

# PORT OF TACOMA

## EBC MOTIVE TEMPORARY POWER

### PROJECT ID # 101686.01

### PURCHASE AGREEMENT # POT-PA-000000068

#### PORT COMMISSIONERS:

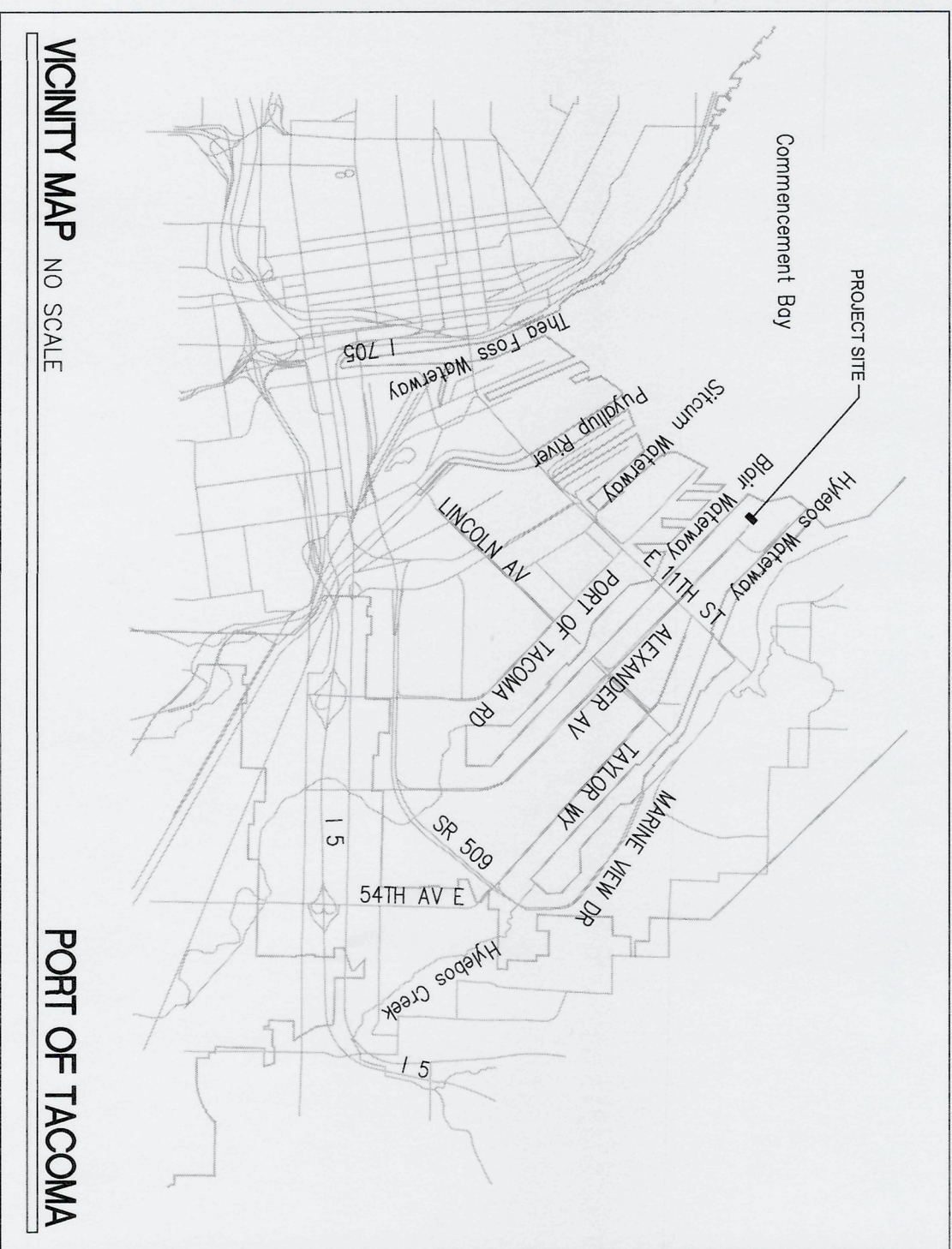
**RICHARD P. MARZANO**  
**DON MEYER**  
**JOHN MCCARTHY**  
**KRISTIN ANG**  
**DEANNA KELLER**

#### PORT STAFF:

**ERIC JOHNSON**  
 Port of Tacoma Executive Director

**THAIS HOWARD, P.E.**  
 Director of Engineering

**ELLY BULEGA, PE**  
 Project Manager II



CONSULTANT: CURTIS CLUTE, P.E.  
 CASNE ENGINEERING, INC.  
 3545 FACTORIA BOULEVARD, SE., SUITE 200  
 BELLEVUE, WA 98006  
 WWW.CASNE.COM JOB NO. 231038-001  
 (425) 522-1000



**sh** sits & hill  
 CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY  
 4815 CENTER STREET | TACOMA, WA 98409  
 PHONE: (253) 774-8440 | FAX: (253) 774-8153  
 http://www.sitsandhill.com

SHEET DESIGNATION	SHEET #	SHEET TITLE	REVISION
1	G01	COVER SHEET	IFB
2	G02	SITE PLAN	IFB
3	G01	GENERAL NOTES	IFB
4	C10	DEMOLITION AND TESC PLAN	IFB
5	G20	SURFACING PLAN	IFB
6	G30	CIVIL DETAILS	IFB
7	G40	CIVIL DETAILS	IFB
8	E00	ELECTRICAL LEGENDS & SYMBOLS	IFB
9	E10TR	TEMPORARY POWER SITE PLAN - REMOVAL	IFB
10	E10T	TEMPORARY POWER SITE PLAN	IFB
11	E40T	MOTIVE MARINE SERVICE BLDG. ENLARGED PLAN	IFB
12	E100T	TEMPORARY ELECTRICAL ONE-LINE DIAGRAM	IFB
13	E102	MM-DP-1 PANEL SCHEDULE	IFB
14	E104T	TEMPORARY EQUIPMENT RACK ELEVATION	IFB
15	E105T	ENLARGED TEMPORARY POWER SITE PLAN	IFB
16	E111T	DUCT BANK DETAILS	IFB
17	E112T	VAULT DETAILS	IFB
18	E113T	DETAILS	IFB
19	E114T	TPU TRANSFORMER VAULT STANDARDS	IFB

#### PROJECT INFORMATION:

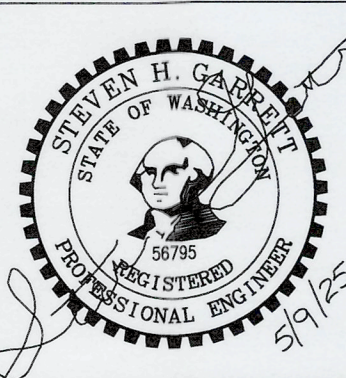
SITE ADDRESS: 401 TAYLOR WAY, TACOMA, WA 98421  
 SITE PARCEL: PORT PARCEL 1B (2,073,538.15 SF; 47.60 ACRES)  
 PROPERTY OWNER: PORT OF TACOMA  
 902 PORT OF TACOMA ROAD  
 TACOMA, WA  
 ZONING: PM: PORT MARINE & INDUSTRIAL DISTRICT  
 CONSTRUCT NEW POWER FOR TEMPORARY USE BY MOTIVE MARINE  
 SCOPE OF WORK: 0 S.F.  
 NEW IMPERVIOUS SURFACE: 3,230 S.F.  
 REPLACED IMPERVIOUS SURFACE: 4692 SQ FT/FTL (0+ NET)  
 ESTIMATED EARTHWORK:

ISSUE FOR BID  
 MAY 9, 2025

**CASNE Engineering**  
 3545 FACTORIA BOULEVARD SE., SUITE 200  
 BELLEVUE, WA 98006  
 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005



MARK:	REVISION:	BY:	APPR:	DATE:
	0 - ISSUE FOR BID	SHG	CEC	

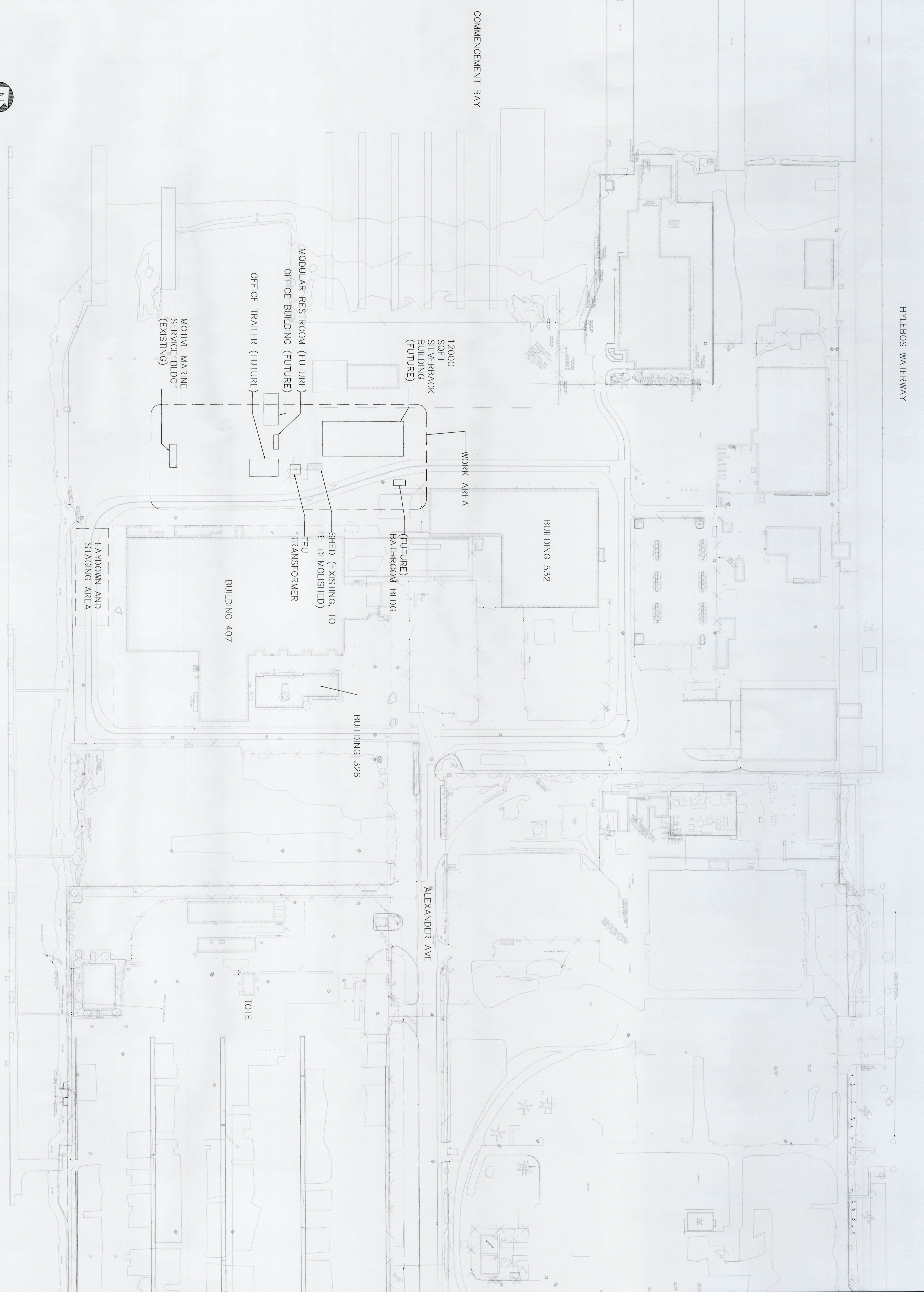


APPROVED: *Steven Garrett* CEC 04/8/25  
 CHECKED BY: AA 04/8/25  
 DIRECTOR ENGR. DATE  
 PROJECT ENGR. DATE  
 PRINTED BY: steven.garrett May 18, 2025  
 PORT ADDRESS: 802 PORT CENTER ROAD  
 TACOMA, WA 98421

6709 <b>G01</b> SH # 1 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b> COVER SHEET		
PA: POT-PA-000000068	TOWNSHIP: 21	RANGE: 03	SECTION: 27
PROJ. ID: 101686.01	DAT-HRZ: . NAD83	VERT: MLW, 1983-2001 EPOCH	PRINTED BY: steven.garrett May 18, 2025
PHASE: ISSUE FOR BID	PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED	TACOMA, WA 98421



1 SITE PLAN  
G02 SCALE: 1"=100'-0"



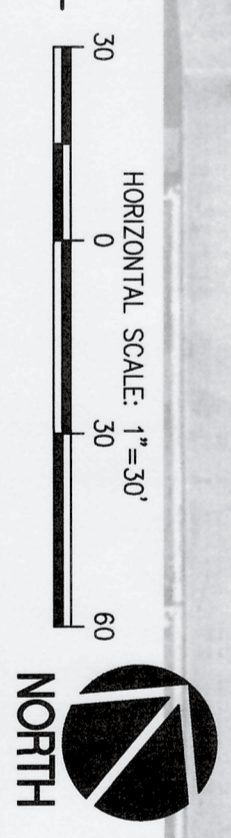
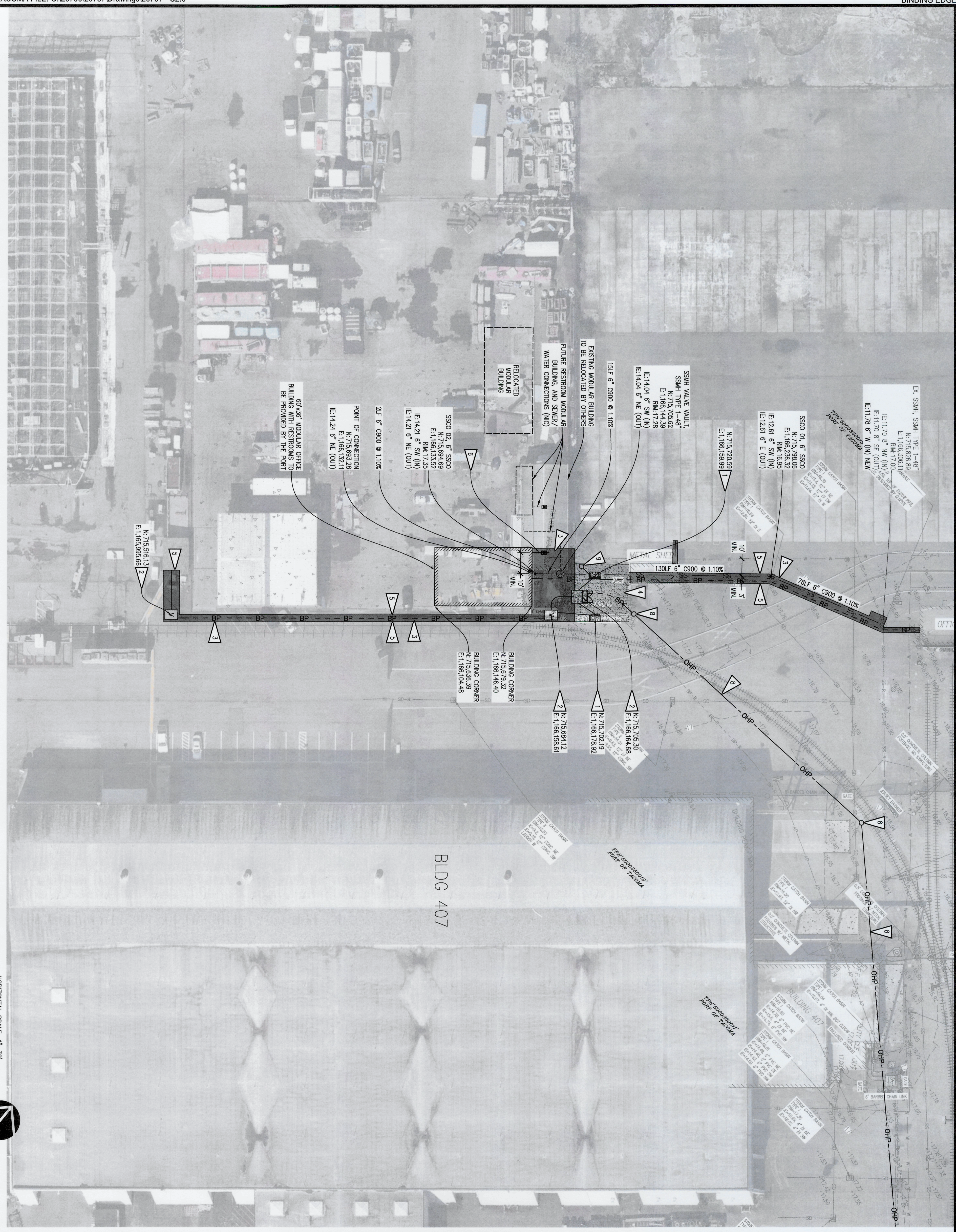
ISSUE FOR BID  
MAY 9, 2025

<p>6709 <b>G02</b> SH# 2 OF 19</p>	<p><b>EBC MOTIVE TEMPORARY POWER</b></p>		<p>APPROVED: <i>[Signature]</i></p>	<p>CEC 04/8/25</p>		<p><b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE., SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005</p>				
	<p>SITE PLAN</p>		<p>DIRECTOR ENG. DATE</p>	<p>CHECKED BY DATE AA 04/8/25</p>						
<p>PA: POT-PA-000000068</p>	<p>TOWNSHIP: 21</p>	<p>RANGE: 03</p>	<p>SECTION: 27</p>	<p>PRINTED BY: steven.garrett May 15, 2025</p>	<p>PROJ. ENGR DATE</p>	<p>MARK:</p>	<p>REVISION:</p>	<p>BY:</p>	<p>APPR:</p>	<p>DATE:</p>
<p>PHASE: ISSUE FOR BID</p>	<p>PARCEL: ----</p>	<p>VERT: MLW, 1983-2001 EPOCH</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PORT ADDRESS: 401 East Alexander Ave TACOMA, WA 98421</p>	<p>PROF. ENGR. DATE</p>	<p>REVISION:</p>	<p>BY:</p>	<p>APPR:</p>	<p>DATE:</p>	<p>P.O. BOX 1837 TACOMA, WA 98401 (253) 383-8841</p>





**SURFACING PLAN**  
SCALE: 1"=30'



**LEGEND**

**PROPOSED FEATURES:**

- OHP — OVERHEAD POWER, INSTALLED BY TPU
- POWER POLE, INSTALLED BY TPU
- BIRD POWER, SEE SECTION 3/23.0
- BP --- ALSO SEE ELECTRICAL DRAWINGS
- U --- UTILITY POWER VAULT, PER ELECTRICAL DRAWINGS
- RP --- UTILITY POWER RACK, PER ELECTRICAL DRAWINGS
- SS --- SANITARY SEMI PIPE, SEE SECTION 7/23.0
- SANITARY SEMI MANHOLE
- SANITARY SEMI CLEANOUT
- W --- DOMESTIC WATER SERVICE, SEE SECTION 7/23.0

ASPHALT PAVEMENT  
 CONCRETE SURFACING  
 CRUSHED ROCK SURFACING

- GENERAL NOTES**
- SEE SHEET C01 FOR GENERAL CIVIL NOTES.
  - BACKGROUND INFORMATION PROVIDED BY PORT OF TACOMA.
  - ALL DIMENSIONS AND RAVI ARE TO THE FACE OF THE NOTED FEATURE, UNLESS OTHERWISE STATED. ALL LOCATIONS PROVIDED FOR STRUCTURES ARE TO THE CENTER OF THE STRUCTURE.
  - WHERE CONFLICTS OCCUR BETWEEN PLACEMENT OF NEW FEATURES AND EXISTING FEATURES, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BY THE CONTRACTOR, AND WILL BE RESOLVED BY THE ENGINEER.
  - DICT BANKS INSTALLED PER SECTION 3/23.0
  - UTILITY STRUCTURES SHALL BE INSTALLED PER SECTION 8/23.0.
  - PROPOSED WATER/SEWER PIPES TO BE INSTALLED PER SECTION 7/23.0.

- KEY NOTES**
- CONCRETE FOUNDATION FOR POWER UTILITY RACK PER DETAIL 9/23.0. ALSO COORDINATE WITH ELECTRICAL DRAWINGS.
  - POWER UTILITY VAULT PER ELECTRICAL DRAWINGS
  - ASPHALT PAVEMENT PER DETAIL 4/23.0.
  - CRUSHED ROCK SURFACING PER DETAIL 6/23.0. MATCH ELEVATIONS AND GRADES OF ADJACENT EXISTING PAVED SURFACES.
  - MATCH EXISTING ELEVATION, PAVEMENT JOINT PER 5/23.0.
  - PROPOSED 3/4" DOMESTIC WATER CONNECTION TO NEW MODULAR OFFICE BUILDING. HOT TAP EXISTING DOMESTIC WATER LINE AND PROVIDE CORP STOP IN TRAFFIC RATED METER BOX OR ACCEPTED ALTERNATE. PREPARE WORK PLAN AND SUBMITTAL PACKAGE FOR ENGINEER REVIEW PRIOR TO PROCUREMENT AND INSTALLATION.
  - NOT USED.
  - OVERHEAD POWER/POLE INSTALLED BY TPU
  - POLE INSTALLED BY CONTRACTOR

