

HUMBOLDT STATE UNIVERSITY

February 9, 2021

To All Prospective Bidders

SUBJECT: IFB #PW20-1, Emergency Power Generators

Addendum #1

The following changes, omissions and/or additions to the Bidding Documents shall apply to proposals made for and to the execution of the various parts of the work affected thereby and all other conditions shall remain the same. In case of conflict between Bidding Documents and this Addendum, this Addendum shall govern.

1. Exhibit G1B, Forbes Drawings and Specifications

See the attached Addendum from the electrical contractor.

2. Pre-bid on Campus Walk-through

To schedule a pre-bid walk through, please email Addie.Dunaway@humboldt.edu . All pre-bid walk-throughs must be scheduled and completed no later than Tuesday, February 16th, 2021 at 5 p.m.

-END OF ADDENDUM-

Contracts & Procurement

Addie Dunaway
Procurement Specialist

Humboldt State University
HSU Critical Electrical Generation

SECTION 00 91 11
ADDENDUM NUMBER 1

PARTICULARS

1.01 DATE: 01/25/2021

1.02 PROJECT: 1901734 HSU CRITICAL ELECTRICAL GENERATION

1.03 OWNER'S PROJECT NUMBER: XPL 181

1.04 UNIVERSITY : HUMBOLDT STATE UNIVERSITY

TO: PROSPECTIVE BIDDERS :

2.01 THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND MODIFIES THE ORIGINAL PROCUREMENT DOCUMENTS DATED 01/07/2021 , WITH AMENDMENTS AND ADDITIONS NOTED BELOW.

2.02 ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED IN THE BID FORM. FAILURE TO DO SO MAY DISQUALIFY THE BIDDER.

2.03 THIS ADDENDUM CONSISTS OF 1 PAGE AND THE FOLLOWING DRAWINGS:.

CHANGES TO DRAWINGS:

3.01 DRAWING E-1.1 - FORBES FIRST FLOOR PLAN:

- A. Replace Sheet E-1.1 in its entirety, reflecting the following modifications:
1. Deleted feeder for circulation pump.

3.02 DRAWING E-4.1 - FORBES GYMNASIUM COGEN UNIT FLOOR PLAN:

- A. Replace Sheet E-4.1 in its entirety, reflecting the following modifications:
1. Refeed circulation pump from Panel G01.

3.03 DRAWING E-6.1 - FEEDER AND EQUIPMENT SCHEDULES, AND SIGNAL LINE DIAGRAM:

- A. Add Sheet E-6.1, reflecting the following changes:
1. New Panel Schedule.

3.04 DRAWING MS-4.1 - PARTIAL SITE PLAN:

- A. Replace Sheet MS-4.1 in its entirety, reflecting the following modifications:
1. Provide new VFD for recirculation pump.

END OF ADDENDUM NUMBER 1



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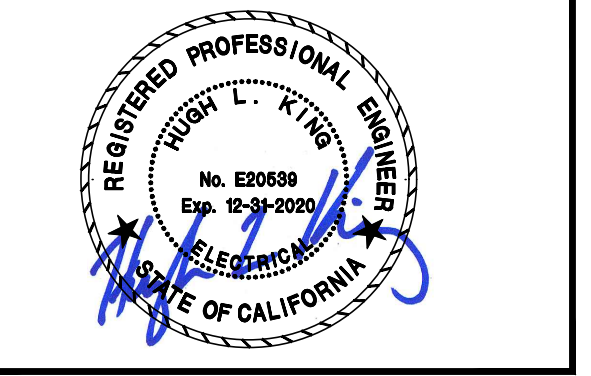
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National Strength. Local Action.

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'APPROVED FOR CONSTRUCTION'
Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
(Other approvals, as applicable)
SFM Approval: _____
DSD Access Approval: _____
Science Peer Review: _____
Mech/Pipe Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.
Reviewed by: _____
Date: _____



GENERAL SHEET NOTES

- A. PREPARE A SPECIAL METHOD OF PROCEDURE AND COORDINATE THE SHUTDOWN OF ANY DEVICE WITH FACILITIES ENGINEERS. SHUTDOWN MUST BE SCHEDULED. PROVIDE TEMPORARY POWER AS NEEDED.
- B. BEFORE RUNNING ANY FEEDERS TO PANELS BEING RE-CIRCUITED CONFIRM FEEDER SIZE AND ARRANGEMENT (1PHASE, 3 PHASE, 3W, 4W). REPORT DISCREPANCIES TO ENGINEER PRIOR TO CHANGING FEEDERS CALLED FOR ON DRAWINGS.
- C. DEVICE SHOWN AS EXISTING SHALL REMAIN CONNECTED UNLESS OTHERWISE NOTED. WIRING DEVICES THAT MAY BE AFFECTED BY DEMOLITION AND NEW WORK SHALL BE RECONNECTED.
- D. PATCH WALL, ROOF PENETRATION, CEILING AND ANY OTHER OPENINGS LEFT BY DEMO'D EQUIPMENT/CONDUITS, ETC. MATCH ADJACENT CONSTRUCTION AND FINISH.
- E. FIRE SEAL ALL RATED PENETRATIONS.
- F. DISCONNECT TEMPORARY POWER AND EQUIPMENT AFTER ALL WORK IS DONE.
- G. CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND ESTIMATING THE WORK INVOLVED IN THE EQUIPMENT INSTALLATION PRIOR TO BIDDING. CAREFULLY INVESTIGATE AREA TO DETERMINE IF SPECIAL INSTALLATION PROVISIONS WILL BE NEEDED SUCH AS DISASSEMBLING OF EQUIPMENT, USE OF CRANES, ETC.
- H. BEFORE ORDERING EQUIPMENT, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING EQUIPMENT MANUFACTURER IF DISASSEMBLY IS REQUIRED. WHEN ASSEMBLING EQUIPMENT IN THE FIELD, CONTRACTOR SHALL HIRE A MANUFACTURER'S REPRESENTATIVE/TECHNICIAN TO SUPERVISE THE ASSEMBLY OF THE EQUIPMENT. EQUIPMENT SHALL BE UL-LISTED AFTER IT HAS BEEN REASSEMBLED.

