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May 6, 2016

TO: PLANHOLDERS

SUBJECT: PIER 4 PHASE 2 RECONFIGURATION
PROJECT NO. 091251
CONTRACT NO. 070136

ADDENDUM NUMBER FOUR

This addendum is issued to amend the following:

SPECIFICATIONS

A. 00 73 16 - INSURANCE REQUIREMENTS

1. **REVISE** the last sentence in the paragraph following 1.03 F to read as follows:
... Contractor is responsible for ensuring subcontractors at all tiers have the appropriate USL&H and Jones Act Coverage as applicable for the project.

B. 26 01 26 ACCEPTANCE TESTING OF ELECTRICAL SYSTEMS

1. **REVISE** the last sentence of paragraph 1.04.A to read as follows:
 - A. The Testing Firm shall meet Washington State Department of Labor and Industries criteria for accreditation of testing laboratories, for electrical product testing; and shall be accredited by the InterNational Electrical Testing Association (NETA).

C. 33 71 19 ELECTRICAL UNDERGROUND DUCTS AND MANHOLES

1. **ADD** the following sentence to end of paragraph 2.05.F:
 - F ... for all wheel load requirements for electrical and communications manholes/vaults. Allowable soil bearing capacity is 2,000 PSF.

D. 33 77 00 MEDIUM VOLTAGE SWITCHGEAR AND PROTECTION DEVICES

1. **REVISE** the first sentence in paragraph 1.02.B to read as follows:
 - B. ...compartments, complete with copper bus throughout the switchgear line-up; excluding the standalone 15kV, 1200A switch
2. **ADD** paragraph 1.03.C to read as follows:
 - C. Submit factory test results for the switchgear after installation within the PDSE. Submit certified production test reports indicating satisfactory completion of all inspection and test procedures.

3. **REVISE** paragraph 2.04.S to read as follows:

S. All equipment shall be functionally tested after installation within the PDSE. Test results shall be submitted to the Port.

4. **REVISE** paragraph 2.04.T to read as follows:

T. ...inspection and test procedures shall be ~~available upon request~~ submitted to the Port.

5. **REVISE** paragraph 2.09.A to read as follows:

A. ..., with incoming lugs for underground service and ~~custom 1200 Amp copper bus~~ for load side connection to ~~attached~~ adjacent metal clad switchgear...

E. 07 54 19.01 POLYVINYL-CHLORIDE (PVC) ROOFING

1. **ADD** to paragraph 2.03.A.1 the following manufacturer:

f. Soprema, Inc

2. **REVISE** paragraph 2.06.A to read as follows:

A. Self-Adhering-Sheet Vapor Retarder (Roof Type A only): Also noted as “Interim Roofing”...

3. **ADD** the following to paragraph 2.06 as follows:

C. Torch Applied Vapor Retarder (Roof Type B only): Also noted as “Interim Roofing” on Drawings. ASTM D6163, torch grade modified bitumen vapor retarder, non-woven polyester mat impregnated and coated with styrene-butadiene-styrene (SBS) modified bitumen, minimum 85-mils total thickness; top surface is covered with a mineral parting agent, back surface is covered with a polyolefin burn-off film. Install as recommended by manufacturer

DRAWINGS

A. DRAWING C6.3 UTILITY PLAN – SHEET 3 (SHEET 90)

1. **DELETE** callout specifying BEGIN COMMON TRENCH at Sta 21+04.96 as denoted in Exhibit A. (See Attachment A to this Addendum No. 04).
2. **DELETE** 4"x4"x4" Tee at Sta. 59+64.60 as denoted in Exhibit A. (See Attachment A to this Addendum No. 04).
3. **ADD** coordinates at Sta. 21+03.17 as denoted in Exhibit A. (See Attachment A to this Addendum No. 04)

B. DRAWING E3.5 – ELECTRICAL PLAN – SHEET 3 (SHEET 131)

1. **REPLACE** entire Key Note #8 with the following:

1. Provide 600A/3P circuit breaker in Switchboard #1 at Substation #3 (#8431). Breaker to be Siemens Sentron Series, 50000 AIC rating at 480V. Contractor to change adjustable trip setting dial of 1600A main circuit breaker from 400A to 800A.

C. DRAWING E3.6 – ENLARGED ELECTRICAL PLAN – SUBSTATION #8410 (SHEET 132)

1. **REVISE** Key Note 2 as follows:
 2. PROVIDE MINIMUM 9" ABOVE FINISHED GRADE, RE-BAR REINFORCED, CONCRETE PAD BELOW ~~SWITCHGEAR BUILDING~~ PDSE SWITCHGEAR ENCLOSURE. SEE SPECIFICATION 33 77 00, PARAGRAPH 2.04, FOR PDSE REQUIREMENTS. PROVIDE BLOCK-OUTS IN CONCRETE PAD BELOW SWITCHGEAR FOR CONDUIT ACCESS. CONTRACTOR AS PART OF THE SHOP DRAWINGS SHALL PROVIDE CONCRETE PAD SUBMITTAL THAT HAS BEEN DESIGNED AND STAMPED BY THE A STRUCTURAL ENGINEER. SEE SPECIFICATIONS ... (See Attachment B to this Addendum No. 04)
2. **ADD** underground conduit and cable between 15KV Main Switch and the switchgear. (See Attachment B to this Addendum No. 04)

D. DRAWING E6.7 – ELECTRICAL DETAILS (SHEET 146)

1. **ADD** fiber optic cables and splice enclosures in crane vault for terminating fiber optic cables. See key note #8 and Detail 1 Crane Power Vault Plan. (See Attachment C to this Addendum No. 04)

E. DRAWING E6.20 – VAULTS AND HANDHOLE SCHEDULE (SHEET 159)

1. **ADD** size for vault #SDV23. (See Attachment D to this Addendum No. 04)

F. DRAWING E8.2 – CONDUIT AND CONDUCTOR SCHEDULE (SHEET 166)

1. **ADD** conduit and cable requirements for conduit PD25 and fiber optic cables to conduits indicated. (See Attachment E to this Addendum No. 04)

Receipt for this addendum shall be indicated in the space provided in Section 00 41 00, Bid Form.

