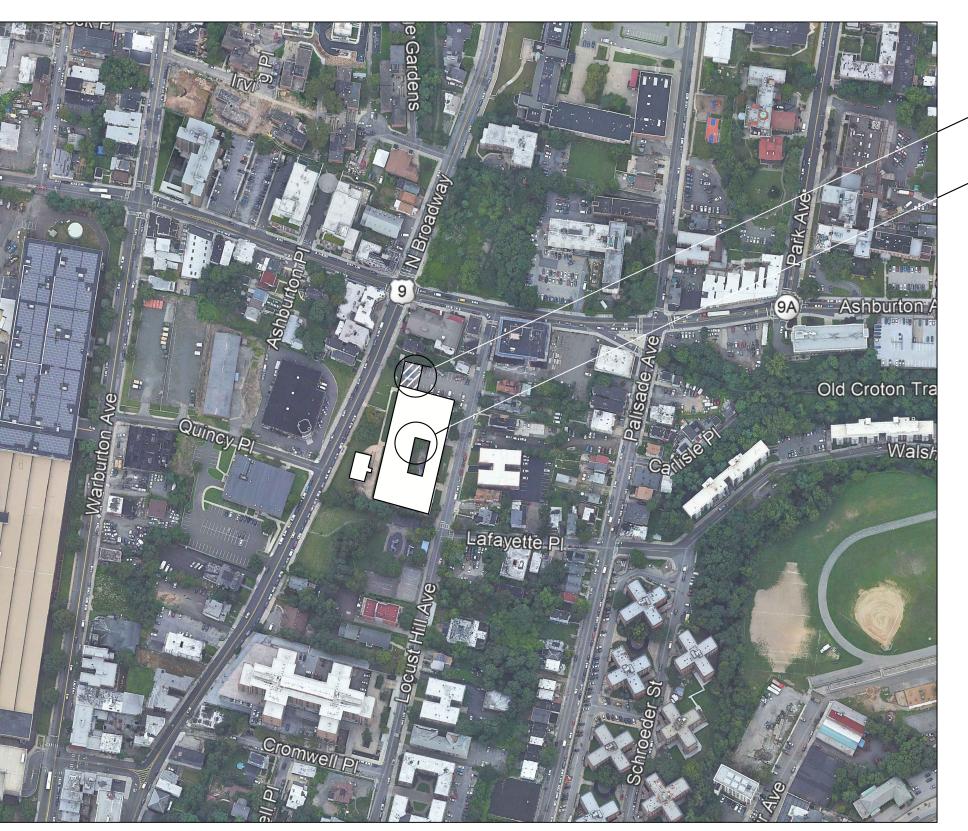
NO.	ISSUANCE	DATE	REVISION	
1	PROGRESS SET	08/24/2020		
2	S.E.D. SUBMISSION	04/09/2021		
3	ISSUED FOR BID	11.22.2022		
LIST	OF DRAWINGS			
<u>SITE</u> C-100	SITE PLAN			
<u>STRUCTUR</u> S-102 S-204	PARKING AREA FOUNDATION & FRAMING PLA		ILS	
ARCHITECT A-100 A-101 A-150	EXISTING GROUND FLOOR AND REFLECTED ( EXISTING INTERIOR ELEVATIONS	CEILING PLANS		
<u>MECHANIC</u> M-001 M-110	<u>AL</u> ABBREVIATIONS AND SYMBOLS PARTIAL GROUND FLOOR PLAN - TANK ROOM	- DEMOLITION AND NE	W WORK	
ELECTRICA E-001 E-110 E-111	ABBREVIATIONS AND SYMBOLS PARTIAL GROUND FLOOR PLAN - TANK ROOM PARTIAL FIRST FLOOR PLAN - NEW WORK ANI		W WORK	
PLUMBING P-001 P-110 P-111	ABBREVIATIONS AND SYMBOLS PARTIAL GROUND FLOOR PLAN - TANK ROOM PARTIAL FIRST FLOOR PLAN - NEW WORK, DE			
				٨





TANK ROOM

PROJECT LOCATION MAP SCALE: N.T.S.

DESIGN TEAM:

# **EISENBACH & RUHNKE ENGINEERING**, P.C.

291 Genesee Street Utica, NY 13501 phone: 315.735.1916 fax: 315.735.6365

# CONSULTANTS:

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# ZANGRILLI ENGINEERING

322 Oriskany Boulevard Whitesboro, NY 13492 phone: 315.736.7011

> S.E.D. # 66-23-00-01-0-233-009 **STORAGE AREA RENOVATIONS BID SET**

# YONKERS PUBLIC SCHOOLS

One Larkin Center, Yonkers, New York 10701

# STORAGE AREA RENOVATIONS MARTIN LUTHER KING, JR. ACADEMY

MARTIN LUTHER KING, JUNIOR ACADEMY 135 LOCUST AVENUE, YONKERS, NY 10701



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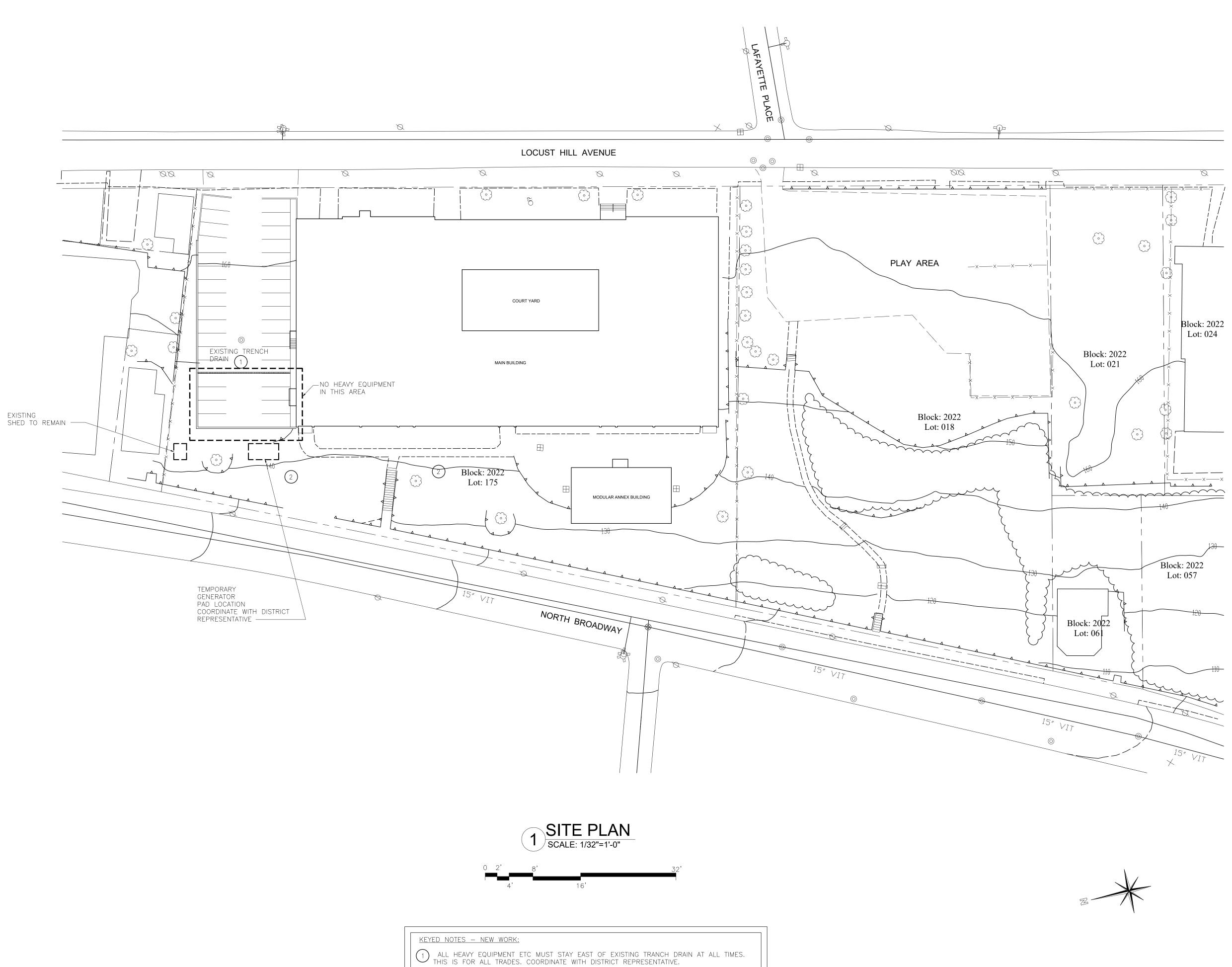
John P. Carr Executive Director School Facilities Management



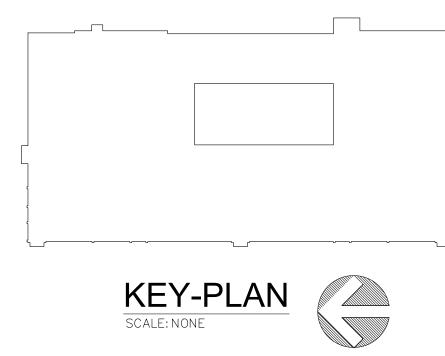
# YPS JOB # 10875

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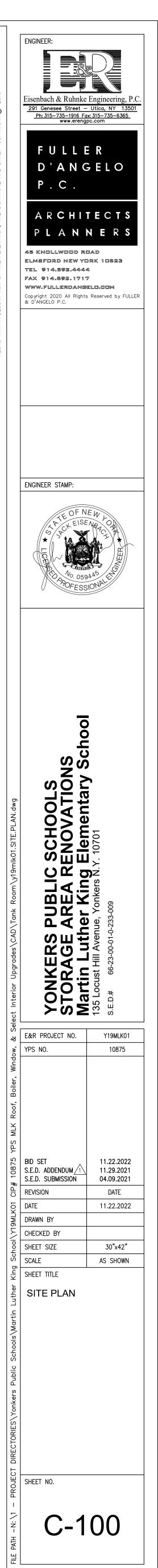
11-22-2022



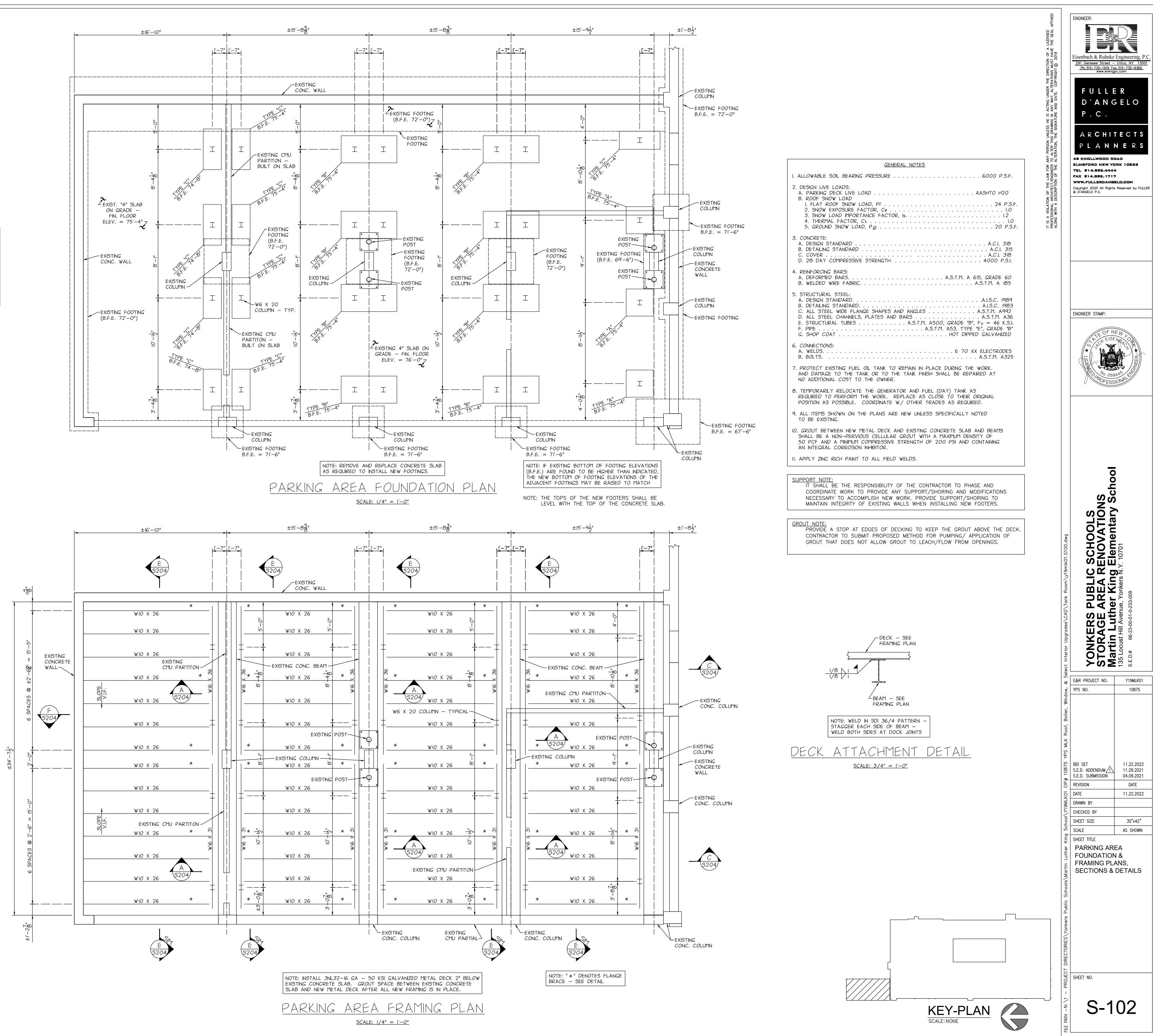
2 MOBILIZATION WILL BE A AREA BEHIND THE BUILDING. COORDINATE WITH DISTRICT REPRESENTATIVE.

