

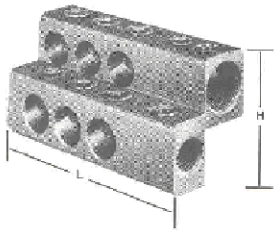
1700

UNDERGROUND SECONDARY

5/13/2024

- ~ UB30-UB60 Basic Units - Underground Secondary
- C UE18,UE38 Secondary J-Box 17" x 30" x 18" Deep (Light Duty)
Secondary J-Box 24" x 36" x 18"
- C UED6 Secondary Pedestal Assembly
- ~ US-1 UG Secondary Splice
- C US6,US7 Padmount Transformer Assembly 1Ø Secondary
- ~ US35-US38 Secondary Connectors 3Ø Padmount Transformer

- N** New Standard
- R** Redrawn Standard
- C** Changed Standard
- ~ No Change



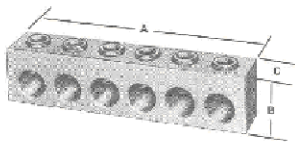
Single Phase Padmount Transformer Terminal

UB30's	Material Descriptions	TDM #	Const. Spec.
	Connector PTL 4-250 UG Al/Cu 6 to 4/0	1439	UB30
	Connector PTL 4-350 UG Al/Cu 6 to 350	539	UB31
	Connector PTL 6-250 UG Al/Cu 6 to 4/0	540	UB32
	Connector PTL 6-350 UG Al/Cu 6 to 350	541	UB33
	Connector PTL 6-500 UG Al/Cu 2 to 500	542	UB34



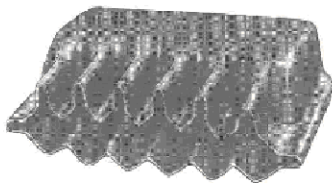
Three Phase Padmount Transformer Terminal

See US35 through US40 for Three Phase Padmount Transformer Terminals



Pedestal and Junction Box Connector

UB50's	Material Descriptions	TDM #	Const. Spec.
	Connector PTL 4-250 UG Al/Cu 6 to 4/0	527	UB50
	Connector PTL 4-350 UG Al/Cu 6 to 350	528	UB51
	Connector PTL 4-500 UG Al/Cu 2 to 500	529	UB52
	Connector PTL 6-250 UG Al/Cu 6 to 4/0	530	UB53
	Connector PTL 6-350 UG Al/Cu 6 to 350	531	UB54
	Connector PTL 6-500 UG Al/Cu 2 to 500	532	UB55
	Connector PTL 6-750 UG Al/Cu 350 to 750	533	UB56
	Connector PTL 8-500 UG Al/Cu 2 to 500	534	UB57
	Connector PTL 8-750 UG Al/Cu 2 to 750	535	UB58



PTL, PET, PED Cover

UB60's	Material Descriptions	TDM #	Const. Spec.
	Cover, Connector 4-350 UG	573	UB60
	Cover, Connector 6-500 UG	574	UB61
	Cover, Connector 8-500 UG	575	UB62
	Cover, Connector 8-750 UG	576	UB63



