

# PORT OF TACOMA

## EBC MOTIVE TEMPORARY POWER PROJECT ID # 101686.01 PURCHASE AGREEMENT # POT-PA-000000068

### PORT COMMISSIONERS:

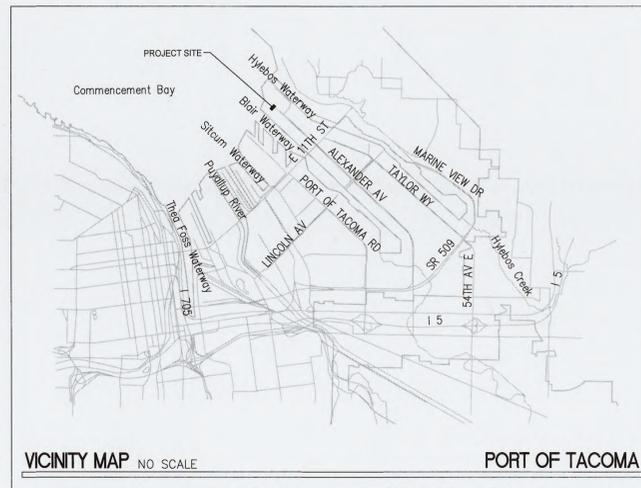
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DEANNA KELLER

### PORT STAFF:

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Port of Tacoma Executive Director

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Director of Engineering

ELLY BULEGA, PE  
Project Manager II



CONSULTANT: CURTIS CLUTE, P.E.  
CASNE ENGINEERING, INC.

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3545 FACTORIA BOULEVARD SE., SUITE 200  
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CIVIL CONSULTANT: DON DAVIS, P.E.  
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CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY  
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PHONE: (253) 474-9449 | FAX: (253) 474-0153  
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DRAWING LIST			
SHEET DESIGNATION	SHEET #	SHEET TITLE	REVISION
1	G01	COVER SHEET	IFB
2	G02	SITE PLAN	IFB
3	C0.1	GENERAL NOTES	IFB
4	C1.0	DEMOLITION AND TESC PLAN	IFB
5	C2.0	SURFACING PLAN	IFB
6	C3.0	CIVIL DETAILS	IFB
7	C4.0	CIVIL DETAILS	IFB
8	E0.0	ELECTRICAL LEGENDS & SYMBOLS	IFB
9	E1.0TR	TEMPORARY POWER SITE PLAN - REMOVAL	IFB
10	E1.0T	TEMPORARY POWER SITE PLAN	IFB
11	E4.0T	MOTIVE MARINE SERVICE BLDG. ENLARGED PLAN	IFB
12	E10.0T	TEMPORARY ELECTRICAL ONE-LINE DIAGRAM	IFB
13	E10.2	MM-DP-1 PANEL SCHEDULE	IFB
14	E10.4T	TEMPORARY EQUIPMENT RACK ELEVATION	IFB
15	E10.5T	ENLARGED TEMPORARY POWER SITE PLAN	IFB
16	E11.1T	DUCT BANK DETAILS	IFB
17	E11.2T	VAULT DETAILS	IFB
18	E11.3T	DETAILS	IFB
19	E11.4T	TPU TRANSFORMER VAULT STANDARDS	IFB

### PROJECT INFORMATION:

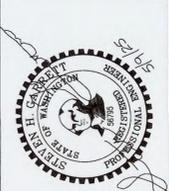
SITE ADDRESS: 401 TAYLOR WAY, TACOMA, WA 98421  
 SITE PARCEL: PORT PARCEL 1B (2,073,538.15 SF; 47.60 ACRES)  
 PROPERTY OWNER: PORT OF TACOMA  
 902 PORT OF TACOMA ROAD  
 TACOMA, WA  
 ZONING: PMI; PORT MARITIME & INDUSTRIAL DISTRICT  
 SCOPE OF WORK: CONSTRUCT NEW POWER FOR TEMPORARY USE BY MOTIVE MARINE.  
 NEW IMPERVIOUS SURFACE: 0 S.F.  
 REPLACED IMPERVIOUS SURFACE: 3,230 S.F.  
 ESTIMATED EARTHWORK: 480± CY CUT/FILL (0± NET)

ISSUE FOR BID  
MAY 9, 2025

**Port of Tacoma**  
P.O. Box 600 Tacoma, WA 98402-0600

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

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



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

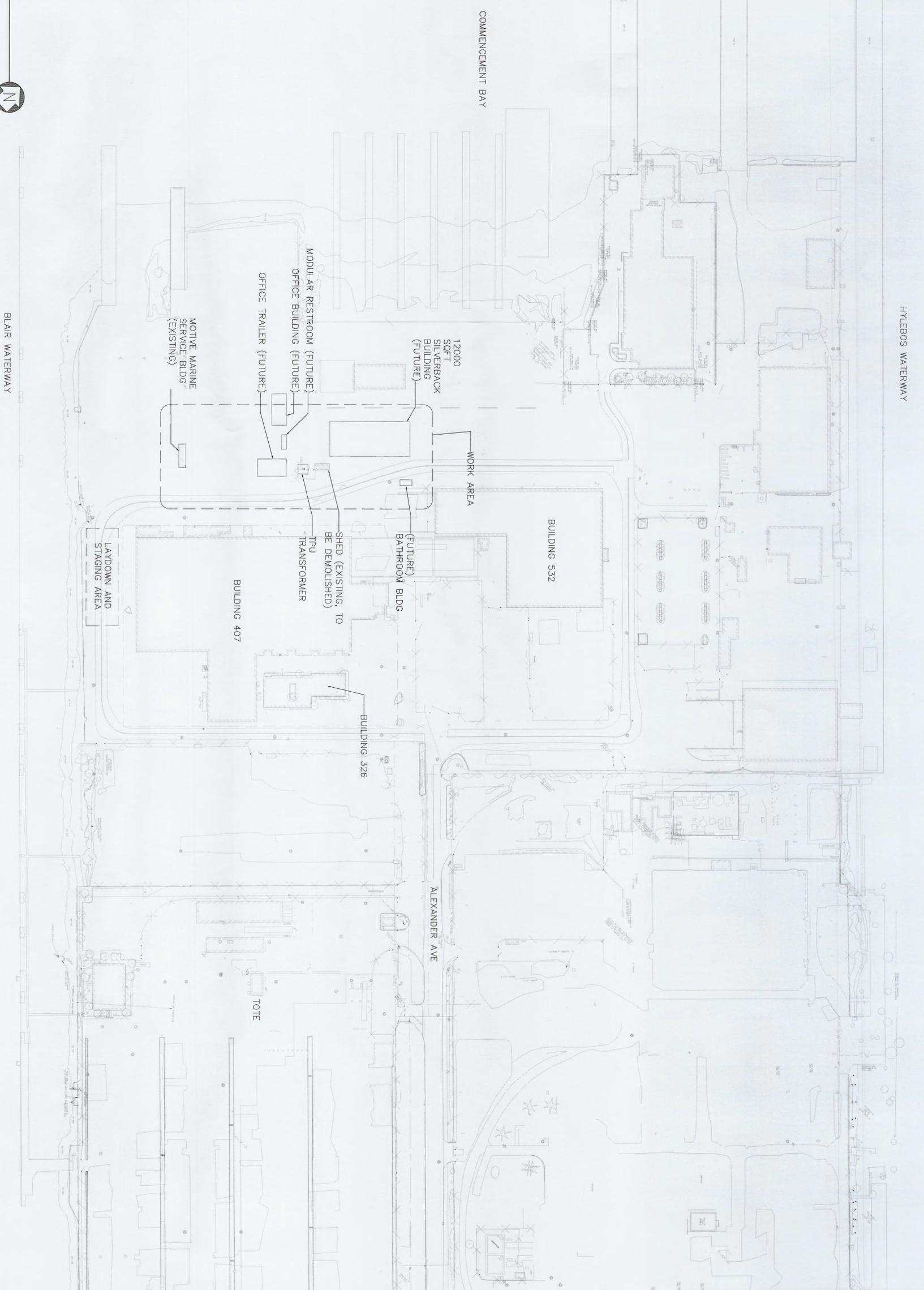
**EBC MOTIVE TEMPORARY POWER**

COVER SHEET  
 RANGE: 03 SECTION: 27  
 TOWNSHIP: 21 VERT: M.W. 1983-2001 EPOCH  
 DAT-HRZ: NAD83  
 PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

6709  
**G01**  
 SH # 1 OF 19  
 PA: POT-PA-000000068  
 PROJ. ID: 101686.01  
 PHASE: ISSUE FOR BID



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>Steven H. Casne</i> CEC 04/8/25 CHECKED BY: <i>AA</i> 04/8/25</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>SITE PLAN</b></p>		<p>TOWNSHIP: 21</p>		<p>PROJECT ENGR: steven.garrett</p>		<p>DATE: May 15, 2025</p>		<p>MARK:</p>		<p>REVISION:</p>	
<p>PA: POT-PA-000000068</p>		<p>RANGE: 03</p>		<p>SECTION: 27</p>		<p>PRINTED BY: steven.garrett</p>		<p>BY:</p>		<p>APPR:</p>	
<p>PROJ. ID: 101686.01</p>		<p>VERT: MLW, 1983-2001 EPOCH</p>		<p>PORT ADDRESS: 401 East Alexander Ave</p>		<p>TACOMA, WA 98421</p>		<p>DATE:</p>		<p>DATE:</p>	
<p>PHASE: ISSUE FOR BID</p>		<p>DRAWING SCALE: AS NOTED</p>		<p>TACOMA, WA 98421</p>		<p>TACOMA, WA 98421</p>		<p>DATE:</p>		<p>DATE:</p>	

PROJECT NOTES

- 1. BACKGROUND INFORMATION PROVIDED BY PORT OF TACOMA...
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS...
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL ON-SITE AND SHALL COORDINATE HIS ACTIVITIES WITH THE OWNER AND ENGINEER...
4. THE BURIED UTILITIES ON THIS PROJECT ARE SHOWN IN THEIR APPROXIMATE LOCATION WHERE KNOWN...
5. CALL THE UNDERGROUND LOCATE LINE 1-800-424-5555, AND A PRIVATE UTILITY LOCATE, A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS...
6. WHERE CONFLICTS OCCUR BETWEEN EXISTING FEATURES AND THE PLACEMENT OF NEW FACILITIES, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BY THE CONTRACTOR...
7. THE CONTRACTOR FOR THIS PROJECT SHALL MAINTAIN A CLEAN, LEGIBLE SET OF THESE PLANS AND NOTE ALL DEVIATIONS THEREON...
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT TO PREVENT UTILITY INTERRUPTION INCLUDING, BUT NOT LIMITED TO, PORTABLE GENERATORS, DOMESTIC WATER PIPING, AND SEWAGE CONVEYANCE...
9. PRIOR TO BIDDING, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ALL NECESSARY SITE INSPECTIONS AND DETERMINATIONS OF ITEMS AND QUANTITIES OF WORK TO ENSURE THAT ALL ITEMS OF WORK NECESSARY TO PERFORM A COMPLETE AND ACCEPTABLE JOB HAVE BEEN TAKEN INTO CONSIDERATION.

PLASTIC COVERING NOTES

- 1. PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILS AND SHALL MEET THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
2. COVERING SHALL BE INSTALLED AND MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10-FOOT GRID SPACING IN ALL DIRECTIONS...
3. CLEAR PLASTIC COVERING SHALL BE INSTALLED IMMEDIATELY ON AREAS SEEDED BETWEEN NOVEMBER 1 AND MARCH 31 AND REMAIN UNTIL VEGETATION IS FIRMLY ESTABLISHED.
4. WHEN THE COVERING IS USED ON UN-SEEDED SLOPES, IT SHALL BE KEPT IN PLACE UNTIL THE NEXT SEEDING PERIOD.
5. PLASTIC COVERING SHEETS SHALL BE BURIED TWO FEET AT THE TOP OF SLOPES IN ORDER TO PREVENT SURFACE WATER FLOW BENEATH SHEETS.
6. PROPER MAINTENANCE INCLUDES REGULAR CHECKS FOR RIPS AND DISLODGED ENDS.

STOCKPILE NOTES

- 1. PLACE STOCKPILES ON LAYERED PLASTIC SHEETS WITH A COMBINED THICKNESS OF NO LESS THAN 10 MILS.
2. STOCKPILES SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY.
3. IN ANY SEASON, SEDIMENT LEACHING FROM STOCK PILES MUST BE PREVENTED.
4. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
5. PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN.

SEASONAL LIMITATIONS ON CONSTRUCTION ACTIVITIES

THE FOLLOWING SHALL BE ADHERED TO ON ALL CONSTRUCTION SITES WITH ERODIVE SOILS AND/OR A GRADIENT OF GREATER THAN TWO PERCENT FOR LIMITING EXPOSED SOILS TO ERODIVE PROCESSES.

MAY 1ST TO SEPTEMBER 30TH (DRY SEASON)

THE CLEARING OF LAND, INCLUDING THE REMOVAL OF EXISTING VEGETATION OR OTHER GROUND COVER, MUST BE LIMITED TO ONLY AS MUCH LAND AREA AS CAN RECEIVE APPROPRIATE PROTECTIVE COVER OR BE OTHERWISE STABILIZED AFTER HAVING BEEN CLEARED OR OTHERWISE DISTURBED BY NO LATER THAN SEPTEMBER 30TH OF A GIVEN YEAR...
IN THE EVENT THAT CONSTRUCTION ACTIVITIES OR OTHER SITE DEVELOPMENT ACTIVITIES ARE DISCONTINUED FOR FOUR CONSECUTIVE DAYS OR MORE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION OF ALL EROSION AND SEDIMENTATION CONTROL FACILITIES IMMEDIATELY AFTER STORM EVENTS AND AT LEAST ONCE EVERY WEEK...
THE CONTRACTOR SHALL PROVIDE MATERIALS ONSITE READILY AVAILABLE TO IMMEDIATELY STABILIZE DENuded AREAS DURING PERIODS OF INCLEMENT WEATHER WHICH RESULT IN EROSION AND SEDIMENT TRANSPORT OFFSITE.

THE CONTRACTOR SHALL ENSURE THE PROPER CONTINUED FUNCTIONING OF THE ESC FACILITIES BY PROMPT CLEANING AND MAINTENANCE AFTER EACH EROSION AND SEDIMENT PRODUING RAINFALL EVENT.

OCTOBER 1ST TO APRIL 30TH (WET SEASON)

ON SITES WHERE UNINTERRUPTED CONSTRUCTION ACTIVITY IS IN PROGRESS, THE CLEARING OF LAND, INCLUDING THE REMOVAL OF EXISTING VEGETATION OR OTHER GROUND COVER, SHALL BE LIMITED TO ONLY AS MUCH LAND AREA AS CAN BE COVERED OR STABILIZED WITHIN 24 HOURS IN THE EVENT A MAJOR STORM IS PREDICTED AND/OR EROSION/SEDIMENT TRANSPORT OFFSITE IS OBSERVED.

ADDITIONALLY, ALL CLEARED OR DISTURBED AREAS WILL RECEIVE APPROPRIATE PROTECTIVE COVER OR BE OTHERWISE STABILIZED (SUCH AS MULCHING, NETTING, PLASTIC SHEETING, EROSION BLANKETS, FREE DRAINING MATERIAL, ETC.) WITHIN FIVE DAYS AFTER HAVING BEEN CLEARED OR OTHERWISE DISTURBED IF NOT BEING ACTIVELY WORKED...
THE CONTRACTOR SHALL AT ALL TIMES HAVE AVAILABLE FOR THE PROJECT SUFFICIENT QUANTITIES OF PROTECTIVE COVERING MATERIALS TO IMMEDIATELY STABILIZE ALL DISTURBED AREAS IN CASE THE PROJECT ENGINEER OR CITY DIRECTS THEM TO COVER DUE TO OBSERVED MIGRATION OF SOILS OR INCLEMENT WEATHER.

