

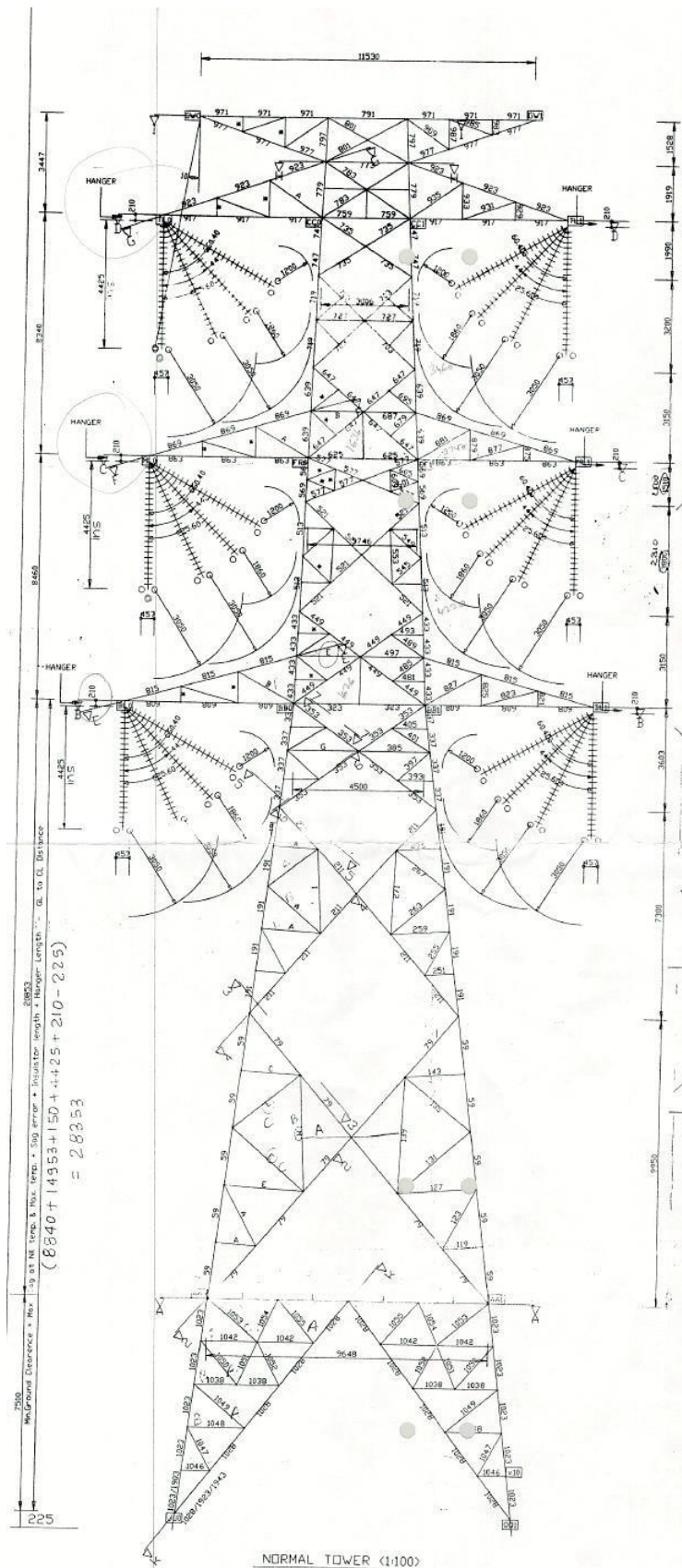
## **APPENDIX – A**

**General Information & Implementation Schedule  
for Supply and Installation of OPGW on existing 400 kV  
Koldam – Ludhiana (PG) line which is LILOed at 400 kV  
Ropar (PSTCL) (150 kms) approved as Communication  
Scheme in the 11th meeting of NCT (“Project”).**

