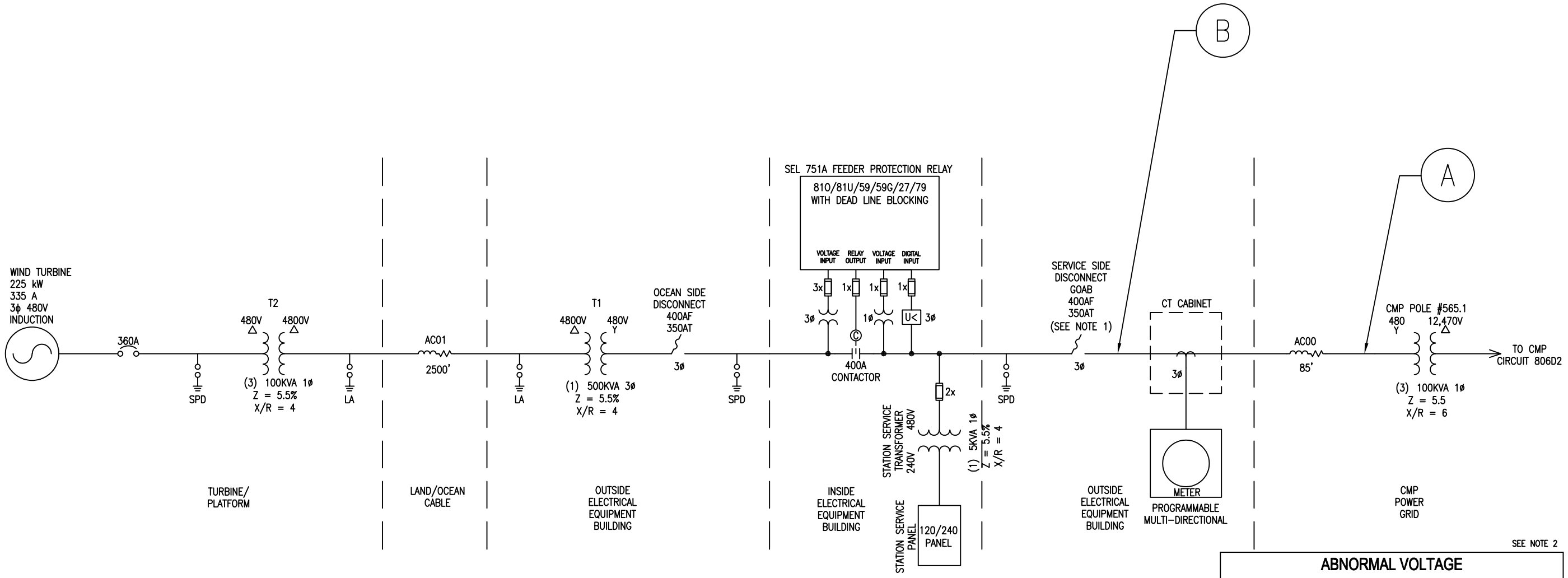


SEE NOTE 2

ABNORMAL VOLTAGE

VOLTAGE RANGE (% OF BASE VOLTAGE)	CLEARING TIME(s)
V<50	0.16
50≤V<88	2.00
110<V<120	1.00
V≥120	0.16

ABNORMAL FREQUENCIES

FREQUENCY RANGE(Hz)	CLEARING TIME(s)
>60.5	0.16
<{59.8 to 57.0} (ADJUSTABLE SET POINT)	ADJUSTABLE 0.16 TO 300
<57.0	0.16

NOTES:
1. THIS WINDOWED DISCONNECT SWITCH ON THE TURBINE SIDE OF THE METER MEETS CMP CRITERIA FOR A GOAB SWITCH.
2. IEEE 1547 8.2.3 & 8.2.4: INTERCONNECTION SYSTEM RESPONSE TO ABNORMAL VOLTAGES AND FREQUENCIES, THIS INCLUDES RELAY PICKUP TIME AND TRIP DEVICE OPERATE TIME. BASE VOLTAGE IS 120VAC L-N.

ID	DESCRIPTION	IMPEDANCE(Ω/1000' @25°C)		SUSCEPTANCE(μS/1000')	
		Z1	Z0	B1	B0
AC00	XLP QUADPLEX 600V 4/0 AL	0.1056+j0.2815	0.4095+j0.5951	7.9120	1.8340
AC01	MV105 5/8KV 133% 3/C+G #2 CU	0.2037+j0.04315	0.5703+j0.3714	28.2800	28.2800

LEGEND

- (A) POINT OF INTERCONNECTION
- (B) POINT OF CHANGE OF OWNERSHIP
- (C) CONTACTOR COIL
- BREAKER
- SPD SURGE PROTECTION DEVICE
- LA LIGHTNING ARRESTOR
- POWER TRANSFORMER
- POTENTIAL TRANSFORMER
- FUSED DISCONNECT W/ VISIBLE CONTACTS
- LINE IMPEDANCE
- FUSE
- U< UNDER VOLTAGE RELAY
- CURRENT TRANSFORMER

SGC Engineering, LLC

THE UNIVERSITY OF MAINE

ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
MAY 7, 2024	N/A	JRD	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR REVIEW	SSJ	05/07/2024
B	ISSUED FOR APPLICATION	PBF	05/07/2024
C	RE-ISSUED FOR APPLICATION	SSJ	07/02/2024
D	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: SINGLE LINE DIAGRAM
225kW WIND TURBINE

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER: 2500014

DRAWING NUMBER: 2500014-100

REVISION: D

SHEET NUMBER: 1 OF 1

PENOBSCOT BAY

CABLE
TO OFFSHORE TURBINE
2500'
ENCASED IN XW RTRC CONDUIT

EXISTING
RESIDENTIAL
BUILDING

LANDSCAPED AREA

EXISTING ROCK
WALL

TRANSFORMER T1
AND
TRANSFORMER VAULT

WOOD LINE
TRANSITION AREA

DYCES HEAD ROAD

N

C

SGC

PROPOSED CMP
SECONDARY SERVICE

PROPERTY PIN

OVERHEAD EASEMENT
FROM ZIFF/BELL

OVERHEAD EASEMENT
FROM LIGHT

EXISTING CMP POLE 565.1
COORDINATES 44.384903,-68.820026
POINT OF INTERCONNECTION
(3)100KVA 1ϕ TRANSFORMERS

ELECTRICAL
EQUIPMENT BUILDING

INTERIOR:
SEL751 RELAY
CONTACTOR

EXTERIOR:
CMP METER
OCEAN SIDE DISCONNECT
SERVICE SIDE DISCONNECT/CUSTOMER GOAB
POINT OF CHANGE OF OWNERSHIP

CAMP ROAD

LEGEND:

— — — PROPOSED CABLE AND CONDUIT ROUTE

WOODED AREA

NOTES:
1. INFORMATION SHOWN IS APPROXIMATE AND NOT BASED ON A DETAILED ON-THE-GROUND SURVEY.
2. PRIOR TO CONSTRUCTION, FINAL CABLE ROUTE SHALL BE STAKED IN THE FIELD. STAKING SHALL BE REVIEWED PRIOR TO CONSTRUCTION BY ENGINEER OF RECORD AND VOLTURNUS+ PROJECT MANAGER, OR THEIR AUTHORIZED REPRESENTATIVES.
3. CABLE WILL BE ENTIRELY ENCLOSED IN CONDUIT RACEWAY STARTING FROM BELOW HISTORIC LOW TIDE.

HORIZONTAL GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

SGC Engineering, LLC

1865 THE UNIVERSITY OF MAINE

ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
MAY 9, 2024	AS NOTED	JRD	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR REVIEW	SSJ	05/01/2024
B	ISSUED FOR APPLICATION	PBF	05/09/2024
C	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE:
SITE PLAN VIEW
PROPOSED LAND CABLE ROUTE

PROJECT:
VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT:
UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

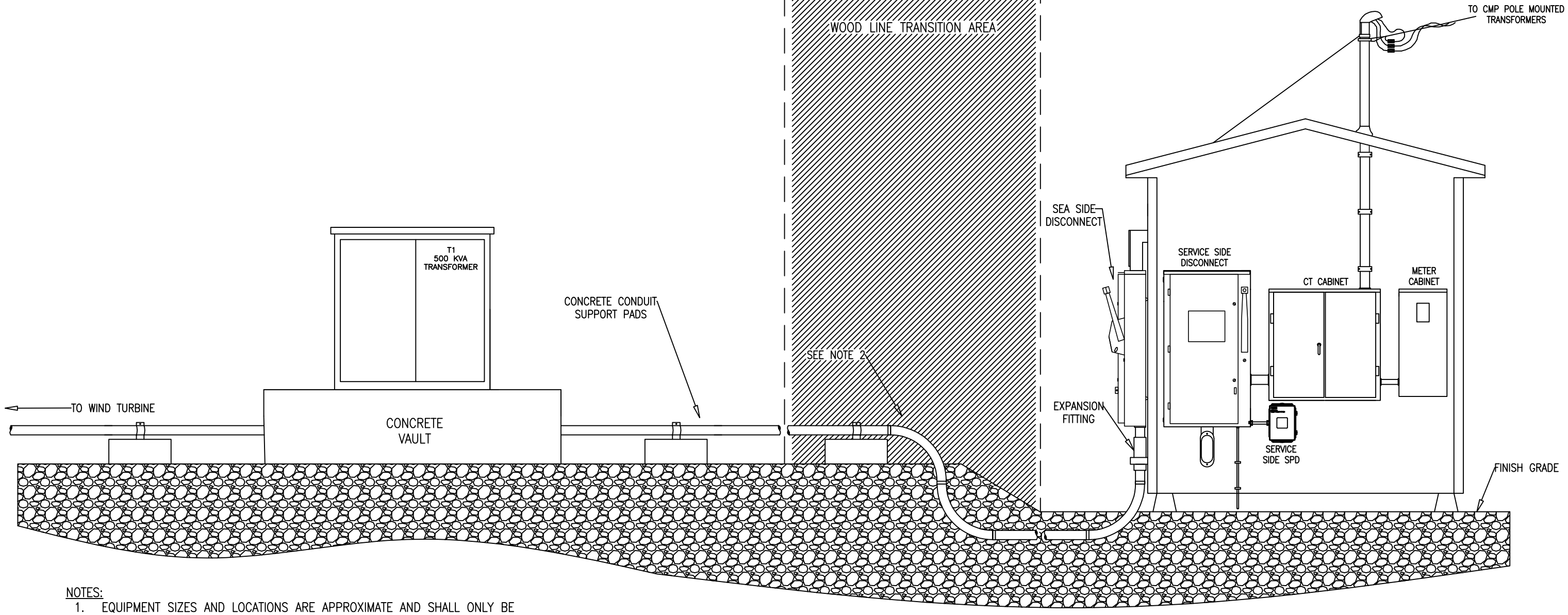
SGC PROJECT NUMBER
2500014

DRAWING NUMBER
2500014-101

REVISION
C

SHEET NUMBER
1 OF 7

C



NOTES:

1. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE AND SHALL ONLY BE USED FOR REFERENCE.
2. THE CONDUIT WILL EXIT THE SEA SIDE DISCONNECT UNDERGROUND AND WILL HEAD DIRECTLY EAST TOWARDS THE WOOD LINE. ONCE THE CONDUIT ENTERS THE WOODED AREA ALONG DYCE HEAD RD, IT WILL TRANSITION TO ABOVE GROUND CONCRETE PADS. THE CONDUIT WILL CONTINUE ABOVE GROUND, FOLLOW THE WOOD LINE, AND EXIT THE WOODED AREA BY THE TRANSFORMER.

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ISSUED FOR CONSTUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
MAY 9, 2024	N/A	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR REVIEW	SSJ	05/01/2024
B	ISSUED FOR APPLICATION	PBF	05/09/2024
C	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE:
ELECTRICAL EQUIPMENT BUILDING
OUTSIDE NORTH WALL ELEVATION VIEW

