

## **APPENDIX B**

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### **TRAFFIC ANALYSIS**

**ESTIMATE OF WORKER TRAFFIC**  
**CHEVRON, EL SEGUNDO**  
**CONSTRUCTION PROJECT**

Number of Workers: 440

Work Shifts:           Shift #1 (6:00 p.m. to 4:30 a.m.), 180 workers  
                          Shift #2 (6:30 a.m. to 5:00 p.m.), 260 workers

TRIPS GENERATED BY WORKERS

| PROJECT (or Project Group) | STREET<br>A.M. PEAK HOUR |      | STREET<br>P.M. PEAK HOUR |      |
|----------------------------|--------------------------|------|--------------------------|------|
|                            | enter                    | exit | enter                    | exit |
| <hr/> Chevron construction | 0                        | 0    | 180                      | 260  |

**Chevron El Segundo – FCC NOx Reduction Project**

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LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Construction traffic impact  
 Ambient Traffic Growth: .5 % per year

| Year 2006                           |            | Forecast<br>Year 2007 |            | Plus Proposed<br>Project |            | +V/C   |
|-------------------------------------|------------|-----------------------|------------|--------------------------|------------|--------|
| LOS                                 | DELAY V/C  | LOS                   | DELAY V/C  | LOS                      | DELAY V/C  |        |
| Sepulveda(SR1) and El Segundo Bl.   |            |                       |            |                          |            |        |
| E                                   | 54.5 0.973 | E                     | 55.4 0.977 | E                        | 55.4 0.977 | +0.000 |
| Sepulveda(SR1) and Rosecrans Av.    |            |                       |            |                          |            |        |
| D                                   | 37.9 0.886 | D                     | 38.6 0.890 | D                        | 38.6 0.890 | +0.000 |
| Sepulveda(SR1) and Imperial Hwy     |            |                       |            |                          |            |        |
| C                                   | 19.9 0.749 | C                     | 20.3 0.753 | C                        | 20.3 0.753 | +0.000 |
| Aviation Bl. and El Segundo Bl.     |            |                       |            |                          |            |        |
| D                                   | 34.8 0.865 | D                     | 35.4 0.870 | D                        | 35.4 0.870 | +0.000 |
| Aviation Bl. and Rosecrans Av.      |            |                       |            |                          |            |        |
| E                                   | 48.0 0.940 | E                     | 48.9 0.944 | E                        | 48.9 0.944 | +0.000 |
| La Cienega Bl. and I-405 SB ramps   |            |                       |            |                          |            |        |
| B                                   | 9.9 0.649  | B                     | 10.2 0.652 | B                        | 10.2 0.652 | +0.000 |
| La Cienega Bl. and El Segundo Bl.   |            |                       |            |                          |            |        |
| B                                   | 9.9 0.649  | B                     | 10.2 0.652 | B                        | 10.2 0.652 | +0.000 |
| I-405 SB on-ramp and El Segundo Bl. |            |                       |            |                          |            |        |
| D                                   | 35.1 0.867 | D                     | 35.7 0.871 | D                        | 35.7 0.871 | +0.000 |
| I-405 NB ramps and El Segundo Bl.   |            |                       |            |                          |            |        |
| C                                   | 21.8 0.768 | C                     | 22.1 0.771 | C                        | 22.1 0.771 | +0.000 |
| I-405 SB offramp and Rosecrans Av.  |            |                       |            |                          |            |        |
| B                                   | 8.3 0.633  | B                     | 8.6 0.636  | B                        | 8.6 0.636  | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)  
 delay = average stopped delay in seconds per vehicle  
 LOS = Level of Service

**APPENDIX B**

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LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Construction traffic impact  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| Year 2006                        |            | Forecast<br>Year 2007 |            | Plus Proposed<br>Project |            | +V/C   |
|----------------------------------|------------|-----------------------|------------|--------------------------|------------|--------|
| LOS                              | DELAY V/C  | LOS                   | DELAY V/C  | LOS                      | DELAY V/C  |        |
| I-405 NB ramps and Rosecrans Bl. |            |                       |            |                          |            |        |
| B                                | 8.4 0.634  | B                     | 8.6 0.636  | B                        | 8.6 0.636  | +0.000 |
| I-405 SB ramps and Hindry Ave.   |            |                       |            |                          |            |        |
| A                                | 5.0 0.318  | A                     | 5.0 0.320  | A                        | 5.0 0.320  | +0.000 |
| California St. and Imperial Hwy. |            |                       |            |                          |            |        |
| A                                | 5.0 0.448  | A                     | 5.0 0.450  | A                        | 5.0 0.450  | +0.000 |
| Main Street and Imperial Hwy.    |            |                       |            |                          |            |        |
| B                                | 11.7 0.667 | B                     | 12.0 0.670 | B                        | 12.0 0.670 | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

