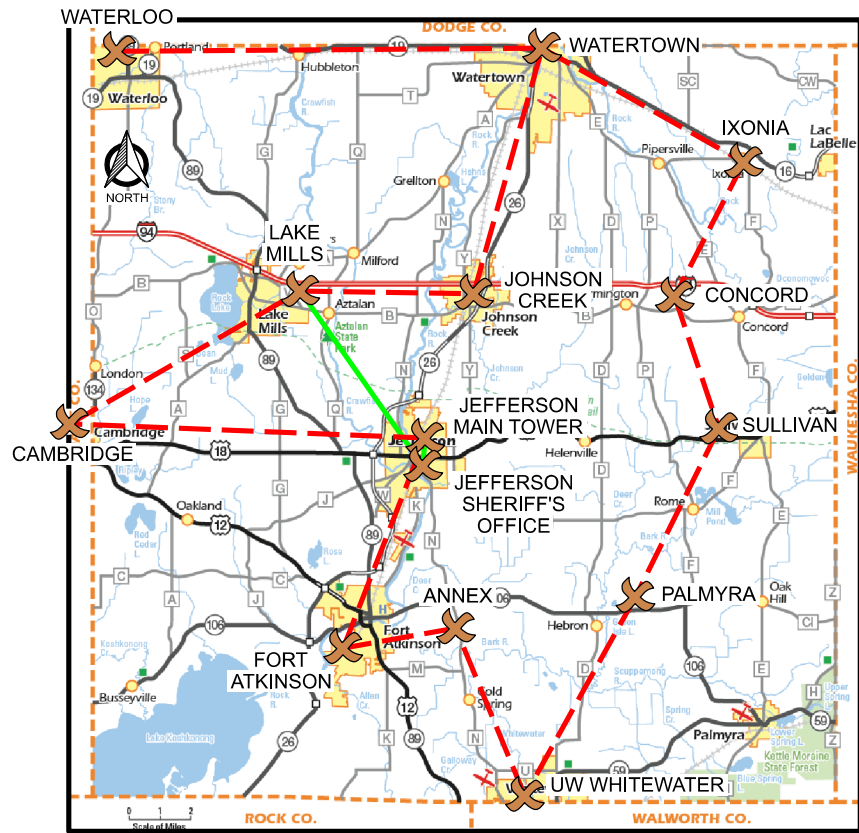




TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0") JEFFERSON COUNTY, WISCONSIN

PROJECT DIRECTORY

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
CONTACT: ARLEN OSTRENG
PHONE: (608) 644-1449

OWNER
JEFFERSON COUNTY SHERIFF'S OFFICE
411 S CENTER AVE.
JEFFERSON, WI 53549-1703
CONTACT: (920) 674-7346
NAME: TODD LINDERT

TECHNOLOGY CONSULTANT:
TRUE NORTH CONSULTING GROUP
140 3RD STREET SOUTH
STILLWATER, MN 55082
CONTACT: (651) 705-1255
NAME: JOHN THOMPSON

RADIO SYSTEM VENDOR:
GENERAL COMMUNICATIONS
2880 COMMERCE PARK DR.
MADISON, WI 53719
CONTACT: (608) 271-4848
NAME: CHAD TOMASZEWSKI

SHEET INDEX

NO.:	SHEET TITLE
G-001	TITLE SHEET
A-101	SHELTER FLOOR PLAN
A-102	SHELTER CEILING PLAN
A-201	SHELTER ELEVATIONS: EXTERIOR
A-202	SHELTER ELEVATIONS: INTERIOR
E-103	SHELTER GROUNDING PLAN
E-104	SHELTER ELECTRICAL PLAN

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgesconsult.com



TITLE SHEET
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	G-001



TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN, CALL DIGGERS HOTLINE

TOLL FREE: 1-800-242-8511
FAX A LOCATE: 1-800-242-5811

WI STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

ENGINEER SEAL:

I HEREBY CERTIFY THAT THIS PLAN SET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION OTHER THAN THE EXCEPTIONS NOTED IN THE SHEET INDEX, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WISCONSIN.

