

Appendix H
Transit Travel Time Calculations

The calculation of transit travel time as a result of roadway congestion is based on movement delays calculated at intersections as part of the intersection LOS analysis. The following additional assumptions were made in this analysis:

- The transit signal priority improvements under Tier 3 are assumed to produce a 10 percent reduction in transit delay at intersections along 19th Avenue. This is primarily based on the assumption that for an approximately 100-second cycle, there is approximately a ten-second window during which buses can place calls with the signal to extend the phase. Based on a random arrival rate for buses, this means ten percent of buses will see time benefits from the signal priority. Vehicles on the M, which operate in a median and are not subject to delays related to roadway congestion and queuing, were not assumed to benefit from the signal priority.
- The reroute of the 29 in scenarios where Parkmerced is assumed to be built—i.e., Tier 2, Tier 3, and Tier 4—is assumed to be as follows:
 - SBR at 19th Avenue / Holloway Avenue;
 - Loop within internal street network of Parkmerced; and,
 - EBT at 19th Avenue / Holloway Avenue.
- The M crossing at Rossmoor Drive is analyzed as a one-way stop-controlled intersection, with traffic on northbound 19th Avenue assumed to be uncontrolled. A calibration factor was calculated for Existing Conditions to reconcile the reported delay from the Highway Capacity Manual (HCM) LOS analysis for this configuration with actual conditions. The calibration factor was then applied to all reported delays under future scenarios to obtain an estimate of the delays to the M at this crossing.
- Travel times between 19th Avenue / Junipero Serra Boulevard and 19th Avenue / Holloway Avenue under the existing alignment in the median of 19th Avenue (including running time and stop delays) were based on field surveys of existing travel time on this section of the M. Calculations for alignments through Parkmerced were developed based on the following travel time elements:
 - Running time (including time to accelerate, coast at constant speed, and decelerate), based on average speeds through intersections, curves, and approaching / departing stations;
 - Dwell time at stations, based on existing dwell time at stations expected to be similar to the proposed stations within Parkmerced; and,
- Intersection delay, based on average delay for train movements calculated from HCM intersection analysis and microsimulation.

19th Avenue transit priority (reduction)	0.1
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Add'l delay for 29 reroute (sec)	60.0
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LRT wait @ Holloway (existing signals)	31.0	*(see J Line Alternatives Travel Time Analysis)
Travel time (existing 19th Ave. alignment)		
Junipero Serra to Holloway	66.0	*(see J Line Alternatives Travel Time Analysis)
Junipero Serra to Crespi	56.0	
Travel time (Parkmerced alignment)		
Full	185.0	*(see J Line Alternatives Travel Time Analysis)
Stub	153.0	*(see J Line Alternatives Travel Time Analysis; 3:05 - 0:32)
LRT wait @ Holloway (new signals)	45.0	*From microsimulation
LRT wait @ Junipero Serra (new signals)	45.0	*From microsimulation

28/28L SB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Sloat	SBT	38.6	135.0	137.0	137.0	123.3	137.0	123.3	137.0	123.3	137.0	123.3
19th / Ocean	SBT	29.1	62.8	63.0	63.0	56.7	63.0	56.7	63.0	56.7	63.0	56.7
19th / Eucalyptus	SBT	17.4	32.4	33.0	33.0	29.7	33.0	29.7	33.0	29.7	33.0	29.7
19th / Winston	SBT	45.0	72.4	63.2	63.2	56.9	63.2	56.9	63.2	56.9	63.2	56.9
19th / Holloway	SBT	60.4	91.9	83.6	83.6	75.2	83.6	75.2	44.1	39.7	44.1	39.7
Junipero Serra / 19th	EBR	35.9	67.1	79.0	79.0	71.1	80.9	72.8	80.6	72.5	23.7	21.3
Junipero Serra / Chumasero	SBT						26.3	23.7	26.3	23.7	26.5	23.9
TOTAL		226.4	461.6	458.8	458.8	412.9	487.0	438.3	447.2	402.5	380.5	351.5
Difference			3:50	3:50	3:50	3:00	4:20	3:30	3:40	2:50	2:40	2:00

