HEAT PUMP SCHEDULE

			HP-1-1	HP-1-2	HP-1-3	HP-1-4	HP-1-5	HP-2-1	HP-2-2	HP-2-3
	UNIT NUMBER		HP-1-1	HP-1-2	HP-1-3	HP-1-4	HP-1-5	HP-2-1	HP-2-2	HP-2-3
	SERVICE		CLASSROOM I	CLASSROOM II	CLASSROOM III	1ST FL. NEW ADDITION	1ST FL. IT ROOM	AFTER SCHOOL R. S.	AFTER SCHOOL R. N.	2ND FL. NEW ADDITION
	LOCATION		BASEMENT	BASEMENT	BASEMENT	ABOVE CORRIDOR	IT ROOM	ATTIC	ATTIC	2ND FL. ATTIC
	MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
	MODEL		EXHE-036	EXVE-030	EXHE-060	EXHE-042	GEHE-012	EXHE-060	EXHE-060	EXHE-036
FANS	C.F.M. (TOTAL/OUTSIDE AIR)		1250	1040	1700	1330	380	1700	1700	1254
FANS	EXTERNAL STATIC PRESS. (IN WG)		0.5	0.5	0.5	0.5	–	0.5	0.5	0.5
FANS	FAN RPM/SPEED		RATED SPEED +10%	MEDIUM SPEED	RATED CFM	MEDIUM SPEED	RATED CFM	RATED CFM	RATED CFM	RATED SPEED +10%
FANS	FAN HP		0.75	0.5	1	0.75	–	1	1	0.75
FANS	CAPACITY (TONS)		3	2 1/2	5	3 1/2	1	5	5	3
FANS	SUPPLY/RETURN CONFIGURATION		REAR/LEFT	REAR/LEFT	REAR/LEFT	REAR/LEFT	REAR/LEFT	REAR/LEFT	REAR/LEFT	REAR/LEFT
FANS	FILTER TYPE		1" MERV-13	1" MERV-13	1" MERV-13	1" MERV-13	1"	1" MERV-13	1" MERV-13	1" MERV-13
ELEC.	ELECTRIC HEAT (KW)		6.0	6.0	8.0	–	–	8.0	8.0	–
ELEC.	ELECTRIC HEAT AMPS		26.1 A	26.1 A	34.8 A	–	–	34.8 A	34.8 A	–
ELEC.	TOTAL FLA		30.1 A	29.3 A	42.8 A	22.3 A	7 A	42.8 A	42.8 A	18.1
ELEC.	MIN. CRT AMPS		37.61	36.61	53.48	26.78	11.4	53.48	53.48	21.63
ELEC.	MAX. FUSE SIZE		40	40	60	40	15	60	60	35.0
ELEC.	VOLTAGE/PHASE		230/1	230/1	230/1	230/1	230/1	230/1	230/1	230/1
HEATING MODE	AIR DATA	ENT DRY BULB	68	68	68	68	–	68	68	68
HEATING MODE	AIR DATA	LV DRY BULB	88.27	87.7	94.23	88	–	94.23	94.23	88.27
HEATING MODE	WATER DATA	TEMP. ENTERING	40	40	40	40	–	40	40	40
HEATING MODE	WATER DATA	TEMP. LEAVING	32.3	33.6	32	31.73	–	32	32	32.3
HEATING MODE	WATER DATA	HEAT ABSORPTION MBH	22.34	18.2	38.2	25.37	–	38.2	38.2	22.34
HEATING MODE	WATER DATA	WATER FLOW RATE (GPM)	7.5	6.25	12.5	8.75	–	12.5	12.5	7.5
HEATING MODE	COP		5.3	5.3	5.0	5.2	–	5.0	5.0	5.3
HEATING MODE	CAPACITY TOTAL MBH		29.9	24.26	52.36	34.02	–	52.3	52.3	29.9
COOLING MODE	AIR DATA	ENT DRY BULB	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
COOLING MODE	AIR DATA	ENT WET BULB	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
COOLING MODE	AIR DATA	LV DRY BULB	59.04	58.45	54.33	58.92	59.45	54.33	54.33	59.04
COOLING MODE	AIR DATA	LV WET BULB	56.83	56.81	56.45		57.33	56.45	56.45	56.83
COOLING MODE	CAPACITY TOTAL MBH		36.43	30.42	61.13	43.2	12	61.13	61.13	36.43
COOLING MODE	CAPACITY SENSIBLE MBH		29.61	25.34	44.46	34.7	10.2	44.46	44.46	29.61
COOLING MODE	WATER DATA	TEMP. ENTERING °F.	70	70	70	70	70	70	70	70
COOLING MODE	WATER DATA	TEMP. LEAVING °F.	83.85	85.6	85.57	87.0	83.4	85.57	85.57	83.85
COOLING MODE	WATER DATA	WATER FLOW RATE (GPM)	7.5	6.25	12.5	8.75	2.5	12.5	12.5	7.5
COOLING MODE	WATER DATA	PRESS. DROP (FT HD)	9.8	9.3	10.3	11.2	3.0	10.3	10.3	9.8
	EER		15.9	15.5	14.8	15.6	14	14.8	14.8	15.9
	BLOWER/COMPRESSOR QUANTITY		1	1	1	1	1	1	1	1
	COMPRESSOR RLA (AMPS)									
	COMPRESSOR LRA (AMPS)									

