MECHANICAL VENTILATION SCHEDULE

ROOM	OCCUPANY CLASSIFICATION	FLOOR AREA (FT^2)	ROOM VOLUME (FT^3)	OCCUPANCY CLASSIFICATION	OCCUPANT LOAD (OCCUPANT/1,000 FT^2)	# OF OCCUPANTS	REQUIRED CFM/OCCUPANT	REQUIRED CFM/FT^2	BREATHING ZONE OUTDOOR AIRFLOW (CFM)	ZONE DISTRIBUTION EFFECTIVENESS		TOTAL ROOM OUTDOOR AIR REQUIRED (CFM)		ACTUAL ROOM OUTDOOR AIRFLOW RATE (CFM)	
										COOLING	HEATING	COOLING	HEATING	COOLING	HEATING
1	KINDERGARTEN SPECIAL EDUCATION	889	8890	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	337	0.8	0.8	421	421	425	425
2	FIRST GRADE SPECIAL EDUCATION	707	7070	CLASSROOMS (AGES 5 -8)	25	18	10	0.12	265	0.8	0.8	331	331	340	340
3	2ND & 3RD SPECIAL EDUCATION	784	7840	CLASSROOMS (AGES 5 -8)	25	20	10	0.12	294	0.8	0.8	368	368	370	370
4	READING/RESOURCE ROOM	343	3430	OFFICE SPACES	5	2	5	0.06	31	0.8	0.8	39	39	40	40
5	KINDERGARTEN	876	8760	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
6	KINDERGARTEN	888	8880	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	337	0.8	0.8	421	421	425	425
7	KINDERGARTEN	867	8670	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
8	KINDERGARTEN	878	8780	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
9	KINDERGARTEN	867	8670	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
10	1ST GRADE	865	8650	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
11	KINDERGARTEN	872	8720	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
12	1ST GRADE	857	8570	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
13	KINDERGARTEN	926	9260	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	351	0.8	0.8	439	439	440	440
14	KINDERGARTEN	877	8770	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
15	KINDERGARTEN	959	9590	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	355	0.8	0.8	444	444	445	445
16	2ND GRADE	850	8500	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
17	2ND GRADE	853	8530	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
18	2ND GRADE	861	8610	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
19	2ND GRADE	856	8560	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
20	2ND GRADE	856	8560	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
21	2ND GRADE	858	8580	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
22	2ND GRADE	852	8520	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
23	2ND GRADE	864	8640	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
24	CLASSROOM	275	2750	CLASSROOMS (AGES 5 -8)	25	7	10	0.12	103	0.8	0.8	129	129	130	130
25	KINDERGARTEN	937	9370	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	352	0.8	0.8	440	440	440	440
26	3RD GRADE	758	7580	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
27	3RD GRADE	753	7530	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
28	3RD GRADE	766	7660	CLASSROOMS (AGES 5 -8)	25	20	10	0.12	292	0.8	0.8	365	365	365	365
29	3RD GRADE	746	7460	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
30	3RD GRADE	761	7610	CLASSROOMS (AGES 5 -8)	25	20	10	0.12	291	0.8	0.8	364	364	365	365
31	3RD GRADE BL	757	7570	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
32	2ND GRADE	758	7580	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
33	2ND GRADE	757	7570	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
34	2ND GRADE	753	7530	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
35	3RD GRADE	748	7480	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
36	2ND GRADE	753	7530	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
37	3RD GRADE	752	7520	CONFERENCE ROOMS	50	38	5	0.06	235	0.8	0.8	294	294	295	295
38	RESOURCE ROOM	305	3050	OFFICE SPACES	5	2	5	0.06	28	0.8	0.8	35	35	35	35
39	FRC/RESOURCE ROOM	217	2170	OFFICE SPACES	5	2	5	0.06	23	0.8	0.8	29	29	30	30
43	COMPUTER LAB	757	7570	COMPUTER LAB	25	19	10	0.12	281	0.8	0.8	351	351	355	355
44	3RD GRADE	825	8250	CLASSROOMS (AGES 5 -8)	25	21	10	0.12	309	0.8	0.8	386	386	390	390
45	KINDERGARTEN	981	9810	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	368	0.8	0.8	460	460	460	460
46	ENL OFFICE	634	6340	CLASSROOMS (AGES 5 -8)	25	16	10	0.12	236	0.8	0.8	295	295	295	295
47	KINDERGARTEN	976	9760	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	367	0.8	0.8	459	459	460	460
48	MAIL/COPY/BOOK ROOM	586	5860	OFFICE SPACES	5	3	5	0.06	50	0.8	0.8	63	63	65	65
49	ART	1125	11250	ART CLASSROOM	20	23	10	0.18	433	0.8	0.8	541	541	545	545
51	KINDERGARTEN	1001	10010	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	370	0.8	0.8	463	463	465	465
55	CUSTODIAN OFFICE	432	4320	OFFICE SPACES	5	3	5	0.06	41	0.8	0.8	51	51	55	55
56	SPEECH/RESOURCE ROOM	141	1410	OFFICE SPACES	5	1	5	0.06	13	0.8	0.8	16	16	20	20
57	AV/RESOURCE ROOM	133	1330	OFFICE SPACES	5	1	5	0.06	13	0.8	0.8	16	16	20	20
58	PSYCH A	159	1590	OFFICE SPACES	5	1	5	0.06	15	0.8	0.8	19	19	20	20
59	PSYCH B	190	1900	OFFICE SPACES	5	1	5	0.06	16	0.8	0.8	20	20	20	20
61	CAFETERIA AREA	503	5030	CAFETERIA	100	51	7.5	0.18	473	0.8	0.8	591	591	595	595
61A	OFFICE	88	880	OFFICE SPACES	5	1	5	0.06	10	0.8	0.8	13	13	15	15
61B	OFFICE	104	1040	OFFICE SPACES	5	1	5	0.06	11	0.8	0.8	14	14	15	15
12A	PRINCIPLES OFFICE	306	3060	OFFICE SPACES	5	2	5	0.06	28	0.8	0.8	35	35	35	35
12C	ASSIT. PRIN.	139	1390	OFFICE SPACES	5	1	5	0.06	13	0.8	0.8	16	16	20	20
12D	ADMIN OFFICE	926	9260	OFFICE SPACES	5	5	5	0.06	81	0.8	0.8	101	101	105	105
13B	STAFF LOUNGE	680	6800	OFFICE SPACES	5	4	5	0.06	61	0.8	0.8	76	76	80	80
1A	NET LAB RESOURCE ROOM	334	3340	OFFICE SPACES	5	2	5	0.06	30	0.8	0.8	38	38	40	40
40 & 42	READING/RESOURCE ROOM	923	9230	OFFICE SPACES	5	5	5	0.06	80	0.8	0.8	100	100	100	100
45A	NURSE	451	4510	OFFICE SPACES	5	3	5	0.06	42	0.8	0.8	53	53	55	55
45B	NURSE OFFICE	62	620	OFFICE SPACES	5	1	5	0.06	9	0.8	0.8	11	11	15	15
46A	OFFICE	152	1520	OFFICE SPACES	5	1	5	0.06	14	0.8	0.8	18	18	20	20
46B	CONFRENCE ROOM	152	1520	CONFERENCE ROOMS	50	8	5	0.06	49	0.8	0.8	61	61	65	65
46F	LIBRARY	2311	36976	MEDIA CENTER	10	24	5	0.12	397	0.8	0.8	496	496	500	500
46G	LIBRARY OFFICE	234	2340	OFFICE SPACES	5	2	5	0.06	24	0.8	0.8	30	30	30	30
46H	LIBRARY OFFICE	67	670	OFFICE SPACES	5	1	5	0.06	9	0.8	0.8	11	11	15	15
49A	RESOURCE ROOM	223	2230	OFFICE SPACES	5	2	5	0.06	23	0.8	0.8	29	29	30	30
49B	OFFICE	114	1140	OFFICE SPACES	5	1	5	0.06	12	0.8	0.8	15	15	15	15
52A	COUNSELOR	232	2320	OFFICE SPACES	5	2	5	0.06	24	0.8	0.8	30	30	30	30
52B	SOCIAL WORKER	192	1920	OFFICE SPACES	5	1	5	0.06	17	0.8	0.8	21	21	25	25
54E	SPEECH	173	1730	OFFICE SPACES	5	1	5	0.06	15	0.8	0.8	19	19	20	20
55E	SPEECH	182	1820	OFFICE SPACES	5	1	5	0.06	16	0.8	0.8	20	20	20	20

BOOSTER FAN SCHEDULE

UNIT TAG	SERVES	FAN						BASIS OF DESIGN		NOTES
		TYPE	DRIVE	AIRFLOW (CFM)	ESP (IN WC)	MOTOR HP	V/PH/HZ	MANUFATURER	MODEL NUMBER	
BF-1A	CC-1A	INLINE	DIRECT	35	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-38	CC-38	INLINE	DIRECT	30	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-39	CC-38	INLINE	DIRECT	35	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-42-1	CC-42-1	INLINE	DIRECT	50	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-42-2	CC-42-2	INLINE	DIRECT	45	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-43-1	CC-43-1	INLINE	DIRECT	165	0.25	0.75	120/1/60	S&P	TD-150	SEE NOTES
BF-43-2	CC-43-2	INLINE	DIRECT	170	0.25	0.75	120/1/60	S&P	TD-150	SEE NOTES
BF-50	CC-50	INLINE	DIRECT	30	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-55	CC-55	INLINE	DIRECT	50	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-61A	CC-61A	INLINE	DIRECT	15	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-61B	CC-61B	INLINE	DIRECT	15	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES

BOOSTER FAN SCHEDULE NOTES:

1. PROVIDE ELECTONICALLY COMMUTATED MOTOR, DISCONNECT SWITCH, MOTORIZED BACKDRAFT DAMPER, AND PROGRAMABLE TIMECLOCK.

BRANCH CONTROLLER SCHEDULE

UNIT TAG	MODEL NUMBER	TYPE (DOUBLE / MAIN / SUB)	NUMBER OF PORTS	CONNECTED CAPACITY TO BC (BTU/H)	V/PH/HZ	POWER COOLING (kW)	POWER HEATING (kW)	MCA	NOTES
BC-1A	TCMBM0108JA11N4	MAIN	8	288,000.0	208/1/60	0.66	0.37	0.8	NOTES
BC-1B	TCMBM0108JA11N4	MAIN	8	264,000.0	208/1/60	0.66	0.37	0.8	NOTES
BC-2	TCMBM1012JA11N4	MAIN	12	414,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-3A	TCMBM1012JA11N4	MAIN	12	288,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-3B	TCMBM1012JA11N4	MAIN	12	288,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-4	TCMBM1012JA11N4	MAIN	12	306,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-5	TCMBM1012JA11N4	MAIN	12	318,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-6A	TCMBM1016KA11N4	MAIN	16	408,000.0	208/1/60	1.25	0.66	1.6	NOTES
BC-6B	TCMBS0104KB11N4	SUB	4	66,000.0	208/1/60	0.3	0.15	0.4	NOTES

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901
PROJ. NO. 1 MNY-2300187.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HAVERSTRAW, NY 10993 — WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-8200
www.shilale.com

Drawing Title MECHANICAL SCHEDULES - 1

Drawing No. WHES-M-003

UNIT VENTILATOR SCHEDULE

UNIT TAG	LOCATION	CONFIGURATION	TOTAL SUPPLY AIRFLOW (CFM)	MINIMUM OUTSIDE AIRFLOW		COOLING					HEATING			FILTER	ELECTRICAL			UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
				COOLING	HEATING	EADB (°F)	EAWB (°F)	LADB (°F)	LAWB (°F)	MIN TOTAL CAPACITY (CFM)	EADB (°F)	LADB (°F)	REQUIRED TOTAL CAPACITY (MBH)	MERV	MCA	MAX FUSE SIZE	V/PH/HZ				MANUFATURER	MODEL NUMBER	
UV-1	ROOM-1	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-2	ROOM-2	VERTICAL	1500	340	340	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-3	ROOM-3	VERTICAL	1500	370	370	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-4	ROOM-4	VERTICAL	750	40	40	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-5	ROOM-5	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-6	ROOM-6	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-7	ROOM-7	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-8	ROOM-8	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-9	ROOM-9	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-10	ROOM-10	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-11	ROOM-11	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-12	ROOM-12	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-O-12	ROOM-O-12	VERTICAL	750	105	105	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-13	ROOM-13	VERTICAL	1500	440	440	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-14	ROOM-14	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-15	ROOM-15	VERTICAL	1500	445	445	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-16	ROOM-16	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-17	ROOM-17	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	55.36	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-18	ROOM-18	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-19	ROOM-19	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-20	ROOM-20	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-21	ROOM-21	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-22	ROOM-22	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-23	ROOM-23	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-24	ROOM-24	VERTICAL	750	130	130	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-25	ROOM-25	VERTICAL	1500	440	440	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-26	ROOM-26	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-27	ROOM-27	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-28	ROOM-28	VERTICAL	1500	365	365	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-29	ROOM-29	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	55.36	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-30	ROOM-30	VERTICAL	1500	365	365	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-31	ROOM-31	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-32	ROOM-32	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-33	ROOM-33	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-34	ROOM-34	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-35	ROOM-35	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-36	ROOM-36	VERTICAL	1500	350	350	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-37	ROOM-37	VERTICAL	1250	295	295	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.38	15	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-44-1	ROOM-44	VERTICAL	1500	350	350	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-44-2	ROOM-44	VERTICAL	1500	175	175	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-45	ROOM-45	VERTICAL	1500	460	460	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-47	ROOM-47	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-49	ROOM-49	VERTICAL	1500	535	535	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-51	ROOM-51	VERTICAL	1500	465	465	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-61	ROOM-61	VERTICAL	1500	455	455	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-12A	ROOM-12A	VERTICAL	750	35	35	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-12C	ROOM-12C	VERTICAL	750	15	15	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-13B	ROOM-13B	VERTICAL	750	70	70	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-46F-1	ROOM-46F	VERTICAL	1500	450	450	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-46F-2	ROOM-46F	VERTICAL	1500	450	450	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.38	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-51A	ROOM-51A	VERTICAL	750	465	465	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	3.5	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES

UNIT VENTILATOR SCHEDULE NOTES:

1. BASIS OF DESGN IS TRANE
2. CONTROLS TO BE FACTORY INSTALLED AND COMMISSIONED BY TRANE.
3. PROVIDE UNITS WITH VARIABLE FAN AIRFLOW CONTROL SEQUENCE
4. PROVIDE FACTORY-MOUNTED, PRE-PROGRAMMED, WIRELESS BACNET DDC CONTROL
5. PROVIDE WITH WIRELESS ZONE TEMPERATURE SENSOR
6. EQUIPMENT MANUFACTURER TO PROVIDE 2 YEAR PARTS AND LABOR WARRANTY
7. PROVIDE UNIT VENTILATORS WITH BLOW THROUGH CONFIGURATION
8. PROVIDE LEV KIT TO MEET SCHEDULE PERFORMANCE CAPACITY
9. PROVIDE DELUXE PIPING PACKAGE TO INCLUDE UNION, STRAINER, P/T PORT AND SHUTOFF VALVE ON THE SUPPLY LINE
10. PROVIDE DELUXE PIPING PACKAGE TO INCLUDE UNION, CONTROL VALVE AND MANUAL CIRCUIT SETTER ON THE RETURN LINE
11. PROVIDE A DRAIN PAN THAT IS NON-CORROSIVE AND REMOVABLE
12. PROVIDE SHELVING FROM HVAC CUSTOM ENCLOSURE FOR ALL CLASSROOMS AS REQUIRED
13. PROVIDE 21.25" DEEP END COVER AND FULL SHEET METAL BACK
14. PROVIDE A 2" SUBBASE FOR EACH UNIT VENTILATOR AT MINIMUM
15. MC TO PROVIDE NEW WALL BOXES AND WALL SLEEVES TO ACCOMMODATE THE EXISTING WALL OPENING
16. PROVIDE COLOR OPTIONS TO ARCHITECT FOR ALL UNIT VENTILATORS PRIOR TO RELEASING THE UNIT VENTILATORS FOR PRODUCTION
17. PROVIDE DX COOLING COIL IN EACH UNIT VENTILATOR
18. PROVIDE A 4 PIPE REHEAT HYDRONIC COIL IN EACH UNIT VENTILATOR WITH CONTROLS AND CONTROL VALVE.
19. PROVIDE MERV 13 FILTERS IN EACH UNIT VENTILATOR
20. PROVIDE DISCONNECT SWITCH.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-2300187.00

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HAVERSTRAW, NY 10993 — WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: MECHANICAL SCHEDULES - 2

Drawing No. WHES-M-004

OUTDOOR CONDENSING UNIT SCHEDULE

UNIT #	LOCATION	TOTAL CAPACITY COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER	IEER	REFRIGERANT	REFRIGERANT SAFETY CLASS	REFRIGERANT CHARGE (LBS)	HEATING TYPE	CONDENSER	COMPRESSOR	ELECTRICAL							UNIT WEIGHT (LBS)	BASIS OF DESIGN		REMARKS
										EA DB °F (COOLING/HEATING)	TYPE (QUANTITY)	VOLTS	PHASE	Hz	CIRCUIT 1 MOCP FUSE (A)	CIRCUIT 1 MCA (A)	CIRCUIT 2 MOCP FUSE (A)	CIRCUIT 2 MCA (A)		MANUFACTURER	MODEL #	
ACCU-1A	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-1B	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-2	ROOF	288,000	323,000	10.9	23.1	R410A	A1	47.5	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	60	1,360	TRANE	TURYE2883BN41AN	SEE NOTES
ACCU-3A	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-3B	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-4	ROOF	240,000	270,000	11.7	23.9	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	60	56	1,244	TRANE	TURYE2403BN41AN	SEE NOTES
ACCU-5	ROOF	240,000	270,000	11.7	23.9	R410A	A1	35.250	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	60	56	1,244	TRANE	TURYE2403BN41AN	SEE NOTES
ACCU-6	ROOF	288,000	323,000	10.9	23.1	R410A	A1	47.5	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	60	1,360	TRANE	TURYE2883BN41AN	SEE NOTES
ACCU-7	ROOF	72,000	80,000	13.5	25.3	R410A	A1	14.313	HEAT PUMP	90/11	SCROLL (2)	208	3	60	35	32	-	-	512	TRANE	TUHYE0723AN41AN	SEE NOTES

OUTDOOR CONDENSING UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
3. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
4. FOR SYSTEMS WITH MULTIPLE MODULES, REFRIGERANT PIPE DIMENSIONS INDICATE TOTAL SYSTEM COMBINED PIPING DOWNSTREAM OF MODULE TWINNING.
5. ADDED FIELD CHARGE LISTED IS IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.
6. ADD COLD WEATHER LOW AMBIENT KIT.

