SCHEDULE OF GAS FIRED ROOFTOP UNITS SUPPLY FAN DATA RETURN FAN DATA COMPRESSOR DATA ENERGY RECOVERY GENERAL DATA COOLING DATA FILTER DATA PHYSICAL DATA GAS HEATING DATA ELECTRICAL DATA REMARKS ONNAGE | MOTOR Q1 MODEL NUMBER 🛈 OAI CFM D.B. / W.B. 245 70/57 63/54 110/100 38,400 23,800 ENTHALPY WHEEL 78x64x48 208/3/60 KINDERGARTEN 81/76 13-5T-DOAS-ERV 75,000 70/57 KINDERGARTEN 1.5 63/54 110/100 38,400 23,800 81/76 ENTHALPY WHEEL 78x64x48 208/3/60 13-5T-DOAS-ERV 110/100 43,500 81/76 70/62 ENTHALPY WHEEL 1*34x81x6* : MEDIA CENTER 72,900 15-7.5T-DOAS-ERV 70/57 78x64x48 65/55 110/100 19,200 81/76 11-5T-DOAS-ERV

(1) AS MANUFACTURED BY "CAPTIVAIRE".

2 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

BASED ON A.R.I. CERTIFIED COIL SELECTIONS; REFRIGERANT R-410A,

PACKAGED UNIT WITH INTEGRAL FURNACE, CONDENSING AND ENERGY RECOVERY WHEEL SECTION. PROVIDE UNIT WITH V.F.D., HOT GAS BYPASS, STATIC PRESSURE CONTROLLER, VIBRATION ISOLATORS, DIFFERENTIAL ENTHALPY ECONOMIZER CONTROLS, POWERED CONVENIENCE OUTLET, LOW AMBIENT CONTROL AND NON-FUSED DISCONNECT SWITCH.

REMARKS

23456

(5) PROVIDE 14" HIGH ROOF CURB.

	SCHEDULE OF PUMPS														
MARK	MARK SERVICE LOCATION MODEL Nº GPM FT.H₂O RPM MOTOR ELECTRIC SERVICE REMARKS														
P	EAST BUILDING	BOILER ROOM	E-90	55	65	3450	2	208/3/60	REFER TO 23						
<u>P</u> 2	EAST BUILDING		E-90	55	65	3450	2	208/3/60							
<u>P</u> 5	CLASSROOM 34	V	E-60	35	25	1750	3/4	208/3/60	V						

AS MANUFACTURED BY "BELL AND GOSSETT".

INSTALL PUMPS PER MANUFACTURER'S RECOMMENDATIONS. PUMPS SHALL BE VARIABLE SPEED (SEE SPEC.)

	SC	HEDUL	.E 0	F	CA	$BI\Lambda$	IET	HEA	TERS	
MARK	TYPE UNIT	MODEL Nº ①	CAP. BTU/HR	ACITY L	DATA GPM	PD.FT.	MOTOR WATTS	MOTOR RPM	ELECTRIC SERVICE	REMARKS
CH A	CEILING MTD.	RC 1170 03	20.6	335	2.0	0.25	1/15	1050	120/1/60	REFER TO 23456

N (1) AS MANUFACTURED BY "STERLING".

(2) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

= \bigcirc CAPACITIES BASED ON LOW SPEED FAN SETTING, AND 160° F A.W.T.

PROVIDE 2 ROW COIL, THROWAWAY FILTERS, INTEGRAL SPEED CONTROL, DISCONNECT SWITCH, REMOTE WALL SENSOR CONNECTED TO BMS, GASKET AND PERMA LAP FRAME. COORDINATE FINISH AND COLOR

(5) UNIT DIMENSIONS 36"x25"x9.5", WEIGHT 150 LBS.

6 PROVIDE WITH HOT WATER RETURN AQUASTAT. AQUASTAT SHALL NOT ALLOW FAN TO OPERATE AT WATER TEMPERATURE BELOW 110 DEGREES F.

	SCHEDULE OF WINDOW A.C. UNITS												
MARK	MODEL Nº ①	TOTAL CAP. BTU/HR	SUPPLY CFM	E.E.R.	C.E.E.R.	ELECTRIC SERVICE	PHYSICAL DATA DIMENSION/WEIGHT (L"XW"XH")/(LBS)	REMARKS					
WAC A	WCT16A30A	15,400	300	9.4	9.3	208/1/60	28x24x18/120	REFER TO 2345					

N (1) AS MANUFACTURED BY "FRIEDRICH A.C. CO."

