

TPU POLE: TP2899



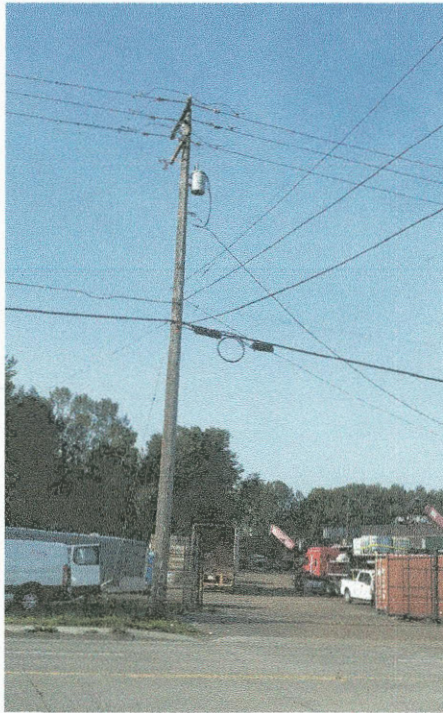
TPU POLE: TP28998



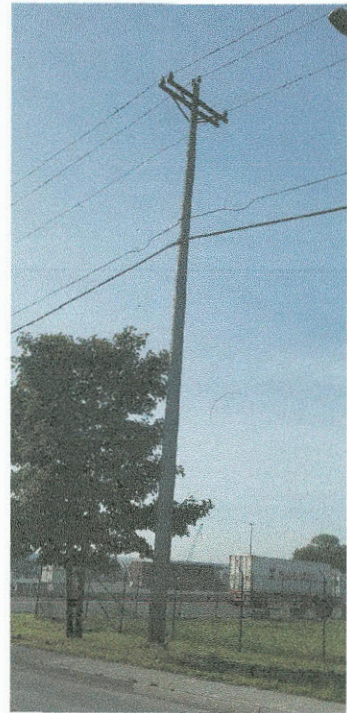
TPU POLE: TP29000



TPU POLE: TP29001



TPU POLE: TP29002

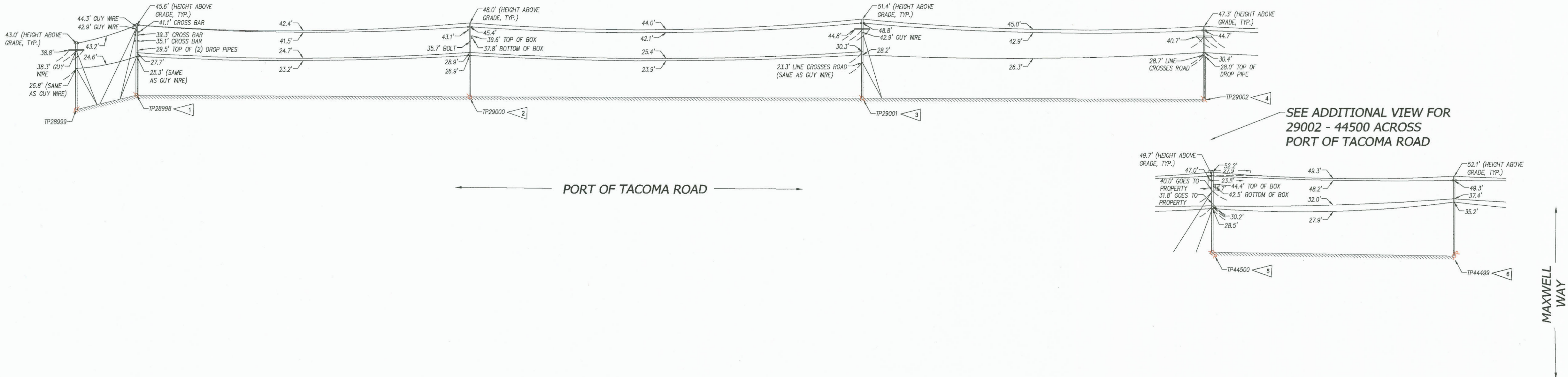


TPU POLE: TP44500

TPU POLE: TP44999

ELECTRICAL NOTES:

- 1 EXISTING TPU POLE #28998 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 26.3' ABOVE FINISHED GRADE.
- 2 EXISTING TPU POLE #29000 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 27.9' ABOVE FINISHED GRADE.
- 3 EXISTING TPU POLE #29001 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 29.2' ABOVE FINISHED GRADE.
- 4 EXISTING TPU POLE #29002 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 31.4' ABOVE FINISHED GRADE.
- 5 EXISTING TPU POLE #44500 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 29.5' ABOVE FINISHED GRADE.
- 6 EXISTING TPU POLE #44999 - CONTRACTOR SHALL ATTACHED TWO(2) 48 PAIR AERIAL FIBER OPTIC CABLE WITH MESSENGER AT 36.2' ABOVE FINISHED GRADE.



TACOMA POWER UTILITY POLE ELEVATIONS

NOT TO SCALE

NOTE: SEE PARTIAL SITE PLAN FOR DISTANCES.

600 UNIVERSITY STREET
SUITE# 610
SEATTLE, WA 98101
(206) 622-0222

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

12/9/19

SLH 12-09-19
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GLW 12-09-19
PROJ. ENGR DATE
DIRECTOR ENG. DATE
PRINTED BY: Scotth Dec 11, 2019
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

