

APPENDIX A: SAFETY

The project team examined the number of collision reports near the Upper Great Highway and District 4 overall during the pandemic and in the years prior (January 2016 to December 2020). The source of this data is Transbase, the collision database managed by the Department of Public Health that consolidates police and hospital records. These represent any reported collision between any modes whether it be between two vehicles, vehicles/pedestrians, vehicles/bicyclists, or bicyclists/pedestrians.

GREAT HIGHWAY PRE-COVID COLLISION DATA (JANUARY 2016 – FEBRUARY 2020)

Table 1: Collisions on Upper Great Highway , Lower Great Highway, and La Playa

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | Month ly Avg |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----------------|
| 2016 | 1 | | | 1 | 2 | | 2 | 3 | 1 | | 2 | 1 | 13 | 1.1 |
| 2017 | 1 | 1 | | | 1 | | 1 | 1 | | 1 | | | 6 | 0.5 |
| 2018 | 1 | 1 | | 1 | | | | 2 | 1 | | | | 6 | 0.5 |
| 2019 | 2 | | | | 1 | | | 1 | 2 | | | 1 | 7 | 0.6 |
| 2020 | 1 | 1 | | | | | | | | | | | 2 | 1.0 |
| | | | | | | | | | | | | | 34 | |

Table 2: Collisions by Pedestrian Involvement

| | Collisions |
|---------------------------------------|------------|
| Crossing in Crosswalk at Intersection | 3 |
| Crossing Not in Crosswalk | 1 |
| In Road, Including Shoulder | 3 |
| No Pedestrian Involved | 27 |
| Total | 34 |

Most incidents did not involve pedestrians.

GREAT HIGHWAY COVID DATA (MARCH – DECEMBER 2020)

Table 3: Collisions on Upper and Lower Great Highway + La Playa

| | Mar | Apr | May | June | Jul | Aug | Sep | Oct | Nov | Dec | Total | Monthly Avg |
|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-------|-------------|
| 2020 | | | 2 | | 1 | 1 | | | 1 | | 5 | 0.5 |

During the pandemic, collision data shows similar rates of incidents on Upper and Lower Great Highway + La Playa as prior to the pandemic (about 1 every other month).

Even when excluding the early months of the pandemic when there was less traffic, the monthly average was still 0.5 from July - December.

Table 4: COVID Collisions by Pedestrian Involvement

| | Collisions |
|-----------------------------|------------|
| Crossing Not in Crosswalk | 1 |
| In Road, Including Shoulder | 1 |
| No Pedestrian Involved | 3 |
| Total | 5 |

Similar to pre-COVID, most incidents did not involve pedestrians.

OTHER DISTRICT 4 STREETS PRE-COVID COLLISION DATA (JANUARY 2016 – FEBRUARY 2020)

Table 5: Collisions on all other D4 streets (excludes Upper and Lower Great Highway + La Playa)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | Mont hly Avg |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|--------------|
| 2016 | 10 | 12 | 11 | 9 | 8 | 6 | 5 | 7 | 14 | 18 | 11 | 18 | 129 | 10.8 |
| 2017 | 8 | 15 | 13 | 10 | 12 | 11 | 11 | 7 | 9 | 14 | 7 | 13 | 130 | 10.8 |
| 2018 | 11 | 13 | 12 | 8 | 11 | 10 | 7 | 9 | 10 | 16 | 14 | 14 | 135 | 11.3 |
| 2019 | 15 | 8 | 13 | 16 | 12 | 13 | 4 | 7 | 10 | 16 | 9 | 7 | 130 | 10.8 |
| 2020 | 5 | 11 | | | | | | | | | | | 16 | 8.0 |
| | | | | | | | | | | | | | 540 | |

OTHER DISTRICT 4 STREETS COVID DATA (MARCH – DECEMBER 2020)

Table 6: Collisions on all other D4 streets (excludes Upper and Lower Great Highway + La Playa)

| | Mar | Apr | May | June | Jul | Aug | Sep | Oct | Nov | Dec | Total | Monthl y Avg |
|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-------|-----------------|
| 2020 | 7 | 3 | 4 | 4 | 7 | 6 | 5 | 11 | 6 | 14 | 67 | 6.7 |

Elsewhere in the district, rates of collisions were lower than the monthly averages of recent years at 6.7 collisions per month. This could be attributed to a number of factors such as a decrease in traffic due to the pandemic or the presence of Slow Streets.

When excluding the early months of the pandemic when there was less traffic, the monthly collision average from July - December was still lower than past averages at 8.2 collisions per month.