O (2) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PROVIDE WSE WALL SLEEVE AND INTERNAL DRAIN KIT.

 $oldsymbol{\varsigma}$ $oldsymbol{4}$) unit to be furnished with all standard components and all required support/mounting brackets

(5) UNIT PROVIDED WITH MIN. 6'-0" CORD & RIGHT ANGLE PLUG.

											SC	HEL	DULE (OF ENE	RGY F	RECOVE	RY UN	ITS									
	GE	NERAL DATA		SU	PPLY F	AN	RE	TURN F	AN				VG DATA	4			NG DATA	4	COMPRE	SSOR DATA	FILTER DATA	PHYSI	ICAL DATA	ELI	ECTRICA	L DATA	REMARKS
MARK	SERVICE	MODEL NUMBER	OAI CFM	CFM	EXT. S.F IN H ₂ O	P. FAN TYPE	CFM	EXT. S.F IN H ₂ O	P. FAN TYPE	TOTAL CA BTU/HR	P. SENSIB BTU,	PLE CAP. /HR	ENT. AIR TEM D.B. / W.B.	P. LVG. AIR TEMP. D.B. / W.B.	TOTAL CAP BTU/HR	P. SENSIBLE CAP BTU/HR	P. ENT. AIR TEMP D.B. / W.B.	LVG. AIR TEMP. D.B. / W.B.	TONNAGE	MOTOR QTY	TYPE	WEIGHT (LBS.)	LxWxH (IN.)	MCA	MOP	SERVICE	REMARKS
ERU 1	1965 WING	AAH100G1ASTA	500	500	0.7	ECM	500	0.7	ECM	44,000	30,2	200	16/12	71/56	33,700	11,100	95/78	75/60	3	2	MERV 13	600	80x28x28	10.2	15	208/1/60	033
ERU 2 ERU 4 ERU 6 ERU 6 ERU 7																											
ERU 3																											
ERU 4																											
ERU 5																											
(FRU) 6																											
(ERU)																											
	T0# 5T - 200 : : :	•	,	 			V	 	 	V	1		,	+	<u> </u>	,	<u> </u>	 	<u> </u>	 			,	•	<u> </u>	<u> </u>	<u> </u>
ERU 9	TOILET ROOMS T-4/T-5	HEIXKI	280	280	0.5	CENTR.	300	0.5	CENTR.	N/A	N/	/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	,	400	60x35x45	10.8	15	208/1/60	200
ERU 10	TOILET ROOMS T-2/T-3	HE1XRT	280	280	0.5	CENTR.	300	0.5	CENTR.	N/A	N/	/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		400	60x35x45	10.8	15	208/1/60	200

(4) BASED ON A.R.I. CERTIFIED COIL SELECTIONS; REFRIGERANT R-410A,

CLASSROOM (AGES 9+)

Study Space

(5) PACKAGED INDOOR UNIT WITH INTEGRAL DX COIL, CONDENSING AND ENERGY RECOVERY SECTIONS. PROVIDE UNIT WITH VIBRATION ISOLATORS, DIFFERENTIAL ENTHALPY ECONOMIZER CONTROLS, EXTERNAL CONDENSATE PUMP, AND NON-FUSED DISCONNECT SWITCH. FIELD CONVERTIBLE ALTERNATE SUPPLY AND RETURN CONNECTIONS TO BE USED AS REQUIRED.

6 PROVIDE FACTORY MOUNTED INTEGRAL VFD FOR SUPPLY AND RETURN FANS WITH EC PREMIUM EFFICIENCY MOTORS. PROVIDE FROST CONTROL FOR ENERGY RECOVERY EXCHANGER. PROVIDE PRE-FILTER/FINAL FILTERS COMBINATION FOR OUTSIDE AIR INTAKES AND PRE-FILTER FOR RETURN AIR PRIOR TO HEAT EXCHANGER. PROVIDE FILTER REPLACEMENT AT PROJECT COMPLETION. INSTALL ERU WITH FULL ROOF CURB SUPPORT. PROVIDE CONVENIENCE OUTLET.