SIGNATURE: _____

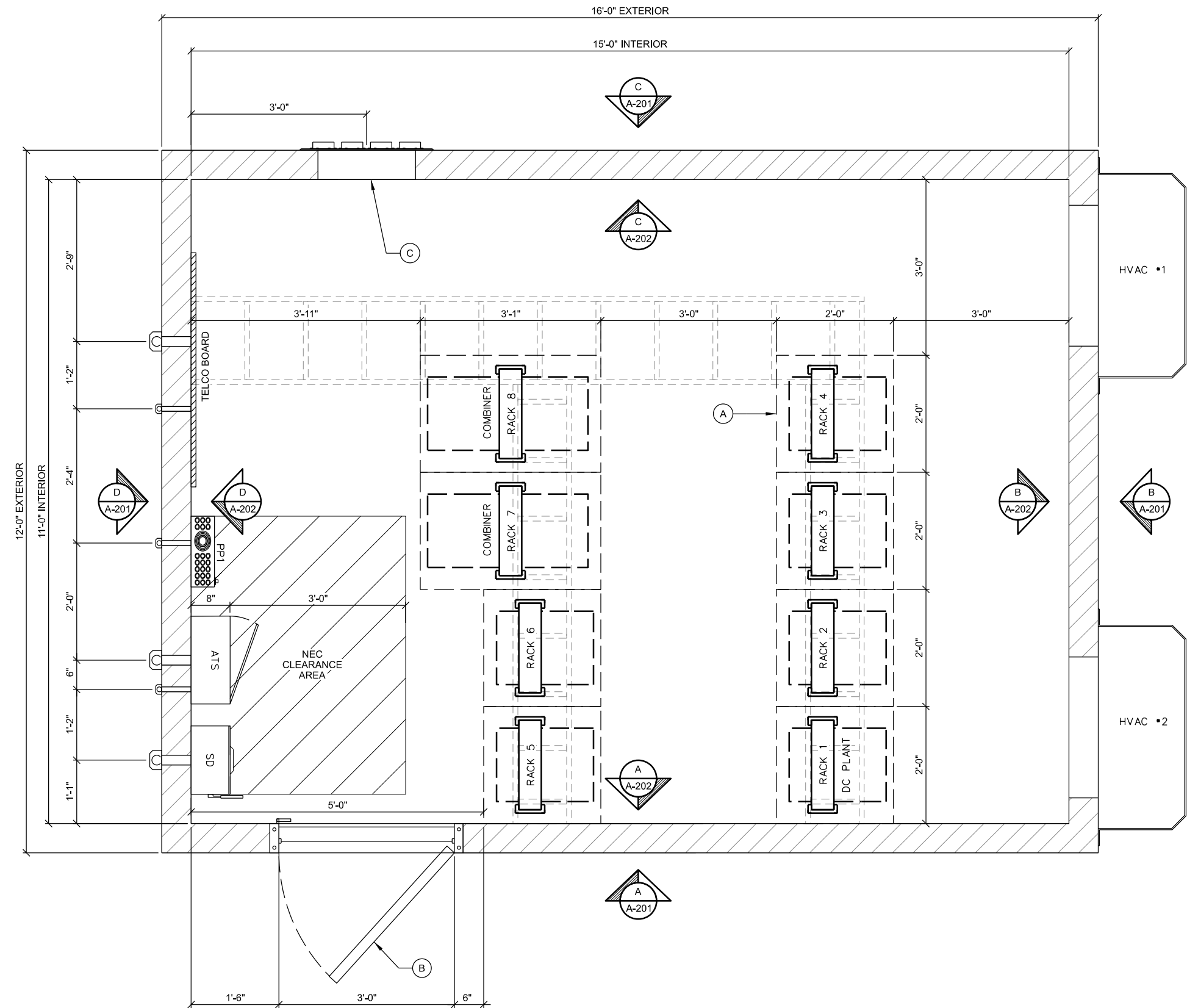
DATE: _____

KEYNOTES: (THIS SHEET)

- A. RADIO EQUIPMENT RACK
INSTALLED BY OTHERS (RADIO VENDOR)
- B. 3'-0" ENTRY DOOR
- C. 12 HOLE (4x3) ENTRY PANEL PORT

GENERAL NOTES: (THIS SHEET)

1. CONTRACTOR TO FIELD VERIFY PENETRATION LOCATION
DIMENSIONS WITH SUPPLIED BUILDING. DIMENSIONS
SHOWN ARE APPROXIMATE.



A SHELTER FLOOR PLAN
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

CONSULTANT:

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CLIENT:



SHELTER FLOOR PLAN
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

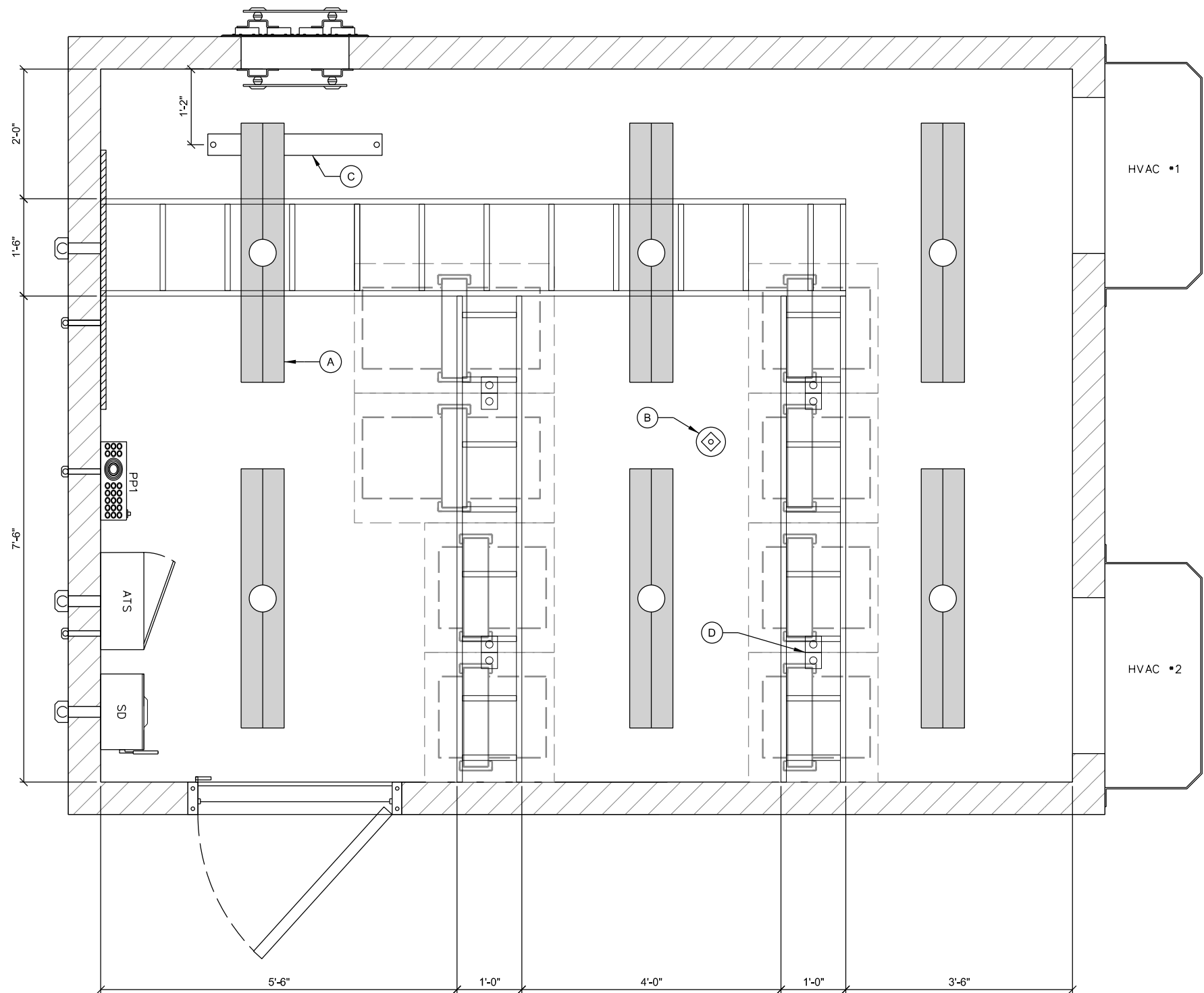
CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	A-101