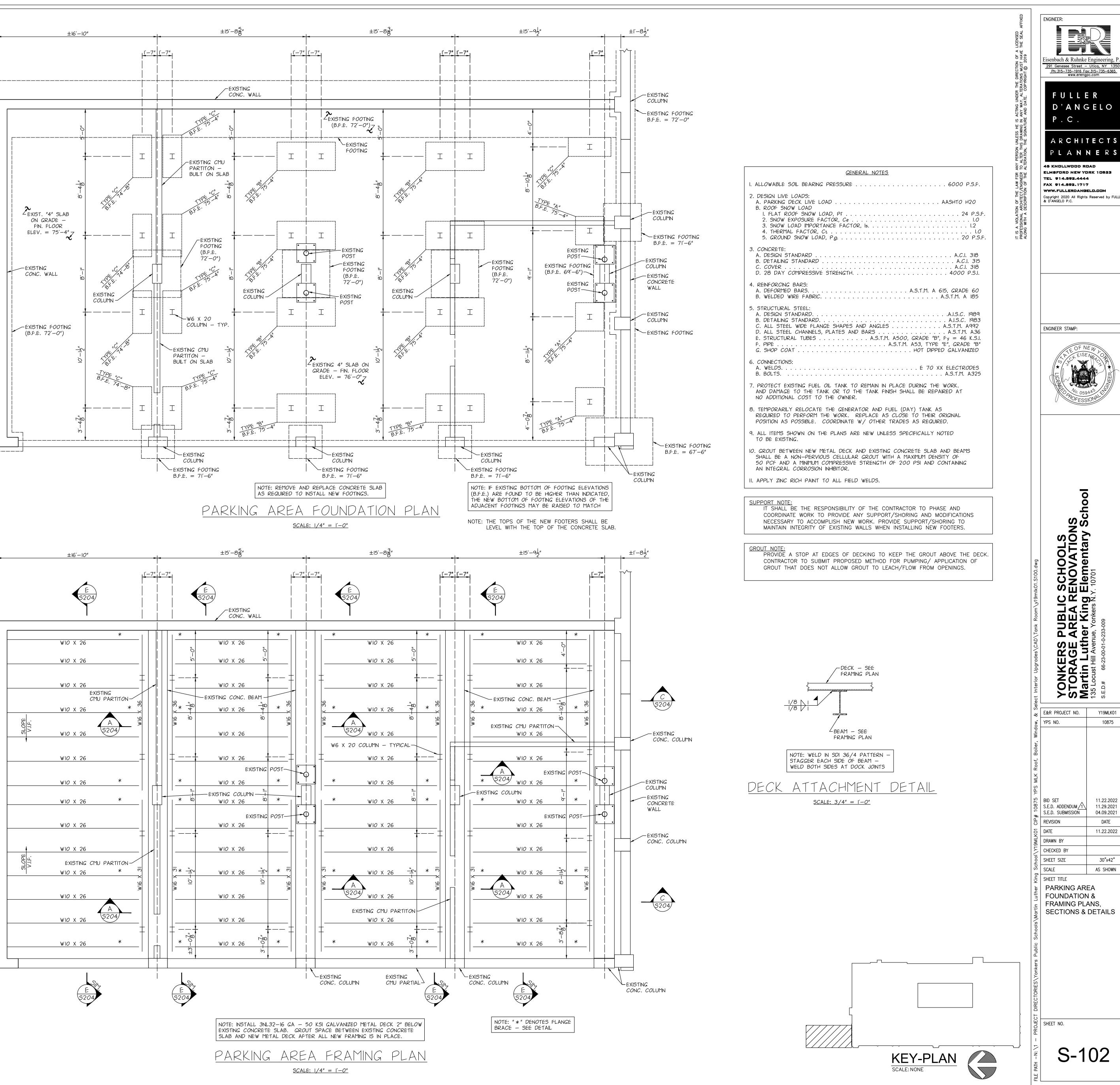


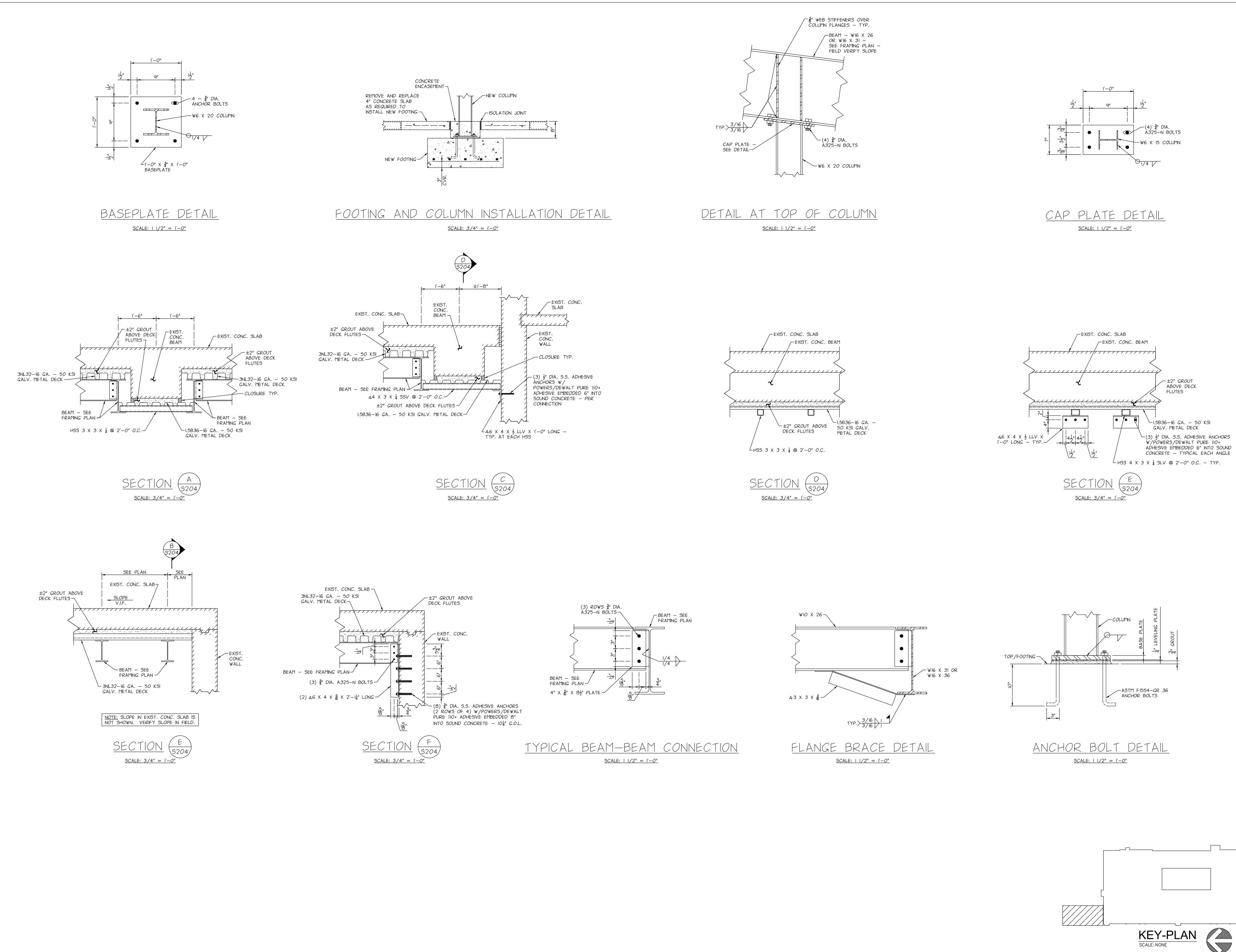
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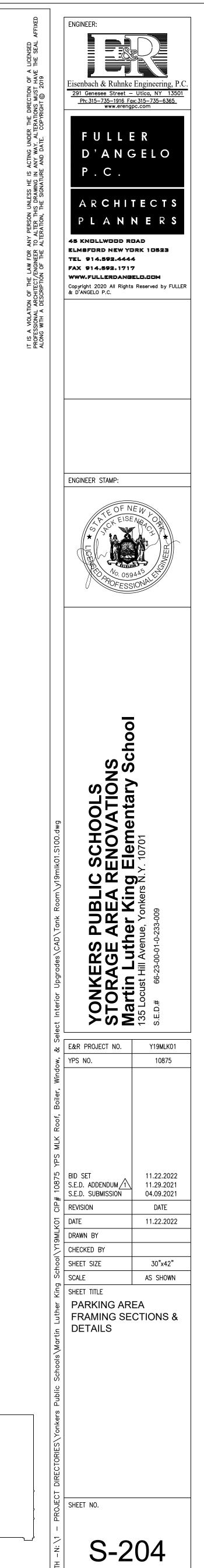


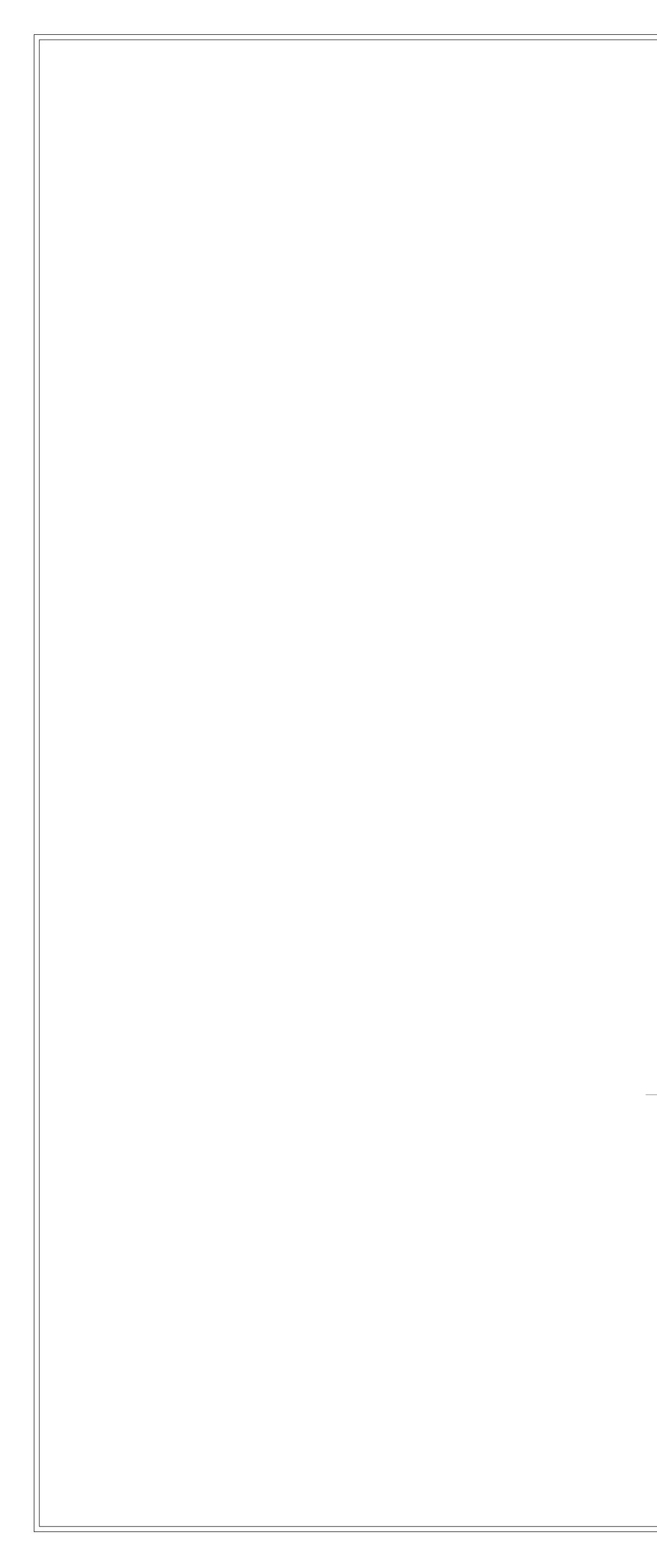
	FOOTING S	SCHEDULE
TYPE	SIZE	REINFORCING
А	3'-0" X 3'-0" X I'-2"	5 – #4 BARS EACH WAY
В	6'-2" X 3'-0" X I'-2"	5 – #4 BARS LONG – TOP AND BOTTOM 10 – #4 BARS SHORT – TOP AND BOTTOM
С	4'-6" X 2'-0" X I'-4"	5 – #4 BARS LONG 9 – #4 BARS SHORT

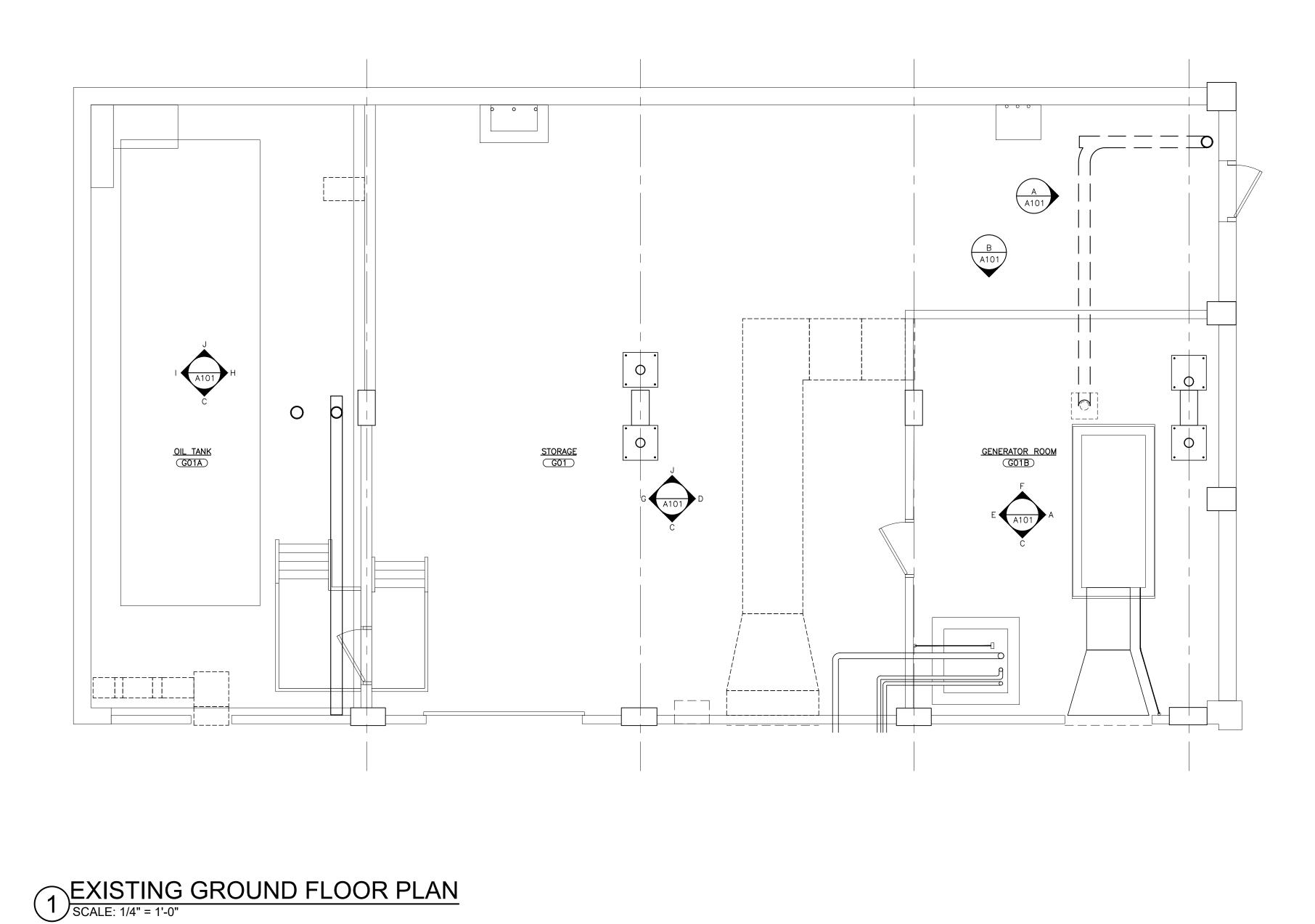


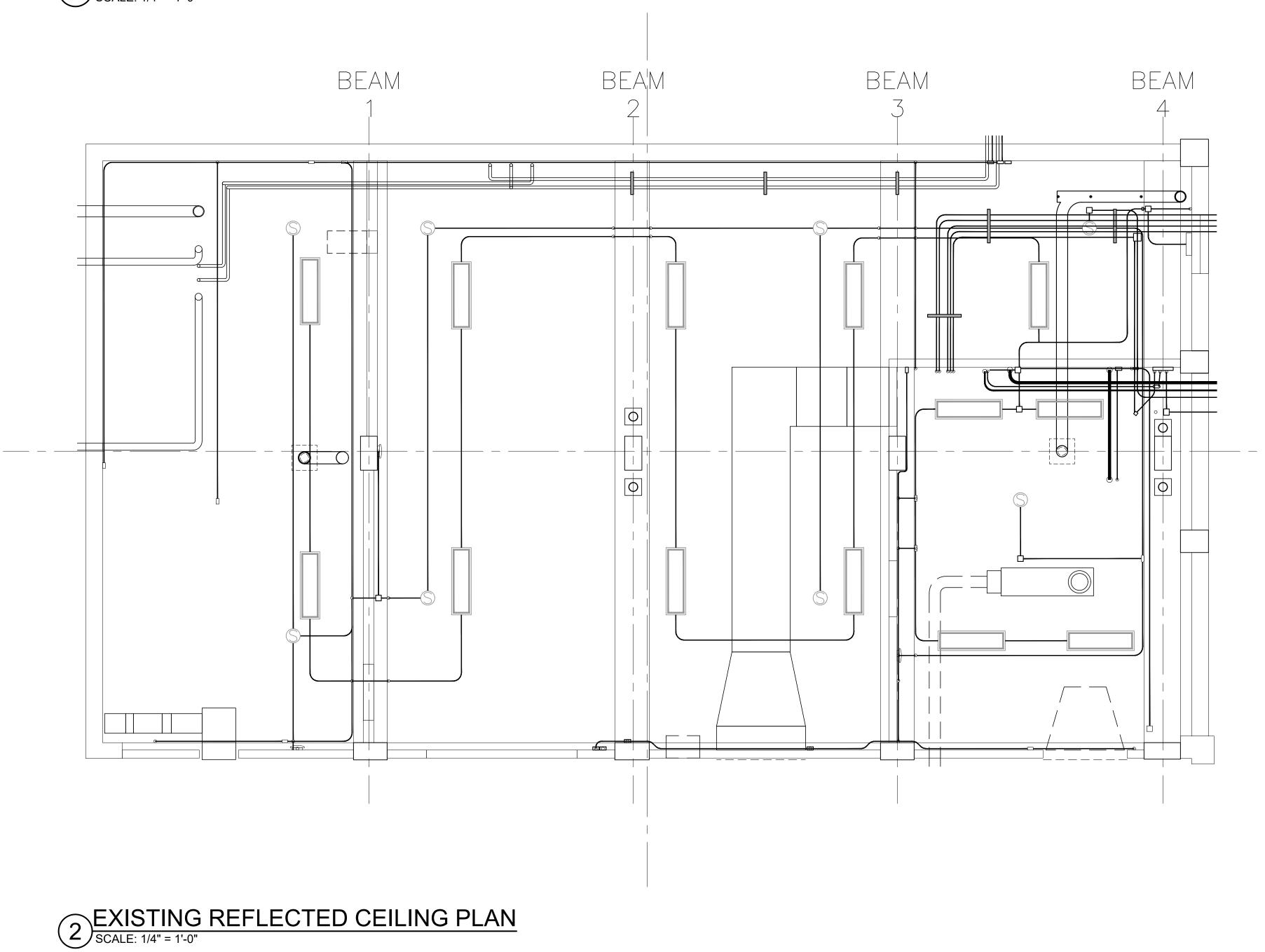


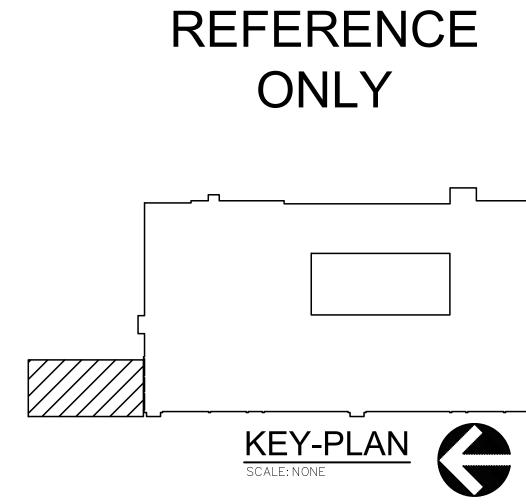






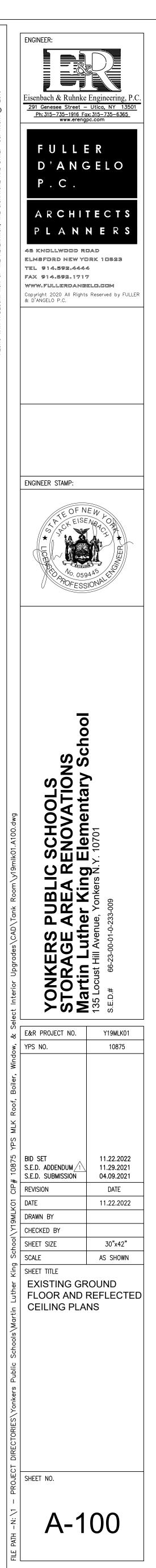






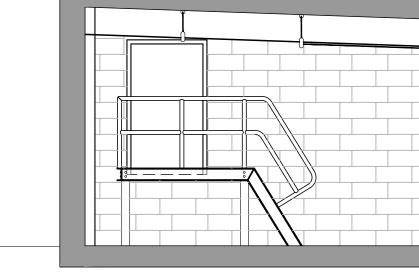
FOR

IT IS A VIOLATION OF THE LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ARCHITECT/ENGINEER TO ALTER THIS DRAWNG IN ANY WAY. ALTERATIONS MUST HAVE THE SEAL AFFIXED ALONG WITH A DESCRIPTION OF THE ALTERATION, THE SIGNATURE AND DATE. COPYRIGHT © 2019

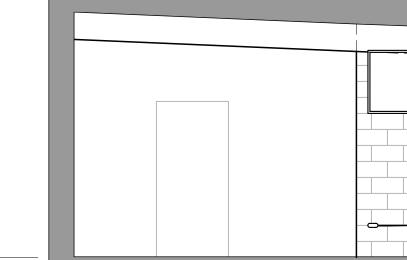


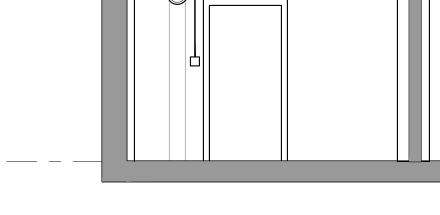
# INTERIOR ELEVATION SCALE: 1/4" = 1'-0"

G INTERIOR ELEVATION SCALE: 1/4" = 1'-0"

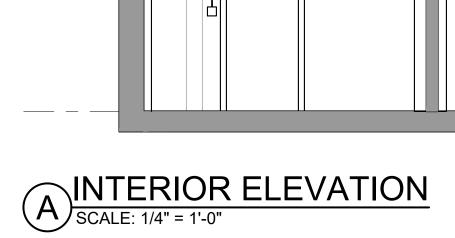


# DINTERIOR ELEVATION SCALE: 1/4" = 1'-0"





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BEAM 4	BEAN 3

# B INTERIOR ELEVATION SCALE: 1/4" = 1'-0"

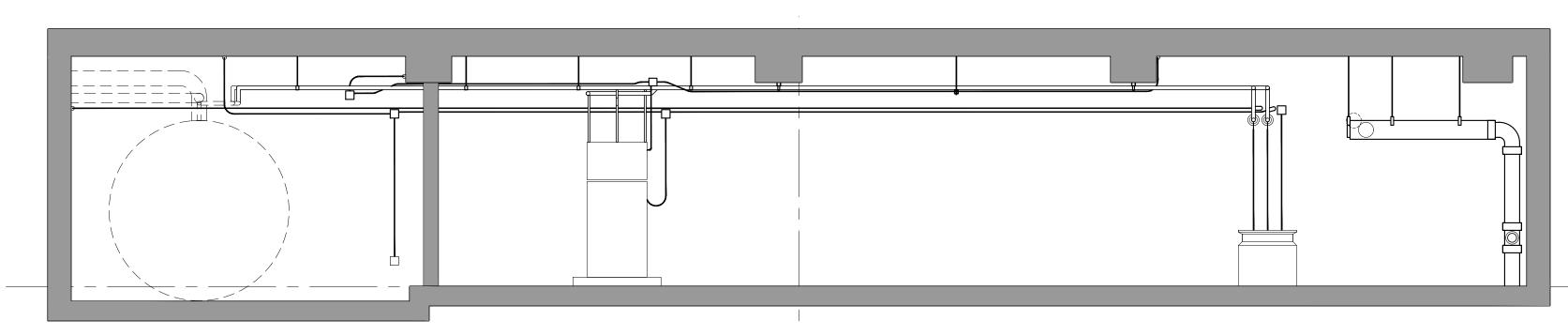
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# CINTERIOR ELEVATION SCALE: 1/4" = 1'-0"