APPENDIX B: TRAFFIC ANALYSIS

The project team conducted a microsimulation traffic analysis of the study area using Transmodeler. Each simulation included 10 model runs to account for normal variation in traffic levels and behaviors.

Complete data for three metrics is provided in this appendix:

- Average delay per intersection (Table 1) - these results include results from a Highway Capacity Model (HCM) approach that does not consider the interaction between intersections and the Transmodeler (TSM) Simulation.
- TSM Simulation delay estimates for each intersection approach (Table 2). Not all intersections have every approach, so some cells are hatched out in the tables that follow.
- Average longest queue by intersection approach (Table 3). For available approaches, this shows the average of the longest queue across the 10 simulations runs. The longest queue is applied because intersections sometimes have multiple lanes.

Data are provided for eight distinct model runs:

- A. Existing Conditions - Great Highway Extension Open - this was used to validate the model.
- B. Baseline - Great Highway Extension Closed. All other scenarios are compared to this baseline for analysis purposes.
- C. Concept 3. Upper Great Highway Full Closure.
- D. Concept 3 - Variant 1 - Full Closure + More Traffic Diverted to Sunset. For this scenario, 95 percent of the traffic that was diverted to local streets under Concept 3 was reassigned to the Sunset to evaluate any additional impact on Sunset Blvd.
- E. Concept 3 - Variant 2 - Full Closure + MLK Jr Dr also Closed. For this scenario, MLK Jr Dr was closed from Sunset Blvd to Lincoln Way.
- F. Concept 3 with Improvements - Upper Great Highway Closed. Improvements in this scenario included
 - Signalizing intersections at Lincoln Way and Chain of Lakes, MLK Jr Dr and Chain of Lakes, and MLK Jr Dr and Sunset Blvd
 - Restricting left turns from Lincoln Way to Chain of Lakes or 41st Ave.
 - Consolidating the intersection at Lake Merced Blvd and Skyline Blvd and adding an additional turn lane
- G. Concept 3 - Variant 2, with Improvements - Full Closure + MLK Jr Dr also closed. Improvements in this scenario included:
 - Signalizing intersections at Lincoln Way and Chain of Lakes
 - Increasing signal time at 36th Ave and Lincoln and striping an additional left turn lane
 - Consolidating the intersection at Lake Merced Blvd and Skyline Blvd and adding an additional turn lane
- H. Concept 5 - One Way Closure

For all scenarios, traffic volumes were derived from SF-CHAMP highway assignments that redistributed vehicles to the network based on removals of network links, specifically the Great Highway Extension (for baseline), the Upper Great Highway (for most Concept 3 scenarios), MLK Jr Dr (for the Concept 3 variants that also remove MLK Jr. Dr), and just the northbound direction of the Upper Great Highway (for Concept 5)

