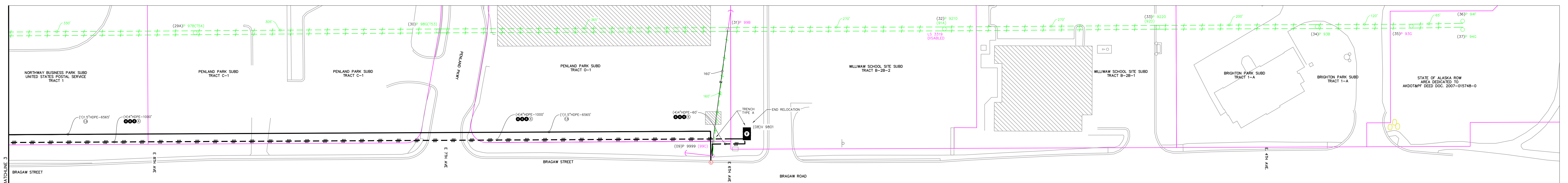
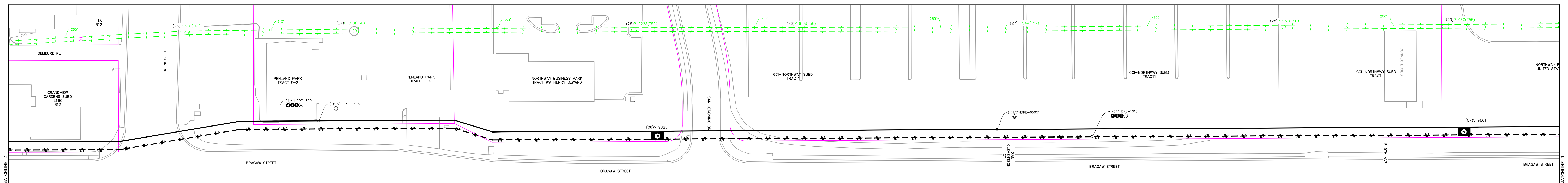
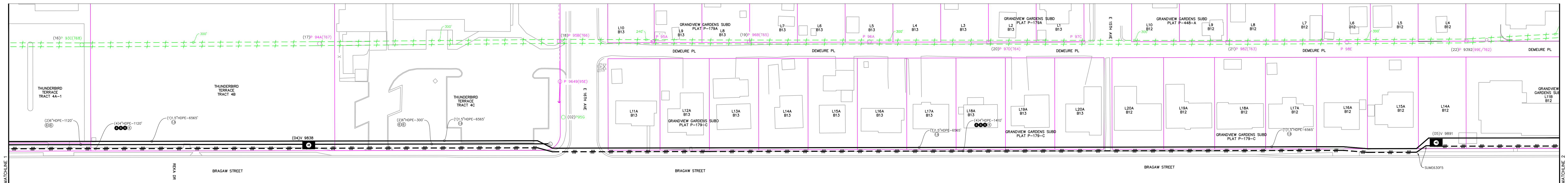
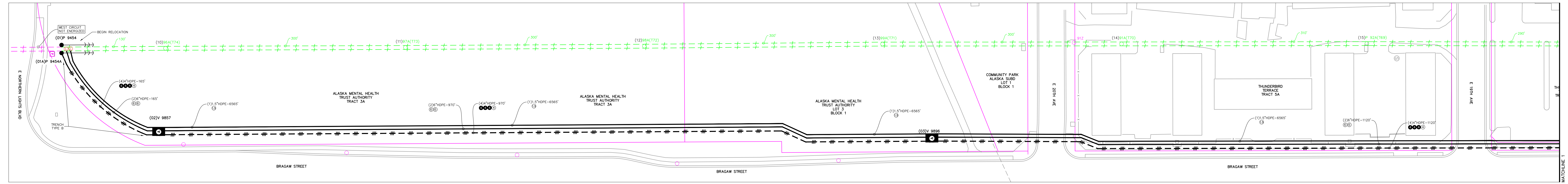
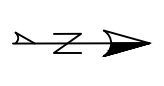


NOTES:  
THIS PROJECT IS BUILT IN CONJUNCTION  
WITH DISTRIBUTION WORK ORDER E2314215



PROJECT: BRAGAW 34.5kV NORTHERNLIGHTS BLVD TO 6TH AVE.				
ENG./DESIGN: M. ELLIOTT & V. KRIVONOSOV <i>M&amp;V</i> W.O. # E1720054				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN. BY/DATE	REVIEWED MGR./SUPV./DATE	APPROVED DIRECTOR/DATE
0	ISSUED FOR CONSTRUCTION	ME 03/14/25	<i>ME</i> 3/18/25	
				ENG. STAMP

NO.	RECORD REVISION	CAD DRAWN BY	W.P.#	W.O. NUMBER	RECORD APPROVED	DATE
1	X	CC	-	-	XXX	11/11/19



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5601 Electron Drive - P.O. Box 196300  
Anchorage, Alaska 99519-6300

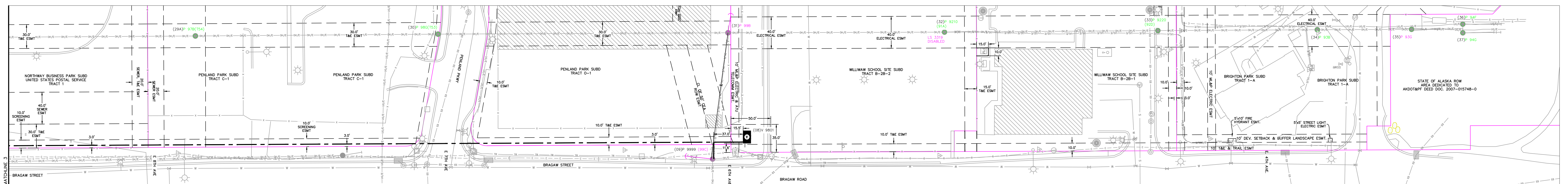
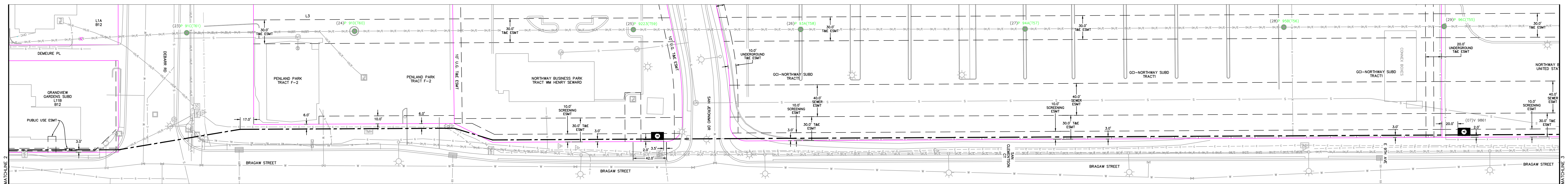
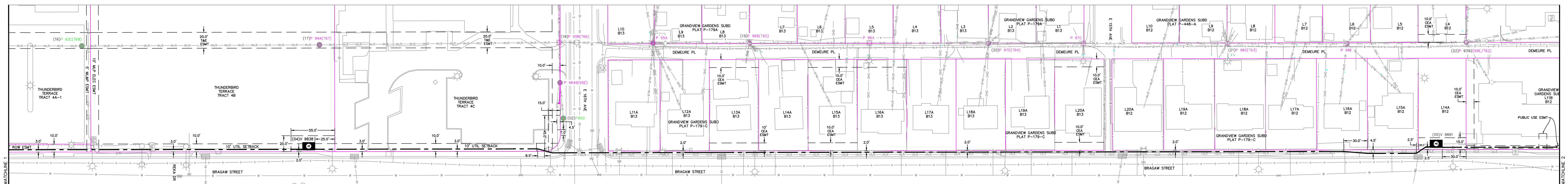
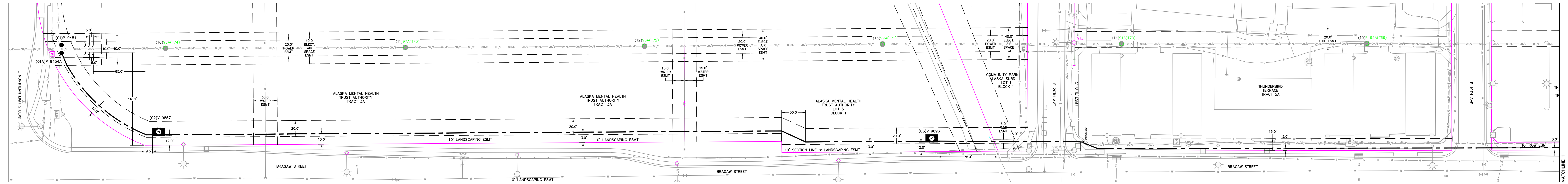
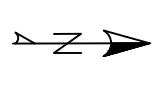
DRAWING NAME: 34.5KV SUBTRANSMISSION  
NORTHERN LIGHTS TO 6TH AVE.  
PLAN & PROFILE  
STRUCTURE 9454 TO STRUCTURE 9999

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DRAWING NO. - PREVIOUS/REFERENCE  
NEW  
DRAWING NO.: AJKJ-PP-0001

SHEET 0001 OF 0001  
PAGE \_\_\_\_\_ OF \_\_\_\_\_

NOTES:  
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WITH DISTRIBUTION WORK ORDER E2314215



PROJECT: BRAGAW 34.5kV NORTHERNLIGHTS BLVD TO 6TH AVE.				
ENG./DESIGN: M. ELLIOTT & V. KRIVONOSOV <i>ME &amp; VK</i> W.O. # E1720054				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN. BY/DATE	REVIEWED MGR./SUPV./DATE	APPROVED DIRECTOR/DATE
0	ISSUED FOR CONSTRUCTION	ME 03/14/25	<i>ME</i> 3/18/25	
ENG. STAMP				