CONSTRUCTION STANDARDS

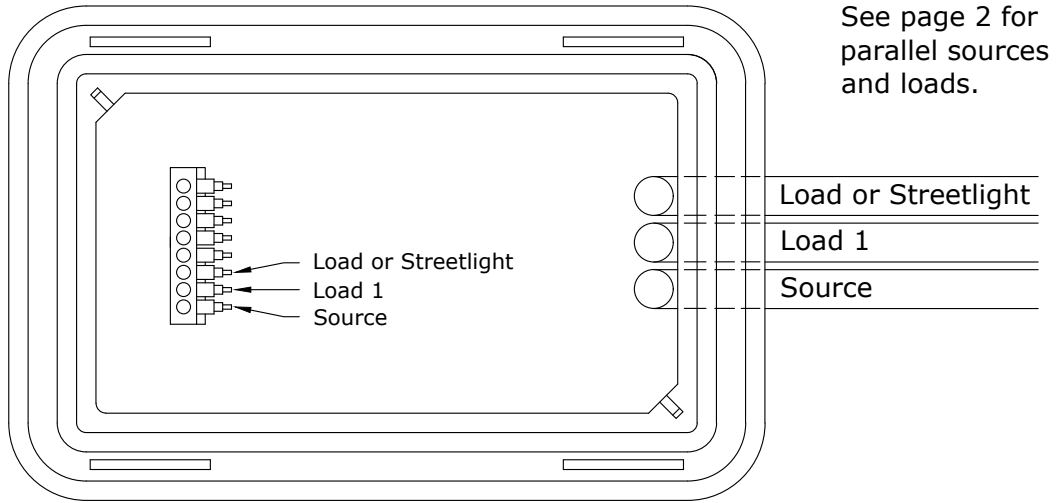
BASIC UNITS UNDERGROUND SECONDARY

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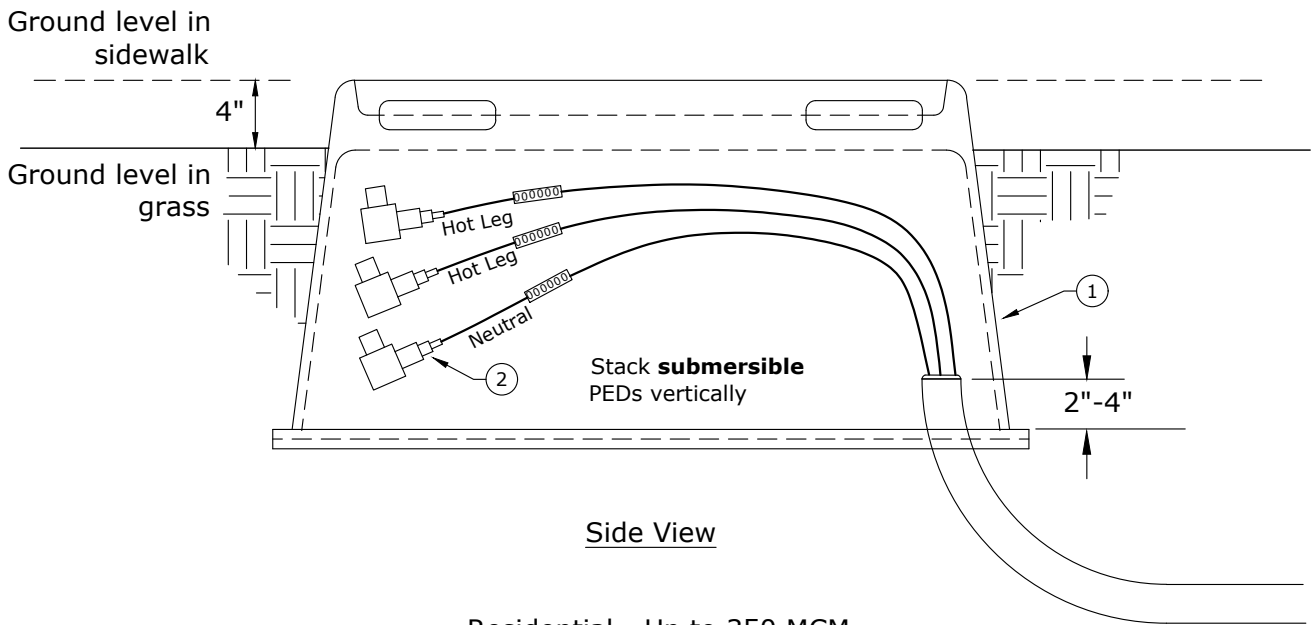
UB30, UB40, UB50, UB60

CAD FILE:
UB30

REVISIONS			
Δ	DATE	ENGR	OPS
3	8/16/02		
Δ REDRAWN IN CAD			
APP:	ELM	SECTION	
DATE:	1/22/80	1700	



Top View



Side View

Residential - Up to 350 MCM
Commercial - Up to 500 MCM

Notes:

1. Do not install S/N 2556 in streets, alleys, or highways.
2. Cut all cables long enough to allow makeup to be done above the box top with cables in an approximately vertical position.
3. Bend cables down after makeup so that lid can be installed.
4. Use silicone grease on all allen wrench plugs and cable boots (both ends).
5. If additional depth is needed, place one box upside down, bolt the 2 boxes together and salvage one lid. (S/N 2556 only).

Rev. 7 - Added drawing for parallel source and loads.



CONSTRUCTION STANDARDS

SECONDARY JUNCTION BOX
17" x 30" x 18" DEEP (LIGHT DUTY)
24" x 36" x 18" DEEP (HEAVY DUTY)