6636
E8
16 OF 22

PORT OF TACOMA
FIBER TO LOT F
TPU POWER POLE ELEVATIONS

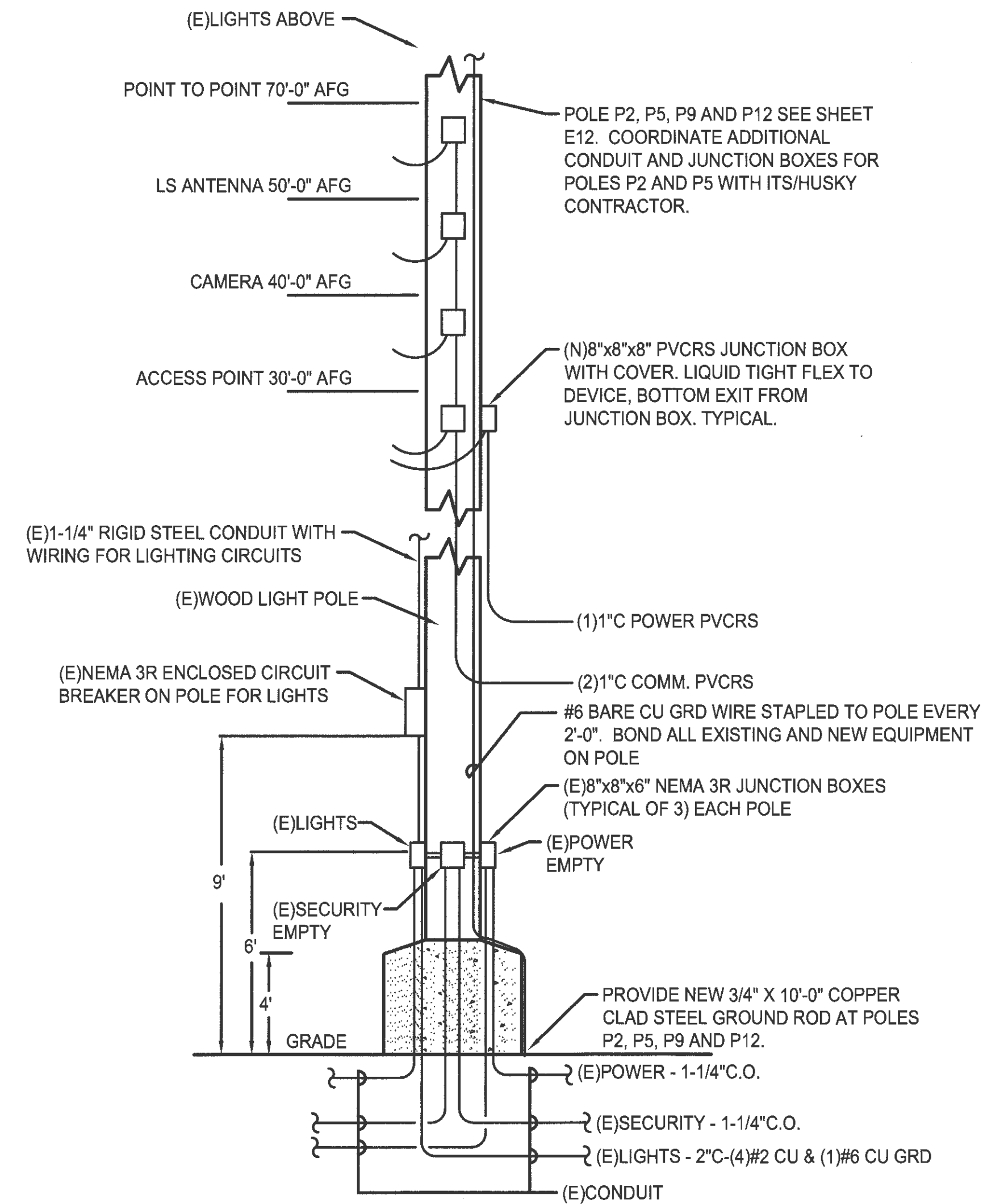
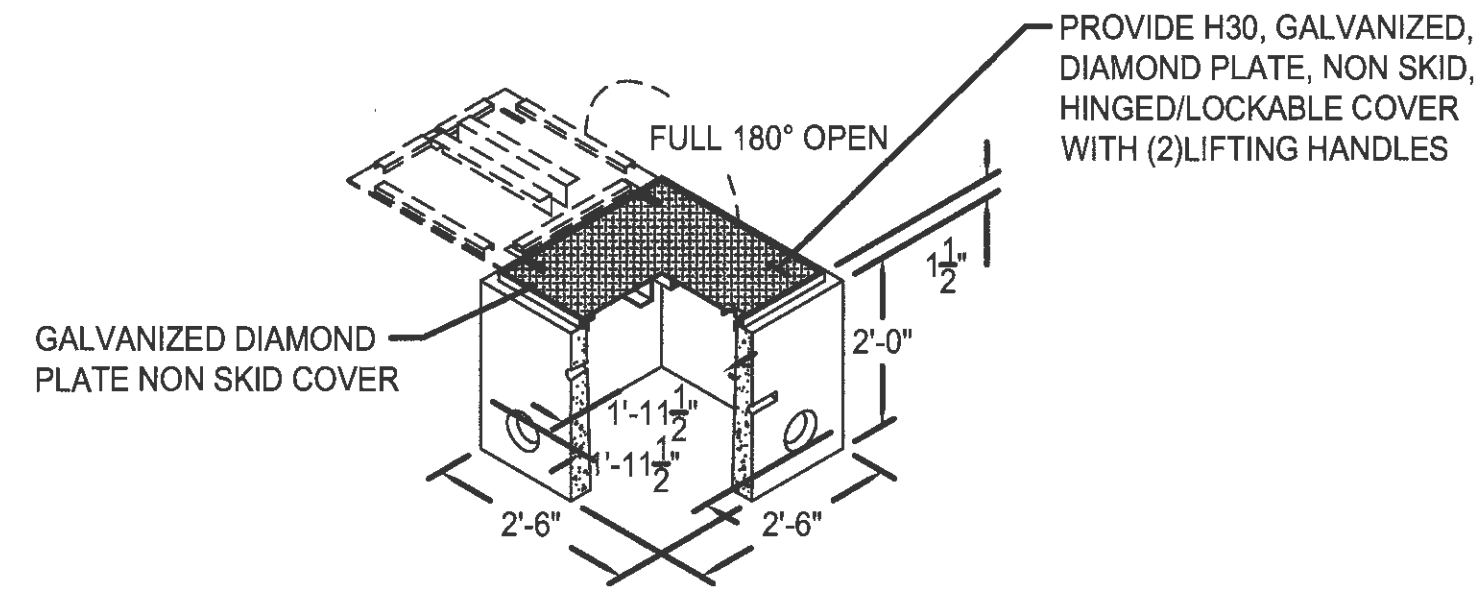
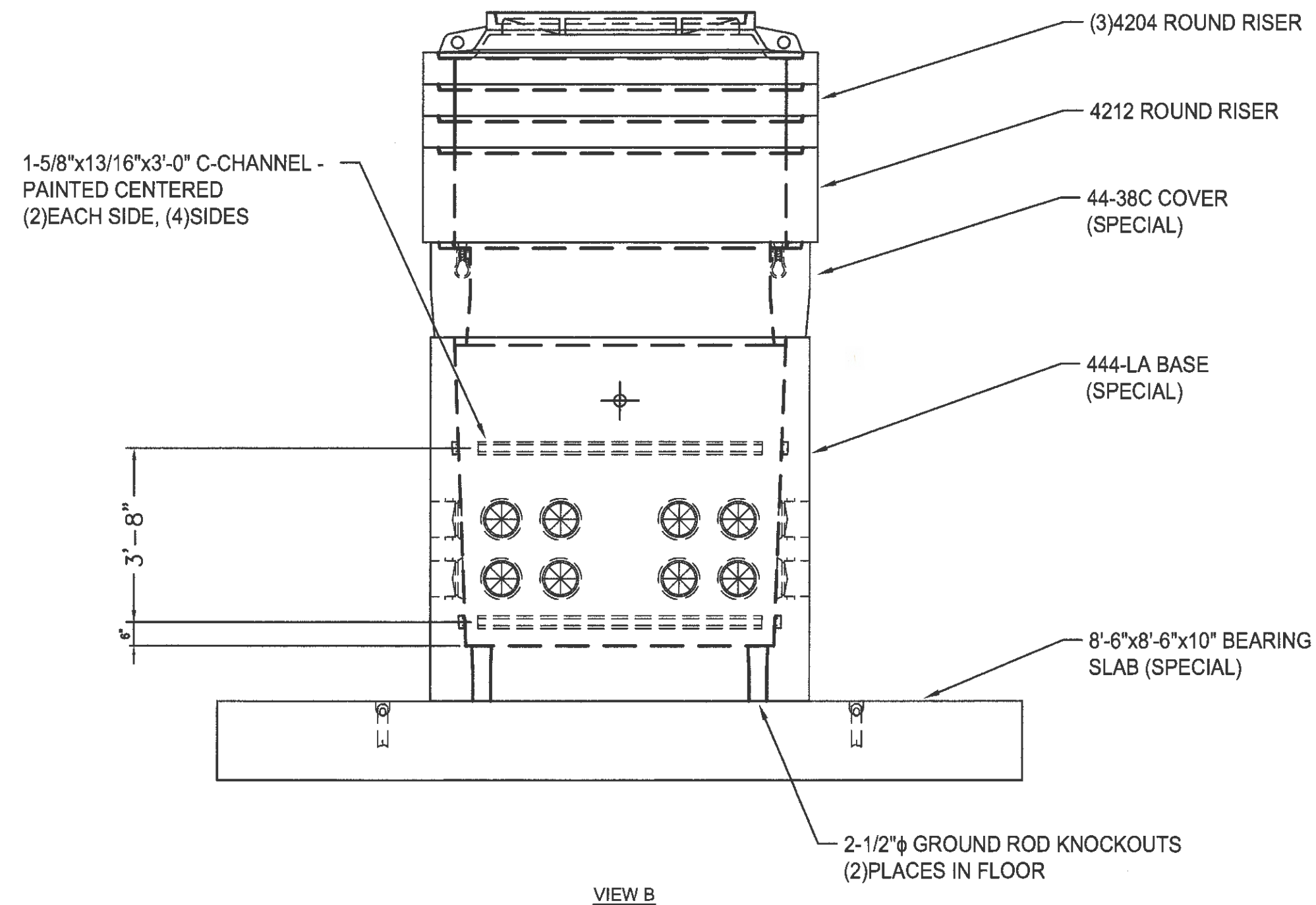
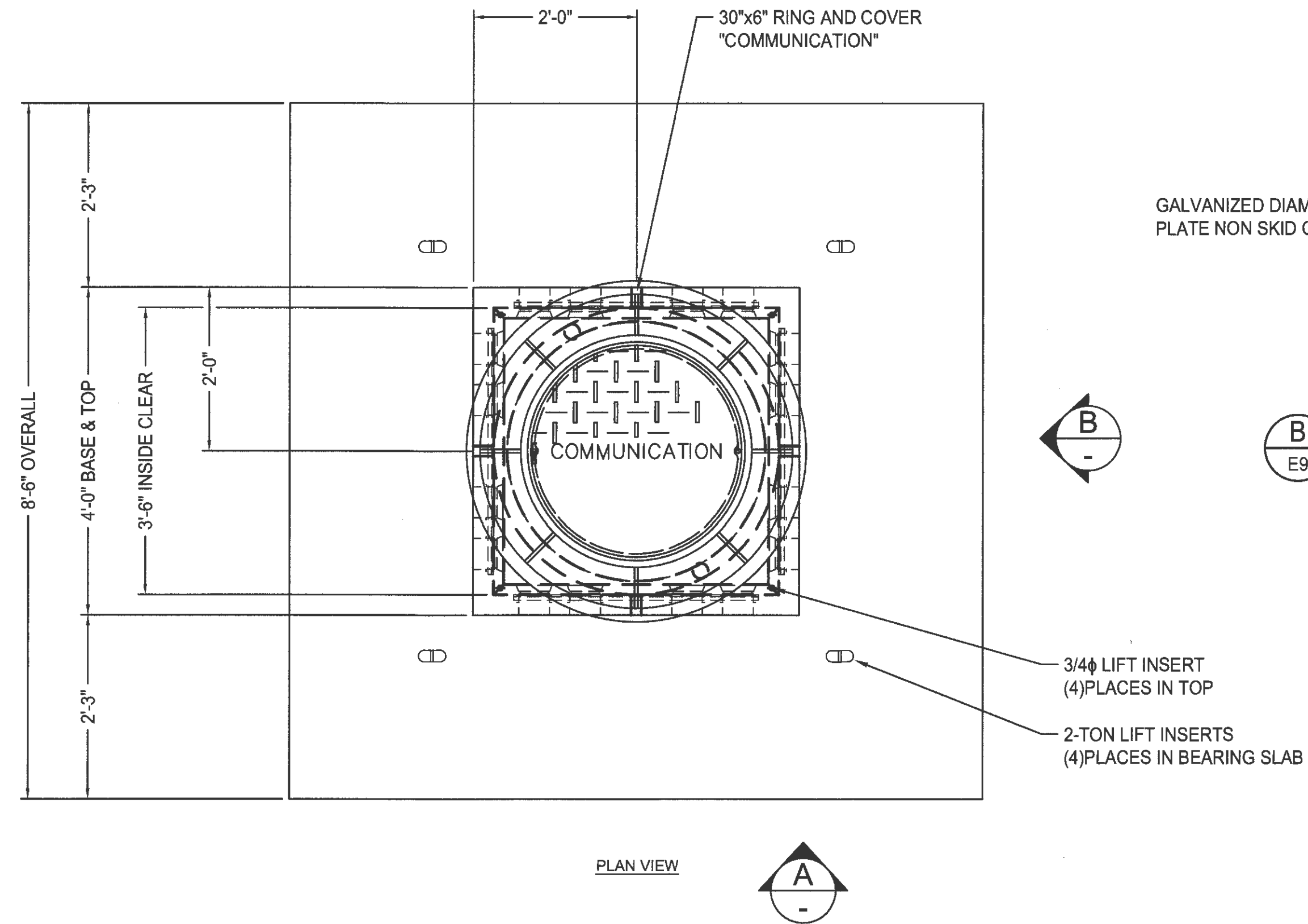
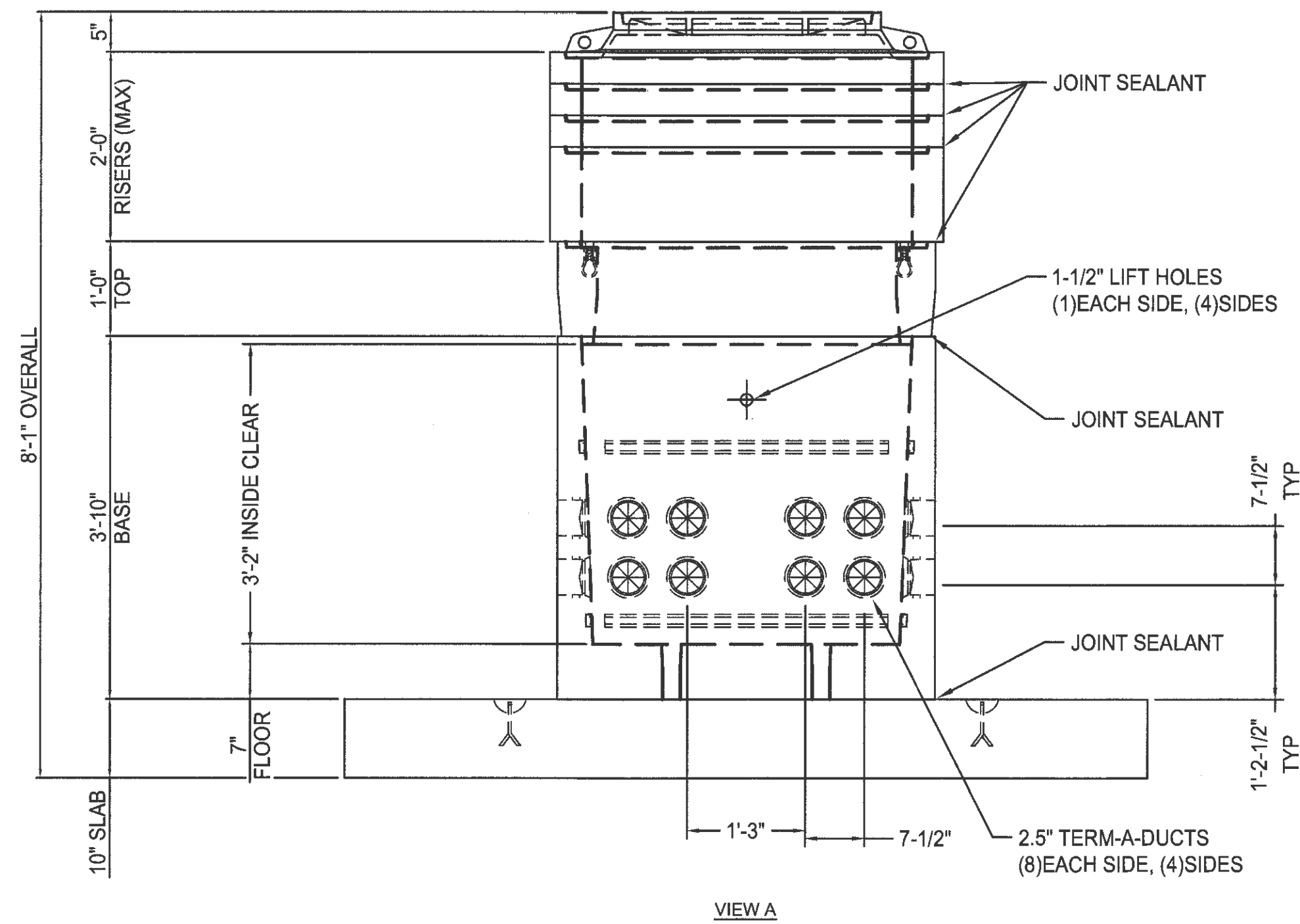
TOWNSHIP: 21N RANGE: 3E SECTION: 34
DAT-HRZ: WAB3-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

