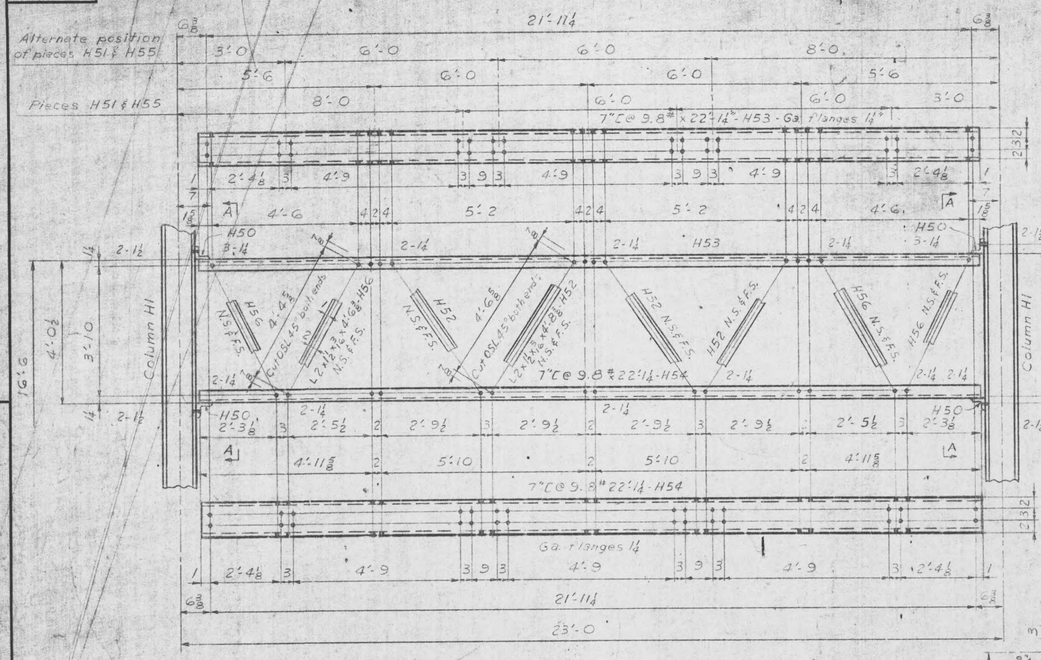
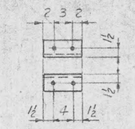
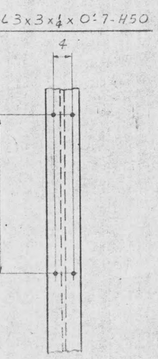
D-80207