INDOOR VRF UNIT SCHEDULE

UNIT TAG	LOCATION	CONFIGURATION	TOTAL SUPPLY AIRFLOW (CFM)	CAPACITY (BTU/H)		REFRIDGERANT	REFRIGERANT SAFTEY CLASS	V/PH/HZ	POWER COOLING (kW)	POWER HEATING (kW)	MCA	MFS	UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
				COOLING	HEATING											MANUFACTURER	MODEL NUMBER	
AHU-46	ROOM-46	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-53	ROOM-53	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-53A	ROOM-53A	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-46G	ROOM-46G	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-46H	ROOM-46H	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-48	ROOM-49	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-52	ROOM-52	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-52B	ROOM-52B	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-56	ROOM-56	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-57	ROOM-57	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-58	ROOM-58	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-59	ROOM-59	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-60	ROOM-60	WALL-MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-61	ROOM-61	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
CC-1A	ROOM-1A	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-38	ROOM-38	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-39	ROOM-39	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-42-1	ROOM-42	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.03	0.02	0.39	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012EM140B	SEE NOTES
CC-42-2	ROOM-42	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.03	0.02	0.39	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012EM140B	SEE NOTES
CC-43-1	ROOM-43	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.03	0.02	0.39	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012EM140B	SEE NOTES
CC-43-2	ROOM-43	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.03	0.02	0.39	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012EM140B	SEE NOTES
CC-50	ROOM-50	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-55	ROOM-50	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-61A	ROOM-50	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
CC-61B	ROOM-50	CEILING-CASSETTE	459	6,000	6,700	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP006EM140B	SEE NOTES
AHU-54E	ROOM-54E	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-55E	ROOM-55E	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
OAU-1	GYM STOR.	OUTSIDE AIR UNIT	450	36,000	21,000	R410A	A1	208/1/60	-	-	3.3	15	109	35-7/16 x 47-1/16	15	TRANE	TPEFYP036OA140A	SEE NOTES
OAU-2	ELEC. CLOSET	OUTSIDE AIR UNIT	450	36,000	21,000	R410A	A1	208/1/60	-	-	3.3	15	109	35-7/16 x 47-1/16	15	TRANE	TPEFYP036OA140A	SEE NOTES

INDOOR VRF UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
3. SEE OUTDOOR UNIT SCHEDULE FOR OUTDOOR AMBIENT CONDITIONS, CONNECTED CAPACITY, AND OTHER FACTORS ASSOCIATED WITH CORRECTED CAPACITIES.
4. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION
5. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT SCHEDULE FOR ASSOCIATED SYSTEM.PARTIAL CORRECTED CAPACITY ASSUMES SUFFICIENT DIVERSITY EXISTS SUCH THAT THE CONNECTED CAPACITY DE-RATE DOES NOT APPLY. IT IS THE DESIGNER'S RESPONSIBILITY TO ENSURE "DIAMOND SYSTEM BUILDER" IS SET IN THE APPROPRIATE OUTPUT CAPACITY SETTING (FULL DEMAND/PARTIAL DEMAND) PRIOR TO GENERATING THIS SCHEDULE.
6. IT IS RECOMMENDED TO ALWAYS BASE HEATING CORRECTED CAPACITY ON FULL DEMAND.
7. PROVIDE MULTI-FUNCTION CASEMENT (PAC-SJ41TM-E) WITH HIGH EFFICIENCY FILTER ELEMENT (PAC-SH59KF-E).
8. MECHANICAL CONTRACTOR TO PROVIDE A FACTORY DISCONNECT. INSTALLATION BY ELECTRICAL CONTRACTOR.
9. PROVIDE UNIT MOUNTED DISCONNECT SWITCH.

OUTDOOR AIR UNIT SCHEDULE

UNIT TAG	LOCATION	TOTAL SUPPLY AIRFLOW (CFM)	CAPACITY (BTU/H)		REFRIDGERANT	REFRIGERANT SAFTEY CLASS	V/PH/HZ	MCA	MFS	UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
			COOLING	HEATING									MANUFACTURER	MODEL NUMBER	
OAU-1	PE STORAGE	400	36,000	21,000	R410A	A1	208/1/60	3.3	15	109	47-1/16 x 35-7/16	15	TRANE	TPEFYP036OA140A	SEE NOTES
OAU-2	2ND FL STORAGE	400	36,000	21,000	R410A	A1	208/1/60	3.3	15	109	47-1/16 x 35-7/16	15	TRANE	TPEFYP036OA140A	SEE NOTES

OUTDOOR AIR UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
3. SEE OUTDOOR UNIT SCHEDULE FOR OUTDOOR AMBIENT CONDITIONS, CONNECTED CAPACITY, AND OTHER FACTORS ASSOCIATED WITH CORRECTED CAPACITIES.
4. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
5. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT SCHEDULE FOR ASSOCIATED SYSTEM.PARTIAL CORRECTED CAPACITY ASSUMES SUFFICIENT DIVERSITY EXISTS SUCH THAT THE CONNECTED CAPACITY DE-RATE DOES NOT APPLY.IT IS THE DESIGNER'S RESPONSIBILITY TO ENSURE "DIAMOND SYSTEM BUILDER" IS SET IN THE APPROPRIATE OUTPUT CAPACITY SETTING (FULL DEMAND/PARTIAL DEMAND) PRIOR TO GENERATING THIS SCHEDULE.
6. IT IS RECOMMENDED TO ALWAYS BASE HEATING CORRECTED CAPACITY ON FULL DEMAND.
7. MECHANICAL CONTRACTOR TO PROVIDE A FACTORY DISCONNECT. INSTALLATION BY ELECTRICAL CONTRACTOR.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. : MNY-23000127.00

Structural Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HARVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

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140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

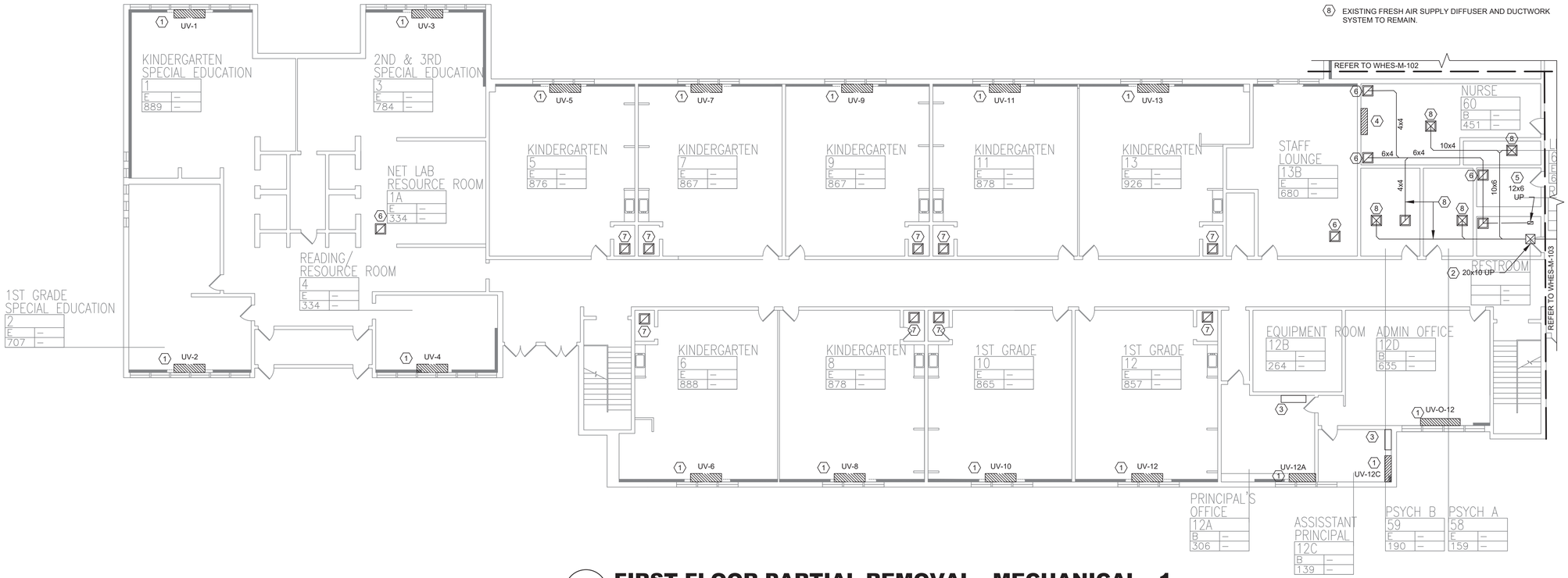
Drawing Title
MECHANICAL SCHEDULES - 3

Drawing No.
WHES-M-005

KEYED NOTES:

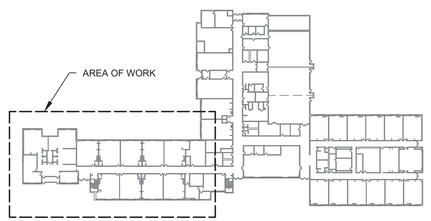
1. DISCONNECT, REMOVE UNIT VENTILATOR. CUT AND CAP HOT WATER SUPPLY AND RETURN PIPING TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT. SEE 2/M-501.
2. EXISTING FRESH AIR DUCT UP TO SECOND FLOOR H.V. UNIT TO REMAIN.
3. EXISTING WALL HUNG UNIT TO REMAIN.
4. DISCONNECT, REMOVE WALL HUNG UNIT, AND ASSOCIATED PIPING AND THERMOSTAT.
5. EXISTING EXHAUST TO UP TO ROOF FAN TO REMAIN.
6. EXISTING GRILL AND DUCTWORK SYSTEM TO REMAIN.
7. EXISTING BATHROOM EXHAUST GRILL TO REMAIN.
8. EXISTING FRESH AIR SUPPLY DIFFUSER AND DUCTWORK SYSTEM TO REMAIN.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

GREENMAN PEDERSEN, INC
2 BLUEGRASS BOULEVARD
SUITE 302
SUTTSAN, KY 10001
PROJ. NO. 1EPC250101.00
Mechanical & Electrical Engineer:

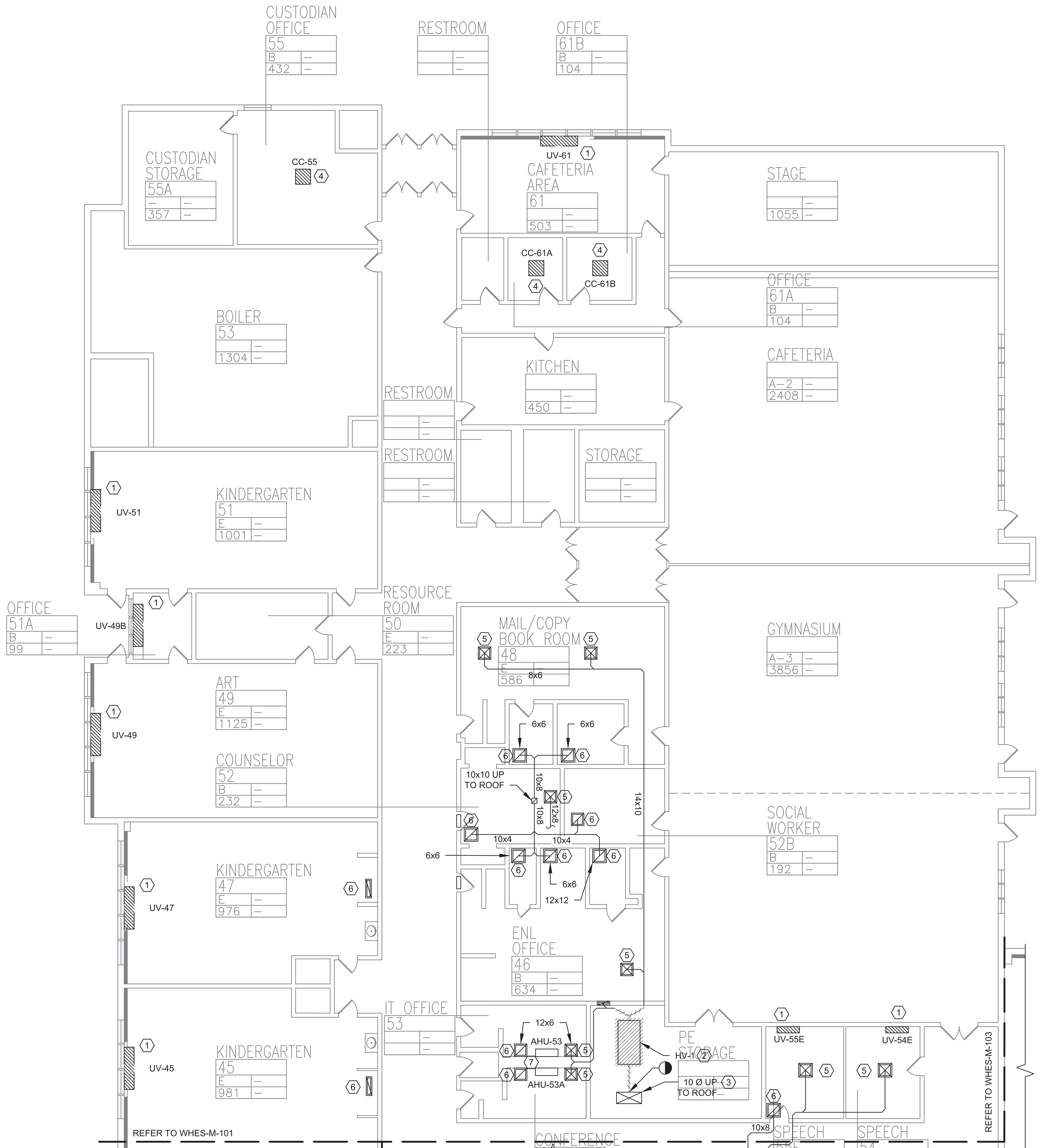
GREENMAN PEDERSEN, INC
2 BLUEGRASS BOULEVARD
SUITE 302
SUTTSAN, KY 10001
Structural Engineer:

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HAVERSTRAW, NY 10993
WEST HAVERSTRAW SCHOOLS DISTRICT

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
FIRST FLOOR PARTIAL REMOVAL - MECHANICAL- 1

