

Appendix C

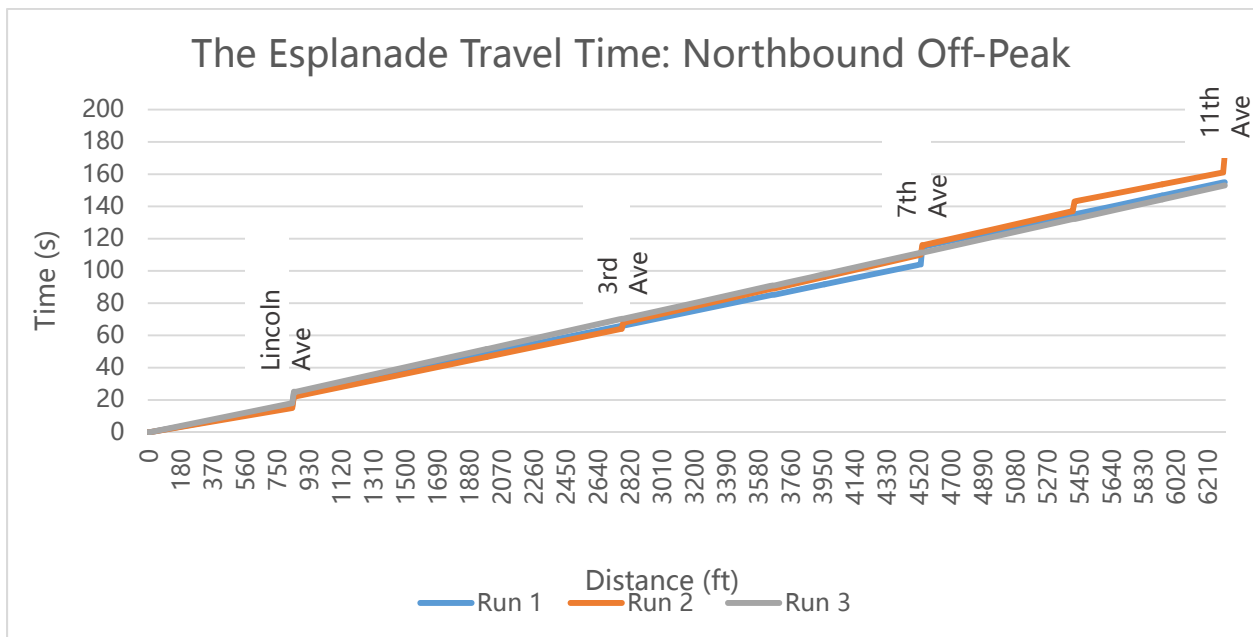
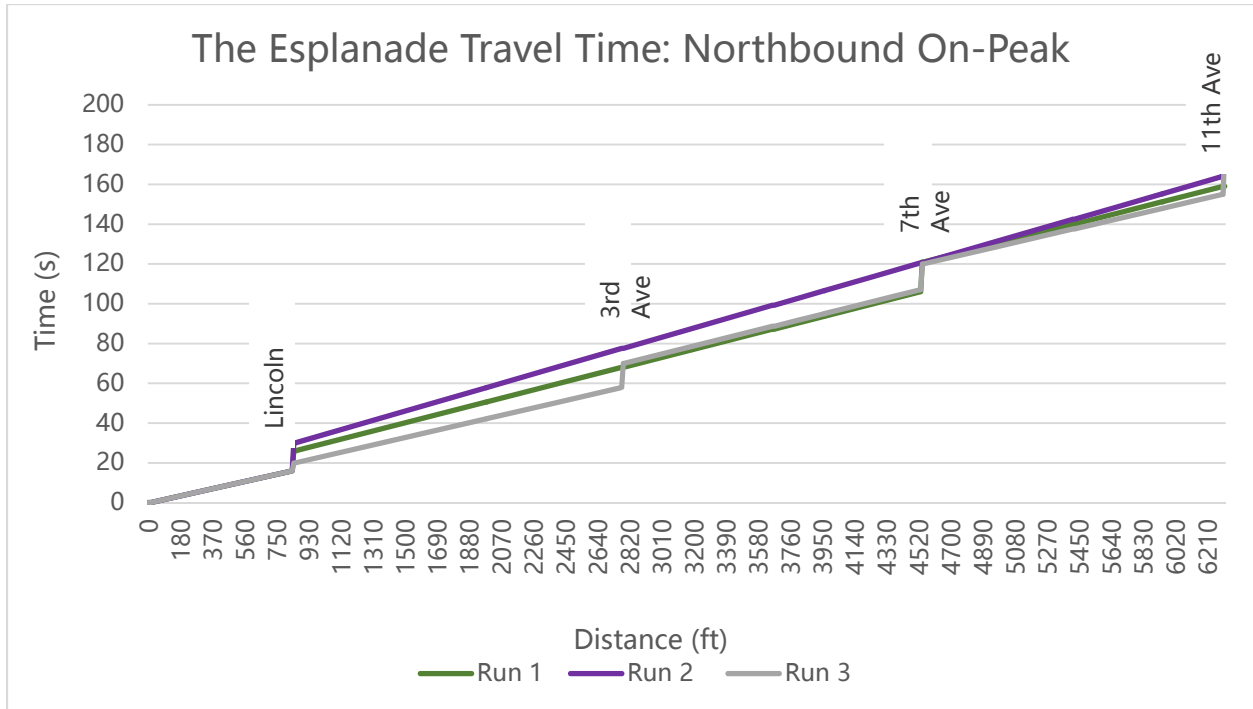
Travel Time Calculations

