

ELECTRICAL DEMOLITION NOTES:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION OF THE EXISTING ELECTRICAL INSTALLATION AS INDICATED ON THE DRAWINGS AS SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE FUNCTIONING PROJECT.
 B. THE EXISTING ELECTRICAL INSTALLATION AS SHOWN ON THE DRAWINGS MAY NOT BE COMPLETELY ACCURATE IN ALL RESPECTS WITH REGARD TO QUANTITIES, LOCATIONS, ETC., AND IS SHOWN PRIMARILY TO GENERALLY ILLUSTRATE THE

DEGREE OF DEMOLITION WORK INVOLVED. DEMOLITION WORK

- SHALL BE ALL INCLUSIVE IN AREAS SHOWN.

 C. STAGING AND PHASING OF ALL ELECTRICAL WORK SHALL BE COORDINATED WITH THE OTHER CONTRACTORS AND OWNER TO FACILITATE REMOVAL OF EXISTING MATERIAL AND EQUIPMENT. IN AREAS WHERE WORK INVOLVED MAY INTERFERE WITH EXISTING BUILDING OPERATIONS OR REQUIRE TEMPORARY OR PERMANENT CESSATION OR RELOCATION OF BUILDING FACILITIES, THE OWNER AND ARCHITECT/ENGINEER SHALL BE CONSULTED BEFOREHAND SO THAT WORK SCHEDULES CAN BE SET UP ACCEPTABLE TO ALL CONCERNED.
- D. EXISTING OUTLETS:
 1. WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, CONTRACTOR SHALL DISCONNECT AND REMOVE DEVICE AND WIRE FROM CONDUIT AND CAP ABANDONED CONDUIT.
- 2. WHERE EXISTING CIRCUITS EXTEND BEYOND THE OUTLET IN THE EXISTING WALL, CEILING OR FLOOR TO BE REMOVED, CONTRACTOR SHALL FURNISH AND INSTALL NEW CONDUITS AND WIRE TO EITHER REROUTE THE CIRCUIT OR FEED THE REMAINING OUTLET(S) FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH A MANNER AS NOT TO REVISE THE CIRCUIT FUNCTION.

3. WHERE EXISTING OUTLETS IN A WALL, CEILING OR FLOOR

TO BE REMOVED ARE ESSENTIAL TO MAINTAIN OPERATION OF OTHER REMAINING OUTLETS, CONTRACTOR SHALL RELOCATE THE OUTLET TO A NEW CONVENIENT LOCATION.

4. LIGHTING FIXTURES LOCATED IN AREAS WHERE CEILINGS OR WALLS ARE TO BE REPLACED SHALL BE TAKEN DOWN, CLEANED AND REINSTALLED ON NEW CEILING OR WALL UNLESS OTHERWISE NOTED. IF CONDUIT AND WIRING SERVING THESE FIXTURES MUST BE REMOVED TO PERMIT DEMOLITION WORK, NEW CONDUIT AND WIRE SHALL BE

INSTALLED TO PROVIDE SAME CIRCUITING ARRANGEMENT

- E. EXISTING CONDUITS:
 1. WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW CONSTRUCTION OR EXPOSED TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE APPROVED BY ENGINEER. EXPOSED CONDUITS SHALL BE SPECIALLY NOTED ON THE DRAWINGS OR APPROVED BY
- CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING BUILDING CONSTRUCTION, EXCEPT WHERE OTHERWISE INDICATED ON THE DRAWINGS. IN ALL EXISTING AND REMODELED AREAS HAVING SUSPENDED CEILINGS, CONDUIT SHALL BE CONCEALED ABOVE CEILINGS.
 EXISTING ABANDONED CONDUITS SHALL BE CAPPED AT TERMINATION AND SEALED AT ORIGINATION UNLESS

AS ORIGINALLY PREVAILED.

- OTHERWISE INDICATED ON DRAWINGS.

 F. EXISTING WIRING:

 1. EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED, SHALL
- 1. EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE.

CONCEALED BEHIND NEW CONSTRUCTION OR LOCATED

- EXISTING CONDUIT SHALL BE DISCONNECTED AND REMOVED WHERE ABANDONED AND EXPOSED, HOWEVER, MAY BE ABANDONED IN PLACE WHERE CONCEALED.
 ABANDONED OUTLET BOXES SHALL BE REMOVED UNLESS
- WITHIN UNFINISHED SPACES.
 G. EXISTING EQUIPMENT:
 1. EXISTING EQUIPMENT, E.G., PANELBOARDS, SWITCHES, STARTERS, LIGHTING FIXTURES, CONDUIT, WIRE OUTLETS, ETC., SHOWN TO BE DEMOLISHED, SHALL BE DISCONNECTED AND REMOVED IN THEIR ENTIRETY INCLUDING ALL APPURTENANCES WHERE INDICATED ON
- UNLESS OTHERWISE REQUESTED, OR HEREIN INDICATED,
 TO BE SALVAGED BY THE OWNER, ALL EXISTING REMOVED
- PROPERTY AND SHALL BE REMOVED FROM THE SITE.

 H. ALL NECESSARY EXISTING BUILDING SERVICE OR POWER INTERRUPTIONS REQUIRED FOR THE ELECTRICAL INSTALLATIONS SHALL BE SCHEDULED IN ADVANCE AS REQUIRED BY OWNER. NO INTERRUPTIONS WILL BE PERMITTED WITHOUT THE OWNER'S EXPLICIT PERMISSION. ALL REQUIRED INTERRUPTIONS SHALL BE ARRANGED DURING HOURS AND DAYS WHICH LEAST INCONVENIENCE THE OPERATION OF THE EXISTING FACILITY AND EACH OUTAGE SHALL BE AS SHORT AS POSSIBLE.

 TEMPORARY CONNECTIONS SHALL BE MADE AS REQUIRED TO PROVIDE CONTINUITY OF SERVICE.

EQUIPMENT SHALL BECOME THE CONTRACTOR'S

KEYNOTES:

DISCONNECT AND REMOVE EXISTING HIGH BAY HID LIGHTING.
 DISCONNECT AND REMOVE EXISTING LIGHT SWITCHES.
 DEDUCT ALTERNATE #2 - EXISTING TRANSFORMER SHALL REMAIN AS PART OF DEDUCT ALTERNATE #2. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.

DEDUCT ALTERNATE #1 - EXISTING GENERATOR SHALL REMAIN AS

- PART OF DEDUCT ALTERNATE #1. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.

 5. DISCONNECT AND REMOVE EXISTING ELLIORESCENT STRIP.
- 5. DISCONNECT AND REMOVE EXISTING FLUORESCENT STRIP LIGHTING.
- EXISTING PANELBOARDS TO REMAIN. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.
 UNDER BASE BID, EXISTING SWITCHBOARD SHALL REMAIN UNTIL NEW SWITCHBOARD IS ENERGIZED, AND LOADS HAVE BEEN TRANSFERRED TO THE NEW SWITCHBOARD. REMOVE EXISTING EQUIPMENT PAD. PATCH, REPAIR, AND FINISH CONCRETE TO
- MATCH ADJACENT EXISTING
 DISCONNECT POWER, CONTROLS AND REMOVE DUCT SMOKE
 DETECTOR TO EXISTING MAKE UP AIR UNIT (MAU). AS PART OF
- DEDUCT ALTERNATE #3, MAU SHALL REMAIN.

 9. EXISTING METERING EQUIPMENT SHALL BE DISCONNECTED AND REMOVED. EXISTING RECEPTACLE, LIGHT SWITCHES TO BE RELOCATED, AND RE-CIRCUITED TO AVOID NEW MCB.

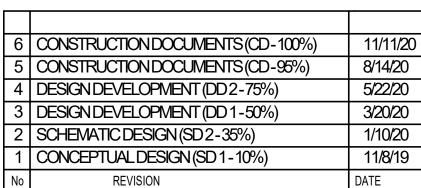
 10. EXISTING EST FACP TO REMAIN.
- 11. RELOCATE BOILER SHUT-OFF BUTTON AS SHOWN ON EP101.12. CONTRACTOR SHALL RELOCATE ALL EXISTING BRANCH CIRCUITS, CABLING AND FEEDERS IN CONFLICT WITH NEW ELECTRICAL
- DISTRIBUTION EQUIPMENT.

 13. AS PART OF DEDUCT ALTERNATE #1, CONTRACTOR SHALL
 REPLACE EXISTING RADIATOR AND HOSES. INCLUDE ALL
 REMOVAL AND RE-INSTALLATION OF DUCTWORK, AND ALL
 ACCESSORIES. INSTALL NEW GLYCOL TO MANUFACTURES
 RECOMMENDATIONS AND PROVIDE TESTING PER GENERATOR
- 14. EXISTING CABLE TROUGH BETWEEN ATS AND SWITCHBOARD SHALL BE REMOVED. CONTRACTOR SHALL MODIFY EXISTING LAYOUT AS REQUIRED TO MAINTAIN EXISTING SYSTEM WHILE NEW ELECTRICAL SERVICE IS BEING INSTALLED.
 15. EXISTING SECURITY SYSTEM MOTION SENSOR SHALL BE
- RELOCATED AS SHOWN ON SHEET EP101.

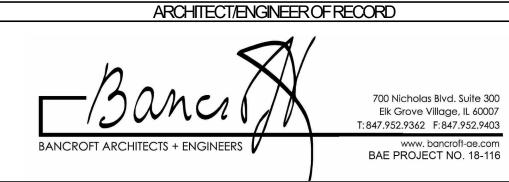
 16. CONTRACTOR SHALL MAINTAIN CONNECTION TO MAKE-UP AIR
 STATUS SENSOR
- STATUS SENSOR.

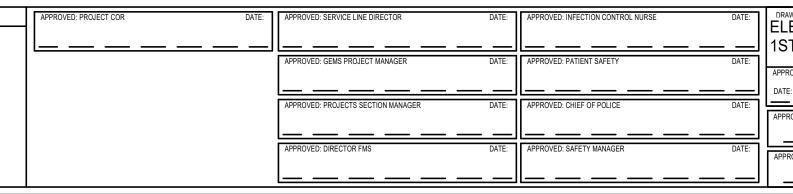
 17. REMOVE EXISTING GENERATOR CONCRETE BASED

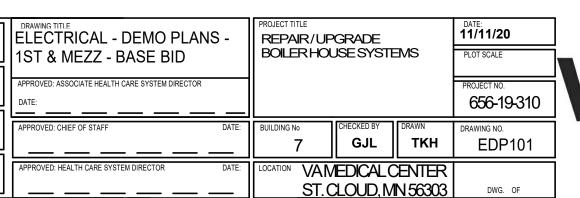
SPECIFICATIONS.