POLLUTION PREVENTION NOTES

- 1. EQUIPMENT LUBRICATION AND FUELING OPERATIONS SHALL OCCUR AT THE DESIGNATED FUELING AREA OR AN APPROVED OFF-SITE LOCATION.
2. PREVENT OILS AND FUELS FROM ENTERING THE STORM DRAINAGE SYSTEM AND WATERWAYS WITH PROPER CONTAINMENT DEVICES.
3. ACCESS TO CONSTRUCTION IS VIA ADJACENT EXISTING PAVED STREETS OR THE PROPOSED CONSTRUCTION ENTRANCE...
4. SPILL CLEANUP PROCEDURES SHALL BE POSTED ON-SITE IN CASE OF A SPILL THAT MAY ENTER GROUNDWATER, SURFACE WATER, OR STORM DRAIN SYSTEM...
5. THE CONTRACTOR SHALL PREVENT ALL MATERIAL USED OR GENERATED ON-SITE FROM ENTERING THE STORM DRAINAGE SYSTEM...
6. THE CONTRACTOR SHALL SUBMIT DOCUMENTATION SUPPORTING THE CURRENT CERTIFICATION OF THE CONTRACTOR'S DESIGNATED CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL)...
7. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A SAMPLE OF THE SITE LOG BOOK TO BE USED ON THE PROJECT FOR MAINTAINING EROSION CONTROL INSPECTION, OBSERVATION, CHECKLIST, AND CORRECTION REPORTS...
8. THE CONTRACTOR SHALL COMPLETE AN EROSION CONTROL CHECKLIST, CAREFULLY REVIEW, AND MAINTAIN ALL STORMWATER POLLUTION PREVENTION MEASURES DAILY BETWEEN NOVEMBER 1 AND MARCH 31...
9. CHECKLISTS AND MAINTENANCE INFORMATION SHALL BE KEPT IN THE SITE LOG BOOK...
10. MONTHLY DURING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT A COPY OF ALL RECENT INSPECTION, OBSERVATION, CHECKLIST, AND CORRECTION REPORTS TO THE OWNER AND ENGINEER.

DEMOLITION NOTES

- 1. REMOVE ALL DELETERIOUS MATERIAL FOUND ON-SITE INCLUDING VEGETATION, SCRAP WOOD, TRASH, ETC. AND DISPOSE OF AT AN APPROVED OFF-SITE LOCATION.
2. AT ALL TIMES THE CONTRACTOR SHALL MAINTAIN SIGNS, BARRICADES, FENCING, OR OTHER MEASURES TO ENSURE CONTINUOUS PROTECTION OF THE PUBLIC AND TO PREVENT UNAUTHORIZED ENTRY TO THE CONSTRUCTION AREA...
3. DAMAGE TO ANY PROPERTY, INCLUDING BUT NOT LIMITED TO, BUILDINGS, UTILITIES, VEHICLES, FENCING, OR LANDSCAPING AS A RESULT OF CONTRACTORS ACTIVITIES WILL BE REPAIRED OR REPLACED AT THE CONTRACTORS EXPENSE.
4. THE CONTRACTOR IS FINANCIALLY RESPONSIBLE FOR THE MAINTENANCE AND/OR REPAIR OF OFF-SITE AND ON-SITE PAVED SURFACES WHERE DAMAGE HAS BEEN SUSTAINED DUE TO THE DEVELOPMENT'S CONSTRUCTION TRAFFIC.

EXCAVATION NOTES

- 1. EXCAVATE TO ELEVATIONS, LINES AND GRADES INDICATED TO NOT MORE THAN 1/2-INCH ABOVE OR BELOW THAT REQUIRED.
2. SLOPE SIDES OF EXCAVATION AS INDICATED OR COMPLY WITH LOCAL CODES AND ORDINANCES HAVING JURISDICTION, WHICHEVER IS MORE STRINGENT, SHORE AND BRACE WHERE SLOPING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.
3. STOCKPILE SATISFACTORY EXCAVATED MATERIALS UNTIL REQUIRED FOR BACKFILL OR FILL PLACE, GRADE AND SHAPE STOCKPILES FOR PROPER DRAINAGE...
4. DISPOSE OF EXCESS SOIL AND UNSUITABLE SOIL MATERIAL OFF-SITE AS DIRECTED.
5. DEWATERING WILL LIKELY BE REQUIRED DURING EXCAVATION AND CONSTRUCTION. SEE C0.1 FOR DEWATERING NOTES.

DEWATERING NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ALL EXCAVATIONS. ALL WATER GENERATED FROM DEWATERING OPERATIONS SHALL BE DISPOSED OF IN A MANNER AND LOCATION APPROVED BY THE TESC PLAN, CITY OF TACOMA, AND PORT OF TACOMA...
2. CONTRACTOR TO ANTICIPATE GROUNDWATER AND PROVIDE ALL EQUIPMENT NECESSARY TO DEWATER EXCAVATIONS...
3. ALL GROUNDWATER OR INCIDENTAL SURFACE RUNOFF COLLECTED SHALL BE DISCHARGED TO THE ON-SITE STORMWATER SYSTEM...
4. NO SEDIMENT, TURBID WATER, OR OTHER POLLUTANTS (HEAVY METALS, OIL SHEEN, ETC.) SHALL BE DISCHARGED TO THE ON-SITE STORMWATER SYSTEM...
5. A LOG OF ALL DISCHARGED STORMWATER SHALL BE KEPT ON-SITE AT ALL TIMES DURING CONSTRUCTION...
6. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM PORT OF TACOMA AND THEIR ENGINEERING CONSULTANT REPRESENTATIVES FOR ANY OFF-SITE DISPOSAL OF WATER, SEDIMENT, OR DEBRIS.

UTILITY NOTES

- 1. DETECTABLE MARKING TAPE SHALL BE INSTALLED ALONG THE FULL LENGTH OF EACH PROPOSED UTILITY...
2. ADJUST RIM OF ALL EXISTING UTILITIES WITHIN DISTURBED AREAS TO MATCH FINISH GRADE.
3. DISCOVERED ABANDONED UTILITIES SHALL BE REMOVED WHERE IN CONFLICT WITH NEW CONSTRUCTION...
3.1. UTILITY IS DEEPER THAN 3.5' FROM TOP TO FINISH GRADE AND,
3.2. PIPE >6" DIAMETER IS FILLED WITH LOW STRENGTH LEAN CONCRETE (COF) AND CAPPED AT EXPOSED END...
3.3. AS-BUILT MEASUREMENTS ARE TAKEN TO DENOTE THE KNOWN TYPE, SIZE, AND EXTENT OF THE ABANDONED UTILITY AND REDLINED ON THE RECORD DRAWINGS.

SDEV25-0024



Table with columns: DCD, CHECKED BY, DATE, DCM, PROJ. ENGR, DATE

APPROVED: [Signature] DIRECTOR ENG. DATE: [Date] PRINTED BY: Don Davis May 16, 2025 PORT ADDRESS: 802 PORT CENTER ROAD TACOMA, WA 98421

EBC MOTIVE TEMPORARY POWER

C0.1 SH # 3 OF 19 PA: POT-PA-000000068 TOWNSHIP: 21 RANGE: 04 SECTION: 31 VERT: MLLW 1983-2001 EPOCH DAT-HRZ: NAD83

811 Call 811 two business days before you dig. ISSUED FOR BID MAY 9, 2025. sh sits & hill CIVIL | STRUCTURAL | ARCHITECTURAL | SURVEY

Table with columns: Project No., Project Mgr., Proj. Engineer, Proj. Drafter

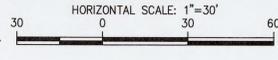
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BINDING EDGE

PORT OF TACOMA FILE: 0:120700020757\Drawings\20757 - C1.0



**DEMOLITION AND TESC PLAN**  
SCALE: 1"=30'



**LEGEND**

- PROPOSED FEATURES-**
- PROJECT LIMITS
  - ⊗ CATCH BASIN PROTECTION
  - - - SAWCUT
  - ////// FEATURE DEMOLITION, AS NOTED PER PLAN
  - ▨ FEATURE DEMOLITION, AS NOTED PER PLAN
  - ▩ SURFACE DEMOLITION

**GENERAL NOTES**

1. SEE SHEET C0.1 FOR GENERAL CIVIL NOTES.
2. BACKGROUND INFORMATION PROVIDED BY PORT OF TACOMA.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER IF THERE ARE ANY DISCREPANCIES AFFECTING WORK.
4. CONTRACTOR SHALL PROTECT UTILITIES AND FEATURES ON-SITE NOT MARKED FOR REMOVAL AND REPAIR ANY DAMAGE AT NO COST. UTILITIES AND FEATURES INCLUDE, BUT ARE NOT LIMITED TO, THOSE RECORDED, LOCATED BEFORE CONSTRUCTION, OR DISCOVERED DURING CONSTRUCTION.
5. DEMOLISHED FEATURES SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF PER THE PROJECT PLANS AND SPECIFICATIONS.
6. ALL CLEAN EXCAVATED MATERIAL SHALL BE REUSED TO THE MAXIMUM EXTENT POSSIBLE IN TRENCH AND VAULT BACKFILL. EXCESS EXCAVATION SPOILS SHALL BE STORED IN A DESIGNATED SOIL STORAGE AREA AND COVERED WITH PLASTIC SHEETING PER DETAIL 2/C3.0. CONTRACTOR SHALL COORDINATE WITH ENGINEER WHERE TEMPORARY SOIL STORAGE AREA SHALL BE LOCATED ON-SITE. ANY EXCESS SPOILS NOT USED SHALL EVENTUALLY BE DISPOSED OF OFFSITE.
7. PROTECT VEGETATION NOT MARKED FOR REMOVAL. IF VEGETATION REMOVAL IS REQUIRED FOR CONSTRUCTION, COORDINATE VEGETATION REMOVAL WITH ENGINEER.
8. CONTRACTOR RESPONSIBLE FOR MAINTAINING WORK AREA.
9. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT TO PREVENT UTILITY INTERRUPTION.

**KEY NOTES**

1. SAWCUT TO FULL DEPTH.
2. REMOVE ASPHALT.
3. PROTECT UTILITY AS NOTED.
4. NOT USED.
5. INSTALL CATCH BASIN PROTECTION PER DETAIL 1/C3.0.
6. PROTECT FEATURE AS NOTED.
7. PREPARE NEW SUBSTATION YARD. REMOVE EXISTING CHAINLINK FENCING, GATES, ECOLOGY BLOCKS, AND OTHER MISCELLANEOUS SURFACE FEATURES. REMOVE EXISTING SURFACING, ASPHALT PAVEMENT, GRAVEL, LANDSCAPING, ETC. WALK SITE WITH PORT PRIOR TO CONSTRUCTION.
8. REMOVE EXISTING UTILITY VAULT COVER AND CONDUITS/CONDUCTORS. SEE PHOTOS 09-12 ON SHEET C4.0.
9. REMOVE APPROXIMATELY 5' OF EXISTING WATER SERVICE PIPE TO ACCOMMODATE INSTALLATION OF NEW SANITARY SEWER.
10. REMOVE EXISTING METAL SHED (30'Lx12'Wx10'H), REDUCED PRESSURE BACKFLOW PREVENTION VALVE, AND ASSOCIATED SURFACE FEATURES. SEE PHOTOS 01-04 AND 08 ON SHEET C4.0.
11. REMOVE LIDS OF TWO EXISTING VAULTS INSIDE THE SHED (4'Lx4'Wx4'H AND 8'Lx5'Wx6'H). SAWCUT THROUGH VAULTS AS NECESSARY TO ACCOMMODATE NEW SANITARY SEWER LINE. BACKFILL VAULTS WITH CLEAN EXCAVATION SPOILS PER GENERAL NOTE 6. SEE PHOTOS 05-07 ON SHEET C4.0.
12. REMOVE EXISTING DUCT BANK AND CONDUITS WHERE IN CONFLICT WITH PROPOSED DUCT BANK.
13. EXISTING VAULTS OUT OF SERVICE SHALL BE ABANDONED IN PLACE. REMOVE LIDS AND DISPOSE, BACKFILL WITH CLEAN EXCAVATED SPOILS. IF ROUTING PROPOSED CONDUITS AROUND VAULT(S) IS NOT FEASIBLE, VAULTS MAY BE SAWCUT AND DEMOLISHED TO ACCOMMODATE CONDUIT ROUTING THROUGH VAULT(S). SEE PHOTOS 09-12 ON SHEET C4.0.

**SDEV25-0024**

P.O. BOX 1837 TACOMA, WA 98401 (206)388-8481

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MARK:	REVISION:	BY:	APPR:	DATE:

DCD	11/22/24	CHECKED BY	DATE
DKM	11/22/24	PROJ. ENGR	DATE
APPROVED:		DIRECTOR ENG. DATE	
		Don Davis May 16, 2025	
PRINTED BY:		PORT ADDRESS: 802 PORT CENTER ROAD	
TACOMA, WA 98421		TACOMA, WA 98421	

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ISSUED FOR BID  
MAY 9, 2025

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4815 CENTER STREET | TACOMA, WA 98409  
PHONE: (253) 474-8448 | www.sittshill.com