**SDEV25-0024**

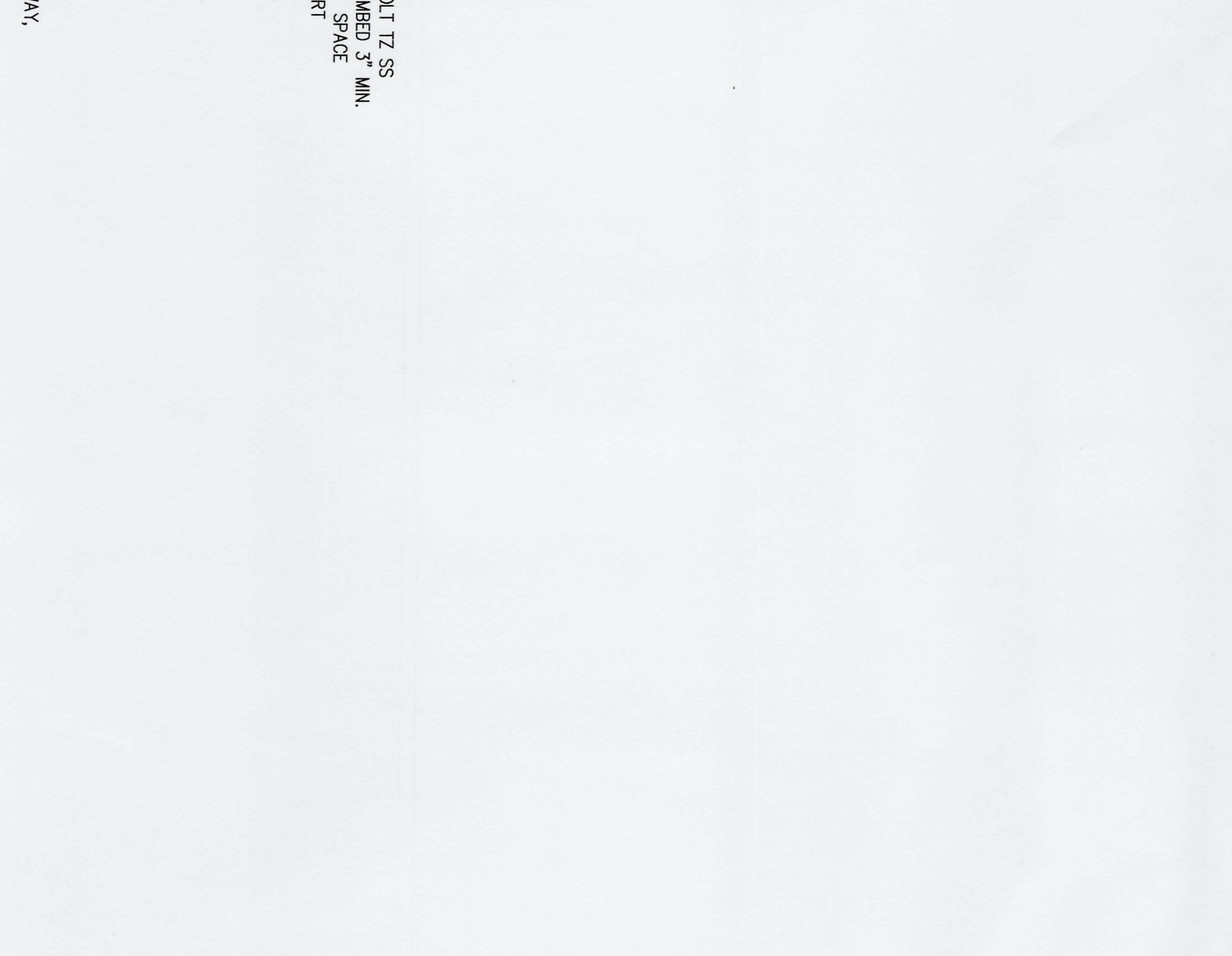
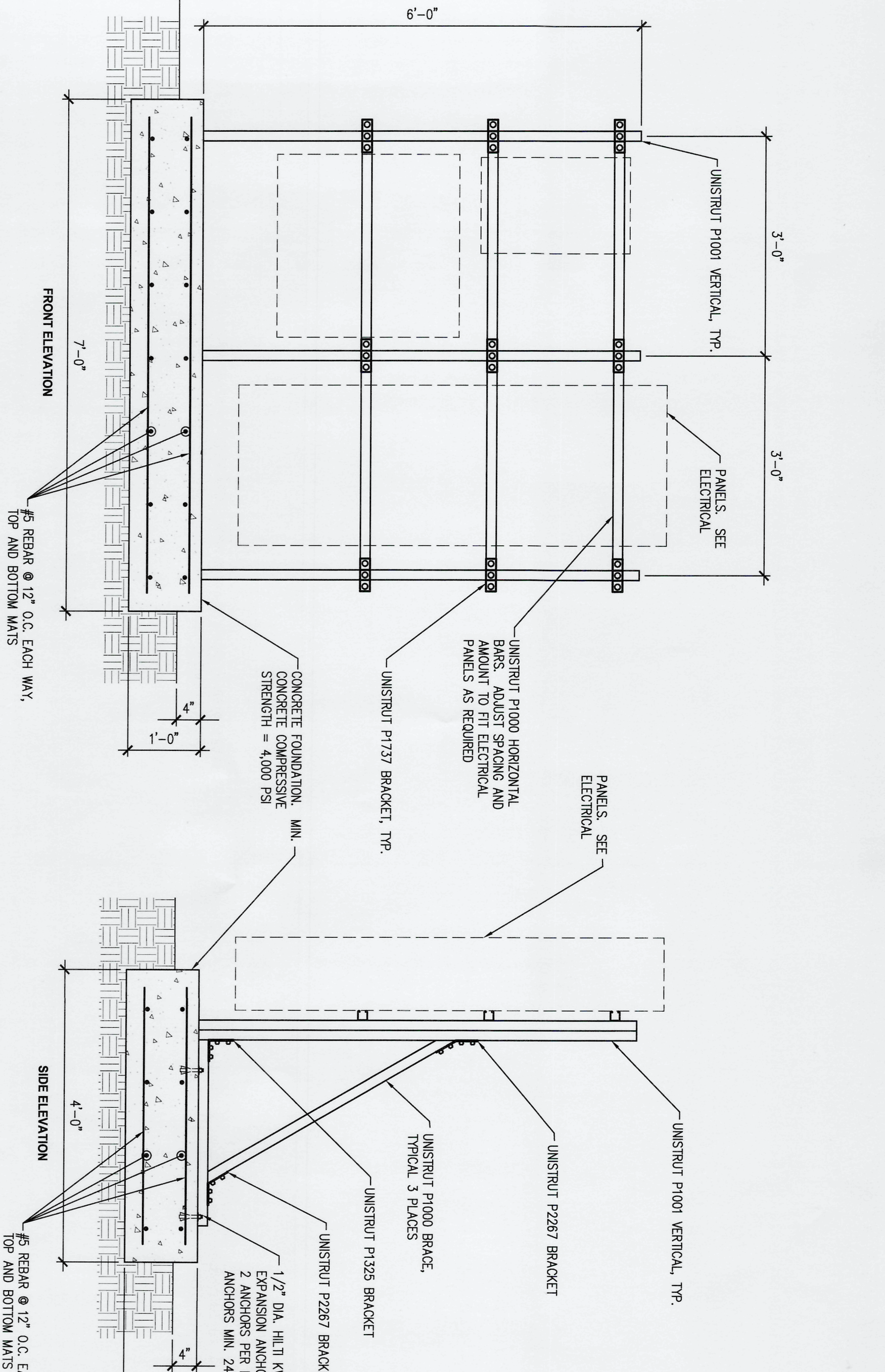
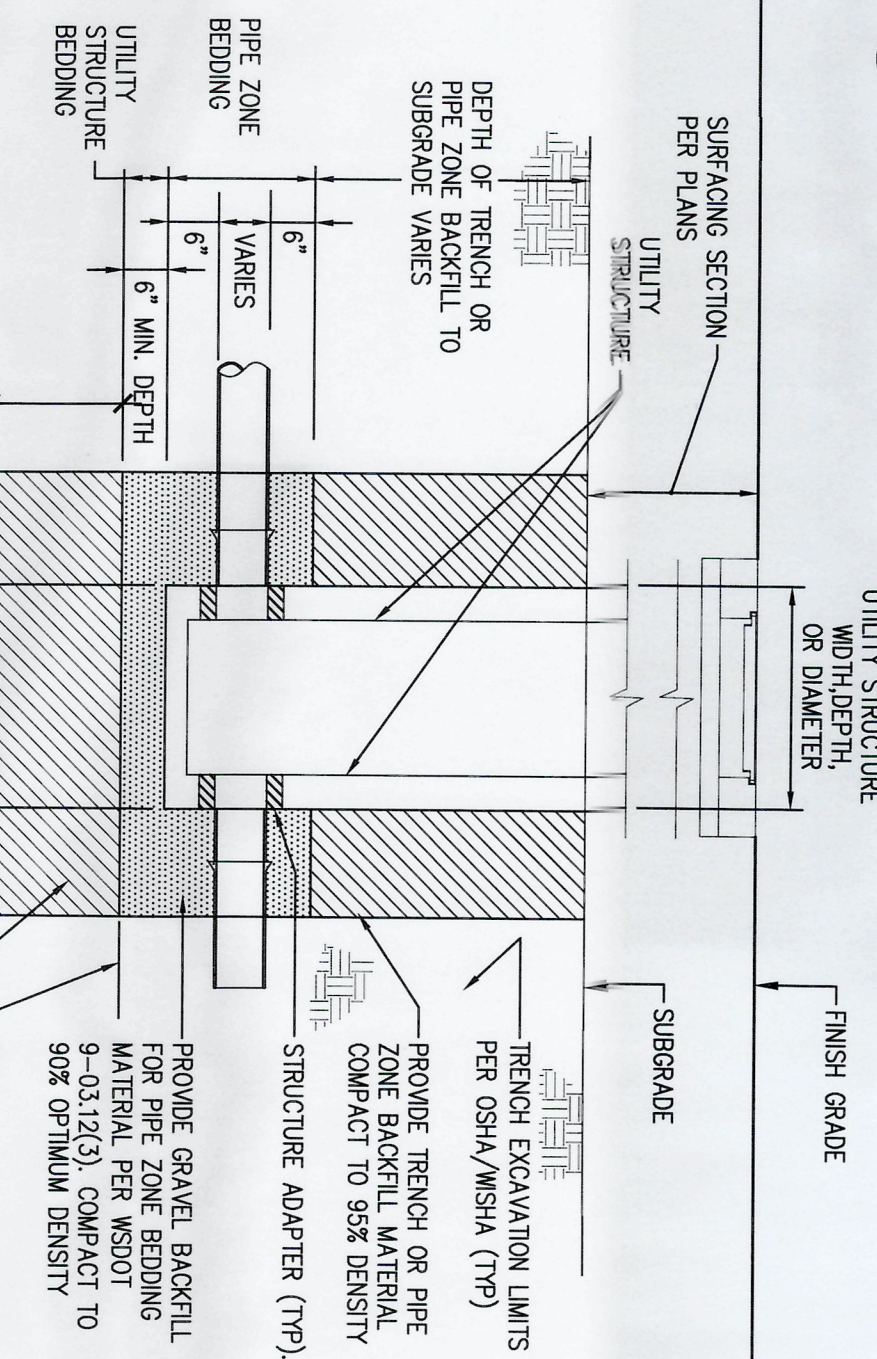
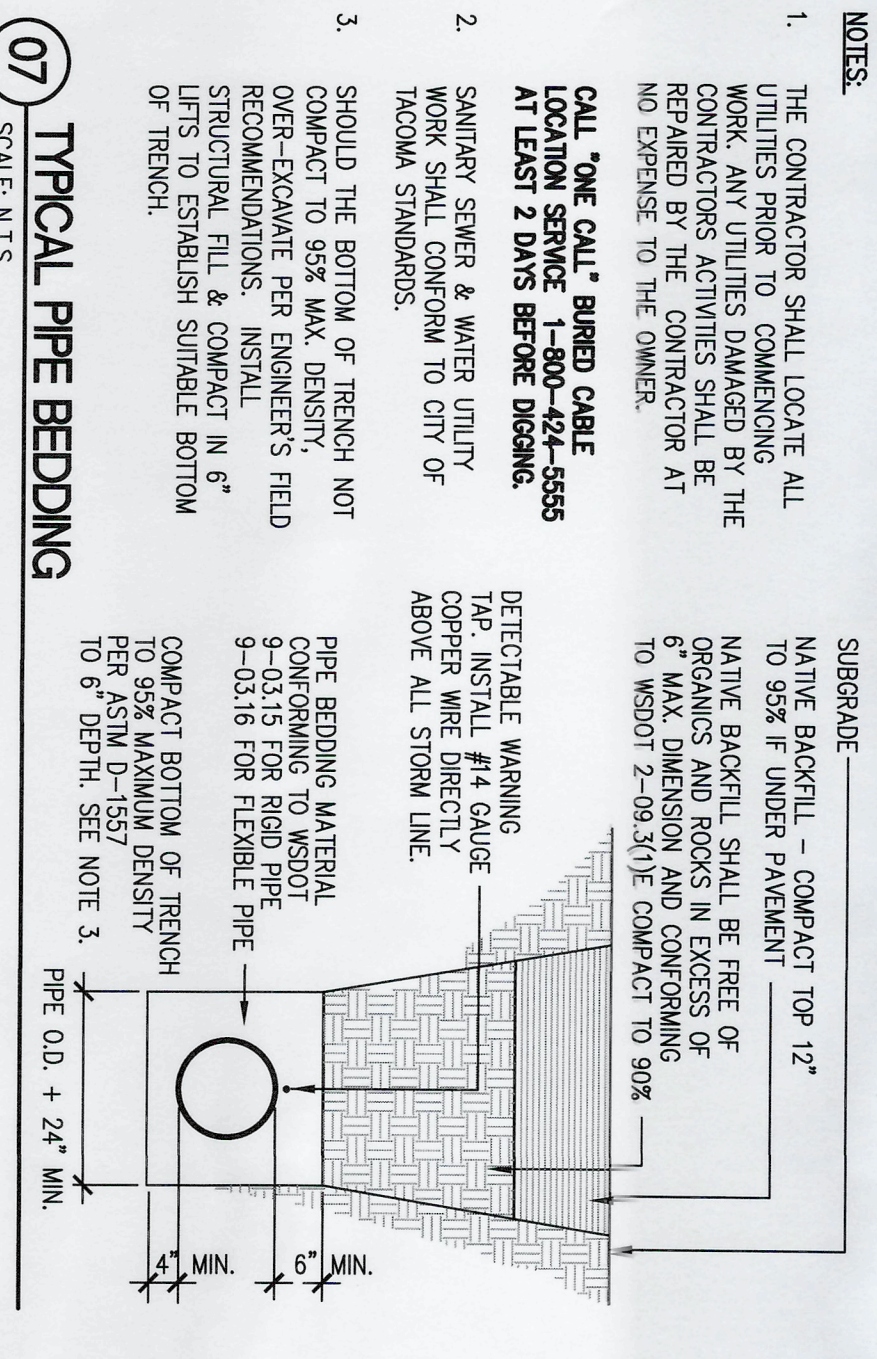
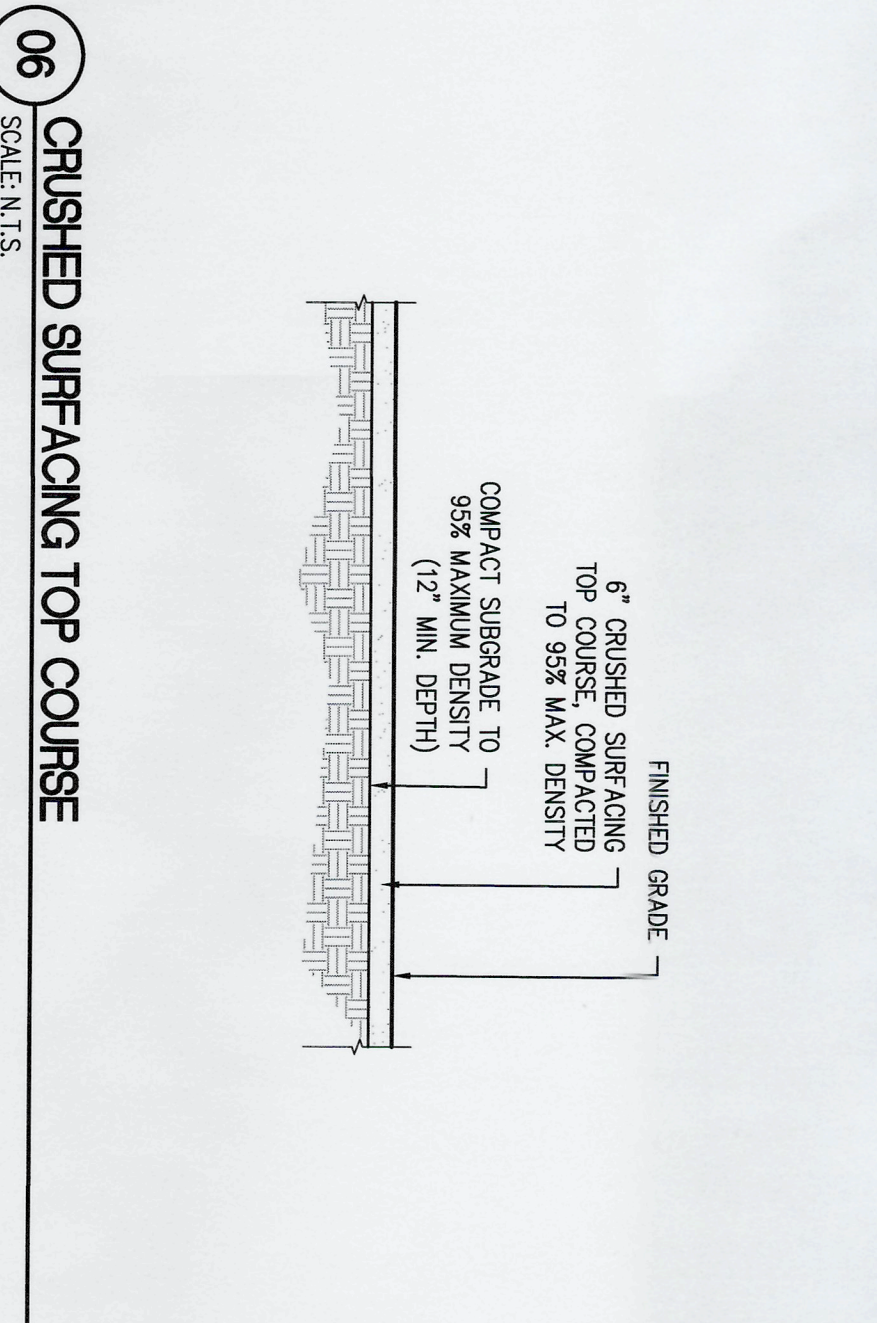
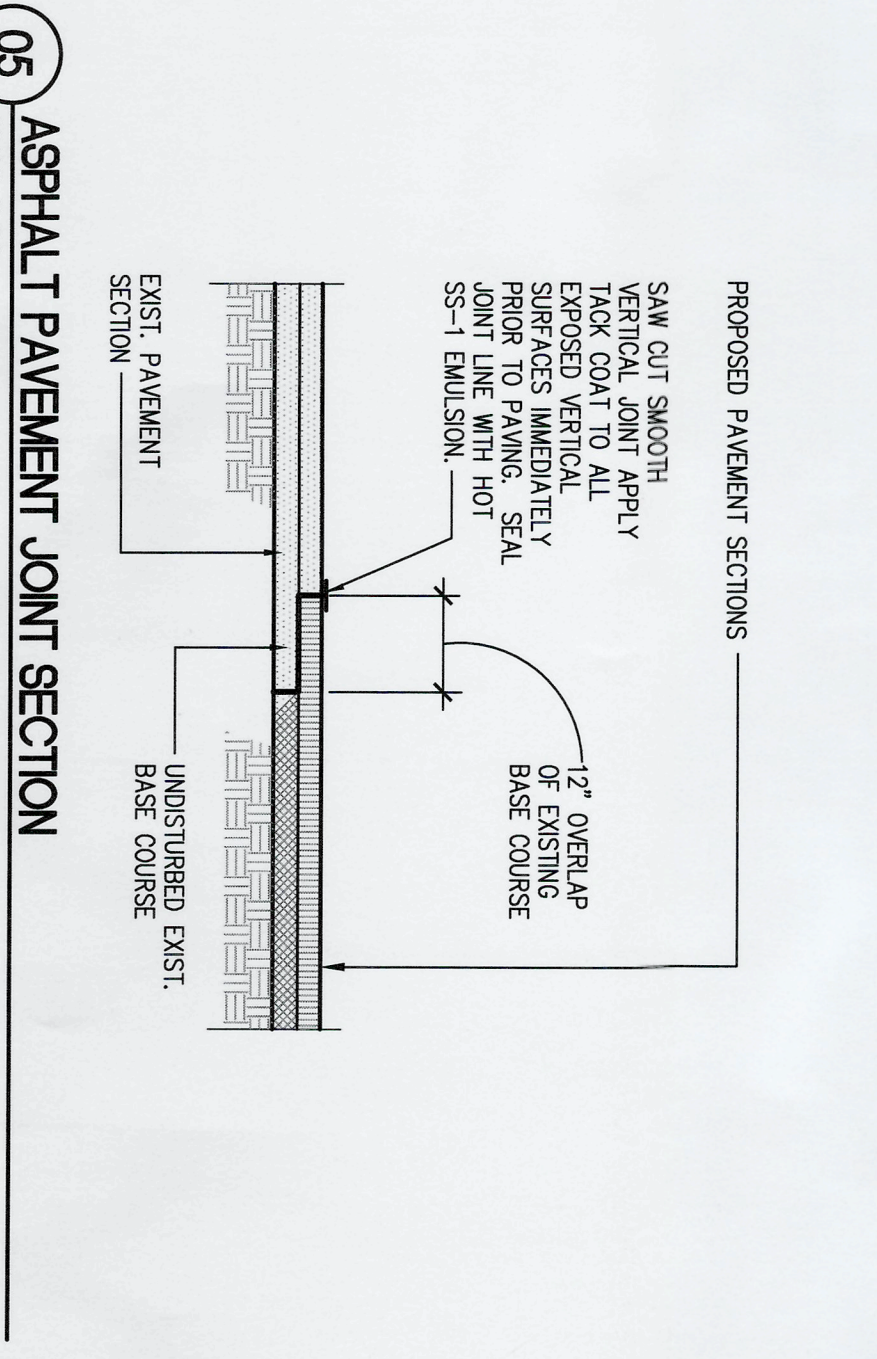
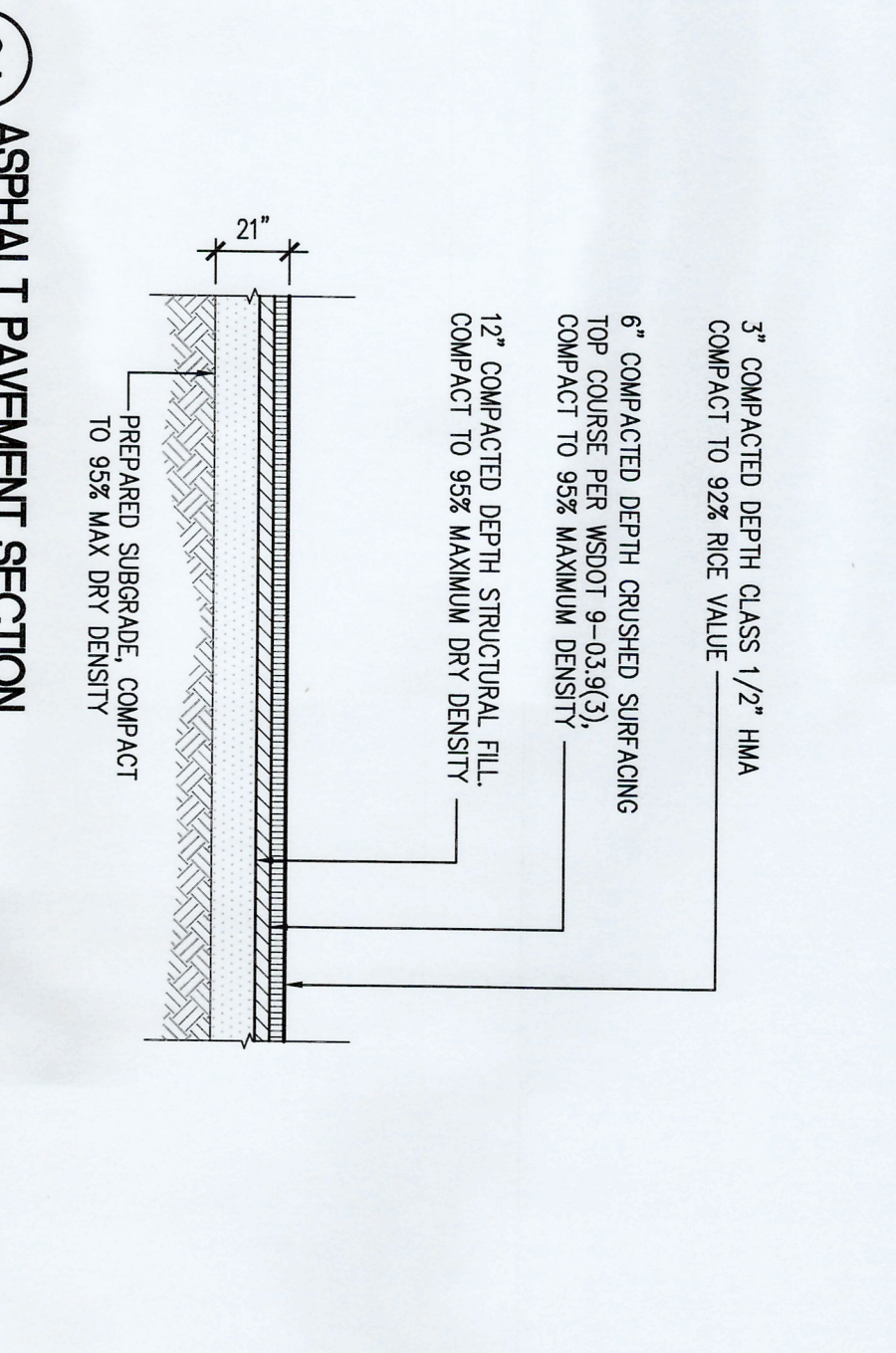
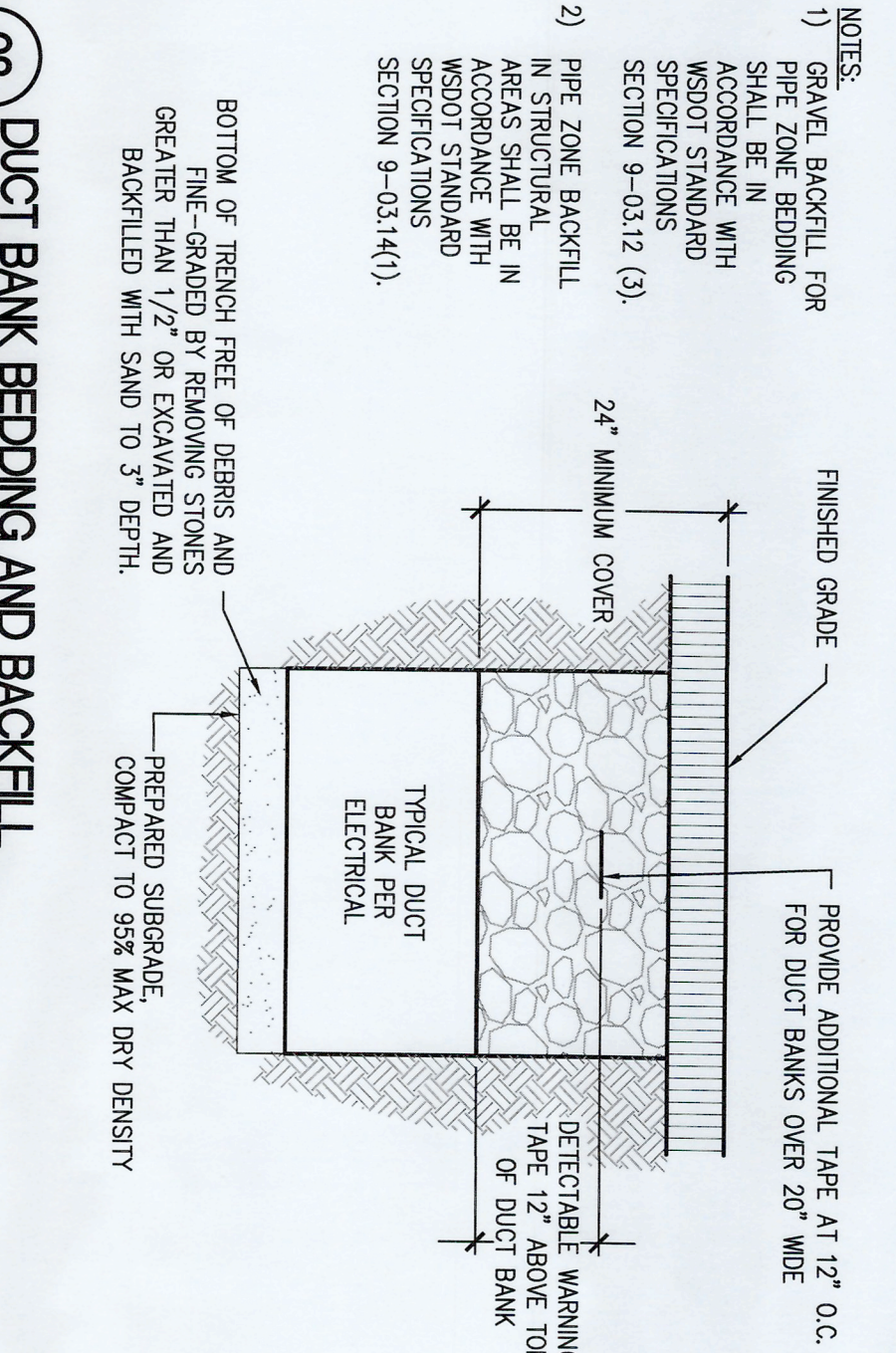
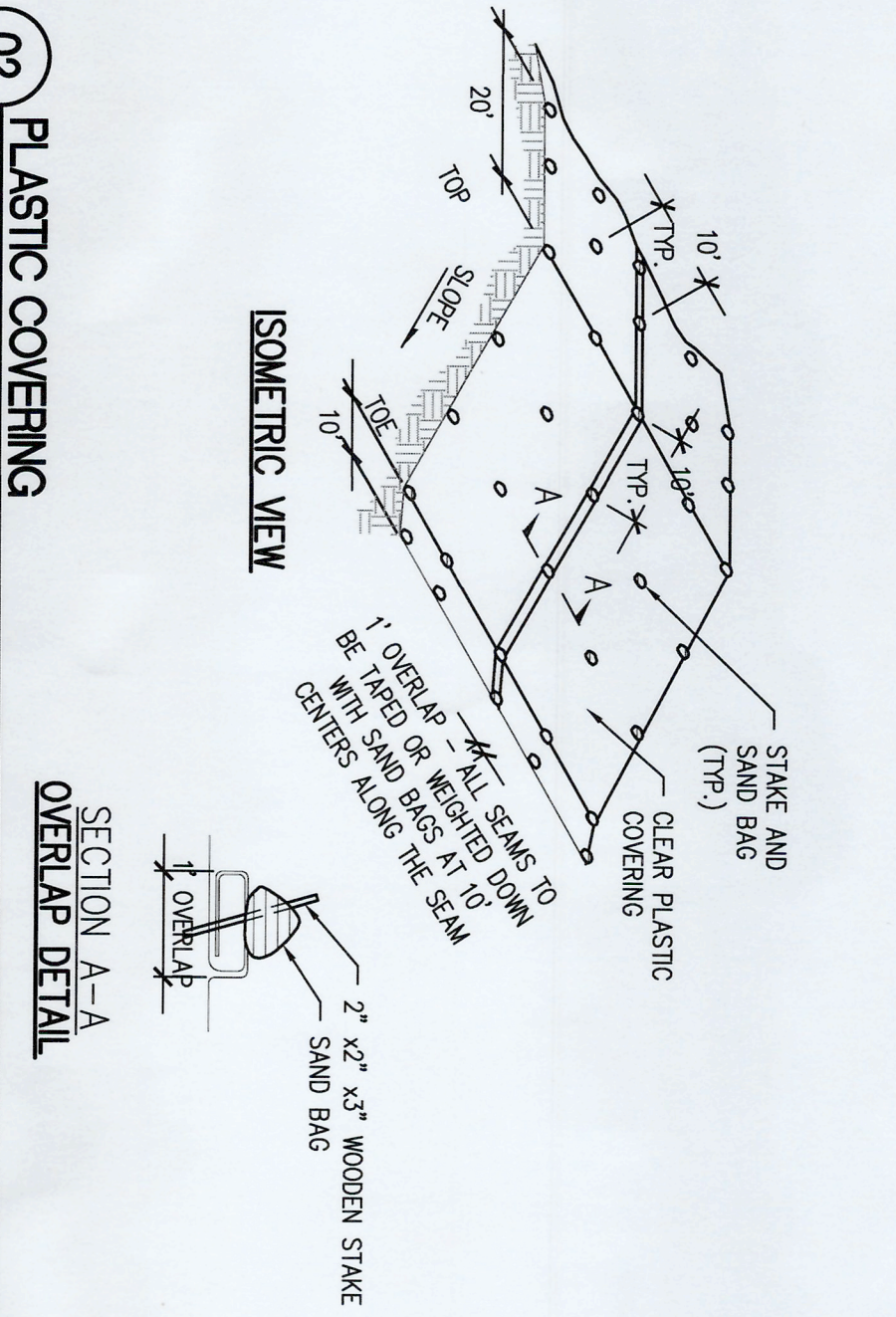
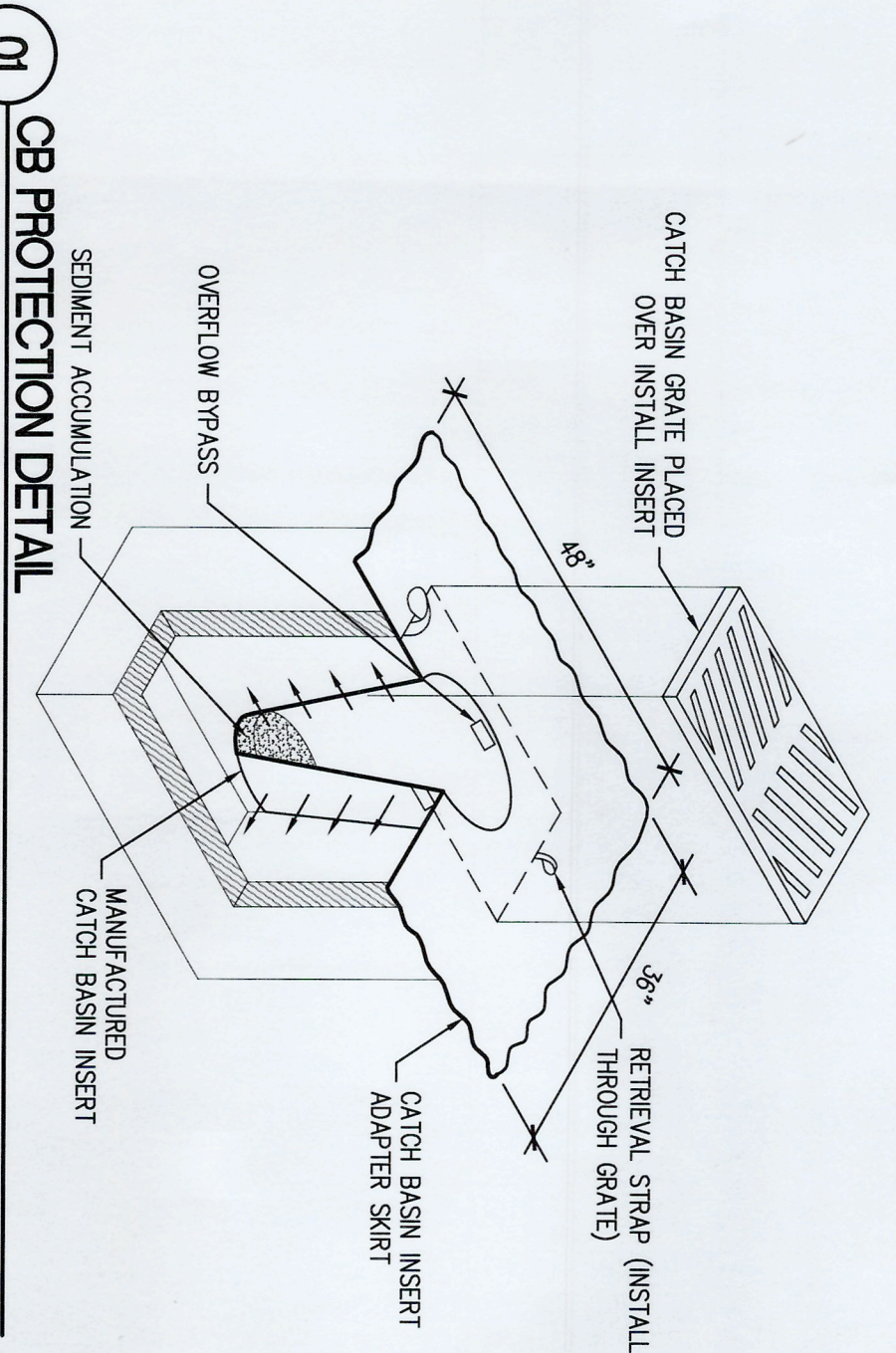
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MAY 9, 2025

