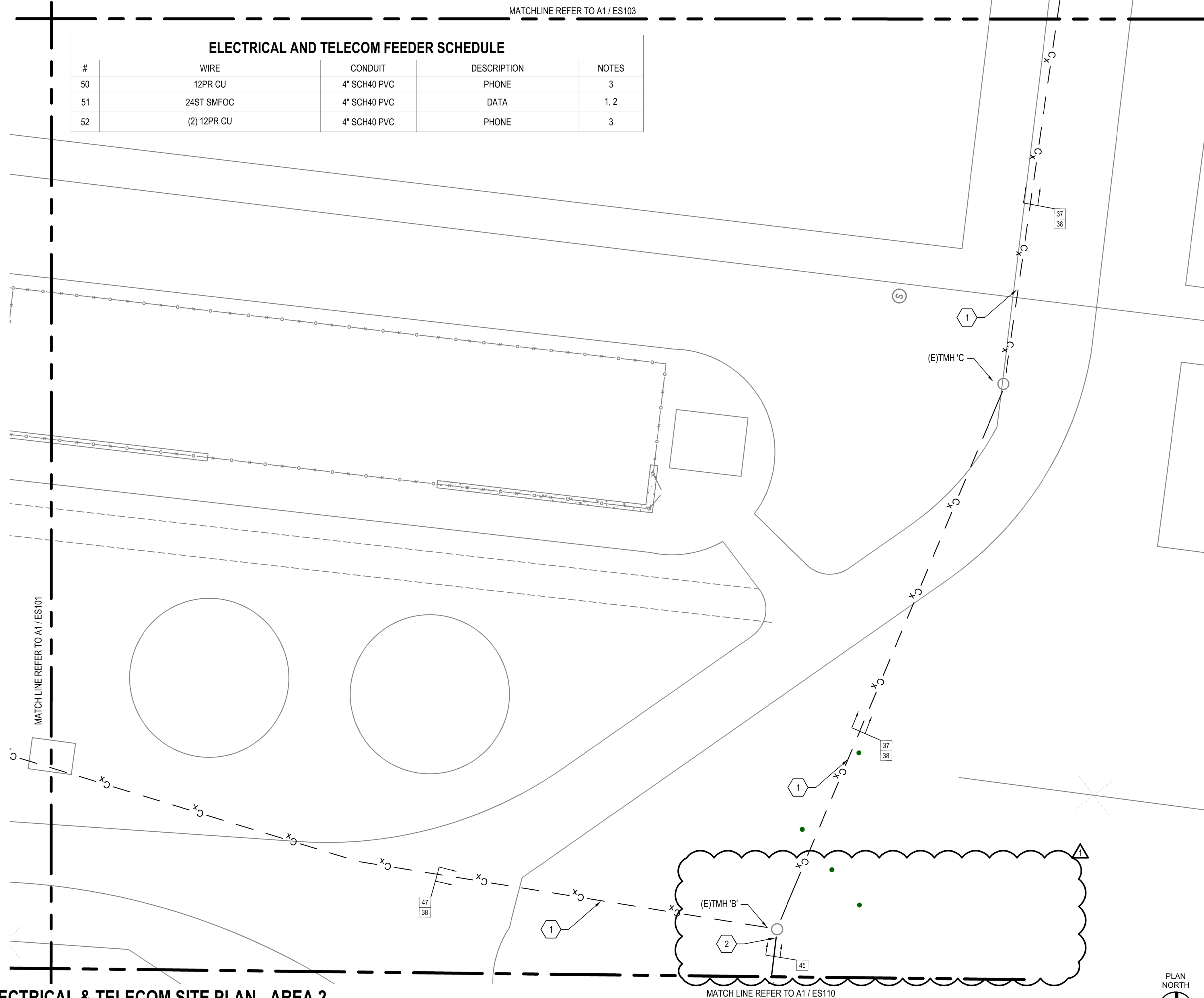
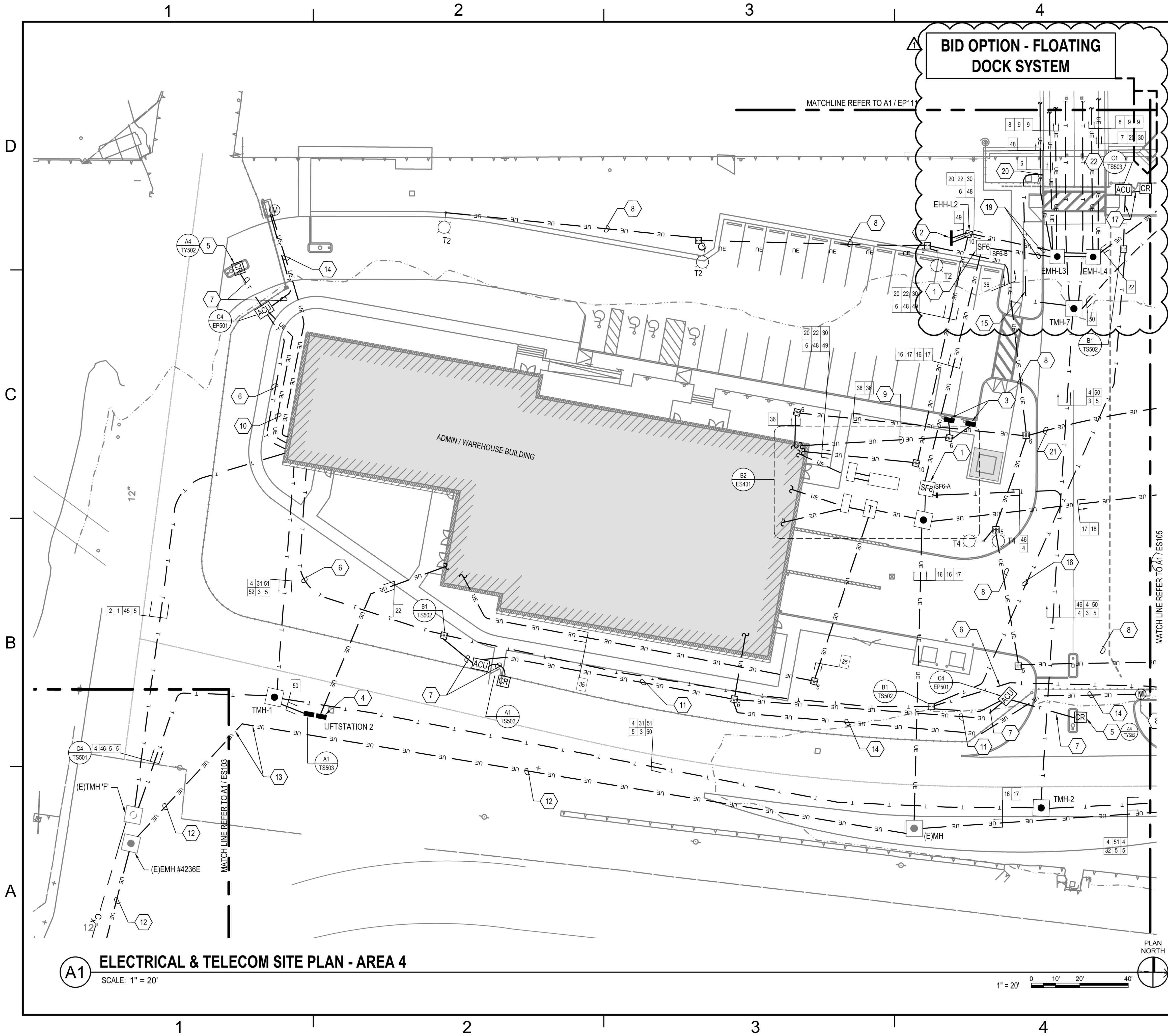


1. PROVIDE CABLING IN EXISTING DUCTBANK CONDUIT.
2. PROVIDE CONNECTION TO EXISTING MANHOLE.

ELECTRICAL AND TELECOM FEEDER SCHEDULE				
#	WIRE	CONDUIT	DESCRIPTION	NOTES
50	12PR CU	4" SCH40 PVC	PHONE	3
51	24ST SMFOC	4" SCH40 PVC	DATA	1, 2
52	(2) 12PR CU	4" SCH40 PVC	PHONE	3



FILE NAME: Z:\Client\ANF\US Navy\Main\Waterfront\168231-ES101 to ES172.dwg PLOTTED: Friday, February 24, 2023 - 12:15pm USER: ganderon2



A1 ELECTRICAL & TELECOM SITE PLAN - AREA 4
SCALE: 1" = 20'