Project No.:	20,757	Project Mgr.:	DCD
Proj. Engineer:	DKM	Proj. Drafter:	DKM

**C1.0**

SH # 4 OF 19

PA: POT-PA-000000068

PROJ ID: 101686.01

PHASE: ISSUED FOR CONST. | PARCEL: PORT PACEL 1B

**DEMOLITION AND TESC PLAN**

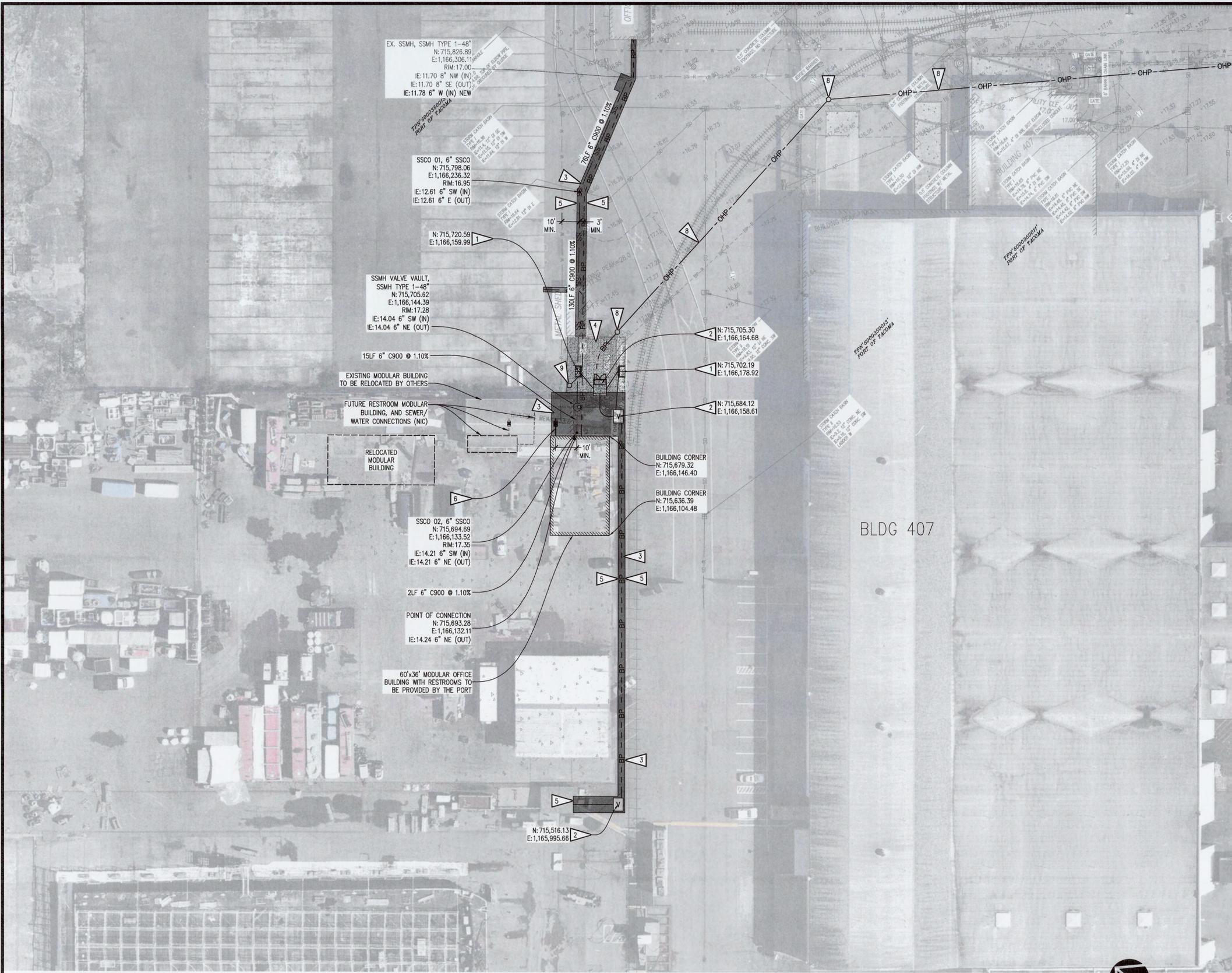
RANGE: 03 SECTION: 27

TOWNSHIP: 21

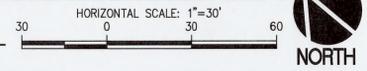
DATE-HRZ: NAD83

DRAWING SCALE: AS NOTED

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



- LEGEND**
- PROPOSED FEATURES-**
- OHP --- OVERHEAD POWER, INSTALLED BY TPU
  - o POWER POLE, INSTALLED BY TPU
  - BP --- BURIED POWER, SEE SECTION 3/C3.0. ALSO SEE ELECTRICAL DRAWINGS
  - [V] UTILITY POWER VAULT, PER ELECTRICAL DRAWINGS
  - [R] UTILITY POWER RACK, PER ELECTRICAL DRAWINGS
  - SS --- SANITARY SEWER PIPE, SEE SECTION 7/C3.0
  - o SANITARY SEWER MANHOLE
  - o SANITARY SEWER CLEANOUT
  - W --- DOMESTIC WATER SERVICE, SEE SECTION 7/C3.0
  - [Hatched] ASPHALT PAVEMENT
  - [Dotted] CONCRETE SURFACING
  - [Cross-hatched] CRUSHED ROCK SURFACING

- GENERAL NOTES**
- SEE SHEET C0.1 FOR GENERAL CIVIL NOTES.
  - BACKGROUND INFORMATION PROVIDED BY PORT OF TACOMA.
  - ALL DIMENSIONS AND RADI 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.
  - DUCT BANKS INSTALLED PER SECTION 3/C3.0
  - UTILITY STRUCTURES SHALL BE INSTALLED PER SECTION 8/C3.0.
  - PROPOSED WATER/SEWER PIPES TO BE INSTALLED PER SECTION 7/C3.0.

- KEY NOTES**
- CONCRETE FOUNDATION FOR POWER UTILITY RACK PER DETAIL 9/C3.0. ALSO COORDINATE WITH ELECTRICAL DRAWINGS.
  - POWER UTILITY VAULT PER ELECTRICAL DRAWINGS
  - ASPHALT PAVEMENT PER DETAIL 4/C3.0.
  - CRUSHED ROCK SURFACING PER DETAIL 6/C3.0. MATCH ELEVATIONS AND GRADES OF ADJACENT EXISTING PAVED SURFACES.
  - MATCH EXISTING ELEVATION, PAVEMENT JOINT PER 5/C3.0.
  - PROPOSED 3/4" DOMESTIC WATER CONNECTION TO NEW MOTIVE MARINE 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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PHONE: (253) 474-9449 | www.sittshill.com

MARK: [ ] REVISION: [ ] BY: [ ] DATE: [ ]



APPROVED:	DCD	11/22/24
CHECKED BY:	DKM	11/22/24
DIRECTOR:	Don Davis	May 16, 2025
PRINTED BY:	802 PORT CENTER ROAD TACOMA, WA 98421	

<b>EBC MOTIVE TEMPORARY POWER</b>	<b>SURFACING PLAN</b>	SECTION: 27
	RANGE: 03	VERT: MLW, 1983-2001 EPOCH
	TOWNSHIP: 21	DATE-HRZ: NAD83
	PA: POT-PA-000000068	PHASE: ISSUED FOR CONST.   PARCEL: AS NOTED

**811 Call 811**  
two business days before you dig

ISSUED FOR BID  
MAY 9, 2025

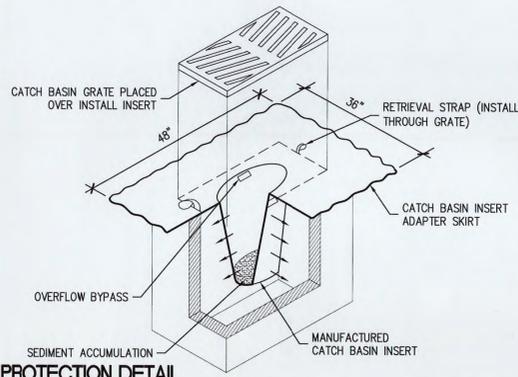
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**C2.0**  
SH # 5 OF 19

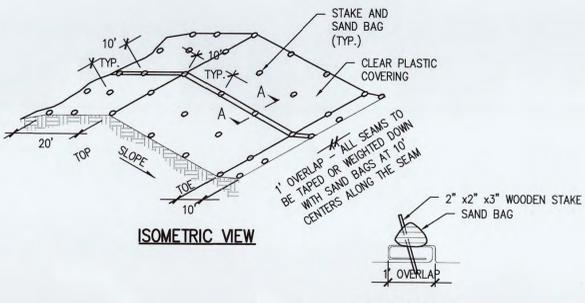
Project No.: 20,757 | Project Mgr.: DCD  
Proj. Engineer: DKM | Proj. Drafter: DKM

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BINDING EDGE

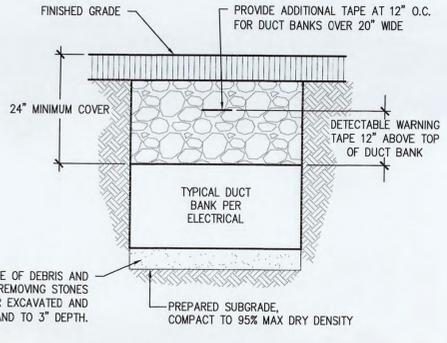


**01 CB PROTECTION DETAIL**  
SCALE: N.T.S.

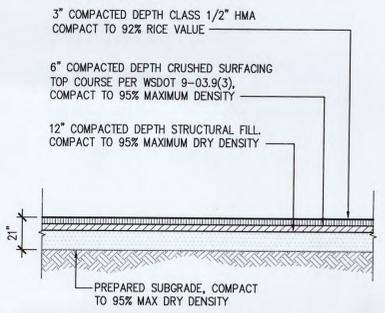


**02 PLASTIC COVERING**  
SCALE: N.T.S.

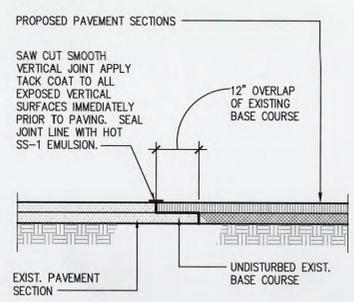
- NOTES:**
- GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-03.12 (3).
  - PIPE ZONE BACKFILL IN STRUCTURAL AREAS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-03.14(1).



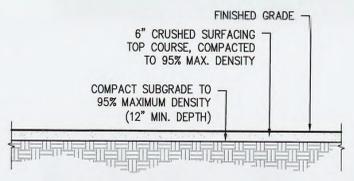
**03 DUCT BANK BEDDING AND BACKFILL**  
SCALE: N.T.S.



**04 ASPHALT PAVEMENT SECTION**  
SCALE: N.T.S.



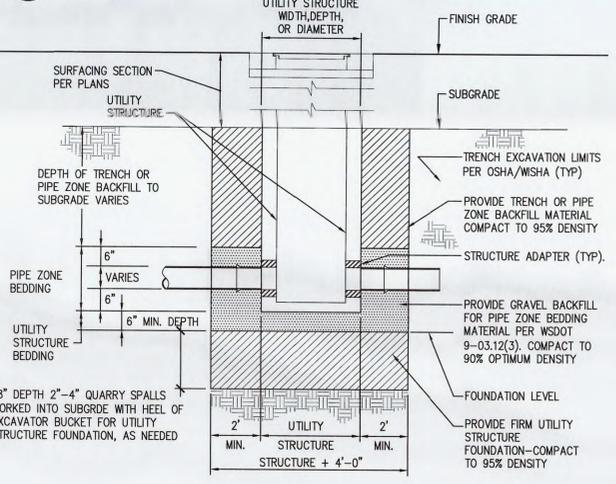
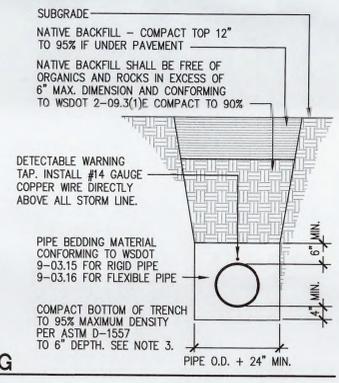
**05 ASPHALT PAVEMENT JOINT SECTION**  
SCALE: N.T.S.



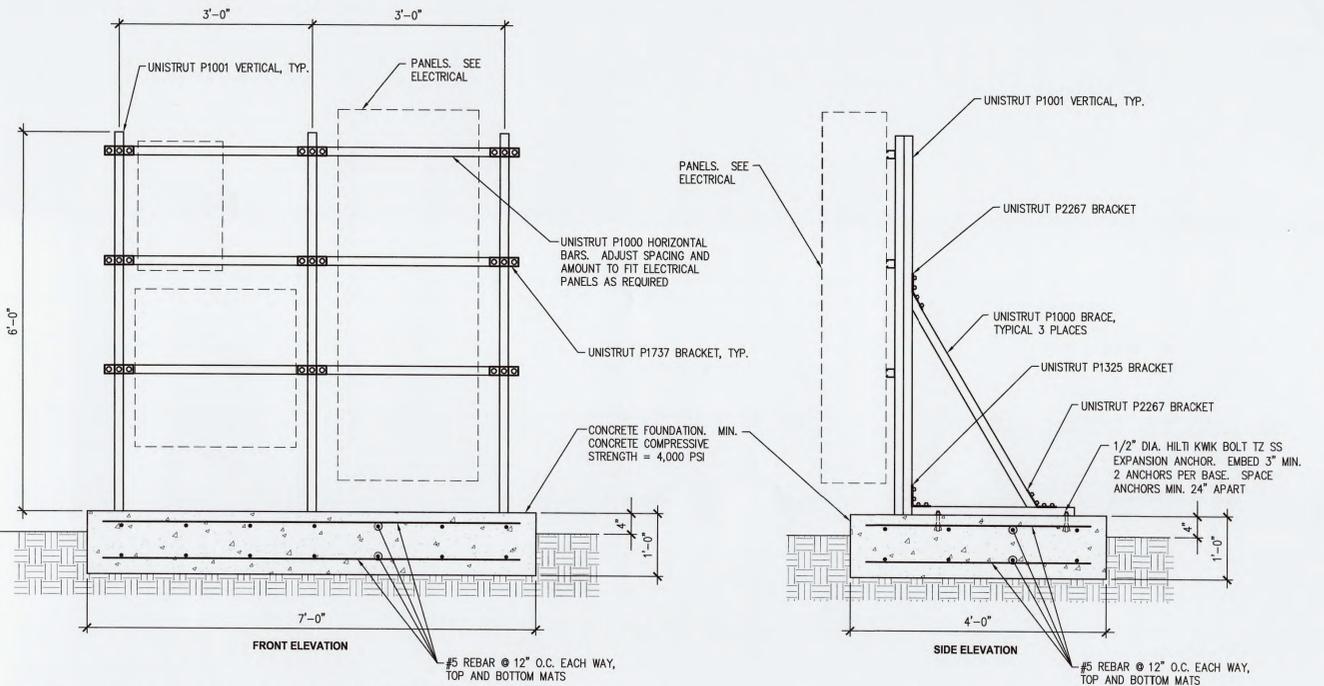
**06 CRUSHED SURFACING TOP COURSE**  
SCALE: N.T.S.

- NOTES:**
- THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO COMMENCING WORK. ANY UTILITIES DAMAGED BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
  - SANITARY SEWER & WATER UTILITY WORK SHALL CONFORM TO CITY OF TACOMA STANDARDS.
  - SHOULD THE BOTTOM OF TRENCH NOT COMPACT TO 95% MAX. DENSITY, OVER-EXCAVATE PER ENGINEER'S FIELD RECOMMENDATIONS. INSTALL STRUCTURAL FILL & COMPACT IN 6" LIFTS TO ESTABLISH SUITABLE BOTTOM OF TRENCH.

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



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



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

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Project No.: 20,757 Project Mgr.: DCD  
Proj. Engineer: DKM Proj. Drafter: DKM

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

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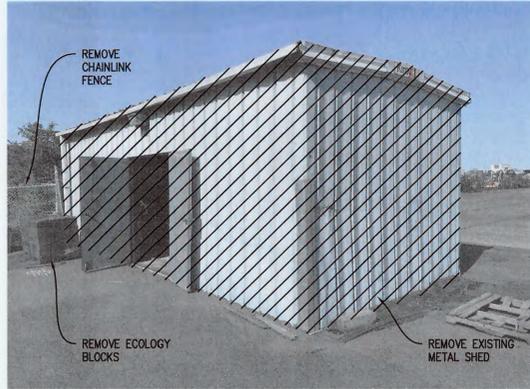
DCD 11/22/24  
CHECKED BY: DATE  
DKM 11/22/24  
DIRECTOR ENGR. DATE: PROJ. ENGR. DATE  
DonDavis May 16, 2025  
PRINTED BY: PORT ADDRESS: 802 PORT CENTER ROAD  
TACOMA, WA 98421

APPROVED: [Signature]  
EBC MOTIVE TEMPORARY POWER

CIVIL DETAILS  
RANGE: 03 SECTION: 27  
TOWNSHIP: 21  
PA: POT-PA-000000068  
DATE-HRZ: NAD83  
VERT: M.L.W. 1983-2001 EPOCH  
DRAWING SCALE: AS NOTED  
PHASE: ISSUED FOR CONST. PARCEL: PORT PARCEL 1B

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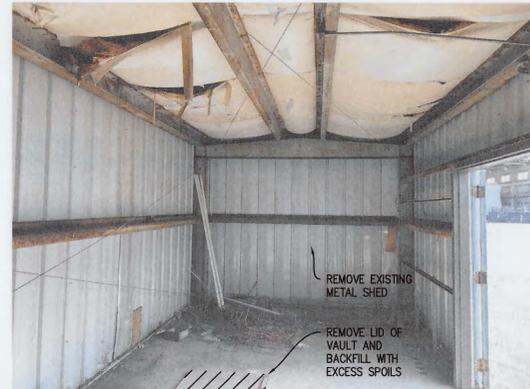
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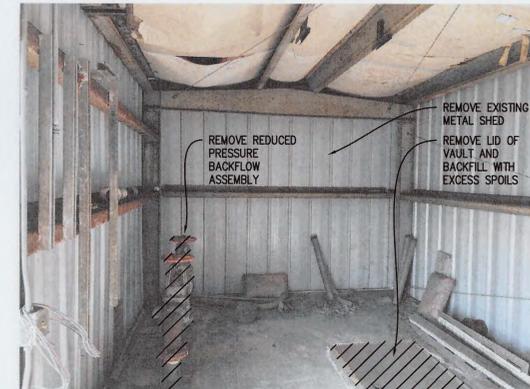
01 METAL SHED (VIEW LOOKING NORTH)  
SCALE: N.T.S.