NO.	RECORD REVISION	CAD DRAWN BY	W.P.#	W.O. NUMBER	RECORD APPROVED	DATE
1	X	CC	-	-	XXX	11/11/19



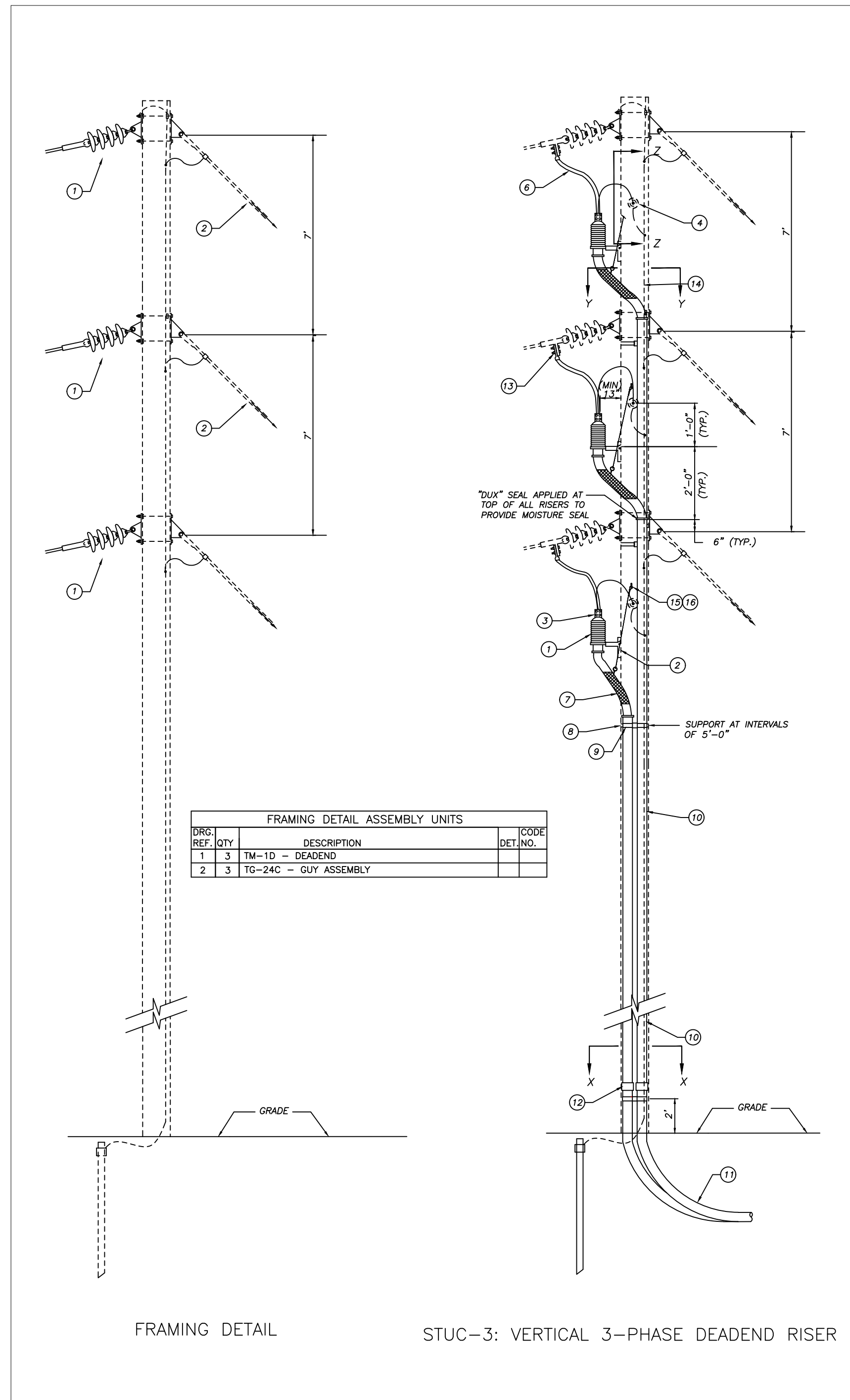
Chugach Electric Association, Inc.  
5601 Electron Drive - P.O. Box 196300  
Anchorage, Alaska 99519-6300

DRAWING NAME: 34.5KV SUBTRANSMISSION  
NORTHERN LIGHTS TO 6TH AVE.  
RIGHT OF WAY  
STRUCTURE 9454 TO STRUCTURE 9999

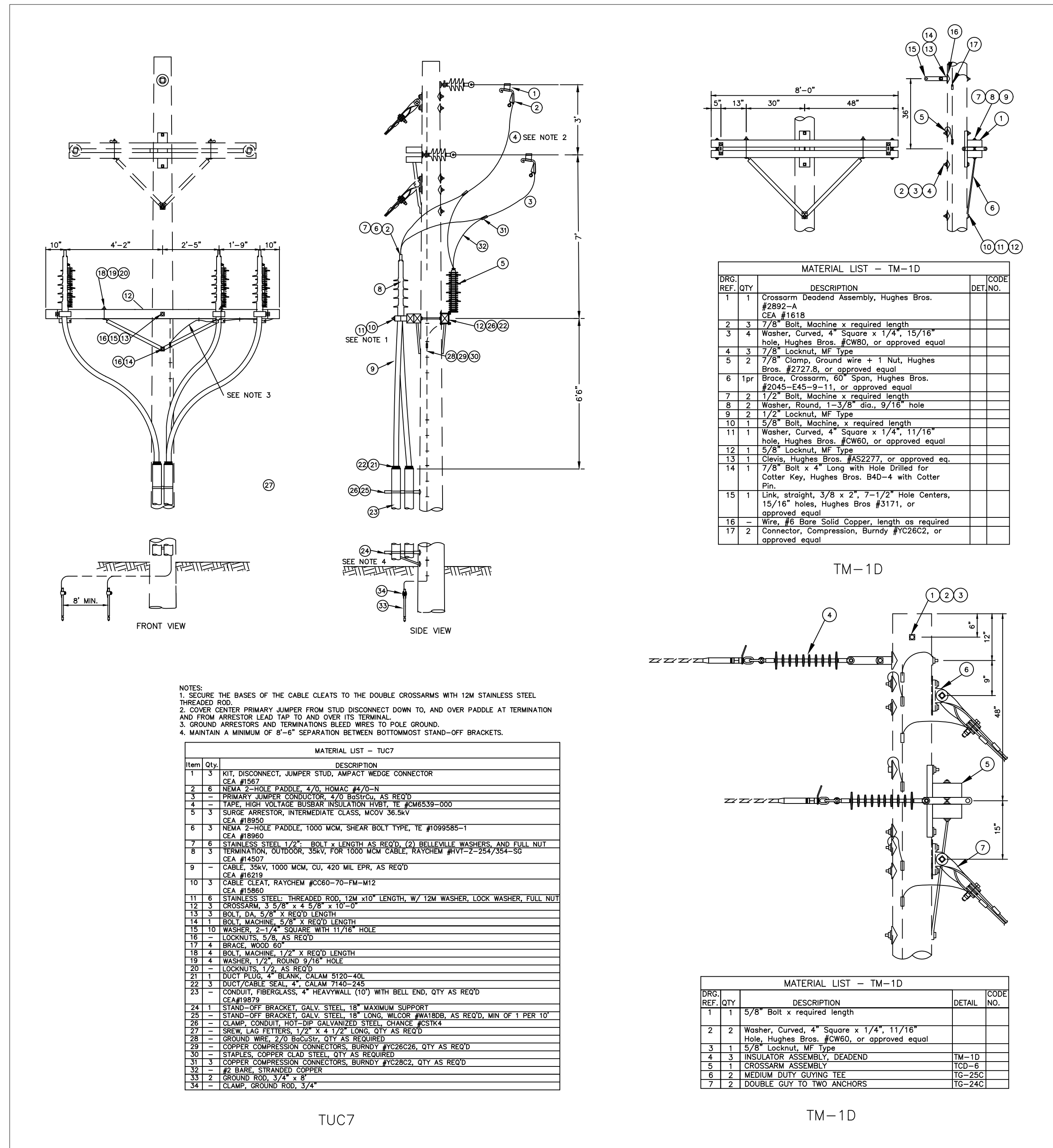
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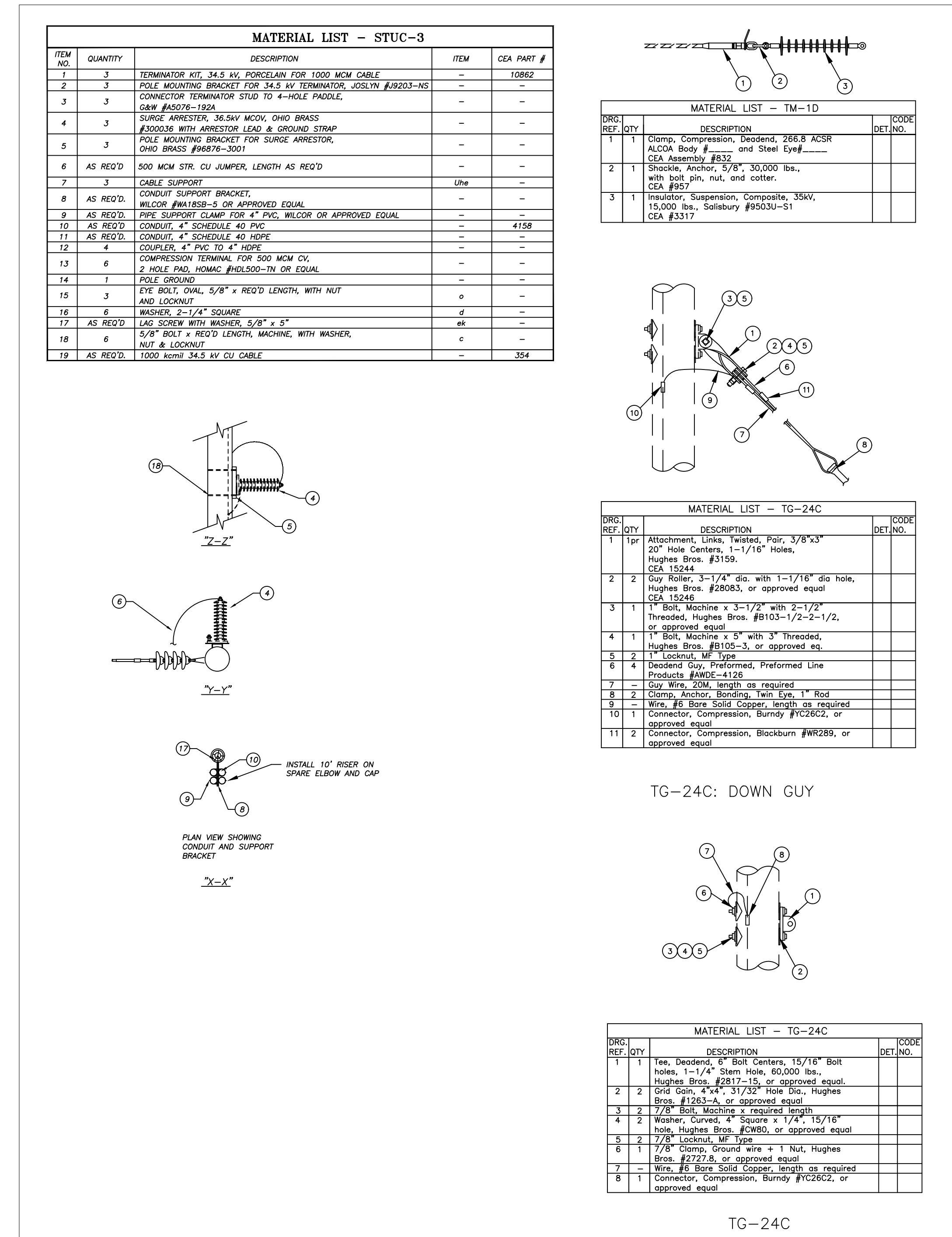
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SHEET 0001 OF 0001  
PAGE OF