Table 1 – Level of Service Results – Intersection Level

| Corridor @ Intersection Overall Intersection LOS | Existing Condition Great Highway Extension Open | | | | Baseline Great Highway Extension Closed | | | | Concept 3 Upper Great Highway Full Closure | | | | Concept 3 - Variant 1 Full Closure + More Traffic on Sunset | | | | Concept 3 - Variant 2 Full Closure + MLK Jr Dr Closed | | | | |
|---|--|-------|----------------|-------|--|-------|----------------|-------|---|-------|----------------|-------|--|-------|----------------|-------|--|-------|----------------|-------|--------|
| | HCM | | TSM Simulation | | HCM | | TSM Simulation | | HCM | | TSM Simulation | | HCM | | TSM Simulation | | HCM | | TSM Simulation | | |
| | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | |
| Lincoln @ Upper Great Highway | Signalized | B | 15.3 | B | 13.1 | B | 14.8 | B | 12.6 | | | | | | | | | | | | |
| Lincoln @ MLK | AWSC | A | 9.6 | B | 12.1 | A | 9.3 | B | 11.8 | A | 9.5 | B | 10.9 | A | 9.6 | B | 11.5 | B | 12.4 | B | 14.2 |
| Sloat @ Upper Great Highway | Signalized | D | 38.4 | C | 24.8 | | | | | | | | | | | | | | | | |
| Sloat @ Skyline | AWSC** | B | 12.9 | C | 22.5 | C | 21.5 | B | 18.7 | C | 20.4 | B | 11.9 | C | 29.0 | B | 12.3 | C | 20.4 | B | 11.9 |
| Sloat @ 36th Sunset NB Entrance | TWSC | | | A | 0.3 | | | A | 0.3 | | | A | 0.2 | | | A | 0.2 | | | A | 0.2 |
| Sloat @ 37th Sunset SB Exit | TWSC | | | A | 2.7 | | | A | 3.0 | | | A | 6.6 | | | A | 5.5 | | | A | 5.5 |
| Yorba @ 37th | Partial AWSC | | | A | 2.5 | | | A | 2.6 | | | A | 2.6 | | | A | 2.6 | | | A | 2.6 |
| Yorba @ Sunset | Signalized | A | 7.1 | A | 5.7 | A | 7.3 | A | 6.2 | A | 8.5 | A | 8.0 | A | 9.1 | D | 41.0* | A | 8.5 | A | 7.8 |
| Yorba @ 36th | Partial AWSC | | | A | 6.0 | | | A | 6.2 | | | A | 7.2 | | | A | 6.8 | | | A | 7.1 |
| Skyline @ Great Highway Extention | AWSC*** | C | 18.0 | F | 75.6* | | | | | | | | | | | | | | | | |
| Skyline @ Lake Merced (South) | Signalized^ | | | | | | | | | C | 34.7 | E | 63.9* | C | 34.2 | F | 103.1* | C | 34.7 | E | 73.7* |
| MLK @ Chain of Lakes | AWSC | C | 24.7 | F | 111.5* | F | 63.4 | F | 120.3* | F | N/A^^ | F | 231.1* | F | N/A^^ | F | 250.9* | | | | |
| Lincoln @ 41st Chain of Lakes | AWSC | B | 12.3 | C | 19.5 | B | 12.7 | C | 20.0 | C | 23.0 | F | 68.1* | C | 23.0 | F | 114.3* | E | 48.6 | F | 297.0* |
| Lincoln @ 37th | Signalized | A | 6.8 | A | 5.9 | A | 7.2 | A | 6.2 | A | 10.0 | A | 6.0 | C | 20.1 | A | 5.8 | C | 27.4 | A | 6.2 |
| Lincoln @ 36th | Signalized | A | 7.3 | A | 4.3 | A | 7.9 | A | 4.7 | A | 9.9 | A | 5.7 | B | 16.6 | D | 51.0* | D | 43.6 | F | 196.4* |
| MLK @ Sunset | AWSC | B | 11.1 | C | 19.4 | B | 11.4 | C | 17.1 | C | 18.7 | F | 163.5* | C | 18.7 | F | 185.2* | | | | |
| MLK @ Crossover/19th | Signalized | B | 18.6 | C | 29.2 | B | 19.4 | D | 45.5* | C | 20.4 | E | 78.7* | C | 20.4 | E | 76.4* | C | 20.0 | F | 87.8* |
| Lincoln @ 19th | Signalized | D | 40.9 | B | 18.0 | D | 43.0 | B | 19.2 | D | 45.9 | C | 27.5 | D | 45.9 | C | 26.5 | D | 47.0 | C | 25.9 |
| Sloat @ 19th | Signalized | D | 44.0 | D | 44.4 | D | 45.4 | D | 53.0 | D | 46.2 | D | 53.9 | D | 46.2 | D | 49.9 | D | 46.2 | D | 53.4 |