END OF SECTION

ATTACHMENTS:

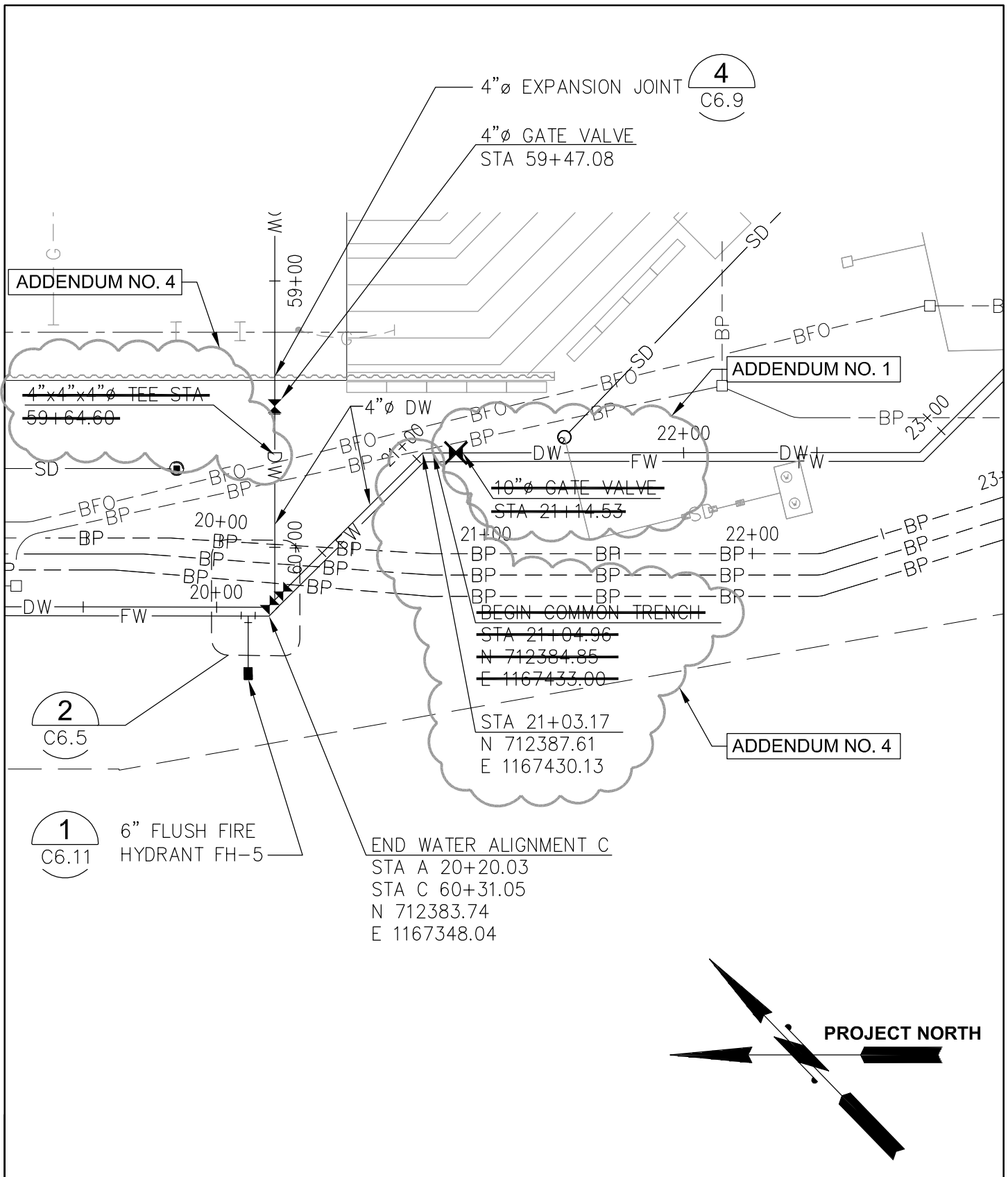
ATTACHMENT A - Exhibit A (Excerpt From C6.3 Utility Plan – Sheet 3)

ATTACHMENT B - Drawing E3.6 – Enlarged Electrical Plan – Substation #8410 (Sheet 132)

ATTACHMENT C - Drawing E6.7 – Electrical Details (Sheet 146)

ATTACHMENT D - Drawing E6.20 – Vaults and Handhole Schedule (Sheet 159)

ATTACHMENT E - Drawing E8.2 – Conduit and Conductor Schedule (Sheet 166)



