THE SCHOOL DISTRICT OF PHILADELPHIA SCHOOL REFORM COMMISSION Office of Capital Programs 440 North Broad Street, 3rd Floor – Suite 371 Philadelphia, PA 19130

TELEPHONE: (215) 400-4730

Addendum No. 001

- Subject: Generator Replacement Bid Package SDP Contract No. B-055c of 2018/19
- Location: William Rowen Elementary School 6801 N. 19th St. Philadelphia, Pennsylvania 19126

This Addendum, dated October 9, 2019, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

Revise as indicated below or by attachment

- 1 Specifications
 - 1.1 26 24 16 PANELBOARDS DELETE Articles 2.02.H.6 through 2.02.H.09.

2 Drawings

- 2.1 Drawing M-401: MODIFY keynote 4 to include a "wall-mounted remote fill box (Morrison 715 Series or equivalent)".
- 2.2 Drawing M-401: MODIFY keynote 5 to define the whistle cap as "Morrison 922 or equivalent".
- 2.3 Drawing M-401: MODIFY keynote 6 to define the emergency vent cap as "Morrison 244OM or equivalent".
- 2.4 Drawing M-401: MODIFY keynote 8 to define the remote level indicator as "weatherproof".
- 2.5 Drawing M-401: ADD keynote 11 "Provide overfill prevention valve (Morrison 9095AA or equivalent) to protect fuel oil storage tank." And ADD keynote 11 hexagon symbol on fill piping adjacent to the generator.
- 2.6 Drawing M-401: Relocate piping, show wall-mounted remote fill box, and show a section view indicator as shown on attached drawings.
- 2.7 Drawing M-501: Re-arrange views and ADD section view as shown on attached drawings.

- 2.8 Drawing E-102: ADD note and path of ingress to southwest boiler room stairwell to indicate "Exterior Access" and "Anticipated path of equipment rigging". See attached drawings.
- 2.9 Drawing E-102: ADD note and leader to northwest area of the boiler room to indicate "Potential limited exterior access via former coal shoot." See attached drawings.

3 Contractor questions:

N/A

END OF ADDENDUM #001

Attachments: Revised Drawing Set (8)



GENERAL NOTES:

- 1. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING CONDITIONS AFFECTING THIS PROJECT AND COORDINATE WITH OTHER DISCIPLINES. 2. THE WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS SHALL CONSIST OF PROVIDING ALL EQUIPMENT MATERIALS, LABOR, SERVICES AND PERFORMED IN COMPLIANCE WITH THE APPLICABLE CODES AND STANDARDS. 3. ALL EQUIPMENT SHALL BE HANDLED, STORED, AND PROTECTED TO PREVENT DAMAGE BEFORE AND DURING INSTALLATION IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. 4. ALL EQUIPMENT SHALL BE INSTALLED AND ADEQUATE CLEARANCES BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CODE. 5. ALL NEW EQUIPMENT SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS. LEAKS, IF ANY, SHALL BE REPAIRED AND THE PIPING SHALL BE RETESTED TO MEET THE REQUIREMENTS. 6. ALL NEW EQUIPMENT IS SHOWN IN APPROXIMATE POSITION. THE CONTRACTOR SHALL FIELD VERIFY THE ROUTING AND TIE-INS OF NEW AND EXISTING PIPING. ALL NEW PIPING SHALL BE INSTALLED AND ADEQUATELY SUPPORTED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS. 7. THE CONTRACTOR SHALL CHECK AND FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE PRIOR TO SUBMITTING BID AND BEFORE START OF CONSTRUCTION. 8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF ALL EQUIPMENT SHOWN ON THE DRAWINGS. INCLUDING COORDINATION IF ANY EQUIPMENT OF ALTERNATE MANUFACTURER. THE CONTRACTOR SHALL PROVIDE COMPOSITE DRAWINGS AS REQUIRED FOR THE INSTALLATION OF EQUIPMENT AS SHOWN ON PLAN FOR APPROVAL BY ENGINEER. 9. ANY EQUIPMENT, MATERIALS, LABOR OR SERVICES NOT SPECIFICALLY MENTIONED HEREIN WHICH MAY BE NECESSARY TO COMPLETE OR PERFECT ANT PART OF INSTALLATION IN A SUBSTANTIAL MANNER SHALL BE FURNISHED WITHOUT EXTRA COST TO THE OWNER. 10. ALL WORK SHALL COMPLY WITH LOCAL AND NATIONAL CODES AND STANDARDS, UNDERWRITERS LABORATORY APPROVAL, AND ALL STATE AND FEDERAL OSHA SAFETY REQUIREMENTS. 11. THE CONTRACTOR SHALL PAINT ALL UN-INSULATED METAL PIPING. IRON OR STEEL VALVES, EQUIPMENT FOUNDATIONS, AND ALL SUPPORTS AS INDICATED IN SPECIFICATIONS. CONTRACTOR SHALL PRIME PAINT ALL PIPING AND VALVES PRIOR TO INSULATION APPLICATION.
- 12. ALL NEW FUEL OIL AND FUEL OIL VENT PIPING SHALL BE CARBON STEEL WITH THREADED OR WELDED JOINTS.
- 13. LOCAL CODES SHALL SUPERCEDE INTERNATIONAL BUILDING CODES WHERE CONFLICTS OCCUR.
- 14. PROVIDE DIELECTRIC UNIONS AND PROPERLY ISOLATE CONTACT BETWEEN DISSIMILAR METALS TO INHIBIT GALVANIC CORROSION.
- 15. PROVIDE A FULL TANK OF DIESEL FUEL AT SUBSTANTIAL COMPLETION OF PROJECT AFTER ALL STARTUP AND TESTING ACTIVITIES HAVE BEEN COMPLETED.

- 15. THE CONTRACTOR SHALL OBTAIN AND PROVIDE OWNER'S REPRESENTATIVE WITH AIR MANAGEMENT PERMIT PRIOR TO GENERATOR STARTUP.
- 16. THE SCHOOL DISTRICT OF PHILADELPHIA MAY RESTRICT WORK HOURS DURING THE SCHOOL DAY.
- 17. THE CONTRACTOR IS RESPONSIBLE TO LABEL AND/OR PAINT ALL NEW EQUIPMENT, PIPING, INSTRUMENTS, AND ACCESSORIES.

APPLICABLE CODES:

1. PHILADELPHIA BUILDING CONSTRUCTION AND OCCUPANCY CODE (2018 ICC)

- SUBCODE "A": THE PHILADELPHIA ADMINISTRATIVE CODE
- SUBCODE "B": THE PHILADELPHIA BUILDING CODE
- SUBCODE "E": THE PHILADELPHIA ELECTRICAL CODE
- SUBCODE "EB": THE PHILADELPHIA EXISTING BUILDING CODE
- SUBCODE "EC": THE PHILADELPHIA ENERGY CONSERVATION CODE
- SUBCODE "F": THE PHILADELPHIA FIRE CODE
- SUBCODE "G": THE PHILADELPHIA FUEL GAS CODE
- SUBCODE "M": THE PHILADELPHIA MECHANICAL CODE
- SUBCODE "P": THE PHILADELPHIA PLUMBING CODE
- SUBCODE "PC": THE PHILADELPHIA CODE FOR BUILDINGS AND MAINTENANCE
- SUBCODE "PM": THE PHILADELPHIA PROPERTY MAINTENANCE CODE
- PHILADELPHIA CROSS CONNECTION CODE
- 2. NFPA 2017 NATIONAL ELECTRIC CODE
- 3. PHILADELPHIA GAS WORKS (PGW) PIPING SPECIFICATION AND EQUIPMENT INSTALLATION MANUAL

D

THE SCHOOL DISTRICT OF PHILADELPHIA

WILLIAM ROWEN ELEMENTARY SCHOOL 6801 N. 19TH STREET, PHILADELPHIA, PA 19126 **GENERATOR REPLACEMENT**

ELECTRICAL: SDP PROJECT NO. B-055(c) OF 2018/19

100% DOCUMENTS SUBMISSION: AUGUST 14, 2019

DEMOLITION NOTES:

THE END OF EACH WORK SHIFT.

CONTRACTOR.

- 1. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND TURN OFF ALL IMPACTED UTILITIES BEFORE STARTING WORK.
- 2. ALL DEMOLITION/REMOVAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS.
- 3. DEMOLITION WORK SHALL BE SCHEDULED AND IMPLEMENTED WITH MINIMAL DISRUPTION TO ADJACENT OCCUPIED AREAS.
- 4. REMOVE ALL MATERIALS IN A SAFE WORKMANLIKE MANNER AND
- DISPOSE OF PER ALL APPLICABLE CODES & SAFETY REQUIREMENTS. 5. CONSTRUCTION DEBRIS MUST BE REMOVED FROM OCCUPIED SPACES AT

GENERATOR TESTING AND QUALITY CONTROL

- 1. REPLACEMENTS: MANUFACTURERS MUST HAVE REPLACEMENT PARTS AVAILABLE AND DELIVERED TO SITE WITHIN SEVEN DAYS AFTER
- NOTIFICATION OF DEFECT. 2. LIABILITY: MANUFACTURER IS RESPONSIBLE FOR ALL COST, INCLUDING LABOR, PARTS, AND MATERIALS ASSOCIATED WITH THE REPLACEMENT OF DEFECTIVE COMPONENTS DURING INSTALLATION. LABOR COSTS SHALL BE BASED ON PREVAILING UNION RATES OF THE TRADE PERFORMING THE ORIGINAL INSTALLATION. IF THE MANUFACTURER FAILS TO PROVIDE LABOR AND MATERIAL COST RESPONSIBILITY SHALL FALL TO INSTALLING
- 3. WARRANTY: MANUFACTURER IS RESPONSIBLE FOR ALL COST, INCLUDING LABOR, PARTS, AND MATERIALS ASSOCIATED WITH THE REPLACEMENT OF COMPONENTS FOUND DEFECTIVE DURING THE WARRANTED PERIOD. LABOR COSTS SHALL BE BASED ON PREVAILING UNION RATES OF THE TRADE PERFORMING THE ORIGINAL INSTALLATION.
- 4. FAILURE EVALUATION: MANUFACTURER SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE TESTING OF FAILED COMPONENTS THAT HAVE BEEN REFUSED REPLACEMENT AND ARE DEEMED DEFECTIVE THROUGH TESTING.
- 5. CONTRACTORS RESPONSIBILITY: CONTRACTORS WHO PROVIDE MANUFACTURER'S PRODUCTS THAT DO NOT MEET THE INDICATED OR IMPLIED WARRANTY REQUIREMENTS STATED ABOVE AND IN THE CONTRACT DOCUMENTS SHALL ASSUME THE STATED WARRANTY OBLIGATIONS AND PROVIDE MAINTENANCE BONDS AT A VALUE AS DETERMINED BY THE DISTRICT FOR THE SPECIFIC TASKS, ITEMS AND/OR EQUIPMENT IN ORDER TO OBTAIN PROJECT CLOSEOUT.

OWNER

SCHOOL DISTRICT OF PHILADELPHIA 440 N. BROAD ST. PHILADELPHIA, PA 19130-4015 PHONE: 215-400-4740 FAX: 215-400-4731 EMAIL: NWARD@PHILASD.ORG ATTN: NICOLE WARD, DESIGN MANAGER ATTN: BRIAN M. WEISSER, P.E. OFFICE OF CAPTIAL PROGRAMS WWW.PHILASD.ORG

GANNETT FLEMING, INC. 1010 ADAMS AVENUE VALLEY FORGE, PA 19403 PHONE: 610.650.8156 FAX: 610.650.8190 EMAIL: BWEISSER@GFNET.COM



ENGINEER OF RECORD

DRAWING LIST				
SHEET #	DRAWING #	SHEET NAME		
1	G-001	PROJECT COVER SHEET		
2	M-001	MECHANICAL SYMBOLS AND ABBREVIATIONS		
3	M-401	MECHANICAL DEMOLITION & NEW WORK ENLARGED PLAN		
4	M-501	MECHANICAL SCHEMATICS		
5	E-001	ELECTRICAL SYMBOLS AND ABBREVIATIONS		
6	E-101	ELECTRICAL DEMOLITION ENLARGED PLAN		
7	E-102	ELECTRICAL ENLARGED PLAN - NEW WORK		
8	E-601	ELECTRICAL ONE-LINE DIAGRAMS & SCHEDULES		