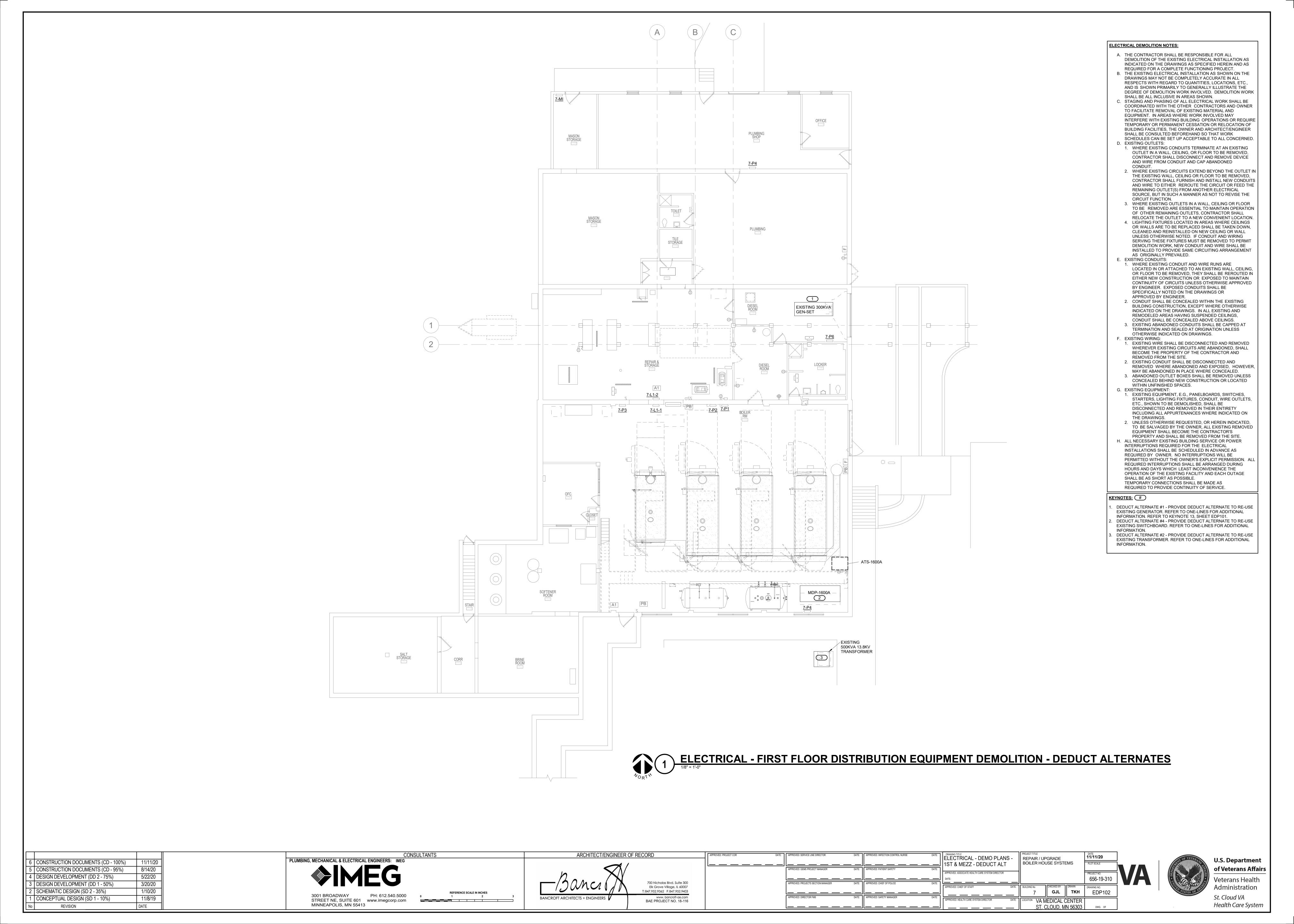


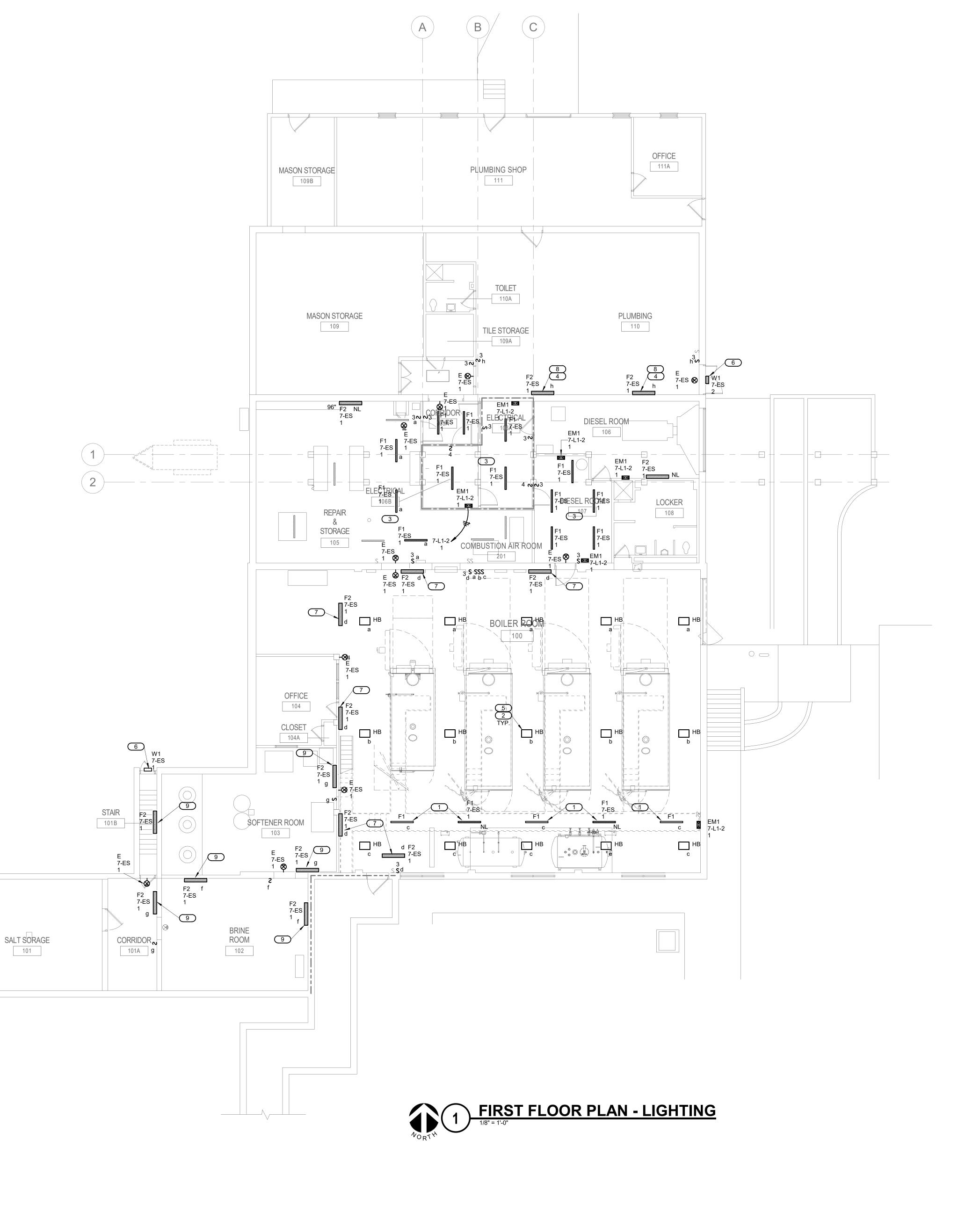












GENERAL NOTES:

- A. COORDINATE LOCATION OF LUMINAIRES WITH ALL OTHER TRADES PRIOR TO INSTALLATION. B. MAINTAIN THE FIRE RATING WHEREVER FIRE RATED STRUCTURES ARE PENETRATED BY CONDUIT, LUMINAIRES, ETC. SEE ARCHITECTURAL DOCUMENTS FOR THE FIRE RATINGS OF ALL STRUCTURES.
- PROVIDE A MINIMUM #10 AWG CONDUCTOR FOR HOMERUNS OVER 100 FEET FOR 120V AND 250 FEET FOR 277 VOLT. D. TYPE EM1 EMERGENCY BATTERY UNITS SHALL

BE CONNECTED TO UNSWITCHED LIGHTING

COORDINATE EXACT HEIGHT OF WALL MOUNTED "F2" FIXTURE WITH EXISTING CONDITIONS. CONNECT SWITCHED EMERGENCY LIGHTS TO EXISTING LIGHTING CIRCUIT. REFER TO DETAIL

5/E300 FOR CONTROL OF EMERGENCY LIGHT FIXTURES. PROVIDE QUANTITY OF RELAYS AS REQUIRED.

KEYNOTES:

CIRCUIT IN ROOM.

- MOUNT STRIP FIXTURE TO THE BOTTOM SIDE OF THE CAT WALK. MOUNT HIGH BAY FIXTURES AT 20' AFF. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT IN SPACE. PROVIDE CONNECTION TO EXISTING LIGHTING CIRCUIT AND NEW LIGHTING CONTROL.
- PROVIDE UL1008 SWITCHING RELAYS. REFER TO EMERGENCY LIGHTING CONTROL DETAIL ON SHEET E300.
- MOUNT LIGHTS ABOVE PIPING. PROVIDE CABLE MOUNTING TO SAME HEIGHT AS EXISTING. COORDINATE MOUNTING WITH EXISTING CONDITIONS. PROVIDE TWIST LOCK RECEPTACLE AT STRUCTURE.
- MOUNT LIGHT ABOVE DOOR AT SAME HEIGHT AS EXISTING WALL PACKS. MOUNT TYPE F2 LIGHT FIXTURE IN BOILER ROOM AT APPROXIMATELY 13'-0". VERIFIY EXACT HEIGHT WITH EXISTING CONDITIONS.

MOUNT LIGHT FIXTURE DIRECTLY BELOW

U.S. Department

Administration

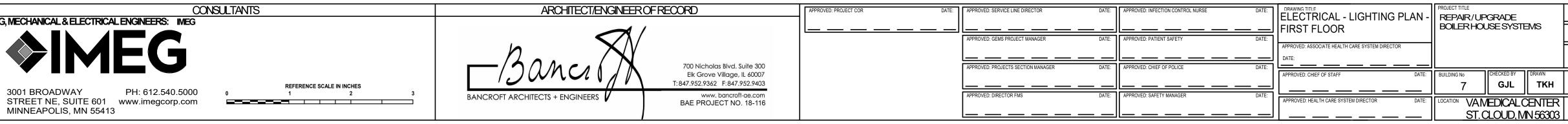
Health Care System

St. Cloud VA

ST. CLOUD, MN 56303 DWG. OF

of Veterans Affairs

MOUNT LIGHT FIXTURE AT APPROXIMATELY 8'-0". VERIFY EXACT HEIGHT WITH EXISTING CONDITIONS.



6 CONSTRUCTION DOCUMENTS (CD-100%)

CONSTRUCTION DOCUMENTS (CD-95%)

4 DESIGN DEVELOPMENT (DD 2-75%) B DESIGN DEVELOPMENT (DD 1-50%)

SCHEMATIC DESIGN (SD 2-35%)

REVISION

CONCEPTUAL DESIGN (SD 1-10%)

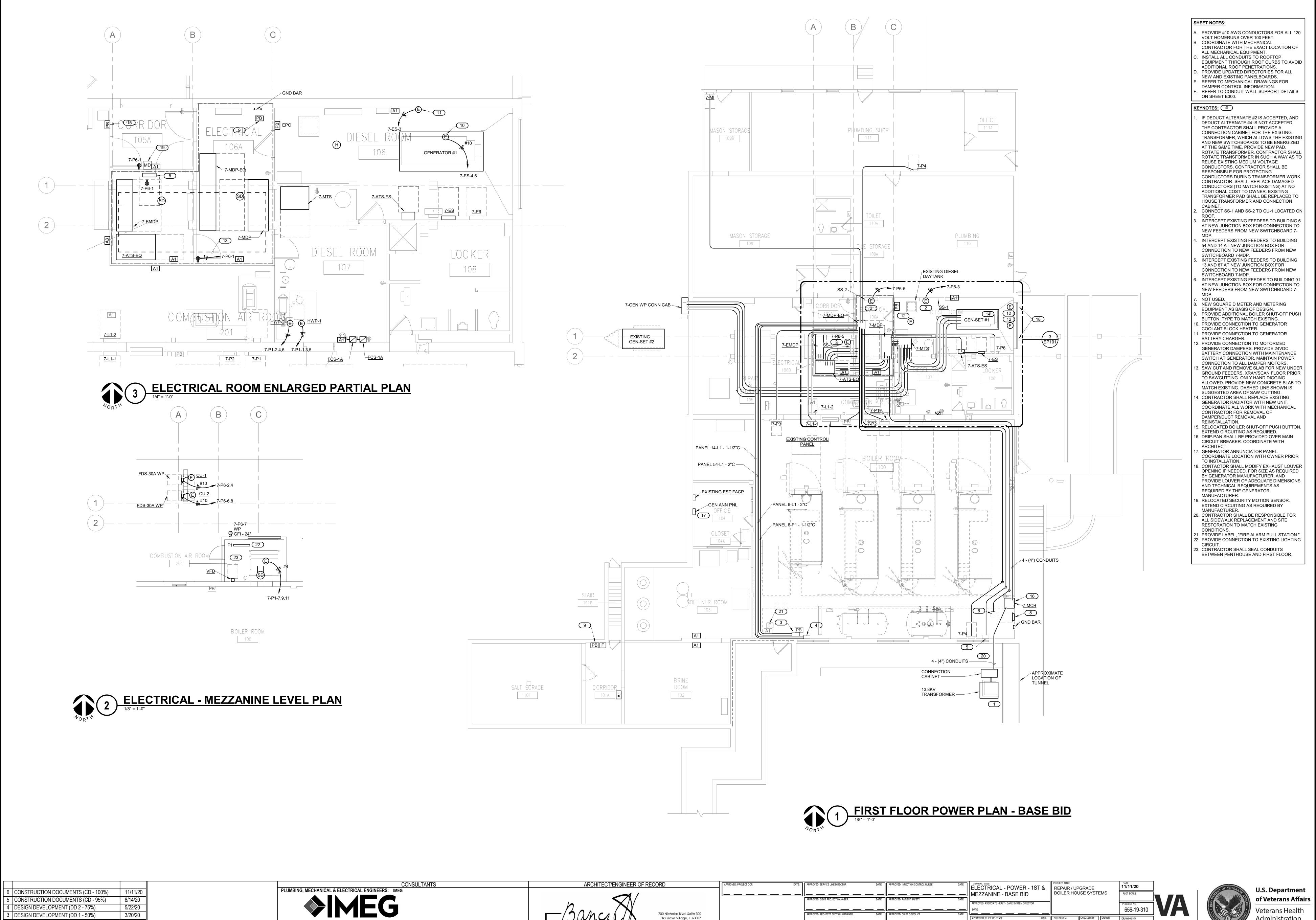
8/14/20 5/22/20

3/20/20

1/10/20

11/8/19

DATE



T: 847.952.9362 F: 847.952.9403

BAE PROJECT NO. 18-116

BANCROFT ARCHITECTS + ENGINEERS

www.bancroft-ae.com

1/10/20

11/8/19

DATE

STREET NE, SUITE 601 www.imegcorp.com

MINNEAPOLIS, MN 55413

SCHEMATIC DESIGN (SD 2 - 35%)