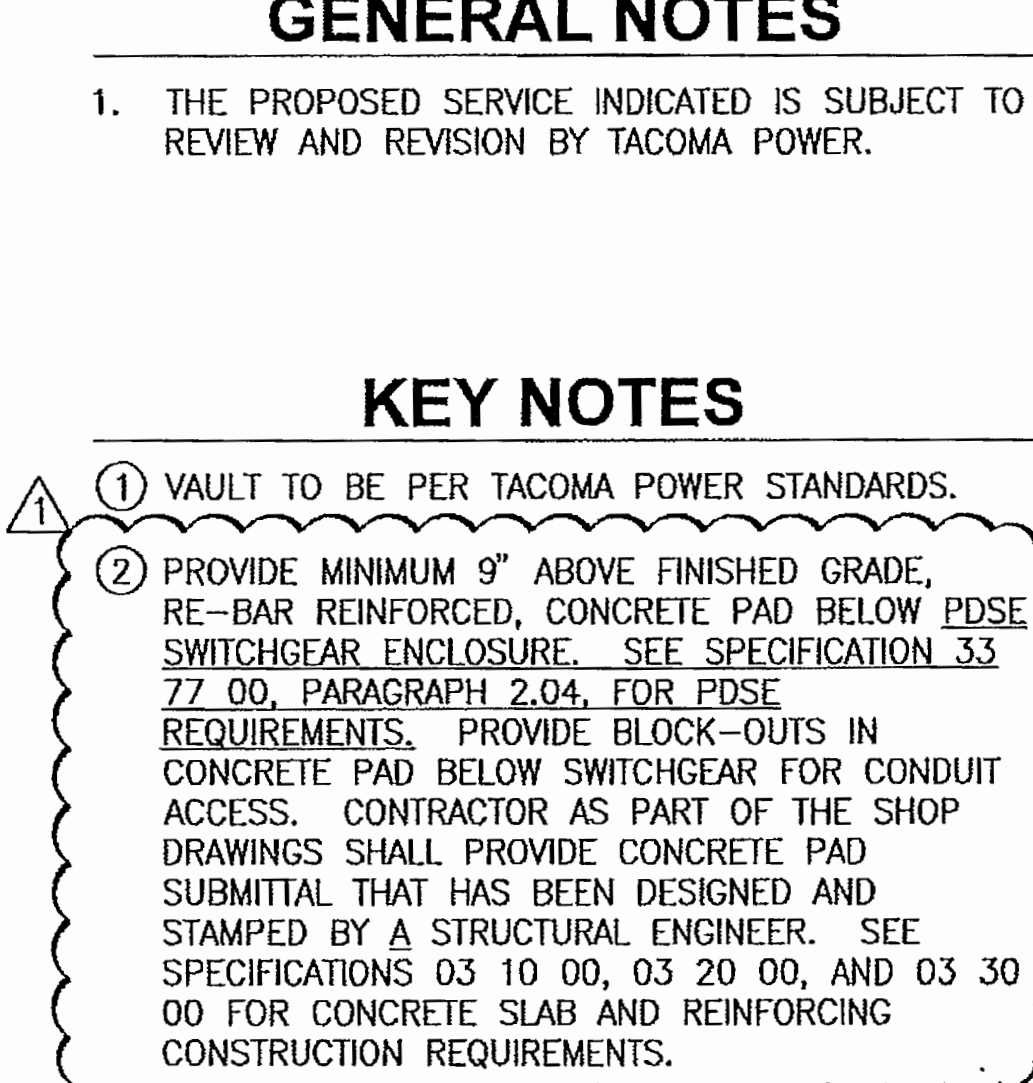
kpff

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PORT OF TACOMA
PIER 4 PHASE 2 RECONFIGURATION
EXHIBIT A - (EXCERPT FROM C6.3)

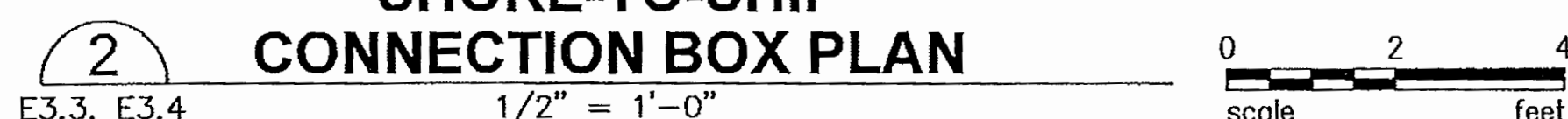
DATE: 2016-05-05

SCALE: 1" = 50'



- ③ CP55, CP56, CP57, CP58,
PD24,
SP222, SP223, SP224, SP225, SP227, SP229,
SP230
- ④ CP51, CP52, CP53, CP54,
PD23,
SP218, SP219, SP220, SP221, SP226, SP228
- ⑤ PROVIDE 64"x70" BLOCKOUT IN LID.
- ⑥ PD23, SP228, SP230
- ⑦ CP51, CP52, SP218, SP219
- ⑧ CP53, CP54, SP220, SP221
- ⑨ SP226
- ⑩ PD24, SP227, SP229
- ⑪ PD24, SP226, SP227, SP148
- ⑫ CP55, CP56, SP222, SP223
- ⑬ CP57, CP58, SP224, SP225
- ⑭ CAP CONDUIT FOR FUTURE EXTENSION TO SHORE
POWER SWITCHGEAR.
- ⑮ TACOMA POWER APPROVED ELECTRICAL
CONTRACTOR TO PROVIDE VAULT.
- ⑯ CONTRACTOR TO PROVIDE VAULT.
- ⑰ CONTRACTOR TO PROVIDE CONDUITS AND MV
CABLES.
- ⑱ CONTRACTOR TO PROVIDE CONDUITS.
- ⑲ TACOMA POWER APPROVED ELECTRICAL
CONTRACTOR TO PROVIDE CONDUITS.
- ⑳ TACOMA POWER TO PROVIDE MV CABLES.

ENLARGED ELECTRICAL PLAN
SUBSTATION #8410



- ① CONTRACTOR SHALL PROVIDE #4 BARE COPPER GROUND WIRE BETWEEN GROUND BUS AND TO ALL METAL PARTS (CABLE DRUM, FUNNEL BOTTOM, LIDS, FRAMES, LOAD BREAK JUNCTIONS, ETC.) IN VAULT. CADWELD GROUND WIRE(S) TO ALL METAL PARTS WHERE GROUND STUDS OR HOLES FOR BOLTING GROUND WIRE(S) IS NOT AVAILABLE. ATTACH GROUND WIRE(S) ROUTED IN VAULT TO VAULT CABLE RACKS WITH PLASTIC TIE WRAPS. PROVIDE FIELD INSTALLED CONCRETE ANCHORS FOR MOUNTING CABLE SUPPORT RACKS. GROUND BUS TO BE ERICO #6GBA14418AA, OR APPROVED EQUAL. MOUNT AT 12" ABOVE GRADE BEAM.
- ② CONTRACTOR SHALL PROVIDE FIBERGLASS CABLE RACK 36" LENGTH WITHIN VAULT FOR MOUNTING ELECTRICAL EQUIPMENT. PROVIDE FIBERGLASS OR STAINLESS STEEL MOUNTING HARDWARE TO ATTACH FIBERGLASS CABLE RACKS TO VAULT WALL. PROVIDE TWO 9" ARMS/RACK.
- ③ STUB CONDUIT INTO VAULT AND TERMINATE WITH A THREADED CAP.
- ④ PROVIDE #4 AWG BARE COPPER WIRE TO ALL METAL PARTS (LIDS, FRAME, ETC.) IN VAULT. PROVIDE PVC PIPE STRAPS, MAXIMUM 24" ON CENTER TO AVOID OBSTRUCTIONS FOR ROUTING OF GROUND WIRE WITHIN VAULT. ATTACH GROUND WIRE TO PIPE STRAPS WITH PLASTIC TIE WRAPS.
- ⑤ 2" FIBER OPTIC CONDUIT TO FIBER VAULT. SEE SHEETS E3.3 AND E3.4 FOR VAULT LOCATIONS, AND SHEET E8.2 FOR CONDUIT SCHEDULE.
- ⑥ 2" SPARE CONDUIT SHORE POWER CONTROL. SEE SHEETS E3.3 AND E3.4 FOR VAULT LOCATIONS, AND SHEET E8.7 FOR CONDUIT SCHEDULE.
- ⑦ JUNCTION TO BE ADJUSTABLE TYPE SET AT 45 DEGREES UP. MOUNT AT +46" ABOVE GRATING.
- ⑧ COMMSCOPE TYPE FOSC 450 SPUCE CLOSURE, # FOSC 450-A4-2-12-1-A-1-V, OR ENGINEER APPROVED EQUAL. WALL MOUNT VERTICALLY AT +36" ABOVE FLOOR GRATING TO TOP OF ENCLOSURE.