KEYNOTES: (THIS SHEET)

- A. 48" 2-BULB LIGHT FIXTURE
B. SMOKE DETECTOR
C. SURGE PROTECTOR TRAPEZE (POLYPHASER)
D. (2) 20A 120V TWIST LOCK RECEPTACLES, CEILING MOUNTED IN 2 GANG BOX, LOCATED BETWEEN (2) ADJACENT RACKS.

GENERAL NOTES: (THIS SHEET)

1. CONTRACTOR TO FIELD VERIFY PENETRATION LOCATION DIMENSIONS WITH SUPPLIED BUILDING. DIMENSIONS SHOWN ARE APPROXIMATE.



A **SHELTER CEILING PLAN**
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

CONSULTANT:

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Consulting Engineers, Inc.
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CLIENT:



SHELTER CEILING PLAN
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

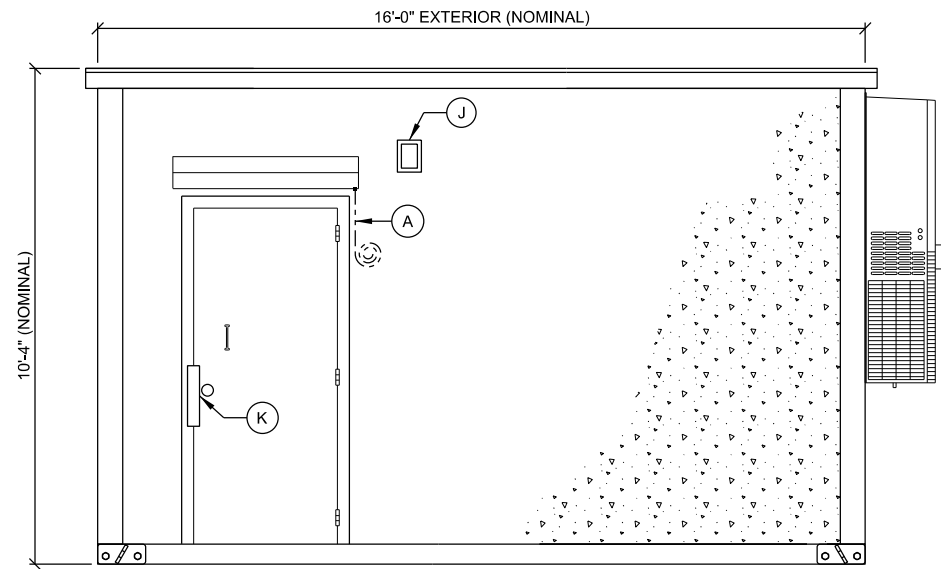
CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	A-102

KEYNOTES: (THIS SHEET)

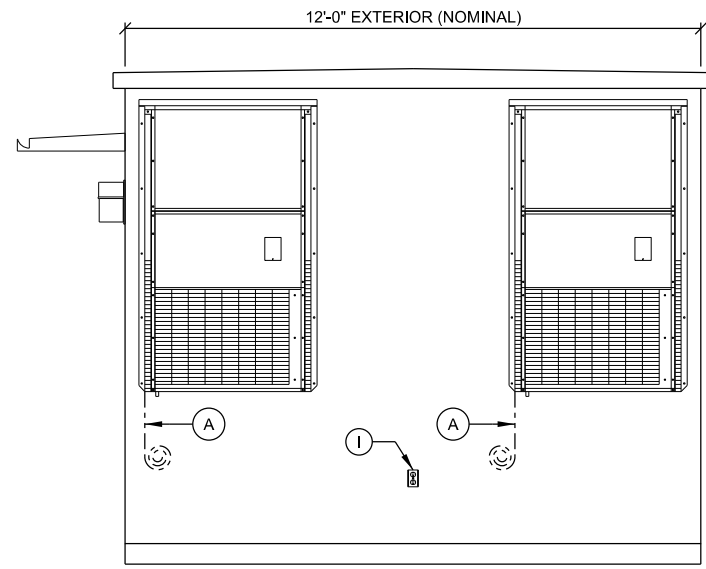
- A. (2) #2 SOLID TINNED GROUND LEADS TO SITE GROUND SYSTEM
- B. 2" CONDUIT TO UTILITY RACK (AC POWER)
- C. 2" CONDUIT TO GENERATOR (AC POWER)
- D. 1" CONDUIT TO GENERATOR (CONTROL & ALARM)
- E. 1" CONDUIT TO GENERATOR (CONVENIENCE OUTLET)
- F. 1" CONDUIT TO LP TANK (REMOTE MONITOR)
- G. #6 STRANDED INSULATED BONDING JUMPER TO ENTRY PORT PLATE
- H. 2" PENETRATION (FUTURE COMMUNICATION SERVICE)
- I. EXTERIOR GFCI RECEPTACLE
- J. EXTERIOR LIGHT (WALL PACK)
- K. DOOR HARDWARE