PROJECT:
VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

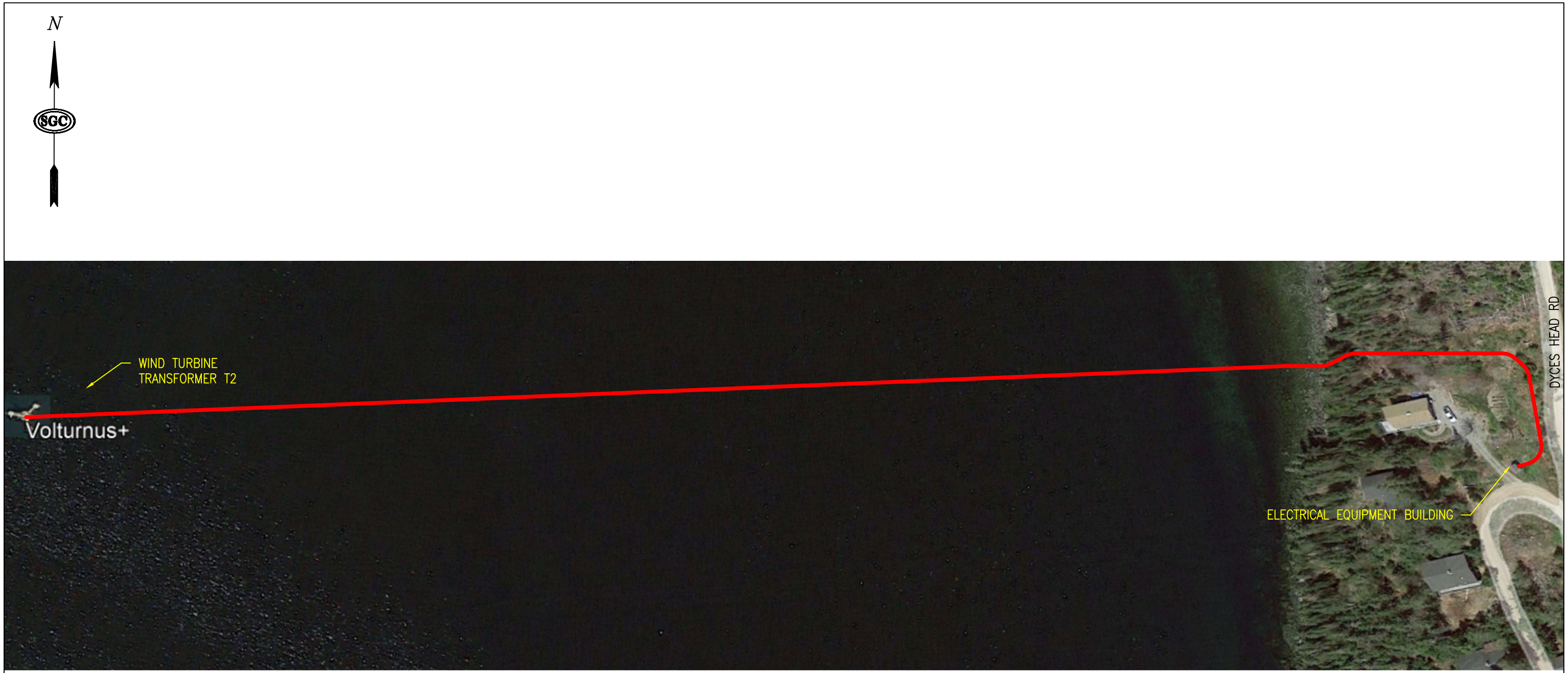
CLIENT:
UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER
2500014

DRAWING NUMBER
2500014-101

REVISION
C

SHEET NUMBER
2 OF 7



NOTES:
1. THIS DRAWING IS TO BE USED FOR REFERENCE ONLY. WIND TURBINE LOCATION AND SIZE IS APPROXIMATE.
2. TURBINE IS LOCATED APPROXIMATELY AT 44.385193°,-68.826932°.

LEGEND:

PROPOSED CABLE ROUTE 2500'

HORIZONTAL GRAPHIC SCALE

100 0 50 100 200

1 inch = 100ft.

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ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
MAY 9, 2024	AS NOTED	JRD	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR REVIEW	SSJ	05/01/2024
B	ISSUED FOR APPLICATION	PBF	05/09/2024
C	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE:
SITE PLAN VIEW
PROPOSED OCEAN CABLE ROUTE

PROJECT:
VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

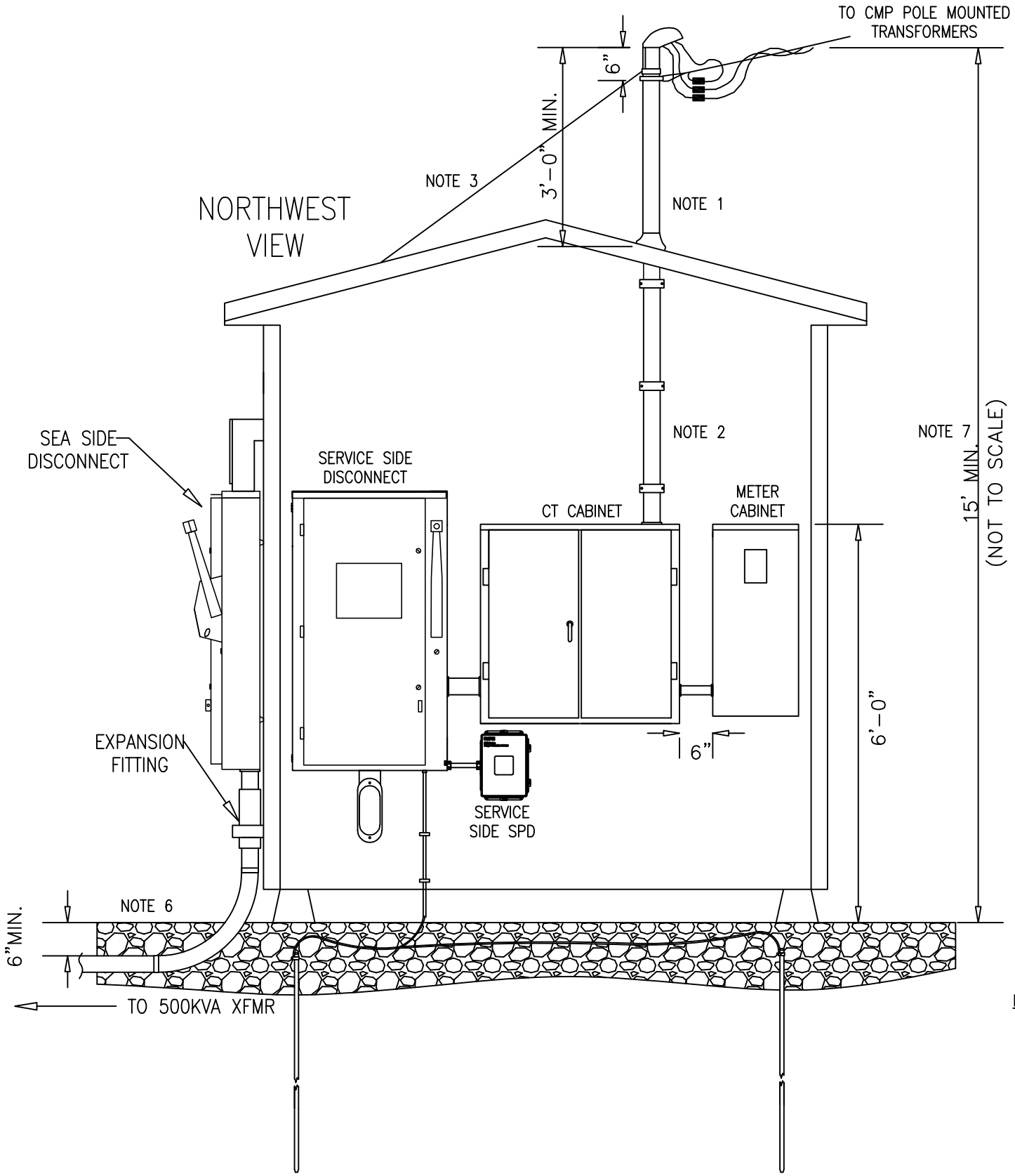
CLIENT:
UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

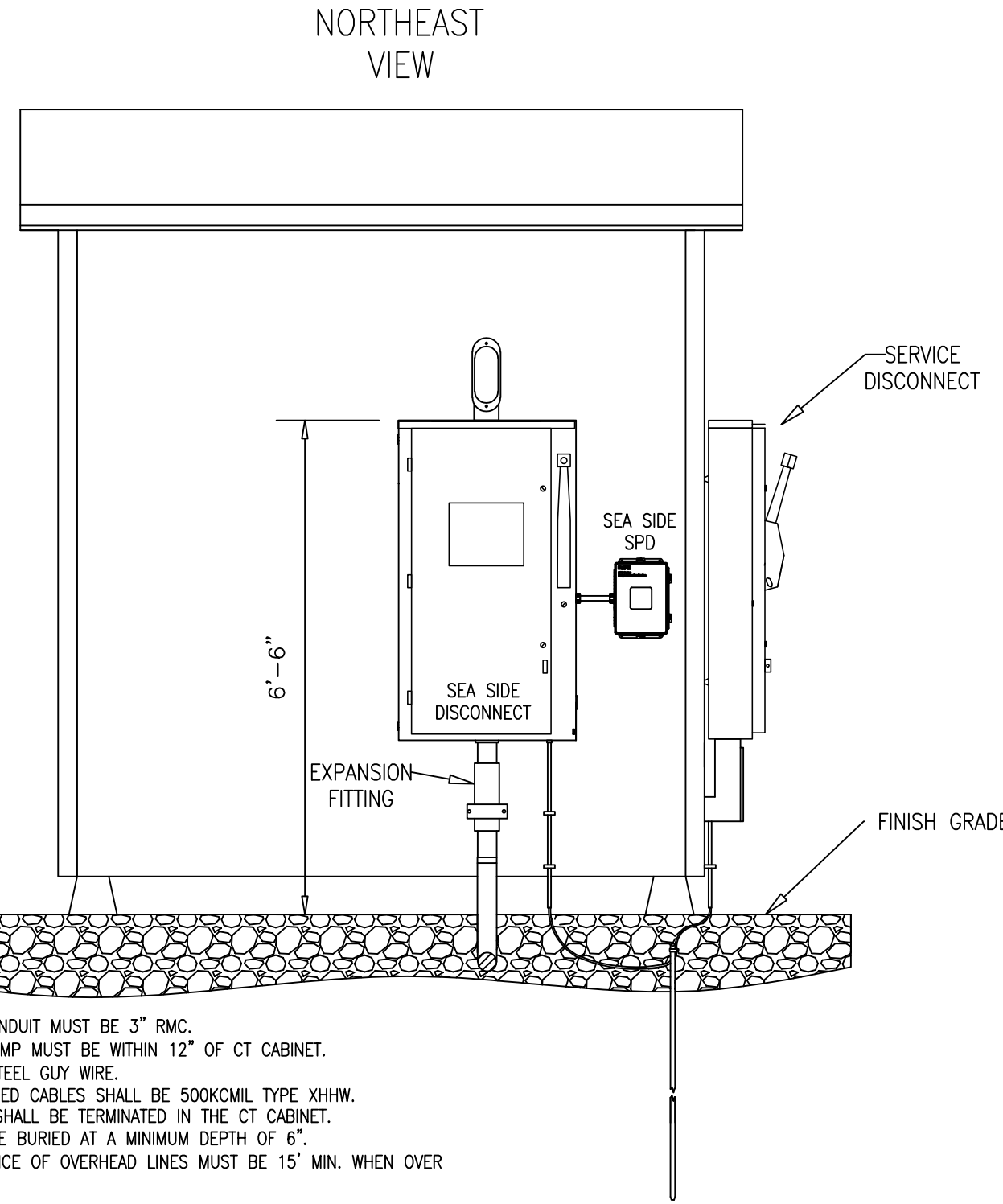
SGC PROJECT NUMBER
2500014

DRAWING NUMBER
2500014-101

REVISION
C

SHEET NUMBER
3 OF 7





NOTES:

1. SERVICE MAST CONDUIT MUST BE 3" RMC.
2. LOWEST MAST CLAMP MUST BE WITHIN 12" OF CT CABINET.
3. 3/16" MIN. HS STEEL GUY WIRE.
4. CUSTOMER SUPPLIED CABLES SHALL BE 500KCMIL TYPE XHHW.
5. UTILITY NEUTRAL SHALL BE TERMINATED IN THE CT CABINET.
6. CONDUIT SHALL BE BURIED AT A MINIMUM DEPTH OF 6".
7. VERTICAL CLEARANCE OF OVERHEAD LINES MUST BE 15' MIN. WHEN OVER THE PROPERTY.

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DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 14, 2024	AS NOTED	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: NORTHEAST & NORTHWEST SHED LAYOUT ELEVATION VIEW

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

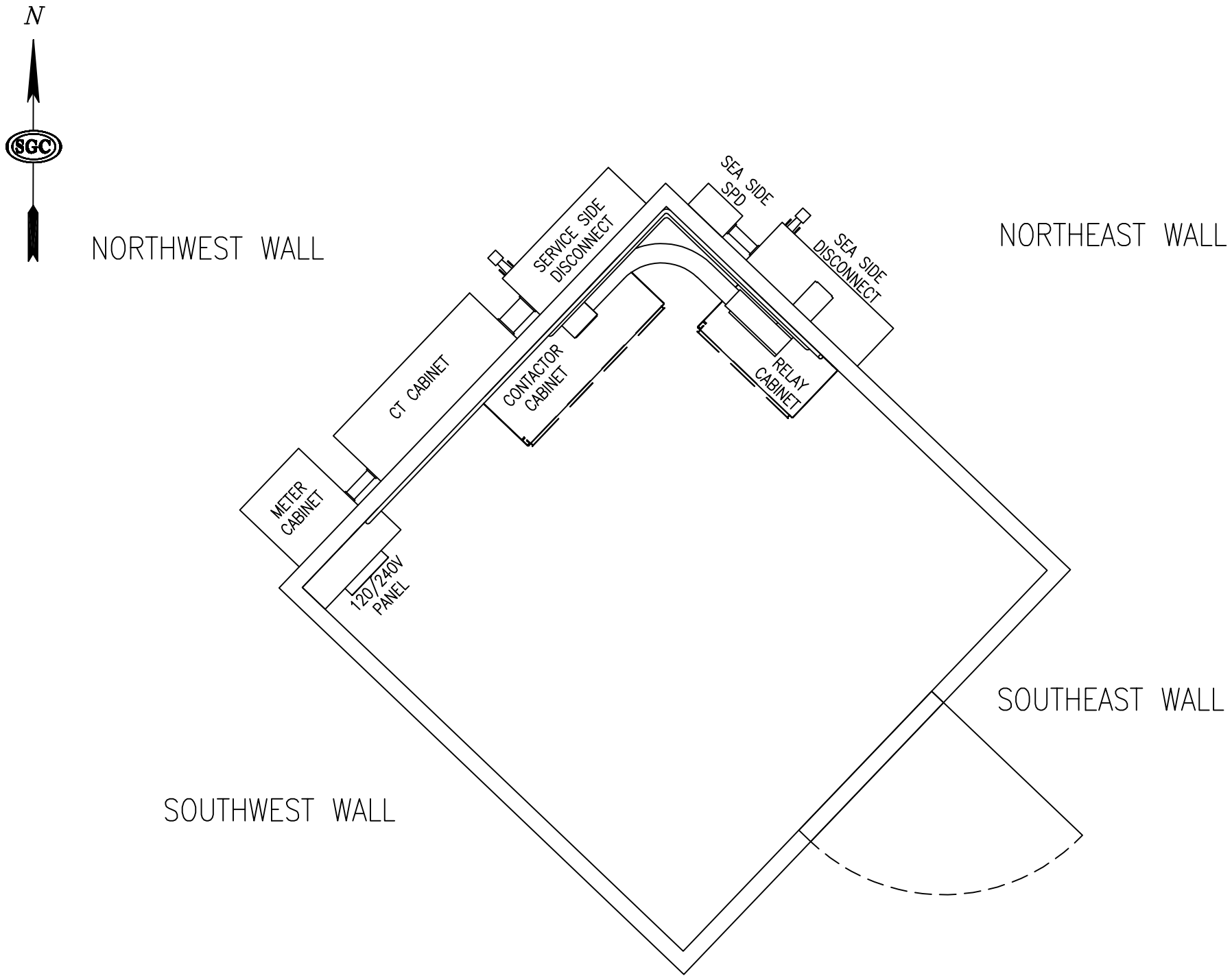
CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