# E INTERIOR ELEVATION SCALE: 1/4" = 1'-0"

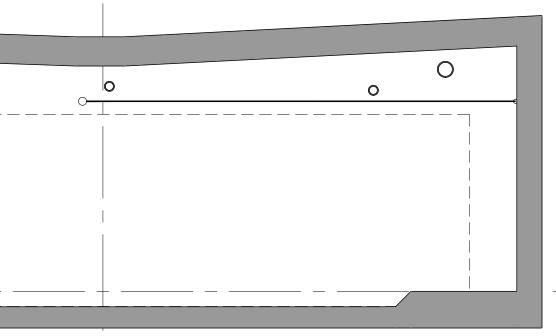
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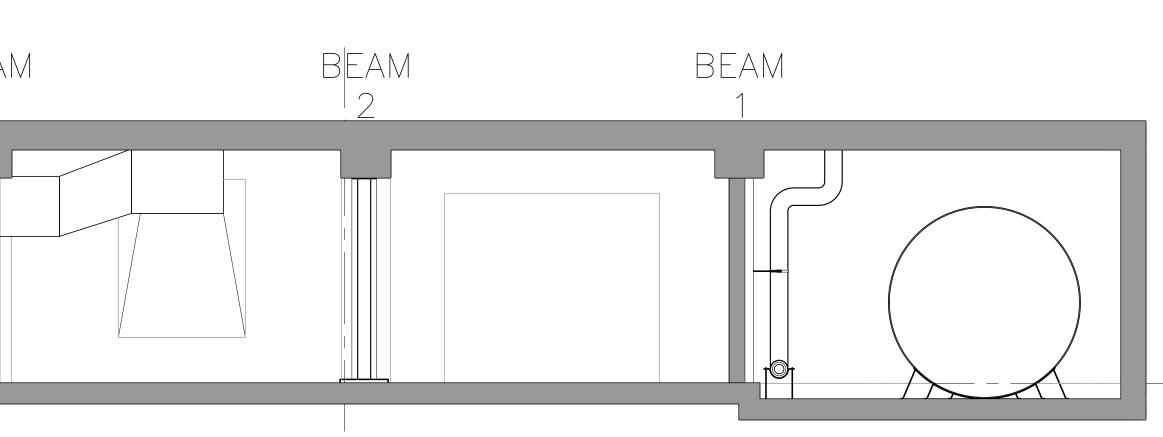
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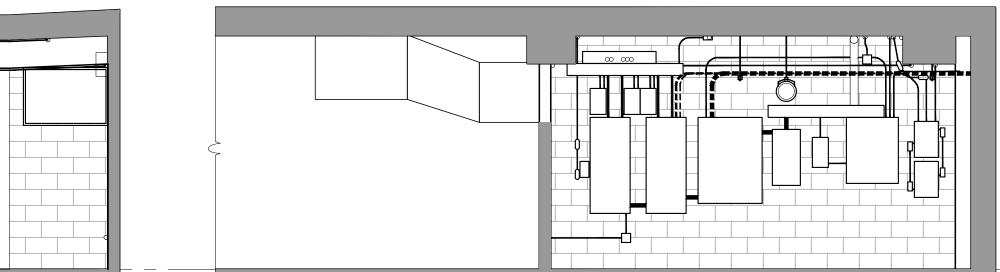


J INTERIOR ELEVATION SCALE: 1/4" = 1'-0"

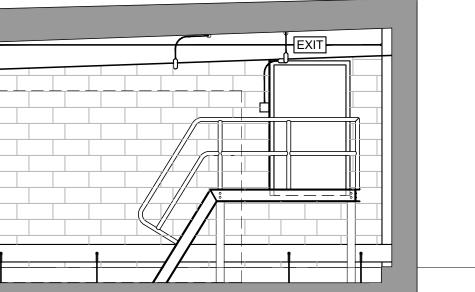
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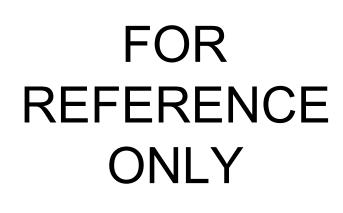






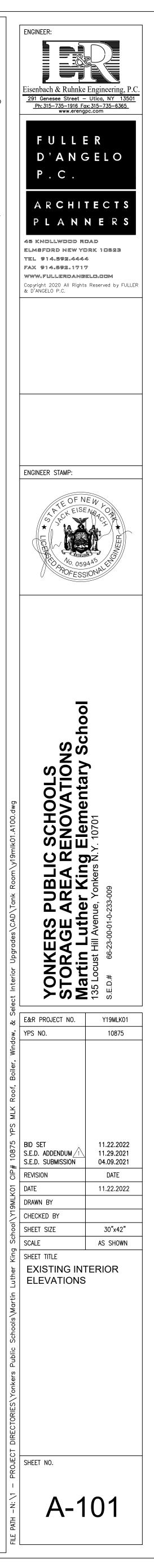


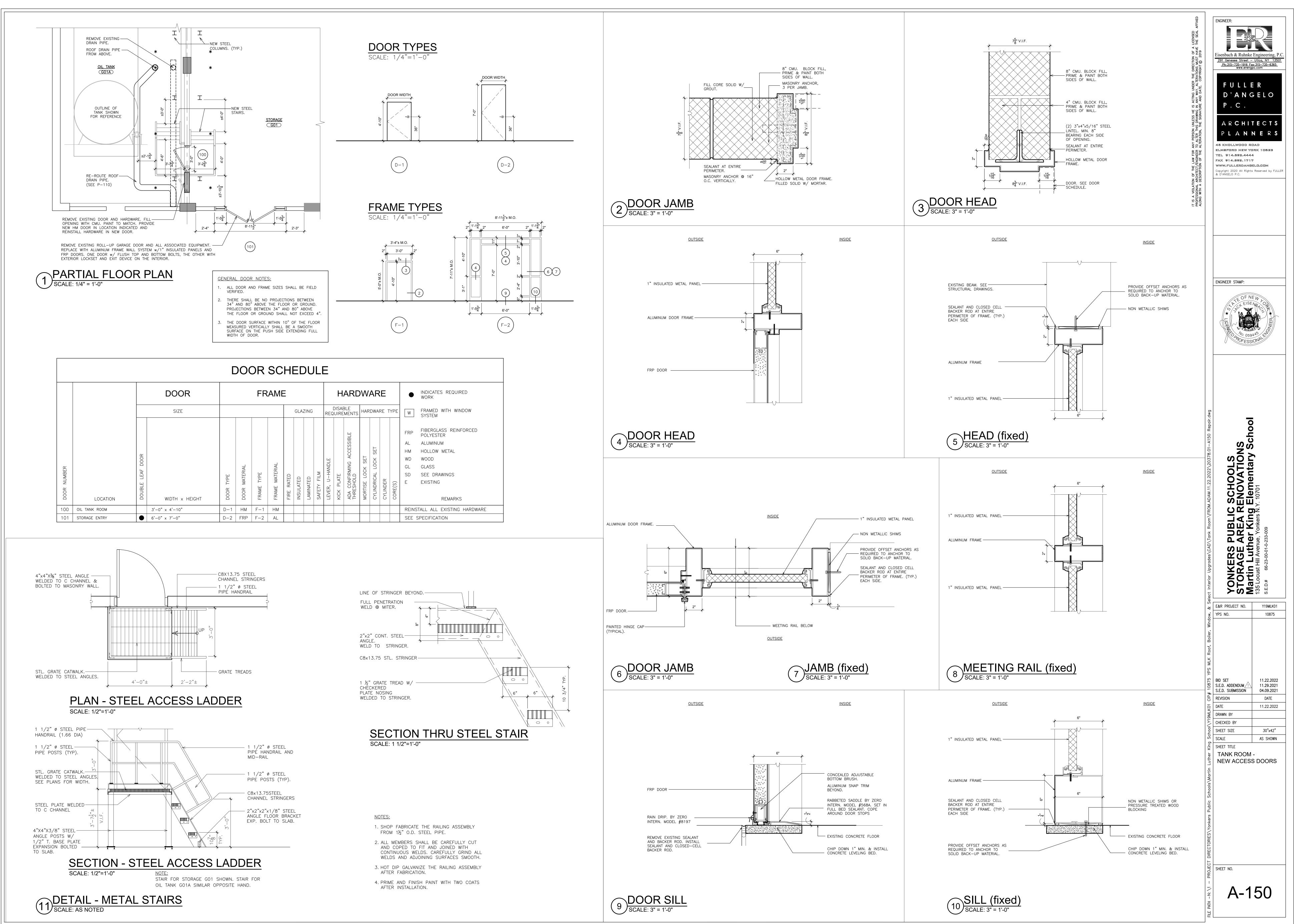




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# MECHANICAL GENERAL NOTES:

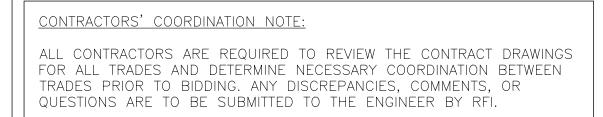
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. IT IS NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT; HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFICALLY SPECIFIED TO MAKE THE SYSTEMS BEING INSTALLED COMPLETE, CODE COMPLIANT, TESTED AND OPERATIONAL.
- . CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 3. ALL MATERIALS, EQUIPMENT, METHODS OF INSTALLATION, REMOVALS AND DISPOSAL SHALL BE IN ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
- 4. PERFORM WORK, PROVIDE MATERIALS AND EQUIPMENT FOR SYSTEMS SHOWN, SPECIFIED AND DESCRIBED ON DRAWINGS. COMPLETELY COORDINATE ALL TRADES OF THIS CONTRACT AND PROVIDE COMPLETE AND FULLY FUNCTIONAL INSTALLATION. ALL WORK IN THIS SET TO BE COMPLETED UNDER THIS CONTRACT, UNLESS OTHERWISE INDICATED.
- . PROTECT ALL EXISTING AND NEW BUILDING ELEMENTS (INSTALLED BY OTHER CONTRACTS) FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL DAMAGED ELEMENTS TO ORIGINAL OR BETTER CONDITION.
- 6. WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN MANUFACTURER'S EQUIPMENT CLEARANCES.
- 8. CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND TESTING SYSTEMS TO ALLOW FOR COMPLETION OF WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER AND UTILITY AS APPLICABLE. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER, UTILITY AND COORDINATED WITH OTHER TRADE WORK.
- 9. ALL EQUIPMENT PIPING, WIRING, INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- 10. SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS AND FLOORS WITH UL RATED MATERIALS/METHODS EQUIVALENT TO FIRE RATING OF ASSEMBLY.
- 1. COORDINATE ALL WALL/FOUNDATION PENETRATIONS WITH GENERAL CONTRACT AND SEAL WEATHERTIGHT. PROVIDE STAINLESS STEEL ESCUTCHEON PLATE/TRIM RING FOR EACH ABOVE GRADE PENETRATION (BOTH SIDES).
- 12. PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS/DOORS SHALL BE A MINIMUM OF 12"x12", UNLESS OTHERWISE NOTED.
- 13. DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. ALL SUPPORT SHALL BE FROM BUILDING STRUCTURE OR FROM CEILING SUSPENSION SYSTEM WHICH HAS BEEN REINFORCED. SUPPORTS SHALL BE SELECTED AND INSTALLED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 14. CLEANING DURING MECHANICAL WORK: THE MECHANICAL ROOM AND ROOMS WHERE WORK WILL BE DONE TO MINIMIZE DISTURBANCE IN THE BUILDINGS. WORKERS ARE TO USE PATHWAYS AND FACILITIES AGREED UPON WITH THE DISTRICT DESIGNEE IN WRITING. THE AREA OUTSIDE THE BUILDING WHERE CUTTING WELDING OR STORAGE IS ALLOWED IS TO BE FENCED AT ALL TIMES. THE CONTRACTOR WILL ON A DAILY BASIS CLEAN THE GROUNDS AND THE BUILDING OF ANY DEBRIS OR GARBAGE GENERATED BY THEIR WORK.
- 5. AIR CONDITIONER INSTALLATION TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
- 16. VFDS ARE TO BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.

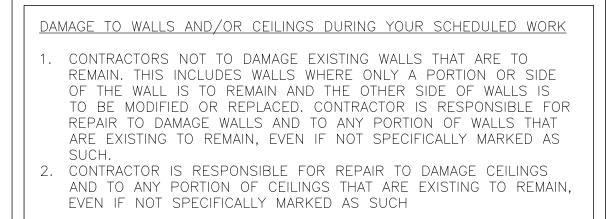
# HVAC REMOVAL NOTES:

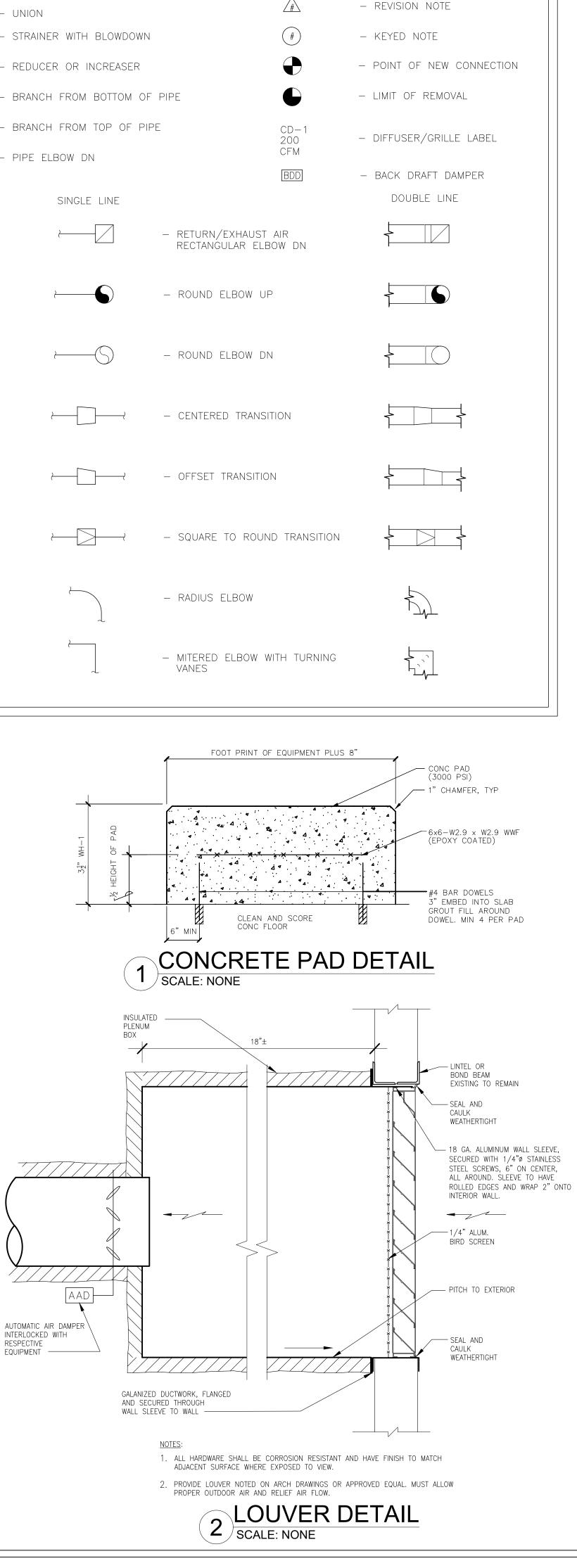
- THE SCOPE OF REMOVAL SHOWN ON "REMOVALS" DRAWING IS DIAGRAMMATIC ONLY AND INDICATES THE INTENT OF THE WORK TO BE PERFORMED AND NOT THE COMPLETE SCOPE OF DEMOLITION AND/OR REMOVAL WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ANY RELATED MECHANICAL DEVICES/ITEMS EVEN IF NOT SPECIFICALLY INDICATED TO BE REMOVED ON THESE DRAWINGS IN ORDER TO ACCOMODATE NEW WORK.
- EQUIPMENT/ITEMS SHOWN CROSS HATCHED ON DRAWINGS ARE ITEMS TO BE REMOVED. ANY DEVICES/ITEMS REMOVED SHALL INCLUDE (BUT SHALL NOT BE LIMITED TO) THE REMOVAL OF ALL ASSOCIATED PIPING, CONTROLS, ETC. THAT ARE NOT INCORPORATED IN THE NEW LAYOUT. THE CONTRACTOR SHALL PERFORM ALL WORK REQUIRED TO INSURE CONTINUITY OF SERVICE TO EXISTING REMAINING EQUIPMENT. NO EXTRAS RELATING TO THE SCOPE OF WORK DESCRIBED WILL BE ALLOWED.
- EQUIPMENT, PIPING, ETC. REQUIRED TO RECONNECT SHALL BE INSTALLED CONCEALED WITHIN THE SUSPENDED CEILINGS, PARTITIONS AND/OR WALLS, FLOORS. NO SURFACE MOUNTED OR EXPOSED EQUIPMENT, PIPING, ETC., SHALL BE PERMITTED, UNLESS SPECIFICALLY INDICATED.
- ALL ITEMS TO BE REMOVED SHALL BE REVIEWED WITH THE OWNER PRIOR TO REMOVAL. OWNER SHALL HAVE FIRST SALVAGE RIGHTS. ITEMS THE OWNER WISHES TO KEEP SHALL BE REMOVED WITH CARE AND STORED AS DIRECTED BY OWNER. ITEMS THE OWNER DOES NOT WISH TO KEEP SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

		<u>_M</u> E	ECHANICAL SYMBOLS
T F P T H	<ul> <li>THERMOSTAT – ARROW INDICATES DEVICE/ZONE CONTROL</li> <li>FREEZESTAT</li> <li>STATIC PRESSURE SENSOR</li> <li>TEMPERATURE SENSOR W/CONTROL WIRING AND 1/2" CONDUIT WITH CLEAR PLASTIC GUARD(LOCKABLE)</li> <li>HUMIDITY SENSOR</li> </ul>		<ul> <li>NEW PIPING, DUCTWORK, AND EQUIPMENT</li> <li>EXISTING TO REMAIN PIPING, DUCTWORK, AND EQUIPMENT</li> <li>PIPING, DUCTWORK, AND EQUIPMENT FOR REMOVAL</li> <li>BALL VALVE</li> <li>CIRCUIT SETTER</li> <li>CHECK VALVE</li> </ul>
⟨F⟩ DSD VFD Ø ✓ ✓	<ul> <li>FLOW SENSOR</li> <li>DUCT SMOKE DETECTOR</li> <li>VARIABLE FREQUENCY DRIVE</li> <li>ROUND DUCTWORK</li> <li>4- WAY CEILING SUPPLY DIFFUSER</li> <li>CEILING EXHAUST/RETURN REGISTER</li> <li>FLOW ARROW</li> </ul>		<ul> <li>CONTROL VALVE - 2 WAY</li> <li>DRAIN VALVE WITH HOSE BIB</li> <li>UNION</li> <li>STRAINER WITH BLOWDOWN</li> <li>REDUCER OR INCREASER</li> <li>BRANCH FROM BOTTOM OF PIPE</li> <li>BRANCH FROM TOP OF PIPE</li> </ul>
SINGLE LINE	<ul> <li>CIRCUIT SETTER</li> <li>MANUAL VOLUME DAMPER</li> <li>AUTOMATIC AIR DAMPER INTERLOCKED WITH EQUIPMENT</li> <li>DUCT SMOKE DETECTOR</li> </ul>	DOUBLE LINE	- PIPE ELBOW DN SINGLE LINE →
	<ul> <li>FLEXIBLE CONNECTION</li> <li>SUPPLY/OUTSIDE AIR RECTANGULAR ELBOW UP</li> </ul>		→ CE → OF
	- SUPPLY/OUTSIDE AIR RECTANGULAR ELBOW DN		→ → − SQ
	<ul> <li>RETURN/EXHAUST AIR RECTANGULAR ELBOW UP</li> <li>45° DEGREE LEADING EDGE BRANCH TAKEOFF</li> </ul>		- RA

SPECIALIZED INSPECTIONS NOTE: ORGANIZATION/ SOLICITATION OF SPECIAL INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE DISTRICT.