REVISIONS

DATE	ENGR	OPS
10/29/18	KJP	
6/24/19	JDK	
12/2/19	KJP	
12/9/22	CRM	GM

PAGE:
1 of 2

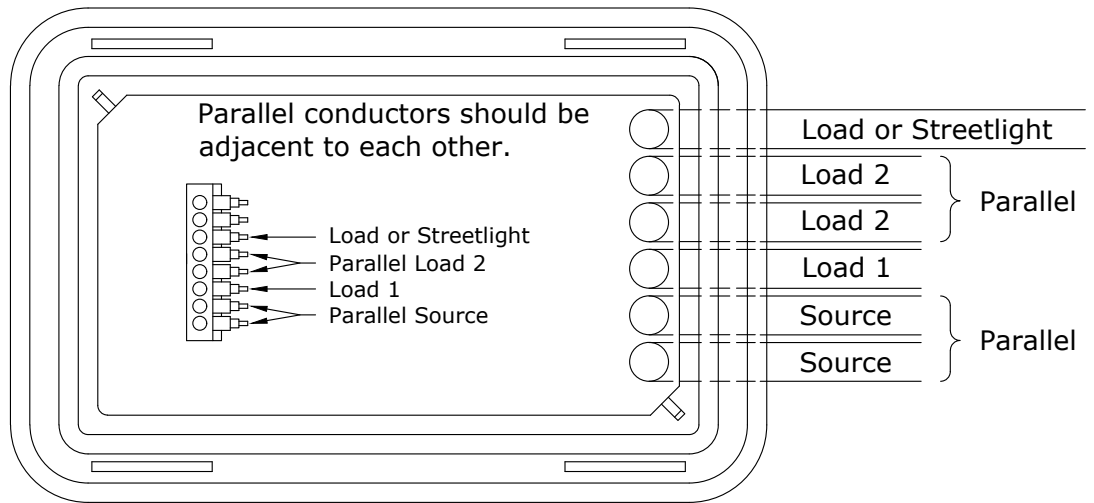
UE18,UE38

CAD FILE:
UE18

APP: GGW/RWG
DATE: 4/92

SECTION
1700

Zip tie ONE tag around each set of parallel cables.



Top View
Parallel Source and Loads

Occasional Traffic Areas (S/N 2556):

- Rated 10,000 pounds
- This box is NOT for use in streets, alley or highways. Do NOT use in driveways if location is part of the normal traveled way

Heavier Traffic Areas (S/N 2608):

- Rated 20,000 pounds
- This box is 24" x 36" x 18"
- May be used in alleys or driveways-only rated 20k
- Do NOT use in streets or highways

Rev. 7 - Added drawing for parallel source and loads.

ITEM NO	DESCRIPTION	UE18	
		QTY	S/N
1	Box, Junction, Secondary, Composite, Light Duty (10k lb) with Cover, 17" x 30" x 18" with Pentabolts	1	2556
2	Connector, Submersible, Sec., 8 Position, #12 to 500 MCM Al/Cu	3	2264
ITEM NO	DESCRIPTION	UE18H	
		QTY	S/N
1	Box, Junction, Secondary, Composite, Heavy Duty (20k lb) with Cover, 24" x 36" x 18" with Pentabolts	1	2608
2	Connector, Submersible, Sec., 8 Position, #12 to 500 MCM Al/Cu	3	2264
ITEM NO	DESCRIPTION	UE38	
		QTY	S/N
1	Box, Junction, Secondary, Composite, Light Duty (10k lb) with Cover, 17" x 30" x 18" with Pentabolts	1	2556
2	Connector, Submersible, Sec., 8 Position, #12 to 500 MCM Al/Cu	4	2264
ITEM NO	DESCRIPTION	UE38H	
		QTY	S/N
1	Box, Junction, Secondary, Composite, Heavy Duty (20k lb) with Cover, 24" x 36" x 18" with Pentabolts	1	2608
2	Connector, Submersible, Sec., 8 Position, #12 to 500 MCM Al/Cu	4	2264



CONSTRUCTION STANDARDS

SECONDARY JUNCTION BOX
17" x 30" x 18" DEEP (LIGHT DUTY)
24" x 36" x 18" DEEP (HEAVY DUTY)

PAGE:
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UE18,UE38

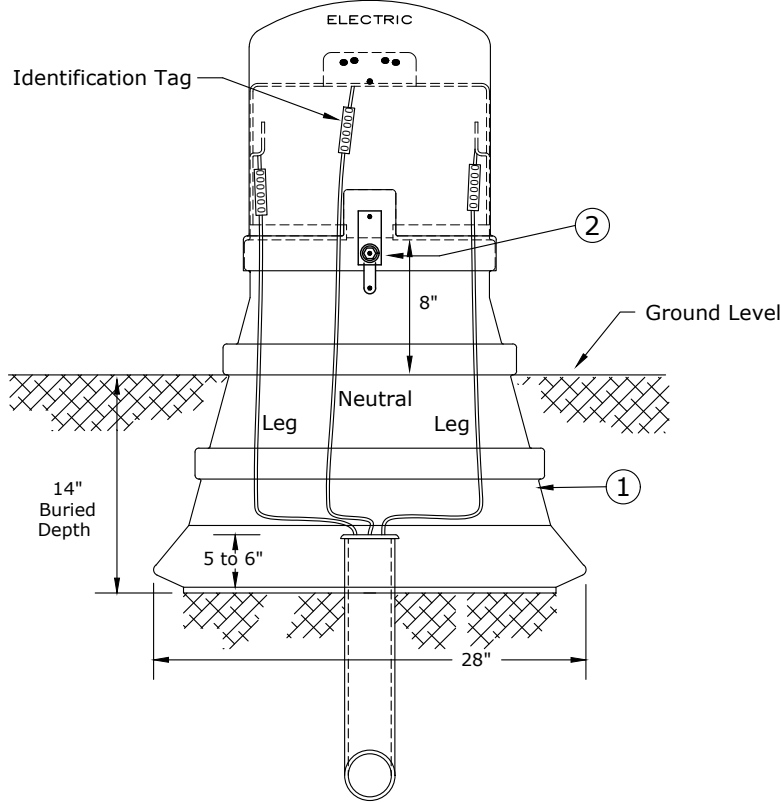
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UE18