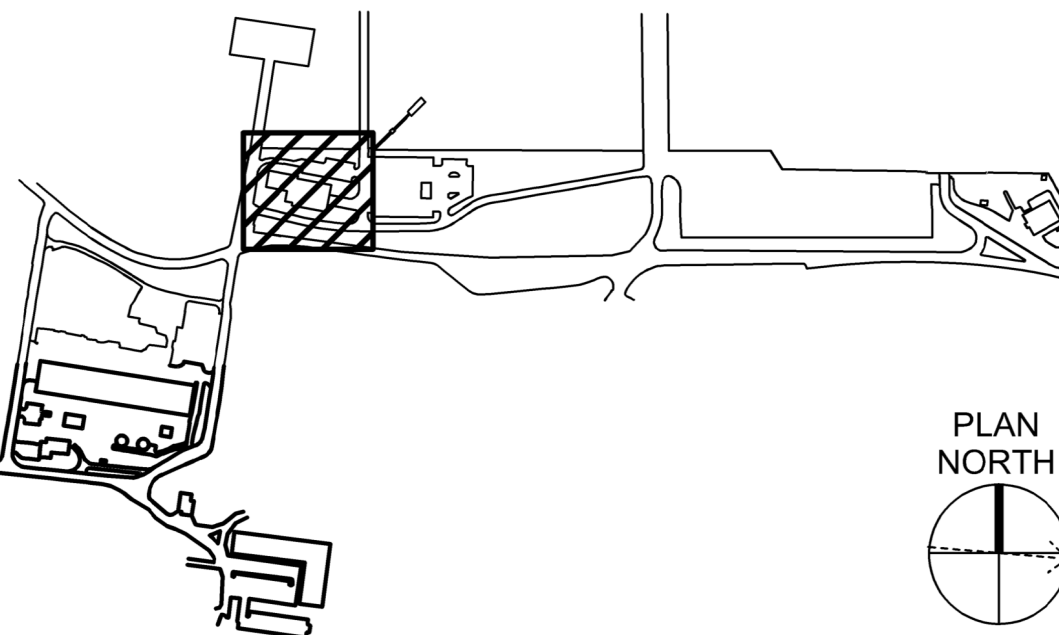
SHEET NOTES

- SEE SHEET ES101 & ES102 FOR THE ELECTRICAL AND TELECOM FEEDER SCHEDULE.
- SEE SHEET E-641 FOR SINGLE LINE DIAGRAM.
- SEE SHEET E-601 FOR PIER SINGLE LINE DIAGRAM.
- SEE SHEET E-741 TO E-745 FOR PANELBOARD SCHEDULES.
- SEE SHEET EP111 TO EP118 FOR PIER AND FLOATING DOCK POWER PLANS.
- SEE SHEET TN741 AND TN742 FOR TELECOMMUNICATIONS ONE-LINE DIAGRAM.
- SEE SHEET EP510 FOR ELECTRICAL MANHOLE AND HANDHOLE DETAILS.
- SEE SHEET EL501 TO EL506 FOR LIGHTING DETAILS.

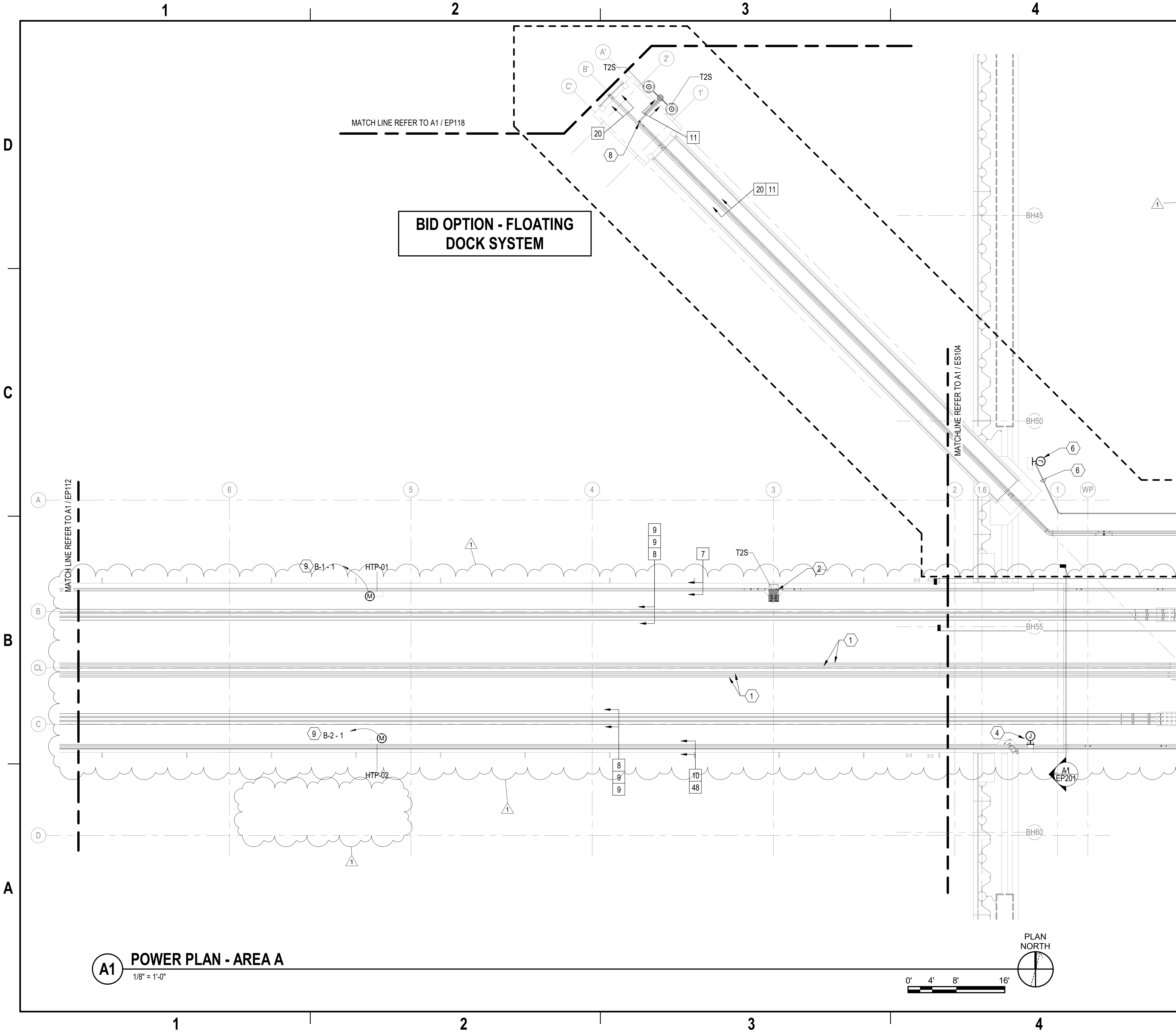
SHEET KEYNOTES

- PROVIDE 6-WAY PAD MOUNTED SF6 SWITCH.
- PROVIDE PIER LIGHTING CONTROL PANEL. REFER TO DETAIL C4/EL504.
- VEHICLE CHARGING STATION.
- PROVIDE LIFT STATION CONTROL PANEL. REFER TO DETAIL A2/EP501 FOR ELEVATION.
- PROVIDE CONNECTION TO GATE ACCESS CONTROL IN CONCRETE ISLAND.
- PROVIDE 2" SCH 40 PVC CONDUIT 36" BFG; SEE TY742 FOR CONDUCTOR TYPES.
- PROVIDE 1" SCH 40 PVC CONDUIT 36" BFG; SEE TY742 FOR CONDUCTOR TYPES.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR SITE LIGHTING. REFER TO LS1-8 ON SHEET E-745 FOR BRANCH CIRCUIT INFORMATION.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR EACH VEHICLE CHARGING STATION. REFER TO LV3-24, 26, 26, AND MECHLVB-8, 10, 12 ON SHEETS E-743 AND E-744 FOR BRANCH CIRCUIT INFORMATION.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR ACCESS CONTROL UNIT. REFER TO COM1-16 ON SHEET E-743 FOR BRANCH CIRCUIT INFORMATION.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR ACCESS CONTROL UNIT. REFER TO EMLV1-2 ON SHEET E-741 FOR BRANCH CIRCUIT INFORMATION.
- PROVIDE CONDUCTORS IN EXISTING DUCTBANK, 3-350KCMIL, 15kV, MV-105, 133% EPR, #4/0 G.
- COORDINATE THE EXACT LOCATION OF THE EXISTING DUCTBANK PRIOR TO BEGINNING THE LIFT STATION SCOPE OF WORK.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT TO GATE OPERATOR MOTOR. FOR CIRCUIT INFORMATION, REFER TO LV1A-26 ON SHEET E-742 FOR THE SOUTH GATE OPERATOR MOTOR AND EMLV1-20 ON SHEET E-741 FOR THE MAIN ENTRANCE GATE OPERATOR MOTOR.
- PROVIDE 1" SCH 40 PVC CONDUIT 36" BFG TO SECURITY POLE SP-2; SEE TY111 FOR POLE LOCATION. STUB CONDUIT UP INTO TRESTLE WALL. SEE TY741 FOR CABLING REQUIREMENTS TO CAMERA.
- PROVIDE 2" SCH 40 PVC CONDUIT 36" BFG; SEE TY742 FOR CONDUCTOR TYPES.
- PROVIDE 1" SCH 40 PVC CONDUIT 36" BFG; SEE TY742 FOR CONDUCTOR TYPES.
- NOT USED.
- BASE BID: PROVIDE CONDUITS UP TO MANHOLES EMH-L3 AND EMH-L4 FOR FLOATING DOCK POWER SYSTEM. MANHOLES EMH-L3 AND EMH-L4 ARE ALSO BASE BID.
- PROVIDE 12 SECURITY POLE FOR MOUNTING OF CCTV CAMERA.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR SITE HIGH MAST LIGHTING. REFER TO LS1-10 ON SHEET E-745 FOR BRANCH CIRCUIT INFORMATION.
- PROVIDE DIRECT BURY SCH 40 PVC CONDUIT FOR PIER ACCESS CONTROL UNIT. REFER TO EMLV1-4 ON SHEET E-741 FOR BRANCH CIRCUIT INFORMATION.