Drawing No.
WHES-M-061

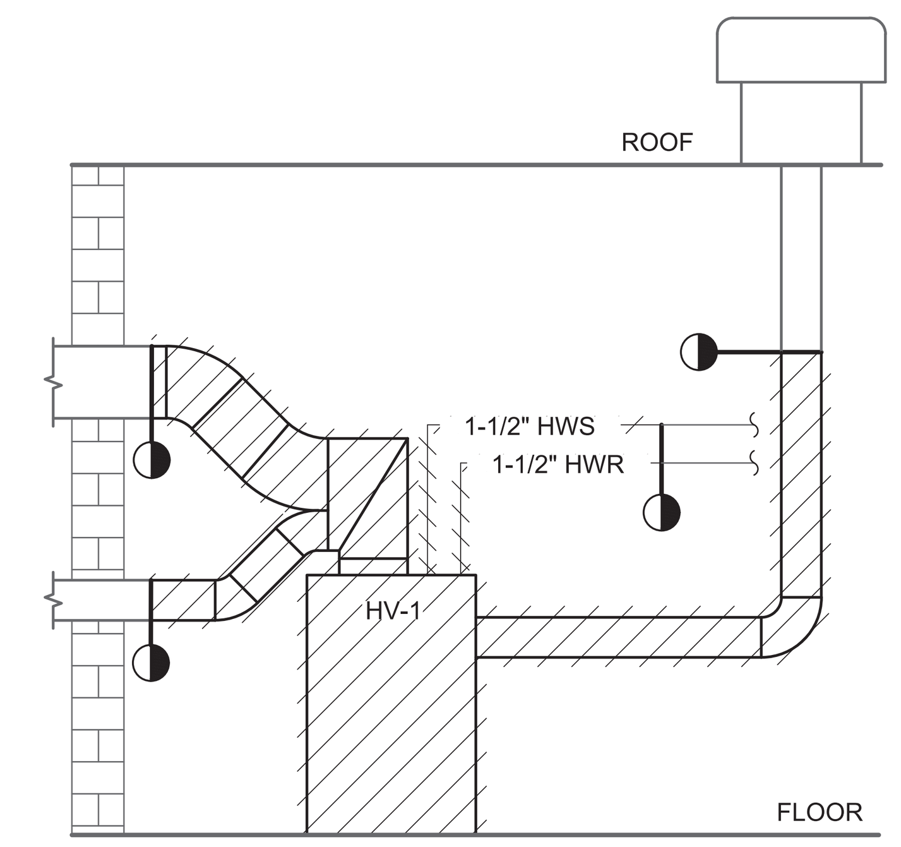


1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 2

SCALE: 3/32" = 1'- 0"

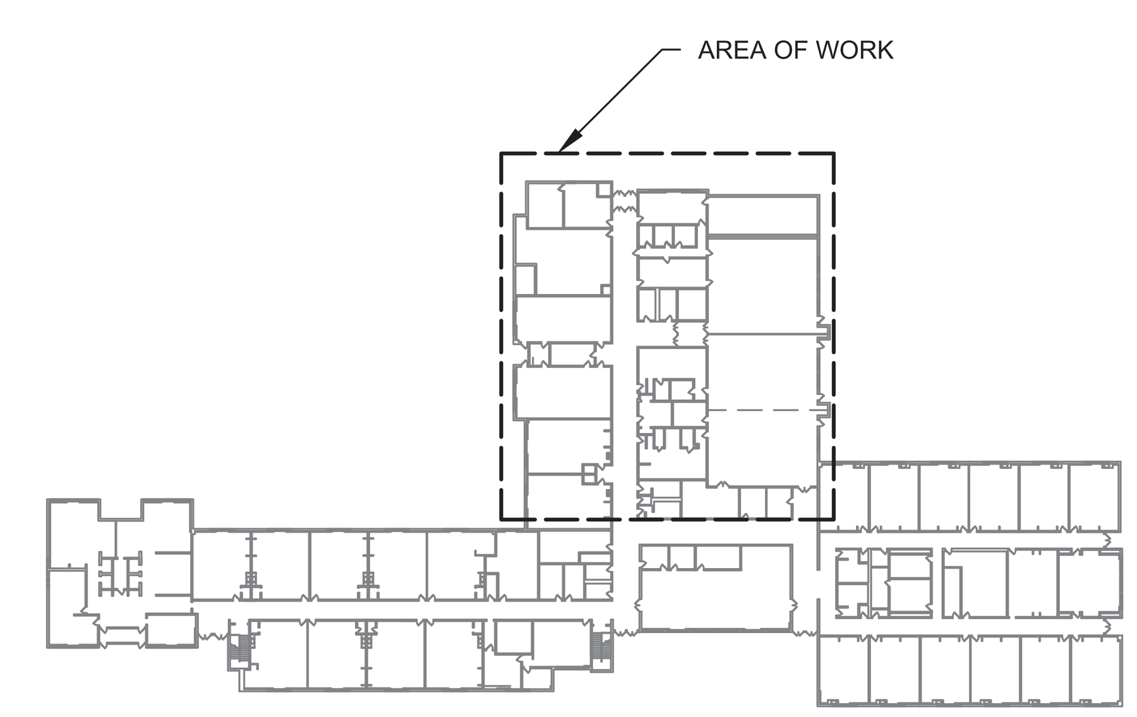
KEYED NOTES:

1. DISCONNECT, REMOVE UNIT VENTILATOR. CUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT. SEE DETAIL 2/WHES-M-501
2. DISCONNECT AND REMOVE EXISTING HEATING VENTILATOR BLOWER, ASSOCIATED DUCTWORK AND HW COILS. CAP HWS AND HWR. SEE DETAIL 2/WHES-M-062.
3. EXISTING FRESH AIR DUCT UP TO ROOF TO REMAIN.
4. DISCONNECT, REMOVE EXISTING CEILING CASSETTE, REMOVE ALL PIPING AND CONDENSING UNIT ON ROOF, PATCH AS REQUIRED.
5. EXISTING SUPPLY DIFFUSER AND DUCTWORK SYSTEM TO REMAIN.
6. EXISTING ROOM EXHAUST TO REMAIN AND DUCTWORK SYSTEM TO REMAIN.
7. EXISTING WALL HUNG UNITS TO REMAIN.



2 HV-1 REMOVAL DETAIL

SCALE: NOT TO SCALE



KEY PLAN

PLAN NORTH

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC

Structural Engineer: GREENMAN PEDERSEN, INC

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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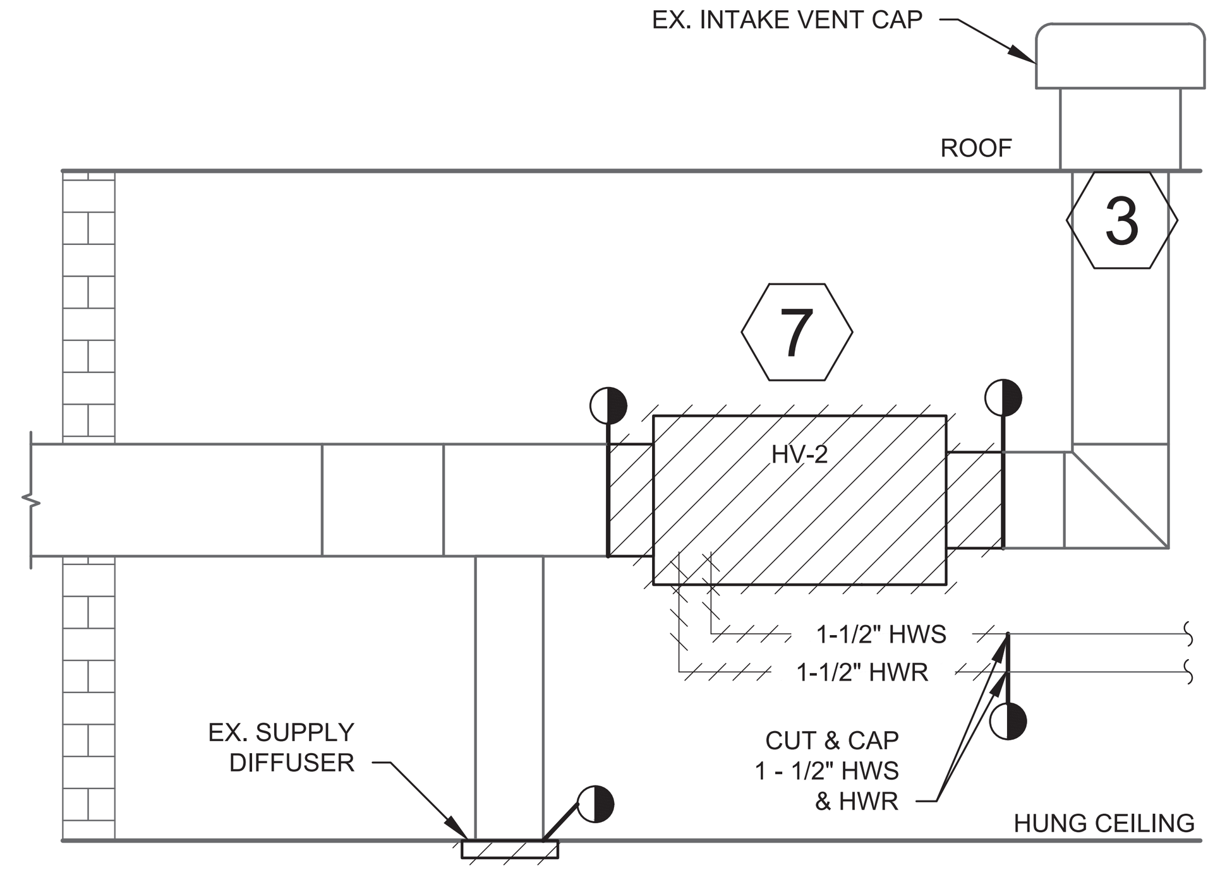
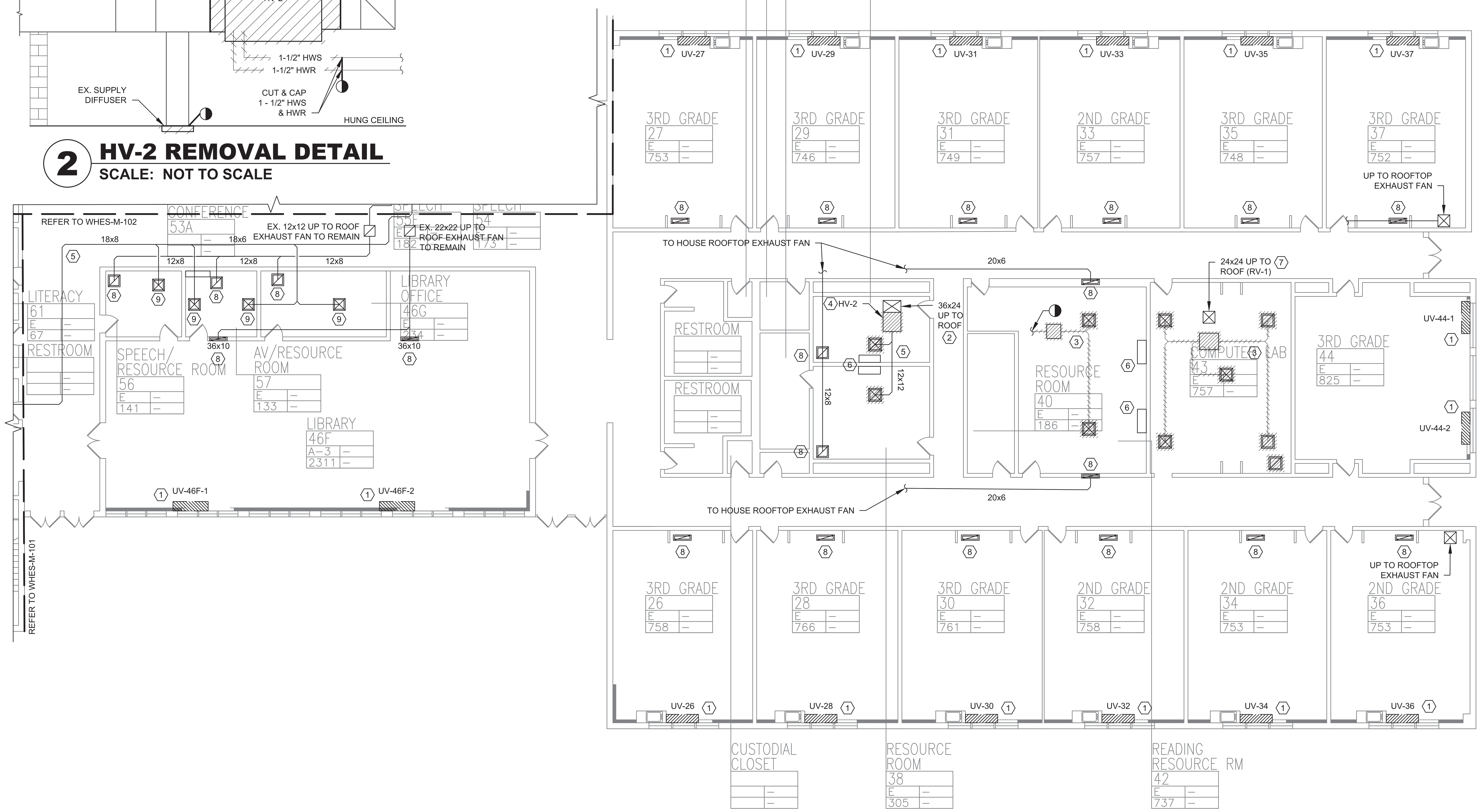
Drawing Title: FIRST FLOOR PARTIAL REMOVAL - MECHANICAL- 2

Drawing No. WHES-M-062



2 HV-2 REMOVAL DETAIL
SCALE: NOT TO SCALE

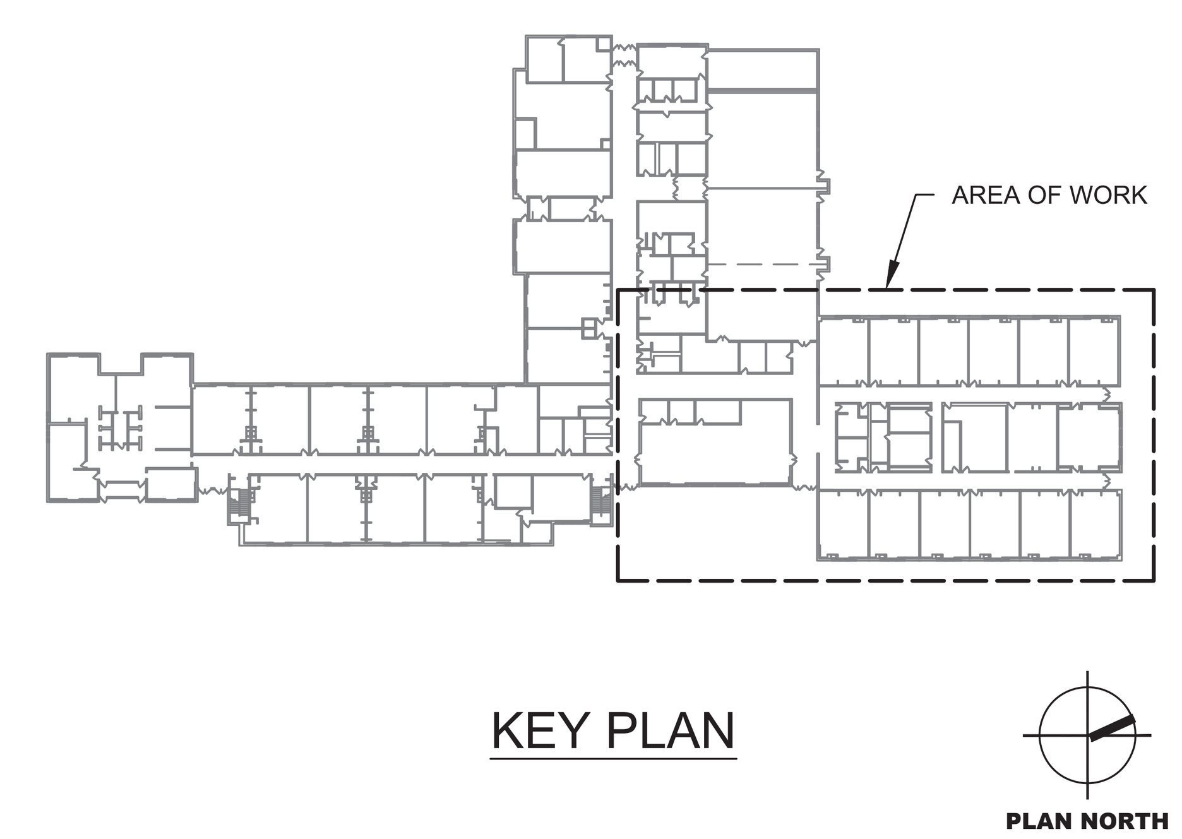


1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 3
SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. DISCONNECT, REMOVE UNIT VENTILATOR. BUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT.TYP. 16. SEE DETAIL 2 /WHES-M-501
2. EXISTING FRESH AIR DUCT UP TO SECOND FLOOR HEATING VENTILATION UNIT TO REMAIN.
3. REMOVE SUPPLY AND EXHAUST DUCT.
4. DISCONNECT AND REMOVE H.V. BLOWER ABOVE HUNG CEILING. SEE DETAIL 2/WHES-M-063.
5. EXISTING FRESH AIR DUCT TO REMAIN.
6. EXISTING WALL HUNG UNITS TO REMAIN.
7. EXISTING FRESH AIR INTAKE UP THROUGH ROOF TO REMAIN.
8. EXISTING ROOM EXHAUST AND SYSTEM TO REMAIN.
9. EXISTING SUPPLY DIFFUSER AND SYSTEMS TO REMAIN.