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- PIPE ELBOW UP

– GAUGE WITH BALL VALVE

– AUTOMATIC AIR VENT

– MANUAL AIR VENT

- PIPE FLOW ARROW

– PIPE CAP

→ → → − PIPE BREAK

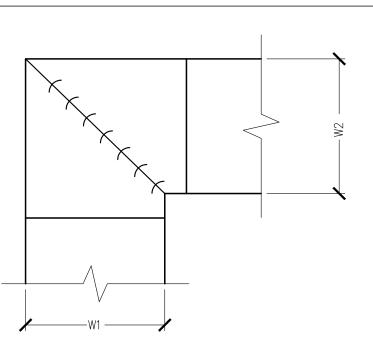
		EDGE.
	4.	WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 20" VANES SHALL BE DOUBLE VANES TYPE.
		UCTWORK SQUARE
$\bigcirc$		ANE ELBOWS DETAIL

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED

THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.

2. WHEN W1 DOES NOT EQUAL W2 VANE SHALL BE SINGLE

3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" RADIUS, 1½" MAXIMUM SPACE BETWEEN VANES AND A  $\frac{3}{4}$ " TRAILING

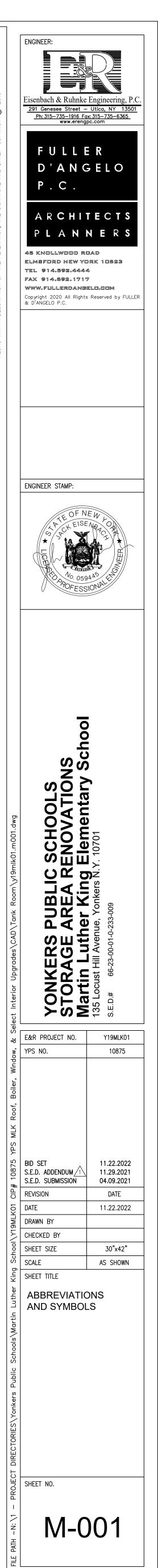


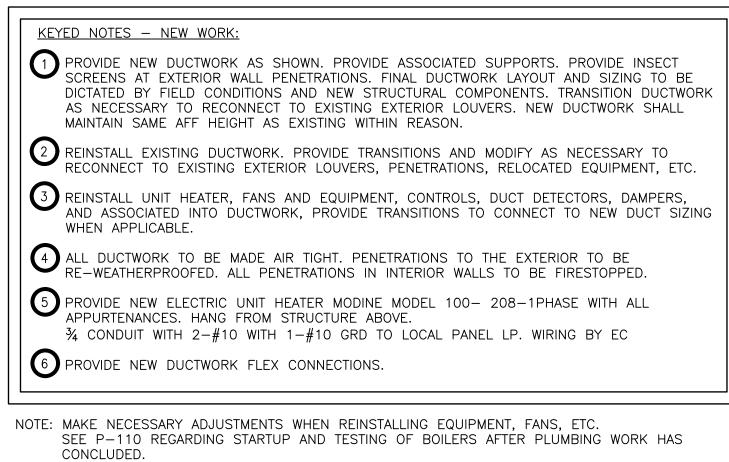
NOTES:

AS DETAILED BY SMACNA.

	HVAC ABBREVIATIONS
AAD	AUTOMATIC AIR DAMPER
	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
	AMPERAGE
	BACKDRAFT DAMPER BRAKE HORSEPOWER
3HP 3MS	BUILDING MANAGEMENT SYSTEM
	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
СН	CABINET HEATER
	CEILING
	CONDENSATE DRYBULB TEMPERATURE
DB DDC	DIRECT DIGITAL CONTROL (SYSTEM)
DEG	DEGREE
AIC	DIAMETER
NC	DOWN
ЭР	DEWPOINT TEMPERATURE
)X	DIRECT EXPANSION
EA EAT	EXHAUST AIR ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
ESP	EXTERNAL STATIC PRESSURE
EXH -	EXHAUST
= FD	FAHRENHEIT FIRE DAMPER
FF	FINAL FILTER
	FLOOR
-PM	FEET PER MINUTE
FSTAT	FREEZESTAT
FSTAT FT	FREEZESTAT FEET
ESTAT ET ET HD	FREEZESTAT FEET FEET OF HEAD
ESTAT ET ET HD	FREEZESTAT FEET
ESTAT ET ET HD ET WG	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE
ESTAT ET HD ET WG EV	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY
FSTAT FT HD FT WG FV G GAL GPM	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE
FSTAT FT HD FT WG FV G GAL GPM HD	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD
FSTAT FT HD FT WG FV G GAL GPM HD HP	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER
FSTAT FT HD FT WG FV G GAL GPM HD HP	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR INTAKE
FSTAT FT HD FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP
FSTAT FT HD FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA DA DA R	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR INTAKE
FSTAT FT HD FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA DA CA RA	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA DA CA CA CA CA CA CA CA	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE RETURN AIR
FSTAT FT HD FT WG FV G GAL GPM HD HD HP MAT MAU MBH MCA DA DA DA DA RA RL RPM RS	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE RETURN AIR REFRIGERANT LIQUID REFOLUTIONS PER MINUTE REFRIGERANT SUCTION
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA CA CA CA CA CA CA CA CA CA C	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE RETURN AIR REFRIGERANT LIQUID REVOLUTIONS PER MINUTE REFRIGERANT SUCTION SATISFACTORY
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA CA CA CA CA CA CA CA CA CA C	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR REFRIGERANT LIQUID REFOLUTIONS PER MINUTE REFRIGERANT SUCTION SATISFACTORY SUPPLY AIR TEMPERATURE
FSTAT FT HD FT WG FV G GAL GPM HD HD HD HP MAT MAU MBH MCA DA DA DA DA CA DA RA RL RPM RS S SAT SEN	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE RETURN AIR REFRIGERANT LIQUID REVOLUTIONS PER MINUTE REFRIGERANT SUCTION SATISFACTORY
FSTAT FT HD FT WG FV G GAL GPM HD HP MAT MAU MBH MCA DA DA DA DA CA SA RA RL RPM RS SAT SEN SG	FREEZESTAT FEET FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR OUTSIDE AIR INTAKE PRESSURE DROP REMOVE RETURN AIR REFRIGERANT LIQUID REFRIGERANT SUCTION SATISFACTORY SUPPLY AIR TEMPERATURE SENSIBLE HEAT
FSTAT         FT         FT         FT         FT         WG         FV         G         GAL         GPM         HD         HP         MAU         MBH         MCA         DA         PD         R         RA         RL         RPM         RS         SAT         SG         SP	FREEZESTAT FEET FEET OF HEAD FEET OF HEAD FEET OF WATER GAUGE FACE VELOCITY GAS GALLON GALLONS PER MINUTE HEAD HORSEPOWER MIXED AIR TEMPERATURE MIXED AIR TEMPERATURE MAKE-UP AIR UNIT 1,000 BTU/HR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR MINIMUM BRANCH CIRCUIT AMPACITY OUTSIDE AIR OUTSIDE AIR REFRIGERANT ILQUID REFOLUTIONS PER MINUTE REFRIGERANT SUCTION SATISFACTORY SUPPLY AIR TEMPERATURE SENSIBLE HEAT SPECIFIC GRAVITY
FSTAT         FT         FT         FT         HD         FV         G         GAL         GPM         HD         HP         MAT         MAU         MBH         MCA         DA         DA         PD         RA         RL         RPM         RS         SAT         SEN         SG         SP         TAB         TSTAT	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIROUTSIDE AIR INTAKEPRESSURE DROPRETURN AIRREFRIGERANT LIQUIDREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTAT
FSTAT         FT         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         HD	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIRPRESSURE DROPREMOVERETURN AIRREFRIGERANT LIQUIDREVOLUTIONS PER MINUTEREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICAL
FSTAT         FT         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         HD         HD         HD         HD         HD         HD         MAU         MAD         MAD         MAD         MAD         MCA         CD         R         R         R         R         R         R         S	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIRPRESSURE DROPREMOVERETURN AIRREFRIGERANT LIQUIDREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICALVOLUME DAMPER
FSTAT         FT         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         HD	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIRPRESSURE DROPREMOVERETURN AIRREFRIGERANT LIQUIDREVOLUTIONS PER MINUTEREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICAL
FSTAT         FT         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         G         HD         HD         HD         HD         HD         HD         MAT         MAD         MAD         MAD         MAD         MAD         MAD         MAD         MAD         MAD         RA         RA         SG         SAT	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIROUTSIDE AIRRETURN AIRREFRIGERANT LIQUIDREVOLUTIONS PER MINUTEREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICALVOLUME DAMPERWETBULB
FSTAT         FT         FT </td <td>FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIROUTSIDE AIRRETURN AIRREFRIGERANT LIQUIDREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICALVOLUME DAMPERWETBULBWATER GAUGE</td>	FREEZESTATFEETFEET OF HEADFEET OF WATER GAUGEFACE VELOCITYGASGALLONGALLONS PER MINUTEHEADHORSEPOWERMIXED AIR TEMPERATUREMAKE-UP AIR UNIT1,000 BTU/HRMINIMUM BRANCH CIRCUIT AMPACITYOUTSIDE AIROUTSIDE AIRRETURN AIRREFRIGERANT LIQUIDREFRIGERANT SUCTIONSATISFACTORYSUPPLY AIR TEMPERATURESENSIBLE HEATSPECIFIC GRAVITYSTATIC PRESSURETESTING, ADJUSTING, BALANCETHERMOSTATTYPICALVOLUME DAMPERWETBULBWATER GAUGE

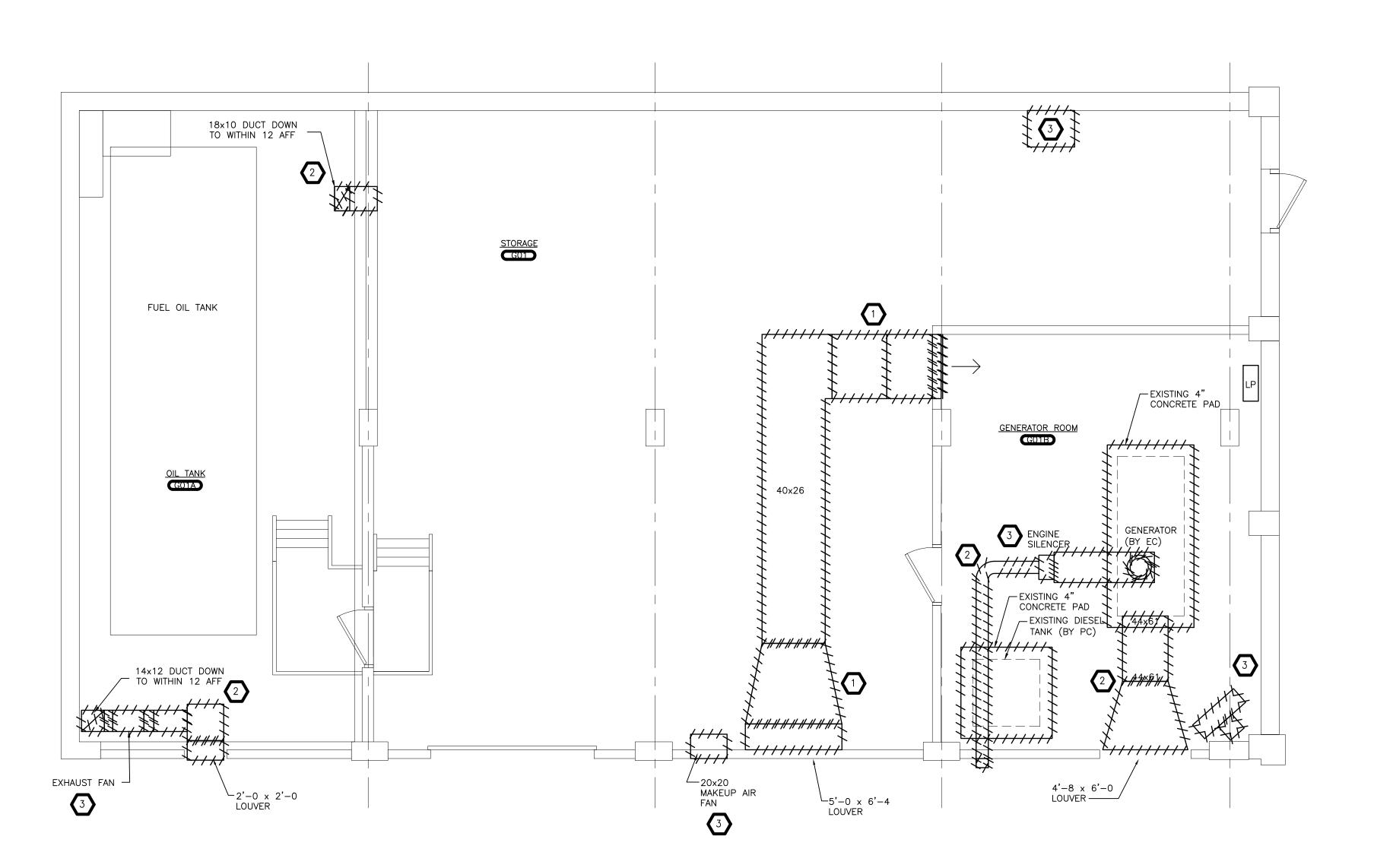
Ĕ₽́ SA SHE ACTIN ANY AND UNLESS HE IS IIS DRAWING IN THE SIGNATURE A 5 5 A REAG ¥ ₫P DEAD IT IS A VIOLATI PROFESSIONAL ALONG WITH A



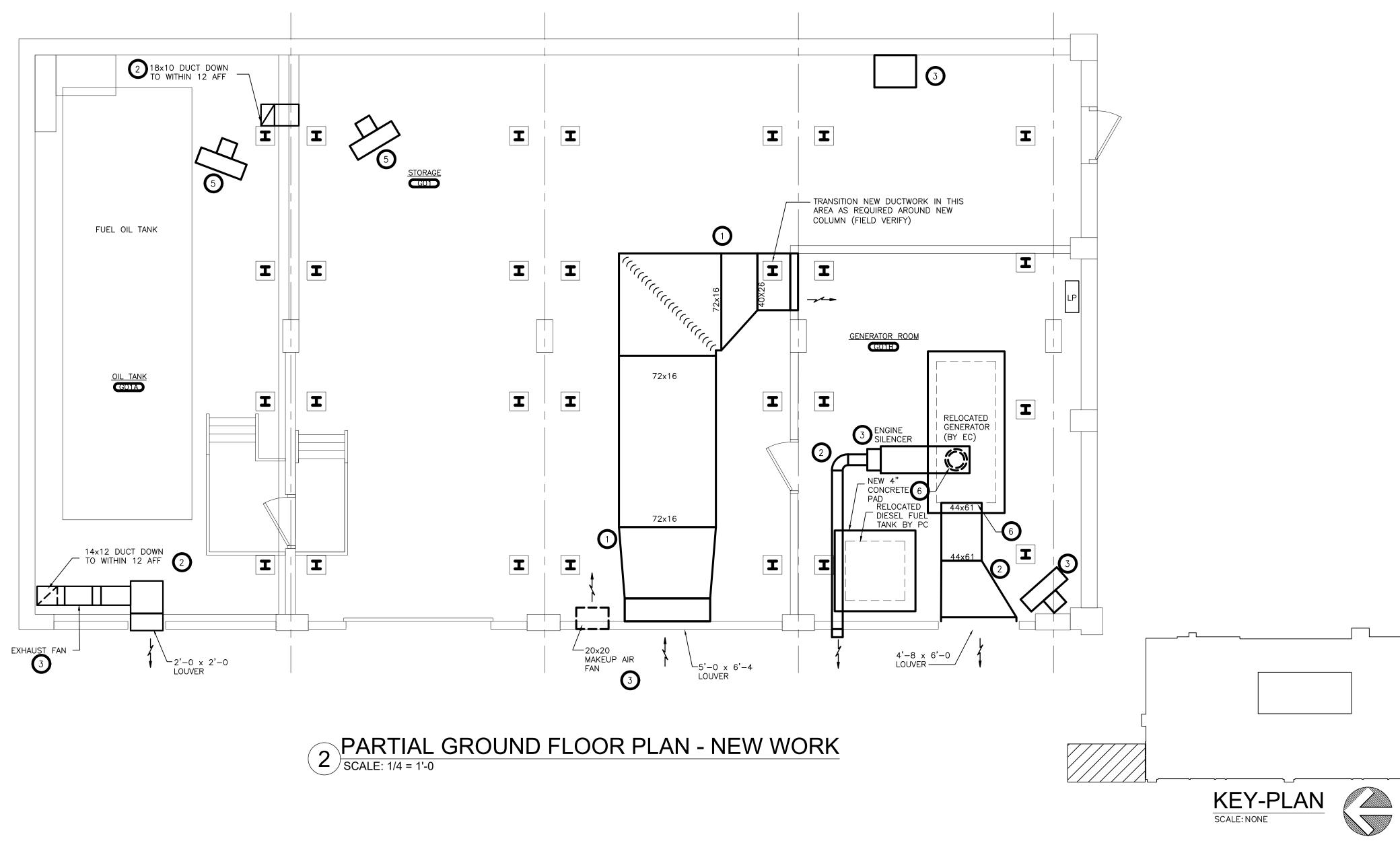


REMOVE EXISTING DUCTWORK, INSECT SCREENS, AND HANGERS. LOUVERS IN EXTERIOR WALLS TO REMAIN. PROVIDE TEMPORARY COVERINGS TO LOUVERS AND PENETRATIONS. AN EXISTING DAMPERS, DUCT DETECTORS, AND ASSOCIATED CONTROLS ARE TO BE REMOVED REMOVE INSULATION AND FIRESTOPPING.
REMOVE EXISTING DUCTWORK AND ASSOCIATED AND STORE IN OWNER SPECIFIED LOCATION FOR NECESSARY MODIFICATION AND LATER REINSTALLATION.
REMOVE EXISTING UNIT HEATER, FANS, ENGINE SILENCER, AND EQUIPMENT ALONG WITH ASSOCIATED CASING, SUPPORTS, AND CONTROLS. SAFELY STORE IN OWNER-SELECTED LOCATION FOR LATER REINSTALLATION.