REFERENCE SHEET NOTES

- NEW:**
- 10. CONFIRM EXACT LOCATION IN FIELD.
- 11. EXISTING SWITCHBOARD TO BE MODIFIED. PROVIDE 100A/3P AND 20A/1P CIRCUIT BREAKER, MATCH SCCR RATING OF SWITCHBOARD. PROVIDE NEW BAKELITE LABEL FOR ALL NEW AND EXISTING CIRCUIT BREAKERS. UPDATE CABINET SECTION NAMEPLATE WITH CORRECT VOLTAGE. CORRECT VOLTAGE IS 208 VOLTS.
- 12. ROUTE 1" C. - (4)#12; (2) FOR REMOTE E-STOP AND (2) FOR REMOTE ANNUNCIATOR. CONFIRM FINAL LOCATION OF DEVICES WITH UNIVERSITY.
- 13. PROVIDE AND INSTALL REMOTE ANNUNCIATOR. ANNUNCIATOR SHALL HAVE ALL OF THE REQUIRED VISUAL AND AUDIBLE INDICATORS AND SHUTDOWNS PER NFPA 110 TABLE 5.6.5.2. COORDINATE LOCATION WITH THE UNIVERSITY.

HUMBOLDT STATE UNIVERSITY

1 HARPST STREET
ARCATA, CA 95521

FORBES GYMNASIUM EMERGENCY GENERATOR

MARK	DATE	DESCRIPTION
	05/19/20	PROGRESS SET
	01/07/21	100% CD
▲	02/04/21	ADDENDUM #1

SOBE PROJECT NO:	1901734
DATE:	02/04/21
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	

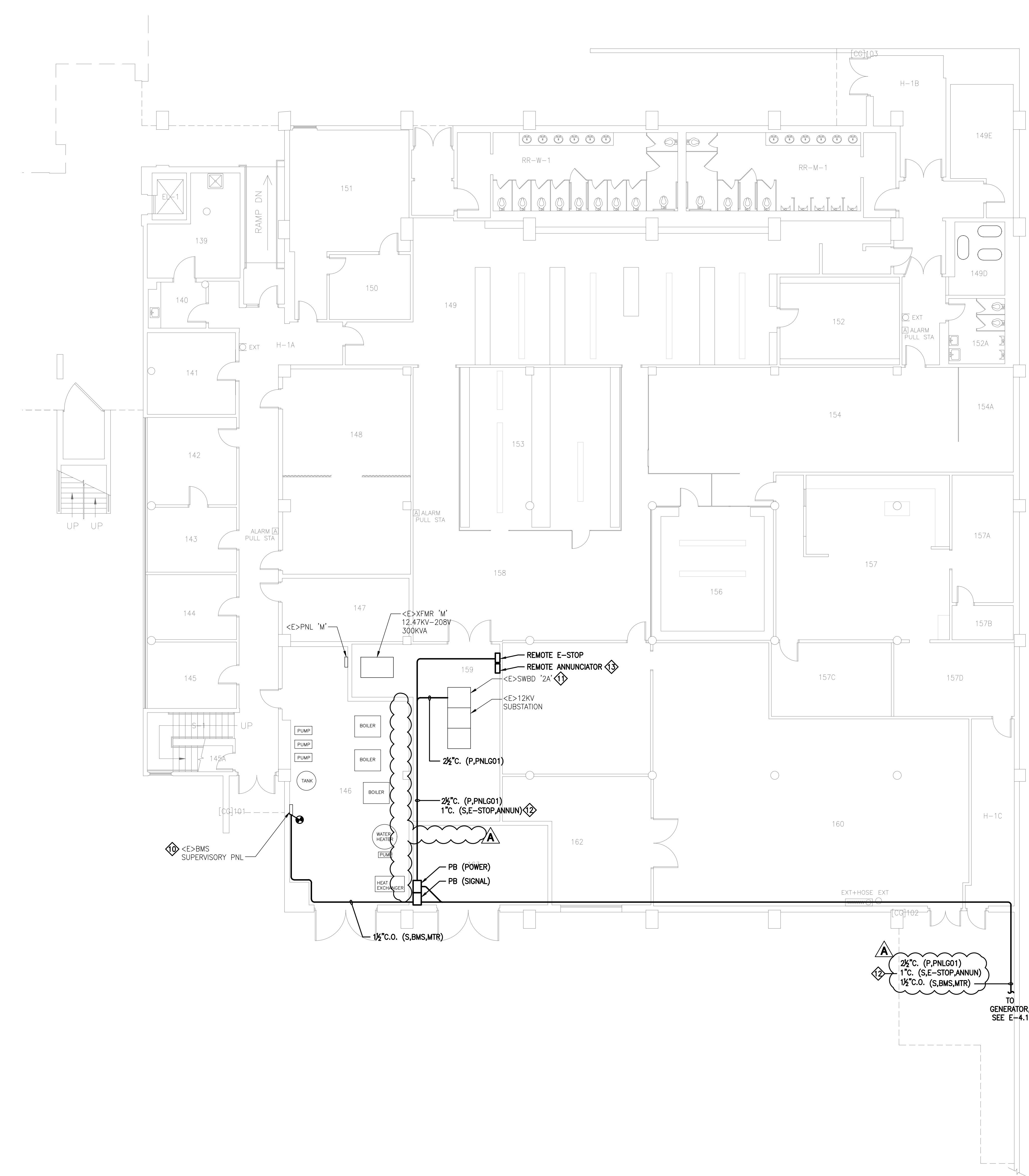
SHEET TITLE
FORBES FIRST FLOOR PLAN

SCALE: AS NOTED
THIS DRAWING IS 30" X 42" AT FULL SIZE

E-11

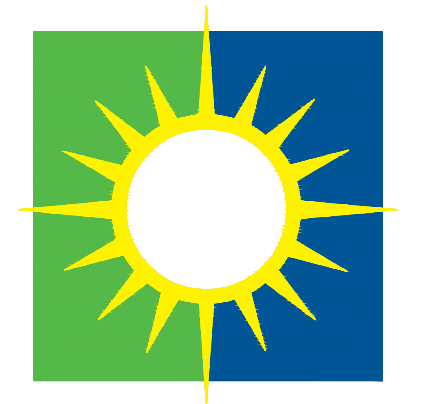
SHEET - OF -

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1 FIRST FLOOR PLAN
SCALE: 1/8" = 1' - 0"





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 Local Action.