GENERAL NOTES: (THIS SHEET)

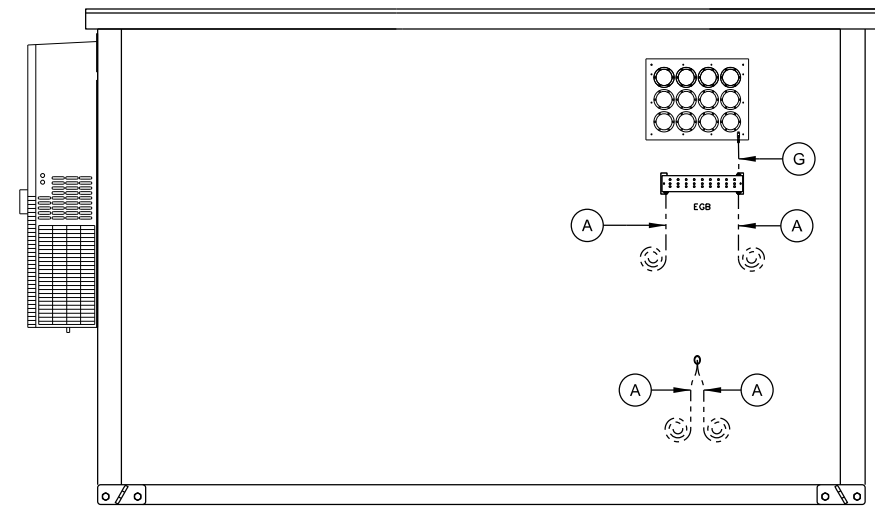
- ALL PVC CONDUITS TO BUILDING TO INCLUDE SLIP JOINTS WHEN EXITING GRADE.
- ALL MECHANICAL GROUND CONNECTIONS TO UTILIZE 2 HOLE LUGS.
- SELF TAPPING SCREW CONNECTIONS ARE NOT ALLOWED.
- ALL EXTERIOR METALLIC CONDUITS AND BOXES TO BE PROVIDED WITH GROUND BOND CONNECTION VIA THROUGH WALL HUG CONNECTION TO INTERIOR GROUNDED DEVICE OR OTHER DIRECT CONNECTION TO GROUND SYSTEM.



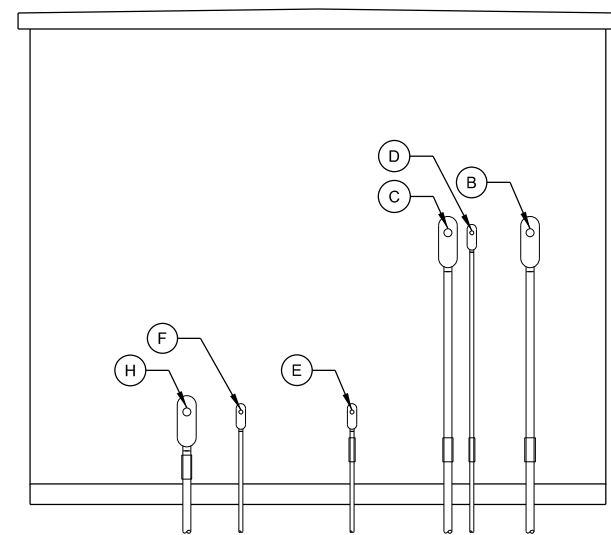
A EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



B EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



C EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



D EXTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

CONSULTANT:

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CLIENT:



SHELTER ELEVATIONS: EXTERIOR
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION:

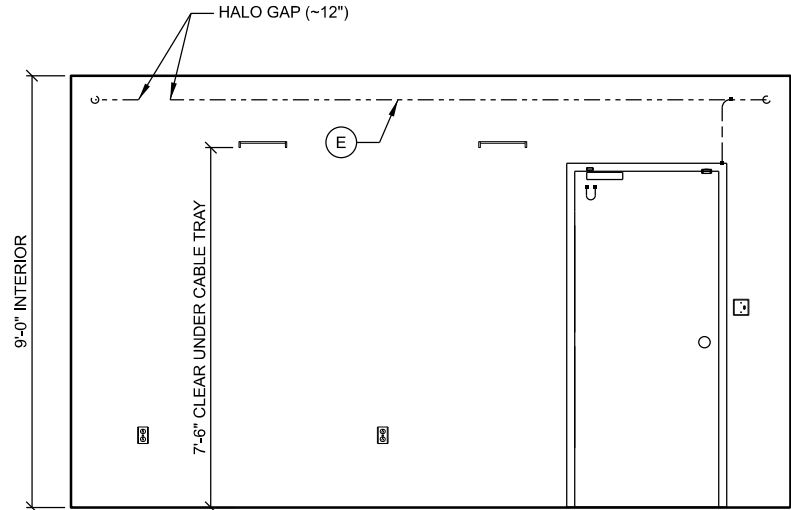
CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	A-201