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PHONE: (253) 474-8448 | WWW.SHITHILL.COM

Project No.: 20/757 | Project Mgr.: DCD  
Proj. Engineer: DKM | Proj. Director: DKM

<b>C2.0</b> SH #5 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b>			APPROVED: DCD 11/22/24			MARK: REVISION: BY: APPR: DATE:
	SURFACING PLAN			CHECKED BY: DKM 11/22/24			
PA: POT-PA-000000068	TOWNSHIP: 21	RANGE: 03	SECTION: 27	PRINTED BY: DonDavis May 16, 2025	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068
PROJ ID: 101686.01	DAT-HRZ: NAD83	VERT: MLW, 1983-2001 EPOCH	PORT ADDRESS: 802 PORT CENTER ROAD	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068
PHASE: ISSUED FOR CONST.	PARCEL: PORT PACEL 1B	DRAWING SCALE: AS NOTED	TACOMA, WA 98421	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068	PROJECT: POT-PA-000000068



**NOTES:**  
 1) GRAVEL BACKFILL FOR TRENCH SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-03.12 (3)  
 2) PIPE ZONE BACKFILL AREAS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-03.14(1)  
 3) COMPACTED DEPTH CLASS 1/2\"/>

**NOTES:**  
 1. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO COMMENCING WORK. ANY UTILITIES DAMAGED BY THE REMOVAL OF EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. NO EXPENSE TO THE OWNER.  
 2. CALL "ONE CALL" BURED CALL LOCATION SERVICE 1-800-424-5555 AT LEAST 2 DAYS BEFORE DIGGING.  
 3. SHOULD THE BOTTOM OF TRENCH NOT COMPACT TO 95% MAX. DENSITY, OVER-EXCAVATE PER ENGINEER'S FIELD RECOMMENDATIONS. INSTALL STRUCTURAL FILL & COMPACT IN 6\"/>

**SDEV25-0024**

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Port of Tacoma  
 P.O. BOX 1837 TACOMA, WA 98401 (253)385-5841

MARK: REVISION: BY: APPR: DATE:

PA: POT-PA-000000068	TOWNSHIP: 21	RANGE: 03	SECTION: 27	APPROVED: DCD 11/22/24
PROJ ID: 101686.01	DAT-HRZ: NAD83	VERT: MLW, 1983-2001 EPOCH	PRINTED BY: DonDavis May 16, 2025	CHECKED BY: DCM 11/22/24
PHASE: ISSUED FOR CONST.	PARCEL: PORT PACEL 1B	DRAWING SCALE: AS NOTED	PORT ADDRESS: 802 PORT CENTER ROAD	PROJ. ENGR DATE: DCM 11/22/24
			TACOMA, WA 98421	

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**09 TEMPORARY SERVICE MOUNT FOUNDATION**  
 SCALE: N.T.S.

**09 TEMPORARY SERVICE MOUNT FOUNDATION**  
 SCALE: N.T.S.

**07 TYPICAL PIPE BEDDING**  
 SCALE: N.T.S.

**08 TYPICAL UTILITY STRUCTURE EXCAVATION FOUNDATION BEDDING AND BACKFILL DETAIL**  
 SCALE: N.T.S.

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Project No.: 20/757 Project Mgr.: DCD  
 Prof. Engineer: DCM Prof. Drafter: DCM

**C3.0**  
 SH # 6 OF 19

**EBC MOTIVE TEMPORARY POWER**

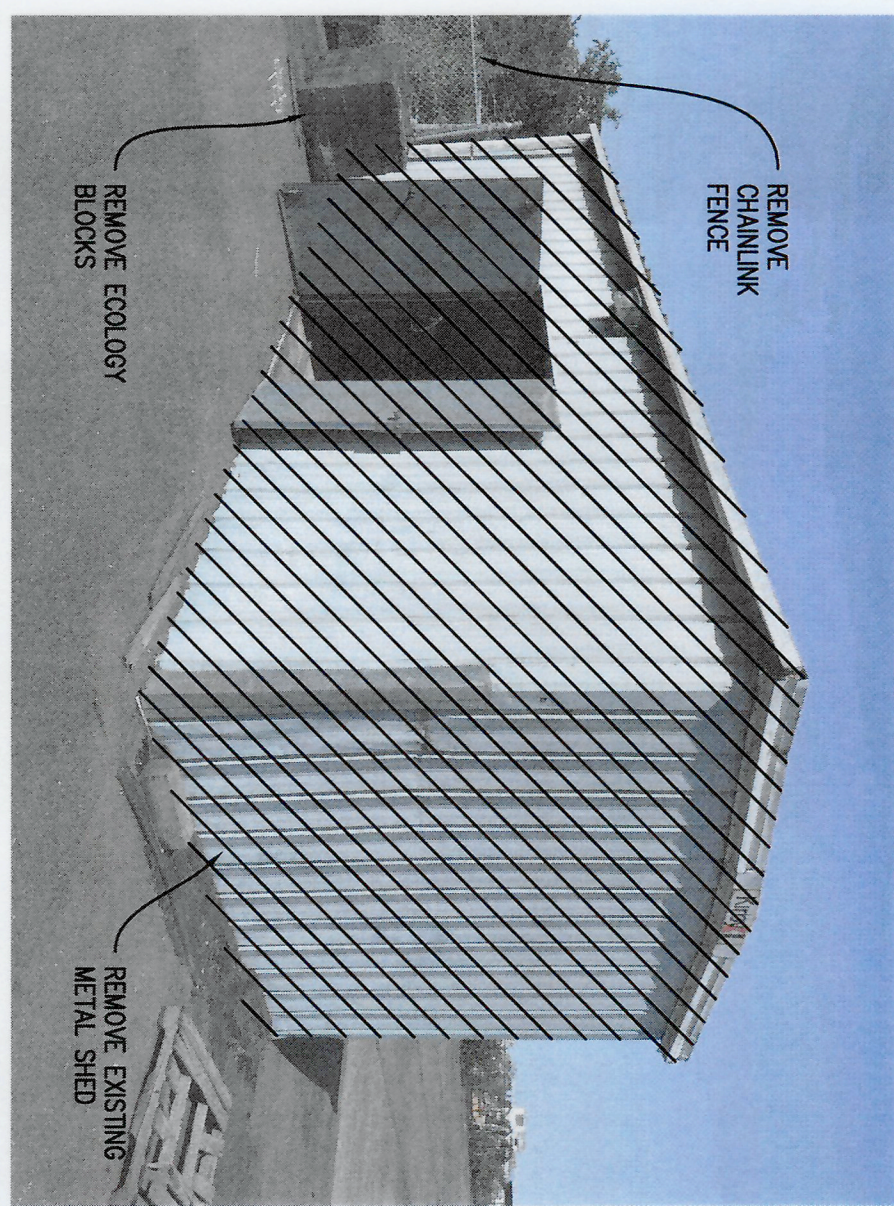
CIVIL DETAILS

PA: POT-PA-000000068 TOWNSHIP: 21 RANGE: 03 SECTION: 27  
 PROJ ID: 101686.01 DAT-HRZ: NAD83 VERT: MLW, 1983-2001 EPOCH  
 PHASE: ISSUED FOR CONST. PARCEL: PORT PACEL 1B DRAWING SCALE: AS NOTED

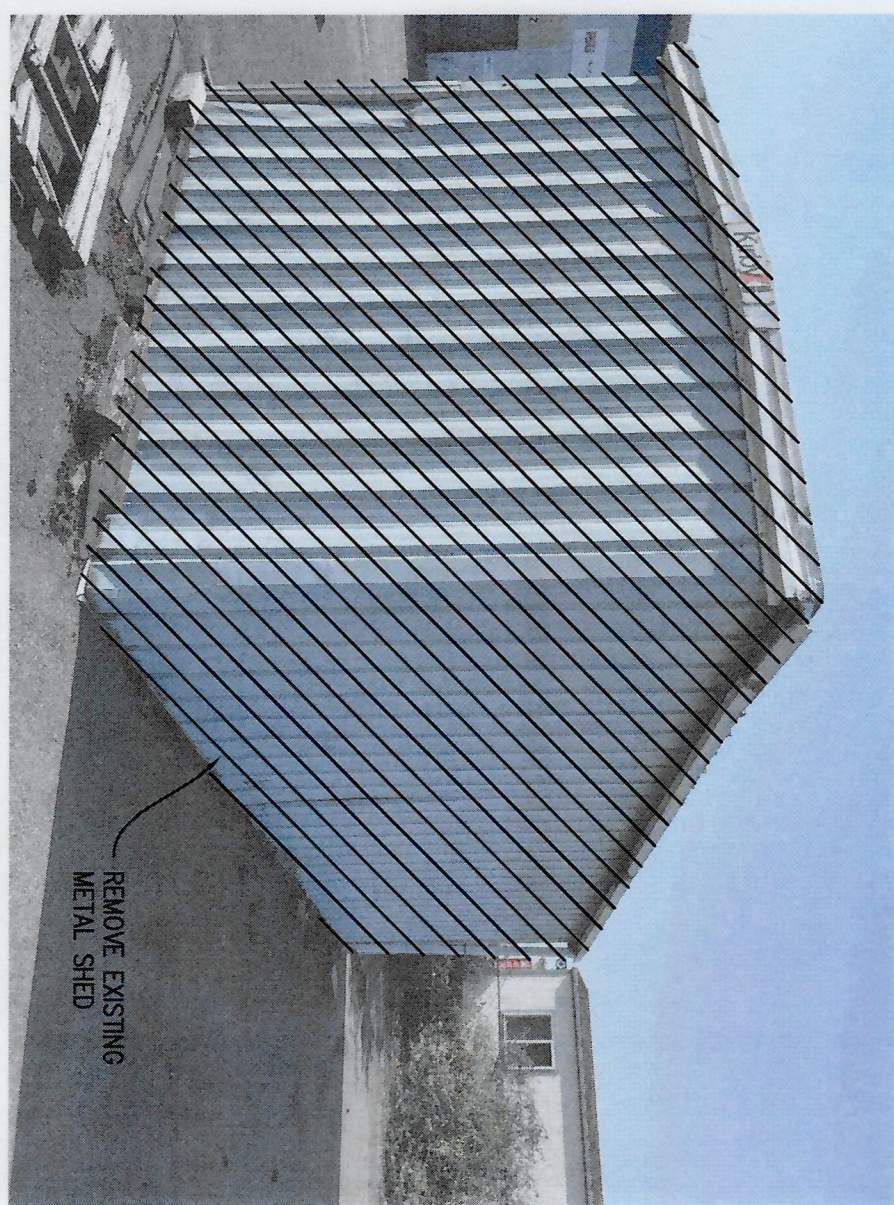
APPROVED: DCD 11/22/24  
 CHECKED BY: DCM 11/22/24  
 DIRECTOR ENG. DATE: DCM 11/22/24

PRINTED BY: DonDavis May 16, 2025  
 PORT ADDRESS: 802 PORT CENTER ROAD  
 TACOMA, WA 98421

Don Davis  
 DONALD C. DAVIS  
 PORT OF TACOMA  
 PROFESSIONAL ENGINEER  
 4640  
 11-2-22



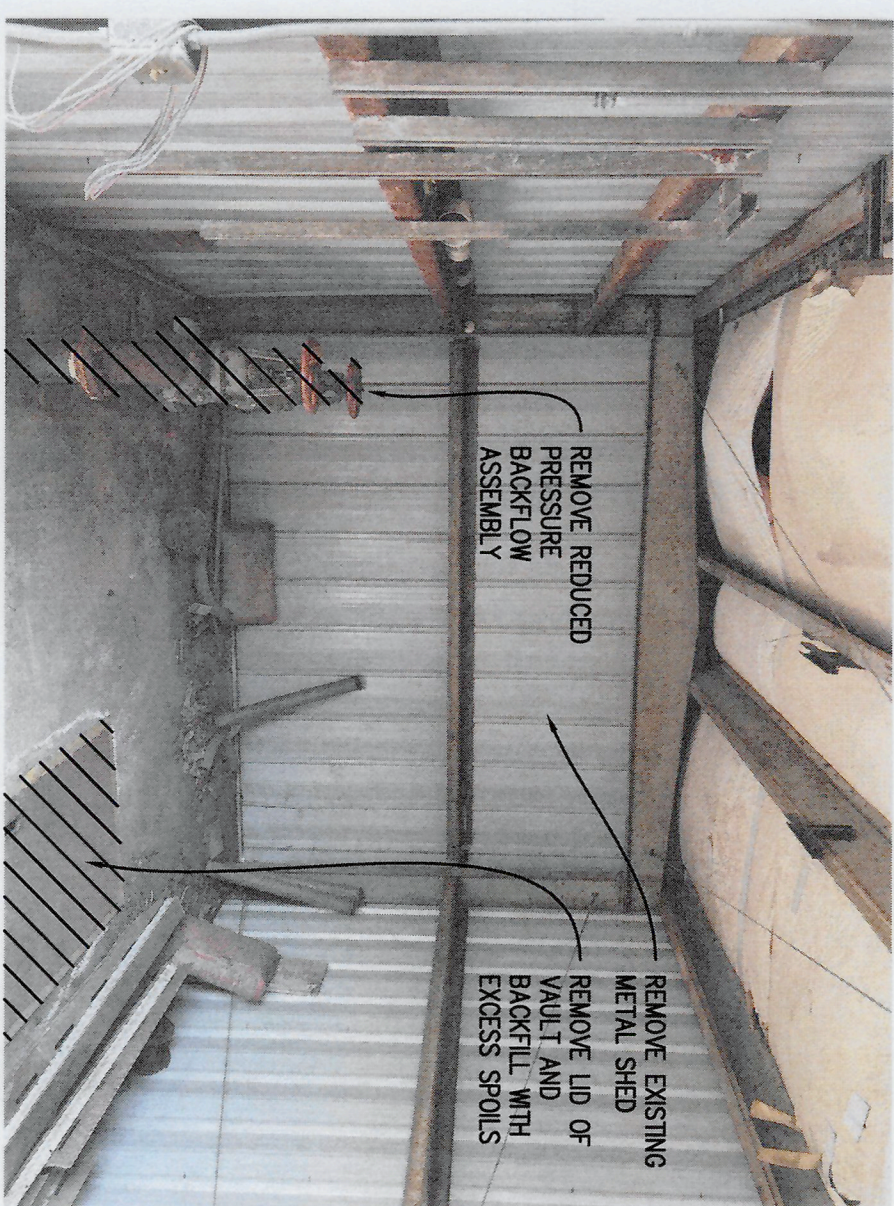
01 METAL SHED (VIEW LOOKING NORTH)  
SCALE: N.T.S.



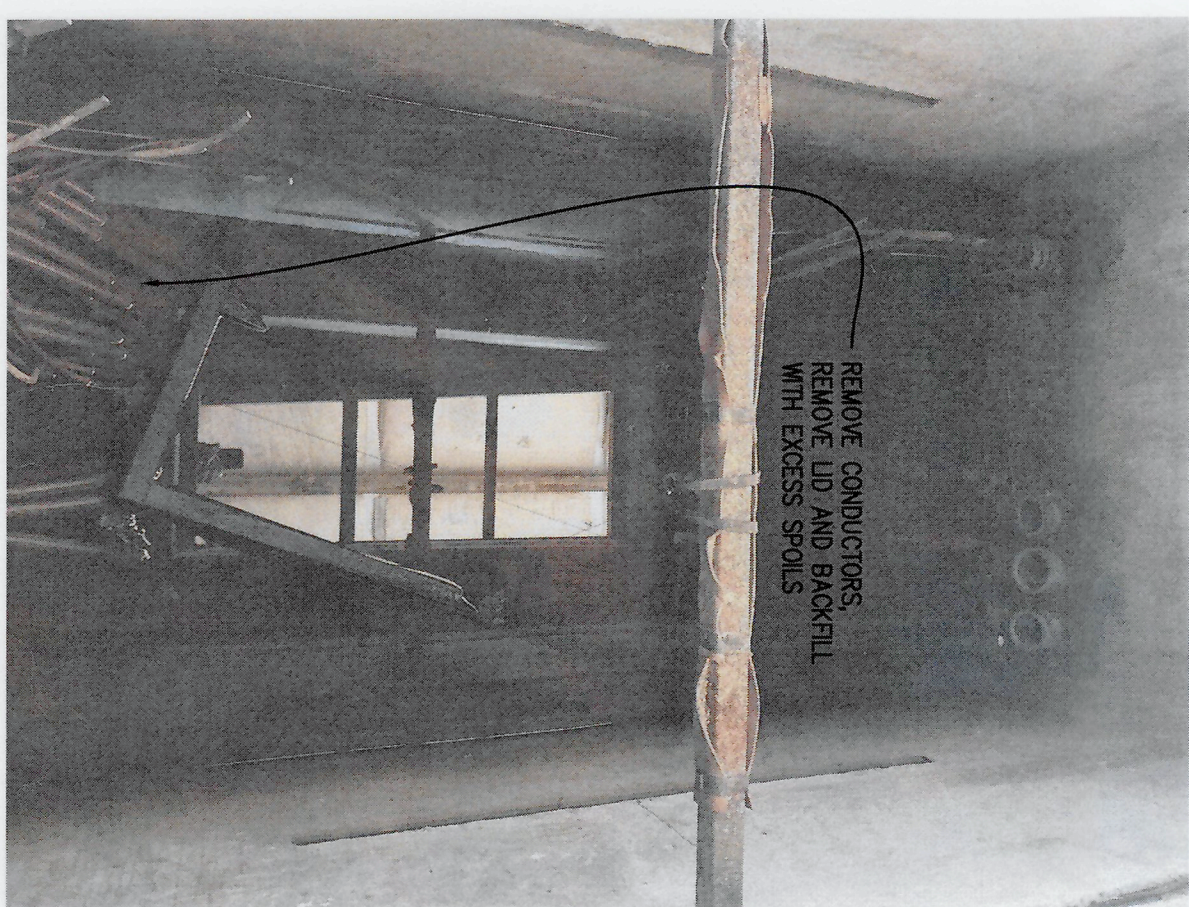
02 METAL SHED EXTERIOR (VIEW LOOKING SOUTH)  
SCALE: N.T.S.