**Chevron El Segundo – FCC NOx Reduction Project**

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Construction traffic impacts  
 Ambient Traffic Growth: .5 % per year

| Year 2006                          |       | Forecast<br>Year 2007 |       | Plus Proposed<br>Project |      |       |   |      |       |        |
|------------------------------------|-------|-----------------------|-------|--------------------------|------|-------|---|------|-------|--------|
| LOS                                | DELAY | V/C                   | LOS   | DELAY                    | V/C  | +V/C  |   |      |       |        |
| Sepulveda(SR1) and El Segundo Bl   | F     | 92.8                  | 1.094 | F                        | 94.6 | 1.099 | F | 94.6 | 1.099 | +0.000 |
| Sepulveda(SR1) and Rosecrans Ave   | F     | 80.8                  | 1.059 | F                        | 82.6 | 1.064 | F | 82.6 | 1.064 | +0.000 |
| Sepulveda(SR1) and Imperial Hwy    | F     | 16.1                  | 1.011 | F                        | 16.4 | 1.014 | F | 16.8 | 1.018 | +0.004 |
| Aviation Bl and El Segundo Bl      | E     | 51.8                  | 0.959 | E                        | 52.7 | 0.964 | E | 52.7 | 0.964 | +0.000 |
| Aviation Bl and Rosecrans Ave      | F     | 81.9                  | 1.063 | F                        | 83.7 | 1.068 | F | 83.7 | 1.068 | +0.000 |
| La Cienega Bl and I-405 SB ramps   | B     | 5.3                   | 0.603 | B                        | 5.6  | 0.606 | B | 5.6  | 0.606 | +0.000 |
| La Cienega Bl and El Segundo Bl    | B     | 12.1                  | 0.671 | B                        | 12.4 | 0.674 | B | 12.4 | 0.674 | +0.000 |
| I-405 SB on-ramp and El Segundo Bl | B     | 7.9                   | 0.629 | B                        | 8.2  | 0.632 | B | 8.2  | 0.632 | +0.000 |
| I-405 NB ramps and El Segundo Bl   | A     | 5.0                   | 0.530 | A                        | 5.0  | 0.532 | A | 5.0  | 0.532 | +0.000 |
| I-405 SB offramp and Rosecrans Ave | B     | 7.2                   | 0.622 | B                        | 7.5  | 0.625 | B | 7.5  | 0.625 | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)  
 delay = average stopped delay in seconds per vehicle  
 LOS = Level of Service

**APPENDIX B**

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Construction traffic impacts  
Geometrics: Existing Geometrics  
Ambient Traffic Growth: .5 % per year

| Year 2006                       |       |       | Forecast<br>Year 2007 |       |       | Plus Proposed<br>Project |       |       |        |
|---------------------------------|-------|-------|-----------------------|-------|-------|--------------------------|-------|-------|--------|
| LOS                             | DELAY | V/C   | LOS                   | DELAY | V/C   | LOS                      | DELAY | V/C   | +V/C   |
| I-405 NB ramps and Rosecrans Bl |       |       |                       |       |       |                          |       |       |        |
| B                               | 6.3   | 0.613 | B                     | 6.5   | 0.615 | B                        | 6.5   | 0.615 | +0.000 |
| I-405 SB ramps and Hindry Ave   |       |       |                       |       |       |                          |       |       |        |
| A                               | 5.0   | 0.536 | A                     | 5.0   | 0.539 | A                        | 5.0   | 0.539 | +0.000 |
| California St and Imperial Hwy  |       |       |                       |       |       |                          |       |       |        |
| A                               | 5.0   | 0.482 | A                     | 5.0   | 0.484 | A                        | 5.0   | 0.538 | +0.053 |
| Main Street and Imperial Hwy    |       |       |                       |       |       |                          |       |       |        |
| B                               | 8.4   | 0.634 | B                     | 8.7   | 0.637 | B                        | 14.0  | 0.690 | +0.053 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