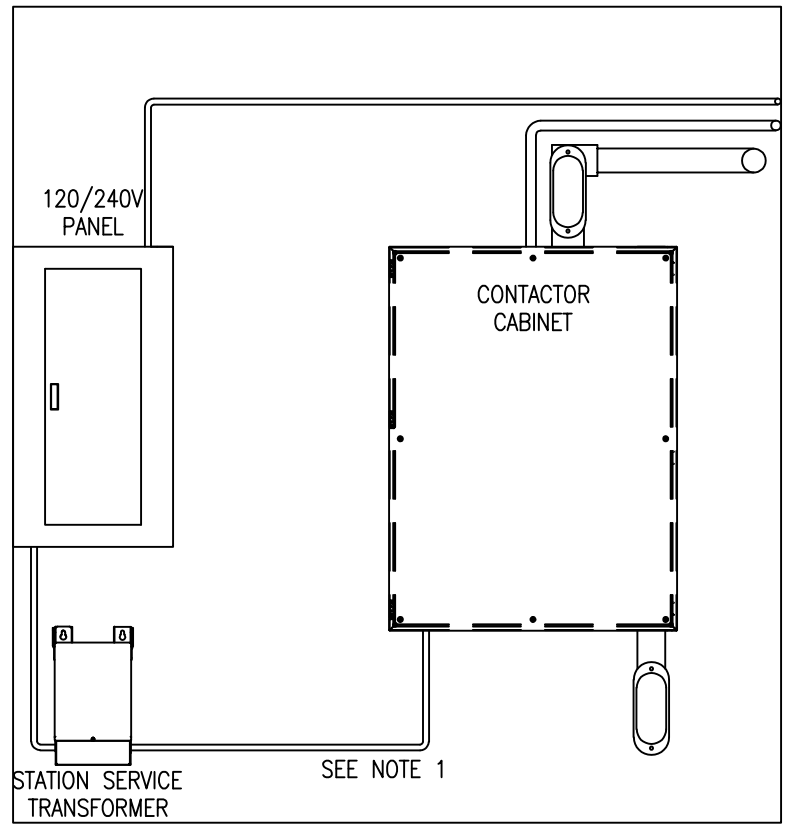
SGC PROJECT NUMBER: 2500014

DRAWING NUMBER: 2500014-101

REVISION: A

SHEET NUMBER: 4 OF 7





NOTES:
1. INTERIOR CONDUIT CAN BE EMT

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ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 21, 2024	AS NOTED	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: NORTH WALLS INTERIOR SHED LAYOUT

PROJECT: VOLTURNUS+ DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE 35 FLAGSTAFF RD, ORONO, ME 04469

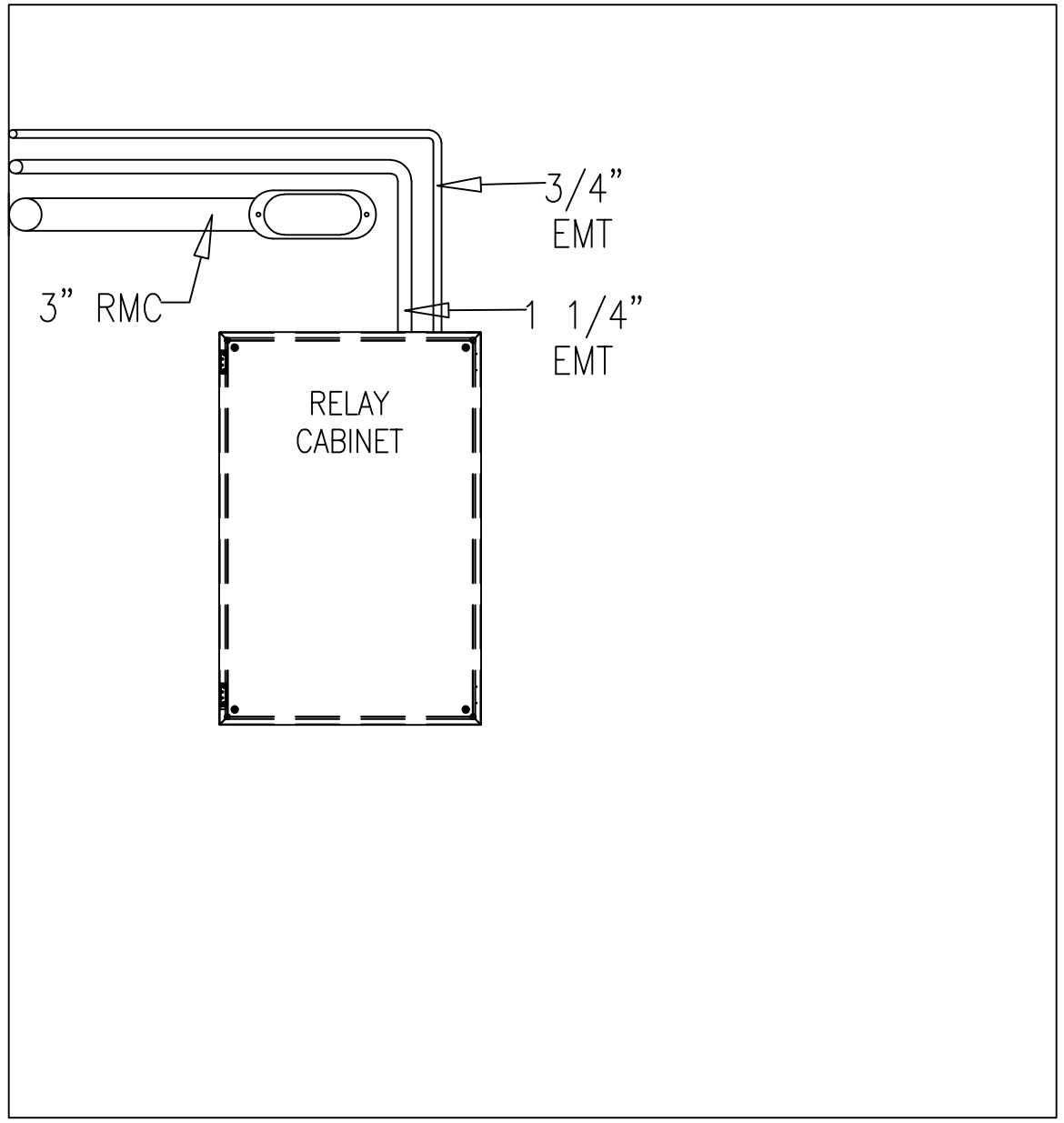
SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-101

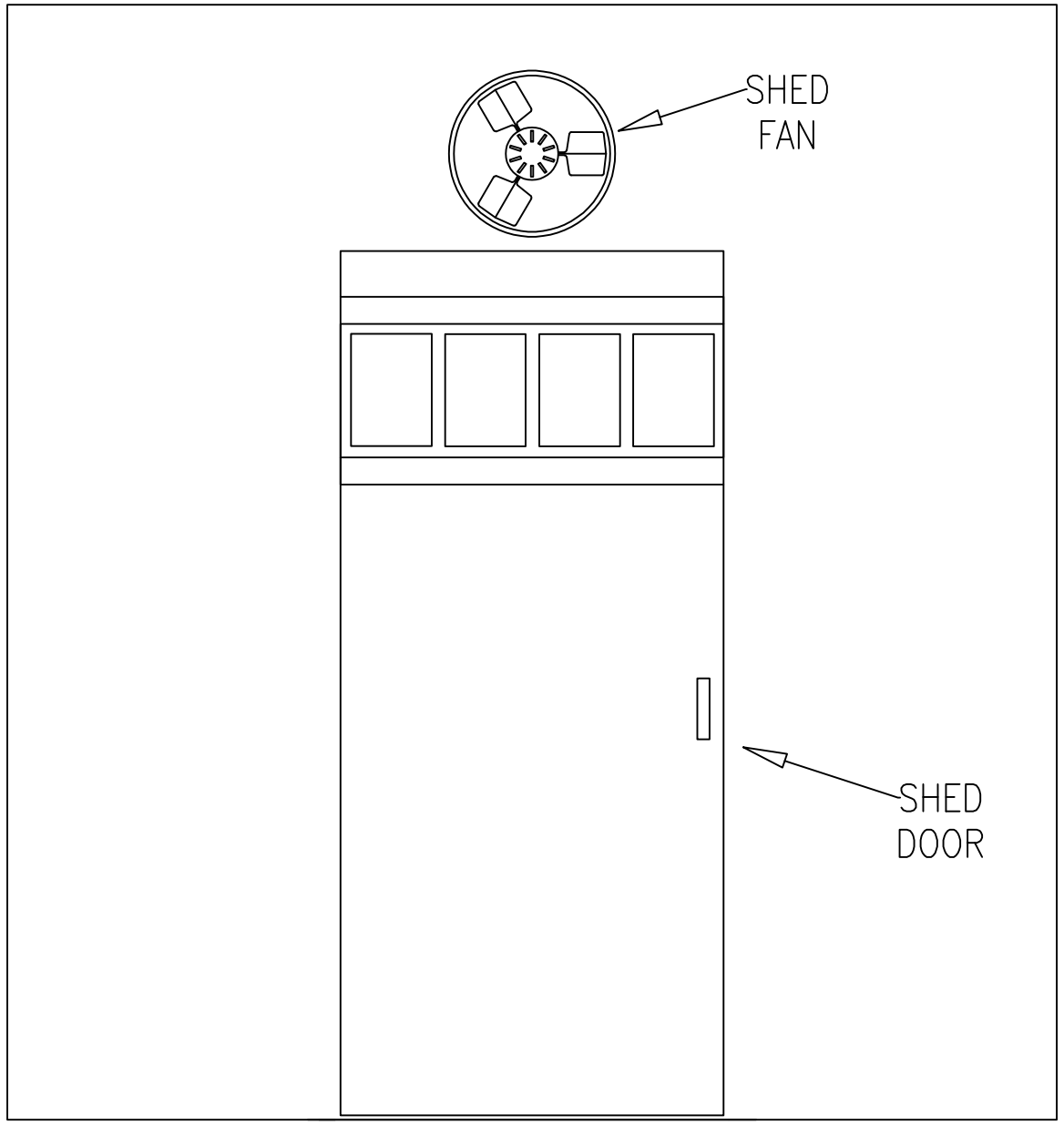
REVISION A

SHEET NUMBER 5 OF 7

NORTHEAST WALL



SOUTHEAST WALL



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ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 21, 2024	AS NOTED	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: SOUTH WALLS
INTERIOR SHED ELEVATIONS