KEY PLAN



DATE: 02/27/2023	
1 BASE BID UPDATE	
TOTAL DESCRIPTION	
SEAL	
A/E INFO	
APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
Timothy Calohan, PE, NOAA Senior Project Manager	
SATISFACTORY TO: DATE: 04OCT2022	
DES: JR	DRW: JR
CHK: JC	JC
PM/DM	RS/RC
BRANCH MANAGER	JAS
CHIEF ENGINEER	EJA
FIRE PROTECTION	DSN
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND	
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC	
NAVAL STATION NORFOLK - NORFOLK, VA	
NAVAL STATION NEWPORT	
NEWPORT, RHODE ISLAND	
NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION	
ELECTRICAL & TELECOM SITE PLAN - AREA 4	
SCALE: AS NOTED	
PROJECT NO.: 1562331	
CONSTR. CONTR. NO. N4008523R2527	
NAVFAC DRAWING NO. 12874242	
SHEET 366 OF 504	
ES104	
DRAWING REVISION: 25 AUG 2023	



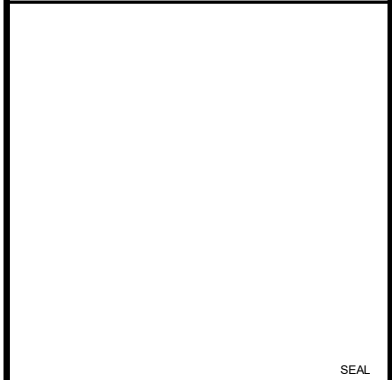
SHEET NOTES

1. SEE SHEET ES101 FOR THE ELECTRICAL AND TELECOM FEEDER SCHEDULE.

SHEET KEYNOTES

1. TELECOM CIRCUITS. SEE SHEET TN101.
2. HANDHOLE FOR LIGHTING CIRCUITS. REFER TO SHEET SB522 FOR ADDITIONAL INFORMATION.
3. REFER TO SHEET A1/ES104 FOR LIFT STATION CONTROL PANEL.
4. PROVIDE CONNECTION TO POLE MOUNTED EXTERIOR CAMERAS. REFER TO EMLV1-5 ON SHEET E-741 FOR BRANCH CIRCUIT INFORMATION.
5. UNDER BASE BID, PROVIDE CONDUITS FOR THE FLOATING DOCK UP TO MANHOLES EMH-L3 AND EMH-L4. MANHOLES ARE PART OF THE BASE BID.
6. PROVIDE CONNECTION TO PIER HTP-13. REFER TO MECHLVB-14 ON SHEET E-744 FOR BRANCH CIRCUIT INFORMATION.
7. PROVIDE CONNECTION TO PIER ACU. REFER TO EMLV1-4 ON SHEET E-741 FOR BRANCH CIRCUIT INFORMATION. REFER TO SHEET ES104 FOR PIER ACU LOCATION.
8. REFER TO DETAIL C2/EP505 FOR FLOATING DECK HANDHOLE.
9. ROUTE HEAT TRACE PANEL FEEDER CONDUIT THROUGH SLAB.

DATE	SYMBOL	DESCRIPTION	APPROVED
02/27/2023	1	BASE BID UPDATE	



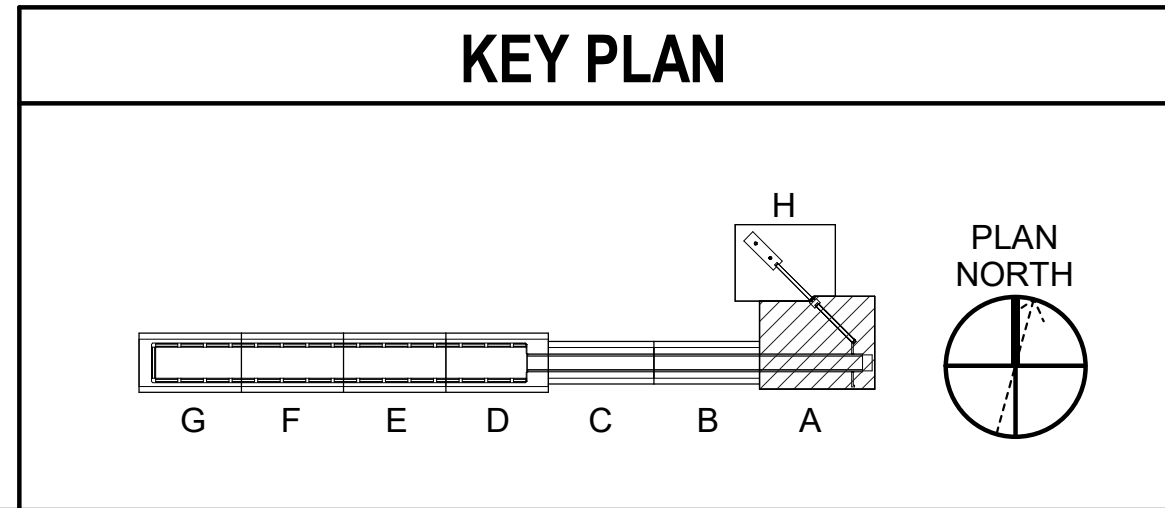
APPROVED			
FOR COMMANDER NAVFAC			
ACTIVITY			
Timothy Calohan, PE, NOAA Senior Project Manager			
SATISFACTORY TO DATE 04OCT2022			
DES	JR	DRW	BG
CHK	JC		
PM/DM		RS/RC	
BRANCH MANAGER		JAS	
CHIEF ENGINEER		EJA	
FIRE PROTECTION		DSN	

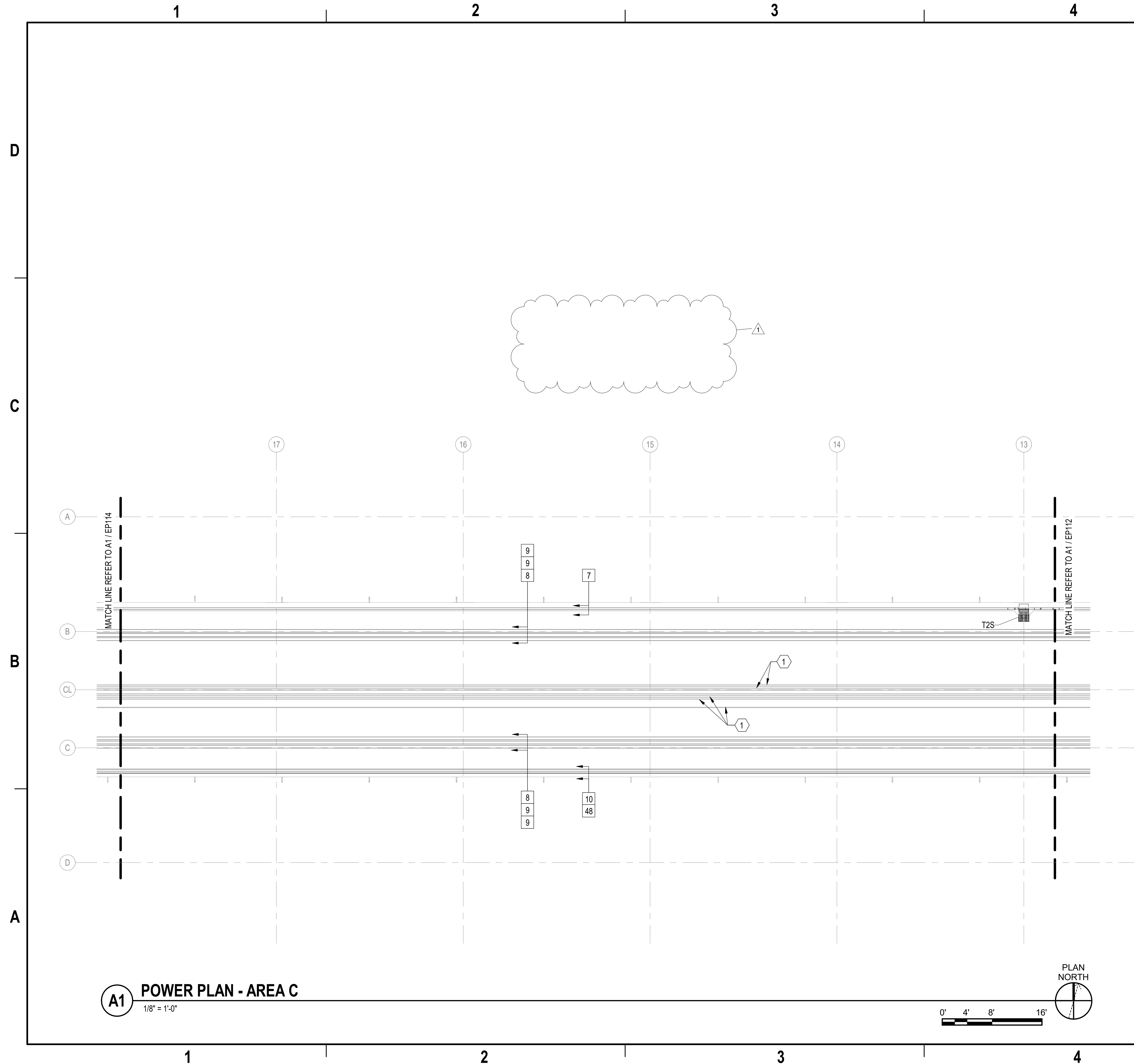
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
NAVAL STATION NORFOLK - NORFOLK, VA
NAVAL STATION NEWPORT
NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION
NEWPORT, RHODE ISLAND
PIER - POWER PLAN - AREA A