CHEDULE	OF	MINIMUM	VENTIL	.ATION	ROOM	FLOW	RATES

ROOM NAME/NUMBER	OCCUPANCY CATEGORY	ROOM AREA (SQ.FT.)	PEOPLE DENSITY (#P/1000 SQ.FT.) / # OF FIXTURES	PEOPLE OUTDOOR AIR FLOW RATE (CFM/PERSON)	AREA OUTDOOR AIR FLOW RATE IN BREATHING ZONE (CFM/SQ.FT.)	EXHAUST AIR FLOW RATE (CFM/SQ.FT.)	NUMBER OF PEOPLE (A×B)÷1000=#P	OUTDOOR AIR FLOW RATE WITHOUT ZONE EFFECTIVENESS FACTOR (F×C)+(A×D)=CFM	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	MINIMUM ROOM VENTILATION AIR FLOW RATE G÷H=CFM	MINIMUM EXHAUST AIR FLOW RATE A×E=CFM
Classroom/16	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/17	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/18	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/19	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/20	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/21	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/22	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/23	CLASSROOM (AGES 9+)	835	35	10	0.12	0	30	400	0.8	500	0
Classroom/32	CLASSROOM (AGES 9+)	1300	35	10	0.12	0	46	616	0.8	770	0
Classroom/34	CLASSROOM (AGES 9+)	1300	35	10	0.12	0	46	616	0.8	770	0
Guidance/14A	OFFICE SPACE	200	5	5	0.06	0	1	17	0.8	21	0
Occupational Therapy/14B	OFFICE SPACE	200	5	5	0.06	0	1	17	0.8	21	0
Conference/Resource Room/14C	CONFERENCE/MEETING	325	50	5	0.06	0	17	105	0.8	131	0
Psychologist/14D	OFFICE SPACE	200	5	5	0.06	0	1	17	0.8	21	0
Speech/14E	OFFICE SPACE	200	5	5	0.06	0	1	17	0.8	21	0
Physical Therapy/14F	OFFICE SPACE	250	5	5	0.06	0	2	25	0.8	31	0
Learning Center/Resource Room/14G	CLASSROOM (AGES 5-8)	300	25	10	0.12	0	8	116	0.8	145	0
Workroom/14H	BREAK ROOMS	100	50	5	0.12	0	5	37	0.8	46	0
Secure Lobby/31	LOBBIES/PREFUNCTION	700	30	7.5	0.06	0	21	200	0.8	249	0
Workroom/43A	COPY, PRINTING ROOMS	100	0	0	0	0.5	0	0	0.8	0	50
Media Center	MEDIA CENTER	2000	25	10	0.12	0	50	740	0.8	925	0
Classroom	CLASSROOM (AGES 9+)	700	35	10	0.12	0	25	334	0.8	418	0
Study Space	CLASSBOOM (AGES 0+)	125	25	10	0.12	0	F	65	0.8	04	

SCHEDULE OF DIRECT EXPANSION COILS GENERAL DATA CAPACITY COOLING TOTAL (MBH) COOLING SENS. (MBH) REMARKS *SERVICE* REFER TO 2345 4,000 ELEMENTARY REFER TO 2345 180 FI FMFNTARY **NOTES** (1) AS MANUFACTURED BY "NATIONWIDE COILS". (4) BASED ON A.R.I. CERTIFIED COIL SELECTIONS (2) REFRIGERANT R-410A. 5 RETROFIT EXISTING UNITS WITH FULL ECONOMIZER CONTROLS FOR PROPER OPERATION IN THE COOLING MODE. 3) INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

 $m{N}$ (1) AS MANUFACTURED BY "UNITED COOL AIR".

E 3 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

265

919

 \mathcal{L} \mathfrak{Z} Based on A.R.I. CERTIFIED COIL SELECTIONS; REFRIGERANT R-410A.

5 PROVIDE MOUNTING HARDWARE, VIBRATION ISOLATORS, DISCONNECT AND

HARDWIRED REMOTE WALL MOUNTED CONTROLLER/THERMOSTAT.

0 (2) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

SHUTDOWN OVERFLOW SWITCH.

6 UNIT POWERED THROUGH OUTDOOR UNIT.

S 4 PROVIDE CHECK VALVE, ANTI SWEAT SLEEVE AND AUTO

SCHEDULE OF VRF INDOOR UNITS

7.5/8.5

22.0/26.0

MCA MOP SERVICE

N/A

N/A

N/A

 $\frac{1}{7}$ 2 as manufactured by "renewaire".

ARNU053TRD4

ARNU073TRD4

ARNU093TRD4

LCN248HV

LCN128HV4

N (1) AS MANUFACTURED BY "LG."