28/28L NB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
Junipero Serra / Chumasero	NBT						7.7	6.9	7.7	6.9	16.6	14.9
Junipero Serra / 19th	NBL	77.9	131.1	147.1	147.1	132.4	26.8	24.1	26.7	24.0	48.1	43.3
19th / Holloway	NBT	22.8	49.3	46.2	46.2	41.6	46.2	41.6	89.6	80.6	89.6	80.6
19th / Winston	NBT	21.0	28.5	27.7	27.7	24.9	27.7	24.9	27.7	24.9	27.7	24.9
19th / Eucalyptus	NBT	6.4	7.1	7.5	7.5	6.8	7.5	6.8	7.5	6.8	7.5	6.8
19th / Ocean	NBT	7.1	11.0	12.1	12.1	10.9	12.1	10.9	12.1	10.9	12.1	10.9
19th / Sloat	NBT	90.6	145.0	166.0	166.0	149.4	166.0	149.4	166.0	149.4	166.0	149.4
TOTAL		225.8	372.0	406.6	406.6	365.9	394.5	264.6	397.3	303.6	367.5	330.8
Difference			2:20	3:00	3:00	2:20	1:00	0:30	1:50	1:10	2:20	1:40

29 SB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Winston	EBR	46.3	39.3	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
19th / Holloway	SBR			8.3	8.3	7.5	8.3	7.5	14.7	13.2	14.7	13.2
19th / Holloway	EBT			26.9	26.9	26.9	26.9	26.9	65.5	65.5	59.0	59.0
Additional uncontrolled delay				60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
19th / Holloway	SBT	60.4	91.9									
19th / Crespi	SBR	0.0	0.0									
19th / Crespi	EBL	30.7	30.8									
19th / Holloway	NBR	22.8	49.3									
TOTAL		160.2	211.3	138.0	138.0	137.2	138.0	137.2	163.0	181.5	176.5	175.0
Difference			0:50	-0:20	-0:20	-0:20	-0:20	-0:20	0:30	0:20	0:20	0:20

19th Avenue transit priority (reduction)	0.1
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Add'l delay for 29 reroute (sec)	60.0
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LRT wait @ Holloway (existing signals)	31.0	*(see J Line Alternatives Travel Time Analysis)
Travel time (existing 19th Ave. alignment)		
Junipero Serra to Holloway	66.0	*(see J Line Alternatives Travel Time Analysis)
Junipero Serra to Crespi	56.0	
Travel time (Parkmerced alignment)		
Full	185.0	*(see J Line Alternatives Travel Time Analysis)
Stub	153.0	*(see J Line Alternatives Travel Time Analysis; 3:05 - 0:32)
LRT wait @ Holloway (new signals)	45.0	*From microsimulation
LRT wait @ Junipero Serra (new signals)	45.0	*From microsimulation

29 NB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Holloway	WBR	22.5	22.5	22.9	22.9	22.9	22.9	22.9	53.7	53.7	38.2	38.2
19th / Winston	NBL	42.7	43.8	53.7	53.7	48.3	53.7	48.3	43.6	39.2	53.7	48.3
TOTAL		65.2	66.3	76.6	76.6	71.2	76.6	71.2	97.3	92.9	91.9	86.5
Difference			0:00	0:10	0:10	0:00	0:10	0:00	0:30	0:20	0:20	0:20

M SB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Rossmoor		40.6	52.2	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
19th / Winston	SBT	45.0	72.4	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
19th / Holloway	SBT	31.0	31.0	31.0			31.0	31.0	45.0	45.0	45.0	45.0
19th / Junipero Serra	EBT	44.3	45.3	49.5			50.6	50.6				
19th / Holloway	LRT											
Travel time inside Parkmerced									153.0	153.0	185.0	185.0
19th / Junipero Serra	LRT										45.0	45.0
TOTAL		160.9	200.9	202.3	121.8	121.8	203.4	203.4	319.8	319.8	396.8	396.8
Difference			0:40	0:40	-0:40	-0:40	0:40	0:40	2:40	2:40	4:00	4:00