SCALE: AS NOTED
PROJECT NO.: 1562331
CONSTR. CONTR. NO. N4008523R2527
NAVFAC DRAWING NO. 12874264
SHEET 388 OF 504

EP111

DRAWING REVISION: 25 AUGUST 2020





SHEET NOTES

1. SEE SHEET ES101 FOR THE ELECTRICAL AND TELECOM FEEDER SCHEDULE.

SHEET KEYNOTES

1. TELECOM CIRCUITS. SEE SHEET TN102.



PROVED					A/E INFO	
R COMMANDER NAVFAC						
ACTIVITY						
Timothy Calohan, PE, NOAA Senior Project Manager						
DISPATCH DATE TO					04OCT2022	
IS	JR	DRW	BG	CHK	JC	
R/MDM					RS/RC	
RANCH MANAGER					JAS	
CHIEF ENGR/ARCH					EJA	
RE PROTECTION					DSN	

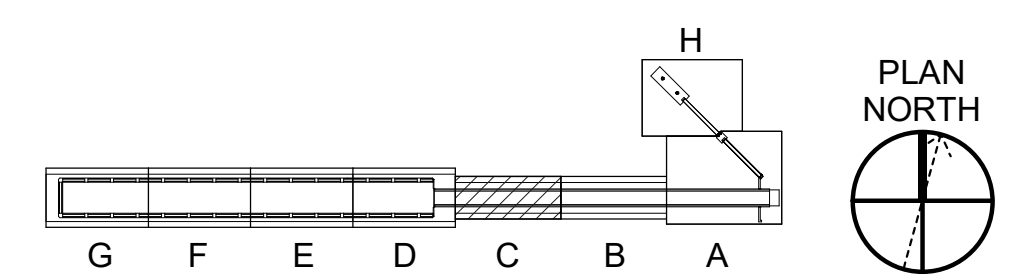
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
 NAVAL STATION NORFOLK - NORFOLK, VA
 MID-ANTIC DOEL
 NAVAL STATION NEWPORT
 NEWPORT, RHODE ISLAND
 NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION

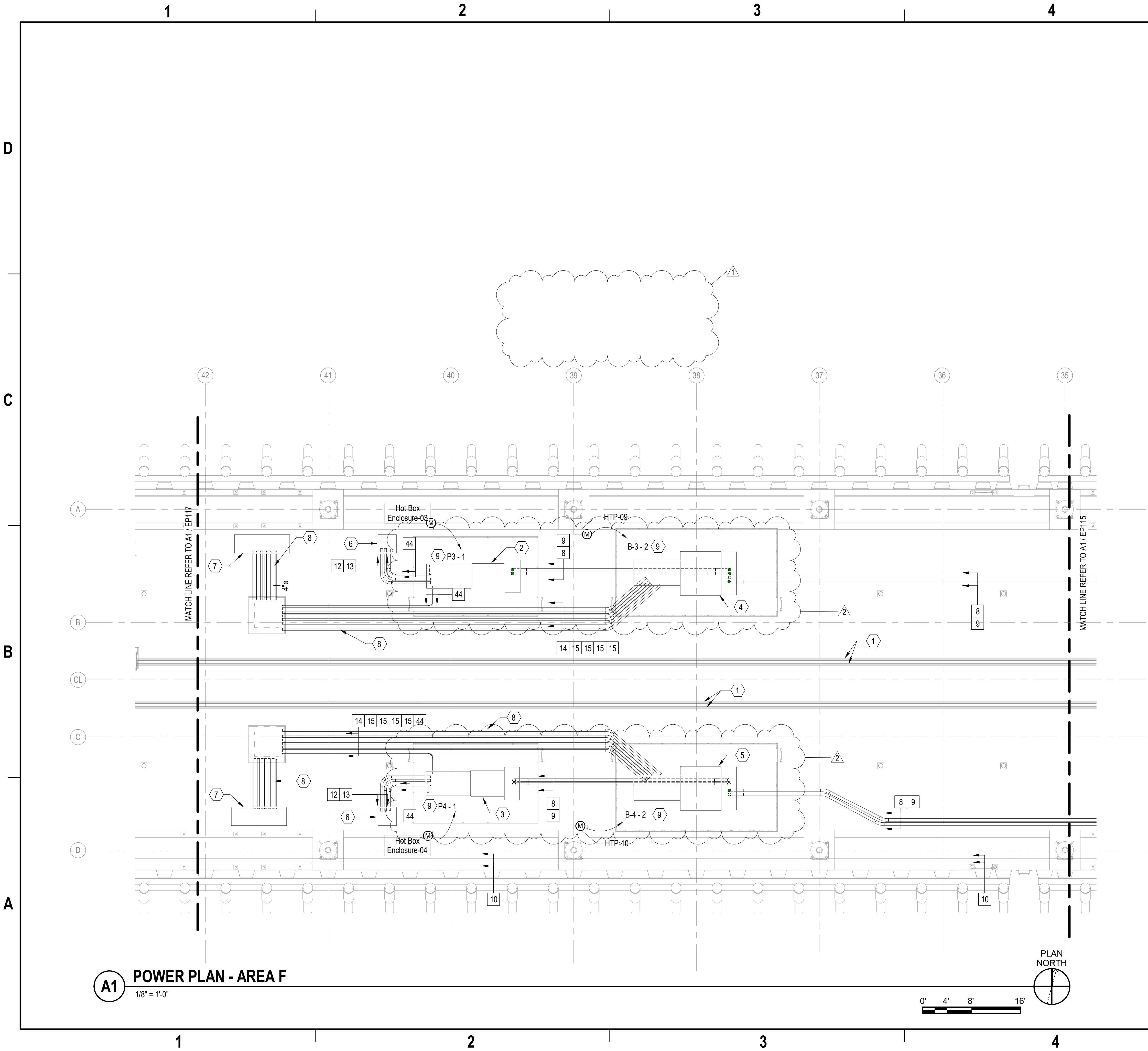
SCALE:	AS NOTED		
PROJECT NO.:	1562331		
CONSTR. CONTR. NO.	N4008523R2527		
AVFAC DRAWING NO.	12874266		
SHEET	390	OF	504

EP113

FORM REVISION: 25 AUGUST 2020

KEY PLAN





- ### SHEET NOTES
- SEE SHEET ES101 FOR THE ELECTRICAL AND TELECOM FEEDER SCHEDULE.
 - THE DIMENSIONS OF THE UNIT SUBSTATIONS ON THE PIER CANNOT BE EXCEEDED AS TO NOT INTRUDE INTO THE PIER FIRE LANE. ALL NEC CLEARANCES MUST BE OBSERVED. PRIMARY AND SECONDARY SECTIONS MUST BE FRONT ACCESS ONLY.
 - PRIOR TO FINAL DESIGN FABRICATION AND INSTALLATION OF PLATFORM, COORDINATE UNIT SUBSTATION MOUNTING POINTS WITH THE PLATFORM STRUCTURE TO AVOID MISALIGNMENT WITH THE UNIT SUBSTATION MOUNTING LOCATIONS.

- ### SHEET KEYNOTES
- TELECOM CIRCUITS. SEE SHEET TN105.
 - UNIT SUBSTATION IP-3. SEE DETAIL B2 / EP503.
 - UNIT SUBSTATION IP-4. SEE DETAIL B2 / EP503.
 - UNIT SUBSTATION B-3. SEE DETAIL A2 / EP503.
 - UNIT SUBSTATION B-4. SEE DETAIL A2 / EP503.
 - INDUSTRIAL POWER LVCB. SEE DETAIL A2 / EP505.
 - SHIP SHORE POWER LVCB. SEE DETAIL A2 / EP509.
 - PROVIDE CONTROL WIRING IN 3" SCHD40 PVC CONDUIT FOR SHIP SHORE POWER.
 - ROUTE HEAT TRACE PANEL (HTP) AND HOT BOX HEATER FEEDER CONDUIT THROUGH SLAB.

