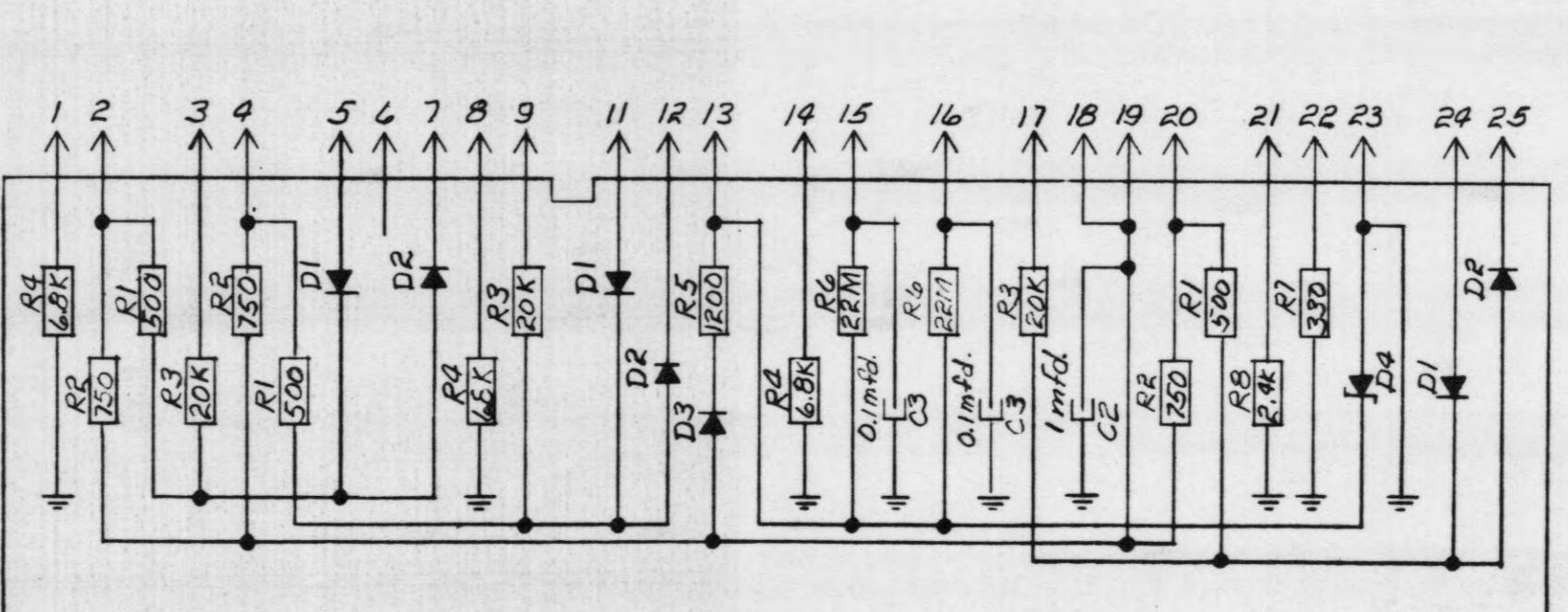
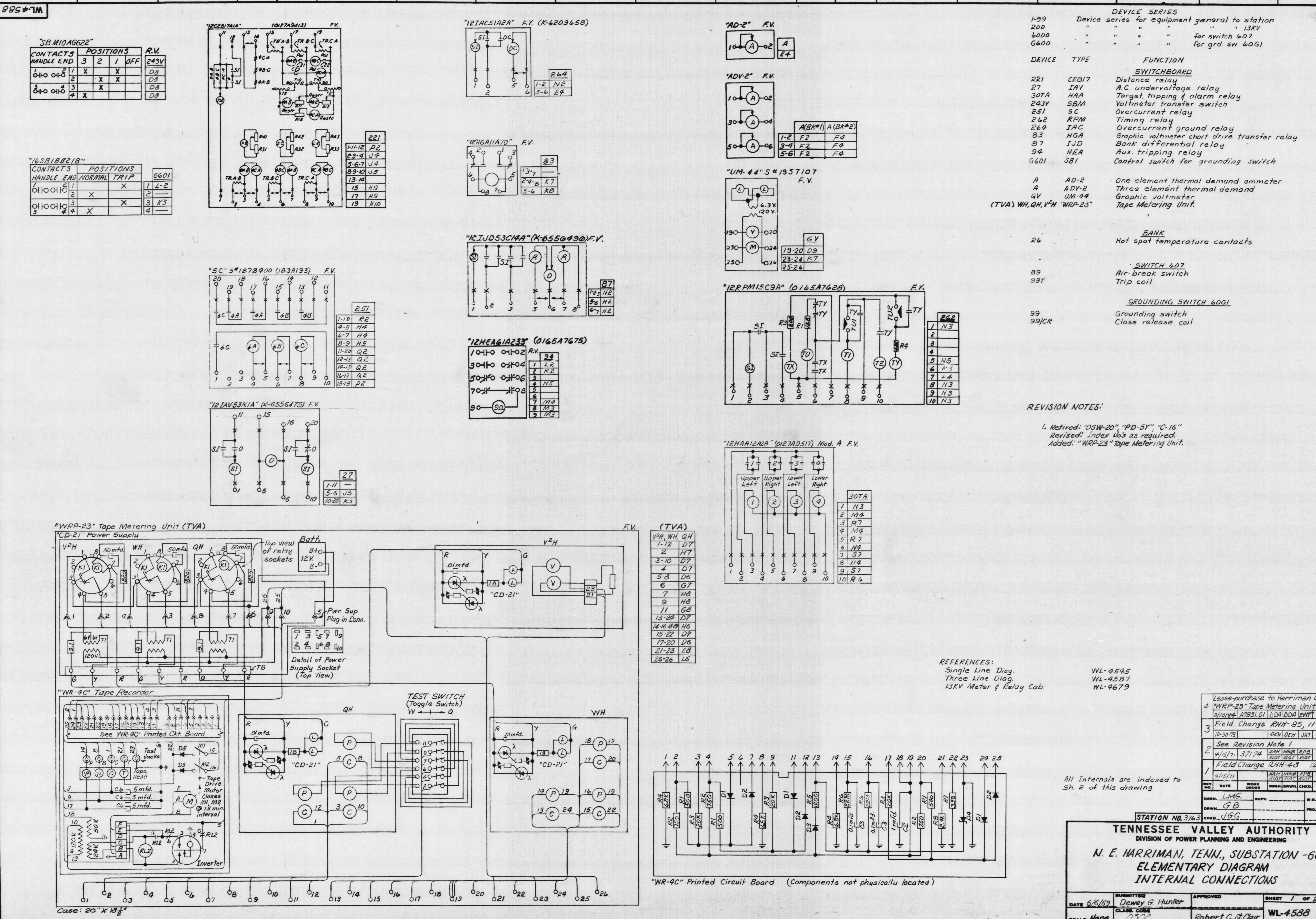


**REVISION NOTES:**

1. Retired: Devices 27F-1, 27F-2, red light (loss Sta. Serv.) "DSW-20", "PD-5Y", "C-16"  
Revised: Bus O was M, HO connection to "CEB" was M.  
Added: "WRP-23" Tape Metering Unit.
2. Lease-purchase to Harriman U.B. except 69kV T.L.'s to Norris and Rockwood, Test Box No. 1, 13kV metering C.T.'s, V.T.'s, meters, and associated fuses as indicated.  
Reconnected V2H to IV3 potential.

N.E. HARRIMAN, TENNESSEE SUB-69KV  
ELEMENTARY DIAGRAM

DATE 6/6/69	SUBMITTED <i>Darren G. Hunter</i>	APPROVED	SHEET 2 OF 2 SHEETS	
SCALE NONE	CLASS. CODE D302	<i>Robert W. Clark</i>	WL-4588	R-4



"WR-4C" Printed Circuit Board (Components not physically located)

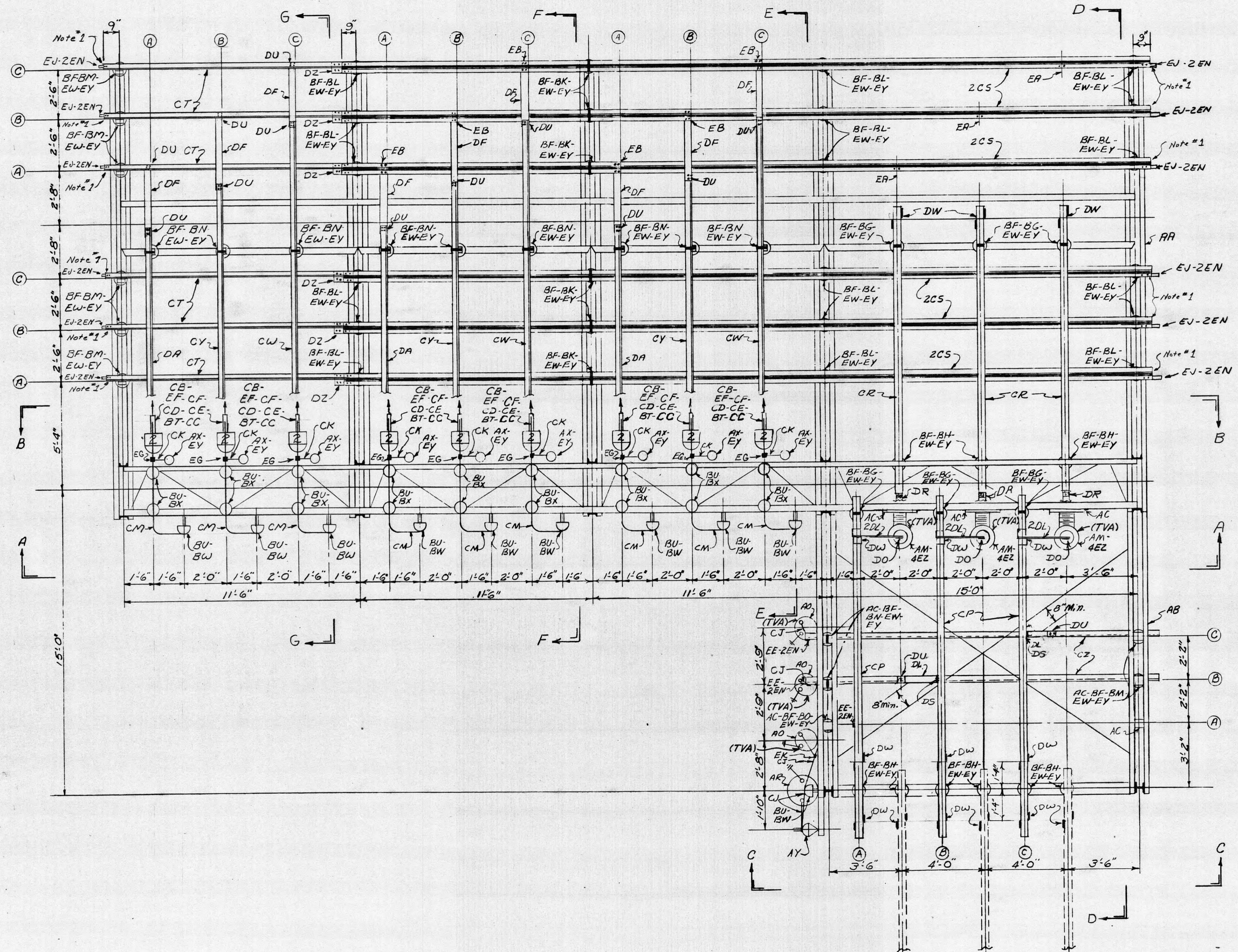
		Lease-purchase to Harriman U.B. except 4 "WRP-23" Tape Metering Unit.					
		2/10/84 A7831.01 DOA DOA ENT					
3		Field Change RHH-85, 11-9-72 10-30-73 DEH DEH JHT					
2		See Revision Note 1 4/15/71 37174 RAH MKB RPB RUST RUST RUST DNR					
1		Field Change RHH-48 12/8/69 4/15/71 RAH MKB RPB RUST RUST RUST DNR					
REV. NO.	DATE	WORK ORDER	DESN.	DRWN.	CHKD.	SUPV.	SUBM.
		L.M.G.				W.O.	37174
		GB				PROJ. ENGR.	
		JGG					
STATION NO. 3763							
<b>TENNESSEE VALLEY AUTHORITY</b> <b>DIVISION OF POWER PLANNING AND ENGINEERING</b>							
<b>I. E. HARRIMAN, TENN., SUBSTATION -69 KV.</b> <b>ELEMENTARY DIAGRAM</b> <b>INTERNAL CONNECTIONS</b>							
SUBMITTED		APPROVED		SHEET 1 OF 2 SHEETS			
Dewey G. Hunter		Robert C. St.Clair		WL-4588 R-4			
CLASS. CODE							
0302							

לכטנער

To Harriman Utility Board  
556.5 Mcm 26/7 Str. RCS

To Harriman Utility Board  
556.5 Mcm 26/7 Str. ACS

To Harriman Utility Board  
556.5 Mcm 26/7 Str. ACSR



NOTES:

1. Drill ends of Main & Transfer buses for future extension per MC-36996 Sh. #3 & 4.
2. All bolted aluminum connections to be made per SC-37447.

