

Appendix A

Bus Travel Time Estimates

MIDTOWN CORRIDOR ALTERNATIVES ANALYSIS
 RUN TIME ESTIMATE WORKBOOK
 Lake Street Arterial BRT Alternative
 Westbound Run Time Estimate (PM Peak) - Using Existing Traffic Conditions

Sta. No.	Intersection/Station	Inter. Class.	TSP?	g/c	Posted Speed	Segment LOS	Max. Speed	Distance [m]	Total Distance	Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
1	Minnehaha Stop	Stop	n/a	n/a					0.00		0:00:00	0:00:00	0:00:00
	27th Ave./Lake St.	3	Yes	0.40	30	B	25	0.08	0.08	0:00:26	0:00:13		0:00:39
	Snelling Ave. South	3	Yes	0.60	30	C	25	0.08	0.16	0:00:20	0:00:09		0:01:09
	Hiawatha Avenue	1	No	0.50	30	C	25	0.11	0.27	0:00:16	0:00:28		0:01:53
					30	C	25	0.06		0:00:09			
2	Blue Line LRT Station	Stop	n/a	n/a					0.33		0:00:00	0:00:20	0:02:22
	S. 22nd Avenue	3	Yes	0.60	30	D	20	0.07	0.40	0:00:19	0:00:12		0:02:52
	21st Ave. South	3	Yes	0.60	30	D	20	0.10	0.50	0:00:18	0:00:12		0:03:22
					30	E	15	0.25		0:01:04			
3	Cedar Ave. South	3	No	0.40					0.75		0:00:38	0:00:15	0:05:19
	17th Ave. South	3	Yes	0.60	30	D	20	0.12	0.87	0:00:29	0:00:12		0:05:59
					30	E	15	0.13		0:00:35			
4	Bloomington Ave. South	3	Yes	0.40					1.00		0:00:32	0:00:15	0:07:21
	13th Ave. South	3	Yes	0.60	30	D	20	0.19	1.19	0:00:41	0:00:12		0:08:14
	11th Ave. South	3	Yes	0.60	30	D	20	0.12	1.31	0:00:22	0:00:12		0:08:48
	10th Ave. South	3	Yes	0.60	30	D	20	0.06	1.37	0:00:11	0:00:12		0:09:10
	Elliott Ave. South	3	Yes	0.60	30	D	20	0.06	1.43	0:00:16	0:00:12		0:09:38
					30	D	20	0.12		0:00:33			
5	Chicago Ave. South	2	No	0.40					1.55		0:00:33	0:00:20	0:11:04
	Park Ave. South	3	Yes	0.60	30	D	20	0.13	1.68	0:00:30	0:00:12		0:11:46
					30	E	15	0.12		0:00:33			
6	Portland Ave. South	3	No	0.40					1.80		0:00:38	0:00:20	0:13:17
	S. 4th Avenue	3	Yes	0.60	30	D	20	0.13	1.93	0:00:28	0:00:12		0:13:56
	S. 3rd Avenue	3	Yes	0.60	30	D	20	0.12	2.05	0:00:33	0:00:12		0:14:41
					30	D	20	0.06		0:00:16			
7	I-35/S. 2nd Avenue	3	Yes	0.60					2.11		0:00:12	0:00:15	0:15:23
	Stevens Avenue	3	Yes	0.60	30	D	20	0.06	2.17	0:00:17	0:00:12		0:15:52
	S. 1st Avenue	3	Yes	0.60	30	D	20	0.07	2.24	0:00:18	0:00:12		0:16:22
					30	D	20	0.06		0:00:17			
8	Nicollet Avenue	3	Yes	0.60					2.30		0:00:12	0:00:20	0:17:10
	Blaisdell Avenue	3	Yes	0.60	30	D	20	0.08	2.38	0:00:19	0:00:12		0:17:41
	Pillsbury Avenue	3	Yes	0.60	30	D	20	0.09	2.47	0:00:23	0:00:12		0:18:16
	Grand Avenue	3	Yes	0.60	30	D	20	0.14	2.61	0:00:25	0:00:12		0:18:52
					30	D	20	0.19		0:00:39			
9	S. Lyndale Avenue	3	No	0.40					2.80		0:00:25	0:00:20	0:20:16
	S. Bryant Avenue	3	Yes	0.60	30	E	15	0.12	2.92	0:00:34	0:00:23		0:21:13
					30	E	15	0.13		0:00:35			
10	S. Dupont Avenue	3	Yes	0.60					3.05		0:00:23	0:00:15	0:22:26
	S. Emerson Avenue	3	Yes	0.60	30	E	15	0.06	3.11	0:00:23	0:00:23		0:23:11
	S. Girard Ave.	3	Yes	0.60	30	E	15	0.14	3.25	0:00:42	0:00:23		0:24:16
					30	E	15	0.06		0:00:23			
11	Hennepin Ave.	2	No	0.40					3.31		0:00:47	0:00:20	0:25:46
	S. Humboldt Ave.	3	Yes	0.60	30	D	20	0.13	3.44	0:00:30	0:00:12		0:26:28
					30	D	20	0.20		0:00:41			
12	Knox Ave.	Stop	n/a	n/a					3.64		0:00:00	0:00:15	0:27:24
	East Lake Calhoun Pkwy.	2	Yes	0.50	30	D	20	0.03	3.67	0:00:12	0:00:20		0:27:56
	Thomas Ave.	3	Yes	0.60	35	C	25	0.44	4.11	0:01:05	0:00:09		0:29:10
					35	C	25	0.15		0:00:28			
13	W. Calhoun Pkwy/Dean Pkwy.	2	No	0.50					4.26		0:00:22	0:00:15	0:30:15
	Excelsior Blvd.	n/a	No	n/a	35	C	25	0.09	4.35	0:00:21	0:00:12		0:30:48
	Market Plaza	2	No	0.60	35	C	25	0.12	4.47	0:00:17	0:00:17		0:31:22
					35	C	25	0.14		0:00:26			
14	West Lake Station	Stop	No	n/a					4.61		0:00:00	0:00:15	0:32:03
	Drew Ave.	3	No	0.60	35	C	25	0.14	4.75	0:00:28	0:00:12		0:32:43
	France Ave.	2	No	0.40	35	C	25	0.13	4.88	0:00:25	0:00:29		0:33:37
					35	C	25	0.08		0:00:35			
15	W. 30th 1/2 Street Stop	Stop	No	n/a					4.96		0:00:00	0:00:15	0:34:27
Totals									4.96	0:17:51	0:10:35	0:04:00	0:34:27 Avg. Speed (mph): 8.64

MIDTOWN CORRIDOR ALTERNATIVES ANALYSIS
 RUN TIME ESTIMATE WORKBOOK
 Dual Alignment Option - Lake Street/Marshall Ave. Arterial BRT Alternative
 Westbound Run Time Estimate (PM Peak)

Sta. No.	Intersection/Station	Inter. Class.	TSP?	g/c	Posted Speed	Segment LOS	Max. Speed	Distance [mi]	Total Distance	Run Time (hr:min:sec)	Delay Time (hr:min:sec)	Dwell Time (hr:min:sec)	Total Time (hr:min:sec)
1	University Ave./Green Line LRT	n/a	n/a	n/a				0.06	0.00	0:00:17	0:00:00	0:00:00	0:00:00
2	Spruce Tree Ave.	3	Yes	0.60	35	C	25	0.19	0.06	0:00:27	0:00:09	0:00:15	0:00:41
	St. Anthony Ave.	2	No	0.60	35	C	25	0.06	0.25	0:00:15	0:00:17		0:01:25
	Snelling Ave./Concordia Ave.	2	No	0.60	35	C	25	0.20	0.31	0:00:35	0:00:17		0:01:57
	Marshall Ave./Snelling Ave.	2	No	0.60	30	C	25	0.50	0.51	0:01:12	0:00:17		0:02:49
3	Fry Ave.	Stop	n/a	n/a	30	C	25	0.50	1.01	0:01:27	0:00:00	0:00:15	0:04:16
4	Fairview Ave.	3	No	0.60	30	B	25	0.27	1.51	0:00:45	0:00:12	0:00:15	0:06:10
	Prior Ave.	3	Yes	0.60	30	B	25	0.23	1.78	0:00:41	0:00:07		0:07:03
5	Cleveland Ave.	2	Yes	0.50	30	B	25	0.25	2.01	0:00:51	0:00:14	0:00:15	0:08:13
6	Cretin Ave.	3	No	0.50	30	B	25	0.27	2.26	0:00:53	0:00:14	0:00:15	0:09:33
7	Otis Ave.	3	Yes	0.60	30	B	25	0.36	2.53	0:00:58	0:00:07	0:00:15	0:10:48
	West River Pkwy.	3	Yes	0.60	30	B	25	0.23	2.89	0:00:41	0:00:07		0:11:54
8	S. 44th Ave.	3	Yes	0.60	30	B	25	0.12	3.12	0:00:24	0:00:07	0:00:15	0:12:57
	S. 42nd Ave.	3	Yes	0.60	30	B	25	0.19	3.24	0:00:27	0:00:07		0:13:29
	S. 39th Ave.	3	Yes	0.60	30	B	25	0.19	3.43	0:00:36	0:00:07		0:14:03
9	S. 36th Ave.	3	Yes	0.60	30	B	25	0.19	3.62	0:00:34	0:00:07	0:00:15	0:15:02
	S. 33rd Ave.	3	Yes	0.60	30	B	25	0.14	3.81	0:00:20	0:00:07		0:15:43
10	S. 31st Ave.	3	Yes	0.60	30	B	25	0.22	3.95	0:00:32	0:00:07	0:00:15	0:16:25
	S. 28th Ave.	3	Yes	0.60	30	B	25	0.07	4.17	0:00:10	0:00:07		0:17:05
	S. 27th Ave.	3	Yes	0.60	30	B	25	0.06	4.24	0:00:09	0:00:07		0:17:22
11	Minnehaha Ave.	2	Yes	0.60	30	C	25	0.08	4.30	0:00:20	0:00:10	0:00:15	0:17:57
	Snelling Ave. South	3	Yes	0.60	30	C	25	0.11	4.38	0:00:22	0:00:09		0:18:26
	Hiawatha Avenue	1	No	0.50	30	C	25	0.06	4.49	0:00:17	0:00:28		0:19:16
12	Blue Line LRT Station	Stop	n/a	n/a	30	D	20	0.07	4.55	0:00:19	0:00:00	0:00:20	0:19:53