REV	DATE	DESCRIPTION	BY	CHK	APP
1	02/27/2023	BASE BID UPDATE			
2	02/27/2023	UPDATED UNIT SUBSTATIONS			



APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
Timothy Calohan, PE, NOAA Senior Project Manager
SATISFACTORY TO DATE 04OCT2022
DES JR DRW BG CHK JC
PM/DW RS/RC
BRANCH MANAGER JAS
CHIEF ENGINEER EJA
FIRE PROTECTION DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MIDLANT DDBL
NAVAL STATION NEWPORT
NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION
NEWPORT, RHODE ISLAND
PIER - POWER PLAN - AREA F

KEY PLAN

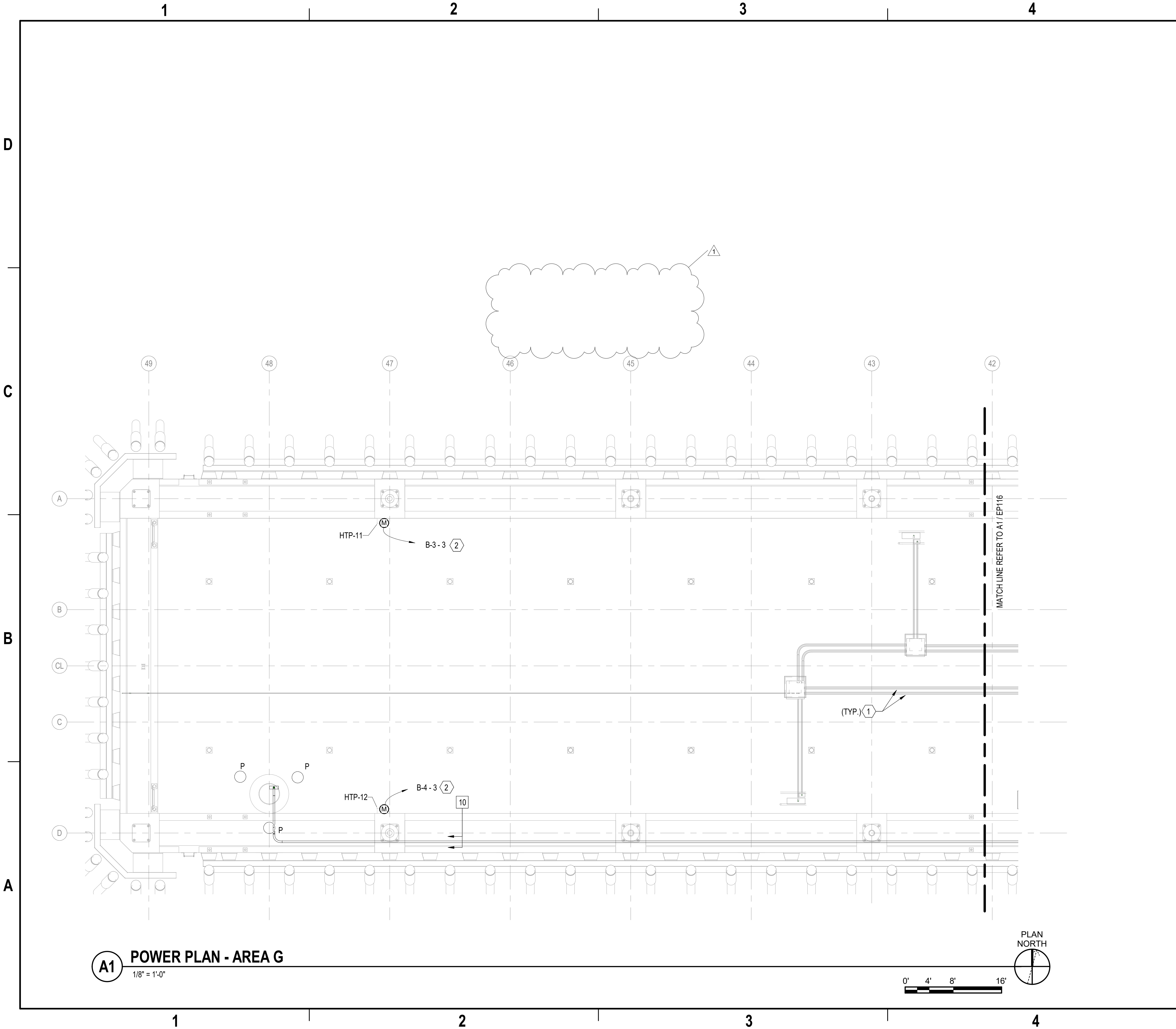
SCALE: AS NOTED
PROJECT NO.: 1562331
CONSTR. CONTR. NO. N4008523R2527
NAVFAC DRAWING NO. 12874269
SHEET 393 OF 504
EP116

0' 4' 8' 16'

PLAN NORTH

PLAN NORTH

G F E D C B A



A1 POWER PLAN - AREA G
1/8" = 1'-0"

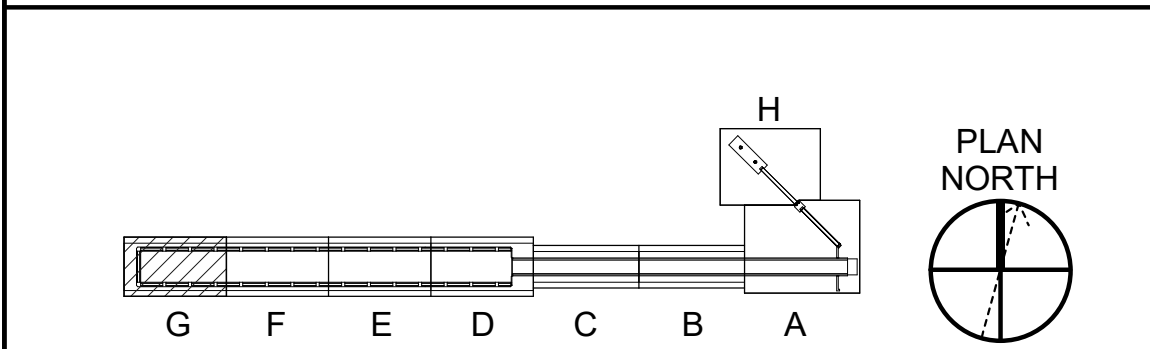
SHEET NOTES

1. SEE SHEET ES101 FOR THE ELECTRICAL AND TELECOM FEEDER SCHEDULE.

SHEET KEYNOTES

1. TELECOM CIRCUITS. SEE SHEET TN106.
2. ROUTE HEAT TRACE PANEL (HTP) FEEDER CONDUIT THROUGH SLAB.

KEY PLAN



APPR	DATE	02/27/2023
SYN	DESCRIPTION	1 - BASE BID UPDATE

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Timothy Calohan, PE,
NOAA Senior Project Manager