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-2300127.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HARVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

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140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

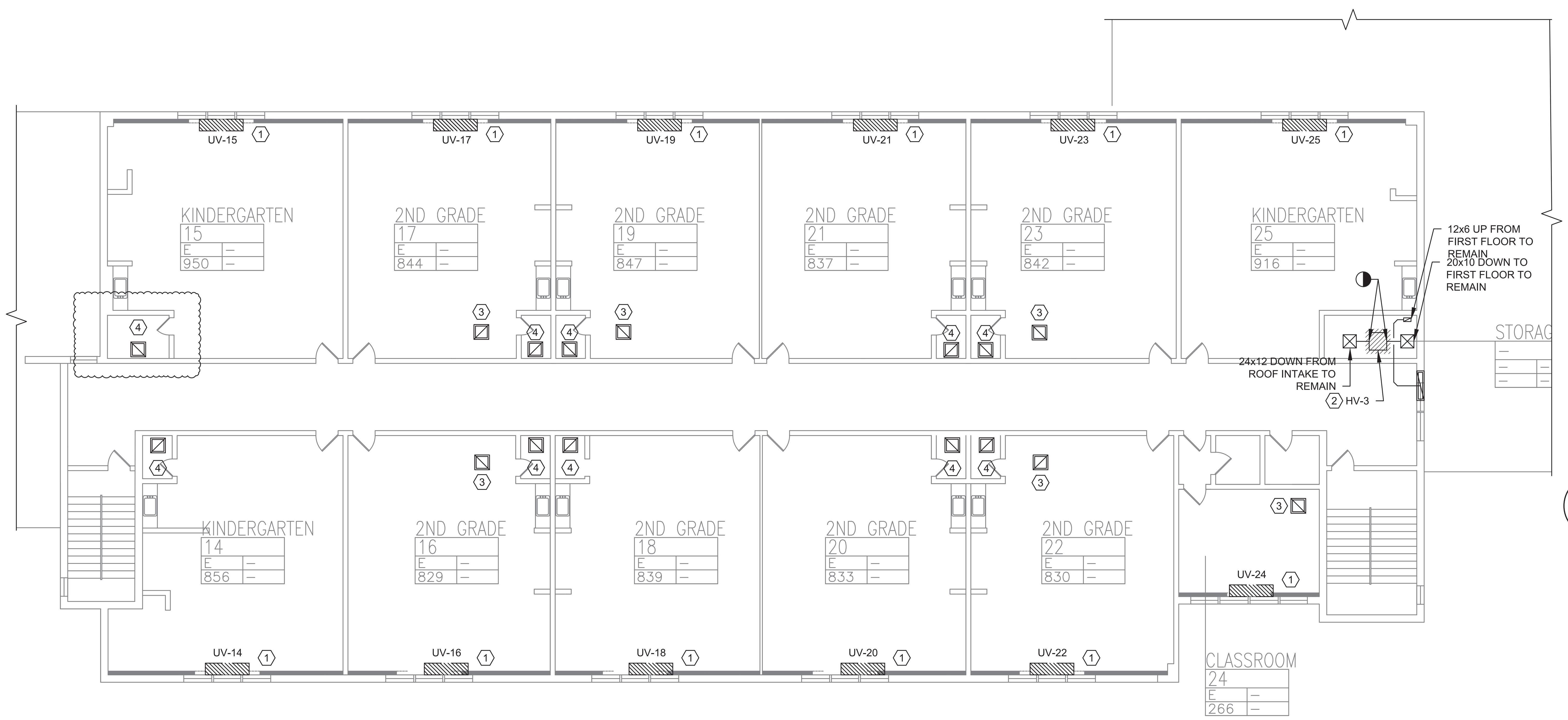
Drawing Title: FIRST FLOOR PARTIAL REMOVAL - MECHANICAL- 3

Drawing No. WHES-M-063

KEYED NOTES:

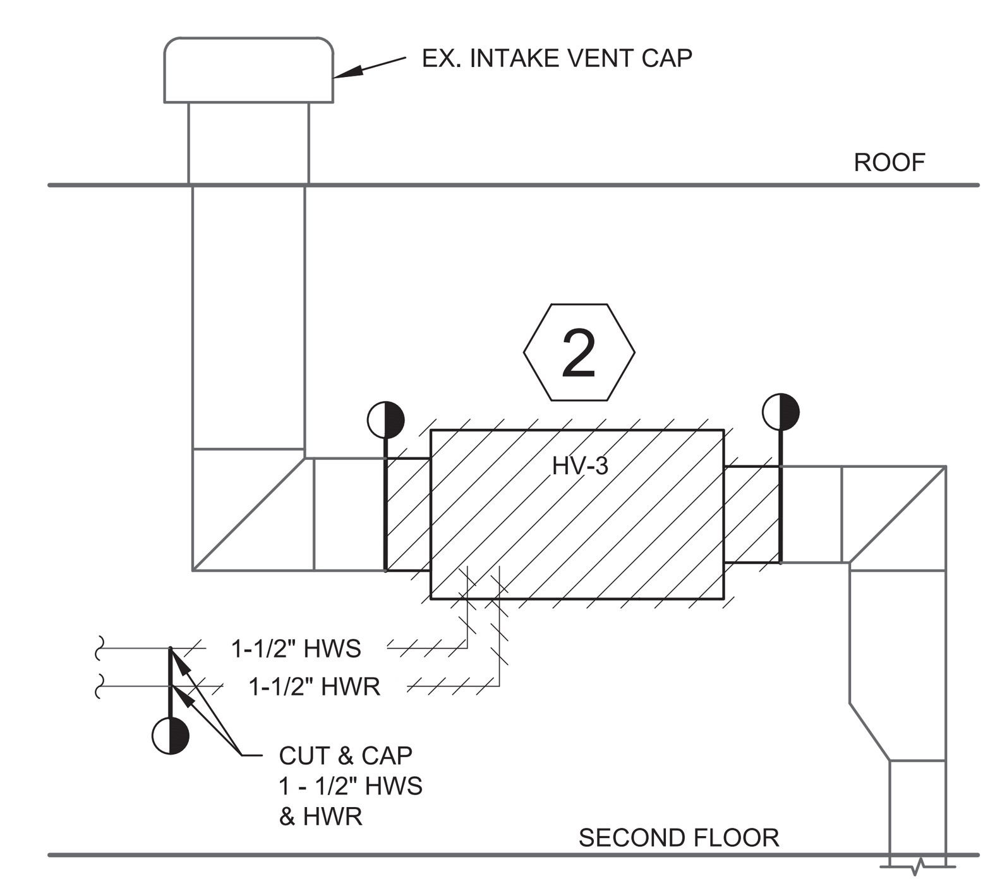
1. DISCONNECT, REMOVE UNIT VENTILATOR. BUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.DISCONNECT ASSOCIATED THERMOSTAT. TYPICAL 5 SEE DETAIL 2/WHES-M-501
2. EXISTING HEATING VENTILATOR. UNIT TO BE REMOVED. SEE DETAIL 2/WHES-M-064.
3. EXISTING EXHAUST GRILLE IN CLASSROOM TO REMAIN.
4. EXISTING EXHAUST GRILLE IN CLOSET TO REMAIN.

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



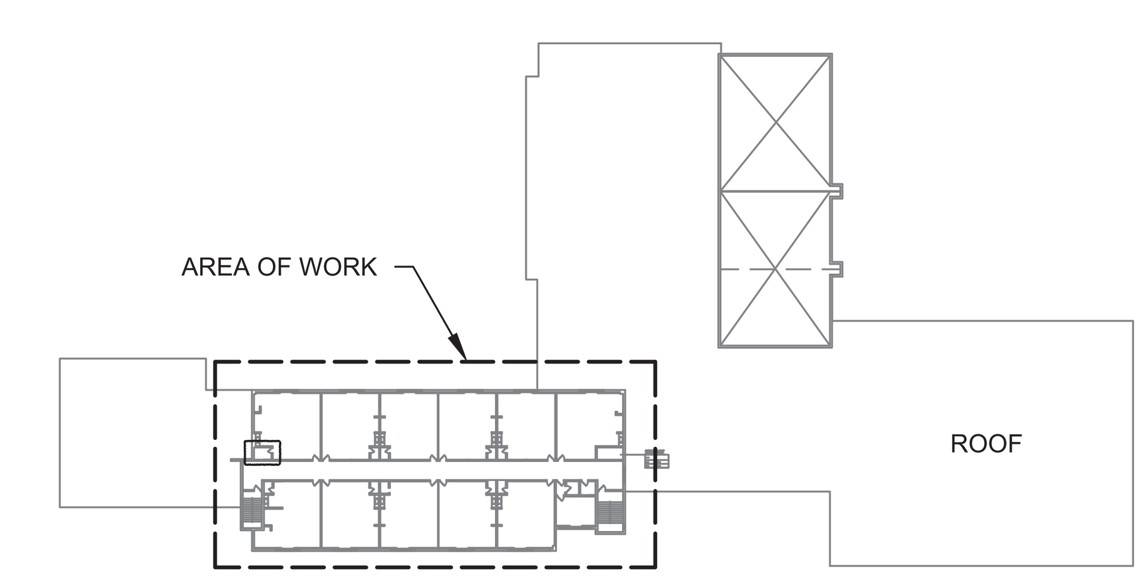
1 SECOND FLOOR PARTIAL REMOVAL - MECHANICAL - 1

SCALE: 3/32" = 1'- 0"



2 HV-3 REMOVAL DETAIL

SCALE: NOT TO SCALE



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. : MNY-23001127.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

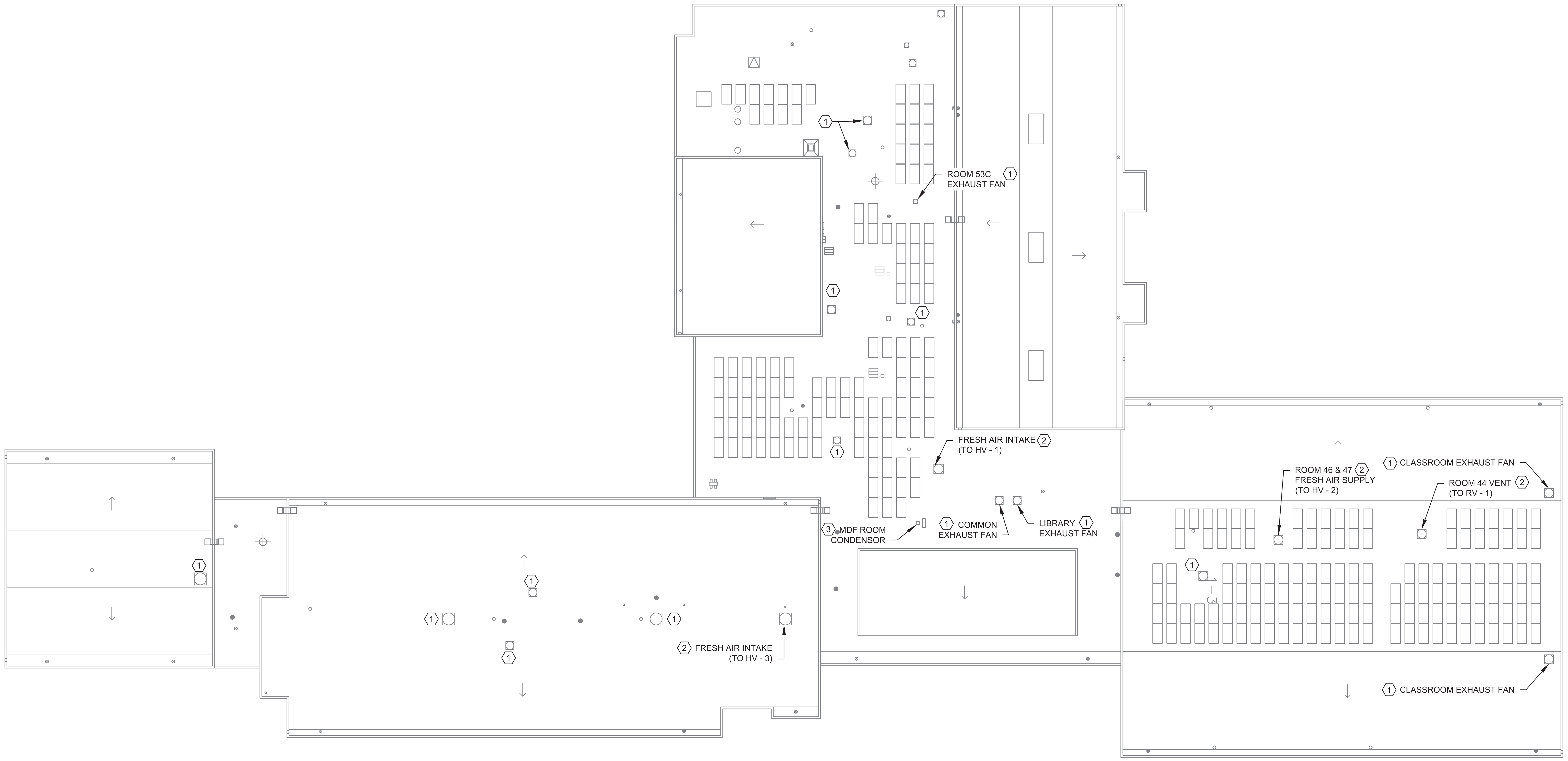
Drawing Title: SECOND FLOOR REMOVAL - MECHANICAL

Drawing No.: WHES-M-064

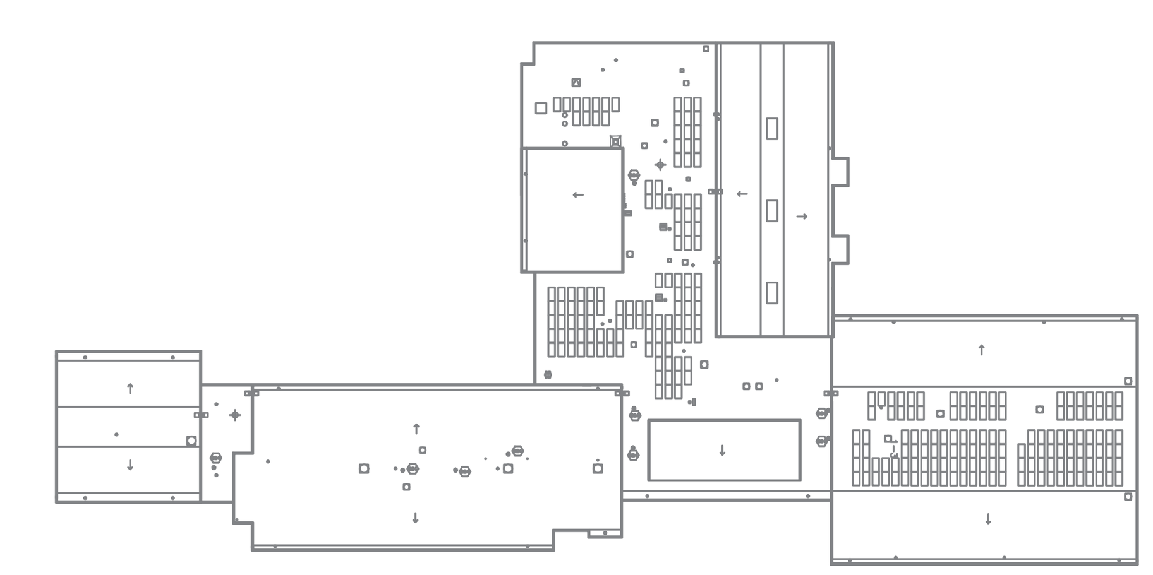
KEYED NOTES:

1. EXISTING EXHAUST FAN TO REMAIN AND BALANCED AS NECESSARY .
2. FRESH AIR INTAKE FOR FRESH AIR SYSTEM TO REMAIN.
3. EXISTING CONDENSER FOR EXISTING WALL HUNG UNIT TO REMAIN.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 ROOF PARTIAL REMOVAL - MECHANICAL - 1
SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by	VF/AW
Checked by	EF
Project No.	43040
Scale	AS NOTED
Date	03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-2300127.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HARVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