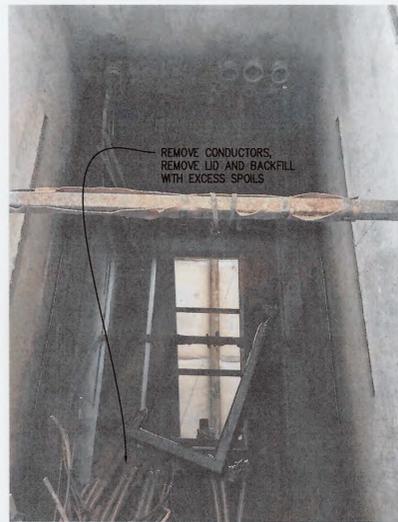
02 METAL SHED EXTERIOR (VIEW LOOKING SOUTH)  
SCALE: N.T.S.



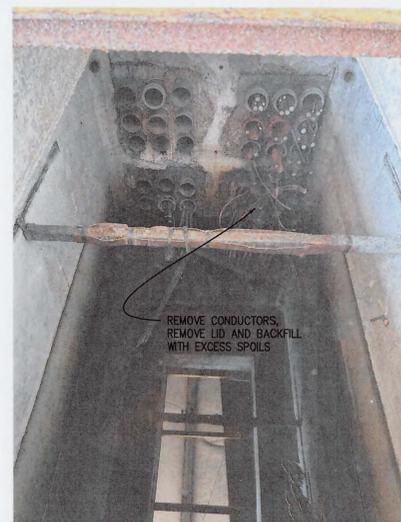
03 METAL SHED INTERIOR (VIEW LOOKING NORTHEAST)  
SCALE: N.T.S.



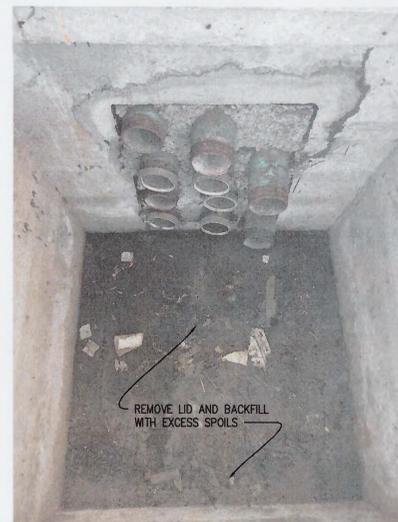
04 METAL SHED INTERIOR (VIEW LOOKING SOUTHWEST)  
SCALE: N.T.S.



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



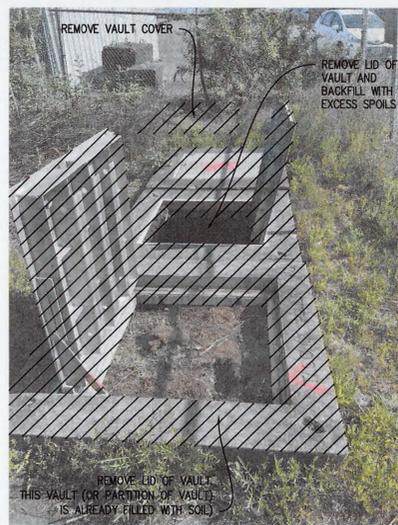
06 9'x5'x6' VAULT INSIDE METAL SHED  
SCALE: N.T.S.



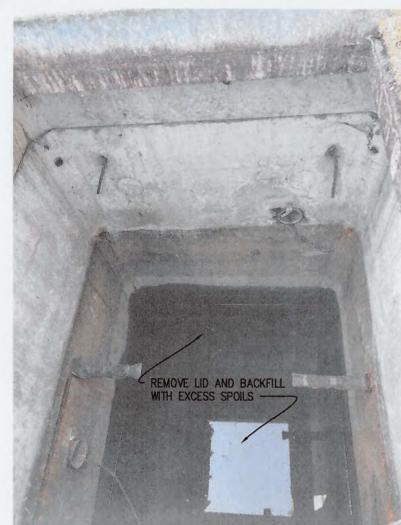
07 4'x4'x4' VAULT INSIDE METAL SHED  
SCALE: N.T.S.



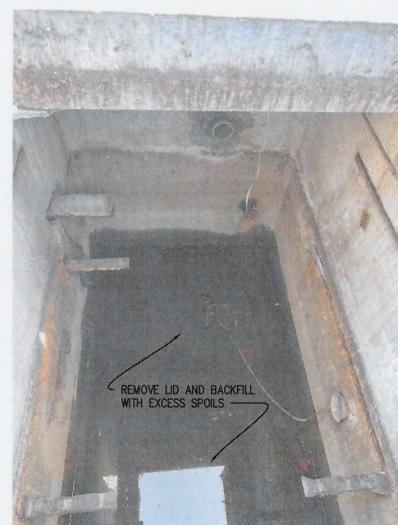
08 REDUCED PRESSURE BACKFLOW ASSEMBLY (INSIDE SHED)  
SCALE: N.T.S.



09 SUBSTATION YARD EXISTING VAULTS (LOOKING N.E.)  
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.

SDEV25-0024

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MARK: REVISION: BY: DATE: APPR: DATE:



DCD	11/22/24	CHECKED BY	DATE
DKM	11/22/24	PROJ. ENGR	DATE
APPROVED: <i>Don Davis</i>		DIRECTOR	
PRINTED BY: Don Davis		May 16, 2025	
PORT ADDRESS: 802 PORT CENTER ROAD		TACOMA, WA 98421	

**EBC MOTIVE TEMPORARY POWER**

CIVIL DETAILS  
RANGE: 03 SECTION: 27  
TOWNSHIP: 21 DATE-HRZ: NAD83 VERT: MLW, 1983-2001 EPOCH  
PA: POT-PA-000000068 DAT-HRZ: NAD83 VERT: MLW, 1983-2001 EPOCH  
PROJ ID: 101686-01 PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED  
PHASE: ISSUED FOR CONST. PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

SH # 7 OF 19

**C4.0**

Project No.: 20,757 Project Mgr.: DCD  
Proj. Engineer: DKM Proj. Drafter: DKM



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PLAN SYMBOLS	
	GROUND CABLE CONNECTION
	GROUND ROD CONNECTION
	GROUND CABLE PIGTAIL
	GROUND CABLE (UNDERGROUND)
	EQUIPMENT/STRUCTURAL GROUND CONNECTION
<b>POWER</b>	
	PANELBOARD, 208Y/120V, 3 PHASE
	PANELBOARD, 480V OR 480Y/277V, 3 PHASE
	EQUIPMENT IDENTIFICATION "X" DENOTES EQUIPMENT NUMBER "Y" DENOTES HP OR AMPS
	SPECIAL PANELBOARD/ENCLOSURE (TYPE AS NOTED)
	ENCLOSED CIRCUIT BREAKER DISCONNECT (SIZE AS NOTED)
	VARIABLE SPEED MOTOR STARTER
	SOLID STATE MOTOR STARTER
	DISCONNECT SWITCH (FUSED OR UNFUSED) 30/20 SWITCH RATING/FUSE RATING
	MAGNETIC MOTOR STARTER (COMBINATION)
	TRANSFORMER (SIZE AS SHOWN, IN KVA)
	JUNCTION BOX
	ESTOP SWITCH - MAINTAINED
	VAULT
	PULL BOX
	HAND HOLE
	MAN HOLE
	OFF/ON SELECTOR SWITCH CONTROL STATION
	STOP-START PUSHBUTTON CONTROL STATION
	460 VOLT MOTOR (SIZE AS NOTED)
	208 VOLT OR 240 V MOTOR (SIZE AS NOTED)
	115 VOLT MOTOR (SIZE AS NOTED)
<b>CONDUIT &amp; WIRE</b>	
	CONDUIT SURFACE MOUNTED OR CONCEALED.
	CONDUIT SURFACE MOUNTED OR CONCEALED. "E" INDICATES EMERGENCY CIRCUIT.
	CONDUIT UNDERGROUND, UNDER FLOOR SLAB, OR IN CEILING SPACE OF FLOOR BELOW WITH CONDUCTORS AS ABOVE.
	CONDUIT ONLY.
	FLEXIBLE METAL CONDUIT. PROVIDE CIRCUIT CONDUCTORS REQUIRED BASED ON 60 DEGREE CELSIUS CONDUCTOR RATING.
	INDICATES PHASE CONDUCTOR (#12 OR SIZE AS NOTED)
	INDICATES NEUTRAL CONDUCTOR (#12 OR SIZE AS NOTED)
	INDICATES GROUND CONDUCTOR (#12 OR SIZE AS NOTED)
	INDICATES ISOLATED GREEN GROUND CONDUCTOR (#12 OR SIZE AS NOTED)
	HOMERUN W/7#10 SHOWING CIRCUIT SOURCE (PANEL/PANEL POSITION)
	HOMERUN W/CIRCUIT SOURCE & CONDUIT & WIRE SIZE NOTED 1B2-8/1,3,5 1-1/2"C,3#2+2#2/ON+2#8G

WIRING DIAGRAM SYMBOLS	
	SINGLE LINE TRANSFORMER (DASHED LINE INDICATES ELECTROSTATIC SHIELD)
	SURGE ARRESTER
	CIRCUIT BREAKER (DRAW-OUT TYPE)
	POTENTIAL TRANSFORMER QUANTITY & RATIO AS SHOWN
	CURRENT TRANSFORMER QUANTITY & RATIO AS SHOWN
	AMMETER w/SWITCH
	VOLTMETER w/SWITCH
	WATT HOUR METER
	480V OR 480Y/277V PANELBOARD (RATINGS AS NOTED)
	208V OR 208Y/120V PANELBOARD (RATINGS AS NOTED)
	COMBINATION STARTER
	VFD
	CONTROLLER OR MCC CUBICLE NUMBER
	STARTER SIZE
	POWER FACTOR CORRECTION CAPACITOR (IF REQUIRED)
	MOTOR HORSEPOWER
	THERMO MAGNETIC CIRCUIT BREAKER
	MAGNETIC ONLY CIRCUIT BREAKER
	SINGLE LINE FUSED SWITCH
	M.V. DISCONNECT SWITCH
	(NF OPTION) L.V. DISCONNECT SWITCH (NON FUSED) SWITCH RATING
	INTERLOCK K=KEY M=MECHANICAL E=ELECTRICAL
	FEEDER TYPE DESIGNATION
	AVAILABLE FAULT CURRENT (CLOSED TRANSITION/NORMAL)
	EQUIPMENT AIC RATING
	APPROXIMATE FEEDER LENGTH IN FEET TO BE CONFIRMED LATER.
	SCHEMATIC DISCONNECT SWITCH
	FUSE
	CIRCUIT BREAKER
	TRANSFORMER
	GROUND CONNECTION
	PILOT LIGHT * INDICATES COLOR

ABBREVIATIONS	
AF	FRAME RATING IN AMPS
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AT	TRIP RATING IN AMPS
AWG	AMERICAN WIRE GAUGE
BKR	CIRCUIT BREAKER
C	CONDUIT
CMCS	CENTRAL MANAGEMENT CONTROL SYSTEM
CO	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
DED	DEDICATED
DWG	DRAWING
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
EUSERC	ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE
FVNR	FULL VOLTAGE, NON-REVERSING
GFCI	GROUND FAULT INTERRUPTER
GND	GROUND
GRC	GALVANIZED RIGID (CONDUIT)
HP	HORSEPOWER
IMC	INTERMEDIATE METAL CONDUIT
kcMIL	THOUSAND CIRCULAR MILS
LV	LOW VOLTAGE
M.BKR.	MAIN BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
PH	PHASE
PNL	PANEL
PT	POTENTIAL (VOLTAGE) TRANSFORMER
PVC	POLY-VINYL CHLORIDE (CONDUIT)
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
ST	SHUNT TRIP
TBD	TO BE DETERMINED
THHN	WIRE INSULATION TYPE REFER TO N.E.C.
THWN	WIRE INSULATION TYPE REFER TO N.E.C.
TP	TACOMA POWER
TPU	TACOMA PUBLIC UTILITIES
T/S	TWISTED & SHIELDED
UG	UNDERGROUND
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHER PROTECTED
XFMR	TRANSFORMER
XHHW	WIRE INSULATION TYPE REFER TO N.E.C.
XP	EXPLOSION-PROOF

**ISSUE FOR BID**  
MAY 9, 2025

**CASNE Engineering**  
3545 FACTORIA BOULEVARD SE, SUITE 200  
BELLINGHAM, WA 98206  
(425) 822-1000 www.casne.com

DATE: \_\_\_\_\_  
APPR: \_\_\_\_\_  
BY: \_\_\_\_\_  
REVISION: \_\_\_\_\_

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

**EBC MOTIVE TEMPORARY POWER**

**ELECTRICAL LEGENDS & SYMBOLS**

TOWNSHIP: 21 RANGE: 03 SECTION: 27  
 DAT--HR Z: . NAD83 VERT: MLW, 1983-2001 EPOCH  
 PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

