

1. REFER TO DWG E-001.00 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS AND GENERAL NOTES.

5 > 400KW 120/208V, 3Ø, 4W, OUTDOOR EMERGENCY GENERATOR IN WEATHERPROOF SOUND ATTENUATED

7 > NEW UTILITY POLE PER PSE&G REQUIREMENTS WITH 12'-0" OF 5" RGS CONDUIT RUN UP POLE AND 35'-0" OF CABLE

8 PES&G PAD MOUNTED TRANSFORMER ON PSE&G APPROVED VAULTED BOTTOM CONCRETE PAD. REFER TO

 EXISTING UNDERGROUND PSEG ELECTRICAL UTILITY SERVICE TO BE DE-ENERGIZED AND REMOVED BACK TO UTILITY POLE. EXISTING SERVICE SHALL BE DISCONNECTED ONLY AFTER NEW PSEG UTILITY SERVICE IS ESTABLISHED. COORDINATE PHASING AND SERVICE DISCONNECTING WITH PSEG.

WHERE DUCT BANKS CROSS OTHER UTILITIES SUCH AS WATER MAINS, STORM DRAINS, SEWAGE LINES, ETC., CONTRACTOR SHALL PROVIDE 3" HIGH DENSITY STYROFOAM SHEATHING OVERLAPPING INTERSECTION 10'-0" IN EITHER DIRECTION AT INTERSECTION (CONTRACTOR SHALL SAW CUT AND TRENCH ADDITIONAL AREAS AS

ALL UN-EARTHED FILL SHALL BE PROTECTED IN ACCORDANCE WITH "NEW YORK STATE GUIDE LINES FOR URBAN

WHERE SHOWN CONTRACTOR SHALL SAWCUT PAVED CONCRETE AREA AT NEAREST JOINTS AND REMOVE CONCRETE SECTIONS, AS REQUIRED. WHERE PIPE JACKING/RAMMING IS INDICATED, MINIMIZE DISRUPTION

PRIOR TO CONCRETE CASTING, CONTRACTOR SHALL PROVIDE BACK FILLING AND SOIL COMPACTION AS DESCRIBED IN SPECIFICATION SECTION 312316.

COLOR AND APPEARANCE WITH ADJACENT CONCRETE PAVING. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS AT EITHER SIDE OF CONCRETE RESTORATION SECTION.

PROVIDE ALL TREE, SHRUB AND MONUMENT CLEARING AS REQUIRED FOR TRENCH PATH. ALL VEGETATION REMOVAL SHALL BE LIMITED TO THE PATH OF TRENCH AND SHALL BE AVOIDED WHERE POSSIBLE. WHERE MONUMENTS AND/OR FURNITURE REMOVAL IS REQUIRED, CONTRACTOR SHALL COORDINATE REMOVAL AND STORAGE WITH COLLEGE PRIOR TO REMOVAL.

b. PRIOR TO APPLICATION OF TOP SOIL, CONTRACTOR SHALL PROVIDE BACKFILL AND SOIL COMPACTION AS

c. PROVIDE TOP SOIL, SEEDING, AND SITE RESTORATION AS SPECIFIED IN SPECIFICATION SECTION 329113. CONTRACTOR SHALL PLANT TREES, BEYOND 5'-0" OF DUCT BANK IN EITHER DIRECTION, NO TREES SHALL BE PLANTED ABOVE DUCT BANK, TREE SELECTION SHALL BE SUBJECT TO THE APPROVAL OF THE CAMPUS.

CONDUIT DUCT BANKS INSTALLED IN ASPHALT BLACK TOP AREAS.

WHERE TRENCHING IS REQUIRED IN TRAFFIC AREAS, CONTRACTOR SHALL PROVIDE ROADWAY PLATES, AND PHASE WORK TO PROVIDE A MINIMUM OF ONE TWO-WAY TRAFFIC LANE. COMPLETE ROAD WAY

PRIOR TO ASPHALT PATCHING, CONTRACTOR SHALL PROVIDE BACKFILLING AND SOIL COMPACTION AS

PROVIDE ROADWAY PATCHING SEALED AT JOINTS WITH FLEXIBLE WATER RESISTANT SEALANT. ASPHALT

EXCAVATE EARTH WITHIN 3'-0" BEYOND THE MAXIMUM WIDTH AND LENGTH OF MANHOLE, CONTRACTOR SHALL PROVIDE SHORING AND BRACING AS REQUIRED. WHERE EXCAVATION IS TO BE PERFORMED AROUND TREES, AND/OR STRUCTURES, MACHINE EXCAVATION IS PROHIBITED, CONTRACTOR SHALL UTILIZE MANUAL LABOR AND PROVIDE PROTECTION OF ROOTS AND SUB SURFACE STRUCTURES.

EXCAVATION WITHIN 10'-0" OF KNOWN UNDERGROUND UTILITIES SHALL BE PERFORMED BY HAND. FOR EXCAVATION IN ALL OTHER AREAS CONTRACTOR SHALL UTILIZE INDUSTRY STANDARDS OF UNDERGROUND

UPON INSTALLATION OF CONCRETE DUCTBANKS AND MANHOLES CONTRACTOR SHALL RESTORE FINISHED GRADE TO MATCH EXISTING ADJACENT FINISHED GRADE, OPEN TRENCHES AND ROUGH PATCHING OF SURFACE WILL NOT

18. FOR WIRE SIZES AND QUANTITY REFER TO E-300 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.

CONTRACTOR SHALL INCLUDE LABOR AND USE OF A HOLE RAM/BREAKER FOR DEMOLITION OF 10 CUBIC YARDS OF CONCRETE AND REMOVAL OF 10 CUBIC YARDS OF SUB-SURFACE BOULDERS AND/OR CONCRETE FOR WORK

21. FOR ASPHALT WALKWAY REPAIR REFER TO DETAIL 'D' ON DRAWING E-602.00.

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$\Lambda$	ADDENDUM NO. 1	07/01/21
4	ISSUED FOR RE-BID	05/21/21
3	ISSUED FOR BID	08/10/18
2	100% OWNERS REVIEW	07/13/18
1	85% CLIENT REVIEW	02/08/18
NO.	REVISION	DATE

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NUMC AHP DIALYSIS AND VENT UNIT ESSENTIAL ELECTRICAL SYSTEM

ELECTRICAL SITE PLAN

DRAWN BY:	MR	SCALE:	AS NOTED					
DESIGNED BY:	TGR	DATE:	07-13-18					
CHECKED BY:	MCT	PROJECT NO:	6630					
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- 1. ENCLOSURE SHALL BE ALUMINUM DRIVE RIVET CONSTRUCTION WITH LAYERS OF SEMI-RIGID INSULATION. 22 GA. GALVANIZED PERFORATED LINER.
- 2. SOUND ATTENUATION SHALL BE 80dBA @ 3FEET FREE FIELD GROUND LEVEL.
- 3. DOOR SEALS SHALL BE LEVEL 3 TYPE.
- 4. AT ENCLOSURE/BASE AN ALUMINUM WEATHER SKIRT SHALL BE PROVIDED.
- 5. FLEXIBLE FUEL LINES SHALL HAVE STAINLESS STEEL BRAIDED JACKET.
- 6. GENERATOR RAIL AND BASE SHALL BE GROUNDED BY GROUND STRAPS. (TWO PER SIDE, FOR A TOTAL OF 4).
- 7. EXTERIOR NEMA 3R FUEL ALARM BOX SHALL INCLUDE THE FOLLOWING:
- A. HIGH FUEL ALARM LIGHT B. LOW FUEL ALARM LIGHT
- C. RUPTURE BASIN LIGHT D. WEATHER PROOF ALARM HORN E. HORN SILENCER SWITCH

CONTRACT DOCUMENTS.

APPROXIMATE WEIGHT 38,000 LBS

- 8. BREAKERS SHALL BE AS CALLED FOR ON SINGLE LINE DIAGRAMS, FLOOR PLANS, AND TECHNICAL
- SPECIFICATIONS. 9. GENERATOR SHALL BE PROVIDED WITH ASCO POWER MANAGER XP AND ASCO CONNECTIVITY MODULE #5150.
- 10. FOR FUEL PIPING AND COMBUSTION AIR AND EXHAUST CONTROL WIRING REFER TO "M"-SERIES MECHANICAL
- CONTRACT DOCUMENTS. 11. FOR CONCRETE HOUSE KEEPING PAD SIZES AND CONSTRUCTION REFER TO "FS" AND "S" SERIES STRUCTURAL
- 12. GENERATOR CONTROLLER SHALL BE PROVIDED WITH A MINIMUM OF TWO RS485 COMMUNICATION PORTS, PORT 1 SHALL BE UTILIZED FOR FIELD MOUNTED REMOTE ANNUNCIATOR. PORT 2 SHALL BE UTILIZED FOR ASCO POWER MANAGER.
- 13. GENERATOR SHALL BE EXERCISED VIA AUTOMATIC LOAD BANK CONTROLLER WITH AUXILIARY LOAD DUMP FEATURE. CONTRACTOR SHALL PROVIDE ADDITIONAL WIRING TO CONTROLLER AS REQUIRED.

#### GENERATOR AND FUEL TANK NOTES:

- 1. CONTROL PANEL, (OPTIONAL BATTERY CHARGER INSIDE).
- 2. 120V, 20A GFCI & 250V, 15A OUTLET (OPTIONAL).
- 3. CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX (USE LOW VOLTAGE STUB UP AREA).
- 4. BATTERY (12VDC X 2) (12 VOLT NEGATIVE GROUND SYSTEM).
- 5. MAIN LINE CIRCUIT BREAKER (MLCB), AC LOAD LEADS CONNECT DIRECTLY TO MLCB. (MLCB HEIGHT MAY VARY WITH CB SELECTION).
- BLOCK HEATER.
- 7. FUEL LINES ARE PLUMBED TO FRAME FOR UNITS WITH NO BASE TANK. FUEL LINES ARE PLUMBED DIRECTLY TO BASE TANK WHEN SO EQUIPPED.
- 8. CENTER OF GRAVITY AND WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS.
- 9. IF GENSET IS TO BE INSTALLED ON A BASETANK REFER TO BASETANK INSTALL FOR MOUNTING FOOTPRINT AND STUB UP INFORMATION. NOTE: STUB UP AREA MAY NOT BE THE SAME FOR BOTH GENSET AND BASETANK.
- 10. ENGINE SERVICE CONNECTIONS: FUEL INLET = 1/2" NPT COUPLING FUEL RETURN = 1/2" NPT COUPLING OIL DRAIN = 1/2" NPT COUPLING EXHAUST OUTLET = 4" I.D. FLEX PIPE
- 11. AUXILIARY AC CONNECTION FOR UNIT OPTIONS ARE LOCATED IN HIGH VOLTAGE CONNECTION BOX, UNLESS AN OPTIONAL LOAD CENTER IS INSTALLED.

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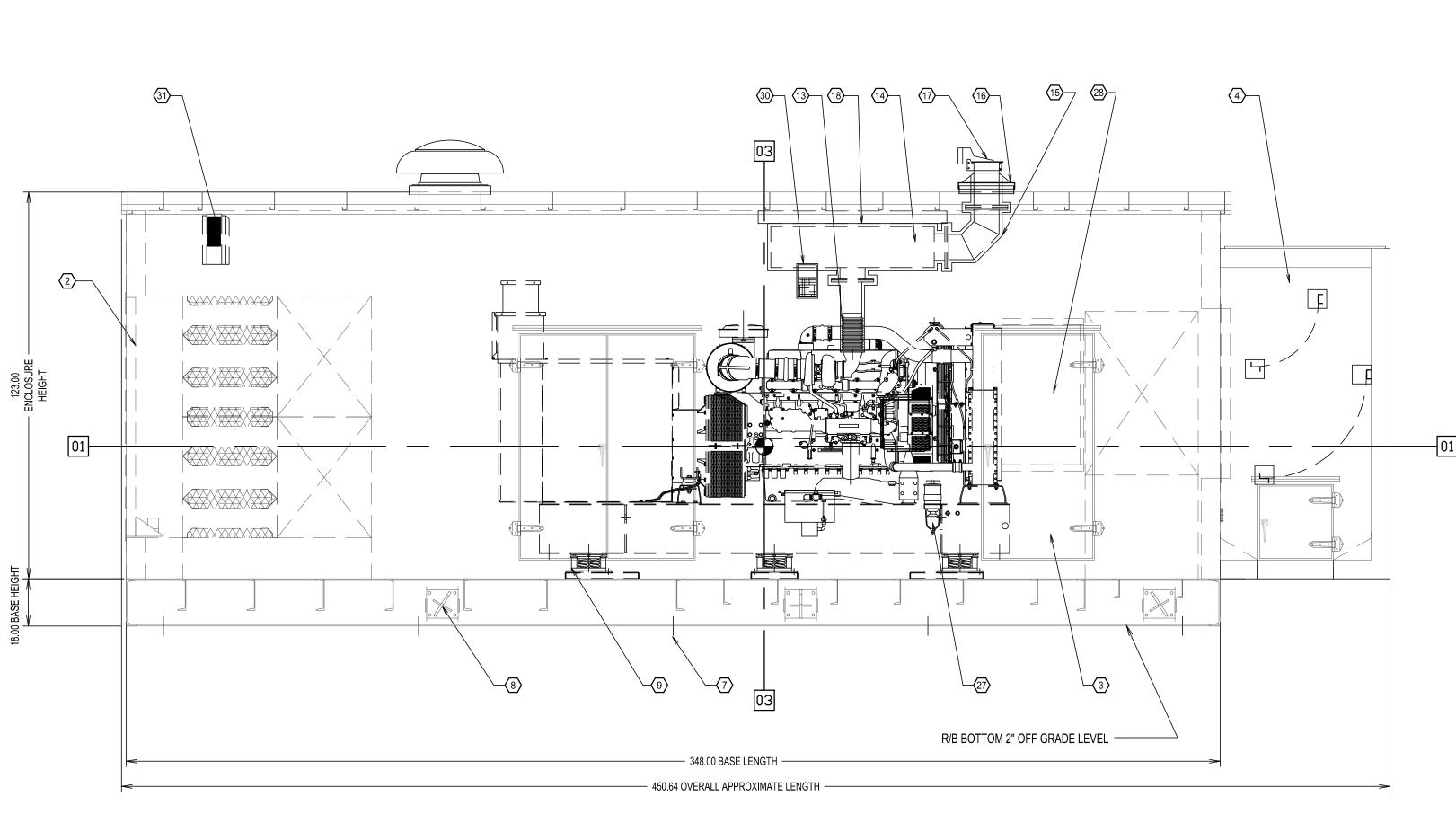
12. BOTTOM OF GENERATOR SET MUST BE CLOSED TO PREVENT PEST INTRUSION AND RE-CIRULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.

- 13. GENERATOR SET MUST BE INSTALLED SUCH THAT DISCHARGE AIR IS NOT RE-CIRCULATED.
- 14. CIRCUIT BREAKER -AC LOAD LEADS CONNECT DIRECTLY TO BOTTOM OF BREAKER. -REFER TO LUG SIZING CHART AVAILABLE ON GEN-CONNECT.
- 15. FLUSH MOUNT LIFTING PLATE.
- 16. FUEL IN BASIN ALARM. 17. FLANGE, 1/2", BASIN DRAIN.
- 18. REMOVABLE END PLATE.
- 19. 24" STANDARD ELECTRICAL STUB-UP.
- 20. FLANGE 3/8", FITTING WITH PLUG.
- 21. FLANGE, 4" E-VENT.
- 22. FLANGE, 2", RETURN, W/ 1/2" DIP TUBE.
- 23. FLANGE, 2", SUPPLY, W/ 1/2" DIP TUBE.
- 24. FLANGE, 2", HIGH LEVEL ALARM @ 90%.
- 25. FLANGE, 2", FUEL LEVEL GAUGE.
- 26. FLANGE, 2", STANDARD VENT (EXTEND VENT 12' ABOVE GRADE).
- 27. H. COUPLING, 2", SCULLY W/ DUST CAP OVERFILL PREVENTION.

ITEM NO.	QTY.	DESCRIPTION
1	1	GRAVITY DISCHARGE SHUTTERS
2	1	MOTORIZED INTAKE DAMPERS POWERED CLOSED
3	1	36"W x 72"H PAD/KEYLOCKING SINGLE DOORS W/ CHROME COOLER TYPE DOOR LATCHES, INTERIOR RELEASE HANDLES, STAINLESS STEEL HINGES, CHAIN RESTRAINTS, TEE TYPE DOOR HOLDERS, DOOR GASKETS & DRIP LEDGES
4	1	DISCHARGE SOUND HOOD WITH 30"W x 30"H ACCESS DOOR, WEATHER DRAINS, TURN VANES & RODENT SCRE
5	1	5' DEEP INTAKE SOUND BAFFLES W/ SCREENS - CROSSED DESIGN
6	1	3' DEEP DISCHARGE SOUND BAFFLES
7	1	Ø0.88" CUSTOMER MOUNTING HOLES (5 PER SIDE)
8	1	6 POINT LIFITNG EYES
9	6	ACE SPRING LOADED ISOLATOR
(10)	1	AVAILABLE ELECTRICAL CONDUIT STUB-UP THROUGH BASE FOR LOAD CABLE ACCESS BASED ON CUSTOMER SUPPLIED DRAWING
(1)	1	3/16" DIAMOND DECK PLATE FLOORING WITH 7 GA. ELAVATED 1-2" OFF GRADE
(12)	1	95% CRITICAL HIGH FUEL LEVEL SWITCH FOR REMOTE INDICATION
(13)	1	EXHAUST FLEX
(14)	1	GT SUPER CRITICAL GRADE EXHAUST SILENCER
(15)	1	INTERIOR 90° EXHAUST ELBOW
(16)	1	ROOF SKIRT
(17)	1	RAIN CAP
(18)	1	BLANKETS FOR FLEX, SILENCER, TURBOS, MANIFOLDS, ALL PIPING & OPENINGS IN ROOF
(19)	6	FIXTURE TYPE 'A'. SEE DRAWING E-001.00 FOR MORE INFORMATION

		<u> </u>
20>	4	LIGHT SWITCHES - 2-3 WAY FOR INTERIOR AND 2-3 WAY FOR EXTERIOR
21>	2	GFI DUPLEX RECEPTACLES
22	1	EXTENDED OIL & WATER DRAINS WITH VALVES
23>	1	EXTENDED FUMES DISPOSAL TUBE
24>	2	EMERGENCY BREAKGLASS STATIONS - 1 PER SIDE
25>	1	BATTERY RACKS, CABLES
26	1	WALL MOUNTED BATTERY CHARGER
27	1	RACOR FUEL/WATER SEPARATOR
28>	1	250kW LOAD BANK
29	2	15LB WALL MOUNTED ABC TYPE FIRE EXTINGUISHERS
30>	2	HPS INCADESENT LIGHTS WITH PHOTOELECTRIC CELL
31>	2	5KW SPACE HEATERS
32>	2	DUEL EMERGENCY LIGHTS
33>	1	EXTERIOR NEMA 3R FUEL ALARM BOX
34>	1	15 GAL. KENCO OIL MAKE UP TANK WITH STAND AND REGULATOR
35>	1	ASCO 5160 GATEWAY
36	1	PANEL 'PPCM-GEN'
(37)	1	SWITCHBOARD 'EMDB-SER/GYM'
38>	2	200A FUSED DISCONNECT SWITCHES: (1) 70A FUSE AND (1) 100A FUSE
39>	1	DAY TANK
40>	1	DAY TANK PUMPS CONTROLLER
<b>41</b>	1	GROUND BUS

P	ANEL	No. PPEM-GEN				L	OCATION:	GENERAT	OR ENCLO	OSURE		SECTI	ON.	1
VOLTS:	120/208	PHASE: <u>3</u>	WIRE:	<u>4</u>	BUS:	<u>100A</u>	MCB:	<u>60A</u>		JM INTERR ATING: <u>65K</u>		MOUN	ITING: <u>SURFACE</u>	
	_			_		PE	R PHASE(\	/A)		_	_			_
CKT NO.	TRIP	EQUIPMENT	LTG.	APP.	RECP	Α	В	С	RECP	APP.	LTG.	EQUIPMENT	TRIP	CKT NO
1	20	LIGHTING	420			1620				1200		BATTERY CHARGER	20	2
3	20	RECEPTACLES			1080		1080					SPARE	20	4
5	20	ASCO RCU#5160		1200				2400		1200		TANK GAUGE MONITOR/LEAK DETEC' ALARM	TION 20	6
7	20	FRESH AIR INTAKE MOTORIZED DAMPER		300		1500				1200		OVERFILL ANNUNCIATOR	20	8
9	20	EXHAUST AIR MOTORIZED DAMPER		300			2800			2500		DLOOKUEATED	20	10
11	20	CONTROL PANEL CP/TECH1		1200				3700		2500		BLOCK HEATER	30	12
13						1200				1200		DISTRIBUTION BOARD DMM	20	14
15	20	SPD					####					SPACE		16
17								####				SPACE		18
19-23	20	SPARE										SPACE		20-24
TOTAL LIGH	HTING IN VA	X= 420 X 1.25 DEM	525		. VA BY ASE	4320	3880	6100			EMAND IN AMP'S.	8691 X	(1.25 SPARE	10864
TOTAL RE	CEP. IN VA	= 1080 X .45 DEM	486		C/ APP IN A=	12800	X .6 DEM	7680			LOAD IN ERES	30 TOTAL IN K		11



SIDE VIEW
SCALE: N.T.S.

**TOP VIEW** 

SCALE: N.T.S.

'------ 120.00 BASE WIDTH -131.13 OVERALL APPROXIMATE WIDTH -

END VIEW

SCALE: N.T.S.

HIGH ENGINE TEMPERATURE PRE-ALARM	Х	NA	Х
HIGH ENGINE TEMPERATURE	Х	Х	Х
LOW LUBE OIL PRESSURE	Х	Х	Х
OVERSPEED	Х	Х	Х
LOW FUEL MAIN TANK	Х	NA	Х
LOW COOLANT LEVEL	Х	0	Х
EPS SUPPLYING LOAD	Х	NA	NA
CONTROL SWITCH NOT IN AUTOMATIC POSITION	Х	NA	Х
HIGH BATTERY VOLTAGE	Х	NA	NA
LOW CRANKING VOLTAGE	Х	NA	Х
LOW VOLTAGE IN BATTERY	Х	NA	NA
BATTERY CHARGER AC FAILURE	Х	NA	NA
LAMP TEST	Х	NA	NA
CONTACTS FOR LOCAL AND REMOTE COMMON ALARM	Х	NA	Х
AUDIBLE ALARM SILENCING SWITCH	NA	NA	Х
LOW STARTING AIR PRESSURE	Х	NA	NA
LOW STARTING HYDRAULIC PRESSURE	Х	NA	NA
AIR SHUTDOWN DAMPER WHEN USED	Х	Х	Х

REMOTE EMERGENCY STOP CV: CONTROL PANEL-MOUNTED VISUAL S: SHUTDOWN OF EPS IDENTIFICATION RA: REMOTE AUDIBLE X: REQUIRED O: OPTIONAL NA: NOT APPLICABLE

SAFETY INDICATIONS AND SHUTD	OWNS		
INDICATOR FUNCTION (AT BATTERY VOLTAGE)	CV	S	RA
OVERCRANK	Х	Х	Х
LOW WATER TEMPERATURE	Х	NA	Х
HIGH ENGINE TEMPERATURE PRE-ALARM	Х	NA	Х
HIGH ENGINE TEMPERATURE	Х	Х	Х
LOW LUBE OIL PRESSURE	Х	Х	Х
OVERSPEED	Х	Х	Х
LOW FUEL MAIN TANK	Х	NA	Х
LOW COOLANT LEVEL	Х	0	Х
EPS SUPPLYING LOAD	Х	NA	NA
CONTROL SWITCH NOT IN AUTOMATIC POSITION	Х	NA	Х
HIGH BATTERY VOLTAGE	Х	NA	NA
LOW CRANKING VOLTAGE	Х	NA	Х
LOW VOLTAGE IN BATTERY	Х	NA	NA
BATTERY CHARGER AC FAILURE	Х	NA	NA
LAMP TEST	Х	NA	NA
CONTACTS FOR LOCAL AND REMOTE COMMON ALARM	Х	NA	Х
AUDIBLE ALARM SILENCING SWITCH	NA	NA	Х
LOW STARTING AIR PRESSURE	Х	NA	NA

ELECTRICAL DETAILS SHEET (6

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ADDENDUM NO. 1

3 ISSUED FOR BID

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4 ISSUED FOR RE-BID

2 | 100% OWNERS REVIEW

85% CLIENT REVIEW

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05/21/21

02/08/18

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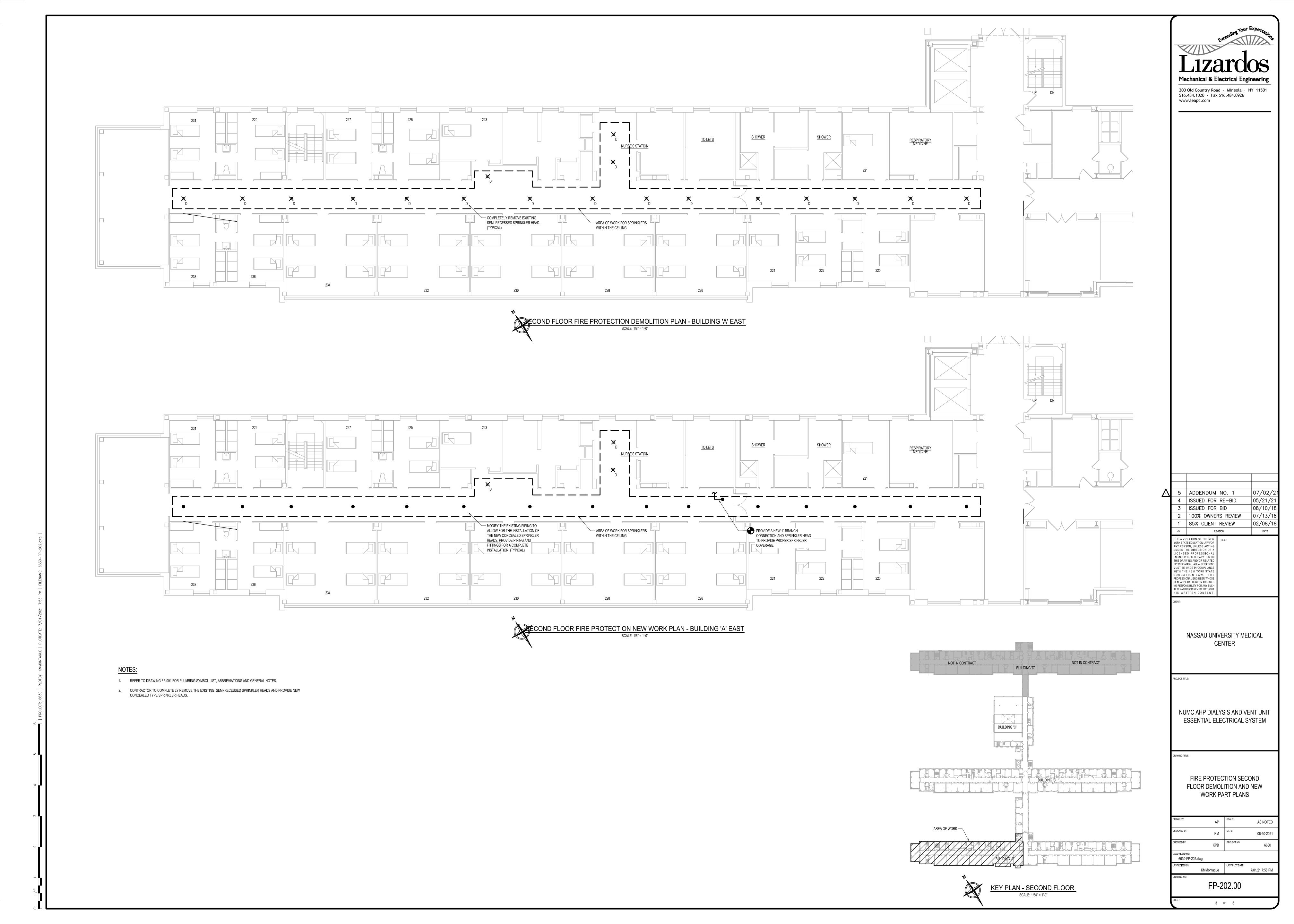
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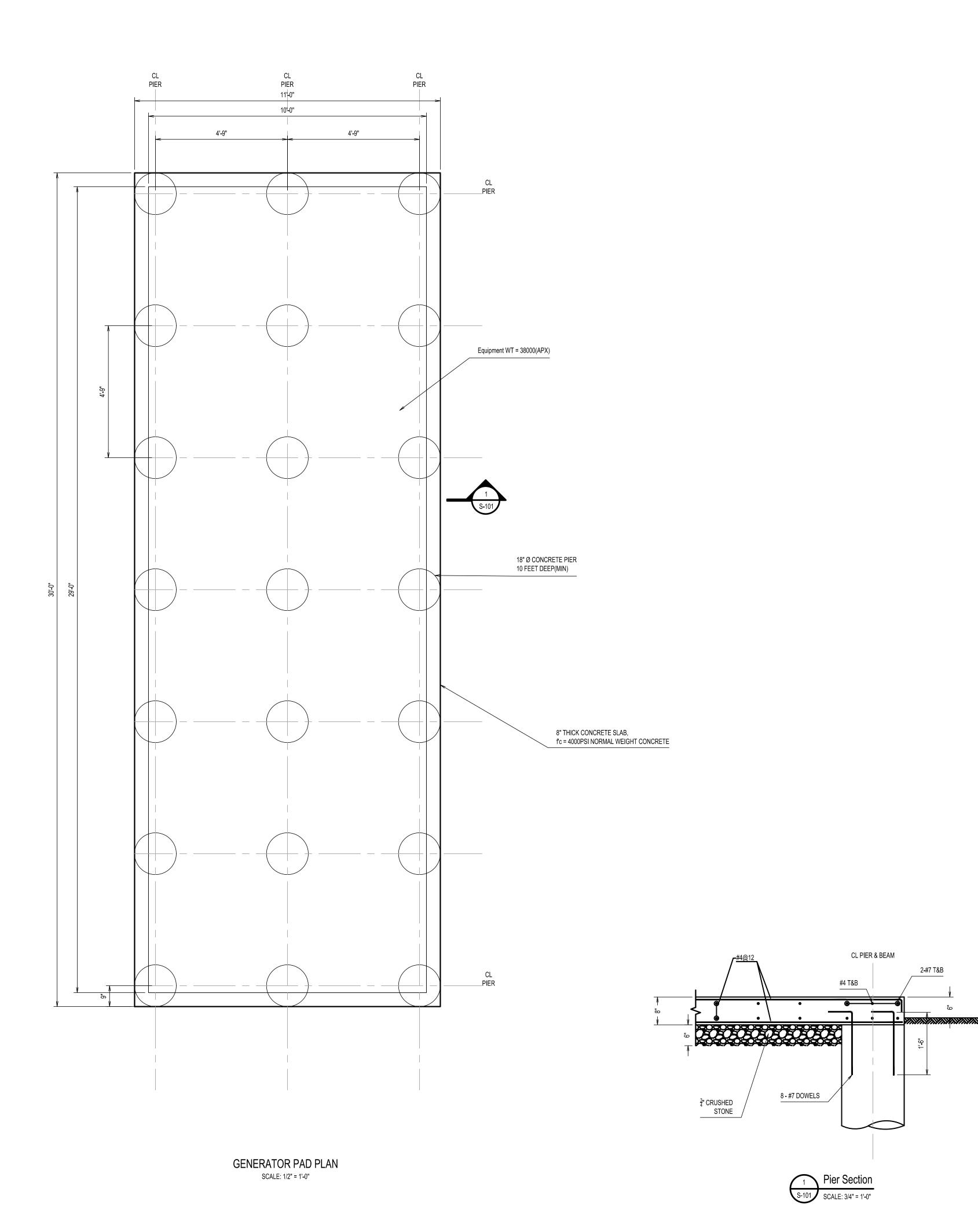
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400KW WALK-IN SOUND ATTENUATED ENCLOSURE GENERATOR FOR SERVICE BUILDING AND BOILER PLANT

01 CENTERLINE OF CRANKSHAFT 02 CENTERLINE OF ENGINE 03 REAR FACE OF BLOCK

SCALE: N.T.S.





EQUIPMENT SCHEDULE						
DESCRIPTION	MODEL	L	W	Н	WEIGHT	
Generator	PPEM-GEN#1	348	120	154	38000(APX)	

# **CONCRETE NOTES:**

- 1. ALL CONCRETE SHALL CONFORM TO ACI 318-05 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", AND SHALL COMPLY WITH ALL LOCAL LAWS AND ORDINANCES.
- 2. DESIGN, FABRICATION, AND PLACING OF CONCRETE REINFORCEMENT SHALL CONFORM TO ACI 318-05 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- 3. CONCRETE WORK IS BASED UPON THE FOLLOWING DESIGN VALUES:

HOLLOW STEM AUGER PILES f'c = 4000 psi WALLS, PILE CAPS AND FOUNDATIONS: f`c = 3000 psi SLABS: f`c = 4000 psi

REINFORCEMENT: Fy = 60000 psi WELDED WIRE FABRIC: Fy = 70000 psi

#### CONCRETE MATERIAL DESIGNATIONS SHALL COMPLY WITH THE FOLLOWING:

ASTM C150 CEMENT: AGGREGATE: ASTM C33

ASTM C330 LIGHTWEIGHT AGGREGATE:

NOMINAL MAXIMUM SIZE OF AGGREGATE: 1/5 NARROWEST DIMENSION BETWEEN SIDES OF FORMS, 1/3 THE DEPTH OF SLABS, 3/4 THE MINIMUM SPACING BETWEEN INDIVIDUAL BARS

WATER: POTABLE & FREE OF DELETERIOUS SUBSTANCES STEEL REINFORCEMENT: ASTM A615 WELDED WIRE FABRIC: ASTM A185

ADMIXTURES:

5. CONSTRUCTION AND CONTROL JOINTS SHALL BE LOCATED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. CONSTRUCTION JOINTS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPANS OF SLABS, BEAMS, AND GIRDERS.