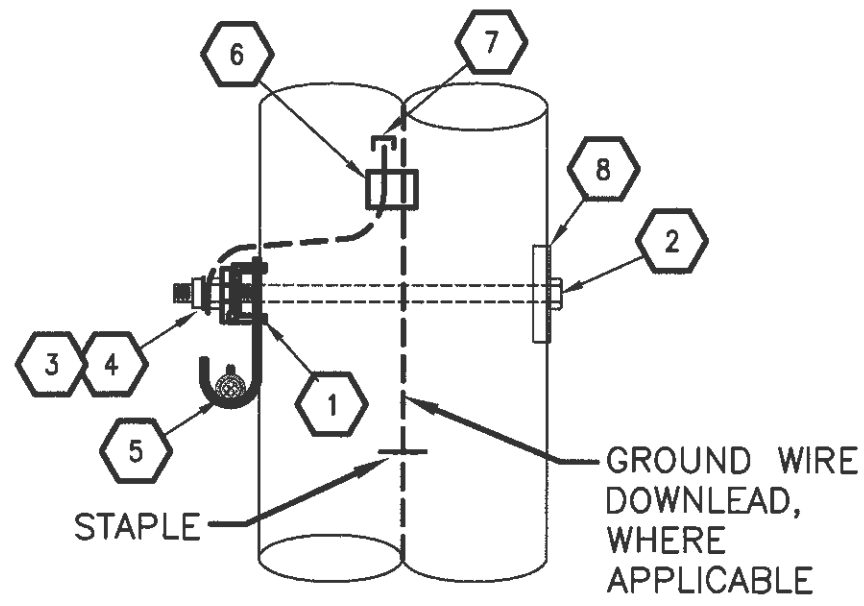
CONT/CONS: 071169
M. ID: 101286-01
PHASE: BID SET

CROSS ENGINEERS, INC.
923 MLK Jr. Way
Tacoma, WA 98405
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Phone: (253) 759-0118
Job Number: 19-070

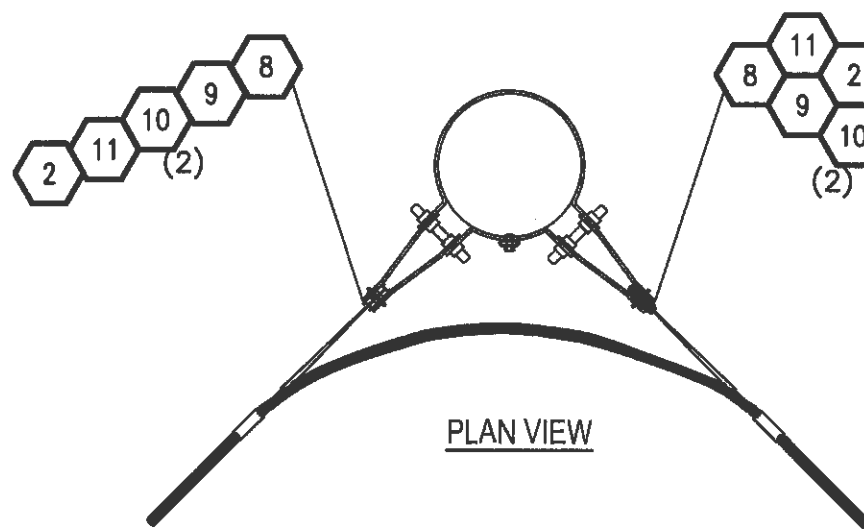
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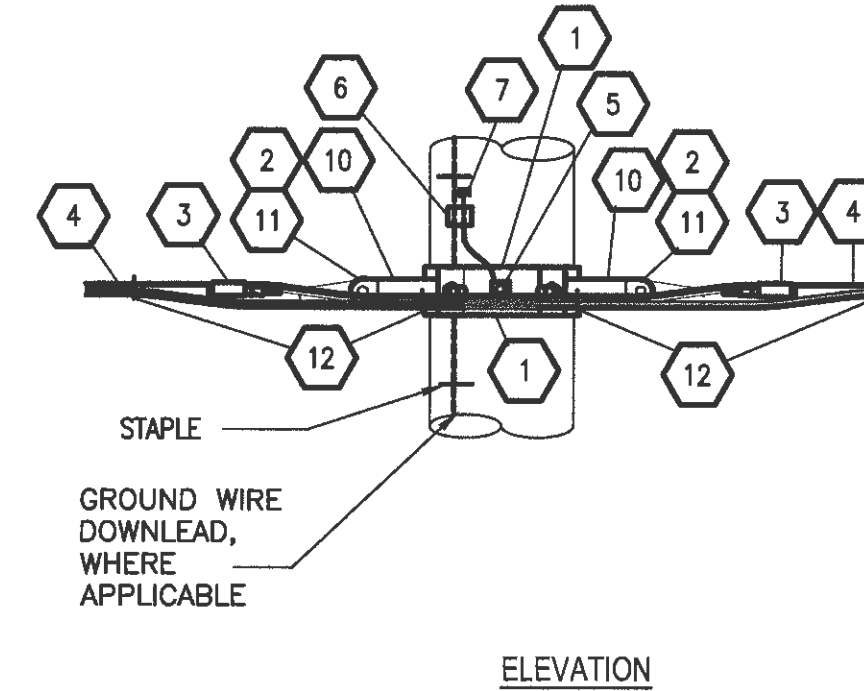
A **DETAIL - TANGENT STRUCTURE**
E10 SCALE: NTS

DETAIL "A" BILL OF MATERIAL		
ITEM	QUAN	DESCRIPTION
1	1	FIGURE 8 CABLE HANGER - MACLEAN POWER SYSTEMS #J2245
2	1	5/8" BOLT, MACHINE, GALVANIZED, LENGTH AS REQUIRED
3	2	5/8" LOCKNUT, MF TYPE, GALVANIZED
4	2	5/8" CLAMP, FOR 5/16" GROUNDWIRE, COMPLETE WITH EXTRA NUT (AS REQUIRED)
5	A/R	OSP, (2)24, FIBER FULL SPECTRUM, LOW WATER PEAK, SINGLE MODE, (ITU-T G.652.D,) LOOSE TUBE SINGLE JACKET FIGURE 8 FIBER OPTIC CABLES, WITH 1/4" STRANDED EHS GALV. STL. MESSENGER AND 12016 AERIAL SUPPORT OSP CABLE TIES AT 6'-0" ON CENTER
6	1	CONNECTOR, POWDER ACTUATED MECHANICAL WEDGE, 5/16" TO #8 THRU #2 AWG, BURNDY WEJTAP # FILED BOOSTER # FILED (WHERE REQUIRED)
7	1	SPLICE, 5/16" STRAND, BURNDY #YSU2R2R (IF REQUIRED)
8	1	WASHER, SQUARE CURVED, 4"x4", 3/4" DIA. HOLE, GALV. STL. HUGHES #CW60

