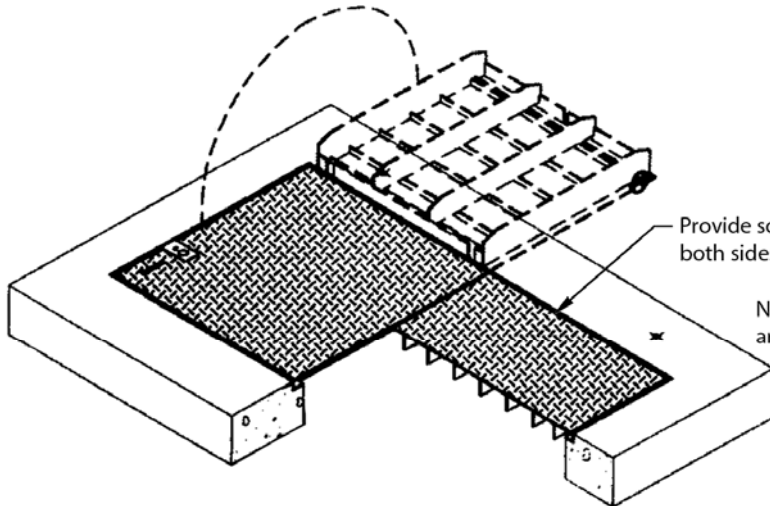


CONSTRUCTION GUIDELINE

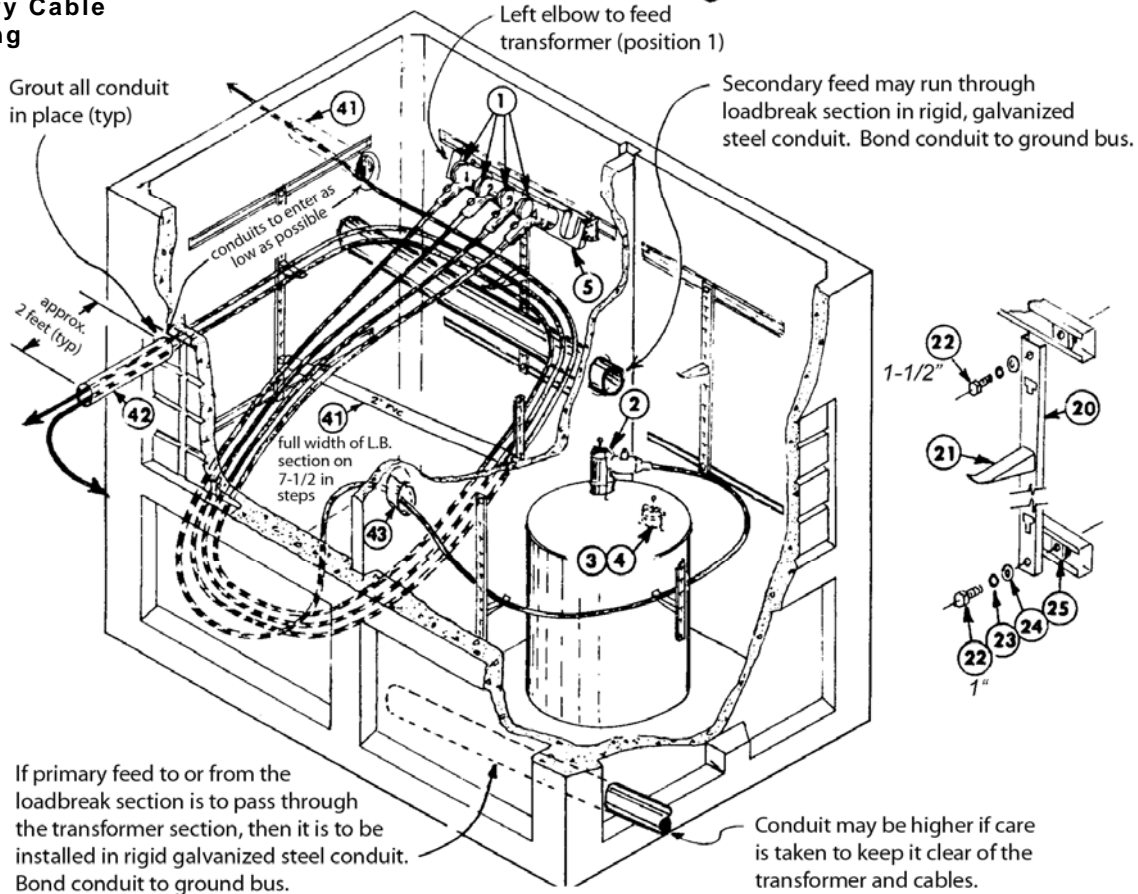
577 VAULT TRANSFORMER AND JUNCTION BOX INSTALLATION, GROUNDING AND CONNECTIONS



Provide solid cover over both sides of vault

NOTE: Do not place obstructions around vault hatches. See U9-6.

Primary Cable Racking



standards coordinator	standards manager	unit director
 Curtis Lu	 John Shipek	 Pam S. Johnson