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 DSA Approval: _____
 Review: Peer Review: _____
 Mod/Peer Review: _____
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ISSUE	MARK	DATE	DESCRIPTION
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	A	02/04/21	ADDENDUM #1

SOBE PROJECT NO:	1901734
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DRAWN BY:	
CHECKED BY:	
APPROVED BY:	

FORBES GYMNASIUM COGEN UNIT FLOOR PLAN

SCALE: AS NOTED
 THIS DRAWING IS 30" X 42" AT FULL SIZE

E-4.1
 SHEET OF

GENERAL SHEET NOTES

- PREPARE A SPECIAL METHOD OF PROCEDURE AND COORDINATE THE SHUTDOWN OF ANY DEVICE WITH FACILITIES ENGINEERS. SHUTDOWN MUST BE SCHEDULED. PROVIDE TEMPORARY POWER AS NEEDED.
- BEFORE RUNNING ANY FEEDERS TO PANELS BEING RE-CIRCUITED CONFIRM FEEDER SIZE AND ARRANGEMENT (1PHASE, 3 PHASE, 3W, 4W) REPORT DISCREPANCIES TO ENGINEER PRIOR TO CHANGING FEEDERS CALLED FOR ON DRAWINGS.
- DEVICE SHOWN AS EXISTING SHALL REMAIN CONNECTED UNLESS OTHERWISE NOTED. WIRING DEVICES THAT MAY BE AFFECTED BY DEMOLITION AND NEW WORK SHALL BE RECONNECTED.
- PATCH WALL, ROOF PENETRATION, CEILING AND ANY OTHER OPENINGS LEFT BY DEMO'D EQUIPMENT/CONDUITS, ETC. MATCH ADJACENT CONSTRUCTION AND FINISH.
- FIRE SEAL ALL RATED PENETRATIONS.
- DISCONNECT TEMPORARY POWER AND EQUIPMENT AFTER ALL WORK IS DONE.
- CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND ESTIMATING THE WORK INVOLVED IN THE EQUIPMENT INSTALLATION PRIOR TO BIDDING. CAREFULLY INVESTIGATE AREA TO DETERMINE IF SPECIAL INSTALLATION PROVISIONS WILL BE NEEDED SUCH AS DISASSEMBLING OF EQUIPMENT, USE OF CRANES, ETC.
- BEFORE ORDERING EQUIPMENT, CONTRACTOR IS RESPONSIBLE FOR NOTIFYING EQUIPMENT MANUFACTURER IF DISASSEMBLY IS REQUIRED. WHEN ASSEMBLING EQUIPMENT IN THE FIELD, CONTRACTOR SHALL HIRE A MANUFACTURER'S REPRESENTATIVE/TECHNICIAN TO SUPERVISE THE ASSEMBLY OF THE EQUIPMENT. EQUIPMENT SHALL BE UL-LISTED AFTER IT HAS BEEN REASSEMBLED.
- CUT AND CAP ABANDONED UNDERGROUND CONDUIT FLUSH WITH GRADE.
- BASIS OF DESIGN FOR EQUIPMENT ARE:
 - GENERATORS: CUMMINS
 - MEDIUM AND LOW VOLTAGE SWITCHBOARDS: IEM
 - MEDIUM VOLTAGE TRANSFORMER: REX POWER MAGNETICS.
 IF SUBSTITUTED EQUIPMENT, CONTRACTOR IS RESPONSIBLE, BUT NOT LIMITED, FOR ADJUSTING PAD SIZES AND UPDATING STRUCTURAL CALCULATIONS.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHILE TRENCHING FOR NEW UTILITIES. THESE DRAWINGS HAVE BEEN COMPILED FROM RECORD DOCUMENTS, FIELD SURVEYS AND OTHER AVAILABLE INFORMATION. NOT ALL UTILITIES AND/OR OBSTRUCTIONS ARE SHOWN. CONTRACTOR SHALL VERIFY THE LOCATIONS OF UTILITIES PRIOR TO EXCAVATION, EITHER BY HAND EXCAVATION OR WITH THE ASSISTANCE OF A CERTIFIED UNDERGROUND UTILITY LOCATION SERVICE (USA WILL NOT LOCATE UTILITIES ON THE CAMPUS).
- ROUTE MINIMUM (2)#10 + #10 GND WIRES FOR SINGLE PHASE POWER BRANCH CIRCUITS, U.O.N.