FRAMING DETAIL POLE 9454 & POLE 9454A



FRAMING DETAIL POLE 9999



MISC. DETAILS

PROJECT: BRAGAW 34.5kV NORTHERNLIGHTS BLVD TO 6TH AVE.				
ENG./DESIGN: M. ELLIOTT & V. KRIVONOSOV <i>ME &amp; VK</i> W.O. # E1720054				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN. BY/DATE	REVIEWED MGR./SUPV./DATE	APPROVED DIRECTOR/DATE
0	ISSUED FOR CONSTRUCTION	ME 03/14/25	<i>ME</i> 3/18/25	
				ENG. STAMP

NO.	RECORD REVISION	CAD DRAWN BY	W.P.#	W.O. NUMBER	RECORD APPROVED	DATE
1	X	CC	-	-	XXX	11/11/19

**CHUGACH**  
POWERING ALASKA'S FUTURE

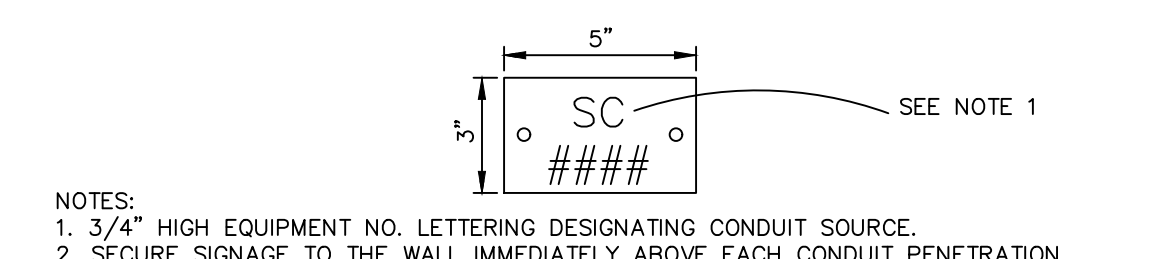
Chugach Electric Association, Inc.  
5601 Electron Drive - P.O. Box 196300  
Anchorage, Alaska 99519-6300

DRAWING NAME: 34.5KV SUBTRANSMISSION NORTHERN LIGHTS TO 6TH AVE STRUCTURE AND ASSEMBLY DETAILS

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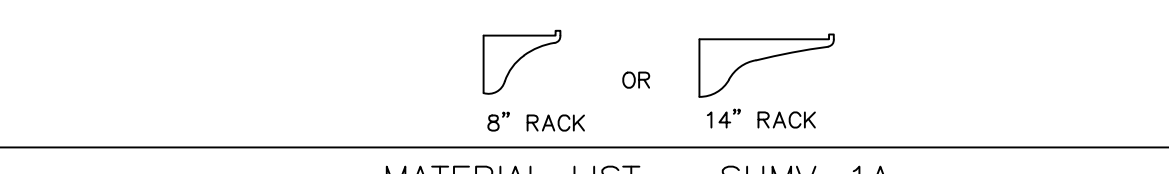
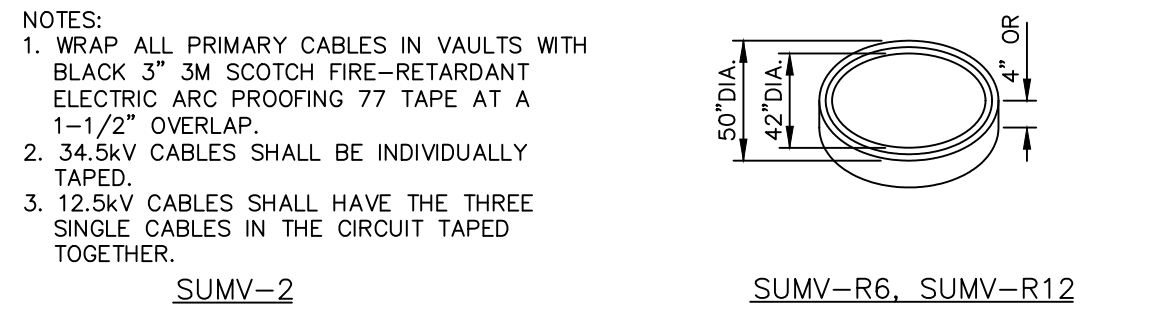
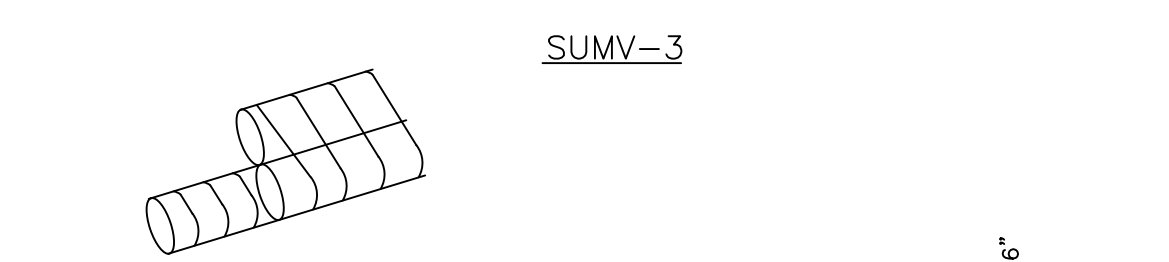
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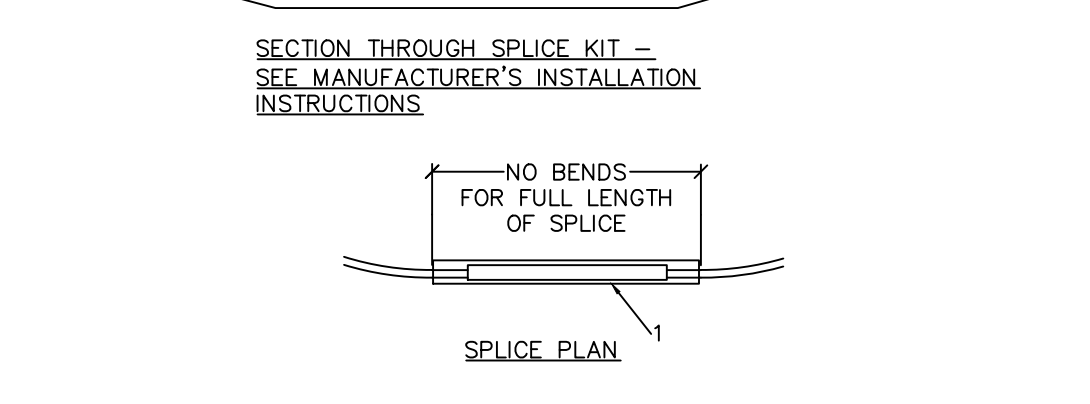
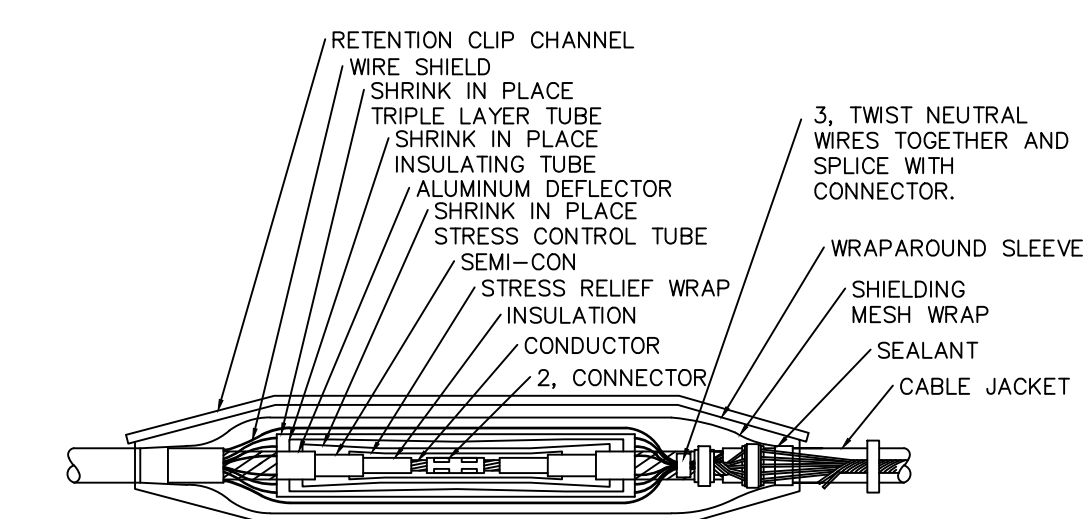


NOTES:  
 1. 3/4" HIGH EQUIPMENT NO. LETTERING DESIGNATING CONDUIT SOURCE.  
 2. SECURE SIGNAGE TO THE WALL IMMEDIATELY ABOVE EACH CONDUIT PENETRATION.