Delay reported in seconds/vehicle

All TransModeler LOS results are an average of 10 unique simulation runs

* TransModeler LOS results impacted by intersection queue spillback

** Sloat @ Skyline is signalized in No Project and All Alternatives Analyses

*** Skyline @ Great Highway Ext is TWSC in No Project and All Alternatives Analyses

^ Insufficient volume for accurate analysis in Existing Condition and No Project

^^ V/C exceed 1.0 on all approaches in HCM Analysis

Table 1 – Level of Service Results – Interse

| Corridor @ Intersection Overall Intersection LOS | | Concept 3 + Improvements Upper Great Highway Closed | | | | Concept 3 - Variant 2 + Improvements Full Closure + MLK Jr Dr Closed | | | | Concept 5 One Way Closure | | | |
|---|--------------|--|-------|----------------|-------|---|-------|----------------|-------|------------------------------|-------|----------------|--------|
| | | HCM | | TSM Simulation | | HCM | | TSM Simulation | | HCM | | TSM Simulation | |
| | | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay |
| Lincoln @ Upper Great Highway | Signalized | / | | / | | / | | / | | B | 13.1 | A | 9.5 |
| Lincoln @ MLK | AWSC | B | 12.5 | C | 18.4 | A | 9.6 | B | 13.7 | A | 9.5 | B | 11.3 |
| Sloat @ Upper Great Highway | Signalized | / | | / | | / | | / | | / | | / | |
| Sloat @ Skyline | AWSC** | C | 20.6 | B | 13.9 | B | 14.9 | B | 15.9 | C | 21.0 | B | 16.7 |
| Sloat @ 36th | TWSC | / | | A | 0.2 | / | | A | 0.2 | / | | A | 0.2 |
| Sunset NB Entrance | | / | | / | | / | | / | | / | | / | |
| Sloat @ 37th | TWSC | / | | A | 9.1 | / | | A | 3.3 | / | | B | 12.4 |
| Sunset SB Exit | | / | | / | | / | | / | | / | | / | |
| Yorba @ 37th | Partial AWSC | / | | A | 2.6 | / | | A | 2.6 | / | | A | 2.5 |
| Yorba @ Sunset | Signalized | A | 8.5 | A | 8.1 | A | 9.1 | A | 9.1 | A | 7.7 | A | 7.8 |
| Yorba @ 36th | Partial AWSC | / | | A | 6.6 | / | | A | 7.2 | / | | A | 6.9 |
| Skyline @ Great Highway Extention | AWSC*** | / | | / | | / | | / | | / | | / | |
| Skyline @ Lake Merced (South) | Signalized^ | C | 29.3 | C | 22.5 | D | 38.4 | D | 35.8 | / | | / | |
| MLK @ Chain of Lakes | AWSC | / | | / | | D | 47.7 | C | 44.4 | F | N/A^^ | F | 183.8* |
| Lincoln @ 41st Chain of Lakes | AWSC | C | 22.9 | B | 12.2 | D | 47.7 | C | 24.0 | B | 14.4 | F | 64.1* |
| Lincoln @ 37th | Signalized | B | 13.9 | A | 5.9 | C | 20.1 | B | 11.5 | A | 6.7 | A | 5.2 |
| Lincoln @ 36th | Signalized | B | 16.0 | A | 9.7 | B | 16.6 | A | 6.4 | A | 9.9 | A | 5.5 |
| MLK @ Sunset | AWSC | / | | / | | C | 21.1 | B | 19.7 | C | 15.5 | F | 142.2* |
| MLK @ Crossover/19th | Signalized | C | 20.0 | F | 83.9* | C | 20.4 | F | 83.7 | B | 19.7 | E | 73.4* |
| Lincoln @ 19th | Signalized | D | 47.0 | C | 27.8 | D | 45.9 | C | 25.8 | D | 43.5 | C | 27.0 |
| Sloat @ 19th | Signalized | D | 46.2 | E | 56.6 | D | 46.2 | E | 57.0 | D | 45.8 | D | 50.4 |