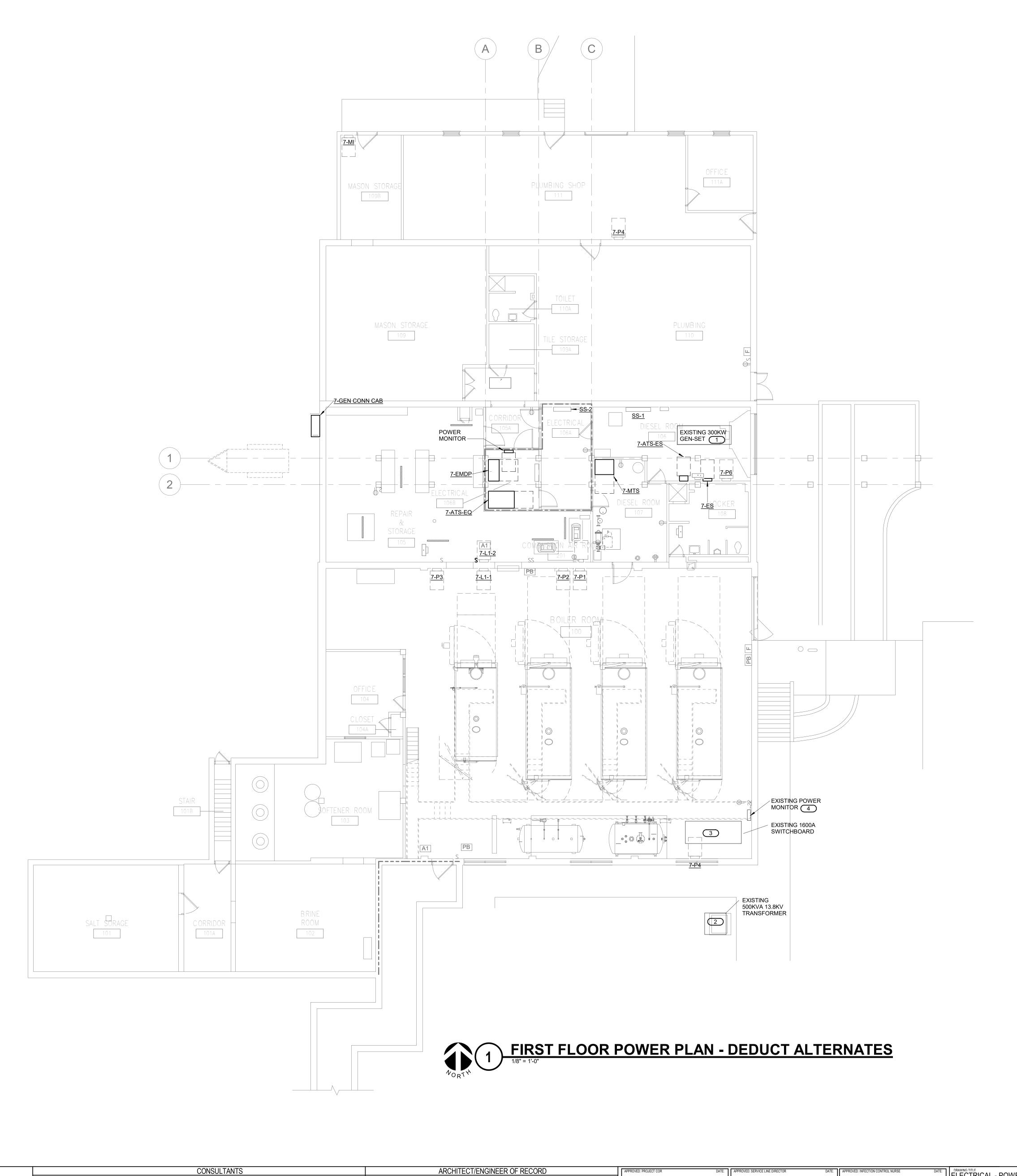
REVISION

CONCEPTUAL DESIGN (SD 1 - 10%)

Administration St. Cloud VA Health Care System

GJL TKH

ST. CLOUD, MN 56303



SHEET NOTES:

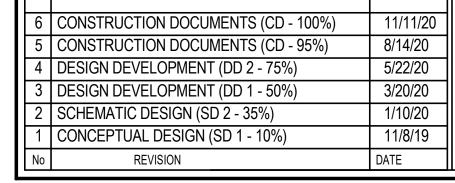
- . PROVIDE #10 AWG CONDUCTORS FOR ALL 120 VOLT HOMERUNS OVER 100 FEET. B. COORDINATE WITH MECHANICAL
 - CONTRACTOR FOR THE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT. . INSTALL ALL CONDUITS TO ROOFTOP EQUIPMENT THROUGH ROOF CURBS TO AVOID
- ADDITIONAL ROOF PENETRATIONS. PROVIDE UPDATED DIRECTORIES FOR ALL
- NEW AND EXISTING PANELBOARDS. FEEDER ROUTING TO ELECTRICAL ROOM
- SHALL BE SIMILAR TO SHEET EP101. ALL GENERAL POWER, SIGNAL, LIGHTING AND EQUIPMENT CONNECTIONS SHALL BE AS SHOWN ON SHEET EP101

KEYNOTES:

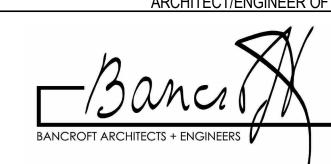
- DEDUCT ALTERNATE #1 PROVIDE DEDUCT ALTERNATE FOR EXISTING GENERATOR TO REMAIN. REFER TO ONE-LINE DIAGRAMS FOR
- ADDITIONAL INFORMATION. AS PART OF DEDUCT ALTERNATE #2, EXISTING TRANSFORMER WILL REMAIN. REFER TO NOTE #1 ON SHEET EP101. DEDUCT ALTERNATE #4 - PROVIDE DEDUCT
- SWITCHBOARD TO REMAIN. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.

ALTERNATE FOR EXISTING 1600A

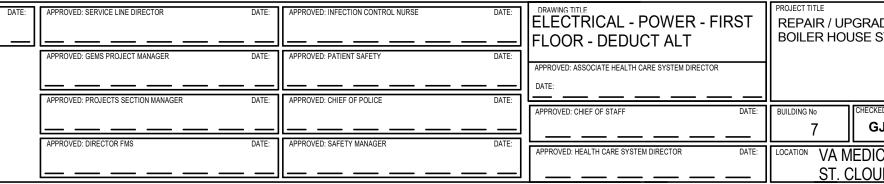
DEDUCT ALTERNATE #4 - EXISTING POWER MONITOR TO REMAIN AS PART OF DEDUCT ALTERNATE #4. MAINTAIN ALL CONNECTIONS.











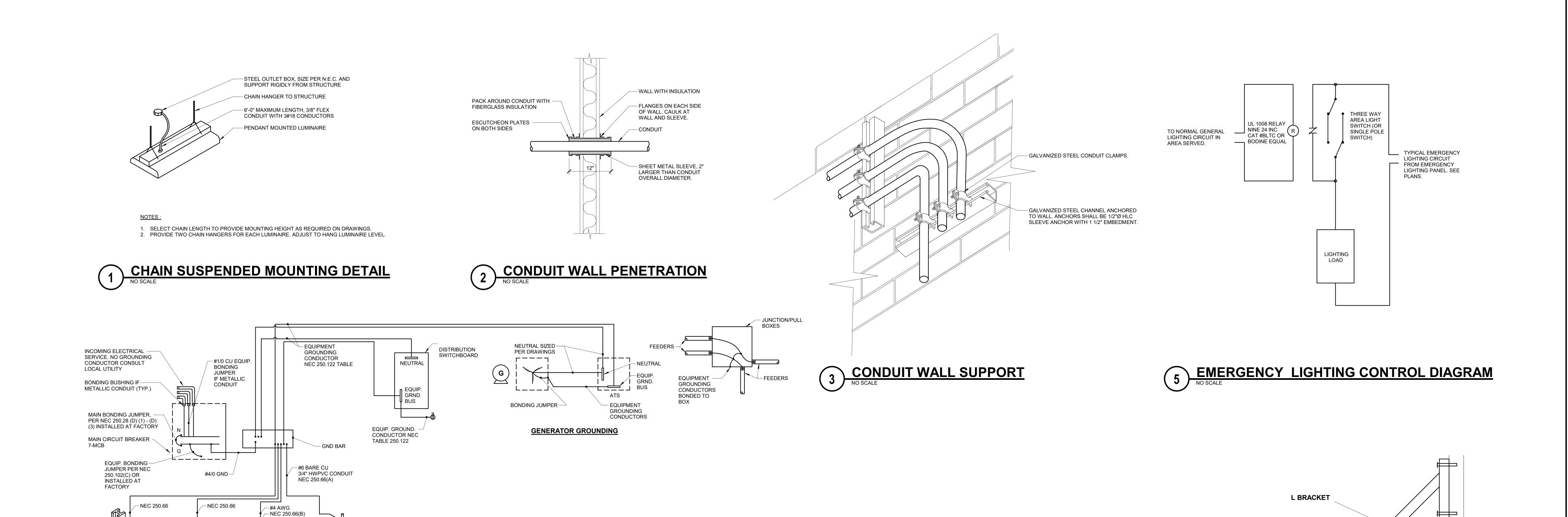
ADE SYSTEN	NS	DATE: 11/11/20 PLOT SCALE	
		PROJECT NO. 656-19-310	V
GJL	TKH	DRAWING NO. EP102	
ICAL CF	NTFR		

ST. CLOUD, MN 56303 DWG. OF



U.S. Department

of Veterans Affairs



(4) ELECTRICAL SYSTEM GROUNDING DETAIL (BASE BID & DEDUCT ALTERNATES 1 THRU 3) NO SCALE

5/8"ø X 10'-0" CU

GROUND RODS

NEC 250.52(A)(5)(b)

CLAD STEEL

METAL FRAME OF

BUILDING OR

STRUCTURE

NEC(250.52(A)(2)

METAL

UNDERGROUND

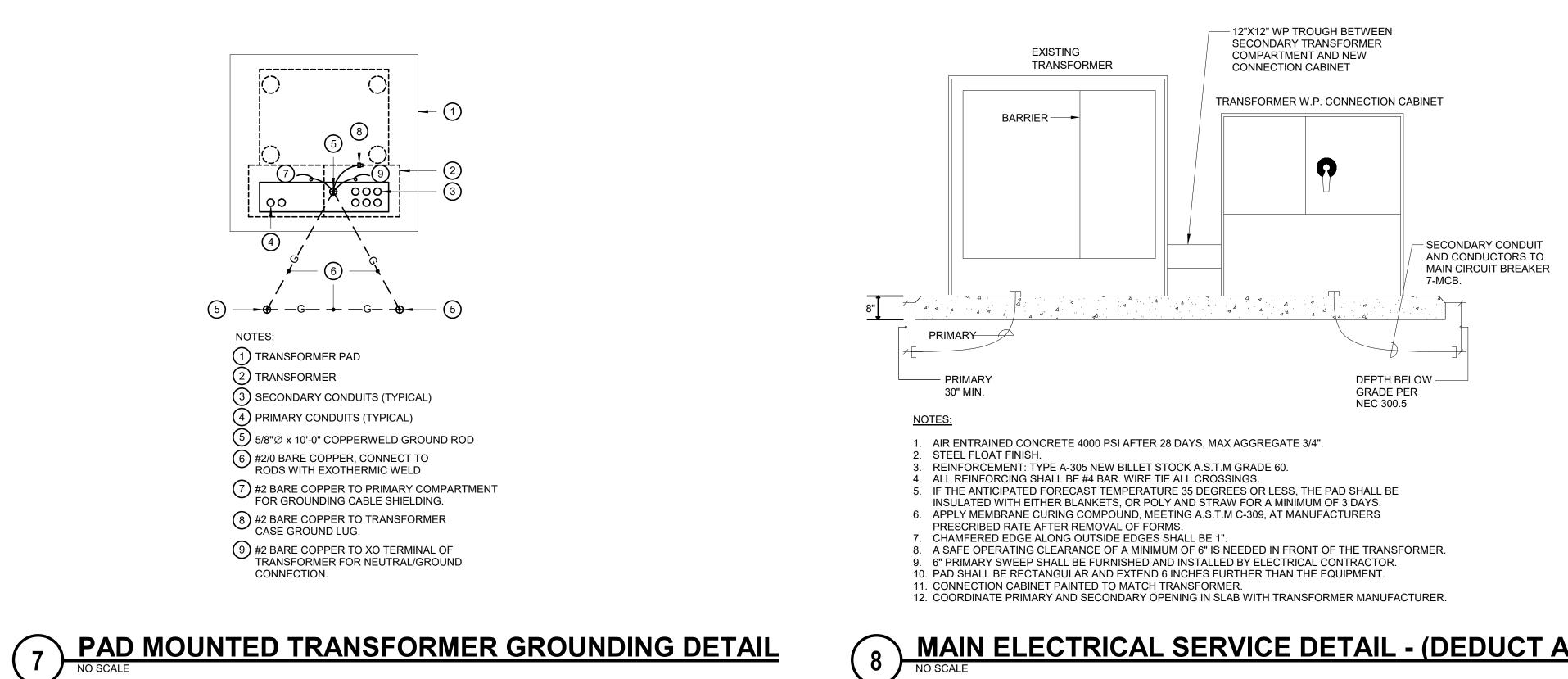
WATER PIPE

NEC 250.52(A)(1)

ENCASED

ELECTRODE NEC

250.52(A)(3)