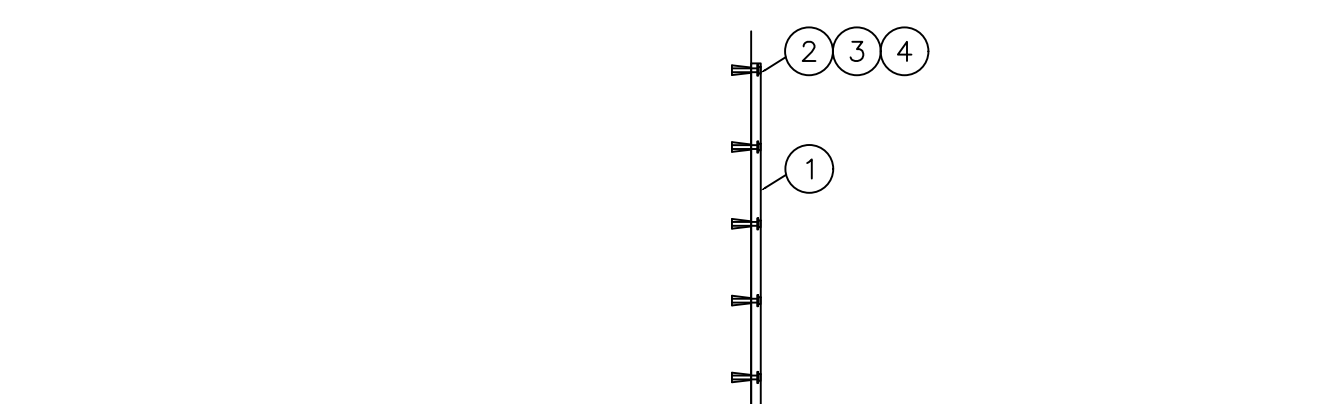
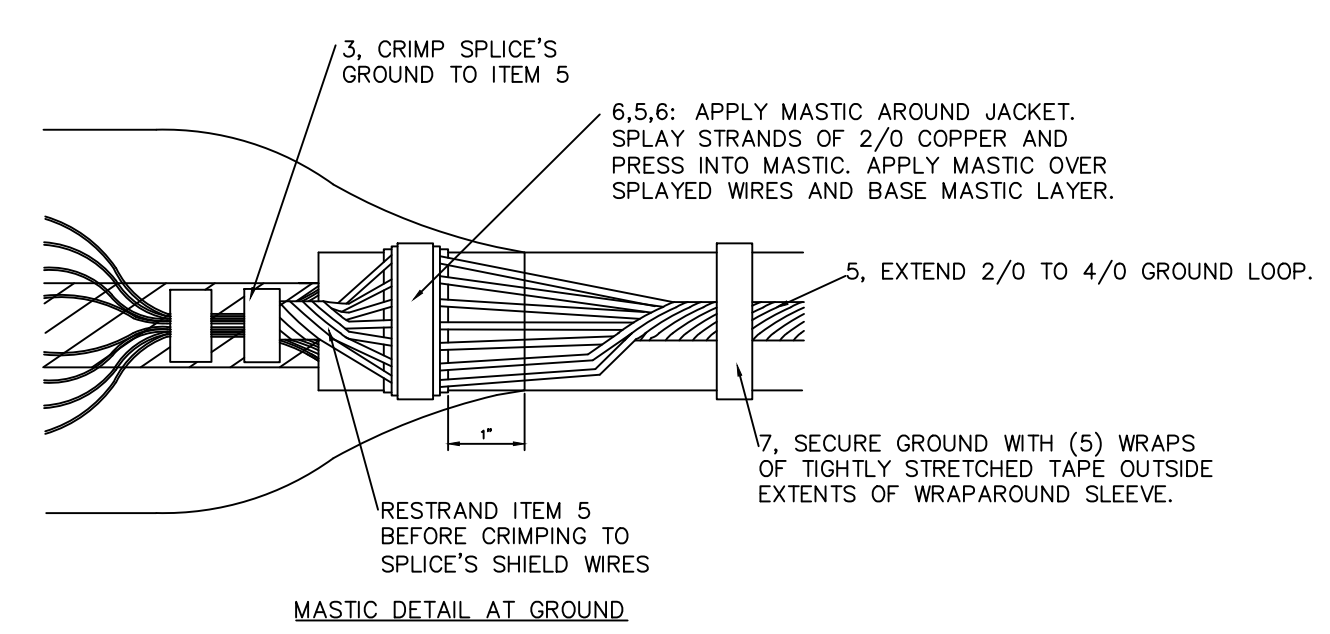
Item	NO.	DESCRIPTION
1	1	SIGNAGE, APPROVED METAL, OR ENGRAVED LAMINATED PLASTIC
2	2	STAINLESS STEEL CONCRETE ANCHORS AND 1/4" BOLTS (STAINLESS STEEL SELF ANCHORING CONCRETE SCREWS OF APPROPRIATE SIZE ARE AN ACCEPTABLE ALTERNATIVE)



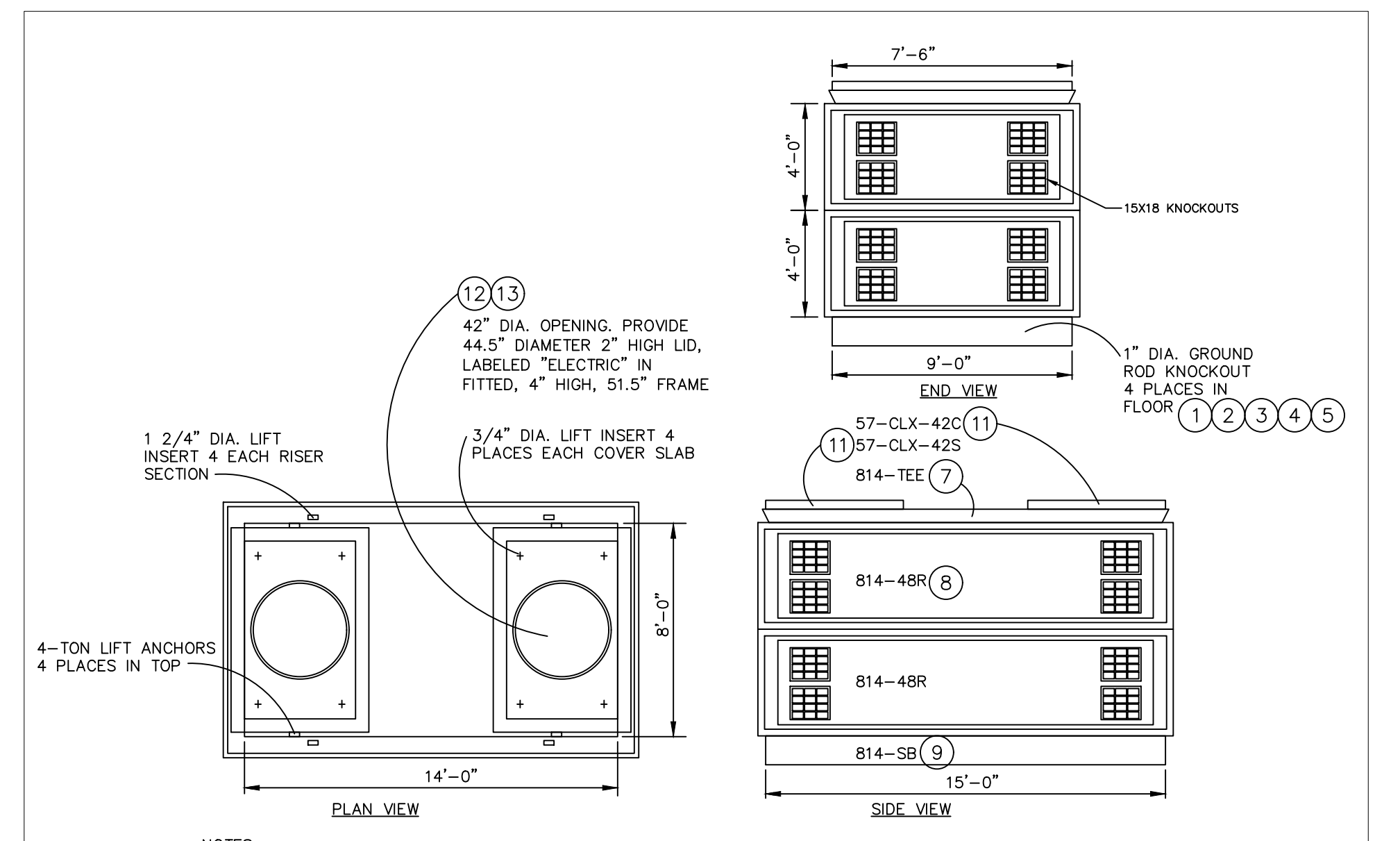
Item	NO.	DESCRIPTION	MATERIAL #
1	1	RACK ARM, HEAVY DUTY NON-METALLIC, UNDERGROUND DEVICES #RA08 (8") OR #RA14 (14")	



NO.	QTY.	DESCRIPTION	MATERIAL #
1	3	SPLICE KIT, PRIMARY, UNDERGROUND, TE RAYCHEM #HVS-3523S-J, 35KV CLASS	4519
2	3	CONNECTOR, COMPRESSION, COPPER, 3M SCOTCHLOK, #AL9CU, 20024	19031
3	6	CONNECTOR, COMPRESSION, COPPER, BURNDY #Y026C26, 2/0-2/0	
4	3	CONNECTOR, COMPRESSION, COPPER, BURNDY #Y026C26, 2/0-4/0	
5	3	GROUND CONDUCTOR, 2/0 BARE COPPER 7-STRAND, LENGTH AS REQUIRED	
6	3	MASTIC TAPE, 3M #2228, OR APPROVED EQUAL	
7	-	TAPE, ELECTRICAL, LENGTH REQUIRED, WHERE NOTED, 3M #SUPER 88, OR APPROVED EQUAL	



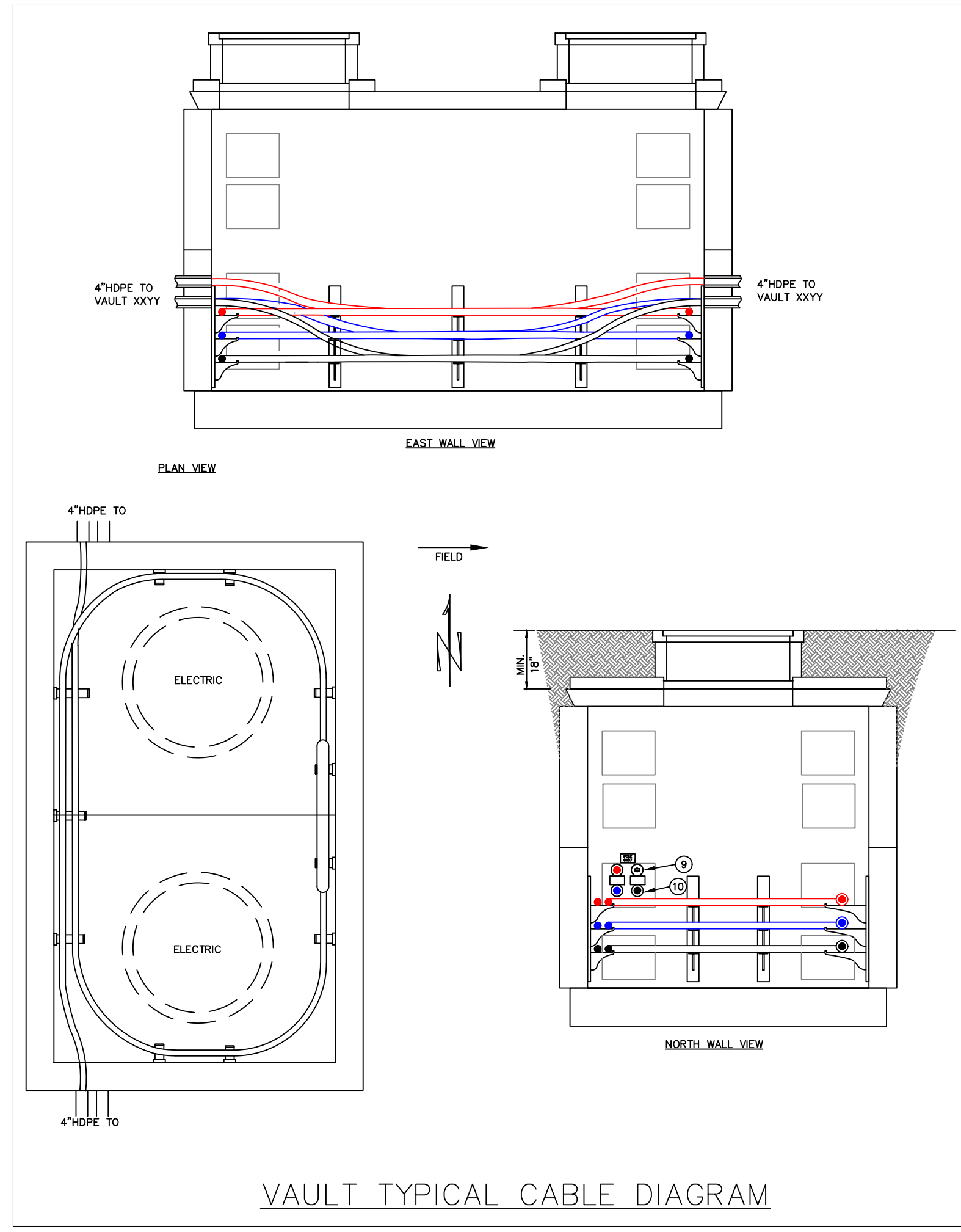
Item	NO.	DESCRIPTION	MATERIAL #
1	1	STANCHION, HEAVY DUTY NON-METALLIC, 16" OR 36" UNDERGROUND DEVICES #CR36-B	
2	5	SCREW, 1/2"-13x1-3/8" LONG HEX HEAD CAP, 316 STAINLESS	
3	5	ANCHOR, 1/2"-13x2" LONG DROP-IN, 303 STAINLESS STEEL	
4	5	WASHER, 1-1/4" O.D., 9/16" HOLE, 316 STAINLESS STEEL	



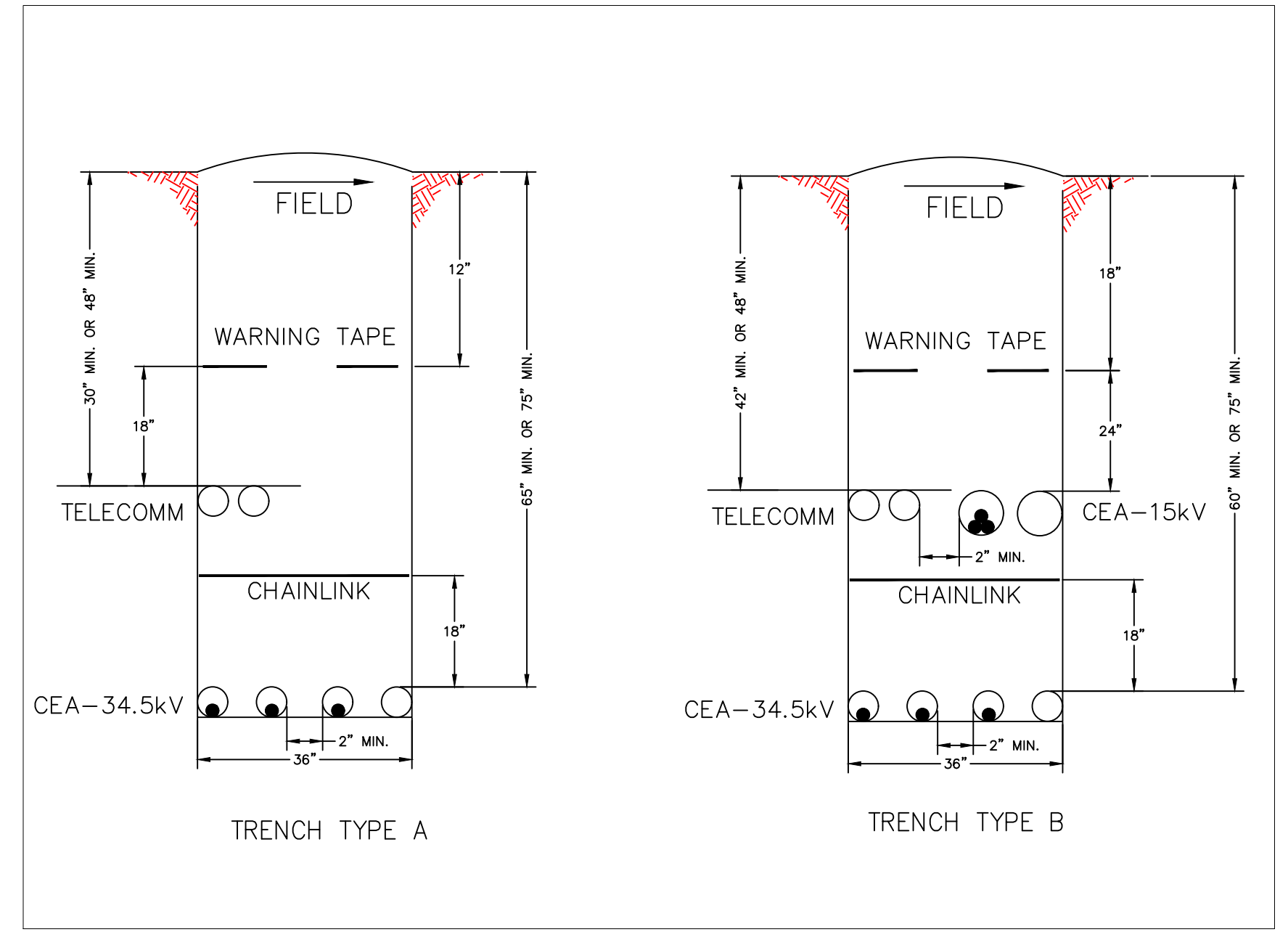
- NOTES:  
 1. LOCATE VAULT AS INDICATED ON PLANS.  
 2. PROVIDE ALL SUB-UNITS AND ACCESSORIES FOR INDIVIDUAL VAULTS AS LISTED IN THE STAKING SHEETS AND DETAILS.  
 3. INSTALL TO A MINIMUM DEPTH OF 18" TO THE TOP OF THE VAULT TO ALLOW FOR FUTURE LOWER GRADE ADJUSTMENTS. THE MANHOLE RING AND COVER SHALL BE MOUNTED FLUSH WITH THE EXISTING GRADE.  
 4. APPLY RAM-NEK OR APPROVED EQUAL JOINT SEALANT TO ALL JOINT SURFACES TO PROVIDE A WATER SEAL.  
 5. COMPACT THE MANHOLE VAULT FOUNDATION TO A MINIMUM 95% PROCTOR DENSITY. A MINIMUM OF A 6" COURSE OF D-1 SHALL BE ADDED TO ALL FOUNDATIONS. COMPACT SIDE SLOPES AND FILL ABOVE VAULT TO 95% PRIOR TO PAVING OR RE-SEEDING.  
 6. GROUT ALL NEW DUCT ENTRANCES, GROUND ROD HOLES, RISER SECTIONS AND MANHOLE FRAMES WITH SIKASET PLUG, OR APPROVE EQUAL TO PREVENT ANY MOISTURE ENTRANCE. DUCTS ENTERING THE VAULT SHALL NOT PROTRUDE MORE THAN 1" BEYOND THE FACE OF THE INSIDE WALL AND WILL HAVE BELL ENDS. ALL DUCT OPENINGS WILL BE SEALED WITH APPROVED PLUGS (SUM50).  
 7. INSTALL A GROUND BUS LOOP IN EACH NEW VAULT PRIOR TO SETTING THE VAULT ROOF SECTION. STANDARD GROUND ELECTRODES CONSISTS OF FOUR 8' LONG 3/4" DIAMETER GROUND RODS DRIVEN VERTICALLY THROUGH THE VAULT BOTTOM AT EACH CORNER OF THE VAULT WITH 6" LEFT PROTRUDING ABOVE THE FLOOR. CONSTRUCT GROUND BUS USING 4/0 STRANDED BARE COPPER CONDUCTOR LOOPED AROUND THE INSIDE PERIMETER OF THE VAULT. INSTALL CHUGACH-SUPPLIED GROUNDING CONNECTORS AT TWO GROUNDED INSERT LOCATIONS INSIDE THE VAULT THEN CONNECT GROUNDING CONNECTORS AND FULL GROUND BUS WITH SEPARATE 4/0 STRANDED BARE COPPER CONDUCTOR. (SUM48-B)

Item	NO.	DESCRIPTION	MATERIAL #
1	4	ROD, GROUND, 3/4"x8"-0", GALVANIZED STEEL	
2	8	CLAMP, GROUND ROD	
3	-	GROUND WIRE, 4/0 AWG BaCuStr, AS REQUIRED	
4	2	GROUND LUGS, UV	
5	1	CONNECTOR, 4/0 COPPER	
6	-	WIRE TIE, CABLE, SPACING, AS REQUIRED	
7	1	PULL VAULT, TOP SECTION, UV 814-TEE-CLX (7060 LBS)	17593
8	2	PULL VAULT, RISER, UV 814-48R-UFR (12380 LBS)	17591
9	1	PULL VAULT, BASE, UV 814-SB-UFR (18000 LBS)	17592
10	0	PULL VAULT, COVER, UV 57-CLX-42S (2040 LBS)	17594
11	2	PULL VAULT, MANHOLE COVER, UV 57-CLX-42C (1350 LBS)	17590
12	2	COVER, MANHOLE, UV 4220-S (600 LBS)	17597
13	2	FRAME, MANHOLE, UV 4240-HD (680 LBS)	17596
14	2	DUCT PLUG, BLANK, CALAM 5120-35L	
15	6	DUCT PLUG, SIMPLEX, CALAM 7140-245	
16	8	CONDUIT BELL END, 4"	
17	-	GRAVEL, D1, 2,000 CU. FT.	