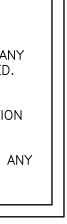
<u>KEYED NOTES - DEMOLITION:</u>

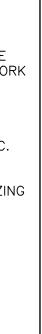




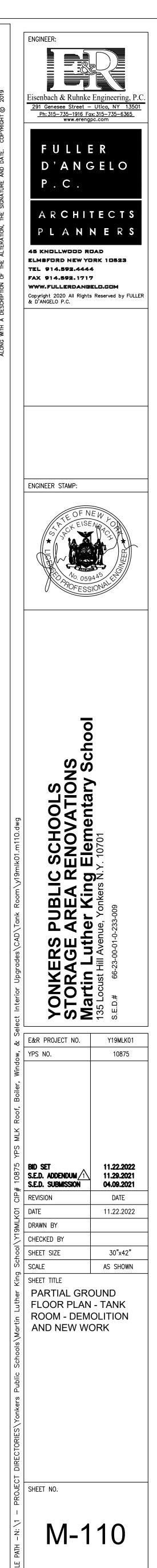








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		SYMBOLS LIST	<u>SPE</u>
<u>GENER</u>	AL SYMBOLS:	TELEPHONE/DATA SYMBOLS:	ACC
$\langle \# \rangle$	KEYED NOTE	DR DATA RACK	ACM
${\bf P}^{\!$	HEAVY LINE-WEIGHT INDICATES TO PROVIDE DEVICES/EQUIPMENT AS NEW	COMMUNICATIONS OUTLET #D INDICATES NUMBER OF DATA #D JACKS	
*	HEAVY LINE-WEIGHT WITH HASH MARKS INDICATES DEVICES/EQUIPMENT TO BE REMOVED	#T – INDICATES NUMBER OF TELEPHONE JACKS WAP – WIRELESS ACCESS POINT	
	INDICATES CONNECTION TO EXISTING	PRES – INDICATES PRESENTATION STATION OUTLET	REX
Č	INDICATES POINT OF DISCONNECT	PROJ – INDICATES PROJECTOR STATION OUTLET	IC
<sup>#</sup> ⊕ (E)	'(E)' NEXT TO LIGHT LINE-WEIGHT INDICATES EXISTING DEVICES/EQUIPMENT TO REMAIN	<u>one-line symbols:</u> ##A-#P	C1
#(ER)	'(ER)' NEXT TO LIGHT LINE-WEIGHT INDICATES EXISTING DEVICES/EQUIPMENT TO BE REMOVED	AND ##A	S
	RELOCATED. REFER TO DEFINITIONS FOR INFORMATION	o∰ FUSE	Ş
#(RE)	'(RE)' NEXT TO LIGHT LINE-WEIGHT INDICATES EXISTING DEVICES/EQUIPMENT TO BE		HS)
"Ψ	REINSTALLED. REFER TO DEFINITIONS FOR	• FUSED DISCONNECT SWITCH	
	INFORMATION	GROUND	
X <del>//////                               </del>	REMOVALS (EQUIPMENT,CONDUIT,WIRING ETC.)	100A.MLO	
	EXISTING TO REMAIN NEW WORK	PANELBOARD	<u>LIGH</u> (RE
POWER	R SYMBOLS:	FIRE ALARM SYMBOLS:	\$
# <b>P</b>	DUPLEX RECEPTACLE	► AUDIO/VISUAL SIGNALING DEVICE. NUMBER 30 denotes candela rating.	
#	QUAD RECEPTACLE	NFI VISUAL SIGNALING DEVICE. NUMBER	
#⊘	SPECIAL RECEPTACLE (NEMA CONFIGURATION AS INDICATED)	30 DENOTES CANDELA RATING.	C.
	MOTOR CONNECTION (REFER TO EQUIPMENT CONTROL SCHEDULE)	SMOKE DETECTOR. R SUBSCRIPT: PROVIDE SR ACCESSORY EQUIPMENT/WIRING/PROGRAMMING FOR ELEVATOR RECALL AND SHUNT TRIP.	
$\oplus$	ELECTRICAL CONNECTION	$\sim$	×#Ś
	CONTACTOR	H HEAT DETECTOR	×# 🦉
JB	JUNCTION BOX	MM MONITOR MODULE	×# 7
	DISCONNECT SWITCH (NON-FUSED)	DSD DUCT SMOKE DETECTOR	ک #×
	DISCONNECT SWITCH (FUSED)	[TTS] REMOTE TEST STATION	×# E <sub>1</sub>
•	PUSH BUTTON EM – INDICATES EMERGENCY SHUT-OFF	DH MAGNETIC DOOR HOLDER	
$\boxtimes$	MANUAL MOTOR STARTER	TS TAMPER SWITCH	 
	COMBINATION MAGNETIC MOTOR STARTER	FDR FIRE DOOR RELEASE	¥ے 
[VFD]	VARIABLE FREQUENCY DRIVE	FS] FLOW SWITCH	<i>⊦</i> #
VID		FSD FAN SHUT-DOWN	F <u>#</u>
	208V PANELBOARD (RECESSED)		0
	208V PANELBOARD (RECESSED) 208V PANELBOARD (SURFACE)	FACP FIRE ALARM CONTROL PANEL	
			F#
		FACP FIRE ALARM CONTROL PANEL	F# F# F#
		FACP FIRE ALARM CONTROL PANEL FAAP FIRE ALARM ANNUNCIATOR PANEL CO CARBON MONOXIDE DETECTOR (ELECTROCHEMICAL STYLE) (SYSTEM SENSOR CO1224TR OR EQUAL) (INSTALL PER MANUFACTURERS RECOMMEND.	F#

	LIGHT FIXTURE SCHEDULE										
TYPE	DESCRIPTION	LAMPS	VOLTAGE/DRIVER	MOUNTING	DESIGN BASIS	ACCEPT. MFR'S.	REMARKS				
X1 ⊗H	LED EXIT FIXTURE W/ BATTERY BACKUP	RED LED-EXIT	UNIVERSAL 120–277V INPUT	WALL/CEILING	LITHONIA LIGHTING EDGR 2 RMR EL M4	OR APPROVED EQUAL	PROVIDE FIXTURE WITH INTEGRAL BATTERY BACK-UP WITH SELF-PERFORMING DIAGNOSTICS. PROVIDE WIREGUARD WHERE INDICATED WITH 'WG' REFER TO FLOOR PLANS FOR QUANTITIES/LOCATIONS OF WALL MOUNT AND CEILING MOUNT FIXTURES. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON FLOOR PLANS. CONNECT TO LOCAL CIRCUIT				
L1	1x4 LUMINAIRE	LED 4000K	M-VOLT	SURFACE	MERCURY LIGHTING LW25W-4-4700-40K-PF 1%-UNI-VP	OR APPROVED EQUAL	PROVIDE UNISTRUTS AND SUPPORTS AS REQUIRED PROVIDE GALVANIZED FASTENERS				

BB– BATTERY BACKUP

# <u>SYSTEMS SYMBOLS:</u>

- SYSTEM CONTROL PANEL SYSTEM MASTER CONTROL STATION ARD READER
- OOR CONTACT ELECTRIC DOOR STRIKE
- REQUEST TO EXIT TERCOM STATION
- LOCK (NO DESIGNATION DENOTES
- LASSROOM CLOCK). – DENOTES SINGLE FACE HALLWAY CLOCK. – DENOTES DUAL FACE HALLWAY CLOCK.
- PUBLIC ADDRESS SPEAKER (CEILING) PUBLIC ADDRESS SPEAKER (WALL) PUBLIC ADDRESS HORN SPEAKER (WALL)
- CEILING MOUNTED CCTV CAMERA WALL MOUNTED CCTV CAMERA

# SYMBOLS: TO LIGHT FIXTURE SCHEDULE)

- GHT SWITCH a.b.c – INDICATES SWITCH LEG D – DIMMER SWITCH K –KEYED 3 – 3–WAY
- 4 4 WAYCCUPANCY SENSOR C# – INDICATES CEILING SENSOR TYPE (REFER TO OCCUPANCY SENSOR
- SCHEDULE) W# - INDICATES WALL SENSOR TYPE(REFER TO OCCUPANCY SENSOR SCHEDULE).

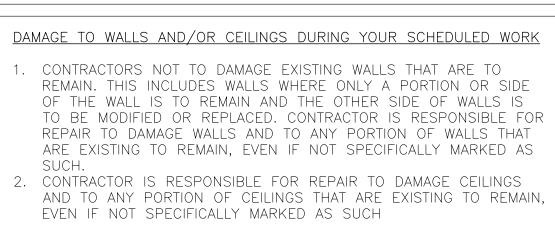
# EILING-MOUNTED EXIT LIGHT. HATCH ARKS INDICATES ILLUMINATED FACE, RROW INDICATES DIRECTION OF TRAVEL. VALL-MOUNTED EXIT LIGHT. HATCH MARKS

- DICATES ILLUMINATED FACE, ARROW IDICATES DIRECTION OF TRAVEL.
- UAL HEAD WALL-MOUNTED EMERGENCY ATTERY PACK LUMINAIRE. INGLE HEAD WALL-MOUNTED EMERGENCY ATTERY PACK LUMINAIRE.
- 'x4' CEILING MOUNTED LIGHT FIXTURE, F# IDICATES TYPE.
- 2'x2' CEILING MOUNTED LIGHT FIXTURE. F# NDICATES TIPE.
- 'x4' CEILING MOUNTED LIGHT FIXTURE, F# NDICATES TYPE.
- EILING MOUNTED DOWNLIGHT FIXTURE, F# IDICATES TYPE.
- WALL MOUNTED LIGHT FIXTURE, F# NDICATES TYPE.

WALL MOUNTED FIXTURE, F# INDICATES TYPE.

# GENERAL DEMOLITION NOTES:

- 1. DEMOLITION DRAWINGS ARE BASED ON FIELD OBSERVATION. REPORT ANY CONFLICTS TO THE ENGINEER BEFORE DISTURBING EXISTING EQUIPMENT.
- 2. BEGINNING OF DEMOLITION MEANS THE CONTRACTOR ACCEPTS ALL EXISTING CONDITIONS.
- 3. VERIFY SCOPE OF WORK: CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE SCOPE OF THE WORK, AND TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS THAT WILL AFFECT THEIR WORK AND, THEREFORE, THEIR BID.
- 4. UNLESS NOTED OTHERWISE, EXISTING ELECTRICAL EQUIPMENT SHOWN ON THESE PLANS ARE A PART OF CONTRACT. TO MAINTAIN DRAWING CLARITY NOT ALL EXISTING ELECTRICAL EQUIPMENT HAS BEEN SHOWN. FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT/ ENGINEER OF ANY CONFLICTS.
- 5. UNLESS NOTED OTHERWISE, REMOVE ALL ELECTRICAL ITEMS SHOWN ON THESE PLANS AS INDICATED BY CROSS HATCHED LINES AND/OR KEYED NOTES. 6. UNLESS NOTED OTHERWISE, DEMOLITION OF ELECTRICAL EQUIPMENT/DEVICES INCLUDES REMOVAL OF CIRCUITRY BACK
- TO ASSOCIATED SOURCE/PANEL. THIS INCLUDES REMOVAL OF THE DEVICE, WIRING, CONDUIT, BOXES, CONTROL DEVICES, ETC.
- WHERE POSSIBLE, EXISTING CONDUITS/RACEWAYS (ASSOCIATED WITH REMOVED EQUIPMENT AND WIRING) MAY BE RE-USED FOR NEW CIRCUITING. EXISTING CONDUITS/RACEWAYS MUST BE IN GOOD CONDITION, AND IN COMPLIANCE WITH NEC/SPECIFICATION REQUIREMENTS. NOTIFY ENGINEER PRIOR TO REUSING.
- 8. EXISTING CIRCUIT BREAKERS ASSOCIATED WITH ELECTRICAL EQUIPMENT SCHEDULED FOR DEMOLITION SHALL REMAIN FOR SPARES UNLESS REMOVAL IS REQUIRED TO MAKE ADDITIONAL SPACE (IN EXISTING PANELBOARDS) FOR NEW CIRCUIT BREAKERS.
- 9. MAINTAIN THE ELECTRICAL INTEGRITY OF ALL EXISTING BRANCH CIRCUITS INTERRUPTED BY REMOVAL WORK. PROVIDE ALL WIRING, CONDUIT, AND HARDWARE REQUIRED TO MAINTAIN CONTINUITY OF ELECTRICAL EQUIPMENT REMAINING ON EXISTING BRANCH CIRCUITS NOT BEING COMPLETELY REMOVED OR OUTSIDE WORK THE WORK AREA. 10. UNLESS NOTED OTHERWISE, REMOVE EXISTING ELECTRICAL DEVICES, AND ASSOCIATED CIRCUITRY, LOCATED ON OR IN
- WALLS SCHEDULED FOR REMOVAL. REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION COORDINATION. 11. UNLESS NOTED OTHERWISE, REMOVE EXISTING ELECTRICAL DEVICES, AND ASSOCIATED CIRCUITRY, LOCATED ON OR IN CEILINGS SCHEDULED FOR REMOVAL. TO MAINTAIN DRAWING CLARITY. EXISTING CEILINGS SCHEDULED FOR DEMOLITION
- HAVE NOT BEEN IDENTIFIED ON THIS DRAWING. REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION COORDINATION. 12. WHERE REMOVALS OCCUR ON SERVICES THAT ARE TO REMAIN IN OPERATION, CAP OR OTHERWISE TERMINATE THE REMAINING SERVICES BENEATH FINISHED SURFACES.
- 13. ALL CONDUITS STUBBED THRU FLOOR SERVING ITEMS TO BE REMOVED, AND NOT SHOWN OR REQUIRED TO BE REUSED, SHALL BE CUT OFF FLUSH, SLAB LEVEL WITH CONCRETE.
- 14. PORTIONS OF FEEDERS RISERS WHICH REQUIRE REMOVAL DUE TO DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT ACCESSIBLE LOCATIONS, REROUTED AND RECONNECTED. EXTEND EXISTING FEEDERS AS REQUIRED. MATCH EXISTING FEEDERS IN CONDUCTOR SIZE (AMPACITY RATING), RACEWAY SIZE, ETC.
- 15. CAREFULLY REMOVE, PROTECT AND STORE ALL EQUIPMENT TO BE REUSED IN A SAFE PLACE UNTIL READY FOR REINSTALLATION. CLEAN MATERIALS BEFORE REINSTALLATION AND ENSURE EQUIPMENT IS STILL FULLY OPERATIONAL. 16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OR RELOCATION OF ITEMS, NOT SHOWN ON THESE DRAWINGS TO ACCOMMODATE THE RENOVATIONS. CONTRACTOR SHALL INCLUDE, IN BASE BID, AN ALLOWANCE FOR UNFORESEEN
- CONDITIONS WHEN CONCEALED WORK IS EXPOSED. CLAIMS FOR ADDITIONAL DEMOLITION WORK WILL NOT BE ACCEPTED EXCEPT FOR CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE ARCHITECT/ENGINEER.



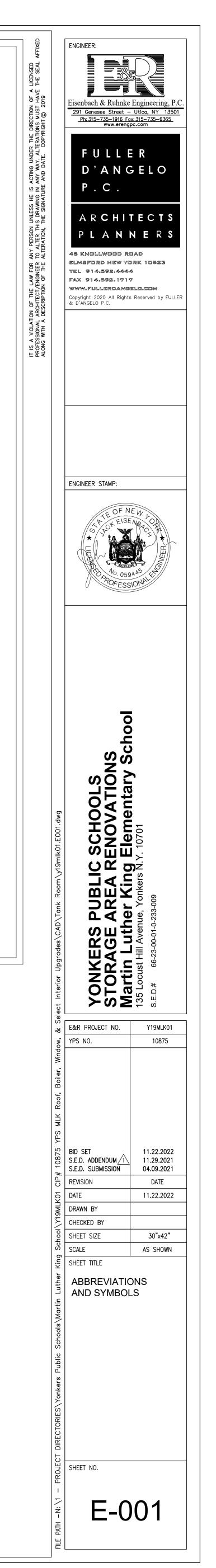
CONTRACTORS' COORDINATION NOTE:

ALL CONTRACTORS ARE REQUIRED TO REVIEW THE CONTRACT DRAWINGS FOR ALL TRADES AND DETERMINE NECESSARY COORDINATION BETWEEN TRADES PRIOR TO BIDDING. ANY DISCREPANCIES, COMMENTS, OR QUESTIONS ARE TO BE SUBMITTED TO THE ENGINEER BY RFI.