CONSTRUCTION GUIDELINE

577 Vault Transformer and Junction Box Installation,
Grounding and Connections

standard number: **U9-5**

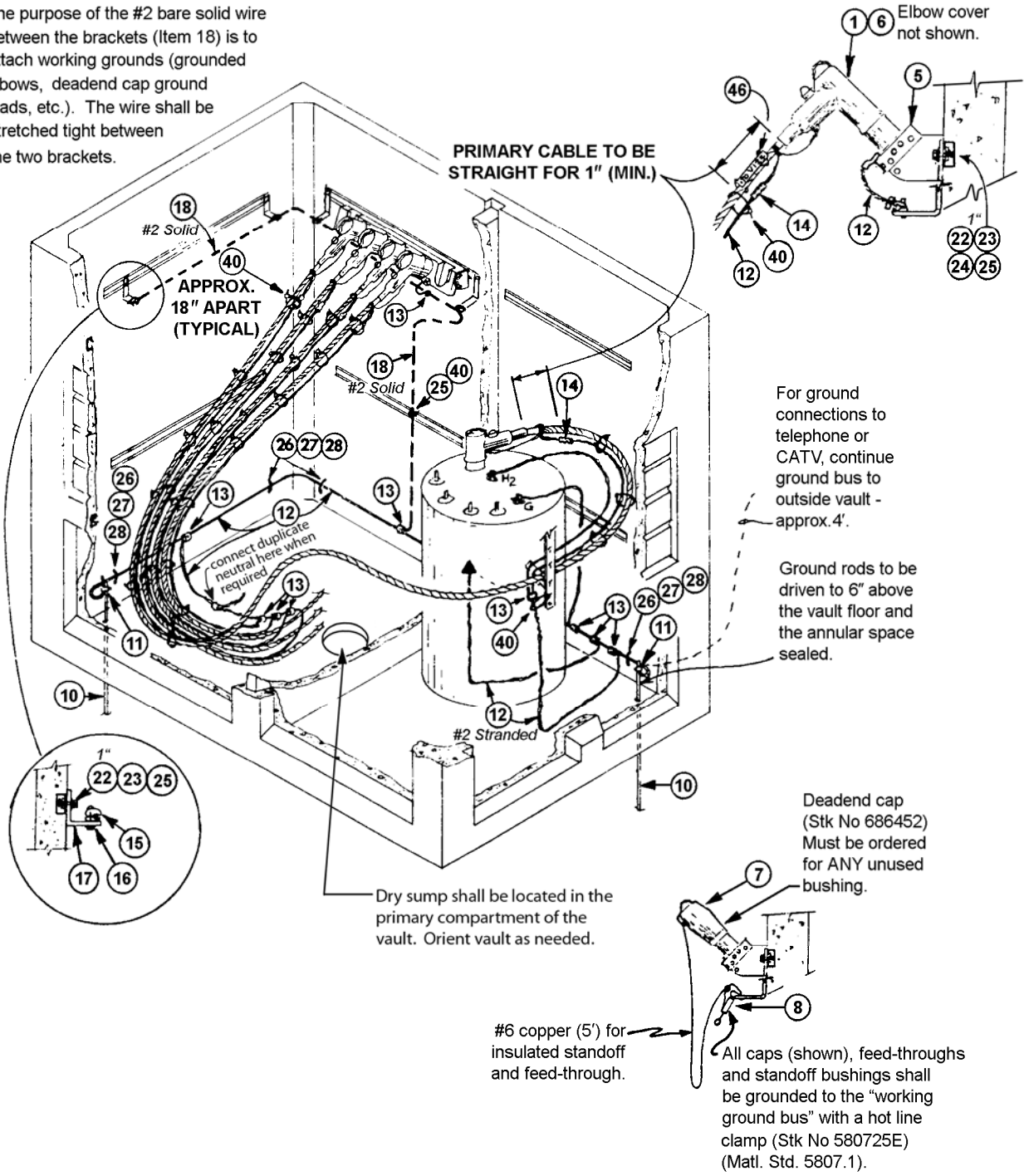
superseding: September 10, 2008

effective date: July 20, 2010

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Grounding

The purpose of the #2 bare solid wire between the brackets (Item 18) is to attach working grounds (grounded elbows, deadend cap ground leads, etc.). The wire shall be stretched tight between the two brackets.



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PRIMARY CABLE TO BE STRAIGHT FOR 1" (MIN.)

APPROX. 18" APART (TYPICAL)

For ground connections to telephone or CATV, continue ground bus to outside vault - approx. 4'.

Ground rods to be driven to 6" above the vault floor and the annular space sealed.

Deadend cap (Stk No 686452) Must be ordered for ANY unused bushing.

#6 copper (5') for insulated standoff and feed-through.

All caps (shown), feed-throughs and standoff bushings shall be grounded to the "working ground bus" with a hot line clamp (Stk No 580725E) (Matl. Std. 5807.1).

Dry sump shall be located in the primary compartment of the vault. Orient vault as needed.

CONSTRUCTION GUIDELINE

577 Vault Transformer and Junction Box Installation,
Grounding and Connections

standard number:

U9-5

superseding:

September 10, 2008

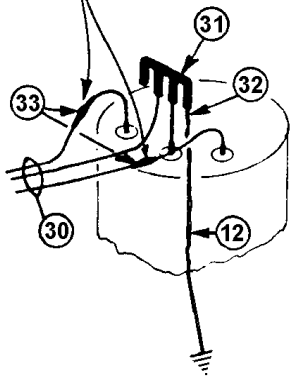
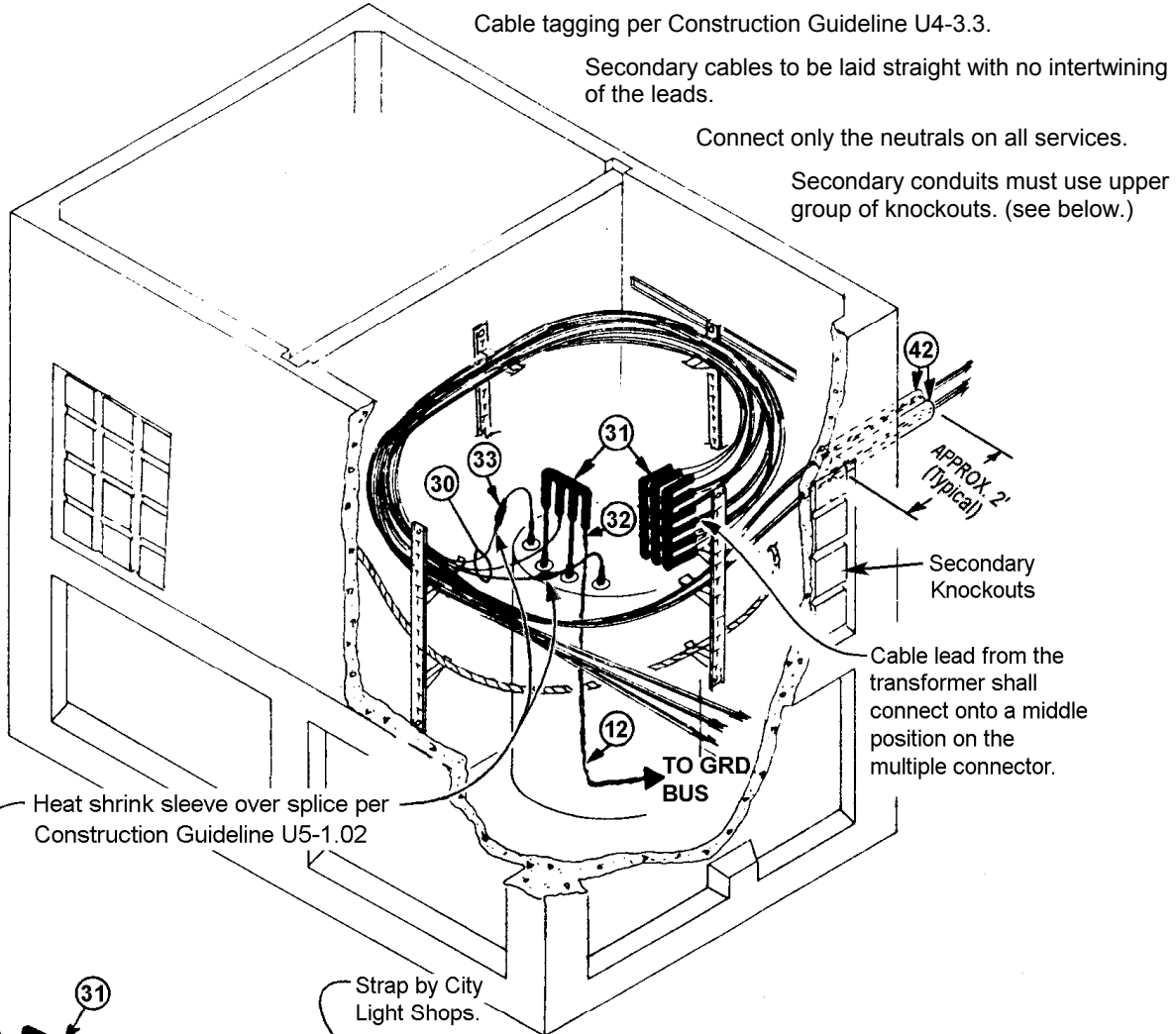
effective date:

July 20, 2010

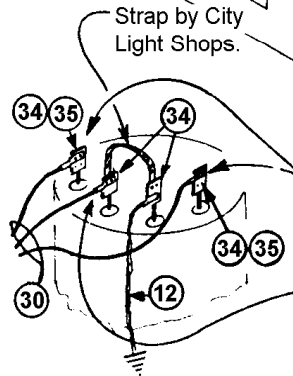
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Secondary Cable Racking and Connections



3 Cable Lead Transformers
25, 50 & 75 kVa



4 Spade Transformers
100 & 167 kVa

Tape "HOT" spades per Construction Guideline U11-9. Do not tape neutral spades.

Heat shrink sleeve over barrel of neutral terminal lug and cable per Construction Guideline U5-1.02 to seal and prevent water from entering the cable.