M NB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Junipero Serra	WBT	62.5	70.6	84.3			64.4	64.4				
Travel time in 19th Ave. median		66.0	66.0	66.0			66.0	66.0				
19th / Holloway	NBT	31.0	31.0	31.0			31.0	31.0				
19th / Junipero Serra	LRT										45.0	45.0
Travel time inside Parkmerced									153.0	153.0	185.0	185.0
19th / Holloway	LRT								45.0	45.0	45.0	45.0
19th / Winston	NBL	42.7	43.8	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
19th / Rossmoor		40.6	52.2	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
TOTAL		242.8	263.6	293.6	112.3	112.3	273.7	273.7	310.3	310.3	367.3	367.3
Difference			0:20	0:50	-2:10	-2:10	0:30	0:30	1:10	1:10	2:30	2:30

19th Avenue transit priority (reduction)	0.1
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Add'l delay for 29 reroute (sec)	60.0
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LRT wait @ Holloway (existing signals)	31.0	*(see J Line Alternatives Travel Time Analysis)
Travel time (existing 19th Ave. alignment)		
Junipero Serra to Holloway	66.0	*(see J Line Alternatives Travel Time Analysis)
Junipero Serra to Crespí	56.0	
Travel time (Parkmerced alignment)		
Full	185.0	*(see J Line Alternatives Travel Time Analysis)
Stub	153.0	*(see J Line Alternatives Travel Time Analysis; 3:05 - 0:32)
LRT wait @ Holloway (new signals)	45.0	*From microsimulation
LRT wait @ Junipero Serra (new signals)	45.0	*From microsimulation

J SB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
Travel time in 19th Ave. median		66.0	66.0	66.0	56.0	56.0			56.0	56.0		
19th / Junipero Serra	EBT	44.3	45.3	49.5	49.5	49.5			50.7	50.7		
TOTAL		110.3	111.3	115.5	105.5	105.5			106.7	106.7		
Difference			0:00	0:10	0:00	0:00			-0:00	-0:00		

J NB	Mvmt	Weekday AM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Junipero Serra	WBT	62.5	70.6	84.3	84.3	84.3			64.6	64.6		
Travel time in 19th Ave. median		66.0	66.0	66.0	56.0	56.0			56.0	56.0		
19th / Holloway	NBT	31.0	31.0	31.0								
TOTAL		159.5	167.6	181.3	140.3	140.3			120.6	120.6		
Difference			0:10	0:20	-0:20	-0:20			-0:40	-0:40		

19th Avenue transit priority (reduction)	0.1
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Add'l delay for 29 reroute (sec)	60.0
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LRT wait @ Holloway (existing signals)	31.0
Travel time (existing 19th Ave. alignment)	
Junipero Serra to Holloway	66.0
Junipero Serra to Crespi	56.0
Travel time (Parkmerced alignment)	
Full	185.0
Stub	153.0
LRT wait @ Holloway (new signals)	45.0
LRT wait @ Junipero Serra (new signals)	45.0

28/28L SB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Sloat	SBT	85.6	155.0	183.0	183.0	164.7	183.0	164.7	183.0	164.7	183.0	164.7
19th / Ocean	SBT	10.1	33.5	48.9	48.9	44.0	48.9	44.0	48.9	44.0	48.9	44.0
19th / Eucalyptus	SBT	8.1	16.8	26.3	26.3	23.7	26.3	23.7	26.3	23.7	26.3	23.7
19th / Winston	SBT	23.3	30.5	32.5	32.5	29.3	32.5	29.3	32.5	29.3	32.5	29.3
19th / Holloway	SBT	7.8	170.0	191.0	191.0	171.9	191.0	171.9	80.4	72.4	80.4	72.4
Junipero Serra / 19th	EBR	70.5	105.1	131.1	131.1	118.0	132.2	119.0	132.2	119.0	41.5	37.4
Junipero Serra / Chumasero	SBT						50.4	45.4	42.1	37.9	47.7	42.9
TOTAL		205.4	510.9	612.8	612.8	551.5	684.3	597.9	548.4	490.9	480.3	414.3
Difference			5:00	6:40	6:40	5:40	7:30	6:30	5:40	4:40	4:10	3:20