	FIRE ALARM NOTES:		ABBREVIATIONS
BATTERY IG DIAGNOSTICS.	1 CONTRACTOR SHALL VERIFY AND COORDIANTE WITH THE BUILDING FIRE ALARM MAINTENANCE VENDOR FOR TYPE OF FIRE ALARM DEVICES TO BE USED.	EX- A-	EXISTING AMPERE
CATED WITH 'WG'. MOUNT AND VIDE DIRECTIONAL	2. CONTRACTOR SHALL BE RESPONSIBLE TO RETAIN AND COORDINATE THE BUILDING FIRE ALARM MAINTENANCE VENDOR FOR PROGRAMMING AND FINAL CONNECTIONS. CONTRACTOR SHALL INCLUDE PROGRAMMING AND FINAL CONNECTION COSTS IN THEIR BID.	NF- EXT- AC- NIC-	NON-FUSED EXTERIOR ABOVE COUNTER NOT IN CONTRACT
R PLANS. RTS AS REQUIRED	3. FIRE ALARM WIRING DIAGRAMS SHOWN ARE GENERAL ARRANGEMENTS ONLY. OBTAINED PRIOR TO THE COMMENCEMENT OF THE WORK. ALL PERMIT COSTS AND INSPECTION FEES SHALL BE INCLUDED AS PART OF THIS CONTRACT.	FA— AFF— NL—	FIRE ALARM ABOVE FINISHED FLOOR NIGHT LIGHT
	4. PERMITS AND APPROVALS NECESSARY FOR INSTALLATION OF WORK SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF THE WORK. ALL PERMIT COSTS AND INSPECTION FEES SHALL BE INCLUDED AS PART OF THIS CONTRACT.	NTS- FL- AHU- OC-	NOT TO SCALE FLOOR AIR HANDLING UNIT ON CENTER
	5. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND PROTECT FIRE ALARM NOTIFICATION DEVICES, SMOKE DETECTORS AND OTHER FIRE ALARM SAFETY DEVICES IN OPERATION AT ALL TIMES. IF ANY PORTION OF FIRE ALARM SYSTEM IS DISABLED, NOTIFY BUILDING CUSTODIAN IMMEDIATELY.	FLA- A/V- P- FLUOR-	FULL LOAD AMPS AUDIO/VISUAL POLE FLUORESCENT
	6. IN AREAS WHERE DUST AND DIRT WILL BE AIRBOURNE DURING DEMOLITION AND CONSTRUCTION THE CONTRACTOR SHALL PROVIDE PLASTIC WRAPOVER SMOKE DETECTORS AND THEN REMOVE ONCE SPACE IS CLEAN.IF A FIRE ALARM DEVICE IS LOCATED ON A WALL OR CEILING TO BE REMOVED, UNLESS OTHERWISE INDICATED THE DEVICE SHALL BE REMOVED AND STORED. ONCE CONSTRUCTION IS COMPLETE THE DEVICE SHALL BE REINSTALLED IN IT'S ORIGINAL LOCATION OR AS CLOSE TO ITS ORIGINAL LOCATION AS FEASIBLE. REUSE EXISTING WIRING IF POSSIBLE, PROVIDE NEW WIRING IF NECESSARY.	AWG- PNL- GC- AU- PRI- GFI- BKR- SEC-	AMERICAN WIRE GUAGE PANEL GENERAL CONTRACTOR AT UNIT PRIMARY GROUND FAULT CIRCUIT BREAKER SECONDARY
	<ul> <li>7. UNLESS DIRECTED OTHERWISE BY FIRE ALARM SYSTEM MANUFACTURER FIRE ALARM DEVICE WIRING SHALL BE AS FOLLOWS (FOR BIDDING PURPOSES ONLY) SIGNAL WIRING - #14 AWG TWISTED/SHIELDED BELL WIRING - #14 AWG TWISTED CABLE STROBE WIRING - #14 TWISTED CABLE THE WIRING SHALL HAVE THE FOLLOWING CHARACTERISTICS: A. A MINIMUM TEMPERATURE RATING 150° C</li> <li>B. A MINIMUM AVERAGE INSULATION THICKNESS OF 15 MILS</li> <li>C. A MINIMUM AVERAGE JACKET THICKNESS OF 25 MILS</li> <li>D. THE COLOR OF THE CABLE SHALL BE RED</li> <li>E. THE CABLE SHALL BE A TYPE FPLP (PLENUM TYPE) WHEN CONDUIT IS USED. TO PURCHASING</li> <li>F. THE CABLE SHALL BE VISIBLY MARKED EXTERNALLY THAT IT MEETS THE ABOVE REQUIREMENTS AND IS LISTED BY U.L. CONFIRM WIRING TYPE AND QUANTITY WITH FIRE ALARM SYSTEM</li> </ul>	C- GND- SW- CB- HP- TEL- CKT- HVAC- TV- CLG- TYP- DEMO- KVA- UGE-	CONDUIT GROUND SWITCH CIRCUIT BREAKER HORSEPOWER TELEPHONE CIRCUIT HEATING VENTILATION & AIR CONDITIONING TELEVISION CEILING TYPICAL DEMOLISH/DEMOLITION KILOVOLT AMPS UNDERGROUND ELECTRIC
	MANUFACTURER PRIOR. 8. PROVIDE MC FIRE ALARM CABLE WITH RED STRIPE AS MANUFACTURED BY AFC SERIES 1800 WHEN CABLE IS CONCEALED OR ABOVE HUNG CEILING. WHEN FIRE ALARM CABLE IS RUN EXPOSED IN FINISHED AREAS, CABLE SHALL RUN IN WIREMOLD V-700. WHEN FIRE ALARM CABLE IS RUN EXPOSED IN UNFINISHED AREAS, PROVIDE PLENUM RATED CABLE IN MIN. <sup>3</sup> / <sub>4</sub> " CONDUIT.	DTL— KW— UNO— DWG— LTG— EA—	DETAIL KILOWATTS UNLESS NOTED OTHERWISE DRAWING LIGHTING EACH
	9. STROBES SHALL HAVE A MINIMUM LIGHT OUTPUT OF 75 CANDELA AND A FLASH9.RATE OF 1–3 HZ.	MC- EC-	MECHANICAL CONTRACTOR ELECTRICAL CONTRACTOR
	10. SHUTDOWN OF HVAC SYSTEM EQUIPMENT (NOT LIMITED TO, ROOF TOP, 10.EXHAUST FANS, ETC.) OF 1000 CFM OR GREATER, SHALL BE PERFORMED VIA A RELAY INTERFACE SYSTEM. SEND SIGNAL TO BUILDING AUTOMATED TEMPERATURE CONTROL (ATC) SYSTEM INDICATING SHUTDOWN HAS OCCURED. EQUIPMENT RESTART SHALL BE BY BUILDING 'ATC' SYSTEM UPON FIRE ALARM RESET TO NORMAL MODE. RESTART OF EQUIPMENT SHALL BE SEQUENTIAL.	MCA- WG- EF- MCB- WP- EM-	MINIMUM CIRCUIT AMPS WIRE GUARD EXHAUST FAN MAIN CIRCUIT BREAKER WEATHERPROOF EMERGENCY
	11. AFTER THE SYSTEM MODIFICATIONS ARE COMPLETE TEST ALL COMPONETS IN ACCORDANCE WITH SEQUENCE OF OPERATION PRIOR TO FIRE DEPARTMENT INSPECTION.	MDP- XFMR- EC-	MAIN DISTRIBUTION PANEL TRANSFORMER ELECTRICAL CONTRACTOR
	12. CONTRACTOR REMOVE/TAKE DOWN ALL EXISTING FIRE ALARM DEVICES AND SAVE. REINSTALL IN SAME LOCATIONS AND PROVIDE ANY ADDITIONAL APPURTENANCES.	MC- PC- WAC-	MECHANICAL CONTRACTOR PLUMBING CONTRACTOR WINDOW AIR CONDITIONER
			REVATIONS MAY OR MAY N DS, EXAMPLE A.F.F. OR A
			·

- TIONS
- JSED
- COUNTER CONTRACT
- FINISHED FLOOR SCALE
- IDLING UNIT AD AMPS
- /ISUAL CENT
- WIRE GUAGE CONTRACTOR
- ) FAULT CIRCUIT
- BREAKER POWER
- G VENTILATION & NDITIONING
- I/DEMOLITION AMPS GROUND ELECTRIC
- NOTED OTHERWISE
- ICAL CONTRACTOR ICAL CONTRACTOR I CIRCUIT AMPS
- JARD FAN RCUIT BREAKER ROOF
- STRIBUTION PANEL RMER ICAL CONTRACTOR NICAL CONTRACTOR IG CONTRACTOR
- MAY OR MAY NOT PLE A.F.F. OR AFF

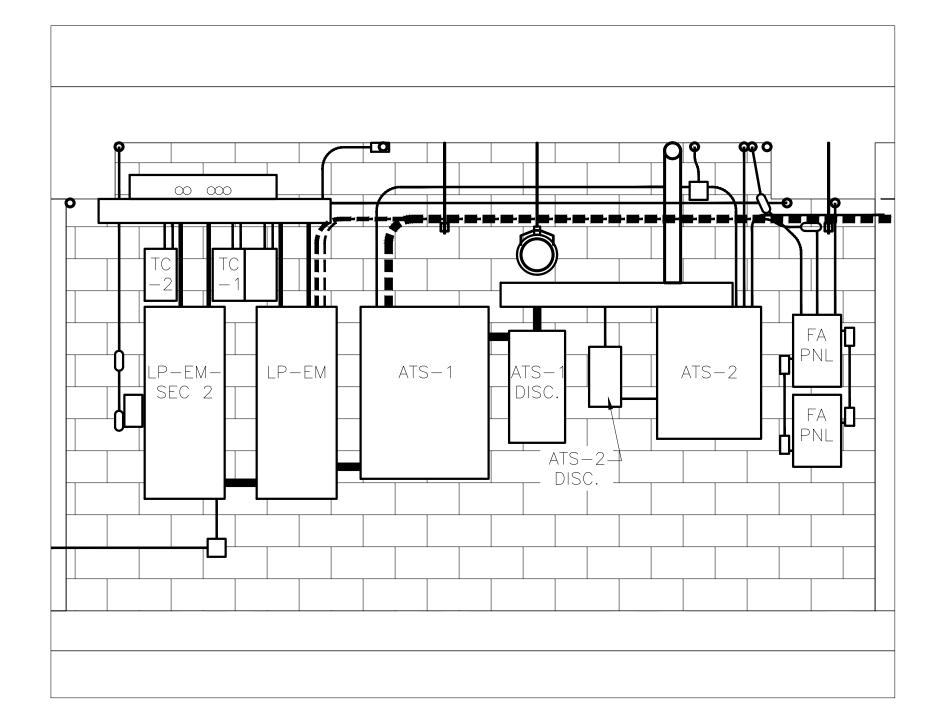
- <u>GENERAL NEW WORK NOTES:</u>
- 1. UNLESS NOTED AS EXISTING OR PROVIDED BY OTHERS, CONTRACTOR SHALL PROVIDE ALL MATERIALS SHOWN ON DRAWINGS. ALL MATERIALS PROVIDED SHALL BE NEW, UNUSED CONDITION.
- 2. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE PROVIDED WITH MINIMUM DISRUPTION TO THE BUILDING SYSTEMS AND STAFF. CONTINUOUS OPERATION OF THE BUILDING SYSTEMS, OUTSIDE OF WORK AREA, SHALL BE MAINTAINED THROUGHOUT THE ENTIRE PROJECT. TEMPORARY SHUTDOWN OF SYSTEMS SHALL ONLY BE ALLOWED WITH WRITTEN CONSENT OF THE OWNER. EXISTING ALARM AND EMERGENCY SYSTEMS SHALL NOT BE DISRUPTED AT ANY TIME DURING THE PROJECT.
- REMOVE & REINSTALL EXISTING CONSTRUCTION (CEILINGS, LIGHTING, ELECTRICAL EQUIPMENT, FIRE ALARM DEVICES, FURNISHINGS, ETC.) AS NECESSARY TO COMPLETE THE REMOVALS & RENOVATION WORK REQUIRED BY THE DRAWINGS & SPECIFICATIONS. REPLACE ANY ITEMS DAMAGED BY OR DUE TO THIS REMOVAL & REINSTALLATION WITH NEW ITEMS TO MATCH EXISTING. (APPLIES TO AREAS WITHIN & OUTSIDE OF THE PROJECT AREA).
- 4. IN AREAS WHERE CEILING IS BEING REMOVED, EXISTING CONDUITS AND CABLING WHICH ARE NOT INDEPENDENTLY SUPPORTED ABOVE THE CEILING SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE ABOVE USING SPECIFIC METHODS.
- SURFACE MOUNT ALL WIRING DEVICES, LIGHTING CONTROLS, TELECOMMUNICATION DEVICES, FIRE ALARM DEVICES, ETC. LOCATED ON EXISTING MASONRY WALLS. PROVIDE SURFACE MOUNTED BOXES, RACEWAYS, WIREMOLD, ETC. PER SPECIFICATIONS.
- 6. COVERS ASSOCIATED WITH JUNCTION AND PULL BOXES SHALL BE READILY ACCESSIBLE.
- PROVIDE PULL BOXES WHERE REQUIRED BY CODE AND WHERE NECESSARY FOR CONDUCTOR INSTALLATION. PROVIDE PULL BOXES EVERY 100' FOR ALL EMPTY RACEWAY RUNS. PRIOR TO INSTALLATION OF PULL BOXES, COORDINATE WITH OTHER TRADES.
- 8. PROVIDE SEPARATE RACEWAYS AND BOXES FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS.
- 9. DO NOT COMBINE MORE THAN THREE PHASE CONDUCTORS, THREE NEUTRAL CONDUCTORS PLUS THREE GROUND CONDUCTORS, IN ANY ONE BRANCH CIRCUIT CONDUIT, UNLESS OTHERWISE INDICATED ON DRAWINGS.
- 10. THE USE OF NON-METTALLIC SURFACE RACEWAY OR EXPOSED NON-METTALLIC RACEWAY IN ASSEMBLY SPACES AND MEANS OF EGRESS AREAS IS PROHIBITED.
- 11. THE USE OF SHARED NEUTRALS IN LIGHTING AND RECEPTACLE BRANCH CIRCUITS IS PROHIBITED. PROVIDE SEPARATE NEUTRAL AND GROUND FOR EVERY CIRCUIT. 12. PROTECT EXISTING SURFACES.
- 13. WALK-THRU WITH OWNER REPRESENTATIVE AND VERIFY ALL ELECTRICAL DEVICE LOCATIONS PRIOR TO INSTALLATION.
- 14. INSTALL ALL CIRCUITRY PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, AND CEILING. 15. REFER TO ELECTRICAL EQUIPMENT AND CONTROL SCHEDULE FOR HVAC/PLUMBING EQUIPMENT CIRCUITRY, CONTROLS & ADDITIONAL INFORMATION.
- 16. TO MAINTAIN DRAWING CLARITY, MOTOR CONTROL DEVICES, FOR HVAC/PLUMBING EQUIPMENT, HAVE NOT BEEN SHOWN. REFER TO ELECTRICAL EQUIPMENT & CONTROL SCHEDULE FOR TYPES OF MOTOR CONTROL DEVICES REQUIRED, LOCATIONS WHERE CONTROL DEVICES ARE SCHEDULED FOR INSTALLATION, AND ADDITIONAL INFORMATION.
- 17. COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT/DEVICES WITH ARCHITECTURAL PLANS, ELEVATIONS, FURNITURE LAYOUTS, AND WITH OTHER DIVISIONS PRIOR TO INSTALLATION. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT COST TO OWNER.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SUPPORT HARDWARE FOR SECURELY FASTENING THE ELECTRICAL CONTROL DEVICES AND ENCLOSURES TO THE BUILDING STRUCTURE. THE REQUIRED HARDWARE INCLUDES, BUT IS NOT LIMITED TO, INTERMEDIATE STEEL ANGLE, UNISTRUCT, FASTENERS, JOISTS CLAMPS, ETC. MOUNT STARTERS, VFD'S, DISCONNECTS, RELAYS, AND OTHER ELECTRICAL CONTROL DEVICES AND ENCLOSURES AT LOCATION(S) INDICATED IN ELECTRIC EQUIPMENT & CONTROL SCHEDULE(S). ALLOW MAINTENANCE ACCESS AND SERVICE SPACE AT EACH LOCATION.
- 19. WHERE NEW CIRCUIT BREAKERS ARE REQUIRED FOR INSTALLATION IN EXISTING ELECTRICAL PANELS, CONTRACTOR SHALL PROVIDE CIRCUIT BREAKERS WHICH ARE COMPATIBLE WITH EXISTING ELECTRICAL PANELS. MATCH FRAME SIZES, KIAC RATINGS, ETC.
- 20. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL PROVIDE COMPLETE, TYPE-WRITTEN, AND UP-TO-DATE PANELBOARD DIRECTORIES FOR ALL PANELBOARDS (NEW AND EXISTING) AFFECTED BY THIS PROJECT. PROVIDE OWNER WITH TWO COPIES OF UPDATED PANELBOARD CIRCUIT BREAKER DIRECTORIES.
- 21. EACH RECEPTACLE, SWITCH AND JUNCTION BOX, PROVIDED, OR ALTERED, UNDER THIS CONTRACT, SHALL BE LABELED WITH THE CORRESPONDING POWER PANEL NAME AND CIRCUIT BREAKER NUMBER. ALL LABELING SHALL BE TYPEWRITTEN USING A LABEL MAKER AND SHALL BE PERMANENTLY AFFIXED TO EACH FACEPLATE. HANDWRITTEN LABELS WILL NOT BE ACCEPTED. PRIOR TO START OF LABELING, MEET WITH OWNER TO DETERMINE LABELING SCHEME TO BE UTILIZED. PROVIDE LABELING TO MEET OWNER REQUIREMENTS.
- 22. ALL ITEMS THAT REQUIRE ACCESS, SUCH AS FOR OPERATING, CLEANING, SERVICING, MAINTENANCE, AND CALIBRATION. SHALL BE EASILY AND SAFELY ACCESSIBLE BY PERSONS STANDING AT FLOOR LEVEL. OR STANDING ON PERMANENT PLATFORMS, WITHOUT THE USE OF PORTABLE LADDERS. EXAMPLES OF THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO: ALL TYPES OF SWITCHES, PANELBOARDS, OCCUPANCY SENSORS, CONTROL DEVICES, ETC., PRIOR TO COMMENCING INSTALLATION WORK, REFER CONFLICTS BETWEEN THIS REQUIREMENT AND CONTRACT DRAWINGS TO OWNER FOR RESOLUTION.
- 23. CLEANING DURING ELECTRICAL WORK: THE MECHANICAL ROOM AND ROOMS WHERE WORK WILL BE DONE TO MINIMIZE DISTURBANCE IN THE BUILDINGS. WORKERS ARE TO USE PATHWAYS AND FACILITIES AGREED UPON WITH THE DISTRICT DESIGNEE IN WRITING. THE AREA OUTSIDE THE BUILDING WHERE CUTTING WELDING OR STORAGE IS ALLOWED IS TO BE FENCED AT ALL TIMES. THE CONTRACTOR WILL ON A DAILY BASIS CLEAN THE GROUNDS AND THE BUILDING OF ANY DEBRIS OR GARBAGE GENERATED BY THEIR WORK.
- 24. VFDS ARE TO BE FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 25. ALL WORKERS ON SITE MUST WEAR HARD HATS AND EYE PROTECTION AT ALL TIMES. (ON SCHOOL GROUNDS)



NOTE: MAKE NECESSARY ADJUSTMENTS WHEN REINSTALLING PANELS, LIGHTS, ETC. SEE P-110 REGARDING STARTUP AND TESTING OF GENERATOR AFTER PLUMBING WORK HAS CONCLUDED.