TYP. CONCRETE VAULT WITH MANHOLE  
SUMH-814



VAULT TYPICAL CABLE DIAGRAM



TRENCH TYPE A

TRENCH TYPE B

NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN. BY/DATE	REVISED MGR./SUPV./DATE	APPROVED DIRECTOR/DATE	ENG. STAMP
0	ISSUED FOR CONSTRUCTION	ME 03/14/25	3/18/25		

NO.	RECORD REVISION	CAD DRAWN BY	W.P.#	W.O. NUMBER	RECORD APPROVED	DATE
1	X	CC	-	-	XXX	11/11/19



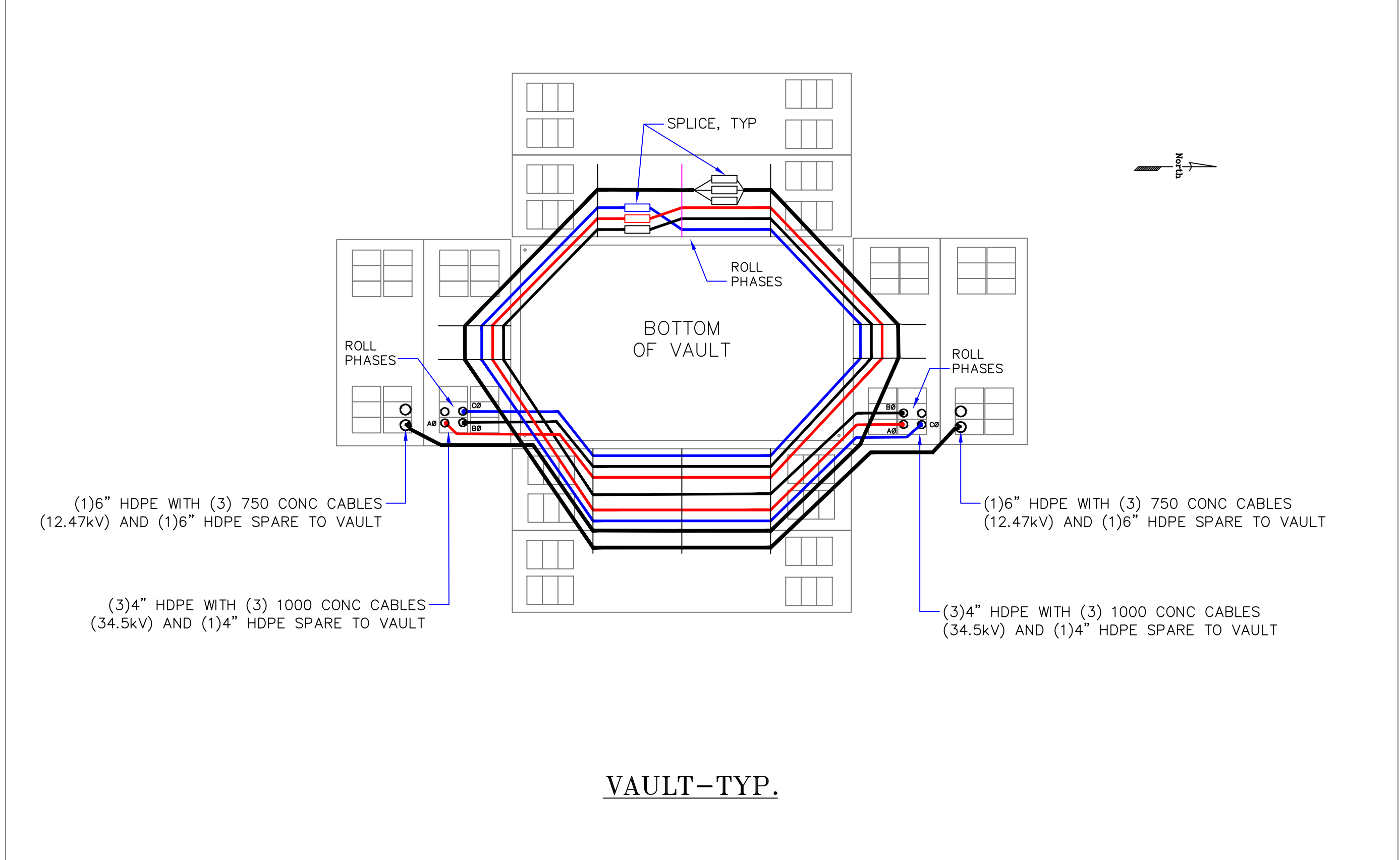
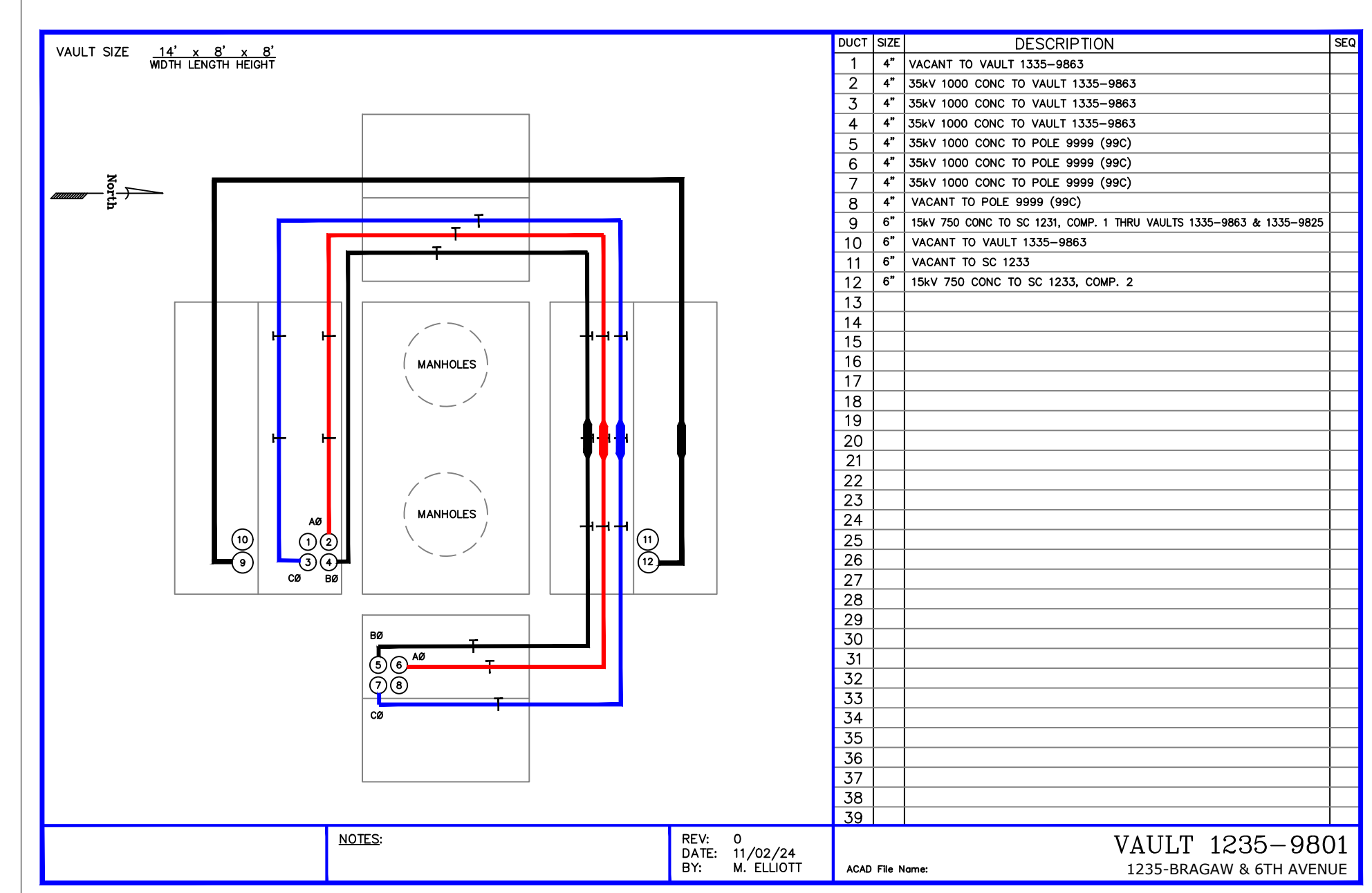
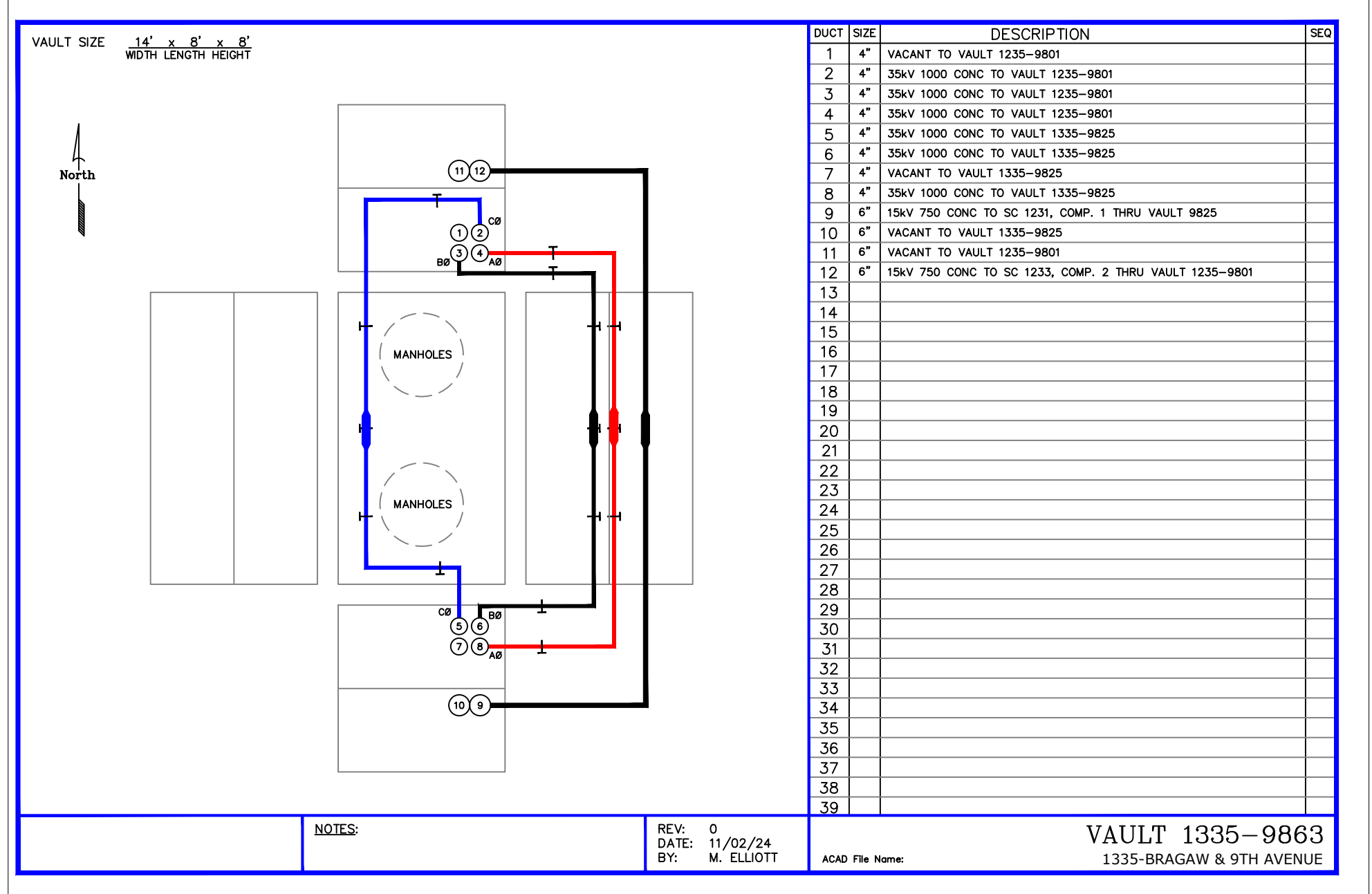
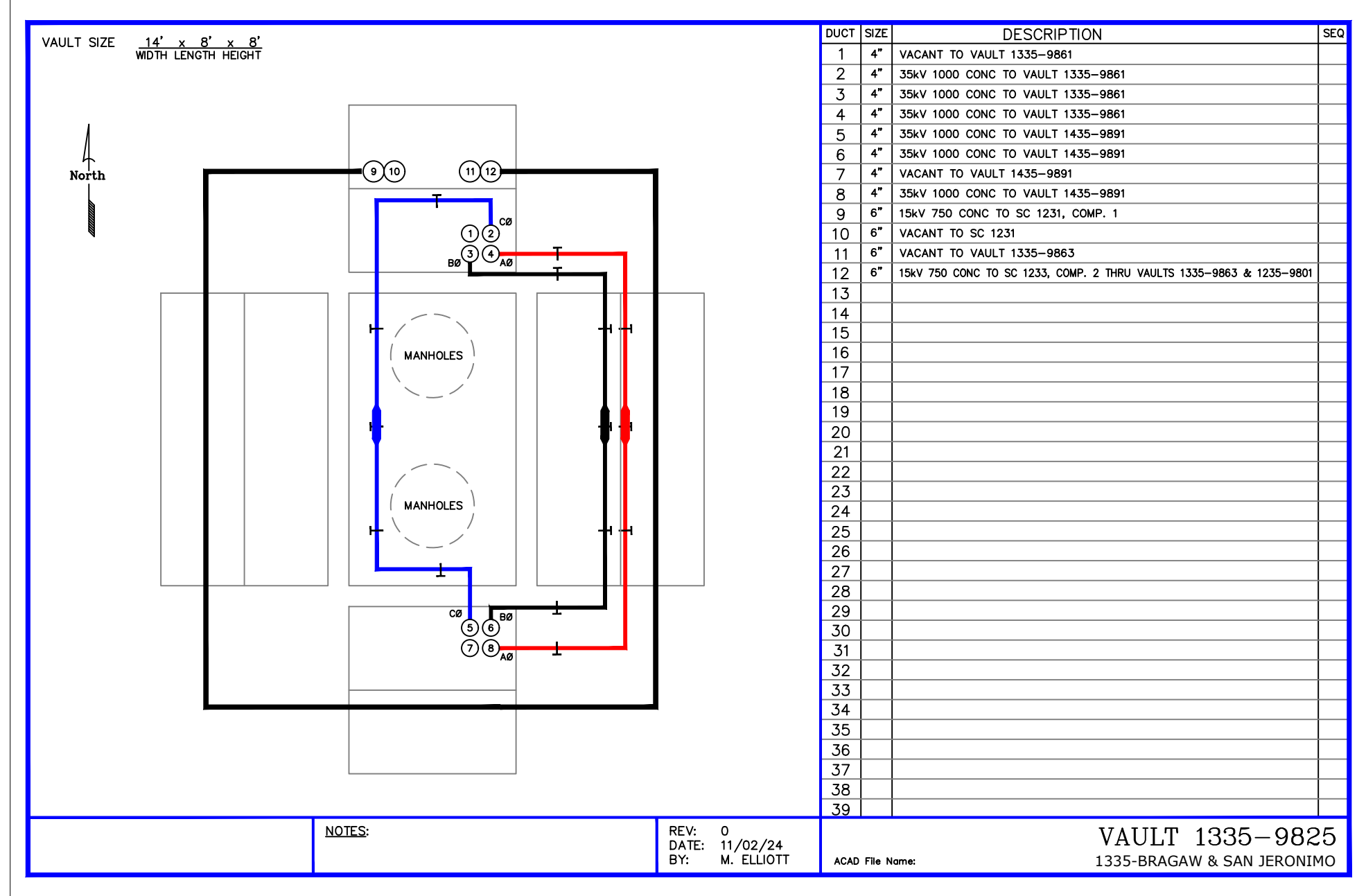
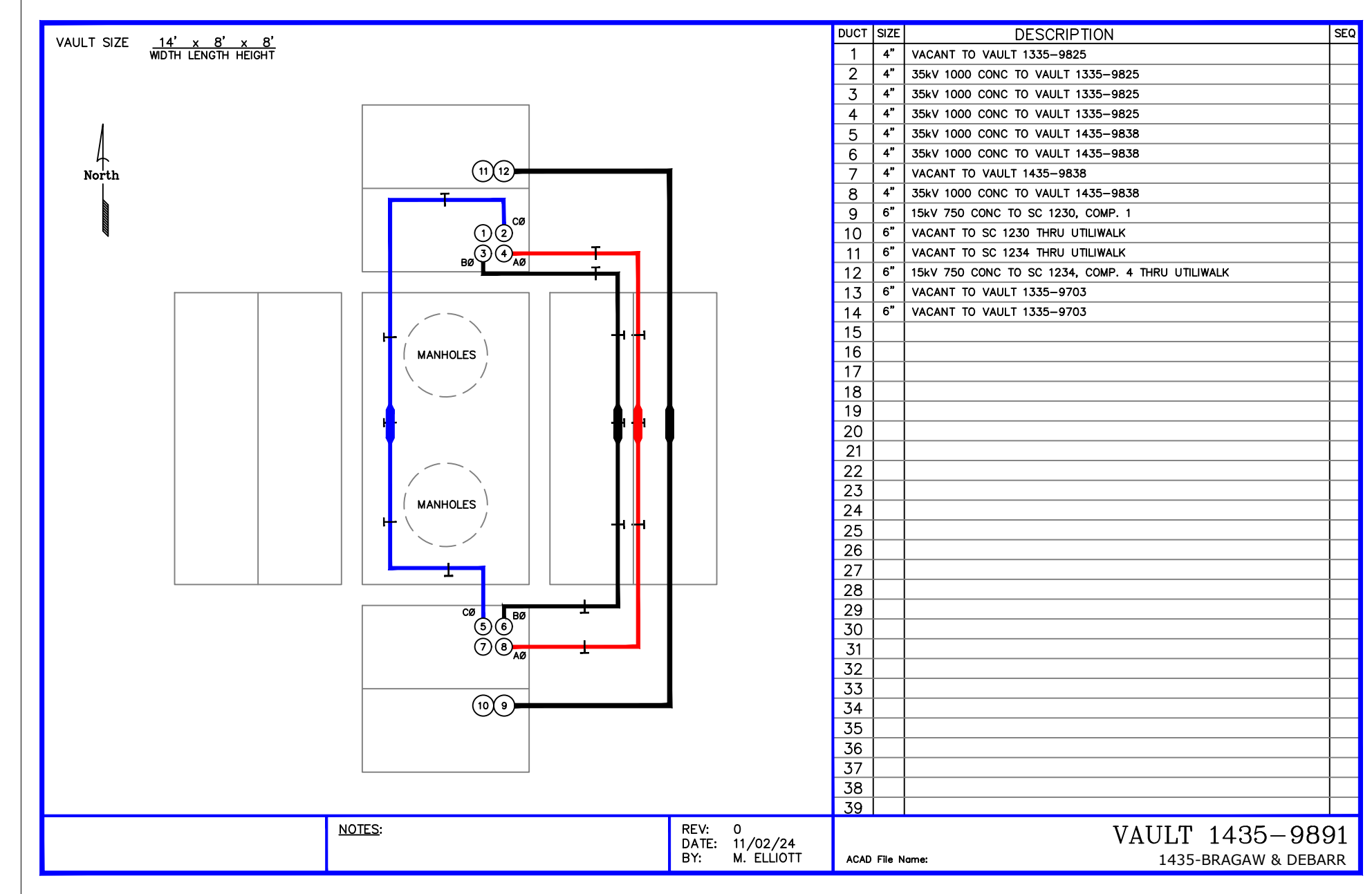