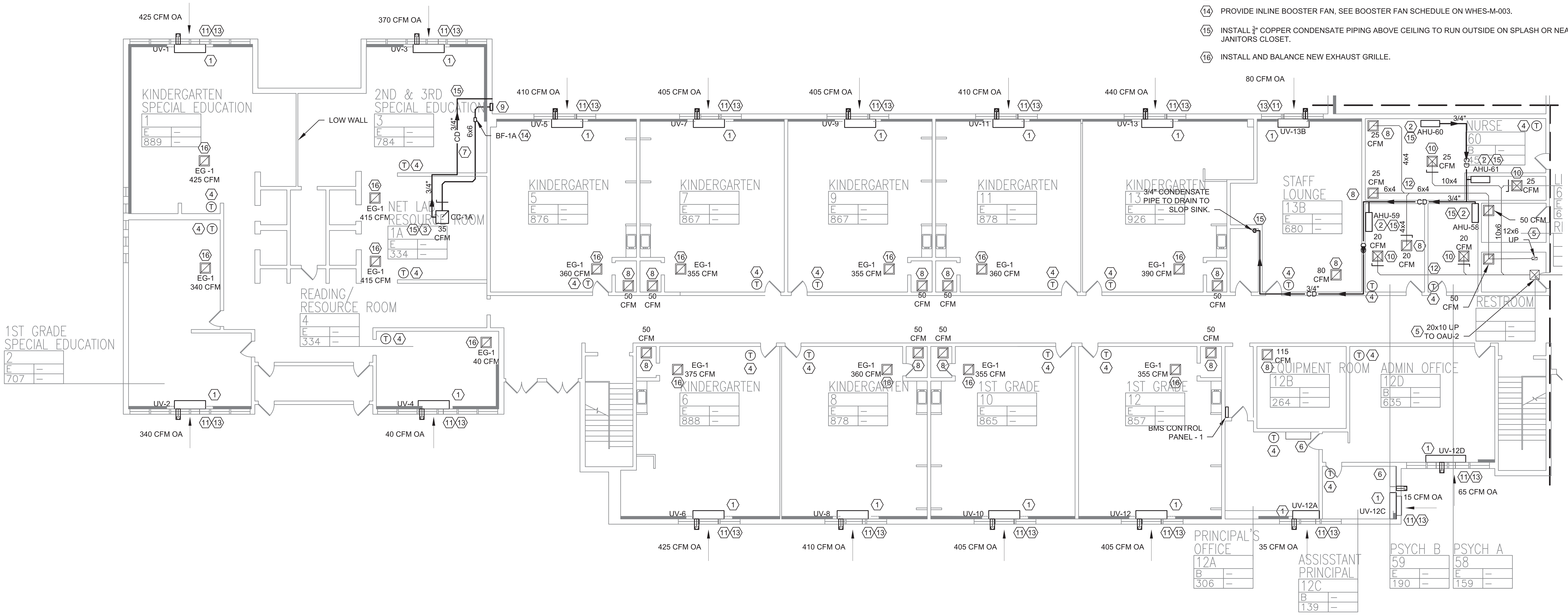
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ROOF REMOVAL - MECHANCIAL

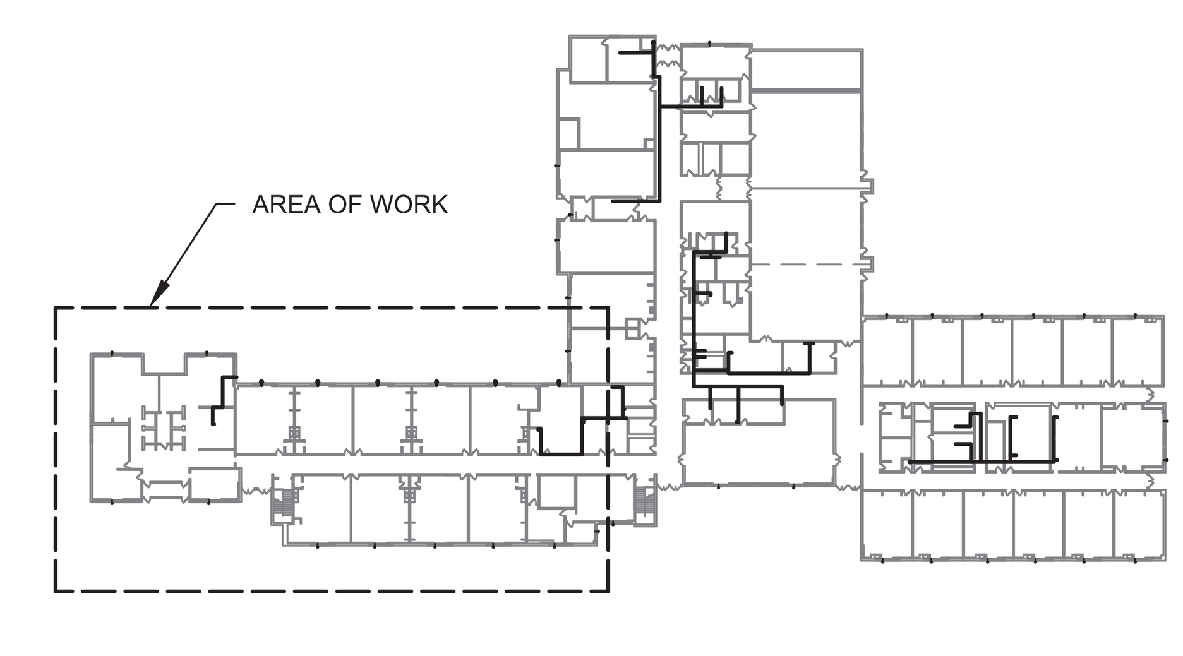
Drawing No.
WHES-M-065

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING CASSETTE, CONDENSATE PUMP, AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. EXISTING DUCTWORK UP TO NEW OAU-2 TO REMAIN.
6. EXISTING WALL HUNG UNITS TO REMAIN.
7. INSTALL 6"x6" INSULATED FRESH AIR DUCT IN SUSPENDED CEILING. SEE M502 AND M504 FOR DUCTWORK INSTALLATION DETAILS.
8. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
9. INSTALL NEW WALL LOUVER AND BIRD SCREEN, SEE DETAIL 5/M504.
10. BALANCE FRESH AIR SUPPLY.
11. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. INSULATE ALL EXISTING DUCTWORK.
13. INSTALL ¾" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK.
14. PROVIDE INLINE BOOSTER FAN, SEE BOOSTER FAN SCHEDULE ON WHES-M-003.
15. INSTALL ¾" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE ON SPLASH OR NEAREST JANITORS CLOSET.
16. INSTALL AND BALANCE NEW EXHAUST GRILLE.



1 FIRST FLOOR PARTIAL PLAN - MECHANICAL - 1
SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-2300127.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
71 BLAUVELT AVE, WEST HAVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

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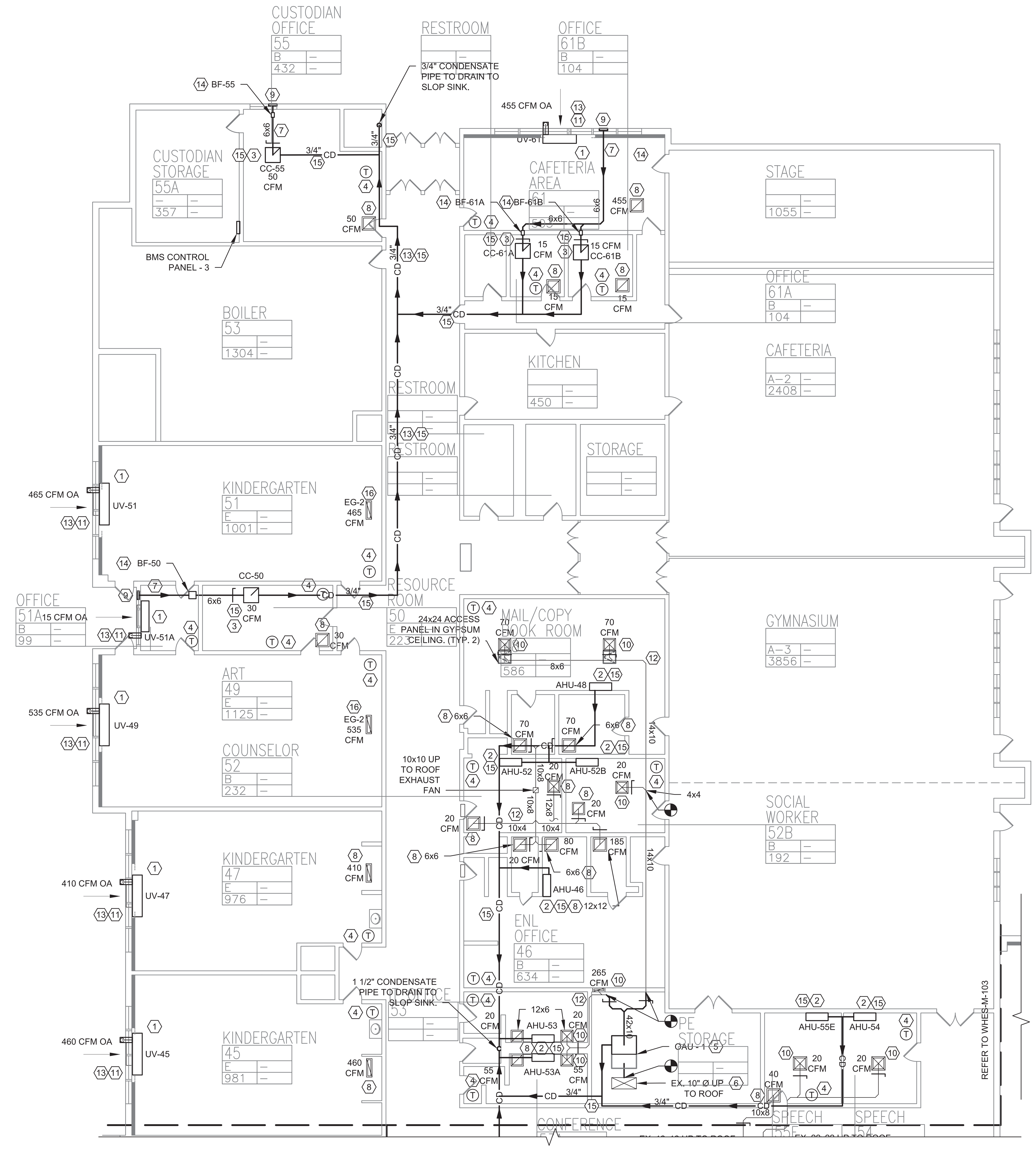
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: FIRST FLOOR PARTIAL PLAN - MECHANICAL - 1

Drawing No.: WHES-M-101

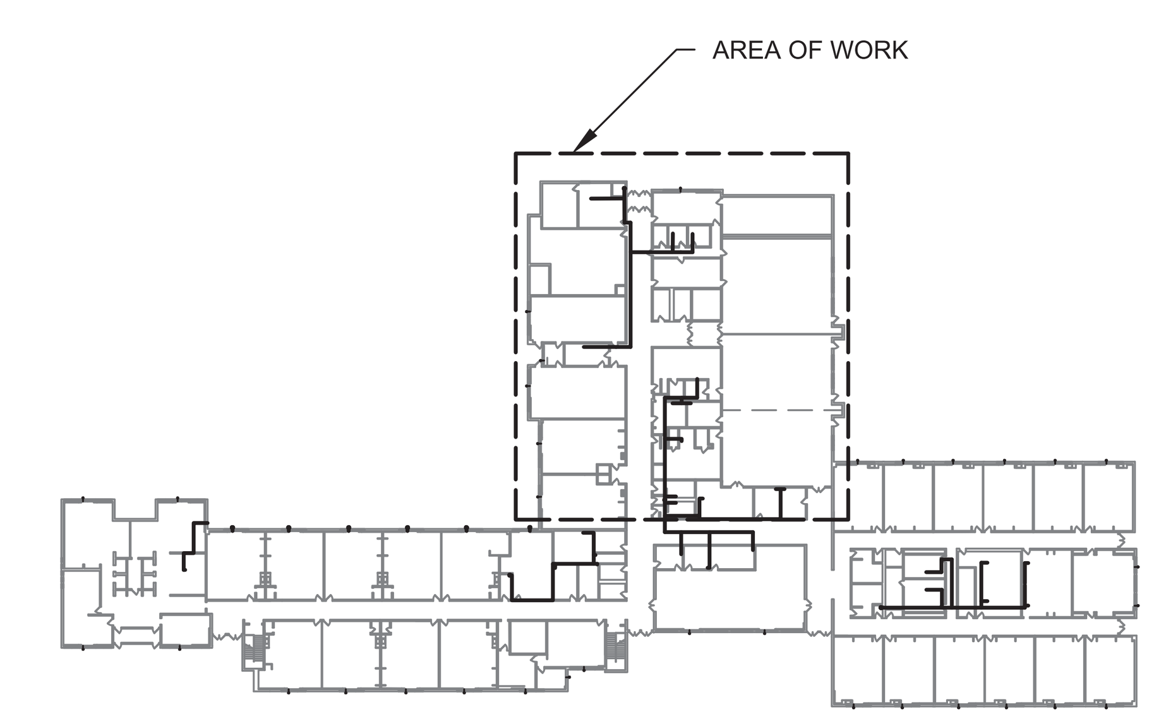


1 FIRST FLOOR PARTIAL PLAN - MECHANICAL - 2

SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING , CONDENSATE PUMP, AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. INSTALL OAU - 1, CONNECT TO EXISTING FRESH AIR DISTRIBUTION SYSTEM. SEE DETAIL 4/M504.
6. FRESH AIR DUCT UP THROUGH ROOF TO REMAIN.
7. INSTALL 6"x6" FRESH AIR DUCT IN SUSPENDED CEILING. SEE M502 AND M504 FOR DUCTWORK INSTALLATION DETAILS.
8. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
9. INSTALL NEW WALL LOUVER AND BIRD SCREEN, SEE DETAIL 5/M504.
10. BALANCE FRESH AIR SUPPLY.
11. CONNECT EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. INSULATED ALL EXISTING DUCTWORK.
13. INSTALL $\frac{3}{4}$" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK.
14. PROVIDE INLINE BOOSTER FAN, SEE BOOSTER FAN SCHEDULE ON WHES-M-003.
15. INSTALL $\frac{3}{4}$" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE ON SPLASH OR NEAREST JANITORS CLOSET.
16. INSTALL AND BALANCE NEW EXHAUST GRILLE.



KEY PLAN

PLAN NORTH

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-2300127.00

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
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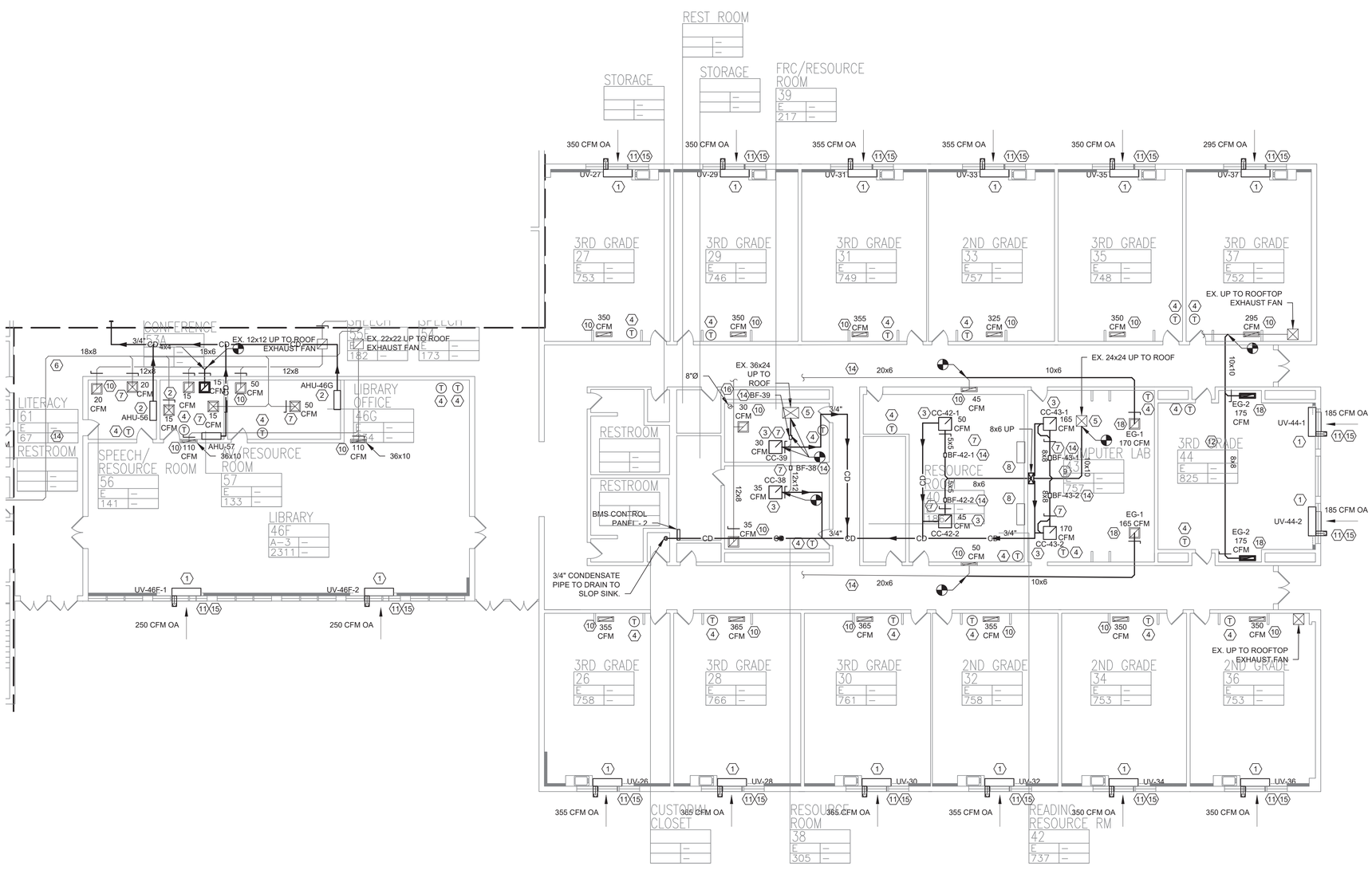
71 BLAUVELT AVE, WEST HARVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title: FIRST FLOOR PARTIAL PLAN - MECHANICAL - 2

Drawing No. WHES-M-102



KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING CASSETTE, CONDENSATE PIPE, AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. EXISTING UP DUCT UP TO FRESH AIR TO REMAIN.
6. EXISTING FRESH AIR DISTRIBUTION SYSTEM TO REMAIN.
7. BALANCE FRESH AIR.
8. EXISTING WALL HUNG UNITS TO REMAIN
9. INSTALL AND CONNECT FRESH AIR DUCT SEE M502 AND M504 FOR DUCTWORK INSTALLATION DETAILS.
10. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
11. CONNECT EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. INSTALL AND CONNECT NEW EXHAUST DUCT ABOVE CEILING. SEE M502 AND M504 FOR DUCTWORK INSTALLATION DETAILS.
13. BALANCE NEW EXHAUST.
14. INSULATE ALL EXISTING DUCTWORK.
15. INSTALL ¾" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK.
16. PROVIDE INLINE BOOSTER FAN, SE BOOSTER FAN SCHEDULE ON WHES-M-003.
17. INSTALL ¾" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE ON SPLASH OR NEAREST JANITORS CLOSET.
18. INSTALL AND BALANCE NEW EXHAUST GRILLE.