**Table 1**  
**Project Impact on Surrounding Freeways I-105 and I-405**

| No. | <u>Freeway Segment</u>                                      | Dir. | Peak Hour | Freeway Hourly Capacity* | <u>Existing Conditions**</u> |           |      | <u>Existing + Project Traffic</u> |              |           |      |                |
|-----|---|------|-----------|--------------------------|------------------------------|-----------|------|-----------------------------------|--------------|-----------|------|----------------|
|     |   |      |           |                          | Pk Hr Volume                 | D/C ratio | LOS  | Project Traffic                   | Pk Hr Volume | D/C ratio | LOS  | Project Impact |
| 1   | I-105<br>between Sepulveda Bl.<br>and<br>Douglas St.        | EB   | AM        | 8,000                    | 3,540                        | 0.443     | B    | 0                                 | 3,540        | 0.443     | B    | 0.000          |
|     |   | EB   | PM        | 8,000                    | 3,400                        | 0.425     | B    | 247                               | 3,647        | 0.456     | B    | 0.031          |
|     |   | WB   | AM        | 8,000                    | 3,360                        | 0.420     | B    | 0                                 | 3,360        | 0.420     | B    | 0.000          |
|     |   | WB   | PM        | 8,000                    | 4,080                        | 0.510     | B    | 171                               | 4,251        | 0.531     | B    | 0.021          |
| 2   | I-105<br>between Douglas St.<br>and<br>I-405 interchange    | EB   | AM        | 8,000                    | 5,050                        | 0.631     | C    | 0                                 | 5,050        | 0.631     | C    | 0.000          |
|     |   | EB   | PM        | 8,000                    | 4,880                        | 0.610     | C    | 247                               | 5,127        | 0.641     | C    | 0.031          |
|     |   | WB   | AM        | 8,000                    | 4,790                        | 0.599     | C    | 0                                 | 4,790        | 0.599     | C    | 0.000          |
|     |   | WB   | PM        | 8,000                    | 5,830                        | 0.729     | C    | 171                               | 6,001        | 0.750     | C    | 0.021          |
| 3   | I-405<br>between Rosecrans Av.<br>and<br>El Segundo Blvd.   | NB   | AM        | 9,600                    | 10,460                       | 1.090     | F(0) | 0                                 | 10,460       | 1.090     | F(0) | 0.000          |
|     |   | NB   | PM        | 9,600                    | 10,090                       | 1.051     | F(0) | 81                                | 10,171       | 1.059     | F(0) | 0.008          |
|     |   | SB   | AM        | 9,600                    | 9,920                        | 1.033     | F(0) | 0                                 | 9,920        | 1.033     | F(0) | 0.000          |
|     |   | SB   | PM        | 9,600                    | 12,080                       | 1.258     | F(1) | 117                               | 12,197       | 1.271     | F(1) | 0.012          |
| 4   | I-405<br>between El Segundo Bl.<br>and<br>I-105 interchange | NB   | AM        | 9,600                    | 8,200                        | 0.854     | D    | 0                                 | 8,200        | 0.854     | D    | 0.000          |
|     |   | NB   | PM        | 9,600                    | 7,910                        | 0.824     | D    | 81                                | 7,991        | 0.832     | D    | 0.008          |
|     |   | SB   | AM        | 9,600                    | 7,780                        | 0.810     | D    | 0                                 | 7,780        | 0.810     | D    | 0.000          |
|     |   | SB   | PM        | 9,600                    | 9,470                        | 0.986     | E    | 117                               | 9,587        | 0.999     | E    | 0.012          |

Notes: \* 9,600 includes carpool lanes

\*\* Source: Austin-Foust Associates, Inc., "Chevron El Segundo Refinery Heavy Crude Project Traffic Impact Analysis", April, 2006.