	DELPHI 400 - 4730	ROAD STREET A, PA 19130 - 4015 (215) 400 - 4731 (fax)
www. r SEA	ohilasd.org	9
	M. WEISSER 083639	DA MM/DD/ [\]
	ENDUM CT 2015	
	CT 2019	2
	CT 2019	
		2
		REVISION REVISION LOCATION COWEN ELEM. SCHO 801 N. 19TH ST. ADELPHIA, PA 19126
	CT 2019	REVISION REVISION LOCATION COWEN ELEM. SCHO 801 N. 19TH ST. ADELPHIA, PA 19126
	CT 2019	REVISION REVISION LOCATION COMEN ELEM. SCHO S801 N. 19TH ST. ADELPHIA, PA 19126 TLE TOR REPLACEMENT
	CT 2019	REVISION REVISION LOCATION COMEN ELEM. SCHO S801 N. 19TH ST. ADELPHIA, PA 19126 TLE TOR REPLACEMENT
	CT 2019	REVISION REVISION LOCATION COWEN ELEM. SCHO 801 N. 19TH ST. DELPHIA, PA 19126 TLE SCALE SCALE
	CT 2019	REVISION REVISION LOCATION COWEN ELEM. SCHO 801 N. 19TH ST. DELPHIA, PA 19126 TLE SCALE SCALE
	CT 2019	REVISION REVISION LOCATION COVEN ELEM. SCHO 801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE SCALE ECT COVER SHEET ALE
04 O 04 O 0 0 0 0 0 0 0 0 0 0 0 0 0	CT 2019	REVISION REVISION LOCATION COWEN ELEM. SCHO 801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE ECT COVER SHEET ALE ALE
04 O 04 O 0 0 0 0 0 0 0 0 0 0 0 0 0	CT 2019	REVISION REVISION REVISION COCATION ROWEN ELEM. SCHOOD 801 N. 19TH ST. ADELPHIA, PA 19126 TILE SCALE ECT COVER SHEET ALE D. FILE NO. N/A CHECKED BY
	CT 2019	REVISION REVISION LOCATION COVEN ELEM. SCHO SOVEN ELEM. SCHO SOVEN ELEM. SCHO SOVEN ELEM. SCHO SOUTHIN, PA 19126 TLE TLE SCALE ECT COVER SHEET ALE D. FILE NO. N/A CHECKED BY BMW

Α

В

С

D

			ABBREVIATIONS
@	AT	EMS	ENERGY MANAGEMENT SYSTEM
A	AIR	ERV	ENERGY RECOVERY VENTILATOR
AAV	AUTOMATIC AIR VENT	ESP	EXTERNAL STATIC PRESSURE
ABV	ABOVE	ET	EXPANSION TANK
AC	AIR CONDITIONING	EWB	ENTERING WET BULB TEMPERATURE
ACU	AIR CONDITIONING UNIT	EWT	ENTERING WATER TEMPERATURE
ACCU	AIR COOLED CONDENSING UNIT		EXTERIOR
AD	AREA DRAIN, ACCESS DOOR, AIR DRYER		
ADJ	ADJUST, ADJUSTABLE	°F	DEGREES FAHRENHEIT
ADA	AMERICANS WITH DISABILITIES ACT	(F)	FUTURE
AF	AIRFOIL, ANTI-FREEZE, AIR FILTER	F	FAN
AFF	ABOVE FINISHED FLOOR	FCU	FAN COIL UNIT
AFMS	AIR FLOW MONITORING STATION	FSD	COMBINATION FIRE/SMOKE DAMPER
AHU	AIR HANDLING UNIT	FD	FLOOR DRAIN, FIRE DAMPER
AI	ANALOG INPUT	FDC	FIRE DEPARTMENT CONNECTION
AIC	AMPS INTERRUPTING CAPACITY	FDR	
ALUM	ALUMINUM	FF	FINISHED FLOOR
AO	ANALOG OUTPUT	FG	FUEL GAS
AP	ACCESS PANEL	FLR	FLOOR
	AIR PRESSURE DROP	FLA	FULL LOAD AMPS
	APPROXIMATELY	FLEX	FLEXIBLE
ARCH	ARCHITECTURAL	FO	FUEL OIL
ARU	AIR ROTATION UNIT	FOB	FLAT ON BOTTOM
AS	AIR SEPARATOR	FOF	FUEL OIL FILL
ASHP	AIR SOURCE HEAT PUMP	FOG	FUEL OIL GAUGE
AST	ABOVEGROUND STORAGE TANK	FOP	FUEL OIL PUMP
ATC	AUTOMATIC TEMPERATURE CONTROL	FOR	FUEL OIL RETURN
ATV	ATMOSPHERIC VENT	FOS	FUEL OIL SUPPLY
AV	ANALOG VALVE	FOT	FLAT ON TOP
AVG	AVERAGE	FOV	FUEL OIL VENT
В	BOILER	FRP FPM	FIBERGLASS REINFORCED PLASTIC FEET PER MINUTE
BAS	BUILDING AUTOMATION SYSTEM	FPS	FEET PER SECOND
BBD	BOILER BLOW DOWN	FRN	FURNACE
BCU		FS	FLOW SWITCH
BDD		FM	FLOW METER
BF	BACKDRAFT DAMPER, BOILER BLOWDOWN BOILER FEED	FT, ' FT HD	FOOT, FEET FEET OF HEAD
BFP	BACKFLOW PREVENTER	FTHD FZ	FREEZE, FREEZSTAT
BI BO	BINARY IN BINARY OUT	GA	GAUGE
BLW	BELOW	GAL	GALLON, GALLONS
BLDG	BUILDING	GALV	GALVANIZED
BMS	BUILDING MANAGEMENT SYSTEM	GEN	GENERATOR
BOD	BOTTOM OF DUCT, BASIS OF DESIGN	GFU	GLYCOL FEED UNIT
BOL	BOTTOM OF LOUVER	GPH	GALLONS PER HOUR
BOT	BOTTOM	GPM	GALLONS PER MINUTE
BT	BUFFER TANK	GWR	GLYCOL WATER RETURN
BTU	BRITISH THERMAL UNIT	GWS	GLYCOL WATER SUPPLY
BTUH	BRITISH THERMAL UNITS PER HOUR		
BV	BALANCING VALVE	H H2O	HEIGHT WATER
C	COMMON	HB	HOSE BIB
CA	COMPRESSED AIR	HC	HEATING COIL
CB	CHILLED BEAM	HCU	HUMIDIFICATION CONTROL UNIT
CC	COOLING COIL	HGB	HOT GAS BYPASS
CD	CONDENSATE DRAIN	HORIZ	HORIZONTAL
CFM	CUBIC FEET PER MINUTE	HP	HORSEPOWER
CH	CHILLER	HPCR	HIGH PRESSURE CONDENSATE RETURN
CHWP	CHILLED WATER PUMP	HPS	HIGH PRESSURE STEAM
CHWR	CHILLED WATER RETURN	HRU	HEAT RECOVERY UNIT
CHWS	CHILLED WATER SUPPLY	HTG	HEATING
CI	CAST IRON	HUM	HUMIDIFIER
CL	CENTER LINE	HVU	HEATING VENTILATION UNIT
CLG	COOLING	HHWS	HEATING HOT WATER SUPPLY
CLNG	CEILING	HHWR	HEATING HOT WATER RETURN
CNG	COMPRESSED NATURAL GAS	HWP	HOT WATER PUMP
CNP	CONDENSER WATER PUMP	HWR	HOT WATER RETURN
CO	CLEANOUT, CARBON MONOXIDE		HOT WATER SUPPLY
CO2	CARBON DIOXIDE	HX	HEAT EXCHANGER
COL	COLUMN	HZ	HERTZ (CYCLES PER SECOND)
CONC	CONCRETE	ID	
CONN	CONNECTION	IGV	INSIDE DIAMETER
CONT	CONTINUATION		INLET GUIDE VANE
CONT'D	CONDENSATE PUMP, CONTROL PANEL	IH	INTAKE HOOD
CP		IN, "	INCH, INCHES
CPVC	CHLORINATED POLYVINYL CHLORIDE	IN WG	INCHES OF WATER GAUGE
CRAC	COMPUTER ROOM AIR CONDITIONER	INFO	
CRAH	COMPUTER ROOM AIR HANDLER	INT	INTERIOR
CV	CONTROL VOLUME, CHECK VALVE	INV	INVERT ELEVATION
CVU	CONSTANT VOLUME UNIT	IRC	IN-ROW SERVER COOLER
CT		ISOL	ISOLATION
CW CWR	COOLING TOWER COLD WATER CONDENSER WATER RETURN CONDENSER WATER SUPPLY	IW	INDUSTRIAL WASTE
CWS	CONDENSER WATER SUPPLY	KW	KILOWATTS
Cx CxA	COMMISSIONING COMMISSIONING AUTHORITY	L	KILOWATTS LENGTH, LONG LEAVING AIR TEMPERATURE LAVATORY
(D)	DEMOLISH, REMOVE	LAT LAV	LEAVING AIR TEMPERATURE LAVATORY
D	DRAIN, DEPTH	LBS	POUNDS
DA	DEAERATOR	LBS/HR	POUNDS PER HOUR
DAT DAHU	DISCHARGE AIR TEMPERATURE DEHUMIDIFYING AIR HANDLING UNIT		LAVATORY POUNDS POUNDS PER HOUR LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN LAB EXHAUST VALVE
DAHO DB DC	DRY BULB TEMPERATURE, DECIBELS DRYCOOLER	LEV LP	
DCW	DOMESTIC COLD WATER	LPCR	LOW PRESSURE CONDENSATE RETURN
DDC	DIRECT DIGITAL CONTROL	LPS	LOW PRESSURE STEAM
DEG, °	DEGREES	LRA	LOAD RATED AMPS
DEH	DEHUMIDIFIER	LSV	LAB SUPPLY VALVE
DEPT	DEPARTMENT	LWT	LEAVING WATER TEMPERATURE
DESG DI	DESIGNATION DIGITAL INPUT	М	METER
DIA, ø	DIAMETER	MA	MIXED AIR
DIFF	DIFFERENTIAL, DIFFERENCE	MAV	MANUAL AIR VENT
DISC	DISCONNECT	MAX	MAXIMUM
DN	DOWN	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
DO	DIGITAL OUTPUT	MCA	MINIMUM CIRCUIT AMPACITY
DOAU		MECH	MECHANICAL
DOAHU		MFR	MANUFACTURER
DP	DIFFERENTIAL PRESSURE	MO	MOTOR OIL
DTL	DETAIL	MOD	MOTOR OPERATED DAMPER, MODULATING
DTWR	DUAL TEMPERATURE WATER RETURN	MOCP	MAXIMUM OVERCURRENT PROTECTION
DTWS	DUAL TEMPERATURE WATER SUPPLY	MIN	MINIMUM
DV	DIGITAL VALVE	MPCR	MEDIUM PRESSURE CONDENSATE RETURN
DWG	DRAWING	MPS	MEDIUM PRESSURE STEAM
DWG DX	DRAWING DIRECT EXPANSION	MT	MICROTURBINE
(ER)	EXISTING RELOCATED	MTD MTG	MOUNTED MOUNTING
ÈX)	EXISTING TO REMAIN	MUW	MAKE UP WATER
EA	EXHAUST AIR	MV	MIXING VALVE
EAT ECM	ENTERING AIR TEMPERATURE ELECTRONICALLY COMMUNICATED MOTOR	N/A	NOT APPLICABLE
EF EFF	EXHAUST FAN EFFICIENCY	NC NC	NOT APPLICABLE NORMALLY CLOSED, NOISE CRITERIA NOT IN CONTRACT
EJ	EXPANSION JOINT	NFPA	NATIONAL FIRE PROTECTION ASSOC.
EL	ELEVATION	NG	NATURAL GAS
ELEC	ELECTRIC, ELECTRICAL	No	NUMBER
ELEV	ELEVATOR		