0 1/2 1
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KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

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Project No. 43040
Scale AS NOTED
Date 03-04-25

GREENMAN PEDERSEN, INC
2 RECTORTYE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Mechanical & Electrical Engineer:

GREENMAN PEDERSEN, INC
2 RECTORTYE BOULEVARD
SUITE 302
SUFFERN, NY 10901
Structural Engineer:

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
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WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-8200
www.shilale.com

Drawing Title
FIRST FLOOR PARTIAL PLAN - MECHANICAL - 3

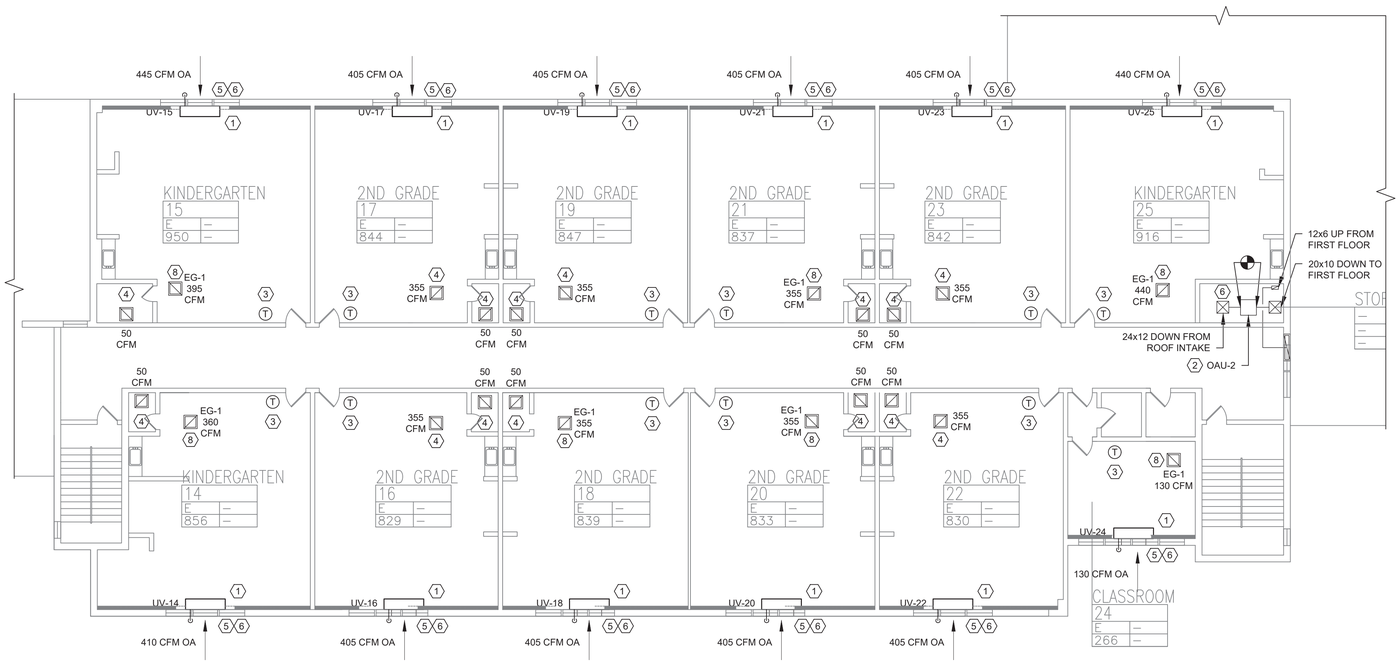
Drawing No.
WHES-M-103

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL OAU - 2, CONNECT TO EXISTING FRESH AIR DISTRIBUTION SYSTEM. SEE DETAIL 4/M504.
3. INSTALL AND CONNECT SYSTEM THERMOSTAT.
4. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
5. CONNECT EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
6. INSULATE ALL EXISTING DUCTWORK.
7. INSTALL $\frac{3}{4}$" COPPER CONDENSATE PIPE TO RUN OUTSIDE
8. INSTALL AND BALANCE NEW EXHAUST GRILLE.

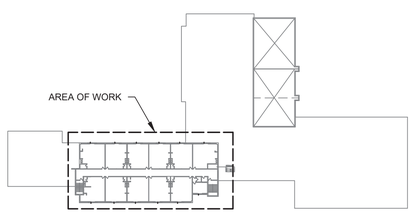
0 1/2 1

IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



1 SECOND FLOOR PARTIAL PLAN - MECHANICAL - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. 1007250107.00

Structural Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

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SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
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WEST HAVERSTRAW BOCLAIR CSDTFT

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140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

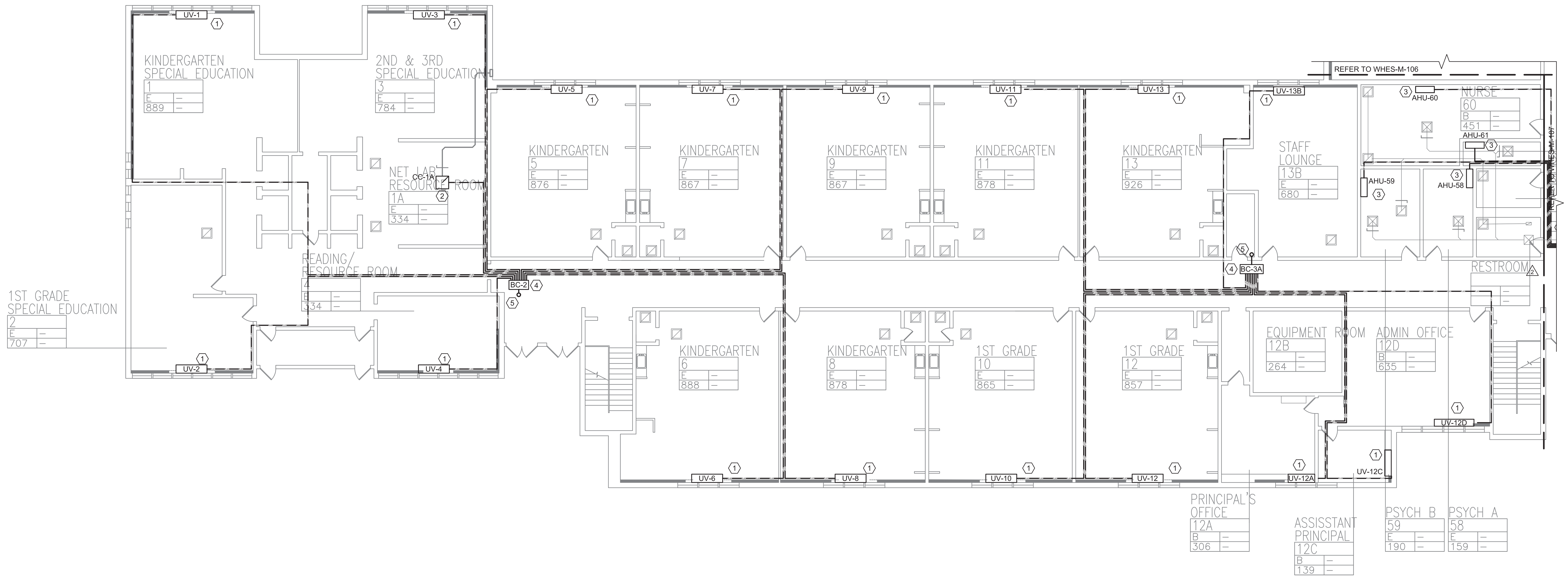
Drawing Title
SECOND FLOOR PLAN - MECHANICAL

Drawing No.
WHES-M-104

KEYED NOTES:

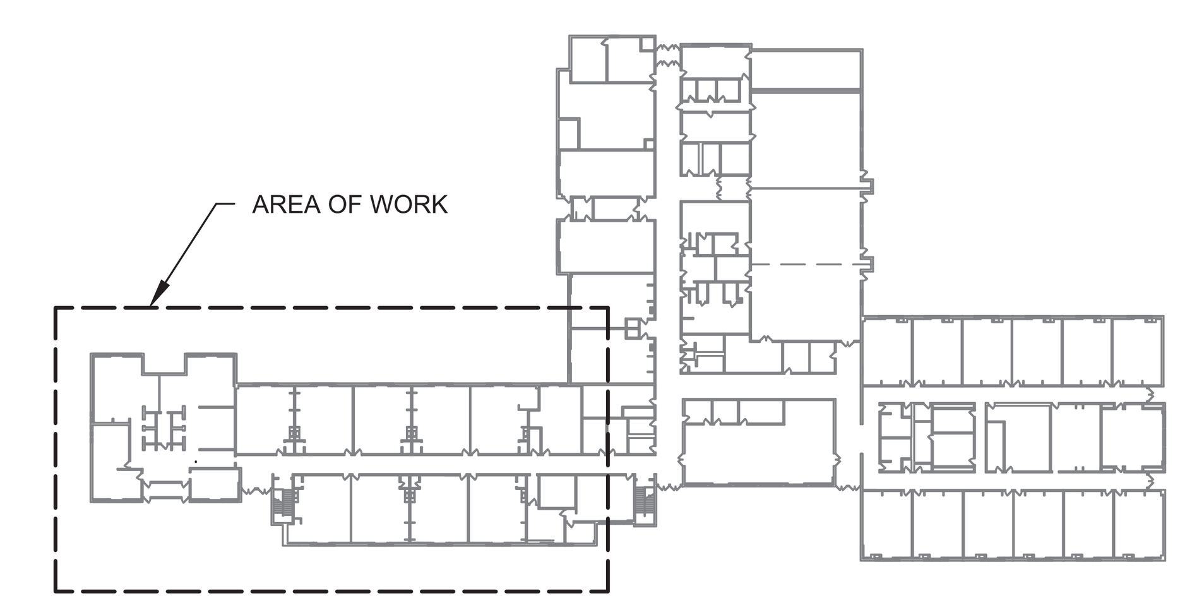
1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 MECHANICAL FIRST FLOOR PARTIAL PLAN - REFRIGERANT PLAN - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-2300127.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

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SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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140 Park Avenue New City, NY 10956 Tel 845-708-9200
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Drawing Title: MECHANICAL FIRST FLOOR PART. PLAN - REFG. PIPING - 1

Drawing No. WHES-M-105

1 MECHANICAL FIRST FLOOR PARTIAL PLAN - REFRIGERANT PLAN - 2

SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING.

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 4304O
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. 19PC2500107.00

Structural Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

71 BLAUVELT AVE. WEST HAVERSTRAW, NY 10993

WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-768-9200
www.shilale.com

Drawing Title
FIRST FLOOR PART, PLAN - REFG. PIPING - 2

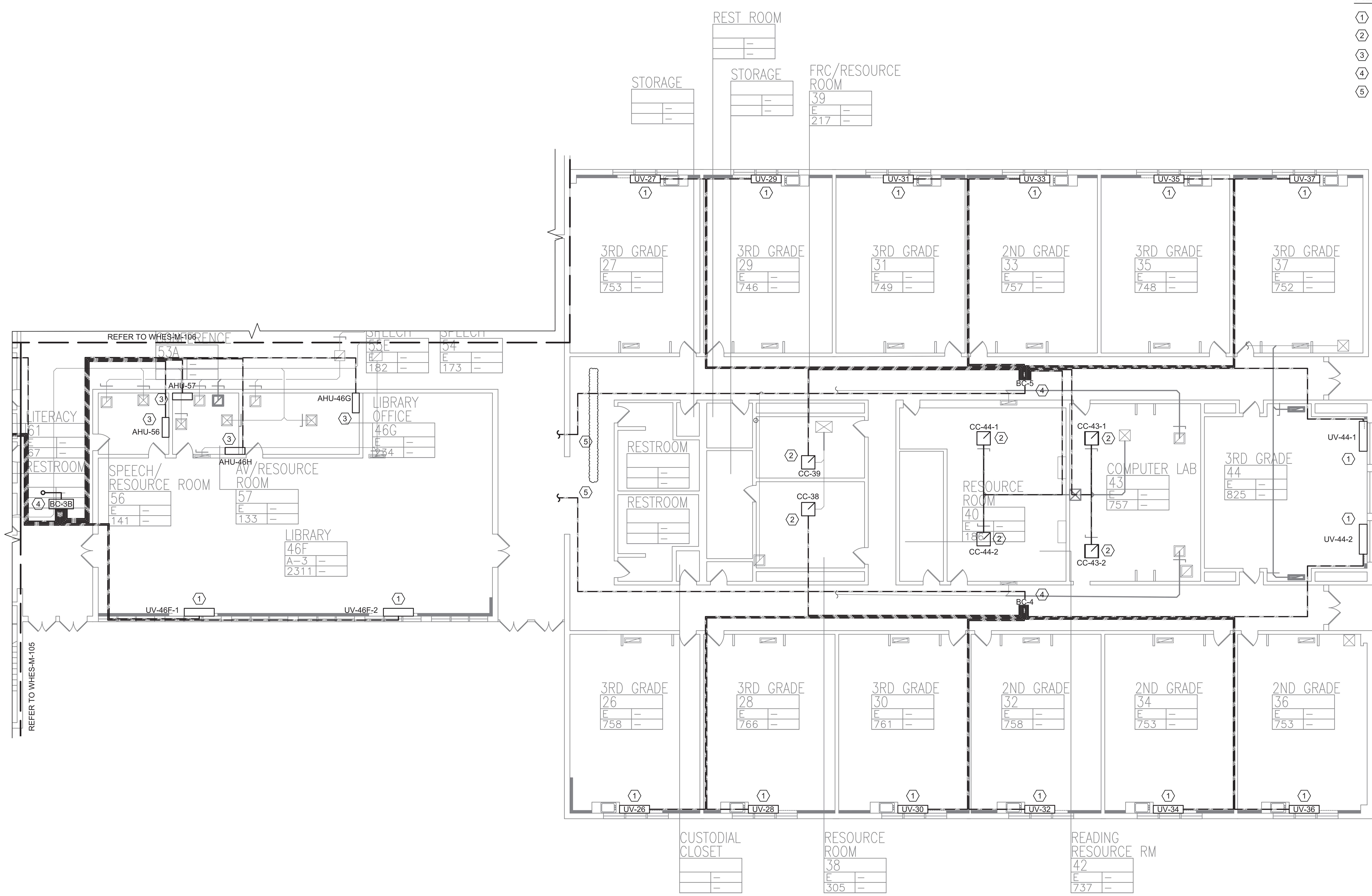
Drawing No.
WHES-M-106

KEYED NOTES:

1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING.

