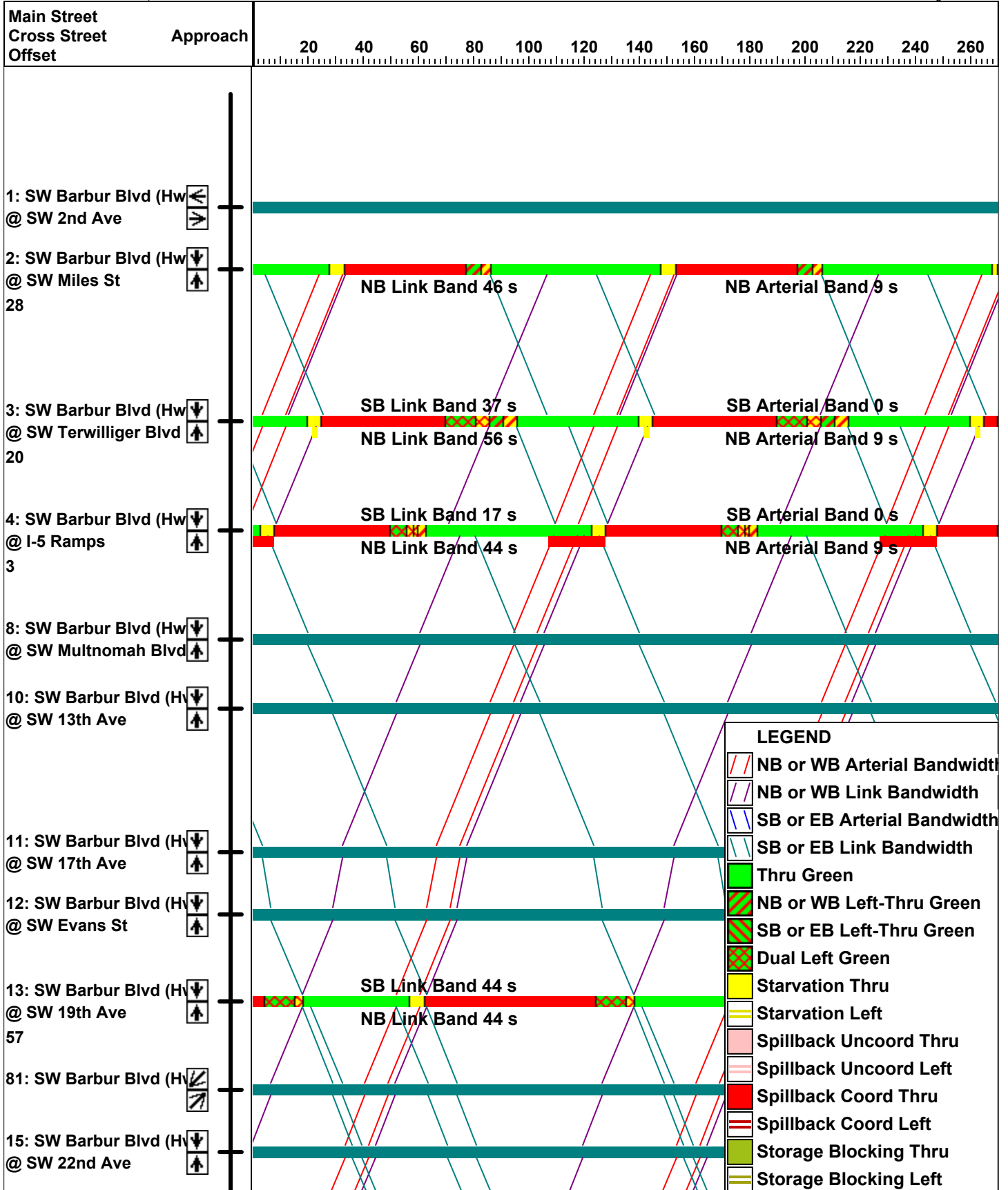
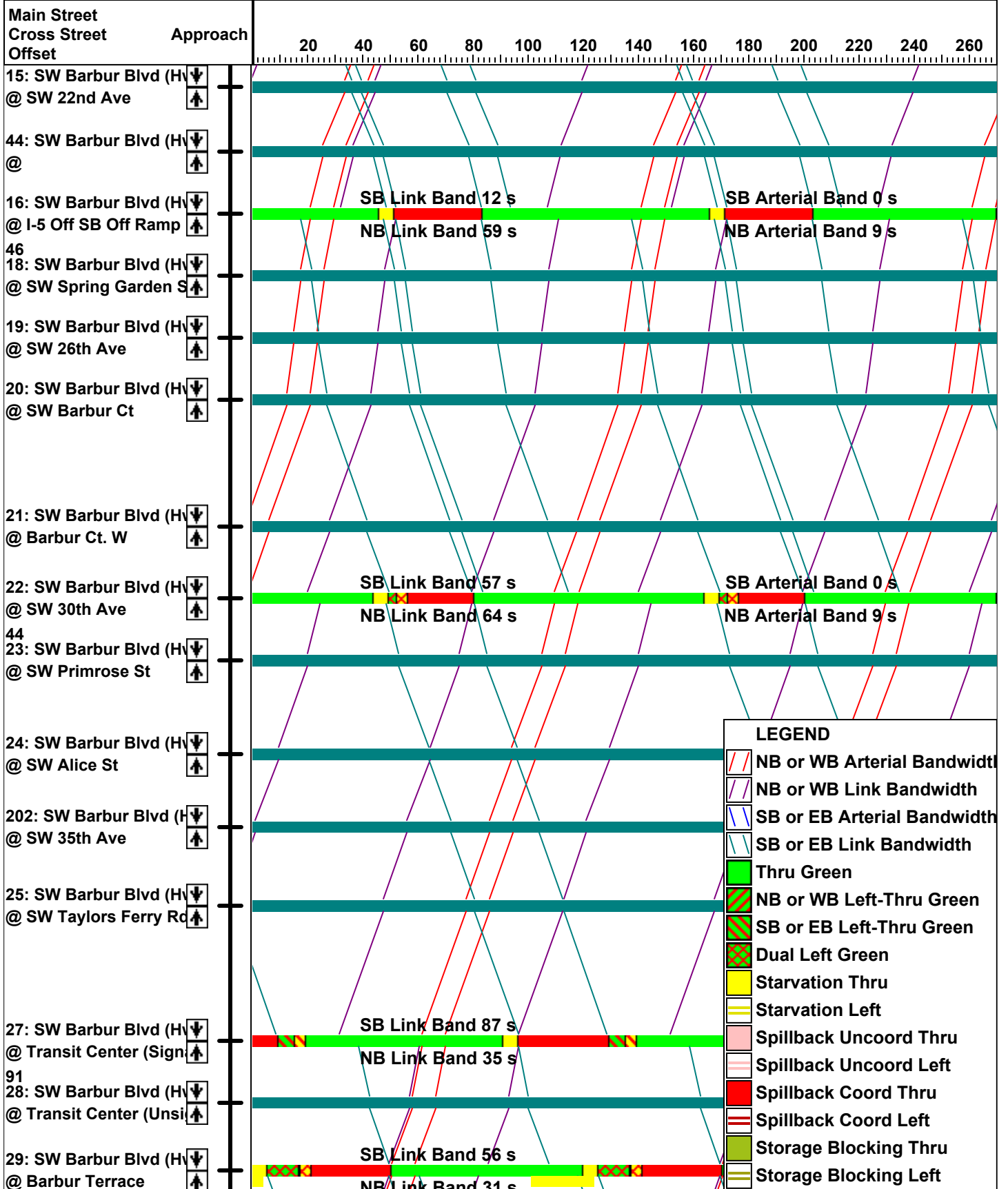