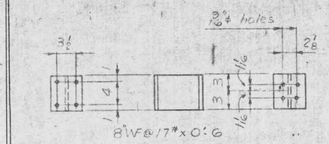


FUSE SUPPORT - F1A

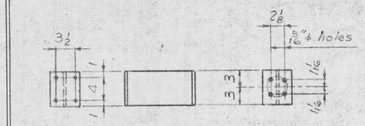




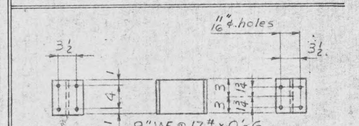
SECTION A-A



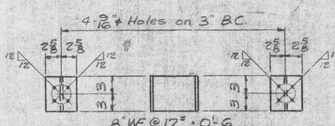
INSULATOR SUPPORT - H70



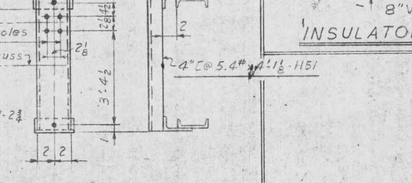
INSULATOR SUPPORT - H71

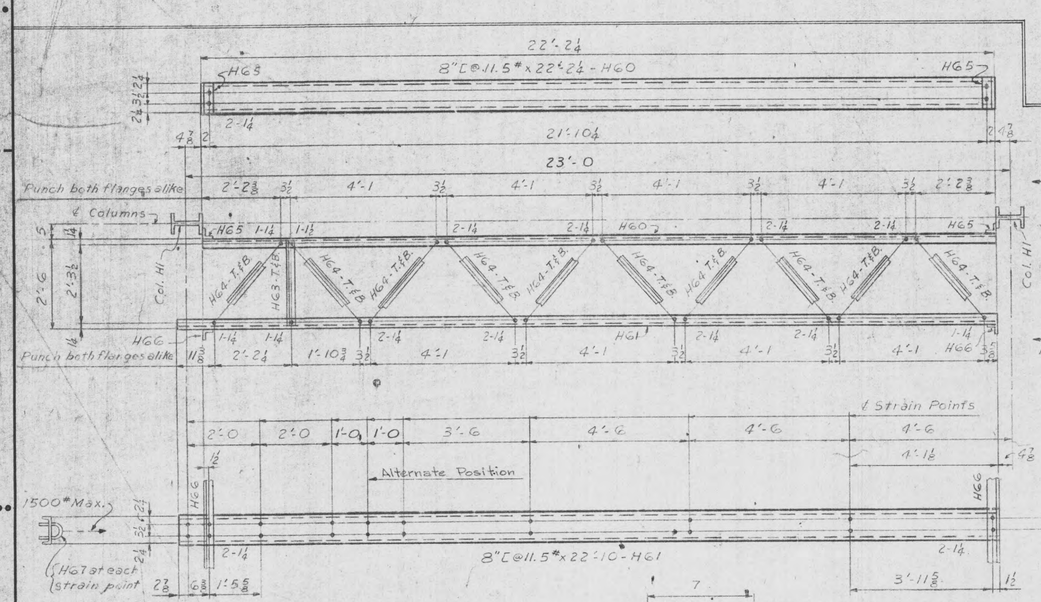


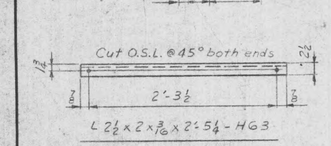
INSULATOR SUPPORT - H80



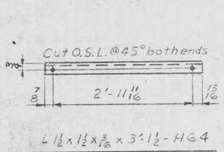
INSULATOR SUPPORT H81



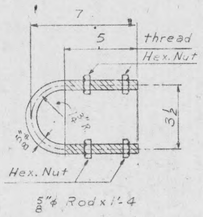




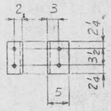
L 2½ x 2 x 5/16 x 2'-5¼ - HG3



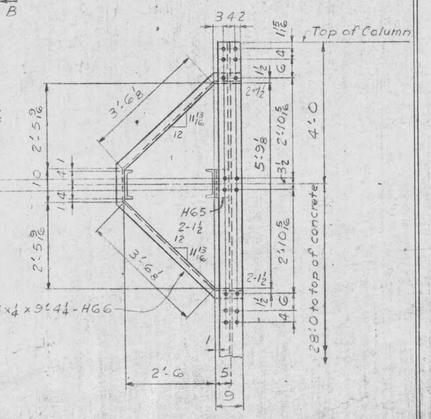
L 1½ x 1½ x 5/16 x 3'-1½ - HG4



U-BOLT HG7



L 5 x 3½ x 5/16 x 0'-8 - HG5



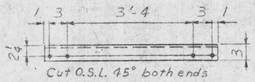
SECTION B-B

To reverse position of pull-offs assemble truss as shown and turn it upside down.

STRAIN BRACKET - S3

Partial Elevation Fuse Support F1A

DETAIL "A"



L 3x2x¼ x 4'-0 - A1

BILL OF MATERIAL FOR ONE DETAIL "A"

MARK	NO. REQ'D.	DESCRIPTION	LENGTH Ft.	LENGTH In.	WT. EACH
A1	2	L 3x2x¼	4	0	17
	5	⅝ϕ bolts	0	1½	0.33

Weight = 36#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT H81

MARK	No. REQ'D.	DESCRIPTION	LENGTH Ft.	LENGTH In.	WT. EACH
H81	1	8"WF@17#	0	6	9
	5	½ϕ Bolts	0	1¼	0.17

WEIGHT = 10#

BILL OF MATERIAL FOR ONE FUSE SUPPORT - F1A

MARK	NO. REQ'D	DESCRIPTION	LENGTH Ft.	LENGTH In.	WT. EACH
H50	4	L 3x3x¼	0	7	3
H51	3	4"C@ 5.4#	4	1½	23
H52	8	L 2x1½ x 3/16	4	8⅜	10
H53	1	7"C@ 9.8#	22	1¼	223
H54	1	do.	22	1¼	223
H55	6	L 5x3x 5/16	0	5	4
H56	8	L 2x1½ x 3/16	4	6⅜	10
	57	⅝ϕ bolts	0	1¼	0.27
	9	do.	0	1½	0.29
	7	do.	0	2⅜	0.39

Weight = 732#

BILL OF MATERIAL FOR ONE STRAIN BRACKET - S3

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT	LENGTH IN	WT. EACH
H60	1	8"[@11.5#	22	2¼	263
H61	1	do.	22	10	257
H63	2	L 2½ x 2 x 1/16	2	5¾	7
H64	20	L 1½ x 1½ x 1/16	3	1½	6
H65	2	L 5 x 3½ x 5/16	0	8	6
H66	2	L 3x3x¼ (Bent)	9	4¼	47
H67	7	U-bolt ⅝ϕ with 4 hex nuts		4	3
	53	⅝ϕ bolts	0	1¼	0.27
	15	do.	0	1½	0.29

Weight = 806#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT - H70

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT	LENGTH IN	WT. EACH
H70	1	8"WF@17#	0	6	9
	5	⅝ϕ bolts	0	1¼	0.27

Weight = 70#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT - H71

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT	LENGTH IN	WT. EACH
H71	1	12"I@ 31.8#	0	6	16
	5	⅝ϕ bolts	0	1¼	0.28

Weight = 17#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT - H80

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT	LENGTH IN	WT. EACH
H80	1	8"WF@17#	0	6	9
	5	⅝ϕ bolts	0	1¼	0.27

Weight = 10#

NOTES:

All holes 11/16" ϕ unless otherwise noted.
Material shall be hot dip galvanized after fabrication.
Piece marks to be die stamped before galvanizing.

REFERENCE:

Details of 66 K.V. Bus and Switch Structure - LC-17523 (Strain Bus)
Details of 66 K.V. Bus and Switch Structure - LC-23257 (Rigid Bus)

REV. NO.	DATE	WORK ORDER	DSGN	DRWN	CHKD	SUPV.	APPD.
5	4-24-67			DMC	L	DC	

Redrawn & added Insl. Support H81

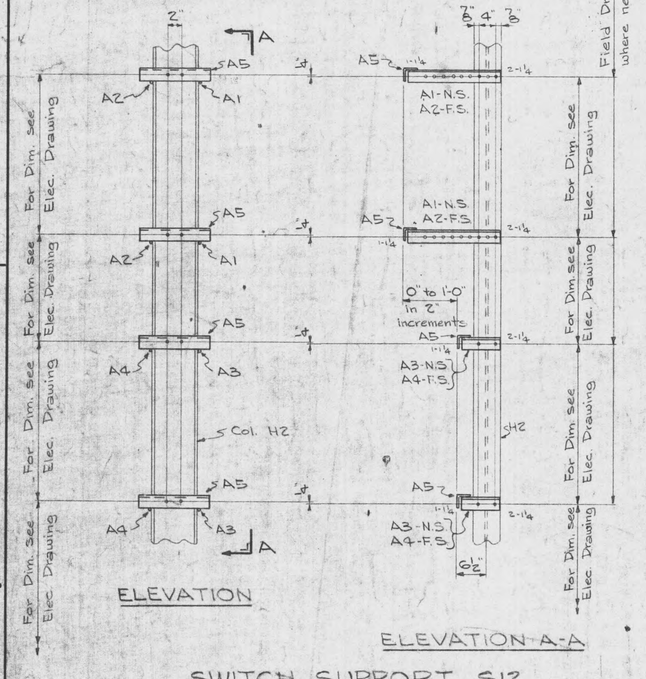
DSGN. ____ SUPV. ____ W.O. ____
DRWN. ____ PROJ. ENGR. ____
CHKD. ____