Table 2 - Delay Estimate by Intersection Approach

| Corridor @ Intersection TSM LOS by Movement | | Existing Condition Great Highway Extension Open | | | | Baseline Great Highway Extension Closed | | | | Concept 3 Upper Great Highway Full Closure | | | | Concept 3 - Variant 1 Full Closure + More Traffic on Sunset | | | |
|--|--------------|--|---------|--------|---------|--|--------|---------|---------|---|---------|--------|---------|--|---------|--------|----------|
| | | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB |
| Lincoln @ Upper Great Highway | Signalized | | B 12.6 | B 12.6 | B 16.2 | | B 11.9 | B 12.1 | B 16.5 | | | | | | | | |
| Lincoln @ MLK | AWSC | B 10.5 | A 8.7 | A 9.4 | C 17.9 | B 10.6 | A 8.7 | A 9.2 | C 18.0 | A 9 | A 8.8 | A 9.1 | C 17.6 | A 9.5 | B 10.7 | A 9.2 | C 17.9 |
| Sloat @ Upper Great Highway | Signalized | D 50.4 | C 26.4 | C 24.5 | B 18.6 | | | | | | | | | | | | |
| Sloat @ Skyline | AWSC** | C 17.7 | C 18.4 | | D 33.9 | C 27.3 | A 8.3 | | C 31.2 | C 24.9 | A 1.9 | | C 30.9 | C 30.3 | A 1.4 | | C 30.9 |
| Sloat @ 36th Sunset NB Entrance | TWSC | | | A 8.9 | | | A 8.2 | | | | | A 7.9 | | | | A 7.8 | |
| Sloat @ 37th Sunset SB Exit | TWSC | | A 9.5 | B 13.3 | | | C 19.2 | B 11.4 | | | F 65.0 | B 10.9 | | | F 55.5 | B 12.4 | |
| Yorba @ 37th | Partial AWSC | A 6.8 | A 7.1 | A 6.7 | | A 7.0 | A 7.2 | A 7.1 | | A 7.0 | A 7.1 | A 6.6 | | A 6.7 | A 6.7 | A 6.7 | |
| Yorba @ Sunset | Signalized | B 19.4 | A 5.9 | A 3.8 | C 21.3 | B 17.9 | A 6.8 | A 4.1 | C 23.8 | C 23.1 | A 9.4 | A 5.6 | C 25.5 | C 24.6 | B 14.9 | F 67.7 | C 26.1 |
| Yorba @ 36th | Partial AWSC | | A 9.8 | A 7.2 | A 7.0 | | A 9.7 | A 6.5 | A 6.9 | | B 10.8 | A 5.7 | A 8.3 | | B 10.2 | A 6.6 | A 7.8 |
| Skyline @ Great Highway Extension | AWSC*** | A 0.6 | F 135.5 | F 330 | | C 14.8 | C 21.6 | | | C 16.5 | C 25.0 | | | C 15.5 | C 22.2 | | |
| Skyline @ Lake Merced (South) | Signalized^ | | | | | | | | | | F 108.5 | A 8.2 | B 17.1 | | F 189.2 | A 5.0 | B^A 13.0 |
| MLK @ Chain of Lakes | AWSC | B 14.5 | B 11.6 | F 284 | D 28.9 | C 18.0 | B 12.7 | F 309.0 | F 52.3 | F 233 | C 23.3 | F 456 | F 291.7 | F 318 | C 18.3 | F 518 | F 282.9 |
| Lincoln @ 41st Chain of Lakes | AWSC | C 16.1 | B 11.7 | D 25.6 | C 20.1 | C 16.5 | B 12.2 | D 27.2 | C 20.3 | C 19.3 | C 21.6 | D 31.2 | F 130.9 | D 33.5 | C 17.3 | D 33.5 | F 246.1 |
| Lincoln @ 37th | Signalized | A 8.2 | | | A 4.3 | A 8.3 | | | A 4.9 | A 9.0 | | | A 4.1 | B 18.1 | | | A 3.1 |
| Lincoln @ 36th | Signalized | A 0.9 | A 6.5 | | A 5.7 | A 1.0 | A 6.5 | | A 6.0 | A 1.0 | A 7.9 | | A 6.4 | A 1.1 | D 35.2 | | F 81.1 |
| MLK @ Sunset | AWSC | B 11.2 | C 15.8 | | D 28.4 | B 11.5 | C 15.6 | | C 22.7 | C 15.3 | F 206.2 | | F 213.7 | B 10.9 | F 201.1 | | F 268.4 |
| MLK @ Crossover/19th | Signalized | D 54.2 | A 2.4 | D 36.5 | F 145.4 | D 48.8 | A 2.4 | E 61.6 | F 344.2 | D 47.9 | A 2.2 | F 138 | F 308.8 | D 50.2 | A 2.3 | F 137 | F 259.6 |
| Lincoln @ 19th | Signalized | C 29.4 | C 20.0 | A 6.4 | C 32.5 | C 29.1 | C 22.8 | A 7.5 | C 31.5 | C 30.6 | C 28.1 | A 8.0 | E 69.0 | C 29 | C 25.8 | A 7.7 | E 70.7 |
| Sloat @ 19th | Signalized | F 116 | C 30.6 | C 28.0 | D 45.9 | F 157 | C 31.9 | C 29.4 | D 47.9 | F 164 | C 32.2 | C 31.2 | D 46.4 | F 140 | C 32.2 | C 30.8 | D 47.1 |

Delay reported in seconds/vehicle
 All TransModeler LOS results are an average of 10 unique simulation runs
 ** Sloat @ Skyline is signalized in No Project and All Alternatives Analyses
 *** Skyline @ Great Highway Ext is TWSC in No Project and All Alternatives Analyses
 ^ Insufficient volume for accurate analysis in Existing Condition and No Project
 ^^ WB LOS is not captured accurately due to upstream TWSC intersection