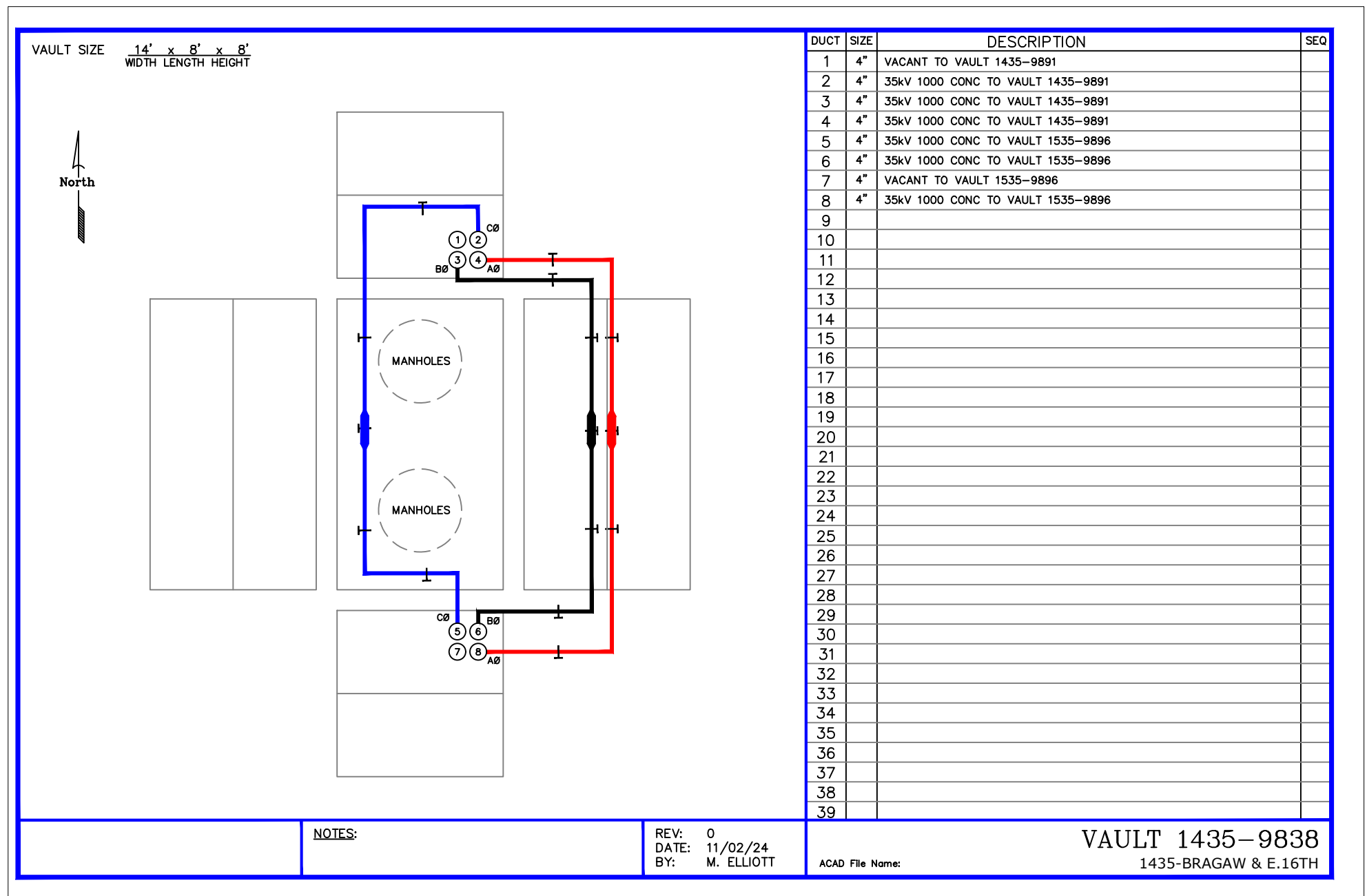
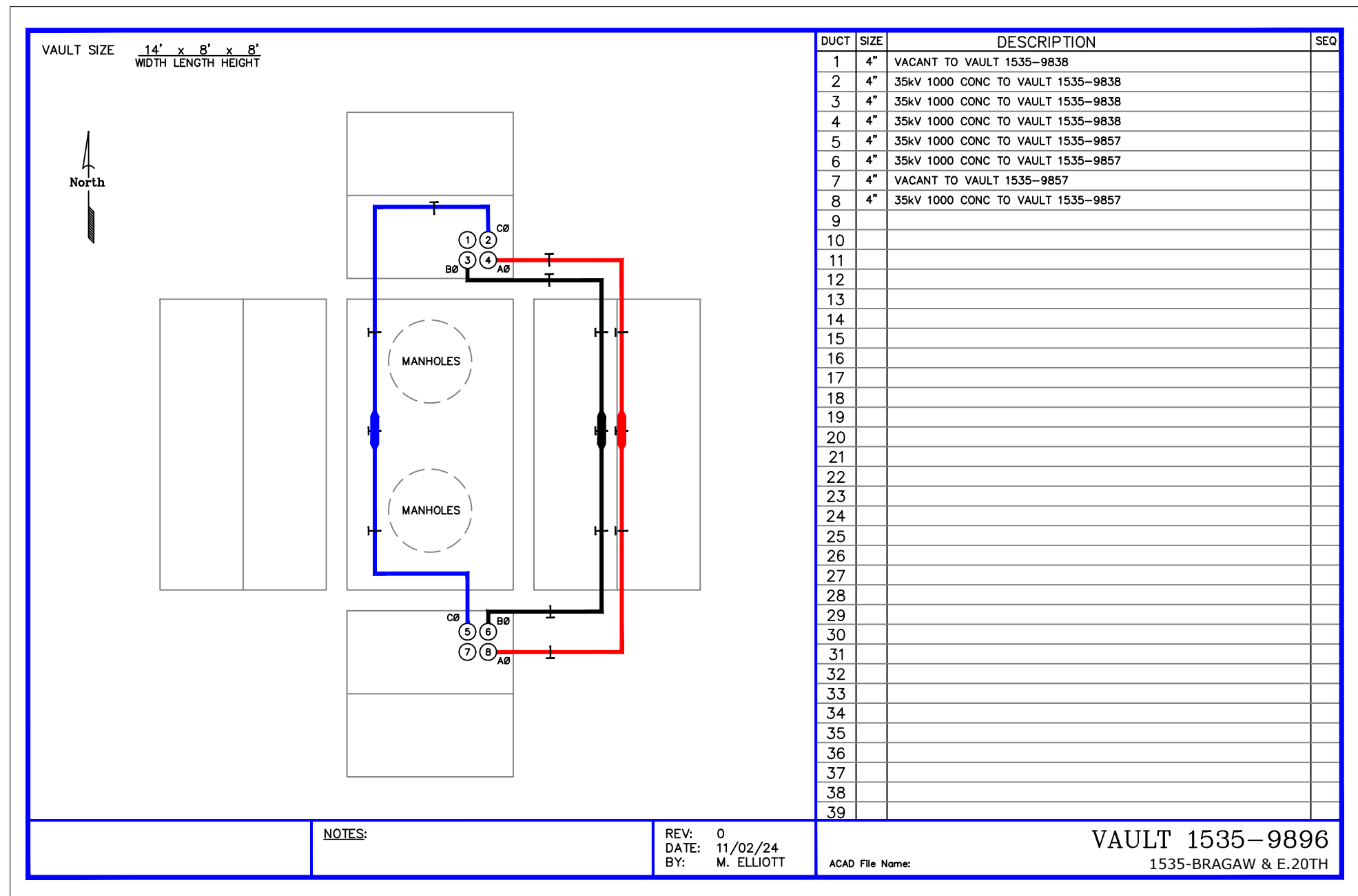
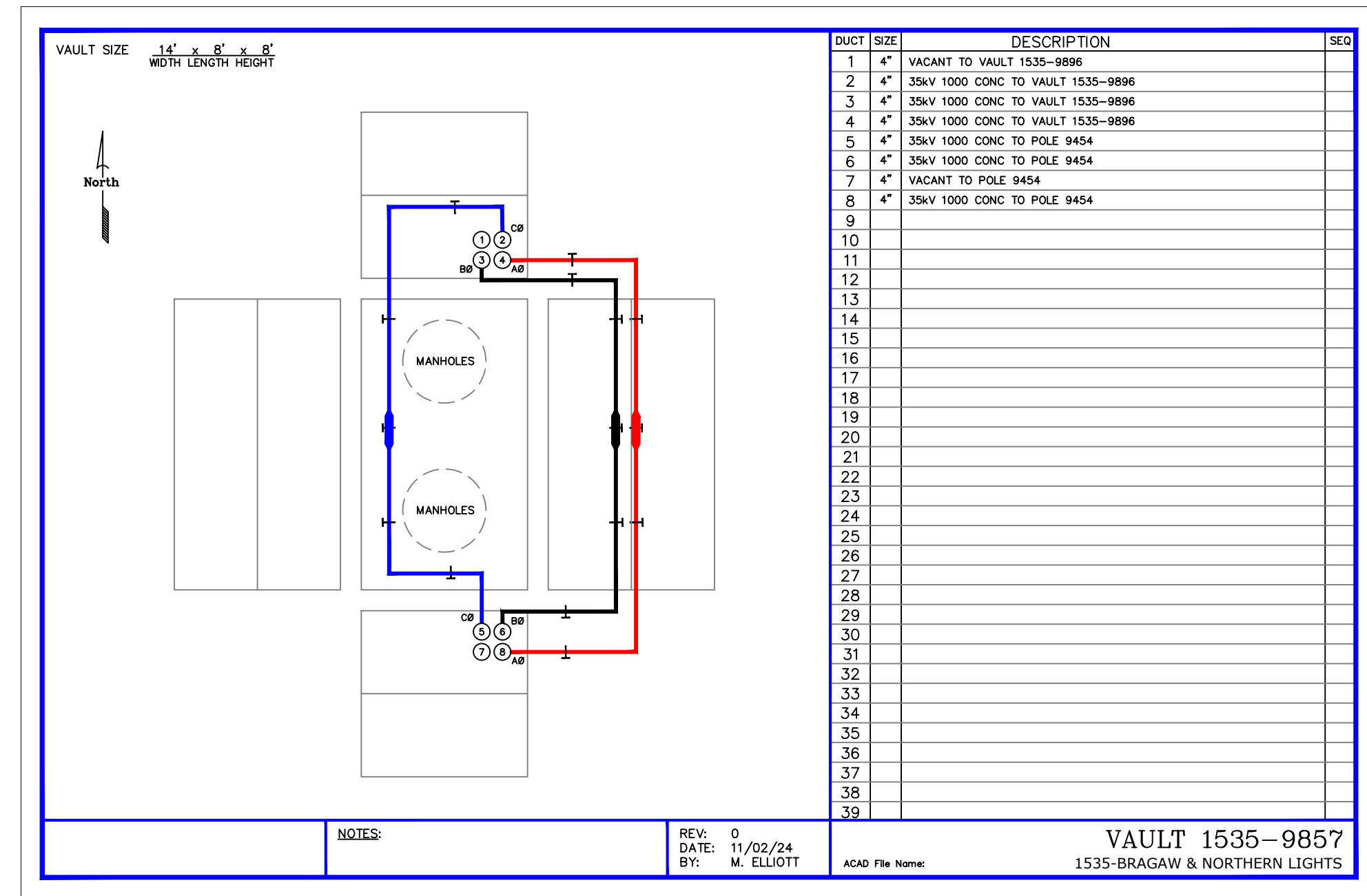
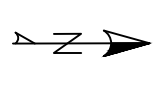
Chugach Electric Association, Inc.  
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DRAWING NAME:	DRAWING NO. - PREVIOUS/REFERENCE	SHEET NO. OF TOTAL SHEETS
34.5KV SUBTRANSMISSION NORTHERN LIGHTS TO 6TH AVE STRUCTURE AND ASSEMBLY DEATILS		0002 OF 0003

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NOTES:  
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WITH DISTRIBUTION WORK ORDER E2314215



PROJECT: BRAGAW 34.5kV NORTHERNLIGHTS BLVD TO 6TH AVE.				
ENG./DESIGN: M. ELLIOTT & V. KRIVONOSOV <i>ME &amp; VK</i> W.O. # E1720054				
NO.	DESIGN/CONSTRUCTION/ASBUILT REVISION	DWN. BY/DATE	REVIEWED MGR./SUPV./DATE	APPROVED DIRECTOR/DATE
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1	X	CC	-	-	XXX	11/11/19



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Anchorage, Alaska 99519-6300

DRAWING NAME: 34.5KV SUBTRANSMISSION NORTHERN LIGHTS TO 6TH AVE. STRUCTURE AND ASSEMBLY VAULT DETAILS	
<b>CONFIDENTIAL</b>	KLSJ-PP-0015-0001-0
DRAWING NO. - PREVIOUS/REFERENCE NEW	
DRAWING NO.: AJKJ-SS-0003	SHEET 0003 OF 0003 PAGE OF