3

ດ ບັ⊃່ .008 3694 ыц

N/A 19 PN

			DUCTWORK		PIPING, FITTIN
NO NOM	NORMALLY OPENED NOMINAL	SYMBOL SYMBOL DOUBLE LINE SINGLE LINE	DESCRIPTION	SYMBOL	DESCRIPTION
NTS	NOT TO SCALE	20x12 20x12	DUCTWORK, SIZE AS INDICATED	CA	COMPRESSED AIR
OA OAT OC	OUTSIDE AIR OUTSIDE AIR TEMPERATURE	20x12 20x12	DUCTWORK, WITH SOUNDLINING	CD	CONDENSATE DRAIN
OED OFD	ON CENTER OPEN ENDED DUCT OVERFLOW DRAIN		VANED ELBOW	CHWR	CHILLED WATER RETURN
OI OSD	OIL INTERCEPTOR OPEN SITE DRAIN		UN-VANED ELBOW	—CHWS—	CHILLED WATER SUPPLY
OS&Y OVH OWS	OUTSIDE STEM AND YOKE VALVE OVERHEAD OIL WATER SEPARATOR		RADIUS ELBOW	—CNG—	COMPRESSED NATURAL GAS
%	PERCENT		VANED TEE	CW	COLD WATER
P PC	PUMP PUMPED CONDENSATE		UN-VANED TEE	CWR	CONDENSER WATER RETURN
PCR PD PH, ø	PUMP (STEAM) CONDENSATE RETURN PRESSURE DROP PHASE		SUPPLY DUCT TURNING UP AND DOWN	——CWS——	CONDENSER WATER SUPPLY
PLBG PNEU	PLUMBING PNEUMATIC		RETURN DUCT TURNING UP AND DOWN	FOF	FUEL OIL FILL
POS PROP PRESS	POSITION PROPELLER PRESSURE		EXHAUST/RELIEF DUCT TURNING UP AND DOWN	— FOR —	FUEL OIL RETURN
PRESS PRV PS	PRESSURE PRESSURE REDUCING VALVE PRESSURE SWITCH	R/D R/D	DUCT RISE/DROP IN AIRFLOW DIRECTION	— FOS —	FUEL OIL SUPPLY
PSI PSIG	POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH GAUGE		DUCT TRANSITION, SQUARE TO SQUARE	—-FOV—-	FUEL OIL VENT
PVC R	POLYVINYL CHLORIDE		DUCT TRANSITION, SQUARE TO ROUND	G	GAS
RA RD	RETURN AIR ROOF DRAIN		DUCT CAPPED	GWR	GLYCOL WATER RETURN
REF REQ'D	REFRIGERANT REQUIRED		45 DEGREE TAP	GWS	GLYCOL WATER SUPPLY
RH RL RLA	RELATIVE HUMIDITY REFRIGERANT LIQUID RATED LOAD AMPS		CONICAL TAP	—HHWR—	HEATING HOT WATER RETURN
RM RP	ROOM HYDRONIC RADIANT CEILING PANEL		SPUN-IN RUNOUT FITTING W/ FLEX. & VD	—HHWS—	HEATING HOT WATER SUPPLY
RTU RPM	ROOFTOP UNIT REVOLUTIONS PER MINUTE		FLEXIBLE DUCT	—— HPS ——	HIGH PRESSURE STEAM
RS RZ	REFRIGERANT SUCTION RADIANT FLOOR ZONE		FLEXIBLE CONNECTION	—DTWS—	HOT/CHILLED WATER SUPPLY (DUAL TEMP.)
S SM	SWITCH SHEET METAL		MANUAL VOLUME DAMPER	—DTWR—	HOT/CHILLED WATER RETURN (DUAL TEMP.)
SA SAN	SUPPLY AIR SANITARY		FIRE DAMPER	LPS	LOW PRESSURE STEAM
SAT SD SENS	SATURATED, SUPPLY AIR TEMPERATURE SMOKE DETECTOR, SMOKE DAMPER SENSIBLE		SMOKE DAMPER	MUW	MAKE UP WATER
SENS SF SHT	SUPPLY FAN, SQUARE FEET SHEET		COMBINATION FIRE/SMOKE DAMPER	——MPS——	MEDIUM PRESSURE STEAM
SL SP	SOUND LINING STATIC PRESSURE	BDD BDD	BACKDRAFT DAMPER	NG	NATURAL GAS
SPR SPEC SQ	SPRINKLER SPECIFICATION SQUARE		MOTORIZED DAMPER	— PSC—	PUMPED STEAM CONDENSATE RETURN
SQ FT S/S	SQUARE FOOT, SQUARE FEET START/STOP		BAROMETRIC DAMPER	RD	REFRIGERANT DISCHARGE
SS STD	STAINLESS STEEL STANDARD		DUCT CONTINUATION	RL	REFRIGERANT LIQUID
STL ΔT	STEEL TEMPERATURE DIFFERENTIAL		SUPPLY AIR FLOW DIRECTION	RS	REFRIGERANT SUCTION
TEMP TD	TEMPERATURE, TEMPORARY TRANSFER DUCT	OA	OUTSIDE AIR FLOW DIRECTION	SC	STEAM CONDENSATE RETURN
TG TOD TOL	TRANSFER GRILLE TOP OF DUCT TOP OF LOUVER	-\	RETURN/EXHAUST AIR FLOW DIRECTION	STM	STEAM
TSP TYP	TOF OF LOOVER TOTAL STATIC PRESSURE TYPICAL	, 🕅	RETURN, EXHAUST GRILLE OR REGISTER	O	PIPING TURNING UP
UC	UNDERCUT DOOR		SUPPLY AIR DIFFUSER, 4-WAY BLOW	⊃	PIPING TURNING DOWN
UH UL UON	UNIT HEATER UNDERWRITERS LABORATORIES UNLESS OTHERWISE NOTED		SUPPLY AIR DIFFUSER, 3-WAY BLOW		TEE DOWN
UST	UNDERGROUND STORAGE TANK		SUPPLY AIR DIFFUSER, 2-WAY BLOW		PIPE BRANCH BOTTOM TAKEOFF
V VAR	VOLTS, VENT VARIABLE		SUPPLY AIR DIFFUSER, 1-WAY BLOW	U	PIPE BRANCH TOP TAKEOFF
VAV VCO VD	VARIABLE AIR VOLUME VERTICAL CLEAN OUT VOLUME DAMPER		LINEAR SLOT DIFFUSER	—ð—	VALVE IN VERTICAL PIPE
VEL VENT	VELOCITY VENTILATION	— UC —	UNDERCUT DOOR]	CAP
VERT VFD	VERTICAL VARIABLE FREQUENCY DRIVE	DL 12x12	DOOR LOUVER		FLOW DIRECTION
VIB VIF VRF	VIBRATION VERIFY IN FIELD VARIABLE REFRIGERANT FLOW		DUCT ACCESS DOOR	R/D	PIPE SLOPE RISE/DROP
VSD VTR	VARIABLE SPEED DRIVE VENT THROUGH ROOF	(T) , (T)	THERMOSTAT, MASTER THERMOSTAT		PIPE RISER UP/DOWN
W		TS	TEMPERATURE SENSOR	₽,₽	CONCENTRIC REDUCER/INCREASER
W/ W/O WB	WITH WITHOUT WET BULB TEMPERATURE	H	HUMIDISTAT	Þ,Þ	ECCENTRIC REDUCER/INCREASER (FOB)
WC WG	WATER COLUMN WATER GAUGE	FZ	FREEZESTAT	—	UNION
WH WMS	WATER HEATER WIRE MESH SCREEN	HS	HUMIDITY SENSOR	,	PIPE CONTINUATION
8 WPD WSHP WT	WATER PRESSURE DROP WATER SOURCE HEAT PUMP WEIGHT	S	DUCT SMOKE DETECTOR	WH	EXPANSION LOOP (WxH)
ZN	ZONE	CO2	CARBON DIOXIDE SENSOR	— X —	PIPE ANCHOR
		СО	CARBON MONOXIDE SENSOR		FLEXIBLE PIPE CONNECTOR
		NOx	NITROGEN OXIDES SENSOR	EJ	EXPANSION JOINT
		SOx	SULFUR OXIDES SENSOR		PIPE GUIDE
		00	GAS CONCENTRATION MONITOR	-———	STEAM TRAP
		SP	STATIC PRESSURE SENSOR		BLIND FLANGE
		AFMS	AIR FLOW MEASURING STATION		TEMPERATURE SENSOR
		S	SWITCH OR TOGGLE SWITCH		PRESSURE SENSOR
		TM	MANUAL TIMER SWITCH		DIFFERENTIAL PRESSURE TRANSDUCER
		HOA	HAND/OFF/AUTO SWITCH	FS	FLOW SWITCH
			STATIC PRESSURE CLASSIFICATION	FM	FLOW METER
			DESIGNATION (IN. W.G.)		VENTURI FLOW METER
		\mathbf{V}			

- 4

5

TTINGS, AND VALVES

6

<u>SYMBOL</u>	DESCRIPTION
	GEN. SHUTOFF VALVE (BALL, GATE, BUTTERFLY)
	GATE VALVE
	GLOBE VALVE
	OUTSIDE STEM & YOKE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
⊣√⊢	GAS COCK
	PRESSURE REDUCING VALVE
	CALIBRATED BALANCING VALVE
	CONTROL VALVE, TWO-WAY (ELECTRIC)
	CONTROL VALVE, THREE-WAY (ELECTRIC)
	THREE-WAY MANUAL VALVE
	CONTROL VALVE, TWO-WAY (PNEUMATIC)
	CONTROL VALVE, THREE-WAY (PNEUMATIC)
	SOLENOID VALVE
	FUSOMATIC GATE VALVE
	AUTOMATIC AIR VENT (EXTEND TO DRAIN)
Дмаv	MANUAL AIR VENT
*	RELIEF/SAFETY VALVE
' ≻' - x -	
' ' \$;'	
\diamond	PRESSURE/TEMPERATURE TEST PORT
	AQUASTAT
	PRESSURE GAUGE WITH COCK
<u> </u>	THERMOMETER
	NORMALLY CLOSED PORT (NC)
LINES A	AND REFERENCE SYMBOLS
SYMBOL	DESCRIPTION
	NEW WORK LINEWEIGHT
	DEMOLITION LINEWEIGHT
	EXISTING LINEWEIGHT
	FUTURE LINEWEIGHT
${\color{black}}$	CONNECTION OF NEW TO EXISTING
\bigcirc	TERMINATION POINT OF DEMOLITION
\frown	
< <u>#</u> >	SHEET KEYED NOTE
<#> 	SHEET KEYED NOTE DRAWING REVISION NUMBER
	DRAWING REVISION NUMBER
# # E-1	DRAWING REVISION NUMBER
	DRAWING REVISION NUMBER NORTH ARROW EQUIPMENT TAG
	DRAWING REVISION NUMBER NORTH ARROW EQUIPMENT TAG - NECK / TYPE CD-1 CD-1-150 DIFFUSER, REGISTER, OR GRILLE 150 CD-1-150 DESIGNATION AND AIRFLOW TAG(S)

INDICATES PLAN/DETAIL NUMBER

INDICATES PLAN/DETAIL NUMBER

INDICATES DRAWING ON

DRAWING SECTION APPEARS

INDICATES THAT REFERENCE

----- PLAN/DETAIL TITLE

SCALE: _____ SCALE (AS REQUIRED)

WHICH

°Ô

A PHOTOGRAPH

M301/

(1) (M301)

GENERAL NOTES

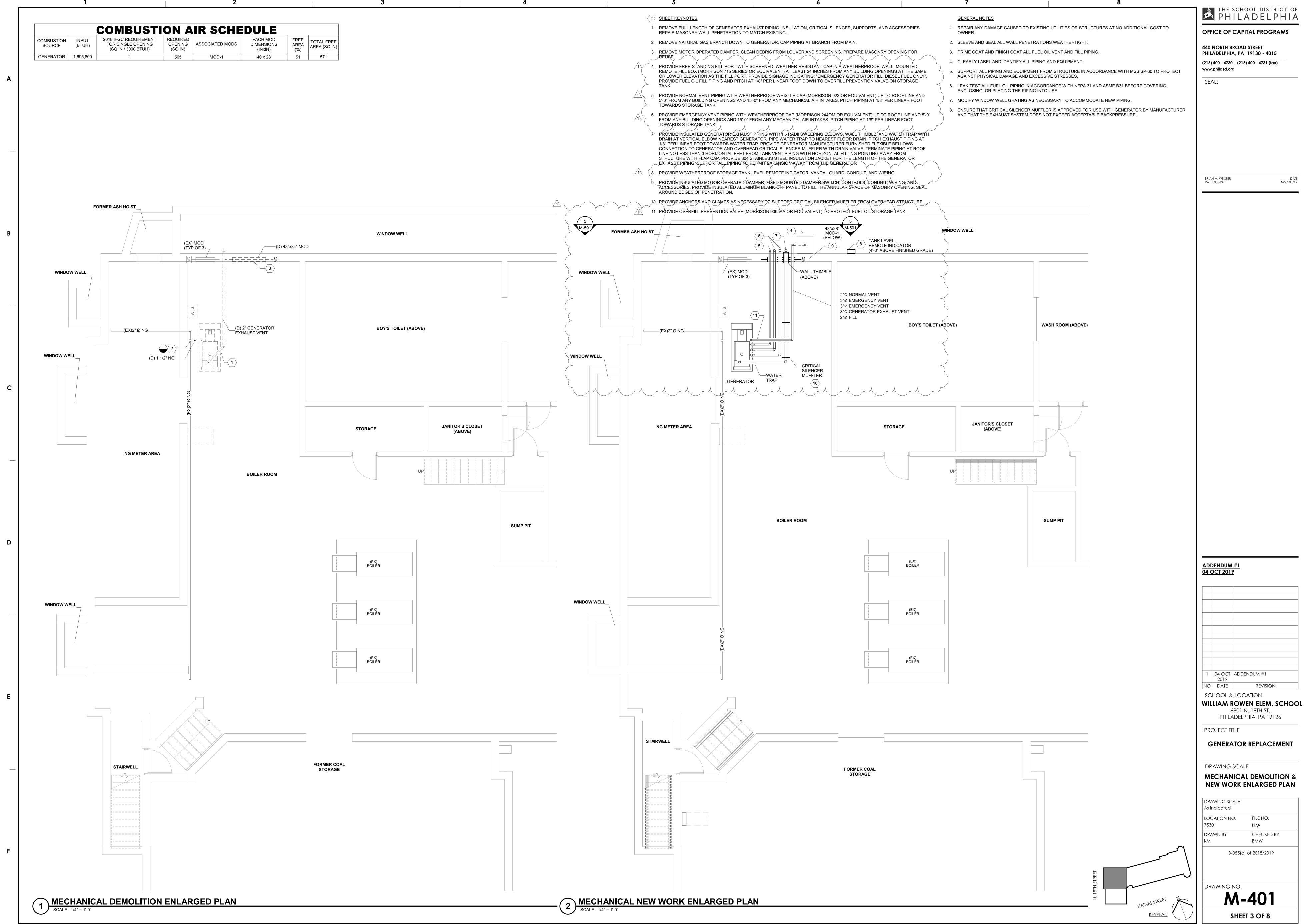
A. NOT ALL ABBREVIATIONS, LINE TYPES, OR SYMBOLS MAY APPEAR ON THESE CONTRACT DOCUMENTS.