D/C ratio = Demand to Capacity ratio

LOS = Level of Service

| <u>D/C Ratio</u> | <u>LOS</u> |
|------------------|------------|
| <=0.35           | A          |
| .36-.54          | B          |
| .55-.77          | C          |
| .78-.93          | D          |
| .94-1.0          | E          |
| 1.01-1.25        | F(0)       |
| 1.26-1.35        | F(1)       |
| 1.36-1.45        | F(2)       |
| >1.45            | F(3)       |

**APPENDIX B**

Sepulveda(SR1) and El Segundo Bl.

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

|  |         | Forecast |       |          |        | W/Proposed |        | With |        |         |        |  |
|--|---------|----------|-------|----------|--------|------------|--------|------|--------|---------|--------|--|
|  |         | Year     |       | 2006     |        | Year       |        | 2007 |        | Project |        |  |
|  |         | Movement | Lanes | Capacity | Volume | V/C        | Volume | V/C  | Volume | V/C     | Volume |  |
|  |         | V/C      |       |          |        |            |        |      |        |         |        |  |
|  | NB LEFT | 2.00     | 3120  | 299      | 0.096  | 300        | 0.096  | 300  | 0.096  | 300     | 0.096  |  |
|  |         | 0.096    |       |          |        |            |        |      |        |         |        |  |



**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |      |       |      |       |      |       |      |
|-------|----------------------------|------|------|------|-------|------|-------|------|-------|------|
| 0.585 | THRU                       | 4.00 | 6400 | 3328 | 0.582 | 3345 | 0.585 | 3345 | 0.585 | 3345 |
| 0.000 | RIGHT                      | 0.00 | 0    | 399  | 0.000 | 401  | 0.000 | 401  | 0.000 | 401  |
| 0.073 | SB LEFT                    | 2.00 | 3120 | 228  | 0.073 | 229  | 0.073 | 229  | 0.073 | 229  |
| 0.189 | THRU                       | 4.00 | 6400 | 1205 | 0.188 | 1211 | 0.189 | 1211 | 0.189 | 1211 |
| 0.140 | RIGHT                      | 1.00 | 1600 | 223  | 0.139 | 224  | 0.140 | 224  | 0.140 | 224  |
| 0.067 | EB LEFT                    | 1.00 | 1600 | 106  | 0.066 | 107  | 0.067 | 107  | 0.067 | 107  |
| 0.086 | THRU                       | 2.00 | 3200 | 274  | 0.086 | 275  | 0.086 | 275  | 0.086 | 275  |
| 0.139 | RIGHT                      | 1.00 | 1600 | 221  | 0.138 | 222  | 0.139 | 222  | 0.139 | 222  |
| 0.060 | WB LEFT                    | 1.50 | 2360 | 141  | 0.060 | 142  | 0.060 | 142  | 0.060 | 142  |
| 0.202 | THRU                       | 1.50 | 2400 | 482  | 0.201 | 484  | 0.202 | 484  | 0.202 | 484  |
| 0.167 | RIGHT                      | 1.00 | 1600 | 266  | 0.166 | 267  | 0.167 | 267  | 0.167 | 267  |
|       | Intersection Volume        |      |      | 7172 |       | 7208 |       | 7208 |       | 7208 |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      | 0.05  |      | 0.05  |      |
| 0.977 | Intersection V/C Ratio     |      |      |      | 0.973 |      | 0.977 |      | 0.977 |      |
| 55.4  | Stopped Delay (sec/veh)    |      |      |      | 54.5  |      | 55.4  |      | 55.4  |      |
| E     | LEVEL OF SERVICE (LOS)     |      |      |      | E     |      | E     |      | E     |      |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Sepulveda(SR1) and Rosecrans Av.

File:

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A.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|
|     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes | Capacity | Forecast  |           | W/Proposed |         | With   |       |
|-----------------|----------|-------|----------|-----------|-----------|------------|---------|--------|-------|
|                 |          |       |          | Year 2006 | Year 2007 | Year 2007  | Project |        |       |
| V/C             |          |       |          | Volume    | V/C       | Volume     | V/C     | Volume | V/C   |
| 0.041           | NB LEFT  | 2.00  | 3120     | 127       | 0.041     | 128        | 0.041   | 128    | 0.041 |
| 0.551           | THRU     | 4.00  | 6400     | 3508      | 0.548     | 3526       | 0.551   | 3526   | 0.551 |
| 0.280           | RIGHT    | 1.00  | 1600     | 446       | 0.279     | 448        | 0.280   | 448    | 0.280 |
| 0.088           | SB LEFT  | 2.00  | 3120     | 272       | 0.087     | 273        | 0.088   | 273    | 0.088 |
| 0.190           | THRU     | 3.00  | 4800     | 909       | 0.189     | 914        | 0.190   | 914    | 0.190 |
| 0.060           | RIGHT    | 1.00  | 1600     | 95        | 0.059     | 95         | 0.060   | 95     | 0.060 |
| 0.073           | EB LEFT  | 2.00  | 3120     | 227       | 0.073     | 228        | 0.073   | 228    | 0.073 |
| 0.105           | THRU     | 3.00  | 4800     | 501       | 0.104     | 504        | 0.105   | 504    | 0.105 |
| 0.101           | RIGHT    | 1.00  | 1600     | 160       | 0.100     | 161        | 0.101   | 161    | 0.101 |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |     |       |      |       |       |       |       |
|-------|----------------------------|------|------|-----|-------|------|-------|-------|-------|-------|
| 0.072 | WB LEFT                    | 2.00 | 3120 | 224 | 0.072 | 225  | 0.072 | 225   | 0.072 | 225   |
| 0.129 | THRU                       | 2.00 | 3200 | 410 | 0.128 | 412  | 0.129 | 412   | 0.129 | 412   |
| 0.212 | RIGHT                      | 1.00 | 1600 | 338 | 0.211 | 340  | 0.212 | 340   | 0.212 | 340   |
|       | Intersection Volume        |      | 7217 |     |       | 7253 |       | 7253  |       | 7253  |
| 0.05  | Signal Phasing Loss Factor |      |      |     | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.890 | Intersection V/C Ratio     |      |      |     | 0.886 |      |       | 0.890 |       | 0.890 |
| 38.6  | Stopped Delay (sec/veh)    |      |      |     | 37.9  |      |       | 38.6  |       | 38.6  |
| D     | LEVEL OF SERVICE (LOS)     |      |      |     | D     |      |       | D     |       | D     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Sepulveda(SR1) and Imperial Hwy

File:

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum |    | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |    | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast |       | W/Proposed |       | With    |         |
|-----------------|----------------------------|-------|----------|----------|-------|------------|-------|---------|---------|
|                 |                            |       |          | Year     | 2006  | Year       | 2007  | Project | Project |
| V/C             |                            |       |          | Volume   | V/C   | Volume     | V/C   | Volume  | V/C     |
| 0.058           | NB LEFT                    | 1.00  | 1600     | 93       | 0.058 | 93         | 0.058 | 93      | 0.058   |
| 0.418           | THRU                       | 3.00  | 4800     | 1995     | 0.416 | 2005       | 0.418 | 2005    | 0.418   |
| 0.491           | RIGHT                      | 1.00  | 1600     | 782      | 0.489 | 786        | 0.491 | 786     | 0.491   |
| 0.132           | SB LEFT                    | 2.00  | 3120     | 411      | 0.132 | 413        | 0.132 | 413     | 0.132   |
| 0.358           | THRU                       | 4.00  | 6400     | 2267     | 0.356 | 2278       | 0.358 | 2278    | 0.358   |
| 0.000           | RIGHT                      | 0.00  | 0        | 11       | 0.000 | 11         | 0.000 | 11      | 0.000   |
| 0.087           | EB LEFT                    | 2.00  | 3120     | 269      | 0.086 | 270        | 0.087 | 270     | 0.087   |
| 0.068           | THRU                       | 3.00  | 4800     | 324      | 0.068 | 326        | 0.068 | 326     | 0.068   |
| 0.113           | RIGHT                      | 1.00  | 1600     | 180      | 0.112 | 181        | 0.113 | 181     | 0.113   |
| 0.085           | WB LEFT                    | 2.00  | 3120     | 264      | 0.085 | 265        | 0.085 | 265     | 0.085   |
| 0.061           | THRU                       | 3.00  | 4800     | 293      | 0.061 | 294        | 0.061 | 294     | 0.061   |
| 0.259           | RIGHT                      | 1.00  | 1600     | 413      | 0.258 | 415        | 0.259 | 415     | 0.259   |
|                 | Intersection Volume        |       |          | 7302     |       | 7339       |       | 7339    |         |
| 0.05            | Signal Phasing Loss Factor |       |          |          | 0.05  |            | 0.05  |         | 0.05    |
| 0.753           | Intersection V/C Ratio     |       |          |          | 0.749 |            | 0.753 |         | 0.753   |
| 20.3            | Stopped Delay (sec/veh)    |       |          |          | 19.9  |            | 20.3  |         | 20.3    |
| C               | LEVEL OF SERVICE (LOS)     |       |          |          | C     |            | C     |         | C       |

**Chevron El Segundo – FCC NOx Reduction Project**

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Aviation Bl. and El Segundo Bl.