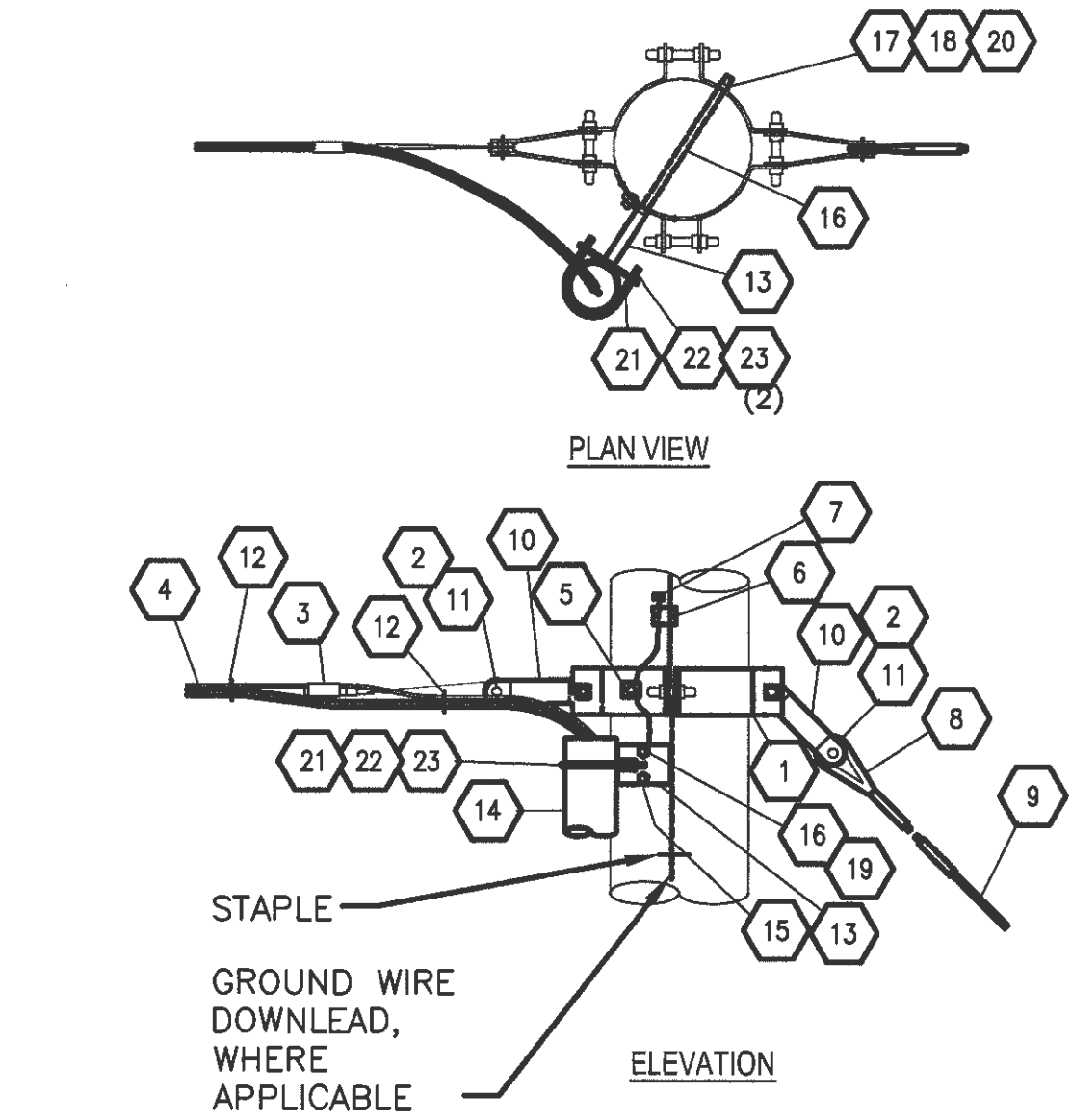


B **DETAIL - LARGE ANGLE STRUCTURE**
E10 SCALE: NTS

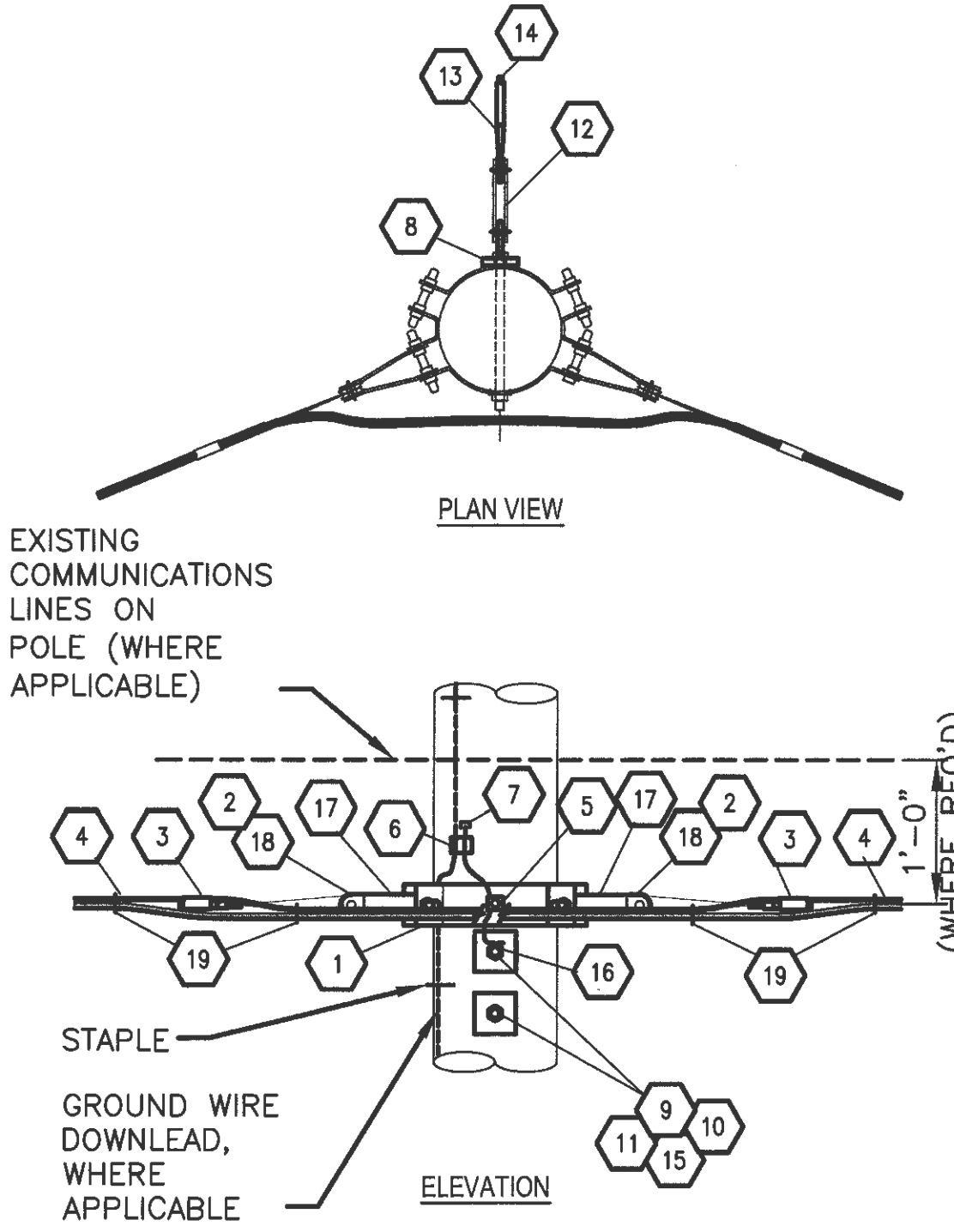
DETAIL "B" BILL OF MATERIAL		
ITEM	QUAN	DESCRIPTION
1	1	POLE BAND, LIGHT DUTY, 90°, 4 WAY, HUGHES #1111
2	3	3/4" x 2" GALV. STL. BOLT & NUT (PER ITEM 11 & 12)
3	2	SERVICE WEDGE CLAMP, 1/4", FLEXIBLE BAIL, T&B #W62-1FC
4	A/R	OSP, (2)24, FIBER FULL SPECTRUM, LOW WATER PEAK, SINGLE MODE, (ITU-T G.652.D,) LOOSE TUBE SINGLE JACKET FIGURE 8 FIBER OPTIC CABLES, WITH 1/4" STRANDED EHS GALV. STL. MESSENGER AND 12016 AERIAL SUPPORT OSP CABLE TIES AT 6'-0" ON CENTER
5	1	BONDING LUG, BAND MOUNTED, HUGHES #2718.55 (WHERE REQUIRED)
6	1	CONNECTOR, POWDER ACTUATED MECHANICAL WEDGE, 5/16" TO #8 THRU #2 AWG, BURNDY WEJTAP # FILED BOOSTER # FILED (WHERE REQUIRED)
7	1	SPLICE, 5/16" STRAND, BURNDY #YSU2R2R (IF REQUIRED)
8	2	GUY GRIP DEADEND, GALV. STL., FOR 5/16" GALV. STL. GUY WIRE, PREFORMED LINE PRODUCTS #GDE-1106
9	A/R	GUY STRAND, 5/16", E.H.S. GALV. STL.
10	8	CONNECTING LINK, HUGHES #3170
11	4	GUY ROLLER, HUGHES #28085
12	4	BLACK TEFZEL CABLE TIES, T&B TYZ SERIES TY-RAPS OR EQUAL



C **DETAIL - SMALL ANGLE STRUCTURE**
E10 SCALE: NTS



D **DETAIL - DEADEND STRUCTURE RISER**
E10 SCALE: NTS



DETAIL "C" BILL OF MATERIAL		
ITEM	QUAN	DESCRIPTION
1	2	POLE BAND, LIGHT DUTY, 135°, 4 WAY, HUGHES #1111-A
2	2	3/4" x 2" GALV. STL. BOLT & NUT (PER ITEM 17 & 18)
3	2	SERVICE WEDGE CLAMP, 1/4", FLEXIBLE BAIL, T&B #W62-1FC
4	A/R	OSP, (2)24, FIBER FULL SPECTRUM, LOW WATER PEAK, SINGLE MODE, (ITU-T G.652.D,) LOOSE TUBE SINGLE JACKET FIGURE 8 FIBER OPTIC CABLES, WITH 1/4" STRANDED EHS GALV. STL. MESSENGER AND 12016 AERIAL SUPPORT OSP CABLE TIES AT 6'-0" ON CENTER
5	1	BONDING LUG, BAND MOUNTED, HUGHES #2718.55 (WHERE REQUIRED)
6	1	CONNECTOR, POWDER ACTUATED MECHANICAL WEDGE, 5/16" TO #8 THRU #2 AWG, BURNDY WEJTAP # FILED BOOSTER # FILED (WHERE REQUIRED)
7	1	SPLICE, 5/16" STRAND, BURNDY #YSU2R2R (WHERE REQUIRED)
8	1	DEAD END TEE, HUGHES #2817-S-15
9	2	7/8" HIGH STRENGTH BOLT, GALVANIZED STEEL, LENGTH AS REQ.
10	2	7/8" BELLVILLE WSWR, GALVANIZED STEEL
11	2	7/8" LOCKNUT, GALVANIZED STEEL
12	1	REA TYPE 1 GUY LINK ASSEMBLY, HUGHES #TG-92-1
13	1	GUY GRIP DEADEND, GALV. STL., FOR 5/16" GALV. STL. GUY WIRE, PREFORMED LINE PRODUCTS #GDE-1106
14	A/R	GUY STRAND, 5/16", E.H.S. GALV. STL.
15	2	WASHER, CURVED, 4" SQUARE x 1/4", 7/8" HOLE, GALVANIZED
16	1	7/8" CLAMP, FOR GROUND WIRE, COMPLETE W/ ADDITIONAL 7/8" NUT (WHERE REQUIRED)
17	4	CONNECTING LINK, HUGHES #3170
18	2	GUY ROLLER, HUGHES #28085
19	4	BLACK TEFZEL CABLE TIES, T&B TYZ SERIES TY-RAPS OR EQUAL

DETAIL "D" BILL OF MATERIAL		
ITEM	QUAN	DESCRIPTION
1	1	POLE BAND, LIGHT DUTY, 90°, 4 WAY, HUGHES #1111
2	2	3/4" x 2" GALV. STL. BOLT & NUT (PER ITEM 11 & 12)
3	1	SERVICE WEDGE CLAMP, 1/4", FLEXIBLE BAIL, T&B #W62-1FC
4	A/R	OSP, (2)24, FIBER FULL SPECTRUM, LOW WATER PEAK, SINGLE MODE, (ITU-T G.652.D,) LOOSE TUBE SINGLE JACKET FIGURE 8 FIBER OPTIC CABLES, WITH 1/4" STRANDED EHS GALV. STL. MESSENGER AND 12016 AERIAL SUPPORT OSP CABLE TIES AT 6'-0" ON CENTER
5	1	BONDING LUG, BAND MOUNTED, HUGHES #2718.55 (WHERE REQUIRED)
6	1	CONNECTOR, POWDER ACTUATED MECHANICAL WEDGE, 5/16" TO #8 THRU #2 AWG, BURNDY WEJTAP # FILED BOOSTER # FILED (WHERE REQUIRED)
7	1	SPLICE, 5/16" STRAND, BURNDY #YSU2R2R (WHERE REQUIRED)
8	1	GUY GRIP DEADEND, GALV. STL., FOR 5/16" GALV. STL. GUY WIRE, PREFORMED LINE PRODUCTS #GDE-1106
9	A/R	GUY STRAND, 5/16", EHS GALV. STL.
10	4	CONNECTING LINK, HUGHES #3170
11	2	GUY ROLLER, HUGHES #28085
12	2	BLACK TEFZEL CABLE TIES, T&B TYZ SERIES TY-RAPS OR EQUAL
13	3	CONDUIT STAND-OFF TEE SUPPORT, GALV., HUGHES #AS2477-A
14	A/R	4" SCHED. 40 PVC COND. SLEEVE 10 FT. LENGTH
15	3	5/8" LAG BOLT, x 6", GALV. STL.
16	3	5/8" HIGH STRENGTH BOLT, GALVANIZED, LENGTH AS REQUIRED
17	3	5/8" BELLVILLE WASHER, GALV. STL.
18	3	5/8" LOCKNUT, GALV. STL.
19	3	5/8" CLAMP, FOR 5/16" GROUNDWIRE, COMPLETE WITH EXTRA NUT (WHERE REQUIRED)
20	3	WASHER, CURVED, 3" SQUARE x 1/4", 11/16" HOLE, GALV. STL. - HUGHES #SCW3-60
21	3	4"x3/8"-16NC U-BOLT, GALVANIZED STL.
22	6	3/8" LOCK WASHER, GALV. STL.
23	12	3/8"-16NC HEX NUT, GALV. STL.

KEY NOTES:

- (X) DENOTES ITEM NUMBER, PER DETAIL BILL OF MATERIAL
- E.H.S. EXTRA HIGH STRENGTH STRANDED GALVANIZED STEEL WIRE
- DENOTES TENSION OR COMPRESSION FORCE VECTOR, IN LBS.