- B. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC AND ARE INTENDED TO INDICATE CAPACITY, SIZE, APPROXIMATE LOCATION AND GENERAL ARRANGEMENT. WHILE THE DRAWINGS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, DIMENSIONS SHALL BE CONFIRMED IN THE FIELD.
- C. THE CONTRACTOR SHALL COMPLY WITH THE LAWS, ORDINANCES, RULES AND REGULATIONS OF LOCAL AND STATE GOVERNMENTAL AUTHORITIES; OF THE NATIONAL FIRE PROTECTION ASSOCIATION AS INTERPRETED BY THE ENFORCING AUTHORITY HAVING JURISDICTION: AND OF PUBLIC UTILITIES HAVING CONNECTION WITH ANY OF THE SYSTEMS HEREIN SPECIFIED.
- D. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY ANY OF THE FOREGOING AUTHORITIES, AND PAY FOR ALL OTHER COSTS IN CONNECTION WITH THE WORK. CERTIFICATES SHALL BE IN DUPLICATE AND SHALL BE DELIVERED TO THE OWNER.
- E. THE SITE, LOCATION, AND ROUTING OF SYSTEMS INDICATED TO HAVE NEW CONNECTIONS MADE TO THEM ARE SHOWN AS ACCURATELY AS FIELD CONDITIONS PERMIT. CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY EXAMINE THE CONTRACT DRAWINGS. ALL EXISTING CONDITIONS SHALL BE EXAMINED AND THEIR EXACT LOCATIONS VERIFIED. THE CONTRACTOR SHALL REPORT TO THE ENGINEER ANY CONDITIONS WHICH MIGHT MAKE INSTALLATION OF REQUIRED EQUIPMENT A PROBLEM. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO INVESTIGATE CONDITIONS OR MISUNDERSTANDINGS OF THE CONTRACTUAL REQUIREMENTS.
- F. THE CONTRACTOR SHALL INSTALL AND CONNECT EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND, UNLESS OTHERWISE SHOWN OR SPECIFIED, FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION REQUIREMENTS AND RECOMMENDATIONS, AND FURNISH AND INSTALL REQUIRED AUXILIARY ITEMS TO PROVIDE A COMPLETE INSTALLATION.
- G. THE CONTRACTOR SHALL REPAIR WALLS, CEILING, FLOORS, ETC., THAT ARE REQUIRED TO BE PENETRATED, OR OTHERWISE DISTURBED. THE REPAIRS SHALL BE WITH MATERIALS AND FINISHES TO MATCH EXISTING. FIRE WALL PENETRATIONS SHALL BE SEALED WITH SUITABLE MATERIALS TO PRESERVE FIRE WALL INTEGRITY.
- H. THE CONTRACTOR SHALL REMOVE EQUIPMENT NOT INDICATED TO BE REUSED TO A DESIGNATED LOCATION AT THE PROJECT SITE. AFTER THE EQUIPMENT HAS BEEN ASSEMBLED FOR THE OWNER'S INSPECTION AND POSSIBLE RETENTION, ALL EQUIPMENT NOT TO BE RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- I. COORDINATE WITH OTHER TRADES TO AVOID INTERFERENCE AMONG MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL, PLUMBING, ETC. PROVIDE NECESSARY OFFSETS IN PIPING, DUCTWORK AND FITTINGS ETC., REQUIRED TO PROPERLY INSTALL WORK WITHOUT INTERFERENCES.
- J. BUILDING SYSTEMS SHALL REMAIN IN SERVICE UNLESS INDICATED OTHERWISE. OUTAGES OR INTERRUPTIONS SHALL BE KEPT TO A MINIMUM DURATION. NOTIFY THE OWNER 48 HOURS IN ADVANCE OF ANY OUTAGE OR INTERRUPTION. IF TEMPORARY CONNECTIONS ARE NECESSARY TO ASSURE THIS CONTINUITY OF SERVICES, THEY SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGE TO THE OWNER AND SHALL BE REMOVED WHEN NO LONGER NEEDED.
- K. THE CONTRACTOR SHALL ARRANGE AND EXECUTE HIS WORK SUCH THAT ANY CONNECTIONS, BOTH TEMPORARY OR PERMANENT, TO, OR REARRANGEMENT OF, PRESENT EQUIPMENT, PIPING, ETC., SHALL BE MADE IN SUCH A MANNER AS TO ASSURE FULL RESUMPTION OF SERVICE AT THE TIME DESIGNATED BY THE OWNER.
- L. THE CONTRACTOR SHALL LOCATE EQUIPMENT WHICH MUST BE SERVICED, OPERATED OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. FURNISH ACCESS DOORS AS REQUIRED FOR BETTER ACCESSIBILITY. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR ACCESSIBILITY, BUT CHANGES OF MAGNITUDE WHICH INVOLVE EXTRA COSTS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL.
- M. ALL DIMENSIONS FOR EXISTING PIPING AND DUCTWORK SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION, WHERE NEW WORK CONNECTIONS ARE INDICATED. NEW DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
- N. OPENINGS REMAINING IN EXISTING PIPING/DUCTWORK AS A RESULT OF DEMOLITION SHALL BE SEALED WITH AN AIRTIGHT/WATERTIGHT SHEET METAL CAP. WHERE EXISTING SYSTEMS ARE INSULATED, WORK SHALL INCLUDE REPAIR AND REPLACEMENT OF INSULATION EITHER DAMAGED OR REMOVED AS A RESULT OF DEMOLITION.
- O. PIPING SCOPE REQUIREMENTS: HORIZONTAL DRAINAGE PIPING SHALL BE INSTALLED IN UNIFORM ALIGNMENT AT UNIFORM SLOPES. THE MINIMUM SLOPE OF HORIZONTAL DRAINAGE PIPE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

<u>SIZE (INCHES)</u> 2-1/2 OR LESS 3 TO 6 8 OR LARGER MINIMUM SLOPE (INCHES PER FOOT) 1/4 1/8

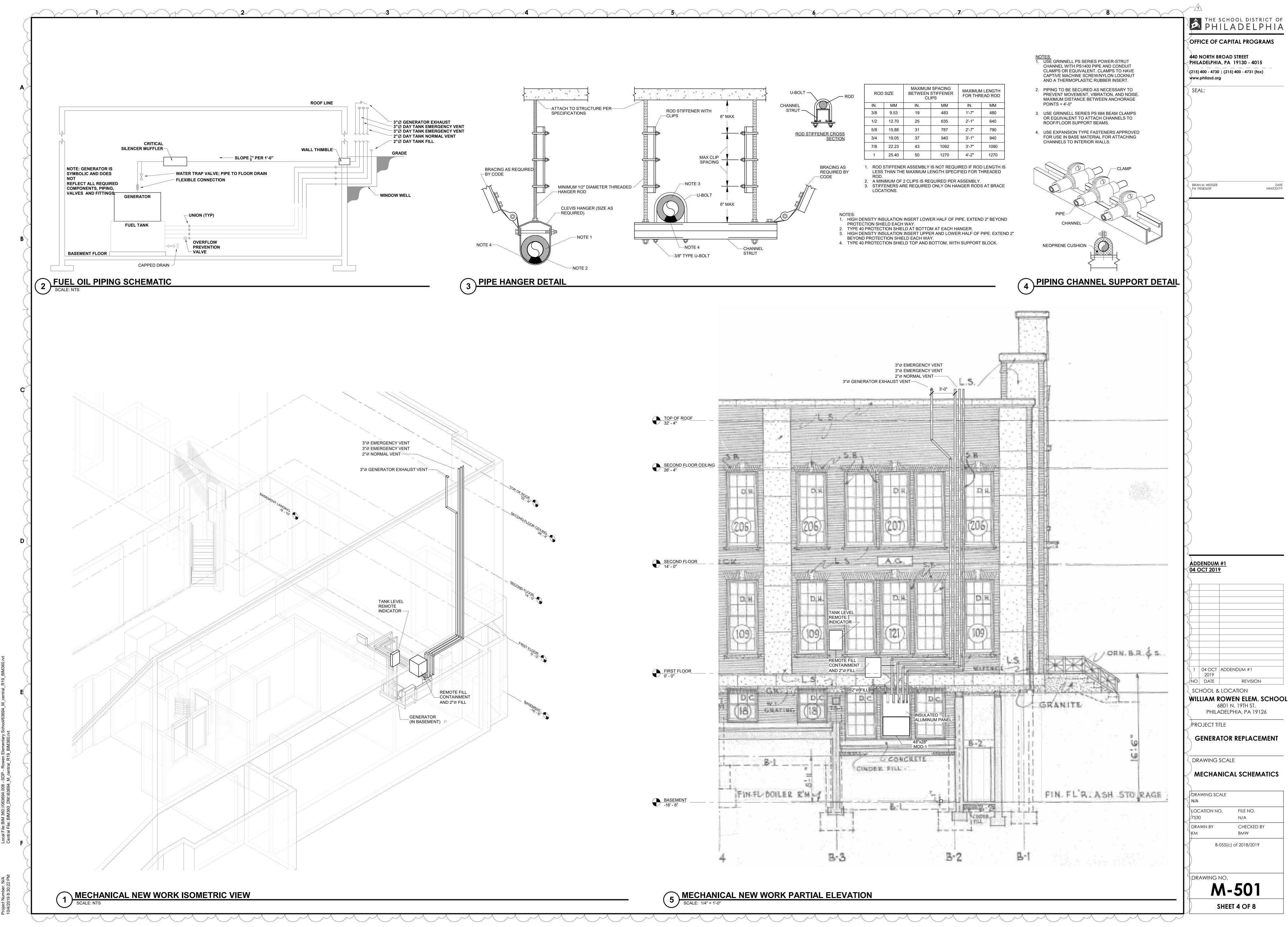
1/16

~ • •	ICE OF	CAPITAL PROGRAMS
840		
PHIL		ROAD STREET A, PA 19130 - 4015
	400 - 4730 philasd.or.	0 (215) 400 - 4731 (fax) '9
SEA	AL:	
	N M. WEISSER PE083639	DATI MM/DD/Y
	DENDUM	
	DENDUM DCT 201	
04 (DCT 201	9 8 8 8 8 8 8 8 8 10 10 10 10 10 10 10 10 10 10
04 (DCT 201	9
04 (DCT 201	
04 (DCT 201	9 REVISION REVISION K LOCATION ROWEN ELEM. SCHOO 6801 N. 19TH ST. ADELPHIA, PA 19126
	DCT 201	9 REVISION REVISION K LOCATION ROWEN ELEM. SCHOO 6801 N. 19TH ST. ADELPHIA, PA 19126
	DCT 201	REVISION REVISION REVISION ROWEN ELEM. SCHOOL 6801 N. 19TH ST. ADELPHIA, PA 19126
	DCT 201	9 Revision R
	DCT 201	REVISION REVISION REVISION ROWEN ELEM. SCHOOL 6801 N. 19TH ST. ADELPHIA, PA 19126
	DCT 201	2 REVISION REVISION REVISION ROWEN ELEM. SCHOOL 6801 N. 19TH ST. ADELPHIA, PA 19126 ITLE ATOR REPLACEMENT SCALE NICAL SYMBOLS AND BBREVIATIONS
		2 REVISION REVISION REVISION ROWEN ELEM. SCHOOL 6801 N. 19TH ST. ADELPHIA, PA 19126 ITLE ATOR REPLACEMENT SCALE NICAL SYMBOLS AND BBREVIATIONS
		2 REVISION SCALE SCALE SCALE SCALE SCALE SCALE SCALE
04 (04 (Revision Revision
04 (04 (0 0 0 0 0 0 0 0 0 0 0 0 0		2 2 <td< td=""></td<>
04 (04 (Revision Revision
04 (04 (2 2 <td< td=""></td<>
04 (04 (0 0 0 0 0 0 0 0 0 0 0 0 0		2 2 <td< td=""></td<>
04 (04 (0 0 0 0 0 0 0 0 0 0 0 0 0		2 Revision R



_ຊ ⊵່ 008 3694 al File ntral Fi Ce Ce

: N/A 20 PM



_ຊ ⊵່ 008 3694

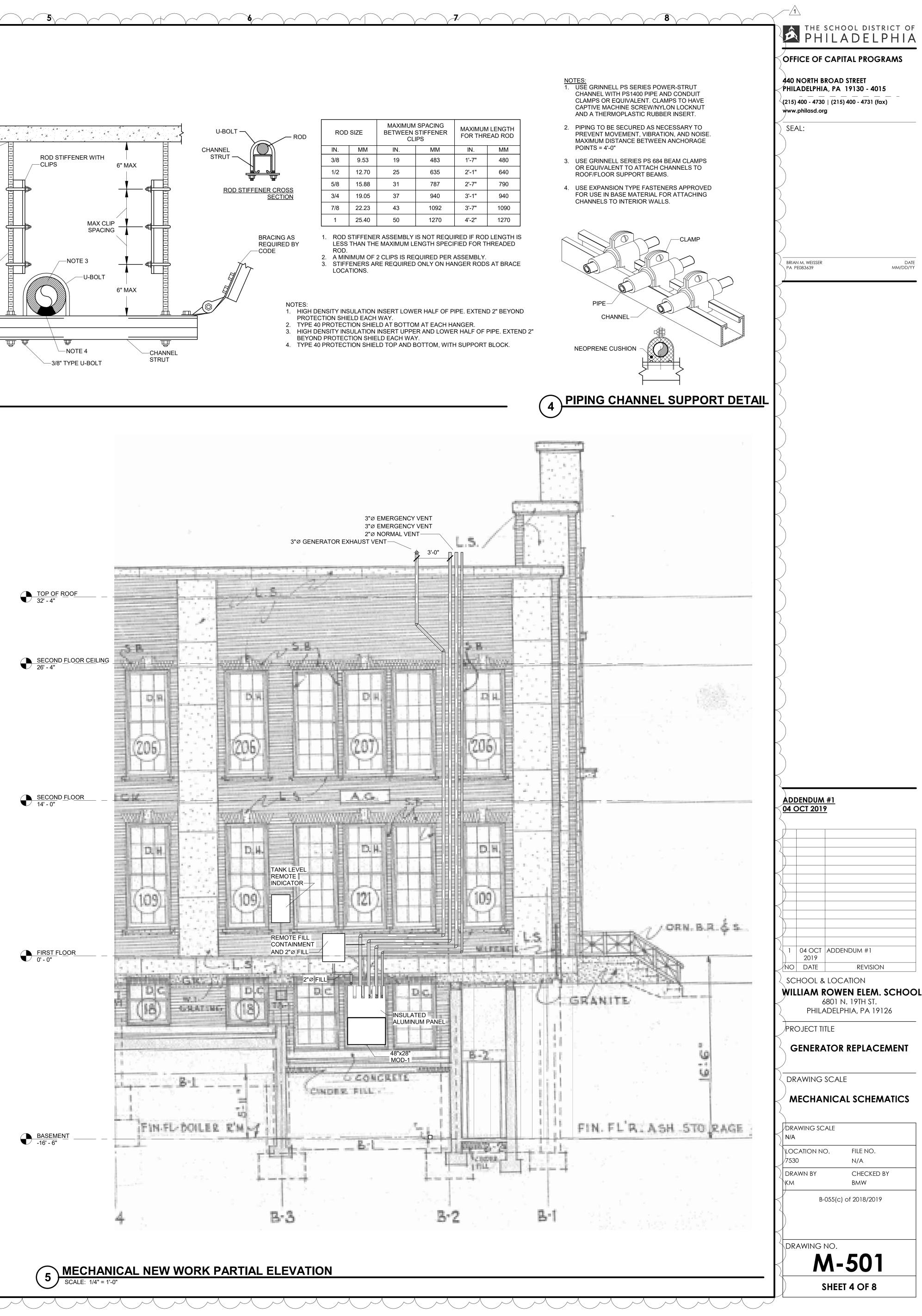
BIM BIM

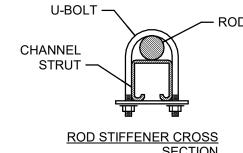
al File:Bl ntral File:

Ğ Č

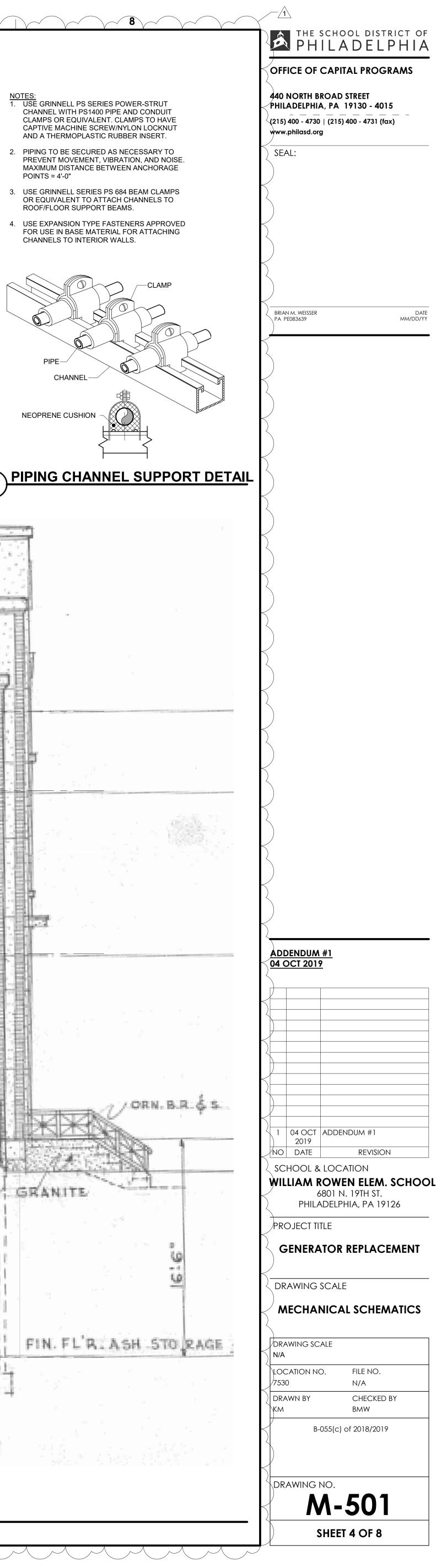
: N/A 22 PM







ROD SIZE		MAXIMUM SPACING BETWEEN STIFFENER CLIPS		MAXIMUM LENGTH FOR THREAD ROD	
IN.	MM	IN.	MM	IN.	MM
3/8	9.53	19	483	1'-7"	480
1/2	12.70	25	635	2'-1"	640
5/8	15.88	31	787	2'-7"	790
3/4	19.05	37	940	3'-1"	940
7/8	22.23	43	1092	3'-7"	1090
1	25.40	50	1270	4'-2"	1270



GENERAL ELECTRICAL NOTES

18. ALL CIRCUIT PROTECTIVE DEVICES SHALL HAVE THE REQUIRED RATING INTERRUPTING CAPACITY

19. IN GENERAL THE FOLLOWING MOUNTING DIMENSIONS ABOVE FINISHED FLOOR SHALL BE ADHERED

LIGHTING SWITCHES, DISCONNECT SWITCHES AND MANUAL MOTOR STARTERS 4'-0".

DIMENSION SHALL BE TAKEN AT THE HIGHEST POINT OF THE OPERATING HANDLE IN IT'S

22. ALL ANCILLARY COMPONENTS SUCH AS AUXILIARY CONTACTS, CONTACTORS, RELAYS, COILS,

TERMINAL BLOCKS, TIMERS, WIRES, ETC., SHALL BE FULLY RATED IN TERMS OF VOLTAGE,

AMPERAGE, VA AND INSULATION RATINGS TO OPERATE CONTINUOUSLY AND UNDER ALL

CONFIGURATIONS, WHETHER OR NOT ALL COMPONENTS ARE SHOWN OR SPECIFIED. ANY

AT NO ADDITIONAL COST TO THE OWNER. THE INTENT OF THIS CLAUSE IS TO HOLD THE

24. CROSS OFF LINE INDICATES DEMOLITION AND REMOVAL BY ELECTRICAL CONTRACTOR.

PROVIDED DISTANCES AND REQUIRED INSTALLATION EFFORT IS EQUIVALENT.

AND TESTING ACTIVITIES HAVE BEEN COMPLETED.

PANELS ON KINDORF CHANNEL STANDS WHERE REQUIRED.

TYPE AND MATERIAL AS INDICATED IN THE SPECIFICATIONS.

25. WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS

27. CONTRACTOR SHALL MOUNT DISCONNECT SWITCHES, MOTOR STARTERS AND PUMP CONTROL

28. ALL EXISTING ELECTRICAL EQUIPMENT AND ASSOCIATED WIRING AND CONDUITS INDICATED BY

29. CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRIC WIRE AND CABLE FOR ALL ELECTRICAL

30. ALL WIRING SHALL BE INSTALLED IN CONDUIT UNLESS OTHERWISE NOTED. CONDUIT SHALL BE OF

31. THE CONTRACTOR SHALL ENSURE THAT NO MECHANICAL DUCTWORK OR PIPING IS LOCATED OVER

ELECTRICAL PANELS. THE ENGINEER OF RECORD CERTIFIES THAT THIS CONDITION DOES NOT

EQUIPMENT AND ALL INTERCONNECTING WIRES FOR COMPONENTS PROVIDED UNDER ALL

COMPONENT FOUND PRIOR TO OR DURING THE WARRANTY PERIOD TO BE INADEQUATELY RATED

TO PERFORM ITS CONTROL FUNCTION, AS INSTALLED, SHALL BE REPLACED BY THE CONTRACTOR

CONTRACTOR LIABLE FOR PROVIDING FULLY INTEGRATED SYSTEMS, MADE UP OF FULLY RATED

TO, ANY ANCILLARY DEVICES DESIGNED TO FUNCTION INTEGRALLY WITHIN GIVEN LARGER

23. ALL DISTRIBUTION PANELS, POWER PANELS, LIGHTING PANELS, ETC., SHALL HAVE COPPER BUSSES,

BOLT-ON CIRCUIT BREAKERS, AND MAIN AND FEEDER BREAKERS AS SHOWN ON PANELBOARD

IMPRACTICAL DUE TO LOCAL INTERFERENCE OR OTHER REASONS, THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW LOCATIONS AS DIRECTED BY THE ENGINEER, AT NO EXTRA COST,

26. PROVIDE A FULL TANK OF DIESEL FUEL AT SUBSTANTIAL COMPLETION OF PROJECT AFTER ALL STARTUP

DEMOLITION HATCHING SHALL BE REMOVED ENTIRELY BACK TO THE SOURCE UNLESS OTHERWISE

COMPONENTS THAT WILL WORK TOGETHER RELIABLY. THIS SHALL INCLUDE, BUT NOT BE LIMITED

MAKE/BREAK CONDITIONS AS THEY ARE INSTALLED IN THEIR ASSOCIATED SYSTEM

TO UNLESS OTHERWISE NOTED ON PLANS OR SPECIFICATIONS:

20. ALL CONDUCTORS AND ALL BUSES ON THIS PROJECT SHALL BE COPPER.

21. ALL SWITCHES AND CIRCUIT BREAKERS SHALL BE IDENTIFIED VIA NAMEPLATE.

UPPERMOST POSITION.

COMPONENTS.

SCHEDULES.

NOTED.

SECTIONS OF THIS CONTRACT.

EXIST WITHIN THE DRAWINGS.

EQUAL TO OR GREATER THAN THE AVAILABLE SHORT-CIRCUIT CURRENT AT ITS SUPPLY TERMINAL.

- 1. ALL ELECTRICAL WORK SHALL BE PROPERLY GROUNDED AND SHALL MEET ALL REQUIREMENTS OF THE APPLICABLE SECTION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ANY AUTHORITIES HAVING JURISDICTION. 2. ALL WORK SHALL BE PERFORMED AS REQUIRED BY APPLICABLE SECTION OF THE NATIONAL ELECTRICAL CODE, 2008 EDITION, AND ALL GOVERNING LOCAL CODES, LAWS, AND/OR REGULATIONS. 3. FURNISH, INSTALL, TEST AND TURNOVER ALL ELECTRICAL EQUIPMENT, COMPONENTS, FITTINGS, DEVICES, WIRES, CABLES, RACEWAYS AND APPURTENANCES AS SHOWN ON THE DRAWINGS AND AS SPECIFIED. ANY REQUIRED ITEMS NOT SPECIFIED OR SHOWN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. 4. DRAWINGS ARE DIAGRAMMATIC IN NATURE, CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER DIVISION TRADES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM. CONTRACTOR SHALL COORDINATE LOCATION OF FIXTURES, DEVICES, ETC. WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCES.
- 5. ARCHITECTURAL FEATURES SHOWN ON THESE DRAWINGS ARE FOR BACKGROUND INFORMATION ONLY. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ACTUAL BUILDING CONSTRUCTION OF WALLS AND CURBS. REFER TO EQUIPMENT DRAWINGS FOR ACTUAL LOCATION OF EQUIPMENT.
- 6. ALL CIRCUITS SHALL CONTAIN A GROUND CONDUCTOR, WHETHER OR NOT IT IS INDICATED ON THE DRAWINGS. 7. EXACT CONDUIT STUB-UP LOCATIONS ARE TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR BASED ON THE CERTIFIED MANUFACTURER'S DRAWINGS OF THE RESPECTIVE
- EQUIPMENT. CONDUITS SHALL BE INSTALLED TO AGREE WITH THE EQUIPMENT FURNISHED. 8. WALL & FLOOR PENETRATIONS SHALL BE BY THE ELECTRICAL CONTRACTOR. PROVIDE FIRESTOP AS REQUIRED FOR ALL PENETRATIONS MADE FOR ELECTRICAL WORK.
- 9. ANY ELECTRICAL CABLES, WIRING DEVICES, COMPONENTS OR APPURTENANCES THAT ARE NOT SHOWN OR SPECIFIED BUT ARE REQUIRED FOR PROPER OPERATION OF A SYSTEM, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASING.
- 10. PROVIDE CONDUIT SLEEVES AND SEALS FOR ALL CONDUITS PENETRATING FLOORS OR WALLS BELOW GRADE.
- 11. ALL POWER AND LIGHTING CONDUITS ARE SHOWN DIAGRAMATICALLY. EXACT RUNS SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR IN THE FIELD, EXCEPT WHERE SPECIFICALLY DIMENSIONED ON PLANS. ALL CABLE, CONDUITS, PULL BOXES, JUNCTION BOXES AND SUPPORTING DEVICES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AS REQUIRED TO COMPLETE EACH RUN OF CONDUIT BASED ON FIELD CONDITIONS.
- 12. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE OF WORK PRIOR TO PREPARING HIS BID IN ORDER TO FAMILIARIZE HIMSELF WITH DIFFICULTIES TO THIS PROJECT FROM THE STANDPOINT OF UNDERSTANDING ALL FIELD CONDITIONS. WHENEVER A CONFLICT OCCURS BETWEEN THE CONTRACT DRAWINGS, SPECIFICATIONS, AND THE REQUIREMENTS OF THE ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL BID ON THE MOST EXPENSIVE METHOD OF CONSTRUCTION AND WILL NOT BE ENTITLED TO AN EXTRA COST UNLESS MATERIALS OR EQUIPMENT NOT SHOWN ON THE DRAWINGS OR SPECIFICATIONS OR REQUIRED BY FIELD CONDITIONS MUST BE INSTALLED.
- 13. ALL EXPOSED CONDUIT SHALL BE RUN PARALLEL TO BUILDING WALLS AND BEAMS EXCEPT WHERE OTHERWISE SHOWN ON PLANS.
- 14. EXPOSED CONDUIT SHALL BE SUPPORTED FROM WALLS AND/OR CEILING BY APPROVED HANGERS OF ANGLE OR CHANNEL CONSTRUCTION.
- 15. EXPANSION FITTINGS OF THE APPROVED TYPE SHALL BE FURNISHED AND INSTALLED WHERE CONDUITS EXPOSED OR CONCEALED PASS THROUGH STRUCTURAL JOINTS.
- 16. ALL SINGLE PHASE POWER AND LIGHTING CONDUITS SHALL BE 3/4" WITH 2#12 AWG WIRE. UNLESS NOTED OTHERWISE. IN ADDITION, ALL SUCH CONDUITS SHALL CONTAIN A SEPARATE GROUND CONDUCTOR (SIZE AS REQ'D). ALL CONTROL WIRING SHALL BE A MINIMUM OF #16 AWG.
- 17. NOT USED.