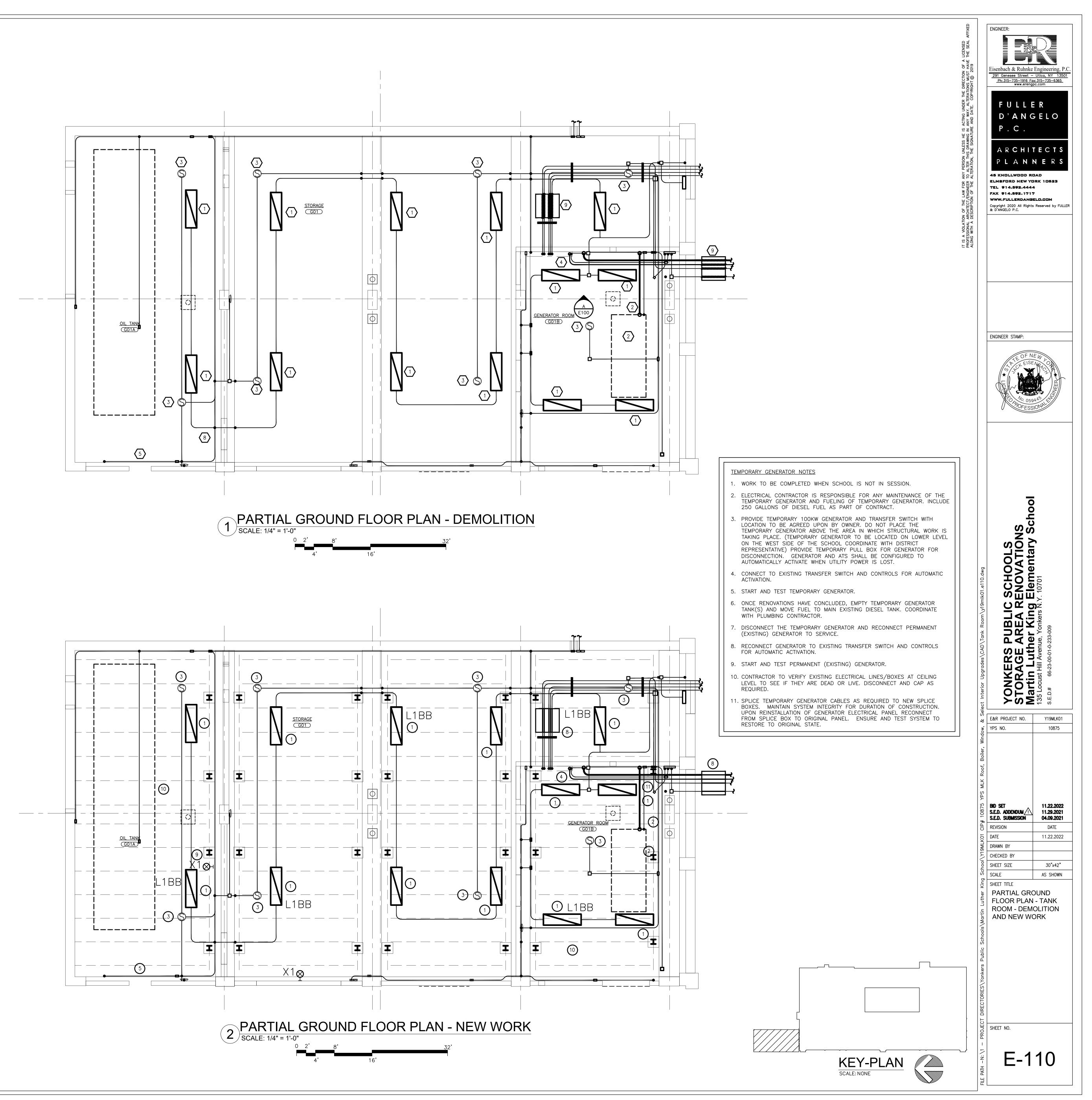
<u>keyed notes – new work</u>
1 SEE E001 FOR NEW LIGHT FIXTURES L-1 AND ALL APPURTENANCES. REUSE CIRCUITS
2 REINSTALL EXISTING 100 KW GENERATOR AND ALL APPURTENANCES. RECONNECT TO FLOOR.
3 REINSTALL EXISTING SMOKE DETECTORS, CONDUIT AND ALL APPURTENANCES.
$\overline{(4)}$ REINSTALL AUTOMATIC TRANSFER SWITCH, PANELS, AND ALL APPURTENANCES.
5 RECONNECT POWER TO EXHAUST FAN.
6 conduit supported from ceiling for emergency power to be disconnected from ceiling and supported off the floor during ceiling renovations.
$\bigcirc$ remove temporary generator and reconnect permanent (existing) generator, see generator notes.
PROVIDE AND INSTALL SPLICE BOXES, LOCATION TO BE COORDINATED WITH OWNER. SIZE TO ACCOMMODATE ASSOCIATED WIRE RUNS. CONNECT TO TEMPORARY GENERATOR AND ENSURE SYSTEM CONTINUITY. UPON COMPLETION OF PROJECT, RECONNECT TO ORIGINAL PANELS. RESTORE SYSTEM TO ORIGINAL CONFIGURATION.
REINSTALL EMERGENCY EXIT SIGN IN TANK ROOM AFTER ACCESS DOOR IS MOVED TO NEW LOCATION. PROVIDE NEW EXIT SIGN IF REQUIRED.
10 FIELD VERIFY LOCATION OF MAIN TANK AND GENERATOR TANK ALARMS ON CEILING, AND REINSTALL BELOW DECKING.
REMOVE EXISTING FA EQUIPMENT AND RELOCATE TEMPORARILY, COORDINATE WITH OWNER FOR TEMPORARY LOCATION. TEST AND ENSURE FA SYSTEM OPERATES. REINSTALL FA EQUIPMENT AFTER CONSTRUCTION IS COMPLETED. RESTORE & TEST FA SYSTEM TO FULL FUNCTIONALITY.

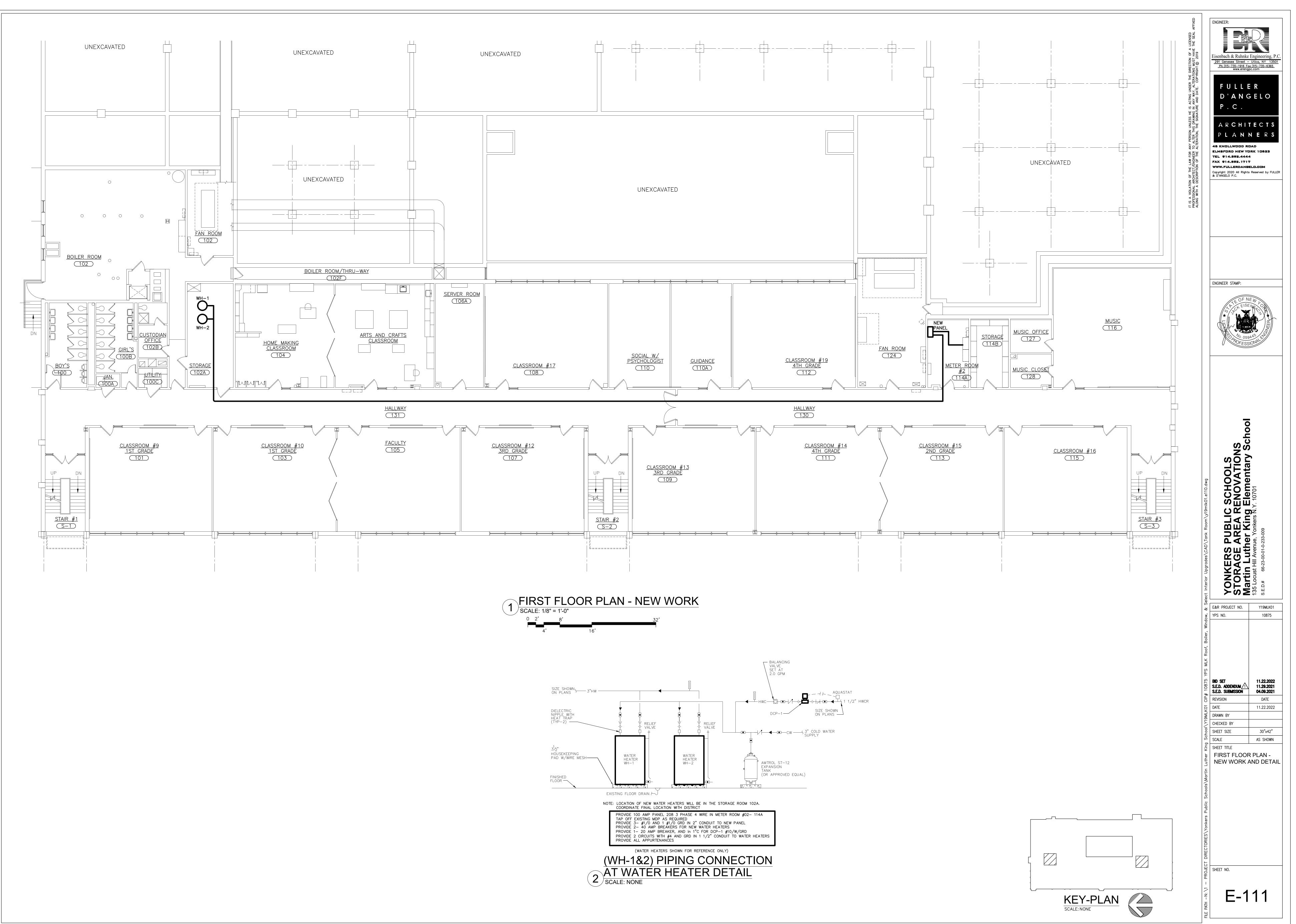




CEILING AND SUPPORTED OFF THE FLOOR DURING CEILING RENOVATIONS.
 PROVIDE TEMPORARY GENERATOR, SEE GENERATOR NOTES.
 MOVE EXISTING EXIT SIGN TO NEW LOCATION OF RELOCATED DOOR. COORDINATE WITH GC
 DISCONNECT WIRING & CONDUIT FROM GENERATOR PANELS AND RELATED BRANCH CIRCUITS, PREPARE FOR SPLICE TO TEMPORARY GENERATOR.

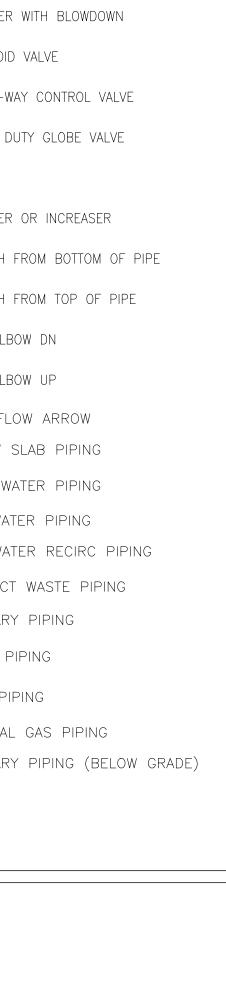
- 6 conduit supported from ceiling for emergency power to be disconnected from ceiling and supported off the floor during ceiling renovations.
- 5 disconnect power to exhaust fan.
- REMOVE AUTOMATIC TRANSFER SWITCH, PANELS, AND ALL APPURTENANCES. STORE IN SPACE DESIGNATED BY DISTRICT REPRESENTATIVE.
- 3 remove existing smoke detectors, conduit and all appurtenances. Store in space designated by district representative.
- DISCONNECT EXISTING GENERATOR APPURTENANCES FROM SERVICE. DISCONNECT FROM FLOOR AND SAFELY MOVE GENERATOR WITHIN THE GENERATOR ROOM AS NEEDED DURING RENOVATIONS. PROVIDE COVER TO PROTECT GENERATOR.
- T REMOVE EXISTING 1'x4' LIGHT FIXTURES. STORE IN SPACE DESIGNATED BY DISTRICT REPRESENTATIVE.
- <u>KEYED NOTES DEMOLITION</u>

