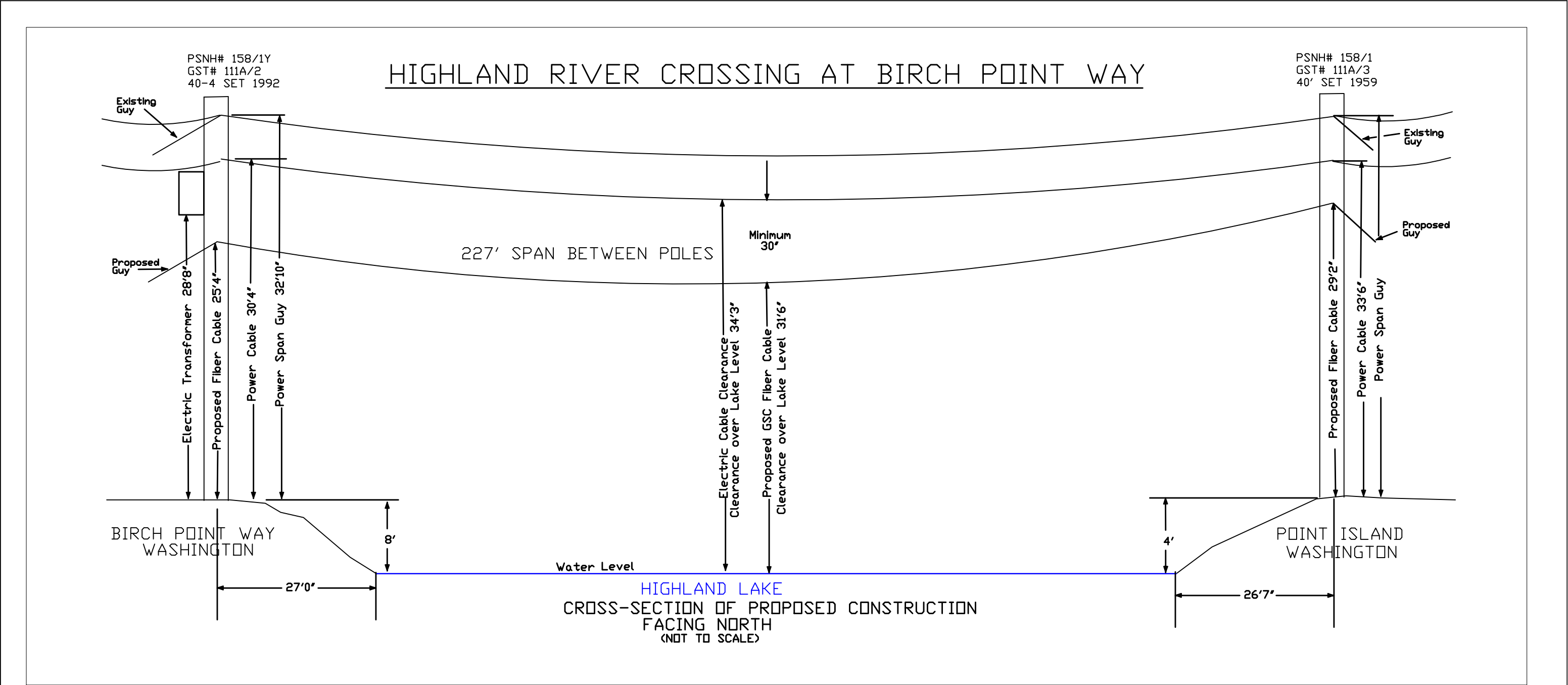




SUMMARY

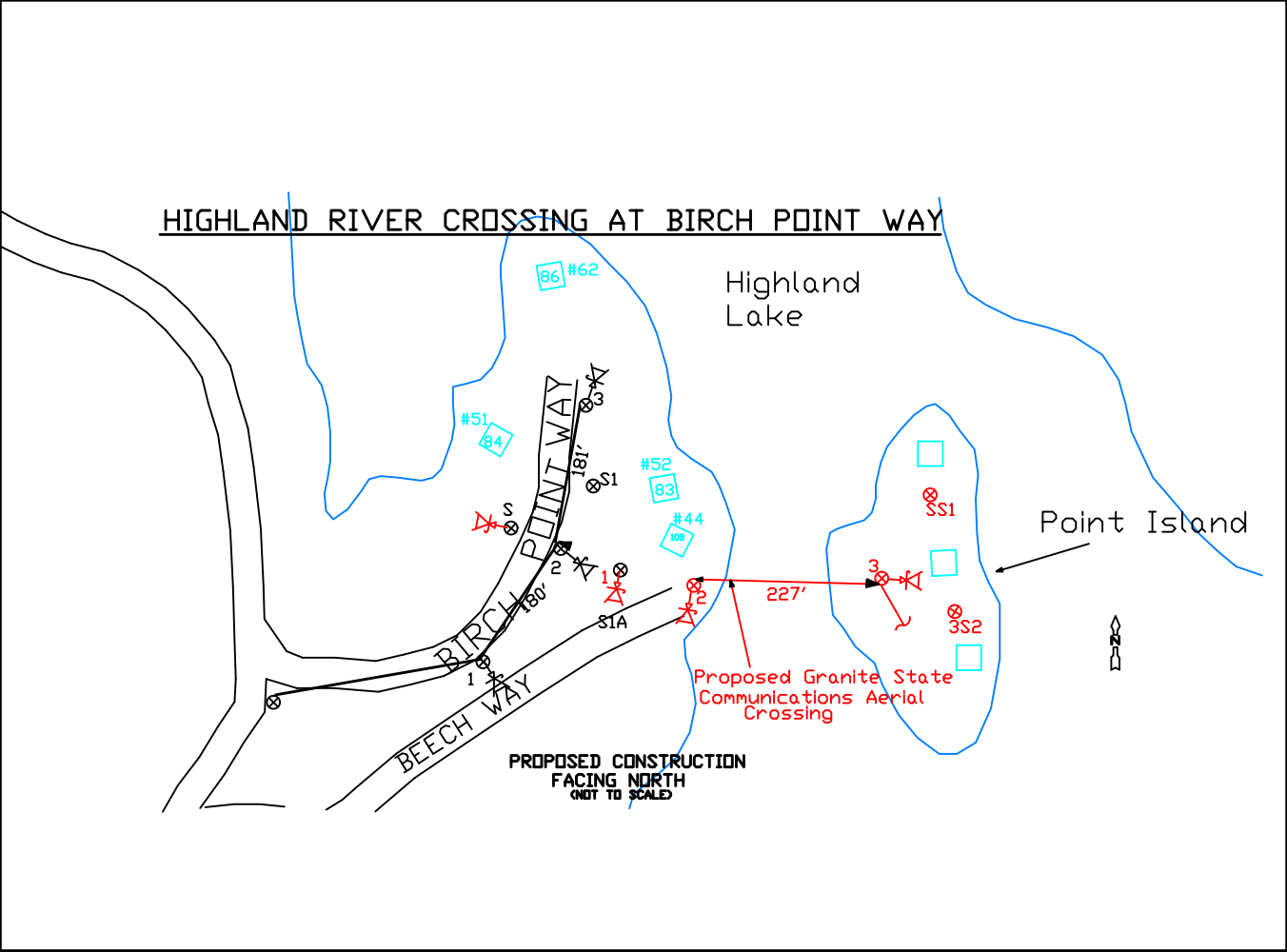
EXCH. A

ROUTE _____

DATE 07/31/12

TAX DIST. _____

SCALE: 1" = 100'		SHEET <u>2</u> of <u>2</u>		
	BY	DATE	FILE NAME 010000000001130001	
FLD SRVY			MAP NOS	
ENGINEERED			SPlicing SCHEMATIC ATTACHED	
DRAWN			REVISION	BY DATE
RELEASED			WORK ORDER CLOSED	
INSPECTED			WORK ORDER POSTED	
			CA. RECORD	
			PROJ. 150-12 A	







Spanmaster® Release 3.1 Sag / Tension Computations

Highland Lake Crossing

08/17/12 111A

Selected Cables	X-SECT AREA (sq.in)	EFF MODULUS (psi)	NOMINAL DIAM (in)	EFF.EXP. COEFF. (1/F)	CABLE WEIGHT (lb/ft)	E*A LOAD BEARING CAPACITY (lbs)	MAX. RATED LOAD (lbs)
5/16"11.2mEHS	0.0595	2.60E+07	0.313	5.60E-06	0.2050	1545960	11200
ORF-O-012-DA	0.0777	9.35E+05	0.315	4.31E-06	0.0480	72617	182
Bundle			0.628		0.2530		

NESC RESULTS

Loading Condition	Temp. (F)	Ice Load lb/ft	Ice Thick in	Wind Constant lb/ft	Horz Wind Load lb/sq ft	Result Load + Const lb/ft	Sag ft	Tension lb	% Len Chg From Input Conditions
