Tower schedule for 66kV Vartej-Bhavnagar City Tap Chitra Line Under Vartej AM Division

Sr No	TOWER ID	Tower span (in meter)	Section Length (in meter)	Tower/H-Frame/UG Cable	Type of Structure	Type of Conductor	Type of String/Hardware(S/S, D/S,S/T,D/T)	SRI PER TOWER	Suspension SRI	Tension SRI	S.S. H\W	D.S. H\W	S.T. H\W	D.T. H\W	PA ROD	Damper	T connector with pad	HTLS palm w/o hole	Mid span joint	Repair sleeve	Crossing Details
	Gentry at 220kV Vartej SS			Gantry + Cable Termination		DOG + UG cable		3	0	3	0	0	3	0	0	3	3	6	0	0	Gantry SRI end as well as Cable termination
		200		**UG Cable**		**UG Cable**															**UG cable laid** from Gentry of 220kV Vartej SS to First tower
	T001			Cable Termination D/C Tower	C	DOG	T(Vartej Side), D/T (City Side)	9	0	9	0	0	3	3	0	6	3	6	0	0	Cable Termination Tower as well as T,D/T tower. Vartej Side Cable, City Side D/T
		115.9																			Bhavnagar-Rajkot road cross, 11kV line cross
	T002		115.9	D/C TOWER	D	DOG	DT(Vartej Side), T (City Side)	9	0	9	0	0	3	3	0	6	0	0	0	0	
		148.5																			
	T003		148.5	H-FRAME	B	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
																					Company road cross, LT line cross
	T004	174.8		Twin C	C (Tension), Cable Termination DP	DOG	T(Vartej Side), Cable City Side	6	0	6	0	0	0	3	0	3	3	6	0	0	Cable Termination Twin C type DP, Line Shifted from OH to UG cable in applicant premise under deposit work
		260		**UG Cable**																	**UG cable laid** in applicant premises under OH to UG line shifting under deposit work
	T004-A		354.8	Twin C	C (Tension), Cable Termination DP	DOG	DT(City Side), Cable Vartej Side	6	0	6	0	0	0	3	0	3	3	6	0	0	Cable Termination Twin C type DP, Line Shifted from OH to UG cable in applicant premise under deposit work
		180																			**Industrial Road cross**
	T005			H-FRAME	B	DOG	DT(Vartej Side), T(City Side)	12	0	12	0	0	0	6	0	6	0	0	0	0	Converted from "A" to "B" type H-Frame for OH to UG line shifting applicant deposit work
		172.6																			**Drain cross, Company cross**
	T006			H-FRAME	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		180.9																			Company road cross, **Industrial Road Cross**
	T007			H-Frame	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		177.7																			
	T008		531.2	H-FRAME	B	DOG	T	6	0	6	0	0	6	0	0	6	0	0	0	0	Converted from"A" to "B" under OH to UG line shifting deposit work due to Nari Chowkdi Over Bridge
		71.3																			Field cross
	T009			Twin C H-FRAME	C (Tension), Cable Termination DP	DOG	T(Vartej Side), Cable City side	3	0	3	0	0	3	0	0	3	3	6	3	6	Cable Termination Twin C type DP, Line Shifted from OH to UG cable under deposit work due to Nari Chowkdi Over Bridge
		340	251.3	**UG Cable**																	**UG cable laid** due to Nari Chowkdi Over Bridge, Bhavnagar-Pipali NH cross
	T010			Twin C H-FRAME	C (Tension), Cable Termination DP	DOG	Cable Vartej side, T(Nari side)	6	0	6	0	0	0	3	0	3	6	3	3	6	Cable Termination Twin C type DP, Line Shifted from OH to UG cable under deposit work due to Nari Chowkdi Over Bridge
		180																			**Panchnathnagar RCC road cross, Shops Cross**
	T011			H-FRAME	C	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
		161.4																			LT line cross, Vartej rough road cross, **Houses cross, Panchnathnagar road cross**
	T012		161.4	H-FRAME	C	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
		141.9																			11kV line cross, Agriculture area rough road cross
	T013			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		172.1																			Agriculture area rough road cross
	T014			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		174.9																			Agriculture area rough road cross
	T015			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		172.1																			
	T016		661	H-FRAME	C	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
		163.6																			**Indiranagar homes cross**, rough road cross
	T017		163.6	TOWER	B	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		204																			**Indiranagar homes cross**, Colony rough road cross, LT line cross
	T018		204	TOWER	B	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		131.9																			**Drain cross**, **Indiranagar homes cross**, Colony rough road cross
	T019		131.9	H-FRAME	B	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		96.2																			11kV line cross, colony road cross, **Company cross**