REFERENCE SHEET NOTES

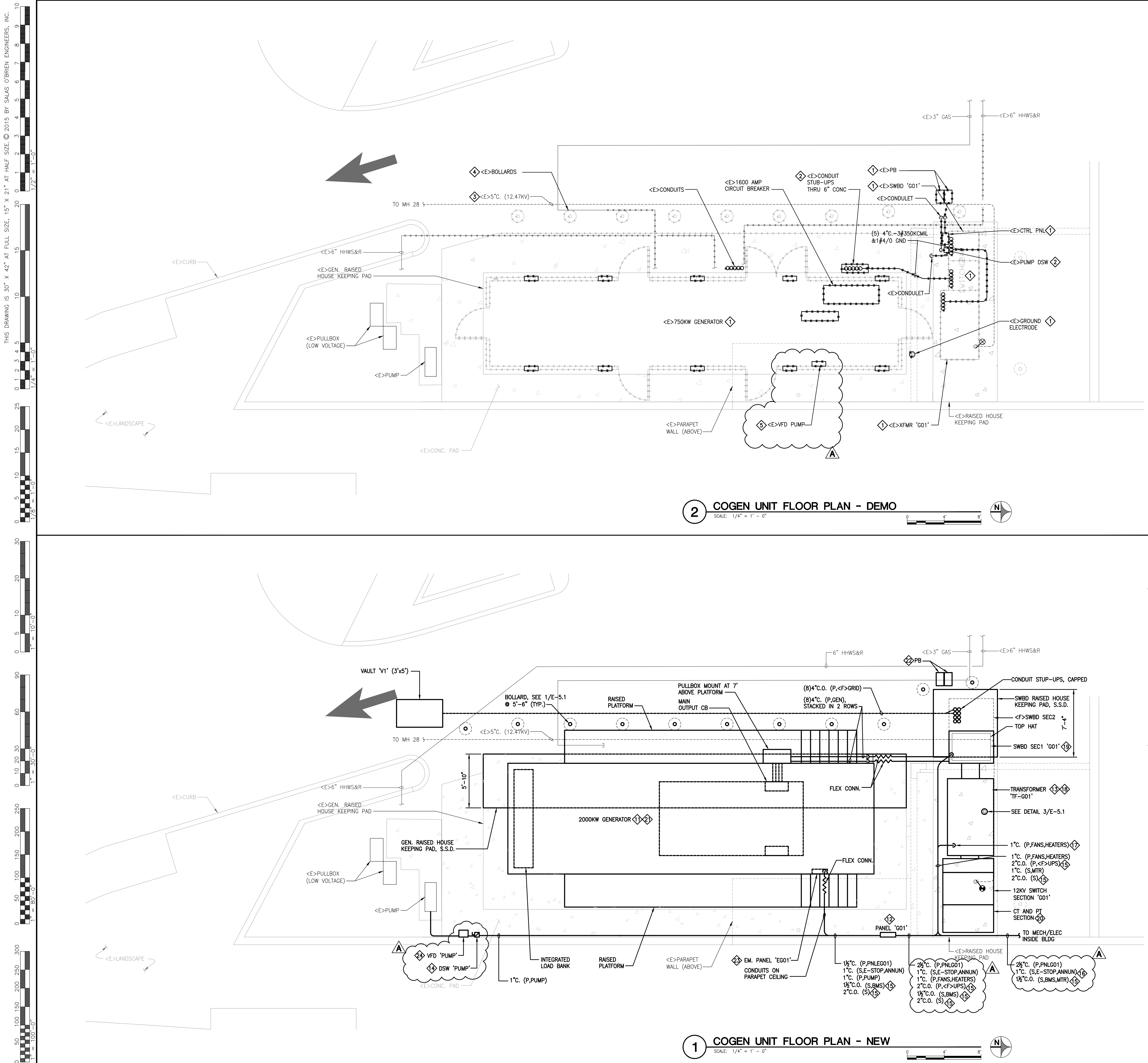
- DEMO:**
- DISCONNECT AND DEMOLISH EXISTING EQUIPMENT. REMOVE CONDUIT AND WIRES BACK TO SOURCE. REFER TO SINGLE LINE DIAGRAM. UNDERGROUND CONDUIT SHALL BE CUT AND CAPPED BELOW GRADE.
 - REMOVE EXISTING WALL MOUNTED PULL BOX.
 - EXISTING UNDERGROUND UTILITY LINES SHALL BE PROTECTED DURING CONSTRUCTION.
 - DEMOLISH EXISTING BOLLARDS. FILL HOLE AND PATCH PAVEMENT.
 - REMOVE EXISTING VFD AND HAND OVER BACK TO OWNER. EXISTING CONTROL WIRING TO BE TRACED BACK TO SOURCE. NEW WIRING SHALL BE ROUTED TO NEW VFD. REFER TO NEW WORK.
- NEW:**
- 2000 KW GENERATOR WITH LEVEL 2 ENCLOSURE, CUMMINS #2000DQKAB OR APPROVED EQUAL. PROVIDE WITH DPF, 4,000 GALLON 24-HOUR BELLY TANK, RADIATOR MOUNTED 1000KW LOAD BANK. ALSO, PROVIDE RAISED PLATFORM 100A DISTRIBUTION PANEL, CIRCUIT BREAKER BOX, BATTERIES, RACKS, MODBUS CONTROL AND COOLANT AND ANTI-CONDENSATE HEATER. COLOR SHALL BE ANSI GRAY 61, CONFIRM WITH OWNER.
 - 120/208V, 225A, 3-PHASE, 4W, NEMA 3R PANELBOARD. ROUTE 2-1/2" C. - (4)#4/0 + #4 GND FROM SWBD '2A'.
 - MEDIUM VOLTAGE TRANSFORMER, REFER TO SINGLE LINE DIAGRAM. PROVIDE WITH 1,000W CONDENSATE STRIP HEATERS AND COOLING FANS FOR ADDITIONAL 33% LOAD CAPACITY. TRANSFORMER SHALL BE VPE TYPE (MULTIPLE VPI DIP IMPREGNATION PROCESSES), 60 DEGREE TEMPERATURE RISE. REAR AND FRONT HINGED ACCESS DOORS. BASIS OF DESIGN IS REX POWER MAGNETICS.
 - HEAVY DUTY FUSED DISCONNECT SWITCH. SWITCH SIZE SHALL BE 60AF/60AS/3P RATING. ROUTE 1" C. - (3)#4 + #8 GND. FROM PANEL G01 VIA NEW VFD. PROVIDE 100A/3P CIRCUIT BREAKER.
 - ROUTE CONDUIT WITH PULL ROPE.
 - ROUTE 1" C. - (4)#12; (2) FOR REMOTE E-STOP AND (2) FOR REMOTE ANNUNCIATOR. CONFIRM FINAL LOCATION OF DEVICES WITH UNIVERSITY.
 - ROUTE 1" C. - (2)#10 + #10 GND.
 - POWER TO HEATERS AND FAN SHALL BE FROM PANELBOARD PANEL 'G01'.
 - SWITCHBOARD SECTION. PROVIDE WITH EXTENDED BUSSING FOR FUTURE SWITCHBOARD CONNECTION, AUXILIARY COMPARTMENT FOR FUTURE RELAYS. PRE-WIRED CABLING FOR PT'S AND 3000:5 CT'S ON THE LINE AND LOAD SIDE OF THE MAIN CIRCUIT BREAKER (MCB), MOTORIZED OPERATOR FOR THE MCB, REFER TO DETAIL 2/E-5.2 AND SINGLE LINE DIAGRAM.
 - 12KV PT'S AND CT'S SECTION, REFER TO SINGLE LINE DIAGRAM.
 - GENERATOR SHALL BE NFPA 110 LEVEL 1 TYPE 10 AND AT THE TIME OF INSTALLATION, THE CONTRACTOR SHALL TEST THE GENERATOR TO ENSURE COMPLIANCE. THE GENERATOR SHALL BE INSTALLED WITH ALL OF THE LEVEL 1 REQUIREMENTS INCLUDING ALL VISUAL AND AUDIBLE INDICATORS, 24HRS BATT. RECHARGE TIME, ETC.
 - RELOCATED PULLBOX. CONTRACTOR TO FIELD VERIFY BEST LOCATION TO INTERCEPT INCOMING UNDERGROUND FEEDERS.
 - ROUTE 1-1/2" C. - (4)#1 + #6 GND FROM PANEL 'G01'. PROVIDE 100A/3P CIRCUIT BREAKER AT PANEL 'G01'
 - VFD PROVIDED BY MECHANICAL CONTRACTOR, REFER TO MECHANICAL DRAWINGS. PROVIDE POWER VIA DISCONNECT SWITCH AND SECURELY MOUNT TO RETAINING WALL. ROUTE 1" C. - (2)#12 WIRING FOR CONTROLS.