**6709**

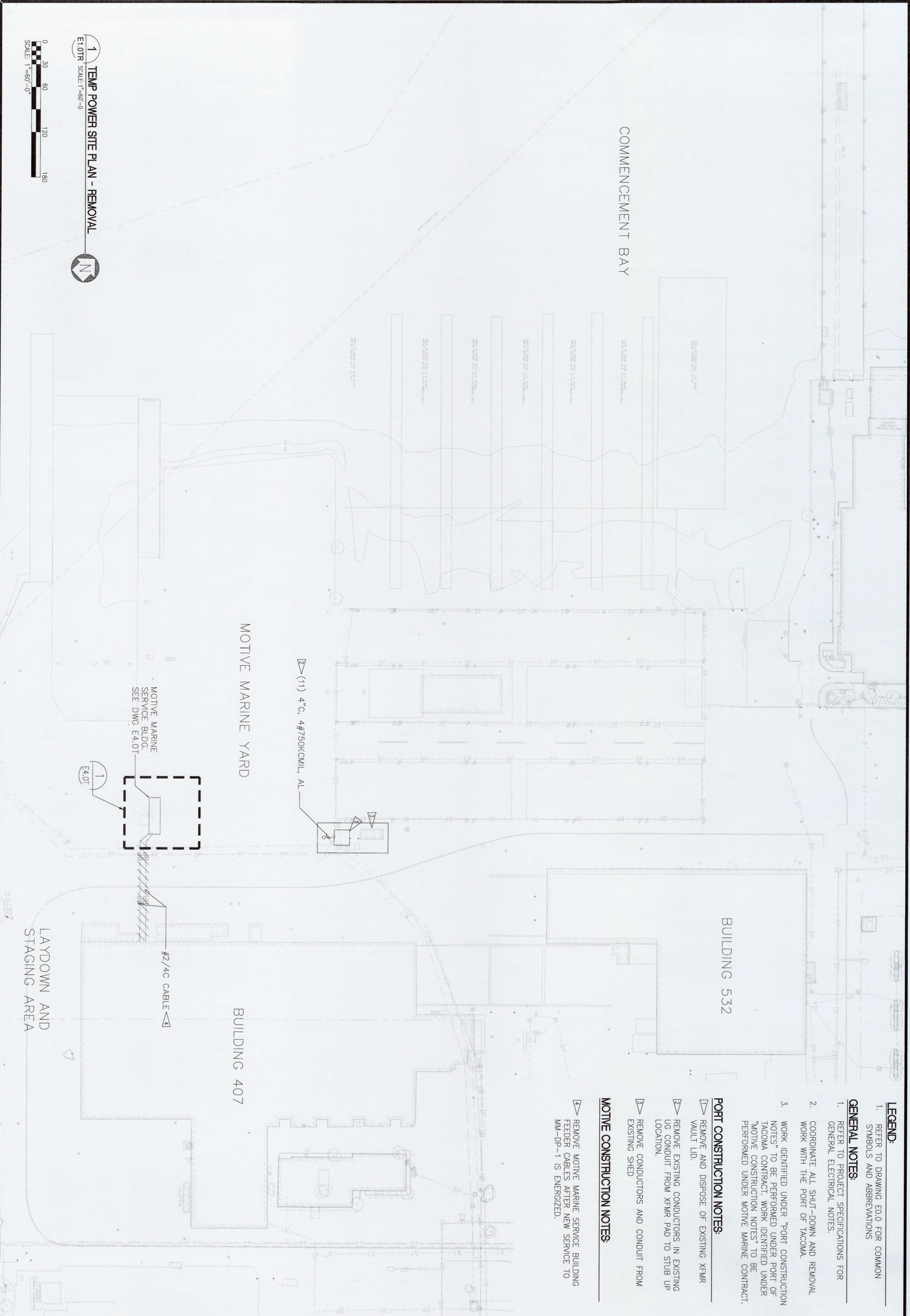
**E0.0**

SH# 8 OF 19

PA: POT-PA-000000068

PROJ. ID: 101686.01

PHASE: ISSUE FOR BID



**1 TEMP POWER SITE PLAN - REMOVAL**  
 E1.0TR SCALE: 1"=60'-0"  
 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:**
- REMOVE AND DISPOSE OF EXISTING XFMR VAULT I.D.
  - REMOVE EXISTING CONDUCTORS IN EXISTING UG CONDUIT FROM XFMR PAD TO STUB UP LOCATION.
  - REMOVE CONDUCTORS AND CONDUIT FROM EXISTING SHED
- MOTIVE CONSTRUCTION NOTES:**
- REMOVE MOTIVE MARINE SERVICE BUILDING FEDER CABLES AFTER NEW SERVICE TO MM-DP-1 IS ENERGIZED.

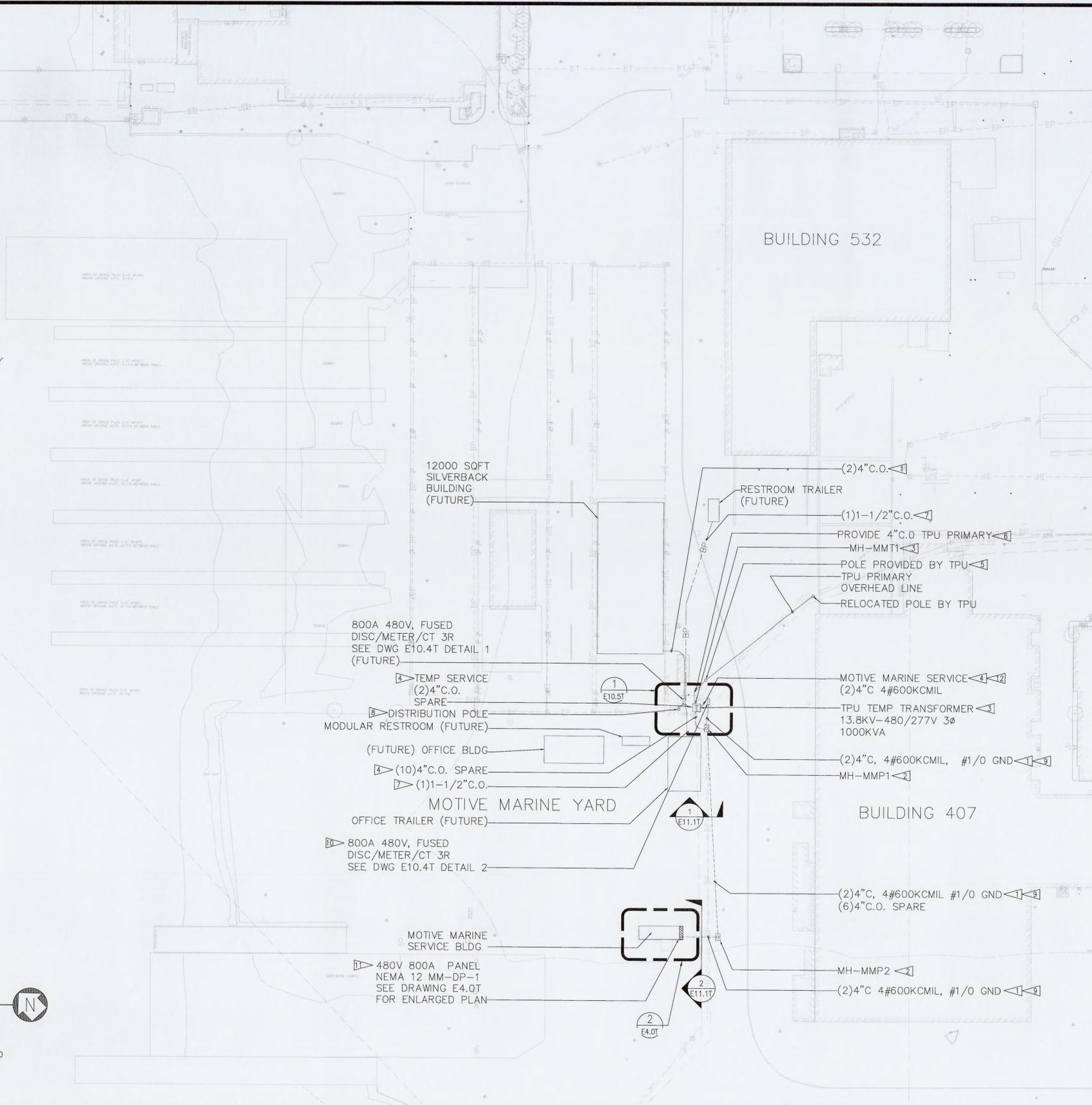
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MAY 9, 2025**

<b>CASNE Engineering</b> 3545 FACTORIA BOULEVARD SE, SUITE 200 BELLEVUE, WA 98006 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005		<b>Port of Tacoma</b> P.O. BOX 1837 TACOMA, WA 98401 (253)383-4841	
MARK:	REVISION:	BY:	APPR:

<b>6709</b> <b>E1.0TR</b> SH# 9 OF 19	<b>EBC MOTIVE TEMPORARY POWER</b> <b>TEMPORARY POWER SITE PLAN - REMOVAL</b>	APPROVED:	CEC 02/18/25	
		CHECKED BY DATE	AA 02/18/25	
PA: POT-PA-000000068	TOWNSHIP: 21	RANGE: 03	SECTION: 27	PRINTED BY: steven.garrett May 09, 2025
PROJ. ID: 101686.01	DAT-HRZ: .NAD83	VERT: MLW, 1983-2001 EPOCH	PORT ADDRESS: 401 EAST ALEXANDER AVE	TACOMA, WA 98421
PHASE: ISSUE FOR BID	PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED		

COMMENCEMENT BAY

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



**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. PROVIDE AND INSTALL UNDERGROUND CONDUIT FITTINGS, AND SUPPORTS. CONDUCTORS PROVIDED BY OTHERS.
2. PROVIDE AND INSTALL ELECTRICAL VAULT. REFER TO DRAWING E11.2T FOR DETAILS.
3. 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.
4. PROVIDE SERVICE CONDUIT ONLY, INSTALLED PER TACOMA POWER STANDARD C-UG-1100. COORDINATE INSTALLATION WITH UTILITY.
5. POLE TO BE PROVIDED BY TPU. PROVIDE RISER CONDUIT UP POLE, EXTENDING UNDERGROUND CONDUIT TO TRANSFORMER VAULT. REFER TO DRAWING E11.3T DETAIL 4.
6. PROVIDE AND INSTALL 4" CONDUIT PER TACOMA PUBLIC UTILITY C-UG-1100 STANDARD FOR MEDIUM VOLTAGE TRANSFORMER PRIMARY.
7. PROVIDE CONDUIT ONLY FROM FUTURE DISCONNECT/METERING LOCATION TO FUTURE MODULAR LOCATION, FOLLOWING SANITARY SEWER TRENCH. PROVIDE PULL STRING IN CONDUIT AND CAP FOR FUTURE USE.
8. PROVIDE AND INSTALL DISTRIBUTION POLE FOR FUTURE TEMPORARY SERVICE TO MODULAR BUILDINGS.

**MOTIVE CONSTRUCTION NOTES:**

9. PROVIDE CONDUCTORS IN UNDERGROUND CONDUIT. CONDUIT PROVIDED BY OTHERS.
10. PROVIDE AND INSTALL 480V TEMPORARY SERVICE CT ENCLOSURE, METER BASE AND FUSED DISCONNECT ON UTILITY RACK. SEE DRAWING E10.4T FOR UTILITY RACK DETAIL.
11. PROVIDE AND INSTALL 480/277V PANEL FOR BUILDING SERVICE.
12. PROVIDE SERVICE CONDUCTORS IN CONDUIT, INSTALLED PER TACOMA POWER STANDARD C-UG-1100. COORDINATE INSTALLATION WITH UTILITY.

ISSUE FOR BID  
MAY 9, 2025



**CASNE Engineering**  
3546 1<sup>st</sup> AVE SUITE 200  
BELLEVUE, WA 98005  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005  
P.O. BOX 1811 TACOMA, WA 98401 020335841

MARK: REVISION: BY: APPR: DATE:

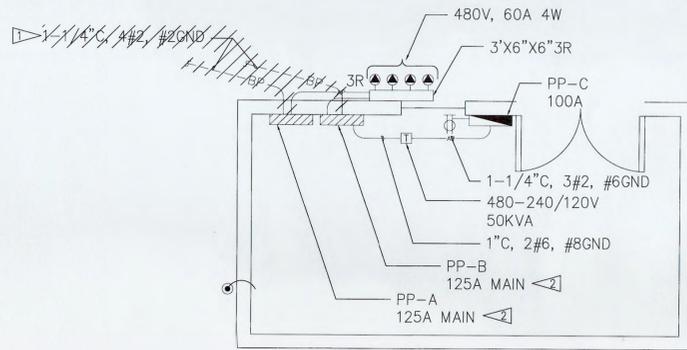


CEC 04/8/25  
CHECKED BY: DATE: AA 04/8/25  
DIRECTOR ENG. DATE: PROJECT: PROJECT ENGR DATE: steven.garrett May 09, 2025  
PRINTED BY: steven.garrett  
PORT ADDRESS: 401 East Alexander Ave  
TACOMA, WA 98421

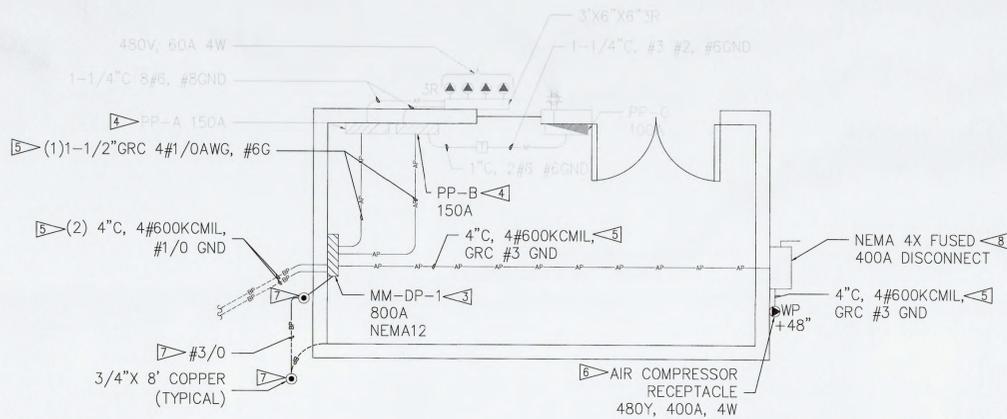
**EBC MOTIVE TEMPORARY POWER**

**6709 E1.0T**  
SH# 10 OF 19

TEMPORARY POWER SITE PLAN  
TOWNSHIP: 21 RANGE: 03 SECTION: 27  
DATE-HRZ: . NAD83 VERT: M.L.W. 1983-2001 EPOCH  
DRAWING SCALE: AS NOTED



**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 E0.0 FOR COMMON SYMBOLS AND ABBREVIATIONS
- ▨ 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.