	SCHEDULE OF EXHAUST FANS														
MARK	NO. () WATTS) SERVICE (LBS.)														
EF 1	WORKROOM	ROOFTOP	CENTRIFUGAL	G-06-VG	<i>75</i>	0.35	1725	1/15	208/1/60	19 " ø	25	REFER TO			
EF 2	TOILET T-35	CEILING	CABINET	SP-B150	100	0.35	1050	(128)	120/1/60	15"X14"	20	REFER TO 24			
EF 3	TOILET T-1 & 48A	ROOFTOP	CENTRIFUGAL	G-095- DGEX-QD	200	0.125	1050	1/8	120/1/60	15"X14"	20	REFER TO 23			
. (1) AS MANUFACTU	URED BY "GRI	EENHECK."												

(2) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

3 PROVIDE DISCONNECT SWITCH, BACKDRAFT DAMPER, VIBRATION ISOLATORS, SPEED CONTROL, AND NAMEPLATE IDENTIFYING FAN MARK, MODEL NO., CFM, RPM, HP, AND ELECTRICAL SERVICE.

4 PROUDE DISCONNECT SWITCH, VIBRATION ISOLATORS, GOOSENECK, AND NAMEPLATE IDENTIFYING FAN MARK, MODEL NO., CFM, RPM, HP, AND ELECTRICAL SERVICE.

5 PROVIDE ROOF CURB.

	SCHEDULE OF REGISTERS AND DIFFUSERS													
MARK	TYPE	SERVICE	MODEL No. 🕥		DIRECTION DISCHARGE	FINISH	REMARKS							
A	CEILING DIFFUSER	SUPPLY	SCD	VARIES/24X24	FOUR-WAY	PER ARCH.	REFER TO 23457							
B	CEILING RETURN REGISTER	RETURN/EXHAUST	735FF	VARIES	_	PER ARCH.	REFER TO 23458							
<u>(C)</u>	SIDE WALL REGISTER	SUPPLY	620	VARIES	DOUBLE DEFLECTION	PER ARCH.	REFER TO 23457							
\bigcirc	SIDE WALL REGISTER	RETURN/EXHAUST	735FF	VARIES	_	PER ARCH.	REFER TO 23458							
E	LINEAR	SUPPLY	SDS-50 2-SLOT	VARIES	DOUBLE DEFLECTION	PER ARCH.	REFER TO 234567							
F	DUCT SUPPLY REGISTER	SUPPLY	SDG ST	VARIES	DOUBLE DEFLECTION	PER ARCH.	REFER TO 23457							
	1	<u>-</u>	·	·	·	·								

M (1) AS MANUFACTURED BY "PRICE".

(6) PROVIDE INSULATED PLENUM.

O 2) INSTALL PER MANUFACTURERS RECOMMENDATIONS. 3 PROVIDE MOUNTING FRAME COMPATIBLE WITH

EXISTING REGISTER/GRILLE

MOUNTING SURFACE. S (4) OPPOSED BLADE DAMPER. PROVIDE CABLE OPERATED DAMPERS IN UN-ACCESSIBLE AREAS. (5) AIR OUTLET TO BE OF STEEL CONSTRUCTION.

SUPPLY NECK SIZE PER CFM RANGE (NOT TO EXCEED 700 fpm)

8 RETURN NECK SIZE PER CFM RANGE (NOT TO EXCEED 675 fpm)

			S	CHE	DULE	OF E	LE	CTR	IC L	DUCT	HEAT	ERS		
	MAX. FACE COIL DATA													
MARK	BUILDING	SERVICE	LOCATION	CFM	VELOCITY	0011 0175		AIR		E	LECTRIC	MODEL No.	REMARKS	
		32111132	200/11/0/		FPM	COIL SIZE L x H	EAT (°F)	LVG (°F)	MBH	CAPACITY (KW)	V/PH/HZ	7		
EHC 1	OSBORN ELEMENTARY	TOILET ROOMS T-2/T-3	CEILING	280	450	<i>9X9</i>	39	72	10.4	3.0	208/3/60	IDHB	REFER TO 23	
EHC 2	OSBORN ELEMENTARY	TOILET ROOMS T-4/T-5	CEILING	280	450	<i>9X9</i>	39	72	10.4	3.0	208/3/60	IDHB	REFER TO 23	
NOTES		MANUFACTURED B ALL PER MANUFA			NS.	O PRO	VIDE SC	R CONTR	POLS AND	DUCTSTAT.				