REVISIONS			
Δ	DATE	ENGR	OPS
4	10/29/18	KJP	
5	6/24/19	JDK	
6	12/2/19	KJP	
7	12/9/22	CRM	GM

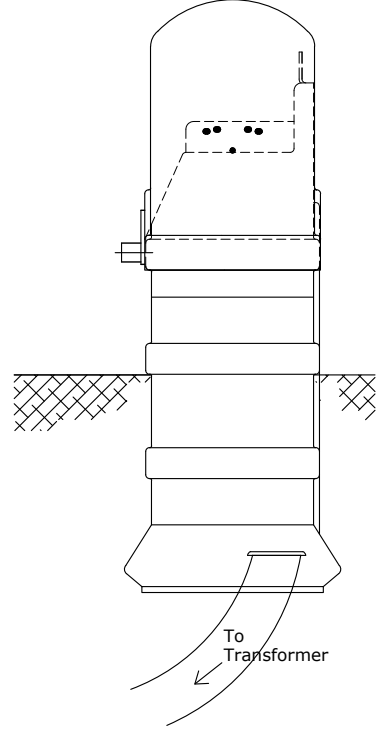
APP: GGW/RWG
DATE: 4/92

SECTION
1700

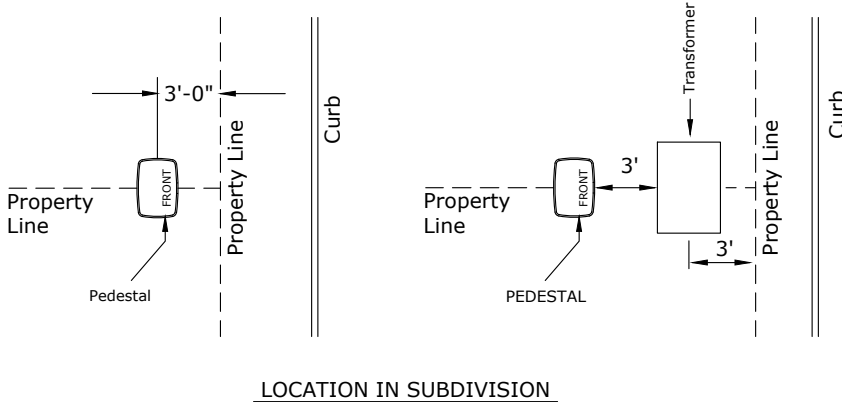
FRONT VIEW



SIDE VIEW



- Notes: 1.) Leave slack in wire to allow for settling.
 2.) Recommended torque for connectors: 23-38 ft-lb



FOR 480V SERVICE

⚠ WARNING	NOTICE
Hazardous voltage inside. Will shock, burn, or cause death. If unlocked or open Immediately call Clark Public Utilities 360-952-3000.	We need room to work safely on this electrical supply source. Please keep shrubs and structures 3 ft. away from all sides. Obstructions cause delays when restoring electric service.
480Volts	CAUTION
	811 UNDERGROUND POWER CABLES AND LOCATOR IN THIS AREA. CALL BEFORE YOU DIG 811

Add S/N 794 "480 VOLTS" Label to "WARNING" label when pedestal is used for 480 V service.

Rev. 4 - Removed ground rod for BDR.