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PLANNING AND ENGINEERING
SUBSTATIONS GENERAL
MISCELLANEOUS STEEL FOR
66 K.V. BUS AND SWITCH STRUCTURE

DATE 11-14-47 | SUBMITTED | APPROVED | SHEET 1 OF 5 SHEETS
SCALE None | CLASS. CODE 5300E 10 | LC-20864 R-5

MICROFILMED

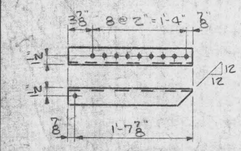
LC-20864



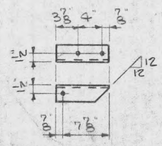
ELEVATION

ELEVATION A-A

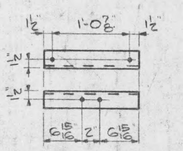
SWITCH SUPPORT S12



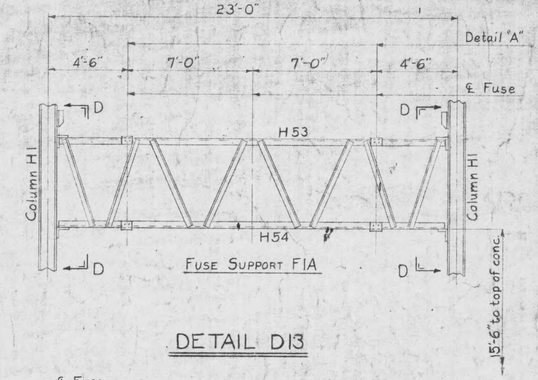
L3×3×¼×1'-8¾"-A1-(As Shown)
Do. ×1'-8¾"-A2-(Opp Hand)



L3×3×¼×0'-8¾"-A3 (As Shown)
Do. ×0'-8¾"-A4 (Opp Hand)

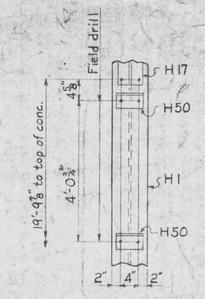


L3×3×¼×1'-3⅞"-A5

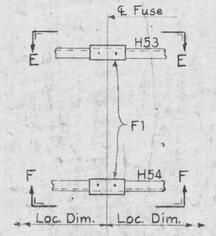


FUSE SUPPORT F1A

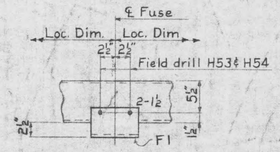
DETAIL D13



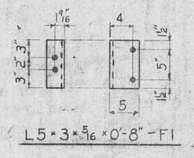
SECTION D-D



DETAIL "A"



SECTION E-E (As Shown)
SECTION F-F (Opp Hand)



L5×3×5/16×0'-8"-F1

BILL OF MATERIAL FOR ONE SWITCH SUPPORT S12

No. Req'd.	Mark	Description	Length Ft.	Length In.	Wt. Each
2	A1	L3×3×¼ *	1	8¾	9
2	A2	Do.	1	8¾	9
2	A3	Do.	0	8¾	4
2	A4	Do.	0	8¾	4
4	A5	Do.	1	3⅜	7
26		⅝" ϕ Bolts	0	1¼	0.31

TOTAL WEIGHT = 85#

BILL OF MATERIAL FOR ONE DETAIL D13

No. Req'd.	Mark	Description	Length Ft.	Length In.	Wt. Each
4	F1	L5×3×5/16	0	8	6
9		⅝" ϕ Bolts	0	1½	0.285

TOTAL WEIGHT = 27#

NOTES:

Holes 1⅛" ϕ unless noted.
Piece marks to be die stamped before galvanizing.
Material to be hot dip galvanized after fabrication.

REFERENCE:

Details of 66KV Bus & Switch Structure ___LC-23257

REV. NO.	DATE	WORK ORDER	DSGN.	DRWN.	CHK'D.	SUPV.	APP'D.
1	Added Detail D13 9-2-71			WSC	WHFH	[illegible]	RWB

DSGN. ___ SUPV. DL ___ W.O. ___
DRWN. DTA. ___ PROJ. ENGR. WGT
CHK'D. J.B.R. ___

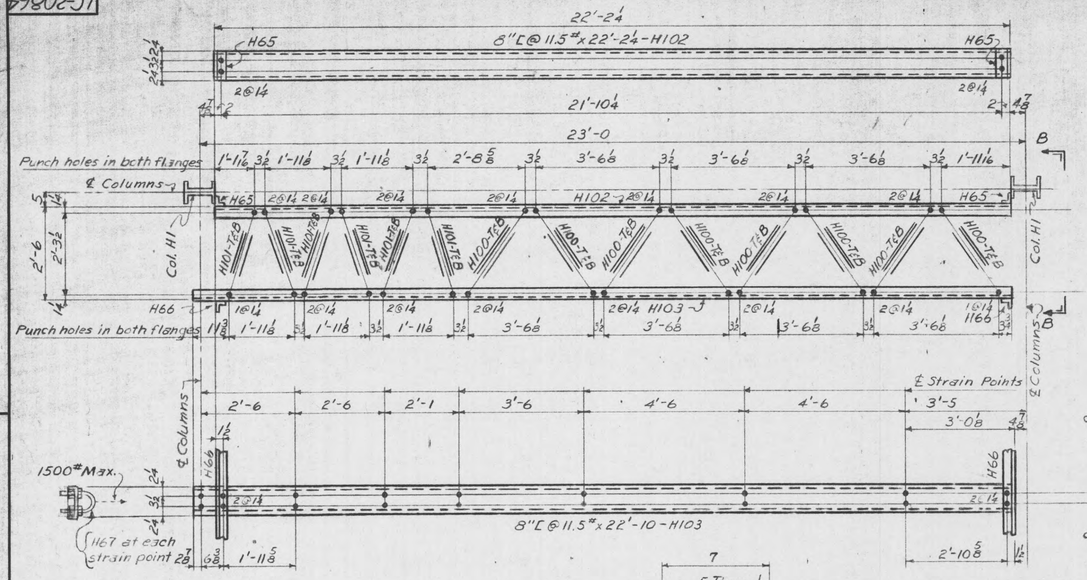
TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PLANNING AND ENGINEERING