VAULTS AND HANDHOLE SCHEDULE

NO.	DWG NO.	VOLTAGE	COORDINATES		MIN INT "REQ	INT DIM			H2 Precast / UV Cut No.	CONDUIT QUANTITIES PER WALL				COVER ID	NOTES
			NORTH	EAST		L	W	D		NORTH	EAST	SOUTH	WEST		
CPV4	E3.3, E6.7	MEDIUM								(2)4"		(1)2", (2)4"		ELECTRIC	1,2,4
CPV5	E3.3, E6.7	MEDIUM								(1)2", (2)4"		(2)4"		ELECTRIC	1,2,4
CPV6	E3.4, E6.7	MEDIUM								(2)4"		(1)2", (2)4"		ELECTRIC	1,2,4
CPV7	E3.4, E6.7	MEDIUM								(1)2", (2)4"		(2)4"		ELECTRIC	1,2,4
FOV4	E3.3, E6.8	FIBER								(2)2"				COMMUNICATIONS	1,2,4
FOV5	E3.3, E6.8	FIBER								(2)2"		(1)2"		COMMUNICATIONS	1,2,4
FOV6	E3.4, E6.8	FIBER								(2)2"				COMMUNICATIONS	1,2,4
FOV7	E3.4, E6.8	FIBER								(2)2"		(1)2"		COMMUNICATIONS	1,2,4
FOV8	E3.4	FIBER								(2)2"				COMMUNICATIONS	1,2,4
PDV10	E3.4	MEDIUM	712603.60	1167152.74	52	6'-4"	6'-4"	6'-7"	777-LA	(11)4"		(11)4"		ELECTRIC	1,2
PDV11	E3.4	MEDIUM	712746.71	1167004.47	59	6'-4"	6'-4"	6'-7"	777-LA	(6)4"	(2)4"	(13)4"		ELECTRIC	1,2
PDV12	E3.4	MEDIUM	713052.21	1166689.31	55	6'-4"	6'-4"	6'-7"	777-LA			(2)4"	(2)4"	ELECTRIC	1,2
PDV13	E3.4	MEDIUM	712627.05	1167119.77	52	6'-4"	6'-4"	6'-7"	777-LA	(12)4"		(12)4"		ELECTRIC	1,2
PDV14	E3.3	MEDIUM	713142.50	1166587.43	59	6'-4"	6'-4"	6'-7"	777-LA	(11) 4"	(2)4"	(13)4"		ELECTRIC	1,2
PDV15	E3.5	MEDIUM	712044.70	1167781.27	52	6'-4"	6'-4"	6'-7"	777-LA	(11)4"		(11)4"		ELECTRIC	1,2
PDV16	E3.5	MEDIUM	712038.95	1167775.70	52	6'-4"	6'-4"	6'-7"	777-LA	(12)4"		(12)4"		ELECTRIC	1,2
SDV7	E3.4, E3.8	LOW	713019.45	1166673.29	24	4'-2"	6'-6"	6'-0"	577-LA		(16)2", (7)2 1/2", (7)3"	(10)2"	(9)2", (7)2 1/2", (2)3"	ELECTRIC	1,2
SDV8	E3.4	LOW	713038.03	1166686.71	33X36	4'-2"	6'-6"	6'-0"	577-LA	(9)2", (2)2 1/2", (2)3"		(13)2", (4)2 1/2", (2)3"	(17)2", (6)2 1/2", (2)3"	ELECTRIC	1,2
SDV9	E3.4	LOW	712927.42	1166800.94	29X17	4'-2"	6'-6"	4'-0"	575-LA	(13)2", (4)2 1/2", (2)3"	(4)2", (2)2 1/2"	(10)2", (2)2 1/2", (2)3"	(2)2"	ELECTRIC	1,2
SDV10	E3.4	LOW	712816.82	1166915.16	31X17	4'-2"	6'-6"	4'-0"	575-LA	(10)2", (2)2 1/2", (2)3"	(1)2", (1)2 1/2"	(9)2", (2)2 1/2", (2)2"	(3)2"	ELECTRIC	1,2
SDV11	E3.4	LOW	712798.86	1166897.77	16	3'-0"	2'-0"	2'-8"	233-LA		(4)2"		(4)2"	ELECTRIC	1,2
SDV12	E3.4	LOW	712613.70	1167124.94	31X18	4'-2"	6'-6"	6'-0"	577-LA	(9)2", (3)2 1/2", (2)3", (1)4"	(5)2", (1) 2 1/2", (1)3"	(4)2", (1)3"	(11)2"	ELECTRIC	1,2
SDV13	E3.4	LOW	712591.61	1167114.69	16	3'-0"	2'-0"	2'-8"	233-LA		(11)2"		(3)2"	ELECTRIC	1,2
SDV14	E3.5	LOW	712457.88	1167285.86	20X20	3'-0"	2'-0"	2'-8"	233-LA	(4)2", (1)3"	(2)2"			ELECTRIC	1,2
SDV15	E3.5	LOW	712327.42	1167528.42	14X14	3'-0"	2'-0"	2'-8"	233-LA	(2)2"	(4)2"	(2)2"		ELECTRIC	1,2
SDV16	E3.4	LOW	713065.85	1166657.97	28	4'-2"	6'-6"	4'-0"	575-LA	(8)2", (2)2 1/2", (2)3"	(2)2", (1)2 1/2"	(10)2", (2)2 1/2", (2)3"		ELECTRIC	1,2
SDV17	E3.3	LOW	713120.80	1166801.22	29	4'-2"	6'-6"	4'-0"	575-LA	(10)2"	(2)2 1/2", (1)3"	(8)2", (2)2 1/2", (2)3"	(1)2"	ELECTRIC	1,2
SDV18	E3.3	LOW	713220.84	1166444.70	24	3'-0"	2'-0"	2'-8"	233-LA	(7)2"		(10)2"	(10)2"	ELECTRIC	1,2
SDV19	E3.3	LOW	713336.23	1166233.54	14	3'-0"	2'-0"	2'-8"	233-LA	(7)2"	(4)2"	(7)2"		ELECTRIC	1,2
SDV20	E3.3	LOW	713368.81	1166280.39	16	3'-0"	2'-0"	2'-8"	233-LA		(4)2"		(4)2"	ELECTRIC	1,2
SDV21	E3.3	LOW	713518.62	1165966.10	14	3'-0"	2'-0"	2'-8"	233-LA		(4)2"	(7)2"		ELECTRIC	1,2
SDV22	E3.3	LOW	713627.7599	1166024.46	14	3'-0"	2'-0"	2'-8"	233-LA			(4)2"	(4)2"	ELECTRIC	1,2
SDV23	E3.3	LOW	713205.67	1166513.57	29	4'-2"	6'-6"	4'-0"	575-LA	(10)2"	(4)2"	(10)2"		ELECTRIC	1,2
SSB3	E3.3, E6.7	MEDIUM										(2)2", (2)5"		ELECTRIC	1,2,4
SSB4	E3.4, E6.7	MEDIUM								(2)5"		(2)2", (2)5"		ELECTRIC	1,2,4
SSB5	E3.4, E6.7	MEDIUM								(4)5"		(2)2", (2)5"		ELECTRIC	1,2,4
SSPV6	E3.6	MEDIUM	712008.10	1167831.22		6'-4"	6'-4"	6'-7"	777-LA		(6)5"			ELECTRIC	2,4
SSPV7	E3.4	MEDIUM	712646.80	1167116.63	51	6'-4"	6'-4"	6'-7"	777-LA	(4)5"	(2)5"	(6)5"		ELECTRIC	1,2