CONSTRUCTION STANDARDS
 SECONDARY PEDESTAL ASSEMBLY

REVISIONS			
	DATE	ENGR	OPS
1	4/26/04	LB	AH
2	3/12/20	KJP	
3	12/9/22	CRM	GM
4	6/7/23	CSB	

PAGE:
1 of 3

UED6

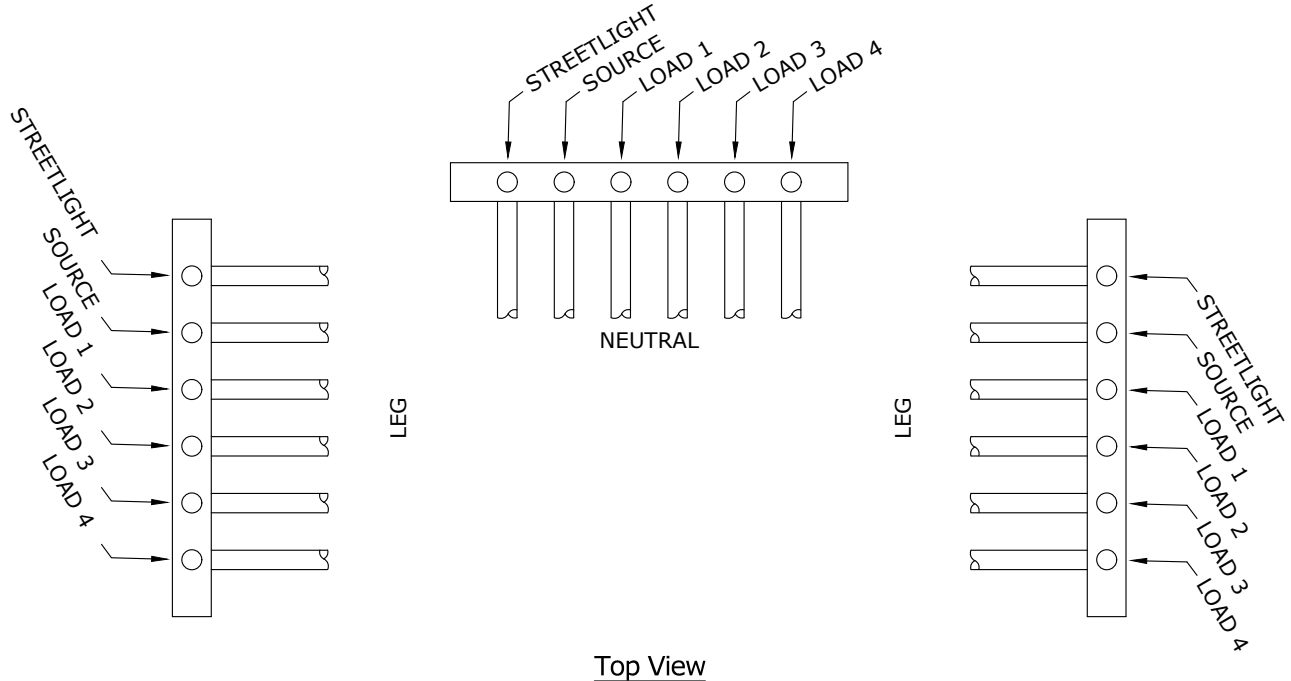
CAD FILE:
UED6

APP: HWH/ELM
DATE: 1980

SECTION
1700

DO NOT Cut Zip Ties off Plastic PED Covers
Zip Ties MUST Be Reinstalled

Back of Pedestal



Recommended torque: 23-38 ft-lb
Do NOT Use Impact Driver/Wrench

- Notes: 1.) Maximum cable size is 350 MCM.
 2.) Minimum cable size is #10.
 3.) Maximum of 6 triplex cables.

Rev. 4 - Removed ground rod for BDR.

ITEM NO	DESCRIPTION	UED6	
		QTY	S/N
1	Pedestal, Secondary, Above Ground, W/ Connectors and Covers *	1	2562
2	Lock, Equipment *	1	837