SUBSTATIONS GENERAL
MISCELLANEOUS STEEL FOR
66KV BUS AND SWITCH STRUCTURE

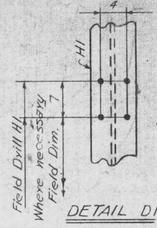
DATE 10-4-67 | SUBMITTED 10-5-67 | APPROVED | SHEET 5 OF 5 SHEETS
SCALE N.T.S. | CLASS. CODE 5.304E | LC-20864 R-1

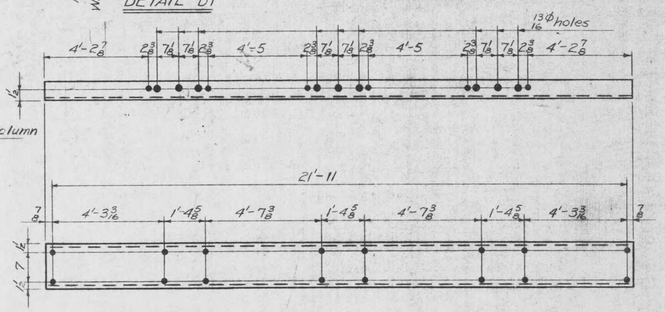
MICROFILMED

LC-20864

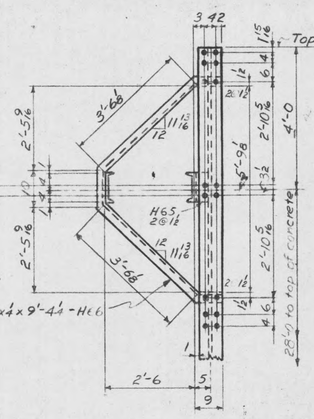


To reverse position of pull-offs assemble truss as shown and turn it upside down.