2 COGEN UNIT FLOOR PLAN - DEMO

SCALE: 1/4" = 1' - 0"

1 COGEN UNIT FLOOR PLAN - NEW

SCALE: 1/4" = 1' - 0"



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**FORBES GYMNASIUM
EMERGENCY GENERATOR**

ISSUE

MARK	DATE	DESCRIPTION
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▲	02/04/21	ADDENDUM #1

SOBE PROJECT NO: 1901734
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SHEET TITLE
FEEDER AND EQUIPMENT SCHEDULES, AND SIGNAL LINE DIAGRAM

SCALE: AS NOTED
THIS DRAWING IS 30" X 42" AT FULL SIZE

E-6.1
SHEET - OF -

3-PHASE, 3-WIRE				3-PHASE, 4-WIRE			
SYMBOL	CONDUIT	CONDUCTORS	GROUND	SYMBOL	CONDUIT	CONDUCTORS	GROUND
20G	3/4" C	(3) #12	#12	20NG	3/4" C	(4) #12	#12
30G	3/4" C	(3) #10	#10	30NG	3/4" C	(4) #10	#10
40G	1" C	(3) #8	#10	40NG	1" C	(4) #8	#10
50G	1" C	(3) #6	#10	50NG	1" C	(4) #6	#10
60G	1-1/4" C	(3) #4	#10	60NG	1-1/4" C	(4) #4	#10
70G	1-1/4" C	(3) #4	#8	70NG	1-1/4" C	(4) #4	#8
80G	1-1/2" C	(3) #2	#8	80NG	1-1/2" C	(4) #2	#8
90G	1-1/2" C	(3) #2	#8	90NG	1-1/2" C	(4) #2	#8
100G	2" C	(3) #1	#8	100NG	2" C	(4) #1	#8
125G	2" C	(3) #1	#6	125NG	2" C	(4) #1	#6
150G	2" C	(3) #1/0	#6	150NG	2" C	(4) #1/0	#6
175G	2" C	(3) #2/0	#6	175NG	2" C	(4) #2/0	#6
200G	2-1/2" C	(3) #3/0	#6	200NG	2-1/2" C	(4) #3/0	#6
225G	2-1/2" C	(3) #4/0	#4	225NG	2-1/2" C	(4) #4/0	#4
250G	3" C	(3) #250 Kcmil	#4	250NG	3" C	(4) #250 Kcmil	#4
300G	3" C	(3) #350 Kcmil	#4	300NG	3" C	(4) #350 Kcmil	#4
350G	3-1/2" C	(3) #500 Kcmil	#3	350NG	4" C	(4) #500 Kcmil	#3
400G	4" C	(3) #600 Kcmil	#3	400NG	4" C	(4) #600 Kcmil	#3
450G	(2) 2-1/2" C	2 SETS: (3) #4/0	(2) #2	450NG	(2) 2-1/2" C	2 SETS: (4) #4/0	(2) #2
500G	(2) 3" C	2 SETS: (3) #250 Kcmil	(2) #2	500NG	(2) 3" C	2 SETS: (4) #250 Kcmil	(2) #2
600G	(2) 3" C	2 SETS: (3) #350 Kcmil	(2) #1	600NG	(2) 3" C	2 SETS: (4) #350 Kcmil	(2) #1
700G	(2) 3-1/2" C	2 SETS: (3) #500 Kcmil	(2) #1/0	700NG	(2) 4" C	2 SETS: (4) #500 Kcmil	(2) #1/0
800G	(3) 3" C	3 SETS: (3) #300 Kcmil	(3) #1/0	800NG	(3) 3" C	3 SETS: (4) #300 Kcmil	(3) #1/0
1000G	(3) 3" C	3 SETS: (3) #400 Kcmil	(3) #2/0	1000NG	(3) 3-1/2" C	3 SETS: (4) #400 Kcmil	(3) #2/0
1200G	(4) 3" C	4 SETS: (3) #350 Kcmil	(4) #3/0	1200NG	(4) 3" C	4 SETS: (4) #350 Kcmil	(4) #3/0
1600G	(5) 3" C	5 SETS: (3) #400 Kcmil	(5) #4/0	1600NG	(5) 3-1/2" C	5 SETS: (4) #400 Kcmil	(5) #4/0
2000G	(5) 4" C	5 SETS: (3) #600 Kcmil	(5) #250 Kcmil	2000NG	(5) 4" C	5 SETS: (4) #600 Kcmil	(5) #250 Kcmil
2500G	(6) 4" C	6 SETS: (3) #600 Kcmil	(6) #350 Kcmil	2500NG	(6) 4" C	6 SETS: (4) #600 Kcmil	(6) #350 Kcmil
3000G	(8) 4" C	8 SETS: (3) #600 Kcmil	(8) #400 Kcmil	3000NG	(8) 4" C	8 SETS: (4) #600 Kcmil	(8) #400 Kcmil
4000G	(10) 4" C	10 SETS: (3) #600 Kcmil	(10) #500 Kcmil	4000NG	(10) 4" C	10 SETS: (4) #600 Kcmil	(10) #500 Kcmil