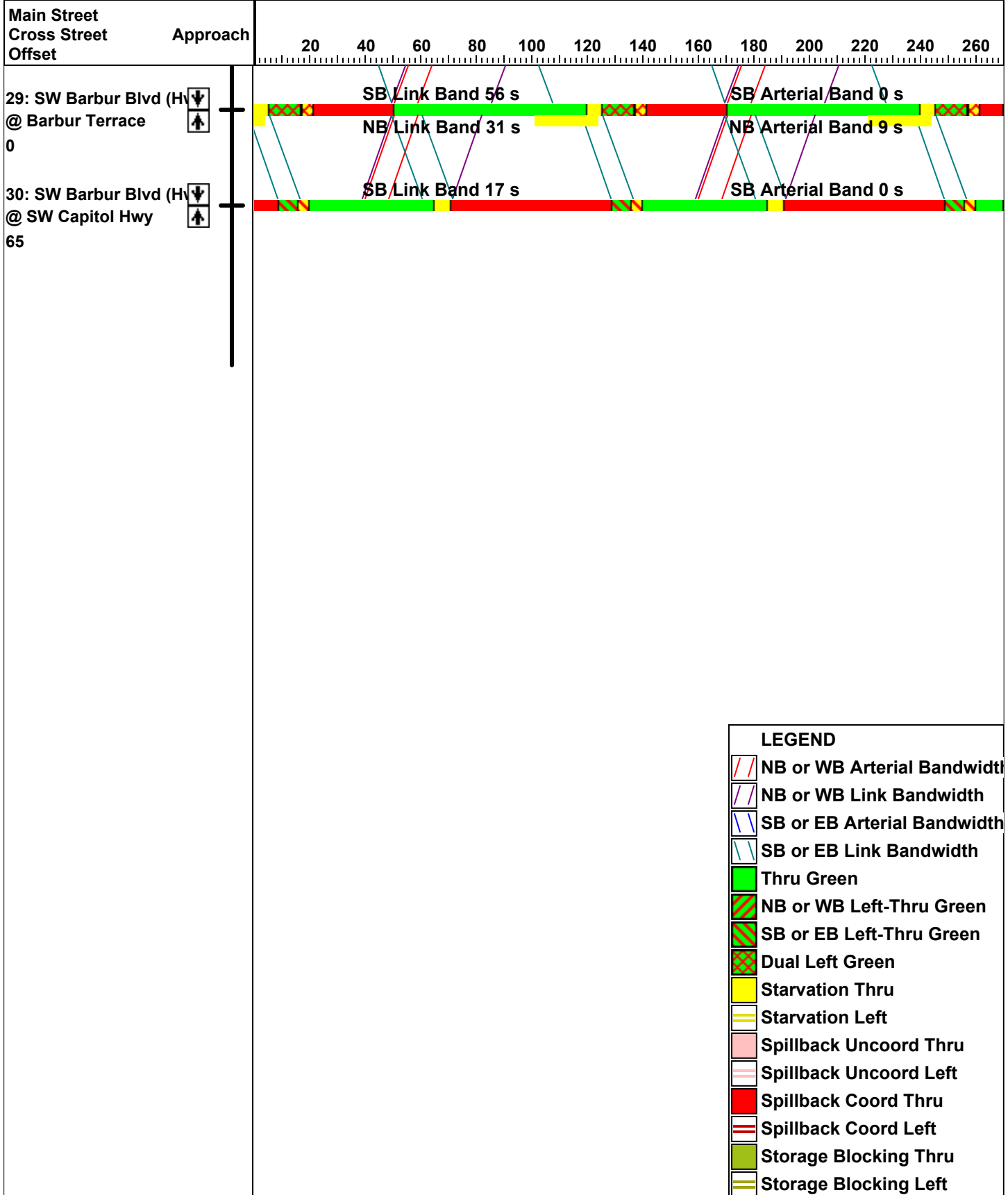