6636

E10

18 OF 22

CONTR/CONS: 071169

M. ID: 101286-01

PHASE: BID SET

PORT OF TACOMA

FIBER TO LOT F

POLE ATTACHMENT DETAILS

APPROVED: *Trevor Thornsley*

SLH 12-09-19

CHECKED BY: DATE

TREVOR THORNSELY GLW 12-09-19

DIRECTOR ENG. DATE

PRINTED BY: Scott Dec 09, 2019

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moffatt & nichol

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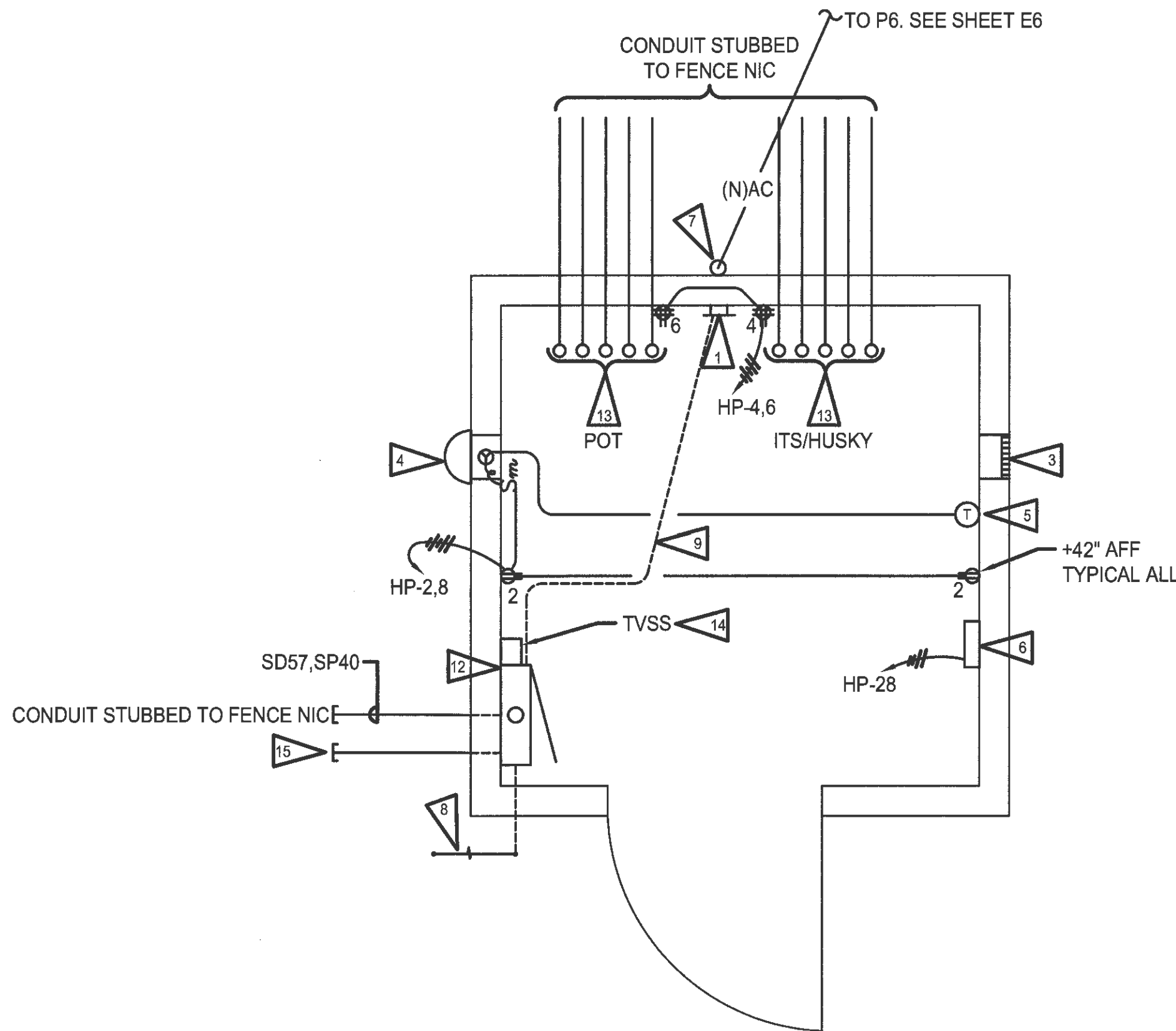
L. HUGHES

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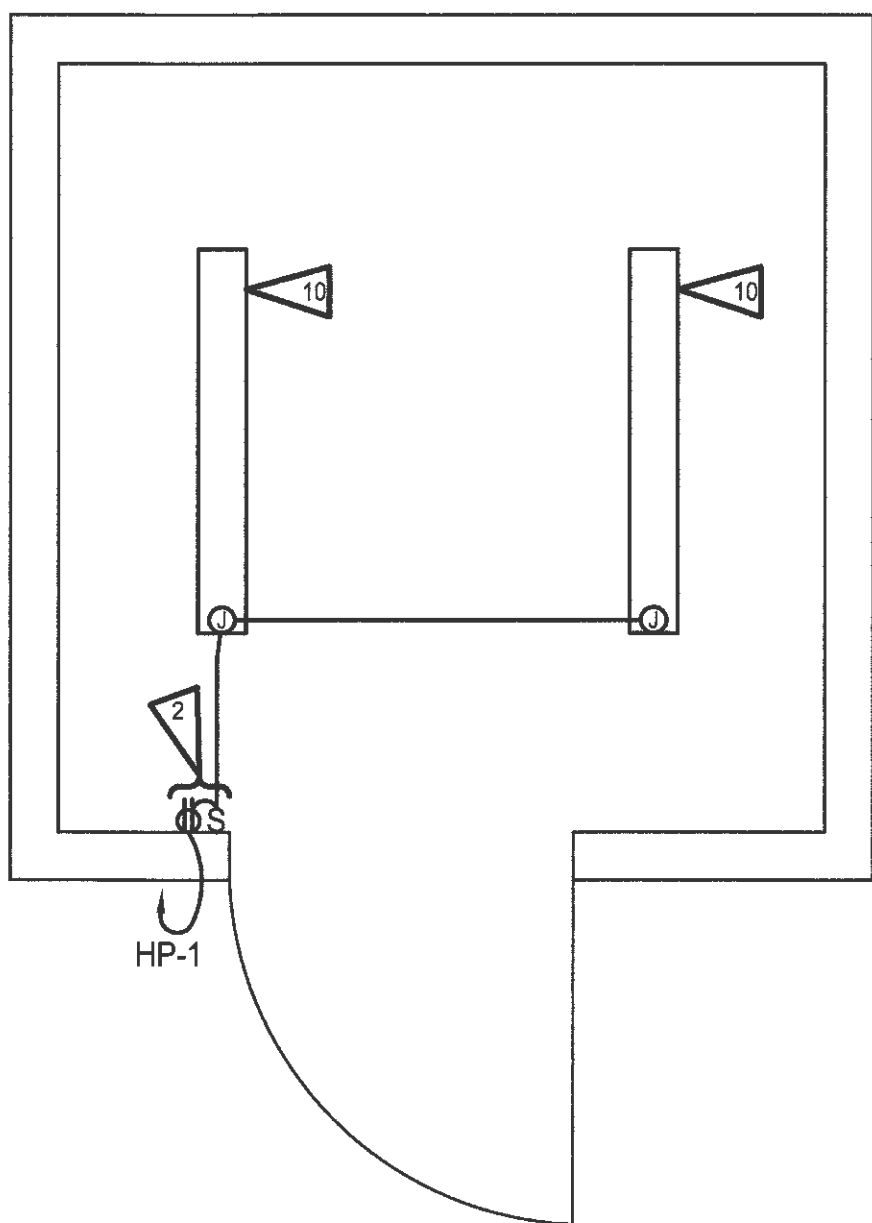
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FIBER HUT (NIC) - POWER FLOOR PLAN

SCALE: 1/2"=1'-0"



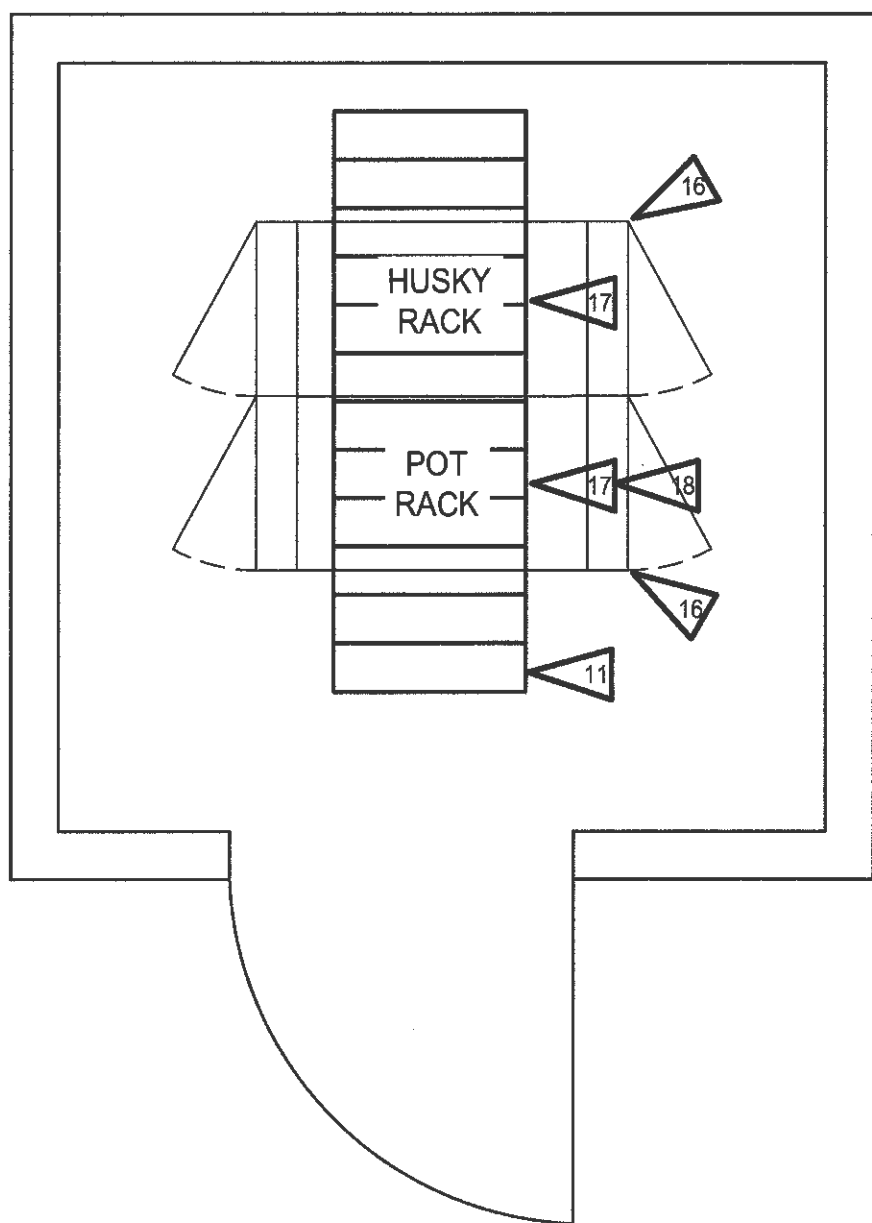
FIBER HUT (NIC) - LIGHTING FLOOR PLAN

SCALE: 1/2"=1'-0"

(NIC)

SURFACE MOUNTING 10,000 AIC		PANEL SCHEDULE									
NO. HP		LOCATION: HUT SERVING: HUT		120/240 VOLTS 1PHASE 3WIRE 60 AMPS WITH 60 MAIN BREAKER							
CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION
1	RECEPT/LS	.26	20	20	.36	RECEPTACLES	2				
3	SPARE				1.00	RACK	4				
5	SPARE				1.00	RACK	6				
7	SPARE		20	20	.10	EXHAUST FAN	8				
9	SPACE					SPACE	10				
11							12				
13							14				
15							16				
17							18				
19							20				
21							22				
23							24				
25	SPACE					SPACE	26				
27	TVSS		30	20	1.50	HEATER	28				
29			2	2			30				
REMARKS:				CONNECTED LOAD:				18 AMPS			
				DEMAND LOAD:				18 AMPS			

PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTI-WIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

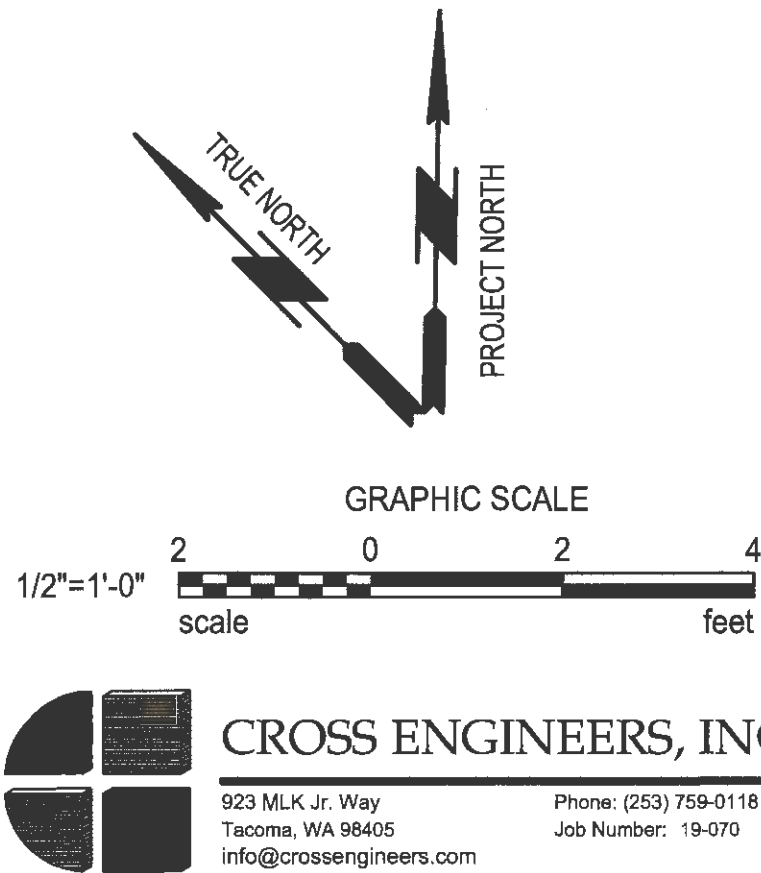


FIBER HUT (NIC) - CABLE TRAY, RACK FLOOR PLAN

SCALE: 1/2"=1'-0"