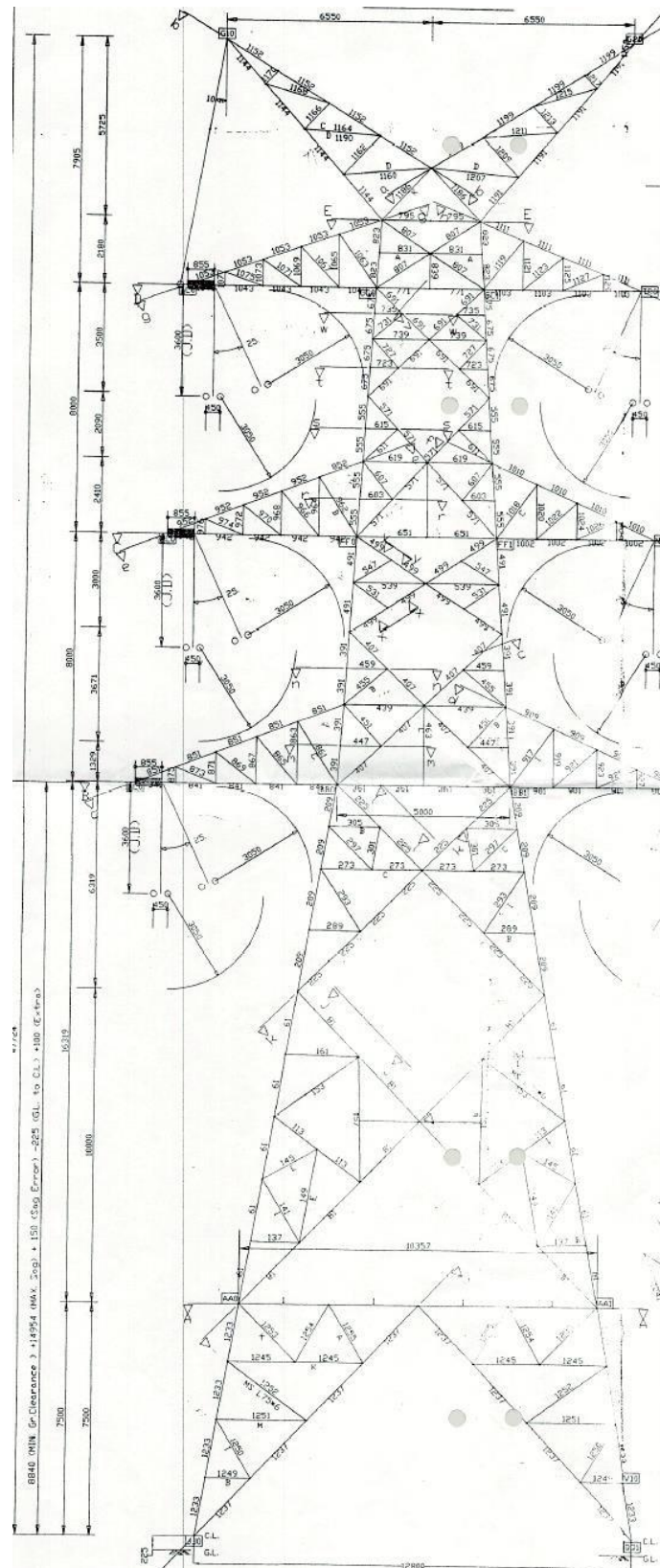
## Sag Tension:

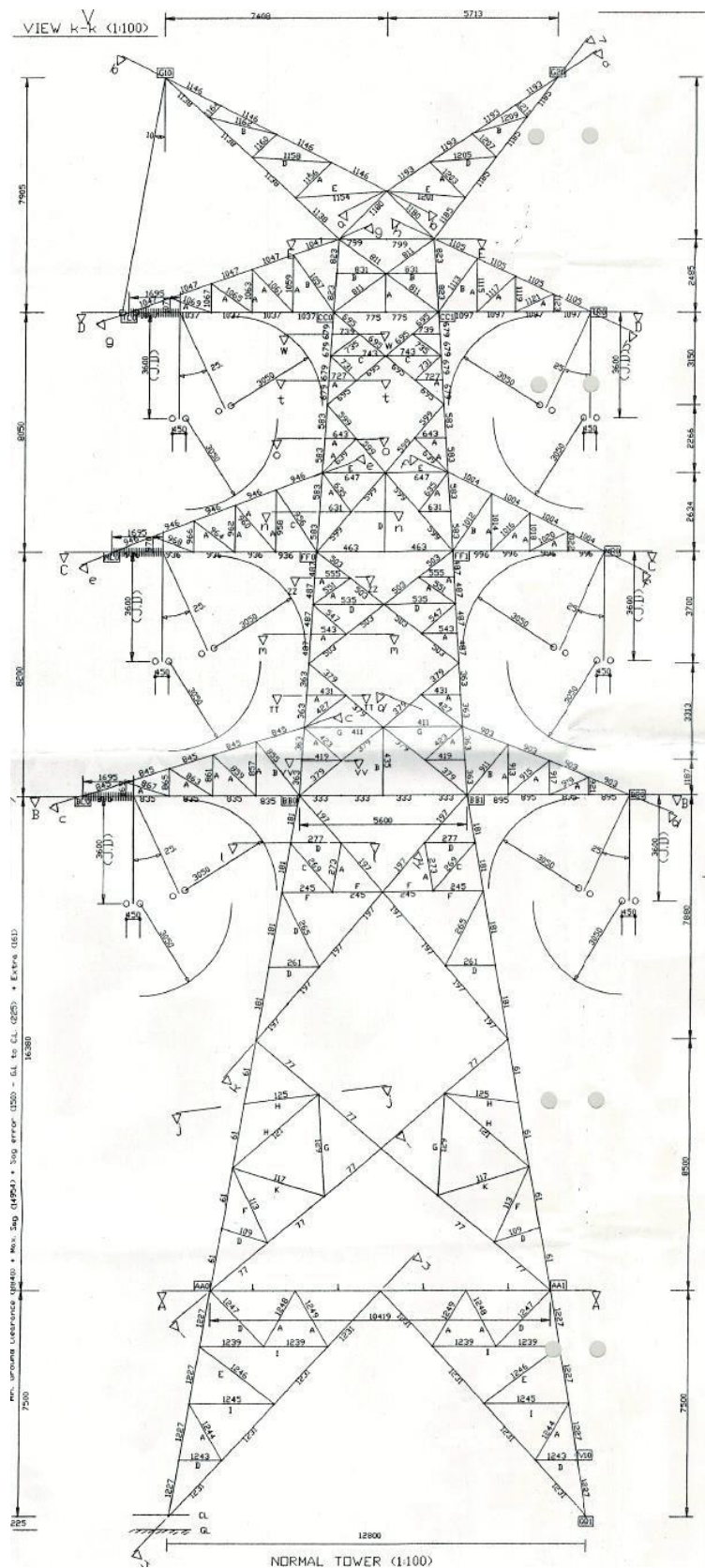
NORMAL SPAN	M	400	400
		CONDUCTOR	EARTH WIRE
NAME		ACSR "SNOWBIRD"	GSW
DIA	CM	3.0560	1.0980
AREA	CM^2	5.5210	0.7365
UNIT WT	KG/M	1.6570	0.5830
ULT STRENGTH	KG	12029	6972
E	KG/CM^2	6.320E+05	1.9360E+06
AL	/DEG	2.1200E-05	1.1500E-05
WIND PR	KG/M^2	162	201
MIN TEMP	DEG	0	0
EVERY DAY TEMP	DEG	32	32
MAX TEMP	DEG	85	53
		WORKING TENSION KG	SAG M
			WORKING TENSION KG
			SAG M
32 DEG NIL WIND		2646	12.523
32 DEG FULL WIND		6888	-
0 DEG NIL WIND		2998	11.05
0 DEG 36% WIND		4098	-
53 DEG NIL WIND		-	1025
85 DEG NIL WIND		2248	14.744
<p>STARTING CONDITION:</p> <p>IF EQUIVALENT SPAN &gt; NORMAL SPAN THEN FOR CONDI 32 DEG FULL WIND FOR EARTH 32 DEG FULL WIND</p> <p>IF EQUIVALENT SPAN &lt;= 132 DEG NO WIND FOR CONDI 32 DEG NO WIND FOR EARTH WIRE</p>			