NOTES:
1. ALL UNITS FLUID TYPE IS WATER
2. PROVIDE DELUXE SOUND ATTENUATION PACKAGE.
3. PROVIDE HIGH STATIC BLOWER MOTOR.
4. PROVIDE CONDENSATE OVER FLOW SENSOR.
5. HP-1-5 IS A COOLING ONLY CIRCUIT

LOUVER SCHEDULE

UNIT NUMBER	L-1	L-2	L-3	L-4
MANUFACTURER	GREENHECK	GREENHECK	BY ARCHITECT	GREENHECK
MODEL	ESD-435	ESD-435	BY ARCHITECT	ESD-435
THICKNESS (IN.)	4	4	–	4
SIZE (W IN.x H IN.)	30x18	30x18	18x12	18x12
FREE AREA (SQ. FT.)	1.59	1.59	0.5	0.5
MIN. WATER PENETRATION (FPM)	1151	1151	1151	1151
PRESSURE DROP AT 500 FPM FREE AREA VELOCITY (IN.)	0.04	0.035	0.035	0.035

NOTES:
1. PROVIDE BIRD SCREEN FOR ALL LOUVERS.
2. PROVIDE WHITE FLUROPON KYNAR FINISH TO MATCH BUILDING.
3. LOUVER SUBMITTAL MUST INCLUDE VELOCITY OF BEGINNING POINT OF WATER PENETRATION BASED ON AMCA WATER PENETRATION TEST.

ENERGY RECOVERY VENTILATOR SCHEDULE

UNIT NUMBER	ERV-1	ERV-2	ERV-3
SERVICE	1ST FLOOR AREA	2ND FLOOR AREA	2ND FL. NEW ADD.
MANUFACTURER	COOK	COOK	COOK
MODEL	ERV-1000	ERV-1000	ERV-500
C.F.M.	900	850	240
STATIC PRESS. (IN WG)	0.5	0.5	0.5
VOLTS/PHASE	120/1	120/1	120/1
HP	1	1	1
FILTER NO. SIZE	2/ 10.5 X10.5	2/ 10.5 X10.5	2/ 10.5 X10.5
NOTES			

NOTES:

FAN SCHEDULE

UNIT NUMBER	TXF-1	TXF-2	TXF-3	TXF-4	GXF-1
SERVICE	1ST FL S. BATH R.	1ST FL N. BATH R.	1ST FL E. BATH R.	2ND FL. BATH R.	BASEMENT MER
MANUFACTURER	COOK	COOK	COOK	COOK	COOK
MODEL	GN-420	GN-182	GN-182	GN-520	GC 144
C.F.M.	225	150	150	354	80
STATIC PRESS. (IN WG)	0.5"	0.5"	0.5"	0.4"	.1
VOLTS/PHASE	115/1	115/1	115/1	115/1	115/1
WATTS	146	162	162	142	65
HVI SONES	5.3	4.9	4.9	6.2	0.3
NOTES	1	1	1	1	

NOTES: 1. PROVIDE BACKDRAFT DAMPER.