Notes: The following calculations include "Existing Conditions," "Preferred Plan," and "Preferred Plan with Roundabouts"
"Preferred Plan" = Council Approved Plan Components
"Preferred Plan with Roundabouts" = Council Approved Plan Components plus the Deferred Plan Components

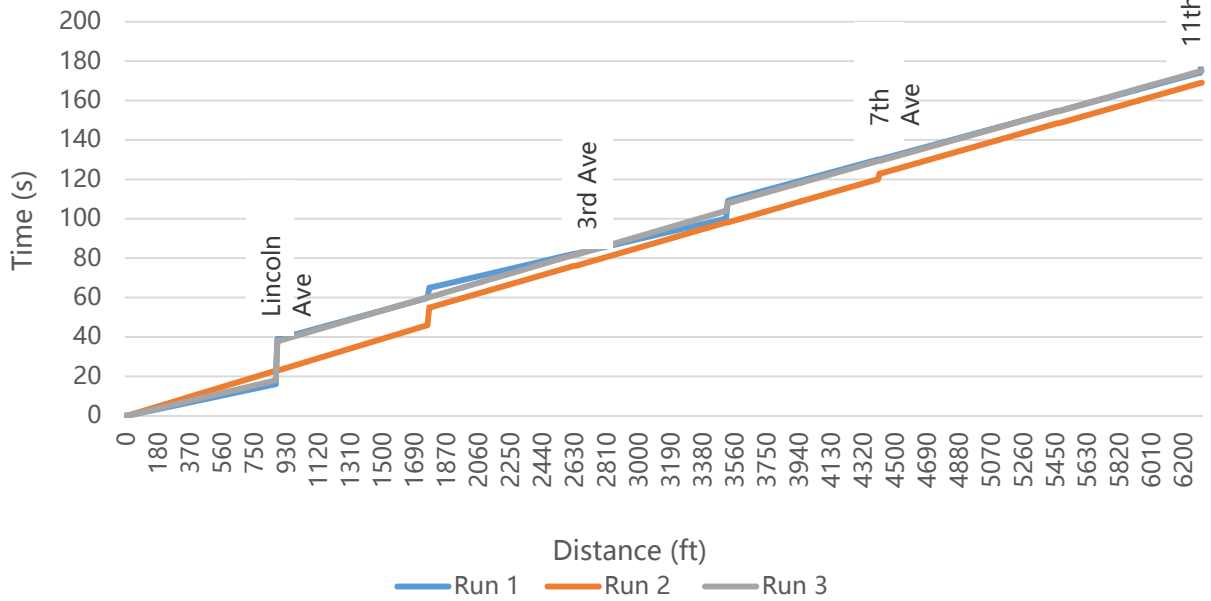


Vehicle Travel Time Data

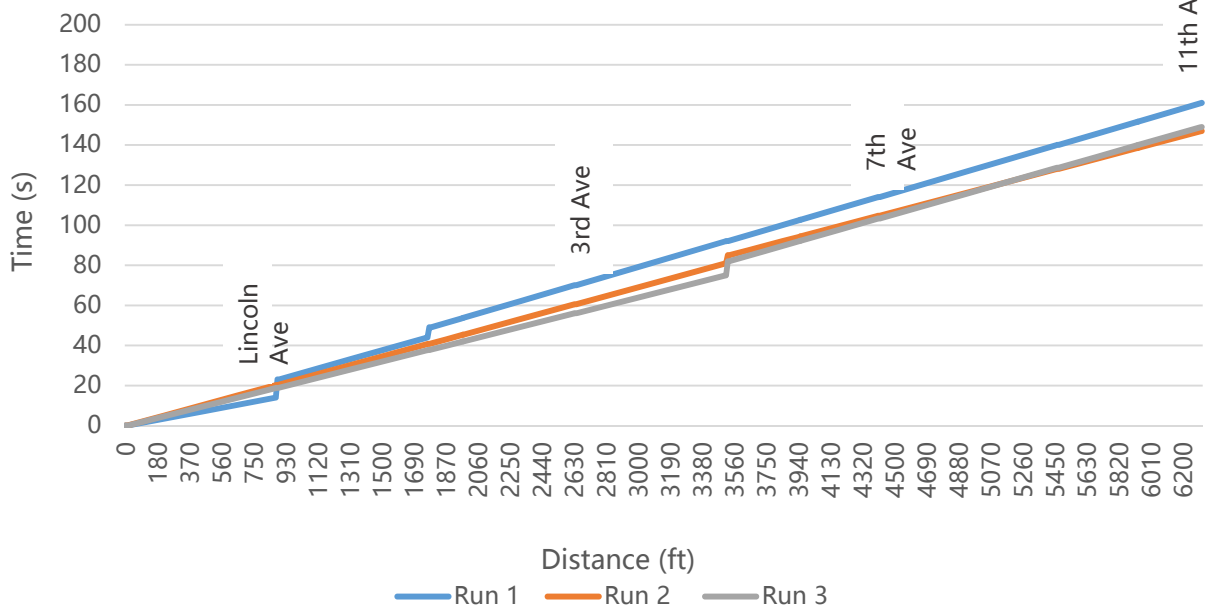
The charts below provide more details of the travel time in both directions during the peak hours. Delay associated with the signalized intersections is indicated by the vertical line segments.



The Esplanade Travel Time: Southbound On-Peak



The Esplanade Travel Time: Southbound Off-Peak



Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	1.9	14.2	0.1	27
Lincoln Ave	3	3.5	9.8	0.1	20
W Sacramento Ave	4	1.4	15.0	0.1	27