Weekday AM Peak Hour			Weekday PM Peak Hour		
4A HOT	4B HOT	4C HOT	4A HOT	4B HOT	4C HOT
123.3	123.3	123.3	164.7	164.7	164.7
56.7	56.7	56.7	44.0	44.0	44.0
29.7	29.7	29.7	23.7	23.7	23.7
56.9	56.9	56.9	29.3	29.3	29.3
8.1	8.1	13.1	7.6	7.5	12.1
6.5	6.6	10.8	5.8	5.8	10.1
23.7	23.7	23.9	45.4	37.9	42.9
304.9	305.0	314.3	320.4	312.8	326.8
1:10	1:10	1:20	1:50	1:40	2:00

28/28L NB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
Junipero Serra / Chumasero	NBT						2.7	2.4	2.5	2.3	4.3	3.9
Junipero Serra / 19th	NBL	98.4	137.2	166.6	217.3	195.6	66.0	59.4	66.0	59.4	149.6	134.6
19th / Holloway	NBT	5.3	70.7	67.2	67.2	60.5	67.2	60.5	108.0	97.2	108.0	97.2
19th / Winston	NBT	55.6	92.4	84.4	84.4	76.0	84.4	76.0	84.4	76.0	84.4	76.0
19th / Eucalyptus	NBT	103.0	151.0	175.0	175.0	157.5	175.0	157.5	175.0	157.5	175.0	157.5
19th / Ocean	NBT	241.0	315.0	354.0	354.0	318.6	354.0	318.6	354.0	318.6	354.0	318.6
19th / Sloat	NBT	126.0	175.0	203.0	203.0	182.7	203.0	182.7	203.0	182.7	203.0	182.7
TOTAL		629.3	941.3	1,050.2	1,050.2	990.8	982.9	857.1	982.9	893.6	1,074.9	970.5
Difference			5:10	7:00	7:50	6:00	5:20	3:50	5:00	4:20	7:30	5:40

29 SB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Winston	EBR	99.7	64.5	163.6	163.6	163.6	163.6	163.6	163.6	163.6	163.6	163.6
19th / Holloway	SBR			11.1	11.1	10.0	11.1	10.0	14.3	12.9	14.3	12.9
19th / Holloway	EBT			54.3	54.3	54.3	54.3	54.3	87.4	87.4	65.5	65.5
Additional uncontrolled delay				60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
19th / Holloway	SBT	7.8	170.0									
19th / Crespi	SBR	0.0	0.0									
19th / Crespi	EBL	32.5	32.5									
19th / Holloway	NBR	5.3	70.7									
TOTAL		145.3	337.7	289.0	289.0	287.9	289.0	287.9	325.3	323.9	305.4	302.0
Difference			3:10	2:20	2:20	2:20	2:20	2:20	3:00	2:50	2:30	2:30

19th Avenue transit priority (reduction)	0.1
Add'l delay for 29 reroute (sec)	60.0
LRT wait @ Holloway (existing signals)	31.0
Travel time (existing 19th Ave. alignment)	
Junipero Serra to Holloway	66.0
Junipero Serra to Crespi	56.0
Travel time (Parkmerced alignment)	
Full	185.0
Stub	153.0
LRT wait @ Holloway (new signals)	45.0
LRT wait @ Junipero Serra (new signals)	45.0

29 NB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Holloway	WBR	27.9	30.5	59.2	59.2	59.2	59.2	59.2	103.0	103.0	44.5	44.5
19th / Winston	NBL	81.5	83.2	158.3	158.3	142.5	158.3	142.5	158.3	142.5	158.3	142.5
TOTAL		109.4	113.7	217.5	217.5	201.7	217.5	201.7	261.3	245.5	202.8	187.0
Difference			0:00	1:50	1:50	1:30	1:50	1:30	2:30	2:20	1:30	1:20