KEYNOTES: (THIS SHEET)

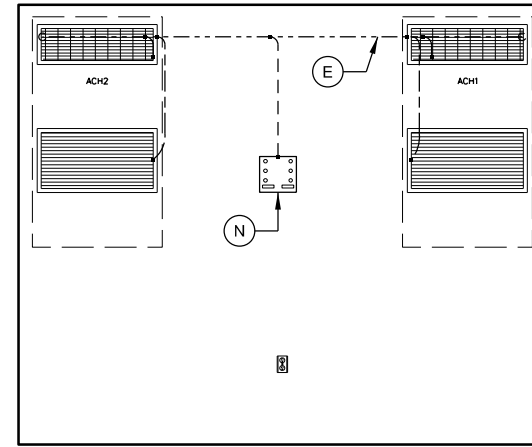
- A. AUTOMATIC TRANSFER SWITCH (ATS)
(PROVIDED AND INSTALLED BY OTHERS)
INSTALL AT 6'-0" ABOVE FINISH FLOOR
- B. CONDUIT/RACEWAY BETWEEN ELECTRIC SERVICE
DISCONNECT (SD) & ATS
- C. 60A CIRCUIT BREAKER & SPD1 ON ELEC. SERVICE
DISCONNECT
- D. BOND ALL DEVICE BOXES (ATS, SPD1 & SPD2) TO HALO (#6
STRANDED INSULATED)
- E. GROUNDING HALO (#2 STRANDED INSULATED)
- F. SPD2 ON DIST. PANEL (PP1)
- G. LP TANK LEVEL MONITOR
- H. MASTER GROUND BAR. FOLLOW PANI SYSTEM FOR
ORGANIZATION OF CONNECTIONS TO BAR
- I. COAXIAL SURGE PROTECTOR TRAPEZE GROUND SYSTEM
- J. LP MONITOR DOUBLE DUPLEX OUTLET
- K. ALARM WIRING FROM EXISTING AND INSTALLED DEVICES
- L. R66 ALARM BLOCK
- M. NEUTRAL-GROUND BOND CONNECTION FROM SD GROUND
TERMINAL TO MGB (#2 STRANDED INSULATED). ROUTE
ALONG PERIMETER WALL BELOW HALO OR ALONG CABLE
TRAY
- N. HVAC LEAD LAG CONTROLLER
- O. 3/4" ALARM WIRING CONDUIT
- P. HIGH & LOW TEMP ALARMS

GENERAL NOTES: (THIS SHEET)

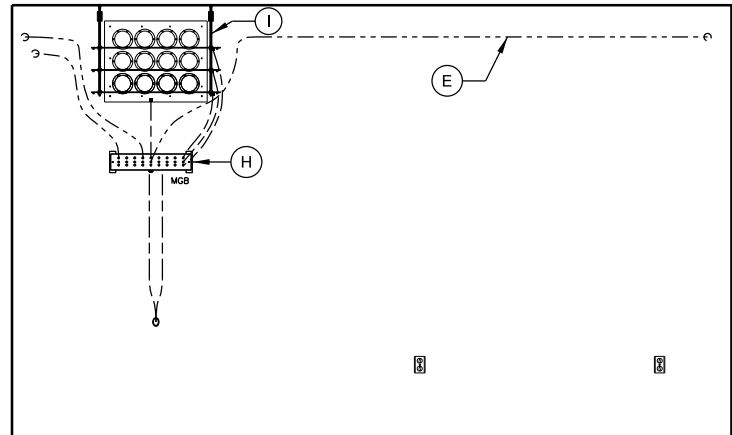
1. ALL INTERIOR CONDUITS TO BE RGS OR EMT. UTILIZE
COMPRESSION FITTINGS FOR EMT INSTALLATIONS.
2. ALL MECHANICAL GROUND CONNECTIONS TO UTILIZE 2
HOLE LUGS.
3. PROVIDE EMT CONDUIT FOR ALL ALARM AND LOW VOLTAGE
WIRING FROM DEVICE TO ALARM BOARD. CONDUITS NEED
NOT BE FULL LENGTH AND MAY UTILIZE CABLE TRAY FOR
HORIZONTAL RUNS. CONDUITS SHALL EXTEND ABOVE AND
OVER TO CABLE TRAY AND PROVIDE BUSHINGS ON ENDS.
4. ALL METALLIC CONDUITS AND BOXES TO BE GROUND
BONDED TO HALO.



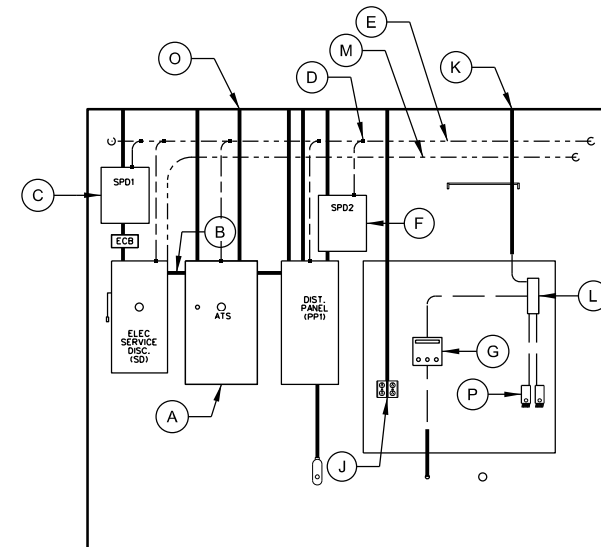
A INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



B INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



C INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



D INTERIOR ELEVATION
SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

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CLIENT:



SHELTER ELEVATIONS: INTERIOR
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

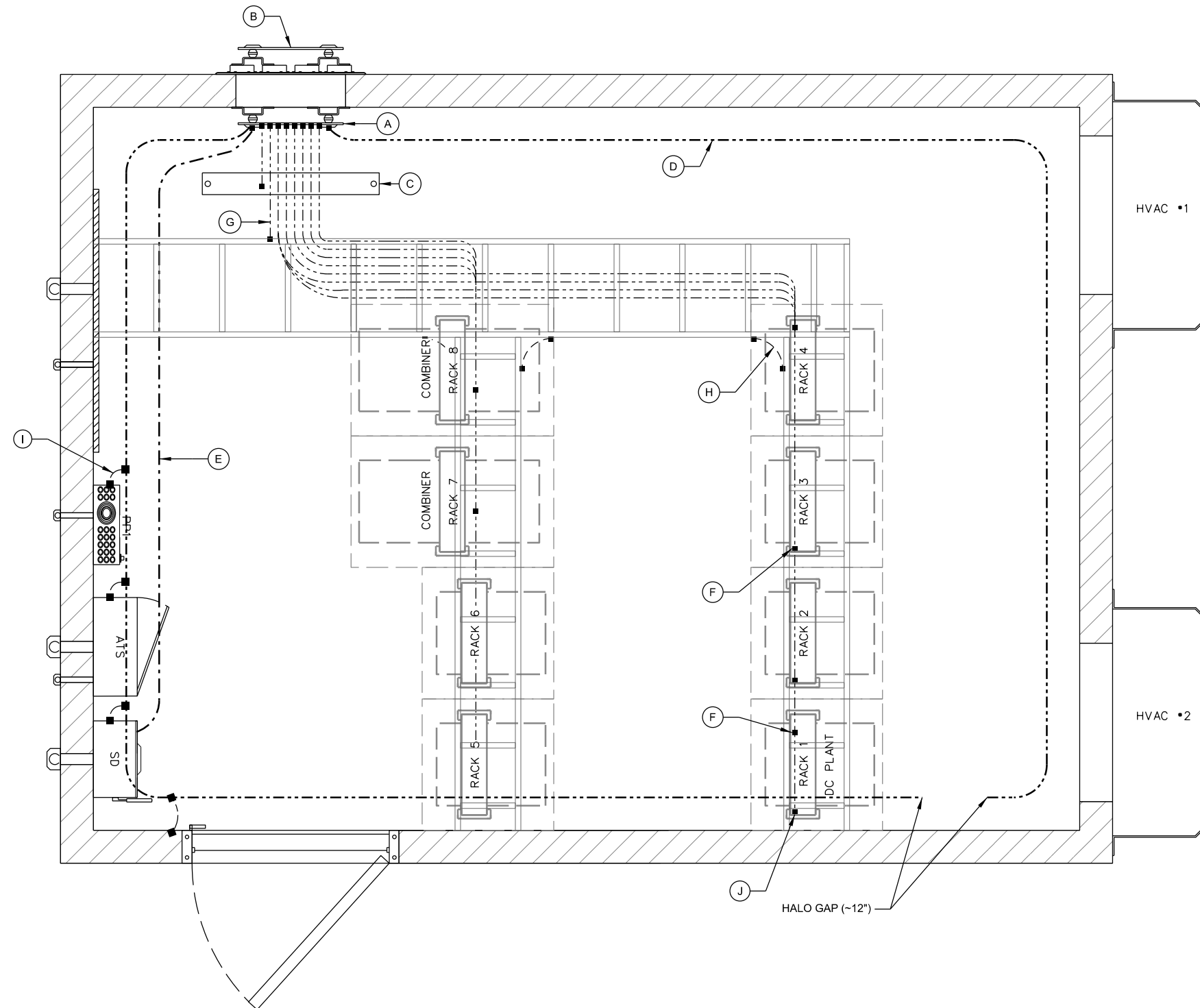
SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	A-202

KEYNOTES: (THIS SHEET)

- A. MASTER GROUND BAR
B. EXTERIOR GROUND BAR
C. COAXIAL SURGE ARRESTOR TRAPEZE
D. #2 STRANDED INSULATED HALO
E. #2 STRANDED INSULATED SERVICE DISCONNECT NEUTRAL-
GROUND BOND LEAD TO MGB
F. #2 STRANDED INSULATED RACK GROUNDS;
PROVIDE PIGTAIL LEAD TO EACH RACK LOCATION.
CONNECTION TO RACK BY RADIO VENDOR.
(1) PER RACK
G. #2 STRANDED INSULATED CABLE TRAY SYSTEM GROUND
H. #6 STRANDED INSULATED CABLE TRAY SECTION GROUNDS
I. #6 STRANDED INSULATED METAL DEVICE/BOX BONDS
J. (1) #2 STRANDED INSULATED DC PLANT GROUND;
PROVIDE PIGTAIL LEAD TO DC PLANT RACK LOCATION.
CONNECTION TO RACK BY RADIO VENDOR.