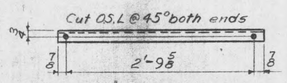




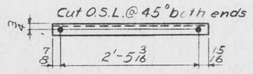
10"L@15.3# x 22'-0¾ H110



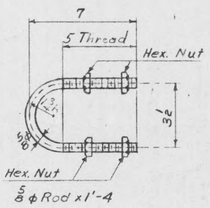
SECTION B-B



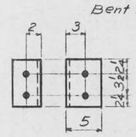
L-1½x1½x3/16x2'-11⅞-H100



L-1½x1½x3/16x2'-7-H101

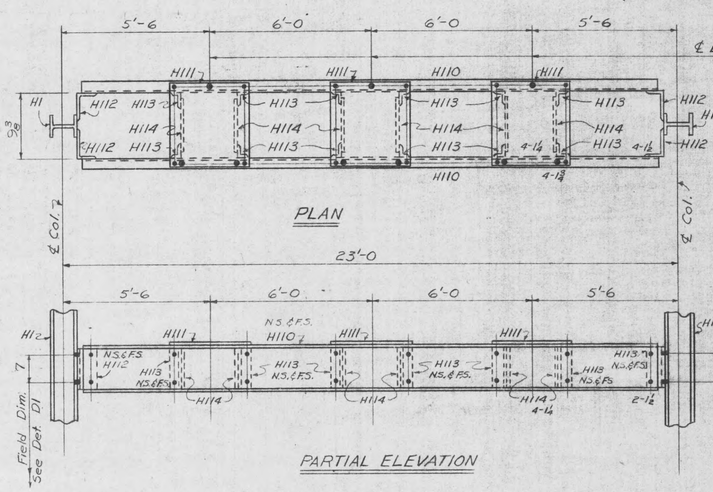


U-BOLT H67

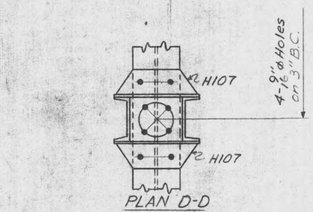


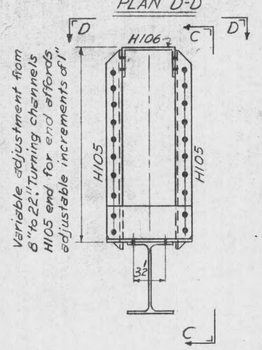
L-5x3½x5/16x0'-8-H65

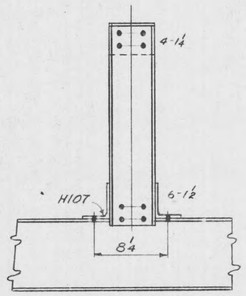
Bent L-3x3x¼x9'-4¼-H66



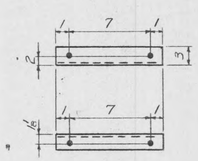
LIGHTNING ARRESTER SUPPORT



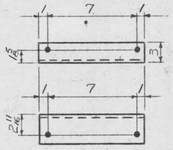




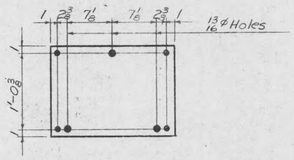
ELEVATION C-C



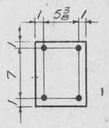
L-3x2x¼x0'-9 H113



L-4x3x⅜x0'-9 H112

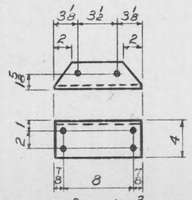


PL-14⅜x⅜x1'-9 H111

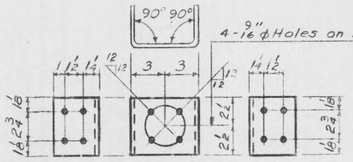


PL-7⅜x¼x0'-9 H114

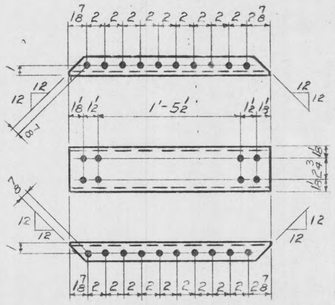
TYPICAL DETAIL OF INSULATOR SUPPORT S2A
(See switchgear drawings for location)



L4x3x5/16x0'-9⅜-H107



BENT PLATE -5x⅜x1'-1½-H106



5"L@6.7#x1'-10¾-H105

NOTES:

All holes 11/16 ϕ unless otherwise noted.
Material shall be hot dip galvanized after fabrication.
Piece marks to be die stamped before galvanizing.

REFERENCE:

Details of 66 KV. Bus and Switch Structure -- LC-23257
Outline of Lightning Arrester _____ XA-638A1

BILL OF MATERIAL FOR ONE STRAIN BRACKET -S3A

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H65	2	L-5x3½x5/16	0	8	6
H66	2	L-3x3x¼ (Bent)	9	4¼	47
H67	7	U bolt ⅝ ϕ, with 4 hex nuts	1	4	2
H100	16	L-1½x1½x3/16	2	11⅜	5
H101	12	do	2	7	5
H102	1	8"L@11.5#	22	2¼	263
H103	1	do	22	10	271
	70	⅝ ϕ bolt	0	1¼	0.31
	13	do	0	1½	0.33

Total Weight - 820#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT -S2A

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H105	2	5"L@6.7#	1	10¾	13
H106	1	Bt. PL. 5x⅜	1	1½	7
H107	2	L4x3x5/16	0	9¾	6
	9	⅝ ϕ Bolts	0	1¼	0.31
	13	do	0	1½	0.33

Total Weight - 52#

BILL OF MATERIAL FOR ONE LIGHTNING ARRESTER SUPPORT

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H110	2	10"L@15.3#	22	0¾	349
H111	3	PL-14⅜x⅜	1	9	33
H112	4	L-4x3x⅜	0	9	7
H113	12	L-3x2x¼	0	9	3
H114	6	PL-7⅜x¼	0	9	5
	53	⅝" ϕ Bolts	0	1¼	0.31
	18	do	0	1½	0.33
	13	do	0	1¾	0.36

Total Wt. 918#

REV. NO.	DATE	WORK ORDER	DSGN.	DRWN.	CHKD.	SUPV.	APPD.
2	4-24-67			D.E.P.	L	DL	WGT

Redrawn & added lightning arrester support

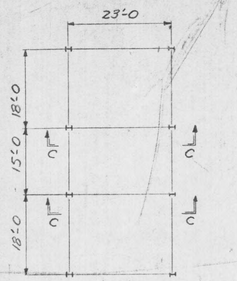
DSGN. _____ SUPV. _____ W.O. _____
DRWN. _____ PROJ. ENGR. _____
CHKD. _____

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PLANNING AND ENGINEERING

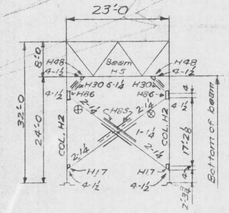
SUBSTATIONS GENERAL
MISCELLANEOUS STEEL FOR
66 KV. BUS AND SWITCH STRUCTURE

DATE 11-8-60 | SUBMITTED 4-28-67 | APPROVED
SCALE None | CLASS. CODE 3501E
SHEET 4 OF 5 SHEETS | LC-20864 | R-2

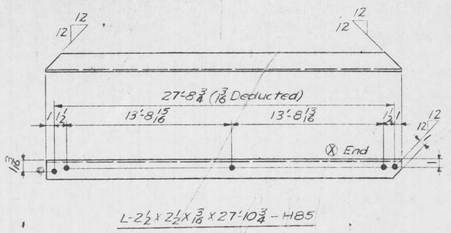
LC-20864



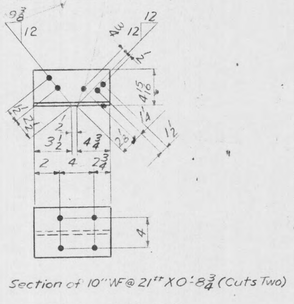
KEY PLAN



SECTION C-C
(Showing Bracing X1)
ERECTION DIAGRAM

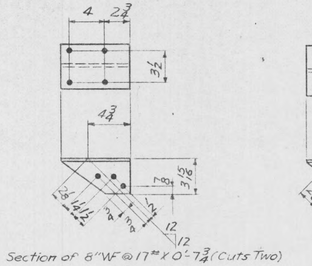


L-2½ x 2½ x 3/16 x 27'-10⅜" - H85



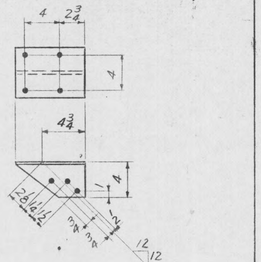
Section of 10" WF @ 21# X 0'-8¾" (Cuts Two)

BEAM SECTION - H86



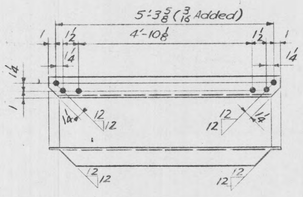
Section of 8" WF @ 17# X 0'-7¾" (Cuts Two)