From 69-13 Kv Power Transf. Bank  
4"x4" Integral Web Channel  
See LC-49688

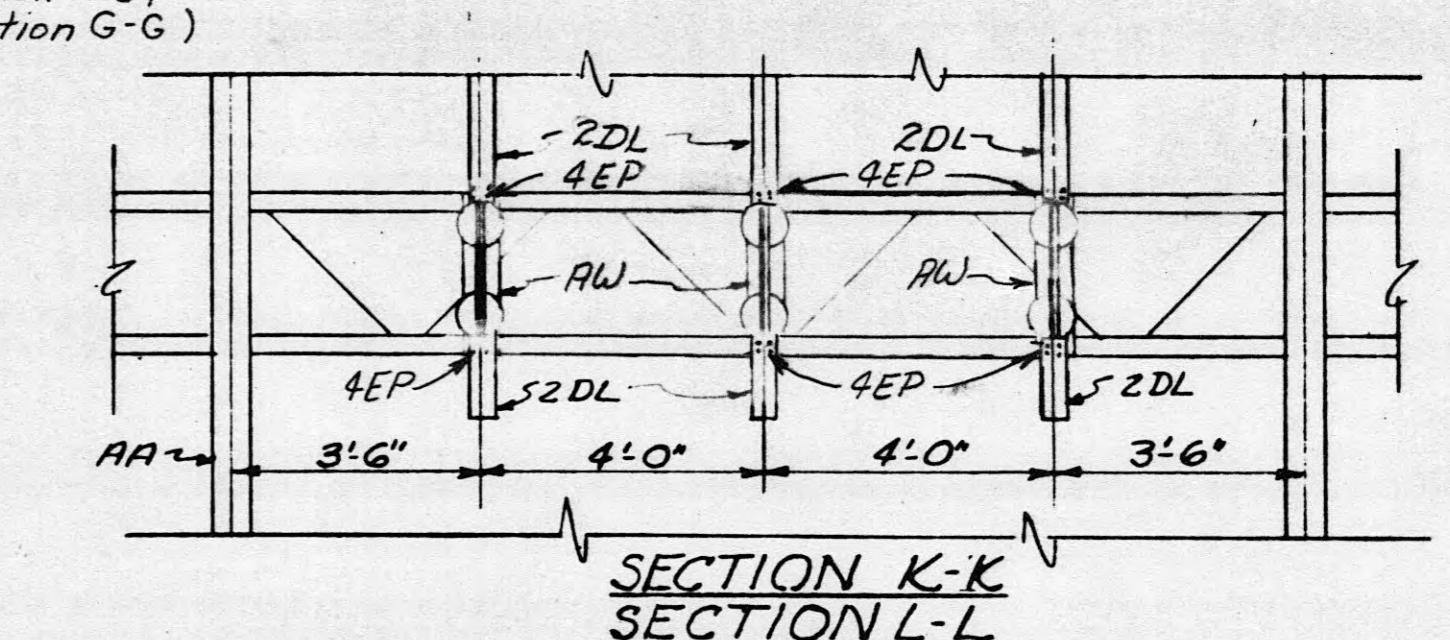
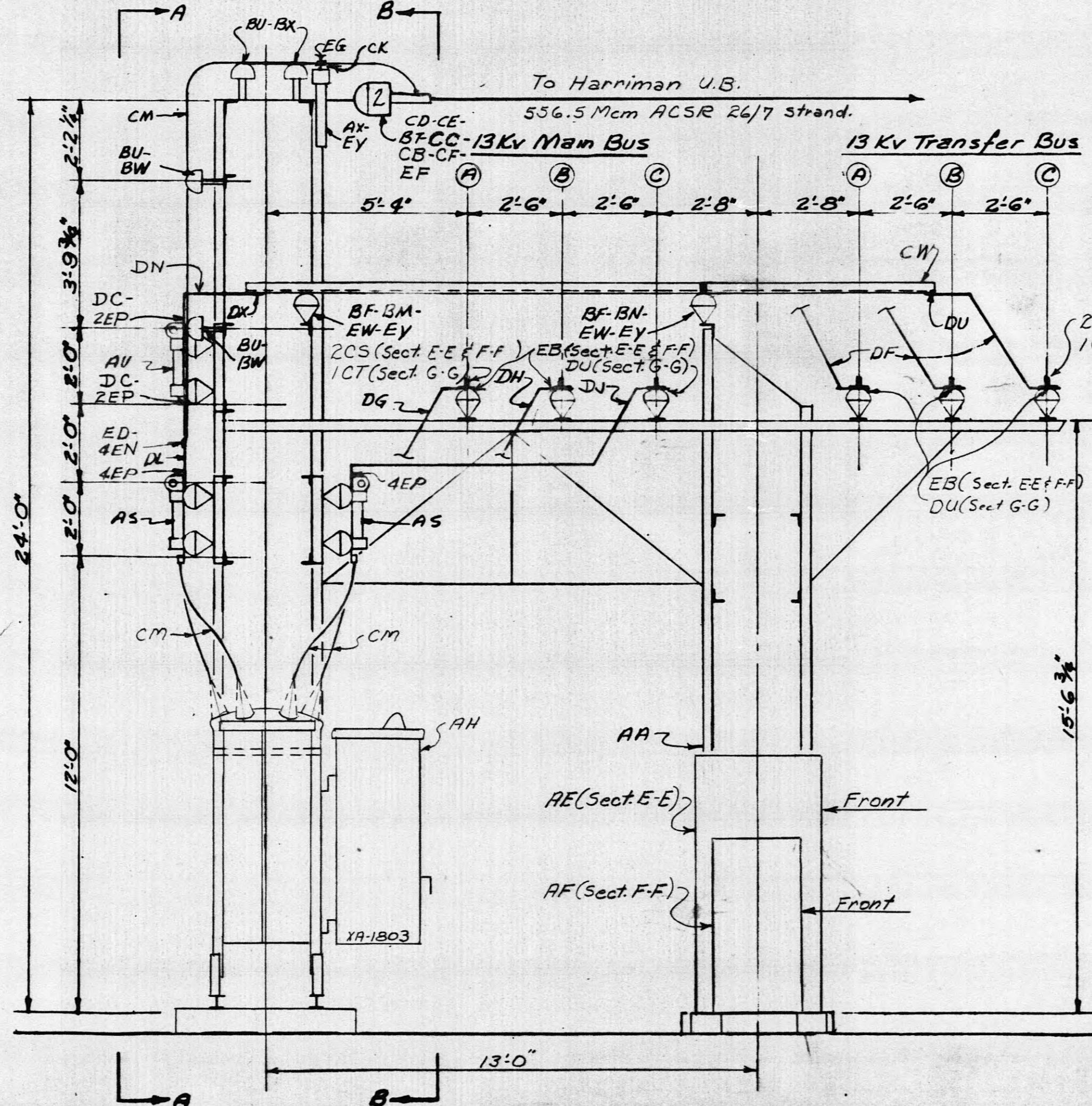
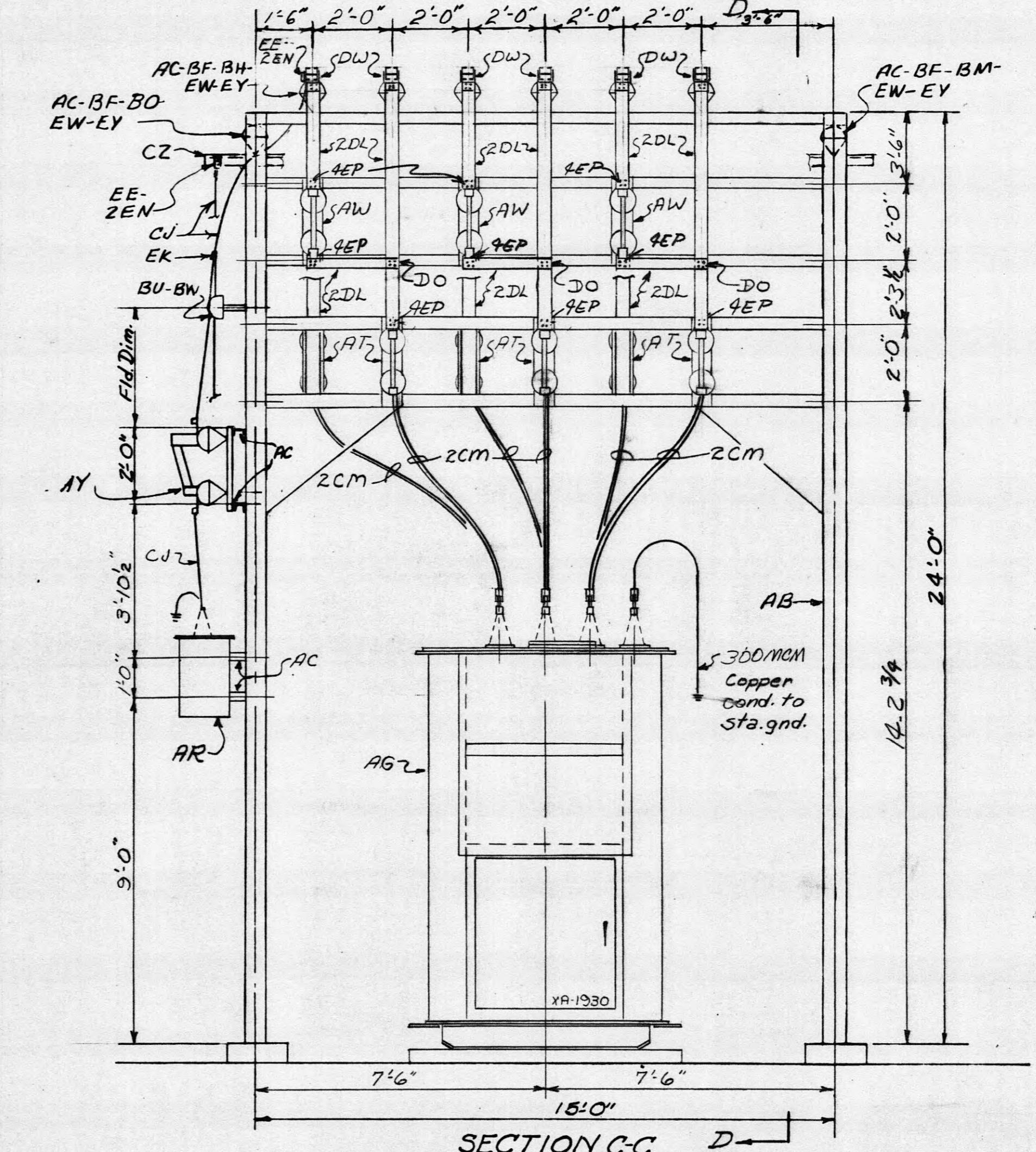
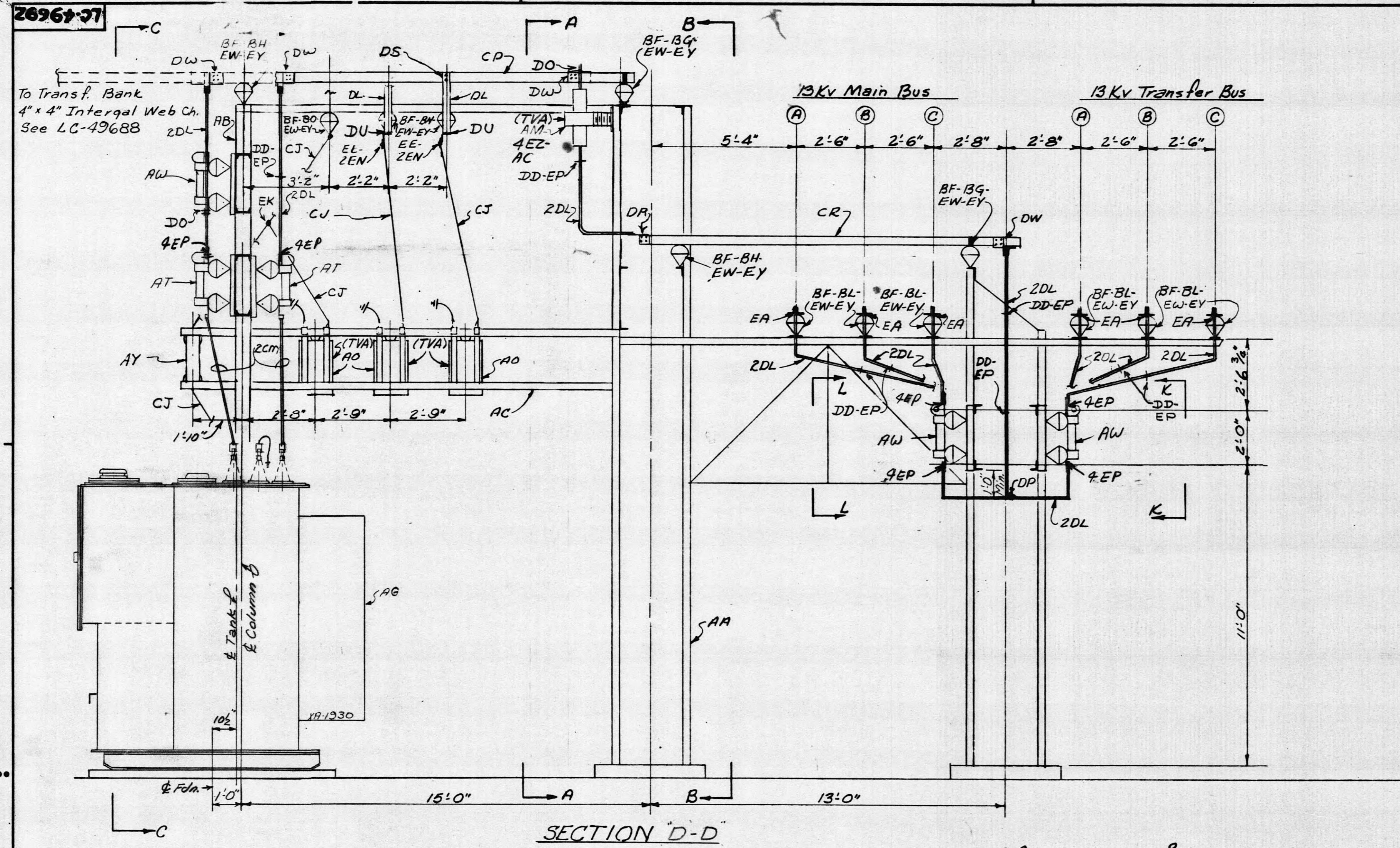
Lease-purchase to Harriman U.B. except 13kV metering C.T.'s and V.T.'s.							
2	2/10/84 A7831.01	DOA	DOA	ENT			
1	Field Change JRD 11-13-69						
	11-10-72			JAL	JHT		
REV. NO.	DATE	WORK ORDER	DSGN.	DRWN.	CHKD.	SUPV.	APPD.
DSGN.	SUPV. LBM		W.O. 37174				
DRWN.	RWK		BR			PROJ. ENGR.	
CHKD	MMR					DATE	
						SCALE	

# TENNESSEE VALLEY AUTHORITY

## DIVISION OF POWER PLANNING AND ENGINEERING

N.E. HARRIMAN, TENN., SUBSTATION-69 KV.  
13 KV SWITCHGEAR - TYPE 'B' & 'D'  
PLAN & SECTIONS

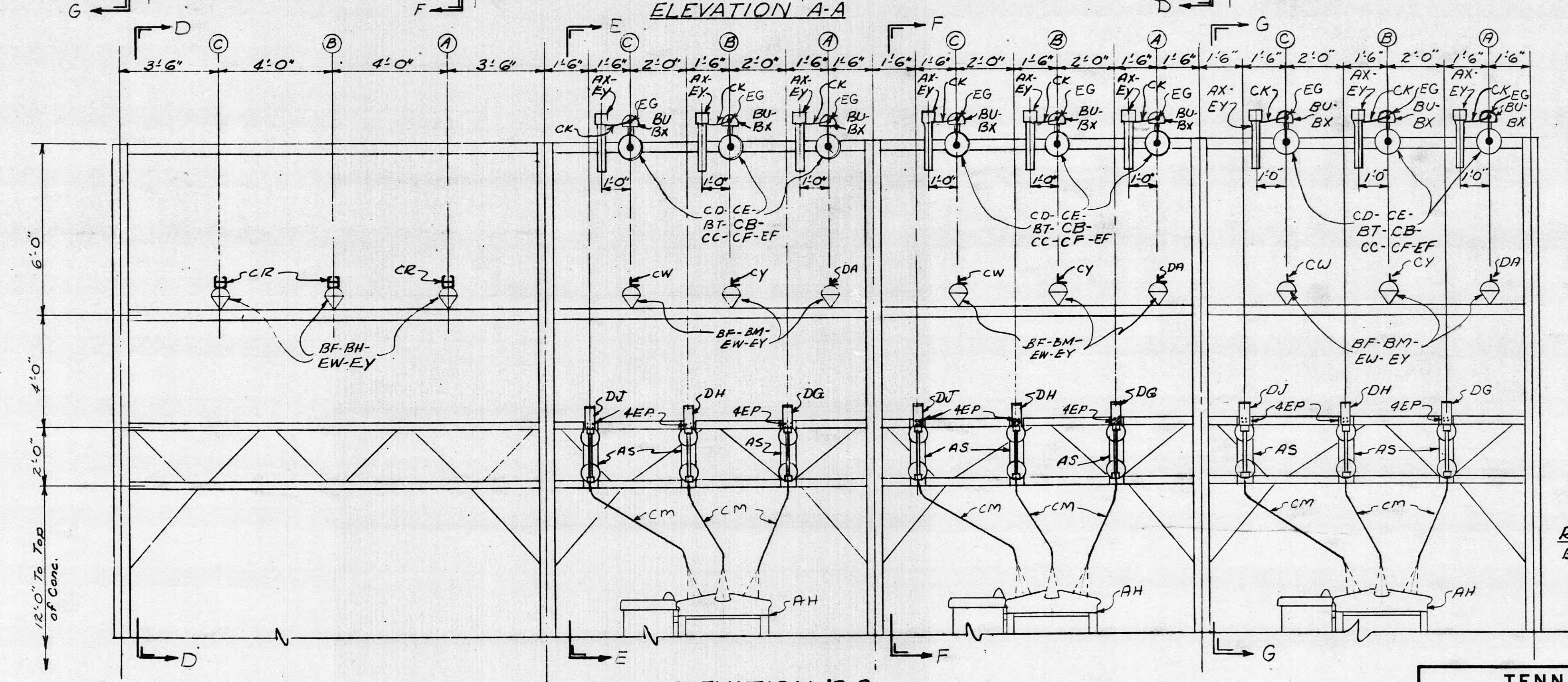
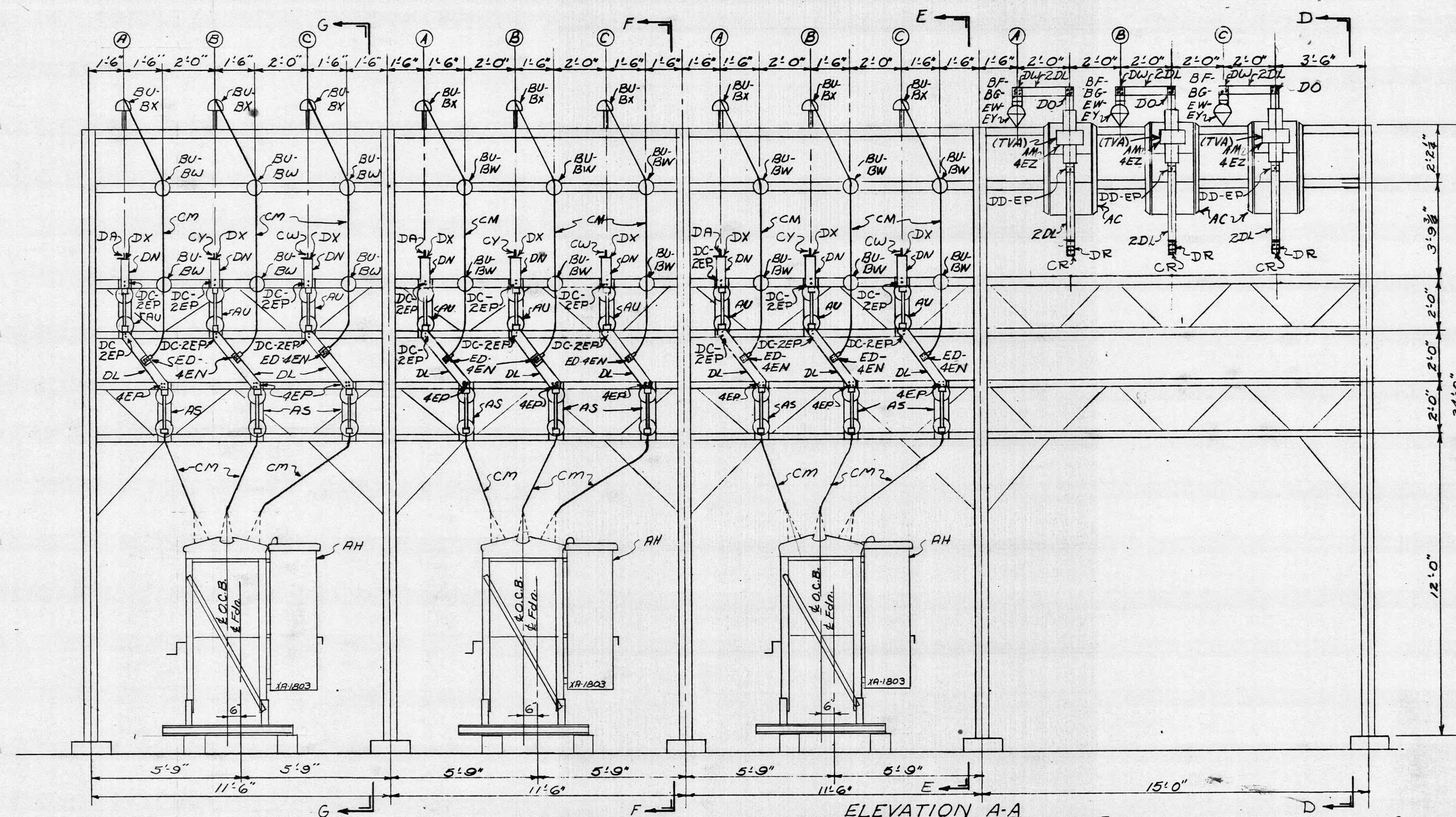
MICROFILMED



**REFERENCE:**  
Bill of Material ----- BMC-49693

TENNESSEE VALLEY AUTHORITY DIVISION OF POWER PLANNING AND ENGINEERING												
N.E. HARRIMAN, TENN., SUBSTATION-69KV. 13 KV SWITCHGEAR-TYPE 'B' & 'D' PLAN & SECTIONS												
Leave purchase. See Revision Note 2, Sh. 1. 2 3/10/64 47831.01 DDA ENTH												
Field Change JRD 11-13-69												
REV. NO.	DATE	WORK ORDER	VAL	JAL	JHT	CHEK.	SUPV.	APPRO.				
11-10-72												
DOOR	SWP	LBM	W.O.	37174								
DRAWL. R/WK												
CHEK. MMR												
DATE 5-26-69												
SCALE 3'-0" - 1'-0"												
CLASS CO A052U APPROVED Robert J. Klein LC49693 R-2												

26961-37



REFERENCES:  
Bill of Material ----- BMC- 49693

Lease Purchase. See Revision Note 2, Sh. 1.

2 240184 47831.D1 DDA DOA ENT

1 Field Change JRD 11-13-69

11-10-70 JA-JAC JHT

REV. NO. DATE WORK ORDER DESIGN DRAWN CHECKED SUPERVISED APPROVED

DESIGNER LBM W.O. 37174

DRAWN BY RWK REC PROJ. ENGR.

CHECKED MMR

DATE 5-26-69

SCALE 3'-0"

CLASS CODE 1052U

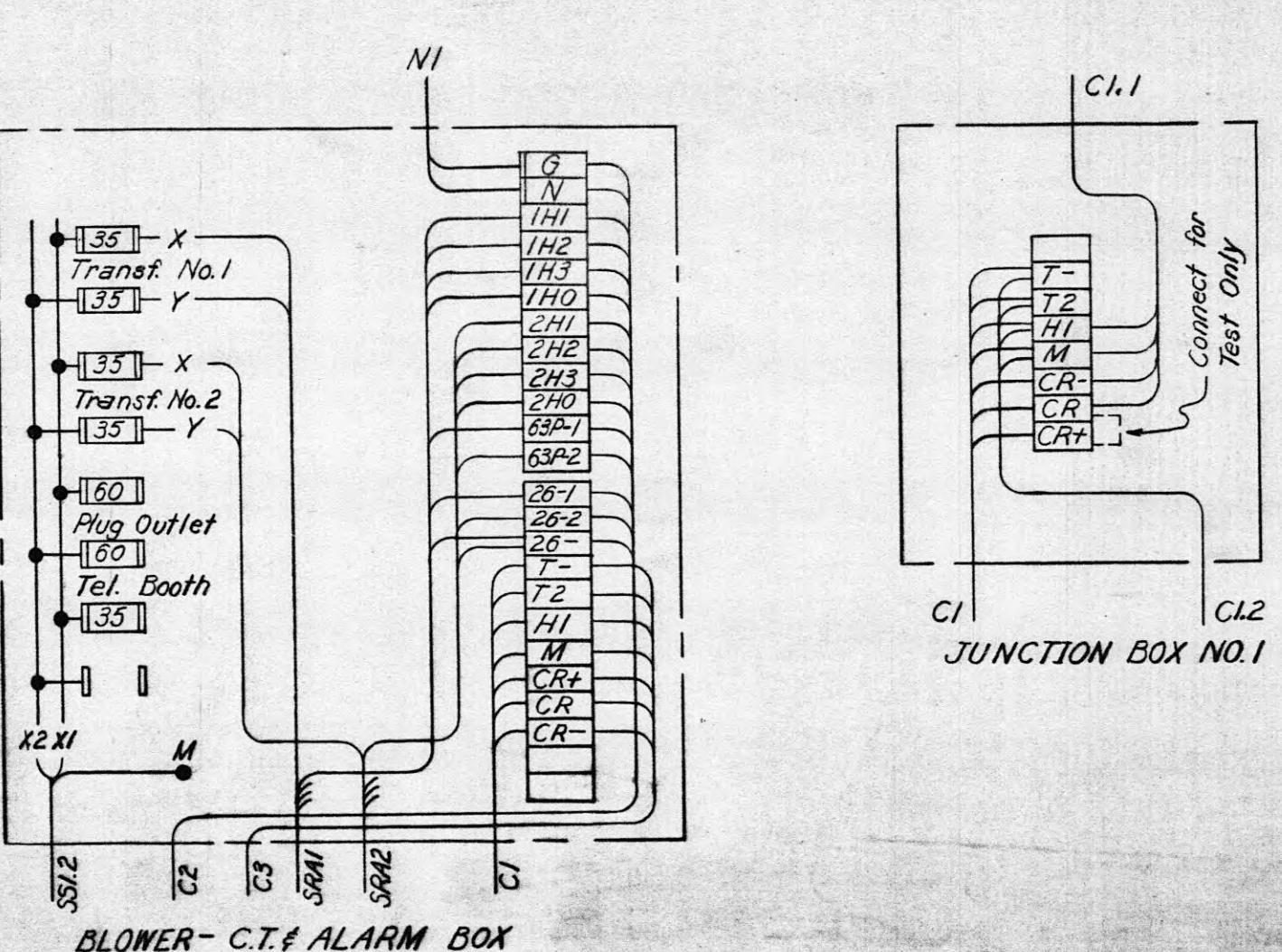
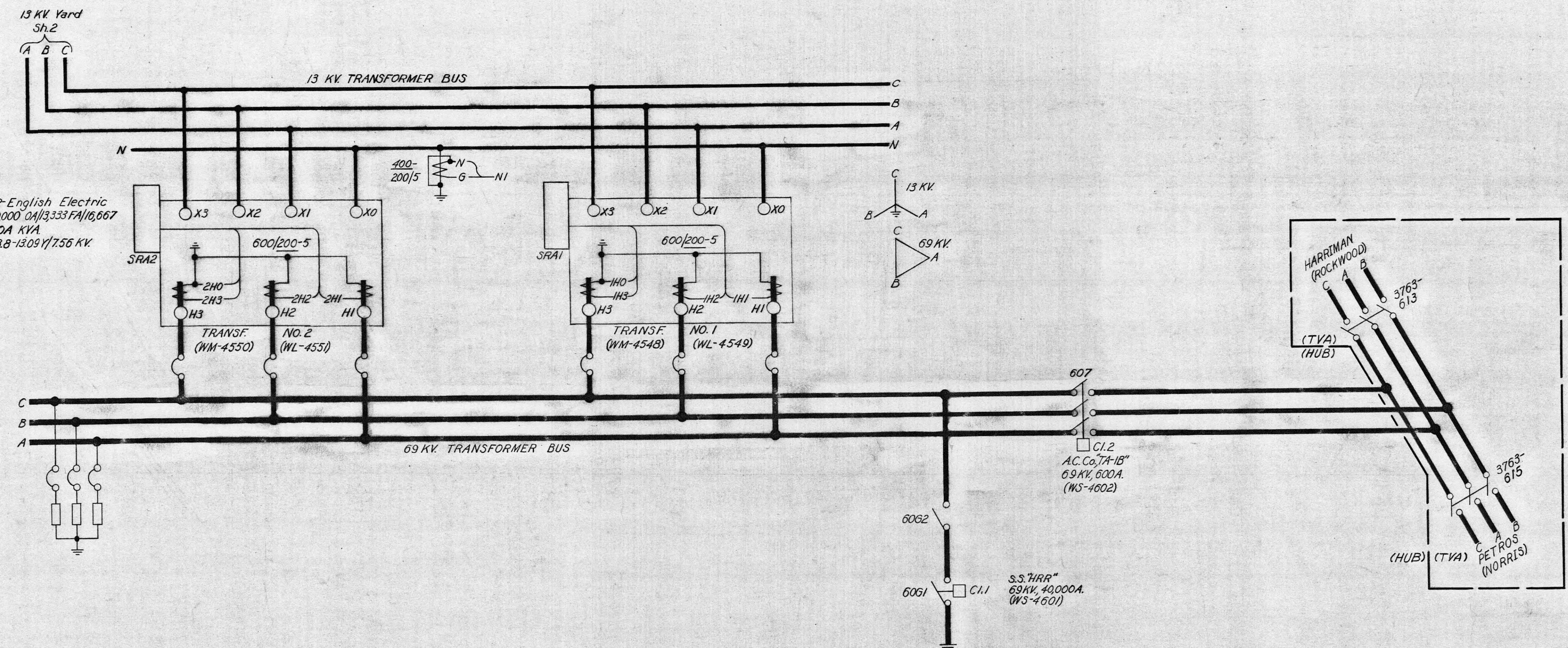
REVISIONS

5-26-69

3'-0"

1052U





REVISION NOTES:  
1. Lease-purchase to Harriman U.B. except  
69 KV T.L.'s to Harriman and to Rockwood.

REFERENCES:  
Single Line Diagram  
Elementary Diagram  
Conduit Plan & Details  
Conduit & Cable List

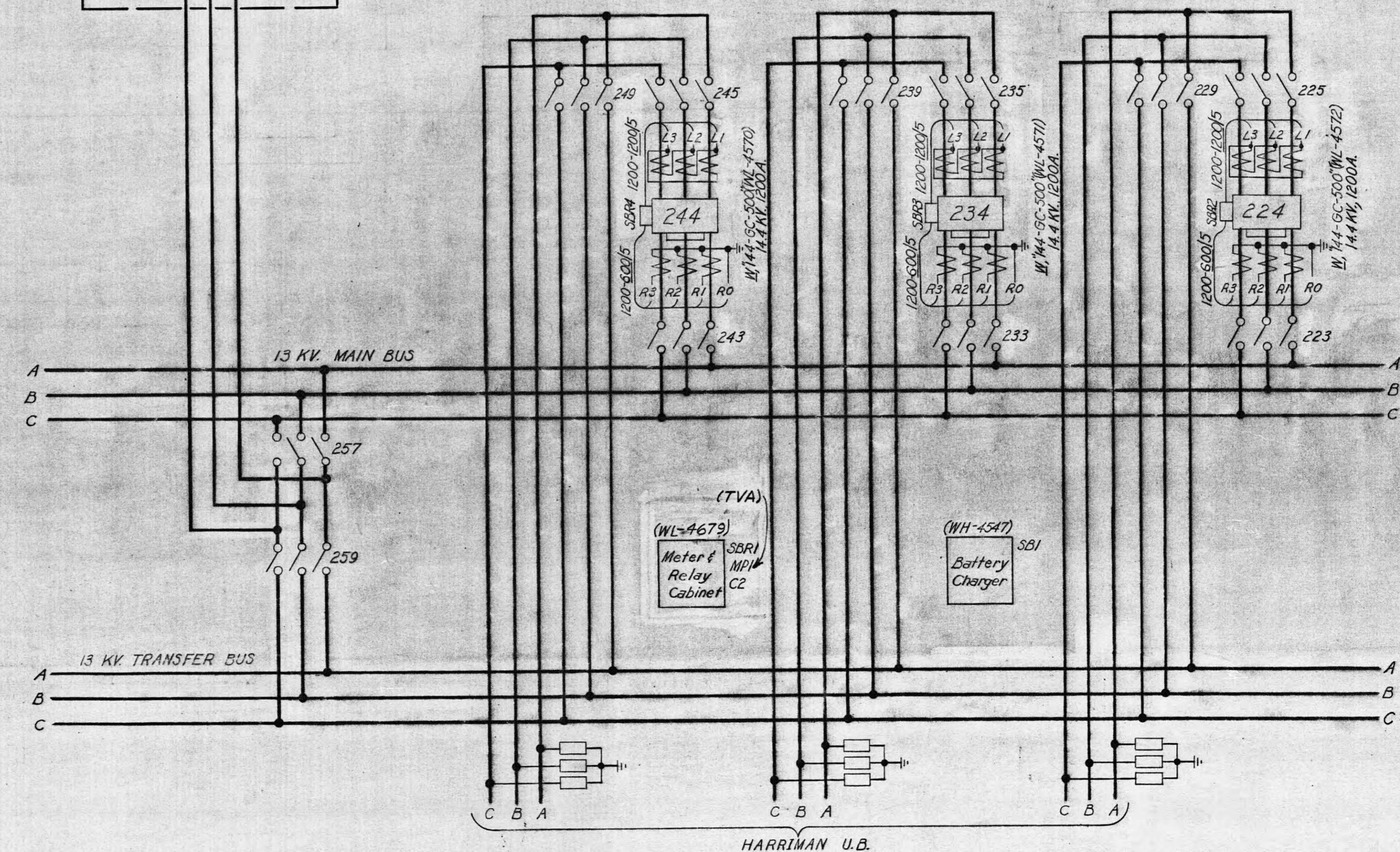
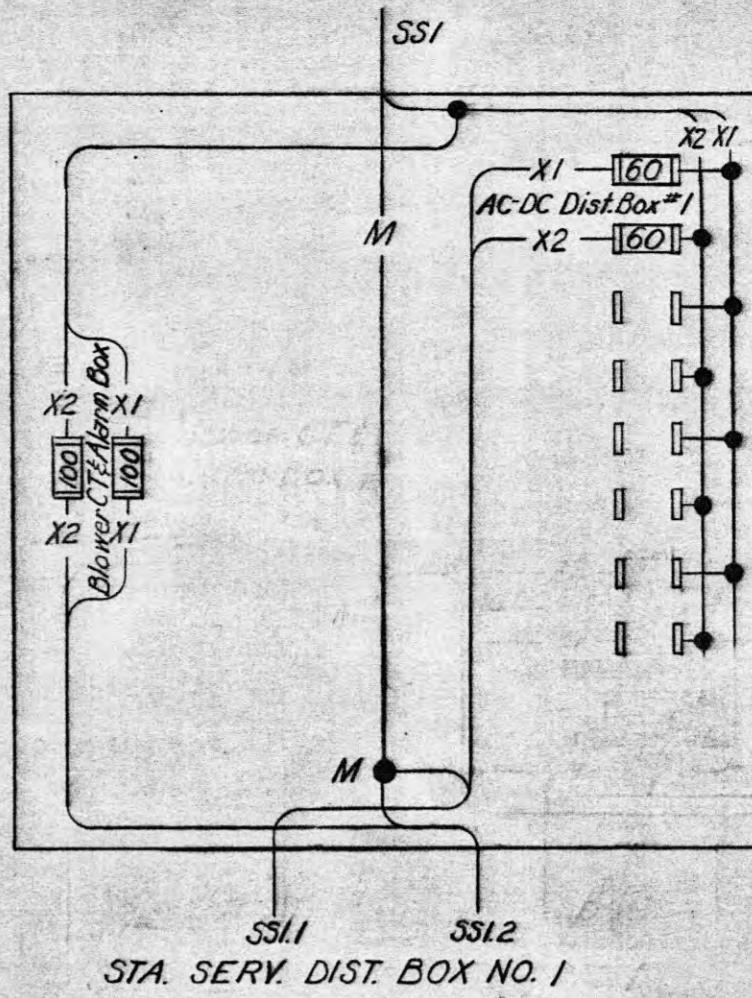
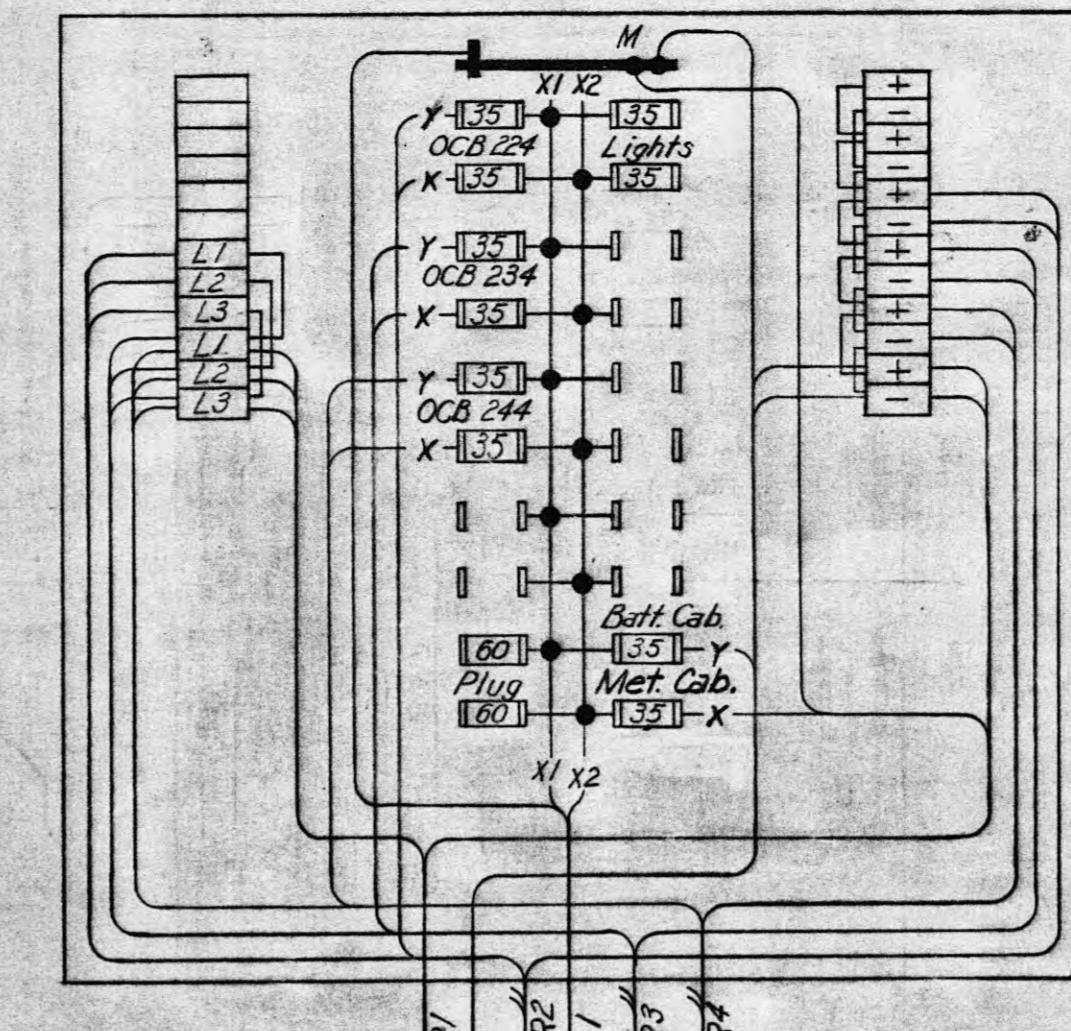
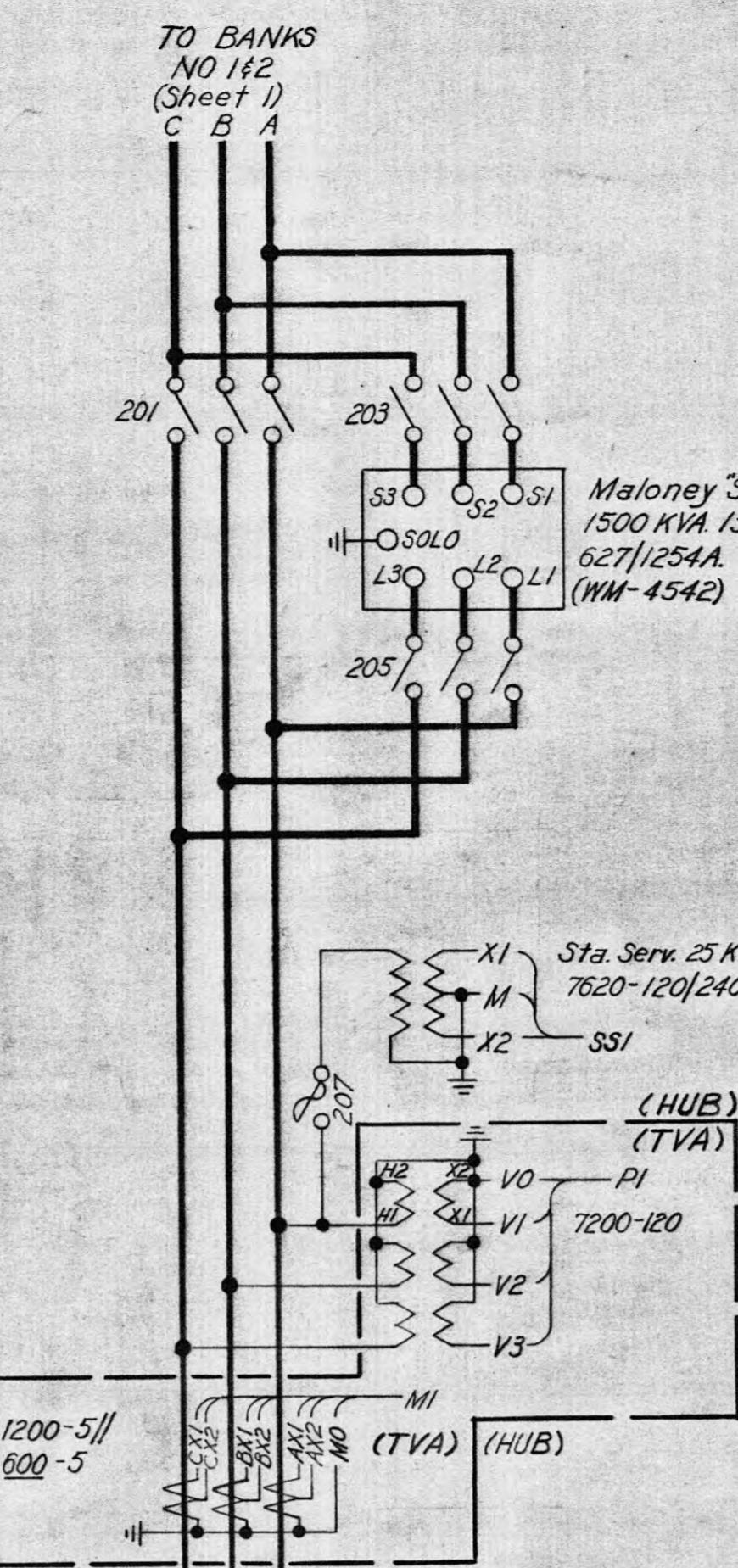
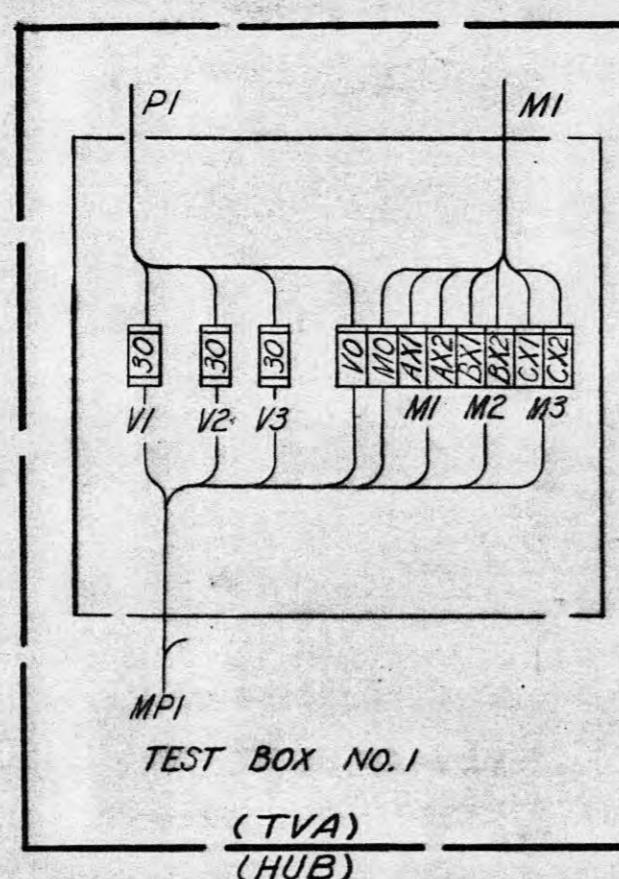
WL-4545  
WL-4588

LC-49979  
CMC-49981

Lease-purchase to Harriman U.B. except									
3 69 KV T.L.'s to Harriman & to Rockwood.									
2 Field Change RHH-48 12/3/69									
4/15/71 RAN VIGOR PBA DNR RUST RUST RUST									
1 Corrected tap str. switch numbers									
REV. NO.	DATE	WORK ORDER	DSGN	DRWN	CHKD	SUPV	APPR		
1	8/1/69	37174	DNR	DNR					
DSGN.	LMG	SUPV.	W.O.	37174					
DRWN.	MFA								
CHKD.	JGG								
DATE	6/6/69	SUBMITTED BY	Robert C. Main	APPROVED	Paul W. Chambers	SHEET 1 OF 2 SHEETS			
SCALE	None	CLASS. CODE	0203						

STATION NO. 3763  
TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING

N.E. HARRIMAN, TENN. SUBSTATION - 69 KV  
THREE LINE DIAGRAM  
69 KV YARD & TRANSFORMER BANK



**REVISION NOTES:**  
1. Lease-purchase to Harriman U.B. except 13KV metering C.T.'s and V.T.'s, Test Box No.1, and cables MI, PI, MPI.

MICROFILMED

2 Lease-Purchase. See Revision Note 1.	
2/10/69	A7831.01/00A/00A ENT
Field change RHH-48 12/8/69	
1	RHH-48 12/8/69
4/15/71	RAH-MRB-RPA RUST-RUST-RUST DNR
REQ. NO.	WORK ORDER
DSGN.	DSGN. DRWN. CHKD. SUPV. APPD.
DRWN.	W.O. 37174
CHKD.	PROJ. ENGR.
J.G.	SCALE None

TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING

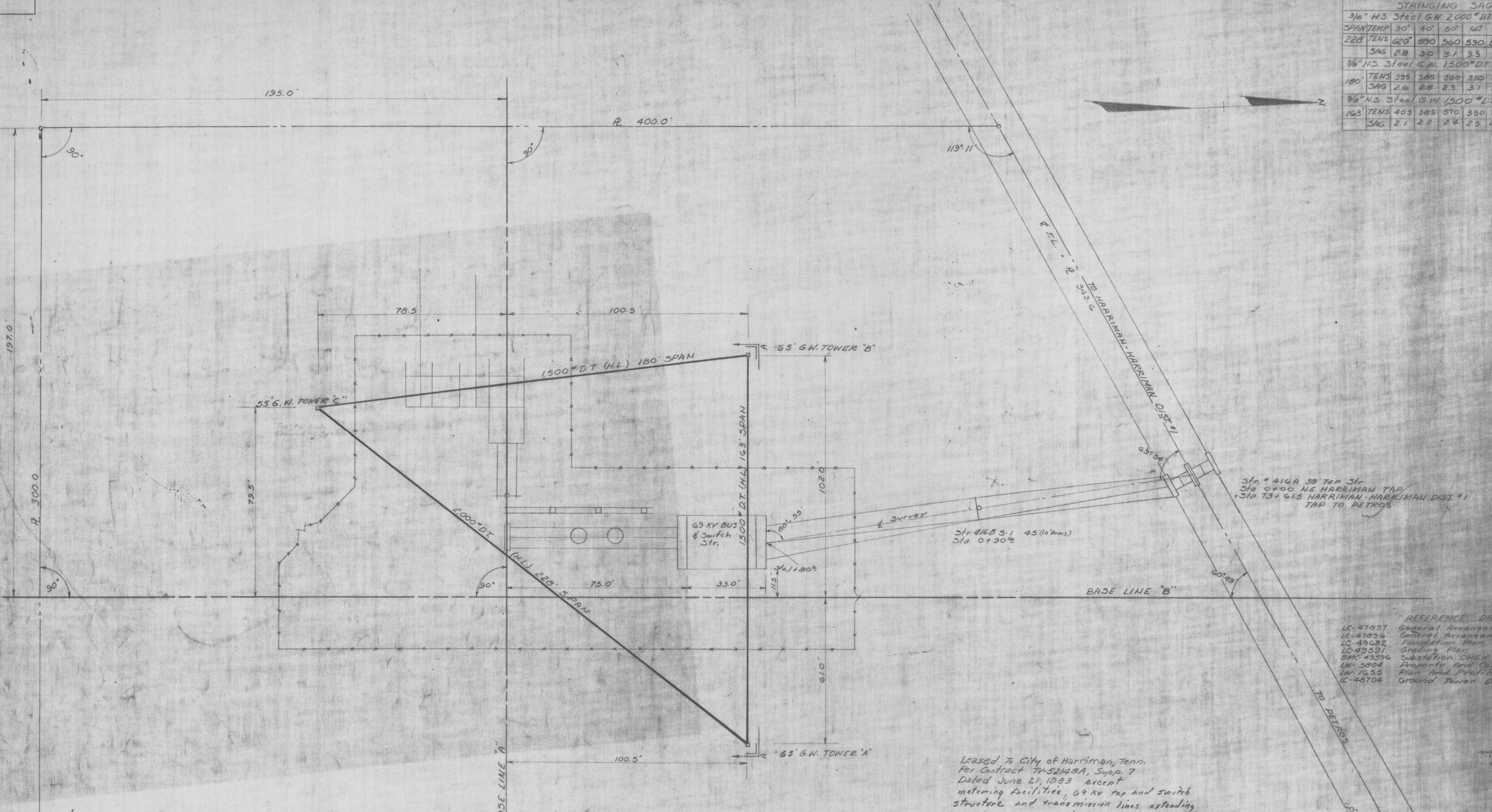
N.E. HARRIMAN, TENNESSEE SUB - 69 KV.