1st Ave	5	3.7	13.1	0.1	23
2nd Ave	6	1.3	11.0	0.1	27
3rd Ave	7	2.8	12.9	0.1	24
4th Ave	8	1.0	10.8	0.1	27
5th Ave	9	3.9	13.6	0.1	22
6th Ave	10	1.5	11.3	0.1	27
7th Ave	11	3.3	13.3	0.1	22
8th Ave	12	1.0	10.8	0.1	27
9th Ave	13	3.4	13.2	0.1	23
10th Ave	14	1.1	11.0	0.1	27
11th Ave	15	7.6	17.3	0.1	17
Total		37.2	177.6	1.2	24

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	2.1	11.6	0.1	25
9th Ave	13	8.8	18.8	0.1	16
8th Ave	12	2.7	12.5	0.1	24
7th Ave	11	4.6	14.4	0.1	21
6th Ave	10	1.9	11.9	0.1	25
5th Ave	9	3.5	13.2	0.1	23
4th Ave	8	1.7	11.8	0.1	25
3rd Ave	7	4.3	13.7	0.1	21
2nd Ave	6	2.0	12.1	0.1	25
1st Ave	5	4.9	14.6	0.1	20
W Sacramento Ave	4	2.4	12.0	0.1	25
Lincoln Ave	3	4.4	17.4	0.1	24
Francis Willard Ave	2	1.8	9.2	0.1	21
Bidwell Mansion	1	2.5	14.8	0.1	26
Total		47.4	188.0	1.2	23

Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	2.4	15.0	0.1	26
Lincoln Ave	3	3.8	10.2	0.1	19
W Sacramento Ave	4	1.7	15.5	0.1	26
1st Ave	5	4.2	13.7	0.1	22
2nd Ave	6	1.5	11.4	0.1	26
3rd Ave	7	3.7	14.0	0.1	22
4th Ave	8	1.4	11.2	0.1	26
5th Ave	9	3.4	13.1	0.1	23
6th Ave	10	1.5	11.3	0.1	27
7th Ave	11	4.1	14.1	0.1	21
8th Ave	12	1.5	11.3	0.1	26
9th Ave	13	3.4	13.1	0.1	23
10th Ave	14	1.2	11.2	0.1	27
11th Ave	15	5.6	15.3	0.1	19
Total		39.4	180.5	1.2	24

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	2.3	11.8	0.1	25
9th Ave	13	8.0	18.0	0.1	17
8th Ave	12	2.6	12.4	0.1	24
7th Ave	11	3.4	13.2	0.1	22
6th Ave	10	1.3	11.3	0.1	26
5th Ave	9	2.9	12.5	0.1	24
4th Ave	8	1.4	11.6	0.1	26
3rd Ave	7	3.1	12.6	0.1	23
2nd Ave	6	1.2	11.4	0.1	27
1st Ave	5	3.1	12.6	0.1	24
W Sacramento Ave	4	1.6	11.4	0.1	26
Lincoln Ave	3	4.1	17.0	0.1	24
Francis Willard Ave	2	1.8	9.1	0.1	22
Bidwell Mansion	1	2.0	14.3	0.1	27
Total		38.7	179.2	1.2	24

Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	1.8	14.2	0.1	27
Lincoln Ave	3	7.1	13.6	0.1	14
W Sacramento Ave	4	7.9	21.1	0.1	19
1st Ave	5	10.7	20.2	0.1	15
2nd Ave	6	1.7	11.6	0.1	26
3rd Ave	7	3.4	13.5	0.1	23
4th Ave	8	1.0	10.8	0.1	27
5th Ave	9	6.9	16.8	0.1	18
6th Ave	10	1.7	11.4	0.1	26
7th Ave	11	4.3	14.3	0.1	21
8th Ave	12	1.0	10.8	0.1	27
9th Ave	13	6.6	16.4	0.1	18
10th Ave	14	1.4	11.5	0.1	26
11th Ave	15	5.5	15.0	0.1	19
Total		60.8	201.4	1.2	21

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	1.8	11.6	0.1	25
9th Ave	13	3.2	13.5	0.1	22
8th Ave	12	1.7	11.7	0.1	26
7th Ave	11	4.3	14.0	0.1	21
6th Ave	10	1.8	11.7	0.1	26
5th Ave	9	4.5	14.3	0.1	21
4th Ave	8	1.4	11.6	0.1	26
3rd Ave	7	6.0	15.4	0.1	19
2nd Ave	6	2.1	12.4	0.1	25
1st Ave	5	9.7	19.4	0.1	15
W Sacramento Ave	4	9.1	18.8	0.1	16
Lincoln Ave	3	5.8	18.6	0.1	22
Francis Willard Ave	2	2.0	9.3	0.1	21
Bidwell Mansion	1	3.5	15.8	0.1	24
Total		57.0	197.8	1.2	22

Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	2.1	14.6	0.1	26
Lincoln Ave	3	2.6	9.1	0.1	22
W Sacramento Ave	4	3.2	16.7	0.1	25
1st Ave	5	19.8	29.2	0.1	10
2nd Ave	6	2.2	12.1	0.1	25
3rd Ave	7	5.4	15.4	0.1	20
4th Ave	8	1.5	11.3	0.1	26
5th Ave	9	9.2	19.0	0.1	16
6th Ave	10	1.9	11.7	0.1	26
7th Ave	11	3.4	13.4	0.1	22
8th Ave	12	1.2	11.0	0.1	27
9th Ave	13	5.7	15.5	0.1	19
10th Ave	14	1.4	11.5	0.1	26
11th Ave	15	4.1	13.7	0.1	21
Total		63.7	204.3	1.2	21