	SCHEDULE OF CONDENSING UNITS														
MARK	LOCATION	SERVICE	MODEL Nº ①	COOLING CAP. (MBH)	HEATING CAP. (MBH)	COMPRES. QTY	COND. QTY	EER	SEER	ELE MCA	CTRICAL MOP	DATA ELECTRICAL SERVICE	PHYSICAL DATA DIMENSION/WEIGHT (L"XW"XH")/(LBS)	REMARKS	
	ROOF	MEDIA CENTER	ARUM192DTE5	192	216	2	2	11.00	23.00	<i>35.7</i>	50	460/3/60	49x30x67/700	REFER TO 2345	
$\frac{CU}{2}$		SUPPORT SUITE	ARUM096DTE5	96	108	1	2	14.40	33.00	16.4	25	460/3/60	49x30x67/550	REFER TO 2345	
$\frac{CU}{3}$		ELEC 32A	LSU240HEV2	22	22		1	12.5	21.5	15	20	208/1/60	38x16x33/150	REFER TO 2346	
CU 4		ELEC 49B	LSU240HEV2	22	22			12.5	21.5	15	20			REFER TO 2346	
<u>CU</u> 5		SECURITY	LUU127HV	11.1	14			12.6	19.4	12.3	15			REFER TO 2346	
(CU)		DATA DT.01	LUU249HV	24	27			12.5	21.5	20	30			REFER TO 2346	
CU 7		ASSIST. PRINC. 44	LUU127HV	11.1	14	V		12.6	19.4	12.3	15		V	REFER TO 2346	
(CU 8		ERU GRAY BOX	ARUM241BTE5	240	240	2	2	10.4	-	63.2	80	208/3/60	49x30x67/675	REFER TO 2345	
CU 9		ERU EXIST GYMNASIUM	ARUM360BTE5	360	400	4	4	10.2	_	51.1/ 60.3	70/ 80	208/3/60	98x30x67/1325	REFER TO 2345	

N (1) AS MANUFACTURED BY "LG."

(2) INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

DC INVERTER COMPRESSOR SPEED CONTROL BASED ON SYSTEM LOAD.

(3) REFRIGERANT USED SHALL BE R-410a.

(5) MOUNT ON RAILS. PROVIDE VIBRATION ISOLATORS, EQUIPMENT SUPPORTS, DISCONNECT SWITCH, CONVENIENCE OUTLET, LOW AMBIENT CONTROLS AND PHASE PROTECTION. DC INVERTER COMPRESSOR SPEED CONTROL BASED ON SYSTEM LOAD. (6) MOUNT ON RAILS. PROVIDE VIBRATION ISOLATORS, EQUIPMENT SUPPORTS, CONVENIENCE OUTLET, LOW AMBIENT CONTROLS, AND DISCONNECT SWITCH.

Revision Schedule

Description

09/15/2020

01/08/2021

01/19/2021

SED Submission

SED Submission

ISSUED FOR BID

Addendum#1

Geddis Architects

Architecture. Planning. Interiors

71 Old Post Road P.O. Box 1020 Southport, CT 06890 (203) 256-8700



Transforming Education by Design

259 Water Street Suite 1L Warren, RI 02885 USA +1 401-289-2789



CONSULTING ENGINEERS 39 MARBLE AVE PLEASANTVILLE, NY 10570

914.328.6060 GENERAL@BGA-ENG.com www.BGA-ENG.com

Construction Manager SAVIN ENGINEERS, P.C. 3 Campus Drive Pleasantville, NY 10570 914-769-3200

Structural Engineer ODEH ENGINEERS 1223 Mineral Spring Ave North Providence, RI 02904 401-724-1771

WESTON & SAMPSON 1 Winners Circle, Suite 130 Albany, NY 12205 518-463-4400

Acoustic Consultant DP DESIGN 12 Cold Spring Street Providence, RI 401-861-3218

AV Consultant CAVANAUGH TOCCI 327 F Boston Post Road Sudbury, MA 01776-3027 978-443-7871

SED#: 6618-0001-0001-023

PROJECT

Rye City Schools 555 Theodore Fremd Ave, Suite B-101

Osborn Elementary School

10 Osborn Road, Rye NY 10580

SCHEDULES

SEAL & SIGNATURE DATE: PROJECT No: 9200

DRAWING BY: BGA CHK BY: BGA DWG No:

BEFORE FABRICATION THIS CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND CONDITIONS ON JOB AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS