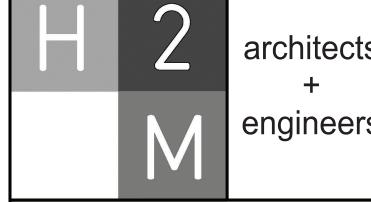
		<u>.EGEN</u>
SYMBOL	DESCRIPTION	COMMENT
S ₃	THREE - WAY SWITCH	46" AFF TO (UON 46" AFF TO (
S ₄	FOUR - WAY SWITCH	46" AFF TO 0
S ₄	ILLUMINATED SWITCH	46" AFF TO
<u>S</u> ^	SINGLE POLE SWITCH; "A" INDICATES SWITCH CONTROL	UON 46" AFF TO
S _D	SINGLE POLE DIMMER SWITCH	UON 46" AFF TO
S _{3D}	THREE - WAY DIMMER SWITCH	UON 46" AFF TO
S _K	SINGLE POLE KEYED SWITCH	UON 46" AFF TO
S _{K3}	KEYED THREE - WAY SWITCH KEYED FOUR - WAY SWITCH	46" AFF TO
S _P		UON
<u> </u>	SWITCH AND PILOT LIGHT SWITCH WITH THERMAL OVERLOAD PROTECTION (CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE WITH	
S _T	EQUIPMENT)	
S _{os/vs}	OCCUPANCY/VACANCY SENSOR WITH MANUAL OVERRIDE, WALL MOUNT	
TC	TIME CLOCK	
E,G	EMERGENCY SHUT OFF SWITCH; 'E' INDICATES ELECTRICAL; 'G' INDICATES GAS	
	2 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN WALL OR CEILING	
	3 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN OR BELOW SLAB	
LP1-35	DEDICATED HOME RUN TO PANEL LP1 FOR CIRCUIT NO. 35 ONLY. 2 #12 AWG + #12 AWG GND IN 3/4" E.C. CONCEALED IN WALL OR CEILING	
Θ	SIMPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
<u> </u>	DUPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR	FILIELL
	BASEBOARDS.	FLUSH
+	QUAD RECEPTACLE, DOUBLE DUPLEX RECEPTACLE: 120V, 20A. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
⊖ c	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "C" INDICATES CEILING MOUNT.	FLUSH
0	DUPLEX RECEPTACLE: 120V, 20A; FLOOR MOUNTED.	FLUSH
	QUAD RECEPTACLE: 120V, 20A; FLOOR MOUNTED.	
	DUPLEX RECEPTACLE AND DATA JACK: 120V, 20A; FLOOR MOUNTED.	
▼ _{D/T}	DATA JACK; FLOOR MOUNTED.	
⊖- ^{IG}	ISOLATED GROUND DUPLEX RECEPTACLE. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
GFI	DUPLEX RECEPTACLE: 120V, 20A; WITH GROUND FAULT INDICATOR. COORDINATE MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR TO CLEAR BASEBOARDS.	FLUSH
⊕ UC	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "UC" INDICATES UNDER COUNTER	AS PER
——CT	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "CT" INDICATES COUNTER TOP.	ENGINEER AS PER
		ENGINEER AS PER
WP USB	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "WP" INDICATED WEATHER PROOF.	ENGINEER
USB USB	DUPLEX RECEPTACLE: 120V, 20A; SUBSCRIPT "USB" INDICATES INTEGRAL USB.	FLUSH
♥ ⁴⁰ ₂₄₀	SPECIAL PURPOSE OUTLET: 240V, 40A. VERIFY NEMA CONFIGURATION WITH EQUIPMENT MANUFACTURER.	AS PER ENGINEER
● _TL	TWISTED LOCK RECEPTACLE: 125V, 20A, 3 WIRE; UNLESS OTHERWISE NOTED.	AS PER ENGINEER
	SURFACE RACEWAY WITH 2 GROUNDED AND ISOLATED TYPE DUPLEX RECEPTACLES AND 1 DATA OUTLET PER POSITION, 18" AFF UNLESS OTHERWISE NOTED.	
	MAGNETIC STARTER "S1"; SEE STARTER SCHEDULE	
	DISCONNECTION SWITCH "DS1"; SEE DISCONNECT SWITCH SCHEDULE.	
<u> </u>	JUNCTION BOX.	
O _{4X}	NEMA 4X STAINLESS STEEL JUNCTION BOX WITH GASKET COVER.	
$\mathbb{O}_{\mathbb{S}}$	JUNCTION BOX RECESSED IN WALL WITH BLANK COVER. PROVIDE 3/4" E.C. AND DRAG LINE TO ABOVE FINISHED CEILING. MOUNT 18" AFF, UNLESS OTHERWISE NOTED.	
O _M	FOR MONITOR, JUNCTION BOX RECESSED IN WALL WITH BLANK COVER. PROVIDE 3/4" E.C. AND DRAG LINE TO	
	ABOVE FINISHED CEILING. FOR HAND DRYER, JUNCTION BOX RECESSED IN WALL WITH BLANK COVER. PROVIDE 3/4" E.C. AND DRAG LINE TO	
	ABOVE FINISHED CEILING. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.	
T _{T1}	TRANSFORMER "T1"; SEE TRANSFORMER SCHEDULE.	
P1	ELECTRICAL PANEL "P1", RECESSED; SEE PANEL SCHEDULE.	
P1	ELECTRICAL PANEL "P1", SURFACE MOUNT; SEE PANEL SCHEDULE.	
<u></u>	CONDUIT GOING UP.	
-	CONDUIT GOING DOWN.	
	TELEPHONE. PROVIDE CAT-6 CABLE IN 3/4" E.C. TO UTILITY ROOM (105) WITH J. BOX RECESSED IN WALL WITH RJ-11	
<u> </u>	COVER.	
<u> </u>	CARLETELEVISION DROVIDE COAVIAL CARLE IN 2/4" E.C. TO LITH ITV ROOM (405) WITH A ROY RESERVED IN VICE	
T TV	CABLE TELEVISION. PROVIDE COAXIAL CABLE IN 3/4" E.C. TO UTILITY ROOM (105) WITH J. BOX RECESSED IN WALL WITH COAXIAL COVER.	
T TV		
	WITH COAXIAL COVER.	

ABBREVIATION	DESCRIPTION	COMMENT
AFF	ABOVE FINISHED FLOOR	
AFC	ABOVE FINISHED CEILING	
AFCI	ARC FAULT CIRCUIT INTERRUPTER	
AFG	ABOVE FINISHED GRADE	
AHJ	AUTHORITY HAVING JURISDICTION	
AMP, A	AMPERE	
ATS	AUTOMATIC TRANSFER SWITCH; SEE TRANSFER SWITCH SCHEDULE	
AWG	AMERICAN WIRE GAUGE	
BFC	BELOW FINISHED CEILING	
CL	CENTERLINE	
СТ	COUNTER TOP	
EC	ELECTRICAL CONDUIT	
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	
GFI	GROUND FAULT INDICATOR	
GND	GROUND	
СН	CENTRAL HUDSON (ELECTRIC UTILITY)	
МСВ	MAIN CIRCUIT BREAKER	
MLO	MAIN LUGS ONLY	
NTS	NOT TO SCALE	
TYP	TYPICAL	
UON	UNLESS OTHERWISE NOTED	
uc	UNDER COUNTER	
٧	VOLT	
VAC	VOLTS ALTERNATING CURRENT	
VDC	VOLTS DIRECT CURRENT	
X-FMR	TRANSFORMER	
WP	WEATHERPROOF	

	SINGLE LINE DIAGRAM LEGEND			
SYMBOL	DESCRIPTION	COMME		
T	LINE VOLTAGE THERMOSTAT, 120V, 10A.			
100AF 100AT	CIRCUIT BREAKER WITH TRIP AND POLES AS NOTED; 100 AMP FRAME, 100 AMP TRIP.			
• /	TRANSFER SWITCH 'TS1'; SEE TRANSFER SWITCH SCHEDULE.			
M.C.B √30A/2P PANEL "P1"	DISTRIBUTION PANEL P1 WITH 30A, 2 POLE M.C.B.; SEE DISTRIBUTION PANEL SCHEDULE.			
100AS	UNFUSED DISCONNECT SWITCH DS1, 100 AMP; SEE DISCONNECT SWITCH SCHEDULE.			
DS1 100AS 100AF	FUSED DISCONNECT SWITCH 'DSI', FUSED AT 100 AMP SIZE, 100 AMP FUSED, 3 POLES; SEE DISCONNECT SWITCH SCHEDULE.			
G	GENERATOR SET 'G'			
M	ELECTRIC METER AND METER PAN AS PER CENTRAL HUDSON REQUIREMENTS.			
5HP	MOTOR, NUMBER INDICATES HORSEPOWER.			
СТЅ	CURRENT TRANSFORMERS.			
→ H}{- PTS	VOLTAGE TRANSFORMERS.			
UPS	UNINTERRUPTIBLE POWER SUPPLY			
120/208V T2	TRANSFORMER 'T2' WITH SIZE, PRIMARY AND SECONDARY VOLTAGES AS NOTED.			
100AF 100AT	RACK OUT CIRCUIT BREAKER			
RVRM 10	REDUCED VOLTAGE SOLID STATE RAMPING MODULE, SIZED FOR 10 H.P.			
RVSS 150	REDUCED VOLTAGE SOLID STATE STARTER, SIZED FOR 150 H.P.			
VFD 25	VARIABLE FREQUENCY DRIVE, RATED FOR 25 H.P.			
FVNR 6	FULL VOLTAGE NON-REVERSING STARTER, NEMA SIZE 6			
-+- FV 5	FULL VOLTAGE REVERSING STARTER, NEMA SIZE 5			
JJS	FAST ACTING SOLID STATE FUSES AS PER MANUFACTURER.			
	MULTIPLE BRANCH CIRCUITS AS REQUIRED.			
	CONTROL CIRCUIT; MIN 2 #12 AWG IN ¾" E.C.			

LIST OF DRAWINGS				
E1 001.00	ELECTRICAL LEGENDS			
ES-100.00	ELECTRICAL SITE PLAN (REFER TO PHASE II DWG)			
E1 100.00	FIRST FLOOR & MEZZANINE ELECTRICAL LIGHTING AND POWER PLANS			
E1 500.00	STORAGE BUILDING ELECTRICAL DETAILS			
E1 501.00	STORAGE BUILDING ELECTRICAL DETAILS			
E1 502.00	STORAGE BUILDING ELECTRICAL GENERATOR DETAILS			
E1 503.00	STORAGE BUILDING ELECTRICAL GENERATOR DETAILS			
E1 600.00	STORAGE BUILDING ELECTRICAL SINGLE LINE DIAGRAM			

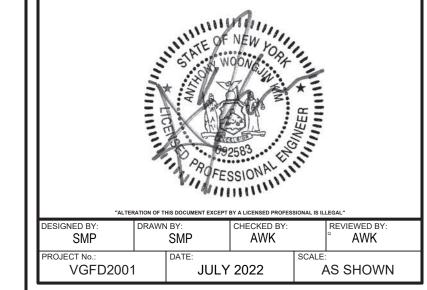
SYMBOLS LEGEND				
100	ROOM DESIGNATION			
5 A2.2	BUILDING SECTION CUT			
5 A2.2	WALL SECTION CUT			
5 A22	DETAIL KEY			
5 A2.2	ELEVATION KEY			
—— H	COLUMN GRID			
•	ELEVATION LINE			
Title SCALE:	DRAWING TITLE			
3 5 A2.2 1	INTERIOR ELEVATION REFERENCE			
# #	SEE NOTE # ON DWG #			



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VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

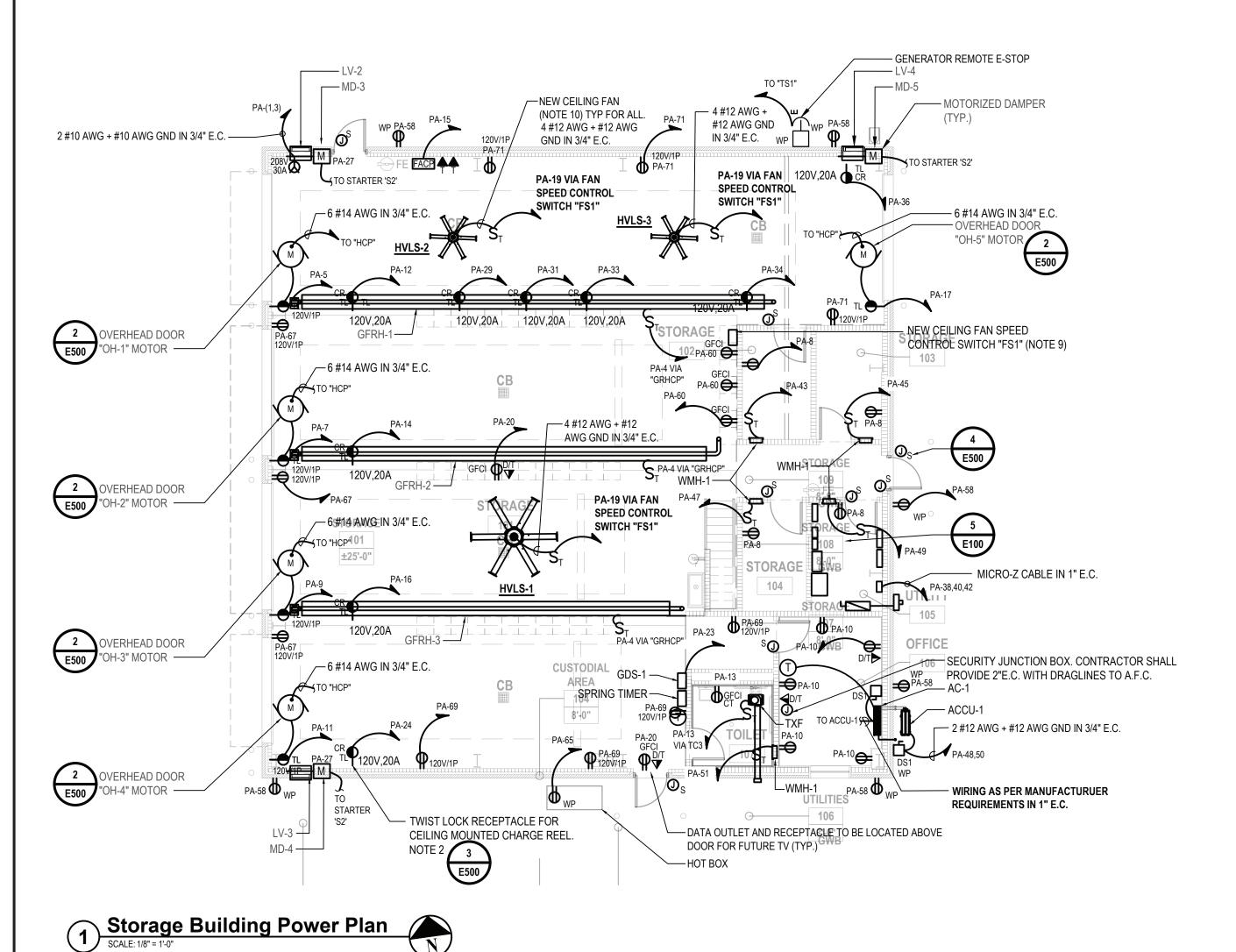
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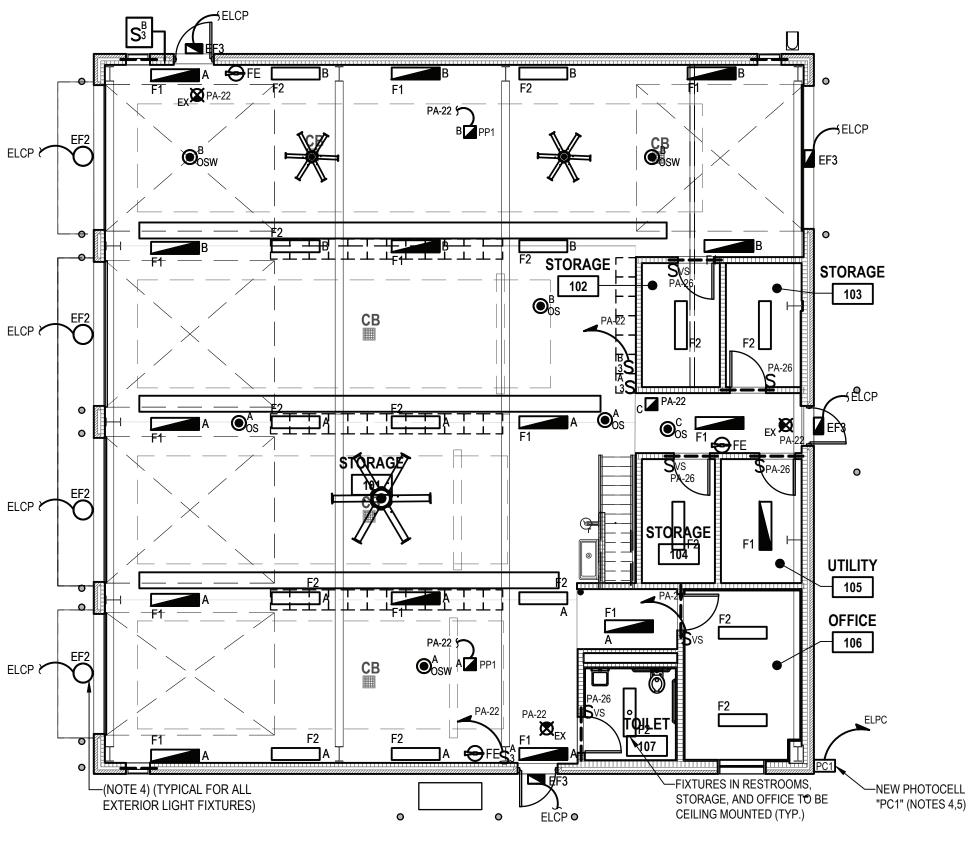
ELECTRICAL LEGEND PHASE 1

DRAWING No.

E1 001.00

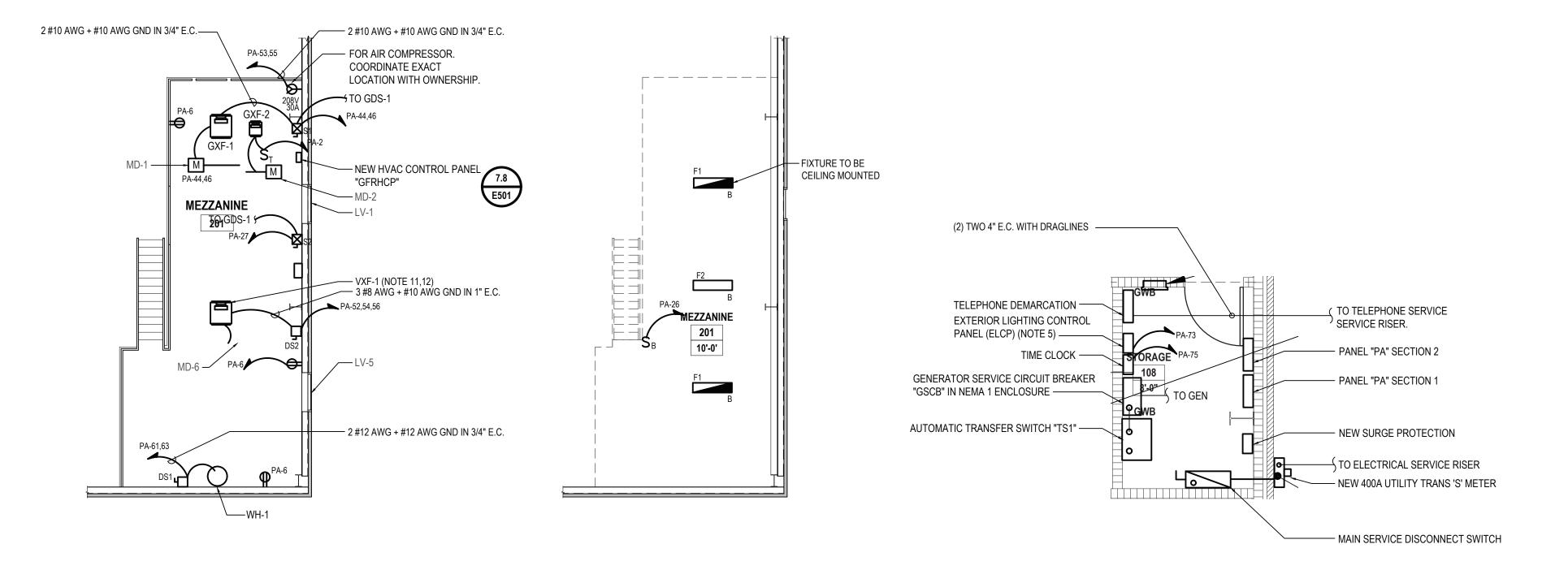


3 Mezzanine Electrical Power Plan
SCALE: 1/8" = 1'-0"





5 Utility Room Equipment Layout
SCALE: 1/4" = 1'-0"



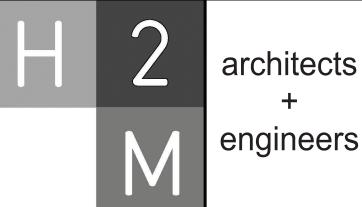
Mezzanine Electrical Lighting Plan
SCALE: 1/8" = 1'-0"

NOT

- 1. ALL RECEPTACLES IN APPARATUS ROOM SHALL BE MOUNTED 46" A.F.F. U.O.N.
- 2. CONTRACTOR SHALL COORDINATE EXACT MOUNTING LOCATION WITH DISTRICT.
- 3. CONTRACTOR SHALL PROVIDE AND INSTALL NEW SHUTDOWN CONTROL MODULES, ALL ASSOCIATED RELAYS, WIRING AND CONDUIT AND INTEGRATE IT WITH HVAC EQUIPMENT AND NEW FACP. ALL HVAC EQUIPMENT SHALL BE INTERCONNECTED TO THE FIRE ALARM SYSTEM AND ALL FANS SHALL SHUT DOWN UPON FIRE ALARM SYSTEM ALARM ACTIVATION.
 - EXTERIOR LIGHT FIXTURES SHALL BE CONTROLLED BY EXTERIOR LIGHTING CONTROL PANEL TIME CLOCK "TC1" AND PHOTOCELL "PC1" AS SHOWN ON THIS DRAWING. BOTH THE TIME CLOCK AND THE PHOTOCELL SHALL BE IN THE "ON" POSITION FOR THE EXTERIOR LIGHT FIXTURES TO TURN ON. EXTERIOR LIGHT FIXTURES SHALL BE PROVIDED WITH AN UNSWITCHED FEED AS SHOWN ON THIS DRAWING FOR EMERGENCY BATTERY BACKUP. TIME CLOCK "TC1" SHALL BE TORK (MODEL: EWZ103 OR APPROVED EQUAL). PHOTOCELL "PC1" SHALL BE INTERMATIC (MODEL: K4221C OR APPROVED EQUAL). CONTRACTOR SHALL PROVIDE AND INSTALL UNSWITCHED POWER FEEDS AS REQUIRED TO POWER THE TIME CLOCK AND PHOTOCELL.
- 5. PHOTOCELL "PC1" SHALL BE MOUNTED ON THE EXTERIOR OF THE BUILDING AT 11'-0" ABOVE FINISHED GRADE. CONTRACTOR SHALL LOCATE PHOTOCELL SO IT IS NOT ACTIVATED BY THE ADJACENT LIGHT FIXTURE.
- 6. CONTRACTOR SHALL NOTE THAT THE INTERIOR OF THE BUILDING IS UNFINISHED. CONTRACTOR SHALL PROVIDE AND INSTALL CHANNEL SUPPORT SYSTEMS AS REQUIRED TO SUPPORT ALL EQUIPMENT FROM THE BUILDING STRUCTURE AND TO INSTALL ALL EQUIPMENT AT THE LOCATIONS SHOWN ON THIS DRAWING. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED.
- 7. REFER TO REFER TO DRAWING E600.00 FOR ELECTRICAL PANEL SCHEDULES. REFER TO DRAWING E600.00 FOR LIGHTING FIXTURE SCHEDULE. REFER TO DRAWING FA001.00 FOR FIRE ALARM RISER AND NOTES.
- 8. CONTRACTOR SHALL TERMINATE NEW POWER FEED TO GAS DETECTION SYSTEM AS PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL PROVIDE AND INSTALL A POWER FEED (HARD WIRE) AS REQUIRED TO CONNECT THE GAS DETECTION SYSTEM POWER SUPPLY TO THE NEW POWER FEED. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED.
- 9. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL A WALL MOUNTED FAN SPEED CONTROL SWITCH COMPATIBLE WITH THE CEILING FAN SCHEDULED TO BE INSTALLED PER THE CEILING FAN MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL FEED NEW CEILING FAN VIA NEW FAN SPEED CONTROL SWITCH. CONTRACTOR SHALL PROVIDE AND INSTALL ALL WIRE CONDUIT AND ACCESSORIES REQUIRED TO CONTROL THE FAN AS PER THE MANUFACTURER'S RECOMMENDATIONS.
- 10. REFER TO ARCHITECTURAL DRAWINGS FOR MODEL NUMBER OF CEILING FAN TO BE PROVIDED AND INSTALLED. SUPPORT CEILING FAN FROM BUILDING STRUCTURE PER CEILING FAN MANUFACTURER'S RECOMMENDATIONS.
- 11. VXF-1 TO BE FURNISHED BY DISTRICT, INSTALLED BY MECHANICAL CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL WIRING, CONDUITS, AND EQUIPMENT AS SPECIFIED. PROVIDE ALL ADDITIONAL RELAYS, STARTERS, AND WIRING/CONDUIT AS REQUIRED TO OPERATE VEHICLE EXHAUST FAN IN ACCORDNACE WITH MANUFACTURER REQUIREMENTS.
- 12. CONTRACTOR SHALL COORDINATE VOLTAGE OF VEHICLE EXHAUST FAN WITH BUILDING VOLTAGE. PROVIDE ALL TRANSFORMERS TO MATCH VOLTAGES AS REQUIRED

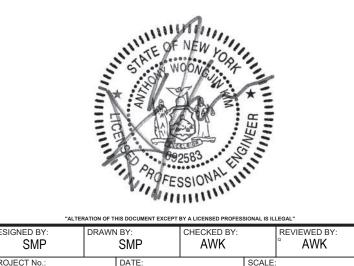
LIGHTING GENERAL NOTES:

- G1. PROVIDE ALL REQUIRED WIRING NECESSARY BETWEEN SWITCHES, CONTROLLERS AND/OR OCCUPANCY SENSORS FOR COMPLETE LIGHTING CONTROL. WHERE 3 OR 4 WAY SWITCHES ARE USED, PROVIDE ALL REQUIRED WIRING BETWEEN SWITCHES. WIRE SIZE SHALL EQUAL POWER FEED SIZE.
- G2. CONTRACTOR SHALL LOCATE AND INSTALL ALL LIGHT FIXTURES IN MECHANICAL ROOMS TO PROVIDE CLEARANCE FROM ALL MECHANICAL EQUIPMENT.
 COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLING FIXTURES, SWITCHES, CONDUIT, AND WIRING.
- G3. FIXTURES INDICATED WITH CIRCUIT DESIGNATIONS SHALL BE CONNECTED TO LINE SIDE OF CIRCUIT.
- G4. FIXTURES INDICATED WITH LETTER DESIGNATIONS SHALL BE CONNECTED TO THE SWITCH, OCCUPANCY SENSOR AND/OR POWER PACK WITH CORRESPONDING LETTER DESIGNATION.
- G5. PROVIDE AND INSTALL A DEDICATED NEUTRAL FOR EACH CIRCUIT. CONTRACTOR IS NOT PERMITTED TO USE COMMON NEUTRALS.
- G6. PROVIDE BOX AND ACCESSORIES AS PER MANUFACTURER'S RECOMMENDATION
- FOR ALL SWITCHES OCCUPANCY SENSORS, AND/OR POWER PACKS.
- G7. PROVIDE AND INSTALL 10" X 8" PHENOLIC NAMEPLATE DESCRIBING SWITCH FUNCTION. PROVIDE ON/OFF LOCK FOR MAINTENANCE SWITCH.
- G8. ALL CEILING MOUNTED FIXTURES WITH EMERGENCY BALLASTS AND ALL FIXTURES THAT ARE PART OF AN EMERGENCY LIGHTING SYSTEM, FED FROM AN EMERGENCY GENERATOR OR CENTRAL BATTERY SYSTEM SHALL BE LABELED. THESE LABELS SHALL BE EASILY READ FROM THE FLOOR LEVEL AND STATE THAT THE FIXTURE IS AN EMERGENCY FIXTURE AND CONTAIN THE PANEL NAME AND CIRCUIT NUMBER THAT IT IS FED FROM.
- G9. WIRING FOR EMERGENCY BALLAST IS NOT SHOWN ON PLANS. FIXTURES WITH EMERGENCY BALLASTS SHALL BE PROVIDED WITH AN UNSWITCHED POWER FEED FROM CIRCUIT FEEDING LIGHT FIXTURE.
- G10. CONTRACTOR SHALL USE SILICONE WATER PROOF SEALANT TO SEAL TOP, LEFT, AND RIGHT EDGES OF LIGHT FIXTURES TO WALL TO PREVENT MOISTURE FROM ACCUMULATING BEHIND FIXTURE. BOTTOM EDGE SHALL BE LEFT UNSEALED FOR DRAINAGE. COLOR OF SILICONE SHALL MATCH EITHER WALL COLOR OR FIXTURE COLOR. (TYP. OF ALL WALL EXTERIOR MOUNTED FIXTURES).



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MARK	DATE	DESCRIPTION



DESIGNED BY: SMP SMP SMP SMP AWK PROJECT No.: VGFD2001 DATE: VGFD2001 DATE: AS SHOWN

New Storage Building (Phase I)

VAILS GATE FIRE

DISTRICT





872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

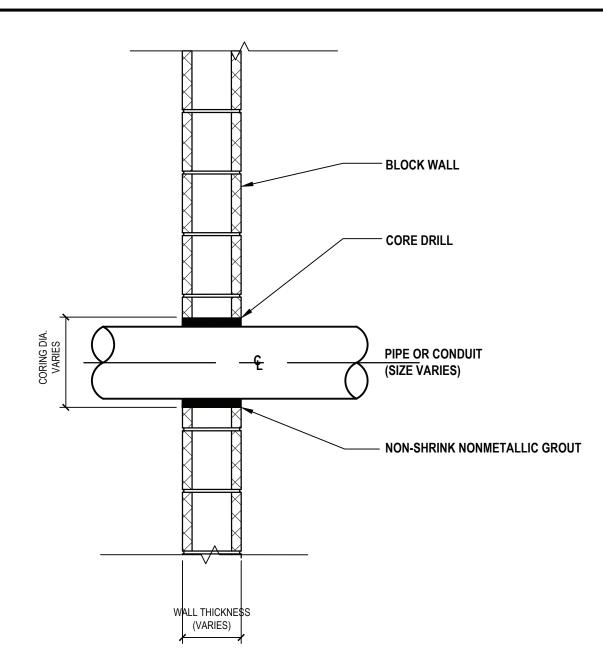
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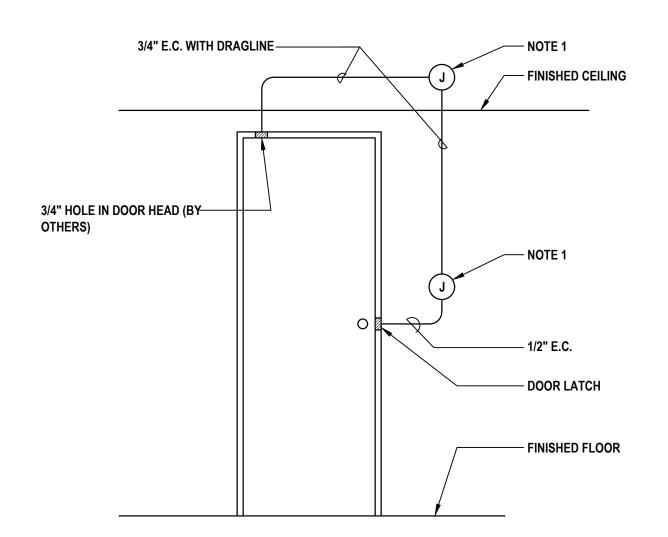
FIRST FLOOR & MEZZANINE ELECTRICAL LIGHTING AND POWER PLANS PHASE 1

DRAWING No.

E1 100.00



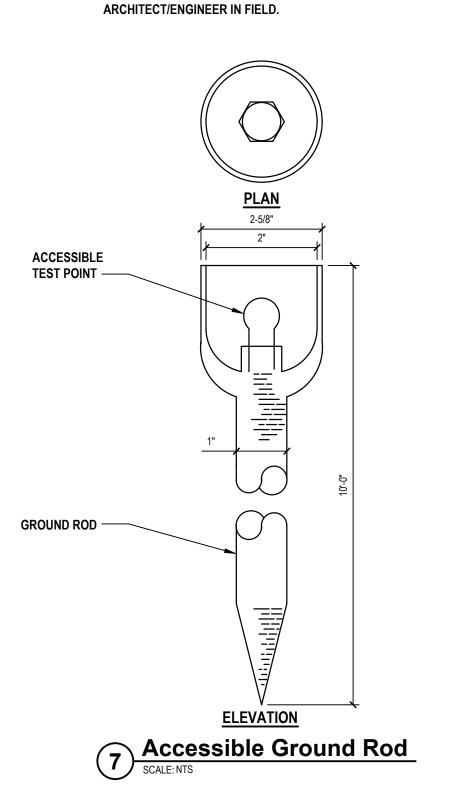
Typical Penetration Through Block Wall SCALE: NTS

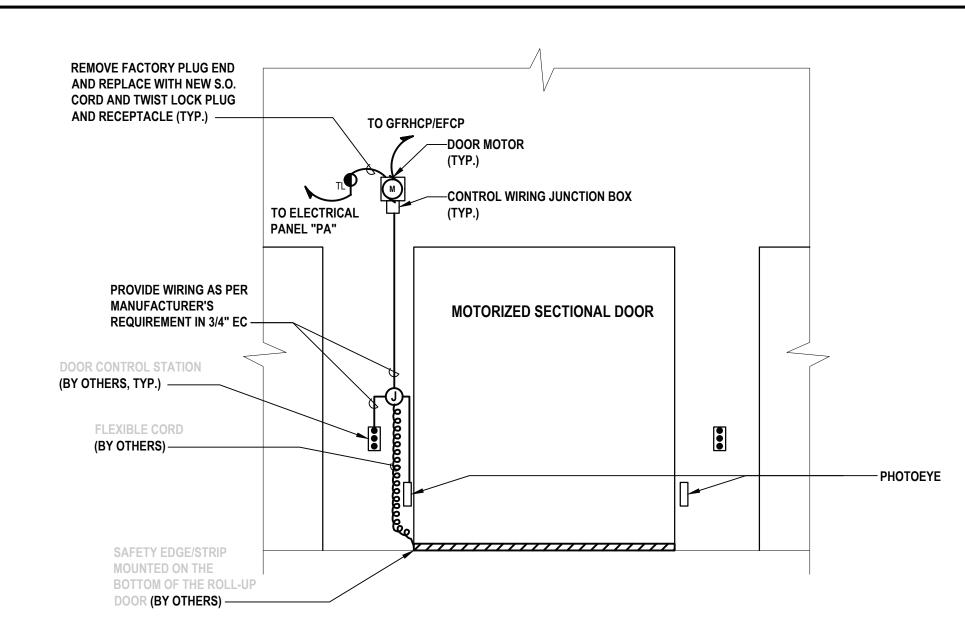


Security System Conduit Detail (Single Door) SCALE: NTS

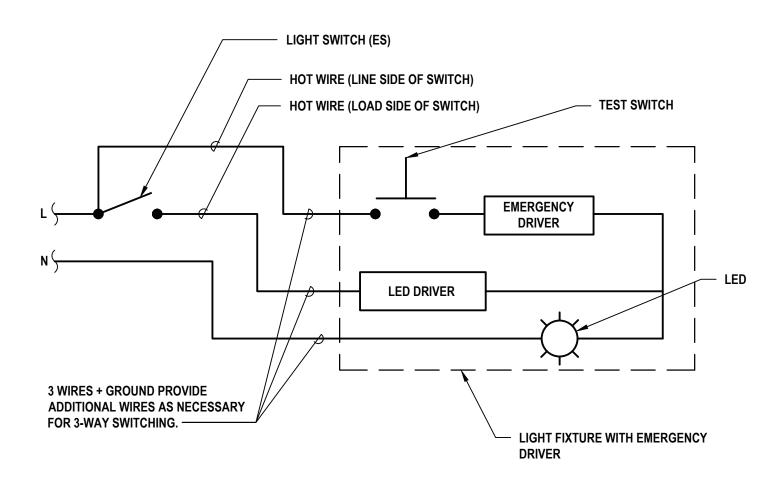
NOTES:

- 1. CONTRACTOR SHALL INSTALL JUNCTION BOX SUPPLIED BY OTHERS.
- COORDINATE INSTALLATION AND EXACT MOUNTING HEIGHT AND LOCATION WITH

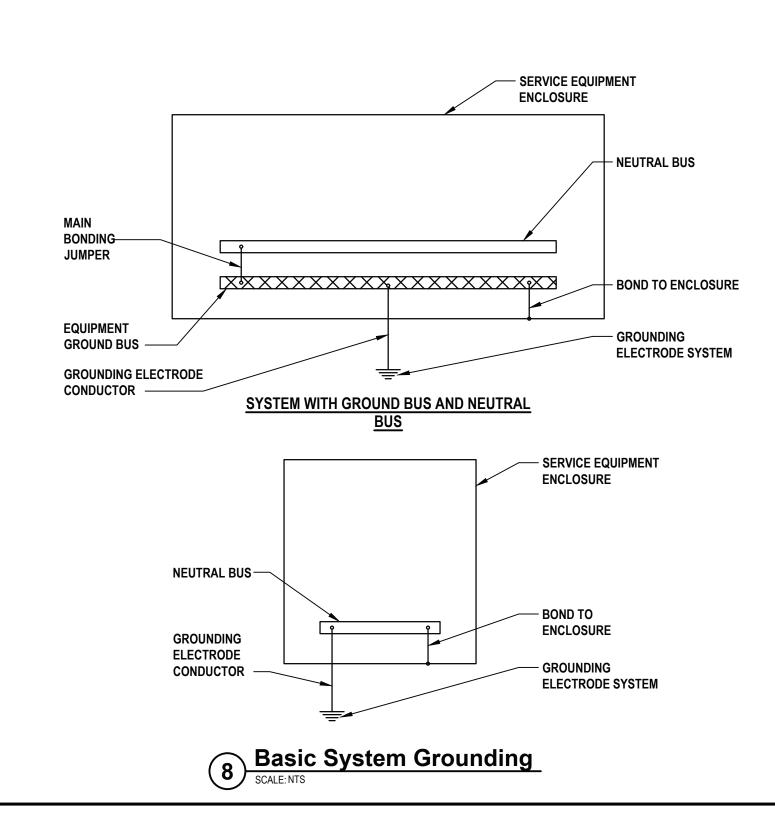


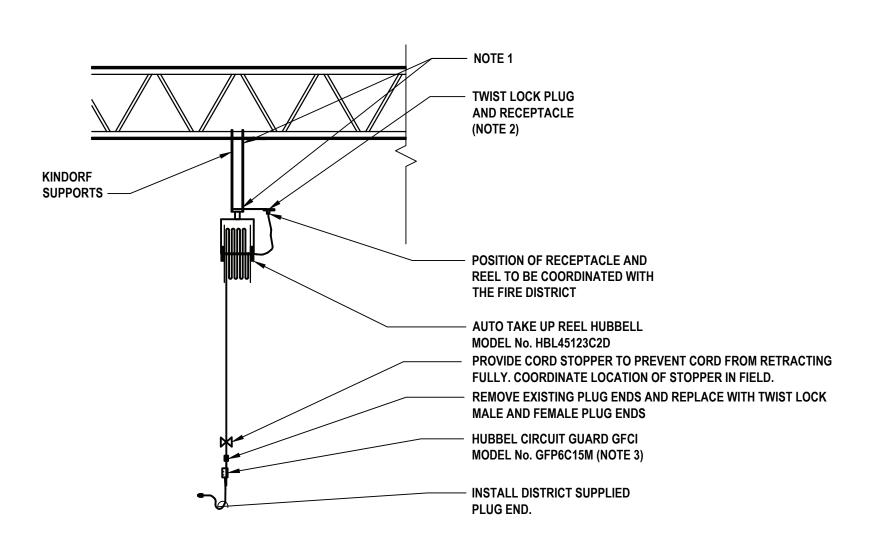


Garage Door Control - Elevation PlanSCALE: NTS



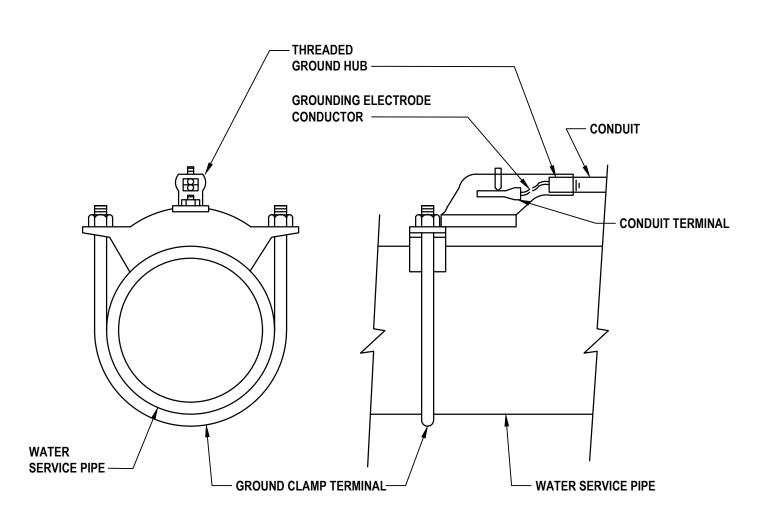
5 Typical Detail of Light Fixture with Emergency Driver



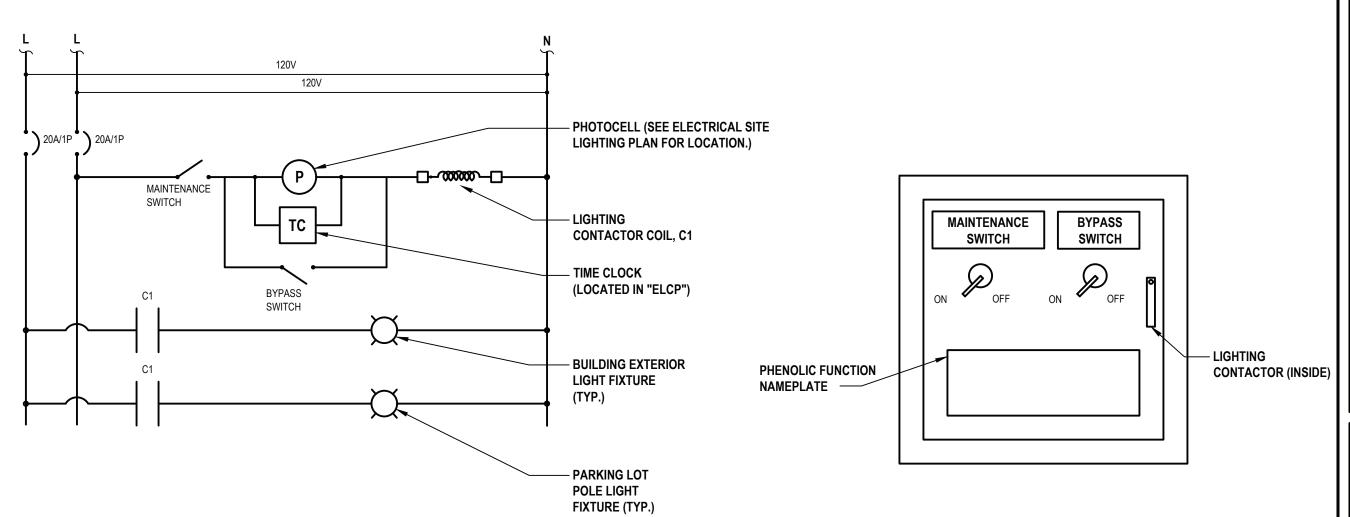


3 Charge Reel Receptacle Detail SCALE: NTS

- 1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MOUNTING HARDWARE AND ACCESSORIES AS REQUIRED TO MOUNT CORD REEL TO CEILING.
- 2. CONTRACTOR SHALL COORDINATE FINAL MOUNTING LOCATION WITH DISTRICT.
- 3. COORDINATE FINAL PLUG END WIT DISTRICT/ OWNER IN FIELD.



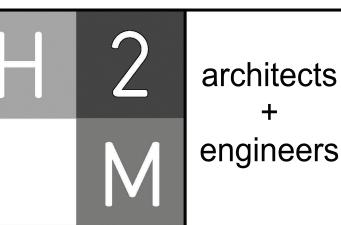
Water Pipe Electrode ConnectionSCALE: NTS



9 Exterior Lighting Control Schematic SCALE: NTS

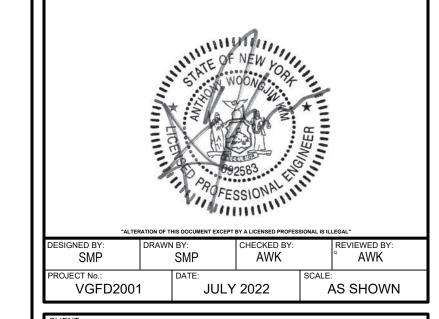
- 1. PROVIDE AND INSTALL NEW LIGHTING CONTROLS, CONTROL WIRING, RELAYS, CONTACTORS, AND SENSORS. INSTALL CONTROLS AND CONTACTORS IN NEW NEMA 1 HINGED DOOR ENCLOSURE. PROVIDE LOCKABLE HANDLE.
- 2. FUNCTION NAMEPLATE DESCRIPTION: MAINTENANCE SWITCH - TURN TO "ON" POSITION FOR NORMAL OPERATION. TURN TO OFF POSITION TO PREVENT LIGHTS FROM TURNING ON BYPASS SWITCH - TURN TO "OFF" POSITION FOR NORMAL OPERATION. TURN TO "ON" POSITION TO TURN ON LIGHT FIXTURES. (MAINTENANCE SWITCH MUST BE IN "ON" POSITION).

Exterior Lighting Control PanelSCALE: NTS



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New Storage Building (Phase I) New Fire Station (Phase II)



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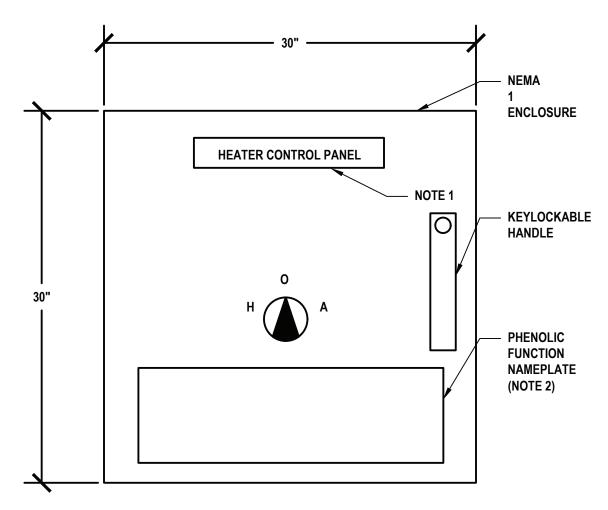
STORAGE BUILDING **ELECTRICAL DETAILS**

E1 500.00

1 Apparatus Bay GFRH Control Panel Schematic SCALE: NTS

NOTES:

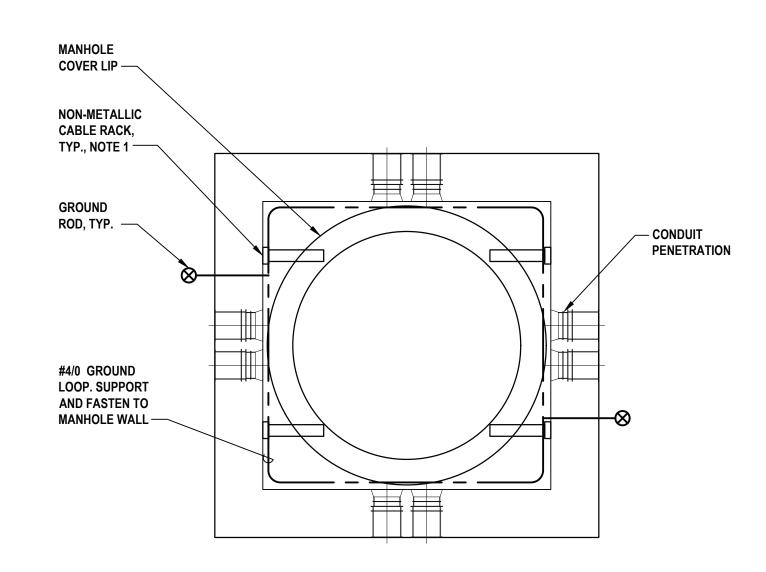
- 1. CONTRACTOR SHALL PROVIDE ALL REQUIRED RELAYS, CONTACTORS, CONTROL TRANSFORMERS, FUSES, HARDWARE, AND ACCESSORIES REQUIRED FOR COMPLETE CONTROL SYSTEM IN NEMA 1 ENCLOSURE.
- 2. MOUNT PHOTO EYE SO THAT WHEN ANY OVERHEAD DOOR IS IN THE RAISED POSITION THE CONTACT INDICATED OPENS AND THE HEATERS ARE PREVENTED FROM RUNNING. PROVIDE ADDITIONAL DEVICES AND ACCESSORIES AS REQUIRED.



3 GFRHCP STD ELEVATION SCALE: NTS

NOTES:

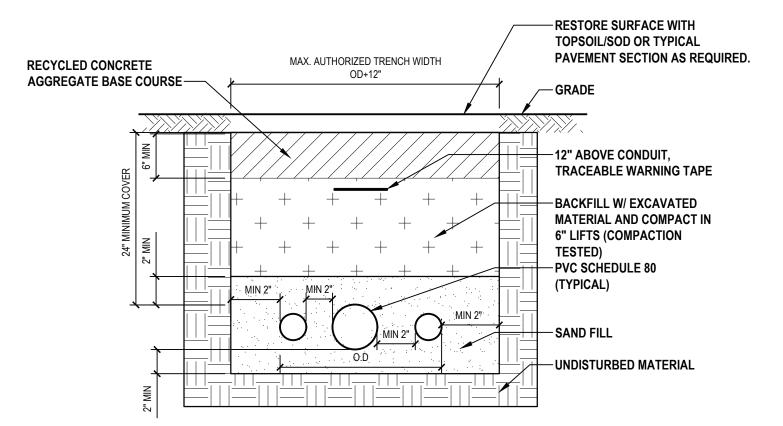
- 1. FOR 'GFRHCP' LABEL SHALL READ "HEATER CONTROL PANEL".
- 2. PHENOLIC NAMEPLATE:
 FOR GFRHCP: HEATERS SHALL BE SHUT OFF AND PREVENT FROM
 RUNNING WHEN APPARATUS OVERHEAD DOORS ARE IN OPEN POSITION.



Electrical Manhole - Plan ViewSCALE: NTS

NOTES

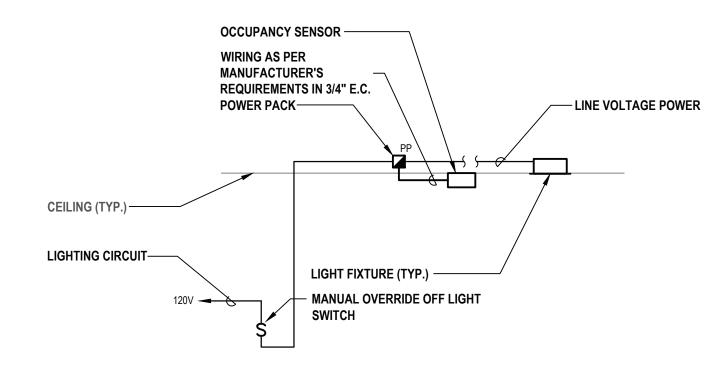
1. NUMBER OF CABLE RACKS SHOWN IS FOR REFERENCE ONLY. ACTUAL NUMBER OF RACKS MAY VARY PER MANHOLE.



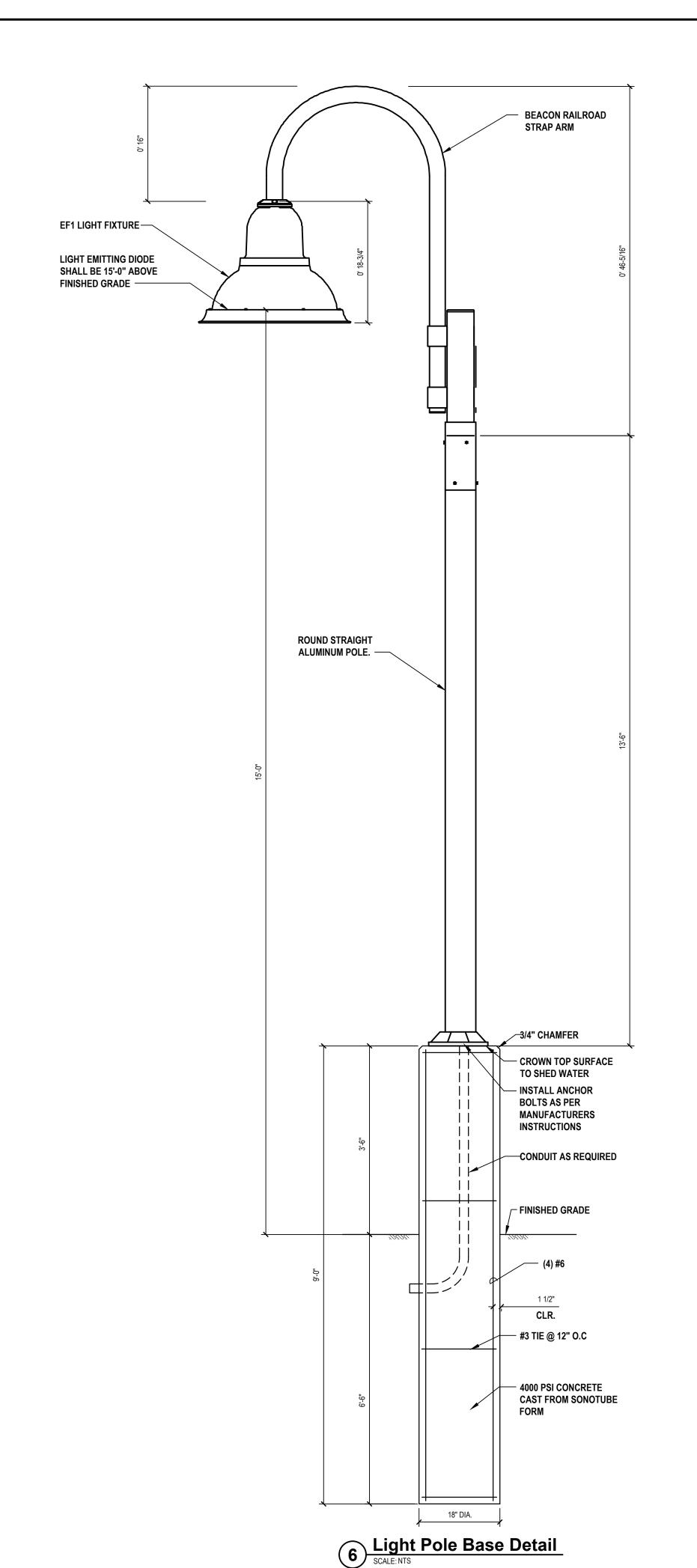
Typical Conduit Trench Detail SCALE: NTS

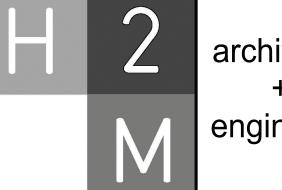
NOTE:

1. MINIMIZE ALL TRENCH WIDTHS IN ORDER TO AVOID EXCESSIVE DISTURBANCE OF ADJACENT AREAS. TRENCH WALLS SHALL BE VERTICAL. USE SHEET PILING OR A SHEETING BOX TO MAINTAIN THE SPECIFIED TRENCH.



5 Typical Detail of Light Fixture with Occupancy Control Sensor

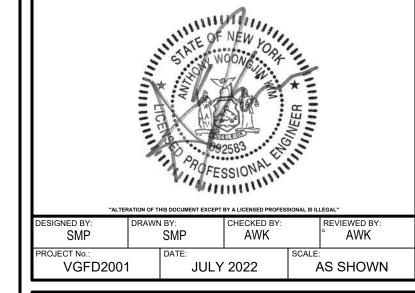




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VAILS GATE FIRE DISTRICT

New Storage Building (Phase I) New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

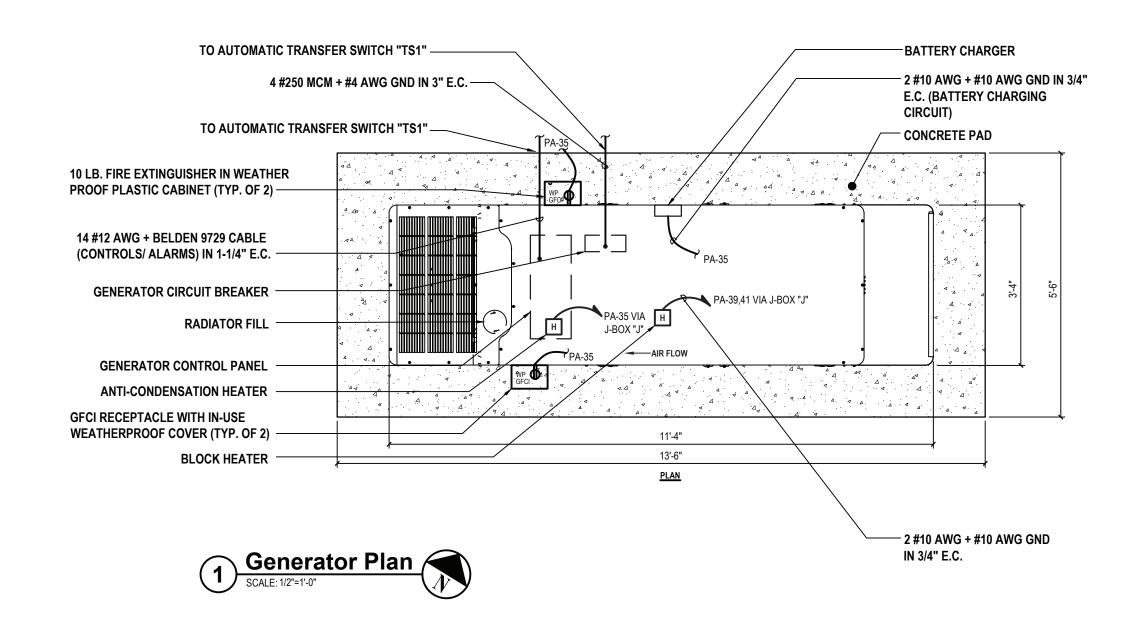
CONTRACT G
GENERAL CONSTRUCTION

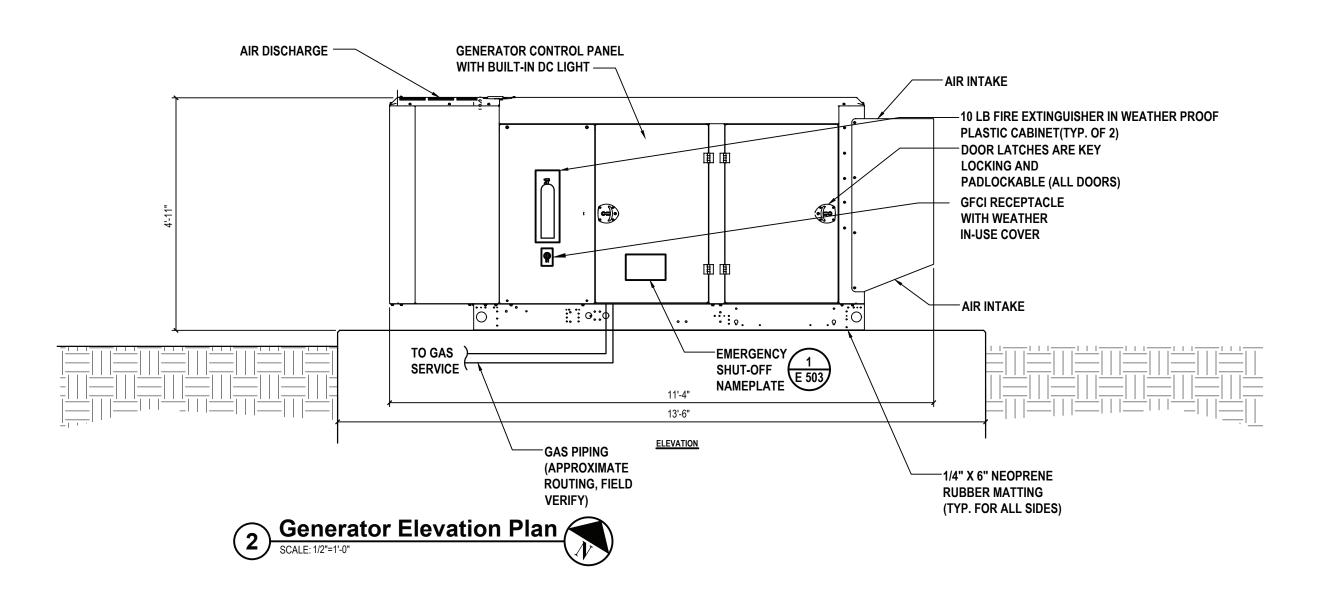
FINAL BID DOCUMENT

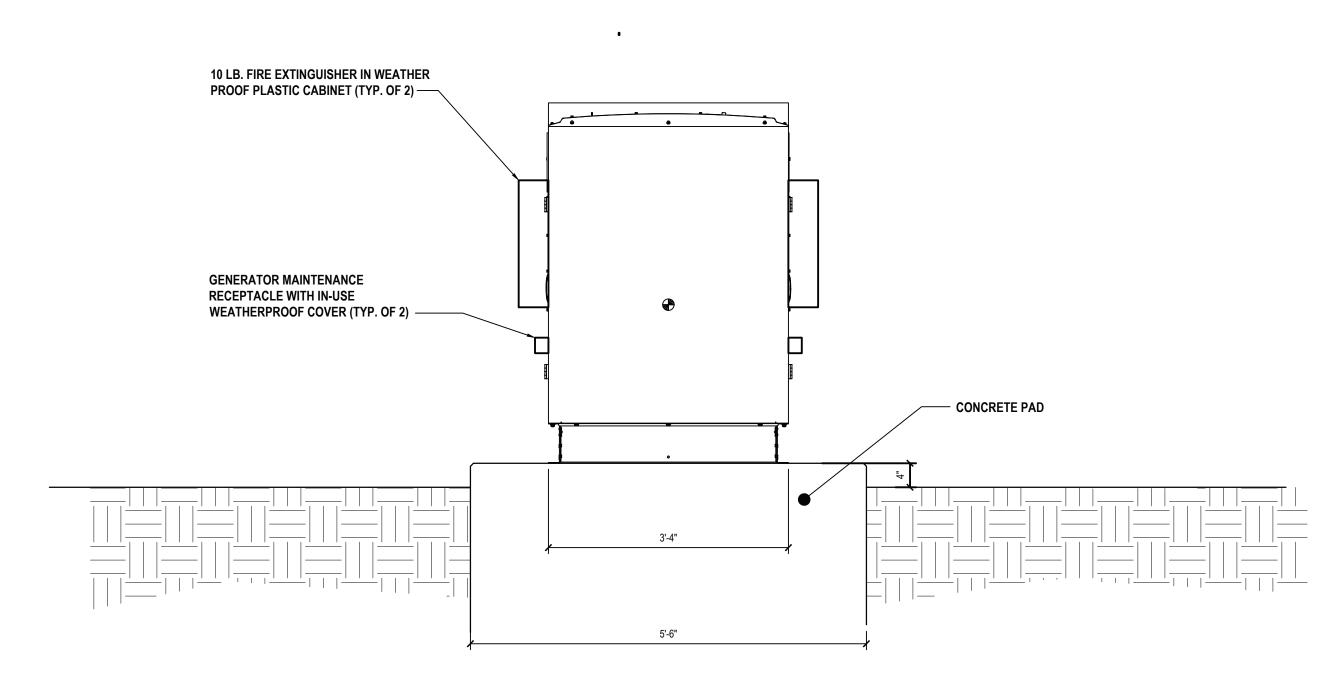
HEET TITLE

STORAGE BUILDING ELECTRICAL DETAILS PHASE 1

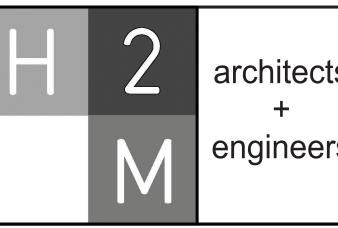
E1 501.00







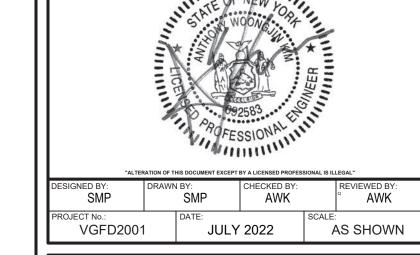




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CONSULTANTS:		

MARK	DATE	DESCRIPTION



VAILS GATE FIRE DISTRICT

New Storage Building (Phase I)
New Fire Station (Phase II)



872 Blooming Grove Turnpike New Windsor, NY 12553

CONTRACT

CONTRACT G
GENERAL CONSTRUCTION

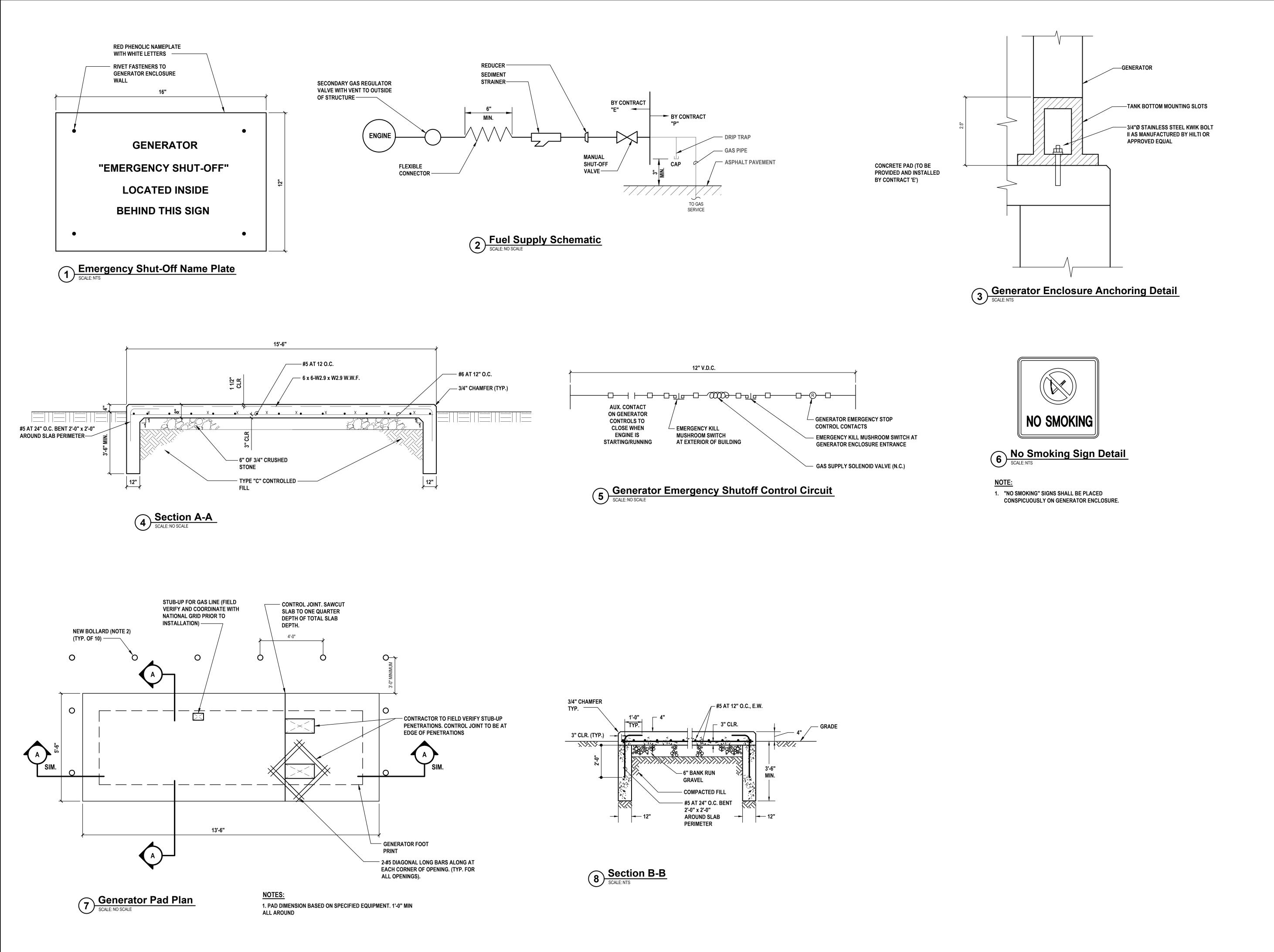
FINAL BID DOCUMENT

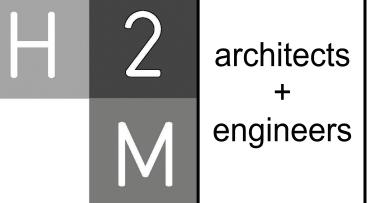
SHEET TITLE

STORAGE BUILDING ELECTRICAL GENERATOR DETAILS PHASE 1

RAWING No.

E1 502.00

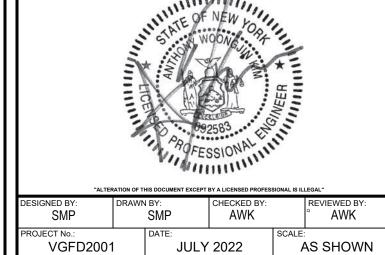




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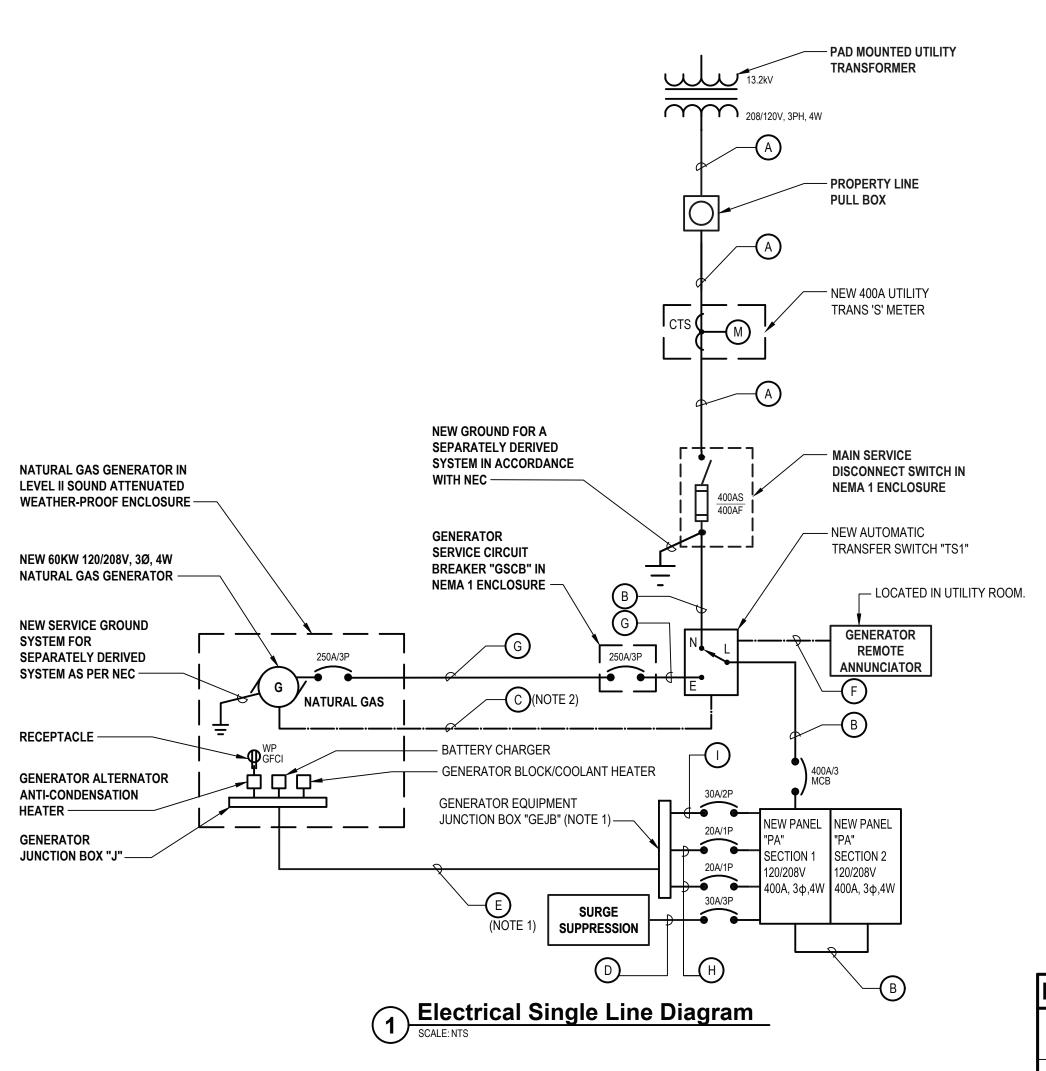
CONTRACT G
GENERAL CONSTRUCTION

FINAL BID DOCUMENT

SHEET TITLE

STORAGE BUILDING ELECTRICAL GENERATOR DETAILS PHASE 1

E1 503.00



FEEDER SCHEDULE

A 4 - 500 MCM IN 4" E.C. (PVC SCHEDULE 80)

D MICRO Z, LOW INDUCTANCE CABLE IN 1" E.C

E 6 # 8AWG + 3 #8 AWG GND IN 1-1/2" E.C.

G 4 #250 MCM + #4 AWG GND IN 3" E.C.

H 2 # 12AWG + #12 AWG GND IN 3/4" E.C.

I 2 # 10AWG + #10 AWG GND IN 3/4" E.C.

B 4 - 500 MCM + #3 AWG GND IN 4" E.C.

FEEDER | COPPER CONDUCTOR AND CONDUITS FEEDER SCHEDULE

10 #14 AWG + BELDEN 9729 CABLE IN 1-1/4" E.C (CONTROLS / ALARMS)

AND 2 #10 AWG GND IN 3/4" E.C. (BATTERY CHARGING CIRCUIT)

F BELDEN '9729' CABLE IN 1" E.C. (ROUTED CONTINUOUS FROM GENERATOR)

SINGLE LINE NOTES:

- CONTRACTOR SHALL COMBINE CIRCUITS INTO ONE CONDUIT

2.	BELDEN '9729' CABLE SHALL BE ROUTED CONTINUOUS FROM
	GENERATOR TO GENERATOR REMOTE ANNUNCIATOR.

SF - Subfeed ST - Shunt Trip Type TC - Time Clock Control

Manufacturer Panel Type NEMA Type Enclosure		MENS P2		Mains	400	A MC	_								
NEMA Type Enclosure	<u> </u>	2				JA IVIC	В	^	Aains F	Rating	400/	<u> </u>			
	-			Mounting	<u> </u>	SURFA	ACE	_ 0	Options		-		Note	LOCATED IN U	ITILITY CLOSET
LOAD DESCRIPTION		1													
LOAD DESCRIPTION	BREAKER	TRIP AMPS	CON	NNECTED LO	OAD	No.	Α,		No.	CO	NNECTED L	OAD	TRIP AMPS	BREAKER	
	OPTION	AND POLES	ØA VC	OLT AMPERI ØB	ES ØC	CIRC.	'	3 C 1	CIRC.	ØA V	OLT AMPER ØB	ES ØC	AND POLES	OPTION	LOAD DESCRIPTION
2011/22 1114 011/22		204/00	2496			1	┝┿╌	\vdash	2	528			15A/1P	HACR	GXF-2
POWER WASHER		30A/2P		2496		3	Щ	\vdash	4		702		20A/1P	HACR	(3)-APP BAY RADIANT HEATERS
"OH-1" DOOR MOTOR		20A/1P			1500	5	⊬	┢	6			540	20A/1P		MEZZ RECEPTACLES
"OH-2" DOOR MOTOR		20A/1P	1500			7	┝	\vdash	8	720			20A/1P		STORAGE RECEPTACLES
"OH-3" DOOR MOTOR		20A/1P		1500		9	₩	├	10		900		20A/1P		OFFICE RECEPTACLES
"OH-4" DOOR MOTOR		20A/1P			1500	11	₩	┢	12			500	20A/1P	GFCI	CEILING CORD REEL
BATHROOM RECEPTACLE / TXF-1	GFCI	15A/1P	200			13	┝┿╌	\vdash	14	500			20A/1P	GFCI	CEILING CORD REEL
FIRE ALARM CONTROL PANEL	LO	20A/1P		500		15	₩	┡┼	16		500		20A/1P	GFCI	CEILING CORD REEL
"OH-5" DOOR MOTOR		20A/1P			1500	17	${\mathbb H}$	┝┿╌	18			-	20A/1P		SPARE
CEILING FANS		20A/1P	275			19	┝┿╌	\vdash	20	360			20A/1P		T.V. RECEPTACLE
SPARE		20A/1P		0		21	₩	┡┼	22		713.1		20A/1P		STORAGE LIGHTING
GAS DETECTION SYSTEM (GDS-1)		20A/1P			200	23	${\mathbb H}$	┝┿╌	24			292	20A/1P	TC	EXTERIOR LIGHTING
FUELSHIELD & METER		20A/1P	200			25	┝┿╌	\vdash	26	846			20A/1P		INTERIOR LIGHTING
MOTORIZED DAMPERS		20A/1P		200		27	₩	┡┼	28		-		20A/1P		SPARE
CEILING CORD REEL	GFCI	20A/1P			1500	29	\vdash	┝┿╌	30			-	20A/1P		SPARE
CEILING CORD REEL	GFCI	20A/1P	1500			31	┝┿╌	\vdash	32	_			20A/1P		SPARE
CEILING CORD REEL	GFCI	20A/1P		1500		33	₩	┝┼	34		1500		20A/1P	GFCI	CEILING CORD REEL
TI COND HEATER, BATTERY, RECEPT.		20A/1P			1500	35	\vdash	┝┿╌	36			1500	20A/1P	GFCI	CEILING CORD REEL
GENERATOR OVERFILL PANEL		20A/1P	1500			37	┝┿╌	\vdash	38	2880					
BLOCK HEATER		30A/2P		2496	2496	39 41	H		40		2880	2880	30A/3P		SURGE PROTECTION

EXTERIOR LIGHTING FIXTURE SCHEDULE MOUNTING DESIGNATION SYMBOL MANUFACTURER MODEL NUMBER TYPE WATTS **VOLTAGE** LUMENS MOUNTING REMARKS **TEMPERATURE** HEIGHT PARKING LOT POLE LIGHTING EF1 POLE MODEL NUMBER: URB-CAP-21-24L-55-4K7-UNV-4-BC BEACON 15'-0" AFF RSA-B-SHO-S-15-40-A/B/C-CAP-2L-B3-DBT-VM2 RECESSED EMERGENCY BATTERY BACKUP WITH 90 LTR-4RD-H-HL40L-DM1_LTR-4RD-T-EF2 42.9 PRESCOLITE UNV IN CANOPY MINUTES OF BACKUP CAPACITY HL40K8WDS CANOPY EMERGENCY BATTERY BACKUP WITH 90 MOUNT QSP2-24L-30-4K7-4 LED 6" ABOVE DOOR HUBBELL UNV MINUTES OF BACKUP CAPACITY EF3 SURFACE

INTERIO	R LIGHTING	FIXTURE SCH	HEDULE								
DESIGNATION	SYMBOL	MANUFACTURER	MODEL NUMBER	TYPE	WATTS	COLOR TEMPERATURE	VOLTAGE	LUMENS	MOUNTING	REMARKS	MOUNTING HEIGHT
	F1	COLUMBIA	LXEM-4-40-HL-RFA-EDU-ELL14 +XEHC	LED	47	4000K	UNV	-	CEILING MOUNTED CHAIN HUNG	EMERGENCY BATTERY BACKUP WITH 90 MINUTES OF BACKUP CAPACITY	17'-0" AFF
	F2	COLUMBIA	LXEM-4-40-HL-RFA-EDU+XEHC	LED	47	4000K	UNV	-	CEILING MOUNTED CHAIN HUNG		17'-0" AFF
Ø	EX	COMPASS LIGHTING	CEWSRE	LED	2.7	3000K	UNV	-	WALL MOUNT SURFACE	EMERGENCY BATTERY BACKUP WITH 90 MINUTES OF BACKUP CAPACITY (NOTE EL2)	6" ABOVE DOOR

LIGHT FIXTURE SCHEDULE NOTES:

- EL1. CONTRACTOR SHALL PROVIDE, INSTALL, LOCATE AND MOUNT OCCUPANCY SENSOR AS PER MANUFACTURES RECOMMENDATIONS. CONTRACTOR SHALL NOT MOUNT OCCUPANCY SENSOR DIRECTLY TO SLOPED CEILING. CONTRACTOR SHALL PROVIDE AND INSTALL MOUNTING HARDWARE TO ENSURE OCCUPANCY SENSOR LENS FACE IS ORIENTATED DOWNWARD, FACING THE FINISHED FLOOR.
- EL2. CONTRACTOR SHALL COVER LEFT AND RIGHT ILLUMINATED DIRECTIONAL ARROWS AS PER MANUFACTURER'S RECOMMENDATIONS.

SPARE EQUIPMENT:

SE1. IN ADDITION TO THE EQUIPMENT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL INCLUDE THE COST FOR PROVIDING THE FOLLOWING SPARE EQUIPMENT TYPES IN THE BASE BID. CONTRACTOR SHALL INCLUDE IN BASE BID THE COST TO DELIVER THE FOLLOWING EQUIPMENT TO A STORAGE LOCATION DESIGNATED BY THE OWNER. REFER TO THE LIGHT FIXTURE SCHEDULE ABOVE FOR ADDITIONAL INFORMATION.

LIGHTING C	IGHTING CONTROLS SCHEDULE									
TYPE	MANUFACTURER	MODEL NUMBER	VOLTAGE	MOUNTING	MOUNTING HEIGHT	REMARKS				
S _{vs}	HUBBELL	LHDMIRS3-N-WH-M	120V	WALL MOUNTED	48"AFF	VS DENOTES VACANCY SENSOR				
P1-X A PP1	HUBBELL	UVPP	UVPP _ AFC CE		CEILING	POWER PACK				
PC	INTERMATIC	K4221C	120V			PHOTOCELL				
Osw	HUBBELL	SENSOR: WSP-SM-24V-WH + LENS: WSP-L360-WH	-	CEILING MOUNTED SURFACE	CEILING	NOTE EL1				

CONTRACTOR SHALL COORDINATE ALL DEVICE COLORS AND FACEPLATES WITH ARCHITECT/OWNER IN FIELD. * PIR = PASSIVE INFRARED

- 1. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND ACCESSORIES AS REQUIRED TO PROVIDE FULL FUNCTIONING LIGHTING CONTROL SYSTEM TO FUNCTION AS SHOWN IN THE CONSTRUCTION DOCUMENTS. ALL SUBSTITUTE CONTROLS WILL REQUIRE SUBMISSION OF NEW CONTROL LAYOUT, STAMPED BY A PROFESSIONAL ENGINEER. SUBSTITUTE CONTROLS SHALL FUNCTION AS DESIGNED ON THE CONTRACT DOCUMENTS AND CONTRACTOR SHALL GUARANTEE FUNCTIONALITY.
- 2. CONTRACTOR SHALL REFER TO CONTRACT DRAWINGS FOR SPECIFIC OUTPUT CONTROLS, AND DIMMING REQUIRED FOR ROOM CONTROLLER.
- 3. ALL SWITCHES AND SWITCH BANKS TYPES SHALL BE COORDINATED WITH THE ENGINEER/DISTRICT IN FIELD.

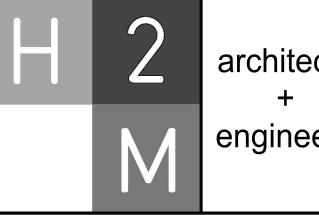
Panelboard _	PA (SE	CTION 2)		Voltage		120/20	08		Phase	3	_	4	AIC	Rating	65,000
Manufacturer _		MENS		Mains		MLO			Mains	Rating	400	Α			
Panel Type _	[P2		Mounting	g	SURF	ACE		Option	s	-		Note <u>LO</u>	CATED IN UTI	ILITY CLOSET
NEMA Type Enclose	ure _	1_													
LOAD DESCRIPTION	BREAKER OPTION	TRIP AMPS AND POLES		NECTED L OLT AMPER ØB		CIRC. No.	A	в С 1	CIRC. No.	_	NNECTED L OLT AMPER ØB		TRIP AMPS AND POLES	BREAKER OPTION	LOAD DESCRIPTION
WMH-1	HACR	20A/1P	1500			43	┝	++	44	1373			20A/2P	HACR	GXF-1
WMH-1	HACR	20A/1P		1500		45	H	┿┼	46		1373		ZUAVZP	HACK	GXF-1
WMH-1	HACR	20A/1P			1500	47	Н	╁╈╴	48		X////	885	15A/2P	HACR	ACCII 1/AC 1
WMH-1	HACR	20A/1P	1500			49	┝	++	50	885	V////		13A/2F	HACK	ACCU-1/AC-1
WMH-1	HACR	20A/1P		1500		51	H	┿┼	52		3723				
AIR COMPRESSOR		30A/2P	1500		1500	53 55			54 56	3723		3723	50A/3P	HACR	VXF-1
		004/05	/////	1644		57	╙	$\downarrow \downarrow$	58	/////	900	V /////	20A/1P	GFCI	EXTERIOR RECEPTACLES
FUEL STORAGE PUMP		20A/2P			1644	59	╙	╁┢	60	V////	X////	540	20A/1P	GFCI	WORK BENCH RECEPTACLES
NA/1.1.4		004/00	1497			61	┢	++	62	124			20A/1P		SITE LIGHTING
WH-1		20A/2P		1497		63	Н	$\downarrow \downarrow$	64	/////	500		20A/1P		TIME CLOCK / PHOTOCELL
HOT BOX		20A/1P			90	65	H	╁╈╴	66		X////	1 -	20A/1P		SPARE
GENERAL RECEPTACLES		20A/1P	720			67	┝	++	68	· ·	V////		20A/1P		SPARE
GENERAL RECEPTACLES		20A/1P		720		69	H	┿┼	70]		20A/1P		SPARE
GENERAL RECEPTACLES		20A/1P			720	71	H	╁╈╴	72			1 -	20A/1P		SPARE
ELCP		20A/1P	200			73	┝	++	74				20A/1P		SPARE
EXTERIOR LTG		20A/1P		54		75	H	┿┼	76		1		20A/1P		SPARE
SPARE					-	77	${\mathbb H}$	┿	78		X////	-	20A/1P		SPARE
SPARE			-			79	┢	++	80	-			20A/1P		SPARE
SPARE				-		81	${\mathbb H}$	┿┼	82		-		20A/1P		SPARE
SPARE					-	83	H	┿	84		X////	1 -	20A/1P		SPARE
(All Phases to be balan	ced to within 7%		nected Total			ØA ØB ØC Total	; 	26.5 29.3 26.5 82.3	3	KVA KVA KVA KVA	228.5	_Amperes	AFCI - AS - P AUX - GFCI - HACR LO - H PA - H SF - S	owerlink AS Book Auxiliary Contains Ground Fault - Heating, A/Candle lock-off andle Padlock	acts Circuit Interrupter C & Refrigeration device Attachment

DISCONNEC	DISCONNECT SWITCH SCHEDULE									
DISCONNECT SWITCH IDENTIFICATION	TYPE	ENCLOSURE	VOLTS	POLES	FRAME SIZE AMPS	FUSE RATING				
DS1	UNFUSED	NEMA 3R	208	2	30A	-				
DS2	UNFUSED	NEMA 3R	208	3	60A	-				

TRANSFER S	TRANSFER SWITCH SCHEDULE									
TRANSFER SWITCH IDENTIFICATION	TYPE	ENCLOSURE	VOLTS	PHASE	POLES	AMPS				
TS1	AUTOMATIC	NEMA 1	208	3Ø	4	400				

TIME	TIME CLOCK SCHEDULE										
RELAY	VOLTAGE/POLE	PANEL-CIRCUIT No.	LOAD	CONTROLS							
1	120/1	PA-24	EXTERIOR BUILDING LIGHTING	PHOTOCELL/TIMER							
2	120/1	PA-62	EXTERIOR POLE LIGHT FIXTURES	PHOTOCELL/TIMER							
3	120/1	PA-4	TXF-1	TIMER							

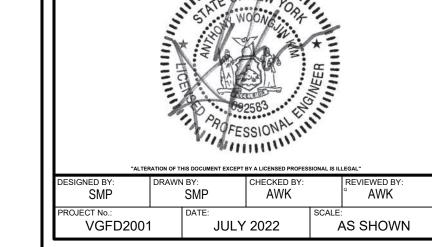
MOTOR S	TARTER	SCHEDUL	.E		
IDENTIFICATION	NEMA SIZE	VOLTS / PHASE	ENCLOSURE TYPE	DISCONNECT AMPS / POLE	ACCESSORIES
S 1	0	120 / 1Ø	NEMA 1	30 / 2	H-O-A SWITCH, RUN AND OVERLOAD LIGHT
\$2	0	120 / 1Ø	NEMA 1	15 / 1	H-O-A SWITCH, RUN AND OVERLOAD LIGHT



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CONTRACT G GENERAL CONSTRUCTION

FINAL BID DOCUMENT

STORAGE BUILDING **ELECTRICAL** SINGLE LINE DIAGRAM PHASE 1

E1 600.00