THREE LINE DIAGRAM

13 KV. YARD

DATE 6/6/69	SUBMITTED BY <i>Katherine Main</i>	APPROVED BY <i>Ed Chamberlain</i>	SCALE None	CLASS. CODE 0303	W.L. 4587 R-2
-------------	------------------------------------	-----------------------------------	------------	------------------	---------------

STRINGING SAGS AND TENSIONS								
" H.S. Steel G.W. 2,000# D.T. $\frac{1}{2}$ " Ice 8" Wind @ 0°F								
TEMP	30°	40°	50°	60°	70°	80°	90°	100°
TENS	620	590	560	530	505	485	460	445
SAG	2.8	3.0	3.1	3.3	3.5	3.6	3.8	3.9
H.S. Steel G.W. 1,500# D.T. $\frac{1}{2}$ " Ice 8" Wind @ 0°F								
TENS	395	385	360	350	340	330	320	310
SAG	2.6	2.8	2.9	3.1	3.2	3.3	3.4	3.5
H.S. Steel G.W. 1,500# D.T. $\frac{1}{2}$ " Ice 8" Wind @ 0°F								
TENS	405	385	370	350	340	330	320	315
SAG	2.1	2.2	2.4	2.5	2.6	2.7	2.8	2.9



Leased To City of Harriman, Tenn.  
Per Contract TV-52148A, Supp. 7  
Dated June 21, 1983 except  
metering facilities, 69 KV tap and switch  
structure and transmission lines extending  
therefrom across said substation site, facilities  
for which expenditures were committed by TVA  
after Jan. 1 1977, and any portable facilities  
and equipment



Added Lease Note						
EV O.	DATE	WORK ORDER	DSGN	DRWN	CHKD	SUPV
	8/10/83			RFM		BAB
SGN.	<i>JFC</i>		SUPV.	<i>HJF</i>		W.O. 3717
RWN.	<i>JFC</i>					PROJ. ENGR. <i>WRC</i>

# ENNESSEE VALLEY AUTHORITY

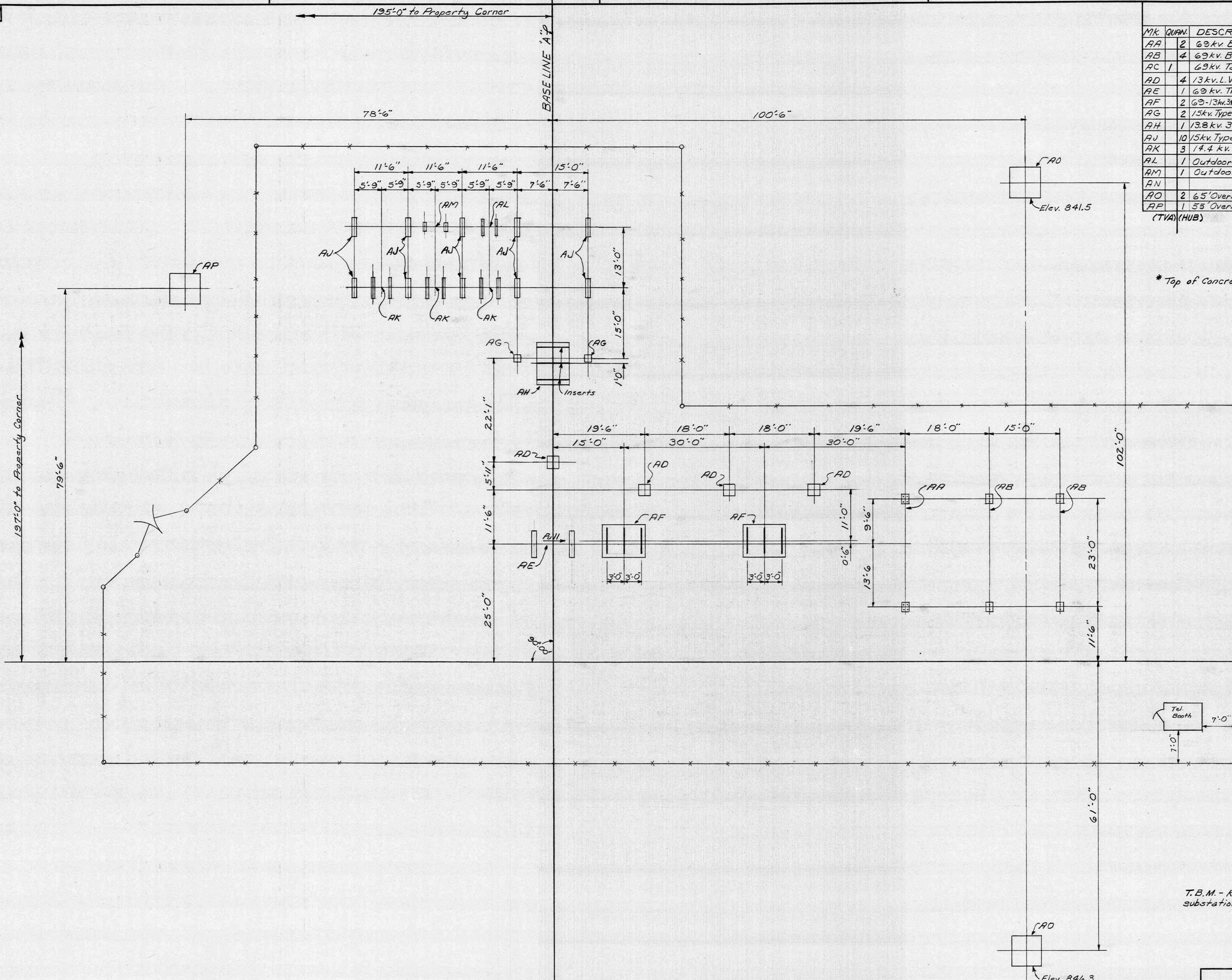
## DIVISION OF POWER PLANNING AND ENGINEERING

E. HARRIMAN SUBSTATION - 69 KV.  
ARRANGEMENT OF  
EQUIPMENT

3-7-69	APPROVED <i>Frank J. Keever</i>	SHEET 1 OF 1 SHEETS LC-49595 R-
12		

LC49682

# LIST OF FOUNDATIONS



MK.	QUAN.	DESCRIPTION	DWG. or X-File No.	Fdn. Dwg. No.	Elev.	CU.YDS.	CONC.
						ONE	TOTAL
AA	2	69kv. Bus & Switch Struct.	LC-23257	HC-20467-S*	843.5	0.97	1.94
AB	4	69kv. Bus & Switch Struct.	LC-23257	HC-20467-T*	843.5	0.97	3.88
AC	1	69kv. Tap Structure	LC-41305	Grillage	—	—	—
AD	4	13kv.L.V. Bus Support Tower	LC-38700	SC-38701	843.7	1.10	4.40
AE	1	69 kv. Transformer Bus Tower	LC-41056	MC-41204	843.6	2.51	2.51
AF	2	69-13kv.3Ø Power Transformer	XA-1775	HC-44994-A	843.5*	3.10	6.20
AG	2	15kv. Type "D" Regulator Extension.	LC-22617	SC-3709	843.7	0.41	0.82
AH	1	13.8kv. 3Ø Voltage Regulator	XA-1930	HC-38468-B"	843.4	3.10	3.10
AJ	10	15kv. Type "B & D" Bus & Sw. Struct.	LC-28012 LC-17485	MC-19168	843.7	1.85	18.50
AK	3	14.4 kv. Oil Circuit Breaker	XA-1803	SC-40568	843.6	0.69	2.07
AL	1	Outdoor Meter Cabinet, Type "A"	LC-33843	SC-23266	843.6	0.32	0.32
AM	1	Outdoor Battery Box	MC-585, Fig. 3	SC-603	843.6	0.15	0.15
AN							
AO	2	65' Overhead Groundwire Tower	LC-4956	MC-6165	See Plan	16.5	33.0
AP	1	55' Overhead Groundwire Tower	LC-48704	MC-48705	842.9	18.4	18.4
(TVA)	(HUB)						

\* Top of Concrete

A hand-drawn survey diagram on lined paper. At the top, a horizontal line with arrows at both ends represents a baseline, labeled "BASE LINE 'B'" at the bottom left. A vertical line with arrows at both ends is positioned above the baseline. A diagonal line extends from the top-left towards the bottom-right, representing a property boundary. A dashed line extends from the top-left towards the center. A rectangular box contains the text "Location of Tap Structure not to scale". To the right of the boundary line, there is a label "177'-0" to Property Corner". Above the boundary line, there is a label "TVA T.L. = RL 343.6'". Below the boundary line, there is a label "62 K.L.". A point on the boundary line is marked with an "X" and labeled "(TVA) AC".

REFERENCES:

General Arrangement Plan(Initial)	LC-47897
Grading Plan	LC-49591
Fence Plan	HC-49683
Yard Improvement Plan	LC-49184

B.M. - R.R. spike in pole #2½ located 14' West of S.W. Corner of  
Substation site. Elevation 854.42 MSL datum.

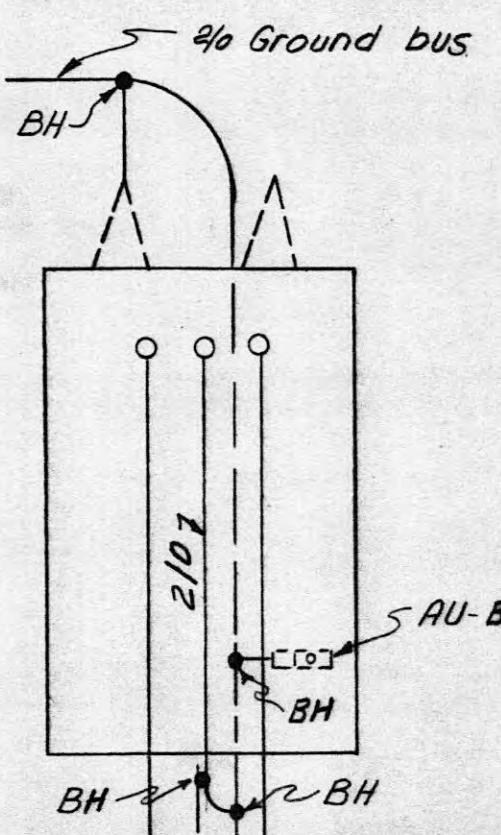
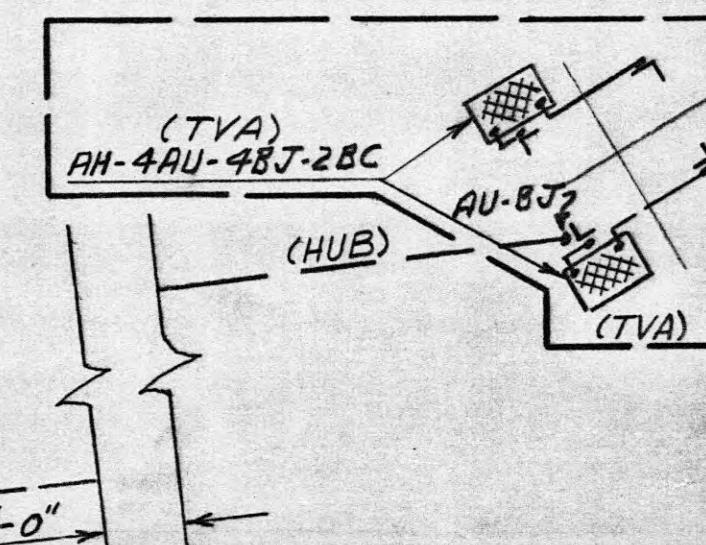
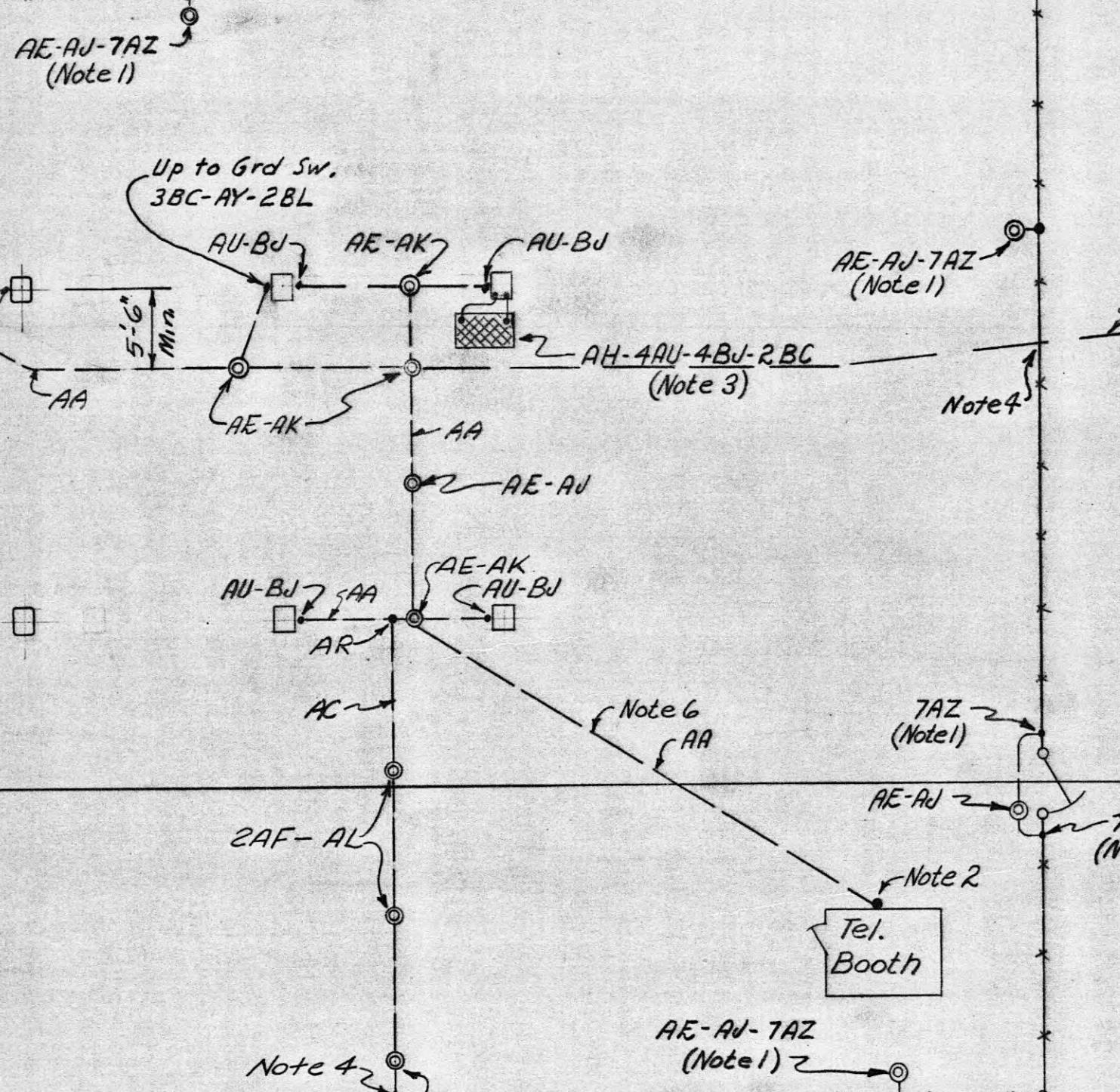
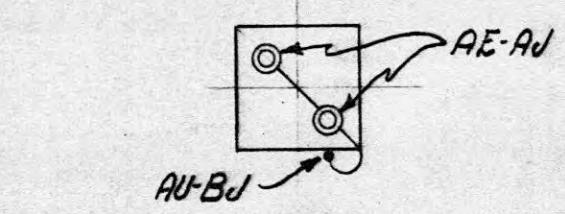
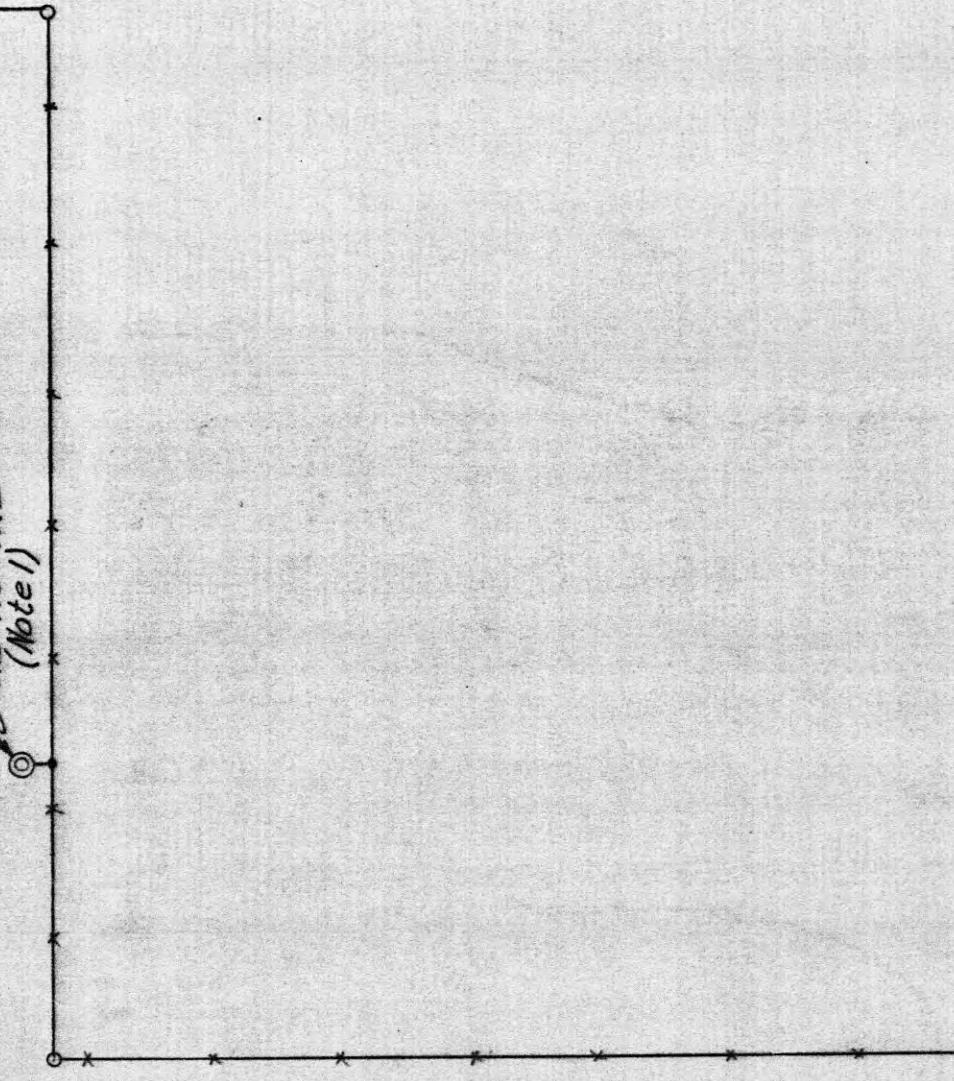
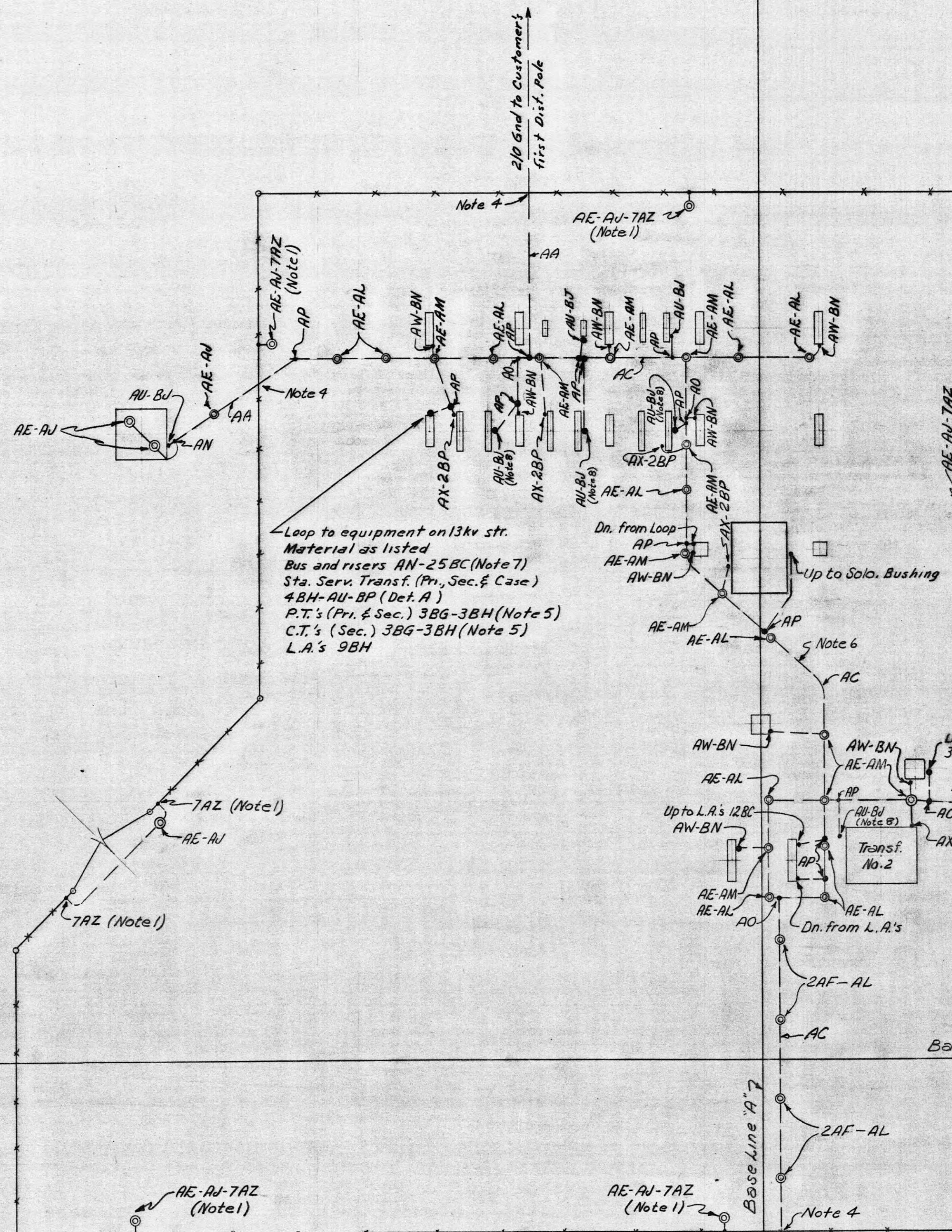
**TENNESSEE VALLEY AUTHORITY**  
DIVISION OF POWER PLANNING AND ENGINEERING