SSPV8	E3.4	MEDIUM	713011.94	1166739.40	46	6'-4"	6'-4"	6'-7"	777-LA	(2)5"		(4)5"		ELECTRIC	1,2
SSPV9	E3.3	MEDIUM	713222.84	1166521.84	52	6'-4"	6'-4"	6'-7"	777-LA		(2)5"	(2)5"		ELECTRIC	1,2
SSPV10	E6.10	MEDIUM				5'-3"	2'-0"	2'-9"	CUSTOM	(2)5"		(2)5"		ELECTRIC	1,2
SV210	E3.4	FIBER	712635.11	1167137.32	36	3'-6"	3'-6"	3'-3"	444-LA	(4)4"	(1)2"	(4)4"	(1)2"	COMMUNICATIONS	1,2
SV211	E3.4	FIBER	712596.48	1167109.66		3'-0"	2'-0"	2'-8"	233-LA		(1)2"		(1)2"	COMMUNICATIONS	1,2
SV212	E3.4	FIBER	712705.37	1167064.76	36	3'-6"	3'-6"	3'-3"	444-LA	(4)4"		(4)4"	(4)4"	COMMUNICATIONS	1,2
SV213	E3.4	FIBER	712772.85	1166995.08	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"	(1)2"	(2)4"		COMMUNICATIONS	1,2
SV214	E3.4	FIBER	712838.23	1166927.55	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"		(2)4"	(1)2"	COMMUNICATIONS	1,2
SV215	E3.4	FIBER	712803.03	1166893.46		3'-0"	2'-0"	2'-8"	233-LA		(1)2"	(1)2"	(1)2"	COMMUNICATIONS	1,2
SV216	E3.4	FIBER	713042.75	1166716.33	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"	(1)2"	(2)4"	(1)2"	COMMUNICATIONS	1,2
SV217	E3.4, E3.8	FIBER	713012.66	1166680.29		3'-0"	2'-0"	2'-8"	233-LA		(1)2"	(1)2"	(1)2"	COMMUNICATIONS	1,2
SV218	E3.3	FIBER	713190.22	1166564.03	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"	(2)2"	(2)4"		COMMUNICATIONS	1,2
SV219	E3.3	FIBER	713229.38	1166448.83	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"		(2)4"	(1)2"	COMMUNICATIONS	1,2
SV220	E3.3	FIBER	713336.37	1166242.02	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"	(1)2"	(2)4"		COMMUNICATIONS	1,2
SV221	E3.3	FIBER	713363.94	1166285.42		3'-0"	2'-0"	2'-8"	233-LA		(1)2"	(1)2"	(1)2"	COMMUNICATIONS	1,2
SV222	E3.3	FIBER	713519.45	1165973.85	36	3'-6"	3'-6"	3'-3"	444-LA	(2)4"		(2)4"		COMMUNICATIONS	1,2
SV223	E3.3	FIBER	713620.01	1166026.69		3'-0"	2'-0"	2'-8"	233-LA	(2)4"		(1)2"	(2)4"	COMMUNICATIONS	1,2
SV224	E3.5	FIBER	712294.72	1167605.32	36	3'-6"	3'-6"	3'-3"	444-LA	(4)4"	(4)4"	(4)4"	(4)4"	COMMUNICATIONS	1,2
SV225	E3.5	FIBER	712140.27	1167851.09	36	3'-6"	3'-6"	3'-3"	444-LA			(4)4"	(1)2", (4)4"	COMMUNICATIONS	1,2
TPUMV3	E3.5, E3.6	MEDIUM	711992.41	1167791.65		6'-4"	6'-4"	3'-0"	TPU 774	(4)5"		(4)5"		TACOMA POWER	2,5
TPUMV4	E3.5, E3.6	MEDIUM	712002.46	1167801.40		6'-4"	6'-4"	3'-0"	TPU 774		(4)5"	(4)5"		TACOMA POWER	2,5
TPUPV11	E3.5, E3.6	MEDIUM	711980.61	1167805.75		8'-0"	10'-0"	8'-2"	TPU 810	(8)5"			(4)5"	TACOMA POWER	2,5
VMT5	E3.5, E3.6	MEDIUM	711996.63	1167821.74		6'-4"	6'-4"	3'-0"	TPU 774				(4)5"	TACOMA POWER	2,3,5
VMT6	E3.4, E3.8	MEDIUM	713016.36	1166658.52		6'-4"	6'-4"	3'-0"	TPU 774		(2)4"			ELECTRIC	2,3,5
WCV1	E6.10	FIBER				2'-6"	2'-6"	2'-9"	CUSTOM	(1)2"	(1)2"		(2)2"	COMMUNICATIONS	1,2
WPV6	E3.3, E6.5	LOW								(1)2", (1)3"				ELECTRIC	1,2,4
WPV7	E3.3, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV8	E3.3, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV9	E3.4, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV10	E3.4, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV11	E3.4, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV12	E3.4, E6.5	LOW								(1)2", (1)2 1/2"				ELECTRIC	1,2,4
WPV13	E3.4, E6.5	LOW								(1)2", (1)2 1/2"		(1)2"		ELECTRIC	1,2,4
WPV14	E3.4, E6.5	LOW								(1)2", (1)3"				ELECTRIC	1,2,4
WPV15	E6.10	LOW				2'-6"	2'-6"	2'-9"	CUSTOM	(3)2", (1)3"	(1)2", (1)2 1/2"	(2)2", (1)2 1/2", (1)3"		ELECTRIC	1,2
WPV16	E6.10	LOW				2'-6"	2'-6"	2'-9"	CUSTOM	(3)2"	(1)2", (1)2 1/2"	(1)2 1/2"	(4)2"	ELECTRIC	1,2
WPV17	E6.11	LOW				2'-6"	2'-6"	2'-9"	CUSTOM	(1)2"	(1)2", (1)2 1/2"		(2)2", (1)2 1/2"	ELECTRIC	1,2
WPV18	E6.11	LOW				2'-6"	2'-6"	2'-9"	CUSTOM	(2)2"	(1)2", (1)2 1/2"	(2)2", (1)2 1/2"	(4)2", (2)2 1/2"	ELECTRIC	1,2
WPV19	E6.12	LOW				2'-6"	2'-6"	2'-9"	CUSTOM	(3)2"	(4)2", (1)2 1/2", (1)3"	(4)2", (1)2 1/2", (1)3"		ELECTRIC	1,2