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

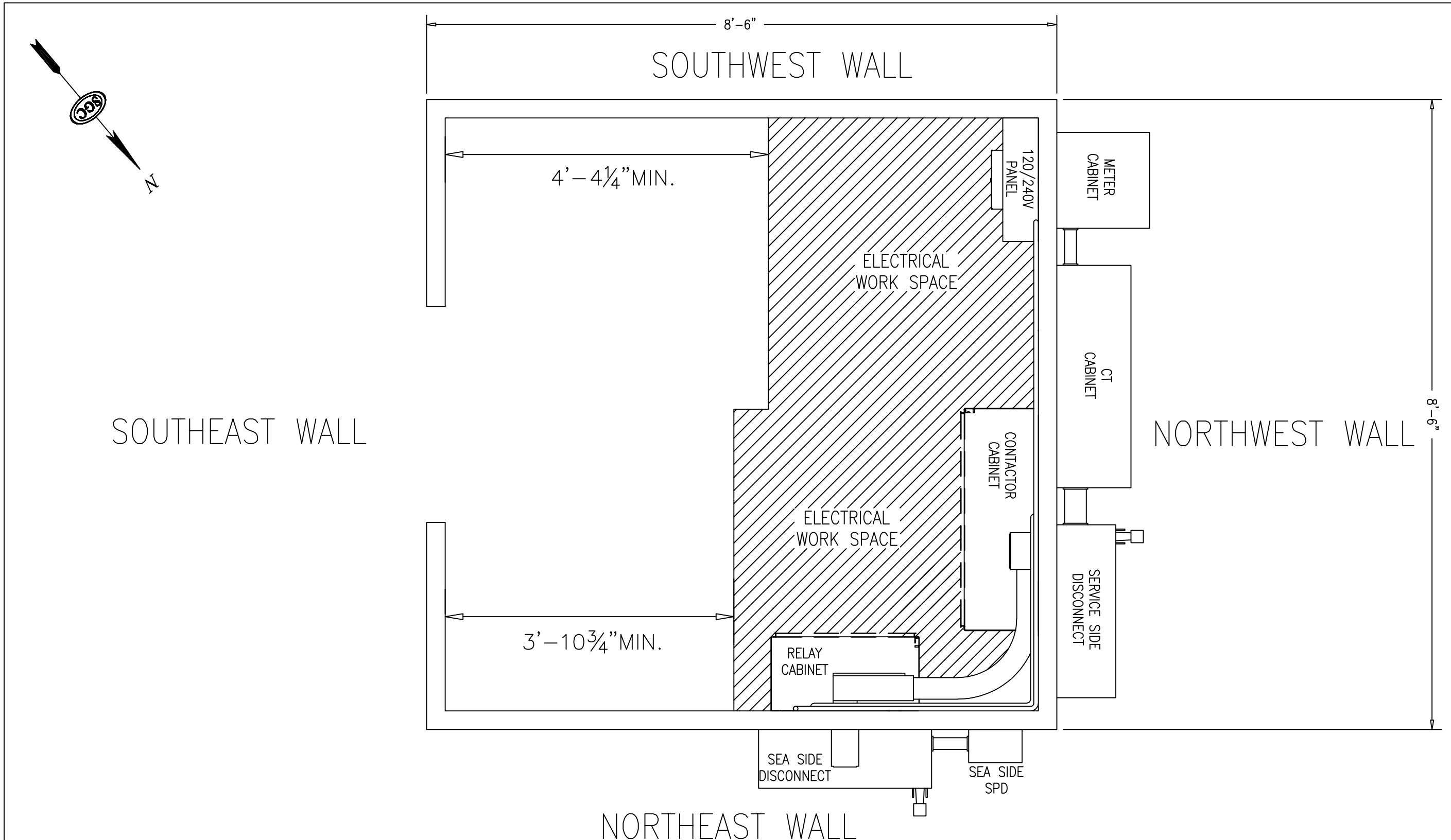
CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER
2500014

DRAWING NUMBER
2500014-101

REVISION
A

SHEET NUMBER
6 OF 7



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DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 22, 2024	AS NOTED	GRP	JRD	

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: SHED WORKING SPACE REQUIREMENTS

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER: 2500014

DRAWING NUMBER: 2500014-101

REVISION: A

SHEET NUMBER: 7 OF 7

HAMMOND MANUFACTURING
1418S12 48x36x12

PT1
HAMMOND MFG. HX74APT

PT2
HAMMOND MFG. HX74APT

PT3
HAMMOND MFG. HX74APT

PT4
HAMMOND MFG. HX74APT

27AC
MACROMATIC PAP480

CON
SCHNEIDER LC1G400BEEA

PDB-A
MERSEN FSPDB5A

PDB-B
MERSEN FSPDB5A

XFMER FUSE
BUSSMANN CH30J2
LITTLEFUSE JTD015ID

TB1
PHOENIX CONTACT UK 6-FSI/C
PHOENIX CONTACT UT 4

NOTES:
1. DOOR MUST BE BONDED.
2. ARRANGEMENT OF CON AND PDB-A&B SUBJECT TO CHANGE BASED ON INSTALLERS RECOMMENDATION

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	08/27/2024

ISSUED FOR CONSTRUCTION

DATE: AUGUST 27, 2024 | SCALE: N/A | DRAWN: MPS | DESIGN: MPS | APPD: SSJ

SGC Engineering, LLC

THE UNIVERSITY OF MAINE

TITLE: CONTACTOR CABINET LAYOUT

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-102

REVISION A

SHEET NUMBER 1 OF 2

SGC Engineering, LLC

THE UNIVERSITY OF MAINE 1865

ISSUED FOR CONSTRUCTION

DATE: AUGUST 27, 2024
SCALE: N/A
DRAWN: MPS
DESIGN: MPS
APPD: SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	08/27/2024

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

TITLE: CONTACTOR CABINET WIRING DIAGRAM

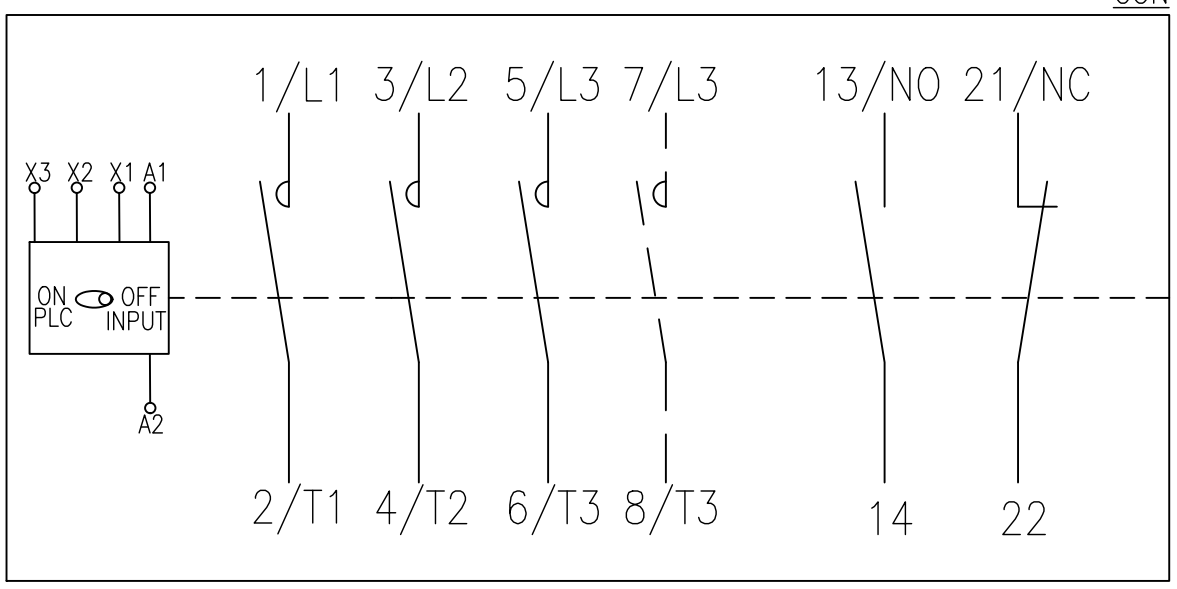
SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-102

REVISION A

SHEET NUMBER 2 OF 2

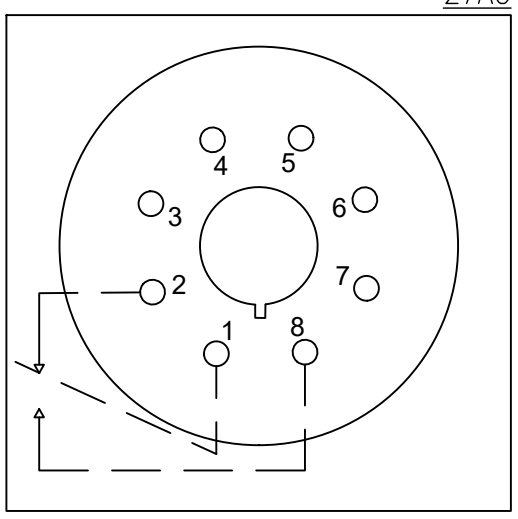
CON



X1. NOT USED
X2. NOT USED
X3. NOT USED
A1. TB1–9
A2. TB1–10
1/L1. 350A FUSED DISCONNECT**, PT1–H1
2/T1. PDB–A1**, 27AC–3, PT4–H1
3/L2. 350A FUSED DISCONNECT**, PT2–H1
4/T2. PDB–B1**, 27AC–4
5/L3. 350A FUSED DISCONNECT**, PT3–H1
6/T3. SERVICE SIDE DISCONNECT**, 27AC–5
7/L3. SPARE
8/T3. SPARE
13/NO. SPARE
14. SPARE
21/NC. SPARE
22. SPARE

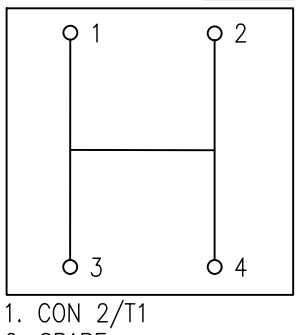
**SEE NOTE 5

27AC



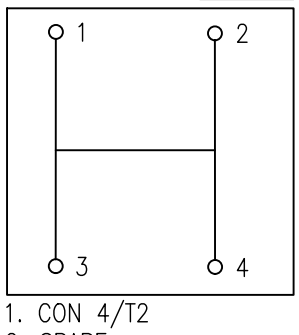
1. TB1–8
2. SPARE
3. CON 2/T1
4. CON 4/T2
5. CON 6/T3
6. SPARE
7. SPARE
8. TB1–7

PDB–A



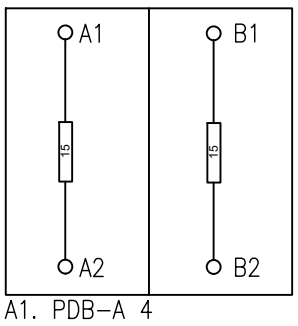
1. CON 2/T1
2. SPARE
3. SERVICE SIDE DISCONNECT**
4. XFMER FUSE A1*

PDB–B



1. CON 4/T2
2. SPARE
3. SERVICE SIDE DISCONNECT**
4. XFMER FUSE B1*

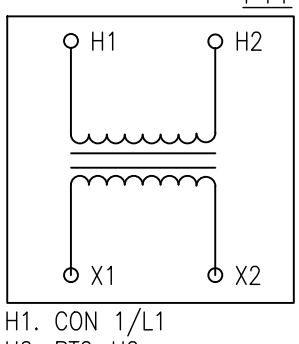
XFMER FUSE



A1. PDB–A 4
A2. STATION SERVICE XFMER H1
B1. PDB–B 4
B2. STATION SERVICE XFMER H2

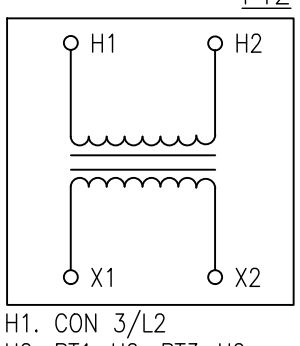
*SEE NOTE 2

PT1



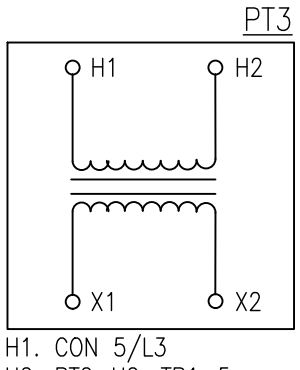
H1. CON 1/L1
H2. PT2–H2
X1. TB1–1
X2. PT2–X2

PT2



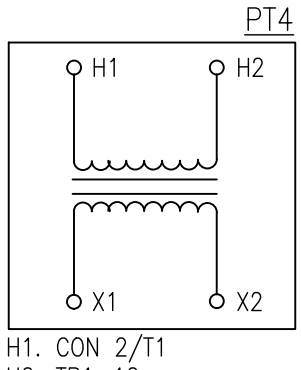
H1. CON 3/L2
H2. PT1–H2, PT3–H2
X1. TB1–2
X2. PT1–X2, PT3–X2

PT3



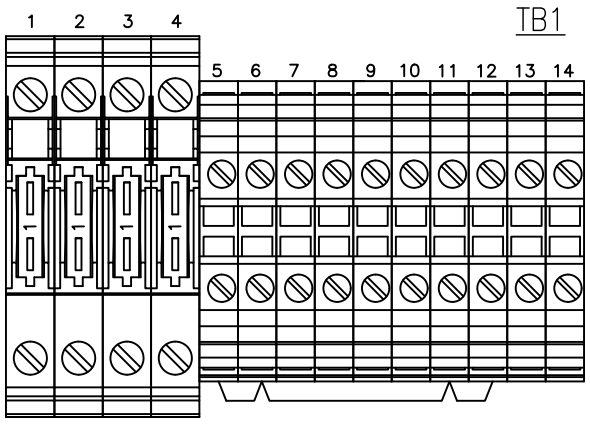
H1. CON 5/L3
H2. PT2–H2, TB1–5
X1. TB1–3
X2. PT2–X2, TB1–6