BEAM SECTION - H48



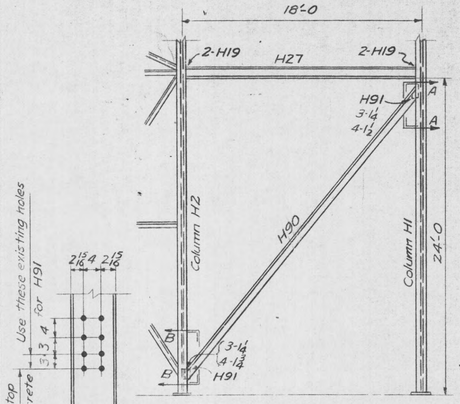
Section of 10" WF @ 21# X 0'-7¾" (Cuts Two)

BEAM SECTION - H17



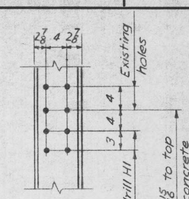
L-3X3X¼X5'-5⅜" - H30

BRACING - X1

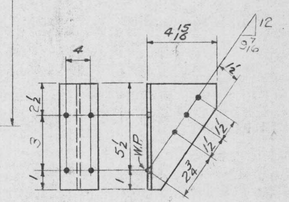


ELEVATION
(Showing bracing X2)
ERECTION DIAGRAM

SECTION - B - B

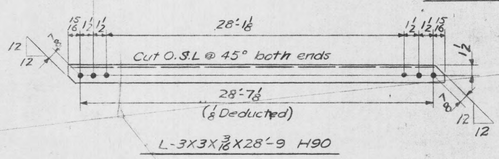


SECTION A-A



Section of 10" WF 21# X 0'-5" (Cuts Two)

BEAM SECTION H91



L-3X3X3/16X28'-9 H90

BRACING - X2

BILL OF MATERIAL FOR ONE SET OF BRACING - X1

MARK	NO. REQ'D.	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H17	2	Sect. of 10" WF @ 21# (Cuts Two)	0	7¾	7
H30	2	L-3X3X¼	5	5⅜	2.8
H48	2	Sect. of 8" WF @ 17# (Cuts Two)	0	7¾	6
H85	2	L-2½X2½X3/16	27	10⅜	8.8
H86	2	Sect. of 10" WF @ 21# (Cuts Two)	0	8¼	8
	23	⅝"ø Bolts	0	1¼	0.31
	26	do.	0	1½	0.33

Total Weight = 288#

BILL OF MATERIAL FOR ONE INSULATOR SUPPORT - S10

MARK	NO. REQ'D.	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H87	1	6X6-B @ 15.5#	6	10	109
H88	2	L-3X2½X¼	0	9	3
	9	⅝"ø Bolts	0	1¼	0.31

Total Weight = 117#

BILL OF MATERIAL FOR ONE SET OF BRACING - X2

MARK	NO. REQ'D.	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H90	1	L-3X3X3/16	28	9	110
H91	2	Sect. of 10" WF @ 21# (Cuts Two)	0	6½	6
	7	⅝"ø Bolts	0	1¼	0.31
	5	do.	0	1½	0.33
	5	do.	0	1¾	0.36

Total Weight = 128#

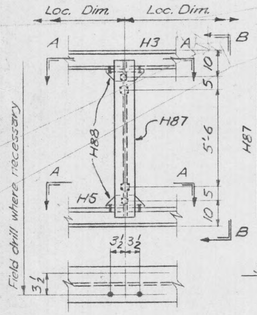
BILL OF MATERIAL FOR ONE INSULATOR SUPPORT S11

NO. REQ'D	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
1	H95	L 2½ x 2 x 3/16	6	5⅝	18
1	H96	Do.	6	5⅝	18
1	H97	5"C @ 6.7#	6	5⅝	45
20		⅝"ø Bolts	0	1¼	0.31

TOTAL WEIGHT = 87#

REFERENCE:
Details of 66 KV. Bus and Switch Structure - LC-17523 (Strain Bus)
Details of 66 K.V. Bus and Switch Structure - LC-23257 (Rigid Bus)

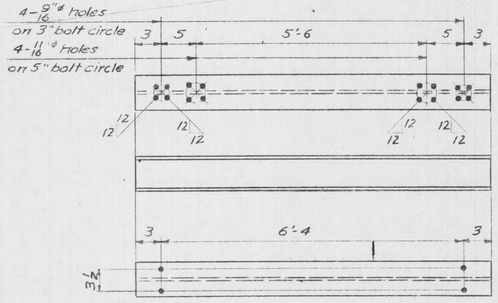
NOTES:
Holes 1 1/16"ø unless noted.
Piece marks to be die stamped before galvanizing.
Material to be hot dip galvanized after fabrication.



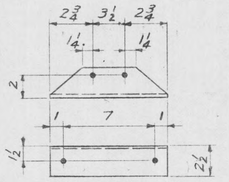
Field drill where necessary

SECTION A-A

SECTION B-B

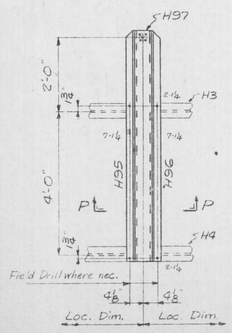


6"X6-B @ 15.5# X 6'-10 - H87

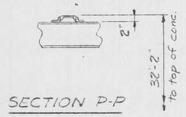


L-3X2½X¼X0'-9 - H88

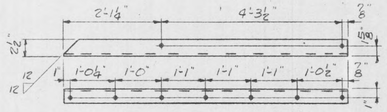
INSULATOR SUPPORT S10



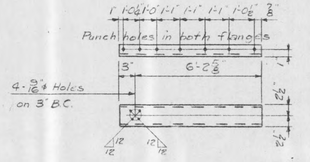
PLAN



SECTION P-P



L 2½ x 2 x 3/16 x 6'-5⅝" - H95 (AS SHOWN)
Do. x 6'-5⅝" - H96 (OPP. HAND)