Rule 251 - Heavy	0.0	0.701	.50	.3	4.0	1.398	3.08	2911	0.04
232A1	120.0	0.000	.00	.0	0.0	0.253	1.30	1250	0.00

	Temp (F)	Midspan Sag (ft)	Tension (lb)	% Length Change	Clearance
Span Length = 227.00 ft					
Span Sag = 1.00 ft (12.0 in)					
Span Tension = 1,630 lb	-40.0	.64	2,528	0.00	N/A
Max Load = 11,200 lb	-30.0	.66	2,444	0.00	N/A
Usable load (60%) = 6,720 lb	-20.0	.69	2,361	0.00	N/A
Catenary Length = 227.012 ft	-10.0	.71	2,277	0.00	N/A
Stress Free Length @	.0	.74	2,194	0.00	N/A
Installed Temperature = 226.773 ft	10.0	.77	2,112	0.00	N/A
	20.0	.80	2,029	0.00	N/A
Unloaded Strand	30.0	.83	1,947	0.00	N/A
Sag = .82 ft (9.9 in) 0.36 %	40.0	.87	1,866	0.00	N/A
Tension = 1,604 lb	50.0	.91	1,785	0.00	N/A
	60.0	.95	1,705	0.00	N/A
	70.0	1.00	1,626	0.00	N/A
	80.0	1.05	1,548	0.00	N/A
	90.0	1.11	1,471	0.00	N/A
	100.0	1.17	1,396	0.00	N/A
	110.0	1.23	1,322	0.00	N/A
	120.0	1.30	1,250	0.00	N/A
	130.0	1.38	1,180	0.00	N/A
	140.0	1.46	1,113	0.01	N/A