A SHELTER GROUNDING PLAN
SCALE: 11" x 17" - 1/2" = 1'-0"
22" x 34" - 1" = 1'-0"

CONSULTANT:

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CLIENT:



SHELTER GROUNDING PLAN
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

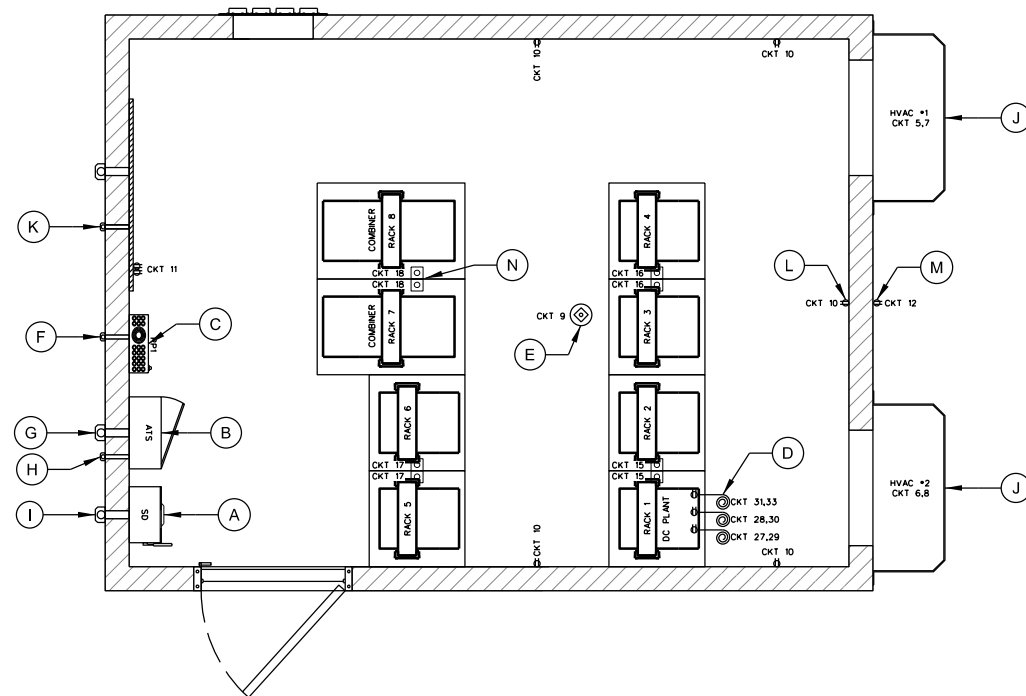
CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	E-103

KEYNOTES: (THIS SHEET)

- A. SERVICE DISCONNECT
- B. AUTOMATIC TRANSFER SWITCH (ATS)
200A GENERAC (30"Hx13.5"Wx7"D)
PROVIDED AND INSTALLED BY OWNER
- C. DISTRIBUTION PANEL (PP1)
- D. (3) DC PLANT POWER FEEDS.
PROVIDE PIGTAIL LEADS FROM CEILING MOUNTED
JUNCTION BOX.
CONNECTION TO RACKS BY RADIO VENDOR.
- E. SMOKE ALARM
- F. GENERATOR CONVENIENCE OUTLET
- G. GENERATOR A/C POWER FEED
- H. GENERATOR CONTROL WIRING FEED
- I. ELECTRIC UTILITY SERVICE FEED
- J. HVAC UNIT (2 TON)
- K. LP TANK MONITOR RECEPTACLE
- L. INTERIOR CONVENIENCE OUTLET
- M. EXTERIOR CONVENIENCE OUTLET
- N. (2) 20A 120V TWIST LOCK RECEPTACLES, CEILING MOUNTED
IN 2 GANG BOX, LOCATED BETWEEN (2) ADJACENT RACKS.
(1) 20A, 120V CIRCUIT PER EACH PAIR OF TWIST LOCKS.

GENERAL NOTES: (THIS SHEET)