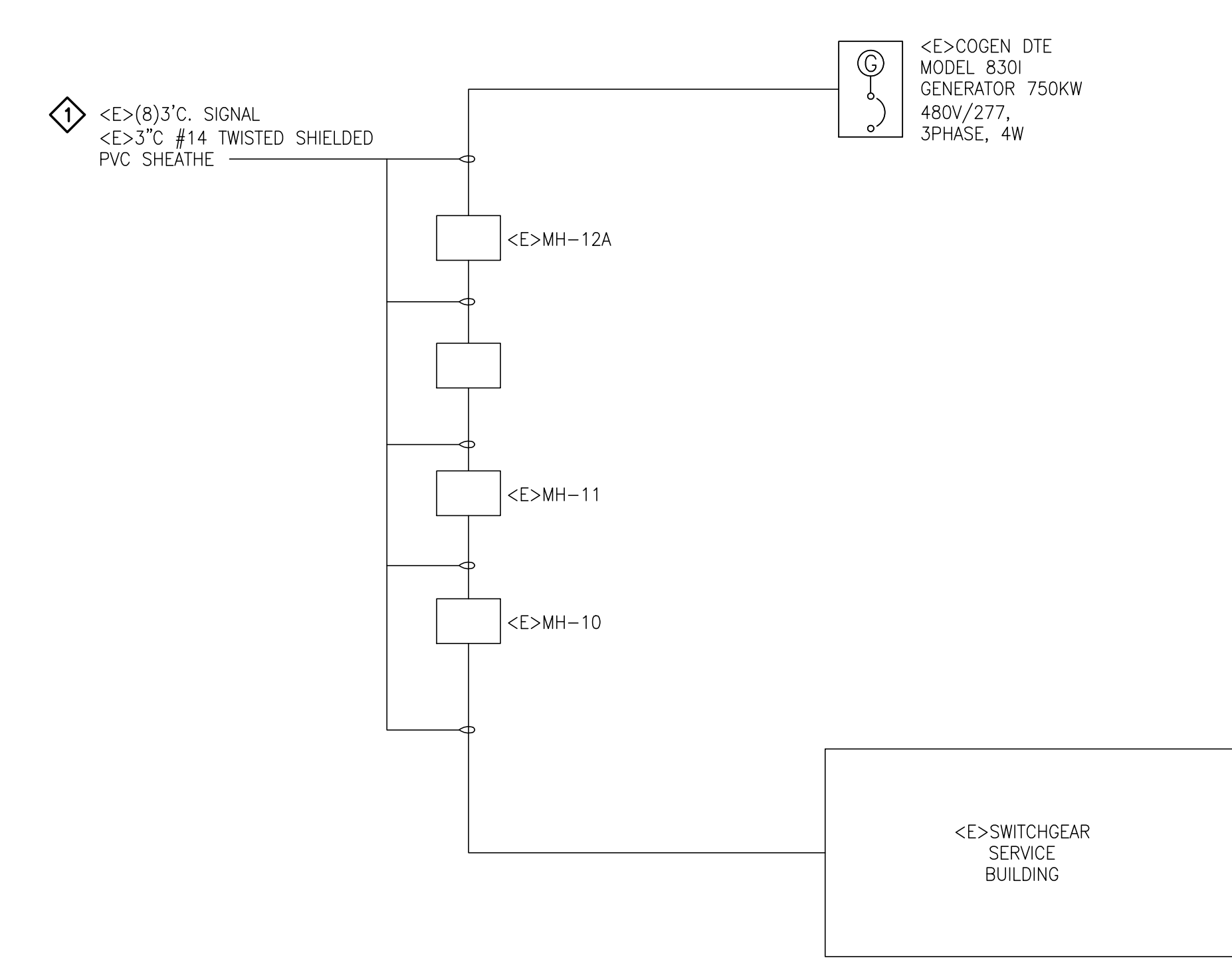
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DESCRIPTION	BRKR			KVA LOAD			KVA LOAD			BRKR			DESCRIPTION	
	P	T	LCL	A	B	C	A	B	C	P	T	LCL		
1														
3			X	1.5	6.0		5.6	1.4	X					2
4														4
5			X	1.5	6.0		5.6	1.4	X					6
7							1.0	0.3	X	1				8
9							1.0	0.3	X	1				10
11														12
13														14
15														16
17														18
19														20
21														22
23														24
25														26
27														28
29														30
31														32
33														34
35														36
37														38
39														40
41														42
SUBTOTAL				4.5	0	6	6	1	7	6	4.7	SUBTOTAL		

MCB OR MLO _____ MCB _____ TOTAL LOAD PHASE A _____ 1 KVA
MAIN CIRCUIT BREAKER RATING 225 _____ TOTAL LOAD PHASE B _____ 13 KVA
BUS RATING 225 _____ TOTAL LOAD PHASE C _____ 12 KVA
MOUNTING SURFACE _____ TOTAL LCL (NEC/CEC 215.2.A.1) _____ 9 KVA
TOTAL PANEL LOAD (KVA) _____ 35 KVA
TOTAL PANEL LOAD (AMPS) _____ 96 AMPS

NOTES
1. PROVIDE PANEL DIRECTORY IN PRINTED FORMAT.
2. PROVIDE ARC FLASH WARNING LABEL.
3. NEMA 3R.
4. DOOR-IN-DOOR PLANO HINGED COVER.