8 MAIN ELECTRICAL SERVICE DETAIL - (DEDUCT ALTERNATE #2, WITHOUT DEDUCT ALTERNATE #4)

THREADED

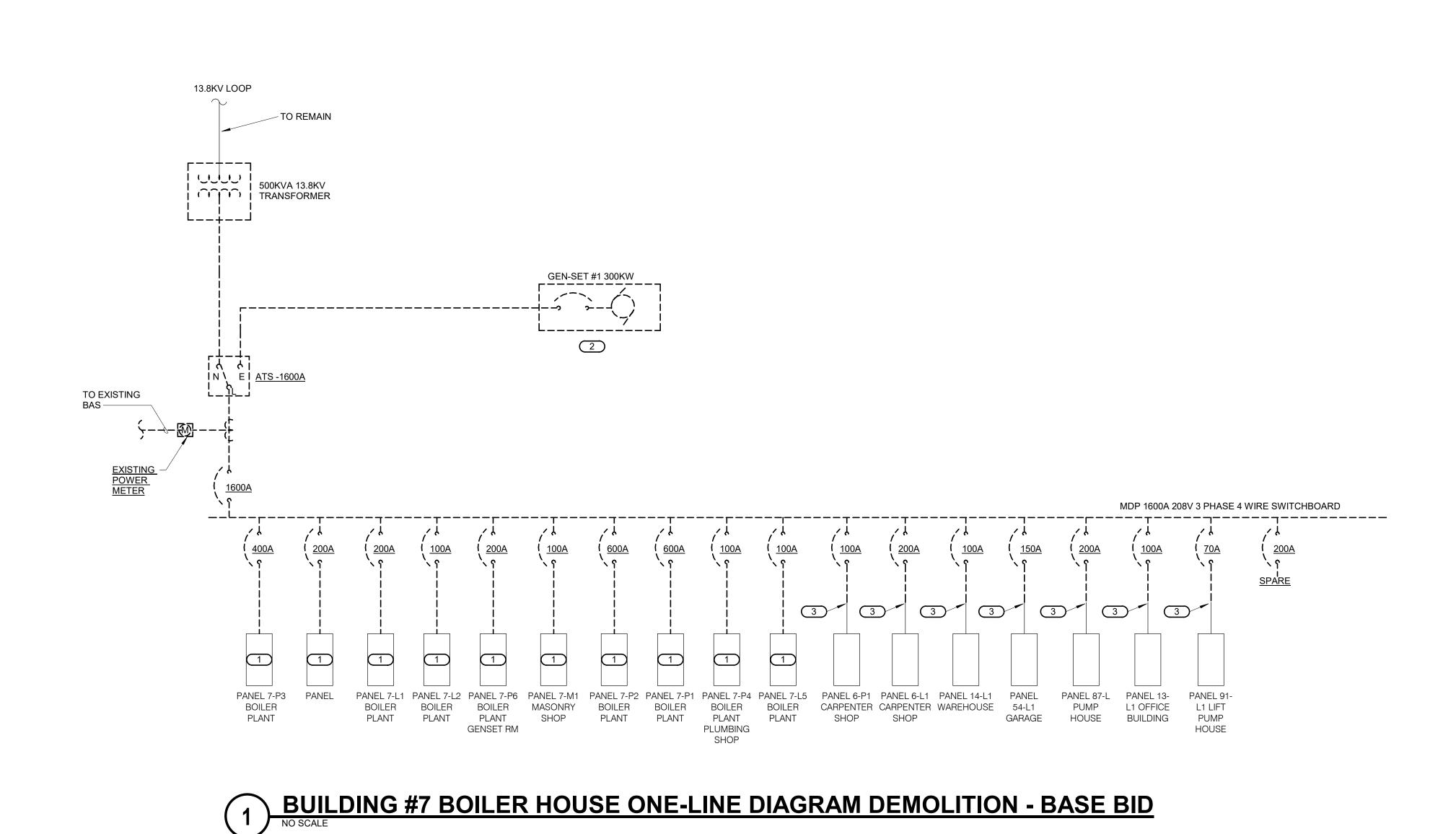
CONDUITS

UNI-STRUT

BRACKET

6 CONDUIT WALL BRACKET
NO SCALE

ARCHITECT/ENGINEER OF RECORD DRAWING TITLE ELECTRICAL - DETAILS REPAIR / UPGRADE BOILER HOUSE SYSTEMS PLUMBING, MECHANICAL & ELECTRICAL ENGINEERS: IMEG CONSTRUCTION DOCUMENTS (CD - 100%) CONSTRUCTION DOCUMENTS (CD - 95%) 8/14/20 of Veterans Affairs 5/22/20 4 DESIGN DEVELOPMENT (DD 2 - 75%) 3/20/20 DESIGN DEVELOPMENT (DD 1 - 50%) 700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 1/10/20 GJL SCHEMATIC DESIGN (SD 2 - 35%) TKH T:847.952.9362 F:847.952.9403 11/8/19 St. Cloud VA www.bancroft-ae.com CONCEPTUAL DESIGN (SD 1 - 10%) BANCROFT ARCHITECTS + ENGINEERS STREET NE, SUITE 601 www.imegcorp.com BAE PROJECT NO. 18-116 Health Care System DATE MINNEAPOLIS, MN 55413 REVISION



SHEET NOTES:

A. CONTRACTOR SHALL MAINTAIN POWER DURING CONSTRUCTION. ALL POWER OUTAGES SHALL BE COORDINATED WITH OWNER AND A/E TEAM.

KEYNOTES:

EXISTING PANELBOARD AND BRANCH CIRCUITING TO REMAIN. DEMOLISH EXISTING FEEDER CONDUITS AND CONDUCTORS SERVING PANELBOARD. DISCONNECT AND REMOVE EXISTING DIESEL

GENERATOR AND CONTROLS. INTERCEPT EXISTING FEEDER FOR PANELBOARDS SERVING OTHER BUILDINGS. REFER TO SHEET EP101 FOR NEW JUNCTION

BOX INTERCEPTION LOCATIONS.

6 CONSTRUCTION DOCUMENTS (CD - 100%) CONSTRUCTION DOCUMENTS (CD - 95%) 8/14/20 4 DESIGN DEVELOPMENT (DD 2 - 75%) 3/20/20 3 DESIGN DEVELOPMENT (DD 1 - 50%) 1/10/20 2 SCHEMATIC DESIGN (SD 2 - 35%) CONCEPTUAL DESIGN (SD 1 - 10%) 11/8/19 DATE REVISION

CONSULTANTS PLUMBING, MECHANICAL & ELECTRICAL ENGINEERS: IMEG STREET NE, SUITE 601 www.imegcorp.com MINNEAPOLIS, MN 55413

ARCHITECT/ENGINEER OF RECORD BANCROFT ARCHITECTS + ENGINEERS

700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T:847.952.9362 F:847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 DRAWING TITLE
ELECTRICAL - DEMO ONE -LINE
DIAGRAM - BASE BID

PROJECT TITLE
REPAIR / UPGRADE
BOILER HOUSE SYST

DATE: APPROVED: SERVICE LINE DIRECTOR

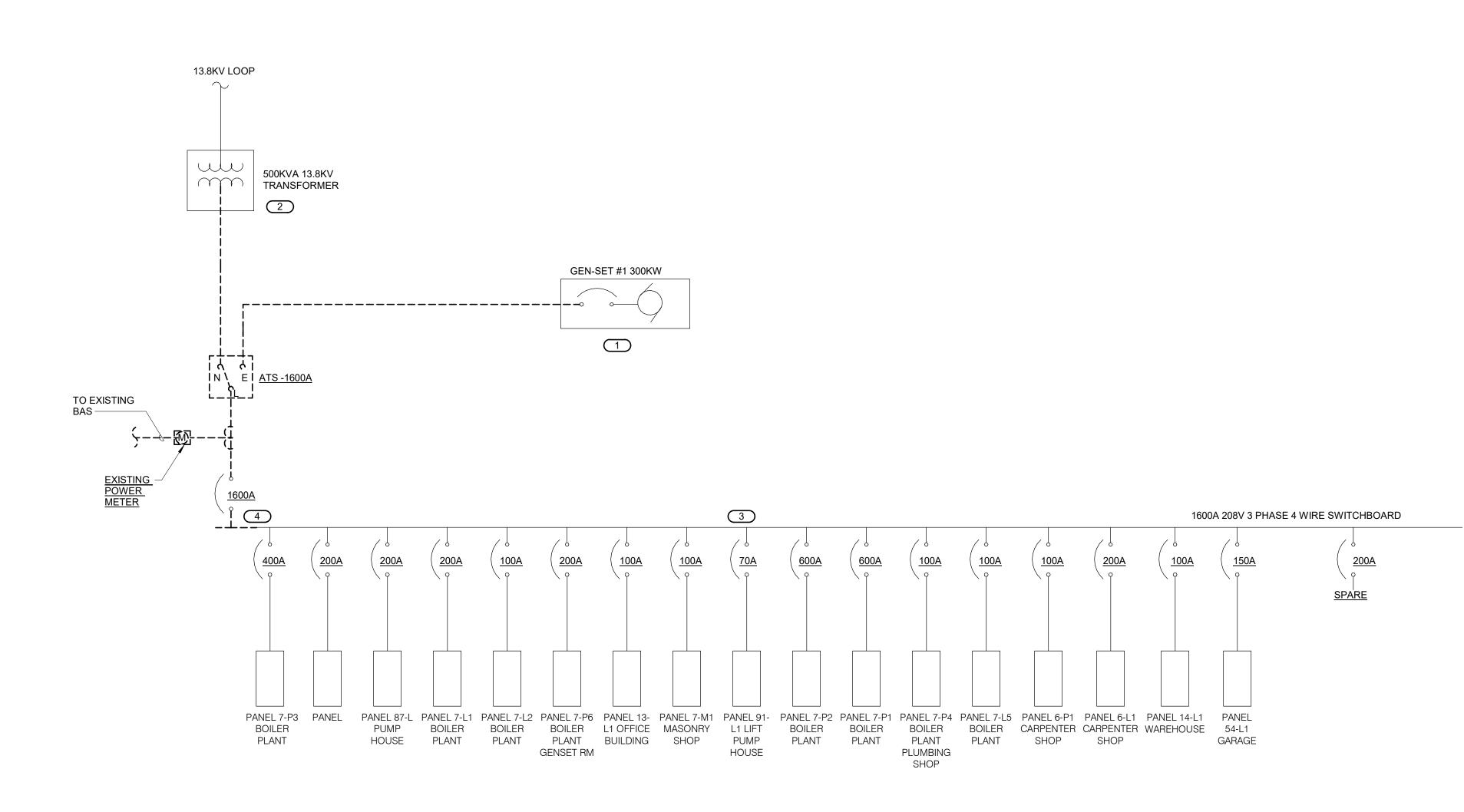
BOILER HOUSE SYSTEMS

CHECKED BY DRAWN

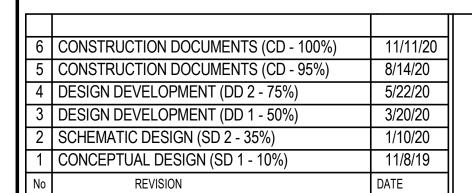
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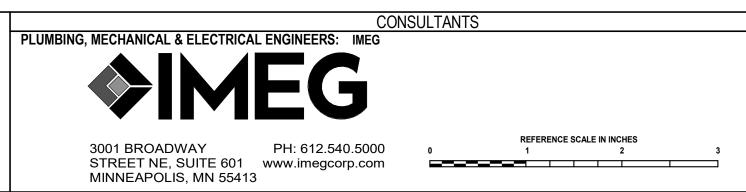
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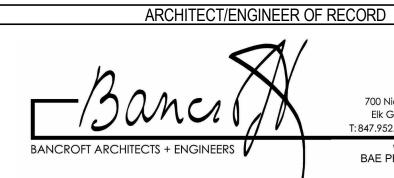


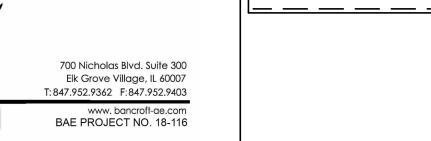


) BUILDING #7 BOILER HOUSE ONE-LINE DIAGRAM DEMOLITION - DEDUCT ALTERNATES NO SCALE









DATE:	APPROVED: SERVICE LINE DIRECTOR	DATE:	APPROVED: INFECTION CONTROL NURSE	DATE:	DRAWING TITLE ELECTRI DIAGRAN
	APPROVED: GEMS PROJECT MANAGER	DATE:	APPROVED: PATIENT SAFETY	DATE:	APPROVED: ASSOCI
	APPROVED: PROJECTS SECTION MANAGER	DATE:	APPROVED: CHIEF OF POLICE	DATE:	APPROVED: CHIEF (
	APPROVED: DIRECTOR FMS	DATE:	APPROVED: SAFETY MANAGER	DATE:	APPROVED: HEALTH

					_
FRICAL - DEMO ONE-LINE	PROJECT TITLE REPAIR / UF	PGRADE		DATE: 11/11/20	
AM - DEDUCT ALT	BOILER HOI	USE SYSTE	EMS	PLOT SCALE	
SOCIATE HEALTH CARE SYSTEM DIRECTOR				PROJECT NO. 656-19-310	
IEF OF STAFF DATE:	BUILDING No 7	CHECKED BY GJL	DRAWN TKH	DRAWING NO. E401	
ALTH CARE SYSTEM DIRECTOR DATE:	11	MEDICAL C		DWG. OF	



SHEET NOTES:

KEYNOTES: #

BOND.