N.E. HARRIMAN, TENN. SUBSTATION-69KV.  
FOUNDATION PLAN

Lease-purchase to Harriman U.B. except Mk. AC.						FOUNDATION PLAN					
2/10/84	A7831.01	DOA	DOA	EWT							
REV. NO.	DATE	WORK ORDER	DSGN.	DRWN.	CHKD.	SUPV.	APPD.				
DSGN.	SUPV.	LBM	W.O. 37174		DATE	SUBMITTED	APPROVED	SHEET / OF / SHEETS			
DRWN.	R.W.K.	RE	PROJ. ENGR.		5-27-69	Frank L. Smith					
CHKD.	MMR				SCALE	CLASS. CODE					
					1" = 10'-0"	A305	Rahul K. Islam	LC-49682			
								R-1			



28666-7C

DETAIL A  
STA. SERV. TRANSF.  
N.T.S.

- GROUNDING NOTES:**
- For method of grounding fence, see HC-16023 Fig. 5
  - For method of grounding telephone booth, see LC-9161
  - For method of connecting ground plate, see HC-16023 Fig. 2
  - Where ground bus passes under fence, cable should clear fence post and fence ground rods by at least 3'-0"
  - For method of grounding PT and C.T. sec's, see HC-16023 Fig. 7
  - Where possible place Sta. gnd. bus in same ditch with conduit and/or trenchlay cable but on side so as to be readily accessible
  - For arrangement of overhead gnd. in 13kv structure, see LC-49979 sh. 2
  - For method of grounding BT.C.T.'s see HC-16023 Fig. 8

**REFERENCES:**  
 Bill of Material \_\_\_\_\_ BMC-49983  
 Outdoor Conduit and Lighting \_\_\_\_\_ LC-49979  
 Fence Plan \_\_\_\_\_ HC-49683

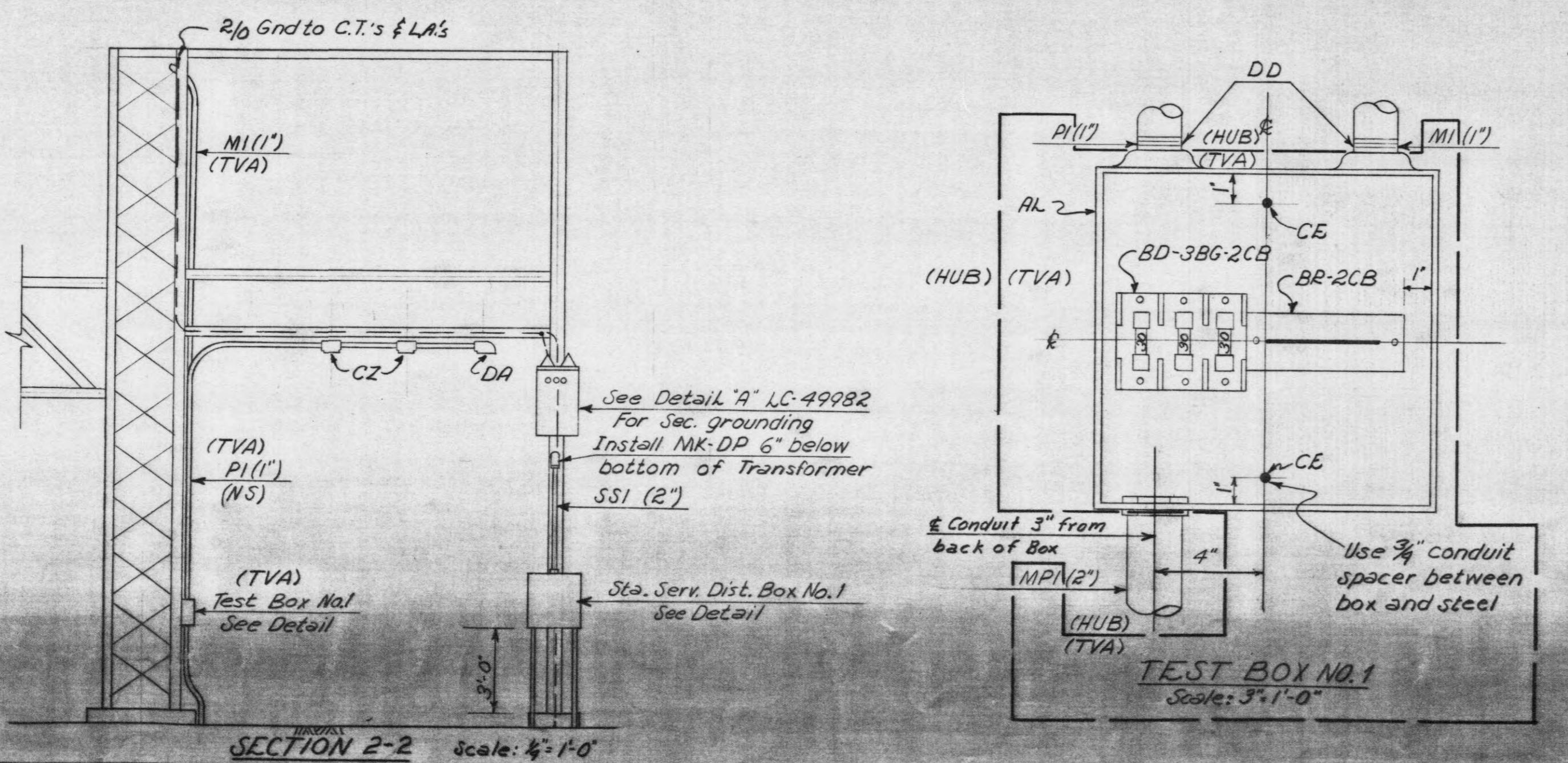
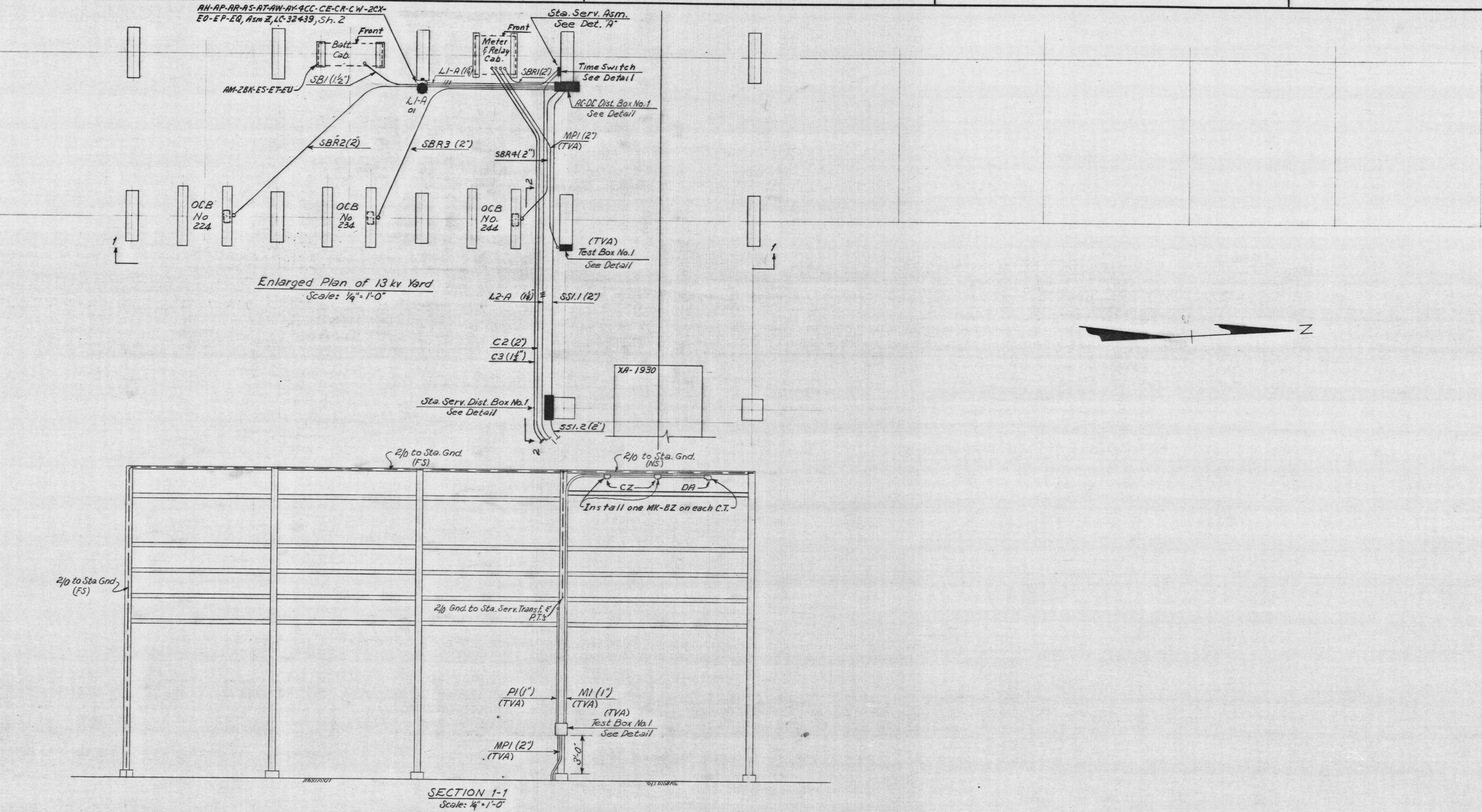
Leave purchase to Harriman U.B. except 2 69kV Tap Str. grounding.									
210124 A783101 DDA00A ENT									
Field Change									
1	12-569	37174	ST	SZ	SZ				
REV. NO.	DATE	WORK ORDER	DBSN.	DRWN.	CHKD.	SUPV.	APPR.		
		JAB	SUPV. EEB-RE4	W.O. 37174					
		JAB		PROJ. ENGR.					
					CHKD. BAH				
						DATE 5-13-69	SUBMITTED <i>Frank J. Smith</i>	APPROVED <i>R. L. Clark</i>	SHEET 1 OF 1 SHEETS
						SCALE 1"=10'-0"	CLASS. CODE C310	LC-49982 R-2	

TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING

N.E. HARRIMAN, TENN. SUBSTATION - 69KV.  
GROUNDING PLAN

MICROFILMED

6L666-37

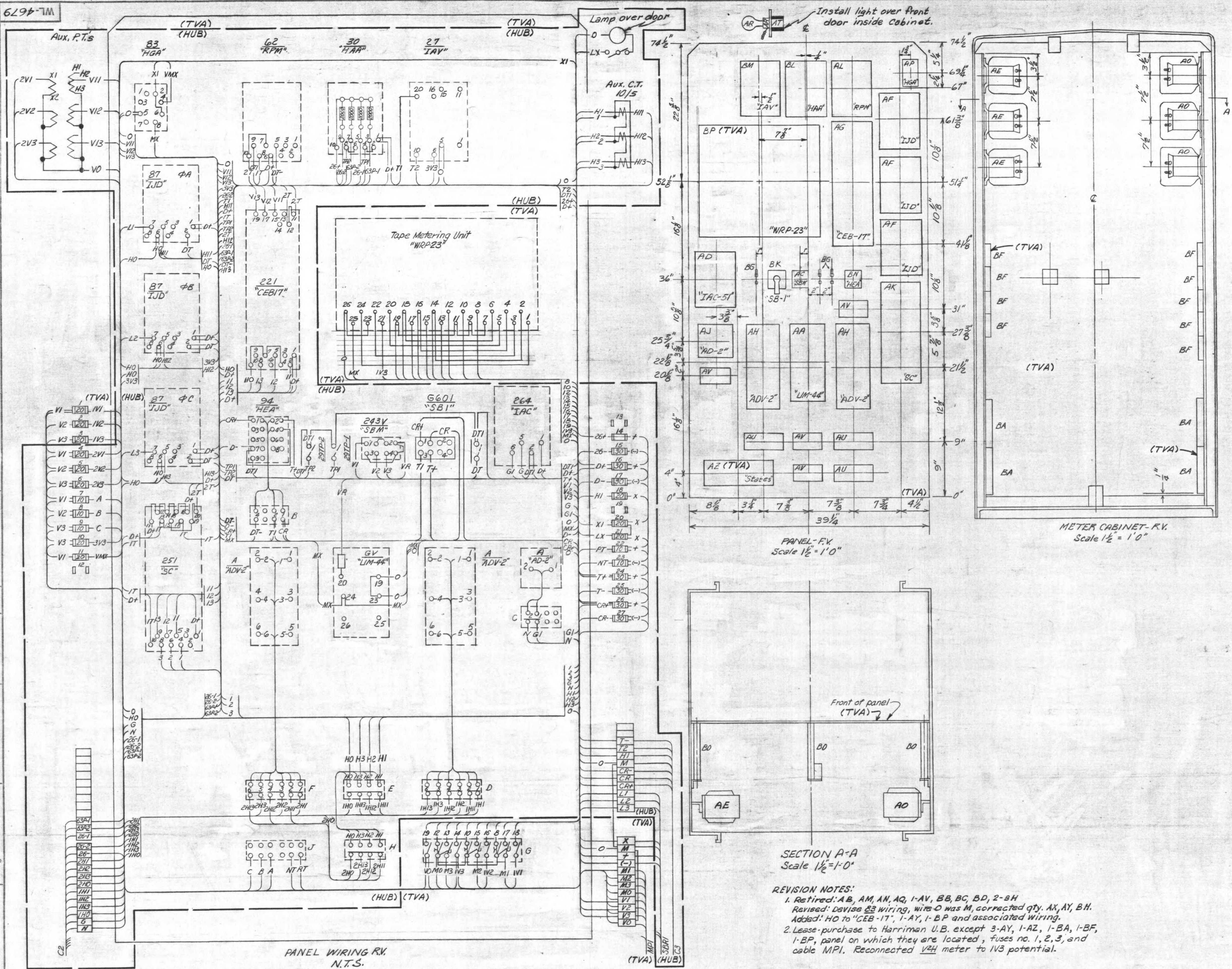


REFERENCES:  
Bill of Material \_\_\_\_\_  
Conduit and Cable List \_\_\_\_\_  
BMC-49980  
CMC-49981

Lease-Purchase: Sheets No. 1 and 3 given to Harriman U.B.  
TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING  
N.E. HARRIMAN, TENN. SUBSTATION - 69 KV.  
OUTDOOR CONDUIT AND LIGHTING  
PLAN AND DETAILS

Field Change		ST	SFZ	GZ
REV. NO.	DATE	WORK ORDER	DRGN. DRWN.	CHKD.
JAB	5-13-69	EGB-REF	W.O.	37174
DRWN.	SCALE	SUPV.	APPRD.	
JAB	CLASS. CODE	PROJ. ENGR.	APPROVED	
CHKD.	Shown			

DATE 5-13-69 SUBMITTED *Frank W. Hunt* APPROVED *Robert W. Clark*  
SCALE CLASS. CODE C301 SHEET 2 OF 3 SHEETS  
LC-49979 R-2



REQN.	MK	REQ'D.	DESCRIPTION
S-2900	AA	1	Voltmeter, graphic W, "LM-44", 0-150 Volt scale with 120 V.A.C., 60 cycle synchronous motor chart drive, 3/4" per hour. S# 1957107.
S-2900	AB	0	Watthour meter, GE, "DSW-20", 3 phase, 3 element, 4 wires, 2.5 amp., 120V. coils, with "D-5" demand contacts, 60 minutes demand interval.
S-2900	AC	1	Voltmeter switch, G.E. "SBM," OFF-1-2-3, 3 phase, 4 wire, phase to neutral, Cat. # "SBM10AG622".
S-2900	AD	1	Relay, overcurrent ground, G.E. "121AC51A2A," single phase, 1.5-6A tap range and one circuit closing contact target.
S-2900	AE	3	Transformer, Aux. Pot., 1φ, 150 V.A., 120/69.4 - 120 Volts, Assoc. Engr. Co., Type # CL-6120.
S-2900	AF	3	Relay, Percentage Diff., 1φ, 50% slope, 2.75A. min. pickup, Two restraining & 1 operating coil, G.E., IJD, Model 12IJD53C14A
S-2900	AG	1	Relay, Distance, 3-30 ohm, 3φ, 120V, 5 amp. G.E. S# 12CEB17A1A.
S-2900	AH	2	Ampere demand meter, 3 single phase elements with instantaneous attachment, 6/3A. coils, Sangamo Electric Co., Type "ADV-2".
S-2900	AJ	1	Ampere demand meter, single phase, with instantaneous attachment, 6/3A. coil. Sangamo Electric Co. Type "AD-2".
S-2900	AK	1	Relay, overcurrent, 3φ high speed, 4-100 amp. range, plunger type, W, "SC" S# 1878400
S-2900	AL	1	Relay, timing, 0.15-3.0 seconds, 48V. d.c., with maintained TU-1 and TU-2, G.E., "12RPM15C9A."
S-2900	AM	0	Contact making clock, 120 volt, 60 hertz synch. motor drive, 60 min. demand interval, G.E., "C-16," Cat. #
S-2900	AN	0	Demand printometer, G.E., "PD-5Y", 120V, 60 hertz, 60 min. demand interval.
S-2900	AO	3	Transformer, Aux. CURR., 10/5 amp ratio, 1φ, 60 hertz, dry type, indoor, Assoc. Engr. Co. Type "ACT" S# 6210.1
S-2900	AP	1	Relay, Aux. Voltage, G.E., "HGA," 115V.d.c., DPDT contacts, Model # 12HGA11A70.
S-2900	AQ	0	Ind. lamp, G.E. 48V.d.c. complete with resistor, receptacle, T-2 lamp, and red color cap, Type ET-5 Cat. No. 6105700GA.
P.S.Chatt.	AR	1	Lampholder, porcelain, G.E., Cat # 301B, with 7" chain, for 4" box, with 100 watt, 120 Volt lamp.
P.S.Chatt.	AT	1	Outlet box, 4" octagonal, G.E., "SP-54171", 921V, with 4-3/4" knockouts in sides.
P.S.Chatt.	AU	3	Test block, G.E., "PK-2", 6 pole.
P.S.Chatt.	AV	4	Test block, G.E., "PK-2", 4 pole.
P.S.Chatt.	AX	7	Cartridge fuse, 30amp, 250 Volt, one time.
P.S.Chatt.	AY	8	Cartridge fuse, 20amp., 250 Volt, one time.
S-2900	AZ	1	Test block, 10 pole, with glass cover, States Co., Type SJ, Cat. # 70K10E.
P.S.Chatt.	BA	1	Terminal block, 12 pole, with marking strip.
S-2900	BB	0	Thermostat, Minneapolis-Honeywell, M# T631C2XOAI.
S-2900	BC	0	Strip heater, 250 Watt, 120 Volt, G.E., M# 2A264 (Sheath temp. 1000°F)
S-2900	BD	0	Heater guard, # 24 gauge perforated metal with 2-1/4 x 2-1/2" machine bolts and 10 hex. nuts.
	BE		Name plate Lamicoid (size and number determined by Electrical lab.).
P.S.Chatt.	BF	1	Fuse base, 3 pole, 30 amp., 250 volt.
S-2900	BG	3	Knife switch, SPST, 30 amp., 125V, Cat # 783, with bushings for steel panel.
P.S.Chatt.	BH	1	Brass rod 9/16" diameter, 2" long.
P.S.Chatt.	BJ	5	Cartridge fuse, 10amp., 250 volt, one time.
	BK	1	"16SB1BB21B" switch, control switch for grounding switch.
S-2900	BL	1	Target and Tripping Relay, General Electric, 12HA11B12A, Modification A 48V.D.C., 4 Targets, one closing contact per target.
S-2900	BM	1	Relay, undervoltage, G.E. "12IAV53K1A", 120V, 60~ adj. 55-140V SPDT contacts, 0.2-2.0A. target.
S-2900	BN	1	Relay, aux. tripping, hand reset, non-handtrip, 48V. D.C. with mechanical target, 6 main contacts, 3 open & 3 closed in reset position. G.E. "12HEA61A233".
S-2900	BO	1	Set of parts for relocating panel as shown on SC-34034.
S-3725	BP	1	Tape Metering Unit, W for WH-QH-V2H metering, 3&4W, 120V, 60Hz., 2.5 ampere, complete with 4 channel 15 min. interval tape recorder, dwg. 8B2924(outline), 264C550 (connections). Case: 20" x 18 1/2".

<b>REFERENCES:</b>		
Single-Line Diagram	WL-4545	
Three Line Diagram	WL-4587	
Elementary Diagram	WL-4588	
Parts to Relocate Panel	SC-34034	
Conduit Plant Details	LC-49979	
Conduit/Cable List	CMC-49981	

4	Lease-Purchase. See Revision Note 2.				
	2/10/84	A7831.01	DOA	DOA	ENT
3	Field Change RHH-85, 11-9-72				
	10-30-73		DEH	DEH	JHT
	See Revision Note #1				
2	4/15/71	37174	RAH RUST	MKB RUST	RPB RUST
	DNR				
1	Field Change. RHH-48 12/8/69				
	1/1/71		RAH	MKB	RPB
					ENT

CHKD. 554

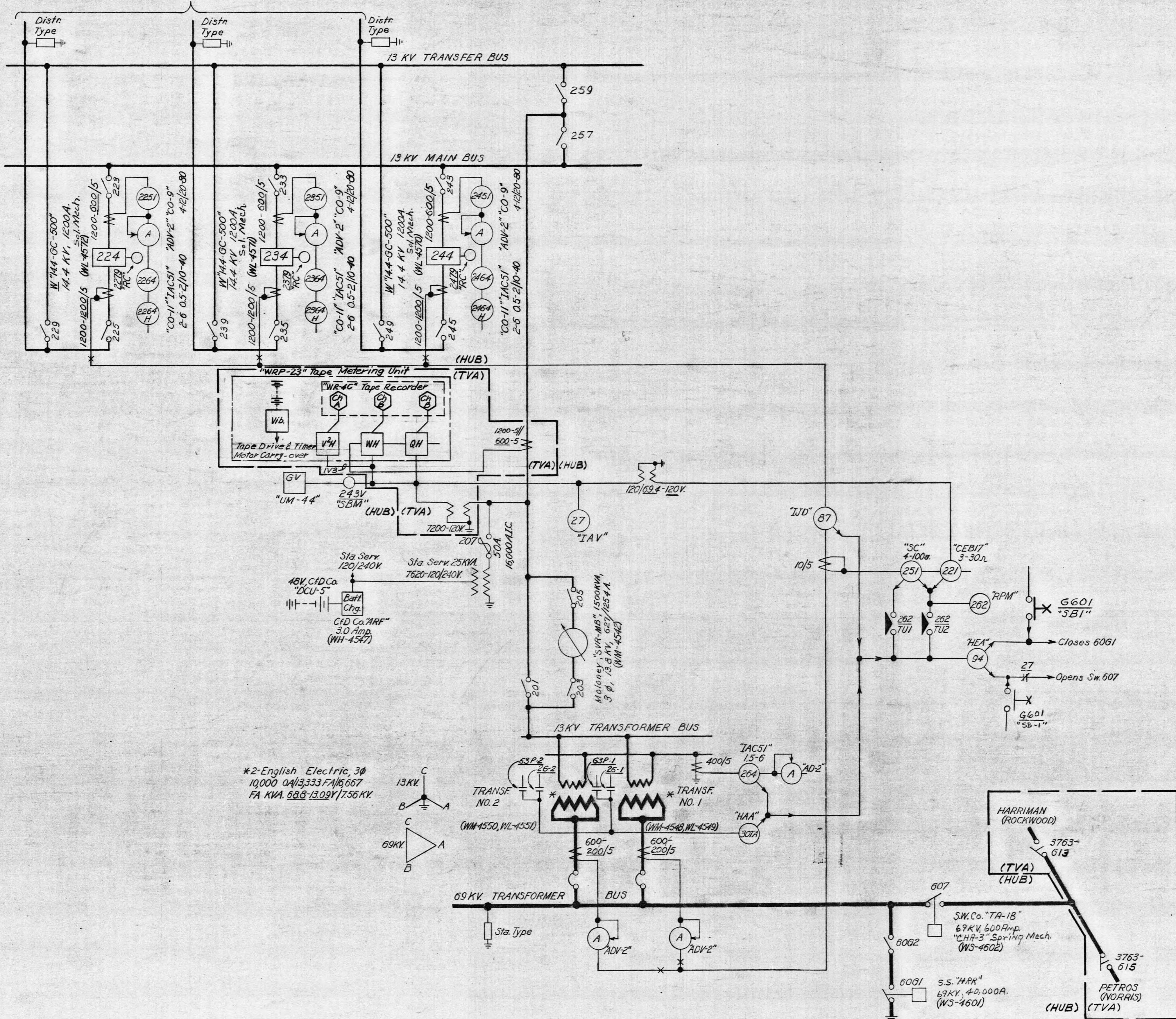
**TENNESSEE VALLEY AUTHORITY**

DIVISION OF POWER PLANNING AND ENGINEERING

**DIVISION OF POWER PLANNING AND ENGINEERING**

**RRIMAN, TENN., SUBSTATION-69KV  
RELAY & METER CABINET  
WEL WIRING F V R V & B/M**

APPROVED	SHEET / OF / SHEETS
<i>W. S. Hunter</i>	WL- 4679 R-4



REVISION NOTES:

1. Retired: Devices 27F-1, 27F-2, "PD-5Y", "DSW-20", "C-16". Added: "WRP-23" Tape Metering Unit
2. Lease-purchase to Harriman U.B. except 69 KV T.L.'s to Harriman and to Petros and 13 KV metering C.T.'s, V.T.'s and meters. Reconnected V2H to IV3 potential.