PT4



H1. CON 2/T1
H2. TB1–12
X1. TB1–4
X2. TB1–11

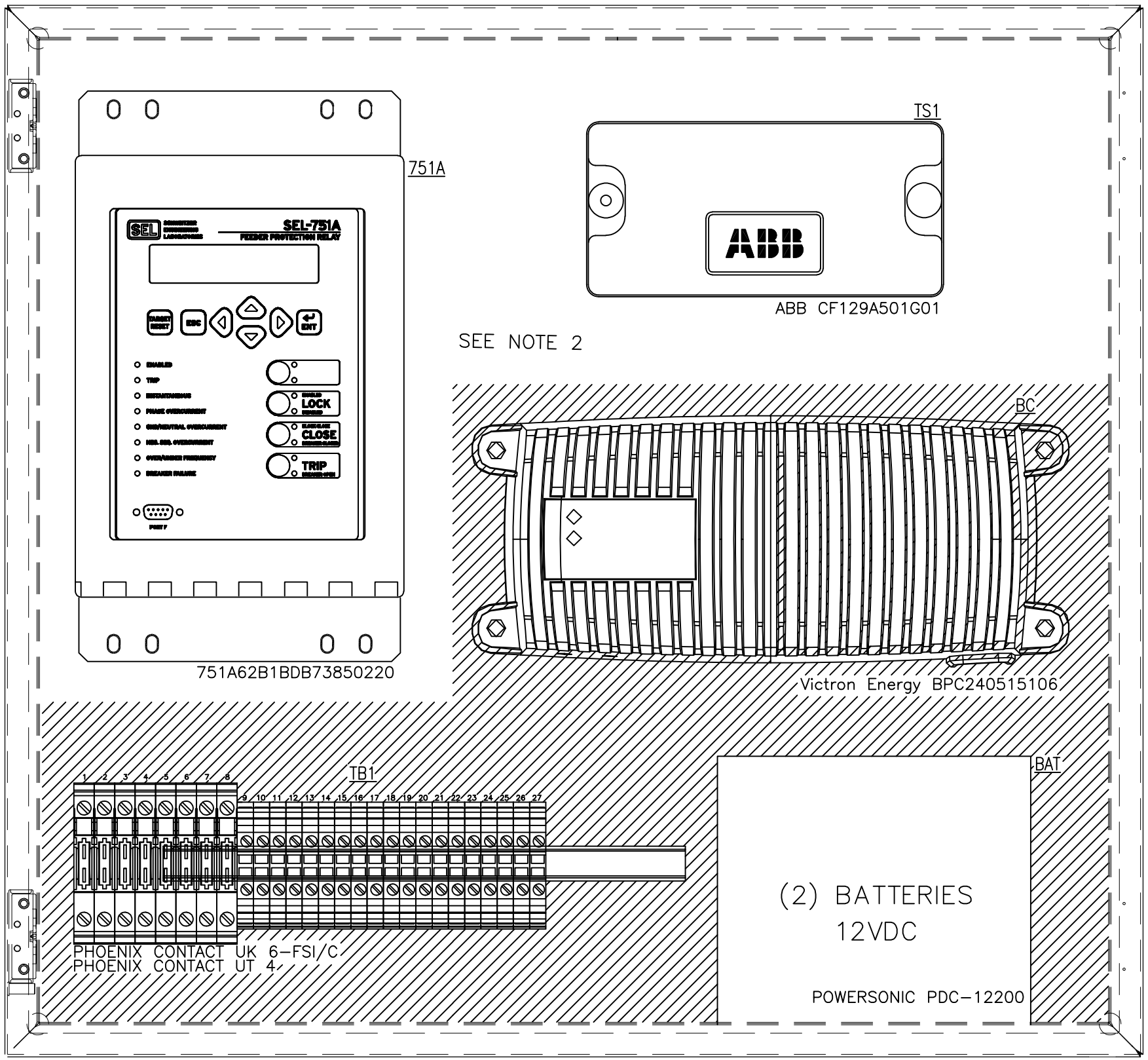
TB1



SEE NOTE 3

1. PT1–X1, DWG.103 TB1–23
2. PT2–X1, DWG.103 TB1–24
3. PT3–X1, DWG.103 TB1–25
4. PT4–X1, DWG.103 TB1–26
5. PT3–H2, TB1–6
6. PT3–X2, TB1–5 & TB1–11 & CABGND
7. 27AC–8, DWG.103 TB1–1
8. 27AC–1, DWG.103 TB1–7
9. CON–A1, DWG.103 TB1–2
10. CON–A2, DWG.103 TB1–13
11. PT4–X2, TB1–6 & TB1–12
12. PT4–H2, TB1–11 & DWG.103 TB1–20
13. SPARE
14. SPARE

NOTES:
1. WIRE INSIDE CABINET SHALL BE TRAINED IN PANDUIT WIREWAY #G1X1G6.
2. CONDUCTORS FROM PDB A&B TO XFMER FUSE SHALL BE #1 AWG
3. TB1–1 TO TB1–4 ARE FUSED
4. ALL CONDUCTORS SHALL BE AT LEAST #14 AWG UNLESS OTHERWISE SPECIFIED
5. MAIN CONDUCTORS: 500 KCMIL
6. SPARE TERMINALS ON PDB–A&B SHALL BE PLUGGED WITH FRZ FSCAP3



LEGEND

EQUIPMENT MOUNTED ON SWING-OUT PANEL

EQUIPMENT MOUNTED ON BACK PANEL

NOTES:
1. DOOR MUST BE BONDED.
2. 751A AND TS1 WILL BE MOUNTED IN SWING-OUT PANEL TO ALLOW RELAY TO SWING OUT FOR REAR ACCESS.
3. 751A FACEPLATE SUBJECT TO CHANGE

SGC Engineering, LLC

THE UNIVERSITY OF MAINE

ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 27, 2024	N/A	MPS	MPS	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	08/27/2024

TITLE: RELAY CABINET LAYOUT

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER: 2500014

DRAWING NUMBER: 2500014-103

REVISION: A

SHEET NUMBER: 1 OF 2

SGC Engineering, LLC

THE UNIVERSITY OF MAINE 1865

ISSUED FOR CONSTRUCTION

DATE: AUGUST 27, 2024

SCALE: N/A | DRAWN: MPS | DESIGN: MPS | APPD: SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	08/27/2024

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

TITLE: RELAY CABINET WIRING DIAGRAM

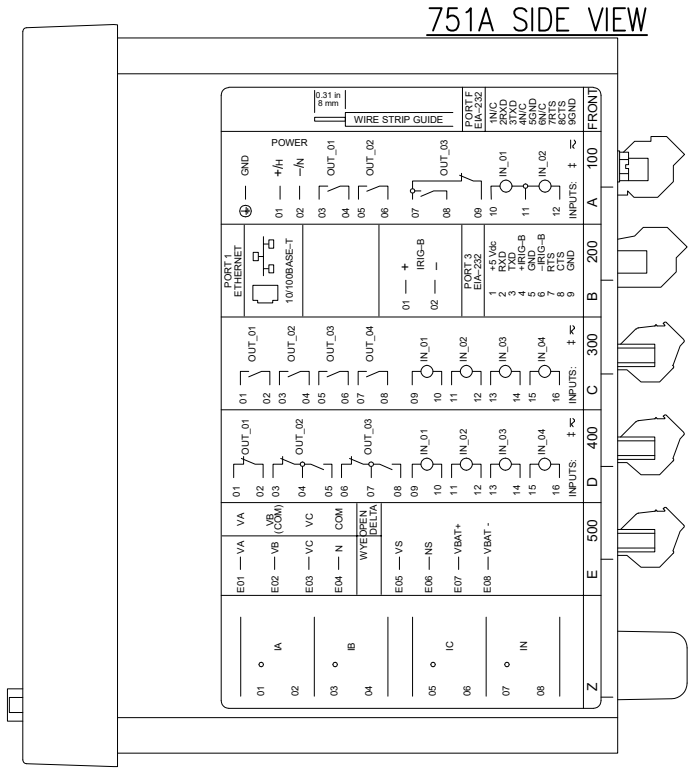
SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-103

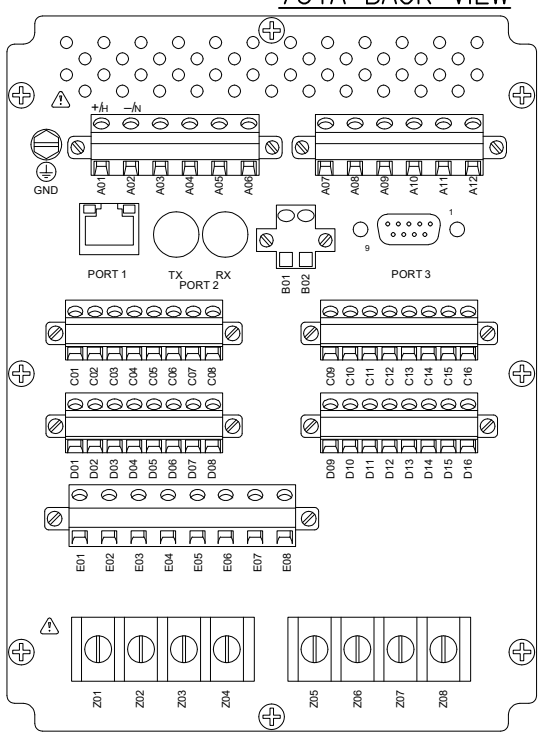
REVISION A

SHEET NUMBER 2 OF 2

751A SIDE VIEW



751A BACK VIEW



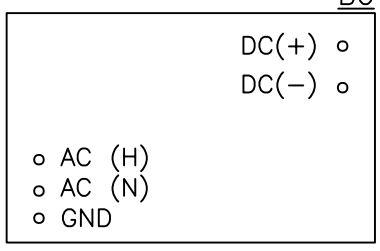
CARD A

A01. TS1–1
A02. TS1–3
A03. TS1–5
A04. TB1–4
A05.
A06.
A07.
A08.
A09.
A10. TS1–7
A11. TB1–12
A12. TB1–17

CARD E

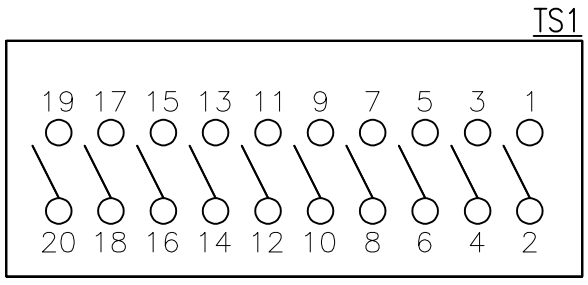
E01. TS1–9
E02. TS1–11
E03. TS1–13
E04. TS1–15
E05. TS1–17
E06. TB1–20
E07. TB1–5
E08. TB1–13

BC



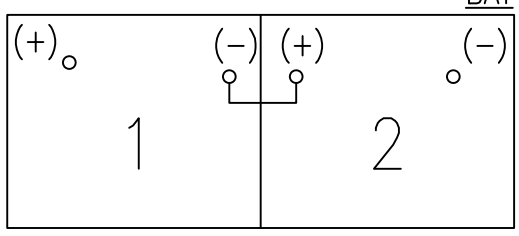
AC (H). TB1–21
AC (N). TB1–22
GND. TB1–19
DC (+). TB1–6
DC (–). TB1–9

TS1



1. CARD A01
2. TB1–3
3. CARD A02
4. TB1–11
5. CARD A03
6. TB1–2
7. CARD A10
8. TB1–1
9. CARD E01
10. TB1–23
11. CARD E02
12. TB1–24
13. CARD E03
14. TB1–25
15. CARD E05
16. TB1–26
17. SPARE
18. SPARE
19. SPARE
20. SPARE