A. CONTRACTOR SHALL MAINTAIN POWER DURING CONSTRUCTION. ALL POWER OUTAGES SHALL BE COORDINATED WITH

DEDUCT ALTERNATE #1 - PROVIDE DEDUCT
ALTERNATE TO RE-USE EXISTING GENERATOR.
DEDUCT ALTERNATE #2 - PROVIDE DEDUCT
ALTERNATE TO RE-USE EXISTING 500KVA,

DEDUCT ALTERNATE #4: PROVIDE DEDUCT

CONTRACTOR SHALL REMOVE EXISTING 1600A MCB AND REWORK BUS AS REQUIRED FOR NEW FEEDER FROM 7-ATS-EQ AS SHOWN ON SHEET E501. REMOVE NEUTRAL TO GROUND

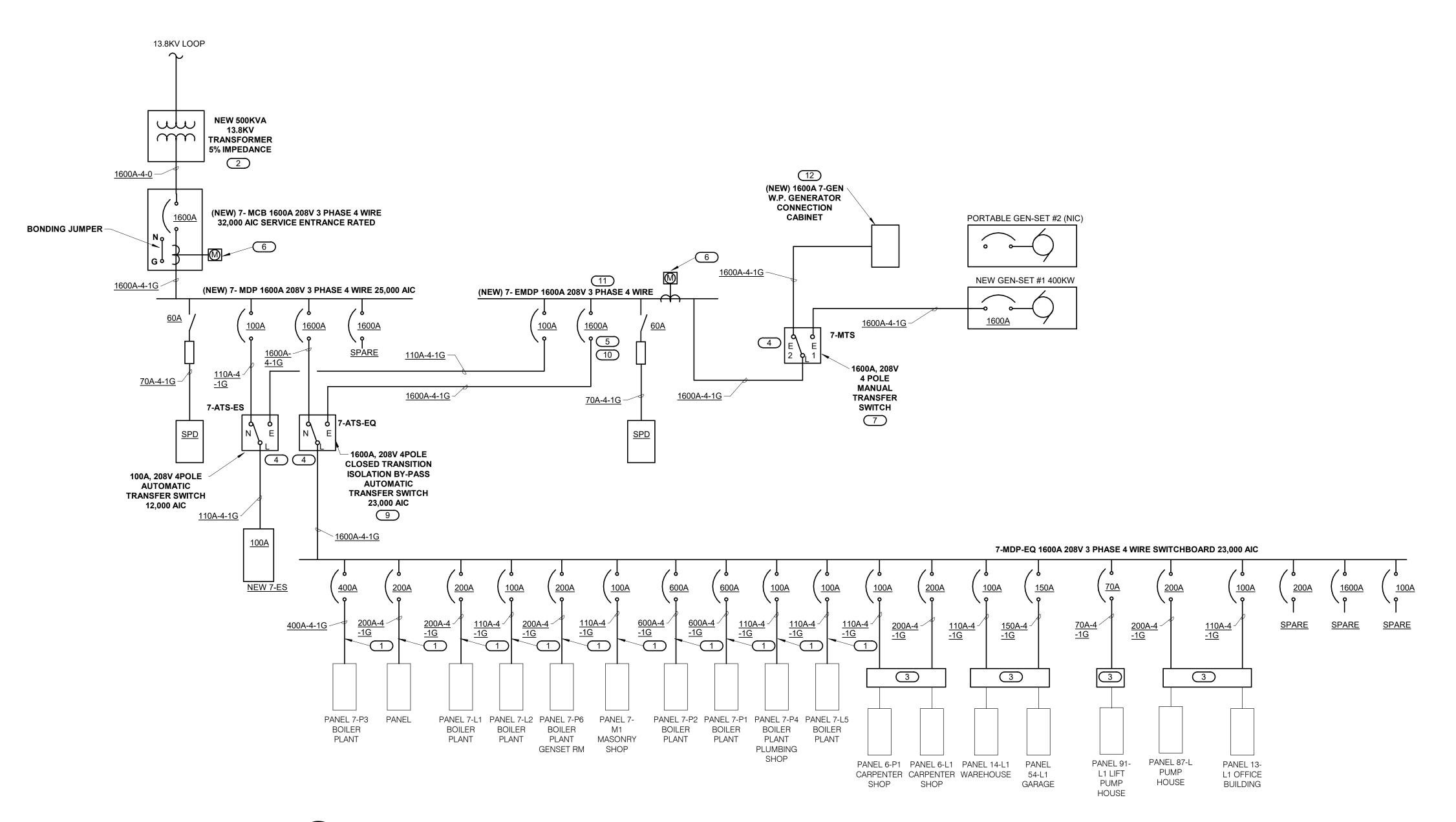
SWITCHBOARD WITH MODIFICATIONS AS

ALTERNATE TO RE-USE EXISTING

OWNER AND A/E TEAM.

13.8KV TRANSFORMER.





BUILDING #7 BOILER HOUSE ONE-LINE DIAGRAM NEW - BASE BID

GENERAL NOTES: A. ALL CONDUCTORS SHALL BE COPPER.

KEYNOTES:

- PROVIDE NEW CONDUIT AND WIRE TO EXISTING PANELBOARDS. AS PART OF DEDUCT ALTERNATE #2, EXISTING TRANSFORMER WILL REMAIN. CONTRACTOR SHALL PROVIDE 1600A 208 VOLT, 3 PHASE 4 WIRE CONNECTION CABINET. SEE DETAIL 8/E300 FOR ADDITIONAL INFORMATION. CONNECTION CABINET WILL ALLOW EXISTING SWITCHBOARD AND NEW SWITCHBOARD 7-MDP TO BE ENERGIZED AT THE SAME TIME FOR TRANSFERRING OF LOADS. INTERCEPT EXISTING FEEDER AND INSTALL NEW JUNCTION BOX AT LOCATION SHOWN ON
- SHEET EP101. PROVIDE GENERATOR START CIRCUIT AND WIRING, IN SEPARATE CONDUIT FOR EACH
- PROVIDE SHUNT TRIP CIRCUIT BREAKER FOR CONNECTION TO LOCK-OUT RELAY IN 7-ATS-6. NEW SQUARE D ION9000 POWER MONITORING EQUIPMENT. PROVIDE DATA CONNECTION AND
- ALL CABLING REQUIRED, TO CAMPUS MONITORING SYSTEM. PROVIDE START CONTACTS ON BOTH SIDES OF 7-MTS. . NOT USED.
- . ATS SHALL HAVE LOCK-OUT RELAY AND 24VDC INDICATOR LIGHT. PROVIDE CONNECTION FROM LOCK-OUT RELAY TO SHUNT TRIP CIRCUIT BREAKER IN 7-EMDP. PROVIDE ALL CIRCUITING AND ACCESSORIES AS REQUIRED. (REFER TO SPECIFICATIONS.) PROVIDE CONNECTION TO BAS (JOHNSON CONTROLS) NOTIFICATION WHEN LOCK-OUT RELAY IS
- 10. PROVIDE ZONE SELECT INTERLOCKING BETWEEN GENERATOR MCB AND 1600A CIRCUIT BREAKER IN 7-EMDP SUCH THAT CIRCUIT BREAKER IN 7-EMDP TRIPS BEFORE GENERATOR MCB. PROVIDE ALL CIRCUITING, CONTROLLERS AND ACCESSORIES AS
- 1. PROVIDE ENCLOSURE SEPARATION PER NEC 12. PROVIDE START CIRCUIT CONTACTS FOR EACH ATS.

			THE THILL GOI	IEDULE (60C R		
FEEDER TYPE	Ø & N	ONDUCTORS GND	2Ø+N+GND	CONDL 3Ø+GND	JIT SIZE 3Ø+N+GND	3Ø+2N+2GNE
20	#12	#12	16 (1/2")	16 (1/2")	16 (1/2")	21 (3/4")
30	#10	#10	16 (1/2")	16 (1/2")	21 (3/4")	21 (3/4")
40	#8	#10	21 (3/4")	21 (3/4")	27 (1")	27 (1")
55	#6	#10	27 (1")	27 (1")	27 (1")	27 (1")
70	#4	#8	35 (1 1/4")	35 (1 1/4")	35 (1 1/4")	35 (1 1/4")
85	#3	#8	35 (1 1/4")	35 (1 1/4")	35 (1 1/4")	41 (1 1/2")
95	#2	#8	35 (1 1/4")	35 (1 1/4")	41 (1 1/2")	41 (1 1/2")
110	#1	#6	41 (1 1/2")	41 (1 1/2")	41 (1 1/2")	53 (2")
150	#1/0	#6	41 (1 1/2")	41 (1 1/2")	53 (2")	53 (2")
175	#2/0	#6	53 (2")	53 (2")	53 (2")	63 (2 1/2")
200	#3/0	#6	53 (2")	53 (2")	53 (2")	63 (2 1/2")
230	#4/0	#4	53 (2")	53 (2")	63 (2 1/2")	63 (2 1/2")
255	250 kCM	#4	63 (2 1/2")	63 (2 1/2")	63 (2 1/2")	78 (3")
285	300 kCM	#4	63 (2 1/2")	78 (3")	78 (3")	78 (3")
310	350 kCM	#3	78 (3")	78 (3")	78 (3")	91 (3 1/2")
335	400 kCM	#3	78 (3")	78 (3")	78 (3")	91 (3 1/2")
380	500 kCM	#3	78 (3")	78 (3")	91 (3 1/2")	103 (4")
510	(2) 250 kCM	(2) #1	(2) 63 (2 1/2")	(2) 63 (2 1/2")	(2) 78 (3")	(2) 78 (3")
570	(2) 300 kCM	(2) #1	(2) 63 (2 1/2")	(2) 63 (2 1/2")	(2) 78 (3")	(2) 91 (3 1/2")
620	(2) 350 kCM	(2) #1	(2) 78 (3")	(2) 78 (3")	(2) 78 (3")	(2) 91 (3 1/2")
760	(2) 500 kCM	(2) #1/0	(2) 78 (3")	(2) 78 (3")	(2) 91 (3 1/2")	(2) 103 (4")
1005	(3) 400 kCM	(3) #2/0	(3) 78 (3")	(3) 78 (3")	(3) 78 (3")	(3) 91 (3 1/2")
1240	(4) 350 kCM	(4) #3/0	(4) 78 (3")	(4) 78 (3")	(4) 78 (3")	(4) 91 (3 1/2")
1260	(3) 600 kCM	(3) #3/0	(3) 91 (3 1/2")	(3) 91 (3 1/2")	(3) 103 (4")	(3) 129 (5")
1675	(5) 400 kCM	(5) #4/0	(5) 78 (3")	(5) 78 (3")	(5) 91 (3 1/2")	(5) 103 (4")
1680	(4) 600 kCM	(4) #4/0	(4) 91 (3 1/2")	(4) 91 (3 1/2")	(4) 103 (4")	(4) 129 (5")
2010	(6) 400 kCM	(6) 250 kCM	(6) 78 (3")	(6) 78 (3")	(6) 91 (3 1/2")	(6) 103 (4")
2100	(5) 600 kCM	(5) 250 kCM	(5) 91 (3 1/2")	(5) 91 (3 1/2")	(5) 103 (4")	(5) 129 (5")
2520	(6) 600 kCM	(6) 350 kCM	(6) 91 (3 1/2")	(6) 91 (3 1/2")	(6) 103 (4")	(6) 129 (5")
2660	(7) 500 kCM	(7) 350 kCM	(7) 91 (3 1/2")	(7) 91 (3 1/2")	(7) 91 (3 1/2")	(7) 129 (5")
3040	(8) 500 kCM	(8) 400 kCM	(8) 91 (3 1/2")	(8) 91 (3 1/2")	(8) 91 (3 1/2")	(8) 129 (5")
4275	(8) 750 kCM	(8) 500 kCM	(8) 103 (4")	(8) 103 (4")	(8) 129 (5")	(8) 129 (5")
EQ	EQUIPMENT	FEEDER - REI	FER TO ELECTRICA	AL EQUIPMENT SCH	HEDULE	

200 - 4 - 1G <u>FEEDER DESIGNATION</u>

- GROUND CONDUCTORS: (0) - NO GROUND
- (1G) EQUIPMENT OR ISOLATED GND (2G) - EQUIPMENT GND AND ISOLATED GND
- SYSTEM DESCRIPTION: (3) - 1Ø 3W OR 3Ø 3W (4) - 3Ø, 4W
- (5) 3Ø, 5W (2 NEUTRALS) CONDUCTOR AMPACITY: (SEE FEEDER SCHEDULE)

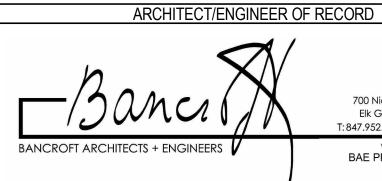
GENERAL NOTES:

A. THE ABOVE FEEDER SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME SIZES MAY NOT BE B. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310-15(b)(16) OF THE NEC FOR COPPER

CONDUCTOR TYPE THW/THWN. C. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE DERATING FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP. D. WHERE MULTIPLE CONDUITS AND CONDUCTORS ARE INDICATED FOR A SINGLE FEEDER, EACH CONDUIT SHALL CONTAIN 1 PARALLEL PHASE, NEUTRAL, AND GROUND CONDUCTORS INDICATED. E. CONDUIT ABOVE GRADE INDOORS SHALL BE EMT. CONDUIT ABOVE GRADE OUTDOORS SHALL BE GALVANIZED IMC OR RMC. CONDUIT BELOW GRADE SHALL BE PVC SCHEDULE 80 WITH GALVANIZED RMC ELBOWS. CONDUIT SIZE INDICATED IS MINIMUM SIZE REGARDLESS OF CONDUIT TYPE. F. CONDUITS SIZED LARGER THAN INDICATED SHALL BE PERMITTED FOR RUNS WITH UP TO (4) 90° ELBOWS, OR FOR PULLING LONGER RUNS.