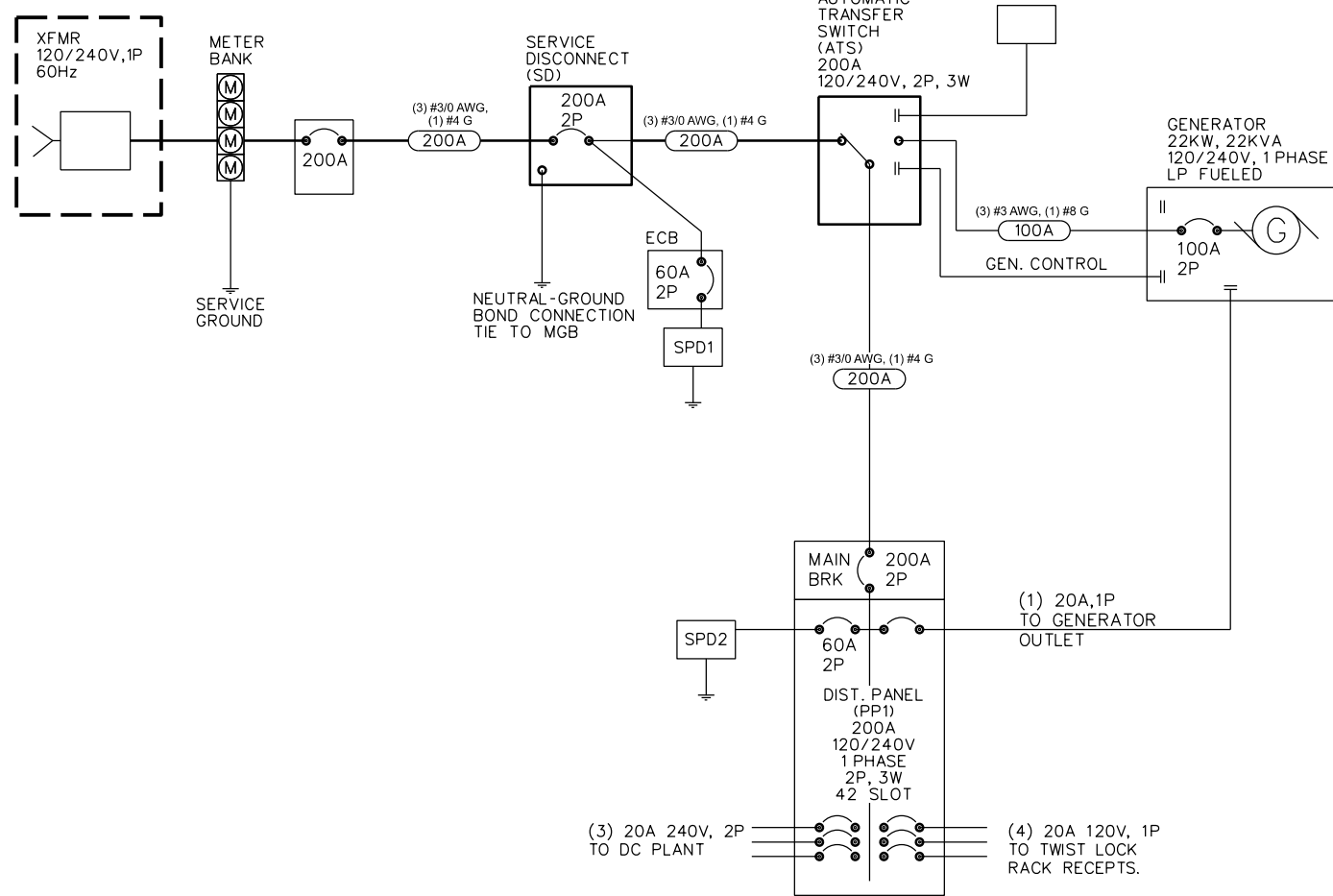
1. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL, STATE AND LOCAL CODES.
2. ALL WIRE AND CONDUIT SIZES SPECIFIED ARE MINIMUMS. LARGER SIZES MAY BE REQUIRED BY CODE. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND CODE REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. ALL CONDUCTORS SHALL BE COPPER.
4. ALL INDOOR RACEWAY TO BE EMT OR RGS. EMT INSTALLATIONS SHALL UTILIZE COMPRESSION FITTINGS. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY WIRING AND CONDUITS FROM ELECTRICAL DEVICES REQUIRED ON PROJECT TO THE DISTRIBUTION PANELS.
5. ALL ELECTRICAL WORK SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A LICENSED MASTER ELECTRICIAN.
7. CONTRACTOR SHALL PERFORM AN INSPECTION OF THE EXISTING ELECTRICAL EQUIPMENT AND INSTALLATION WITHIN THE PRE-MANUFACTURED BUILDING PROVIDED BY THE OWNER FOR CONFORMANCE WITH STATE AND LOCAL ELECTRICAL CODE. ELECTRICAL CONTRACTOR SHALL NOTIFY ENGINEER OF ANY NON-CONFORMING ITEMS.



A SHELTER ELECTRICAL PLAN

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

BY UTILITY



B ELECTRICAL ONE LINE DIAGRAM

SCALE: 11" x 17" - NTS
22" x 34" - NTS

DIST. PANEL (PP1)	PHASE/WIRE	BUS SIZE		MAIN	AIC RATING
120/240VAC	1/3	200A		LUGS	10,000
LOAD	POLE	TRIP	CKT #	CKT #	LOAD
Surge Arrester SPD2	4	2	60	1	
	-	-	-	3	
HVAC #1	8	2	30	5	
	-	-	-	7	
Smoke Detector	12	1	20	9	
LP Tank Monitor	12	1	20	11	
Generator Outlet	12	1	20	13	
TwistLock Recepts. 1&2	12	1	20	15	
TwistLock Recepts. 5&6	12	1	20	17	
SPARE	-	-	-	19	
SPARE	-	-	-	21	
SPARE	-	-	-	23	
SPARE	-	-	-	25	
DC Drop #1	12	2	20	27	
	-	-	-	29	
DC Drop #3	12	2	20	31	
	-	-	-	33	
SPARE	-	-	-	35	
SPARE	-	-	-	37	
SPARE	-	-	-	39	
SPARE	-	-	-	41	
	-	-	-	42	

C ELECTRIC DISTRIBUTION PANEL DIRECTORY

SCALE: 11" x 17" - NTS
22" x 34" - NTS

CONSULTANT:

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CLIENT:



SHELTER ELECTRICAL PLAN
TOWER SITE EQUIPMENT BUILDINGS (12'-0" X 16'-0")
JEFFERSON COUNTY, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:

CHECKED BY:	AJO
PLOT DATE:	1/27/2021
PROJECT NUMBER:	27534
SET TYPE:	BD
SHEET NUMBER:	E-104