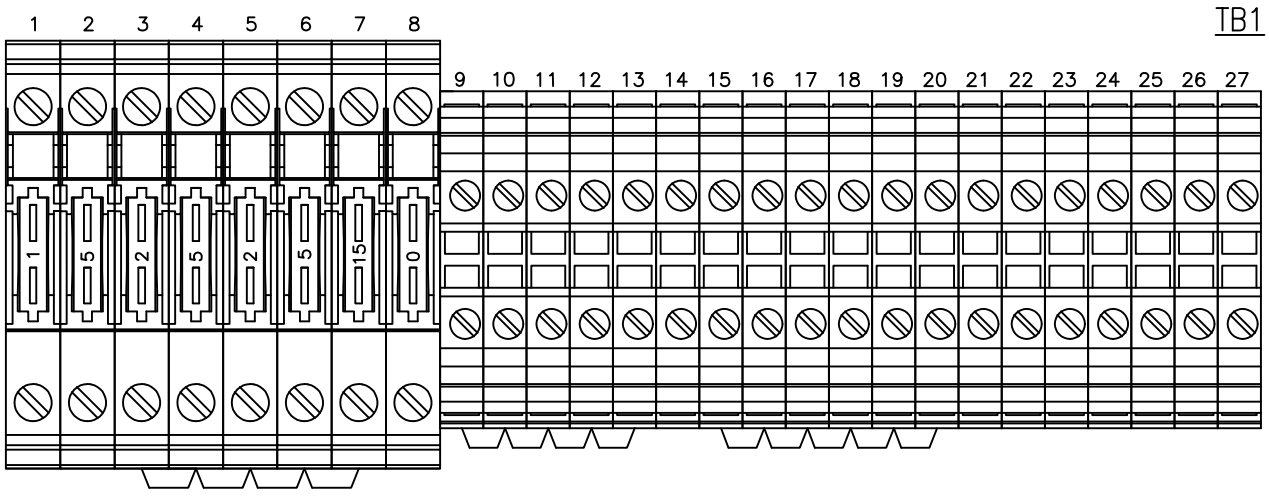
BAT



1(+). TB1–7
1(–). 2(+)
2(+). 1(–)
2(–). TB1–10

TB1

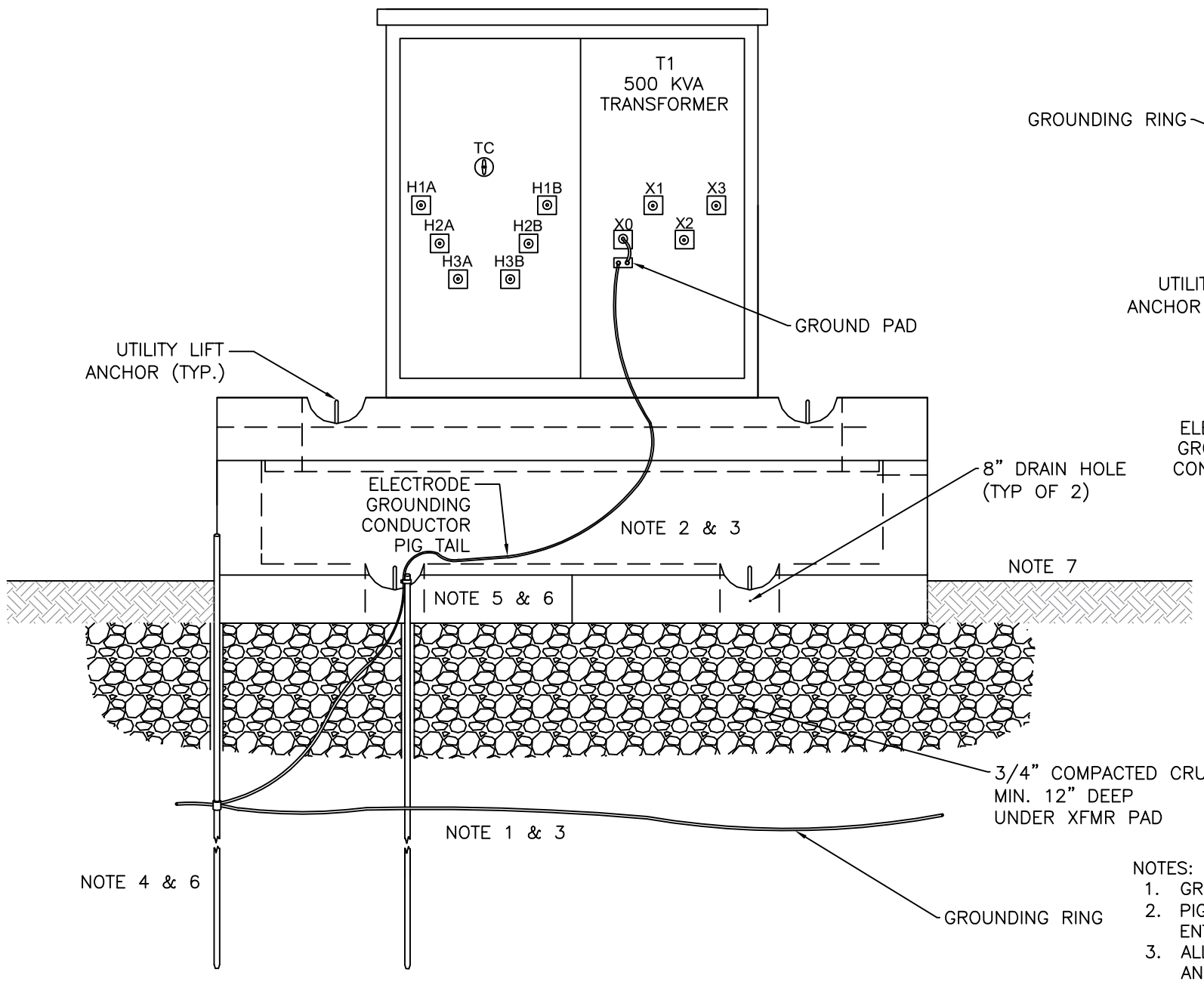
SEE NOTE 2



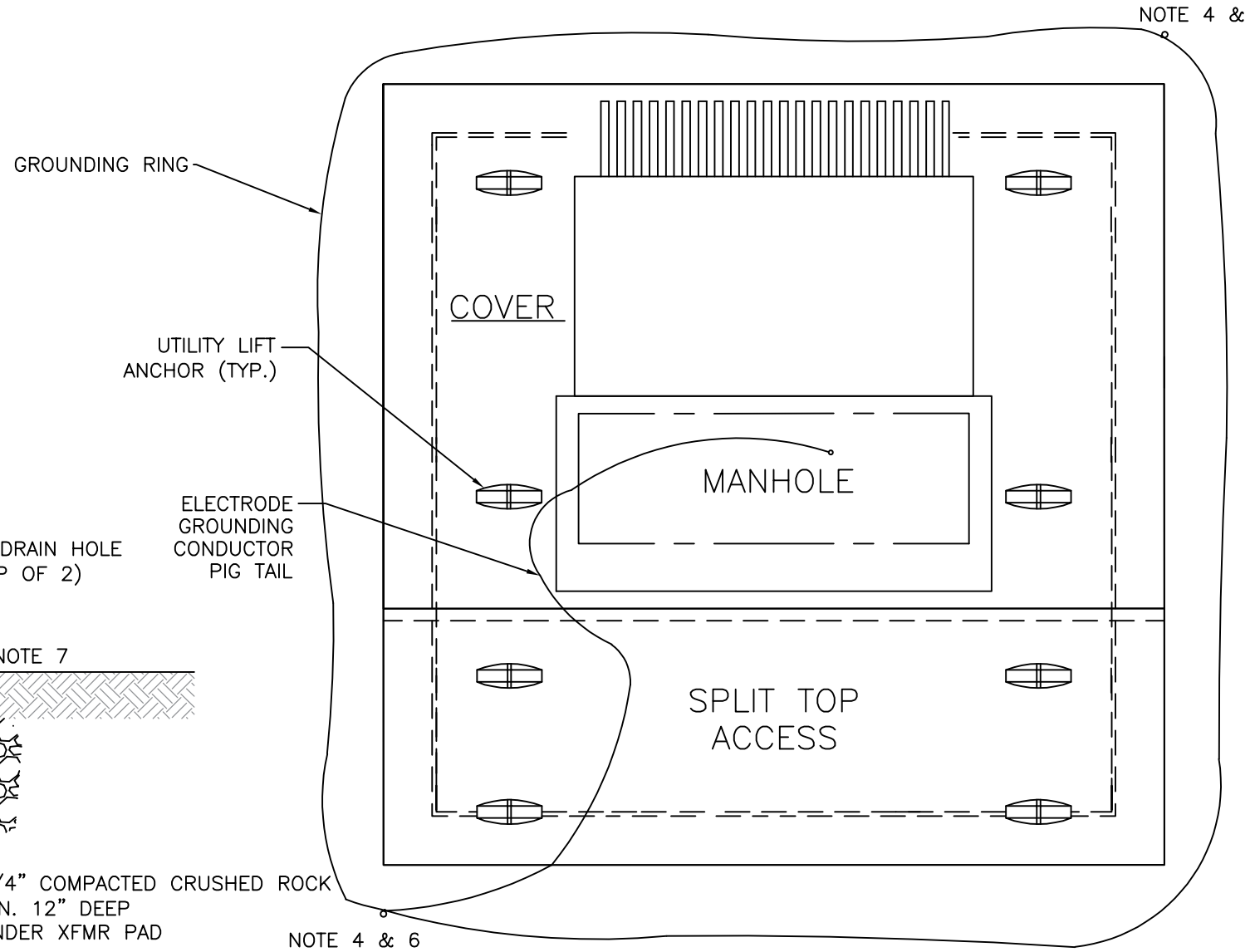
1. TS1–8, DWG.102 TB1–7
2. TS1–6, DWG.102 TB1–9
3. TS1–2, TB1–4
4. CARD A04, TB1–5 & TB1–3
5. CARD E07, TB1–6 & TB1–4
6. BC–DC(+), TB1–7 & TB1–5
7. BAT1(+), TB1–6 & DWG.102 TB1–8
8. SPARE
9. BC–DC(–), TB1–10
10. BAT2(–), TB1–9 & TB1–11
11. TS1–3, TB1–10 & TB1–12
12. CARD A11, TB1–11 & TB1–13
13. CARD E8, TB1–12 & DWG.102 TB1–10
14. SPARE
15. CABINET GND, ACPANEL GND & TB1–16
16. CARD A–GND, TB1–15 & TB1–17
17. CARD A12, TB1–16 & TB1–18
18. CARD E4, TB1–17 & TB1–19
19. BC–GND, TB1–18 & TB1–20
20. CARD E6, TB1–19 & DWG.102 TB1–12
21. BC–AC(H), AC PANEL1 CKT.#
22. BC–AC(N), AC PANEL1 CKT.#
23. TS1–10, DWG.102 TB1–1
24. TS1–12, DWG.102 TB1–2
25. TS1–14, DWG.102 TB1–3
26. TS1–16, DWG.102 TB1–4
27. SPARE

NOTES:
1. WIRE INSIDE RELAY CABINET SHALL BE TRAINED IN PANDUIT WIREWAY #G1X1G6.
2. TB1–1 THROUGH TB1–8 ARE FUSED
3. ALL CONDUCTORS SHALL BE AT LEAST #14 AWG UNLESS OTHERWISE SPECIFIED

ELEVATION VIEW



PLAN VIEW



NOTES:

1. GROUND RING MUST BE AT A MINIMUM 30" BELOW FINISH GRADE.
2. PIG TAIL MUST BE AT A MINIMUM 20' IN LENGTH WITHIN THE VAULT. PIG TAIL WILL ENTER THE VAULT THROUGH A DRAIN HOLE LOCATED IN THE BASE OF THE VAULT.
3. ALL GROUNDING CONDUCTORS MUST BE 1/0 AWG SOFT DRAWN STRANDED COPPER AND BE UNBROKEN.
4. THE FIRST GROUND ROD SHALL BE PLACED 6" IN FRONT OF THE LEFT FRONT OF THE TRANSFORMER VAULT. A SECOND GROUND ROD SHALL BE PLACED AT THE OPPOSITE CORNER.
5. A THIRD ROD SHALL BE PLACED IN THE SAME DRAIN HOLE WHERE THE GROUNDING CONDUCTOR ENTERS THE VAULT.
6. GROUND ROD MUST BE 3/4" X 8' COPPER CLAD AND HAVE 6" EXPOSED DURING CONSTRUCTION.
7. LOCATION MUST BE PROPERLY GRADED TO SUPPORT DRAINAGE AWAY FROM VAULT.
8. GROUNDING CONDUCTOR MUST BE CONNECTED TO ALL GROUND RODS.

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DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
JULY 1, 2024	N/A	GRP	GRP	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	08/06/2024

TITLE: TRANSFORMER VAULT GROUNDING ELEVATION AND PLAN VIEW

PROJECT: VOLTURNUS+ CASTINE, MAINE

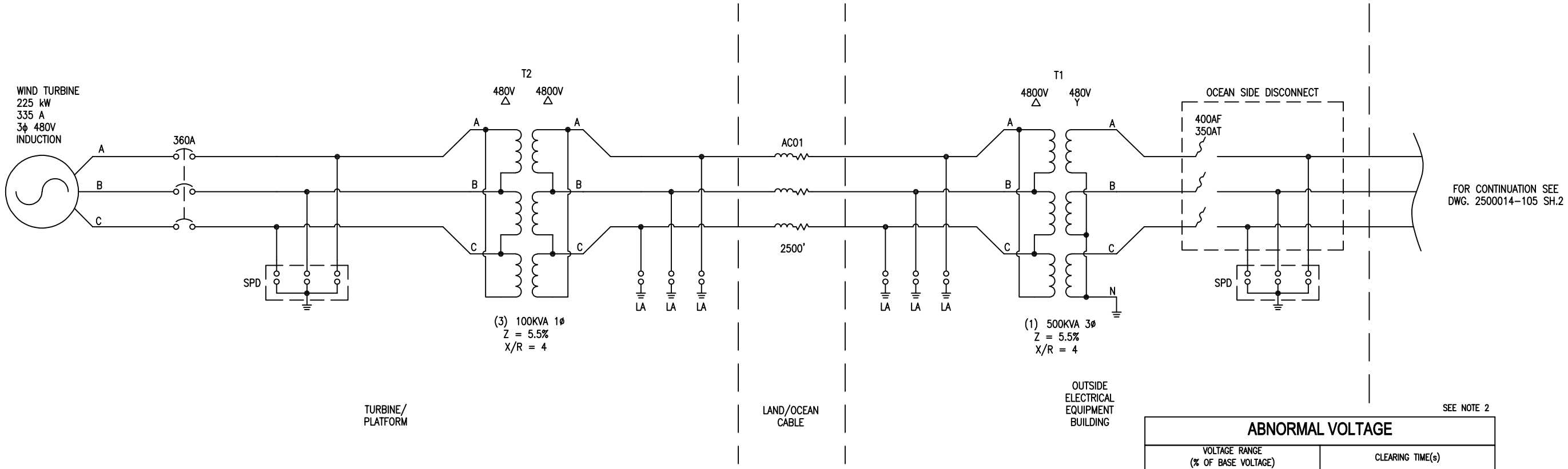
CLIENT: UNIVERSITY OF MAINE 35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-104

REVISION A

SHEET NUMBER 1 OF 1



SEE NOTE 2

ABNORMAL VOLTAGE

VOLTAGE RANGE (% OF BASE VOLTAGE)	CLEARING TIME(s)
V<50	0.16
50≤V<88	2.00
110<V<120	1.00
V≥120	0.16

ABNORMAL FREQUENCIES

FREQUENCY RANGE(Hz)	CLEARING TIME(s)
>60.5	0.16
<{59.8 to 57.0} (ADJUSTABLE SET POINT)	ADJUSTABLE 0.16 TO 300
<57.0	0.16

NOTES:
1. THIS WINDOWED DISCONNECT SWITCH ON THE TURBINE SIDE OF THE METER MEETS CMP CRITERIA FOR A GOAB SWITCH.
2. IEEE 1547 8.2.3 & 8.2.4: INTERCONNECTION SYSTEM RESPONSE TO ABNORMAL VOLTAGES AND FREQUENCIES, THIS INCLUDES RELAY PICKUP TIME AND TRIP DEVICE OPERATE TIME. BASE VOLTAGE IS 120VAC L–N.