6	CONSTRUCTION DOCUMENTS (CD - 100%)	11/11/20
5	CONSTRUCTION DOCUMENTS (CD - 95%)	8/14/20
4	DESIGN DEVELOPMENT (DD 2 - 75%)	5/22/20
3	DESIGN DEVELOPMENT (DD 1 - 50%)	3/20/20
2	SCHEMATIC DESIGN (SD 2 - 35%)	1/10/20
1	CONCEPTUAL DESIGN (SD 1 - 10%)	11/8/19
No	REVISION	DATE



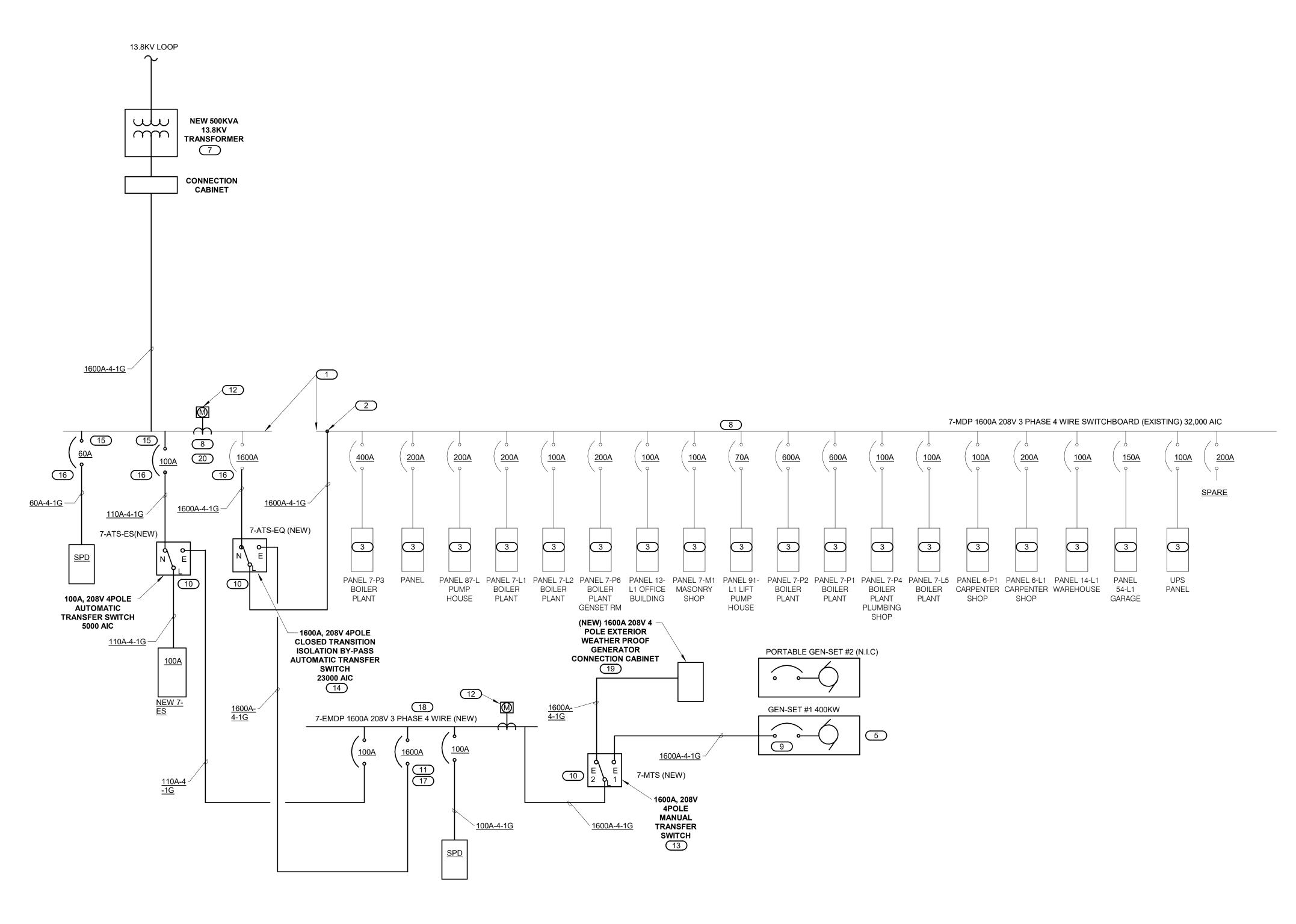


700 Nicholas Blvd. Suite 300 Elk Grove Village, IL 60007 T: 847.952.9362 F: 847.952.9403 www.bancroft-ae.com BAE PROJECT NO. 18-116 ATE: APPROVED: SERVICE LINE DIRECTOR

RICAL - ONE-LINE	PROJECT TITLE REPAIR / UF	PGRADE		DATE: 11/11/20	
M NEW - BASE BID	BOILER HOU	JSE SYSTE	EMS	PLOT SCALE	
OCIATE HEALTH CARE SYSTEM DIRECTOR				PROJECT NO. 656-19-310	V
EF OF STAFF DATE:	BUILDING No 7	CHECKED BY GJL	DRAWN TKH	DRAWING NO. E500	
ALTH CARE SYSTEM DIRECTOR DATE:		MEDICAL (]







BUILDING #7 BOILER HOUSE ONE-LINE DIAGRAM NEW - DEDUCT ALTERNATE #4

6 CONSTRUCTION DOCUMENTS (CD - 100%) 11/11/20
5 CONSTRUCTION DOCUMENTS (CD - 95%) 8/14/20
4 DESIGN DEVELOPMENT (DD 2 - 75%) 5/22/20
3 DESIGN DEVELOPMENT (DD 1 - 50%) 3/20/20
2 SCHEMATIC DESIGN (SD 2 - 35%) 1/10/20
1 CONCEPTUAL DESIGN (SD 1 - 10%) DATE

PLUMBING, MECHANICAL & ELECTRICAL ENGINEERS: IMEG

3001 BROADWAY PH: 612.540.5000 PH: 612.550.500 PH: 612.550.500 PH: 612.550.500 PH: 612.550.5000 PH: 612.550.500 PH: 612.550.500 PH: 612.550.500 PH: 612.550.500

ARCHITECT/ENGINEER OF RECORD

700 Nic Elk G
T: 847.952

BANCROFT ARCHITECTS + ENGINEERS

BAE PI

700 Nicholas Blvd. Suite 300
Elk Grove Village, IL 60007
T:847.952.9362 F:847.952.9403

www. bancroft-ae.com
BAE PROJECT NO. 18-116

DATE: APPROVED: SERVICE LINE DIRECTOR

DATE: APPROVED: INFECTION CONTROL NURSE

DATE: BLECTRICAL - ONE-LINE DIAGRAM NEW - DEDUCT ALT

APPROVED: APPROVED: PATIENT SAFETY

DATE: APPROVED: CHIEF OF POLICE

DATE: APPROVED: CHIEF OF POLICE

APPROVED: DIRECTOR FMS

DATE: APPROVED: SAFETY MANAGER

DATE: APPROVED: SAFETY MANAGER

DATE: APPROVED: SAFETY MANAGER

DATE: APPROVED: HEALTH CARE SYSTEM DIRECTOR

DATE: APPROVED: HEALTH CA

PROJECT TITLE
REPAIR / UPGRADE
BOILER HOUSE SYSTEMS
PLOT SCALE

PROJECT NO.
656-19-310

BUILDING No
7
CHECKED BY
7
CHECKED BY
TKH
E501

ST. CLOUD, MN 56303 DWG. OF





GENERAL NOTES:

A. ALL CONDUCTOR

A. ALL CONDUCTORS SHALL BE COPPER.B. REFER TO SHEET E500 FOR CONDUIT AND FEEDER SCHEDULE.

KEYNOTES:

- INTERCEPT BUS AS SHOWN. MAINTAIN BONDING JUMPER AT MAIN BREAKER SECTION.
 TAP BUS WITH NEW CONDUCTORS.
 EXISTING PANELBOARDS AND ASSOCIATED FEEDERS TO REMAIN.
- NOT USED.
 PROVIDE DEDUCT ALTERNATE #1 FOR EXISTING DIESEL GENERATOR TO REMAIN.
- NOT USED.
 DEDUCT ALTERNATE #2: PROVIDE DEDUCT
- ALTERNATE TO RE-USE EXISTING
 TRANSFORMER.
 8. DEDUCT ALTERNATE #4: PROVIDE DEDUCT
- ALTERNATE TO RE-USE EXISTING SWITCHBOARD WITH MODIFICATIONS AS SHOWN.
- 9. PROVIDE CONNECTION TO EXISTING
 GENERATOR CIRCUIT BREAKER.
- GENERATOR CIRCUIT BREAKER.

 10. PROVIDE GENERATOR START CIRCUIT WIRING.

 11. PROVIDE SHUNT TRIP CIRCUIT BREAKER, IN
- SEPARATE CONDUIT FOR EACH ATS.

 12. NEW SQUARE D ION9000 POWER MONITORING EQUIPMENT. PROVIDE DATA CONNECTION AND ALL CABLING REQUIRED. FOR CONNECTION TO CAMPUS MONITORING SYSTEM.
- 13. PROVIDE START CONTACTS ON BOTH SIDES OF 7-MTS.
 14. ATS SHALL HAVE LOCK-OUT RELAY AND 24VDC INDICATOR LIGHT. PROVIDE CONNECTION FROM LOCK-OUT RELAY TO SHUNT TRIP CIRCUIT BREAKER. PROVIDE ALL CIRCUITING AND ACCESSORIES AS REQUIRED. (REFER TO
- BAS (JOHNSON CONTROLS) NOTIFICATION
 WHEN LOCK-OUT RELAY IS TRIPPED.

 15. MODIFY BUS AS REQUIRED FOR FEEDING NEW

SPECIFICATIONS.) PROVIDE CONNECTION TO

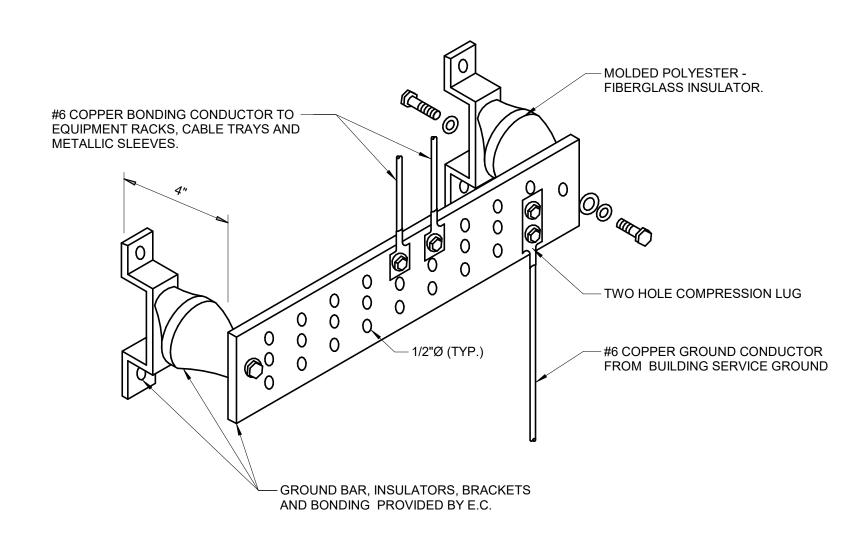
- 60A AND 100A SWITCHES.

 16. LABEL MAINS PER NEC.
- 17. PROVIDE ZONE SELECT INTERLOCKING
 BETWEEN GENERATOR MCB AND 1600A
 CIRCUIT BREAKER IN 7-EMDP SUCH THAT
 CIRCUIT BREAKER IN 7-EMDP TRIPS BEFORE
 GENERATOR MCB. PROVIDE MODIFICATIONS
 TO EXISTING GENERATOR CIRCUIT BREAKER
 (NEW TRIP UNIT, CONNECTOR, ETC.) AND ALL
 CIRCUITING, CONTROLLERS AND
- ACCESSORIES AS REQUIRED.

 18. PROVIDE ENCLOSURE SEPARATION PER NEC 700.10.

20. PROVIDE BARRIER BETWEEN SWITCHES.

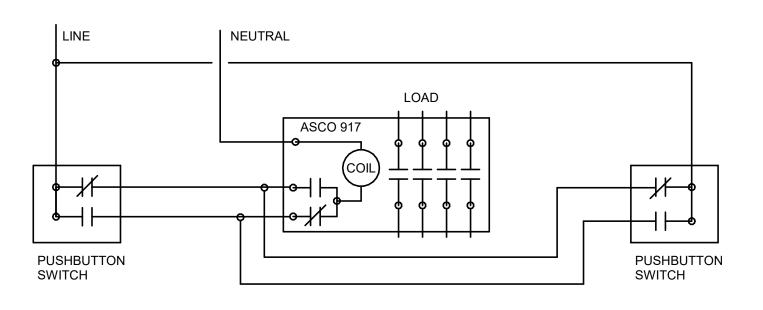
700.10.
19. PROVIDE START CIRCUIT CONTACTS FOR EACH ATS.

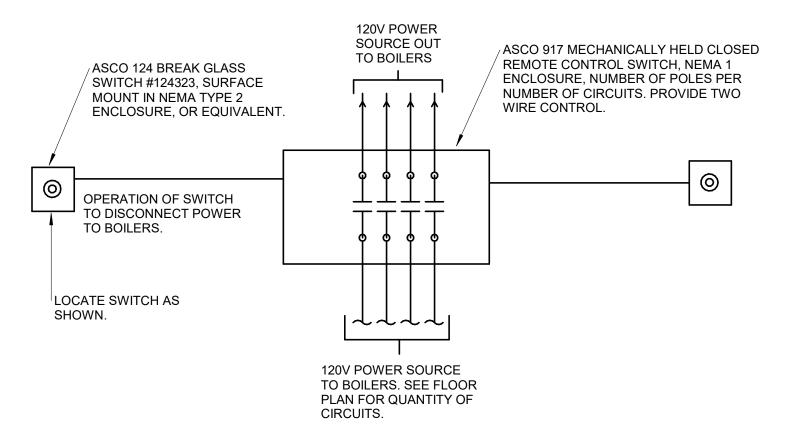


NOTES:

1. MOUNT BAR AT +24" A.F.F.
2. STANDOFF INSULATORS MUST BE PROVIDED WHEN ZONING THE BAR.

(1) GROUND BAR DETAIL NO SCALE





2 EMERGENCY BOILER SHUT-OFF NO SCALE

TRANS	FER SW	ITCH SC	HEDULE	=				
SWITCH TYP	<u>PE:</u>				<u> </u>	ACCESSORIES: (AC	CC)	
AUTO - AUTO	OMATIC				E	E - ENGINE EXERC	CISER	
B/I - AUTOMA	ATIC WITH BYPA	ASS ISOLATION			11	M - IN-PHASE MON	ITOR	
MAN - MANU	JAL OPERATION	I			S	SH - STRIP HEATER	WITH THERMOSTAT	
CT - CLOSE	O TRANSITION				F	RM - REMOTE ANNU	JNCIATOR	
DT - DELAY	TRANSITION - C	ENTER OFF			F	RC - REMOTE CONT	FROL CIRCUITS	
STAT - STAT	TIC SOLID STATE	=			E	L - ELEVATOR EM	ERGENCY TO NORMAL PRESIGNAL	
/30 - 30 CYCI	LE WITHSTAND	RATING			S	SP - SERIAL COMM	UNICATIONS PORT	
SN - SWITCH	HED NEUTRAL				F	M - POWER MONIT	TORING METER	
ON - OVERLA	APPING SWITCH	HED NEUTRAL			F	RTC - REMOTE TRA	NSFER CONTROL FROM FIRE COMMA	ND CENTER
DN - SOLID N	NEUTRAL				F	RMC - REMOTE ANN	NUNCIATION AT FIRE COMMAND CENT	ER
					Т	T - TRANSFER INHI	BIT	
					L	S - LOAD SHED		
		SWI	TCH	1	NEMA) -		ADDDOVED
ITEM	TYPE	VOLTAGE	POLES	AMPS	ENCLOSUR TYPE	ACC	REMARKS	APPROVED MANUFACTURERS
7-ATS-EQ	B/I	208 V	4	1600 A	1			ASCO 7ATB SERIES RUSSEL ELECTRIC RTB SERIES GE ZENITH ZBTS SERIES
7-ATS-ES	AUTO	208 V	4	100 A	1	EE	LIFE SAFETY BRANCH PRIORITY GROUP: 1 GENERATOR START DELAY: [.5] SECONDS TRANSFER TO EMERGENCY DELAY: [.5] SECONDS RETRANSFER TO NORMAL DELAY: [.5] SECONDS	ASCO 7ATS SERIES RUSSEL ELECTRIC RMT SERIES CATERPILLAR CTS SERIES CUMMINS OTPC SERIES
7-MTS	MAN	208 V	4	1600 A	1	IM, TD, RC, EL	EQUIPMENT BRANCH PRIORITY GROUP: 3	ASCO GMTS SERIES RUSSEL ELECTRIC GE ZENITH CATERPILLAR CUMMINS