Table 2 - Delay Estimate by Intersection Approach

| Corridor @ Intersection TSM LOS by Movement | | Concept 3 - Variant 2 Full Closure + MLK Jr Dr Closed | | | | Concept 3 with Improvements Upper Great Highway Closed | | | | Concept 3 - Variant 2, with Improvements Full Closure + MLK Jr Dr Closed | | | | Concept 5 One Way Closure | | | |
|--|--------------|--|-----------|-----------|-----------|---|-----------|-----------|-----------|---|-----------|-----------|-----------|------------------------------|-----------|-----------|-----------|
| | | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB |
| Lincoln @ Upper Great Highway | Signalized | [Hatched] | | | | | | | | | | | | A | 8.9 | B | 11.6 |
| Lincoln @ MLK | AWSC | B 12.8 | B 14.4 | C 17 | C 16.0 | A 9.5 | A 8.8 | B 12 | C 24.6 | C 15.0 | C 16.9 | [Hatched] | C 24.4 | A 9.6 | A 9.2 | A 9.1 | C 18.0 |
| Sloat @ Upper Great Highway | Signalized | [Hatched] | | | | | | | | | | | | | | | |
| Sloat @ Skyline | AWSC** | C 25 | A 1.9 | [Hatched] | C 30.7 | D 38.4 | A 9.6 | [Hatched] | B 16.8 | C 21.3 | A 6.0 | [Hatched] | D 35.7 | C 27.5 | A 3.7 | [Hatched] | C 30.6 |
| Sloat @ 36th Sunset NB Entrance | TWSC | [Hatched] | [Hatched] | A 7.8 | [Hatched] | [Hatched] | A 8.0 | [Hatched] | [Hatched] | [Hatched] | A 7.9 | [Hatched] | [Hatched] | [Hatched] | A 8.2 | [Hatched] | [Hatched] |
| Sloat @ 37th Sunset SB Exit | TWSC | [Hatched] | F 52.0 | B 10.8 | [Hatched] | [Hatched] | D 27.9 | B 10.9 | [Hatched] | [Hatched] | F 99.7 | B 11.1 | [Hatched] | [Hatched] | F 147.9 | B 10.7 | [Hatched] |
| Yorba @ 37th | Partial AWSC | A 6.6 | A 7.2 | A 7.1 | [Hatched] | A 6.8 | A 7.2 | A 6.6 | [Hatched] | A 6.3 | A 7.2 | A 7.1 | [Hatched] | A 6.8 | A 6.9 | A 6.9 | [Hatched] |
| Yorba @ Sunset | Signalized | C 23.4 | A 9.1 | C 25.9 | A 5.4 | C 26.0 | B 11.1 | A 6.2 | C 25.6 | C 22.4 | A 9.7 | A 5.6 | C 24.7 | B 19 | A 9.6 | C 24.4 | A 4.2 |
| Yorba @ 36th | Partial AWSC | [Hatched] | B 10.6 | A 5.8 | A 7.6 | [Hatched] | B 10.7 | A 6.4 | A 7.7 | [Hatched] | A 10.0 | A 5.9 | A 8.1 | [Hatched] | B 10.4 | A 6.3 | A 7.9 |
| Skyline @ Great Highway Extention | AWSC*** | C 16 | C 24.2 | [Hatched] | [Hatched] | C 15.5 | C 24.7 | [Hatched] | [Hatched] | C 15.7 | C 24.2 | [Hatched] | [Hatched] | C 17.8 | C 18.1 | [Hatched] | [Hatched] |
| Skyline @ Lake Merced (South) | Signalized^ | [Hatched] | F 127.5 | A 8.1 | B 17.0 | [Hatched] | C 27.4 | C 24.9 | D 53.4 | [Hatched] | C 24.7 | B 14.5 | C 25.3 | [Hatched] | [Hatched] | [Hatched] | [Hatched] |
| MLK @ Chain of Lakes | AWSC | [Hatched] | [Hatched] | [Hatched] | [Hatched] | F 83.8 | A 8.8 | D 49.3 | C 23.6 | [Hatched] | [Hatched] | [Hatched] | [Hatched] | B 13 | C 23.6 | F 316.4 | F 273.8 |
| Lincoln @ 41st Chain of Lakes | AWSC | F 449 | B 13.2 | F 51.8 | F 332.2 | D 38.8 | [Hatched] | A 4.5 | D 40.1 | B 13.4 | [Hatched] | B 10.3 | B 12.5 | C 17.6 | C 21.3 | C 24.6 | F 123.8 |
| Lincoln @ 37th | Signalized | B 10.4 | [Hatched] | [Hatched] | A 2.5 | C 20.5 | [Hatched] | [Hatched] | A 3.0 | A 9.0 | [Hatched] | [Hatched] | A 3.1 | A 8.3 | [Hatched] | [Hatched] | A 3.4 |
| Lincoln @ 36th | Signalized | A 1.3 | E 74.0 | [Hatched] | F 376.1 | A 1.9 | A 10.0 | [Hatched] | A 6.3 | A 2.0 | B 11.9 | [Hatched] | B 12.2 | A 1 | A 8.7 | [Hatched] | A 6.0 |
| MLK @ Sunset | AWSC | [Hatched] | [Hatched] | [Hatched] | [Hatched] | B 12.6 | C 28.0 | [Hatched] | B 14.1 | [Hatched] | [Hatched] | [Hatched] | [Hatched] | B 13.3 | F 196.7 | [Hatched] | F 122.7 |
| MLK @ Crossover/19th | Signalized | F 273 | A 2.1 | F 140 | F 370.2 | E 68.2 | A 2.2 | F 149.8 | F 361.1 | D 39.1 | A 2.2 | F 155.1 | F 383.8 | D 52.9 | A 2.2 | F 127.1 | F 417.3 |
| Lincoln @ 19th | Signalized | C 28.9 | C 25.8 | A 8 | E 69.6 | C 29.7 | C 29.2 | A 8.3 | D 53.8 | C 29.3 | C 34.6 | A 8.8 | D 52.6 | C 30.9 | C 28.9 | A 8.3 | E 62.2 |
| Sloat @ 19th | Signalized | F 164 | C 32.3 | C 30.5 | D 45.7 | F 180.0 | C 32.2 | C 31.7 | D 46.2 | F 182 | C 32.1 | C 30.6 | D 46.5 | F 141.7 | C 32.2 | C 29.5 | D 46.4 |