ISSUE FOR BID  
MAY 9, 2025



**CASNE Engineering**  
3345 FACTORY BOULEVARD, STE. 200  
BELLEVUE, WA 98006  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005

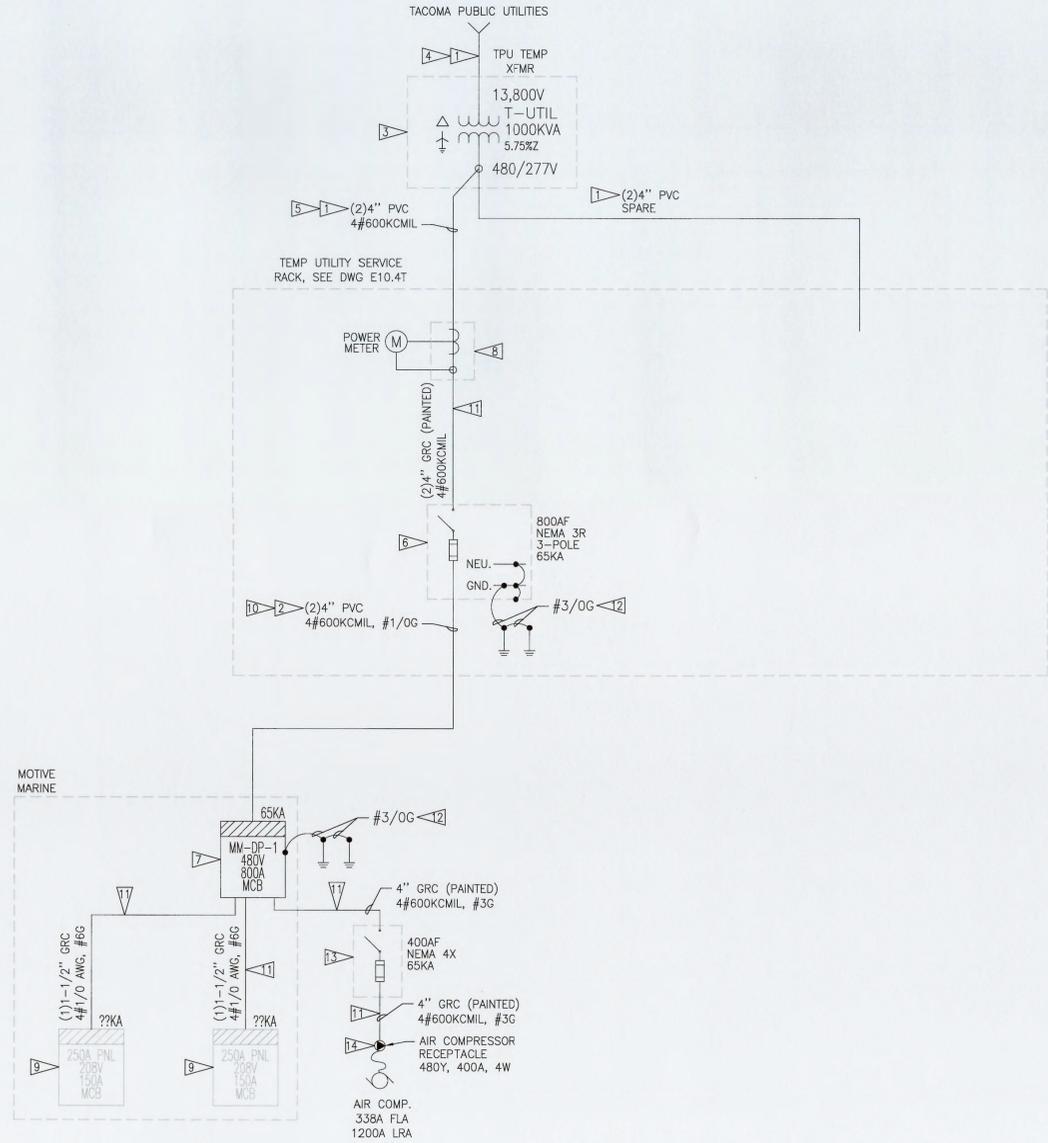


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PROJ. ENGR: AA  
DATE: 04/8/25  
PRINTED BY: steven.garrett  
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PORT ADDRESS: 401 East Alexander Ave  
TACOMA, WA 98421

APPROVED: *Steven Garrett*  
DIRECTOR ENGR. DATE: 04/8/25  
PRINTED BY: steven.garrett  
MAY 09, 2025  
PORT ADDRESS: 401 East Alexander Ave  
TACOMA, WA 98421

**EBC MOTIVE TEMPORARY POWER**  
MOTIVE MARINE SERVICE BLDG. ENLARGED PLAN  
TOWNSHIP: 21 RANGE: 03 SECTION: 27  
DATE-HRZ: . NAD83 VERT: M.W. 1983-2001 EPOCH  
PARCEL: . . . . . DRAWING SCALE: AS NOTED

6709  
**E4.0T**  
SH# 11 OF 19  
PA: POT-PA-000000068  
PROJ. ID: 101686.01  
PHASE: ISSUE FOR BID



1 TEMPORARY ONE-LINE DIAGRAM  
E10.0T SCALE: NONE

**LEGEND:**

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

**GENERAL NOTES:**

1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.
2. "PORT CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE PORT OF TACOMA CONTRACT.
3. "MOTIVE CONSTRUCTION NOTES" APPLY TO WORK TO BE PERFORMED UNDER THE MOTIVE MARINE CONTRACT.

**PORT CONSTRUCTION NOTES:**

1. PROVIDE SERVICE CONDUIT PER TACOMA PUBLIC UTILITY STANDARDS. COORDINATE INSTALLATION WITH TACOMA PUBLIC UTILITIES.
2. PROVIDE CONDUIT ONLY. CONDUCTORS PROVIDED BY OTHERS.
3. COORDINATE INSTALLATION OF TRANSFORMER WITH TACOMA POWER.
4. CONDUCTORS PROVIDED BY TACOMA POWER.

**MOTIVE CONSTRUCTION NOTES:**

1. PROVIDE CONDUCTORS IN CONDUIT PER TACOMA PUBLIC UTILITY STANDARDS. COORDINATE INSTALLATION WITH TACOMA PUBLIC UTILITIES.
2. PROVIDE NEMA 3R SERVICE ENTRANCE RATED FUSED DISCONNECT WITH CLASS L 800A FUSES.
3. PROVIDE PANELBOARD WITH RATINGS AS SHOWN, PER SPECIFICATION 26-24-16. SEE PANEL SCHEDULE ON E10.2 FOR DETAILS.
4. PROVIDE UTILITY INSTRUMENT METERING SOCKET AND 800A CT ENCLOSURE PER TACOMA PUBLIC UTILITIES STANDARD.
5. EXISTING PANEL TO BE RE-FED FROM NEW SOURCE. PROVIDE 150A MAIN BREAKER IN PLACE OF EXISTING 125A.
6. PROVIDE CONDUCTORS AS SHOWN. CONDUIT PROVIDED BY OTHERS.
7. PROVIDE CONDUCTORS, CONDUITS, FITTINGS, SUPPORTS AND ANCILLARY HARDWARE.
8. PROVIDE SERVICE GROUND RODS, GROUNDING ELECTRODE CONDUCTOR, AND BONDING HARDWARE.
9. PROVIDE NEMA 4X FUSED DISCONNECT WITH RATINGS AS SHOWN.
10. PROVIDE 400A RECEPTACLE. COORDINATE RECEPTACLE TYPE WITH MOTIVE POWER MARINE.

ISSUE FOR BID  
MAY 9, 2025

**CASNE Engineering**  
3546 FACTORIA BOULEVARD, SUITE 200  
(425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005

**Port of Tacoma**  
P.O. BOX 987000 TACOMA, WA 98421

MARK: REVISION: BY: APPR: DATE:



CHECKED BY: AA	DATE: 04/18/25
PROJ. ENGR: steven.garrett	DATE: May 09, 2025
PRINTED BY: steven.garrett	
PORT ADDRESS: 401 East Alexander Ave	
TACOMA, WA 98421	

APPROVED: *Steven Garrett*  
DIRECTOR ENGR. DATE: 04/18/25  
PRINTED BY: steven.garrett

**EBC MOTIVE TEMPORARY POWER**  
TEMPORARY ELECTRICAL ONE-LINE DIAGRAM  
TOWNSHIP: 21 RANGE: 03 SECTION: 27  
DAT-HRZ: NAD83 VERT: M.W. 1983-2001 EPOCH  
PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

6709  
**E10.0T**  
SH# 12 OF 19  
P.A.: POT-PA-000000068  
PROJ. ID: 101686.01  
PHASE: ISSUE FOR BID

**MM-DP-1**

VOLTS: 480/277V  
 PH & WIRE: 3Ø, 4W  
 BUS RATING: 800 Amp

MAIN BREAKER: 800A 100% Rtd  
 PANEL AIC RATING: 65 kA  
 FED FROM: MDS-1

FEEDER CONDUCTORS: (2) sets 4 #600, 1/0 G  
 MOUNTING: SURFACE  
 ENCLOSURE: NEMA 12

SURGE PROTECTOR: NO  
 ACCESSORIES:

INSTALL DATE: TBD  
 REV. VERSION: ORIGINAL  
 REV. DATE: 10/8/2024

CKT. #	BKR. AMPS	BKR. POLES	WIRE SIZE	CIRCUIT DESCRIPTION	LOAD TYPE	LOAD (KVA)	NOTES	CIRCUIT PHASE			CKT. #	BKR. AMPS	POLES	WIRE SIZE	CIRCUIT DESCRIPTION	LOAD TYPE	LOAD (KVA)	NOTES	CKT. #
								A	B	C									
1	150	3		Power Skid - (2) 45KVA 3ph & (1) 5KVA 1ph	1	26.5		1			2	100	2	SPARE	G			2	
3	/	/			1	26.5		3			4	/	/	-	G			4	
5	/	/			1	24		5			6	-	-	SPACE	G			6	
7	150	3		Power Skid - (3) 45KVA XFMRs	1	36		7			8	125	3	SPARE	G			8	
9	/	/			1	36		9			10	/	/	-	G			10	
11	/	/			1	36		11			12	/	/	-	G			12	
13	400	3		COMPRESSOR - 270HP	1	99	1	13			14	150	3	SPARE	G			14	
15	/	/			1	99	1	15			16	/	/	-	G			16	
17	/	/			1	99	1	17			18	/	/	-	G			18	
19	200	3		SPARE	G			19			20	100	3	SPARE	G			20	
21	/	/			G			21			22	/	/	-	G			22	
23	/	/			G			23			24	/	/	-	G			24	

**NOTES:**  
 1) SOLID STATE TRIP UNIT WITH ADJUSTABLE LT,ST,AND INST PROTECTION.

CONNECTED LOAD SUBTOTAL (PER PHASE)		161	161	159	(KVA)
		583	583	574	(AMPS)
<b>TOTAL CONNECTED LOAD</b>		481.80	3Ø	LOAD (KVA)	
		580	3Ø	LOAD (AMPS)	
<b>TOTAL DEMAND LOAD</b>		481.80	3Ø	LOAD (KVA)	
		580	3Ø	LOAD (AMPS)	
<b>METERED LOAD (PER PHASE)</b>		0	0	0 (KVA)	
				(AMPS)	
<b>Available Fault Current:</b>		0.00	3Ø	LOAD (KVA)	
<b>Date of Calculation:</b>		0	3Ø	LOAD (AMPS)	

**NEW LOAD WORKSHEET**

**METERED DATA COLLECTION NOTES:**

SUBTRACTED LOAD:	0.00 (KVA)
ADDED LOAD:	0.00 (KVA)
125% METERED LOAD:	0.00 (KVA)
<b>TOTAL EXPECTED LOAD:</b>	<b>0.00 (KVA)</b>
<b>TOTAL EXPECTED LOAD:</b>	<b>0 (AMPS)</b>

**LEGEND:**

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

**GENERAL NOTES:**

1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.

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

**CASNE Engineering**  
 3540 FIVE MILE DRIVE  
 BELLEVUE, WA 98005  
 (425) 522-1000 WWW.CASNE.COM

PROJ. NO. 241038-005  
 JOB NO. 241038-005

DATE: \_\_\_\_\_  
 APPR: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 REVISION: \_\_\_\_\_



APPROVED: *Steven Garrett* 5/9/25  
 DIRECTOR ENG. DATE: 5/9/25

CEC 04/8/25  
 CHECKED BY: AA 04/8/25  
 PROJECT ENGR: Steven Garrett May 09, 2025  
 PORT ADDRESS: 401 East Alexander Ave  
 TACOMA, WA 98421

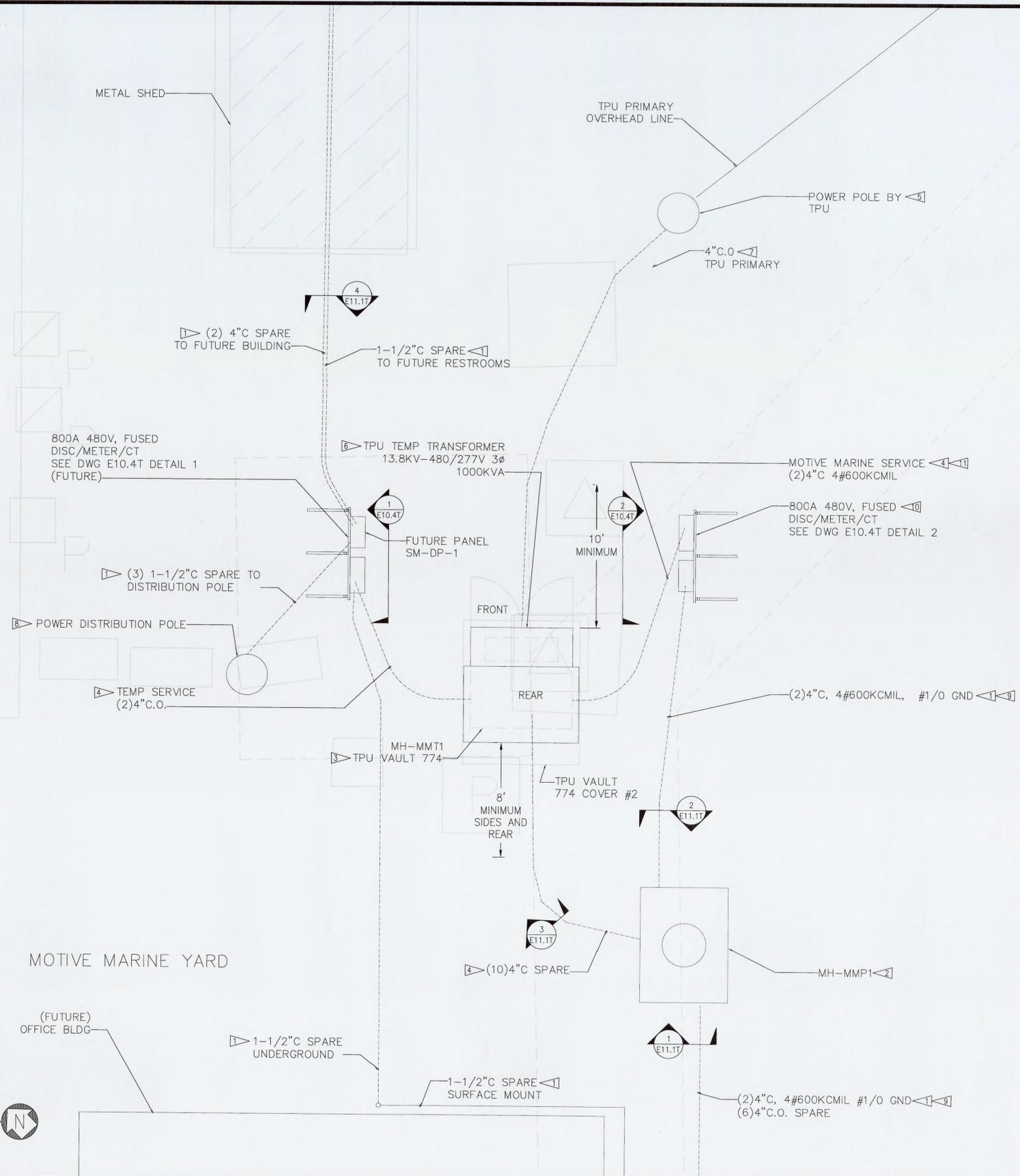
**6709**  
**E10.2**  
 SH# 13 OF 19

**EBC MOTIVE TEMPORARY POWER**  
**MM-DP-1 PANEL SCHEDULE**

TOWNSHIP: 21 RANGE: 03 SECTION: 27  
 DAT-HRZ: . NAD83 VERT: MLW, 1983-2001 EPOCH  
 PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

PA: POT-PA-000000068  
 PROJ. ID: 101686.01  
 PHASE: ISSUE FOR BID

C:\Users\steven.garrett\KIRKLAND\OneDrive - Casne Engineering\Port of Tacoma\241038-005 POT EBC Substation\Drawings\E10.5T - Steven.garrett - LAST SAVE: 5/9/25 16:23:04 - PLOTTED: 5/9/25 21:58:24



**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. CONDUCTORS 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 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 SERVICE CONDUCTORS IN CONDUIT, INSTALLED PER TACOMA POWER STANDARD. COORDINATE INSTALLATION WITH UTILITY.