SATISFACTORY TO DATE 04OCT2022

DES JR BRW BG CHK JC

PM/DM RS/RC

BRANCH MANAGER JAS

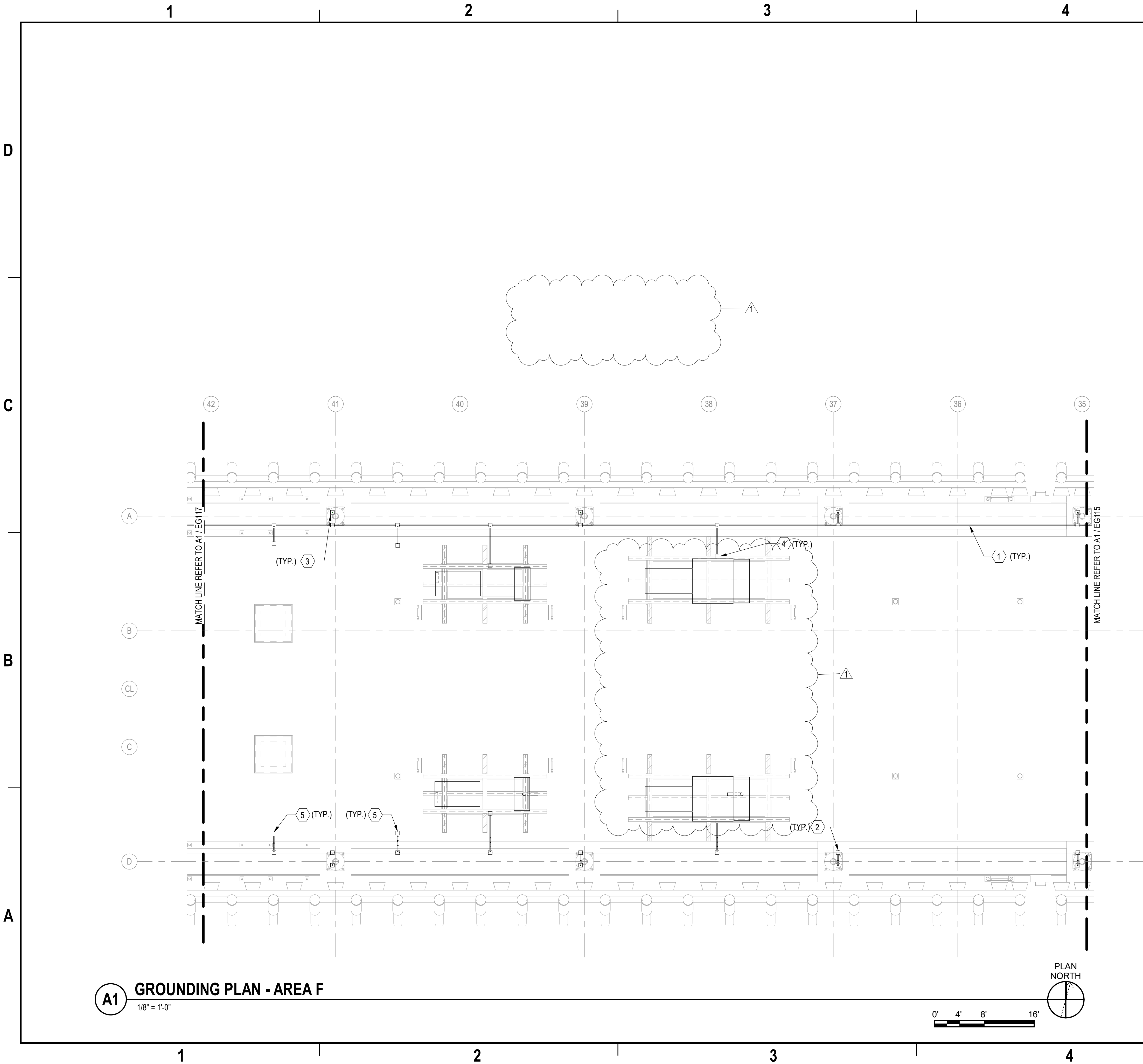
CHIEF ENGINEER EJA

FIRE PROTECTION DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MID-ATLANTIC
NAVAL STATION NEWPORT
NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION
NEWPORT, RHODE ISLAND

PIER - POWER PLAN - AREA G

SCALE: AS NOTED
EPROJECT NO.: 1562331
CONSTR. CONTR. NO. N4008523R2527
NAVFAC DRAWING NO. 12874270
SHEET 394 OF 504
EP117
DRAWING REVISION: 25 AUGUST 2020



- SHEET NOTES
1. SEE SHEET EP506 FOR GROUNDING DETAILS ON THE PIER.
2. SEE SHEET EG501 FOR TYPICAL GROUNDING DETAILS.
- SHEET KEYNOTES
1. PROVIDE #4/0 BARE COPPER GROUND CONDUCTOR.
2. PROVIDE EXOTHERMIC WELD CONNECTION. REFER TO A2/EG501.
3. PROVIDE BOLLARD AND UTILITY TRENCH GROUNDING CONNECTION. REFER TO DETAIL A3/EP506.
4. PROVIDE GROUNDING CONNECTION TO SUBSTATION PLATFORM.
5. PROVIDE GROUNDING CONNECTION TO INDUSTRIAL AND SHORE POWER LVCB ENCLOSURE.

APPR

DATE

02/27/2023

1

BASE BID UPDATE

SYM

DESCRIPTION

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

Timothy Calohan, PE,
NOAA Senior Project Manager

SATISFACTORY TO DATE

04OCT2022

DES

JR

DRW

BG

CHK

JC

PM/DW

RS/RC

BRANCH MANAGER

JAS

CHIEF ENGINEER

EJA

FIRE PROTECTION

DSN

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC

MID-ATLANTIC

NAVAL STATION NORFOLK - NORFOLK, VA

NAVAL STATION NEWPORT

NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION

NEWPORT, RHODE ISLAND

PIER - GROUNDING PLAN - AREA F

SCALE: AS NOTED

PROJECT NO.:

1562331

CONSTR. CONTR. NO.

N4008523R2527

NAVFAC DRAWING NO.

12874292

SHEET

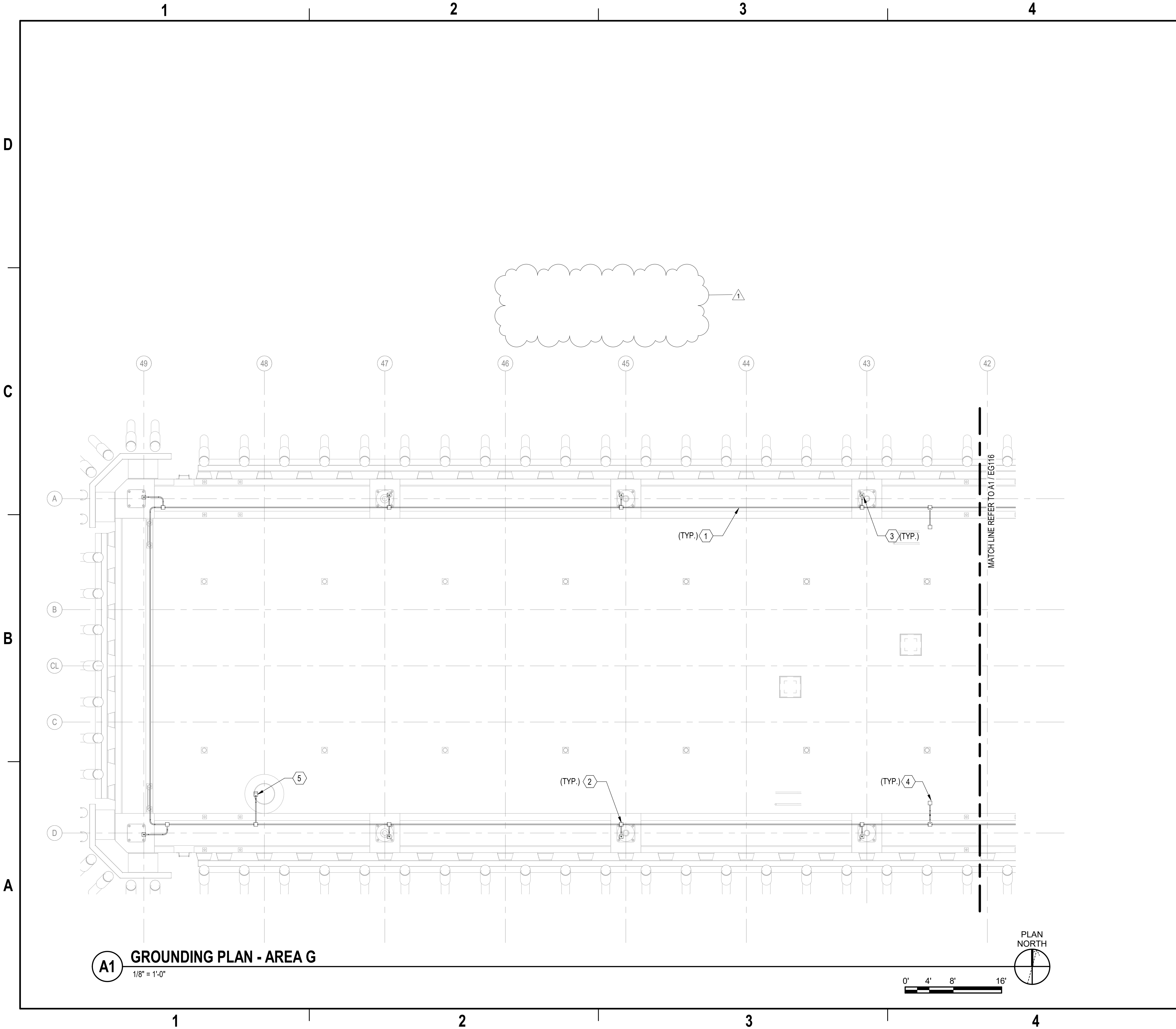
416

OF

504

EG116

DRAWING REVISION: 25 AUGUST 2020



SHEET NOTES

- SEE SHEET EP506 FOR GROUNDING DETAILS ON THE PIER.
- SEE SHEET EG501 FOR TYPICAL GROUNDING DETAILS.