2 PANEL SCHEDULE
SCHEMATIC

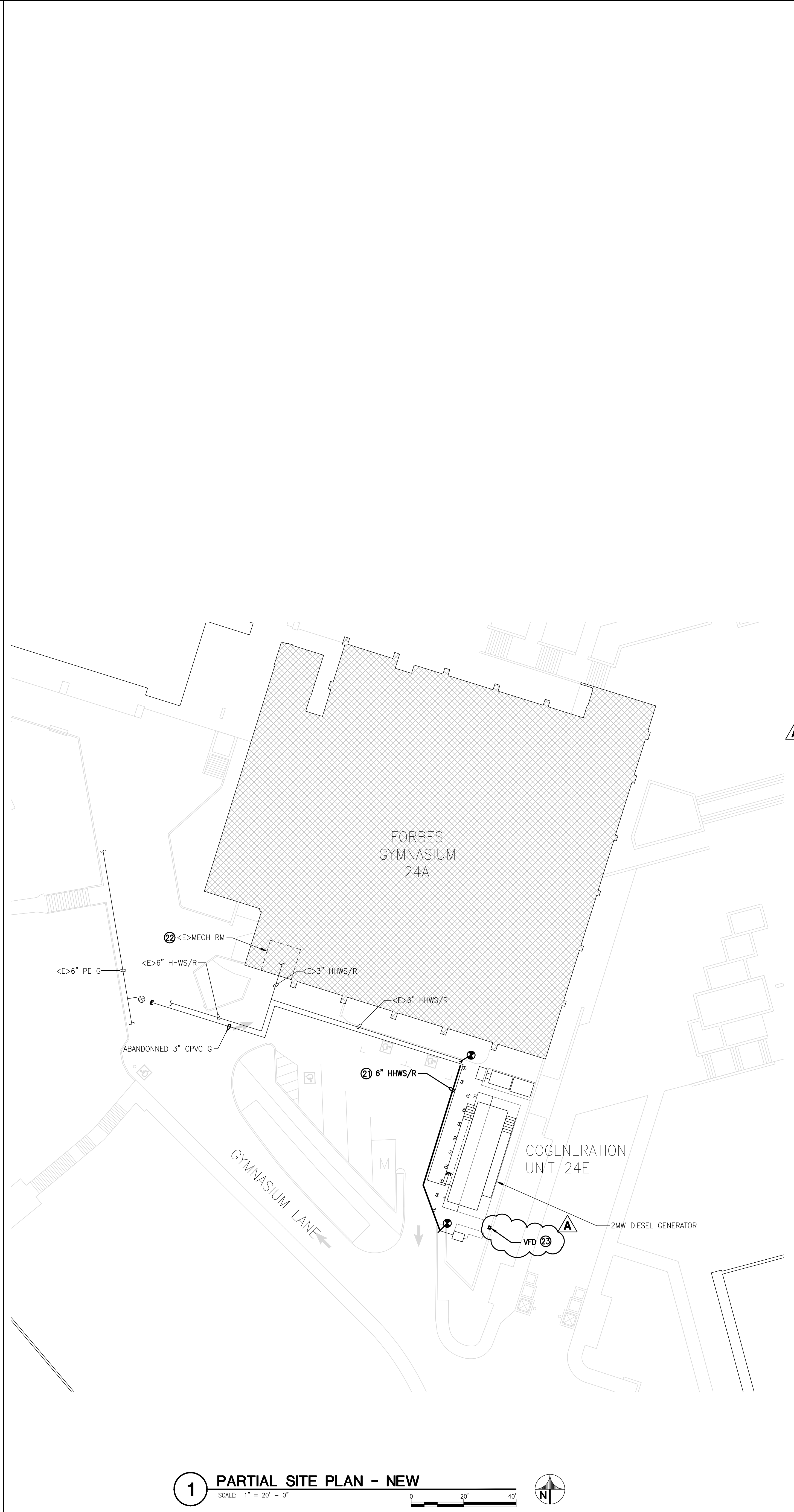
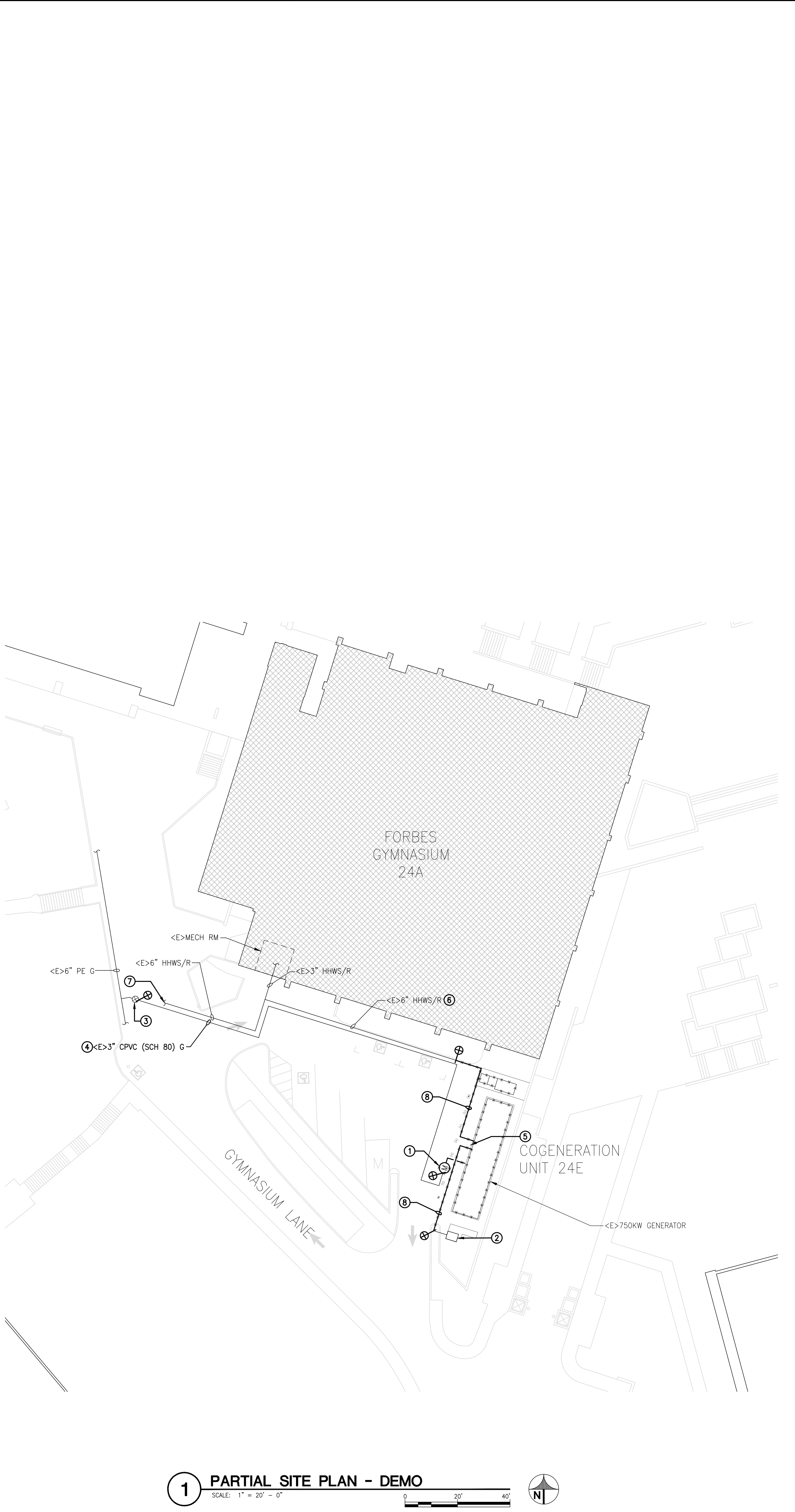


1 SINGLE LINE DIAGRAM
SCHEMATIC

REFERENCE SHEET NOTES

- 1. REMOVE LOW VOLTAGE WIRING FROM GENERATOR BACK TO MAIN SWITCHGEAR BUILDING. CONTRACTOR TO PULL PULL ROPE BEHIND WIRING AND LABEL POINT TO POINT.