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

**CASNE Engineering**  
 3546 FACTORY BOULEVARD, SUITE 200  
 TACOMA, WA 98421  
 (425) 522-1000 WWW.CASNE.COM JOB NO. 241038-005

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 REVISION: \_\_\_\_\_ APPR: \_\_\_\_\_

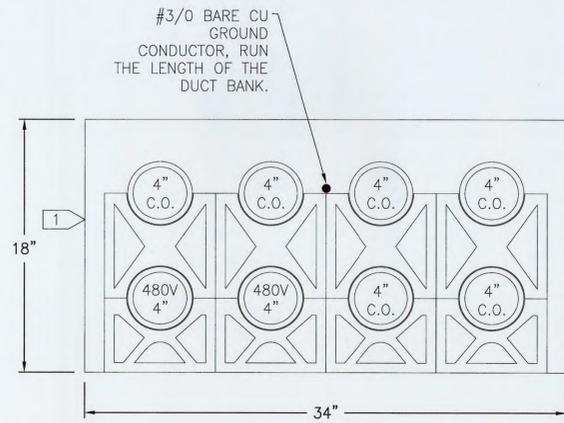
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		PRINTED BY:	steven.garrett May 09, 2025
		PORT ADDRESS:	401 East Alexander Ave TACOMA, WA 98421

**6709**  
**E10.5T**  
 SH# 15 OF 19

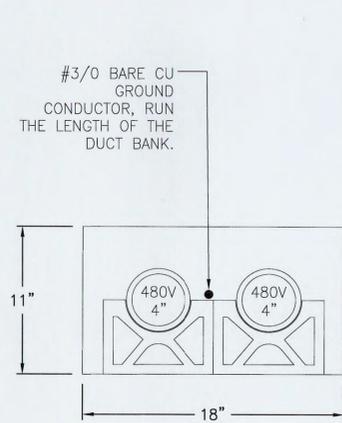
**EBC MOTIVE TEMPORARY POWER**  
 ENLARGED TEMPORARY POWER SITE PLAN

PA: POT-PA-000000068	TOWNSHIP: 21	SECTION: 27	RANGE: 03
PROJ. ID: 101686.01	DAT-HRZ: NAD83	VERT: MLW, 1983-2001 EPOCH	DRAWING SCALE: AS NOTED
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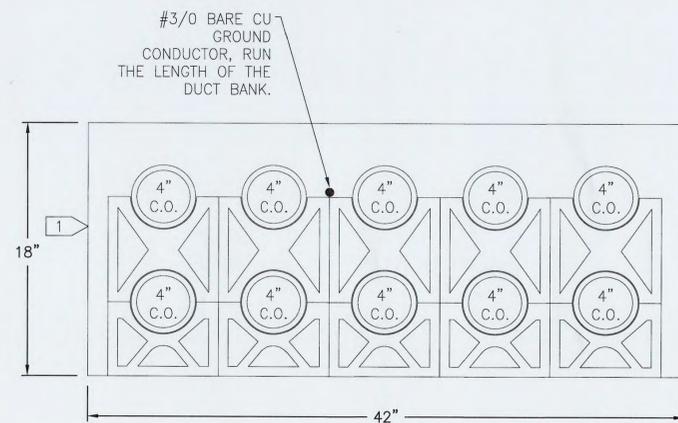




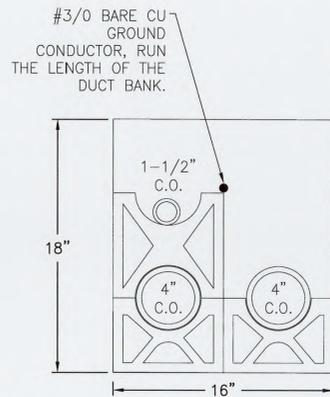
**1 480V DUCT BANK SECTION**  
E11.1T SCALE: 2" = 1'-0"



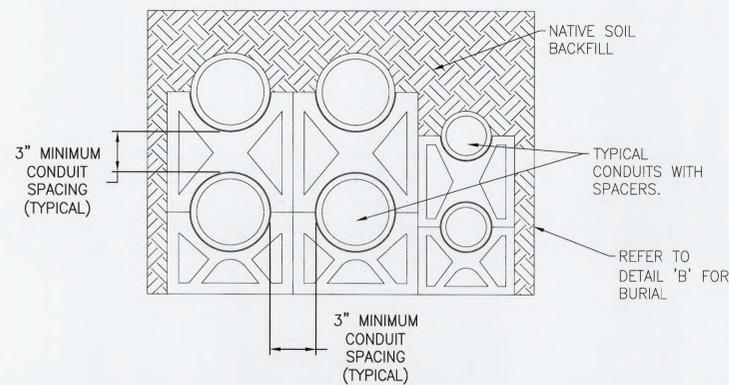
**2 480V DUCT BANK SECTION**  
E11.1T SCALE: 2" = 1'-0"



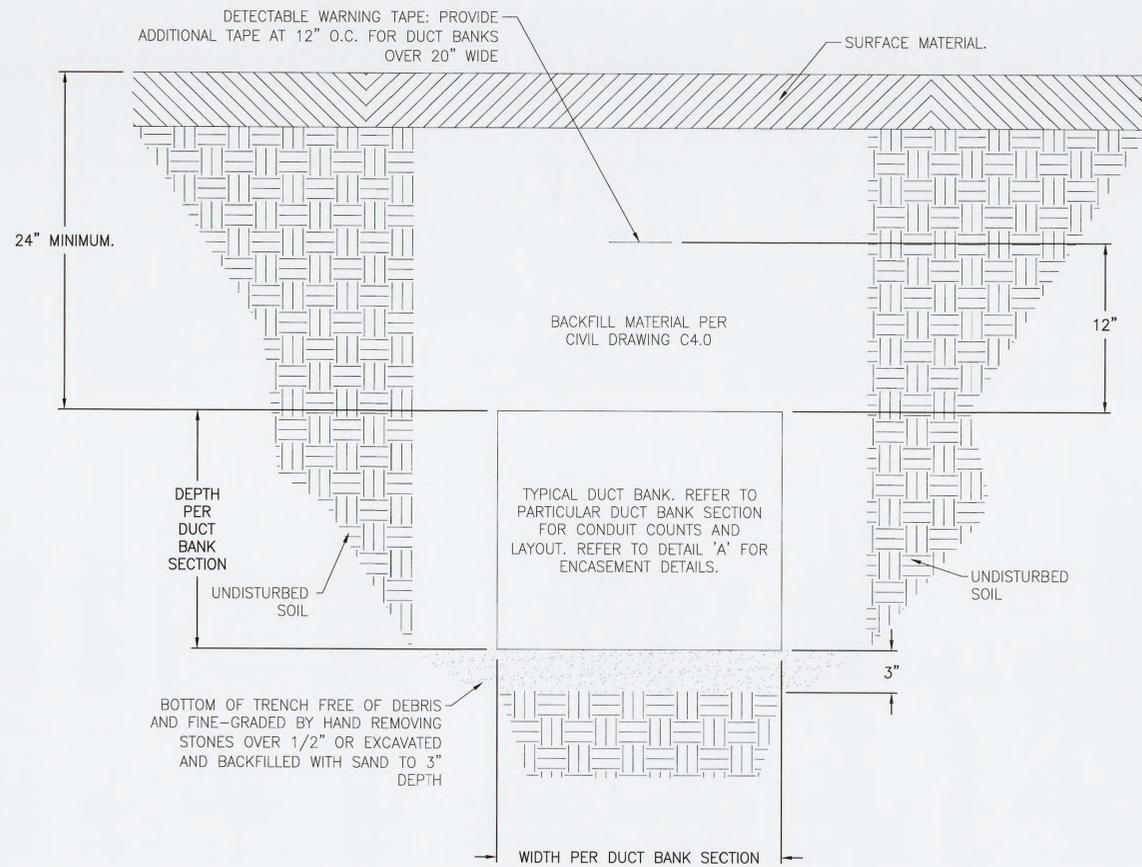
**3 SPARE DUCT BANK SECTION**  
E11.1T SCALE: 2" = 1'-0"



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



**A TYPICAL DUCT BANK CONCRETE ENCASEMENT 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 DEFINED:
  - 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.

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**MAY 9, 2025**



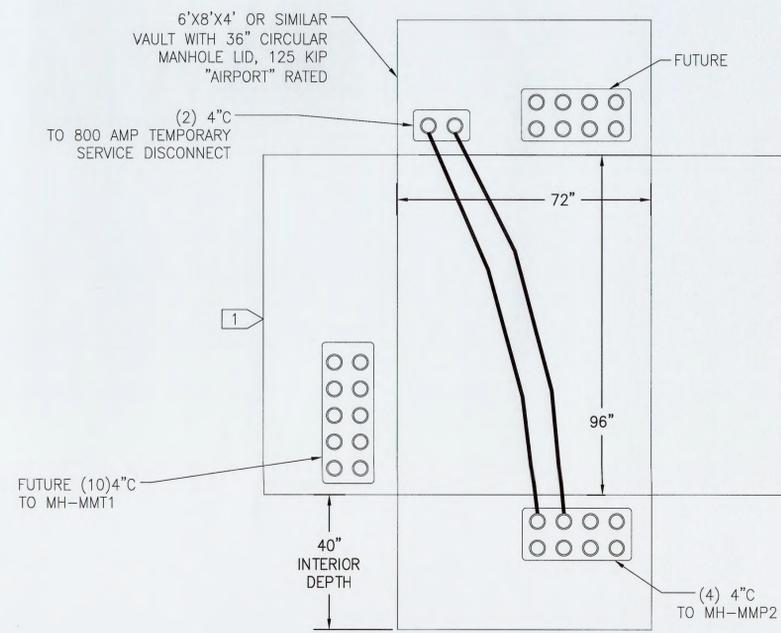
**CASNE Engineering**  
3545 TACOMA BOULEVARD SE, SUITE 200  
BELLEVUE, WA 98006  
(425) 822-1000 WWW.CASNE.COM JOB NO. 241038-005  
P.O. BOX 1801 TACOMA, WA 98401-0181



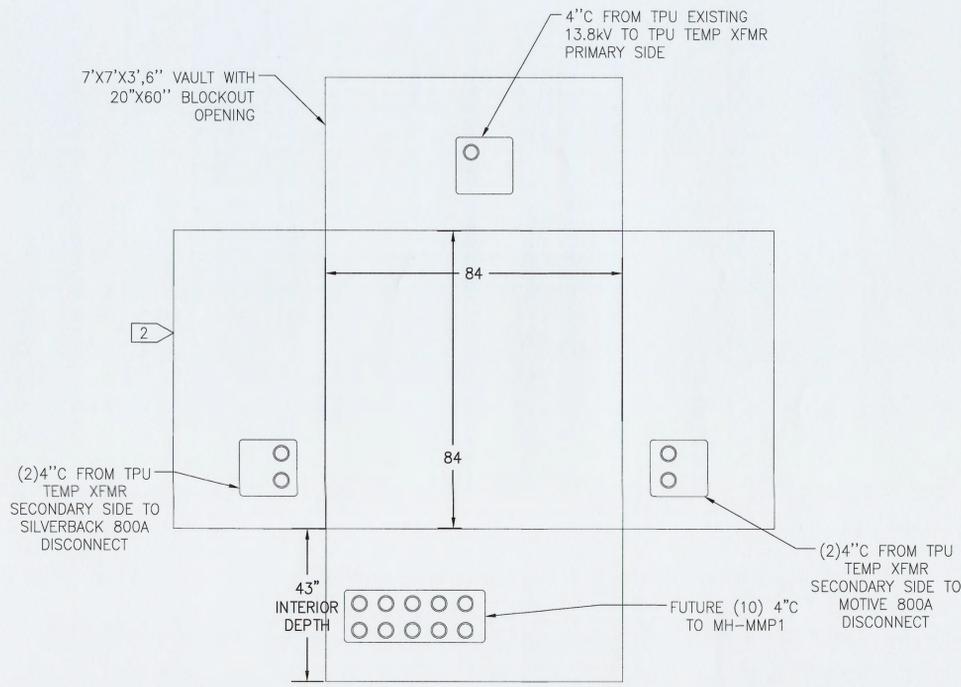
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PRINTED BY: steven.garrett May 09, 2025  
PORT ADDRESS: 401 EAST ALEXANDER AVE  
TACOMA, WA 98421

**EBC MOTIVE TEMPORARY POWER**  
DUCT BANK DETAILS  
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  
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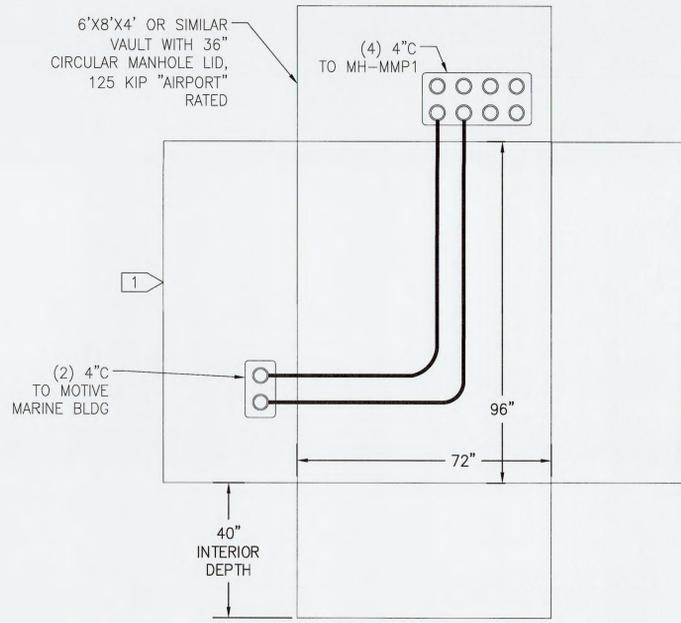
6709  
**E11.1T**  
SH# 16 OF 19



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



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



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

**LEGEND:**

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

**GENERAL NOTES:**

- REFER TO DRAWING E11.3T DETAILS 1 AND 2 FOR MANHOLE GROUNDING AND CABLE RACKING DETAILS.
- REFER TO DRAWING E11.4T DETAILS 1 THROUGH 5 FOR 1500KVA TRANSFORMER 774 VAULT WITH COVER #2 CONSTRUCTION.
- 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.
- 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.
- ADD RISERS AS NECESSARY TO BRING MANHOLE OPENING TO GRADE. MANHOLE COVER SHALL BE 1" ABOVE FINISH GRADE AND SLOPED TO PREVENT WATER ENTRY.
- ALL SEAMS IN RISER AND MANHOLES SHALL BE GROUTED WITH QUICK PLUG OR EQUIVALENT PER UTILITY VAULT SPECIFICATIONS.
- 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.
- ALL MANHOLES SHALL BE EQUIPPED WITH STAINLESS STEEL PULLING IRONS AND STAINLESS HARDWARE.
- 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.
- SEE CIVIL AND STRUCTURAL PLANS FOR TRENCH AND BACKFILL REQUIREMENTS.
- REFER TO DRAWINGS E1.0T FOR VAULT LOCATIONS.