SHEET KEYNOTES

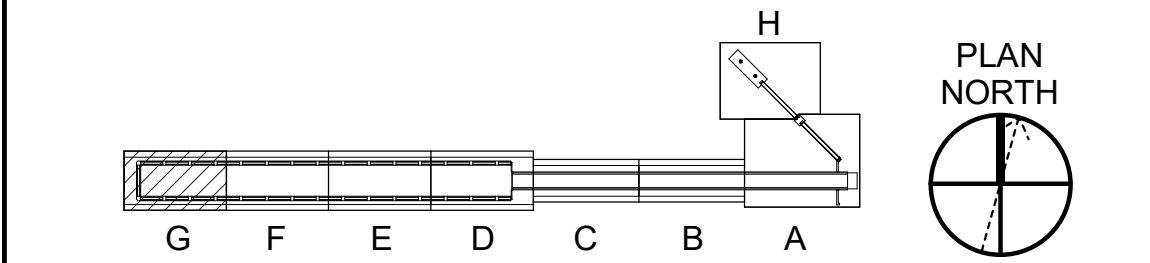
- PROVIDE #4/0 BARE COPPER GROUND CONDUCTOR.
- PROVIDE EXOTHERMIC WELD CONNECTION. REFER TO A2/EG501.
- PROVIDE BOLLARD AND UTILITY TRENCH GROUNDING CONNECTION. REFER TO DETAIL A3/EP506.
- PROVIDE GROUNDING CONNECTION TO TELECOMMUNICATION EQUIPMENT.
- PROVIDE GROUNDING AND LIGHTNING PROTECTION FOR HIGH MAST LIGHT POLE. REFER TO SHEET EL503 FOR DETAILS AND DEVICE SPECIFICATIONS.



APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
Timothy Calohan, PE, NOAA Senior Project Manager	
SATISFACTORY TO DATE 04OCT2022	
DES	JR
DRW	BG
CHK	JC
PM/DM	RS/RC
BRANCH MANAGER	JAS
CHIEF ENGINEER	EJA
FIRE PROTECTION	DSN

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - MID-ATLANTIC
MID-ATLANTIC
NAVAL STATION NORFOLK - NORFOLK, VA
NAVAL STATION NEWPORT
NOAA OMAO SHIP & SUPPORT FACILITY RELOCATION
NEWPORT, RHODE ISLAND
PIER - GROUNDING PLAN - AREA G

KEY PLAN



SCALE: AS NOTED
PROJECT NO.: 1562331
CONSTR. CONTR. NO. N4008523R2527
NAVFAC DRAWING NO. 12874293
SHEET 417 OF 504
EG117

DRAWING REVISION: 25 AUGUST 2020

D

C

B

A

PANELBOARD: MDPLV															
LOCATION: ELECT 109					VOLTAGE: 208/120 Wye					A.I.C. RATING: 35,000					
SUPPLY FROM: T-1					PHASE: 3					MAINS TYPE: MCB					
MOUNTING: SURFACE					WIRES: 4					MAINS RATING: 400 A					
ENCLOSURE: NEMA 1										MCB RATING: 400 A					
NOTES:															
#	BKR	P	LOAD SERVED	WIRE / GROUND / CONDUIT	A		B		C		WIRE / GROUND / CONDUIT	LOAD SERVED	P	BKR	#
1					12220	12560									2
3	225	3	PANEL LV1	REFER TO SHEET E-641 FOR SINGLE LINE			11600	14200			REFER TO SHEET E-641 FOR SINGLE LINE	PANEL LV2	3	225	4
5									12520	8540					6
7					640	640									8
9	20	3	SYST FURN: 102	3#12, #8N, #12G IN 1/2" C			640	640			3#12, #8N, #12G IN 1/2" C	SYST FURN: 102	3	20	10
11									640	640					12
13					640	21679									14
15	20	3	SYST FURN: 102	3#12, #8N, #12G IN 1/2" C			640	26099			REFER TO SHEET E-641 FOR SINGLE LINE	UPS	3	175	16
17									640	20259					18
19	--	1	SPACE		--	0						SPARE	1	20	20
21	--	1	SPACE				--	0				SPARE	1	20	22
23	--	1	SPACE						--	--		SPACE	1	--	24
25	--	1	SPACE		--	--						SPACE	1	--	26
27	--	1	SPACE				--	--				SPACE	1	--	28
29	--	1	SPACE						--	--		SPACE	1	--	30
31	--	1	SPACE		--	--						SPACE	1	--	32
33	20	1	SPARE				0	--				SPACE	1	--	34
35	20	1	SPARE						0	--		SPACE	1	--	36
37					0	--						SPACE	1	--	38
39	30	3	SPD	PER MANUFACTURER'S INSTRUCTIONS			0	--				SPACE	1	--	40
41									0	--		SPACE	1	--	42
					TOTAL LOAD:		48379 VA		53819 VA		43239 VA				
					TOTAL AMPS:		410 A		455 A		360 A				
												PANEL TOTALS			
												TOTAL CONNECTED LOAD: 145436 VA			
												TOTAL ESTIMATED DEMAND LOAD: 87067 VA			
												TOTAL CONNECTED CURRENT: 404 A			
												TOTAL ESTIMATED DEMAND... 242 A			
												DEMAND WITH EXPANSION: 290 A			

SWITCHBOARD: SWBD-1

LOCATION: ELECT 136

SUPPLY FROM: 500 KVA TRANSFORMER

MOUNTING: FLOOR

ENCLOSURE: NEMA 1

VOLTAGE: 480/277 Wye

PHASES: 3

WIRES: 4

A.I.C. RATING: 65,000

MAINS TYPE: MCB

MAINS RATING: 600 A

MCB RATING: 600 A

NOTES:

CKT	LOAD NAME	DESIGN WIRE AND CONDUIT	POLES	TRIP RATING	FRAME SIZE	Load	COMMENTS
1	TRANSFORMER T-1	REFER TO SHEET E-641 FOR SINGLE LINE	3	175 A	225 A	145436 VA	PROVIDE LOCKABLE CIRCUIT BREAKER
2	TRANSFORMER T-3	REFER TO SHEET E-641 FOR SINGLE LINE	3	125 A	225 A	50137 VA	
3	ATS-1	REFER TO SHEET E-641 FOR SINGLE LINE	3	200 A	200 A	0 VA	
4	ATS-LS	REFER TO SHEET E-641 FOR SINGLE LINE	3	200 A	200 A	0 VA	
5	PANEL MECHHV	REFER TO SHEET E-641 FOR SINGLE LINE	3	250 A	250 A	170509 VA	
6	FORKLIFT CHARGER-1	3#10, #10G., IN 1/2" C	3	30 A	100 A	18000 VA	
7	FORKLIFT CHARGER-2	3#10, #10G., IN 1/2" C	3	30 A	100 A	18000 VA	
8	SPARE		1	20 A	100 A	0 VA	
9	SPARE		1	20 A	20 A	0 VA	
10	SPARE		1	20 A	20 A	0 VA	
11	SPACE		1	--	--	--	--
12	SPACE		1	--	--	--	--
13	SPACE		1	--	--	--	--
14	SPACE		1	--	--	--	--
15	SPACE		1	--	--	--	--
16	SPD	PER MANUFACTURER'S INSTRUCTIONS	3	60 A	100 A	0 VA	

SWITCHBOARD TOTALS

TOTAL CONNECTED LOAD:

402082 VA

TOTAL ESTIMATED DEMAND LOAD:

316144 VA

TOTAL CONNECTED CURRENT:

484 A

TOTAL ESTIMATED DEMAND CURRENT:

380 A

DEMAND WITH EXPANSION:

456 A

PANELBOARD: EMHV1															
LOCATION: ELECT 136					VOLTAGE: 480/277 Wye					A.I.C. RATING: 35,000					
SUPPLY FROM: ATS-1					PHASE: 3					MAINS TYPE: MCB					
MOUNTING: SURFACE					WIRES: 4					MAINS RATING: 250 A					
ENCLOSURE: NEMA 1										MCB RATING: 150 A					
NOTES:															
PROVIDE SHUNT TRIP CIRCUIT BREAKER FOR ELEVATOR AND CONNECT TO THE BUILDING FIRE ALARM SYSTEM.															
PROVIDE 100% RATED MAIN BREAKER.															
#	BKR	P	LOAD SERVED	WIRE / GROUND / CONDUIT	A		B		C		WIRE / GROUND / CONDUIT	LOAD SERVED	P	BKR	#
1					4712	18013									2
3	50	3	TRANSFORMER T-EM	REFER TO SHEET E-641 FOR SINGLE LINE			2612	18013			3#1, #6 G IN 1-1/2" C	ELEVATOR	3	100	4
5									3460	18013					6
7					8868	3714									8
9	50	3	SSWR LIFT STATION 1	REFER TO ES101 FEEDER #22			8868	3714			REFER TO ES101 FEEDER #22	SSWR LIFT STATION 2	3	20	10
11									8868	3714					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						0									38
39	60	3	SPD	PER MANUFACTURER'S INSTRUCTIONS			0								40
41									0						42
					TOTAL LOAD:	35307 VA		33207 VA		34055 VA					
					TOTAL AMPS:	128 A		120 A		123 A					
												PANEL TOTALS			
												TOTAL CONNECTED LOAD: 102588 VA			
												TOTAL ESTIMATED DEMAND LOAD: 102064 VA			
												TOTAL CONNECTED CURRENT: 123 A			
												TOTAL ESTIMATED DEMAND... 123 A			
												DEMAND WITH EXPANSION: 147 A			