5"C @ 6.7# x 6'-5⅝" - H97

INSULATOR SUPPORT S11

REV. NO.	DATE	WORK ORDER	DSGN	DRWN	CHKD.	SUPV.	APPD.
3	4-28-67	Redrawn & added Insl. Support S11		JTE	L	DL	WCT

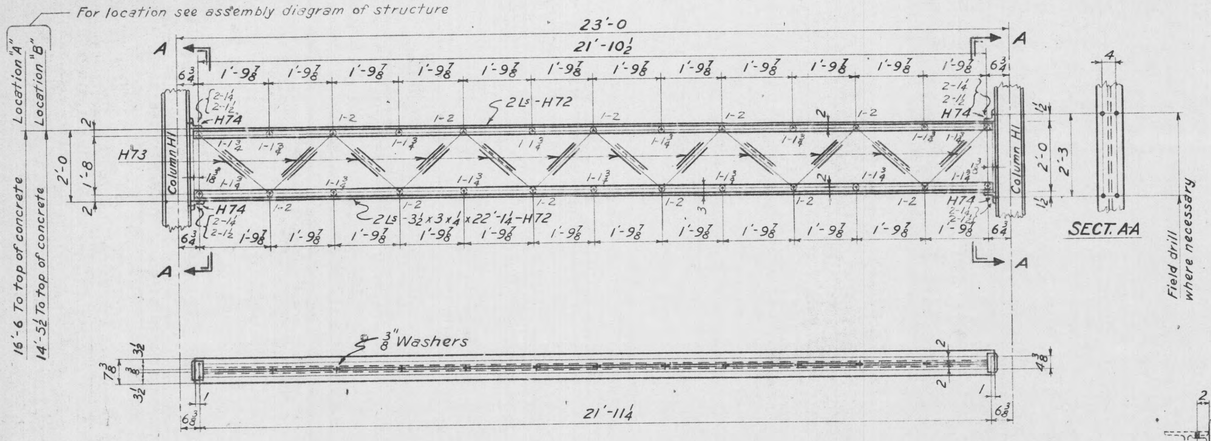
DSGN. ____ SUPV. ____ W.O. ____
DRWN. ____ PROJ. ENGR. ____
CHKD. ____

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PLANNING AND ENGINEERING

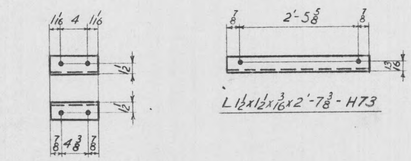
SUBSTATIONS GENERAL
MISCELLANEOUS STEEL FOR
66 K.V. BUS AND SWITCH STRUCTURE

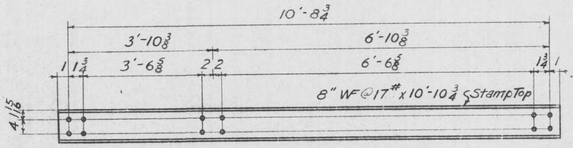
DATE 12-3-52 | SUBMITTED 4-28-67 | APPROVED
SCALE NONE | CLASS. CODE | SHEET 3 OF 5 SHEETS
LC-20864 | R-3