Appendix C: Preliminary Progression Analysis Time-Space Diagrams

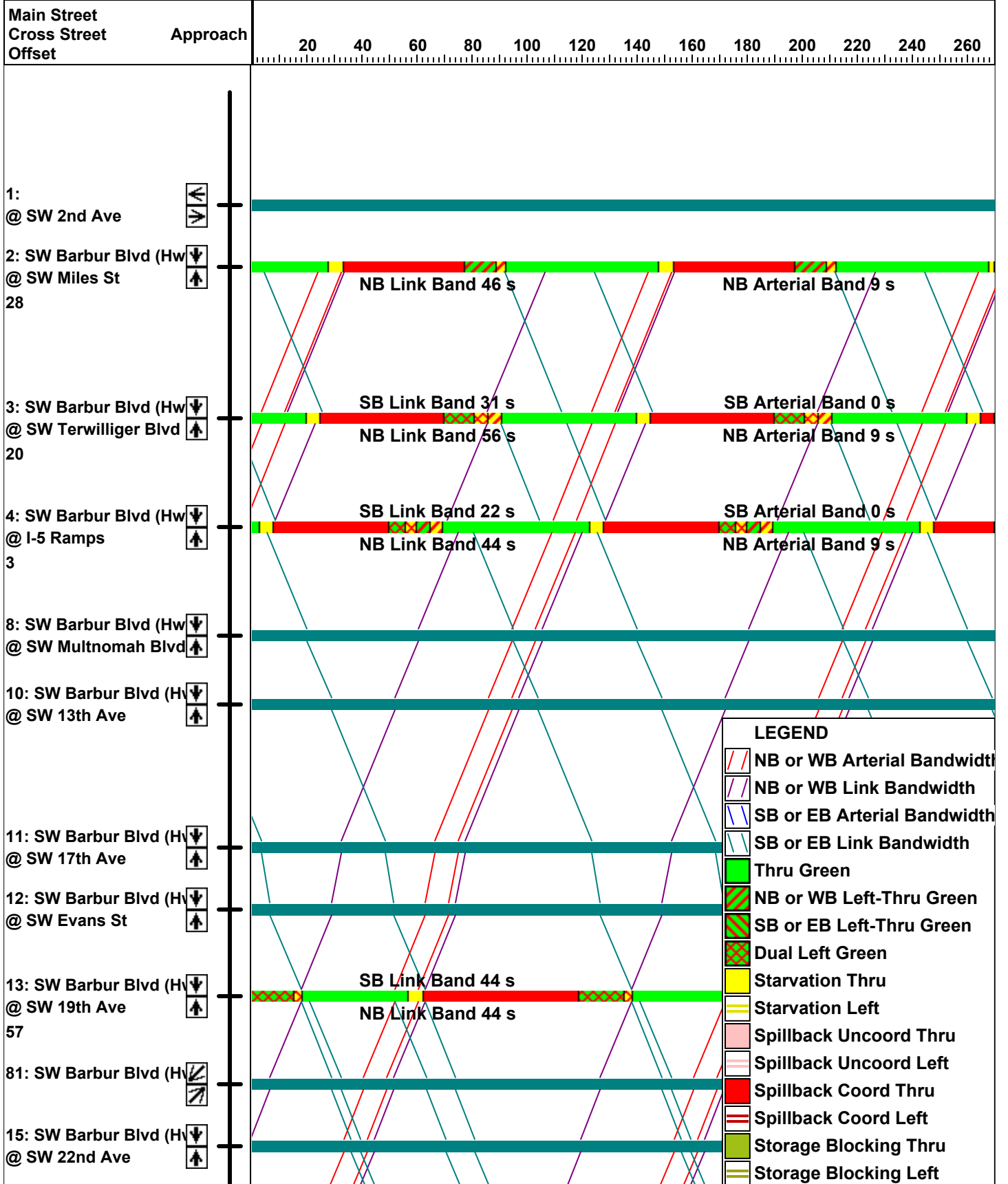


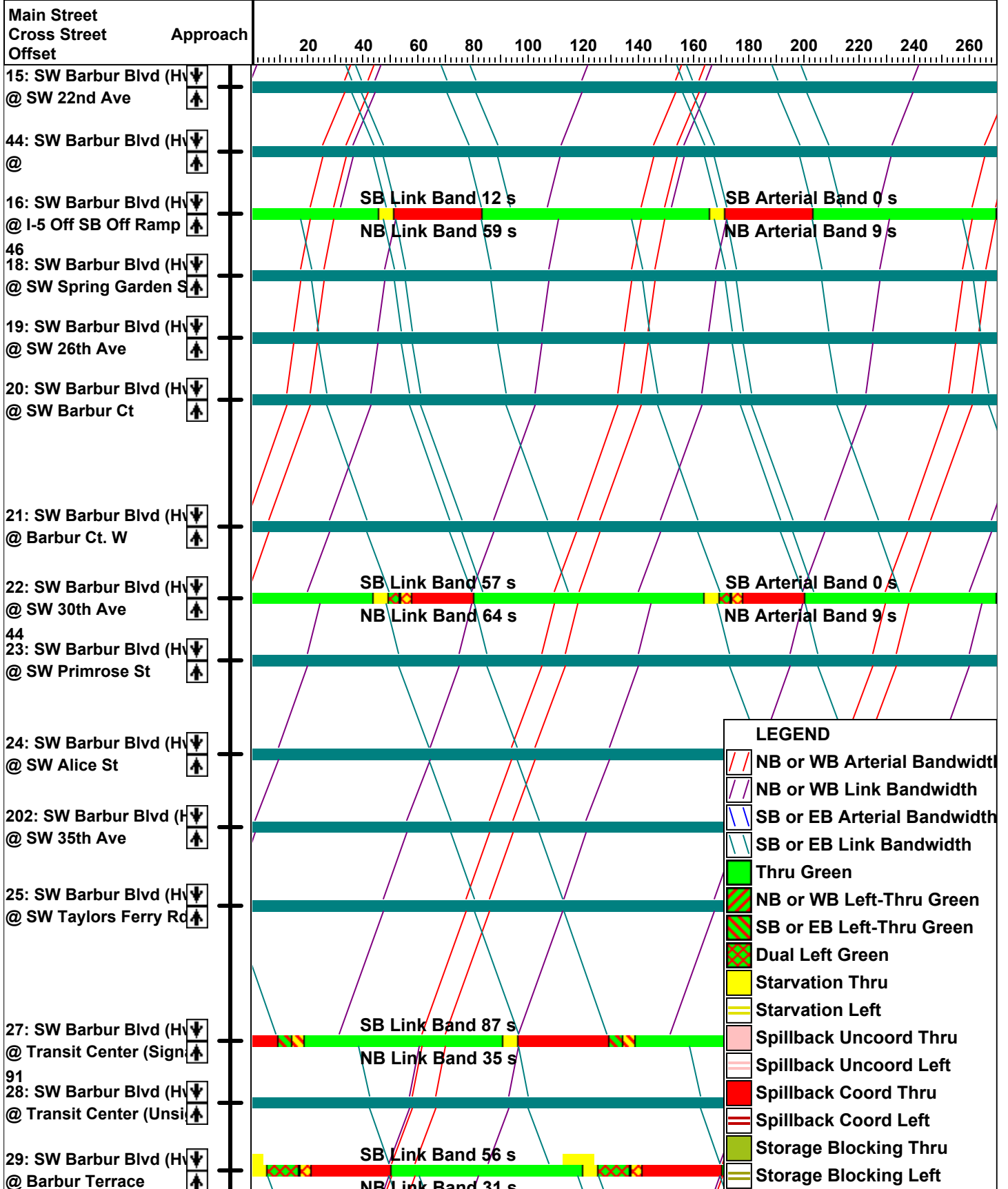


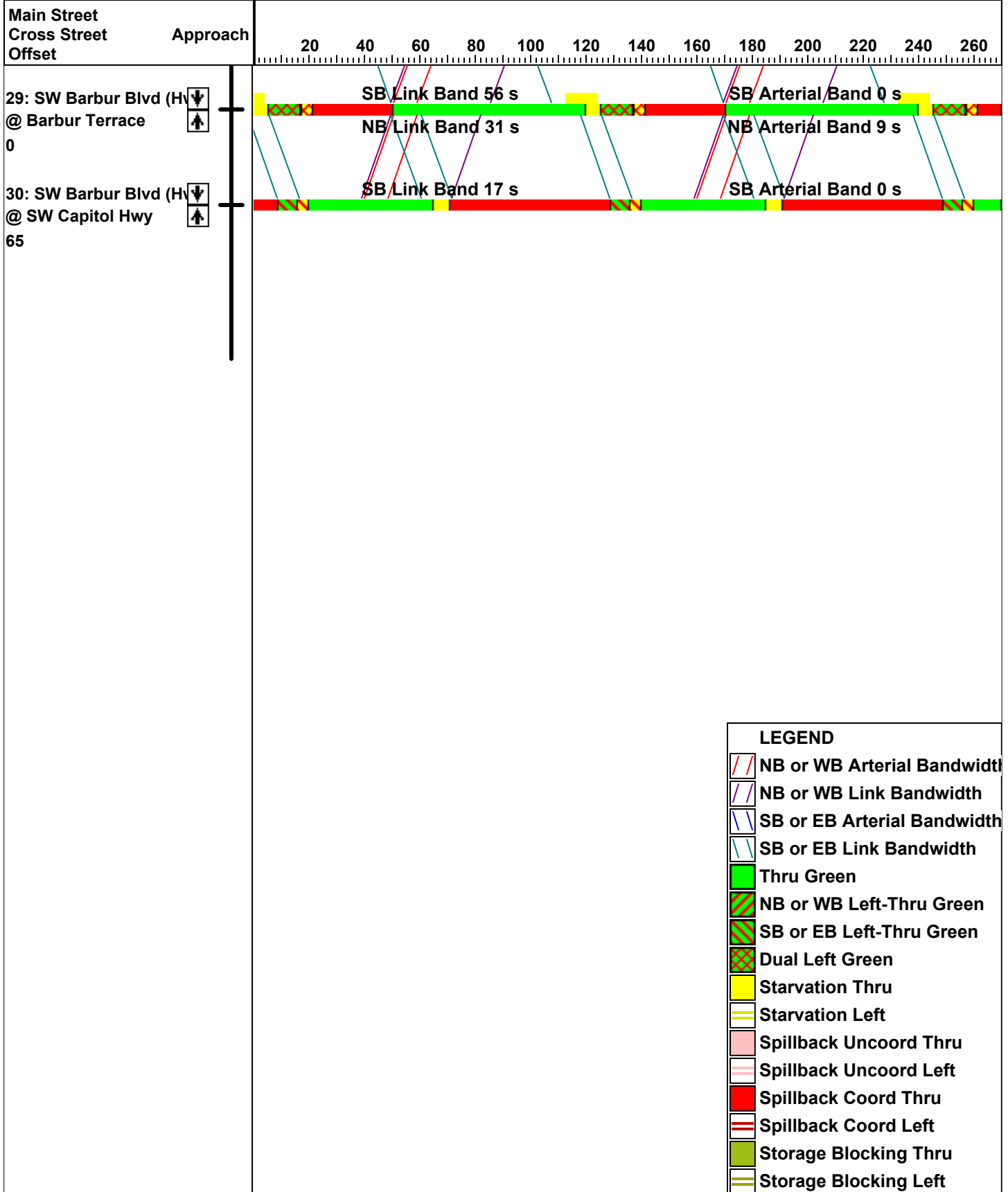


LEGEND

- NB or WB Arterial Bandwidth
- NB or WB Link Bandwidth
- SB or EB Arterial Bandwidth
- SB or EB Link Bandwidth
- Thru Green
- NB or WB Left-Thru Green
- SB or EB Left-Thru Green
- Dual Left Green
- Starvation Thru
- Starvation Left
- Spillback Uncoord Thru
- Spillback Uncoord Left
- Spillback Coord Thru
- Spillback Coord Left
- Storage Blocking Thru
- Storage Blocking Left







Appendix D: Preliminary Signal Warrant Analysis

Segment A: Existing Signal Warrants

Intersection		Peak Hour Approach				4-Hour Hourly Approach				8-Hour Hourly Approach				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant
		NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB			
A31	SW 4th Ave. / SW Lincoln St	1213	0	0	139	1011	0	0	115.8	606.5	0	0	70	Pass	Pass	Fail
A51	SW Kelly St. / SW Water Ave.	0	66	199	2045	0	110	332	3408	0	103.1	311	3195	Pass	Pass	Fail
A53	SW Naito Pkwy. / SW Hooker St.													Fail	Fail	Fail
A56	SW Kelly St. / SW Hood Ave.	2352	110	14	0	1960	92	12	0	1176	55	7	0	Fail	Fail	Fail
A61	Ross Island Brg. / Naito Ramps	0	700	1171	804	0	583	976	670	0	350	586	402	Pass	Pass	Pass
A62	Ross Island Brg. / Kelly Ramps	304	0	1464	3217	253.3	0	1220	2681	152	0	732	1609	Pass	Pass	Pass
A69	SW Naito Pkwy. / Gibbs/Naito Ramps	1419	201	704	15	1183	168	587	13	709.5	100.5	352	8	Pass	Pass	Fail
A72	SW Naito Pkwy. / SW Whitaker St.	1471	874	2	0	2452	1457	3	0	2298	1366	3	0	Fail	Fail	Fail
A78	SW Barbur Blvd. / SW Naito Pkwy.	3036	302	29	0	2530	252	24	0	1518	151	14.5	0	Fail	Fail	Fail
A80	SW Barbur Blvd. / SW Bancroft St.	2913	1098	0	146	2428	915	0	121.7	1457	549	0	73	Pass	Pass	Fail
A82/A84	SW Barbur Blvd. / SW Hamilton St.	2875	1053	83	446	2396	878	69	371.7	1438	526.5	42	223	Pass	Pass	Pass
A86	SW Barbur Blvd. / SW Capitol Hwy.	1745	917	1058	0	1454	764	882	0	872.5	458.5	529	0	Pass	Pass	Pass

Segment A: Future Signal Warrants

Intersection		Peak Hour Approach Volume				4-Hour Hourly Approach Volume				8-Hour Hourly Approach Volume				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant
		NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB			
A53	SW Naito Pkwy. / SW Hooker St.	2227	709	22	20	1856	591	18	17	1114	355	11	10	Fail	Fail	Fail
A56	SW Kelly St. / SW Hood Ave.	2101	1217	10	2405	1751	1014	8	2004	1051	609	5	1203	Pass	Pass	Pass
A72	SW Barbur Blvd. / SW Naito Pkwy.	3681	2443	11		6135	4072	18	0	5752	3817	17	0	Fail	Fail	Fail
A78	SW Barbur Blvd. / SW Bancroft St.	6683	666	60	2306	5569	555	50	1922	3342	333	30	1153	Pass	Pass	Pass

Segment B: Existing Signal Warrants

Intersection	Peak Hour Approach Volume				4-Hour Hourly Approach Volume				8-Hour Hourly Approach Volume				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant	
	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB				
B1	SW Barbur Blvd. / SW 2nd Ave.	10	11	1701	407	16	17	2658	636	16	17	2658	636	Fail	Fail	Fail
B2	SW Barbur Blvd. / SW 3rd Ave.	0	20	1792	424	0	31	2800	663	0	31	2800	663	Fail	Fail	Fail
B8	SW Barbur Blvd. / SW Custer Dr. /SW Multnomah Blvd.	17	0	1613	624	27	0	2520	975	27	0	2520	975	Fail	Fail	Fail
B15	SW Barbur Blvd. / SW 22nd Ave.	138	95	1735	788	216	148	2711	1231	216	148	2711	1231	Pass	Pass	Pass
B20	SW Barbur Blvd. / SW Barbur Ct.	275	2	1746	922	229	2	1455	768	138	1	873	461	Pass	Pass	Pass
B24	SW Barbur Blvd. / SW Alice St.	1	14	1856	1057	2	22	2900	1652	2	22	2900	1652	Fail	Fail	Fail
B25	SW Barbur Blvd. / SW Taylors Ferry Rd. /SW Baird St.	49	38	1705	956	77	59	2664	1494	77	59	2664	1494	Pass	Fail	Fail
B26	SW Barbur Blvd. / LRT Crossover #3	No Count												-	-	-
B27	SW Barbur Blvd. / Barber TC (Signal)	16	0	1756	960	25	0	2744	1500	25	0	2744	1500	Fail	Fail	Fail
B28	SW Barbur Blvd. / Barber TC (Bus Out)	22	13	1753	965	34	20	2739	1508	34	20	2739	1508	Fail	Fail	Fail
B33	SW Barbur Blvd. / SW Huber St. (East)	0	0	1404	349	0	0	2194	545	0	0	2194	545	Fail	Fail	Fail
B34	SW Barbur Blvd. / SW Huber St. (West)	1	0	1392	287	2	0	2175	448	2	0	2175	448	Fail	Fail	Fail
B35	SW Barbur Blvd. / SW Luradel St.	27	0	1449	276	42	0	2264	431	42	0	2264	431	Fail	Fail	Fail