EXPANSION TANK SCHEDULE

UNIT NUMBER	ET-1
QUANTITY	1
MANUFACTURER	B & G
MODEL	D-40V
TYPE	PRESSURIZED
MAX. TEMP. F°	120
MAX. PRESSURE PSI	125
SYSTEM	GEO-EXCHANGE
TANK CAPACITY GAL.	21.7
TANK ACCEPTANCE GAL.	11.3
REMARKS:	

AIR SEPARATOR SCHEDULE

UNIT NUMBER	AS-1
QUANTITY	1
MANUFACTURER	B & G
MODEL	RL-3
CONNECTION SIZE	3"
CAPACITY (GPM)	125
SYSTEM	GEO-EXCHANGE
REMARKS:	

HYDRONIC PUMP SCHEDULE

UNIT NUMBER		GP-1 & 2	CP-1 & CP-2
SERVICE		WELL FIELD & HEAT PUMPS	HP-1-1, HP-1-2 & HP-1-3
MANUFACTURER		B&G	LITTLE GIANT PUMP
MODEL		SERIES 80 SIZE 1-1/2x1-1/2x 7B	VCMA-20ULS
FLUID DATA	FLUID	WATER	WATER
FLUID DATA	TEMPERATURE (F)	90	50
FLUID DATA	FLOW RATE (GPM)	75	0.16
FLUID DATA	T.D.H. (FT)	100	20
FLUID DATA	MAX. PRESS. (PSI)	175	-
PUMP DATA	TYPE	IN-LINE	WALL MOUNTED
PUMP DATA	SPEED (RPM)	1750	-
PUMP DATA	BRAKE H.P.	3.3	-
PUMP DATA	MOTOR H.P.	5	1/30
MOTOR	TYPE	-	-
MOTOR	H.P.	5	-
MOTOR	R.P.M	-	-
MOTOR	VOLTAGE/PHASE	230 / 1Ø	115 / 1Ø
STARTER	TYPE	VFD	-
STARTER	NEMA SIZE	1	-
STARTER	CONTROL	-	-
STARTER	AUX. CONTACTS	2NO / 2NC	-
STARTER	VAR. FREQUENCY DRIVE	YES	-

NOTES:
1. GP-1 AND GP-2 PUMPS SHALL BE FURNISHED WITH B&G TRIPLE-DUTY VALVE AND VSD DRIVE. REFER TO PUMP DETAIL FOR ADDITIONAL INFORMATION.

DIFFUSER, REGISTER & GRILLE SCHEDULE

KEY	D-1	R-1	R-2	CG-1	HG-1	HG-2	E-1
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS
MODEL	TDC	CT-540	350	350R	350R	MLR-39	350R
NECK SIZE	VAR.	VAR.	VAR.	VAR	VAR	48X14	VAR
MODULE SIZE	VAR.	VAR.	VAR.	VAR	VAR	50X16	VAR
BORDER	TYPE 1	TYPE 5	TYPE 1	TYPE 1	TYPE 1	TYPE 1A	TYPE 1
FINISH	By Architect	By Architect	By Architect	By Architect	By Architect	By Architect	By Architect
BLOW PATTERN	4-WAY	2-WAY	2-WAY	–	–	–	–
OPPOSED BLADE DAMPER	YES	YES	YES	YES	YES	YES	YES
STYLE	CEILING DIFFUSER	FLOOR S/A LINEAR BAR	HIGH WALL S/A REGISTER	CEILING WALL R/A GRILLE	HIGH WALL R/A GRILLE	HIGH WALL R/A SLOT	EXHAUST GRILLE

NOTES: ALL MODELS: STEEL BLACK PAN.
ALL MODELS: ACCORDINGLY TO ARCHITECT APPROVAL.

ARCHITECT

bh+a

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REVISIONS

1	Addendum # 2	09/21/10
2		
3		
4		
5		

DATE

DRAWING TITLE

Schedules

DRAWING INFORMATION

August 20, 2010
DATE OF ISSUE
Bid Documents
DESCRIPTION

SCALE: No Scale
DRAWN BY: AH
PROJECT #
FILE NAME

DRAWING NUMBER

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