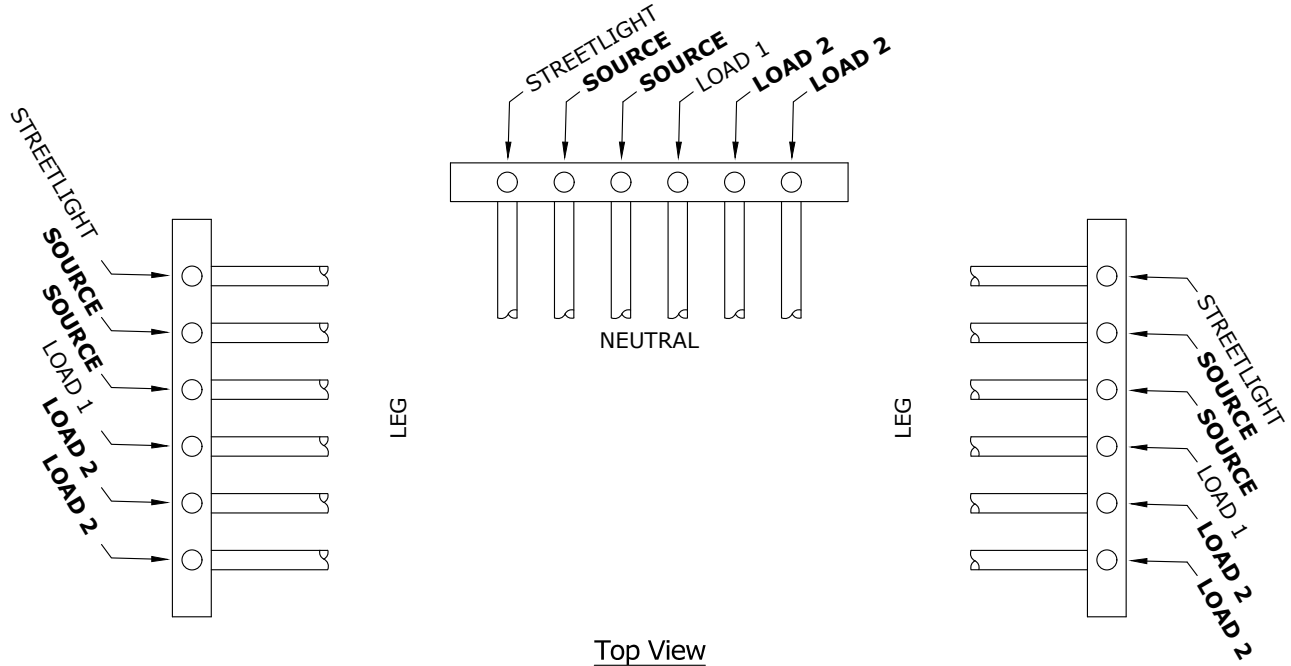
CONSTRUCTION STANDARDS
 SECONDARY PEDESTAL ASSEMBLY

REVISIONS			
Δ	DATE	ENGR	OPS
1	4/26/04	LB	AH
2	3/12/20	KJP	
3	12/9/22	CRM	GM
4	6/7/23	CSB	

DO NOT Cut Zip Ties off Plastic PED Covers
Zip Ties MUST Be Reinstalled

Zip tie ONE tag around each set of parallel cables

Back of Pedestal



Top View

Parallel Source and Loads

Recommended torque: 23-38 ft-lb
Do NOT Use Impact Driver/Wrench

- Notes: 1.) Maximum cable size is 350 MCM.
 2.) Minimum cable size is #10.
 3.) Maximum of 6 triplex cables.

Rev. 4 - Removed ground rod for BDR.

ITEM NO	DESCRIPTION	UED6	
		QTY	S/N
1	Pedestal, Secondary, Above Ground, W/ Connectors and Covers *	1	2562
2	Lock, Equipment *	1	837



CONSTRUCTION STANDARDS
 SECONDARY PEDESTAL ASSEMBLY
 PARALLEL SOURCE AND LOADS

REVISIONS			
DATE	ENGR	OPS	
4/26/04	LB	AH	
3/12/20	KJP		
12/9/22	CRM	GM	
6/7/23	CSB		

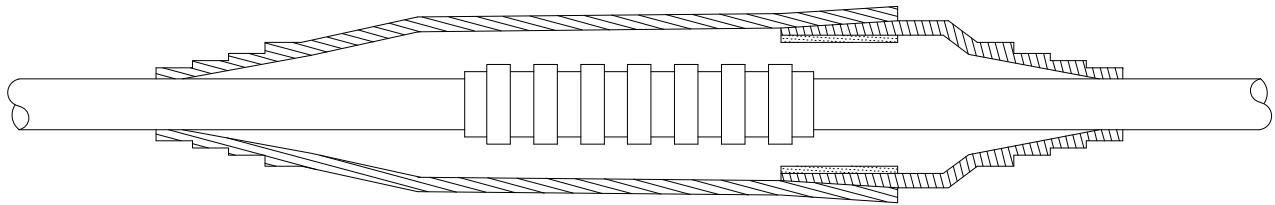
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UED6

CAD FILE:
UED6

APP: HWH/ELM
DATE: 1980

SECTION
1700



APPLY SILICONE GREASE TO CABLES FOR EASE OF ASSEMBLY.

NOTES:

1. THIS SPLICE IS FOR ANY 600 VOLT OR LESS APPLICATION.
2. THIS SPLICE CAN BE DIRECTLY BURIED OR USED IN A HAND HOLE OR VAULT.
3. OTHER SIZES ARE AVAILABLE FOR SPECIAL APPLICATIONS.