ELECTRICAL NOTES:

- NIC 1 PROVIDE COPPER BAR 13 1/4"x4"x1/4" WITH 3 PAIR 7/16" HOLES AND 19 PAIR 5/16" HOLES. ERICO TMGB-A14L15PT OR EQUAL.
- NIC 2 PROVIDE MOUNT SWITCH AND RECEPTACLE IN DOUBLE GANG JUNCTION BOX AT 42" AFF.
- NIC 3 PROVIDE GREENHECK OR EQUAL AIR INTAKE VENT. SIZE AS RATED FOR EXHAUST FAN.
- NIC 4 PROVIDE GREENHECK 060, 1725 CFM OR EQUAL.
- NIC 5 PROVIDE EXHAUST THERMOSTAT, 120V, SET AT 65° F. PROVIDE WIRING IN 3/4" EMT TO FAN.
- NIC 6 PROVIDE KING ELECTRIC SL2422, 1500 WATT HEATER WITH INTEGRAL THERMOSTAT, SET AT 40° F. OR EQUAL.
- NIC 7 PROVIDE 4"C-PVCRS AERIAL MAST ATTACHED TO STRUCTURE WITH WALL PENETRATION FOR FIBER OPTIC CABLE TO RACKS.
- NIC 8 PROVIDE (2)3/4"x10' COPPER CLAD STEEL GROUND RODS SPACED 20' APART. #6 BARE CU TO PANEL.
- NIC 9 PROVIDE #6 BARE CU FROM PANEL GROUND TO GROUND BAR.
- NIC 10 PROVIDE METALUX #4-SNLED-LD5-37SL-LW-UNV-L840-CD-1 OR EQUAL.
- NIC 11 24" x 72" x 6" DEEP CABLE TRAY MOUNTED ABOVE COMMUNICATIONS CABINETS FROM STRUCTURE. POT IT FURNISHED CONTRACTOR INSTALLED.
- NIC 12 PROVIDE SERVICE ENTRANCE (SUSE) PANEL, 120/240V, 1PH, 3W, 10,000 AIC, 60A MB, 30 CKT, WITH SEPARATE NEUTRAL AND GROUND BAR. SEE PANEL SCHEDULE FOR BRANCH CIRCUIT BREAKERS.
- NIC 13 2" CONDUITS STUBBED 6" ABOVE FINISHED FLOOR.
- NIC 14 TVSS. SIEMENS #TPS3-A-11-15-D2 OR EQUAL.
- NIC 15 3/4"C TO FENCE WITH #8 BARE CU SERVICE GROUND. PROVIDE 3/4"C x 10'-0" GROUND RODS AT TWO(2) FENCE CORNER POSTS.
- NIC 16 POT IT FURNISHED RACKS. CONTRACTOR INSTALLED.
- NIC 17 POT IT FURNISHED FIBER BULKHEADS (2)48 IN, 48 OUT AND FORTY(40) CLOSED CONNECTOR HOUSING(CCH) WITH LC ADAPTERS, SINGLE NODE(OS2), (6)LC DUPLEX ADAPTERS FOR 12-STRAND FIBER(8 PER PANEL) TO BE INSTALLED, TESTED AND LABELED BY CONTRACTOR.
- NIC 18 POT RACK MOUNTED EQUIPMENT FURNISHED BY POT IT. INSTALLED, CONNECTED, TESTED AND LABELED BY CONTRACTOR:
(1)UPS
(2)MODEL 9300 SWITCHES
(4)10GB SFP + FOR SWITCH UPLINKS
(9)LC SFP LC-1GB-LX



6636

E11

19 OF 22

PORT OF TACOMA

FIBER TO LOT F

LOT F FIBER HUT PLAN AND DETAILS

CONTR/CONS: 071169

M. ID: 101286-01

PHASE: BID SET

APPROVED:

TREVOR THORNESLEY

DIRECTOR

12-09-19

CHECKED BY: DATE

12-09-19

PROJ. ENGR DATE

12/1/19

SECTION: 34

RANGE: 21N

TOWNSHIP: 21N

DAT-HRZ: WA83-SF

VERT: MLLW 19.39' @ TIDE 22 1933

PARCEL: DRAWING SCALE: AS NOTED

Port of Tacoma

800 UNIVERSITY STREET

SUITE# 610

SEATTLE, WA 98101

(206) 622-0222

moftatt & nichol

MARK: REVISION: BY: DATE: APPR:

L. HUBBS

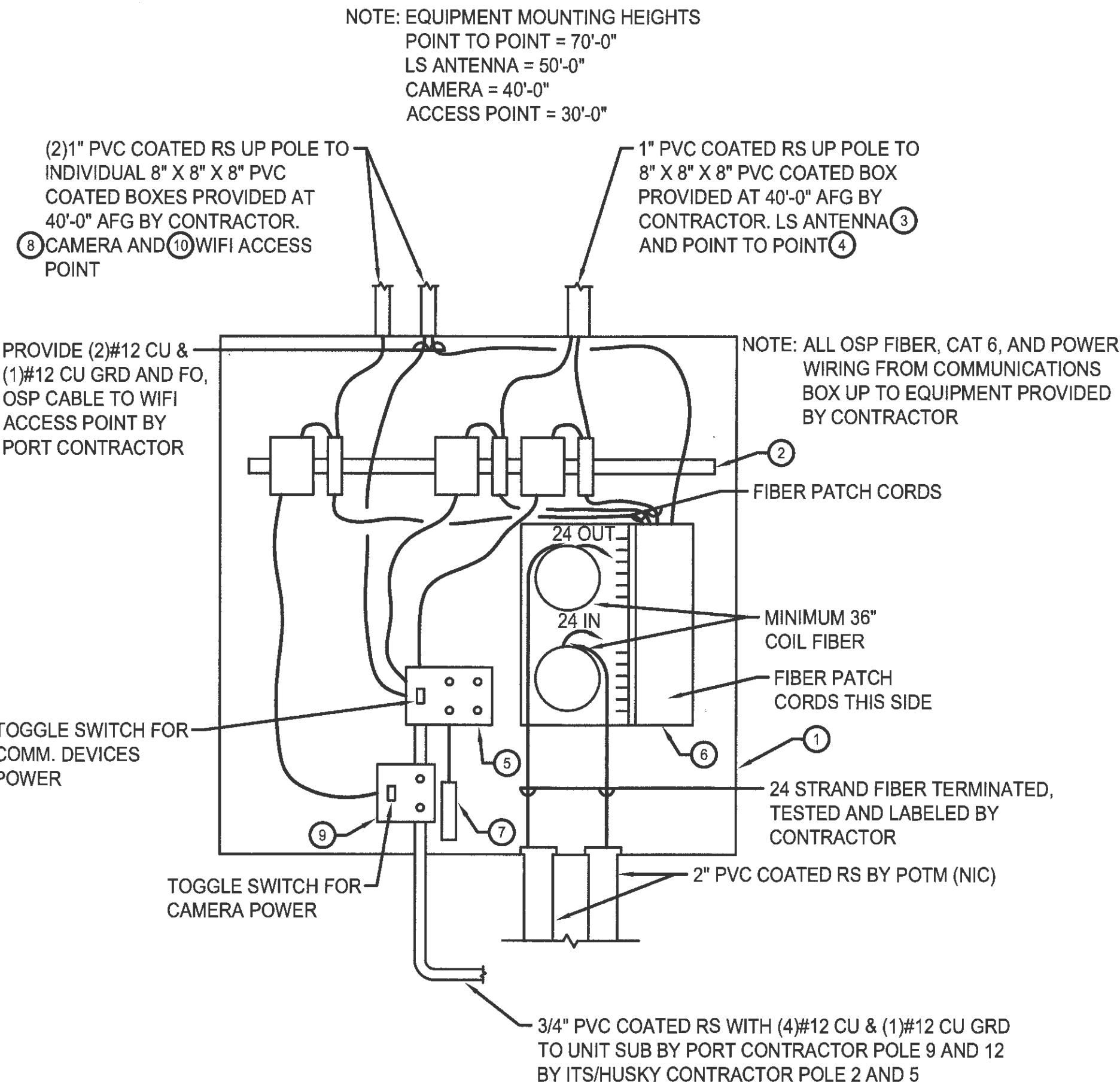
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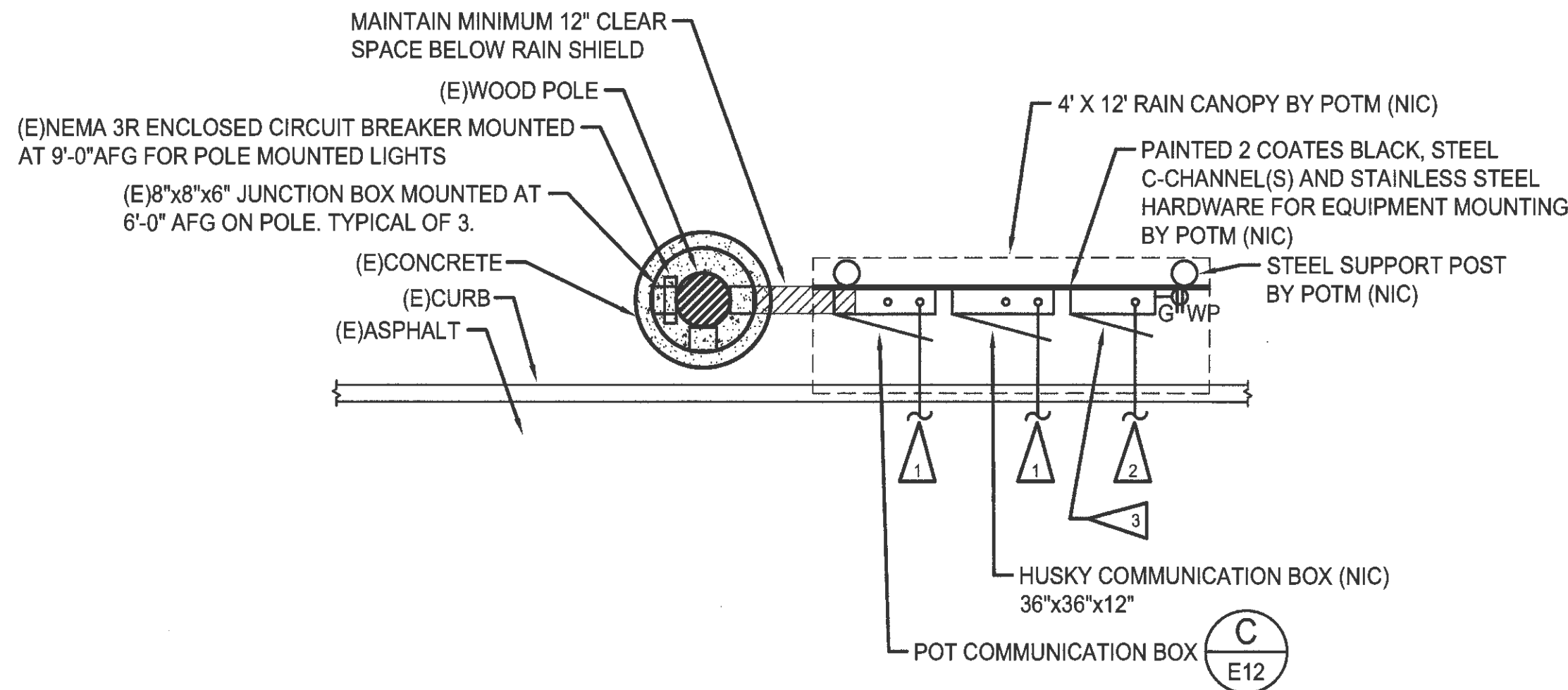
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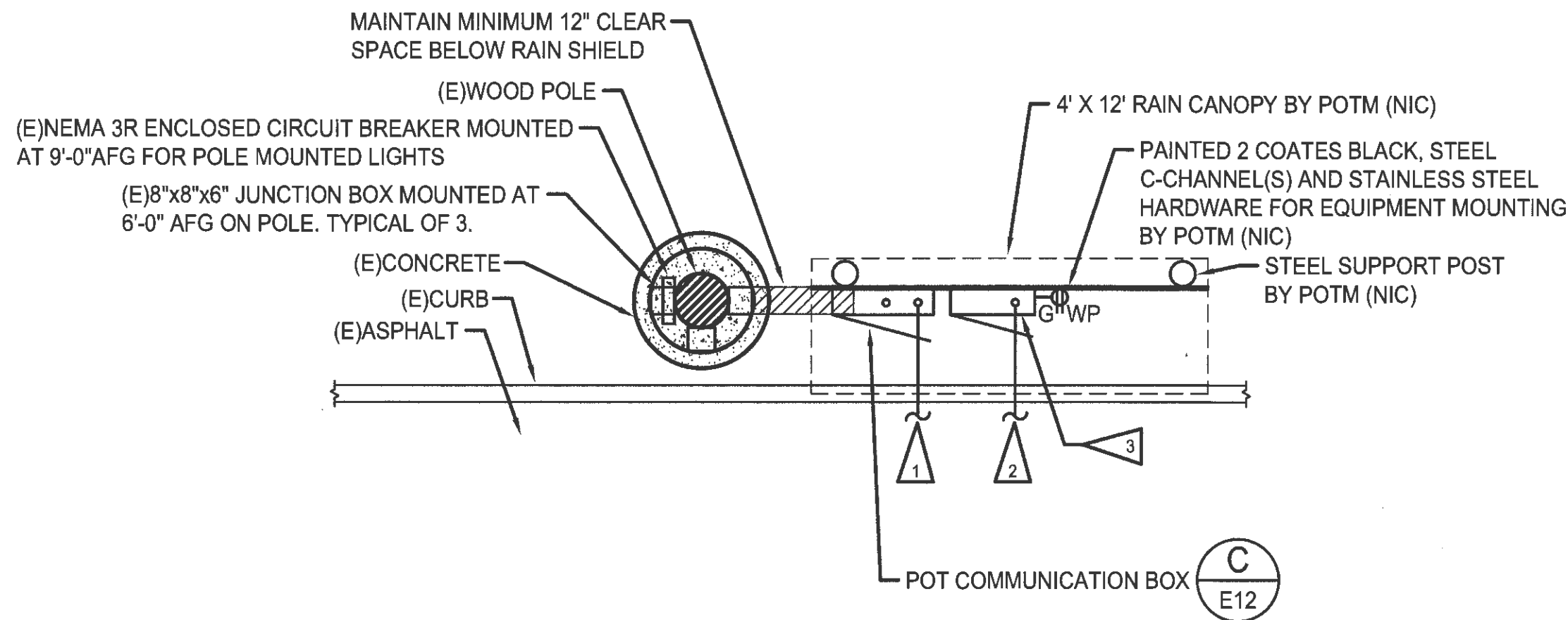
C POT COMMUNICATIONS BOX
E12 NO SCALE

