



RECONDUCTOR ELWHA CROSSING –EAST 12-0112
SAG and Tension Chart for new 3M ACCR 270-T35 Conductor

FROM STRUCTURE #4 to STRUCTURE #3

TRANSMISSION:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
1002.8	1002	9.93	10.11	10.28	10.46	10.64	10.83	11.02	11.22	11.42	11.63	11.84

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
1002	4649	4569	4493	4416	4338	4265	4191	4116	4044	3970	3899

DISTRIBUTION & NEUTRAL:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
1011.1	1002	16.12	16.36	16.62	16.86	17.12	17.37	17.62	17.89	18.14	18.41	18.66

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
1002	2865	2822	2778	2738	2697	2658	2620	2582	2546	2509	2475

FROM STRUCTURE #3 to STRUCTURE #2

TRANSMISSION:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
822.2	832	6.74	6.86	6.99	7.12	7.26	7.4	7.55	7.70	7.86	8.02	8.19

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
832	4671	4591	4504	4422	4338	4254	4170	4089	4008	3926	3846

DISTRIBUTION & NEUTRAL:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
830.3	832	10.84	11.05	11.26	11.48	11.7	11.9	12.13	12.34	12.56	12.79	13.02

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
832	2906	2851	2798	2745	2694	2648	2598	2554	2508	2464	2421

FROM STRUCTURE #2 to STRUCTURE #1

TRANSMISSION:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
942.0	915	8.49	8.65	8.81	8.97	9.13	9.32	9.49	9.68	9.87	10.06	10.27

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
915	4666	4580	4498	4416	4338	4254	4175	4095	4016	3937	3860

DISTRIBUTION & NEUTRAL:

	MID SPAN SAG (ft)											
TOTAL CABLE LENGTH (ft)	SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
950.2	915	13.72	13.96	14.21	14.46	14.71	14.96	15.22	15.47	15.73	16.00	16.26

HORIZONTAL TENSION (lbs)											
SPAN LENGTH (ft)	40 F	45 F	50 F	55 F	60 F	65 F	70 F	75F	80 F	85F	90F
915	2889	2840	2790	2742	2695	2650	2604	2562	2520	2478	243813.72

NOTE:

For Dead-End structures where the ACCR 270-T35 Conductor meets existing conductor: match the tension on either side of the structure.