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

ALL Forecast W/Proposed With

**APPENDIX B**

| Projects | Movement                   | Lanes | Capacity | Year 2006 |       | Year 2007 |       | Project |       |
|----------|----------------------------|-------|----------|-----------|-------|-----------|-------|---------|-------|
|          |                            |       |          | Volume    | V/C   | Volume    | V/C   | Volume  | V/C   |
| 0.142    | NB LEFT                    | 1.00  | 1600     | 226       | 0.141 | 227       | 0.142 | 227     | 0.142 |
| 0.292    | THRU                       | 2.00  | 3200     | 845       | 0.291 | 849       | 0.292 | 849     | 0.292 |
| 0.000    | RIGHT                      | 0.00  | 0        | 86        | 0.000 | 86        | 0.000 | 86      | 0.000 |
| 0.060    | SB LEFT                    | 1.00  | 1600     | 96        | 0.060 | 96        | 0.060 | 96      | 0.060 |
| 0.188    | THRU                       | 2.00  | 3200     | 598       | 0.187 | 601       | 0.188 | 601     | 0.188 |
| 0.172    | RIGHT                      | 1.00  | 1600     | 274       | 0.171 | 275       | 0.172 | 275     | 0.172 |
| 0.060    | EB LEFT                    | 2.00  | 3120     | 187       | 0.060 | 188       | 0.060 | 188     | 0.060 |
| 0.104    | THRU                       | 3.00  | 4800     | 497       | 0.104 | 499       | 0.104 | 499     | 0.104 |
| 0.046    | RIGHT                      | 1.00  | 1600     | 73        | 0.046 | 73        | 0.046 | 73      | 0.046 |
| 0.112    | WB LEFT                    | 2.00  | 3120     | 349       | 0.112 | 351       | 0.112 | 351     | 0.112 |
| 0.407    | THRU                       | 3.00  | 4800     | 1759      | 0.405 | 1768      | 0.407 | 1768    | 0.407 |
| 0.000    | RIGHT                      | 0.00  | 0        | 183       | 0.000 | 184       | 0.000 | 184     | 0.000 |
| 0.05     | Intersection Volume        |       |          | 5173      |       | 5199      |       | 5199    | 5199  |
| 0.05     | Signal Phasing Loss Factor |       |          |           | 0.05  |           | 0.05  |         | 0.05  |
| 0.870    | Intersection V/C Ratio     |       |          |           | 0.865 |           | 0.870 |         | 0.870 |
| 35.4     | Stopped Delay (sec/veh)    |       |          |           | 34.8  |           | 35.4  |         | 35.4  |
| D        | LEVEL OF SERVICE (LOS)     |       |          |           | D     |           | D     |         | D     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Aviation Bl. and Rosecrans Av.

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TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

**Chevron El Segundo – FCC NOx Reduction Project**

| Sum |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL      |          |       |          |        |       | Forecast |       | W/Proposed |       | With    |
|----------|----------|-------|----------|--------|-------|----------|-------|------------|-------|---------|
| Projects |          |       |          |        |       | Year     | 2006  | Year       | 2007  | Project |
| V/C      | Movement | Lanes | Capacity | Volume | V/C   | Volume   | V/C   | Volume     | V/C   | Volume  |
| 0.123    | NB LEFT  | 1.00  | 1600     | 196    | 0.123 | 197      | 0.123 | 197        | 0.123 | 197     |
| 0.362    | THRU     | 3.00  | 4800     | 1188   | 0.360 | 1194     | 0.362 | 1194       | 0.362 | 1194    |
| 0.000    | RIGHT    | 0.00  | 0        | 540    | 0.000 | 543      | 0.000 | 543        | 0.000 | 543     |
| 0.042    | SB LEFT  | 1.00  | 1600     | 67     | 0.042 | 67       | 0.042 | 67         | 0.042 | 67      |
| 0.220    | THRU     | 3.00  | 4800     | 651    | 0.219 | 654      | 0.220 | 654        | 0.220 | 654     |
| 0.000    | RIGHT    | 0.00  | 0        | 398    | 0.000 | 400      | 0.000 | 400        | 0.000 | 400     |