ELECTRICAL NOTES:

- 1 TWO (2) 2" C STUBBED 5' PAST EXISTING CURB. SAW CUT CURB, ASPHALT AND REMOVE (BY POTM). FO CABLE AND TERMINATION BY PORT CONTRACTOR FOR POT COMMUNICATION BOX AND BY ITS/HUSKY SITE CONTRACTOR FOR ITS/HUSKY COMMUNICATIONS BOX.
- 2 ONE (1) 1" C STUBBED 5' PAST EXISTING CURB. SAWCUT CURB, ASPHALT, AND REMOVE (BY POTM). POWER CABLES BY ITS/HUSKY SITE CONTRACTOR POLES 2 AND 5. POWER CABLES BY POT CONTRACTOR POLES 9 AND 12.
- 3 5KVA, NEMA 3R, 316 STAINLESS STEEL UNIT SUB, 480V, 1PH TO 120/240V, 1PH WITH TWELVE(12) CIRCUIT BREAKER SPACES AND SIX(6), 20/1P CIRCUIT BREAKERS BY CONTRACTOR. PROVIDE PAINTED 3/4"C-(2)#12 CU & (1)#12 CU GRD, CAST 4 SQUARE BOX WITH 125V, 20A, GFI RECEPTACLE AND NEMA 3R "IN USE" COVER BY ITS/HUSKY CONTRACTOR POLES 2 AND 5. POLES 9 AND 12 BY PORT CONTRACTOR.



A POWER/COMMUNICATIONS AT POLES 2 AND 5
E12 NO SCALE



B POWER/COMMUNICATIONS AT POLES 9 AND 12
E12 NO SCALE

EQUIPMENT SCHEDULE

- 1 NEMA 4X, 316 STAINLESS STEEL, 36"x36"x12"D, HINGED, LATCHING AND PAD LOCKABLE COMMUNICATIONS CABINET. CONTRACTOR PROVIDED.
- 2 DIN BAR(S) FOR MOUNTING EQUIPMENT INTERIOR TO COMMUNICATIONS CABINET. CONTRACTOR PROVIDED.
- 3 POINT TO POINT POT IT FURNISHED CONTRACTOR INSTALLED:
(1)ANTENNA SET
(1)POWER SUPPLY
(1)MEDIA CONVERTER
(1)SFP LC-1GB-LX
- 4 LS ANTENNA POT IT FURNISHED CONTRACTOR INSTALLED AT P2 AND P5:
(1)LS ANTENNA
(1)POE POWER SUPPLY
(1)MEDIA CONVERTER
(1)SFP LC-1GB-LX
- 5 CAST 3-GANG BOX WITH COVER, MOTOR RATED TOGGLE SWITCH (ACCESS POINT POWER DISCONNECT) AND (2)20A, 125V DUPLEX RECEPTACLES. CONTRACTOR PROVIDED. FIBER PATCH CORDS AND (2)CLOSET CONNECTOR HOUSING(CCH) WITH LC ADAPTERS, SINGLE MODE(OS2), (12)LC DUPLEX ADAPTERS FOR 24 STRAND FIBER, UPC.
- 6 FIBER BULKHEAD, POT IT FURNISHED, CONTRACTOR INSTALLED.
- 7 GROUND BAR. CONTRACTOR PROVIDED.
- 8 CAMERAS POT IT FURNISHED CONTRACTOR INSTALLED AT P2, P5, P9, P12:
(1)CAMERA MOUNT ADAPTER
(1)CAMERA DOME
(1)CAMERA MOUNT
(1)CAMERA
(1)POWER SUPPLY
(1)MEDIA CONVERTER
(1)SFP LC-1GB-LX
- 9 CAST 2-GANG BOX WITH COVER, MOTOR RATED TOGGLE SWITCH (CAMERA POWER DISCONNECT) AND 20A, 125V, DUPLEX RECEPTACLE. CONTRACTOR PROVIDED.
- 10 WIRELESS ACCESS POINTS POT IT FURNISHED CONTRACTOR INSTALLED AT P2, P5, P9, P12:
(1)CISCO 1572 ACCESS POINT
(1)SFP LC-1GB-LX



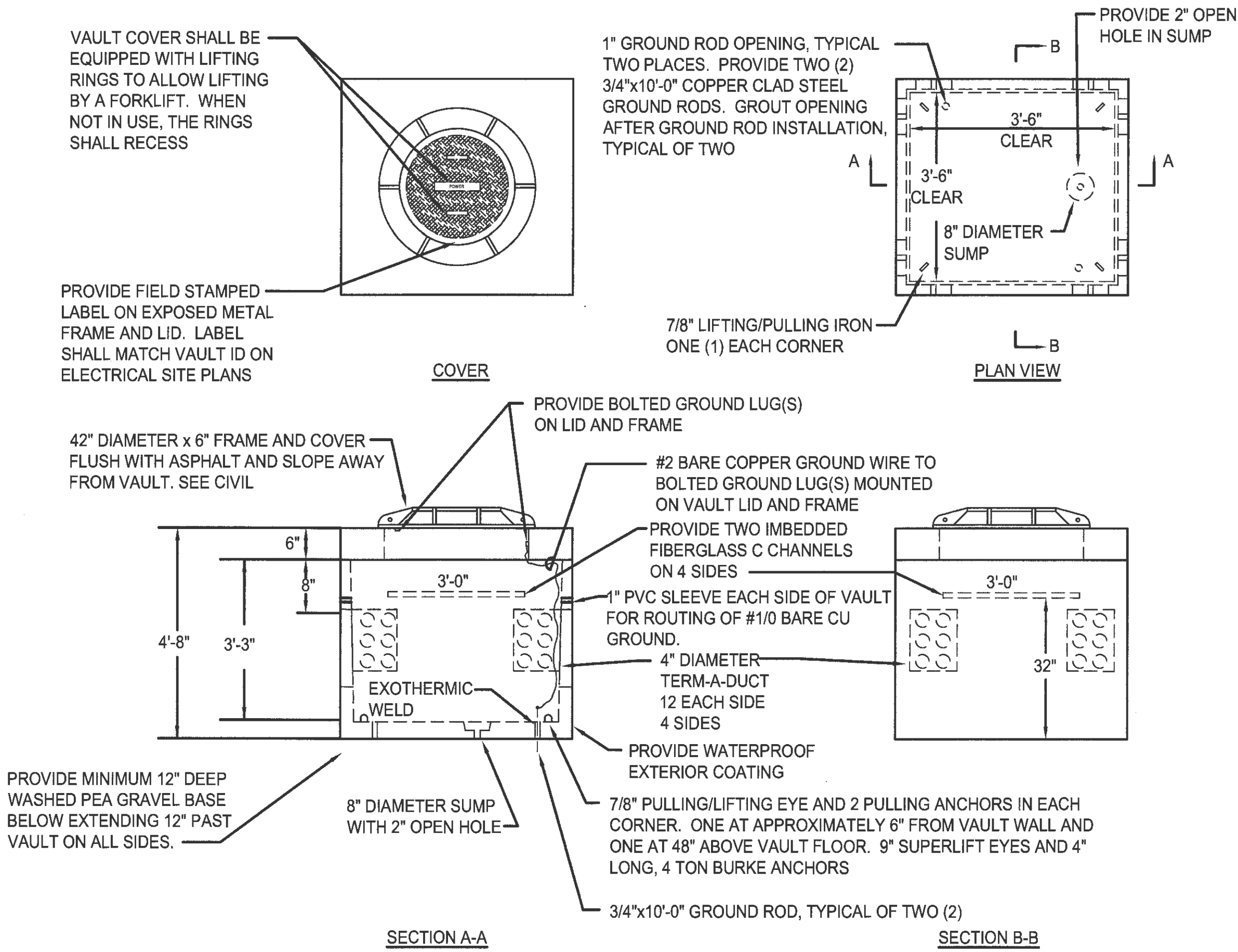
CROSS ENGINEERS, INC
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Job Number: 19-070

6636 E12 20 OF 22	CONTRACTOR: 071169 M. ID: 101286-01 PHASE: BID SET	TOWNSHIP: 21N RANGE: 3E SECTION: 34 DATE-HRZ: WA83-SF PARCEL:	PORT OF TACOMA FIBER TO LOT F ELECTRICAL DETAILS	APPROVED: TREVOR THORNESLEY DIRECTOR PRINTED BY: Scott Dec 09, 2019 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	SHEET: 12-09-19 CHECKED BY: DATE GLW 12-09-19 PROJ. ENGR. DATE DATE 12/14/19	 12/14/19	 600 UNIVERSITY STREET SUITE# 610 SEATTLE, WA 98101 (206) 622-1022	Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (206) 385-5841	DATE: APPR: BY: REVISION: MARK:

VAULT SCHEDULE			
ID	DESCRIPTION	LOADING	NOTES
PV4A,PV8A	CUSTOM 600V POWER VAULTS, SEE DETAIL A, THIS SHEET BY POT CONTRACTOR	MINIMUM 125 KIP.	1 2 3 4 5 6
CV4A,CV8A	CUSTOM COMMUNICATION VAULT SEE DETAIL A, THIS SHEET BY POT CONTRACTOR	MINIMUM 125 KIP.	1 2 3 4 5 6
SV116A	CUSTOM COMMUNICATION VAULT SEE DETAIL A, SHEET E9 BY POT CONTRACTOR	MINIMUM 125 KIP.	1 2 3 4 5 6
SV116D	CUSTOM COMMUNICATION VAULT SEE DETAIL A, SHEET E9 BY POT CONTRACTOR	TRAFFIC RATED H25	1 2 3 4 5 6

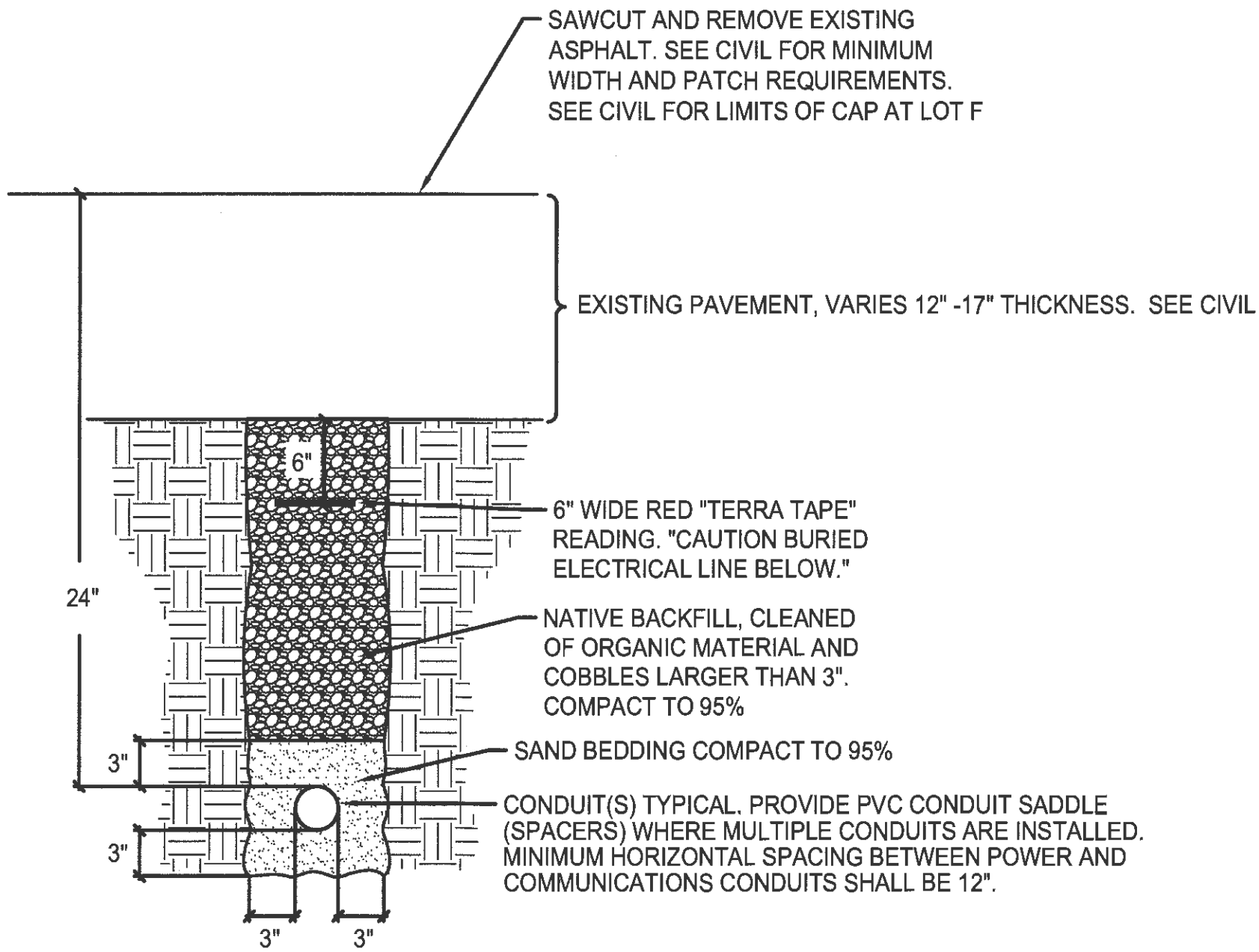
VAULT SCHEDULE NOTES:

- 1
- ALL CONDUITS (2" AND LARGER) ENTERING OR LEAVING VAULTS SHALL USE TERM-A-DUCTS. ALL 3/4" AND 1" CONDUITS ENTERING OR LEAVING VAULTS MAY USE BLOCK-OUTS WITH BELL ENDS AND GROUTED. PROVIDE REMOVABLE FOAM FILL IN ALL EMPTY CONDUIT OPENINGS. PROVIDE PULL STRINGS IN ALL EMPTY CONDUITS. PROVIDE MAXCELL EDGE DETECTABLE MXC2003 (3 CELL) OR EQUAL IN ALL FOB LABELED COMMUNICATIONS CONDUITS. ITS/HUSKY CONTRACTOR SHALL PROVIDE CONDUIT LABELS FOR ALL CONDUITS ENTERING AND LEAVING VAULTS. PROVIDE PHENOLIC LABEL ATTACHED TO VAULT WALL WITH TWO (2) PLASTIC INSERTS AND STAINLESS STEEL SCREWS ADJACENT TO EACH CONDUIT. PHENOLIC LABEL SHALL HAVE CONDUIT ID ENGRAVED AS INDICATED ON CONDUIT AND WIRE SCHEDULE DRAWINGS.
- 2
- SEE SPECIFICATION SECTION 26 71 19 FOR ADDITIONAL VAULT INSTALLATION REQUIREMENTS.
- 3
- ALL WIRE (POWER AND COMMUNICATIONS) SHALL COMPLETELY LOOP AROUND VAULT WALLS PRIOR TO EXITING VAULT.
- 4
- CONTRACTOR SHALL PROVIDE CAST LABEL ON LID TO READ "ELECTRIC" OR "COMMUNICATIONS". PROVIDE FIELD STAMPED LABEL ON LID WITH VAULT ID TO MATCH ELECTRICAL SITE PLANS.
- 5
- PROVIDE BOLTED GROUND LUG(S) ON LID AND FRAME. PROVIDE #2 BARE CU GROUND IN EACH VAULT TO TWO (2) 3/4" X 10'-0" GROUND RODS.
- 6
- PROVIDE STENCIL PAINTED, VAULT KIP RATING ON INSIDE OF VAULT DIRECTLY BELOW LID. MINIMUM 4" HIGH LETTERS.

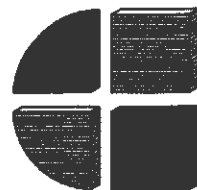


TYPICAL SITE POWER/ COMMUNICATIONS VAULTS
NOT TO SCALE

A
E13



POWER/COMMUNICATIONS TRENCH - TYPICAL
NOT TO SCALE



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21 OF 22

CONT./CONS: 071169
M. ID: 101286-01
PHASE: BID SET

PORT OF TACOMA
HUSKY PROCESSING LANES
ELECTRICAL VAULT DETAILS

APPROVED:
TREVOR THORNSLEY
DIRECTOR ENG. DATE
PRINTED BY: Scottk Dec 09, 2019
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837

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MARK: REVISION: BY: DATE: APPR:

12-09-19
12-09-19
12/1/19

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DATE: 12-09-19
BY: 12-09-19
APPR: 12/1/19

[illegible]

SCHEDULE ABBREVIATION LEGEND:

- | | | | | | |
|-----|---|-----------------------------|-----|---|---------------------------|
| C | = | COMMUNICATIONS | SDV | = | SECONDARY POWER VAULT |
| CV | = | COMMUNICATIONS VAULT | SL | = | SITE LIGHTING |
| FOB | = | FIBER OPTIC | SP | = | SPARE CONDUIT |
| SD | = | SECONDARY 600V DISTRIBUTION | TPU | = | TACOMA PUBLIC UTILITIES |
| SC | = | SECURITY CAMERAS | WPC | = | WHERE-PORT COMMUNICATIONS |

PROVIDE LABELING PER _____
SPECIFICATION SECTION 26 05 53

CABLE TIE HOLES, —
TYPICAL OF FOUR (4)

SOURCE POINT (I.E. SWITCH #, PANEL/
CIRCUIT #, LIGHTING CONTROL CIRCUIT, ETC.)

END POINT (I.E. LIGHT POLE #, WOOD POLE #,
UNIT SUB, ETC.)

FIBER OPTIC CABLE AND CONDUCTOR IDENTIFICATION LABEL

NOT TO SCALE

A

SCHEDULE NOTES:

- ① EXISTING CONDUIT
- ② PVC SCHEDULE 80
- ③ STUB AND CAP AT TOP OF CONCRETE BASE.
- ④ PVC COATED GRS CONDUIT
- ⑤ STUB AND CAP 12" ABOVE FINISHED GRADE.
- ⑥ PROVIDE MAXCELL EDGE DETECTABLE 3 CELL INNER DUCT. MAXCELL MXC2003 OR EQUAL. POT FURNISHED CONTRACTOR INSTALLED.
- ⑦ COORDINATE AND INSTALL FIELD WIRING FOR SCALES SUPPLIED WITH SCALE EQUIPMENT.
- ⑧ NOT USED.
- ⑨ NOT IN CONTRACT (NIC)
- ⑩ REVIEW AND COORDINATE WITH TRUCK INTERCOM MANUFACTURER'S SHOP DRAWINGS. STUB PVC CONDUIT 2" ABOVE TOP OF CONCRETE, WITH 18" WIRE LOOP FOR CONNECTION TO RECEPTACLE BY INTERCOM CABINET SUPPLIER. SEE CIVIL.
- ⑪ STUB CONDUIT MINIMUM 6" ABOVE OCR PARTIAL FOUNDATION. LEAVE MINIMUM 24" LOOP OF POWER WIRE FOR EXTENSION BY OCR EQUIPMENT PROVIDER. SEE CIVIL.
- ⑫ REVIEW AND COORDINATE POWER CONNECTION WITH GATE ARM MANUFACTURER. COMMUNICATION'S WIRING BY GATE ARM MANUFACTURER. SEE CIVIL.
- ⑬ PROVIDE WATER TIGHT SPLICE(S) IN VAULT FOR GROUND WIRE. PROVIDE GROUND WIRE IN INDIVIDUAL CONDUITS TO EACH T-POLE, CHASSIS CAMERA PEDESTALS AND TRUCK INTERCOM PEDESTALS. SEE CIVIL.
- ⑭ PROVIDE OUTSIDE PLANT (OSP), (2)24 FIBER COUNT, LOOSE TUBE, SINGLE JACKET FIBER CABLE IN SINGLE CELL OF INNER DUCT.
- ⑮ PROVIDE OUTSIDE PLANT (OSP), 24 FIBER COUNT, LOOSE TUBE, SINGLE JACKET FIBER CABLE IN SINGLE CELL OF INNER DUCT.

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<div> <div>6336</div> <div>E14</div> <div>22 OF 22</div> </div>	<div> <div>PORT OF TACOMA</div> <div>HUSKY PROCESSING LANES</div> <div>CONDUIT AND CONDUCTOR SCHEDULES</div> </div>				APPROVED:	SLH	12-09-19
			TREYOR THORNESLEY	GLW	12-09-19		
			DIRECTOR ENG. DATE	PROJ. ENGR	DATE		
			PRINTED BY:	Snoth Dec 09, 2019			
TOWNSHIP: 21N		RANGE: 3E	SECTION: 34				
M. ID: 101286-01		DAT-HRZ: WA83-SF		VERT: MLLW 19.39' @ TIDE		22 1933	
PHASE: BID SET		PARCEL:		DRAWING SCALE: AS NOTED			