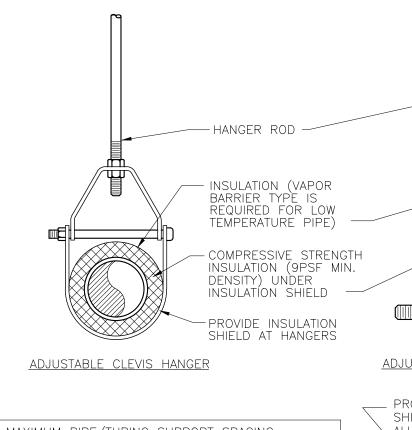


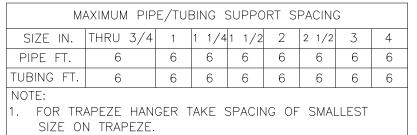


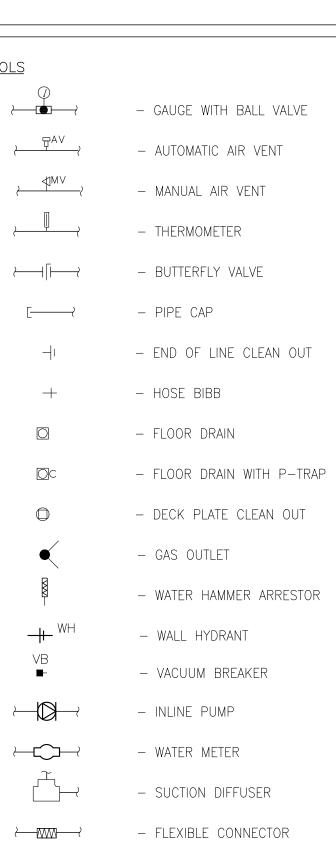
	PLUMBING ABBREVIA	TIONS	
/E	ARCHITECT / ENGINEER	HW	INDIRECT WASTE
۷ D	AREA DRAIN	IWH	INSTANTANEOUS WATER HEATER
ND	ACCESS DOOR	KW	KILOWATT
NDA	AMERICANS WITH DISABILITIES ACT	LAV	LAVATORY
\FF	ABOVE FINISH FLOOR	М	METER
\FG	ABOVE FINISHED GRADE	MC	MECHANICAL CONTRACTOR
AHJ	AUTHORITY HAVING JURISDICTION	MBH	1000 BTUH
		MH	MANHOLE
NSI	AMERICAN NATIONAL STANDARDS INSTITUTE	NC	NORMALLY CLOSED
P	ACCESS PANEL	NG	NATURAL GAS
SHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION		
	& AIR CONDITIONING ENGINEERS	NIC	NOT IN CONTRACT
SME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	NOM	NOMINAL
SPE	AMERICAN SOCIETY OF PLUMBING	NPW	NON POTABLE WATER
	ENGINEERS	NTS	NOT TO SCALE
WWA	AMERICAN WATERWORKS ASSOCIATION	02	OXYGEN
BFG	BELOW FINISHED GRADE	OD	OUTSIDE DIAMETER
BHP	BREAK HORSEPOWER	OSHA	OCCUPATIONAL SAFETY AND HEALTH
BOR	BASE OF RISER		ADMINISTRATION
BTU	BRITISH THERMAL UNIT	Ρ	PUMP
BTUH	BRITISH THERMAL UNIT PER HOUR	PC	PLUMBING CONTRACTOR
``````````````````````````````````````	CELSIUS	PD	PUMP DISCHARGE
CA	COMBUSTION AIR	PDI	PLUMBING AND DRAINAGE INSTITUTE
CA .	COMPRESSED AIR	PF	PLUMBING FIXTURE
GA	COMPRESSED GAS ASSOCIATION	PG	PRESSURE GAGE
	CAST IRON	PPM	PARTS PER MILLION
0	CLEANOUT	PRS	PRESSURE REDUCING STATION
.0 :02	CARBON DIOXIDE	PRV	PRESSURE REDUCING VALVE
COND	CONDENSATE	PSI	POUNDS PER SQUARE INCH
		PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
P DVO	CIRCULATING PUMP	PSIG	POUNDS PER SQUARE INCH GAUGE
CPVC	CHLORINATED POLYVINYL CHLORIDE		
CU	COPPER	PVC	POLYVINYL CHLORIDE
CW	COLD WATER (DOMESTIC)	RD	ROOF DRAIN
)	DRAIN	RL	RAIN LEADER
AIC	DIAMETER	RO	REVERSE OSMOSIS WATER
FU	DRAINAGE FIXTURE UNIT	RPZ	REDUCED PRESSURE ZONE BACKFLOW
N	DOWN	_	PREVENTER
PCO	DECK PLATE CLEANOUT	SAN	SANITARY SEWER
WG	DRAWING	SMACNA	SHEET METAL AND AIR CONDITIONING
WH	DOMESTIC WATER HEATER		CONTRACTORS NATIONAL ASSOCIATION
)WV	DRAIN WASTE VENT	SCFM	STANDARD CUBIC FOOT/MINUTE
C	ELECTRICAL CONTRACTOR	SCW	SOFTENED COLD WATER
L	ELEVATION	SP	SUMP PUMP
ET	EXPANSION TANK	SQFT	SQUARE FEET
WC	ELECTRIC WATER COOLER	SS	STAINLESS STEEL
XIST	EXISTING	ST	STORM SEWER
	FAHRENHEIT	T&P	TEMPERATURE & PRESSURE (RELIEF VALVE)
D	FLOOR DRAIN	TD	TRENCH DRAIN
ט 			
- U V	FIXTURE UNITS	TDH	TOTAL DYNAMIC HEAD
V	FLUSH VALVE	TEMP	TEMPERATURE/TEMPORARY
	NATURAL GAS	TMV	THERMOSTATIC MIXING VALVE
AL.	GALLON	TP	TRAP PRIMER
ALV	GALVANIZED	TSTAT	THERMOSTAT
SC	GENERAL CONTRACTOR	TW	TEMPERED WATER
PH	GALLONS PER HOUR	TYP	TYPICAL
РM	GALLONS PER MINUTE	UC	UNDERCUT
WD&	HOT AND COLD WATER	UH	UNIT HEATER
IB	HOSE BIBB	UL	UNDERWRITERS LABORATORY
IC	HEATING & HVAC CONTRACTOR	UPC	UNIFORM PLUMBING CODE
ID	HUB DRAIN	UR	URINAL
IP	HORSEPOWER	V	VENT
IS	HAND SINK	VB	VACUUM BREAKER
W	HOT WATER (DOMESTIC)	VTR	VENT THROUGH ROOF
٨V	INVERT	WC	WATER CLOSET
		WCO	WALL CLEANOUT
		WH	WALL HYDRANT
		WHA	WATER HAMMER ARRESTER
		WSFU XA	WATER SUPPLY FIXTURE UNIT EXHAUST AIR

	PLUME
<del>;          ;</del>	- NEW PIPING AND EQUIPMENT
<u> </u>	- EXISTING TO REMAIN PIPING AND
H = A	EQUIPMENT – PIPING AND EQUIPMENT FOR REMOVAL
<u>}</u>	– BALL VALVE
<u>ک</u>	– BALL VALVE (HOSE END & CAP)
	<ul> <li>BALANCING VALVE</li> </ul>
	- CHECK VALVE
$\sim$	
	– CONTROL VALVE – 2 WAY
	– DRAIN VALVE WITH HOSE BIBB
}	- FLANGED CONNECTION
⊱ <del> </del> √	– FUSIBLE LINK OIL SHUTOFF VALVE
	- FLOW CONTROL VALVE
	– GATE VALVE
$\overbrace{\hspace{1.5cm}}$	– GLOBE VALVE
<b>}</b> →	– GAS COCK
	– LUBRICATED PLUG VALVE
	– PRESSURE REDUCING VALVE
Ť	– RELIEF VALVE
<u>}</u> }	– STRAINER WITH BLOWDOWN
< <u>-</u> ↓ → → → → → → → → → → → → → → → → → → →	– STRAINER WITH BLOWDOWN
<	– SOLENOID VALVE
ᡔ᠆ᢏᠯ᠆᠆᠂	– THREE-WAY CONTROL VALVE
	– TRIPLE DUTY GLOBE VALVE
, , , , , , , , , , , , , , , , , , ,	– UNION
<pre> } </pre>	- REDUCER OR INCREASER
	- BRANCH FROM BOTTOM OF PIPE
/(){	– BRANCH FROM TOP OF PIPE
	- PIPE ELBOW DN
$\sim$	- PIPE ELBOW UP
	PIPE FLOW ARROW
	BELOW SLAB PIPING COLD WATER PIPING
CW HW	HOT WATER PIPING
HWC	HOT WATER RECIRC PIPING
IW	INDIRECT WASTE PIPING
SAN	SANITARY PIPING
D	DRAIN PIPING
V	VENT PIPING
G	NATURAL GAS PIPING
SAN	SANITARY PIPING (BELOW GRADE)









PLUMBING SYMBOLS

- - PIPE FLOW ARROW

 $\rightarrow$ 

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- REVISION/KEYED NOTE
- KEYED NOTE
- KEYED NOTE
- KEYED NOTE - POINT OF NEW CONNECTION
- LIMIT OF REMOVAL
- SAW CUT FLOOR



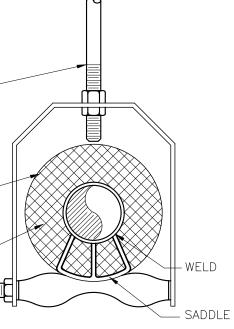
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. IT IS NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT; HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFICALLY SPECIFIED TO MAKE THE SYSTEMS BEING INSTALLED COMPLETE, CODE COMPLIANT, TESTED AND OPERATIONAL.
- CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- 3. ALL MATERIALS, EQUIPMENT, METHODS OF INSTALLATION, REMOVALS AND DISPOSAL SHALL BE IN ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
- 4. PERFORM WORK, PROVIDE MATERIALS AND EQUIPMENT FOR SYSTEMS SHOWN, SPECIFIED AND DESCRIBED ON DRAWINGS. COMPLETELY COORDINATE ALL TRADES OF THIS CONTRACT AND PROVIDE COMPLETE AND FULLY FUNCTIONAL INSTALLATION. ALL WORK IN THIS SET TO BE COMPLETED UNDER THIS CONTRACT, UNLESS OTHERWISE INDICATED.
- PROTECT ALL EXISTING AND NEW BUILDING ELEMENTS FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL DAMAGED ELEMENTS TO ORIGINAL OR BETTER CONDITION.
- WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN MANUFACTURER'S EQUIPMENT CLEARANCES.
- 8. CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND TESTING SYSTEMS TO ALLOW FOR COMPLETION OF WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER AND UTILITY AS APPLICABLE. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER, UTILITY AND COORDINATED WITH OTHER TRADE WORK.
- 9. ALL EQUIPMENT PIPING, WIRING, INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- 10. SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS AND FLOORS WITH UL RATED MATERIALS/METHODS EQUIVALENT TO FIRE RATING OF ASSEMBLY.
- 11. PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS/DOORS SHALL BE A MINIMUM OF 12"X12", UNLESS OTHERWISE NOTED.
- 12. DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. ALL SUPPORT SHALL BE FROM BUILDING STRUCTURE OR FROM CEILING SUSPENSION SYSTEM WHICH HAS BEEN REINFORCED. SUPPORTS SHALL BE SELECTED AND INSTALLED TO PROVIDE A VIBRATION FREE INSTALLATION.
- 13. PLUMBING CONTRACTOR IS RESPONSIBLE FOR JETTING/SNAKING ALL SANITARY WASTE LINES (ALL FLOOR DRAINS) SHOWN ON THE DRAWINGS TO BE FULLY OPERATIONAL.
- 14. CLEANING DURING PLUMBING WORK: THE MECHANICAL ROOM AND ROOMS WHERE WORK WILL BE DONE TO MINIMIZE DISTURBANCE IN THE BUILDINGS. WORKERS ARE TO USE PATHWAYS AND FACILITIES AGREED UPON WITH THE DISTRICT DESIGNEE IN WRITING. THE AREA OUTSIDE THE BUILDING WHERE CUTTING, WELDING OR STORAGE IS ALLOWED IS TO BE FENCED AT ALL TIMES. THE CONTRACTOR WILL ON A DAILY BASIS CLEAN THE GROUNDS AND THE BUILDING OF ANY DEBRIS OR GARBAGE GENERATED BY THEIR WORK.
- 15. ALL WORKERS ON SITE MUST WEAR HARD HATS AND EYE PROTECTION AT ALL TIMES. (ON SCHOOL GROUNDS)
- 16. CONTRACTOR TO EMPTY GENERATOR OIL TANK AND TRANSFER FUEL TO A TEMPORARY TANK AS DESIGNATED AREA BY YPS. ASSUME 500 GALLONS OF DIESEL FUEL FOR BIDDING PURPOSE ONLY. PLUG ALL HOLES IN TANK WHEN PROVIDING DEMO AND NEW WORK. PRESSURE TEST TANK AND RECOMMISSION TANK PER CODES.
- 17. CONTRACTOR TO EMPTY HEATING OIL TANK AND TRANSFER FUEL TO TEMPORARY TANK AS DESIGNATED AREA BY YPS. ASSUME 100 GALLONS OF HEATING FUEL FOR BIDDING PURPOSE ONLY. PLUG ALL HOLES IN TANK WHEN PROVIDING DEMO AND NEW WORK. PRESSURE TEST TANK AND RECOMMISSION TANK PER CODES
- 18. CONTRACTOR TO PROVIDE PLUGS FOR EXISTING PARKING AREA DRAINS AND DIVERT WATER AROUND WORK AREAS. COORDINATE WITH DISTRICT FOR LOCATIONS

DAMAGE TO WALLS AND/OR CEILINGS DURING YOUR SCHEDULED WORK . CONTRACTORS NOT TO DAMAGE EXISTING WALLS THAT ARE TO REMAIN. THIS INCLUDES WALLS WHERE ONLY A PORTION OR SIDE OF THE WALL IS TO REMAIN AND THE OTHER SIDE OF WALLS IS TO BE MODIFIED OR REPLACED. CONTRACTOR IS RESPONSIBLE FOR REPAIR TO DAMAGE WALLS AND TO ANY PORTION OF WALLS THAT ARE EXISTING TO REMAIN, EVEN IF NOT SPECIFICALLY MARKED AS SUCH.

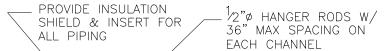
. CONTRACTOR IS RESPONSIBLE FOR REPAIR TO DAMAGE CEILINGS AND TO ANY PORTION OF CEILINGS THAT ARE EXISTING TO REMAIN, EVEN IF NOT SPECIFICALLY MARKED AS SUCH

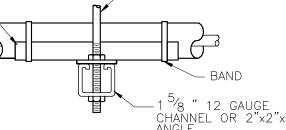
CONTRACTORS' COORDINATION NOTE:

ALL CONTRACTORS ARE REQUIRED TO REVIEW THE CONTRACT DRAWINGS FOR ALL TRADES AND DETERMINE NECESSARY COORDINATION BETWEEN TRADES PRIOR TO BIDDING. ANY DISCREPANCIES, COMMENTS, OR QUESTIONS ARE TO BE SUBMITTED TO THE ENGINEER BY RFI.



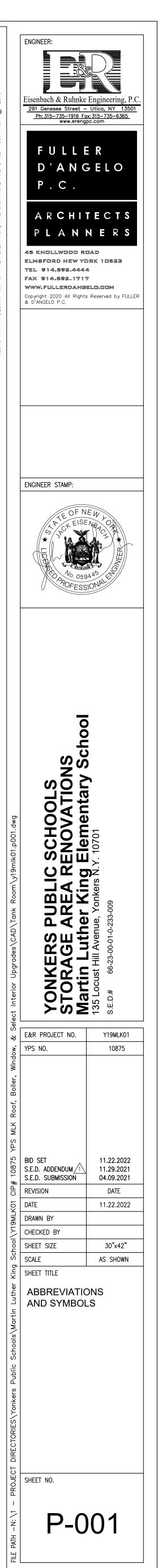
ADJUSTABLE CLEVIS HANGER W/ ROLLER

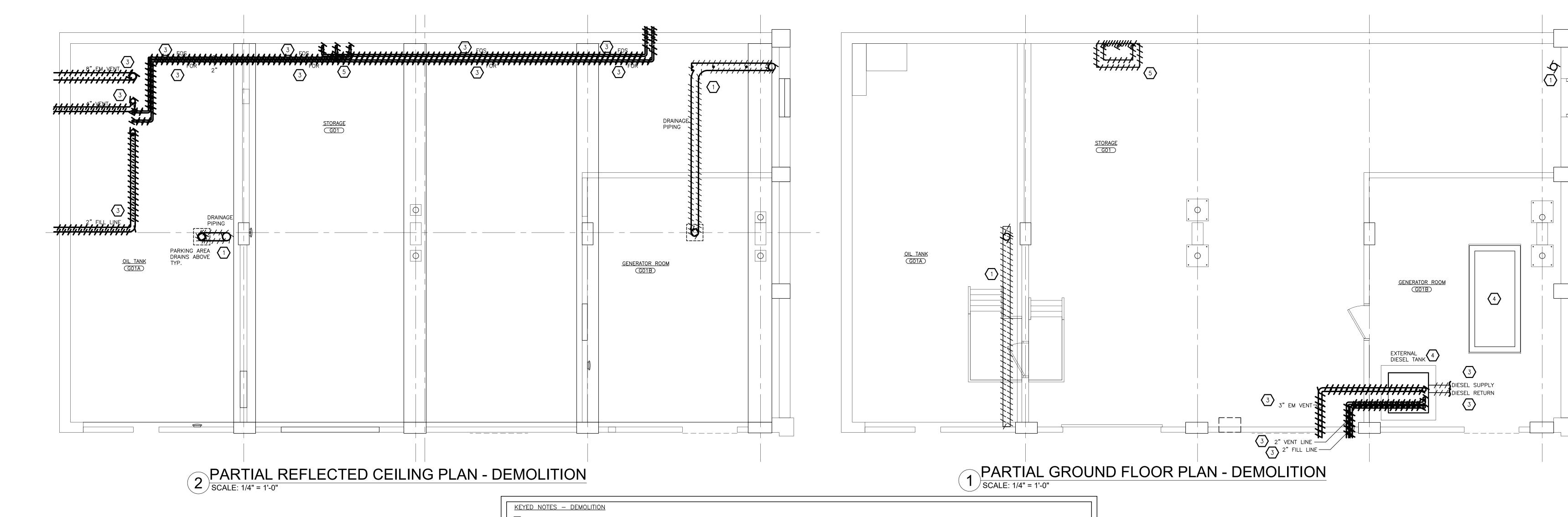


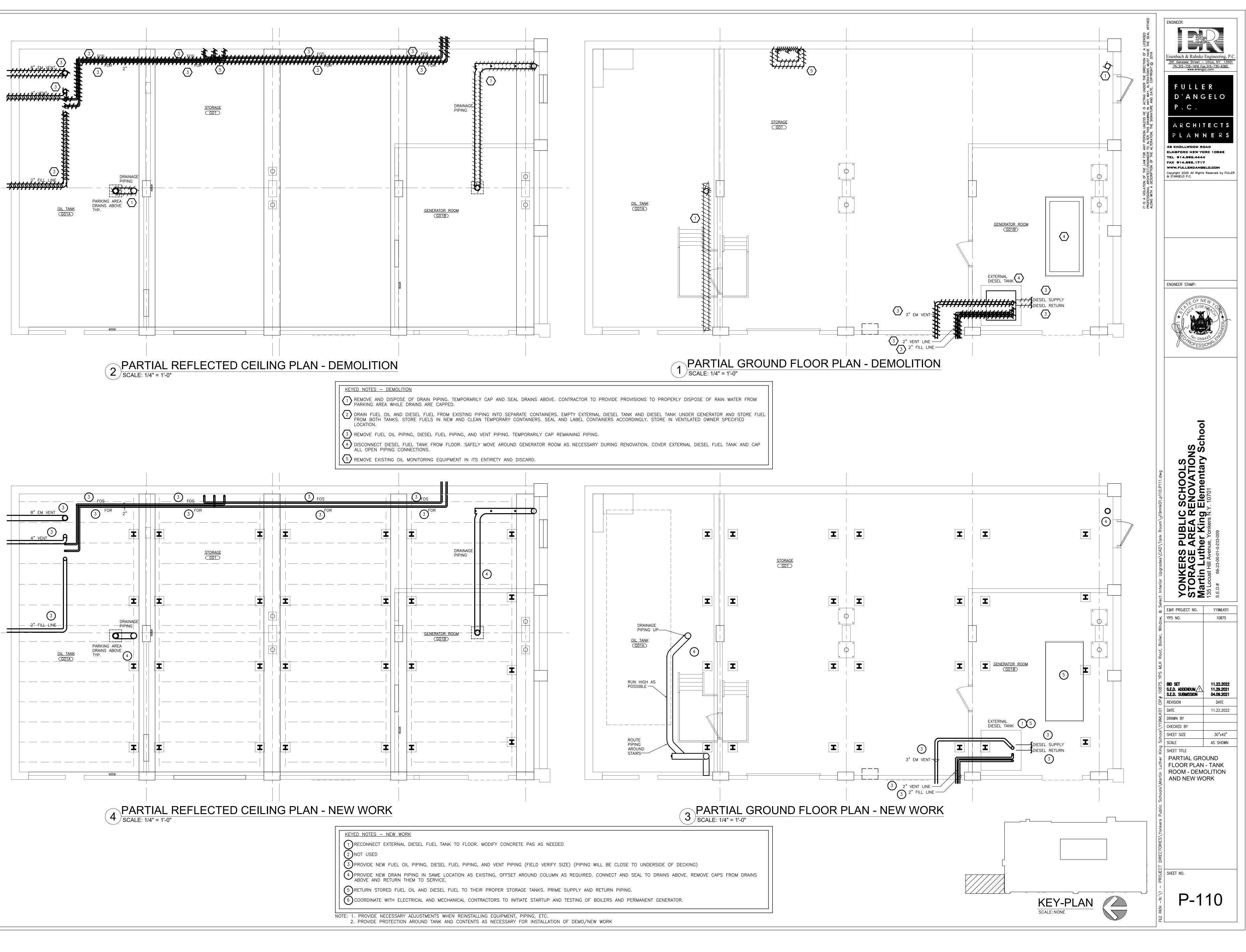


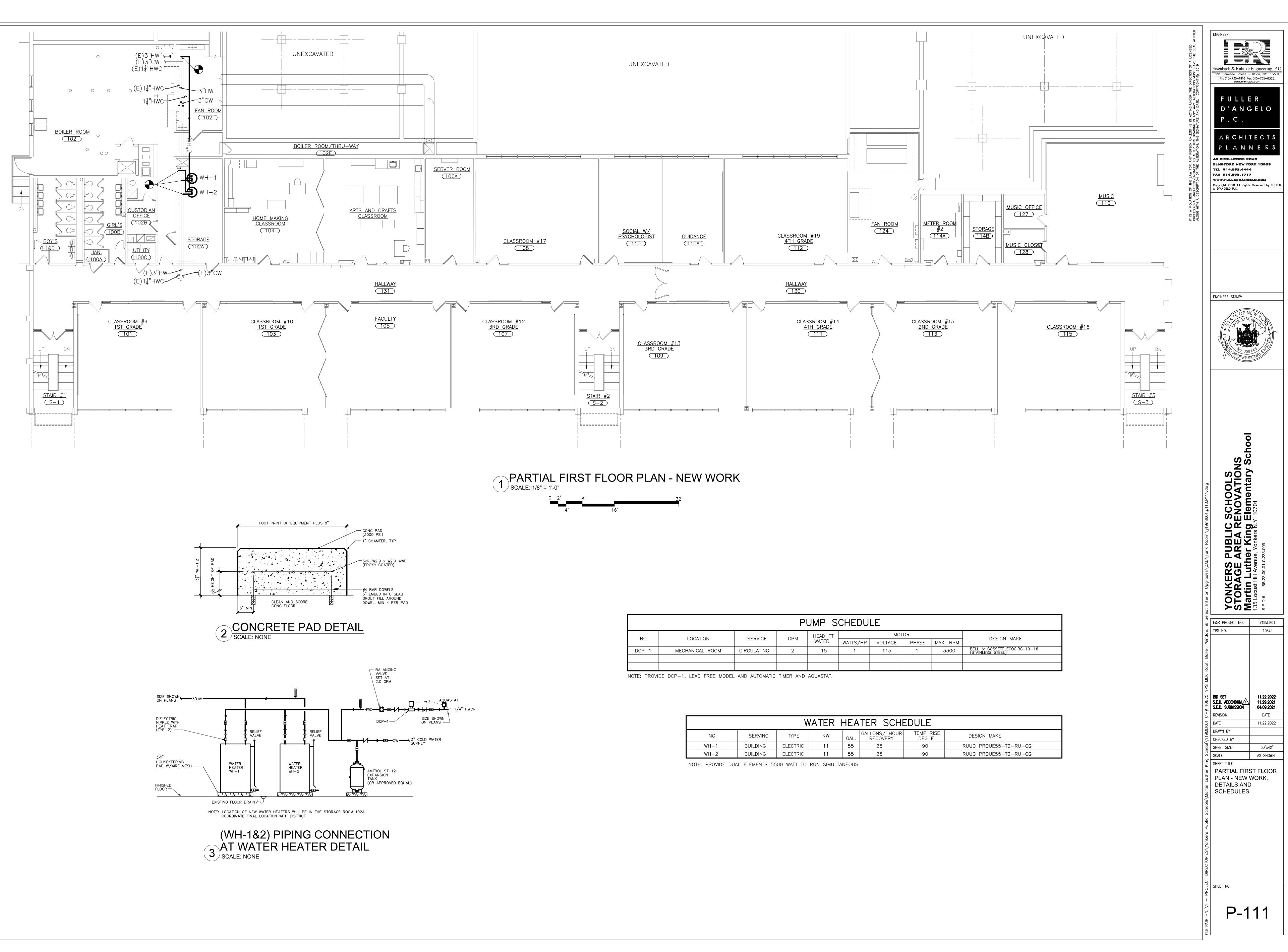


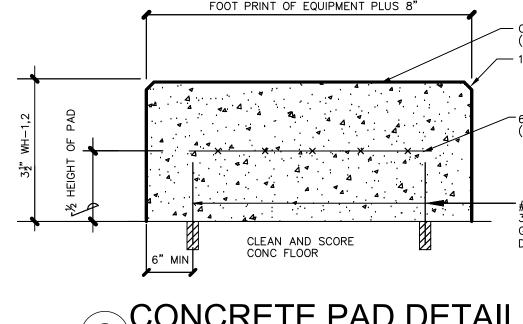
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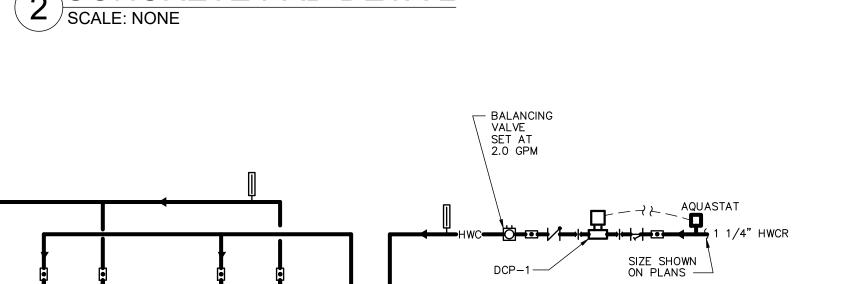


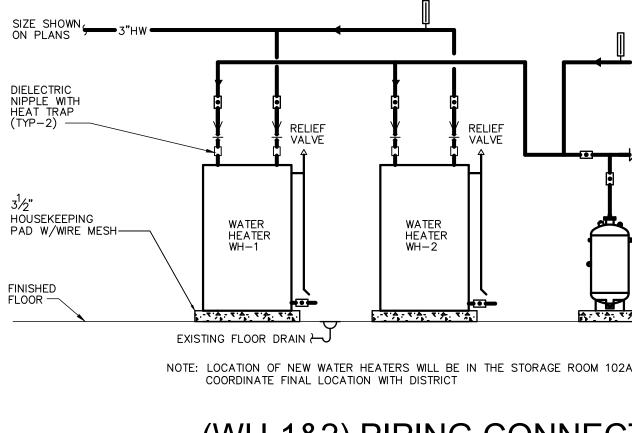












GROUT	FILL	AROUND		
DOWEL.	MIN	4 PER PAD	1	

AMTROL ST–12 EXPANSION TANK (OR APPROVED	EQUAL)	

	PUMP SCHEDULE								
NO.	LOCATION		GPM	HEAD FT		MOT	OR		DESIGN MAKE
NU.	LOCATION	SERVICE	GM	WATER	WATTS/HP	VOLTAGE	PHASE	MAX. RPM	DESIGN MAKE
DCP-1	MECHANICAL ROOM	CIRCULATING	2	15	1	115	1	3300	BELL & GOSSETT ECOCIRC 19–16 (STAINLESS STEEL)
OTE. PROVID	F DCP-1 LEAD FREE MODE		TIMER AND	ΔΟΠΑΣΤΑΤ					

WATER HEATER SCHEDULE									
NO.	SERVING	TYPE	KW	GAL.	GALLONS/ HOUR RECOVERY	TEMP RISE DEG F	DESIGN MAKE		
WH-1	BUILDING	ELECTRIC	11	55	25	90	RUUD PROUE55-T2-RU-CG		
WH-2	BUILDING	ELECTRIC	11	55	25	90	RUUD PROUE55-T2-RU-CG		