Table 3 - Queues by Intersection Approach

| Corridor @ Intersection Queue Lengths | Existing Condition Great Highway Extension Open | | | | Baseline Great Highway Extension Closed | | | | Concept 3 Upper Great Highway Full Closure | | | | Concept 3 - Variant 1 Full Closure + More Traffic on Sunset | | | | Concept 3 - Variant 2 Full Closure + MLK Jr Dr Closed | | | |
|--|--|-------|--------|-------|--|------|--------|-------|---|-------|--------|--------|--|-------|--------|--------|--|-------|-------|--------|
| | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | |
| | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB |
| Lincoln @ Upper Great Highway | | 23.1 | 36.8 | 19.7 | | 22.6 | 35.3 | 17.2 | | | | | | | | | | | | |
| Lincoln @ MLK | 15.1 | 5.4 | 5.8 | 8.4 | 14.6 | 7.1 | 6.2 | 7.6 | 8.4 | 12.2 | 3.9 | 5.3 | 15.0 | 10.2 | 4.6 | 6.2 | 38.7 | 36.1 | | 8.8 |
| Sloat @ Upper Great Highway | 12.5 | 35.6 | 75.8 | 19.2 | | | | | | | | | | | | | | | | |
| Sloat @ Skyline | 23.6 | 207.2 | | 60.0 | 49.4 | 59.7 | | 45.8 | 40.8 | 10.5 | | 46.0 | 44.3 | 7.0 | | 42.6 | 41.9 | 10.1 | | 43.4 |
| Sloat @ 36th Sunset NB Entrance | | | 2.2 | | | | 2.0 | | | | 1.7 | | | | 1.8 | | | | 1.7 | |
| Sloat @ 37th Sunset SB Exit | | 13.9 | 19.0 | | | 27.2 | 15.1 | | | 111.3 | 12.4 | | | 79.7 | 17.6 | | | 86.0 | 15 | |
| Yorba @ 37th | 0.5 | 2.3 | 0.6 | | 0.6 | 2.3 | 0.6 | | 0.5 | 1.7 | 0.5 | | 0.6 | 1.7 | 0.4 | | 0.4 | 1.8 | 0.4 | |
| Yorba @ Sunset | 2.4 | 22.5 | 14.8 | 24.1 | 1.8 | 26.1 | 16.0 | 23.3 | 2.8 | 45.4 | 25.5 | 31.2 | 3 | 56.3 | 654.3 | 26.7 | 2.7 | 33.3 | 24.7 | 27.6 |
| Yorba @ 36th | | 8.4 | 0.1 | 0.4 | | 7.7 | 0.2 | 0.2 | | 8.8 | 0.1 | 0.0 | | 8.2 | 0.1 | 0.3 | | 10.2 | 0.1 | 0.3 |
| Skyline @ Great Highway Extention | 3.2 | 534.2 | 674.0 | | | | | | | | | | | | | | | | | |
| Skyline @ Lake Merced (South)^ | | | | | | | | | 899.8 | 14.8 | 136.3 | | 1552.6 | 5.3 | 148.7 | | 1059.1 | 15.4 | 145.7 | |
| MLK @ Chain of Lakes | 8.7 | 13.9 | 1081.9 | 103.2 | 13.0 | 19.0 | 1123.2 | 206.7 | 1130.6 | 152.6 | 1200.8 | 1326.2 | 1372.3 | 112.6 | 1202.7 | 1346.4 | | | | |
| Lincoln @ 41st Chain of Lakes | 21.7 | 8.5 | 133.1 | 37.5 | 25.0 | 9.8 | 143.6 | 40.1 | 30.6 | 17.7 | 236 | 559.6 | 94.9 | 13.5 | 294.9 | 1082.2 | 1492.6 | 9.2 | 730.3 | 1517.4 |
| Lincoln @ 37th | 18.5 | | | 18.7 | 20.5 | | | 29.4 | 25.7 | | | 28.6 | 27.3 | | | 214.1 | 40.1 | | | 553.2 |
| Lincoln @ 36th | 3.0 | 6.5 | | 15.4 | 2.8 | 9.3 | | 16.1 | 1.9 | 22.3 | | 18.4 | 2 | 303.4 | | 426.1 | 2.7 | 620.6 | | 2276.4 |
| MLK @ Sunset | 11.9 | 20.7 | | 88.6 | 11.9 | 21.2 | | 67.1 | 28.8 | 746.9 | | 799.4 | 12.4 | 684.3 | | 1028.8 | | | | |
| MLK @ Crossover/19th | 64.7 | 21.9 | 110.4 | 98.1 | 52.2 | 21.8 | 191.5 | 197.3 | 57.3 | 24.1 | 437.2 | 128.1 | 58.8 | 24.2 | 423 | 126.3 | 248.2 | 24.5 | 496 | 145 |