03 METAL SHED INTERIOR (VIEW LOOKING NORTHEAST)  
SCALE: N.T.S.



04 METAL SHED INTERIOR (VIEW LOOKING SOUTHWEST)  
SCALE: N.T.S.



05 9'x5'x6' VAULT INSIDE METAL SHED  
SCALE: N.T.S.



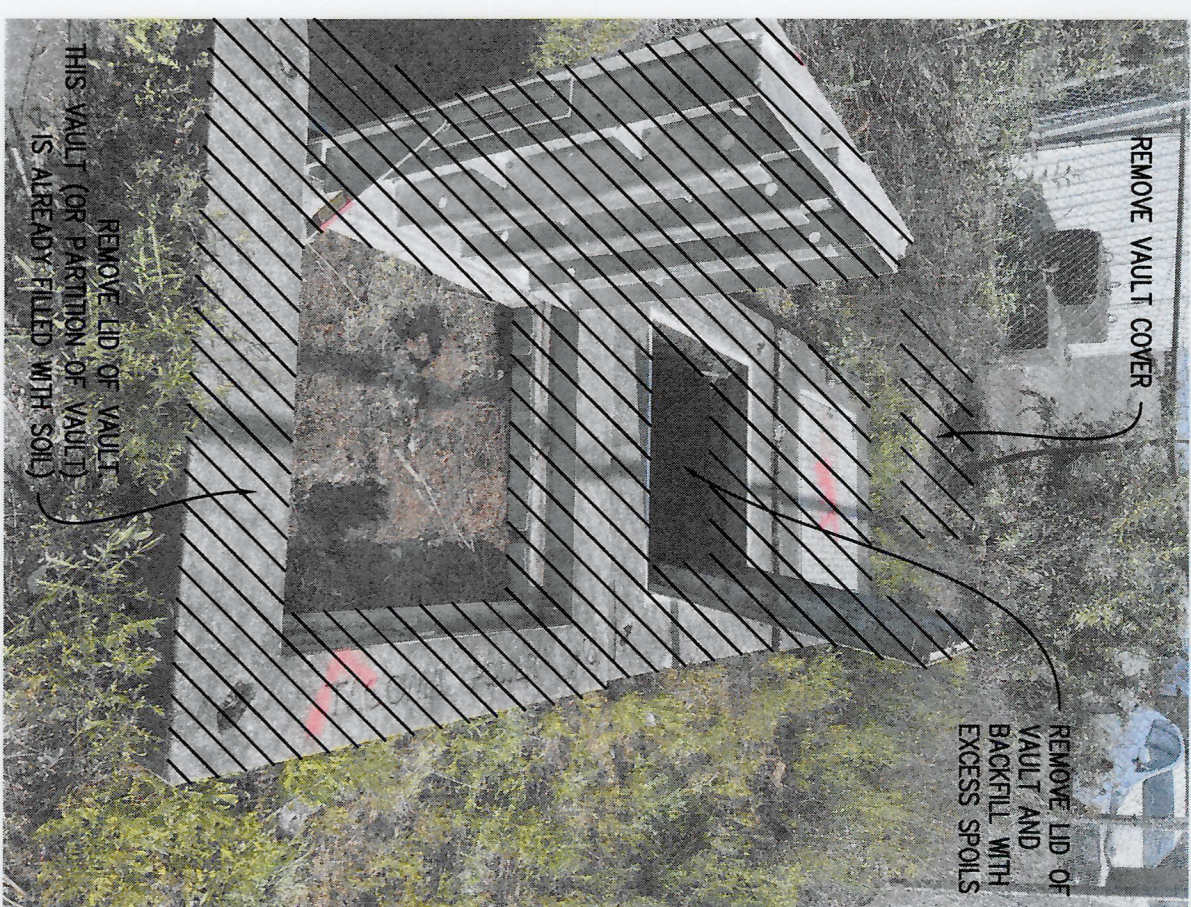
06 9'x5'x6' VAULT INSIDE METAL SHED  
SCALE: N.T.S.



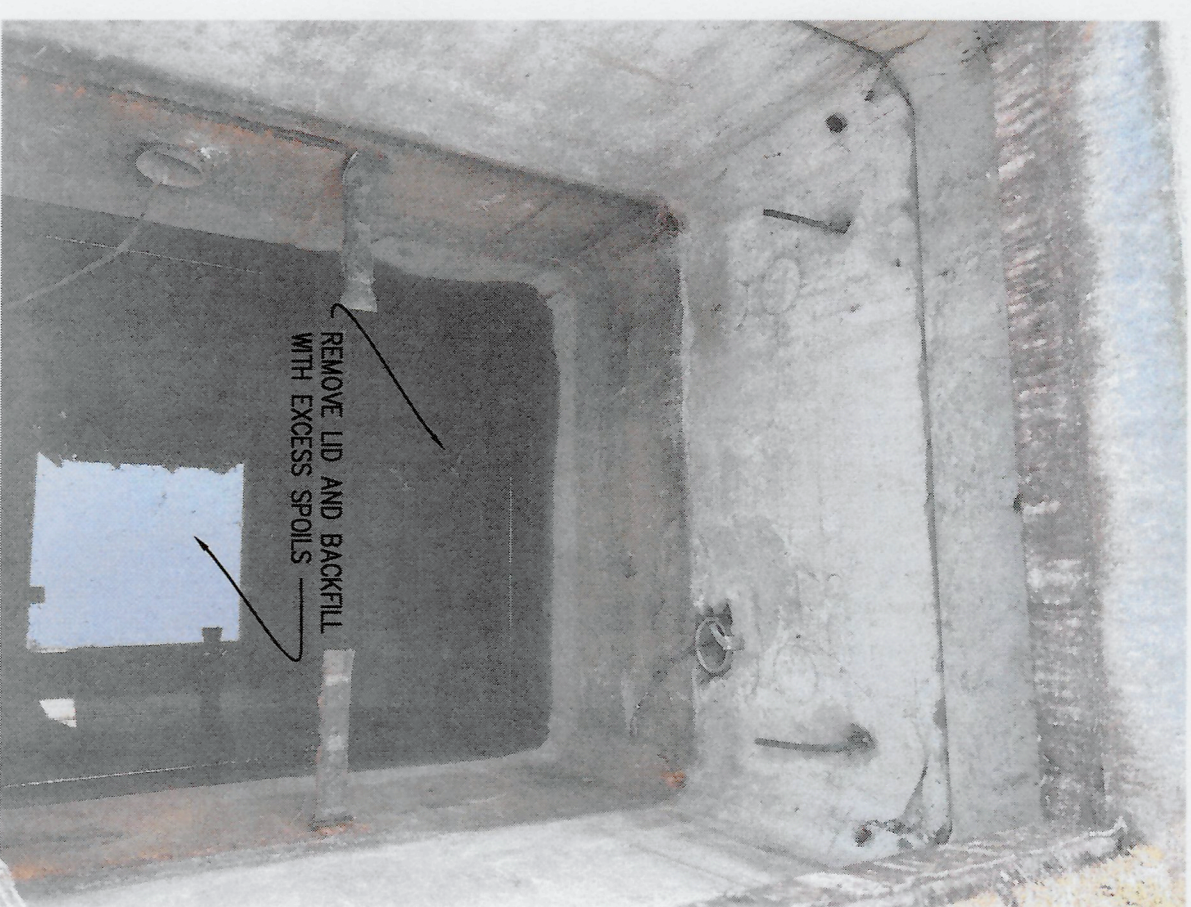
07 4'x4'x4' VAULT INSIDE METAL SHED  
SCALE: N.T.S.



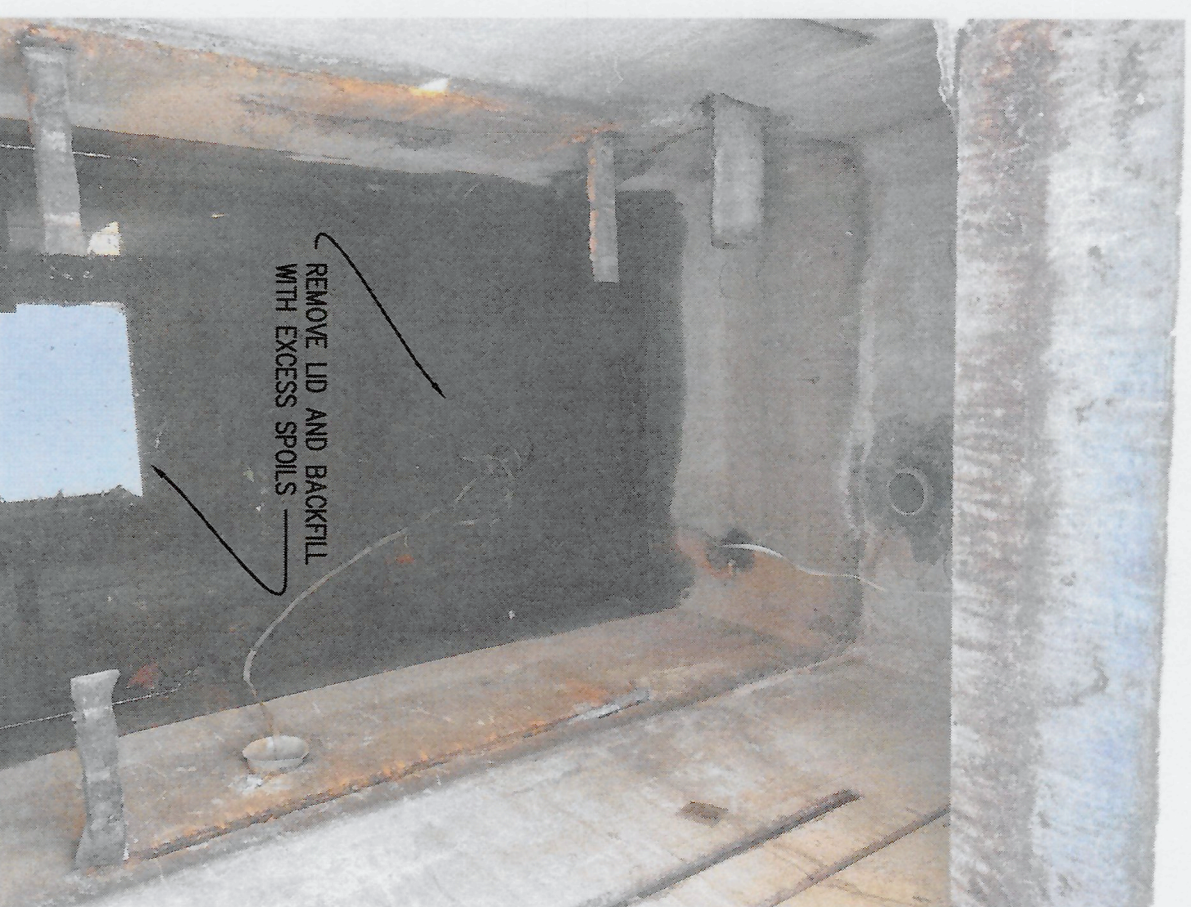
08 REDUCED PRESSURE BACKFLOW ASSEMBLY (INSIDE SHED)  
SCALE: N.T.S.



09 SUBSTATION YARD EXISTING VAULTS (LOOKING NE)  
SCALE: N.T.S.



10 9'x5'x6' EXISTING SUBSTATION VAULT  
SCALE: N.T.S.



11 9'x5'x6' EXISTING SUBSTATION VAULT  
SCALE: N.T.S.



12 SUBSTATION YARD EXISTING VAULTS (LOOKING WEST)  
SCALE: N.T.S.

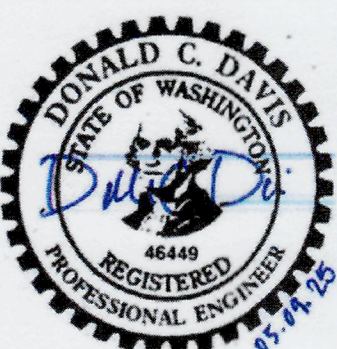


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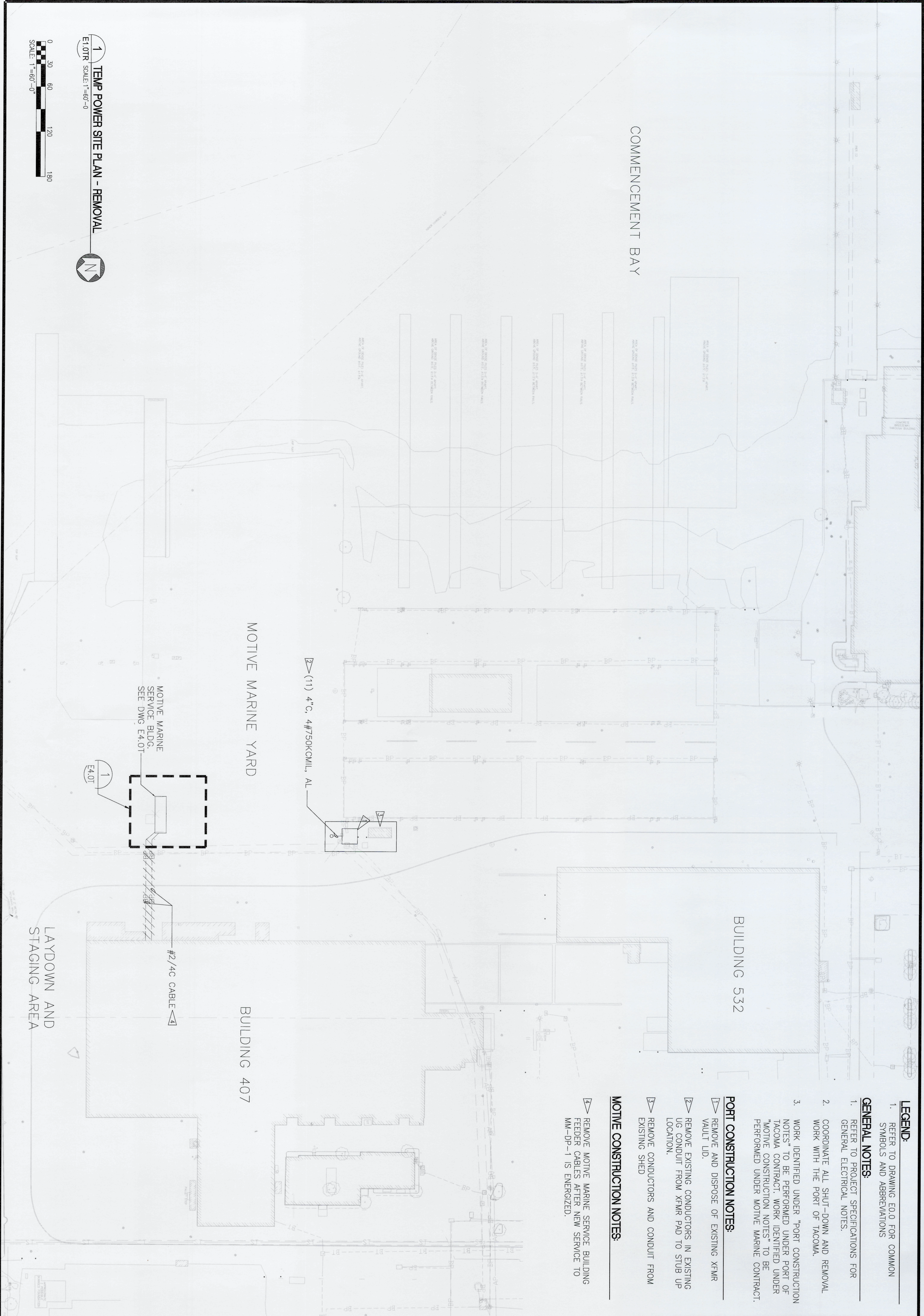
**811** Call 811  
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Project No.: 20757 Project Mgr.: DCD  
Proj. Engineer: DKM Proj. Designer: DKM

<b>C4.0</b> SH # 7 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b>		APPROVED:	DCD 11/22/24							
	CIVIL DETAILS		PA: POT-PA-000000068	TOWNSHIP: 21				RANGE: 03	SECTION: 27	MARK:	REVISION:
PROJ ID: 101686.01	DAT-HRZ: NAD83	VERT: MLW, 1983-2001 EPOCH	PRINTED BY: DonDavis	DATE: May 16, 2025	PROJECT ENGR DATE: 11/22/24	P.O. BOX 1837 TACOMA, WA 98401 (252) 883-8841					
PHASE: ISSUED FOR CONST.	PARCEL: PORT PACEL 1B	DRAWING SCALE: AS NOTED	PORT ADDRESS: 802 PORT CENTER ROAD TACOMA, WA 98421								





**LEGEND:**  
1. REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS

**GENERAL NOTES:**  
1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.  
2. COORDINATE ALL SHUT-DOWN AND REMOVAL WORK WITH THE PORT OF TACOMA.  
3. WORK IDENTIFIED UNDER "PORT CONSTRUCTION NOTES" TO BE PERFORMED UNDER PORT OF TACOMA CONTRACT. WORK IDENTIFIED UNDER "MOTIVE CONSTRUCTION NOTES" TO BE PERFORMED UNDER MOTIVE MARINE CONTRACT.

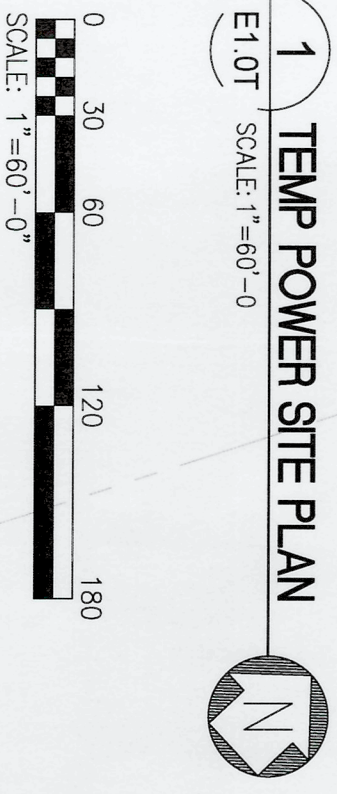
**PORT CONSTRUCTION NOTES:**  
1. REMOVE AND DISPOSE OF EXISTING XTMR VAULT LID.  
2. REMOVE EXISTING CONDUCTORS IN EXISTING UG CONDUIT FROM XTMR PAD TO STUB UP LOCATION.  
3. REMOVE CONDUCTORS AND CONDUIT FROM EXISTING SHED

**MOTIVE CONSTRUCTION NOTES:**  
1. REMOVE MOTIVE MARINE SERVICE BUILDING FEDER CABLES AFTER NEW SERVICE TO MM-DP-1 IS ENERGIZED.

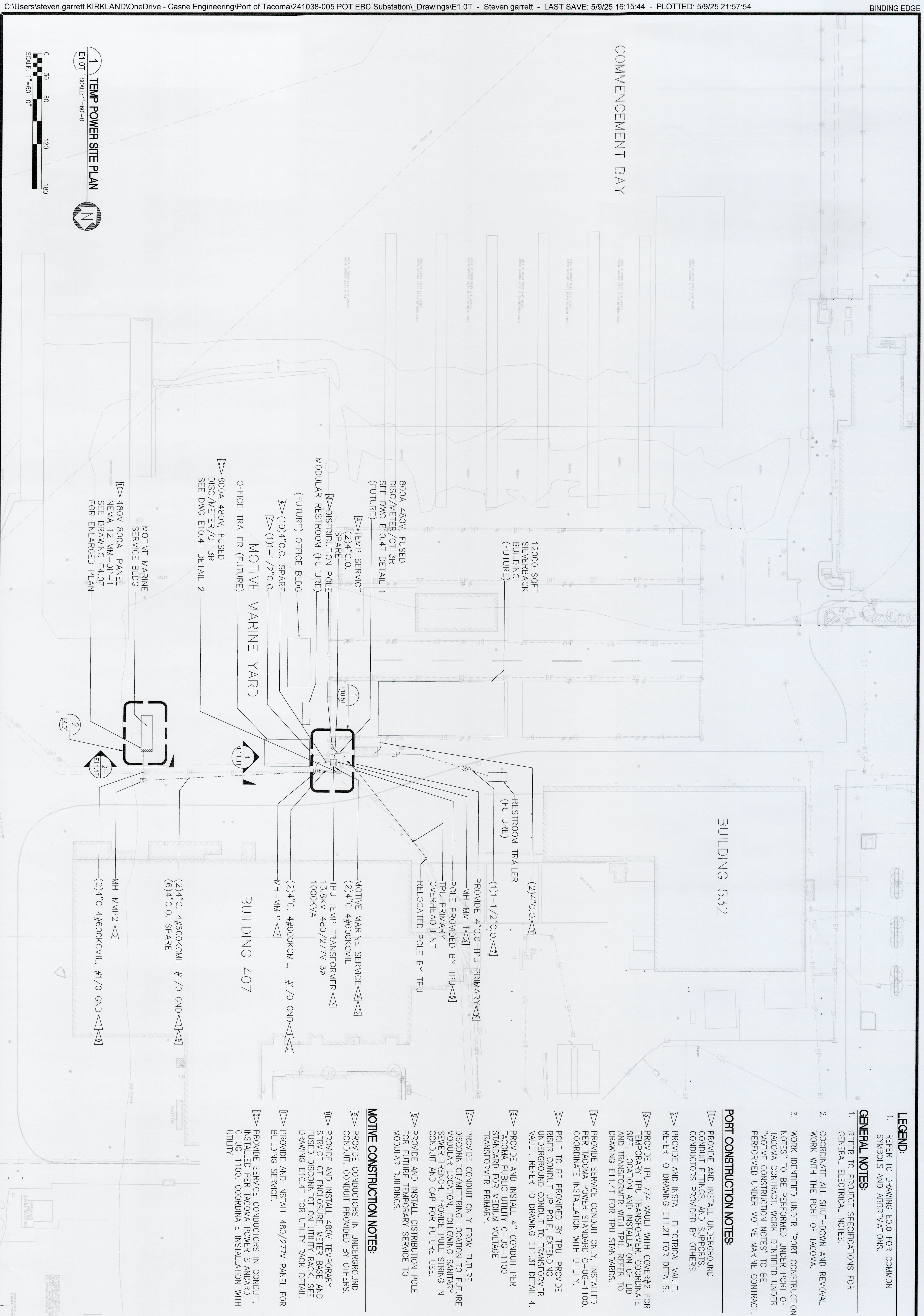
**ISSUE FOR BID  
MAY 9, 2025**

<p>6709 <b>E1.0TR</b> SH# 9 OF 19</p>		<p><b>EBC MOTIVE TEMPORARY POWER</b> TEMPORARY POWER SITE PLAN - REMOVAL</p>		<p>APPROVED: <i>Steve Forward</i> DIRECTOR ENG. DATE</p>	<p>CEC 02/18/25 CHECKED BY DATE AA 02/18/25 PROJ. ENGR DATE</p>		<p><b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE., SUITE 200 BELLEVUE, WA 98008 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005</p>	<p><b>Port of Tacoma</b> P.O. BOX 1637 TACOMA, WA 98401 (253)388-8841</p>		
<p>PA: POT-PA-000000068</p>	<p>TOWNSHIP: 21</p>	<p>RANGE: 03</p>	<p>SECTION: 27</p>	<p>PRINTED BY: steven.garrett May 09, 2025</p>	<p>PORT ADDRESS: 401 EAST ALEXANDER AVE TACOMA, WA 98421</p>		<p>MARK: .</p>	<p>REVISION: .</p>	<p>BY: .</p>	<p>APPR: .</p>