# TOWER TYPE: DA



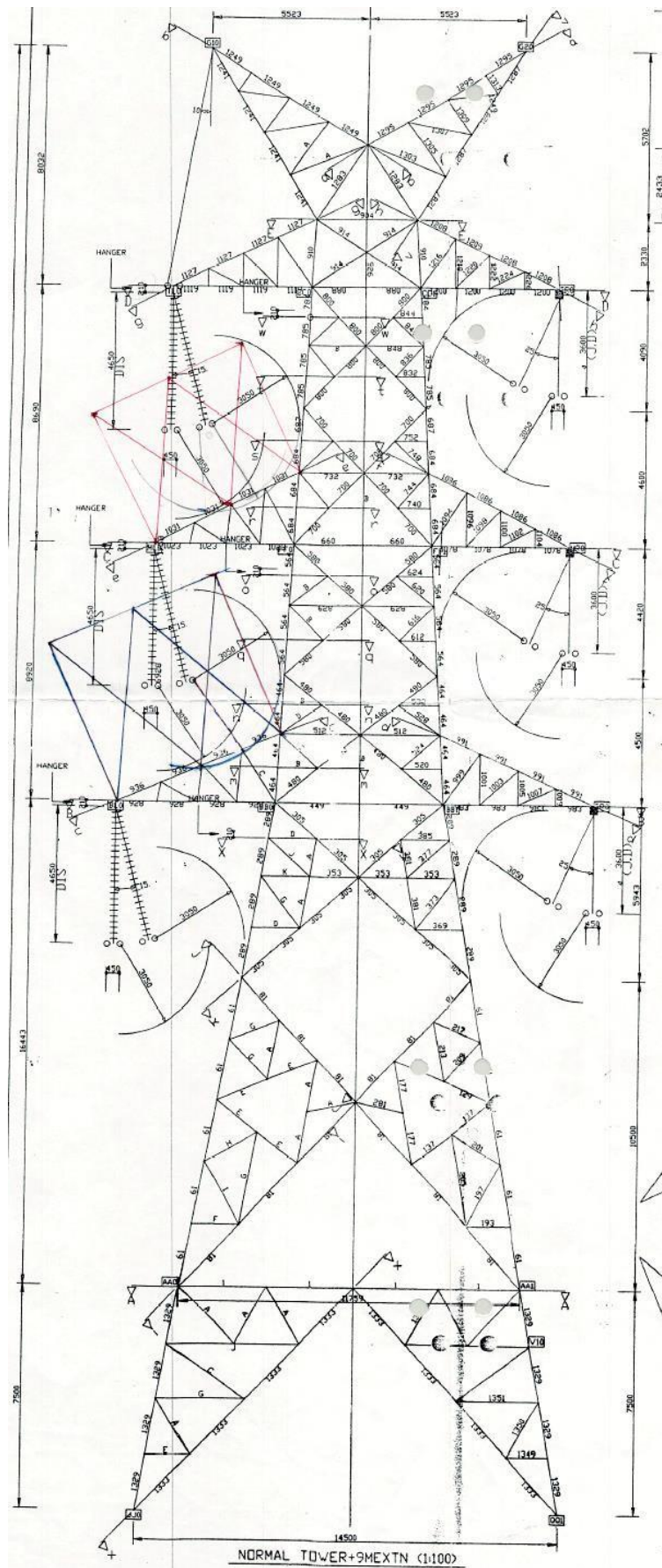
## TOWER TYPE: DB







## TOWER TYPE: DD



**Table A: Implementation Schedule**

Link Description	Period in Months from Award
i) Supply and Installation of OPGW on existing 400 kV Koldam – Ludhiana (PG) line which is LILOed at 400 kV Ropar (PSTCL) (150 kms).	(a) Engineering: 0 - 2 months (b) Supply: 2 - 4 months (c) Installation: 4 - 7 months (d) Commissioning of OPGW & Associated Communication equipment: 7-8 months

**Table B**  
**Proposed OPGW Communication**  
**link Works**

S N	Name of Links	Route Length (km)
1	400 kV Koldam – Ludhiana (PG) line	150
	<b>Total:</b>	150

Addition/deletion of links within the provisions of contractual quantity variation may be undertaken during detailed engineering, based on approval received in Regional Power Committee (NRPC)/ NCT meetings.

Location of Communication Equipment(s) will be finalized during detailed engineering.



**Yoke Plate design for OPGW jointing on Suspension Tower  
(Typical)**