	MOUNTING: EXIST FED FROM: SCCR: LOCATION:	ING					SOLII GRC	DUND						VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 19.63 kVA	
Panel N	lotes: VERIFY EXACT CIRCUIT N	O. WITH AV	AILABLE	SPACE	E IN PA	ANEL.									
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	JRRENT CTION P	WIRE ID	,	4	В	}	(WIRE ID	OVERO PROT P	CURRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO.
1	HWP-1	20 A	3		0.37	0.37						3		HWP-2	2
3							0.37	0.37							4
5	 NAALL 4	 70.4			5 0				0.37	0.37					6
7	MAU-1	70 A	3		5.8		5 0								8
9							5.8		5.8						10 12
13									5.6						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
			al Load:		6.54		6.54 k		6.54						
1/	T	Tota	I Amps:		54	.53	54.5	53	54	.53					
[Key*:]															

PANEL NAME: 7-P1

TYPE: EXISTING

TYPE: EXISTING

MOUNTING: EXISTING

CONNECTED 19.6 kVA

CONNECTED 7.7 kVA

MAIN: 200A

VOLTS: 120/208 Wye

MAIN: 600A

OPTION CABLE MOUNTED, PROVIDE CORD

OPERATION, ALUMINUM HOUSING, POWDER

BY ARCHITECT FROM STANDARD COLORS,

COAT FINISH, GASKETED, COLOR SELECTION

WALL PACK LUMINAIRE, GLASS LENS, PROVIDE PHOTOCELL FOR DUSK TO DAWN

PROVIDE TWO DRIVERS, TYPE 4
DISTRIBUTION, LISTED WET LOCATION.

SET WITH TWIST LOCK PLUG

				T												
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS	JRRENT CTION P	WIRE ID	,	4		В	•	С	WIRE ID	OVERO PROT P	URRENT ECTION AMPS		LOAD DESCRIPTION	CKT NO.
1	Receptacles	20 A	1		0.54	1.15						2	30 A	CU-1		2
3	SS-2	20 A	1				0.8	1.15								4
5	SS-1	20 A	1						1.6	1.15		2	30 A	CU-2		6
7	Receptacles	20 A	1		0.18	1.15										8
9																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					0.00	13/4	4.05	. 1-3 / A	0.75	1-1-7-4						42
			al Load: I Amps:		3.02	.19		6 kVA 6.25		.94						

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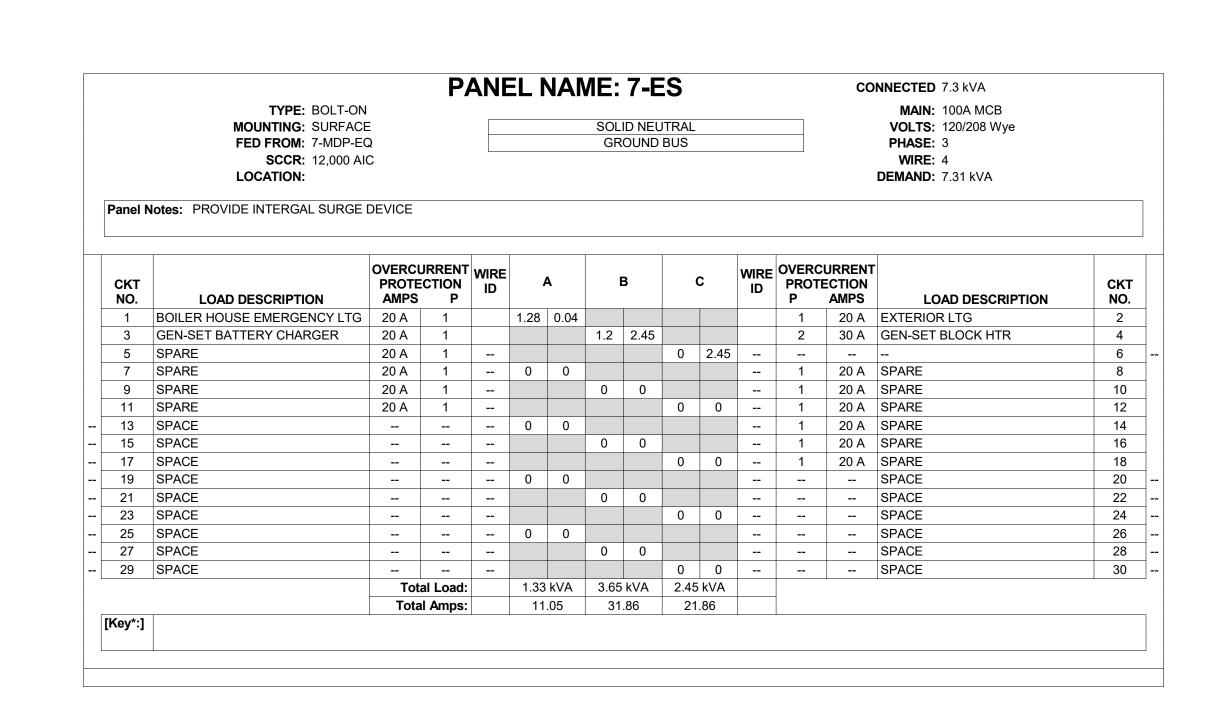
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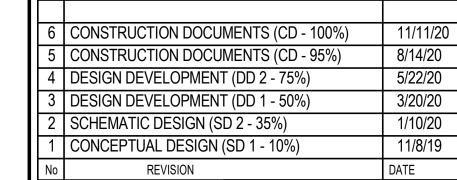
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SOLID NEUTRAL

PANEL NAME: 7-P6

(DESC	C) DOOR: DIS	TRIBUTION:				BEAM	WIDTH:			(L/L) LI	ENS/LOUVER:		K19	- KSH19 .156" ACRYLIC
	FA - FLAT ALUMINUM II -	ANSI/IES TYP	E 2 DISTRI	BUTION	I	NSP -	VERY NARRO	N SPOT		A125	" ACRYLIC		M - N	MATTE DIFFUSE CLEAR
	FS - FLAT STEEL III -	ANSI/IES TYF	E 3 DISTR	BUTION	N	SP-S	POT			B - BAF	FLE/LOUVER		N - N	IONE
	RA - REGRESSED ALUMINUM IV	ANSI/IES TYP	E 4 DISTR	RIBUTION	N	MD - N	1EDIUM			C - CLE	AR ALZAK		P - P	OLYCARBONATE
	RS - REGRESSED STEEL V -	ANSI/IES TYP	E 5 DISTR	IBUTION	1	WD - V	VIDE			F - FRC	STED ACRYLIC		R-F	IIGH IMPACT DR ACRYLIC
	FINISH:					VWD -	VERY WIDE			G - TEN	MPERED GLASS		SS -	SEMI-SPECULAR CLEAR
	PAF - PAINT AFTER FABRICATION					WW -	WALL WASH			K - KSH	112 .125" ACRYLIC		0 - 0	OTHER (SEE DESCRIPTION)
	CFSA - COLOR-FINISH SELECTION BY A	RCHITECT											[DES	SIGN SPECIFIC BLANKS]
(MTG)	MOUNTING: RE	- RECESSED								(WATT)	PER: FIX	. FIXTURE, F	T - FOOT	, LAMP
	CL - CEILING SURFACE SP	- SUSPENDEI)						-	(TYPE)	LED		RGB	- COLOR CHANGING LED
	CV - COVE SU	- SURFACE								LED - L	IGHT EMITTING D	IODE	RGB	W - COLOR CHANGING + WHITE
	FR - FLANGED RECESSED UC	- UNDER CAE	SINET							TLED -	TUBULAR LED LA	MP	RGB	A - COLOR CHANGING + AMBER
	P - PERIMETER WL	- WALL								OLED -	ORGANIC LED		RLEI	D - RETROFIT LED
	PL - POLE O -	OTHER (SEE	DESCRIP1	ΓΙΟΝ)						DLED -	DYNAMIC TUNAB	LE LED	WLE	D - WARM DIM LED
(TYPE) DRIVER:	,		,										
•	0-10V - 0-10V DIMMING EB	- ELECTRONI	С			HL - H	IGH/LOW (100	%/50%) S	TEP DIM				MV -	MULTI-VOLTAGE ELECTRONIC
	DALI - DIGITAL ADDRESSABLE EL'	/ - ELECTRON	IIC LOW V	OLTAGE	<u> </u>		LINE VOLTAG	,					REM	I - REMOTE
	DMX - DIGITAL MULTIPLEX EM	- EMERGENC	Y BATTER	RY		ML - M	ULTI-LEVEL S	WITCHING	3				0 - 0	OTHER (SEE DESCRIPTION)
CONF UNLE:	TY AND COORDINATE ALL CEILING TYPES IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR B	UMINAIRE CC ELOW, REFER	MPONENT TO ARCH	TS WITH	l VA-CO RAL ELI	R PRIOR EVATION	TO THE RELE S, SECTIONS A	ASE OF T AND DETA	HE LUMI	NAIRE	ORDER.		D LUMIN	AIRE MOUNTING HEIGHTS.
CONF UNLE: REFE INTER EXTEI	IRM ALL COLORS AND FINISHES OF ALL L	UMINAIRE CC ELOW, REFER G 26 51 00 FOI E 4000K, COL RE 4000K, COL	MPONENT TO ARCH R ADDITIO OR RENDE OR REND	IS WITH IITECTU NAL INF ERING IN ERING II	ORMAT NDEX (C	R PRIOR EVATION TION AND RI) AT OI CRI) AT C	TO THE RELE S, SECTIONS A REQUIREMEN R ABOVE 80, U R ABOVE 80, U	ASE OF T AND DETA ITS. INLESS N	THE LUMI AILS FOR	NAIRE (ALL SU THERW	ORDER. JSPENDED AND W SE.		D LUMIN	AIRE MOUNTING HEIGHTS.
CONF UNLE: REFE INTER EXTEI	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BE R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR	UMINAIRE CC ELOW, REFER G 26 51 00 FOI E 4000K, COL RE 4000K, COL	MPONENT TO ARCH R ADDITIO OR RENDE OR REND	IS WITH IITECTU NAL INF ERING IN ERING II	ORMAT NDEX (C NDEX (C D IN PL	R PRIOR EVATION TION AND ERI) AT OI CRI) AT C ENUM CE	TO THE RELE S, SECTIONS A REQUIREMEN R ABOVE 80, U R ABOVE 80, U EILINGS.]	ASE OF T AND DETA ITS. INLESS N JNLESS N	THE LUMI AILS FOR	NAIRE (ALL SU THERW)	ORDER. JSPENDED AND W ISE. ISE.	/ALL MOUNTE		AIRE MOUNTING HEIGHTS.
CONF UNLE: REFE INTER EXTEI [PRO\	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BI R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI	UMINAIRE CC ELOW, REFER G 26 51 00 FOI E 4000K, COL RE 4000K, COL ECESSED LUM	R ADDITIO OR RENDE OR REND OR REND INAIRES I	IS WITH IITECTU NAL INF ERING IN ERING II LOCATE	ORMAT NDEX (C NDEX (C NDEX (C	R PRIOR EVATION ION AND IRI) AT OI CRI) AT C ENUM CE	REQUIREMEN R ABOVE 80, U R ABOVE 80, U R ABOVE 80, U EILINGS.]	ASE OF TAND DETAND DETA	OTED OT	NAIRE (ALL SU THERW THERW	ORDER. JSPENDED AND W JSE. JSE. BD ABSOLUTE LUMENS	/ALL MOUNTE	R	
CONF UNLE: REFE INTER EXTEI	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BE R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI DESCRIPTION	UMINAIRE CC ELOW, REFER G 26 51 00 FOI E 4000K, COL RE 4000K, COL	MPONENT TO ARCH R ADDITIO OR RENDE OR REND	IS WITH ITECTU NAL INF ERING IN ERING II LOCATE	ORMAT FORMAT NDEX (C NDEX (C D IN PL	R PRIOR EVATION TION AND ERI) AT OI CRI) AT C ENUM CE	REQUIREMENT ABOVE 80, UR ABOVE 80, UR ABOVE 80, UR ANSIDE VANSIDIA.	ASE OF TAND DETAIND DE	OTED OT NOTED O	NAIRE (ALL SU THERW)	ORDER. JSPENDED AND W JSE. JSE. BD ABSOLUTE	ALL MOUNTE DRIVE VOLTS	R TYPE	BASIS OF DESIGN
CONF UNLE: REFE INTER EXTEI [PRO\	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BI R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI	UMINAIRE CO ELOW, REFER G 26 51 00 FOI E 4000K, COL ECESSED LUM L/L O	MPONENT TO ARCH R ADDITIO OR RENDE OR REND MINAIRES I	IS WITH IITECTU NAL INF ERING IN ERING II LOCATE	ORMAT NDEX (C NDEX (C NDEX (C	R PRIOR EVATION TION AND PRI) AT OI CRI) AT CE ENUM CE	REQUIREMEN R ABOVE 80, U R ABOVE 80, U R ABOVE 80, U EILINGS.]	ASE OF TAND DETAND DETA	OTED OT	NAIRE ALL SU	ORDER. JSPENDED AND W JSE. JSE. BD ABSOLUTE LUMENS	/ALL MOUNTE	R	
REFE NTER EXTEI PROV	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BE R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI DESCRIPTION SINGLE-FACE EXIT SIGN, WHITE THERMOPLASTIC BODY, RED LETTERS EMERGENCY NI-CAD BATTERY INSIDE SIGN, UNIVERSAL ARROWS/MOUNTING	UMINAIRE COELOW, REFER	MPONENT TO ARCH R ADDITIO OR RENDE OR REND MINAIRES I	IS WITH ITECTU NAL INF ERING IN ERING II LOCATE	ORMAT FORMAT NDEX (C NDEX (C D IN PL	R PRIOR EVATION TION AND PRI) AT OI CRI) AT CE ENUM CE	REQUIREMENT ABOVE 80, UR ABOVE 80, UR ABOVE 80, UR ANSIDE VANSIDIA.	ASE OF TAND DETAIND DE	OTED OT NOTED O	NAIRE ALL SU	ORDER. JSPENDED AND W JSE. JSE. BD ABSOLUTE LUMENS	ALL MOUNTE DRIVE VOLTS	R TYPE	BASIS OF DESIGN DUAL-LITE LXU [I] LITHONIA LQMS 1 EL [SD]
REFE INTER EXTEI [PRO\	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BE R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI DESCRIPTION SINGLE-FACE EXIT SIGN, WHITE THERMOPLASTIC BODY, RED LETTERS EMERGENCY NI-CAD BATTERY INSIDE SIGN, UNIVERSAL ARROWS/MOUNTING TEST & DIAGNOSTICS EMERGENCY UNIT, TWO ADJUSTABLE HEADS, WHITE THERMOPLASTIC HOUSE	UMINAIRE COELOW, REFERENCE S 26 51 00 FOI E 4000K, COLORE 4000K, COLORE 4000K, COLORE 5 CESSED LUM OF LILL OO TOP LED OING.	R ADDITIO OR RENDE OR REND INAIRES I	NAL INFERING INFERING IILOCATE	ORMAT NDEX (C NDEX (C D IN PL DIMEN W 2"	TON AND CRI) AT OF ENUM CENUM CENUM CENUM CENUM CENUM SIONS	REQUIREMEN R ABOVE 80, U R ABO	ASE OF TAND DETAND DETA	OTED OT IOTED OT TYPE	NAIRE ALL SU	ORDER. JSPENDED AND W JSE. JSE. BD ABSOLUTE LUMENS	DRIVE VOLTS 120 V	R TYPE EM	BASIS OF DESIGN DUAL-LITE LXU [I] LITHONIA LQMS 1 EL [SD] MCPHILBEN CXXL LITHONIA ELM2 [SD] DUAL-LITE LZ2 [I]
CONF UNLE: REFE INTER EXTEI [PRO\	IRM ALL COLORS AND FINISHES OF ALL L SS INDICATED ON LIGHTING PLANS OR BI R TO SPECIFICATION SECTIONS LIGHTING RIOR CORRELATED COLOR TEMPERATUR RIOR CORRELATED COLOR TEMPERATUR //IDE CHICAGO PLENUM CCEA FOR ALL RI DESCRIPTION SINGLE-FACE EXIT SIGN, WHITE THERMOPLASTIC BODY, RED LETTERS EMERGENCY NI-CAD BATTERY INSIDE SIGN, UNIVERSAL ARROWS/MOUNTING TEST & DIAGNOSTICS EMERGENCY UNIT, TWO ADJUSTABLE HEADS, WHITE THERMOPLASTIC HOUS SELF TEST & DIAGNOSTICS LED LENSED STRIP LIGHT, 180° FROST	UMINAIRE COELOW, REFERENCE S 26 51 00 FOI E 4000K, COLORE 4000K, COLORE E 4000	R ADDITIO OR RENDE OR REND INAIRES I	NAL INFERING INFERING IILOCATE	FORMAT NDEX (C NDEX (C NDEX (C D IN PL DIMEN 2"	ION AND RION AT OR PRIONS ION AND RION AT OR PRION AT	REQUIREMEN R ABOVE 80, UR ABOVE 80, UR ABOVE 80, UR ABOVE 80, UR ANSI WAT DIA. S	ASE OF TAND DETAIND DE	OTED OT IOTED O' TYPE LED	NAIRE ALL SUTHERWI	ORDER. JSPENDED AND W SE. TISE. ABSOLUTE LUMENS (MIN)	DRIVE VOLTS 120 V	R TYPE EM	BASIS OF DESIGN DUAL-LITE LXU [I] LITHONIA LQMS 1 EL [SD] MCPHILBEN CXXL LITHONIA ELM2 [SD] DUAL-LITE LZ2 [I] MCPHILBEN CAX6 EATON SNLED LITHONIA ZL1D DAYBRITE LF H.E. WILLIAMS 75L COLUMBIA LCL LSI SDL