M SB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Rossmoor		68.3	90.4	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0
19th / Winston	SBT	23.3	30.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
19th / Holloway	SBT	31.0	31.0	31.0			31.0	31.0	45.0	45.0	45.0	45.0
19th / Junipero Serra	EBT	73.0	71.9	110.0			59.7	59.7				
19th / Holloway	LRT											
Travel time inside Parkmerced									153.0	153.0	185.0	185.0
19th / Junipero Serra	LRT										45.0	45.0
TOTAL		195.6	223.8	280.5	139.5	139.5	230.2	230.2	337.5	337.5	414.5	414.5
Difference			0:20	1:20	-1:00	-1:00	0:30	0:30	2:20	2:20	3:30	3:30

M NB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Junipero Serra	WBT	64.0	67.0	91.5			57.3	57.3				
Travel time in 19th Ave. median		66.0	66.0	66.0			66.0	66.0				
19th / Holloway	NBT	31.0	31.0	31.0			31.0	31.0				
19th / Junipero Serra	LRT										45.0	45.0
Travel time inside Parkmerced									153.0	153.0	185.0	185.0
19th / Holloway	LRT								45.0	45.0	45.0	45.0
19th / Winston	NBL	81.5	83.2	158.3	158.3	158.3	158.3	158.3	158.3	158.3	158.3	158.3
19th / Rossmoor		68.3	90.4	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0
TOTAL		310.8	337.6	453.8	266.3	265.3	419.6	419.6	463.3	463.3	640.3	640.3
Difference			0:30	2:20	0:40	-0:40	1:30	1:50	2:30	2:30	3:30	3:50

19th Avenue transit priority (reduction)	0.1
Add'l delay for 29 reroute (sec)	60.0
LRT wait @ Holloway (existing signals)	31.0
Travel time (existing 19th Ave. alignment)	
Junipero Serra to Holloway	66.0
Junipero Serra to Crespi	56.0
Travel time (Parkmerced alignment)	
Full	185.0
Stub	153.0
LRT wait @ Holloway (new signals)	45.0
LRT wait @ Junipero Serra (new signals)	45.0

J SB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
Travel time in 19th Ave. median		66.0	66.0	66.0	56.0	56.0			56.0	56.0		
19th / Junipero Serra	EBT	73.0	71.9	110.0	51.6	51.6			59.7	59.7		
TOTAL		139.0	137.9	176.0	107.6	107.6			115.7	115.7		
Difference			0:00	0:40	-0:30	-0:30			0:10	0:10		

J NB	Mvmt	Weekday PM Peak Hour										
		Ex	Tier 1	Tier 2	Tier 3	Tier 3	Tier 4A	Tier 4A	Tier 4B	Tier 4B	Tier 4C	Tier 4C
19th / Junipero Serra	WBT	64.0	67.0	91.5	49.6	49.6			57.3	57.3		
Travel time in 19th Ave. median		66.0	66.0	66.0	56.0	56.0			56.0	56.0		
19th / Holloway	NBT	31.0	31.0	31.0								
TOTAL		161.0	164.0	188.5	105.6	105.6			113.3	113.3		
Difference		0:00	0:00	0:30	-0:50	-0:50			-0:50	-0:50		

19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Base Vol, Growth Adj, Initial Base, User Adj, PHF Adj, Reduct Vol, Final Volume, Critical Gap Module, Capacity Module, Level of Service Module, and Note.

19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, Volume Module, Base Vol, Growth Adj, Initial Base, User Adj, PHF Adj, Reduct Vol, Final Volume, Critical Gap Module, Capacity Module, Level of Service Module, and Note.

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19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

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19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F [58.6]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for 19th, North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gap, FollowUpPtm.

Table with columns: Capacity Module, Conflict Vol, Potent Cap, Move Cap, Volume/Cap.

Table with columns: Level Of Service Module, 2May95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor Average Delay (sec/veh): 0.5 Worst Case Level Of Service: F [107.0]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for 19th, North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gap, FollowUpPtm.

Table with columns: Capacity Module, Conflict Vol, Potent Cap, Move Cap, Volume/Cap.

Table with columns: Level Of Service Module, 2May95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F [58.6]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for 19th, North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gap, FollowUpPtm.