Segment B: Future Signal Warrants

Intersection	Peak Hour Approach Volume				4-Hour Hourly Approach Volume				8-Hour Hourly Approach Volume				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant	
	NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB				
B1	SW Barbur Blvd. / SW 2nd Ave.	212	0	1506	642	353	0	2510	1070	331	0	2353	1003	Pass	Pass	Pass
B2	SW Barbur Blvd. / SW 3rd Ave.	0	73	1487	808	0	122	2478	1347	0	114	2323	1263	Pass	Pass	Pass
B8	SW Barbur Blvd. / SW Custer Dr. / SW Multnomah Blvd.	10	0	1440	1595	17	0	2400	2658	16	0	2250	2492	Fail	Fail	Fail
B24	SW Barbur Blvd. / SW Alice St.	1850	1140	35	20	3083	1900	58	33	2891	1781	55	31	Fail	Fail	Fail
B26	SW Barbur Blvd. / LRT Crossover #3	No Count Data												-	-	-
B28	SW Barbur Blvd. / Barbur TC (Bus Out)	35	0	1805	1075	58	0	3008	1792	55	0	2820	1680	Fail	Fail	Fail
B33	SW Barbur Blvd. / SW Huber St. (East)	0	0	1375	460	0	0	2292	767	0	0	2148	719	Fail	Fail	Fail
B34	SW Barbur Blvd. / SW Huber St. (West)	0	10	1370	415	0	17	2283	692	0	16	2141	648	Fail	Fail	Fail
B35	SW Barbur Blvd. / SW Luradel St.	1425	415	0	40	2375	692	0	67	2227	648	0	63	Fail	Fail	Fail

Segment C: Existing Signal Warrants

Intersection		Peak Hour Approach Volume				4-Hour Hourly Approach Volume				8-Hour Hourly Approach Volume				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant
		NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB			
C12	SW Hunziker St. / SW Wall St.	48	0	278	644	75	0	463	1073	75	0	434	1006	Fail	Fail	Fail
C16	SW 70th Ave. / SW Beveland St.	166	77	9	0	259	128	15	0	259	120	14	0	Fail	Fail	Fail
C5	SW Hall Blvd. / SW Knoll Dr.	830	765	20	20	1297	1275	33	33	1297	1195	31	31	Fail	Fail	Fail
C4	SW Hall Blvd. / Clinton	840	805	15	15	1313	1342	25	25	1313	1258	23	23	Fail	Fail	Fail

Segment C: Future Signal Warrants

Intersection		Peak Hour Approach Volume				4-Hour Hourly Approach Volume				8-Hour Hourly Approach Volume				Peak Hour Warrant	4-Hour Warrant	8-Hour Warrant
		NB	SB	EB	WB	NB	SB	EB	WB	NB	SB	EB	WB			
C12	SW Hunziker St. / SW Wall St.	90	435	355	380	150	725	592	633	141	680	555	594	Pass	Pass	Pass
C16	SW 70th Ave. / SW Beveland St.	3	0	92	392	5	0	153	653	5	0	144	613	Fail	Fail	Fail
C5	SW Hall Blvd. / SW Knoll Dr.	795	655	20	20	1325	1092	33	33	1242	1023	31	31	Fail	Fail	Fail
C4	SW Hall Blvd. / Clinton	805	655	15	15	1342	1092	25	25	1258	1023	23	23	Fail	Fail	Fail