COMMENCEMENT BAY



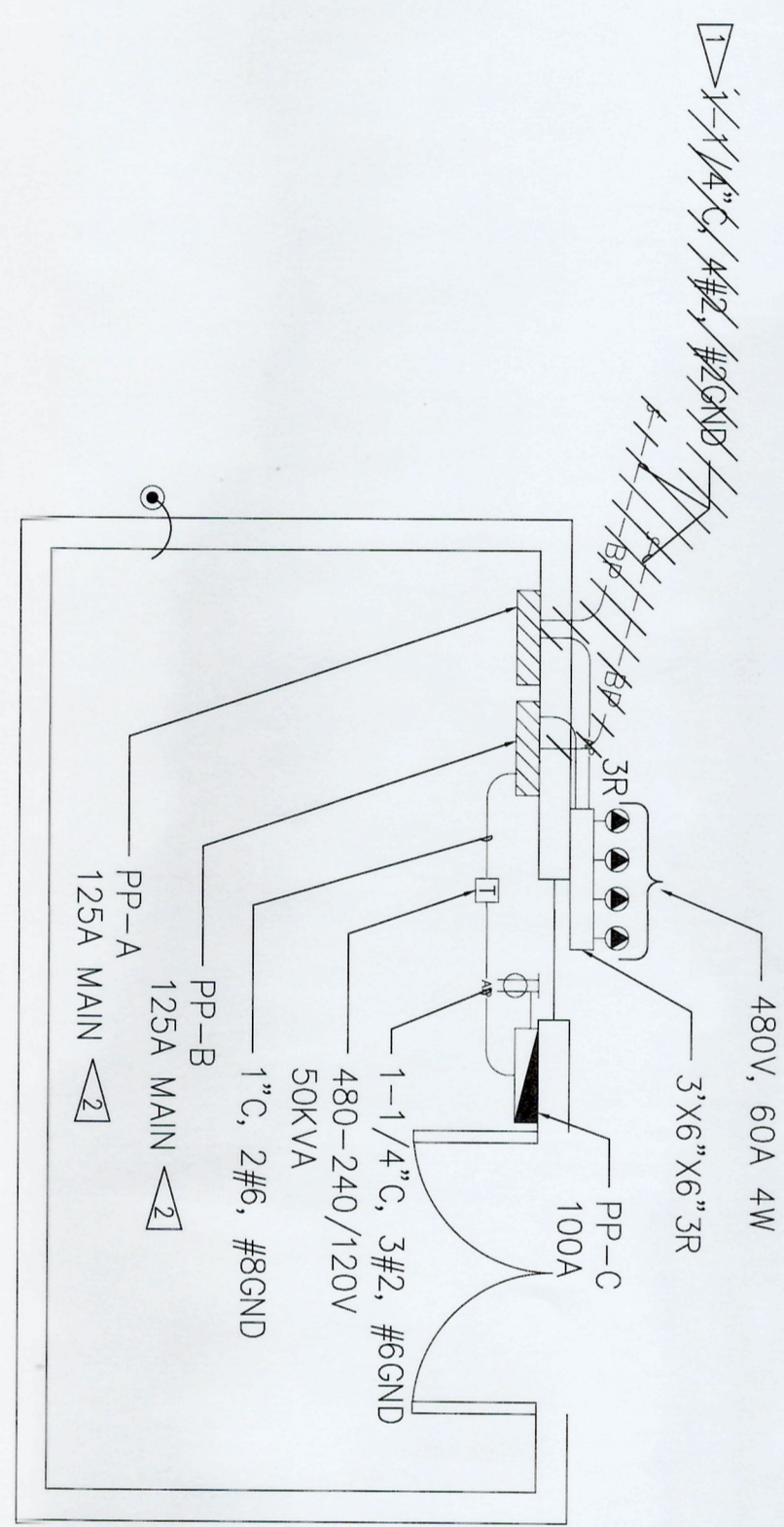
**1 TEMP POWER SITE PLAN**  
E1.0T SCALE: 1"=60'-0"



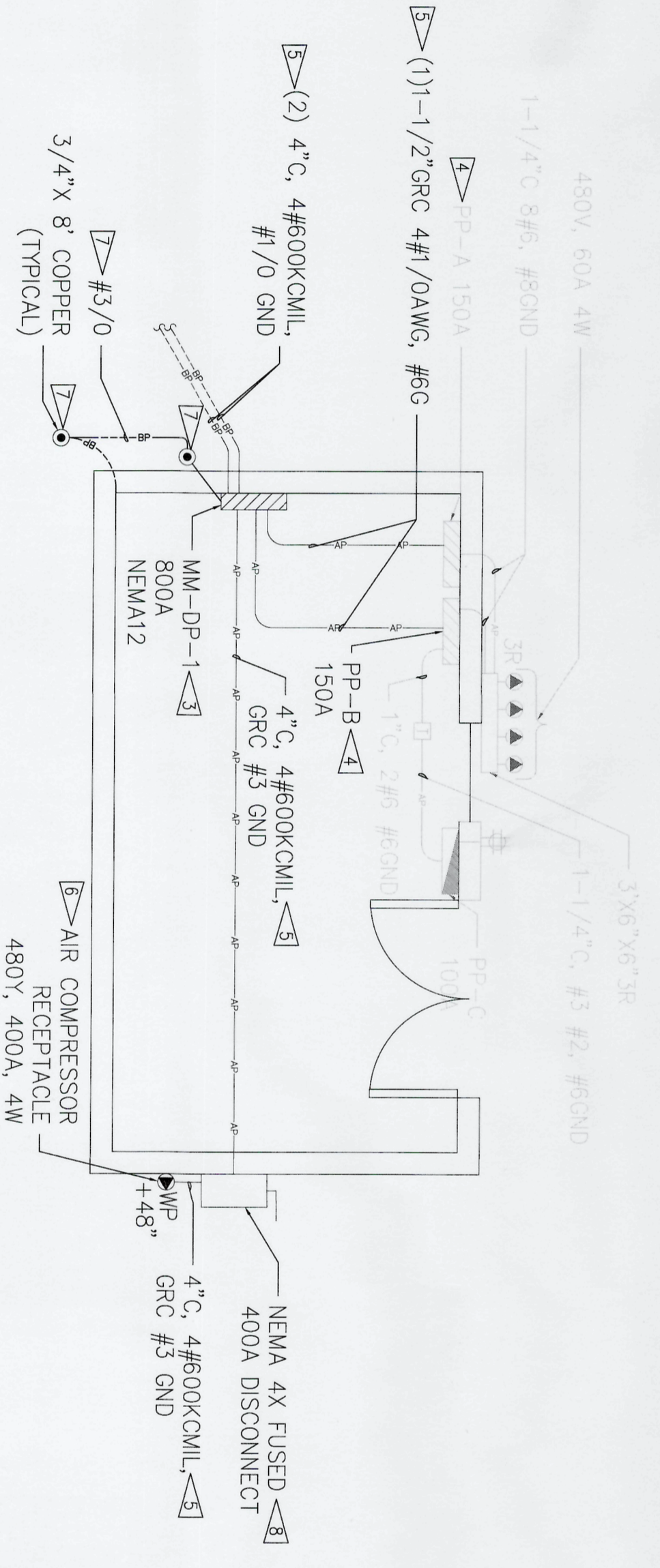
- LEGEND:**
- REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS.
- GENERAL NOTES:**
- REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
  - COORDINATE ALL SHUT-DOWN AND REMOVAL WORK WITH THE PORT OF TACOMA.
  - WORK IDENTIFIED UNDER "PORT CONSTRUCTION NOTES" TO BE PERFORMED UNDER PORT OF TACOMA CONTRACT. WORK IDENTIFIED UNDER "MOTIVE CONSTRUCTION NOTES" TO BE PERFORMED UNDER MOTIVE MARINE CONTRACT.
- PORT CONSTRUCTION NOTES:**
- PROVIDE AND INSTALL UNDERGROUND CONDUIT FITTINGS, AND SUPPORTS. CONDUCTORS PROVIDED BY OTHERS.
  - PROVIDE AND INSTALL ELECTRICAL VAULT. REFER TO DRAWING E11.2T FOR DETAILS.
  - PROVIDE TPU 774 VAULT WITH COVER#2 FOR TEMPORARY TPU TRANSFORMER. COORDINATE SIZE, LOCATION AND INSTALLATION OF LID AND TRANSFORMER WITH TPU. REFER TO DRAWING E11.4T FOR TPU STANDARDS.
  - PROVIDE SERVICE CONDUIT ONLY, INSTALLED PER TACOMA POWER STANDARD C-UG-1100. COORDINATE INSTALLATION WITH UTILITY.
  - POLE TO BE PROVIDED BY TPU. PROVIDE RISER CONDUIT UP POLE. EXTENDING UNDERGROUND CONDUIT TO TRANSFORMER VAULT. REFER TO DRAWING E11.3T DETAIL 4.
  - PROVIDE AND INSTALL 4" CONDUIT PER TACOMA PUBLIC UTILITY C-UG-1100 STANDARD FOR MEDIUM VOLTAGE TRANSFORMER PRIMARY.
  - DISCONNECT/METERING LOCATION TO FUTURE MODULAR LOCATION, FOLLOWING SANITARY SEWER TRENCH. PROVIDE PULL STRING IN CONDUIT AND CAP FOR FUTURE USE.
  - PROVIDE AND INSTALL DISTRIBUTION POLE FOR FUTURE TEMPORARY SERVICE TO MODULAR BUILDINGS.
- MOTIVE CONSTRUCTION NOTES:**
- PROVIDE CONDUCTORS IN UNDERGROUND CONDUIT. CONDUIT PROVIDED BY OTHERS.
  - PROVIDE AND INSTALL 480V TEMPORARY SERVICE CT ENCLOSURE, METER BASE AND FUSED DISCONNECT ON UTILITY RACK. SEE DRAWING E10.4T FOR UTILITY RACK DETAIL.
  - PROVIDE AND INSTALL 480/277V PANEL FOR BUILDING SERVICE.
  - PROVIDE SERVICE CONDUCTORS IN CONDUIT, INSTALLED PER TACOMA POWER STANDARD C-UG-1100. COORDINATE INSTALLATION WITH UTILITY.

ISSUE FOR BID  
MAY 9, 2025

<p>6709 <b>E1.0T</b> SH# 10 OF 19</p>	<p><b>EBC MOTIVE TEMPORARY POWER</b> TEMPORARY POWER SITE PLAN</p>			<p>APPROVED: <i>Steven Garrett</i> CEC 04/8/25</p>	<p>CHECKED BY: <i>AA</i> AA 04/8/25</p>		<p><b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE., SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005</p>	
	<p>PA: POT-PA-000000068 PROJ. ID: 101686.01 PHASE: ISSUE FOR BID</p>	<p>TOWNSHIP: 21 DAT-HRZ: . NAD83 PARCEL: ----</p>	<p>RANGE: 03 VERT: MLW, 1983-2001 EPOCH</p>	<p>SECTION: 27 PORT ADDRESS: 401 East Alexander Ave TACOMA, WA 98421</p>	<p>PRINTED BY: steven.garrett May 09, 2025 PROJ. ENGR DATE</p>			



**1 SERVICE BUILDING 480V PLAN-REMOVAL**  
E4.0T SCALE: 1/4" = 1'-0"



**2 SERVICE BUILDING 480V PLAN**  
E4.0T SCALE: 1/4" = 1'-0"

**LEGEND:**  
1. REFER TO DRAWING E4.0 FOR COMMON SYMBOLS AND ABBREVIATIONS

- ZZZZZ 480V 3Ø PANELBOARD
- ▬ 240/120V 1Ø PANEL
- TRANSFORMER
- 480V SPECIALTY RECEPTACLE
- ⊕ 120V DUPLEX RECEPTACLE
- ⊕ 120V QUADPLEX RECEPTACLE
- GROUNDING ROD

**GENERAL NOTES:**

1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
2. REFER TO DRAWINGS E1.0TR FOR SITE PLAN REMOVAL AND E1.0T FOR SITE PLAN.
3. "PORT CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE PORT OF TACOMA CONTRACT.
4. "MOTIVE CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE MOTIVE MARINE CONTRACT.

**PORT CONSTRUCTION NOTES:**

1. NO WORK SHOWN.

**MOTIVE CONSTRUCTION NOTES:**

- 1. REMOVE ELECTRICAL FEEDERS TO BUILDING ONCE NEW 800A SERVICE MM-DP-1 IS ENERGIZED.
- 2. REMOVE 125A MAIN BREAKER TO MAKE SPACE FOR 150A MAIN BREAKER.
- 3. PROVIDE AND INSTALL PANEL MM-DP-1.
- 4. PROVIDE AND INSTALL NEW 150A MAIN BREAKERS AT PP-A AND PP-B.
- 5. PROVIDE AND INSTALL CONDUIT, BOXES, FITTINGS, SUPPORTS AND CONDUCTORS.
- 6. PROVIDE 400A 480V 4W RECEPTACLE FOR AIR COMPRESSOR.
- 7. PROVIDE SUPPLEMENTAL GROUND ROD AND #3/0 GROUND ELECTRODE AT BUILDING SERVICE.
- 8. PROVIDE NEMA 4X FUSED DISCONNECT SIZED AS SHOWN.

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MAY 9, 2025

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BELLEVUE, WA 98006  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005



<p>6709 <b>E4.0T</b> SH# 11 OF 19</p>	<p><b>EBC MOTIVE TEMPORARY POWER</b> MOTIVE MARINE SERVICE BLDG. ENLARGED PLAN</p>			APPROVED:	CEC 04/8/25
				<p>PA: POT-PA-000000068</p>	<p>TOWNSHIP: 21</p>
<p>PROJ. ID: 101686.01</p>	<p>DAT-HRZ: NAD83</p>	<p>VERT: MLW, 1983-2001 EPOCH</p>	<p>PRINTED BY: steven.garrett May 09, 2025</p>	<p>DIRECTOR ENG. DATE</p>	<p>PROJ. ENGR DATE</p>
<p>PHASE: ISSUE FOR BID</p>	<p>PARCEL: ----</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PORT ADDRESS: 401 East Alexander Ave TACOMA, WA 98421</p>		

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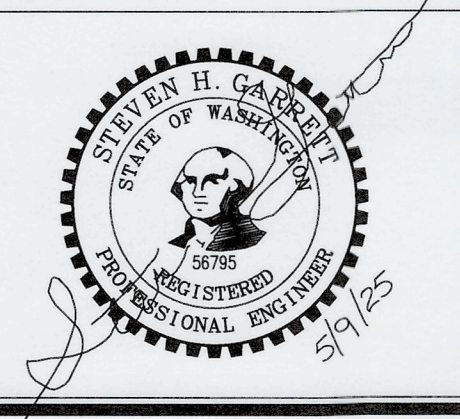


MM-DP-1									
VOLTS: 480/277V PH & WIRE: 3Ø, 4W BUS RATING: 800 Amp		MAIN BREAKER: 800A, 100% Rd PANEL AIC RATING: 65 kA FED FROM: MDS-1		FEEDER CONDUCTORS: (2) sets 4#600, 1/0/G MOUNTING SURFACE: SURGE PROTECTOR: NO ENCLOSURE: NEMA 12		INSTALL DATE: TBD REV. VERSION: ORIGINAL REV. DATE: 10/8/2024			
CT. #	BKR. AMPS	WIRE SIZE	CIRCUIT DESCRIPTION	LOAD TYPE	LOAD (KVA)	LOAD NOTES	# CT. #	CIRCUIT PHASE	POLES
1	150	3	Power Shed - (2) 45kVA 3ph & (1) 5kVA 1ph	1	26.5		3	A	2
3	/	/		1	24		5	B	2
5	/	/	Power Shed - (3) 45kVA XFMRs	1	36		7	C	2
7	150	3		1	36		9	A	2
9	/	/		1	36		11	B	2
11	/	/	COMPRESSOR - 27HP	1	99		13	C	2
13	400	3		1	99		15	A	2
15	/	/		1	99		17	B	2
17	/	/		1	19		19	C	2
19	200	3	SPARE	G			21	A	2
21	/	/		G			22	B	2
23	/	/		G			23	C	2
NOTES: 1) SOLID STATE TRIP UNIT WITH ADJUSTABLE LT STAND INST PROTECTION.				CONNECTED LOAD (KVA) PER PHASE A: 161, B: 161, C: 159 (KVA) 583, 583, 574 (AMPS)					
Available Fault Current:				TOTAL CONNECTED LOAD: 481,800 3Ø LOAD (KVA) 580 3Ø LOAD (AMPS)					
Date of Calculation:				TOTAL DEMAND LOAD: 481,800 3Ø LOAD (KVA) 580 3Ø LOAD (AMPS)					
				METERED LOAD (PER PHASE): A: 0, B: 0, C: 0 (KVA) 0 (AMPS)					
				TOTAL METERED LOAD: 0.00 3Ø LOAD (KVA) 0 (AMPS)					
				NEW LOAD WORKSHEET					
				METERED DATA COLLECTION NOTES: SUBTRACTED LOAD: 0.00 (KVA) ADDED LOAD: 0.00 (KVA) 125% METERED LOAD: 0.00 (KVA) TOTAL EXPECTED LOAD: 0.00 (KVA) TOTAL EXPECTED LOAD: 0 (AMPS)					

**LEGEND:**  
1. REFER TO DRAWING E01 FOR COMMON SYMBOLS AND ABBREVIATIONS  
**GENERAL NOTES:**  
1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.

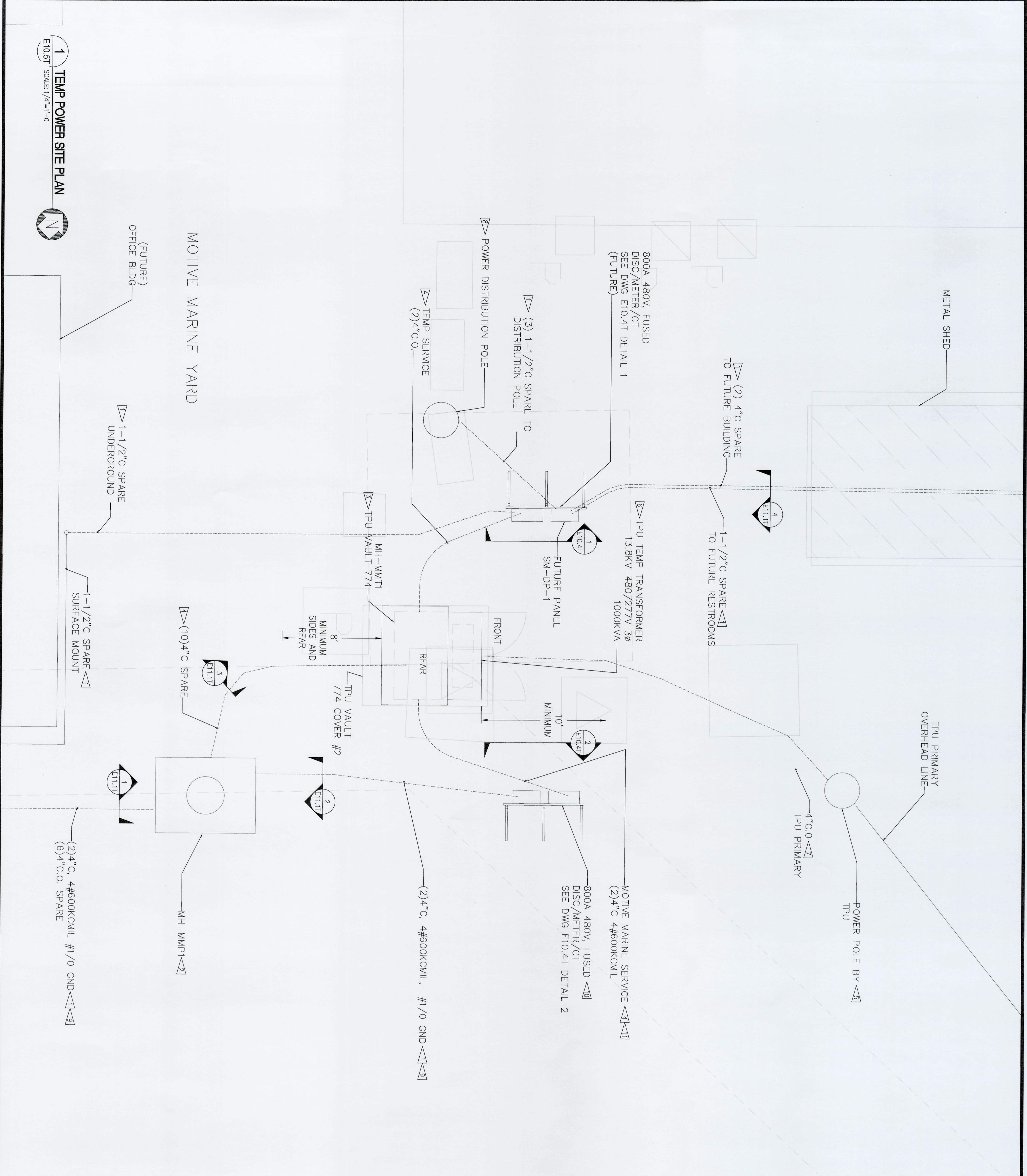
**ISSUE FOR BID**  
**MAY 9, 2025**

MARK:	REVISION:	BY:	APPR:	DATE:

<b>6709</b> <b>E10.2</b> SH# 13 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b>			APPROVED:	CEC 04/8/25
	<b>MM-DP-1 PANEL SCHEDULE</b>			<i>Steven Garrett</i>	CHECKED BY DATE AA 04/8/25
PA: POT-PA-00000068	TOWNSHIP: 21	RANGE: 03	SECTION: 27	DIRECTOR ENG. DATE	PROJ. ENGR DATE
PROJ. ID: 101686.01	DAT-HRZ: . NAD83	VERT: MLW, 1983-2001 EPOCH	PORT ADDRESS: 401 East Alexander Ave	PRINTED BY: steven.garrett May 09, 2025	
PHASE: ISSUE FOR BID	PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED	TACOMA, WA 98421		

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BELLEVUE, WA 98006  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005