ID	DESCRIPTION	IMPEDANCE(Ω/1000' @25°C)		SUSCEPTANCE(µS/1000')	
		Z1	Z0	B1	B0
AC00	XLP QUADPLEX 600V 4/0 AL	0.1056+j0.2815	0.4095+j0.5951	7.9120	1.8340
AC01	MV105 5/8KV 133% 3/C+G #2 CU	0.2037+j0.04315	0.5703+j0.3714	28.2800	28.2800

LEGEND

- (A) POINT OF INTERCONNECTION
- (B) POINT OF CHANGE OF OWNERSHIP
- (C) CONTACTOR COIL
- BREAKER
- SPD SURGE PROTECTION DEVICE
- LA LIGHTNING ARRESTOR
- POWER TRANSFORMER
- POTENTIAL TRANSFORMER
- FUSED DISCONNECT W/ VISIBLE CONTACTS
- LINE IMPEDANCE

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DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUST 15, 2024	N/A	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: THREE LINE DIAGRAM
225kW WIND TURBINE

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

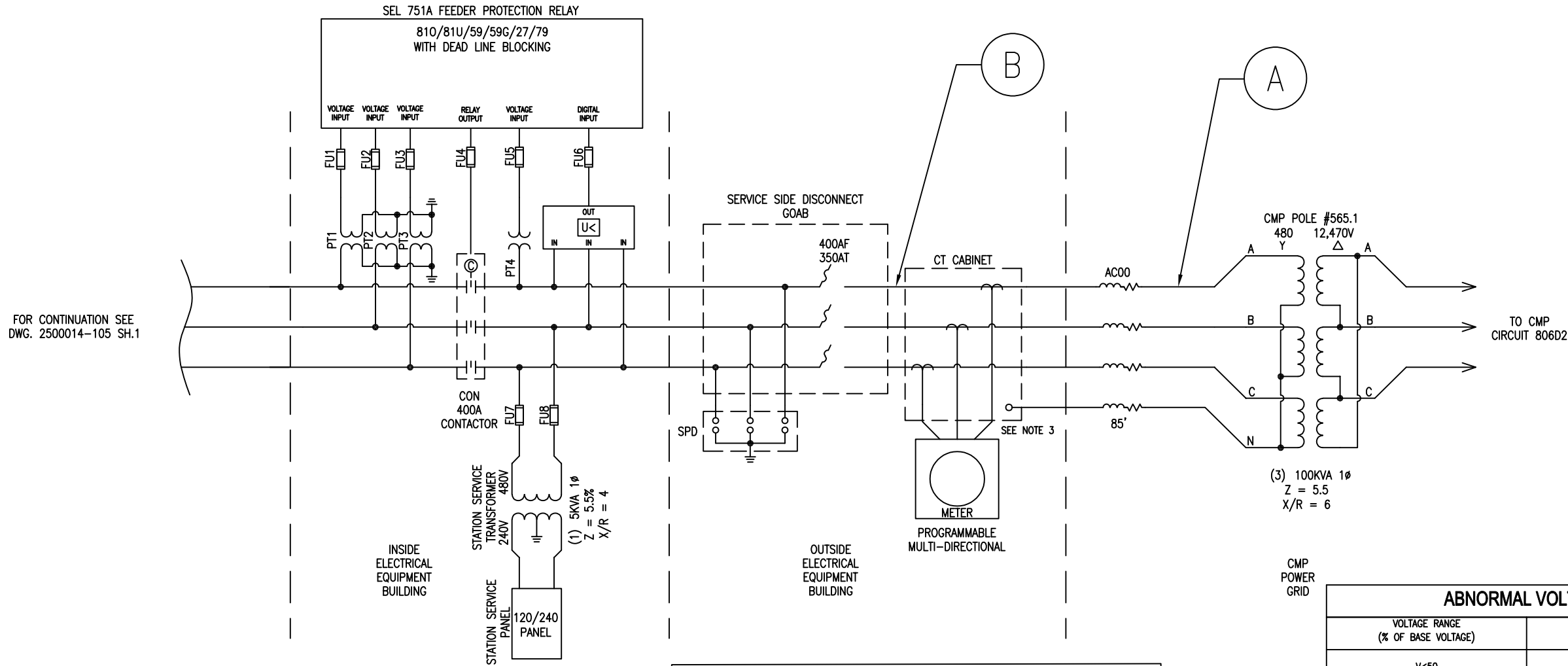
CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-105

REVISION A

SHEET NUMBER 1 OF 2



NOTES:
1. THIS WINDOWED DISCONNECT SWITCH ON THE TURBINE SIDE OF THE METER MEETS CMP CRITERIA FOR A GOAB SWITCH.
2. IEEE 1547 8.2.3 & 8.2.4: INTERCONNECTION SYSTEM RESPONSE TO ABNORMAL VOLTAGES AND FREQUENCIES, THIS INCLUDES RELAY PICKUP TIME AND TRIP DEVICE OPERATE TIME. BASE VOLTAGE IS 120VAC L-N.
3. NEUTRAL TERMINATED IN THE CT CABINET.

ID	DESCRIPTION	IMPEDANCE(Ω/1000' @25°C)		SUSCEPTANCE(μS/1000')	
		Z1	Z0	B1	B0
AC00	XLP QUADPLEX 600V 4/0 AL	0.1056+j0.2815	0.4095+j0.5951	7.9120	1.8340
AC01	MV105 5/8KV 133% 3/C+G #2 CU	0.2037+j0.04315	0.5703+j0.3714	28.2800	28.2800

LEGEND

A	POINT OF INTERCONNECTION		POWER TRANSFORMER
B	POINT OF CHANGE OF OWNERSHIP		POTENTIAL TRANSFORMER
C	CONTACTOR COIL		FUSED DISCONNECT W/ VISIBLE CONTACTS
	BREAKER		LINE IMPEDANCE
SPD	SURGE PROTECTION DEVICE		FUSE
LA	LIGHTNING ARRESTOR	U<	UNDER VOLTAGE RELAY
			CURRENT TRANSFORMER

SEE NOTE 2

ABNORMAL VOLTAGE	
VOLTAGE RANGE (% OF BASE VOLTAGE)	CLEARING TIME(s)
V<50	0.16
50≤V<88	2.00
110<V<120	1.00
V≥120	0.16

ABNORMAL FREQUENCIES	
FREQUENCY RANGE(Hz)	CLEARING TIME(s)
>60.5	0.16
<{59.8 to 57.0} (ADJUSTABLE SET POINT)	ADJUSTABLE 0.16 TO 300
<57.0	0.16

SGC Engineering, LLC

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ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
AUGUSTA 15, 2024	N/A	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/16/2024

TITLE: THREE LINE DIAGRAM
225kW WIND TURBINE

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

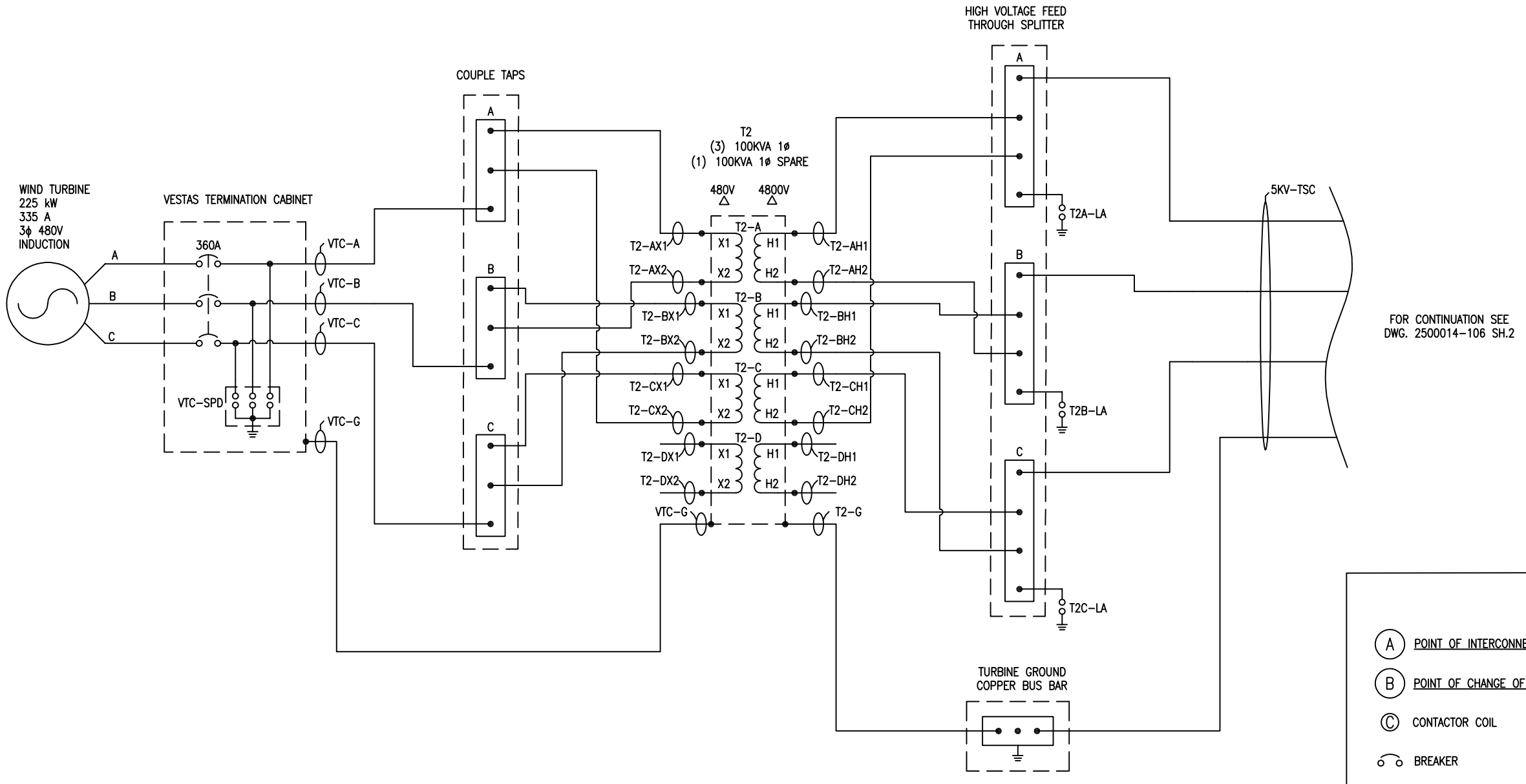
CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-105

REVISION A

SHEET NUMBER 2 OF 2



LEGEND

A	POINT OF INTERCONNECTION		POWER TRANSFORMER
B	POINT OF CHANGE OF OWNERSHIP		POTENTIAL TRANSFORMER
C	CONTACTOR COIL		FUSED DISCONNECT W/ VISIBLE CONTACTS
	BREAKER		LINE IMPEDANCE
SPD	SURGE PROTECTION DEVICE		FUSE
LA	LIGHTNING ARRESTOR	U<	UNDER VOLTAGE RELAY
			CURRENT TRANSFORMER

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ISSUED FOR CONSTRUCTION

DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
SEPTEMBER 25, 2024	N/A	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/25/2024

TITLE:
WIRING DIAGRAM
TURBINE BASED WIRING

PROJECT:
VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

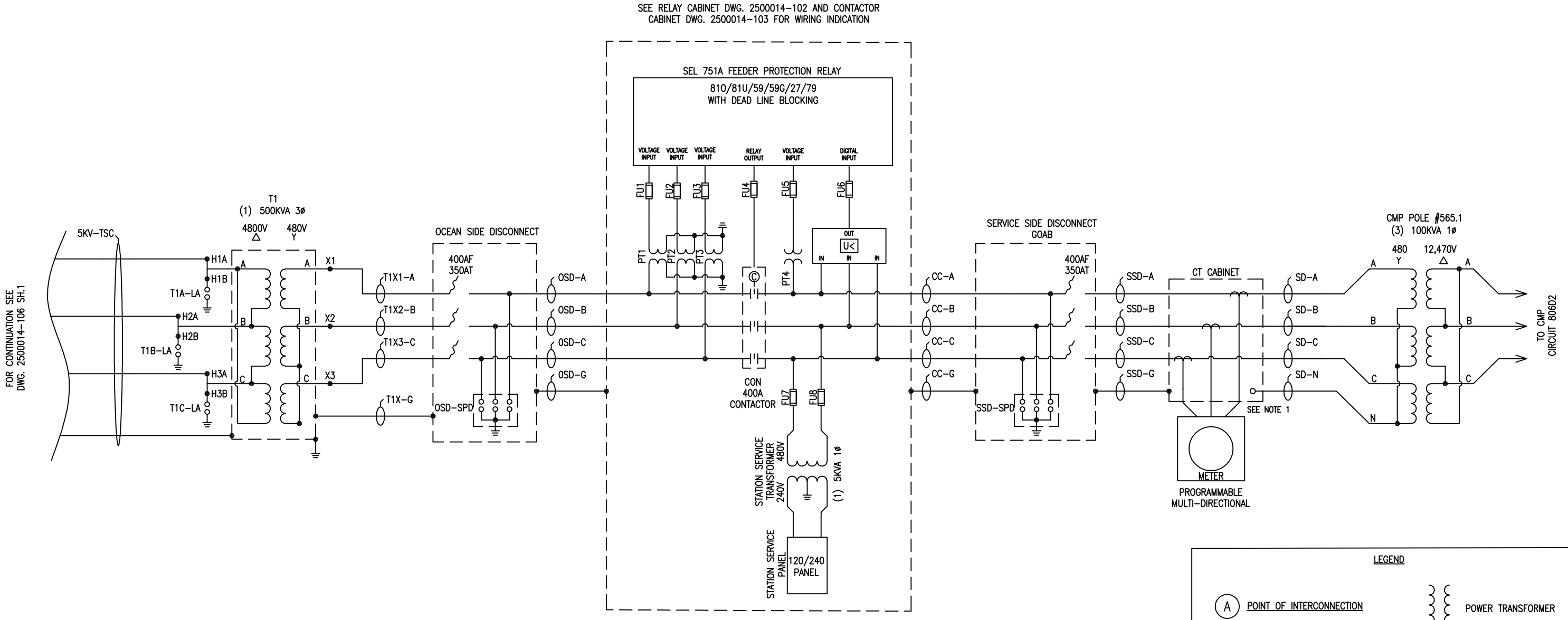
CLIENT:
UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER
2500014

DRAWING NUMBER
2500014-106

REVISION
A

SHEET NUMBER
1 OF 2



NOTES:
1. NEUTRAL TERMINATED IN THE CT CABINET.