SCHEDULE NOTES

- 125 KIP RATING.
- PROVIDE VAULT KIP RATING, STENCIL PAINTED ON INSIDE OF VAULT DIRECTLY BELOW LID. MINIMUM 4" HIGH LETTERS.
- VAULT WITH TRANSFORMER COVER.
- SEE STRUCTURAL DRAWINGS FOR DIMENSIONS AND DETAILS.
- VAULT TO BE PER TACOMA POWER REQUIREMENTS.
- SEE SHEET E6.21 FOR TYPICAL VAULT DETAILS.
- SEE SPEC SECTION 33 71 19 "ELECTRICAL UNDERGROUND DUCTS AND MANHOLES" REGARDING RISER EXTENSIONS AND/OR GRADE RINGS.

6552 E6.20 SH 159 OF 499 CONT/CONS: 070736 M. ID: 091251 PHASE: BID	PIER 4 PHASE 2 RECONFIGURATION VAULTS AND HANDHOLE SCHEDULE		APPROVED: <i>[Signature]</i> 5-10-16 DIRECTOR: <i>[Signature]</i> PRINTED BY: Derek May 05, 2016 PORT ADDRESS: ONE SITCLIM PLAZA TACOMA, WA 98401-1837	CHECKED BY: <i>[Signature]</i> DATE: <i>[Signature]</i>	DATE: <i>[Signature]</i>
	TOWNSHIP: <i>[Signature]</i> DAT-HRZ: WAB3-SF VERT: <i>[Signature]</i> DRAWING SCALE: AS NOTED		SECTION: <i>[Signature]</i> RANGE: <i>[Signature]</i> TPU: <i>[Signature]</i> TPU: <i>[Signature]</i> TPU: <i>[Signature]</i>	DATE: <i>[Signature]</i>	DATE: <i>[Signature]</i>
	REVISION: <i>[Signature]</i> BY: <i>[Signature]</i> APPR: <i>[Signature]</i> DATE: <i>[Signature]</i>		REVISION: <i>[Signature]</i> BY: <i>[Signature]</i> APPR: <i>[Signature]</i> DATE: <i>[Signature]</i>	REVISION: <i>[Signature]</i> BY: <i>[Signature]</i> APPR: <i>[Signature]</i> DATE: <i>[Signature]</i>	REVISION: <i>[Signature]</i> BY: <i>[Signature]</i> APPR: <i>[Signature]</i> DATE: <i>[Signature]</i>
	PER ADDENDUM #4 HAS DKS 5/5/16		PER ADDENDUM #4 HAS DKS 5/5/16	PER ADDENDUM #4 HAS DKS 5/5/16	PER ADDENDUM #4 HAS DKS 5/5/16