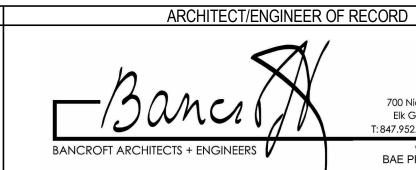
CONSULTANTS

PLUMBING, MECHANICAL & ELECTRICAL ENGINEERS: IMEG

3001 BROADWAY PH: 612.540.5000 PH: 612.540.5000 Www.imegcorp.com
MINNEAPOLIS, MN 55413

CONSULTANTS

REFERENCE SCALE IN INCHES
1 2 3



APPROVED: GEMS PROJECT MANAGER

DATE:

APPROVED: PATIENT SAFETY

DATE:

APPROVED: CHIEF OF POLICE

APPROVED: CHIEF OF POLICE

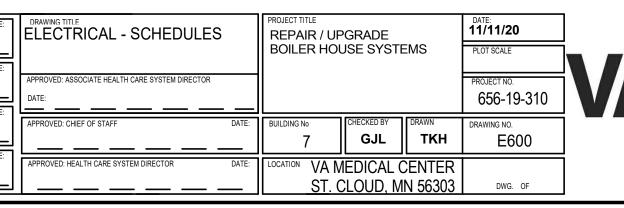
DATE:

APPROVED: CHIEF OF STAFF

APPROVED: CHIEF OF STAFF

APPROVED: HEALTH CARE SYSTEM DIRECTOR

APPROVED: HEALTH CARE SYSTEM DIRECTOR





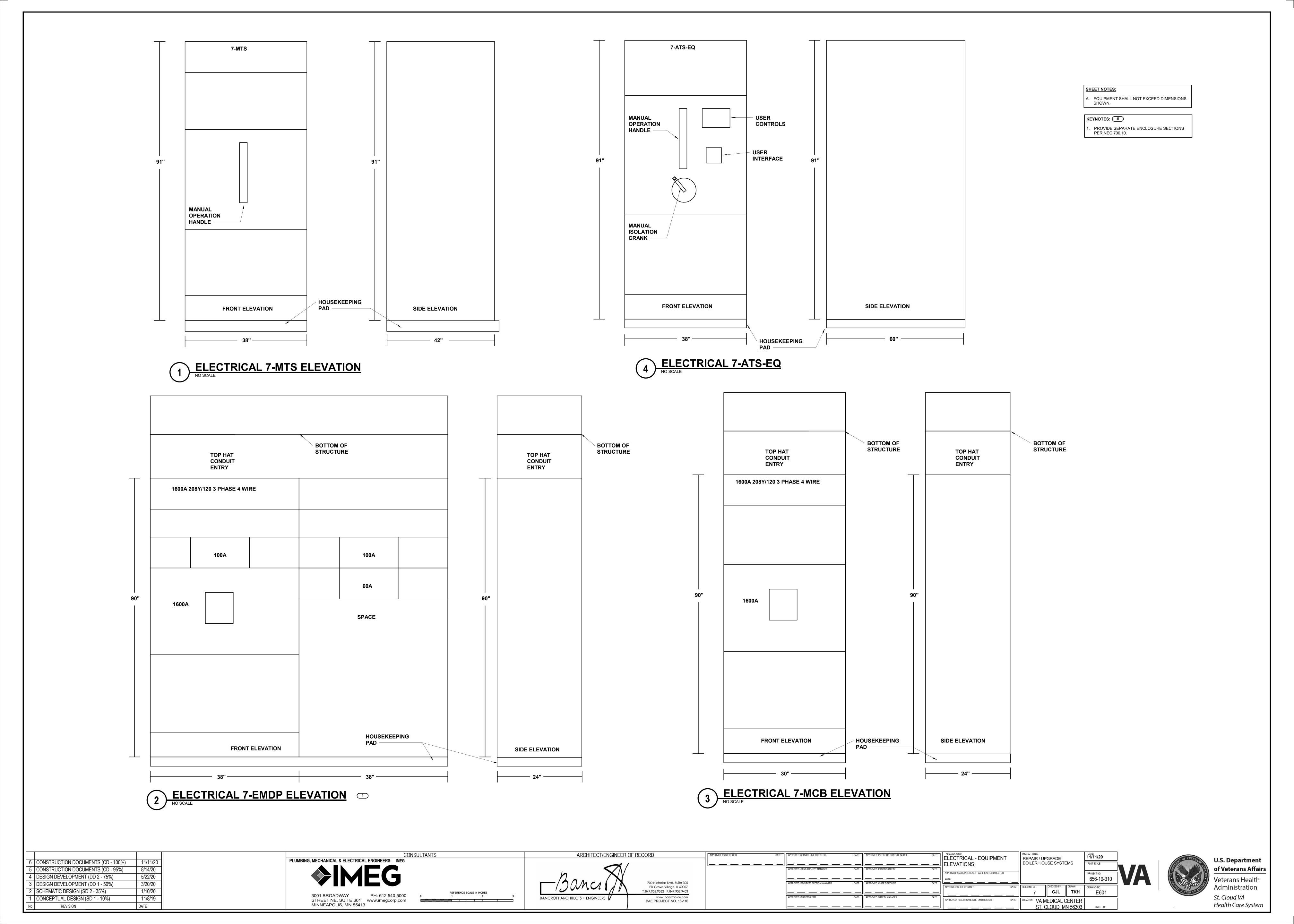
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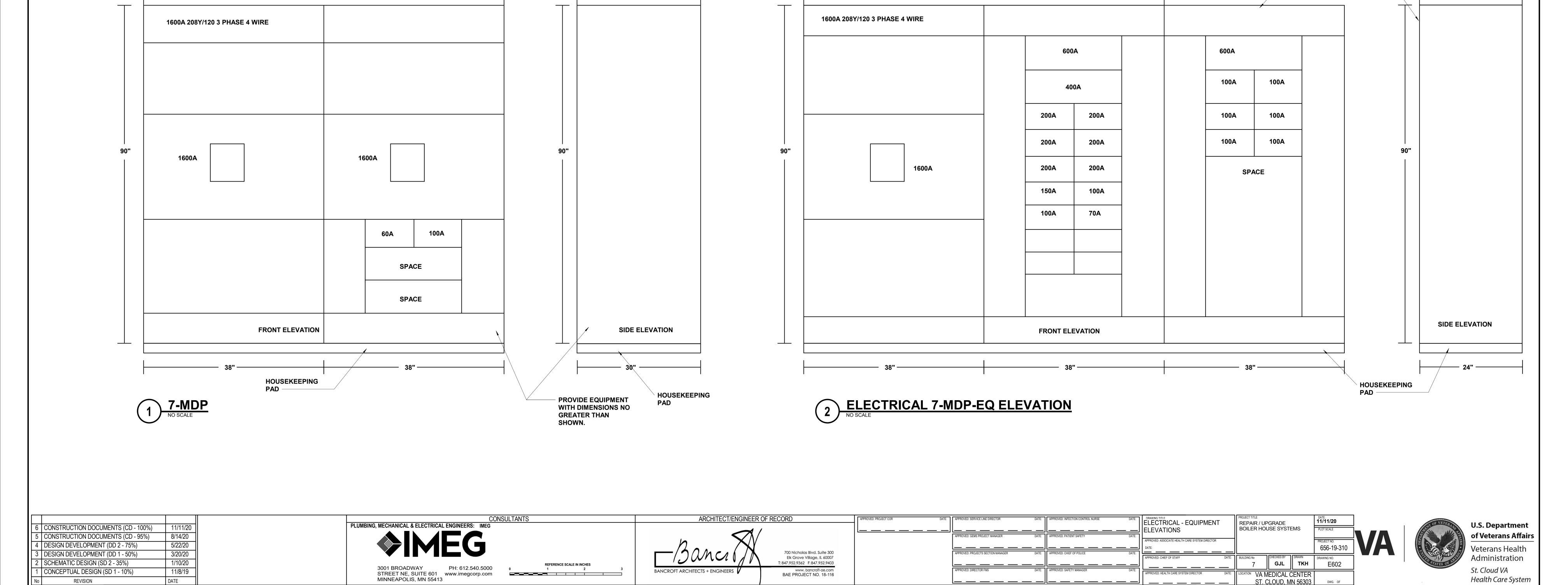
MHWL-70W-120V

DAY-BRITE

LITHONIA WSQ LED SERIES







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