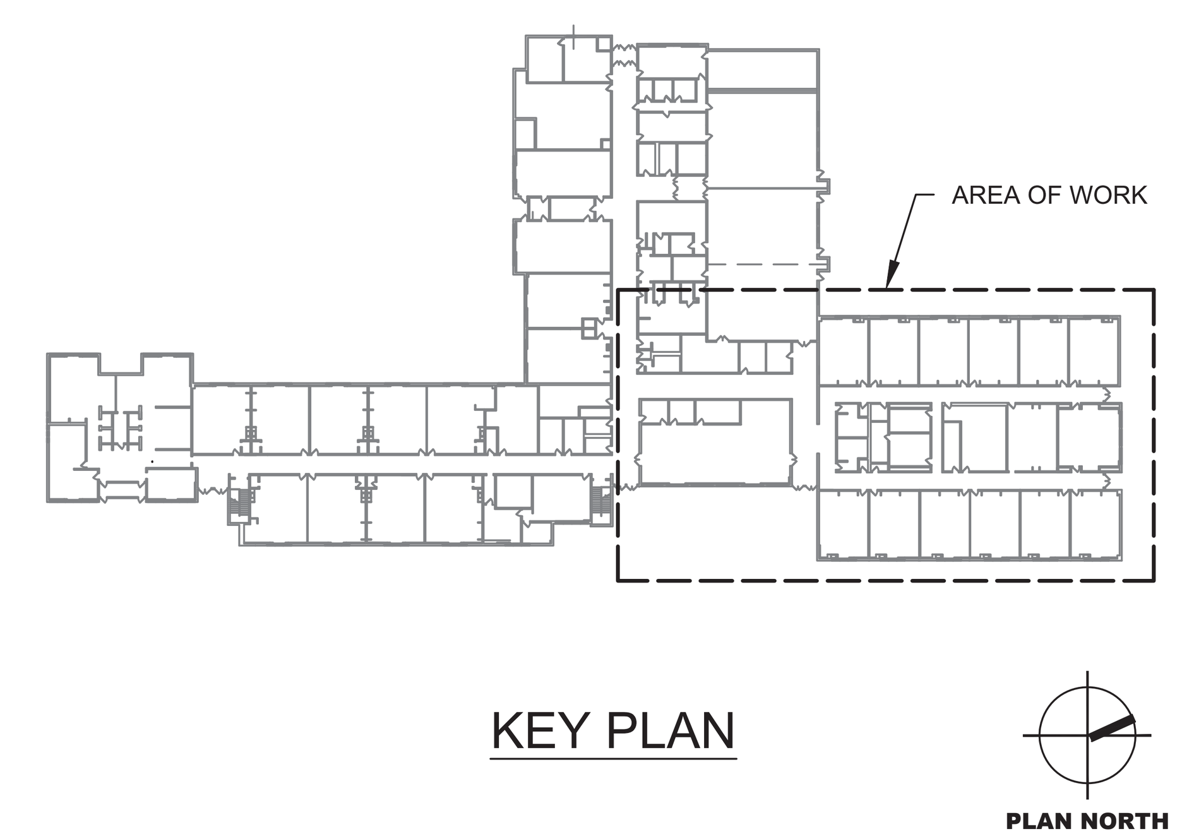
0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 MECHANICAL FIRST FLOOR PARTIAL PLAN - REFRIGERANT PLAN - 3

SCALE: 3/32" = 1'- 0"



KEY PLAN

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

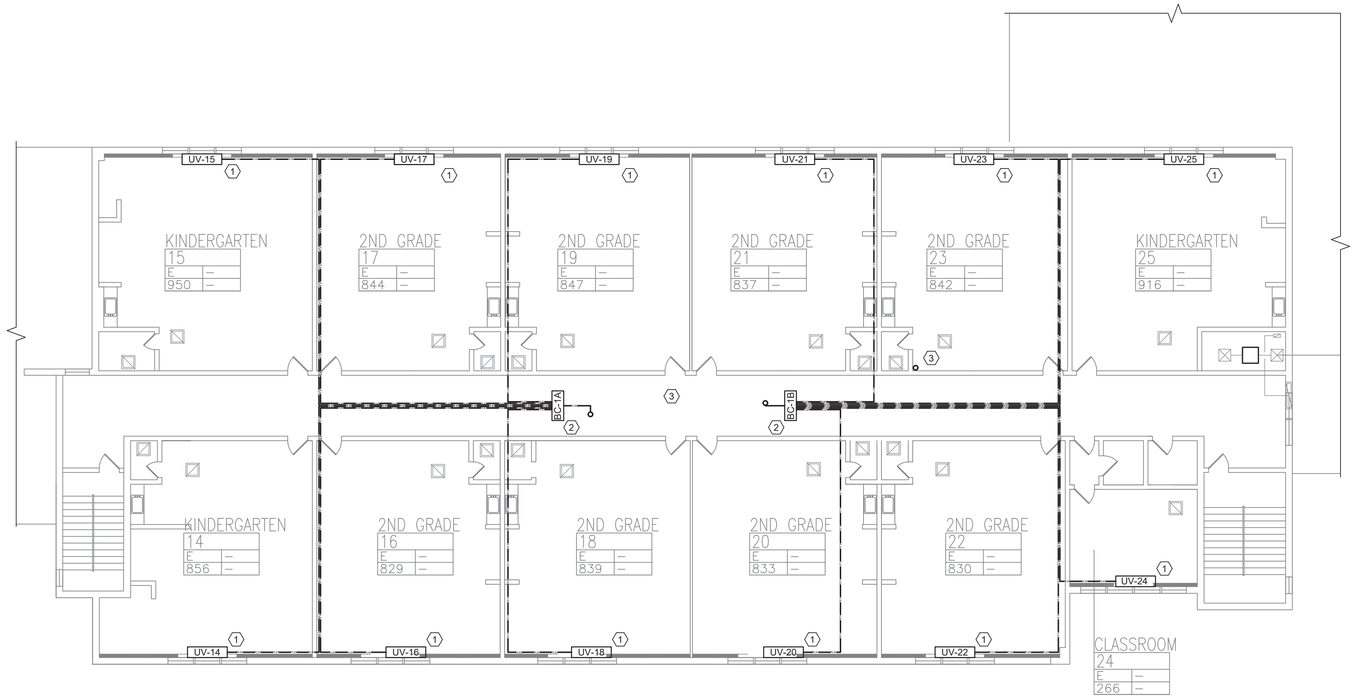
Drawing Title: FIRST FLOOR PART. PLAN - REFG. PIPING - 3

Drawing No. WHES-M-107

KEYED NOTES:

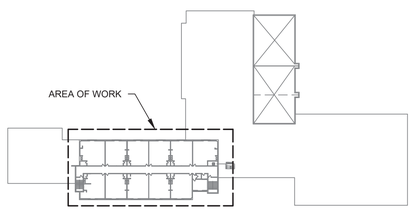
1. NEW UNIT VENTILATOR.
2. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
3. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



1 MECHANICAL SECOND FLOOR PARTIAL PLAN - REFRIGERANT PLAN - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. 1NYC250101.00

Structural Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
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71 BLAUVELT AVE. WEST HAVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-768-9200
www.shilale.com

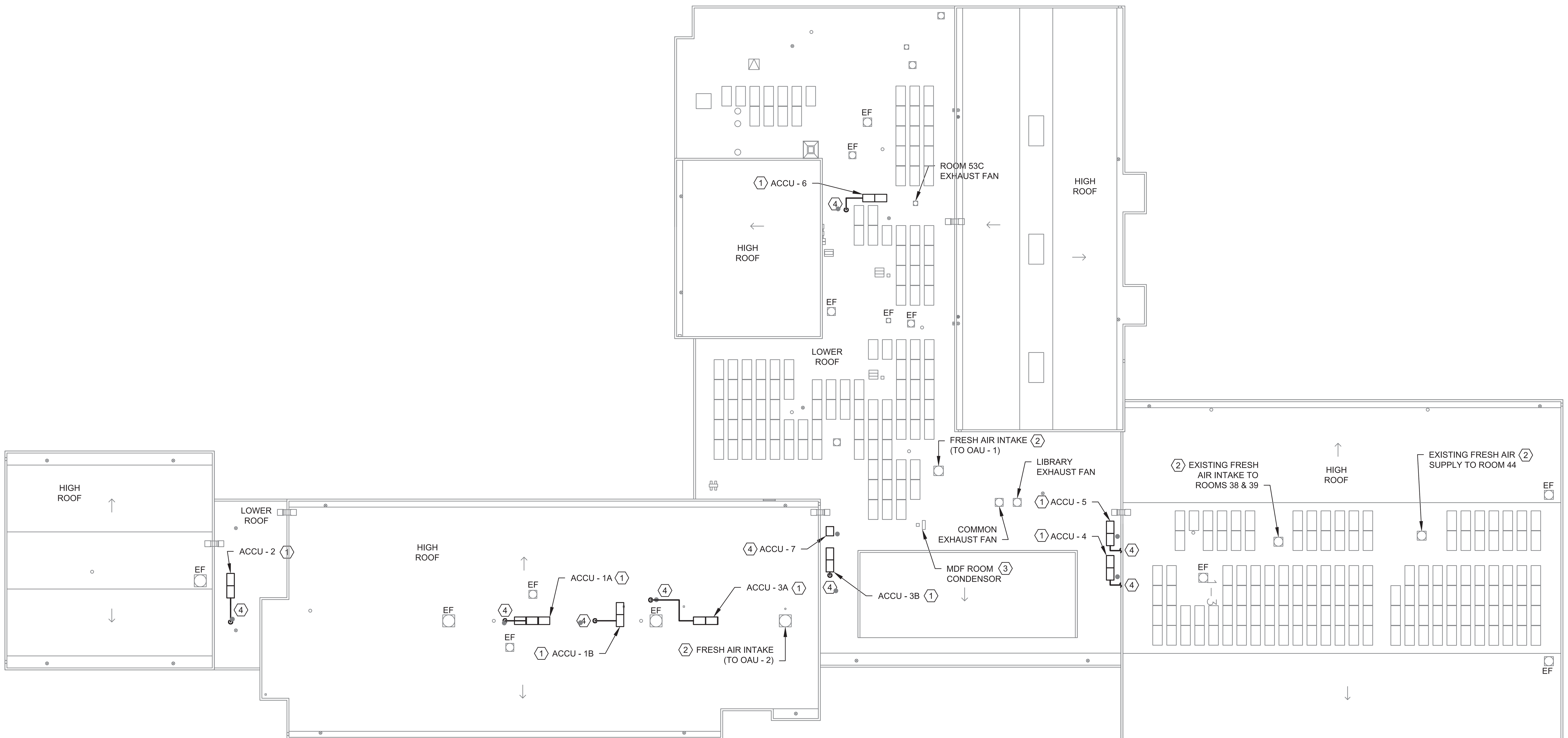
Drawing Title
SECOND FLOOR PLAN - REFG. PIPING

Drawing No.
WHES-M-108

KEYED NOTES:

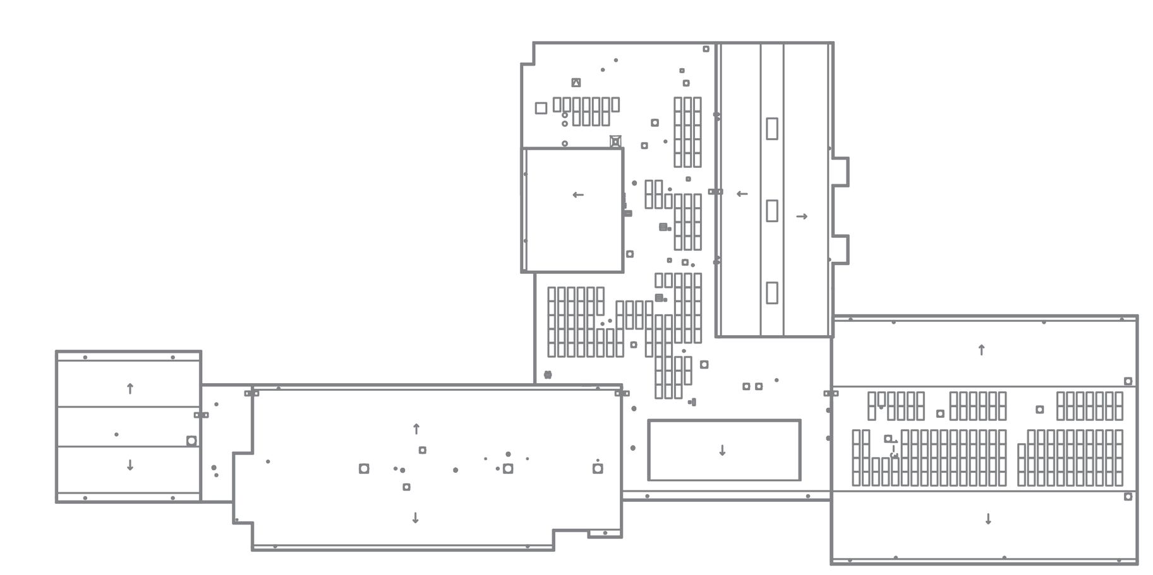
1. INSTALL AND CONNECT ACCU AS SHOWN. SEE STRUCTURAL DRAWINGS FOR COORDINATION AS REQUIRED. SEE DETAILS 1/M502, 2/M503, 3/M503, AND 4/M503.
2. FRESH AIR INTAKE FOR FRESH AIR SYSTEM TO REMAIN.
3. EXISTING CONDENSER FOR EXISTING WALL HUNG UNIT TO REMAIN.
4. REFRIGERANT LIQUID AND SUCTION PIPING.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 MECHANICAL ROOF PLAN

SCALE: 3/64" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-2300187.00

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

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SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

71 BLAUVELT AVE, WEST HAVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

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MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
ROOF PLAN - MECHANICAL

Drawing No.
WHES-M-109

SEQUENCE OF OPERATIONS
UNIT VENTILATOR

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP / PRE-COOL, OCCUPIED / UNOCCUPIED AND HEAT / COOL MODES. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

OCCUPIED MODE:
DURING OCCUPIED PERIODS THE SUPPLY FAN WILL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER WILL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. VRF HEATING/COOLING OR THE HOT WATER COIL VALVE WILL OPERATE TO MAINTAIN THE ACTIVE SPACE TEMPERATURE SETPOINT. VRF HEATING WILL OPERATE AS THE FIRST FORM OF HEAT. THE UNIT WILL UTILIZE HOT WATER HEAT AND FIN TUBE RADIATION IN CONDITIONS WHERE VRF HEAT IS NOT ABLE TO MEET THE HEATING DEMAND.

UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED AND HEATING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 2.0 DEG. F (ADJ.) THE SUPPLY FAN WILL STOP AND HEATING WILL BE DISABLED. WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND COOLING WILL MODULATE TO MAINTAIN SPACE TEMPERATURE. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN WILL STOP, COOLING WILL BE DISABLED AND THE OUTSIDE AIR DAMPER WILL CLOSE.

OPTIMAL START:
THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

MORNING WARM-UP MODE:
DURING OPTIMAL START, WHEN THE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT, A MORNING WARM-UP MODE WILL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED, THE UNIT WILL ENABLE THE HEATING AND SUPPLY FAN. THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT WILL TRANSITION TO THE OCCUPIED MODE.

PRE-COOL MODE:
DURING OPTIMAL START, WHEN THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE WILL BE ACTIVATED. WHEN PRE-COOL IS INITIATED, THE UNIT WILL ENABLE THE FAN AND COOLING OR ECONOMIZER. THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED, UNLESS ECONOMIZING. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE UNIT WILL TRANSITION TO THE OCCUPIED MODE.

OCCUPIED BYPASS:
THE BAS SHALL MONITOR THE STATUS OF THE "ON" AND "CANCEL" BUTTONS OF THE SPACE TEMPERATURE SENSOR OR MOVEMENT AS DETECTED BY A SPACE OCCUPANCY SENSOR. WHEN AN OCCUPIED BYPASS REQUEST IS RECEIVED FROM A SPACE SENSOR, THE UNIT SHALL TRANSITION FROM ITS CURRENT OCCUPANCY MODE TO OCCUPIED BYPASS MODE AND THE UNIT SHALL MAINTAIN THE SPACE TEMPERATURE TO THE OCCUPIED SETPOINTS (ADJ.).

SPACE TEMPERATURE CONTROL:
CASCADE ZONE CONTROL WILL BE USED IN THE OCCUPIED, OCCUPIED BYPASS, AND OCCUPIED STANDBY MODES. IT MAINTAINS ZONE TEMPERATURE BY CONTROLLING THE DISCHARGE AIR TEMPERATURE TO CONTROL THE ZONE TEMPERATURE WHILE MINIMIZING THE FAN SPEED. THE SPACE TEMPERATURE WILL BE MAINTAINED BETWEEN THE OCCUPIED COOLING SETPOINT OF 74.0 DEG. F (ADJ.) AND THE OCCUPIED HEATING SETPOINT OF 71.0 DEG. F (ADJ.). THE UNIT WILL TRANSITION TO THE COOLING MODE WHEN THE SPACE TEMPERATURE RISES ONE DEGREE ABOVE THE OCCUPIED COOLING SETPOINT OF 74.0 DEG. F (ADJ.). THE UNIT WILL TRANSITION TO THE HEATING MODE WHEN THE SPACE TEMPERATURE DROPS ONE DEGREE BELOW THE OCCUPIED HEATING SETPOINT OF 74.0 DEG. F (ADJ.).

ECONOMIZER CONTROL:
ECONOMIZING WILL BE ENABLED WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZING ENABLE SETPOINT OF 65.0 DEG. F (ADJ.). ECONOMIZING WILL BE DISABLED WHEN THE OUTDOOR AIR TEMPERATURE IS GREATER THAN 5.0 DEG. F ABOVE THE ECONOMIZER ENABLE SETPOINT. WHEN ECONOMIZING IS ENABLED THE OUTSIDE AIR DAMPER WILL MODULATE BETWEEN THE MINIMUM DAMPER POSITION AND 100% OPEN TO MAINTAIN THE OCCUPIED COOLING SETPOINT. IF THE OUTDOOR AIR TEMPERATURE SENSOR FAILS, ECONOMIZING WILL BE DISABLED AND AN ALARM WILL BE ANNUNCIATED AT THE BAS.