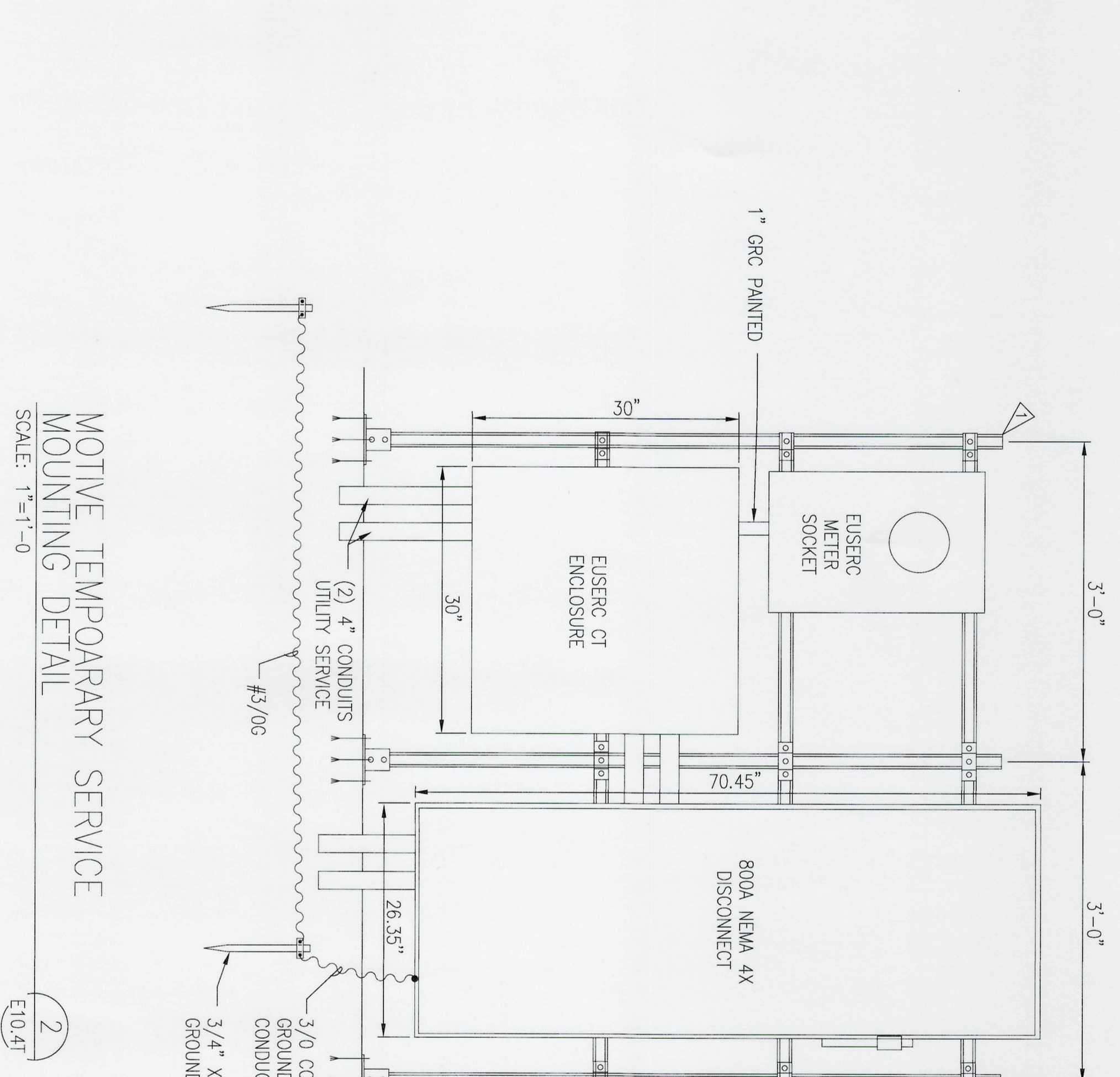
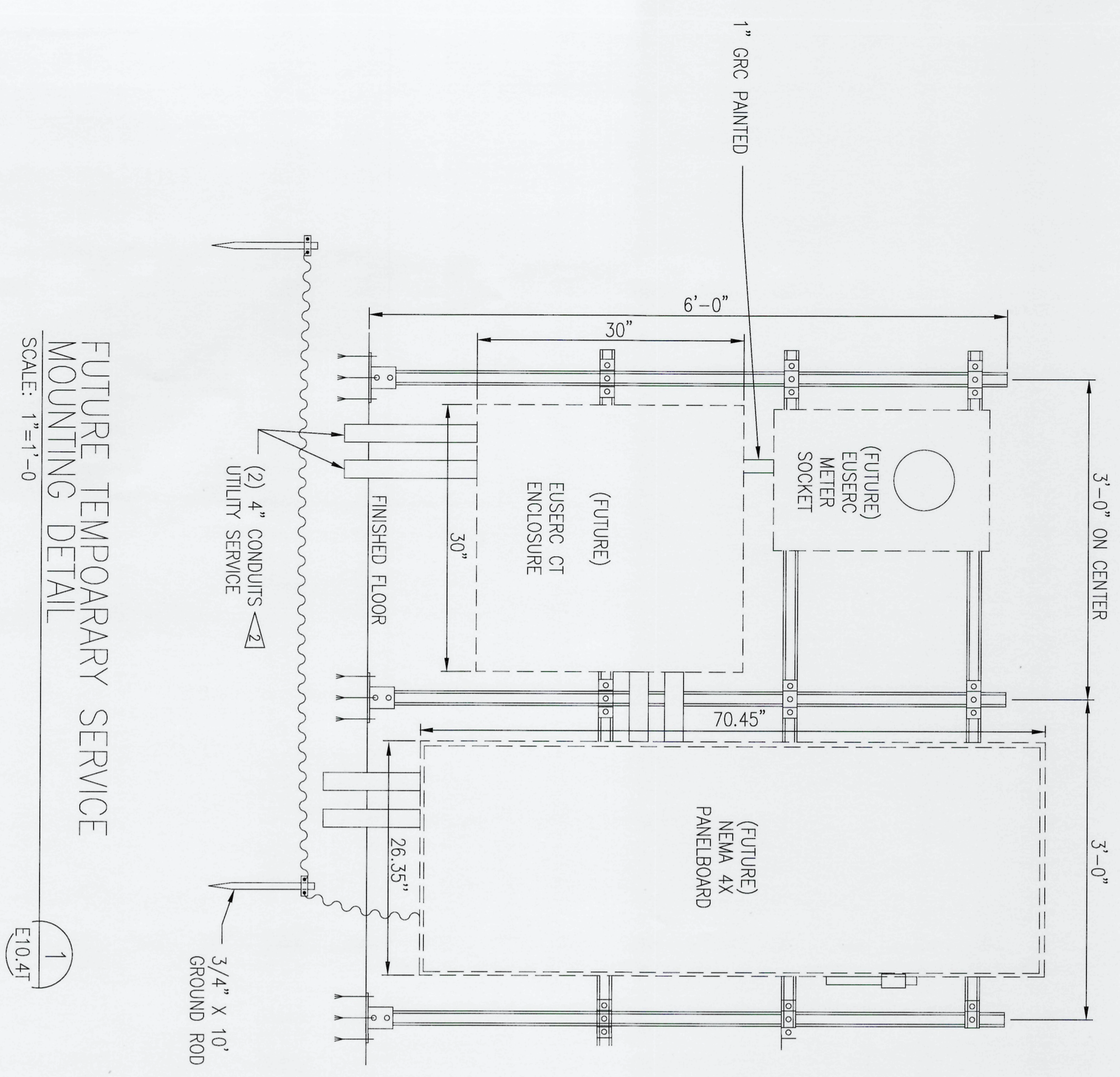


**1** TEMP POWER SITE PLAN  
E10.5T  
SCALE: 1/4"=1'-0"

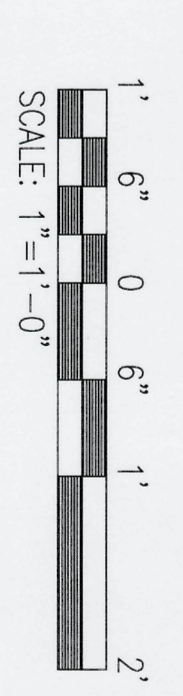
- LEGEND:**
- REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS.
- GENERAL NOTES:**
- REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
  - COORDINATE ALL SHUT-DOWN AND REMOVAL WORK WITH THE PORT OF TACOMA.
  - WORK IDENTIFIED UNDER "PORT CONSTRUCTION NOTES" TO BE PERFORMED UNDER PORT OF TACOMA CONTRACT. WORK IDENTIFIED UNDER "MOTIVE CONSTRUCTION NOTES" TO BE PERFORMED UNDER MOTIVE MARINE CONTRACT.
- PORT CONSTRUCTION NOTES:**
- PROVIDE AND INSTALL UNDERGROUND CONDUIT FITTINGS, AND SUPPORTS. CONDUCTIONS PROVIDED BY OTHERS.
  - PROVIDE AND INSTALL UTILITY VAULT. REFER TO DRAWING E11.2T FOR DETAILS.
  - PROVIDE TPU 774 VAULT WITH COVER #2 FOR TEMPORARY TPU TRANSFORMER. COORDINATE SIZE, LOCATION AND INSTALLATION OF LID AND TRANSFORMER WITH TPU. REFER TO DRAWING E11.4T FOR TPU STANDARDS.
  - PROVIDE SERVICE CONDUIT ONLY, INSTALLED PER TACOMA POWER STANDARD C-UG-1100. COORDINATE INSTALLATION WITH UTILITY.
  - POLE TO BE PROVIDED BY TPU. PROVIDE RISER CONDUIT UP POLE, EXTENDING UNDERGROUND CONDUIT TO TRANSFORMER VAULT. REFER TO DRAWING E11.3T DETAIL 4.
  - TRANSFORMER PROVIDED AND INSTALLED BY TACOMA PUBLIC UTILITIES.
  - PROVIDE AND INSTALL 4" CONDUIT PER TACOMA PUBLIC UTILITY STANDARD FOR MEDIUM VOLTAGE TRANSFORMER PRIMARY
  - PROVIDE AND INSTALL DISTRIBUTION POLE.
- MOTIVE CONSTRUCTION NOTES:**
- PROVIDE CONDUITORS IN UNDERGROUND CONDUIT. CONDUIT PROVIDED BY OTHERS.
  - PROVIDE AND INSTALL 480V TEMPORARY SERVICE CT ENCLOSURE, METER BASE AND FUSED DISCONNECT ON UTILITY RACK. SEE DRAWING E10.4T FOR UTILITY RACK DETAIL.
  - PROVIDE SERVICE CONDUITORS IN CONDUIT, INSTALLED PER TACOMA POWER STANDARD. COORDINATE INSTALLATION WITH UTILITY.

**ISSUE FOR BID  
MAY 9, 2025**

<p><b>6709</b> <b>E10.5T</b> SH# 15 OF 19</p>	<p><b>EBC MOTIVE TEMPORARY POWER</b> ENLARGED TEMPORARY POWER SITE PLAN</p>			<p>APPROVED: <i>Steven Garrett</i> DATE: 05/09/25</p>	<p>CEC 04/8/25 CHECKED BY: <i>AA</i> DATE: 04/8/25</p>		<p><b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD, SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005</p>			
	<p>PA: POT-PA-000000068</p>	<p>TOWNSHIP: 21</p>	<p>RANGE: 03</p>	<p>SECTION: 27</p>	<p>DIRECTOR ENGR. DATE</p>				<p>PROJ. ENGR DATE</p>	<p>MARK: .</p>
<p>PHASE: ISSUE FOR BID</p>	<p>PARCEL: ----</p>	<p>DRAWING SCALE: AS NOTED</p>	<p>PRINTED BY: steven.garrett</p>	<p>DATE: May 09, 2025</p>	<p>PORT ADDRESS: 401 East Alexander Ave</p>	<p>TACOMA, WA 98421</p>	<p>P.O. BOX 1837 TACOMA, WA 98401 (253)363-6841</p>	<p>DATE: .</p>		

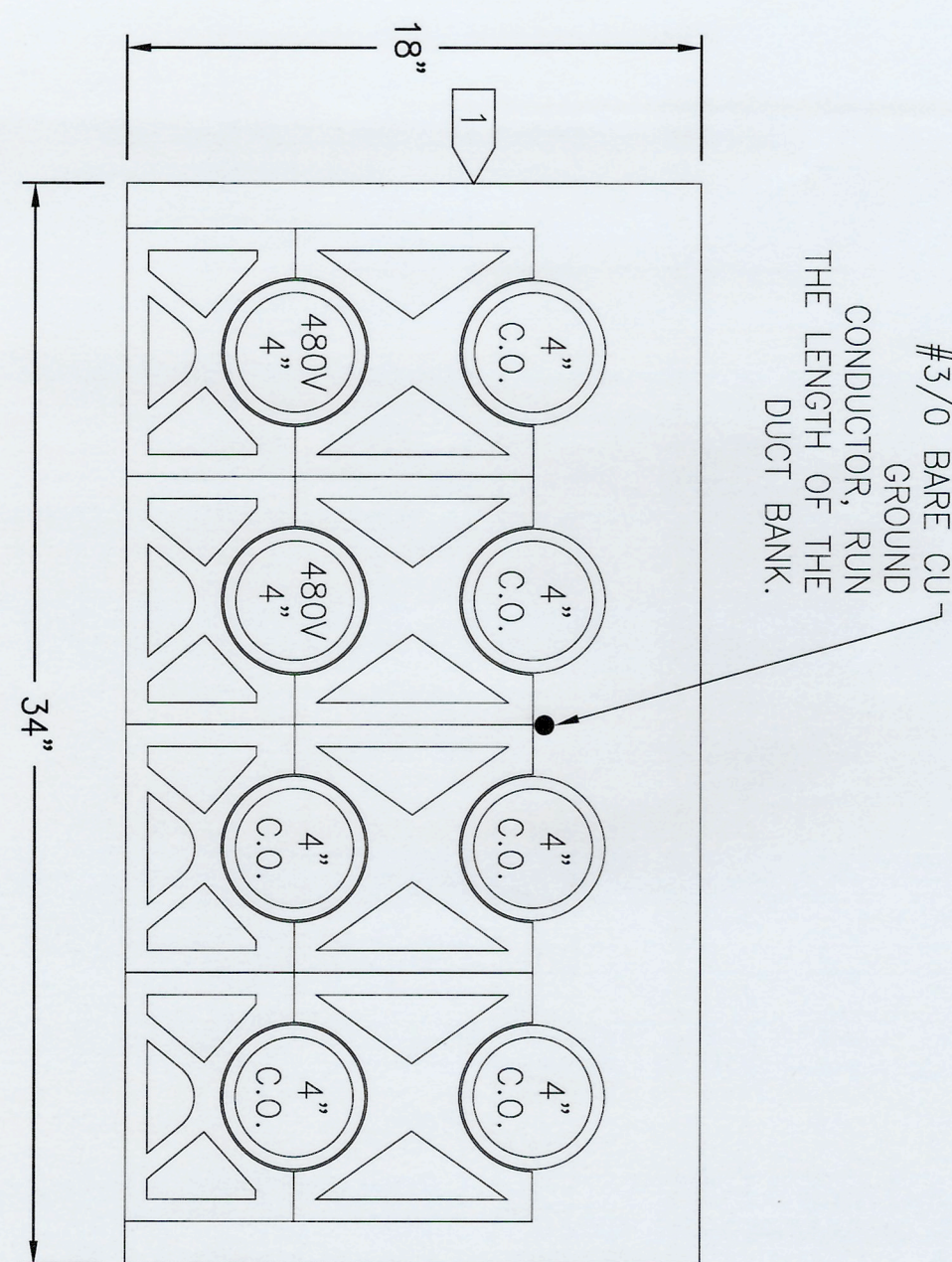


- LEGEND:**
- REFER TO DRAWING E00 FOR COMMON SYMBOLS AND ABBREVIATIONS
- GENERAL NOTES:**
- REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
  - "PORT CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE PORT OF TACOMA CONTRACT.
  - "MOTIVE CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE MOTIVE MARINE CONTRACT.
- MOTIVE CONSTRUCTION NOTES:**
- PROVIDE GREEN PAINTED C-CHANNEL STRUT RACK WITH EQUIPMENT AS SHOWN. REFER TO ONE-LINE DIAGRAM E10.01 FOR EQUIPMENT DETAILS. REFER TO CIVIL DRAWINGS FOR RACK DETAILS.
  - PROVIDE CONDUIT ONLY FOR FUTURE SERVICE.

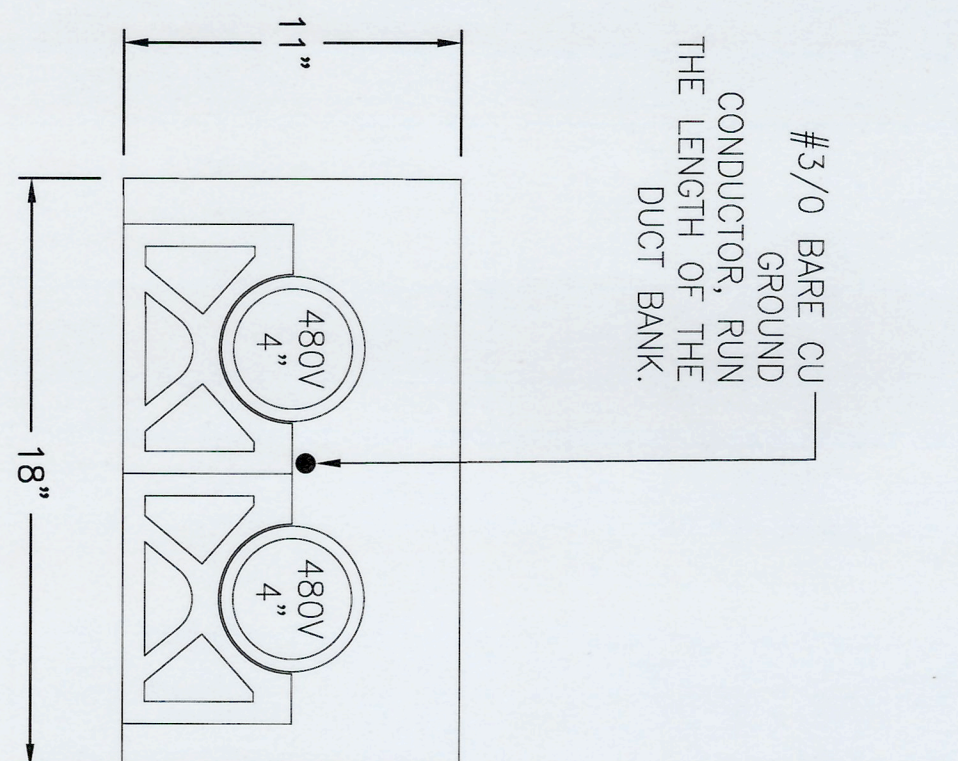


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MAY 9, 2025

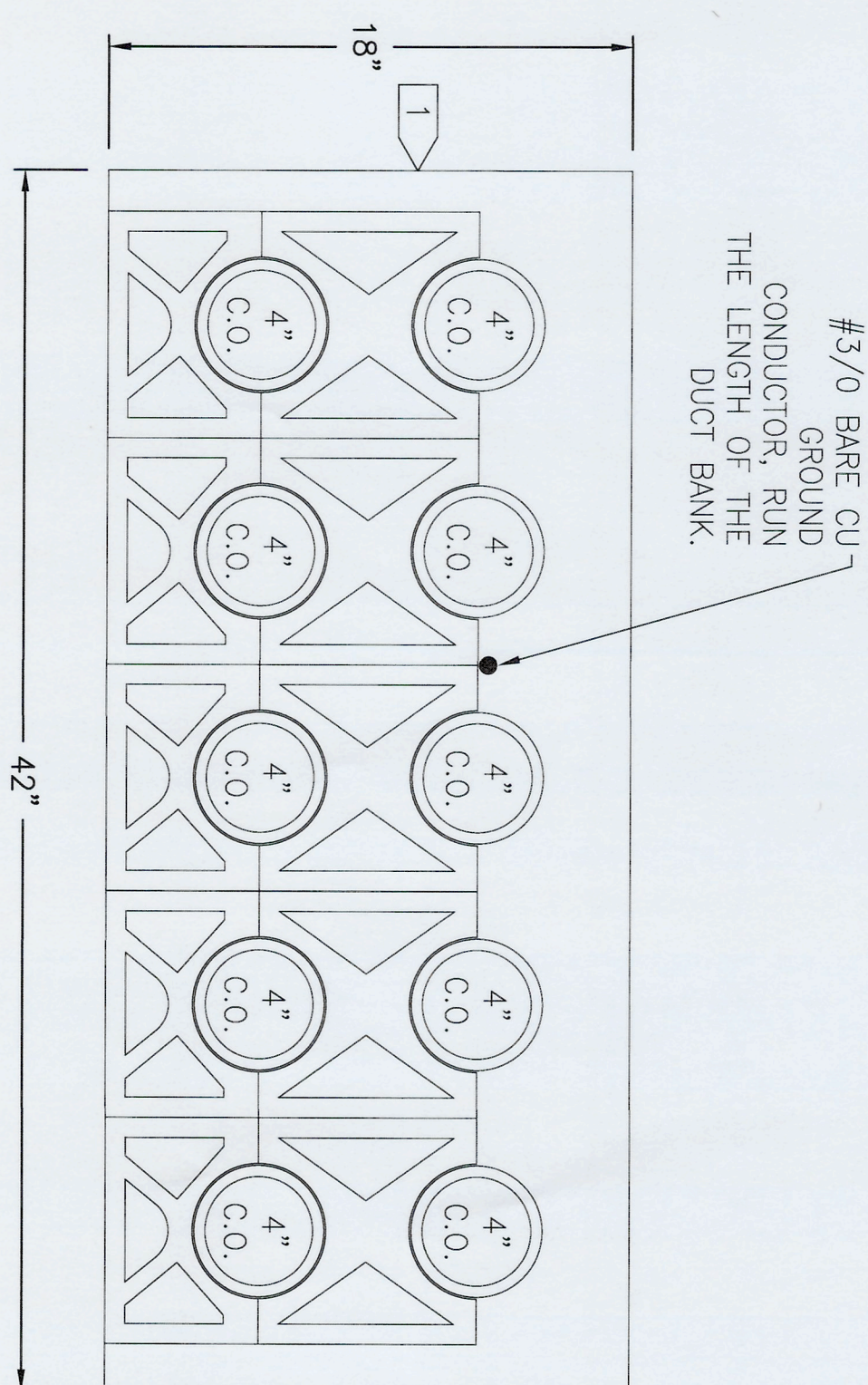
<b>6709</b> <b>E10.4T</b> SH# 14 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b> TEMPORARY EQUIPMENT RACK ELEVATION			APPROVED: 	CEC 04/8/25 CHECKED BY DATE AA 04/8/25		<b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE., SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005	
	PA: POT-PA-000000068 PROJ. ID: 101686.01 PHASE: ISSUE FOR BID	TOWNSHIP: 21 DAT-HRZ: . NAD83 PARCEL: PORT PARCEL 1B	RANGE: 03 VERT: MLW, 1983-2001 EPOCH DRAWING SCALE: AS NOTED	DIRECTOR ENG. DATE PRINTED BY: steven.garrett PORT ADDRESS: 401 East Alexander Ave TACOMA, WA 98421	PROJ. ENGR DATE May 09, 2025			



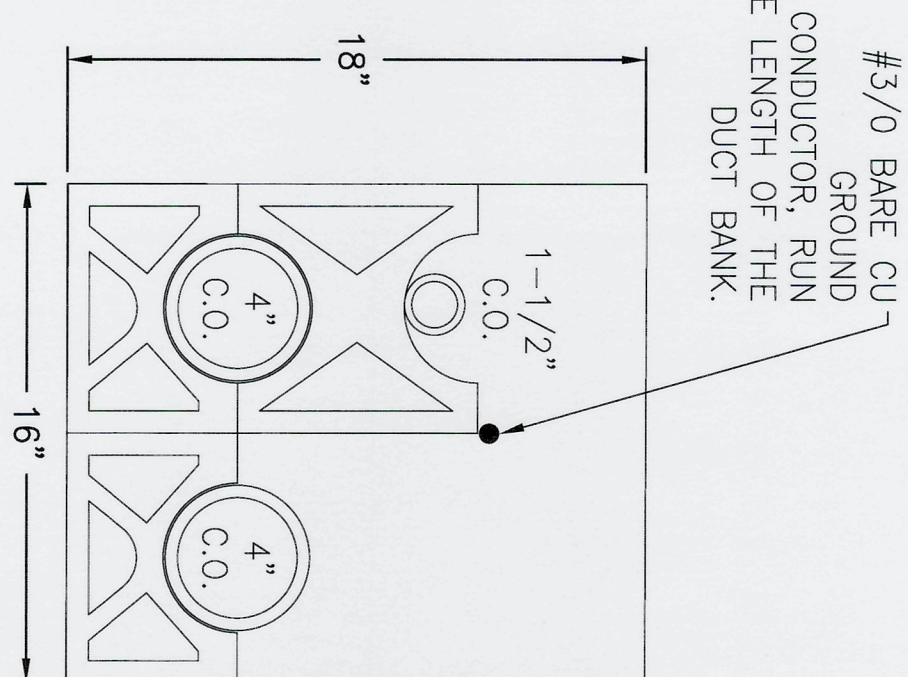
1 480V DUCT BANK SECTION  
E11.1T SCALE: 2" = 1'-0"



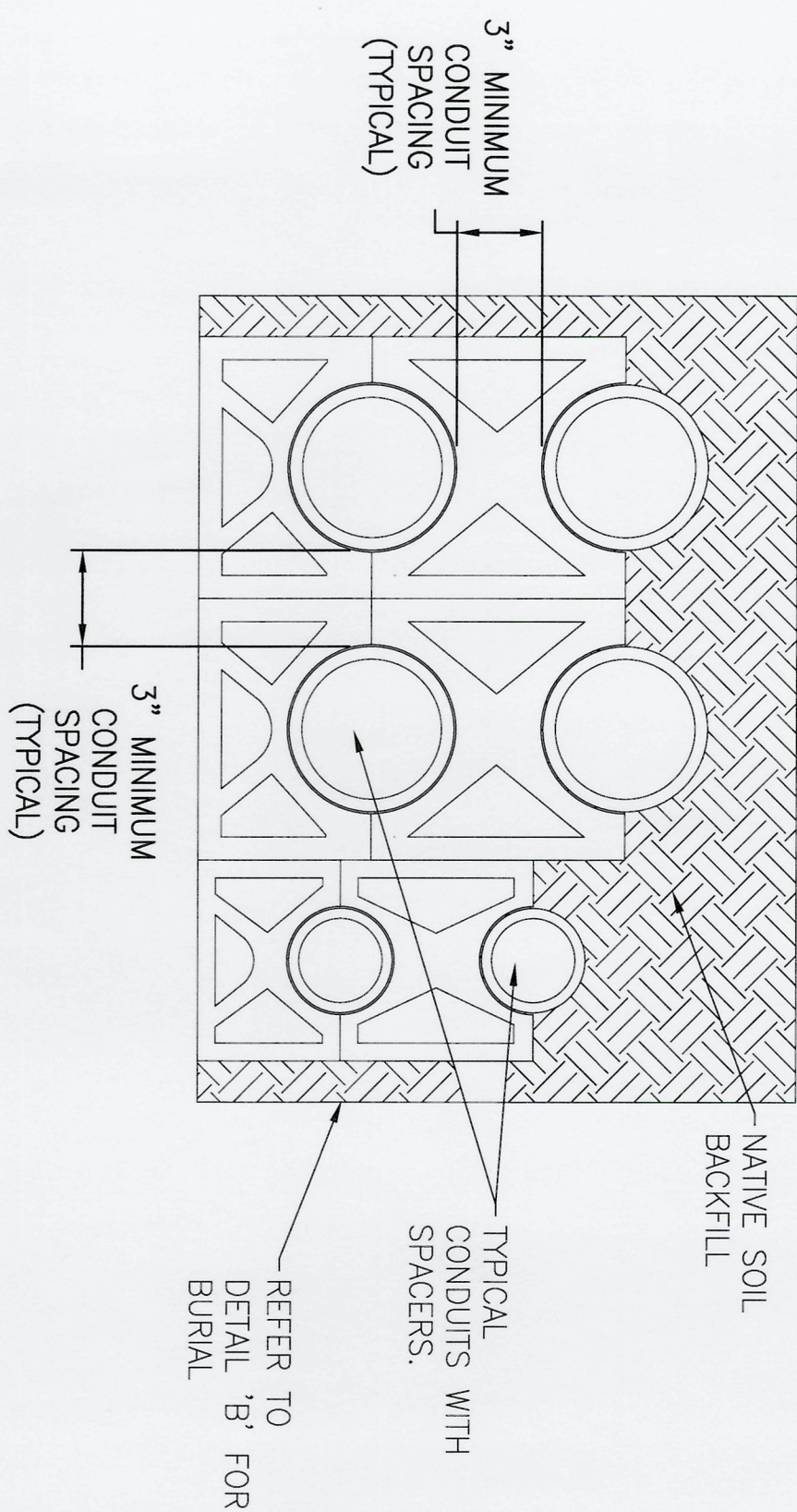
2 480V DUCT BANK SECTION  
E11.1T SCALE: 2" = 1'-0"