D

<

C

PANELBOARD: LS3

LOCATION: ELECT 215

SUPPLY FROM: LS1

MOUNTING: SURFACE

ENCLOSURE: NEMA 1

VOLTAGE: 480/277 Wye

PHASE: 3

WIRES: 4

A.I.C. RATING: 22,000

MAINS TYPE: MCB

MAINS RATING: 100 A

MCB RATING: 100 A

NOTES:

#	BKR	P	LOAD SERVED	WIRE / GROUND / CONDUIT	A		B		C		WIRE / GROUND / CONDUIT	LOAD SERVED	P	BKR	#
1	20	1	LTG:205,206,207,208,209,210,211,212,213	2#12, #12G IN 1/2" C	1010	269					2#12, #12G IN 1/2" C	LTG: 201,210A,214	1	20	2
3	20	1	LTG: 215, 216	2#12, #12G IN 1/2" C			228	648			2#12, #12G IN 1/2" C	LTG: 202,204,218,219,220,221,222,223,224,225	1	20	4
5	20	1	LTG: EXTERIOR SOUTH 2ND FLOOR	2#12, #12G IN 1/2" C					60	0		SPARE	1	20	6
7	20	1	SPARE		0	0						SPARE	1	20	8
9	20	1	SPARE				0	0				SPARE	1	20	10
...	20	1	SPARE						0	0		SPARE	1	20	12
...	--	1	SPACE		--	--						SPACE	1	--	14
...	--	1	SPACE				--	--				SPACE	1	--	16
...	--	1	SPACE						--	--		SPACE	1	--	18
...	--	1	SPACE		--	--						SPACE	1	--	20
...	--	1	SPACE				--	--				SPACE	1	--	22
...	--	1	SPACE						--	--		SPACE	1	--	24
...	--	1	SPACE		--	--						SPACE	1	--	26
...	--	1	SPACE				--	--				SPACE	1	--	28
...	--	1	SPACE						--	--		SPACE	1	--	30
...	--	1	SPACE		--	--						SPACE	1	--	32
...	--	1	SPACE				--	--				SPACE	1	--	34
...	--	1	SPACE						--	--		SPACE	1	--	36
...	60	3	SPD	PER MANUFACTURER'S INSTRUCTIONS	0	--						SPACE	1	--	38
...							0	--				SPACE	1	--	40
...									0	--		SPACE	1	--	42
TOTAL LOAD:					1279 VA		876 VA		60 VA						
TOTAL AMPS:					5 A		4 A		0 A						

PANEL TOTALS

TOTAL CONNECTED LOAD: 2215 VA

TOTAL ESTIMATED DEMAND LOAD: 2215 VA

TOTAL CONNECTED CURRENT: 3 A

TOTAL ESTIMATED DEMAND... 3 A

DEMAND WITH EXPANSION: 3 A

A

PANELBOARD: LS1

LOCATION: ELECT 136					VOLTAGE: 480/277 Wye					A.I.C. RATING: 22,000					
SUPPLY FROM: ATS-LS					PHASE: 3					MAINS TYPE: MCB					
MOUNTING: SURFACE					WIRES: 4					MAINS RATING: 225 A					
ENCLOSURE: NEMA 1					MCB RATING: 200 A										
NOTES: 1- PROVIDE RED / LOCKABLE CIRCUIT BREAKERS FOR FIRE ALARM. 2- NOT USED. 3- BID OPTION - FLOATING DOCK SYSTEM. FOR ADDITIONAL INFORMATION REFER TO SHEET ES104 NOTE 19.															
#	B...	P	LOAD SERVED	WIRE / GROUND / CONDUIT	A		B		C		WIRE / GROUND / CONDUIT	LOAD SERVED	P	BKR	#
1	20	1	LTG: EXTERIOR NORTH	2#10, #10G, IN 3/4" C	271	500					ES101 - FEEDER #6	TRESTLE CKT #2	1	20	2
3	20	1	LTG: 130,131,132,133,134,135	2#10, #10G, IN 3/4" C			660	1379			2#10, #10G, IN 3/4" C	LTG: 122,123,127,135	1	20	4
5	20	1	TRESTLE CKT #1	ES101 - FEEDER #6					500	2514	ES101 - FEEDER #6	HIGH MAST CKT #2	1	20	6
7	20	1	LTG: 214,125,128,129	2#10, #10G IN 1/2" C	558	1000					2#6, #8G IN 1-1/4" C	SITE LIGHTING	1	20	8
9	20	1	HIGH MAST CKT #1	ES101 - FEEDER #6			2514	1700			2#6, #8G IN 1-1/4" C	SITE HIGH MAST LIGHTING	1	20	10
11									1279	3200					12
13	100	3	PANEL LS-3	REFER TO SHEET E-641 FOR SINGLE LINE	876	1100					REFER TO SHEET E-641 FOR SINGLE LINE	T-FP	3	25	14
15							60	200							16
17									582	1996					18
19	20	3	JOCKEY PUMP: 137	3#10, #10G IN 3/4" C	582	466					REFER TO SHEET E-641 FOR SINGLE LINE	PANEL LS2	3	100	20
21							582	450							22
23	20	1	HIGH MAST CKT #3	ES101 - FEEDER #6					2514	0		SPARE	1	20	24
25	--	1	SPACE		--	0						SPARE	1	20	26
27	--	1	SPACE			--	0					SPARE	1	20	28
29	--	1	SPACE					--	0			SPARE	1	20	30
31	--	1	SPACE		--	--						SPACE	1	--	32
33	--	1	SPACE			--	--					SPACE	1	--	34
35	--	1	SPACE					--	--			SPACE	1	--	36
37					0	--						SPACE	1	--	38
39	60	3	SPD	PER MANUFACTURER'S INSTRUCTIONS		0	--					SPACE	1	--	40
41									0	--		SPACE	1	--	42
TOTAL LOAD:					5353 VA	7545 VA	12585 VA								
TOTAL AMPS:					19 A	28 A	47 A								
												PANEL TOTALS			
												TOTAL CONNECTED LOAD: 25482 VA			
												TOTAL ESTIMATED DEMAND LOAD: 25482 VA			
												TOTAL CONNECTED CURRENT: 31 A			
												TOTAL ESTIMATED DEMAND... 31 A			
												DEMAND WITH EXPANSION: 37 A			

PANELBOARD: LS2

LOCATION: ELECT 109				VOLTAGE: 480/277 Wye				A.I.C. RATING: 22,000				
SUPPLY FROM: LS1				PHASE: 3				MAINS TYPE: MCB				
MOUNTING: SURFACE				WIRES: 4				MAINS RATING: 100 A				
ENCLOSURE: NEMA 1								MCB RATING: 100 A				
NOTES:												
#	BKR	P	LOAD SERVED	WIRE / GROUND / CONDUIT	A	B	C	WIRE / GROUND / CONDUIT	LOAD SERVED	P	BKR	#
1	20	1	LTG: 102,103,104,105,106	2#12, #12G IN 1/2" C	1222	238		2#12, #12G IN 1/2" C	ELEVATOR SHAFT LIGHTS	1	20	2
3	20	1	LTG: 100,101,108,115	2#12, #12G IN 1/2" C		398	68	2#12, #12G IN 1/2" C	LGT: ELEV EQUIP 121	1	20	4
5	20	1	LTG: 114,116,117,119	2#12, #12G IN 1/2" C			210	240	2#12, #12G IN 1/2" C	1	20	6
7	20	1	LGT: 109, 110,137,138	2#10, #10G IN 1/2" C	488	48		2#12, #12G IN 1/2" C	LTG: STAIR A 118, STAIR B 111	1	20	8
9	20	1	SPARE			0	0		LTG: EXTERIOR SOUTH	1	20	8
11	20	1	SPARE						SPARE	1	20	10
13	20	1	SPARE		0	0		0	0	1	20	12
15	--	1	SPACE			--	--			1	20	14
17	--	1	SPACE					--	--	1	--	16
19	--	1	SPACE		--	--				1	--	18
21	--	1	SPACE			--	--			1	--	20
23	--	1	SPACE					--	--	1	--	22
25	--	1	SPACE		--	--				1	--	24
27	--	1	SPACE			--	--			1	--	26
29	--	1	SPACE					--	--	1	--	28
31	--	1	SPACE		--	--				1	--	30
33	--	1	SPACE			--	--	--	--	1	--	32
35	--	1	SPACE					--	--	1	--	34
37					0	--				1	--	36
39	60	3	SPD	PER MANUFACTURER'S INSTRUCTIONS		0	--			1	--	40
41								0	--	1	--	42
					TOTAL LOAD:	1996 VA	466 VA	450 VA				
					TOTAL AMPS:	7 A	2 A	2 A				
									PANEL TOTALS			
									TOTAL CONNECTED LOAD: 2912 VA			
									TOTAL ESTIMATED DEMAND LOAD: 2912 VA			
									TOTAL CONNECTED CURRENT: 4 A			
									TOTAL ESTIMATED DEMAND... 4 A			
									DEMAND WITH EXPANSION: 4 A			