ASTM C260

- 6. MATERIALS USED FOR CONCRETE SHALL BE STORED TO PREVENT DETERIORATION OR INTRUSION OF FOREIGN MATTER. ANY MATERIAL THAT HAS DETERIORATED CAN NOT BE USED FOR THE CONCRETE.
- 7. AIR CONTENT OF CONCRETE SHALL BE PROPORTIONED BASED UPON AGGREGATE SIZE AND DEGREE OF EXPOSURE
- 8. MAXIMUM CEMENT RATIO SHALL BE PROPORTIONED FOR MAXIMUM RESISTANCE OF CORROSION AND FREEZE THAW
- 9. IF SOILS CONTAIN THE RISK OF SULFATE EXPOSURE UTILIZE TYPE V CEMENT WITH POZZOLANS.
- 10. IN COLD WEATHER CONCRETING ADEQUATE EQUIPMENT SHALL BE PROVIDED FOR HEATING CONCRETE MATERIALS AND PROTECTING CONCRETE DURING FREEZING OR NEAR FREEZING WEATHER.
- 11. ALL CONCRETE MATERIALS AND ALL REINFORCMENT, FORMS, FILLERS, AND GROUND SHALL BE FREE FROM FROST &
- 12. IN HOT WEATHER PROVISIONS SHALL BE MADE TO PREVENT EXCESSIVE CONCRETE TEMPERATURES OR WATER
- 13. FORMWORK SHALL BE PROPERLY BRACED OR TIED TOGETHER TO MAINTAIN POSITION AND SHAPE.
- 14. FORMWORK SHALL BE REMOVED WHEN THE CONCRETE HAS SUFFICIENT STRENGTH TO RESIST DAMAGE OF FORM
- 15. EMBEDDED CONDUITS, PIPES, SLOTS AND SLEEVES SHALL NOT BE SPACED CLOSER THAN 3 DIAMETER WIDTHS ON CENTER AND SHALL NOT IMPAIR THE STRENGTH OF CONSTRUCTION. COORDINATE LOCATIONS AND SIZES WITH
- ARCHITECTURAL, MECHANICAL, OR ELECTRICAL DRAWINGS AND VENDOR SHOP DRAWINGS.
- CONCRETE CAST AGAINST THE EARTH:
- CONCRETE EXPOSED TO EARTH OR WEATHER:

No. 6 THROUGH No. 18 BARS No. 5, W31, D31 AND SMALLER

CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:

16. CONCRETE PROTECTION FOR REINFORCEMENT, MINIMUM COVER REQUIREMENTS:

SLABS, WALLS, JOISTS:

No. 14 AND No. 18 BARS No. 11 BAR AND SMALLER

BEAMS, COLUMNS:

PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1-1/2"

SHELLS, FOLDED PLATE MEMBERS:

No. 6 AND LARGER No. 5, W31 OR D31 AND SMALLER

WHEN FIRE PROTECTION REQUIRES A THICKNESS OF COVER GREATER THAN THE MINIMUM COVER REQUIREMENTS THE GREATER THICKNESSES SHALL BE USED.

- 17. A MINIMUM OF 2 No. 5 BARS SHALL BE PROVIDED AROUND ALL OPENINGS AND SHALL EXTEND A MINIMUM OF 24".
- 18. PROVIDE ADDITIONAL #4 DIAGONAL BARS, 4'-0" LONG AT ALL RE-ENTRANT CORNERS.
- 19. ALL TOP BARS AT DISCONTINUOUS ENDS SHALL USE STANDARD HOOKS. SPLICE TOP BARS AT CENTER OF SPAN AND BOTTOM BARS AT THE SUPPORT.
- 20. ALL BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES (20" MIN.)
- 21. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PLACE WHILE POURING CONCRETE. ADDITIONAL BARS, STIRRUPS, TIES, SPACERS AND TEMPERATURE STEEL SHALL BE PROVIDED BY THE CONTRACTOR, IF REQUIRED.
- 22. CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" x 45° CHAMFER, UNLESS NOTED OTHERWISE.
- 23. PROVIDE A 6 MIL VAPOR BARRIER UNDER ALL SLABS ON GRADE.
- 24. CONTRACTOR SHALL PROVIDE CLEAN CRUSHED STONE AS BACKFILL TO EXPEDITE CONSTRUCTION AND PROVIDE ACCESS TO NEW STRUCTURE. MATERIAL SHALL BE COMPACTED TO PASS A 95% MINIMUM MODIFIED PROCTOR
- 25. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE ANY FORMWORK IS PLACED AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

# **NEW YORK SPECIAL INSPECTION NOTES:**

- 1. THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN SECTION 1704 OF THE NEW YORK STATE BUILDING CODE.
- 2. THE SPECIAL INSPECTOR SHALL BE QUALIFIED AND COMPETENT SUBJECT TO APPROVAL OF THE CODE ENFORCEMENT OFFICIAL. THE MINIMUM QUALIFICATIONS SHALL BE DEMONSTRATED AS PER TABLE 1704.1 OF THE NEW YORK STATE BUILDING CODE.
- 3. SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS, AND SHALL SUBMIT INSPECTION REPORTS TO THE CODE OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL.
- 4. THE CONTRACTOR SHALL ISSUE A STATEMENT OF RESPONSIBILITIES THAT INCLUDES:
- ACKNOWLEDGMENT OF THE AWARENESS OF THE SPECIAL INSPECTIONS REQUIRED. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE.
- PROCEDURES FOR EXERCISING CONTROL. IDENTIFY AND QUALIFY THE PERSONS EXERCISING CONTROL AND POSITIONS IN THE ORGANIZATION.
- 5. SPECIAL INSPECTIONS REQUIRED ARE:
- CONCRETE