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	T020			H-FRAME	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		99.6																			11kV line cross, **colony asphalt road cross**
	T021		195.8	H-FRAME	C	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
		10.5																			
	T022		10.5	TOWER	B	DOG	T	6	0	6	0	0	6	0	0	6	0	0	0	0	
		105.3																			
	T023		105.3	TOWER	C	DOG	DT (City Side), T (Vartej Side)	9	0	9	0	0	3	3	0	6	0	0	0	0	
		90.2																			**Drain cross**, Agriculture area rough road cross, **Railway track cross**
	T024		90.2	TOWER	C	DOG	DT (Vartej Side), T (City Side)	9	0	9	0	0	3	3	0	6	0	0	0	0	
		124																			
	T025		124	H-FRAME	D	DOG	T	6	0	6	0	0	6	0	0	6	0	0	0	0	
		169.8																			
	T026			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		177.8																			
	T027			H-FRAME	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		172.2																			**Drain cross**, Agriculture area rough road cross,
	T028			H-FRAME	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		178.9																			
	T029		698.7	H-FRAME	B	DOG	T, TD	9	0	9	0	0	3	3	0	6	0	0	0	0	
		178.9																			
	T030			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		177.3																			
	T031			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		178.4																			
	T032			H-FRAME	A	DOG	S	3	3	0	3	0	0	0	3	6	0	0	0	0	
		174.8																			
	T033		709.4	H-FRAME	B	DOG	T	9	0	9	0	0	3	3	0	6	0	0	0	0	
		179.9																			**Water forest**
	T034			H-FRAME	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	**DP in Water logging creek area**
		246.6																			**Pond Cross**
	T035		426.5	H-FRAME	B	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	**DP in Water logging creek area**
		310																			
	T036		310	H-FRAME	C	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	**DP in Water logging creek area**
		200.4																			**Water forest**
	T037		200.4	H-FRAME	C	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	**DP in Water logging creek area**
		74.7																			
	T038		74.7	H-FRAME	B	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	**DP in Water logging creek area**
		34.2																			
	T039		34.2	D/C TOWER	C	DOG	DT (City side), T(Vartej side)	12	0	12	0	0	0	6	0	6	0	0	0	0	**LILO Tower, D/C tower in water logging creek area**
		145.9																			11kV line cross
	T040		145.9	D/C TOWER	C	DOG	DT (Vartej side), T(City side)	12	0	12	0	0	0	6	0	6	0	0	0	0	**D/C tower in water logging creek area**
		194.6																			
	T041			D/C TOWER	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	**D/C tower in water logging creek area**
		262.5																			
	T042		457.1	D/C TOWER	B	DOG	DT (City side), T(Vartej side)	12	0	12	0	0	0	6	0	6	0	0	0	0	**D/C tower in water logging creek area**
		167																			
	T043		167	D/C TOWER	C	DOG	DT (Vartej side), T(City side)	12	0	12	0	0	0	6	0	6	0	0	0	0	
		159.1																			LT line cross, Nari road rough road cross, **D/C tower in water logging creek area**, **Road Cross**
	T044		159.1	D/C TOWER	C	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		243.6																			**Residential Houses cross**, LT line cross, Nari road rough road cross
	T045			D/C TOWER	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	

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		276.6																			**Residential Houses cross**, 11kV line cross, LT line cross, Nari road rough road cross, Nari road cross
	T046		520.2	D/C TOWER	C	DOG	DT (City side), T(Vartej side)	12	0	12	0	0	0	6	0	6	0	0	0	0	
		177.2																			**Kumbharwada-Nari road cross**, **Maszid cross**, 11kV line cross, Nari rough road cross, Maszid
	T047		177.2	D/C TOWER	C	DOG	DT (Vartej side), T(City side)	12	0	12	0	0	0	6	0	6	0	0	0	0	
		299.9																			
	T048			D/C TOWER	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	**D/C tower in water logging creek area**
		326.3																			
	T049			D/C TOWER	A	DOG	DS	6	6	0	0	3	0	0	3	6	0	0	0	0	**D/C tower in water logging creek area**
		154.3																			
	T050		780.5	D/C TOWER	C	DOG	DT	12	0	12	0	0	0	6	0	6	0	0	0	0	
		277.2																			Nari road cross
	T051		277.2	D/C TOWER	C	DOG	DT (Vartej side), T(City side)	12	0	12	0	0	0	6	0	6	0	0	0	0	
		250.3																			Nari rough road cross, **Residential Houses cross**
	T052			D/C TOWER	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		267.9																			Nari rough road cross, **Residential Houses cross**
	T053			D/C TOWER	A	DOG	S	6	6	0	0	3	0	0	3	6	0	0	0	0	
		244.5																			
	T054		762.7	D/C TOWER	C	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		269.8																			Nari rough road cross, **Residential houses cross**
	T055		269.8	D/C TOWER	C	DOG	T	12	0	12	0	0	0	6	0	6	0	0	0	0	
		204.7																			Temple, Nari rough road cross, **Residential houses cross**
	T056		204.7	D/C TOWER	B	DOG	DT(City Side), T(Vartej Side)	12	0	12	0	0	0	6	0	6	0	0	0	0	
		205.7																			**Bhavnagar Nari road cross**, Canal cross, 11kV line cross
	T057		205.7	D/C TOWER	C	DOG	DT	12	0	12	0	0	0	6	0	6	0	0	0	0	
		169.1																			**Railway track cross**, Bhavnagar road cross, LT line cross
	T058		169.1	D/C TOWER	C	DOG	DT	12	0	12	0	0	0	6	0	6	0	0	0	0	
		119																			
	T059		119	D/C TOWER	C	DOG	DT (Vartej Side), T (City Side)	9	0	9	0	0	3	3	0	6	0	0	0	0	
		27.9																			
	Gentry at 66kV Bhavnagar City SS		27.9					3	0	3	0	0	3	0	0	3	3	6	0	0	
	Total	**10946.4**	**10146.4**					**510**	**93**	**417**	**21**	**36**	**63**	**177**	**57**	**354**	**24**	**39**	**6**	**6**	
	UG Cable portion in Mtr	**800**						Additional Quantity	12	12	6	3	6	3	9	9	0	0	0	0	
	Total OH	**10146.4**						**Final Quantity**	105	429	27	39	69	180	66	363	24	39	6	6	

Total line length (Incl. both ends gantry)	**10146.40**	**Meter**
Add: 0.5% for sag and jumpers	**50.73**	**Meter**
Total line length in Meter	**10197.13**	**Meter**
Total Length of Conductor	**30.591**	**KM**
Cold line stringing	**5.405**	**KM**
Hot line stringing	**4.742**	**KM**