LEGEND

- (A) POINT OF INTERCONNECTION
- (B) POINT OF CHANGE OF OWNERSHIP
- (C) CONTACTOR COIL
- BREAKER
- SPD SURGE PROTECTION DEVICE
- LA LIGHTNING ARRESTOR
- POWER TRANSFORMER
- POTENTIAL TRANSFORMER
- FUSED DISCONNECT W/ VISIBLE CONTACTS
- LINE IMPEDANCE
- FUSE
- UNDER VOLTAGE RELAY
- CURRENT TRANSFORMER

SGC Engineering, LLC

THE UNIVERSITY OF MAINE

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DATE:	SCALE:	DRAWN:	DESIGN:	APPD:
SEPTEMBER 25, 2024	N/A	GRP	JRD	SSJ

NO.	REVISION	APPD:	DATE:
A	ISSUED FOR CONSTRUCTION	SSJ	09/25/2024

TITLE: WIRING DIAGRAM
LAND BASED WIRING

PROJECT: VOLTURNUS+
DYCES HEAD ROAD, CASTINE, MAINE

CLIENT: UNIVERSITY OF MAINE
35 FLAGSTAFF RD, ORONO, ME 04469

SGC PROJECT NUMBER 2500014

DRAWING NUMBER 2500014-106

REVISION A

SHEET NUMBER 2 OF 2

VOLTURNUS+ CABLE SCHEDULE REVA 09-25-24

Cable name	Cable	From	To	Description	Phase	Cable Length	Conduit Name	Conduit	Drawing / Sheet #	SUPPLIED BY	
SD-A	500KCMIL-SINGLE CONDUCTOR CU	CMP SERVICE DROP	CT CABINET	SERVICE DROP PHASE A FROM CMP	3 PHASE 480V		C-SD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	CMP	
SD-B	500KCMIL-SINGLE CONDUCTOR CU	CMP SERVICE DROP	CT CABINET	SERVICE DROP PHASE B FROM CMP	3 PHASE 480V		C-SD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	CMP	
SD-C	500KCMIL-SINGLE CONDUCTOR CU	CMP SERVICE DROP	CT CABINET	SERVICE DROP PHASE C FROM CMP	3 PHASE 480V		C-SD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	CMP	
SD-N	500KCMIL-SINGLE CONDUCTOR CU	CMP SERVICE DROP	CT CABINET	SERVICE DROP NEUTRAL FROM CMP			C-SD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	CMP	TERMINATE AND END IN CT CABINET
SSD-A	500KCMIL-SINGLE CONDUCTOR CU	CT CABINET	SERVICE SIDE DISCONNECT	PHASE A	3 PHASE 480V	5'	C-SSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
SSD-B	500KCMIL-SINGLE CONDUCTOR CU	CT CABINET	SERVICE SIDE DISCONNECT	PHASE B	3 PHASE 480V	5'	C-SSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
SSD-C	500KCMIL-SINGLE CONDUCTOR CU	CT CABINET	SERVICE SIDE DISCONNECT	PHASE C	3 PHASE 480V	5'	C-SSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
SSD-G	1/0 SOFT DRAWN CU	CT CABINET	SERVICE SIDE DISCONNECT	GROUND/BONDING			C-SSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
SSD-SPD	INCLUDED		SERVICE SIDE DISCONNECT	SPD TO BE INSTALLED AT DISCONNECT	3 PHASE				2500014-101 SH.4 AND 2500014-106 SH.2	UMO	
CC-A	500KCMIL-SINGLE CONDUCTOR CU	SERVICE SIDE DISCONNECT	CONTACTOR CABINET	PHASE A	3 PHASE 480V	10'	C-CC	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
CC-B	500KCMIL-SINGLE CONDUCTOR CU	SERVICE SIDE DISCONNECT	CONTACTOR CABINET	PHASE B	3 PHASE 480V	10'	C-CC	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
CC-C	500KCMIL-SINGLE CONDUCTOR CU	SERVICE SIDE DISCONNECT	CONTACTOR CABINET	PHASE C	3 PHASE 480V	10'	C-CC	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
CC-G	1/0 SOFT DRAWN CU	SERVICE SIDE DISCONNECT	CONTACTOR CABINET	GROUND/BONDING		10'	C-CC	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
OSD-A	500KCMIL-SINGLE CONDUCTOR CU	CONTACTOR CABINET	OCEAN SIDE DISCONNECT	PHASE A	3 PHASE 480V	10'	C-OSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
OSD-B	500KCMIL-SINGLE CONDUCTOR CU	CONTACTOR CABINET	OCEAN SIDE DISCONNECT	PHASE B	3 PHASE 480V	10'	C-OSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
OSD-C	500KCMIL-SINGLE CONDUCTOR CU	CONTACTOR CABINET	OCEAN SIDE DISCONNECT	PHASE C	3 PHASE 480V	10'	C-OSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
OSD-G	1/0 SOFT DRAWN CU	CONTACTOR CABINET	OCEAN SIDE DISCONNECT	GROUND/BONDING		10'	C-OSD	3" RMC	2500014-101 SH.4 AND 2500014-106 SH.2	ELECTRICIAN	
OSD-SPD	INCLUDED		OCEAN SIDE DISCONNECT	SPD TO BE INSTALLED AT DISCONNECT	3 PHASE					UMO	
T1X1-A	500KCMIL-SINGLE CONDUCTOR CU	OCEAN SIDE DISCONNECT	T1 500KVA TRANSFORMER-X1	PHASE A	3 PHASE 480V	100'	C-T1X	3" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO-CONDUIT, ELECTRICIAN-CABLE	UMO RESPONSIBLE FOR CONDUIT, ELECTRICIAN RESPONSIBLE FOR CABLE
T1X2-B	500KCMIL-SINGLE CONDUCTOR CU	OCEAN SIDE DISCONNECT	T1 500KVA TRANSFORMER-X2	PHASE B	3 PHASE 480V	100'	C-T1X	3" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO-CONDUIT, ELECTRICIAN-CABLE	
T1X3-C	500KCMIL-SINGLE CONDUCTOR CU	OCEAN SIDE DISCONNECT	T1 500KVA TRANSFORMER-X3	PHASE C	3 PHASE 480V	100'	C-T1X	3" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO-CONDUIT, ELECTRICIAN-CABLE	
T1X-G	1/0 SOFT DRAWN CU	OCEAN SIDE DISCONNECT	T1 500KVA TRANSFORMER-GND	GROUND/BONDING		100;	C-T1X	3" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO-CONDUIT, ELECTRICIAN-CABLE	
5KV-TSC-A	5KV #2 AWG 3-CONDUCTOR W/G	T1 500KVA TRANSFORMER-H1A	HIGH VOLTAGE FEED THROUGH SPLITTER-A	TURBINE SUPPLY CABLE PHASE A	3 PHASE 4800V	2500'	C-TSC/LAND & C-TSC/TURBINE	2.5" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS AND 600A ADAPTER
5KV-TSC-B	COMBINED	T1 500KVA TRANSFORMER-H2A	HIGH VOLTAGE FEED THROUGH SPLITTER-B	TURBINE SUPPLY CABLE PHASE B	3 PHASE 4800V	COMBINED	C-TSC/LAND & C-TSC/TURBINE	2.5" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS AND 600A ADAPTER
5KV-TSC-C	COMBINED	T1 500KVA TRANSFORMER-H3A	HIGH VOLTAGE FEED THROUGH SPLITTER-C	TURBINE SUPPLY CABLE PHASE C	3 PHASE 4800V	COMBINED	C-TSC/LAND & C-TSC/TURBINE	2.5" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS AND 600A ADAPTER
5KV-TSC-G	COMBINED	T1 500KVA TRANSFORMER	TURBINE GROUND COPPER BUS BAR	TURBINE SUPPLY CABLE GROUND		COMBINED	C-TSC/LAND & C-TSC/TURBINE	2.5" TYPE XW	2500014-101 SH.2 AND 2500014-106 SH.2	UMO	
T1A-LA	INCLUDED		T1-H1B	LIGHTNING ARRESTER TO BE INSTALLED AT T1 TRANSFORMER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T1B-LA	INCLUDED		T1-H2B	LIGHTNING ARRESTER TO BE INSTALLED AT T1 TRANSFORMER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T1C-LA	INCLUDED		T1-H3B	LIGHTNING ARRESTER TO BE INSTALLED AT T1 TRANSFORMER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T2A-LA	INCLUDED		HIGH VOLTAGE FEED THROUGH SPLITTER-A	LIGHTNING ARESTERS TO BE INSTALLED AT HIGH VOLTAGE SPLITTER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T2B-LA	INCLUDED		HIGH VOLTAGE FEED THROUGH SPLITTER-B	LIGHTNING ARESTERS TO BE INSTALLED AT HIGH VOLTAGE SPLITTER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T2C-LA	INCLUDED		HIGH VOLTAGE FEED THROUGH SPLITTER-C	LIGHTNING ARESTERS TO BE INSTALLED AT HIGH VOLTAGE SPLITTER	1 PHASE 5KV				2500014-106 SH.1	UMO	
T2-AH1	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-A-H1	HIGH VOLTAGE FEED THROUGH SPLITTER-A	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-AH2	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-A-H2	HIGH VOLTAGE FEED THROUGH SPLITTER-B	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-BH1	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-B-H1	HIGH VOLTAGE FEED THROUGH SPLITTER-B	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-BH2	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-B-H2	HIGH VOLTAGE FEED THROUGH SPLITTER-C	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-CH1	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-C-H1	HIGH VOLTAGE FEED THROUGH SPLITTER-C	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-CH2	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-C-H2	HIGH VOLTAGE FEED THROUGH SPLITTER-A	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-DH1	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-D-H1	ASSEMBLE CABLE AND LEAVE AS SPARE	SPARE JUMPERS TO RE-CONFIGURE DELTA IN EMERGENCY	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-DH2	5KV #2 (UTILIZE EXCESS 5KV CABLE)	T2-D-H2	ASSEMBLE CABLE AND LEAVE AS SPARE	SPARE JUMPERS TO RE-CONFIGURE DELTA IN EMERGENCY	1-3PHASE 5KV	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	UMO	TERMINATE WITH UMO SUPPLIED 15KV 200A LOADBREAK ELBOWS
T2-AX1	500KCMIL-SINGLE CONDUCTOR CU	T2-A-X1	COUPLE TAP-A	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-AX2	500KCMIL-SINGLE CONDUCTOR CU	T2-A-X2	COUPLE TAP-B	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-BX1	500KCMIL-SINGLE CONDUCTOR CU	T2-B-X1	COUPLE TAP-B	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-BX2	500KCMIL-SINGLE CONDUCTOR CU	T2-B-X2	COUPLE TAP-C	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-CX1	500KCMIL-SINGLE CONDUCTOR CU	T2-C-X1	COUPLE TAP-C	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-CX2	500KCMIL-SINGLE CONDUCTOR CU	T2-C-X2	COUPLE TAP-A	CONNECTED TO CREATE A 3 PHASE DELTA	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	TERMINATE WITH UMO SUPPLIED COUPLE TAP
T2-DX1	500KCMIL-SINGLE CONDUCTOR CU	T2-D-X1	ASSEMBLE CABLE AND LEAVE AS SPARE	SPARE JUMPERS TO RE-CONFIGURE DELTA IN EMERGENCY	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
T2-DX2	500KCMIL-SINGLE CONDUCTOR CU	T2-D-X2	ASSEMBLE CABLE AND LEAVE AS SPARE	SPARE JUMPERS TO RE-CONFIGURE DELTA IN EMERGENCY	1-3PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
VTC-A	500KCMIL-SINGLE CONDUCTOR CU	COUPLE TAP-A	VESTAS TERMINATION CABINET	PHASE A	3 PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
VTC-B	500KCMIL-SINGLE CONDUCTOR CU	COUPLE TAP-B	VESTAS TERMINATION CABINET	PHASE B	3 PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
VTC-C	500KCMIL-SINGLE CONDUCTOR CU	COUPLE TAP-C	VESTAS TERMINATION CABINET	PHASE C	3 PHASE 480V	20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
VTC-G	1/0 SOFT DRAWN CU	TURBINE GROUND COPPER BUS BAR	VESTAS TERMINATION CABINET	GROUND/BONDING		20'	CONDUIT OR TRAY PER ELECTRICIANS DECISION		2500014-106 SH.1	ELECTRICIAN	
VTC-SPD	INCLUDED		VESTAS TERMINATION CABINET	SPD TO BE INSTALLED AT VESTAS TERMINATION CABINET	3 PHASE				2500014-106 SH.1	UMO	

NOTES:
1.CABLE LENGTHS ARE APPROXIMATE BASED ON ORIGINAL DRAWINGS.
2.APPROXIMATELY 2500' OF UMO SUPPLIED FIBER OPTIC CABLE AND 600' OF 1" FIBERGLASS CONDUIT TYPE XW TO BE RAN IN PARRALLEL FROM TURBINE PLATFORM TO ELECTRICAL SHED.