### **FOUNDATION NOTES:**

- 1. DESIGN OF SPREAD FOOTINGS IS BASED ON A NET SOIL BEARING PRESSURE OF 3000 POUNDS PER SQUARE FOOT.
- 2. THE REQUIRED BEARING CONDITION FOR EACH FOUNDATION SHALL BE VERIFIED BY THE SOIL ENGINEER BEFORE THE CONTRACTOR MAY START PLACING THE FOUNDATION. IN THE EVENT THAT UNUSUAL SOIL CONDITIONS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED, AND FOUNDATIONS SHALL NOT BE PLACED UNTIL DIRECTION IS RECEIVED FROM THE ENGINEER.
- 3. MAXIMUM SLOPE BETWEEN BOTTOM OF FOOTINGS SHALL BE ON VERTICAL TO TWO HORIZONTAL.
- 4. ALL WALLS AND PEDESTALS SHALL BE PLACED MONOLITHICALLY.
- 5. BACKFILLING AT FOUNDATION AND PEDESTALS SHALL BE PLACED SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES.
- 6. WHERE DESIGN CONDITIONS REQUIRE BACKFILLING EACH SIDE TO UNEQUAL HEIGHTS, WALLS SHALL BE SECURELY SHORED IN POSIITION, AND SHORES SHALL REMAIN UNTIL FLOORS ARE PLACED AND PROPERLY SET TO PROVIDE FULL
- 7. HORIZONTAL JOINTS IN FOUNDATION WALLS, GRADE BEAMS, OR SLABS, WILL NOT BE PERMITTED, UNLESS NOTED.
- 8. PLACE FOOTINGS IMMEDIATELY AFTER THE BOTTOM OF THE EXCAVATION HAS BEEN APPROVED, OR USE A 2" MUD SLAB TO PROTECT THE SOIL.
- 9. ALL THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ANY REQUIRED SHORING, OR BRACING OF EXISTING STRUCTURE.
- 10. IN FOUNDATION CONCRETE WORK SHALL INCLUDE SETTING OF COLUMN ANCHOR BOLTS AND LEVELING PLATES SUPPLIED BY THE STRUCTURAL STEEL CONTRACTOR, & GROUTING AT COLUMN BASES AS SHOWN ON THE DRAWINGS. GROUT AND LEVELING PLATES TO BE INSTALLED BEFORE STEEL ERECTION.
- 11. CONSTRUCTION JOINTS IN FOUNDATION WALLS SHALL BE PLACED AT MID-SPAN BETWEEN COLUMNS.
- 12. PARTIAL BACKFILLINIG AGAINST WALLS MAY BE SET, AFTER CONCRETE HAS ATTAINED FULL STRENGTH. FULL BACK FILLING SHALL BE COMPLETED AFTER STEEL FRAME AND SLAB ARE ERECTED.
- 13. EMBEDDED ALL PIPE PENETRATIONS THROUGH FOUNDATION WALLS SHALL HAVE PIPE SLEEVES PROVIDED WHICH SHALL BE SET BEFORE THE CONCRETE IS PLACED, SEE MECHANCAL AND ELECTRICAL DRAWINGS FOR SIZES AND LOCATIONS.

## SLAB-ON-GROUND SITE PREPARATION NOTES:

- 1. TOP LAYER OF SOIL SHOULD BE STRIPPED OF ALL ORGANIC MATERIAL, DEBRIS AND FROZEN MATERIAL.
- 2. LOCATE HARD AND SOFT POCKETS OF SOIL BY PROOF ROLLING OR OTHER MEANS AND REMOVE AND REPLACE BY COMPACTED SOIL TO PROVIDE A UNIFORM SUBGRADE FOR THE BASE.
- 3. SINKHOLES, EXPANSIVE SOILS, HIGHLY COMPRESSIBLE MATERIAL OR OTHER SUBGRADE PROBLEMS SHOULD BE REPORTED TO THE ENGINEER OF RECORD.
- 4. GRADE SITE TO PROVIDE GOOD DRAINAGE THROUGHOUT CONSTRUCTION AND LIFETIME OF STRUCTURE.
- 5. SUBGRADE STABILIZATION SHALL BE ACCOMPLISHED WITH A SHEEPSFOOT, RUBBER TIRE OR VIBRATORY ROLLING COMPACTION EQUIPMENT.
- 6. WEAK SUBGRADE MATERIAL SHALL BE REPORTED AND A GEOTECHNICAL ENGINEER
- 7. COMPACTED LIFTS SHALL NOT EXCEED 6" AFTER COMPACTION THE DRY DENSITY
- SHALL BE 95% ± 5% OF THE MODIFIED PROCTOR (ASTM D1557) TEST. 8. BASE MATERIAL TO BE ALLUVIAL SANDS AND GRAVELS ON CRUSHED ROCKS WITH NO

MATERIAL PASSING A 200 (75 MM) MESH SIEVE.

9. IF CRUSHED ROCK IS USED, CHOKE OFF THE SURFACES WITH SAND OR FINE GRAVEL TO PROVIDE A SMOOTH PLANAR SURFACE.

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IS A VIOLATION OF THE NEW ANY PERSON, UNLESS ACTINO JNDER THE DIRECTION OF A ICENSED PROFESSIO NGINEER, TO ALTER ANY ITEM THIS DRAWING AND/OR RELATE SPECIFICATION. ALL ALTERATIO JUST BE MADE IN COMPLIANO WITH THE NEW YORK STA ROFESSIONAL ENGINEER WHOS SEAL APPEARS HEREON ASSUME NO RESPONSIBILITY FOR ANY SUC ALTERATION OR RE-USE WITHOU IS WRITTEN CONSEI

85% CLIENT REVIEW

NASSAU UNIVERSITY MEDICAL

NUMC AHP DIALYSIS AND VENT UNIT ESSENTIAL ELECTRICAL SYSTEM

GENERATOR PAD PLAN AND

CADD FILENAME: 6630-S-101.dwg			
CHECKED BY:	EFL	PROJECT NO:	6630
DESIGNED BY:	EFL	DATE:	07-01-21
DRAWN BY:	HR	SCALE:	AS NOTED

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