Table 3 - Queues by Intersection Approach

| Corridor @ Intersection Queue Lengths | Concept 3 + Improvements Upper Great Highway Closed | | | | | Concept 3 - Variant 2 + Improvements Full Closure + MLK Jr Dr Closed | | | | Concept 5 One Way Closure | | | | | |
|--|--|-------------------------------------|-------|-------|-------|---|-----|-----|-----|-------------------------------------|-----|-----|------|------|-----|
| | Avg. Q | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | | Avg. Queue (Longest Spillback) (ft) | | | | | |
| | EB | EB | NB | SB | WB | EB | NB | SB | WB | EB | NB | SB | WB | | |
| Lincoln @ Upper Great Highway | | | | | | | | | | | | | | | |
| Lincoln @ MLK | 15.1 | 50.1 | 44.3 | | 42.2 | 15 | 8 | 10 | 23 | 11 | 13 | 4 | 7 | | |
| Sloat @ Upper Great Highway | | | | | | | | | | | | | | | |
| Sloat @ Skyline | 23.6 | 36.1 | 44.3 | | 50.8 | 49 | 45 | | 21 | 51 | 27 | | | | |
| Sloat @ 36th Sunset NB Entrance | | | | 2.0 | | | | 2 | | | | 3 | | | |
| Sloat @ 37th Sunset SB Exit | | | 184.1 | 16.5 | | | 41 | 15 | | | 287 | 14 | | | |
| Yorba @ 37th | 0.5 | 0.5 | 1.5 | 0.7 | | | 0 | 2 | 0 | | | 0 | 2 | 0 | |
| Yorba @ Sunset | 2.4 | 3.1 | 44.4 | 29.3 | 25.1 | 4 | 53 | 27 | 34 | 3 | 40 | 17 | 27 | | |
| Yorba @ 36th | | | 8.6 | 0.1 | 0.4 | | | 10 | 0 | 0 | | | 10 | 0 | 0 |
| Skyline @ Great Highway Extention | | | | | | | | | | | | | | | |
| Skyline @ Lake Merced (South)^ | | | 136.3 | 53.4 | 116.6 | | | 152 | 43 | 152 | | | | | |
| MLK @ Chain of Lakes | 8.7 | | | | | | 289 | 53 | 184 | 68 | 9 | 149 | 1136 | 1273 | |
| Lincoln @ 41st Chain of Lakes | 21.7 | 37.2 | | | 71.1 | 49.2 | 82 | | | 34 | 127 | 29 | 19 | 154 | 568 |
| Lincoln @ 37th | 18.5 | 44.8 | | | 33.0 | 128 | | | 23 | 17 | | | 26 | | |
| Lincoln @ 36th | 3.0 | 4.9 | 54.0 | | | 40.3 | 5 | 38 | | | 18 | 3 | 23 | 13 | |
| MLK @ Sunset | 11.9 | | | | | | 25 | 77 | | | 31 | 14 | 677 | 377 | |
| MLK @ Crossover/19th | 64.7 | 40.0 | 26.4 | 573.8 | 165.3 | 107 | 23 | 405 | 165 | 68 | 26 | 495 | 124 | | |