**ISSUE FOR BID**  
 MAY 9, 2025

**ECASNE Engineering**  
 3546 PACIFIC BELLEVUE, WA 98005  
 (425) 522-1000 WWW.ECASNE.COM

**Port of Tacoma**  
 P.O. BOX 1807 TACOMA, WA 98401

MARK: REVISION: BY: DATE: APPR: DATE:

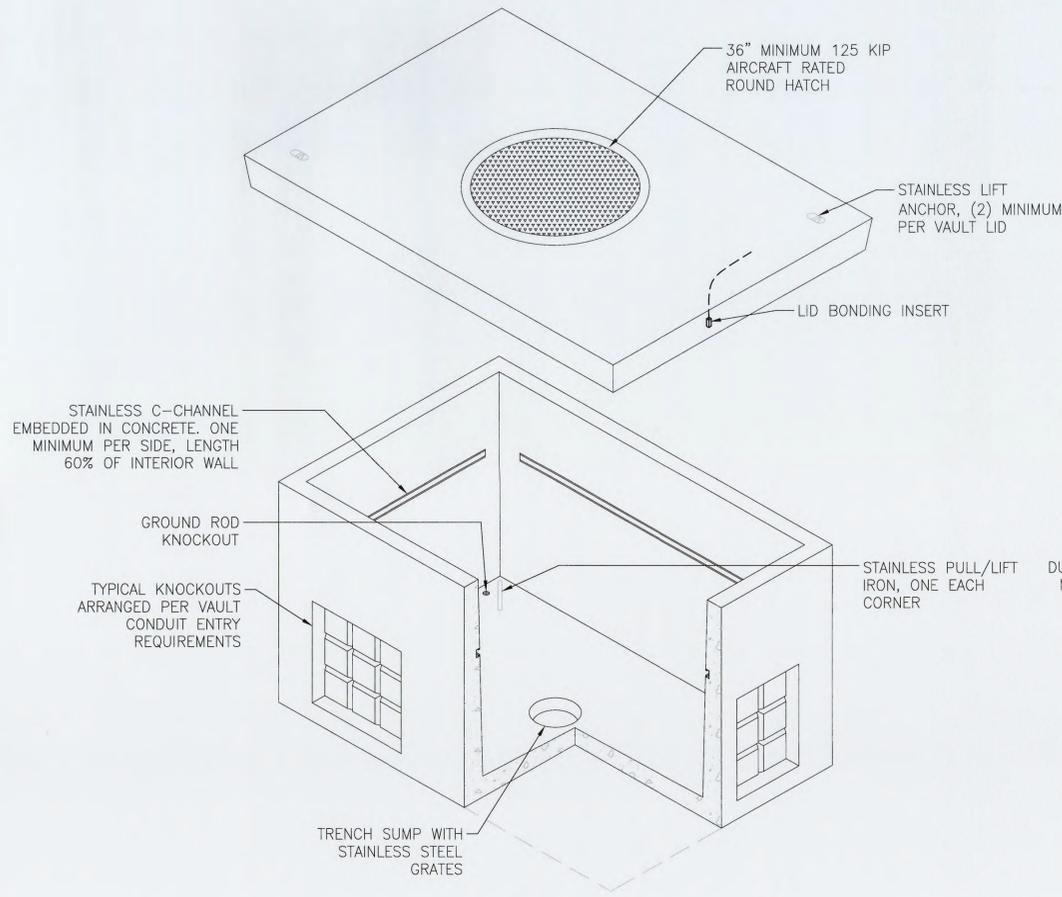


CHECKED BY: AA	DATE: 04/08/25
PROJECT ENGR: st	DATE: May 09, 2025

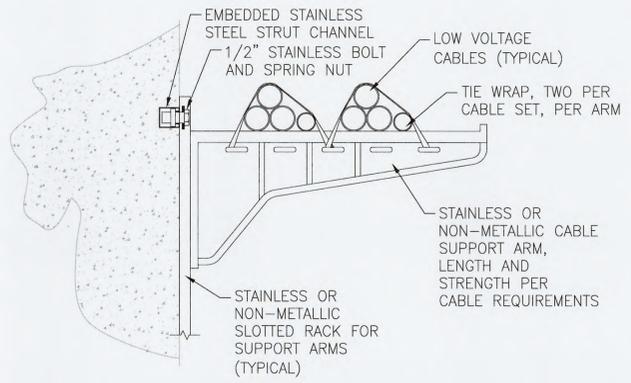
APPROVED: *Steven Garrett*  
 DIRECTOR ENGR. DATE: st  
 PRINTED BY: steven.garrett  
 PORT ADDRESS: 401 EAST ALEXANDER AVE  
 TACOMA, WA 98421

<b>EBC MOTIVE TEMPORARY POWER</b>	
TOWNSHIP: 21	SECTION: 27
DATE-HRZ: .	VERT: MLW, 1983-2001 EPOCH
PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED

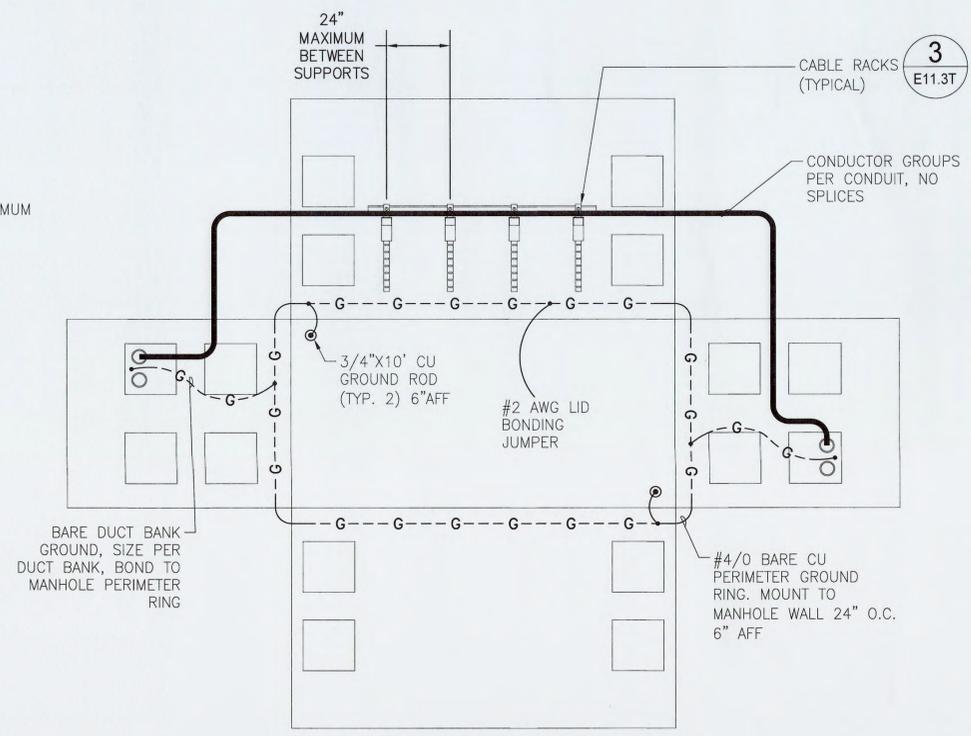
**6709**  
**E11.2T**  
 SH# 17 OF 19  
 PA: POT-PA-000000068  
 PROJ. ID: 101686.01  
 PHASE: ISSUE FOR BID



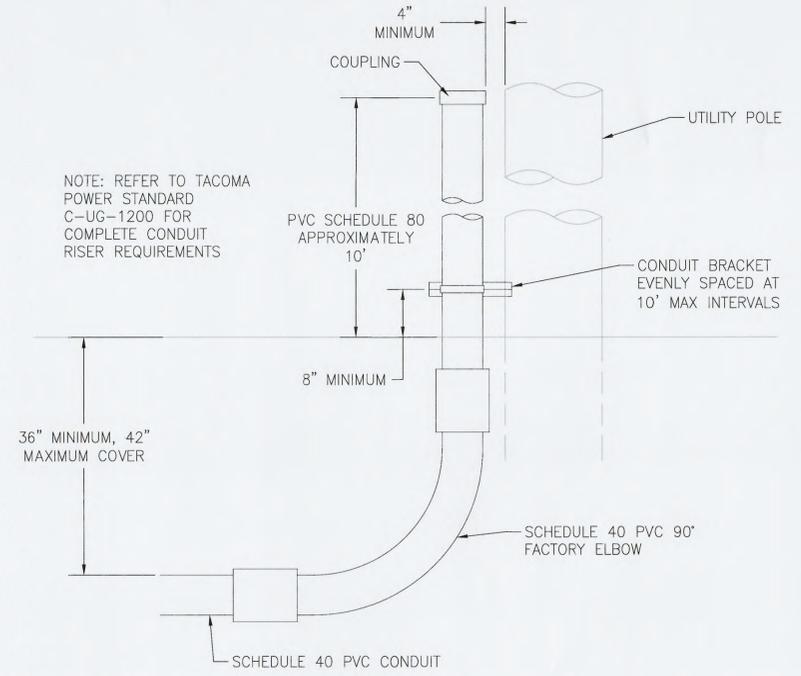
**1** TYPICAL ELECTRICAL VAULT DETAIL  
E11.3T SCALE: NONE



**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:**

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

**GENERAL NOTES:**

1. REFER TO PROJECT SPECIFICATIONS FOR GENERAL ELECTRICAL NOTES.

ISSUE FOR BID  
MAY 9, 2025



**CASNE Engineering**  
3545 FACTORY BOULEVARD SE., SUITE 200  
BELLEVUE, WA 98006 JOB NO. 241038-005  
(425) 522-1000 WWW.CASNE.COM P.O. BOX 187 TACOMA, WA 98401

MARK: REVISION: BY: DATE: APPR:



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

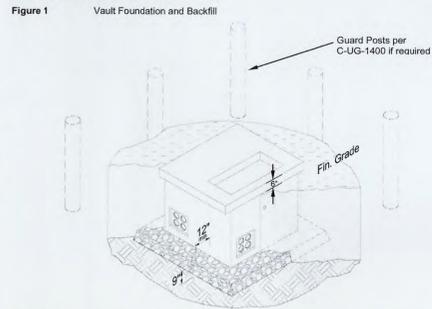
<b>6709</b>	<b>EBC MOTIVE TEMPORARY POWER</b>			
	<b>DETAILS</b>			
<b>E11.3T</b>	TOWNSHIP: 21	RANGE: 3	SECTION: 27	
SH# 18 OF 19	PA: POT-PA-000000068	DATE-HRZ: .	VERT: M.L.W. 1983-2001 EPOCH	
PROJ. ID: 101686.01	PARCEL: PORT PARCEL 1B	DRAWING SCALE: AS NOTED		
PHASE: ISSUE FOR BID				



Customer Requirements  
Transformer Vault  
Installation

May 18, 2023  
C-UG-1700

Installation of Vault and Cover



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 foundation shall be minimum of 9 inches of 5/8" minus crushed rock, well compacted, extending a minimum of 12 inches beyond the edge of the vault in all directions.
Backfill Material	Clean fill or better as directed by the Construction Inspector.
Compaction at Subgrade	Compaction requirements will be determined by the Construction Inspector.
Final Grade	The elevation difference between the top of the vault cover and final grade shall be 6 inches.



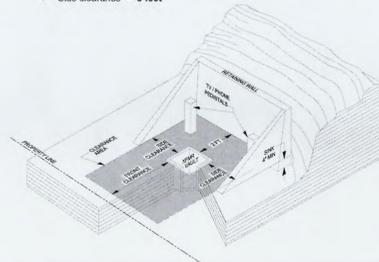
Customer Requirements  
Transformer Vault  
Installation

May 18, 2023  
C-UG-1700

Installation of Vault and Cover (continued)

**Guard Posts** Guard posts may be required by the New Services Engineer to protect vaults against damage due to vehicular traffic. See C-UG-1400 "Customer Requirements, Padmount Equipment Guard Posts Installation" for guard post construction and placement.

**Figure 2** Sloping Installations  
For transformer vaults installed on a slope, the **minimum** dimensions for clearances are:  
• Front clearance = 8 feet  
• Side clearance = 8 feet



**Construction Notes**

- The transformer vault must be kept clear of any **obstructions**, such as:
  - fences, mail boxes, rockeries, berms, and vegetation.
  - bank, sod, ground cover mulch, and rocks, etc., on any part of the structure.
  - trees and bushes extending into the clearance area.
- Phone and TV pedestals 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 when required by the New Services Engineer.
  - A wooden, concrete or rockery wall shall have 1 to 4 maximum allowable slope to the property line.

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



CASNE Engineering  
8545 PACIFIC AVE. SE, SUITE 200  
BELLEVUE, WA 98006  
(425) 822-1000 WWW.CASNE.COM JOB NO. 241038-005



CHECKED BY: AA  
DATE: 04/8/25  
PROJ. ENGR: DATE: 04/8/25  
DIRECTOR ENGR: DATE: 04/8/25  
PRINTED BY: steven.garrett  
PORT ADDRESS: 401 EAST ALEXANDER AVE  
TACOMA, WA 98421

APPROVED: [Signature]

EBC MOTIVE TEMPORARY POWER  
TPU TRANSFORMER VAULT STANDARDS  
RANGE: 3 SECTION: 27  
TOWNSHIP: 21  
DATE-HRZ: 101686.01  
M.L.W. 1983-2001 EPOCH  
PARCEL: PORT PARCEL 1B DRAWING SCALE: AS NOTED

6709  
E11.4T  
SH# 19 OF 19  
PA: POT-PA-000000068  
PROJ. ID: 101686.01  
PHASE: ISSUE FOR BID

1 TPU XFMR VAULT  
INSTALLATION STANDARD

E11.4T SCALE: NONE

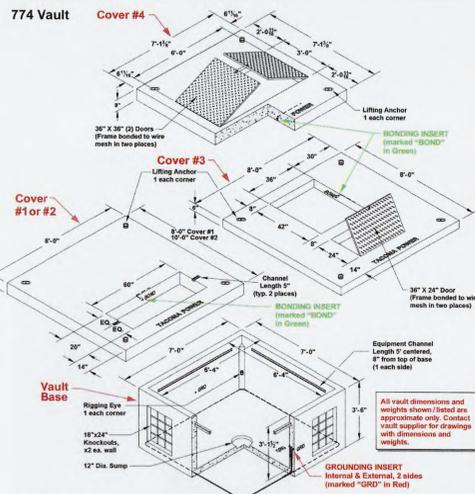
2 TPU XFMR VAULT  
CLEARANCE REQUIREMENTS

E11.4T SCALE: NONE



Precast Concrete Vaults

August 8, 2024  
A-UG-1150



**DESCRIPTION:** Vault, concrete, type 774, 7ft x 7ft x 3ft-6in base, 30 transformer/primary metering cabinet cover #1 is 8ft x 8ft x 8in with 20in x 60in blackout opening, 30 transformer cabinet cover #2 is 8ft x 10ft x 8in with 20in x 60in blackout opening, secondary service cabinet cover #3 is 8ft x 8ft x 6in with 3ft x 2ft hinged diamond plate aluminum door and 35in x 42in blackout opening, secondary service box cover #4 is 7ft-1in x 7ft-1in x 8in with two 3ft x 3ft hinged diamond plate aluminum doors



Precast Concrete Vaults

August 8, 2024  
A-UG-1150

774 Vault (continued)

Material	MID#
774 Vault Base (7,500 lbs)	21167
774 Transformer (500 kVA to 1500 kVA) or Primary Meter Cabinet Cover #1, 8ft x 8ft (6,500 lbs)	19461
774 Transformer (2000 kVA to 2500 kVA) Cover #2, 8ft x 10ft (7,200 lbs)	19463
774 Secondary Service Cabinet Cover #3 (5,000 lbs)	50893
774 Secondary Service Box Cover #4 Standard (4,000 lbs)	67541
774 Secondary Service Box Cover #4 Non-skid (4,000 lbs)	67541
774 Riser, 6in (1,200 lbs)	39974
774 Riser, 12in (2,000 lbs)	43256

**APPLICATION:** Large 30 Transformers (500 kVA to 2500 kVA), 30 Primary Metering Cabinet, Secondary Service Cabinet, Commercial Secondary Service Box

3 TPU XFMR VAULT  
774 STANDARD COVER #2 (1500KVA)

E11.4T SCALE: NONE

4 TPU XFMR VAULT  
774 STANDARD (1500KVA) BOM

E11.4T SCALE: NONE

TPU XFMR VAULT  
774 STANDARD COVER #2 (1500KVA) DETAIL

E11.4T SCALE: NONE