Table with columns: Capacity Module, Conflict Vol, Potent Cap, Move Cap, Volume/Cap.

Table with columns: Level Of Service Module, 2May95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

19th Ave CS Tier 3

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor Average Delay (sec/veh): 0.5 Worst Case Level Of Service: F [107.0]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows for 19th, North Bound, South Bound, East Bound, West Bound.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns: Critical Gap Module, Critical Gap, FollowUpPtm.

Table with columns: Capacity Module, Conflict Vol, Potent Cap, Move Cap, Volume/Cap.

Table with columns: Level Of Service Module, 2May95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

19th Ave CS Tier 4b

19th Ave CS Tier 4b

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor

Intersection #1130 19th / Rossmoor

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F [58.6]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: F [107.0]

Street Name: 19th North Bound South Bound East Bound West Bound Eucalyptus

Street Name: 19th North Bound South Bound East Bound West Bound Eucalyptus

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module: Critical Gap: FollowUpPtm:

Critical Gap Module: Critical Gap: FollowUpPtm:

Capacity Module: Conflict Vol, Potent Cap, Move Cap, Volume/Cap

Capacity Module: Conflict Vol, Potent Cap, Move Cap, Volume/Cap

Level Of Service Module: 2May95thQ, Control Del, LOS by Move

Level Of Service Module: 2May95thQ, Control Del, LOS by Move

Movement: Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Movement: Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Note: Queue reported is the number of cars per lane.

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19th Ave CS Tier 4b

19th Ave CS Tier 4b

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Level Of Service Computation Report 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor

Intersection #1130 19th / Rossmoor

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F [58.6]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: F [107.0]

Street Name: 19th North Bound South Bound East Bound West Bound Eucalyptus

Street Name: 19th North Bound South Bound East Bound West Bound Eucalyptus

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module: Critical Gap: FollowUpPtm:

Critical Gap Module: Critical Gap: FollowUpPtm:

Capacity Module: Conflict Vol, Potent Cap, Move Cap, Volume/Cap

Capacity Module: Conflict Vol, Potent Cap, Move Cap, Volume/Cap

Level Of Service Module: 2May95thQ, Control Del, LOS by Move

Level Of Service Module: 2May95thQ, Control Del, LOS by Move

Movement: Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Movement: Shared Cap, Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

19th Ave CS
Tier 4c

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: P[58.6]

Street Name: 19th Eucalyptus
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 2 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Volume, Reduct Vol, FinalVolume for each approach and movement.

Critical Gap Module:
Critical Gap: 7.5 5.5 3.5 4.0
FollowUpTim: 3.5 4.0 3.5 4.0

Capacity Module:
Conflict Vol: 763 2278 2281 2278
Potential Cap.: 294 74 21 74
Move Cap.: 272 74 20 74
Volume/Cap: 0.00 0.10 0.00 0.10

Level Of Service Module:
2Way95thQ: xxxxxx
Control Del: xxxxxx
LOS by Move: * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 74 74
SharedQueue: 0.3 0.3
Shrd ConDel: 58.6 58.6
Shared LOS: F F
ApproachDel: 58.6 58.6
ApproachLOS: F F

Note: Queue reported is the number of cars per lane.

19th Ave CS
Tier 4c

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1130 19th / Rossmoor

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: P[107.0]

Street Name: 19th Eucalyptus
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 2 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Volume, Reduct Vol, FinalVolume for each approach and movement.

Critical Gap Module:
Critical Gap: 7.5 5.5 3.5 4.0
FollowUpTim: 3.5 4.0 3.5 4.0

Capacity Module:
Conflict Vol: 924 2763 2766 2763
Potential Cap.: 224 41 9 41
Move Cap.: 199 41 8 41
Volume/Cap: 0.00 0.15 0.00 0.15

Level Of Service Module:
2Way95thQ: xxxxxx
Control Del: xxxxxx
LOS by Move: * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 41 41
SharedQueue: 0.5 0.5
Shrd ConDel: 107.0 107.0
Shared LOS: F F
ApproachDel: 107.0 107.0
ApproachLOS: F F

Note: Queue reported is the number of cars per lane.