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BINDING EDGE

PORT OF TACOMA FILE: R:\6550-04\01\Drawgs\09\251-E802

CONDUIT AND CONDUCTOR SCHEDULE										
CONDUIT NUMBER	CONDUIT			CONDUCTOR			FROM	TO	REMARKS	
	NO.	SIZE	TYPE	NO.	SIZE	TYPE				
CBP1	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV1	CHASIS LIGHT PEDESTAL #1		(8)
CBP2	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV1	CHASIS CAMERA SUPPORT #1		
CBP3	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV1	VIT #1		
CBP4	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV2	CHASIS LIGHT PEDESTAL #2		
CBP5	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV2	CHASIS CAMERA SUPPORT #2		
CBP6	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV2	VIT #2		
CBP7	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV3	CHASIS LIGHT PEDESTAL #3		
CBP8	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV3	CHASIS CAMERA SUPPORT #3		
CBP9	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV3	VIT #3		
CBP10	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV4	CHASIS LIGHT PEDESTAL #4		
CBP11	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV4	CHASIS CAMERA SUPPORT #4		
CBP12	1	2"	(2) (3)	2/1	10/10	XHHW-2	VAULT CPPV4	VIT #4		
CBP13	1	2"	(2) (3)	4/1	10/10	XHHW-2	VAULT CPPV4	VAULT CPV3		
CBP14	1	2"	(2) (3)	4/1	10/10	XHHW-2	VAULT CPPV3	VAULT CPV2		
CBP15	2	2"	(2) (3)	4/1	10/10	XHHW-2	VAULT CPPV2	VAULT CPV1		
CBP16	2	2"	(2) (3)	4/1	10/10	XHHW-2	VAULT CPPV1	PANEL 2GA		
CPC1	-	-	-	-	-	-	-	-	NOT USED	
CPC2	2	2"	(2) (3)	-	-	-	VAULT ICV2	CHASIS CAMERA PEDESTAL #1		(8)
CPC3	2	2"	(2) (3)	-	-	-	VAULT ICV2	CHASIS CAMERA PEDESTAL #2		
CPC4	1	2"	(2) (3)	-	-	-	VAULT ICV2	TRUCK SCALE		
CPC5	4	2"	(2) (3)	-	-	-	VAULT ICV2	OUTGATE COMMUNICATIONS ROOM		
FOB1 THRU FOB3										(9)
FOB4	1	2"	(2)				HH #WCV1	FOV4	FIBER	
FOB5	1	2"	(2)				FOV5	CPV5	FIBER	
FOB6	1	2"	(2)				FOV5	CPV4	FIBER	
FOB7	1	2"	(2)				HH #WCV1	FOV5	FIBER	
FOB8	1	2"	(2) (10)				SV223	POLE WYL05	FIBER	
FOB9	4	4"	(2)				SV223	SV223	FIBER	
FOB10	4	4"	(2)				SV220	SV220	FIBER	
FOB11	1	2"	(2) (10)				SV221	POLE WYL04	FIBER	
FOB12	1	2"	(2)				SV220	SV220	FIBER	
FOB13	4	4"	(2)				SV219	SV220	FIBER	
FOB14	2	2"	(2) (10)				SV219	POLE WYL03	FIBER	(2)
FOB15	4	4"	(2)				SV218	SV219	FIBER	
FOB16	4	4"	(2)				SV212	SV212	FIBER	
FOB17	4	4"	(2)				SV216	SV218	FIBER	
FOB18	1	2"	(2)				SV216	FOV6	FIBER	
FOB19	1	2"	(2)				SV216	SV217	FIBER	
FOB20	1	2"	(2) (10)				SV217	POLE WYL02	FIBER	
FOB21	4	4"	(2)				SV214	SV216	FIBER	
FOB22	1	2"	(2)				SV214	SV215	FIBER	
FOB23	1	2"	(2) (10)				SV215	POLE WYL01	FIBER	
FOB24	4	4"	(2)				SV213	SV214	FIBER	
FOB25	1	2"	(2)				FOV7	CPV7	FIBER	
FOB26	1	2"	(2)				FOV7	CPV6	FIBER	
FOB27	1	2"	(2)				SV213	FOV7	FIBER	
FOB28	4	4"	(2)				SV212	SV213	FIBER	
FOB29	4	4"	(2)				SV210	SV212	FIBER	
FOB30	1	2"	(2)				SV210	FOV8	FIBER	
FOB31	1	2"	(2)				SV210	SV211	FIBER	
FOB32	1	2"	(2) (10)				SV211	POLE YL05	FIBER	
FOB33	1	2"	(2) (10)				IT ROOM	J-BOX	FIBER	
FOB34	4	4"	(2)				SV210	SV224	FIBER	
FOB35	4	4"	(2)				SV223	SV132	FIBER	
FOB36	4	4"	(2)				SV110	SV224	FIBER-COPPER	
FOB37	4	4"	(2)				SV224	SV225	FIBER-COPPER	
FOB38	4	4"	(2) (10)				SV225	IT ROOM	FIBER-COPPER	
FOB39	1	2"	(2) (10)				SV225	SUB #B410	FIBER	
FOB40	1	2"	(2)				FOV4	SHORE PWR VAULT SSB3	FIBER	
FOB41	2	2"	(2)				SV218	HH #WCV1	FIBER	
FOB42	1	2"	(2)				FOV6	SHORE PWR VAULT SSB4	FIBER	
FOB43	1	2"	(2)				FOV8	SHORE PWR VAULT SSB5	FIBER	
FOB44	1	2"	(10)				J-BOX	COMM CAB TO POLE YL01	FIBER	
GC1	1	1"	(2)				GCV1	GCV2		(8)
GC2	1	1"	(2)				GCV2	GCV3		
GC3	1	1"	(2)				GCV3	GCV4		
GC4	1	1"	(2)				GCV4	GATE INTERCOM/CARD READER		
GP1	1	1"	(2)	3/1	8/10	XHHW-2	GPV1	GPV2		(8)
GP2	1	1"	(2)	3/1	8/10	XHHW-2	GPV2	GPV3		
GP3	1	1"	(2)	3/1	8/10	XHHW-2	GPV3	GPV4		
GP4	1	1"	(2)	3/1	8/10	XHHW-2	GPV4	GATE CONTROLLER		
P50	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	SUBSTATION 8431, SWBD #1		(12)
P51	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	SUBSTATION 8431, SWBD #1		(12)
P52	1	2-1/2"	(2)	4/1	000/2	XHHW-2	PANEL H1	SUBSTATION 8431, SWBD #1		(12)

GENERAL NOTES

1. SEE DRAWING E8.1 FOR LEGEND AND GENERAL NOTES.

SCHEDULE KEY NOTES

- (1) SEE SEPARATE HUSKY TERMINAL WIFI SYSTEM PROJECT DRAWINGS FOR COMMUNICATIONS CONDUCTORS AND SITE PLANS. PORT OF TACOMA JOB #6323-04.
- (2) PVC SHCHEDULE 80.
- (3) GRS CONDUIT.

SCHEDULE KEY NOTES

- (4) CONDUIT(S) CUT. ABANDONED IN PLACE.
- (5) COORDINATE WORK WITH TACOMA POWER.
- (6) PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT ALL LIGHT POLE LOCATIONS.
- (7) LIQUID TIGHT FLEXIBLE METAL CONDUIT.
- (8) CIRCUIT (CONDUIT) NUMBER FROM TERMINAL 3 & 4 REDEVELOPMENT PROJECT, CONTRACT NO. 998203.

SCHEDULE KEY NOTES

- (9) CIRCUIT (CONDUIT) NUMBER FROM PIER 3 UPGRADE PROJECT, CONTRACT NO. 069458.
- (10) PVC COATED GRS CONDUIT.
- (11) EXTEND DUCTBANK TO VAULT SV212.
- (12) EXTEND CONDUITS TO MARINE OPS BUILDING.