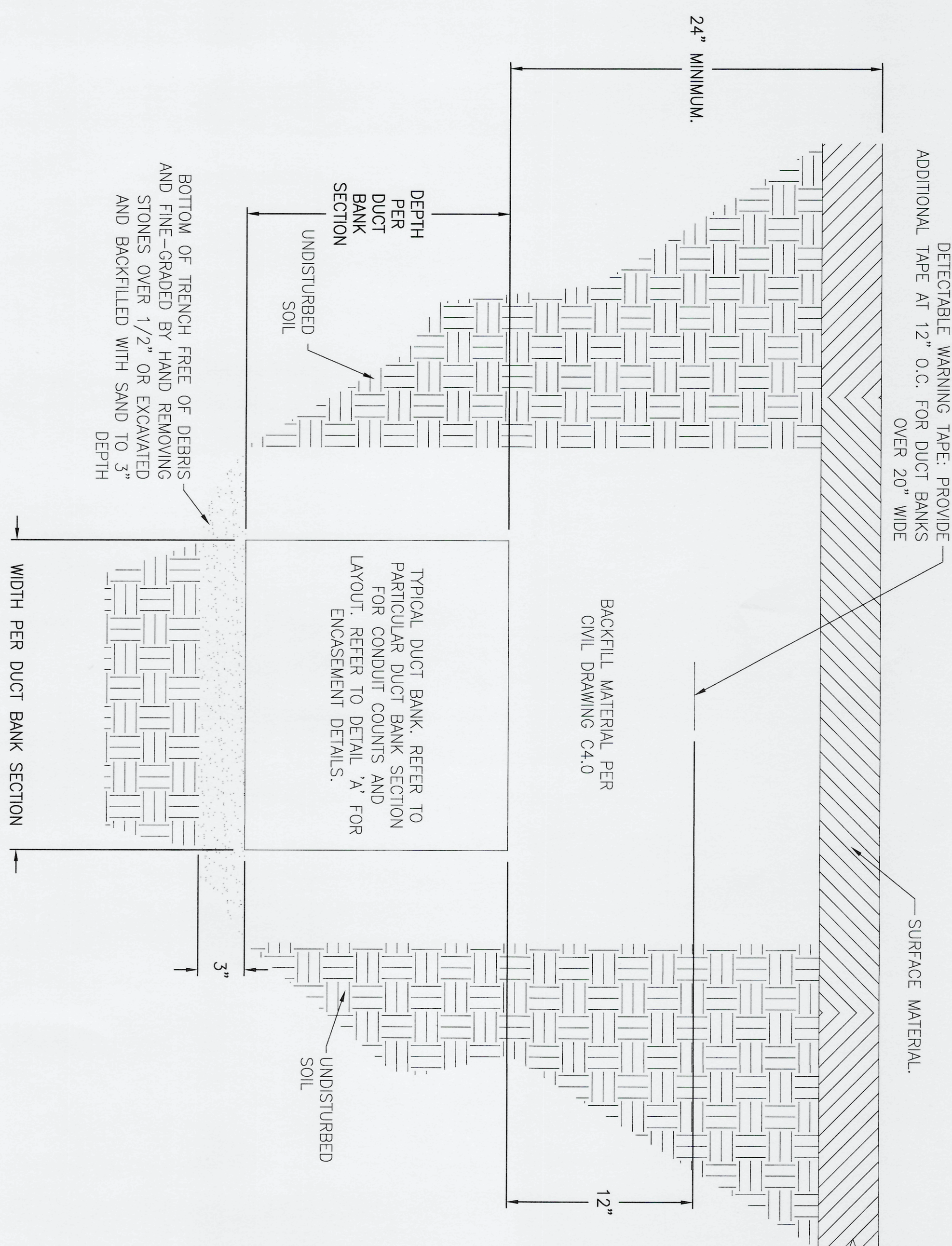
3 SPARE DUCT BANK SECTION  
E11.1T SCALE: 2" = 1'-0"



4 SPARE DUCT BANK SECTION  
E11.1T SCALE: 2" = 1'-0"



A TYPICAL DUCT BANK CONCRETE ENCASUREMENT DETAIL  
E11.1T SCALE: 2" = 1'-0"



B SERVICE BUILDING 480V PLAN-REMOVAL  
E11.1T SCALE: 2" = 1'-0"

**LEGEND:**  
1. REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS

**GENERAL NOTES:**

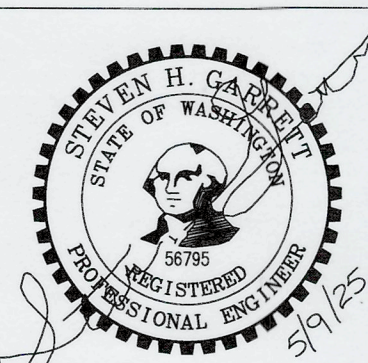
1. DUCT BANK SECTION SHOWN SHALL INSTALLED PER DETAILS A AND B (THIS DRAWING).
2. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL EXISTING UNDERGROUND INTERFERENCES INCLUDING MECHANICAL, ELECTRICAL AND CIVIL INSTALLATIONS WHICH MAY NOT BE SHOWN BUT MAY OVERLAP WITH FINAL ROUTING OF DUCT BANKS AND/OR LOCATION OF MANHOLES. ANY DAMAGE TO SUCH EXISTING INSTALLATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.
3. BASE AND INTERMEDIATE DUCT SPACERS SHALL BE PLACED 12" FROM EACH JOINT AND ON 5'-0" CENTERS THROUGHOUT THE DUCT RUN.
4. ANCHOR CONDUIT SPACERS TO PAVERS OR BRICKS AS REQUIRED TO PREVENT FLOTATION DUE TO HIGH WATER TABLE DURING CONSTRUCTION OR CONCRETE POURING. ALLOW HORIZONTAL MOVEMENT DUE TO TEMPERATURE FLUCTUATIONS.
5. MAINTAIN 12" MINIMUM EDGE-TO-EDGE SEPARATION BETWEEN POWER CONDUIT AND COMMUNICATION CONDUIT IN CONCRETE OR IN EARTH.
5. MAINTAIN MINIMUM 12" SEPARATION BETWEEN DUCT BANK AND UTILIDOR OR EXPOSED MECHANICAL PIPING UNLESS OTHERWISE NOTED.
6. ALL PROJECT RELATED CONDUITS, EXISTING OR NEW SHALL BE PROVEN SUITABLE FOR CABLE PLACEMENT BY PULLING THROUGH THE FOLLOWING MANDRELS IN THE ORDER DERIVED:
  1. A WOODEN OR ALUMINUM TEST MANDREL TO VERIFY CONDUITS ARE NOT CRUSHED.
  2. A POLYURETHANE, NEOPRENE OR LEATHER MANDREL FOR CLEANING DEBRIS.
  3. A LUBRICATION SPREADING MANDREL TO PREPARE FOR CABLE PULLING (WHERE APPLICABLE).
7. ALL SPARE OR EMPTY CONDUITS SHALL BE EQUIPPED WITH 1/2" MULETAPE OR EQUIVALENT, RATED AT MINIMUM 1,500 POUNDS PULLING STRENGTH.
8. USE MINIMUM 25' BENDING RADIUS FOR ALL HORIZONTAL BENDS EXCEPT WHERE PLANS INDICATE OTHERWISE.
9. USE MINIMUM 3' BENDING RADIUS FOR ALL CONDUIT STUB-UPS.
10. SEE SPECIFICATION 26 05 43 FOR ADDITIONAL REQUIREMENTS.
11. REFER TO DRAWING E1.0T FOR SECTION CUT LOCATIONS.

ISSUE FOR BID  
MAY 9, 2025

**CASNE Engineering**  
3545 FACTORIA BOULEVARD SE, SUITE 200  
BELLEVUE, WA 98006  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005

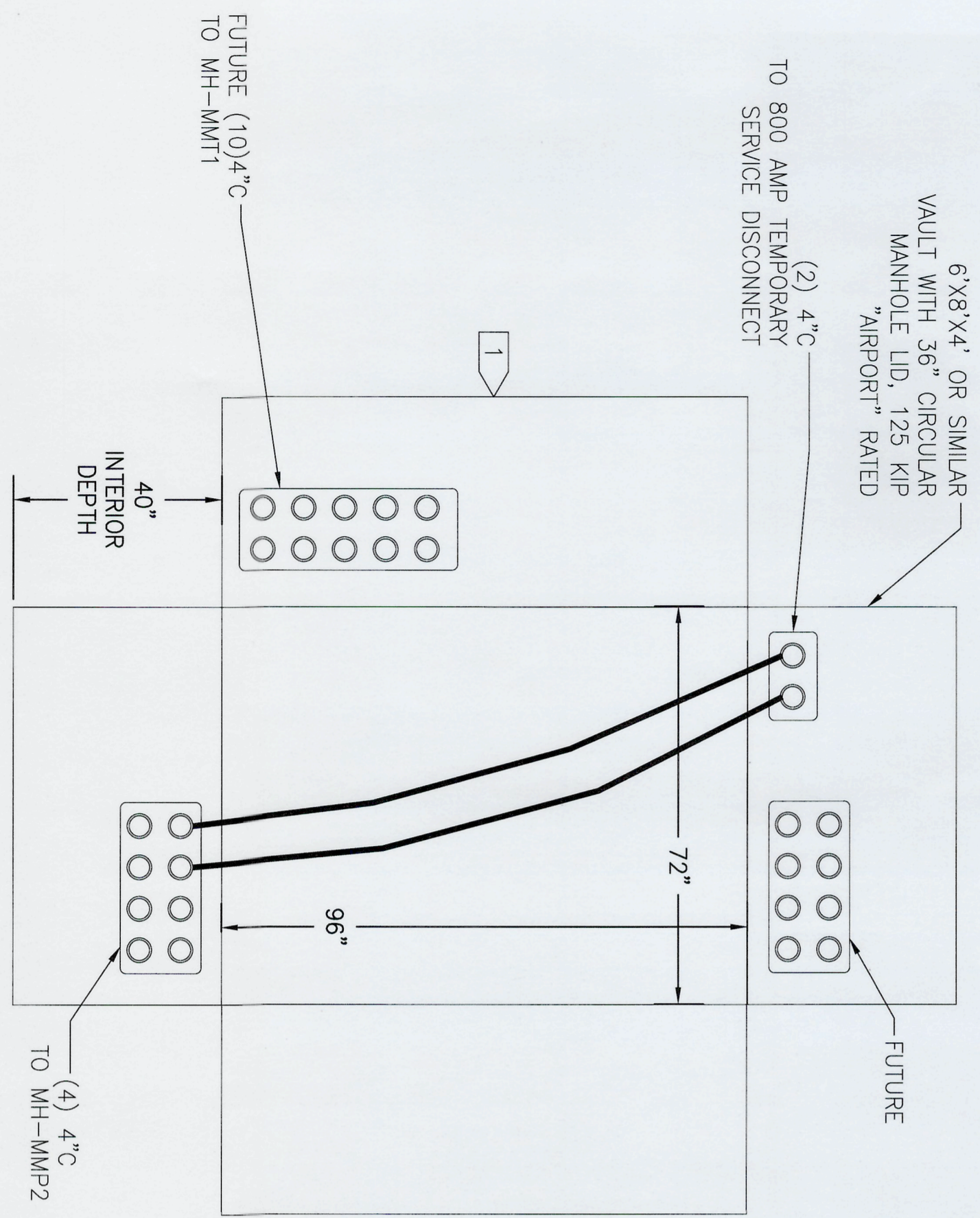
**Port of Tacoma**  
P.O. BOX 1837 TACOMA, WA 98401 (253)885-8941

MARK:	REVISION:	BY:	APPR:	DATE:

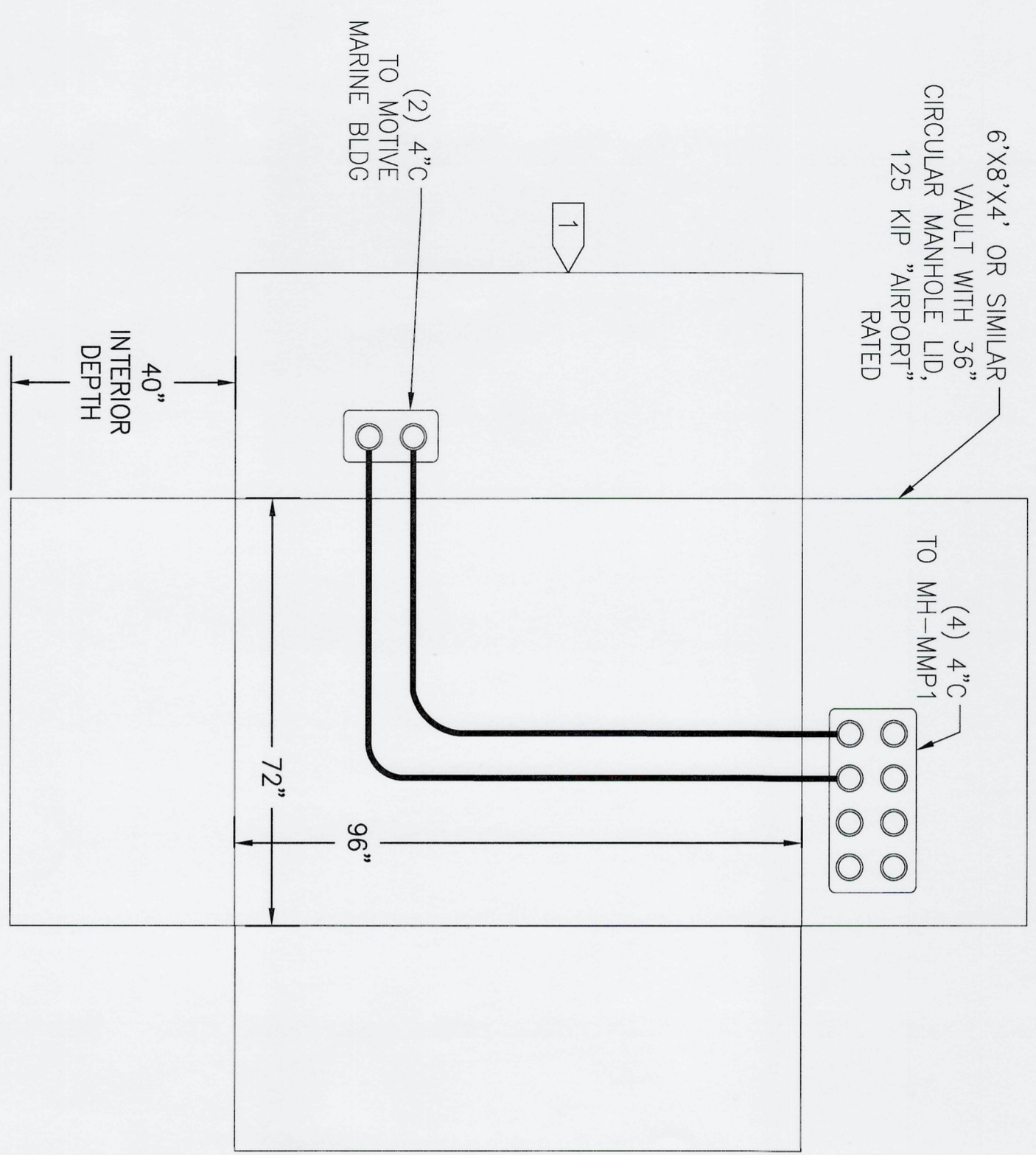


APPROVED: CEC 04/8/25  
CHECKED BY: DATE  
AA 04/8/25  
PROJECT ENGR: DATE  
PROJECT ENGR: DATE  
PRINTED BY: steven.garrett May 09, 2025  
PORT ADDRESS: 401 EAST ALEXANDER AVE  
TACOMA, WA 98421

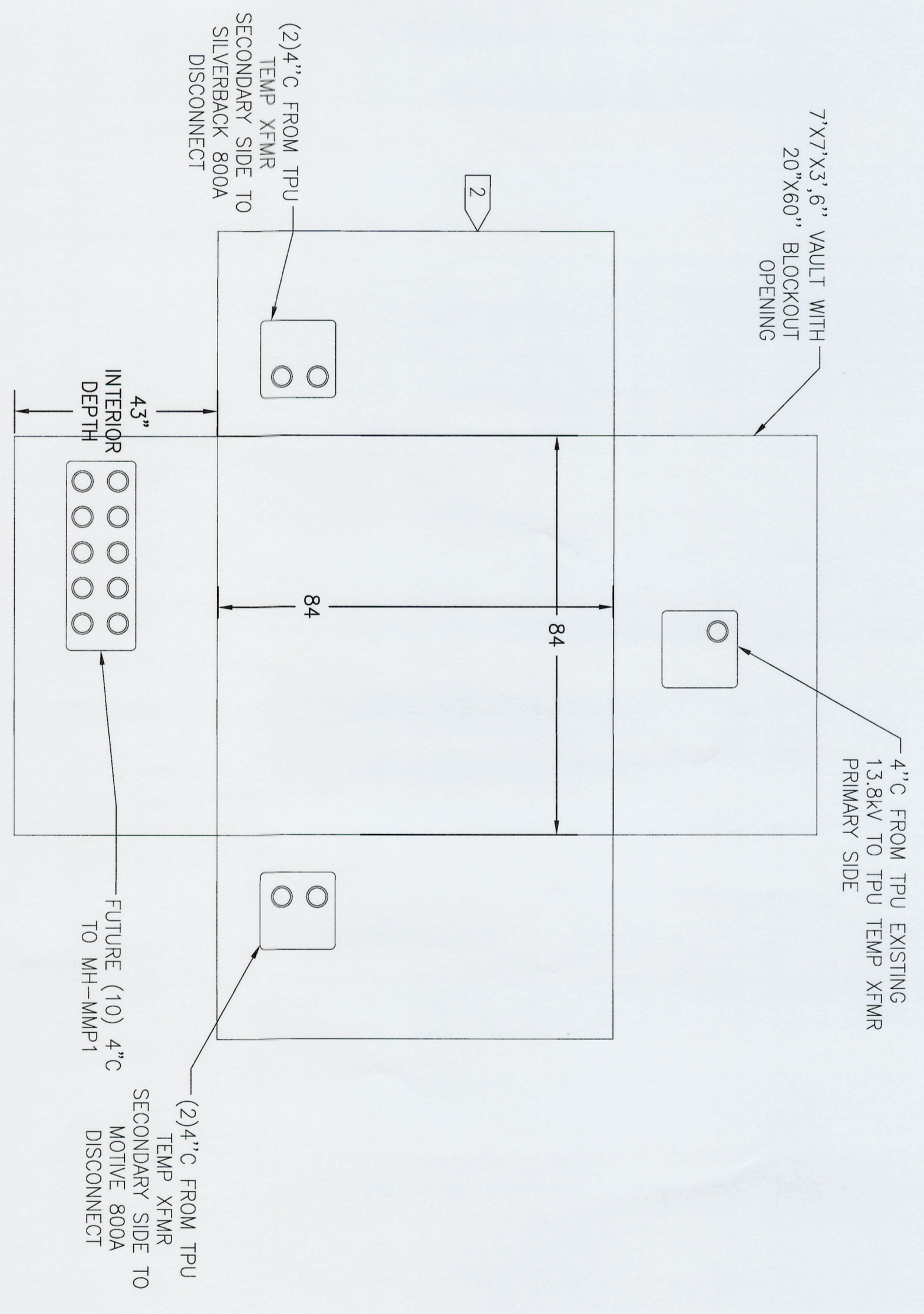
6709 <b>E11.1T</b> SH# 16 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b>		APPROVED: CEC 04/8/25	
TOWNSHIP: 21 NORTH		RANGE: 3 EAST		SECTION: 27
PA: POT-PA-000000068	DAT-HRZ: NAD83	VERT: MLLW 1983-2001	EPOCH	
PROJ. ID: 101686.01	PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED		
PHASE: ISSUE FOR BID				



1 MH-MMP1 480V VAULT BUTTERFLY  
E11.2T SCALE: 1/2" = 1'-0"



2 MH-MMP2 480V VAULT BUTTERFLY  
E11.2T SCALE: 1/2" = 1'-0"



3 MH-MMT1 TRANSFORMER VAULT BUTTERFLY  
E11.2T SCALE: 1/2" = 1'-0"

**LEGEND:**

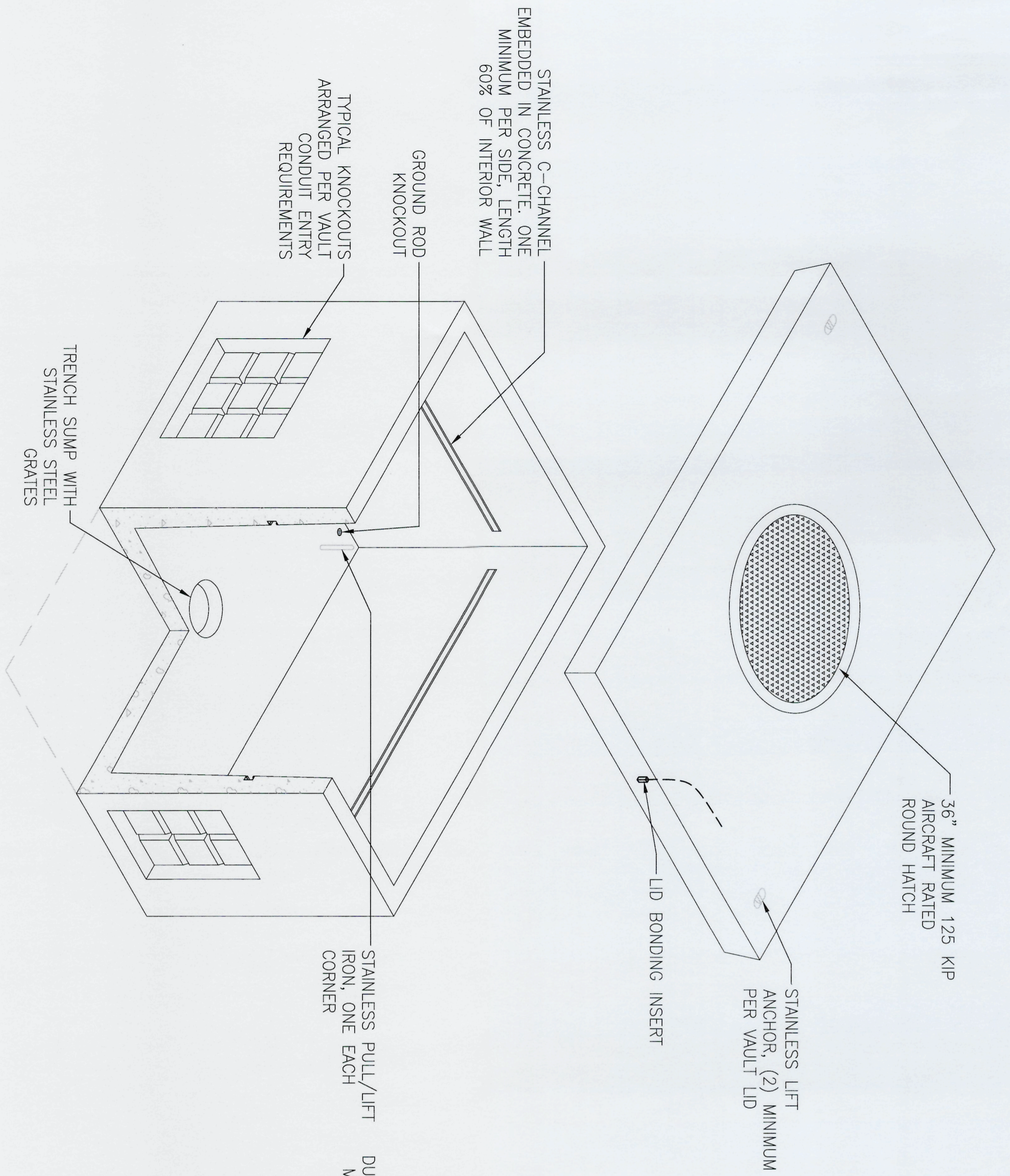
1. REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS

**GENERAL NOTES:**

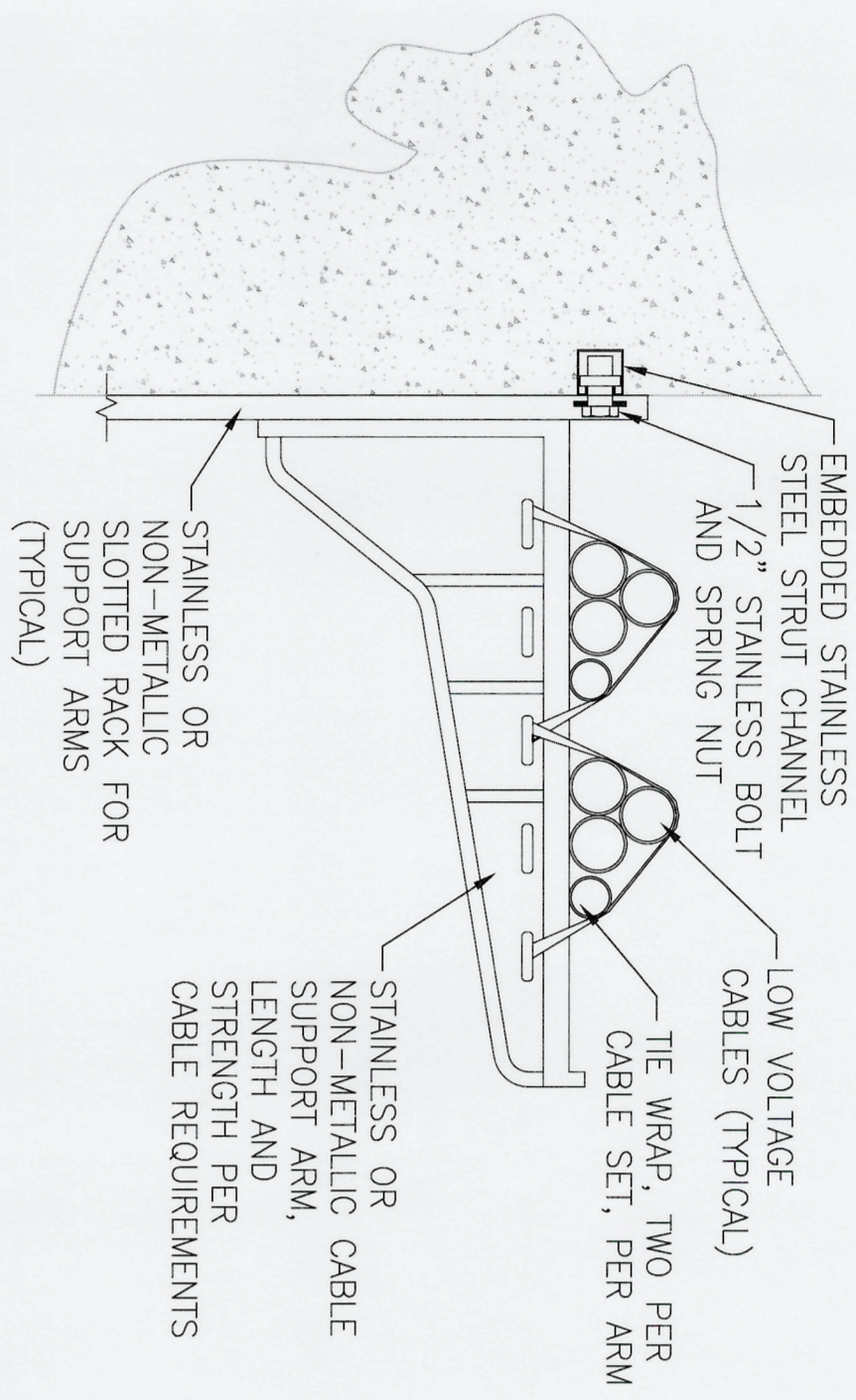
1. REFER TO DRAWING E11.2T DETAILS 1 AND 2 FOR MANHOLE GROUNDING AND CABLE RACKING DETAILS.
2. REFER TO DRAWING E11.4T DETAILS 1 THROUGH 5 FOR 1500KVA TRANSFORMER 774 VAULT WITH COVER #2 CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL EXISTING UNDERGROUND INTERFERENCES INCLUDING MECHANICAL, ELECTRICAL AND CIVIL INSTALLATIONS WHICH MAY NOT BE SHOWN BUT MAY OVERLAP WITH FINAL ROUTING OF DUCT BANKS AND/OR LOCATION OF MANHOLES. ANY DAMAGE TO SUCH EXISTING INSTALLATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE
4. VERIFY MANHOLE ELEVATIONS AND DUCT ARRANGEMENT PRIOR TO PLACEMENT TO ENSURE PROPER COORDINATION WITH DUCT BANK ELEVATION, CROSS-SECTIONS AND THE PREMANUFACTURED CONDUIT KNOCKOUTS. THE CONTRACTOR MAY USE MANUFACTURER'S STANDARD DESIGN KNOCKOUTS OR CUSTOM DESIGNED KNOCKOUTS AS REQUIRED TO ACCOMMODATE THE DUCT BANK PROFILES AND CROSS SECTIONS INDICATED.
5. ADD RISERS AS NECESSARY TO BRING MANHOLE OPENING TO GRADE. MANHOLE COVER SHALL BE 1" ABOVE FINISH GRADE AND SLOPED TO PREVENT WATER ENTRY.
6. ALL SEAMS IN RISER AND MANHOLES SHALL BE GROUNDED WITH QUICK PLUG OR EQUIVALENT PER UTILITY VAULT SPECIFICATIONS.
7. CONDUIT TERMINATIONS AT MANHOLES SHALL ENTER THROUGH PRE-SET KNOCKOUTS ONLY AND NOT EXTEND MORE THAN 3/4" BEYOND INSIDE WALL EXCEPT WHERE CONDUIT IS REQUIRED TO PASS THROUGH.
8. ALL MANHOLES SHALL BE EQUIPPED WITH STAINLESS STEEL PULLING IRONS AND STAINLESS HARDWARE.
9. STAINLESS STEEL OR NON-METALLIC CABLE RACKING SHALL BE PROVIDED IN ALL POWER MANHOLES AS REQUIRED FOR THE SPECIFIC QUANTITY OF CABLE AND/OR TYPE OF TERMINATION/SPlice.
10. SEE CIVIL AND STRUCTURAL PLANS FOR TRENCH AND BACKFILL REQUIREMENTS.
11. REFER TO DRAWINGS E1.0T FOR VAULT LOCATIONS.

ISSUE FOR BID  
MAY 9, 2025

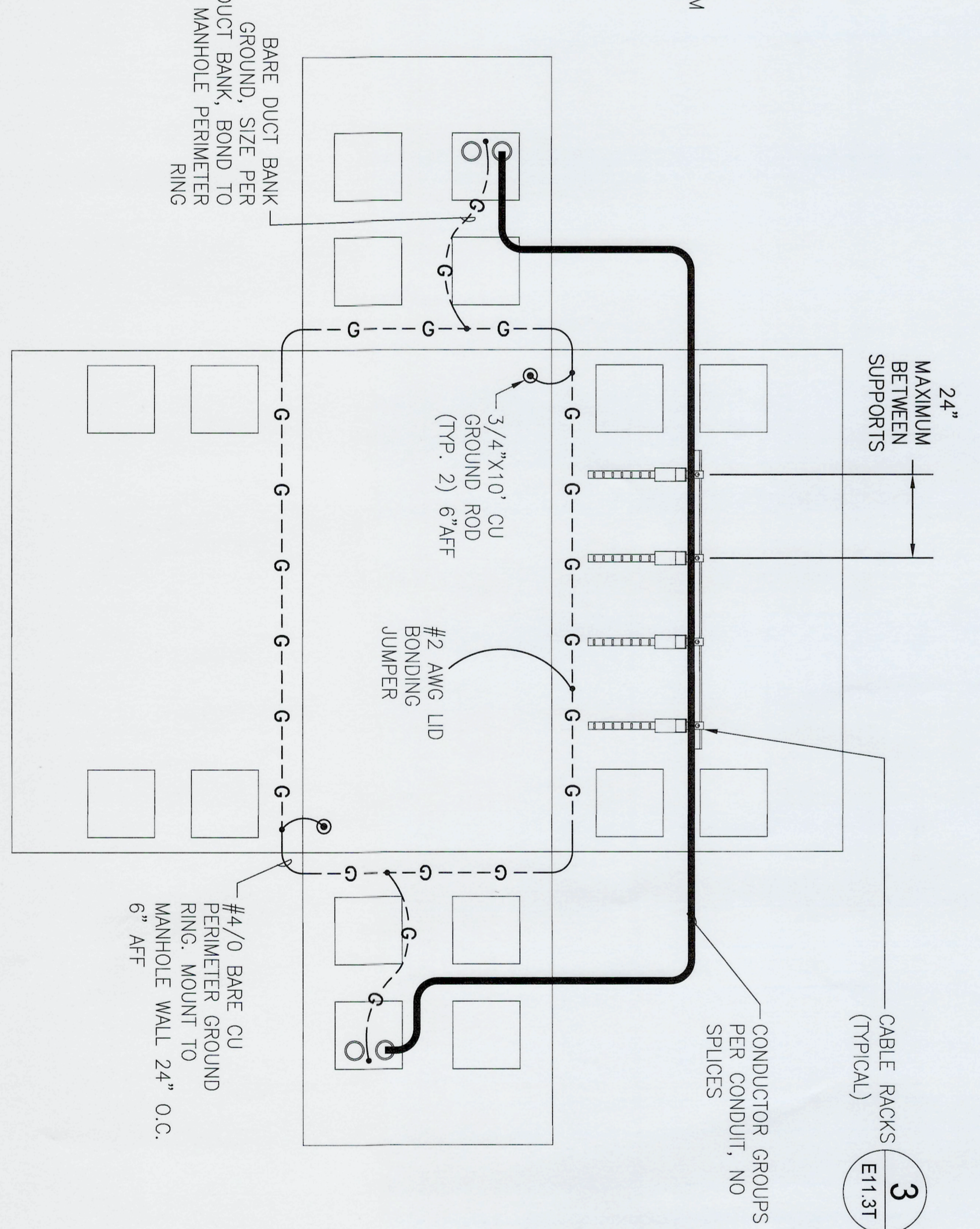
<p>6709 <b>E11.2T</b> SH# 17 OF 19</p>	<p><b>EBC MOTIVE TEMPORARY POWER</b></p>		<p>APPROVED: <i>Steven Garrett</i> 5/19/25</p>	<p>CEC 04/8/25 CHECKED BY DATE AA 04/8/25</p>		<p><b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE, SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005</p>	
	<p><b>VAULT DETAILS</b></p>		<p>DIRECTOR ENG. DATE PROJECT ENGR DATE</p>	<p>PROJ. ENGR DATE DATE</p>			
<p>PA: POT-PA-000000068</p> <p>PROJ. ID: 101686.01</p> <p>PHASE: ISSUE FOR BID</p>	<p>TOWNSHIP: 21</p> <p>DAT-HRZ: .</p> <p>PARCEL: PORT PARCEL 1B</p>	<p>RANGE: 3</p> <p>VERT: MLW, 1983-2001 EPOCH</p> <p>DRAWING SCALE: AS NOTED</p>	<p>SECTION: 27</p> <p>PRINTED BY: steven.garrett May 09, 2025</p> <p>PORT ADDRESS: 401 EAST ALEXANDER AVE TACOMA, WA 98421</p>	<p>CEC 04/8/25</p> <p>AA 04/8/25</p> <p>PROJECT ENGR DATE</p> <p>DATE</p>	<p>PROJ. ENGR DATE</p> <p>DATE</p>	<p>P.O. BOX 1837 TACOMA, WA 98401 (253)883-6841</p>	<p>MARK: .</p> <p>REVISION: .</p> <p>BY: .</p> <p>APPR: .</p> <p>DATE: .</p>



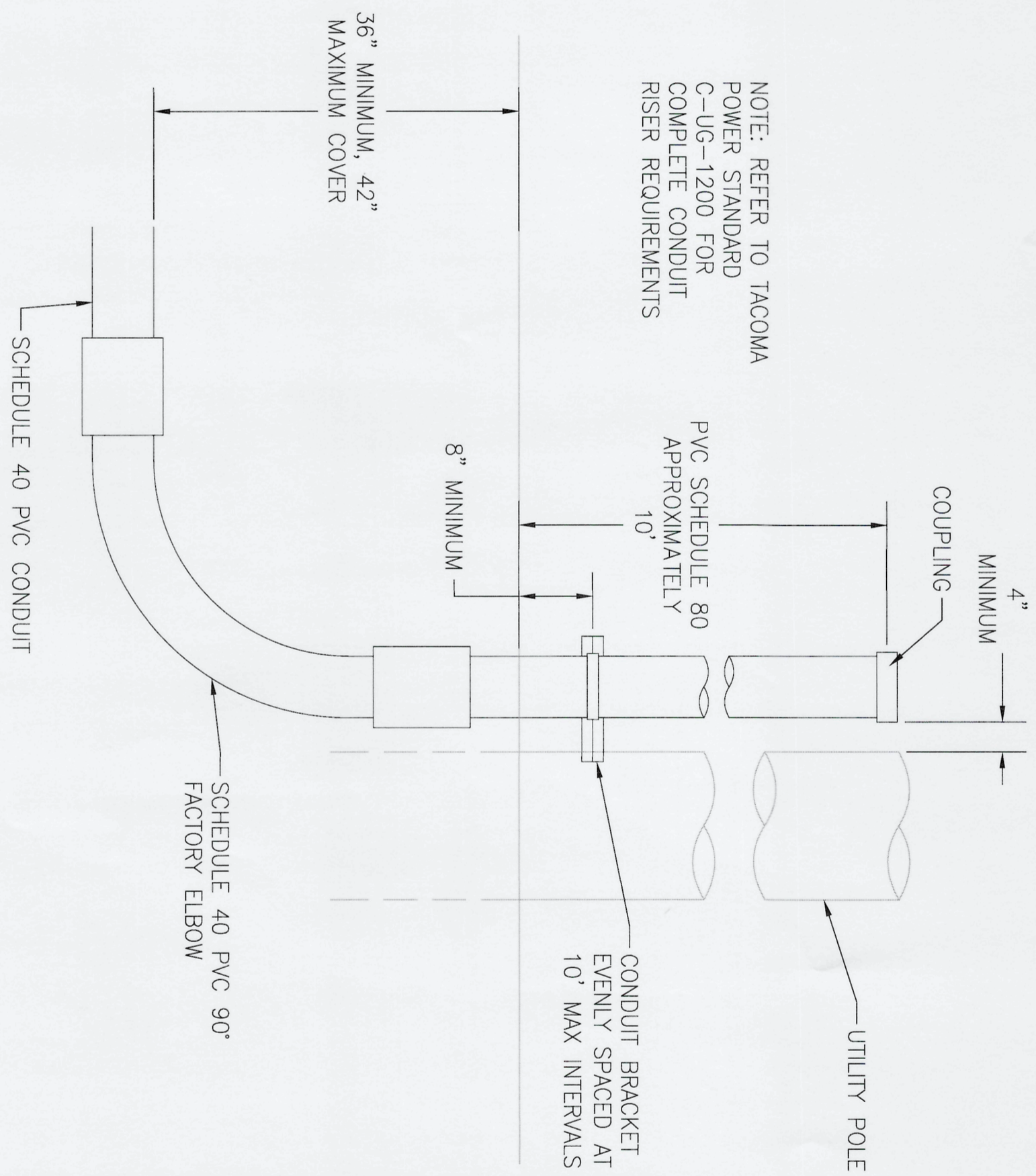
1 TYPICAL ELECTRICAL VAULT DETAIL  
E11.3T SCALE: NONE



3 CABLE SUPPORT DETAIL  
E11.3T SCALE: NONE



2 TYPICAL ELECTRICAL VAULT SUPPORT AND GROUNDING DETAIL  
E11.3T SCALE: NONE



4 CONDUIT RISER DETAIL  
E11.3T SCALE: NONE

- LEGEND:**
- REFER TO DRAWING E.O.0 FOR COMMON SYMBOLS AND ABBREVIATIONS
- GENERAL NOTES:**
- REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.

ISSUE FOR BID  
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**CASNE Engineering**  
3545 FACTORIA BOULEVARD SE., SUITE 200  
BELLEVUE, WA 98006  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005

**Port of Tacoma**  
P.O. BOX 1837 TACOMA, WA 98401 (253)383-8841



APPROVED: *Steven H. Garrett*  
CEC 04/8/25  
CHECKED BY DATE  
AA 04/8/25  
DIRECTOR ENGR. DATE  
PROJ. ENGR DATE  
PRINTED BY: steven.garrett May 09, 2025  
PORT ADDRESS: 401 EAST ALEXANDER AVE  
TACOMA, WA 98421

6709 <b>E11.3T</b> SH# 18 OF 19		EBC MOTIVE TEMPORARY POWER		APPROVED: <i>Steven H. Garrett</i>		CEC 04/8/25	
DETAILS		TOWNSHIP: 21		RANGE: 3		SECTION: 27	
PA: POT-PA-000000068		DAT-HRZ: .		VERT: MLW, 1983-2001 EPOCH		PRINTED BY: steven.garrett May 09, 2025	
PROJ. ID: 101686.01		PARCEL: PORT PARCEL 1B		DRAWING SCALE: AS NOTED		PORT ADDRESS: 401 EAST ALEXANDER AVE TACOMA, WA 98421	
PHASE: ISSUE FOR BID							

MARK:	REVISION:	BY:	APPR:	DATE:

May 18, 2025

**TACOMA POWER**

Customer Requirements  
Transformer Vault  
Installation  
C-UG-1700

### Installation of Vault and Cover

Figure 1  
Vault Foundation and Backfill

The foundation shall be prepared as follows as directed by the Construction Inspector. See Figure 1.

Issue	Action
Excavation for Vault	The Construction Inspector will direct the excavation requirements.
Vault Foundation	Vault foundations shall be minimum of 8 inches of 3000 psi concrete with a minimum thickness of 12 inches beyond the edge of the vault in all directions.
Backfill Material	Cham fill or better as directed by the Construction Inspector.
Compaction at Signages	Compaction requirements will be determined by the Construction Inspector.
Final Grade	Final grade shall be 6 inches above the top of the vault cover.

Transmission & Distribution Standards  
Page 4 of 9

May 18, 2025

**TACOMA POWER**

Customer Requirements  
Transformer Vault  
Installation  
C-UG-1700

### Installation of Vault and Cover (continued)

Guard Posts  
Guard posts may be required by the New Service Engineer to protect vaults. Pasture Equipment Guard Posts installation for guard post construction and placement.

Figure 2  
Sloping Installation

For transformer vaults installed on a slope, the minimum dimensions for clearances are:

- Front clearance = 8 feet
- Side clearance = 8 feet

**Construction**

- The transformer vault must be kept clear of any obstructions, such as:
  - rocks, metal boxes, rockers, beams, and vegetation.
  - trees and bushes extending into the clearance area.
- Phone and TV rockshells must be installed behind the vault on back corners as shown above.
- The clearance area grade shall be level and a retaining wall shall be provided if necessary. A second retaining wall shall have a 1% transmission allowable slope to the property line.

Transmission & Distribution Standards  
Page 5 of 9

August 8, 2024

**TACOMA POWER**

Precast Concrete Vaults  
A-UG-1150

### TPU XFMR VAULT INSTALLATION STANDARD

E11.4T SCALE: NONE

**774 Vault**

DESCRIPTION: Vault consists, type 774, 74" x 74" x 38 1/2" high, 387 pound, precast concrete vaulting cabinet cover #1 is 8 1/2" x 8 1/2" x 8 1/2" with 20" x 60" knockout opening, secondary service cover #2 is 8 1/2" x 10 1/2" x 8 1/2" with 20" x 60" knockout opening, secondary service cover #3 is 42" x 42" knockout opening, secondary service cover #4 is 14 1/2" x 14 1/2" x 8 1/2" with two 38" x 38" hinged diamond plate aluminum doors.

Transmission & Distribution Standards  
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August 8, 2024

**TACOMA POWER**

Precast Concrete Vaults  
A-UG-1150

### TPU XFMR VAULT CLEARANCE REQUIREMENTS

E11.4T SCALE: NONE

**774 Vault (continued)**

Material	MDP
774 Vault Base (7,500 lbs)	21187
774 Transformer (500 kVA to 1500 kVA) or 774 Transformer (2500 kVA to 5000 kVA)	19481
774 Transformer (2500 kVA to 5000 kVA) Cover #2, 38" x 108" (7,200 lbs)	19483
774 Secondary Service Cabinet Cover #3 (5,000 lbs)	50889
774 Secondary Service Cabinet Cover #4 (4,000 lbs)	67541
774 Secondary Service Box Cover #4 Non-Std (4,000 lbs)	67540
774 Riser, 6in (1,200 lbs)	39874
774 Riser, 12in (2,000 lbs)	42326

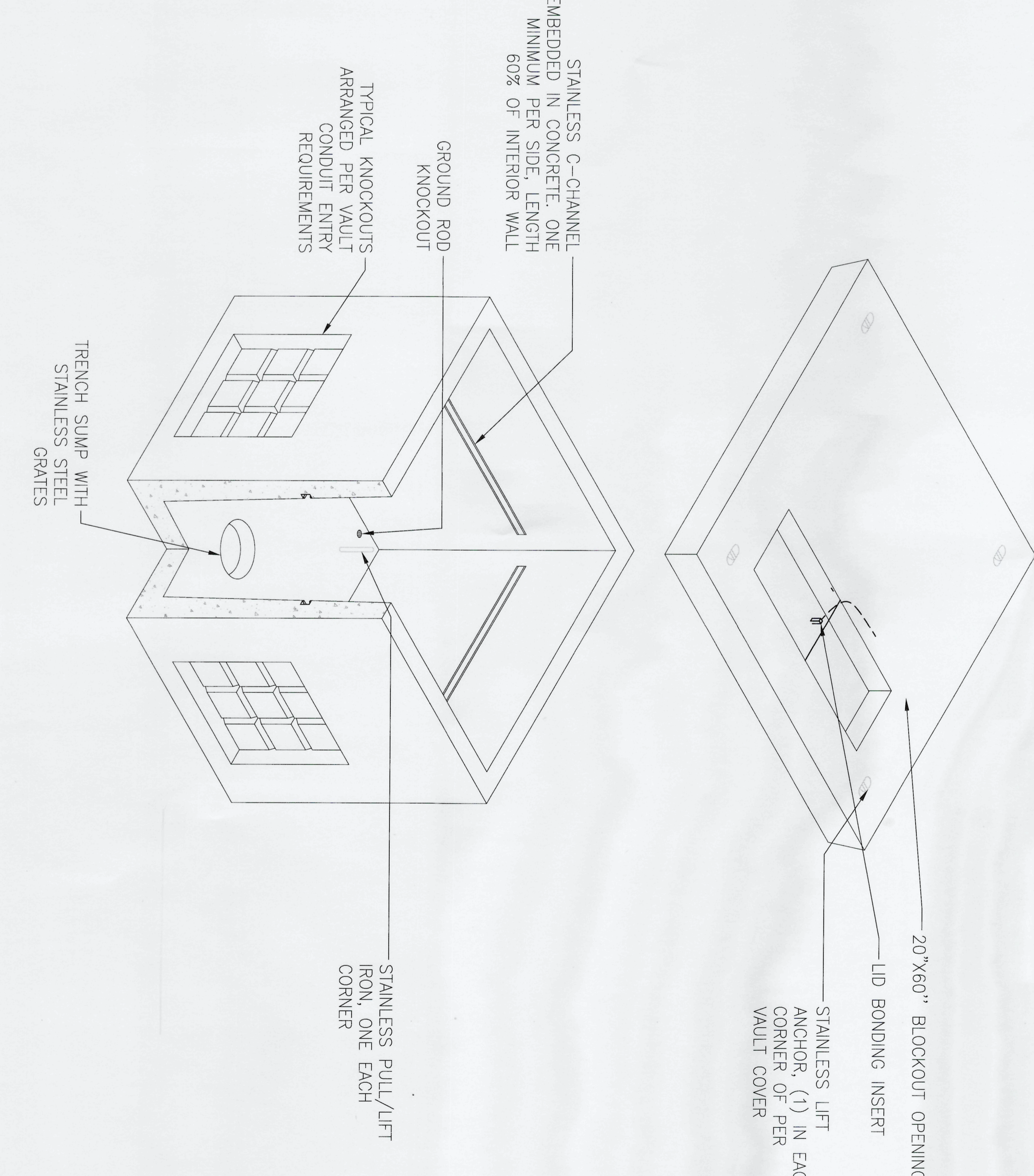
APPLICATION: Large 30 Transformer (500 kVA to 2500 kVA), 387 Primary Metering Cabinet, Secondary Service Cabinet, Commercial Secondary Service Box.

Transmission & Distribution Standards  
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3  
E11.4T SCALE: NONE  
TPU XFMR VAULT  
774 STANDARD COVER #2 (1500KVA)

4  
E11.4T SCALE: NONE  
TPU XFMR VAULT  
774 STANDARD (1500KVA) BOM

4  
E11.4T SCALE: NONE  
TPU XFMR VAULT  
774 STANDARD COVER #2 (1500KVA) DETAIL



- LEGEND:**
1. REFER TO DRAWING E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS
- GENERAL NOTES:**
1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
  2. THE TACOMA PUBLIC UTILITIES STANDARDS PROVIDED ON THIS DRAWING ARE INCLUDED FOR REFERENCE ONLY. COORDINATE ALL TACOMA PUBLIC UTILITIES INFRASTRUCTURE INSTALLATION WITH TACOMA PUBLIC UTILITIES.

**ISSUE FOR BID  
MAY 9, 2025**

6709 <b>E11.4T</b> SH# 19 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b> TPU TRANSFORMER VAULT STANDARDS	APPROVED: 	CEC 04/8/25 CHECKED BY DATE AA 04/8/25	
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