	S. 22nd Avenue	3	Yes	0.60	30	D	20	0.10	4.62	0:00:18	0:00:12		0:20:24
	21st Ave. South	3	Yes	0.60	30	E	15	0.25	4.72	0:01:04	0:00:12		0:20:53
13	Cedar Ave. South	3	No	0.40	30	D	20	0.12	4.97	0:00:29	0:00:38	0:00:15	0:22:50
	17th Ave. South	3	Yes	0.60	30	E	15	0.13	5.09	0:00:35	0:00:12		0:23:31
14	Bloomington Ave. South	3	Yes	0.40	30	D	20	0.19	5.22	0:00:41	0:00:32	0:00:15	0:24:53
	13th Ave. South	3	Yes	0.60	30	D	20	0.12	5.41	0:00:22	0:00:12		0:25:45
	11th Ave. South	3	Yes	0.60	30	D	20	0.06	5.53	0:00:11	0:00:12		0:26:19
	10th Ave. South	3	Yes	0.60	30	D	20	0.06	5.59	0:00:16	0:00:12		0:26:42
	Elliott Ave. South	3	Yes	0.60	30	D	20	0.12	5.65	0:00:33	0:00:12		0:27:09
15	Chicago Ave. South	2	No	0.40	30	D	20	0.13	5.77	0:00:30	0:00:33	0:00:20	0:28:35
	Park Ave. South	3	Yes	0.60	30	E	15	0.12	5.90	0:00:33	0:00:12		0:29:17
16	Portland Ave. South	3	No	0.40	30	D	20	0.13	6.02	0:00:28	0:00:38	0:00:20	0:30:48
	S. 4th Avenue	3	Yes	0.60	30	D	20	0.12	6.15	0:00:33	0:00:12		0:31:28
	S. 3rd Avenue	3	Yes	0.60	30	D	20	0.06	6.27	0:00:16	0:00:12		0:32:12
17	I-35/S. 2nd Avenue	3	Yes	0.60	30	D	20	0.06	6.33	0:00:17	0:00:12	0:00:15	0:32:55
	Stevens Avenue	3	Yes	0.60	30	D	20	0.07	6.39	0:00:18	0:00:12		0:33:23
	S. 1st Avenue	3	Yes	0.60	30	D	20	0.06	6.46	0:00:17	0:00:12		0:33:53
18	Nicollet Avenue	3	Yes	0.60	30	D	20	0.08	6.52	0:00:19	0:00:12	0:00:20	0:34:42
	Blaisdell Avenue	3	Yes	0.60	30	D	20	0.09	6.60	0:00:23	0:00:12		0:35:12
	Pillsbury Avenue	3	Yes	0.60	30	D	20	0.14	6.69	0:00:25	0:00:12		0:35:47
	Grand Avenue	3	Yes	0.60	30	D	20	0.19	6.83	0:00:39	0:00:12		0:36:24
19	S. Lyndale Avenue	3	No	0.40	30	E	15	0.12	7.02	0:00:34	0:00:25	0:00:20	0:37:48
	S. Bryant Avenue	3	Yes	0.60	30	E	15	0.13	7.14	0:00:35	0:00:23		0:38:44
20	S. Dupont Avenue	3	Yes	0.60	30	E	15	0.06	7.27	0:00:19	0:00:23	0:00:15	0:39:57
	S. Emerson Avenue	3	Yes	0.60	30	E	15	0.06	7.33	0:00:18	0:00:23		0:40:39
	Fremont Ave	Stop	No	n/a	30	C	25	0.06	7.39	0:00:23	0:00:00		0:40:57
	W 29th Street	Stop	No	n/a	30	C	25	0.09	7.45	0:00:28	0:00:00		0:41:20
21	Uptown Station	Stop	No	n/a					7.54		0:00:00	0:00:20	0:42:08
Totals									7.54	0:12:23	0:11:02	0:05:30	0:42:08
Avg. Speed (mph):												10.74	