CONSTRUCTION GUIDELINE577 Vault Transformer and Junction Box Installation,
Grounding and Connectionsstandard number: **U9-5**

superseding: September 10, 2008

effective date: July 20, 2010

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Material List

Item	Quantity	Description	Stock No.
1	3 or 4	ELBOW, Load Break, 15.2/26.3 kV	686445
2	1	ELBOW, Dead Break, 15.2 kV to ground	686416
3	0 or 1	RECEPTACLE, Dead End Cap, for 2 bushing transformers	686411
4	0 or 1	BAIL, Hold Down for dead end caps	686563
5	1	JUNCTION BOX, Load Break	686454
		3 Position	686455
		4 Position	686455
6	3 or 4	COVER, Load Break Elbow, 1 per elbow	686467
7	As required	CAP, Insulating Dead End	686452
8	As required	CLAMP, Hot Line Tap	580725E
10	2	ROD, Ground, 5/8" x 8' copper clad	564238E
11	2	CLAMP, Ground Rod, medium duty, 5/8" to #2	564012E
12	70' (estimate)	WIRE, #2 Bare, stranded copper, soft drawn	610434
13	9 (estimate)	CONNECTOR, Parallel #2 - #2 crimpet	677326E
14	4 or 5	SPLICE, Straight, copper, #2 - #2, 1 per elbow	677357E
15	4	CONNECTOR, Grounding, cable To flat, #4 - #2/0	676674
16	4	WASHER, Cut, bronze, 3/8"	788024E
17	4	BRACKET, Ground Support, Unistrut	686466
18	12'	WIRE, #2 Bare, solid copper HD	610006
20	7	RACK, 30" - 18 Hole, galvanized	721666E
21	3 (estimate)	HOOKS, Cable Rack, galvanized steel	7206.2
	7 (estimate)	4"	7206.2
		7-1/2"	7206.2
		14"	7206.2
22	13 (estimate)	BOLT, Machine, zinc plated	784825E
	7 (estimate)	1/2" x 1"	784827E
		1/2" x 1-1/2"	784827E
23	20 (estimate)	LOCK WASHER, galvanized	584255E
		1/2"	584255E
24	13 (estimate)	FLAT WASHER, galvanized	585025E
		1/2"	585025E
25	20 (estimate)	NUT, Unistrut, P4010	723607E
		1/2"	723607E
26	4 (estimate)	CABLE TIE, plastic, 0.184" x 7"	735805E
27	4 (estimate)	MOUNTING BASE, for cable tie, 1/2"	735852
28	4 (estimate)	ANCHOR, Stud Bolt, 1/4" x 1-3/4"	780091E
30	36' (estimate)	CABLE, 600 Volt, copper XLP	613735
		4/0 For 25 kVA transformers	613735
		4/0 For 50 kVA transformers	613740
		500 for 75 kVA transformers	613740
		500 for 100 kVA transformers	613740
31	3 or 4	CONNECTOR, Multiple, 4 through 8 positions, including connectors, sleeves and covers, as specified, refer to Construction Guideline U5-1.10	-
32	1	CONNECTOR, Lug #2, Cu for transformer ground	012729
33	2 or 0	SPLICE, Straight, copper	677360
		2/0 - 2/0	677362
		4/0 - 4/0	677367
		500 - 500	677367
34	0 or 3	TERMINAL, Compression Lug, copper	677091
	0 or 1	500 kcmil	677071
		#2 (transformer ground)	677071
35	0 or 8	Nuts, Bolts, Washers and Tape (refer to Construction Guideline U11-9)	-
40	35 (estimate)	TIE STRAP, plastic	735806
	5 (estimate)	7"	735811
		14"	735811
41	10' (estimate)	CONDUIT, PVC, Schedule 40, 2"	734530
42	10' (estimate)	CONDUIT, PVC, Schedule 40, 3"	734532
43	1	CABLE PROTECTOR, nylon	731801E
46	3 or 4	TAG, Cable Identification	735800E