Α

С

D

THIS DRAWING REFLECTS A GANNETT FLEMING STANDARD SYMBOL AND ABBREVIATIONS DRAWING, SYMBOLS AND ABBREVIATIONS ON THIS DRAWING MAY OR MAY NOT REFLECT EVERY CONDITION OF THIS PROJECT.

<u>ເ</u>ຊ ເ 008 -694

LEVEL	1	2	3	4	5	
1	0	1"	3"	12"	12"	
2	1"	0	3"	9"	12"	
3	3"	3"	0	3"	6"	
4	12"	9"	6'	0	3"	

LEVELS AS FOLLOWS:

4. EACH LEVEL MUST BE RUN IN SEPARATE RACEWAYS. 5. UNLESS OTHERWISE NOTED SEPARATE ALL PARALLEL RACEWAY RUN 5'-0" OR LONGER WITH DIFFERENT

E. LEVEL 5 -1) FEEDERS OVER 400 AMPERES.

- 4

AMPERE

AUTOMATIC

BUILDING

BREAKER

CONDUIT

CIRCUIT

DATA

CONTROL

CONTROL PANEL

DIRECT CURRENT

DISCONNECT SWITCH

ELECTRIC CABINET HEATER

ELECTRICAL METALLIC TUBING (CONDUIT)

EMPTY CONDUIT

EXHAUST FAN

ELEVATION

DISCONNECT

DIVISION

DOWN

CONTROL PANEL TRANSFORMER

CURRENT TRANSFORMER

CAPACITOR

CIRCUIT BREAKER

ALTERNATING CURRENT

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

AMPERE INTERRUPTING CAPACITY

AUTOMATIC TEMPERATURE CONTROL

CABLE BY VENDOR, INSTALLED BY CONTRACTOR

AMMETER SELECTOR SWITCH

AUTOMATIC TRANSFER SWITCH

AMERICAN WIRE GAUGE

A, AMP

AC

AFF

AFG

AIC

AS

ATC

ATS

AUTO

AWG

BLDG

BKR

CAP

CB

CBV

CKT

CP

CPT

СТ

DAT

DC

DIV

DN

DS

ECH

EMT

DISC

CNTL

C, CDT

WIRE SEPARATION NOTES:

3. SEPARATE WIRING INTO RACEWAY BY LEVELS AS FOLLOWS:

4-20ma SHIELDED INSTRUMENTATION. SHIELDED LOW LEVEL INSTRUMENTATION. VARIABLE SPEED DRIVE SPEED SIGNALS.

PROGRAMMABLE LOGIC CONTROLLER BUSSES.

7. INSTRUMENTATION REMOTE TERMINAL UNIT BUS.

DIGITAL SIGNAL AND DATA BUSSES

METERING SYSTEM DATA BUS.

TACHOMETER GENERATORS.

RUN IN SEPARATE CONDUITS.

D. LEVEL 4 -1) POWER CIRCUITS OVER 20 AMPERES UP TO 400 AMPERES, 600 VOLTS. EACH CIRCUIT SHALL BE

BE ROUTED IN THE POWER CIRCUIT FROM SAME COMPARTMENT.

NOTED. 2. CLASS 1 CONTROL CIRCUITS ORIGINATING IN A MCC COMPARTMENT OR A MOTOR STARTER CAN

TERMINAL UNITS ALL OUTPUTS SUPPLYING RELAY COILS SHALL HAVE PROPER SUPPRESSION. C. LEVEL 3 -1) POWER CIRCUITS OF 20 AMPERES OR LESS AND 120 VOLTS OR LESS 1. LIGHTING AND RECEPTACLE CIRCUITS TO BE IN SEPARATE CONDUITS, UNLESS OTHERWISE

2) DIGITAL AND DISCRETE INPUTS TO PROGRAMMABLE LOGIC CONTROLLERS AND REMOTE

1. SIGNAL CIRCUITS AND ALARM CIRCUITS SHALL BE RUN IN CONDUITS SEPARATE FROM ALL OTHER WIRING.

2. SERVICE ENTRANCE, GENERATOR AND ALL LARGE FEEDERS SHALL BE IN SEPARATE CONDUITS.

A. LEVEL 1 -1) ANALOG SIGNALS LESS THAN 50 VOLTS AND LESS 50 MILLIAMP

B. LEVEL 2 -1) ANALOG SIGNAL OVER 50 VOLTS AND LESS THAN 250 VOLTS

ABBREVIATIONS

EΡ

ETM

EUH

EXH

EXP

FDR

FFC

FIT

FLC

FLR

FRE

FU

GFCI

HID

HOA

HPS

KCMIL

KVA

LB

LC

LCP

G, GND

EXIST

ABBREVIATIONS				
EXPLOSION PROOF	LED	LIGHT EMITTING DIODE	PVC	POLYVINYL CHLORIDE
ELAPSED TIME METER	LOS	LOCK OUT SWITCH	PVCRGS	PVC COATED RGS CONDUIT
ELECTRIC UNIT HEATER	LSM	LEVEL SENSOR MONITOR	PWR	POWER
EXHAUST	LTG	LIGHTING	RGS	RIGID GALVANIZED STEEL
EXISTING	М	MOTOR	RVAT	REDUCED VOLTAGE AUTOTRANSFORMER
EXPLOSION PROOF	MAX	MAXIMUM	RVSS	REDUCED VOLTAGE SOLID STATE MOTOR CONTROLLER
FEEDER	MCC	MOTOR CONTROL PANEL	SC	SURGE CAPACITOR
FLOW ELEMENT	MCP	MOTOR CONTROL PROTECTOR	SCC	SYSTEM CONTROL CENTER
FOXBORO FIELD CABINET	MD	MOTORIZED DAMPER	SHLD	SHIELDED
FLOW INDICATING TRANSMITTER	MIN	MINIMUM	SIG	SIGNAL
FULL LOAD CURRENT	MLO	MAIN LUG ONLY	SPD	SURGE PROTECTION DEVICE
FLOOR	MOA	MULTI-OUTLET ASSEMBLY	SW	SWITCH
FIBERGLASS REINFORCED EPOXY	MS	MOTOR STARTER	SWBD	SWITCHBOARD
FUSE	MTD	MOUNTED	SWGR	SWITCHGEAR
GROUND FAULT CIRCUIT INTERRUPTER	MTS	MANUAL TRANSFER SWITCH	SWL	SLUDGE WELL LEVEL
GROUND	MV	MEDIUM VOLTAGE	TOG	TOWN OF GREENWICH
HIGH INTENSITY DISCHARGE	N/A	NOT APPLICABLE	TS	TWISTED SHIELDED
HAND-OFF-AUTOMATIC	NEC	NATIONAL ELECTRICAL CODE	TSH	TEMPERATURE SWITCH HIGH
HYDRAULIC SYSTEM CENTER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	(TYP)	TYPICAL
HORSE POWER	NEUT	NEUTRAL	UL	UNDERWRITERS LABORATORIES
HIGH PRESSURE SODIUM	NC	NORMALLY CLOSED	UON	UNLESS OTHERWISE NOTED
ISOLATED GROUND	NO	NORMALLY OPEN	UPS	UNINTERRUPTABLE POWER SUPPLY
INDUSTRIAL	#	NUMBER	USE	UNDERGROUND SERVICE ENTRANCE CABLE
JUNCTION BOX	NTS	NOT TO SCALE	UV	ULTRA-VIOLET
THOUSANDS CIRCULAR MILS	OC	ON CENTER	V	VOLT
KILOVOLTS	PB	PULL BOX	VAC	VOLTS ALTERNATING CURRENT
KILOVOLT AMPERE	PDC	POWER DISTRIBUTION CENTER	VFD	VARIABLE FREQUENCY DRIVE
KILOWATT	PH	PHASE	VS	VOLTMETER SELECTOR SWITCH
LIGHTNING ARRESTOR	PMB	PLANT MAINTENANCE BUILDING	W	WIRE
POUND	PMT	PAD MOUNTED TRANSFORMER	WP	WEATHERPROOF
LIGHTING CONTACTOR	PNL	PANEL	XFMR	TRANSFORMER
LOCAL CONTROL PANEL	POT	POTENTIOMETER	1-PH, 1φ	SINGLE PHASE
	PT	POTENTIAL TRANSFORMER	3-РН, Зф	THREE PHASE

<u>SYMBOLS</u>

GENERAL POWER

(J) JUNCTION BOX ☐ ☐ DISCONNECT SWITCH COMBINATION MOTOR STARTER S_M MANUAL MOTOR STARTER SWITCH WITHOUT OVERLOADS MOTOR (HORSEPOWER INDICATED ON PLANS) MOD MOTOR OPERATED DAMPER SPD SURGE PROTECTION DEVICE PANELBOARD/CONTROL PANEL-AS INDICATED ON DRAWINGS