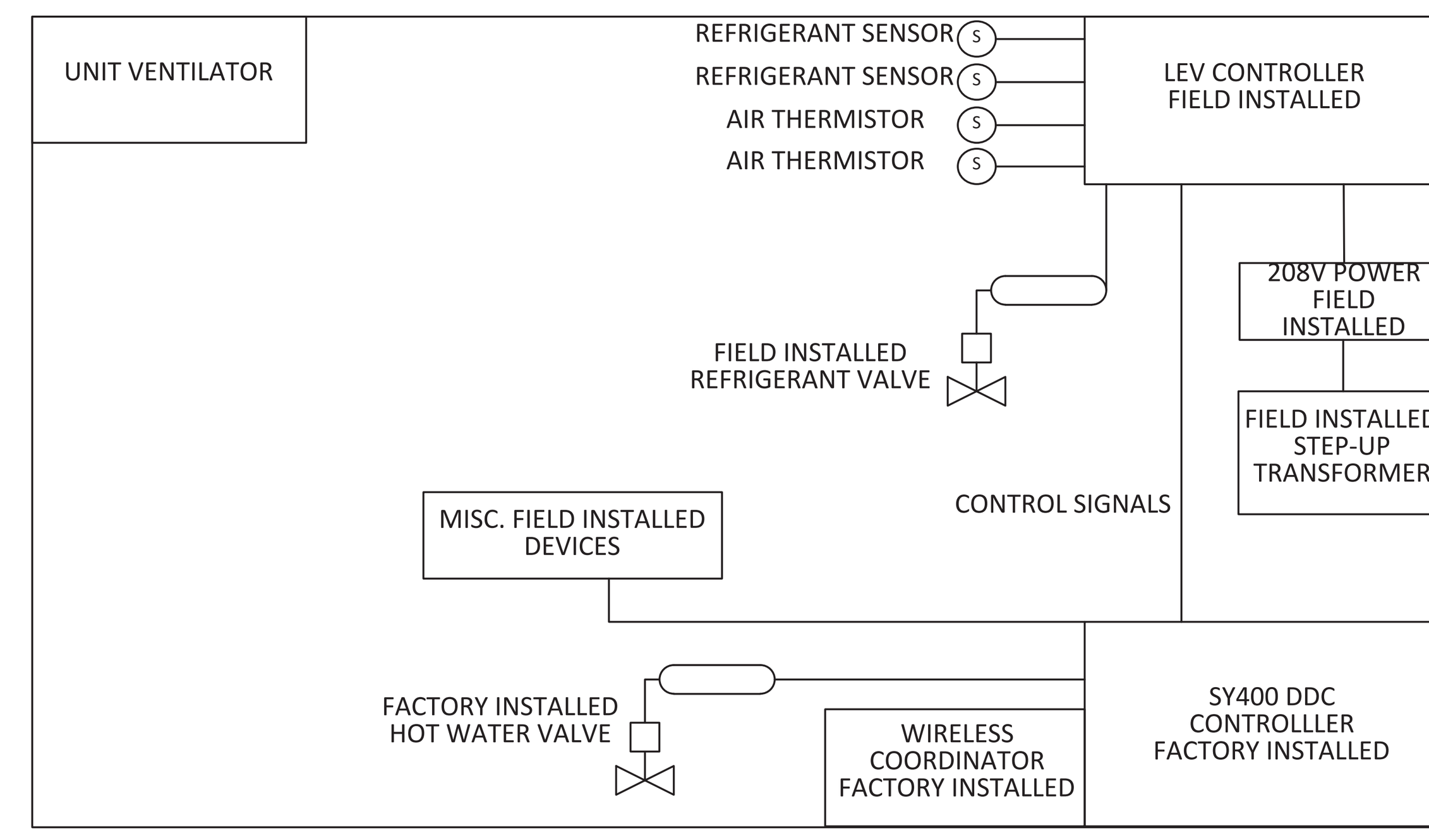
SUPPLY FAN OPERATION:
THE SUPPLY FAN SHALL CYCLE ON DEMAND DURING THE UNOCCUPIED MODE. WHEN THE CONTROLLER TRANSITIONS TO THE OCCUPIED MODE, THE SUPPLY FAN SHALL START AT HIGH SPEED BEFORE TRANSITIONING TO CONTINUOUS OPERATION AT THE SELECTED SPEED. THE SUPPLY FAN STATUS SHALL BE MONITORED BY A DIFFERENTIAL PRESSURE SWITCH. IF THE SUPPLY FAN FAILS THE FAN SHALL BE COMMANDED OFF AND AN ALARM WILL BE ANNUNCIATED AT THE BAS. A MANUAL RESET SHALL BE REQUIRED TO RESTART THE FAN.

FREEZE PROTECTION:
A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH WILL BE ELECTRICALLY INTERLOCKED WITH THE SAFETY CIRCUIT. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE SUPPLY FAN WILL BE COMMANDED OFF, WATER VALVES WILL OPEN TO 100%, OUTSIDE AIR DAMPER WILL CLOSE, AND AN ALARM WILL BE ANNUNCIATED AT THE BAS. THE CONTROLLER WILL AUTOMATICALLY ATTEMPT TO RESTART THE UNIT AFTER 30 MINUTES. IF THE UNIT RESTARTS SUCCESSFULLY WITH NO LOW TEMPERATURE CONDITION, THE DIAGNOSTIC IS CLEARED. IF A SECOND LOW TEMPERATURE CONDITION OCCURS WITHIN A 24 HOUR PERIOD THE UNIT WILL BE LOCKED OUT UNTIL MANUALLY RESET.

FILTER TIMER:
THE FAN-RUN TIME (HRS) WILL BE COMPARED TO THE FILTER MAINTENANCE TIMER SETPOINT. ONCE THE SETPOINT IS REACHED A FILTER TIMER ALARM DIAGNOSTIC WILL BE ANNUNCIATED AT THE BAS. WHEN THE DIAGNOSTIC IS CLEARED, THE FILTER-MAINTENANCE TIMER IS RESET TO ZERO, AND THE TIMER BEGINS ACCUMULATING FAN-RUN TIME AGAIN.

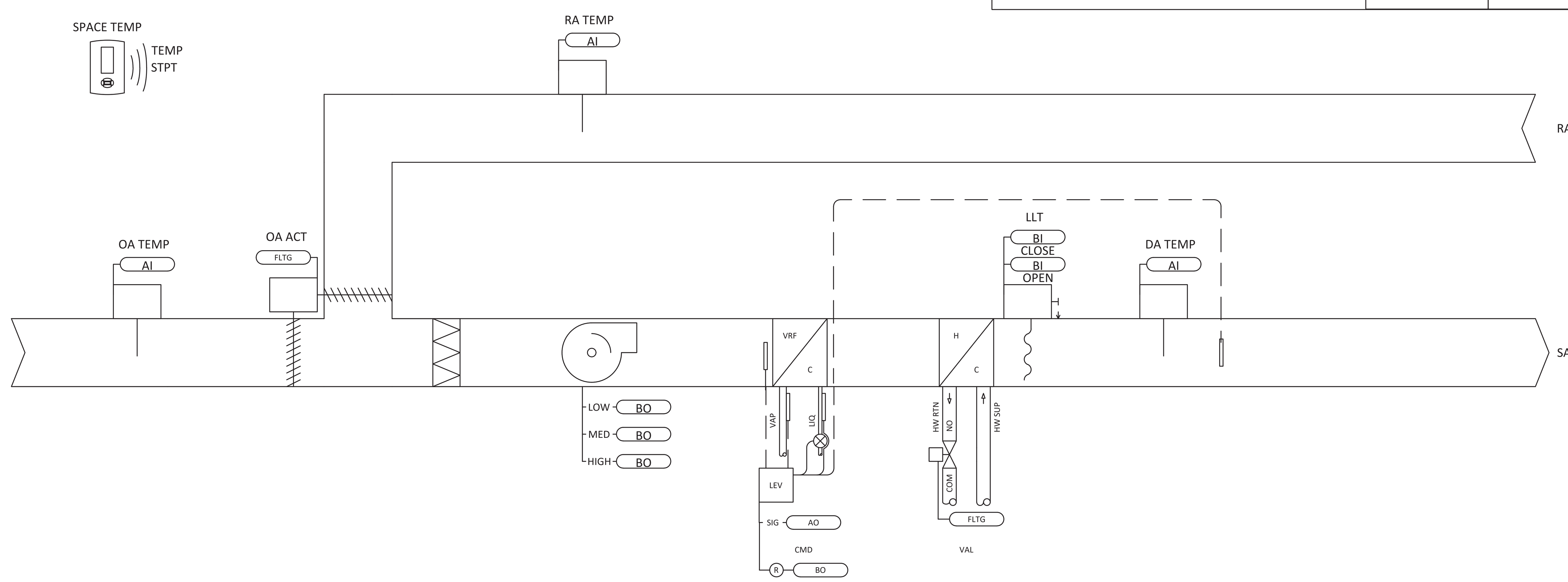
FIN TUBE RADIATOR:
THE FIN TUBE RADIATOR WILL ACT AS SECOND STAGE OF HEAT.

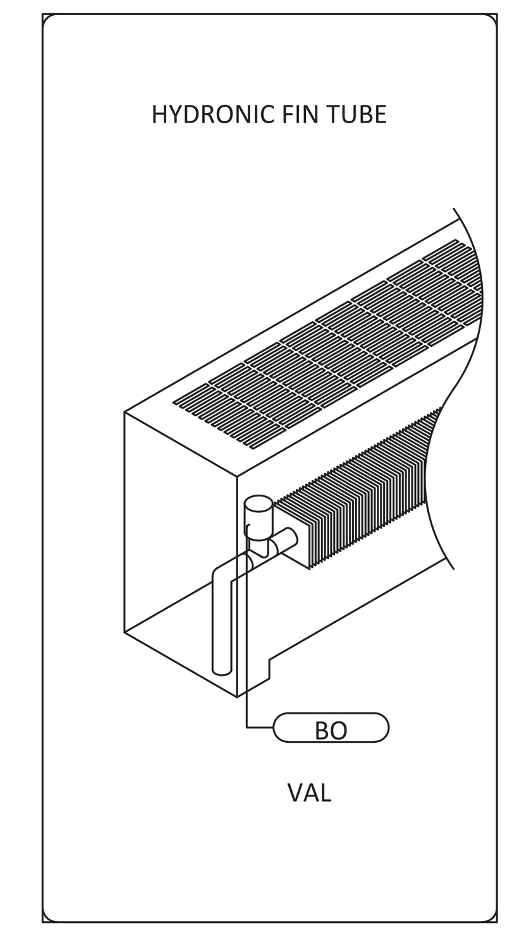
(UNIT VENTILATOR W/ VRF LEV)



ALL ITEMS DENOTED AS FIELD INSTALLED ARE TO BE INSTALLED BY THE ATC CONTRACTOR. ATC CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER ON FURNISHING OF ITEMS

UNIT VENTILATOR W/ VRF LEV





1 UNIT VENTILATOR FLOW DIAGRAM & SEQUENCE OF OPPERATIONS
SCALE: NONE

SEQUENCE OF OPERATIONS
VRF INDOOR UNITS

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) WILL SEND THE CONTROLLER OCCUPIED / UNOCCUPIED MODES AND SETPOINTS. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER WILL OPERATE USING DEFAULT MODES AND SETPOINTS .

OCCUPIED MODE:
DURING OCCUPIED PERIODS, THE SUPPLY FAN WILL RUN CONTINUOUSLY. VRF HEATING OR COOLING WILL MODULATE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT.

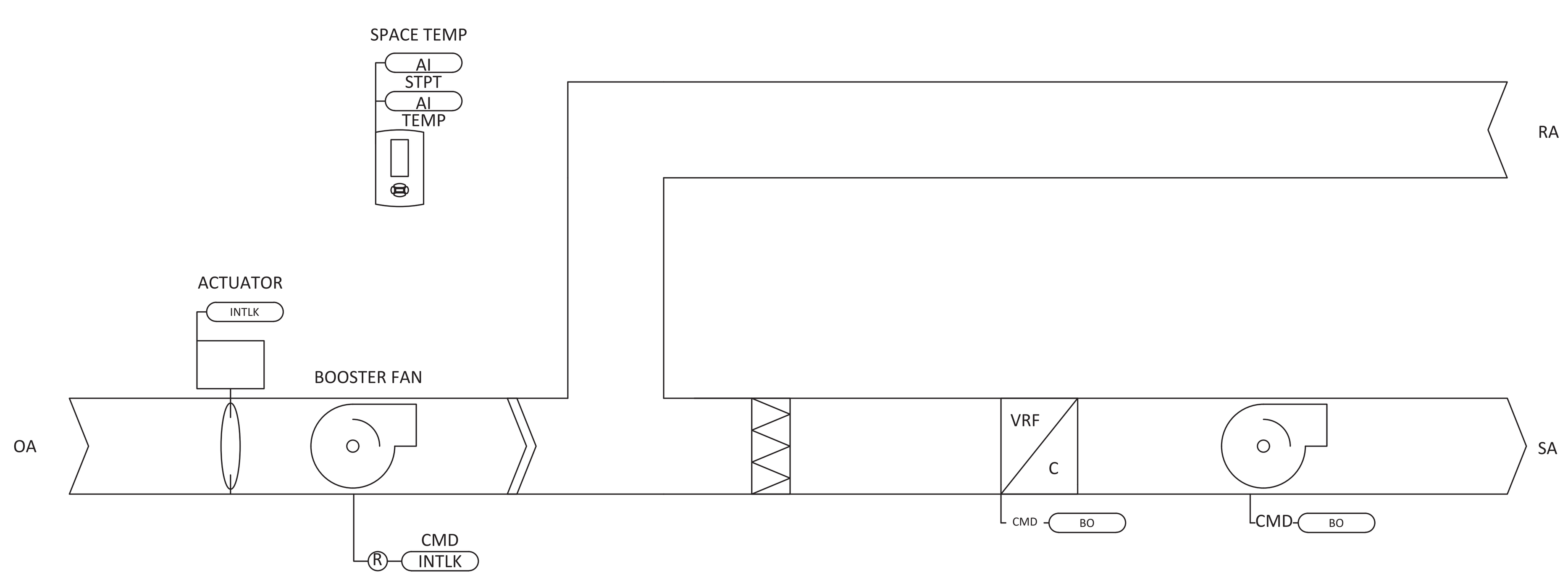
UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START AND VRF HEATING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.), THE SUPPLY FAN WILL STOP AND THE VRF HEATING WILL BE DISABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START AND VRF COOLING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.), THE SUPPLY FAN WILL STOP AND THE VRF COOLING WILL BE DISABLED.

COOLING MODE:
THE UNIT CONTROLLER WILL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. WHEN THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, THE UNIT CONTROLLER WILL MODULATE VRF COOLING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT, VRF COOLING WILL BE DISABLED.

HEATING MODE:
THE UNIT CONTROLLER WILL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEATING. WHEN THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT, THE UNIT CONTROLLER WILL MODULATE VRF HEATING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, VRF HEATING WILL BE DISABLED.

BOOSTER FAN:
THE BOOSTER FAN WILL BE INTERLOCKED WITH THE INDOOR UNIT. THE FAN WILL RUN WHEN THE UNIT SUPPLY FAN IS RUNNING.

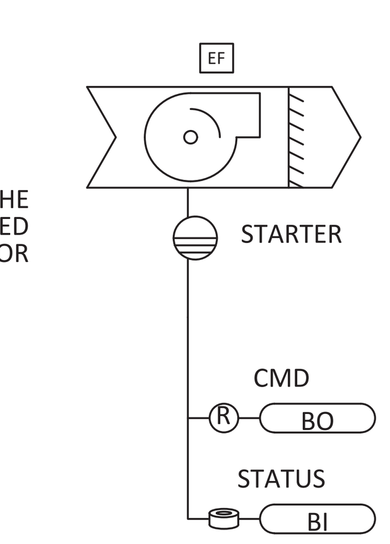
OUTDOOR AIR DAMPER:
THE OUTDOOR AIR DAMPER WILL BE INTERLOCKED WITH THE INDOOR UNIT. THE FAN WILL BE OPEN WHEN THE UNIT SUPPLY FAN IS RUNNING.



2 VRF FLOW DIAGRAM & SEQUENCE OF OPPERATIONS
SCALE: NONE

SEQUENCE OF OPERATIONS
EXHAUST FANS

OCCUPANCY CONTROL:
THE EXHAUST FANS WILL BE ENABLED WHEN THE CONTROLLER IS IN THE OCCUPIED MODE AND DISABLED IN THE UNOCCUPIED MODE. THE BAS WILL MONITOR FAN STATUS FOR ALARMING PURPOSES.



3 EXHAUST FAN FLOW DIAGRAM & SEQUENCE OF OPPERATIONS
SCALE: NONE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE
0 1/2 1

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. : MNY-2300088.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAVESTRAW ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-012
SED# 50-02-01-06-0-025-018
SED# 50-02-01-06-0-024-015

71 BLAUVELT AVE, WEST HARVERSTRAW, NY 10993
WEST HAVERSTRAW ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
FLOW DIAGRAM AND SEQUENCE OF OPERATIONS

Drawing No.
WHES-M-301