CONDUIT AND CONDUCTOR SCHEDULE										
CONDUIT NUMBER	CONDUIT			CONDUCTOR			FROM	TO	REMARKS	
	NO.	SIZE	TYPE	NO.	SIZE	TYPE				
PD1	6	5"	(2)	-	-	-	TPUPV1	TPUPV2		(8)
PD2	6	5"	(2)	-	-	-	TPUPV2	TPUPV3		
PD3	6	5"	(2)	-	-	-	TPUPV3	TPUPV4		
PD4	6	5"	(2)	-	-	-	TPUPV4	STUB AT WHARF		
PD5	-	-	-	-	-	-	-	-	NOT USED	
PD6	-	-	-	-	-	-	-	-	NOT USED	
PD7	2	5"	(2) (3)	-	-	-	EXISTING TCU SWITCH	TCU METERING SECTION		(8)
PD8	-	-	-	-	-	-	-	-	NOT USED	
PD9	4	5"	(2)	-	-	-	TPUPV6	TPUPV7		(8)
PD10	4	5"	(2)	-	-	-	TPUPV7	TPUPV8		
PD11	4	5"	(2)	-	-	-	TPUPV8	VAULT 2127V		
PD12	4	5"	(2)	-	-	-	TPUPV4	TPUPV9		
PD13	2	5"	(2) (3)	-	-	-	TCU METERING SECTION	TRANSFORMER WPI		(8)
PD14	4	5"	(2) (3)	-	-	-	TPUPV4	NEW WHARF		
PD15	2	5"	(2)	-	-	-	EXISTING TPU XFMR	TPUPV10		
PD16	2	5"	(2)	-	-	-	TPUPV10	1500KVA XFMR (SUBSTATION #B411)		
PD1 THRU PD11										(9)
PD17	1	4"	(2)	3/1	2/2	15KV/600V	PDV12	13.8KV-480V XFMR	13.8KV-480V SITE XFMR	
PD18	1	4"	(2)	3/1	2/2	15KV/600V	PDV11	PDV12	13.8KV-480V SITE XFMR	
PD19	1	4"	(2)	3/1	2/2	15KV/600V	PDV10	PDV11	13.8KV-480V SITE XFMR	
PD20	1	4"	(2)	3/1	2/2	15KV/600V	PDV15	PDV10	13.8KV-480V SITE XFMR	
PD21	1	4"	(2)	-	-	-	PDV13	PDV14	REEFER 13.8KV XFMR	
PD22	1	4"	(2)	-	-	-	PDV16	PDV13	REEFER 13.8KV XFMR	
PD23	1	4"	(2) (10)	-	-	-	SWITCH F3	PDV16	REEFER 13.8KV XFMR	
PD24	1	4"	(2) (10)	3/1	2/2	15KV/600V	SWITCH F10	PDV15	13.8KV-480V SITE XFMR	
PD25	4	5"	(10)	3	350	15KV	15KV FUSED SWITCH	15KV SWITCHGEAR		
TPUC1	1	4"	(2)	-	-	-	TPUCV1	TPUCV2		(8)
TPUC2	1	4"	(2)	-	-	-	TPUCV2	TPUCV3		
TPUC3	1	4"	(2)	-	-	-	TPUCV3	TPUCV4		
TPUC4	1	4"	(2)	-	-	-	TPUCV4	TPUCV9		
TPUC5	1	4"	(2)	-	-	-	TPUCV5	TPUPV6		
TPUC6	1	4"	(2)	-	-	-	TPUPV6	TPUPV7		
TPUC7	1	4"	(2)	-	-	-	TPUPV7	TPUPV8		
TPUC8	1	4"	(2)	-	-	-	TPUPV8	STUBBED AT TPU DUCTBANK		(4)
TPUC9	1	4"	(2)	-	-	-	STUB AT EXISTING TPU XFMR	TPUCV10		
TPUC10	1	4"	(2)	-	-	-	TPUCV10	SWITCHBOARD (SUBSTATION #B411)		
TPUC11	1	4"	(2) (3)	-	-	-	TPUCV6	TCU METERING SECTION		(8)
TPUC12	1	4"	(2) (3)	-	-	-	TPUCV5	CY CAN		(8)
TPUC1 THRU TPUC5										(9)
TPUC15	4	5"	(2)	-	-	-	1419MH, PVP27	TPUPV11	TPU SERVICE CONDUITS	
TPUC16	4	5"	(2)	-	-	-	TPUMV11	TPUPV3	TPU SERVICE CONDUITS	
TPUC17	4	5"	(2) (10)	3	350	15KV	TPUMV3	SUBSTATION #B410 15KV SWITCH	TPU SERVICE CONDUITS	
TPUC18	4	5"	(2)	-	-	-	TPUPV11	TPUMV4	TPU SERVICE CONDUITS	
TPUC19	4	5"	(2)	-	-	-	TPUMV4	VTM5	TPU SERVICE CONDUITS	

SCHEDULE KEY NOTES

- (13) PROVIDE (1) 12-PR COPPER CABLE, (2) 144-FIBER SM FO CABLES, (9) 12-FIBER SM FO CABLE, (7) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (14) PROVIDE (1) 6-FIBER SM FO CABLE. PROVIDE (1) 3-CELL FABRIC INNERDUCT.
- (15) PROVIDE (1) 12-PR COPPER CABLE, (2) 144-FIBER SM FO CABLES, (9) 12-FIBER SM FO CABLE, (8) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (16) PROVIDE (1) 12-PR COPPER CABLE, (1) 144-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLE. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (17) PROVIDE (1) 144-FIBER SM FO CABLE, (9) 12-FIBER SM FO CABLE, (7) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (18) PROVIDE (1) 6-FIBER SM FO CABLE. PROVIDE 3-CELL FABRIC INNERDUCT IN 2" CONDUIT.
- (19) PROVIDE (1) 144-FIBER SM FO CABLE, (9) 12-FIBER SM FO CABLE, (6) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (20) PROVIDE (1) 144-FIBER SM FO CABLE, (5) 12-FIBER SM FO CABLE, (5) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.

SCHEDULE KEY NOTES

- (21) PROVIDE (1) 144-FIBER SM FO CABLE, (5) 12-FIBER SM FO CABLE, (4) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (22) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 12-FIBER SM FO CABLE, (3) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (23) PROVIDE (1) 144-FIBER SM FO CABLE, (2) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (24) PROVIDE (1) 144-FIBER SM FO CABLE, (1) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (25) PROVIDE (1) 144-FIBER SM FO CABLE. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (26) PROVIDE (1) 12-FIBER SM FO CABLE. PROVIDE 3-CELL FABRIC INNERDUCT IN 2" CONDUIT.
- (27) ONE CONDUIT TO EACH COMM CAB ON THE POLE.
- (28) PROVIDE (2) 12-FIBER SM FO CABLES. PROVIDE 3-CELL FABRIC INNERDUCT IN 2" CONDUIT.
- (29) PROVIDE (4) 12-FIBER SM FO CABLES. PROVIDE 3-CELL FABRIC INNERDUCT IN EACH 2" CONDUIT.
- (30) PROVIDE (1) 144-FIBER SM FO CABLE, (5) 12-FIBER SM FO CABLE, (3) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.
- (31) PROVIDE (1) 144-FIBER SM FO CABLE, (9) 12-FIBER SM FO CABLE, (5) 6-FIBER SM FO CABLES. PROVIDE (2) 3-CELL FABRIC INNERDUCTS IN EACH 4" DUCT.

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APPROVED: *[Signature]*
5-6-16

DIRECTOR: ENG. DATE: Derek May 04, 2016
PRINTED BY: PORT ADDRESS: ONE SITCOM PLAZA
TACOMA, WA 98401-1837

6552

E8.2
SH 166 OF 499

CONTR/CONS: 070736
M. ID: 091251
PHASE: BID

PIER 4 PHASE 2
RECONFIGURATION
CONDUIT AND CONDUCTOR SCHEDULE

CHECKED BY: DATE:
PROJ. ENCR. DATE:
SECTION: RANGE: MLW 19.39' @ Tide 22 1933
VERT: WAB3-SF
DRAWING SCALE: AS NOTED

DATE: 4/25/16
BY: DKS
APP: DKS
REVISION: 1 PER ADDENDUM #2 HAS
2 PER ADDENDUM #4 HAS

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