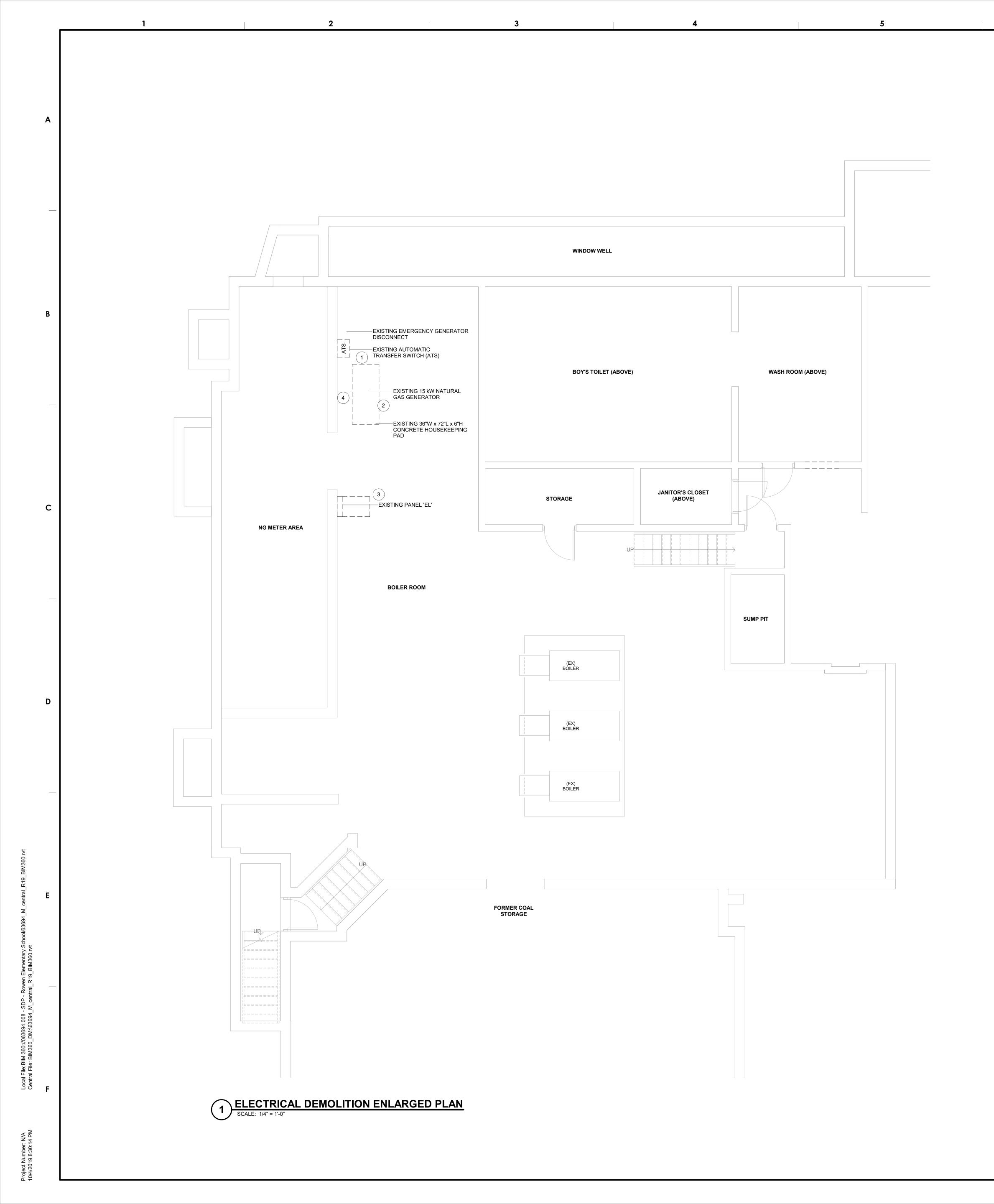
GRAP GENERATOR REMOTE ANNUNCIATOR PANEL

°) 15A

WIRING DIAGRAM

THERMAL MAGNETIC CIRCUIT BREAKER A - TRIP RATING AF - FRAME RATING

PHILA		ROAD STREET A, PA 19130 - 4015
	400 - 4730 philasd.or	g
SEA	L:	
	A. SEIP	D
PA EE	nnnnn	08/14
	ENDUM	
	ENDUM 0CT 201	
	DATE	2 2 2 2 2 2 2 2 2 2 2 2 2 2
	DATE 100L 8	
		2 REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST.
	DATE HOOL & LIAM F 2 PHILA	REVISION REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126
	DATE HOOL & LIAM F 2 PHILA	REVISION REVISION LOCATION COWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE
	DATE HOOL & LIAM F 2 PHILA	REVISION REVISION LOCATION COWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE
04 O	DATE HOOL & LIAM F 2 PHILA	REVISION REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT
04 O	DATE DATE HOOL & LIAM F PHILA DJECT TI ENERA	REVISION REVISION LOCATION COVEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE
	DATE DATE HOOL & LIAM F PHILA DJECT TI ENERA AWING ECTRI	REVISION REVISION LOCATION COVEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE
	DATE DATE HOOL & LIAM F PHILA DJECT TI ENERA AWING ECTRI	REVISION REVISION LOCATION COVEN ELEM. SCHC S801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE SCALE CAL SYMBOLS AND SBREVIATIONS
	DATE DATE HOOL & LIAM F PHILA DJECT TI ENERA AWING ECTRI AWING SC ATION NO	REVISION REVISION LOCATION COVEN ELEM. SCHC SOMEN ELEM. SCHC SOMEN ELEM. SCHC SOMEN FLEM. SCHC SOULTION THE ADELPHIA, PA 19126 THE ADELPHIA, PA 19126 THE SCALE CAL SYMBOLS AND SBREVIATIONS ALE
D4 O PRO SCH VILI PRO C C C C C C C C C C C C C	DATE DATE HOOL & LIAM F PHILA DJECT TI ENERA AWING ECTRI AWING SC ATION NO	REVISION REVISION LOCATION COVEN ELEM. SCHC 3801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT SCALE SCALE CAL SYMBOLS AND SBREVIATIONS
	CT 201 Color Color <td>REVISION REVISION REVISION REVISION ROWEN ELEM. SCHC SOUTH ST. ADELPHIA, PA 19126 TLE SCALE SCALE CAL SYMBOLS AND SBREVIATIONS ALE D. FILE NO. N/A CHECKED BY MPM</td>	REVISION REVISION REVISION REVISION ROWEN ELEM. SCHC SOUTH ST. ADELPHIA, PA 19126 TLE SCALE SCALE CAL SYMBOLS AND SBREVIATIONS ALE D. FILE NO. N/A CHECKED BY MPM
D4 O PRO SCH VILI PRO C C C C C C C C C C C C C	CT 201 Color Color <td>REVISION REVISION REVISION ROWEN ELEM. SCHC ROWEN ELEM. S</td>	REVISION REVISION REVISION ROWEN ELEM. SCHC ROWEN ELEM. S
	CT 201 Color Color <td>REVISION REVISION LOCATION REVISION LOCATION ROWEN ELEM. SCHC SOULE COMMENTELEM. SCHC SOULE CAL SYMBOLS AND SCALE CAL SYMBOLS AND SCALE</td>	REVISION REVISION LOCATION REVISION LOCATION ROWEN ELEM. SCHC SOULE COMMENTELEM. SCHC SOULE CAL SYMBOLS AND SCALE CAL SYMBOLS AND SCALE
	CT 201 Color Color <td>2 Revision R</td>	2 Revision R
A O A O A O A O A O A O A A A A A A A A		2
A O		2 Revision R



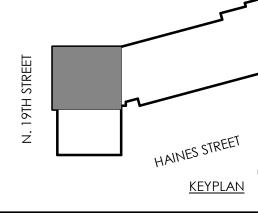
KEYED DEMOLITION NOTES

7

8

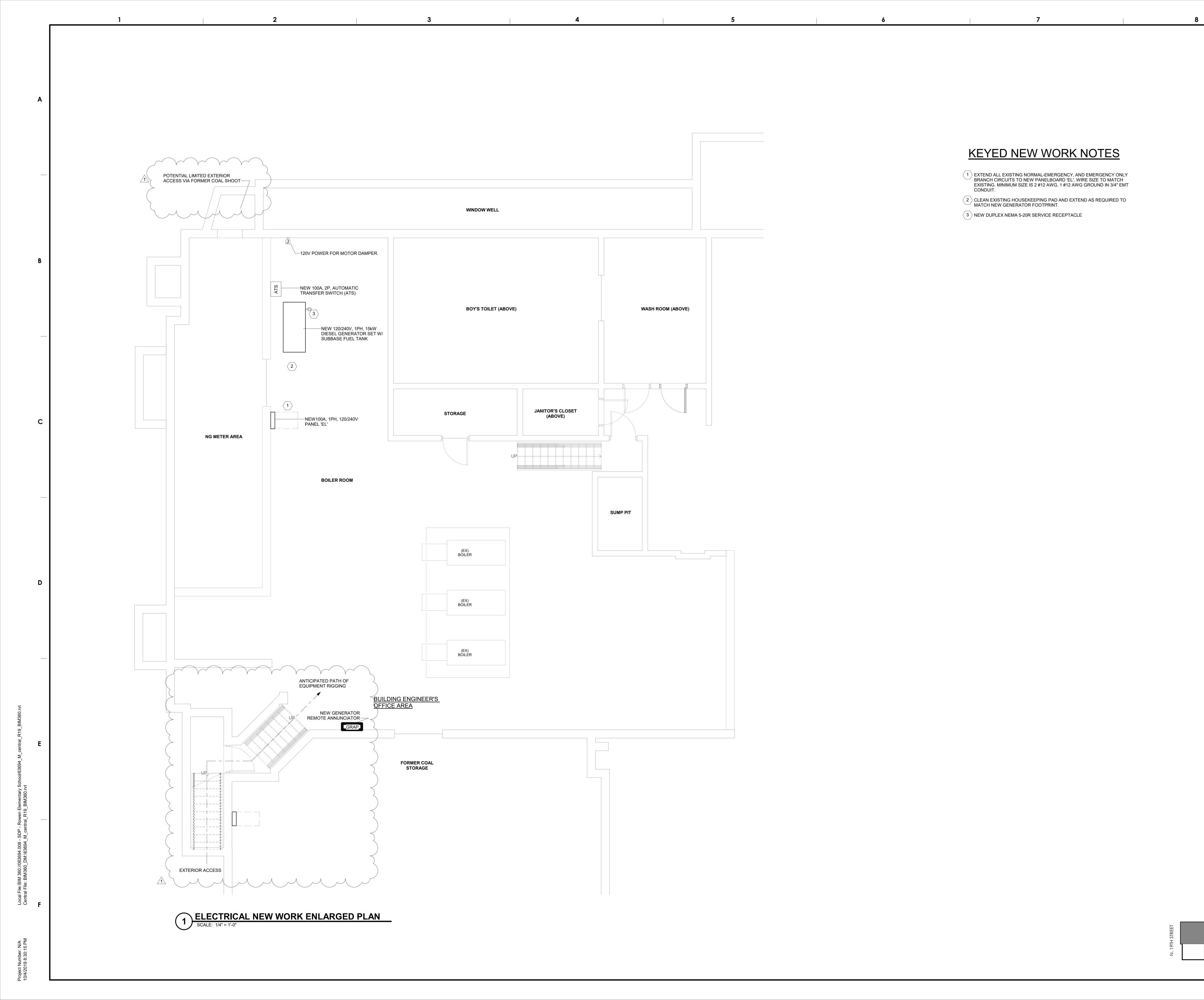
6

- COMPLETELY REMOVE THE EXISTING GENERATOR, TRANSFER SWITCH, EMERGENCY PANELBOARD, DISCONNECT, AND ALL ASSOCIATED ELECTRICAL EQUIPMENT.
- 2 CLEAN EXISTING HOUSEKEEPING PAD AND EXTEND AS REQUIRED TO MATCH NEW GENERATOR FOOTPRINT.
- 3 DISCONNECT ALL EXISTING BRANCH CIRCUITS FROM THE PANELBOARD, TAG EACH BRANCH CIRCUIT PRIOR TO DEMOLITION.
- 4 DEMOLISH THE EXISTING FEEDER FROM THE ATS TO THE JUNCTION BOX LOCATED ABOVE ATS .



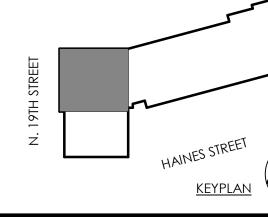
-	NORTH B	THE SCHOOL DISTRICT O PHILADELPHIA OFFICE OF CAPITAL PROGRAMS 440 NORTH BROAD STREET PHILADELPHIA, PA 19130 - 4015		
(215)		0 (215) 400 - 4731 (fax)		
SEA		-		
	I A. SEIP Ennnnn	D 08/14		
	ENDUM			
	<u>endum</u> 0CT 201			
		9 1 <td< td=""></td<>		
04 C	DATE			
	DATE HOOL 8	9		
	DATE HOOL 8			
	DATE HOOL 8	9 REVISION REVISION COCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126		
	DATE HOOL 8 LIAM F PHILA	9 REVISION REVISION ALOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE		
04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA	REVISION REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT		
	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA	REVISION REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT		
	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR	9 REVISION SCALE		
		2 REVISION REVISION REVISION ROWEN ELEM. SCHOON ROWEN ELEM. SCHOON SOMEN PLACEMENT SCALE RICAL DEMOLITION ILARGED PLAN		
04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN	2 REVISION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT SCALE RICAL DEMOLITION ILARGED PLAN CALE O. FILE NO.		
04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN	2 REVISION REVISION REVISION ROCATION ROWEN ELEM. SCHOOD SOMEN ELEM. SCHOOD 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE ATOR REPLACEMENT SCALE RICAL DEMOLITION ILARGED PLAN		
04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN	2 REVISION REVISION REVISION ADELPHIA, PA 19126 TLE ADELPHIA, PA 19126 TLE ADELPHIA, PA 19126 SCALE SCALE REVISION SCALE CALE CALE CALE SCALE SCALE SCALE SCALE N/A		
04 C 04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN ENERA AWING SCC '= 1'-0'' CATION NO	2 REVISION REVISION REVISION ALOCATION ROWEN ELEM. SCHC SOMEN ELEM. SCHC SOULD NON ROWEN ELEM. SCHC SOULD NON ROWEN ELEM. SCHC SOULD NON SCALE SCALE SCALE SCALE SCALE SCALE CALE O. FILE NO. N/A CHECKED BY		
04 C 04 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN ENERA AWING SCC '= 1'-0'' CATION NO	REVISION REVISION LOCATION ROWEN ELEM. SCHC 5801 N. 19TH ST. ADELPHIA, PA 19126 TLE SCALE RICAL DEMOLITION ILARGED PLAN		
D4 C D4 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING ELECTR EN ENERA AWING SCC '= 1'-0'' CATION NO	2 2 <td< td=""></td<>		
D4 C D4 C	DATE DATE HOOL 8 LIAM F PHILA DJECT TI ENERA AWING SC '= 1'-0'' CATION NO WING SC '= 1'-0'' CATION NO WING SC	Revision Revis		
04 C	DATE DATE HOOL 8 LIAM F PHIL DJECT TI ENER AWING ELECTR EN SATION NO WING SC '= 1'-0'' SATION NO WING SC '= 1'-0'' SATION NO B-	2 2 <td< td=""></td<>		





KEYED NEW WORK NOTES

- 1 EXTEND ALL EXISTING NORMAL-EMERGENCY, AND EMERGENCY ONLY BRANCH CIRCUITS TO NEW PANELBOARD 'EL'. WIRE SIZE TO MATCH EXISTING. MINIMUM SIZE IS 2 #12 AWG, 1 #12 AWG GROUND IN 3/4" EMT CONDUIT.
- 2 CLEAN EXISTING HOUSEKEEPING PAD AND EXTEND AS REQUIRED TO MATCH NEW GENERATOR FOOTPRINT. $\langle 3 \rangle$ NEW DUPLEX NEMA 5-20R SERVICE RECEPTACLE



(215) 400 - 4730 (215) 400 - 473 www.philasd.org SEAL: BRIAN A. SEIP PA EEnnnnn	31 (fax)
BRIAN A. SEIP	
<u>ADDENDUM #1</u> 04 OCT 2019	
1 04 OCT ADDENDUM # 2019	1
	SION
WILLIAM ROWEN ELE 6801 N. 19TH S	
PHILADELPHIA, PA	
PROJECT TITLE	
GENERATOR REPLA	ACEMEN
DRAWING SCALE	
ELECTRICAL ENLARG	
DRAWING SCALE $1/4'' = 1'-0''$	
1/4" = 1'-0"	0.
	KED BY
FJR MPM B-055(c) of 2018/2	2019