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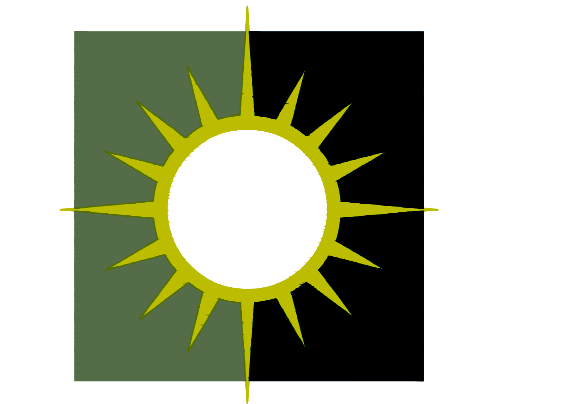


GENERAL SHEET NOTES

- A. REFER TO ELECTRICAL SHEETS FOR GENERATOR EQUIPMENT DEMOLITION.
- B. ALL GAS PIPING DISCONNECTED FROM DEMOLISHED GENERATOR SHALL BE CAPPED AND SEALED AIR TIGHT, U.O.N.
- C. IN LOCATIONS WHERE GAS PIPING IS DEMOLISHED, DEMOLISH <E> PIPE SUPPORTS THAT ONLY SUPPORTED GAS PIPING.
- D. ALL HARDSCAPING AND LANDSCAPING DISTURBED FOR DEMOLITION OF <E> PIPING OR INSTALLATION OF NEW PIPING SHALL BE RESTORED TO ITS ORIGINAL CONDITION. MATCH ADJACENT SURFACES.
- E. CONTRACTOR SHALL VERIFY GAS PRESSURE OF <E> GAS PIPING CONNECTED TO AND REPORT VALUE TO ENGINEER.
- F. ALL EXPOSED NUTS, BOLTS, FASTENERS, ANCHORS, UNISTRUT SUPPORT, STRAPS, ETC. SHALL BE HOT-DIPPED GALVANIZED, U.O.N.
- G. ALL EXPOSED NUTS, BOLTS, FASTENERS, ANCHORS, UNISTRUT SUPPORT, STRAPS, ETC. SHALL BE HOT-DIPPED GALVANIZED, U.O.N.

REFERENCE SHEET NOTES

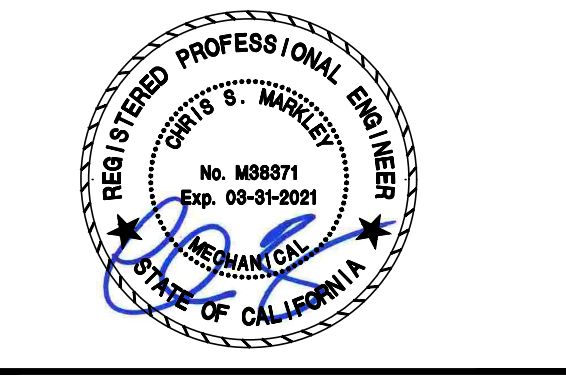
- DEM:**
1. DEMO <E> GAS CONNECTION AND PIPING TO GENERATOR. SEE DETAIL 1/MP-5.1.
 2. PROTECT IN PLACE <E> HHW PUMPS, EXPANSION TANK, AIR SEPARATOR, PIPING, CONCRETE PAD, ETC. SEE DETAIL 1/MP-5.1.
 3. DISCONNECT GAS PIPING TO <E> COGENERATION UNIT IN <E> GAS SHUTOFF VALVE VAULT. CAP PIPING DOWNSTREAM OF EXISTING SHUT OFF VALVE. PIPING SHALL BE CAPPED WITHIN <E> VAULT AND A PLASTIC TAG STATING "ABANDONED" SHALL BE INSTALLED ON THE ABANDONED GAS PIPE TO THE COGENERATION UNIT.
 4. ABANDON <E> GAS PIPING UNDERGROUND.
 5. DEMO <E> HEAT RECOVERY HYDRONIC PIPING AT UNIT. RECONNECT <E> 6" HEAT RECOVERY LOOP PIPING UNDERGROUND. CONTRACTOR SHALL FIELD VERIFY <E> PIPE MATERIAL AND SIZE, AND PROVIDE AND INSTALL APPROPRIATE FITTINGS AND PIPE MATERIAL TO RECONNECT PIPING FOR A FULLY OPERABLE HEAT RECOVERY LOOP SYSTEM.
 6. PROTECT <E> UNDERGROUND HYDRONIC PIPING IN PLACE. LOOP SHALL REMAIN ACTIVE AFTER DEMOLITION OF COGEN UNIT.
 7. <E> HEAT RECOVERY HYDRONIC LOOP TO WILDLIFE BUILDING 11, BIOSCIENCE BUILDING 3B, SCIENCE BUILDING 3A AND SCIENCE BUILDING 3E.
 8. DEMOLISH <E> UNDERGROUND HHWS/R PIPING WHERE IT CONFLICTS WITH NEW GENERATOR PAD FOOTPRINT. CONTRACTOR SHALL FIELD VERIFY EXACT ROUTING WITH RESPECT TO NEW PAD.
- NEW:**
21. INSTALL UNDERGROUND PRE-FABBED (INSULATED & JACKETED) HHWS/R PIPING. ROUTE NEW PIPING TO AVOID FOOTPRINT OF GENERATOR PAD. DEMOLISH <E> ABANDONED GAS PIPING AS REQUIRED, WHERE IT CONFLICTS WITH ROUTING OF NEW HHWS/R PIPING.
 22. INTERCEPT <E> BMS BACKBONE IN MECHANICAL ROOM. <E> BMS UTILIZES MODBUS PROTOCOL. EXTEND RS485 WIRING IN CONDUIT TO NEW GENERATOR. SEE ELECTRICAL DRAWINGS FOR CONDUIT PATHWAY AND NEW GENERATOR LOCATION.
 23. MECHANICAL CONTRACTOR SHALL PROVIDE NEW VFD FOR RECIRCULATION PUMP. PROVIDE IN NEMA4 ENCLOSURE. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION. MATCH ELECTRICAL CHARACTERISTICS (VOLTAGE, PHASE, HERTZ & HP) OF <E> PUMP.



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This project has demonstrated conformance with applicable codes and standards established by state and University policy. Based on this determination, the following are:
'APPROVED FOR CONSTRUCTION'
Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
Other approvals, as applicable:
SFM Approval: _____
DSE Access Approval: _____
Science Peer Review: _____
Mock Pipe Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.
Reviewed by: _____
Date: _____



HUMBOLDT STATE UNIVERSITY

1 HARPST STREET
ARCATA, CA 95521

FORBES GYMNASIUM EMERGENCY GENERATOR

ISSUE	MARK	DATE	DESCRIPTION
		05/19/20	PROGRESS SET
		01/07/21	100% CD
		02/04/21	ADDENDUM #1

SOBE PROJECT NO: 1901734
DATE: 02/04/21
DRAWN BY:
CHECKED BY:
APPROVED BY:

SHEET TITLE
PARTIAL SITE PLAN

SCALE: AS NOTED
THIS DRAWING IS 30" X 42" AT FULL SIZE

MS-4.1
SHEET - OF -