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	1.8	11.3	0.1	26
9th Ave	13	3.2	13.2	0.1	23
8th Ave	12	1.6	11.5	0.1	26
7th Ave	11	4.5	14.3	0.1	21
6th Ave	10	1.4	11.2	0.1	27
5th Ave	9	3.7	13.5	0.1	22
4th Ave	8	1.3	11.4	0.1	26
3rd Ave	7	3.2	12.6	0.1	23
2nd Ave	6	1.4	11.5	0.1	27
1st Ave	5	23.0	32.5	0.1	9
W Sacramento Ave	4	16.9	26.2	0.1	11
Lincoln Ave	3	4.9	17.5	0.1	23
Francis Willard Ave	2	1.6	9.0	0.1	22
Bidwell Mansion	1	9.9	22.4	0.1	17
Total		78.3	218.1	1.2	20

Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	1.2	20.4	0.1	19
Lincoln Ave	3	8.5	15.0	0.1	13
W Sacramento Ave	4	3.3	16.8	0.1	24
1st Ave	5	5.9	14.1	0.1	21
2nd Ave	6	0.8	17.1	0.1	17
3rd Ave	7	4.0	13.8	0.1	22
4th Ave	8	1.1	11.0	0.1	27
5th Ave	9	5.6	15.3	0.1	20
6th Ave	10	1.4	11.3	0.1	27
7th Ave	11	6.0	16.0	0.1	19
8th Ave	12	1.4	11.1	0.1	27
9th Ave	13	5.9	15.7	0.1	19
10th Ave	14	1.1	11.0	0.1	28
11th Ave	15	7.5	17.1	0.1	17
Total		53.7	205.7	1.2	21

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	1.9	11.5	0.1	25
9th Ave	13	3.0	13.1	0.1	23
8th Ave	12	1.7	11.5	0.1	26
7th Ave	11	2.2	11.9	0.1	25
6th Ave	10	1.3	11.3	0.1	26
5th Ave	9	3.8	13.7	0.1	22
4th Ave	8	1.5	11.8	0.1	25
3rd Ave	7	4.3	13.7	0.1	21
2nd Ave	6	1.6	11.8	0.1	26
1st Ave	5	6.1	14.7	0.1	20
W Sacramento Ave	4	15.7	32.0	0.1	9
Lincoln Ave	3	4.2	17.1	0.1	24
Francis Willard Ave	2	1.4	8.8	0.1	22
Bidwell Mansion	1	5.2	16.3	0.1	24
Total		54.0	199.2	1.2	21

Arterial Level of Service: NB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Francis Willard Ave	2	1.6	21.1	0.1	18
Lincoln Ave	3	7.1	13.6	0.1	14
W Sacramento Ave	4	4.5	18.2	0.1	23
1st Ave	5	9.1	17.5	0.1	17
2nd Ave	6	1.0	17.8	0.1	17
3rd Ave	7	4.3	14.5	0.1	21
4th Ave	8	1.4	11.1	0.1	26
5th Ave	9	5.5	15.2	0.1	20
6th Ave	10	1.7	11.5	0.1	26
7th Ave	11	2.9	12.9	0.1	23
8th Ave	12	1.2	11.0	0.1	27
9th Ave	13	3.9	13.9	0.1	22
10th Ave	14	1.1	11.2	0.1	27
11th Ave	15	4.4	14.0	0.1	21
Total		49.6	203.4	1.2	21

Arterial Level of Service: SB Esplanade

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
10th Ave	14	1.8	11.4	0.1	26
9th Ave	13	4.1	14.3	0.1	21
8th Ave	12	1.7	11.6	0.1	26
7th Ave	11	6.0	15.7	0.1	19
6th Ave	10	1.7	11.6	0.1	26
5th Ave	9	5.2	14.9	0.1	20
4th Ave	8	1.5	11.9	0.1	25
3rd Ave	7	4.3	13.7	0.1	21
2nd Ave	6	1.5	11.7	0.1	26
1st Ave	5	6.4	14.9	0.1	20
W Sacramento Ave	4	14.4	30.7	0.1	10
Lincoln Ave	3	3.5	16.3	0.1	25
Francis Willard Ave	2	1.2	8.6	0.1	23
Bidwell Mansion	1	5.1	16.5	0.1	23
Total		58.4	203.7	1.2	21