY. ELECTRICAL CONTRACTORS FIRE ALARM VENDOR SHALL PREPARE COMPLETE SYSTEM SHOP DRAWINGS AND SUBMIT TO FIRE MARSHALL FOR APPROVAL

DRAWING NOTES

1. TWO JUNCTION BOXES FOR MODULAR FURNITURE FEED. (1 POWER & 1 TELECOMMUNICATION). CONNECT POWER TO FURNITURE BY MANUFACTURER'S CABLE WHIP. PROVIDE 1" EMT TO CEILING FROM TELECOMMUNICATION BOX AND 1" FLEXIBLE CONDUIT TO FURNITURE FOR TELECOMMUNICATION CABLES. PROVIDE TWO 20A CIRCUITS, (1) CONTROLLED, (1) NON CONTROLLED.
2. TWO CEILING MOUNTED JUNCTION BOXS FOR SERVICE TO POWER POLE TO SERVE WORKSTATIONS. (POWER & 1 TELECOMMUNICATION) PROVIDE TWO 20 AMP CIRCUITS, (1) CONTROLLED, (1) NOT CONTROLLED.
3. PROVIDE NEW FIRE ALARM DEVICES THAT MATCH EXISTING DEVICES AND ARE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM. EXTEND AND CONNECT TO EXISTING FIRE ALARM PANEL PER MANUFACTURERS RECOMMENDATIONS. MAKE ALL MODIFICATIONS AND ADDITIONS AS NECESSARY TO THE EXISTING FIRE ALARM SYSTEM THAT PROVIDE A WORKING SYSTEM THAT MEETS ALL NFPA REQUIREMENTS.
4. FLOOR BOX WITH (1) QUAD AND (1) DATA BOX. TRENCH FLOOR AND PROVIDE (1) 3/4" CONDUIT FOR POWER AND (1) 1" CONDUIT FOR DATA UP TO AND ABOVE ACCESSIBLE CEILING. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH IN.
5. RELOCATED ELEVATOR CONTROLS, EXTEND AND RECONNECT TO CIRCUIT PREVIOUSLY SERVING.
6. MOUNTED ABOVE COUNTER FOR MICROWAVE. COORDINATE EXACT LOCATION/HEIGHT IN FIELD.
7. CONNECT TO EXISTING RECEPTACLE CIRCUIT PREVIOUSLY SERVING.
8. SEWAGE EJECTOR PUMP CONTROL PANEL.: 120V, 14.9A. CONNECT TO CIRCUIT INDICATED. REFER TO MECHANICAL PLANS AND APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.

MECHANICAL UNIT SCHEDULE

UNIT NUMBER	UNIT MCA	UNIT MOCP	UNIT VOLTS/Φ	CIRCUIT NUMBER	NOTES
AHU-2	5	15	208V/1Φ	C-2,4	1, 2
HP-2	15	20	208V/1Φ	C-47,49	1, 2

NOTE:
1. SEE PANEL SCHEDULE FOR CONDUCTOR SIZES
2. AHU-2/HP-2 IS A BACKUP SYSTEM THAT WILL ONLY RUN IF EX AHU-1/ EX HP-1 GOES DOWN. REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

0 4 8 16 24

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

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No.	Date	Revision
001	10/21/26	RFI's

Project No.:
Date:
Scale:
Edition: PERMIT SET
Drawing Name: **BASEMENT & SECOND FLOOR POWER PLANS**
Drawing Number: E-5

CKT QTY		NON/ DEMAN	CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA
1	Lighting [L]	1	C	4.0	15.8	19.8	24.8
	Receptacles [R] *	0.5	N		77.1	43.6	43.6
	Motors [M]	1	<M/H>				
	Motors (alternate) [M2]	1	<M/H>				
	Multimotor/Combination [MM]	1	<M/H>				
	Heating [H] **	1	<M/H>		13.5	**	**
	Air Conditioning [A] **	1	<M/H>		47.1	47.1	47.1
3	Other (appliances, etc.) [O]	1	N	18.2	4.4	22.6	22.6
	Auxiliary [X]	1	C		4.5	4.5	5.6
	Kitchen [K]	0.65	N				

PANEL CONNECTED LOAD	184.6 KVA	@ 400 AMPS
PANEL DEMAND LOAD	137.6 KVA	144.1 CB MAX KVA
TOTAL PANEL LOAD	143.6 KVA	
	398.6 AMPS	
SPARE CAPACITY =	0.5 KVA	
(BASED ON CB)	1.4 AMPS	
	0.4 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
* IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD SAME

EXISTING
SURFACE MOUNTED PANEL MDP 120/208 VOLT 3 PHASE 4 WIRE 800 AMP BUS 400 AMP MAIN BREAKER EXISTING A.I.C.

TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	TYPE	KVA	HP
			1	EX PANEL C	100	3	100	EX	EX	EX	EX	EX	2	EX PANEL S	100	3	100	EX	EX	EX	EX	EX			
			3	----------	----	----	----	----	--	----	----	----	4	----------	----	----	----	----	--	----	----	----			
			5	----------	----	----	----	----	--	----	----	----	6	----------	----	----	----	----	--	----	----	----			
			7	EX PANEL F	225	3	125	EX	EX	EX	EX	EX	8	EX PANEL B	225	3	125	EX	EX	EX	EX	EX			
			9	----------	----	----	----	----	--	----	----	----	10	----------	----	----	----	----	--	----	----	----			
			11	----------	----	----	----	----	--	----	----	----	12	----------	----	----	----	----	--	----	----	----			
			13	EX 2ND FLOOR PANEL "R"	225	3	200	EX	EX	EX	EX	EX	14	EX ELEVTOR CB	225	3	200	EX	EX	EX	EX	EX	O	18.0	
			15	----------	----	----	----	----	--	----	----	----	16	----------	----	----	----	----	--	----	----	----			
			17	----------	----	----	----	----	--	----	----	----	18	----------	----	----	----	----	--	----	----	----			
L	4.0		19	EX PANEL E	100	3	60	EX	EX	EX	EX	EX	20	SPACE	100	1	----	----	--	----	----	----			
			21	----------	----	----	----	----	--	----	----	----	22	EX FIRE ALARM	100	1	20	EX	EX	EX	EX	EX	O	0.1	
			23	----------	----	----	----	----	--	----	----	----	24	EX CKT	100	1	20	EX	EX	EX	EX	EX	O	0.1	

CKT QTY		NON/ DEMAN	CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA
13	Lighting [L]	1	C	5.9		5.9	7.4
9	Receptacles [R] *	0.5	N	6.4		6.4	6.4
	Motors [M]	1	<M/H>				
	Motors (alternate) [M2]	1	<M/H>				
	Multimotor/Combination [MM]	1	<M/H>				
6	Heating [H] **	1	<M/H>	13.5		13.5	13.5
	Air Conditioning [A] **	1	<M/H>			**	**
6	Other (appliances, etc.) [O]	1	N	3.9		3.9	3.9
1	Auxiliary [X]	1	C	4.5		4.5	5.6
	Kitchen [K]	0.65	N				

PANEL CONNECTED LOAD	34.2 KVA	@ 125 AMPS
PANEL DEMAND LOAD	34.2 KVA	45.0 CB MAX KVA
TOTAL PANEL LOAD	36.8 KVA	
	102.1 AMPS	
SPARE CAPACITY =	8.2 KVA	
(BASED ON CB)	22.9 AMPS	
	18.3 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
* IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD SAME

EXISTING
SURFACE MOUNTED PANEL B 120/208 VOLT 3 PHASE 4 WIRE 200 AMP BUS MAIN LUGS ONLY 10,000 A.I.C.

TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	TYPE	KVA	HP
L	0.1		1	**ELEC RM LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	2	EX ELEVATOR MACHINE RM	100	1	20	EX	EX	EX	EX	EX	L	0.3	
R	1.0		3	**BASEMENT RECEPTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	4	EX ELEVATOR PIT	100	1	20	EX	EX	EX	EX	EX	L	0.2	
L	1.6		5	**BASEMENT LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	6	EX ELEVATOR LTG	100	1	20	EX	EX	EX	EX	EX	L	0.2	
R	0.2		7	EX PANEL WALL RECEPT	100	1	20	EX	EX	EX	EX	EX	8	EX RECEPT SOUTH WALL	100	1	20	EX	EX	EX	EX	EX	R	0.8	
O	0.5		9	EX SUMP	100	1	20	EX	EX	EX	EX	EX	10	EX REAR REAR WALL	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.4		11	EX TELE RECEPT	100	1	20	EX	EX	EX	EX	EX	12	EX LTG/RECEPT VAULT	100	1	20	EX	EX	EX	EX	EX	L	0.5	
L	0.3		13	EX STAIRWELL LTG FRONT	100	1	20	EX	EX	EX	EX	EX	14	EX SUMP PUMP	100	1	20	EX	EX	EX	EX	EX	O	0.5	
L	0.1		15	EX TIME CLOCK/PHOTO CELL	100	1	20	EX	EX	EX	EX	EX	16	EX SUMP PUMP	100	1	20	EX	EX	EX	EX	EX	O	0.5	
L	0.3		17	EX CANOPY LTG	100	1	20	EX	EX	EX	EX	EX	18	**BASEMENT RECEPTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	R	0.8	
L	0.3		19	EX DRIVE THRU	100	1	20	EX	EX	EX	EX	EX	20	EX WINDOW HTR	100	2	20	EX	EX	EX	EX	EX	H	1.5	
H	0.5		21	EX GEN JACKET HEATER	100	1	20	EX	EX	EX	EX	EX	22	----------	----	----	----	----	--	----	----	----			
H	7.0		23	EX BASEMENT HTR	100	2	60	EX	EX	EX	EX	EX	24	EX WINDOW HTR	100	2	20	EX	EX	EX	EX	EX	H	1.5	
			25	----------	----	----	----	----	--	----	----	----	26	----------	----	----	----	----	--	----	----	----			
O	1.8		27	**SEWAGE EJECT CONTROL**	100	1	**20**	**1**	**2**	**12**	**12**	**3/4"**	28	EX WINDOW HTR	100	2	20	EX	EX	EX	EX	EX	H	1.5	
			29	**SPACE**	100	1	----	----	--	----	----	----	30	----------	----	----	----	----	--	----	----	----			
L	0.3		31	EX REAR STAIRWELL LTG	100	1	20	EX	EX	EX	EX	EX	32	EX WINDOW HTR	100	2	20	EX	EX	EX	EX	EX	H	1.5	
R	0.2		33	EX ATM	100	1	20	EX	EX	EX	EX	EX	34	----------	----	----	----	----	--	----	----	----			
R	1.2		35	**BASEMENT RECEPTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	36	EX WATER HTR	100	2	30	EX	EX	EX	EX	EX	X	4.5	
R	1.0		37	**BASEMENT RECEPTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	38	----------	----	----	----	----	--	----	----	----			
L	1.2		39	EX FRONT SIGN	100	1	20	EX	EX	EX	EX	EX	40	EX DRIVE TUBE	100	1	20	EX	EX	EX	EX	EX	O	0.4	
L	0.5		41	EX DRIVE THRU	100	1	20	EX	EX	EX	EX	EX	42	**MOTOR OPERATED DAMPER**	100	1	**20**	**1**	**2**	**12**	**12**	**3/4"**	O	0.2	

NOTES:
- BOLD INDICATES NEW WORK

CKT QTY		NON/ DEMAN	CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA
5	Lighting [L]	1	C	2.8		2.8	3.5
34	Receptacles [R] *	0.5	N	24.0		17.0	17.0
	Motors [M]	1	<M/H>				
	Motors (alternate) [M2]	1	<M/H>				
	Multimotor/Combination [MM]	1	<M/H>				
	Heating [H] **	1	<M/H>				
	Air Conditioning [A] **	1	<M/H>			**	**
	Other (appliances, etc.) [O]	1	N				
	Auxiliary [X]	1	C				
	Kitchen [K]	0.65	N				

PANEL CONNECTED LOAD	26.8 KVA	@ 100 AMPS
PANEL DEMAND LOAD	19.8 KVA	36.0 CB MAX KVA
TOTAL PANEL LOAD	20.5 KVA	
	56.9 AMPS	
SPARE CAPACITY =	15.5 KVA	
(BASED ON CB)	43.1 AMPS	
	43.1 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
* IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD SAME

EXISTING
SURFACE MOUNTED PANEL S 120/208 VOLT 3 PHASE 4 WIRE 200 AMP BUS MAIN LUGS ONLY 10,000 A.I.C.

TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	TYPE	KVA	HP
L	0.6		1	**LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	2	**REFRIG (GFI)**	100	1	**20**	**1**	**2**	**12**	**12**	**3/4"**	R	0.5	
L	0.7		3	**LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	4	**POWER POLE**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	R	1.2	
L	0.4		5	**LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	6	**POWER POLE CONTROL**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	R	0.8	
L	0.6		7	**LIGHTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	8	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.5		9	**MICROWAVE**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	10	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.6		11	**BREAK RM RECEPTS**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	12	SPARE	100	1	20	----	--	----	----	----			
R	0.6		13	EX WIRE MOL RECEPT	100	1	20	EX	EX	EX	EX	EX	14	SPARE	100	1	20	----	--	----	----	----			
R	0.6		15	EX WIRE MOL RECEPT	100	1	20	EX	EX	EX	EX	EX	16	EX HALL RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.6		17	EX OCTAGON RECEPT	100	1	20	EX	EX	EX	EX	EX	18	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		19	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	20	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		21	**RECEPTS: PRINT**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	22	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.8		23	EX ROOF RECEPT	100	1	20	EX	EX	EX	EX	EX	24	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	1.2		25	**SYSTEM FURN**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	26	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.8		27	**SYSTEM FURN CONTROL**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	28	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	1.2		29	**SYSTEM FURN**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	30	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.8		31	**SYSTEM FURN CONTROL**	100	1	20	**1**	**2**	**12**	**12**	**3/4"**	32	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		33	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	34	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		35	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	36	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		37	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	38	EX CHANDILIER	100	1	20	EX	EX	EX	EX	EX	L	0.5	
R	0.8		39	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	40	**SPARE**	100	1	20	----	--	----	----	----			
R	1.2		41	**RECEPTS: OFFICE**	100	1	**20**	**1**	**2**	**12**	**12**	**3/4"**	42	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	R	0.4	

NOTES:
- BOLD INDICATES NEW WORK
- (GFI) INDICATES BREAKER TO BE GFI TYPE

CKT QTY		NON/ DEMAN	CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA
	Lighting [L]	1	C				
35	Receptacles [R] *	0.5	N	29.0		19.5	19.5
	Motors [M]	1	<M/H>				
	Motors (alternate) [M2]	1	<M/H>				
	Multimotor/Combination [MM]	1	<M/H>				
	Heating [H] **	1	<M/H>			**	**
1	Air Conditioning [A] **	1	<M/H>	2.1		2.1	2.1
4	Other (appliances, etc.) [O]	1	N	0.5		0.5	0.5
	Auxiliary [X]	1	C				
	Kitchen [K]	0.65	N				

PANEL CONNECTED LOAD	31.6 KVA	@ 100 AMPS
PANEL DEMAND LOAD	22.1 KVA	36.0 CB MAX KVA
TOTAL PANEL LOAD	22.1 KVA	
	61.3 AMPS	
SPARE CAPACITY =	13.9 KVA	
(BASED ON CB)	38.7 AMPS	
	38.7 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
* IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD SAME

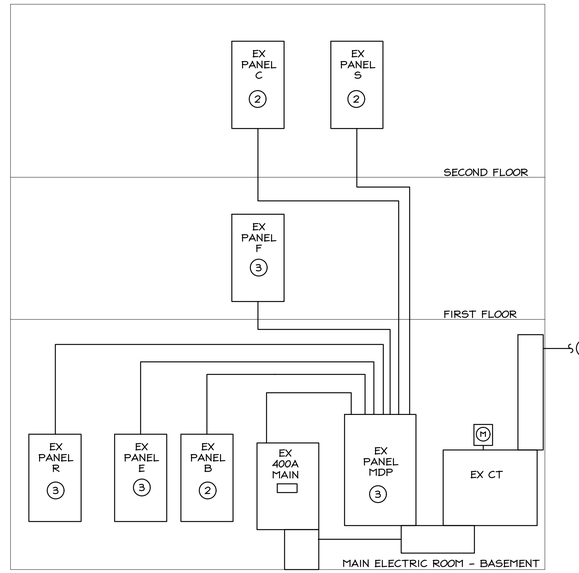
EXISTING
FLUSH MOUNTED PANEL C 120/208 VOLT 3 PHASE 4 WIRE 100 AMP BUS 100 AMP MAIN BREAKER 10,000 A.I.C.

TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	CKT NO.	FOR	BRANCH BREAKERS FRAME	P	TRIP	SETS	#	WIRING SIZE	WIRING GND	COND.	TYPE	KVA	HP
R	4.5		1	**IT RECEPT**	100	**2**	**30**	**1**	**2**	**10**	**10**	**3/4"**	2	**HP-2 (BACKUP UNIT)**	100	**2**	**20**	**1**	**2**	**12**	**12**	**3/4"**			
			3	----------	----	----	----	----	--	----	----	----	4	----------	----	----	----	----	--	----	----	----			
R	2.5		5	EX IT RECEPT	100	1	30	EX	EX	EX	EX	EX	6	EX RTU	100	2	30	EX	EX	EX	EX	EX	A	2.1	
O	0.1		7	EX SURGE SUPPRESSOR	100	3	20	EX	EX	EX	EX	EX	8	----------	----	----	----	----	--	----	----	----			
			9	----------	----	----	----	----	--	----	----	----	10	EX 1ST FLR WIREMOLD	100	1	20	EX	EX	EX	EX	EX	R	0.6	
			11	----------	----	----	----	----	--	----	----	----	12	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	2.5		13	EX 30A RECEPT	100	1	30	EX	EX	EX	EX	EX	14	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		15	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	16	EX CONDENSATE PUMP	100	1	20	EX	EX	EX	EX	EX	O	0.2	
R	0.6		17	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	18	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.6		19	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	20	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		21	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	22	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		23	EX RECEPT	100	1	20	EX	EX	EX	EX	EX	24	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		25	EX DRIVE THRU WINDOW	100	1	20	EX	EX	EX	EX	EX	26	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		27	EX DRIVE THRU WINDOW	100	1	20	EX	EX	EX	EX	EX	28	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		29	EX 1ST FLR WIREMOLD	100	1	20	EX	EX	EX	EX	EX	30	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		31	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	32	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		33	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	34	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		35	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	36	EX DRIVE THRU WINDOW	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		37	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	38	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.6	
R	0.6		39	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	40	EX COPIER	100	1	20	EX	EX	EX	EX	EX	R	0.5	
R	0.6		41	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	42	EX SMOKE DAMPERS	100	1	20	EX	EX	EX	EX	EX	O	0.1	
R	0.6		43	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	44	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	R	0.8	
R	0.6		45	EX RECEPTS	100	1	20	EX	EX	EX	EX	EX	46	EX FIRE ALARM PANEL	100	1	20	EX	EX	EX	EX	EX	O	0.1	
			47	**AHU-2(BACKUP UNIT)**	100	**2**	**15**	**1**	**2**	**12**	**12**	**3/4"**	48	MAIN	100	3	100	EX	EX	EX	EX	EX			
			49	----------	----	----	----	----	--	----	----	----	50	----------	----	----	----	----	--	----	----	----			
			51	SPARE	100	1	20	----	--	----	----	----	52	----------	----	----	----	----	--	----	----	----			
			53	SPARE	100	1	20	----	--	----	----	----	54	SHUNT TRIP	100	1	----	----	--	----	----	----			

NOTES:
- BOLD INDICATES NEW WORK

DRAWING NOTES

1. EXISTING INCOMING SERVICE FROM UTILITY COMPANY TO REMAIN.
2. EXISTING PANEL TO REMAIN, REFER TO SCHEDULE THIS SHEET.
3. EXISTING PANEL TO REMAIN, (NO NEW WORK IN THIS PANEL).



EXISTING POWER RISER DIAGRAM

NO SCALE

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I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 19994

EXP. DATE: 3/31/2027

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No.	Date	Revision
001	10/21/26	RFI's

Project No.:
Date:
Scale:
Edition: PERMIT SET
Drawing Name: **RISER DIAGRAM & PANEL SCHEDULES**
Drawing Number: **E-6**