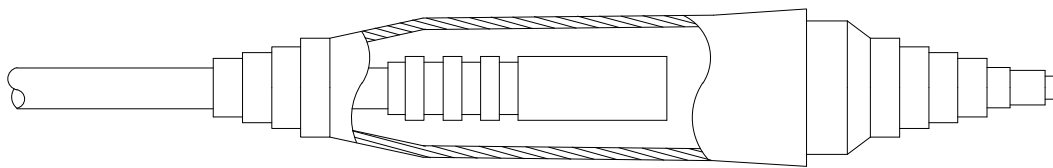
MATERIAL LIST

US-1

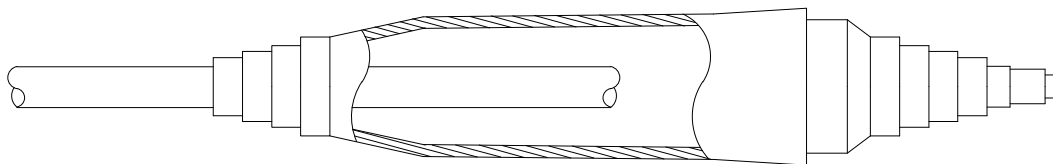
ITEM	QTY.	DESCRIPTION	SIN
1	1	SPLICE KIT, 600V, U.G.	1215
2	1	CONNECTOR, SLEEVE	#

WIRE SIZE	#SIN
2/0 AL	1166
4/0 AL	1167
350 AL	1169
2/0-4/0 AL	1454
4/0-350 AL	1455

OTHER USES



HALF-READY SPLICE



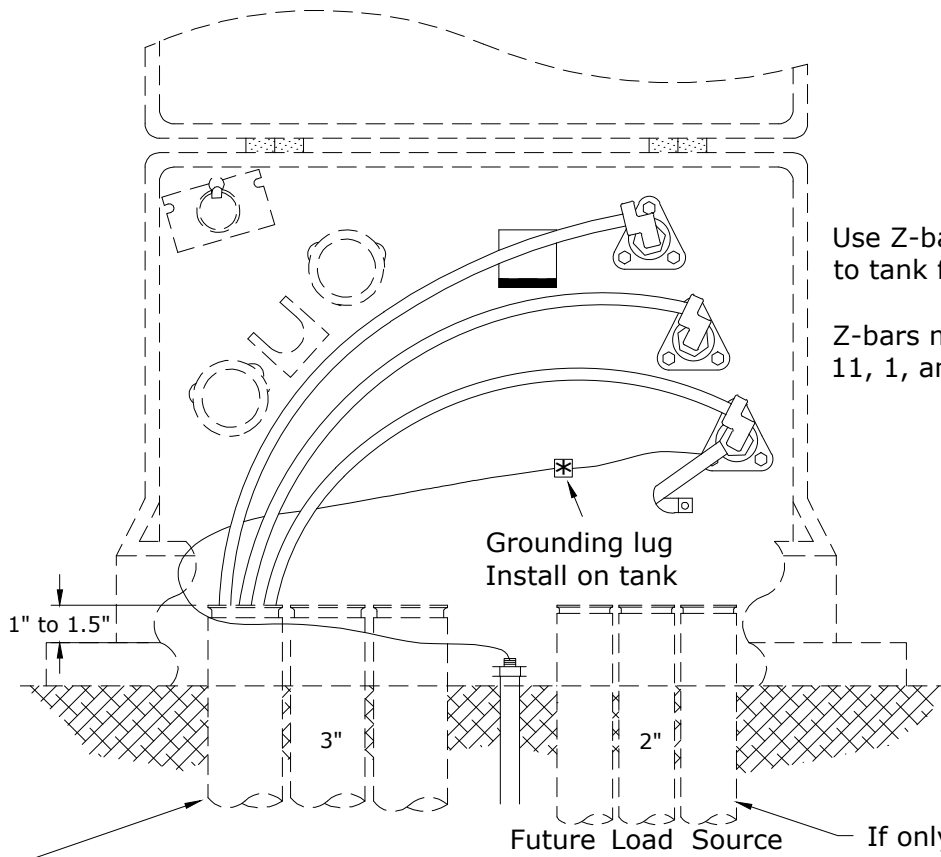
CABLE CAP



CONSTRUCTION STANDARDS
UNDERGROUND SECONDARY
SPLICE

REVISIONS

REV	DATE	ENGR	OPS
0	2/23/00	HWH	MA



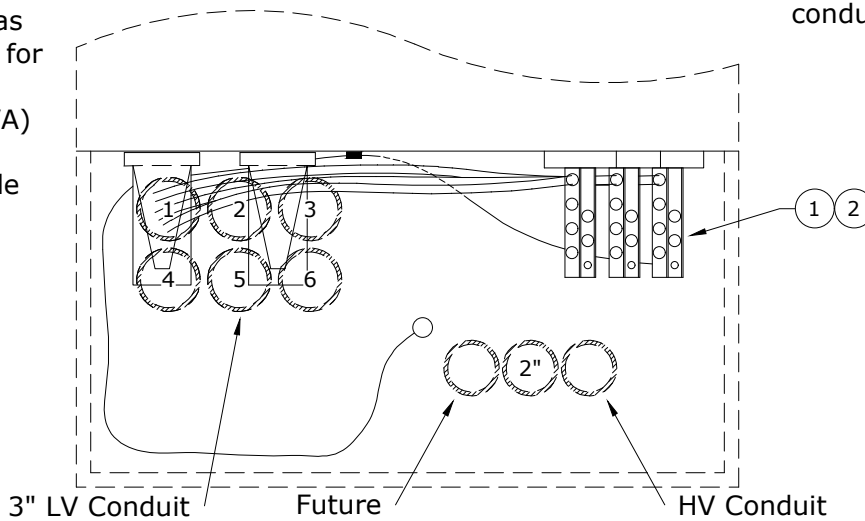
Use Z-bar positions nearest to tank first.