F	PANEL D	ESIGNATION					LOCATIO	N: BOILER	ROOM								
			NUMBER OF POLES	S: 40			VOLTAGE	: 120/240 V,	1-PHA	SE, 3-WIF	RE						
N	EW	PANEL	MAINS BUS RATING	6: 100A			PANEL M	OUNTING: \$	SURFAC	CE							
		EL	MAIN RATING: MLO)			PANEL E	NCLOSURE	(NEMA)	.): 1							
							SHORT C	IRCUIT: 10	kAIC SE	ECONDAF	RY						
CIR.	CIR.	DEOD		W/DE	0000000	001101117	LOAD	- KVA		LOAD	- KVA	000001017		MIDE	DESCRIPTION	CIR.	
No.	BKR.	- DESC	RIPTION	WIRE	GROUND	CONDUIT	ΦΑ	ФВ		ΦΑ	ФВ	CONDUIT	GROUND	WIRE	DESCRIPTION	BKR.	
1	<u>20</u> 1	RECONNECT EXISTIN	G	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
3	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
5	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
7	20/1	RECONNECT EXISTIN	IG	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
9	20/1	RECONNECT EXISTIN	IG	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
11	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
13	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
15	20/1	RECONNECT EXISTIN	IG	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
17	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
19	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
21	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	RECONNECT EXISTING	20/1	
23	20/1	RECONNECT EXISTIN	G	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	RECONNECT EXISTING	20/1	
25	20/1	BLOCK HEATER		#12	#12	3/4"	0.50				0.50	3/4"	#12	#12	BATTERY CHARGER	20/1	
27	20/1	SERVICE RECEPTAC	LE	#12	#12	3/4"		0.50		0.50		3/4"	#12	#12	MOTOR OPERATED DAMPER	20/1	
29	20/1	SPARE													SPARE	20/1	
31	20/1	SPARE													SPARE	20/1	
33	20/1	SPARE													SPARE	20/1	
35	20/1	SPARE													SPARE	20/1	
37	20/1	SPARE													SPARE	20/1	
39	20/1	SPARE													SPARE	20/1	
						TOTAL	0.50	0.50		0.00	0.50	TOTAL					
ANEL C	ONNECT	ED LOAD															
ΦΑ	0.50								X S	SOLID NEU	TRAL BUS						
ΦВ	1.00								XE	EQUIPMEN	T GROUND	BUS					
	1.50	TOTAL								INTEGRAL	SPD	1					

3

4

Ε

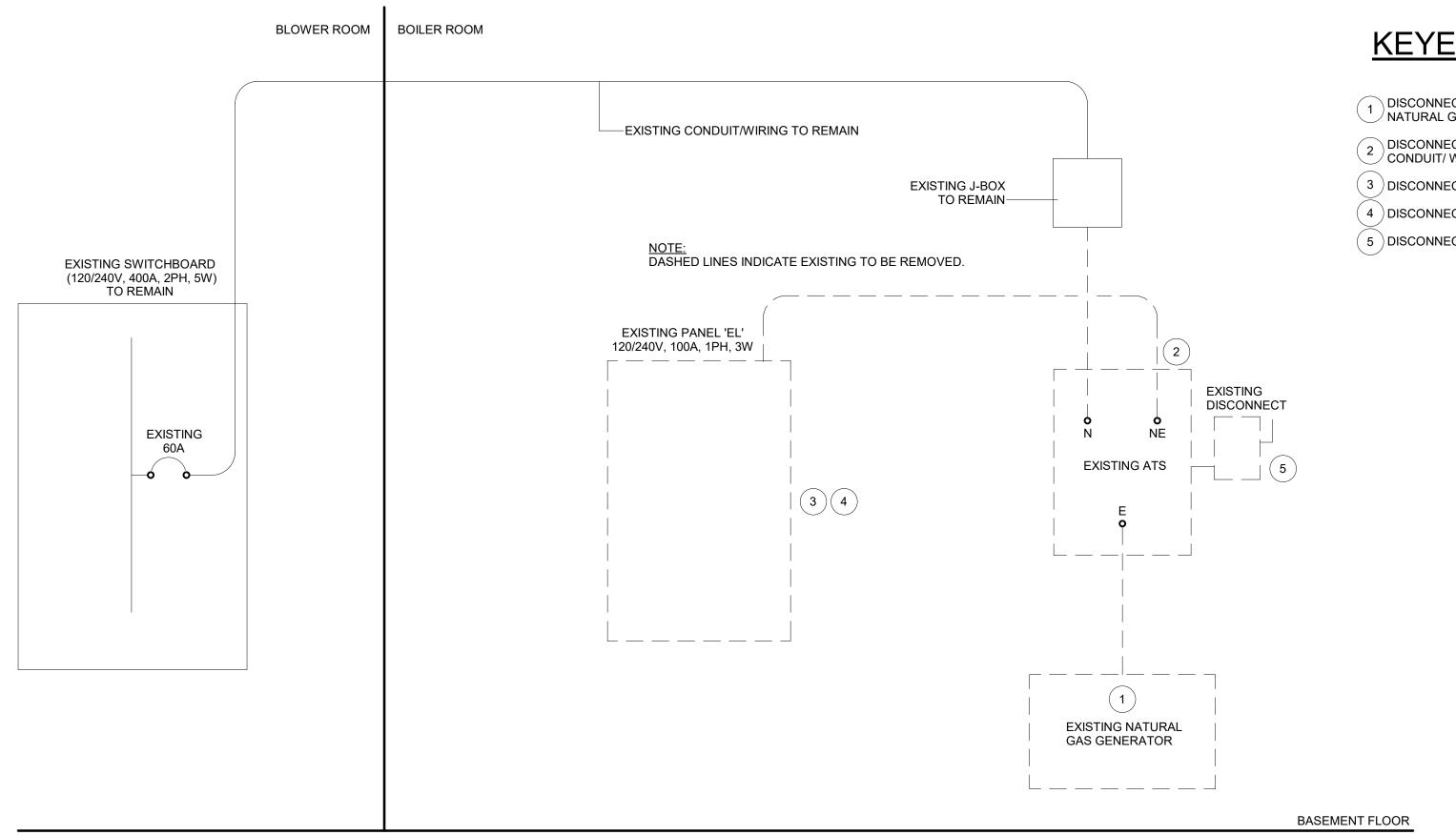
Α

В

С

D

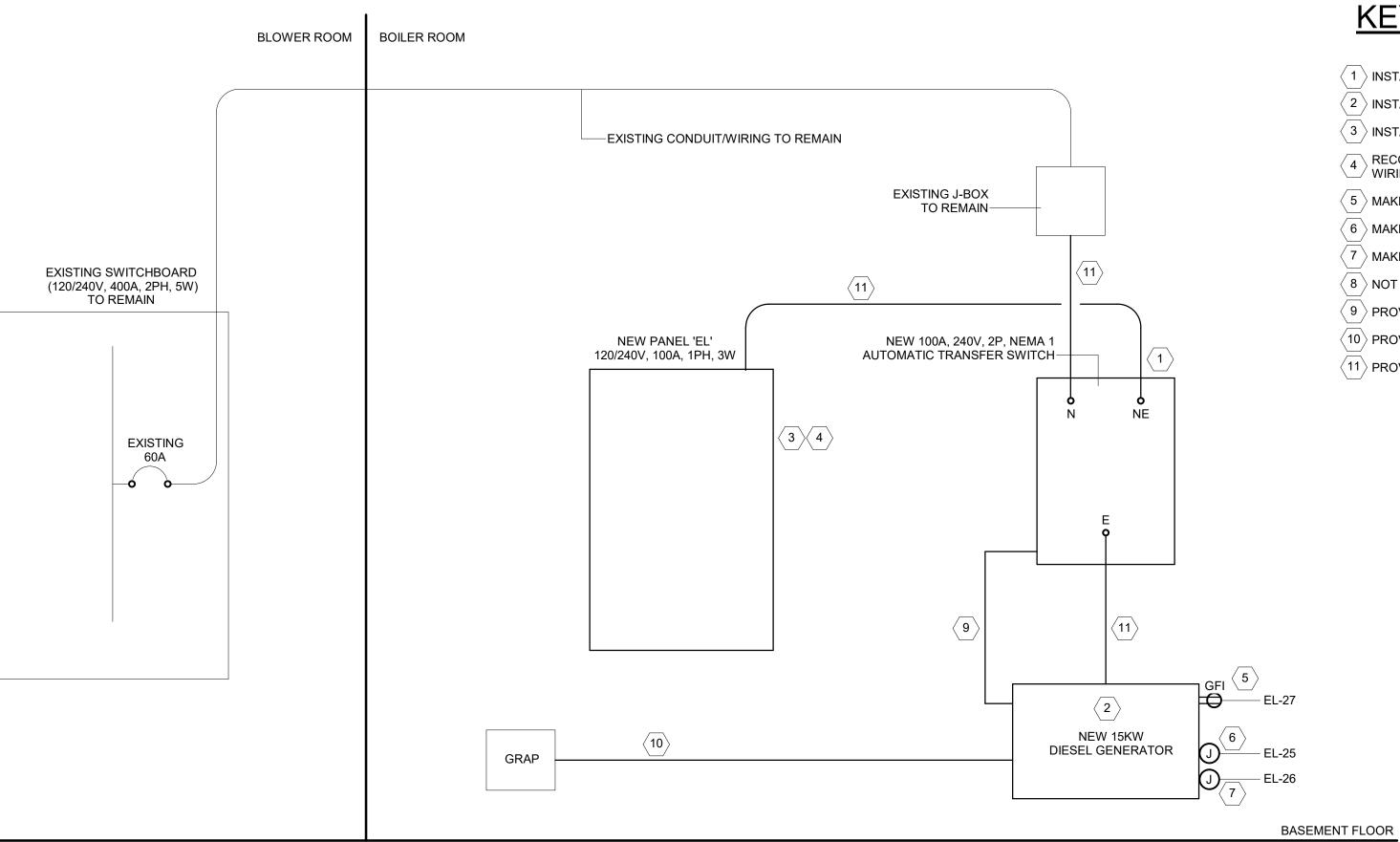
umber: N/A 8:30:15 PM



6

PARTIAL ONE-LINE DIAGRAM - DEMOLITION SCALE: NTS

5



PARTIAL ONE-LINE DIAGRAM - NEW WORK SCALE: NTS



KEYED DEMOLITION NOTES

1 DISCONNECT AND REMOVE EXISTING GENERATOR INCLUDING ALL NATURAL GAS PIPING, EXHAUST PIPING, WIRING AND CONDUIT.

- 2 DISCONNECT AND REMOVE EXISTING TRANSFER SWITCHAND ALL CONDUIT/ WIRING.
- (3) DISCONNECT ALL EXISTING BRANCH CIRCUITS.
- (4) DISCONNECT AND REMOVE EXISTING PANEL 'EL'.
- (5) DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH.

KEYED NEW WORK NOTES

- $\langle 1 \rangle$ INSTALL NEW 100A AUTOMATIC TRANSFER SWITCH.
- $\langle 2 \rangle$ INSTALL NEW 15KW DIESEL GENERATOR.
- $\langle 3 \rangle$ INSTALL NEW 100A SPLIT BUS PANELBOARD.
- A RECONNECT ALL EXISTING BRANCH CIRCUITS, EXTEND CONDUIT AND WIRING. PROVIDE 2 #12, 1 #12 AWG G IN 3/4" CONDUIT.
- \langle 5 \rangle MAKE CONNECTION TO NEMA 5-20R RECEPTACLE.
- $\langle 6 \rangle$ MAKE CONNECTION TO BLOCK HEATER.
- $\langle 7 \rangle$ MAKE CONNECTION TO BATTERY CHARGER.
- $\langle 8 \rangle$ NOT USED.
- \langle 9 \rangle PROVIDE & INSTALL 3/4" CONDUIT FOR COMMUNICATIONS CABLING.
- $\langle 10 \rangle$ provide & install 3/4" conduit to remote annunciator.
- $\langle 11 \rangle$ provide 3 #3 AWG, 1 #8 AWG ground in 1" conduit.

440 NORTH BROAD STREET PHILADELPHIA, PA 19130 - 4 (215) 400 - 4730 (215) 400 - 4737	
www.philasd.org	
BRIAN A. SEIP	DATE
PA EEnnnnn	08/14/19
ADDENDUM #1 04 OCT 2019	
ADDENDUM #1 04 OCT 2019	
	SION
04 OCT 2019]
04 OCT 2019	M. SCHOO
04 OCT 2019 04 OC	M. SCHOO
04 OCT 2019	M. SCHOO T. 19126
04 OCT 2019	M. SCHOO T. 19126
04 OCT 2019	M. SCHOO T. 19126 CEMENT E-LINE
04 OCT 2019 04 OCT 2019 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	M. SCHOO T. 19126 CEMENT E-LINE
04 OCT 2019 04 OCT 2019 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	M. SCHOO T. 19126 CEMENT E-LINE IEDULES
04 OCT 2019 04 OCT 2019 0 <td>M. SCHOO</td>	M. SCHOO
04 OCT 2019 04 OCT 2019 0 <td>M. SCHOO</td>	M. SCHOO
04 OCT 2019 04 OCT 2019 0 <td>M. SCHOO T. 19126 ACEMENT E-LINE IEDULES</td>	M. SCHOO T. 19126 ACEMENT E-LINE IEDULES
04 OCT 2019 04 OCT 2019 0 <td>M. SCHOO T. 19126 ACEMENT E-LINE IEDULES</td>	M. SCHOO T. 19126 ACEMENT E-LINE IEDULES