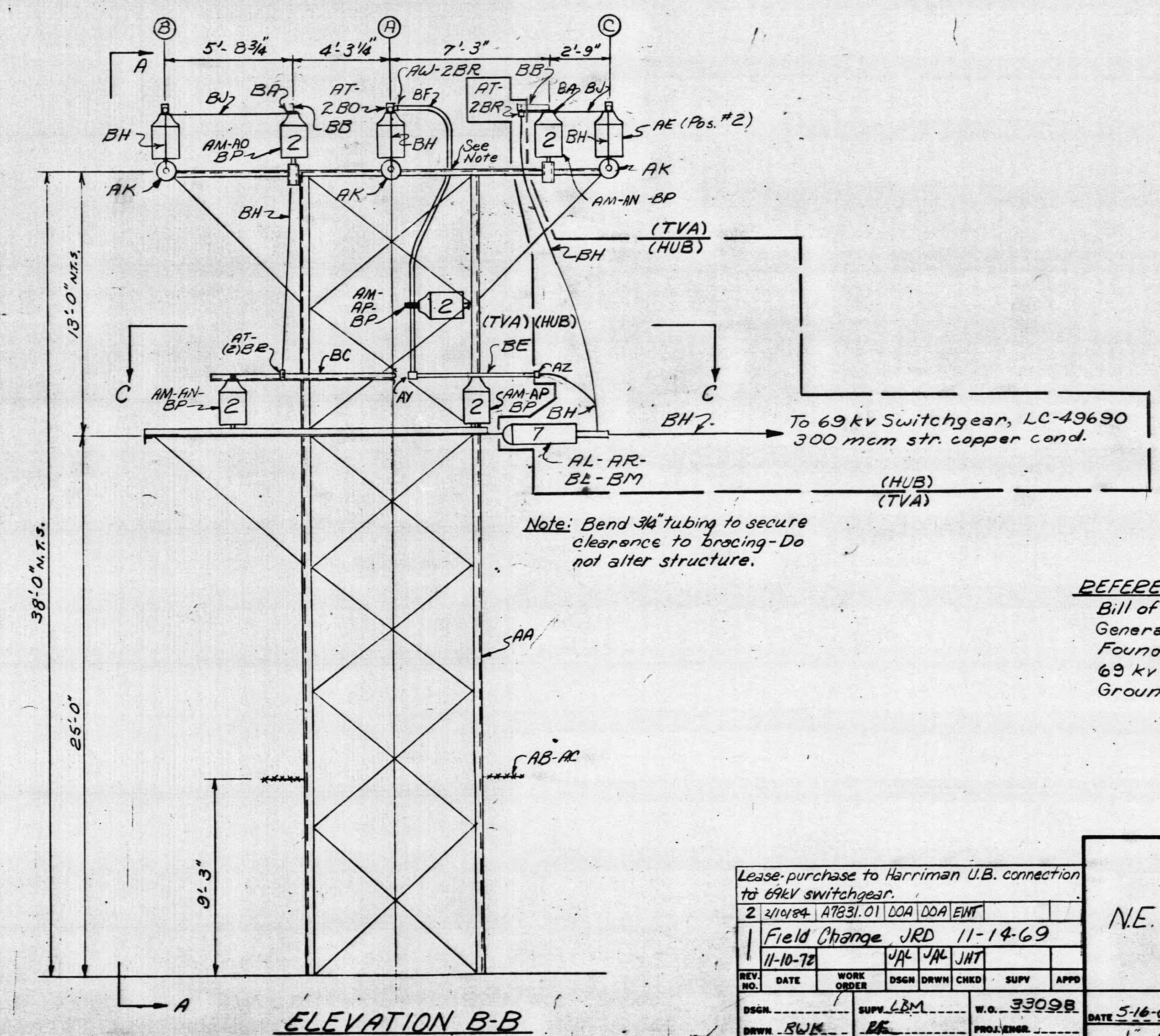
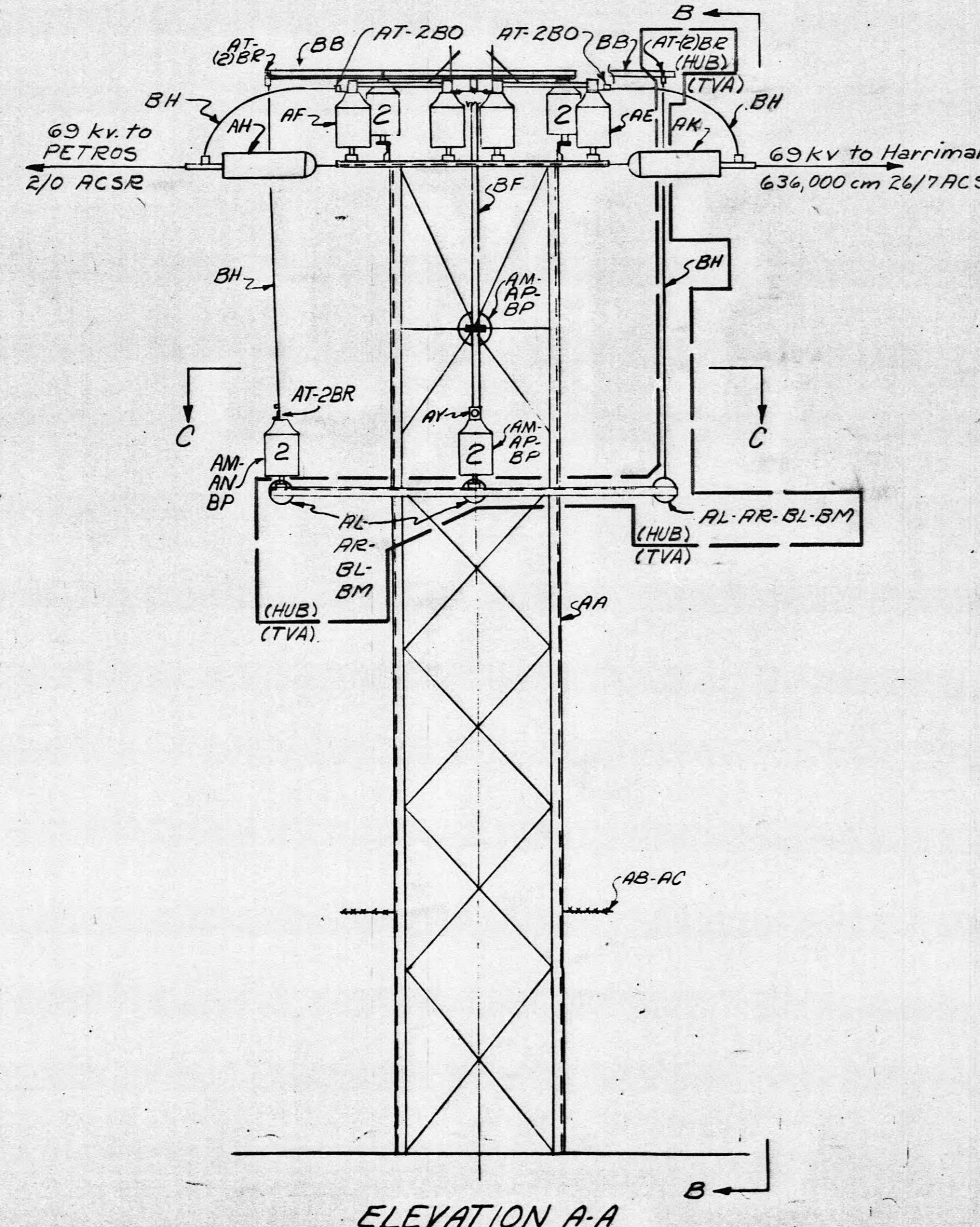
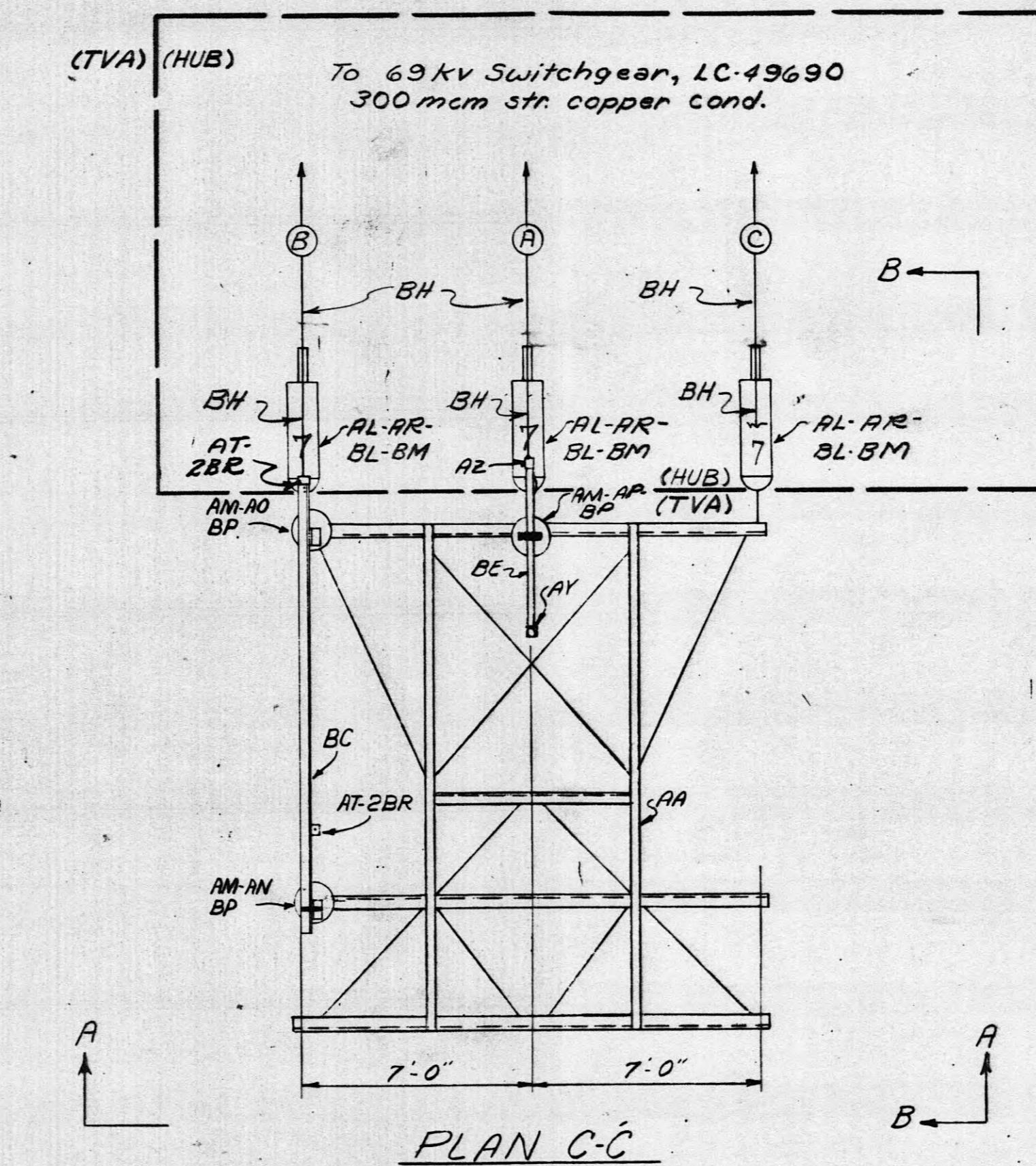
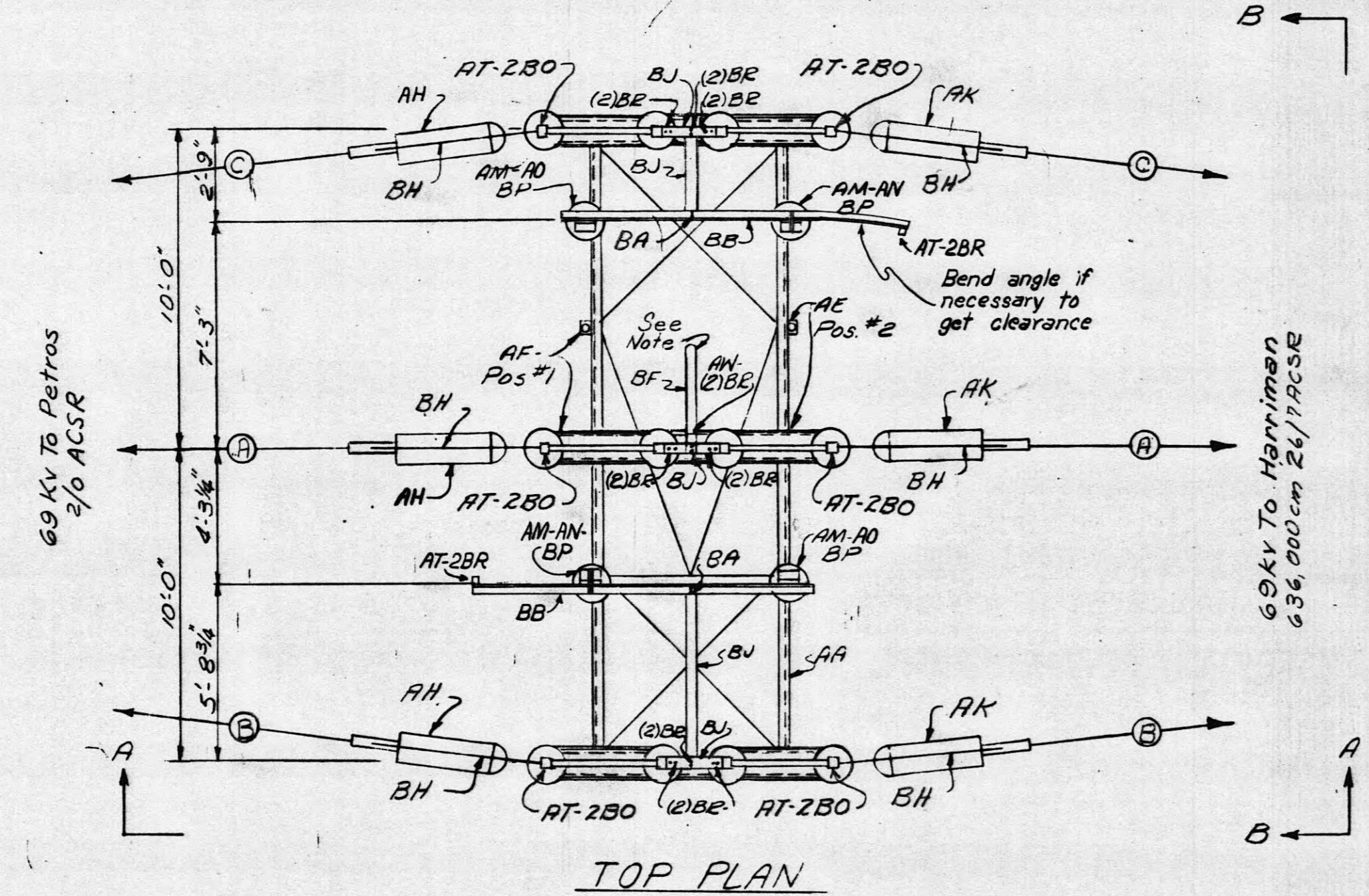
REFERENCES:

- Three Line Diagram
- Elementary Diagram
- Relay/Meter Cab. Panel
- Wiring, RV, FV, & E/M

WL-4587  
WL-4588  
WL-4679

STATION NO. 3703  
TENNESSEE VALLEY AUTHORITY  
DIVISION OF POWER PLANNING AND ENGINEERING  
N.E. HARRIMAN, TENNESSEE SUBSTATION - 69 KV  
SINGLE LINE DIAGRAM

DATE 07/01/69	SUBMITTED BY R. L. Blakely	APPROVED BY F. E. Blakely	SHEET 1 OF 1 SHEET 3
SCALE 1:1000	CLASS CODE 0501	CHKD JGS	WL-4545 R-5



**REFERENCES:**

- Bill of Material ----- BMC-49687
- General Arrangement Plan (Initial) ----- LC-47897
- Foundation Plan ----- LC-49682
- 69 KV Switchgear ----- LC-49690
- Grounding Plan ----- LC-49982

Leave purchase to Harriman U.B. connection to 69 KV switchgear.							
Z-11084-A7831.01 LOA DOA ENT							
Field Change JRD 11-14-69							
11-10-72 JAC JHT							
REV.	DATE	WORK	DESIGN	DRAWN	CHKD	SUP'D	APPROVED
NO.:	ORDER						
DESIGN		SUP'D LBM					
DRAWN	BLK	RE					
CHKD	MMR						

**TENNESSEE VALLEY AUTHORITY**  
DIVISION OF POWER PLANNING AND ENGINEERING

**N.E. HARRIMAN, TENN. SUBSTATION-69 KV.**  
**69 KV TAP STRUCTURE**  
**PLAN AND SECTIONS**

REV. 5-16-69	SUBMITTED <i>Frank Morris</i>	APPROVED <i>R. Westcott</i>
DATE 4-11-69	PROJ. ENGR. R3566	SCALE 4'-0"
NO. 33098	W.O. 33098	SHET 1 / OF 1 SHEETS
DESIGNER <i>Frank Morris</i>	DRAWN BY <i>RE</i>	APPROVED BY <i>R. Westcott</i>
DRAWN BY <i>MMR</i>	PROJ. ENGR. <i>R3566</i>	SCALE <i>4'-0"</i>

**LC49686-2**