Z-bars must be oriented at 11, 1, and 1 o'clock.

If only source, leave room for future load conduit

Secondary conduits as needed (Maximum 4 for 25 and 50 kVA - Maximum 6 for 75kVA)

Start Makeup of Cable in Back Conduits Left to Right



TOP VIEW OF PAD WINDOW

- Notes:**
1. Use Std US6 for 25 to 75 kVA padmounts with 5/8" stud.
 2. Use Std US7 for 100 kVA padmounts with 1" stud.

Rev 3: Added US7 for 100 kVA padmount 1" stud for Z-bar connector, and updated drawing for maximum conduits.

ITEM NO.	DESCRIPTION	US6		US7	
		QTY.	S/N	QTY.	S/N
1	Connector, Z-bar, Al/Cu, 6-Position, #2-500MCM, w/ Streetlight Position	3	2265	3	2318
2	Cover, Connector, Z-bar, 6-Position	3	2266	3	2266



CONSTRUCTION STANDARDS
PADMOUNT TRANSFORMER ASSEMBLY
SINGLE PHASE SECONDARY

REVISIONS			
Δ	DATE	ENGR	OPS
1	2/23/00	HWH	MA
2	12/29/04	LB	AH
3	5/8/24	DK	

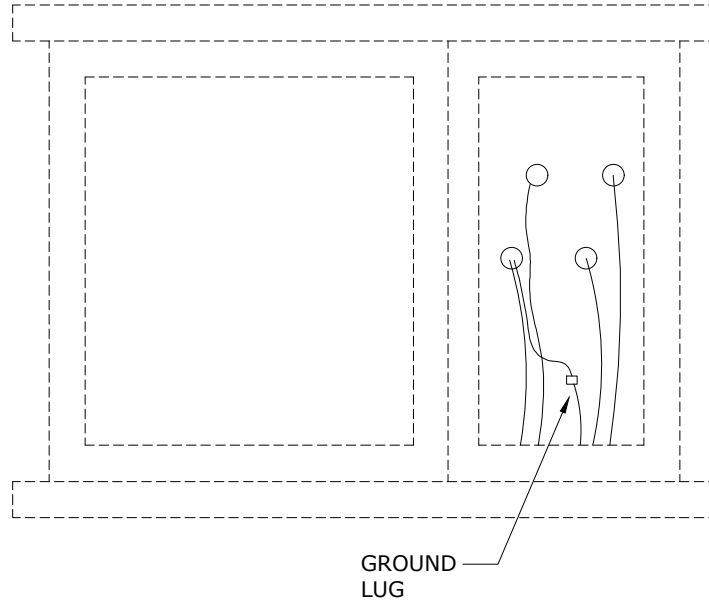
PAGE:
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US6,US7

CAD FILE:
US6,US7

APP: GGW/BG
DATE: 4/1988

SECTION
1700



US35
US36

Notes:

1. This specification covers 3ø padmounted transformers 75 through 1500 kVA, 120/208 V and 277/480 V.
2. Conductor size range is 1/0 through 750 kcmil.
3. See Std UT30-UT32 - Underground Transformers - Section 1400 for mounting arrangement.

Rev. 2 - Removed US37 & 38 due to secondary bushing leaks and clearance problems in secondary compartment of transformer.

ITEM NO.	DESCRIPTION	US35	
		QTY.	S/N
1	Connector, PET, 6-750 Al/Cu 1/0 to 750	4	2129
2	1/2" Belleville Assembly, SS 2" Bolt and Washers W/ Bronze Nut	4	1389
3	Cover, Connector, 6-750	4	2176

ITEM NO.	DESCRIPTION	US36	
		QTY.	S/N
1	Connector, PET, 6-750 Al/Cu 1/0 to 750	4	2129
2	1/2" Belleville Assembly, SS 2 1/2" Bolt and Washers W/ Bronze Nut	4	2584
3	Cover, Connector, 6-750	4	2176



CONSTRUCTION STANDARDS
SECONDARY CONNECTORS
THREE PHASE PADMOUNT TRANSFORMERS

REVISIONS			
Δ	DATE	ENGR	OPS
1	11/12/10	KJP	
2	9/21/21	JDK	

APP: HWH/MA	SECTION 1700
DATE: 2/23/00	