LC-20864

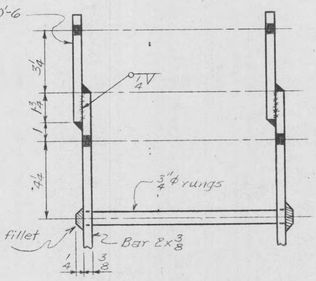


TRUSS T1

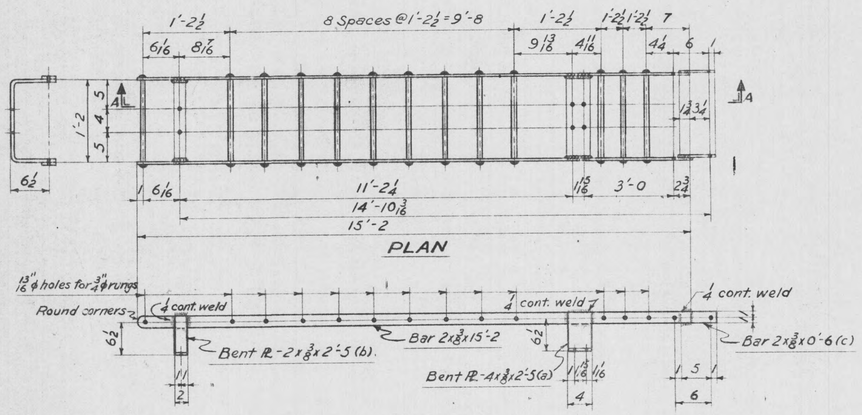




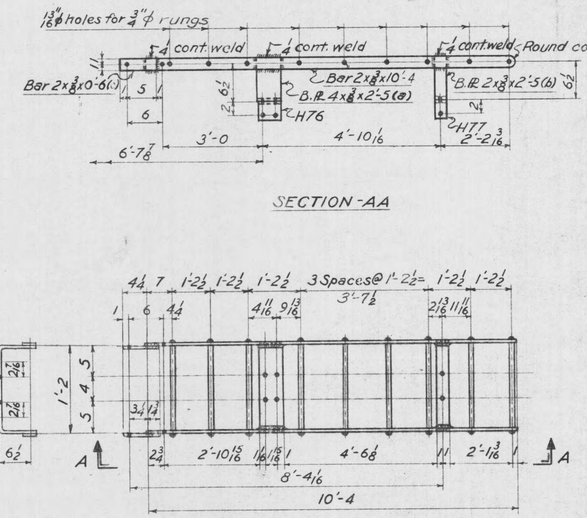
BEAM H75



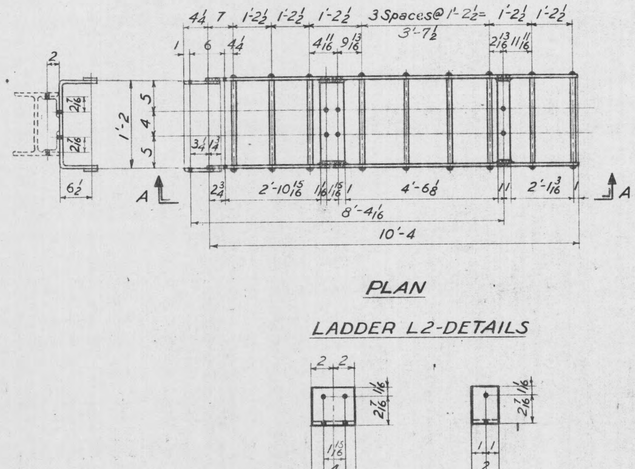
Splice Details For Ladders



SECTION-AA

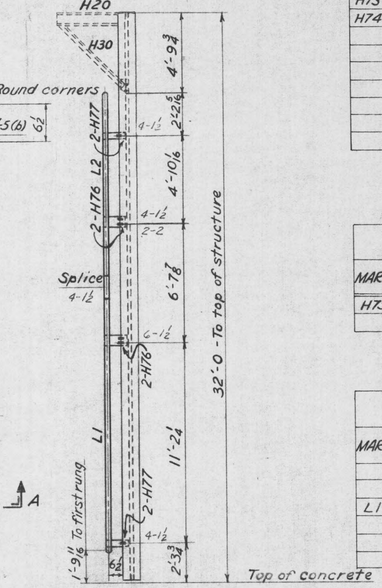


SECTION-AA

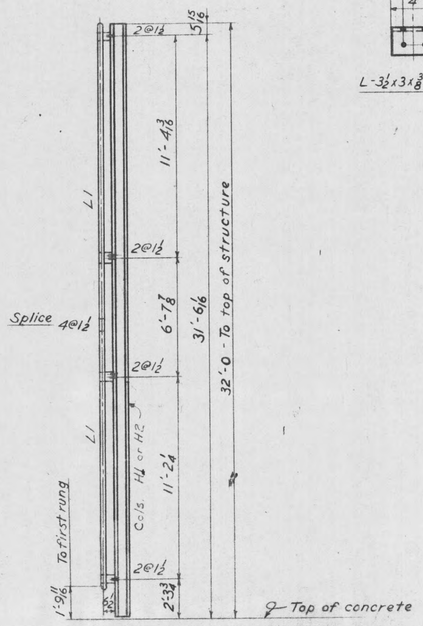


PLAN

LADDER L2-DETAILS



LADDER L1 & L2 ERECTION DIAGRAM



2-LADDERS L1-ERECTION DIAGRAM

BILL OF MATERIAL FOR ONE TRUSS T1

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H72	4	L 3½ x 3 x ¼	22	1¼	123
H73	12	L 1½ x 1½ x 3/16	2	7⅞	5
H74	4	L 3 x 3 x ¼	0	6⅝	3
	29	Washers, ⅜" th., 1½" OD, 13/16" hole			0.15
	9	⅞ ϕ bolts	0	1¼	0.27
	9	do	0	1½	0.29
	17	do	0	1¾	0.31
	12	do	0	2	0.33

Total Weight = 583#

BILL OF MATERIAL FOR ONE BEAM H75

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
H75	1	8" WF @ 17#	10	10¾	191

Total Weight = 191#

BILL OF MATERIAL FOR ONE LADDER L1

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
		2 Bars - 2x⅜	15	2	
		13 Bars - ¾ ϕ	1	3¼	
L1	1	1 Bent PL - 4x⅜ (a)	2	5	127
		1 Bent PL - 2x⅜ (b)	2	5	
		2 Bars - 2x⅜ (c)	0	6	
	7	⅝" ϕ Bolts	0	1½	029

Total Weight = 129#

BILL OF MATERIAL FOR ONE LADDER L2

MARK	NO. REQ'D	DESCRIPTION	LENGTH FT.	LENGTH IN.	WT. EACH
		2 Bars - 2x⅜	10	4	
		9 Bars - ¾ ϕ	1	3¼	
L2	1	1 Bent PL - 4x⅜ (a)	2	5	93
		1 Bent PL - 2x⅜ (b)	2	5	
		2 Bars - 2x⅜ (c)	0	6	
H76	4	L 3½ x 3 x ⅜	0	4	3
H77	4	do	0	2	1
	24	⅝" ϕ Bolts	0	1½	0.29
	2	do	0	2	0.33

Total Weight = 117#

NOTES =

All holes 11/16" ϕ unless noted otherwise.
Material shall be hot dip galvanized after fabrication.
Piece marks to be die stamped before galvanizing.

REFERENCE =

Details of 66 KV Bus and Switch Structure. LC-17523 & LC-23257

REV. NO.	DATE	WORK ORDER	DSGN.	DRWN.	CHKD.	SUPV.	APPD.
4	11-9-67	Added splice detail for ladders		DEP	L	DL	WGT
3	4-24-67	REDRAWN		ROR	L	DL	WGT

DSGN. ____ SUPV. ____ W.O. ____
DRWN. ____ PROJ. ENGR. ____
CHKD. ____

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PLANNING AND ENGINEERING

SUBSTATIONS GENERAL
MISCELLANEOUS STEEL FOR
66 KV BUS AND SWITCH STRUCTURE

DATE 11-14-47 | SUBMITTED 11-28-67 | APPROVED | SHEET 2 OF 5 SHEETS
SCALE N.T.S. | CLASS. CODE 53941 | LC-20864 | R-4

MIRROR IMAGE