**APPENDIX B**

|       |                            |       |      |      |       |       |       |       |       |       |       |
|-------|----------------------------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 0.107 | EB                         | LEFT  | 1.00 | 1600 | 171   | 0.107 | 172   | 0.107 | 172   | 0.107 | 172   |
| 0.177 |                            | THRU  | 3.00 | 4800 | 736   | 0.176 | 740   | 0.177 | 740   | 0.177 | 740   |
| 0.000 |                            | RIGHT | 0.00 | 0    | 109   | 0.000 | 110   | 0.000 | 110   | 0.000 | 110   |
| 0.209 | WB                         | LEFT  | 2.00 | 3120 | 650   | 0.208 | 653   | 0.209 | 653   | 0.209 | 653   |
| 0.383 |                            | THRU  | 3.00 | 4800 | 1317  | 0.381 | 1324  | 0.383 | 1324  | 0.383 | 1324  |
| 0.000 |                            | RIGHT | 0.00 | 0    | 513   | 0.000 | 516   | 0.000 | 516   | 0.000 | 516   |
|       | Intersection Volume        |       |      | 6536 |       | 6569  |       | 6569  |       | 6569  |       |
| 0.05  | Signal Phasing Loss Factor |       |      |      | 0.05  |       | 0.05  |       | 0.05  |       | 0.05  |
| 0.944 | Intersection V/C Ratio     |       |      |      | 0.940 |       | 0.944 |       | 0.944 |       | 0.944 |
| 48.9  | Stopped Delay (sec/veh)    |       |      |      | 48.0  |       | 48.9  |       | 48.9  |       | 48.9  |
| E     | LEVEL OF SERVICE (LOS)     |       |      |      | E     |       | E     |       | E     |       | E     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

La Cienega Bl. and I-405 SB ramps

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A.M. PEAK HOUR

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 TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|
|     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |



**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL      |                            |       |          |        |       | Forecast |       | W/Proposed |       | With   |
|----------|----------------------------|-------|----------|--------|-------|----------|-------|------------|-------|--------|
| Projects |                            |       |          | Year   | 2006  | Year     | 2007  | Project    |       |        |
| V/C      | Movement                   | Lanes | Capacity | Volume | V/C   | Volume   | V/C   | Volume     | V/C   | Volume |
| 0.000    | NB LEFT                    | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.127    | THRU                       | 1.50  | 2400     | 304    | 0.127 | 306      | 0.127 | 306        | 0.127 | 306    |
| 0.063    | RIGHT                      | 1.50  | 2360     | 148    | 0.063 | 149      | 0.063 | 149        | 0.063 | 149    |
| 0.146    | SB LEFT                    | 1.00  | 1600     | 233    | 0.146 | 234      | 0.146 | 234        | 0.146 | 234    |
| 0.026    | THRU                       | 3.00  | 4800     | 124    | 0.026 | 125      | 0.026 | 125        | 0.026 | 125    |
| 0.000    | RIGHT                      | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.000    | EB LEFT                    | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.000    | THRU                       | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.000    | RIGHT                      | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.328    | WB LEFT                    | 1.50  | 2360     | 770    | 0.326 | 774      | 0.328 | 774        | 0.328 | 774    |
| 0.000    | THRU                       | 0.00  | 0        | 0      | 0.000 | 0        | 0.000 | 0          | 0.000 | 0      |
| 0.059    | RIGHT                      | 0.50  | 800      | 47     | 0.059 | 47       | 0.059 | 47         | 0.059 | 47     |
|          | Intersection Volume        |       |          | 1626   |       | 1634     |       | 1634       |       | 1634   |
| 0.05     | Signal Phasing Loss Factor |       |          |        | 0.05  |          | 0.05  |            | 0.05  |        |
| 0.652    | Intersection V/C Ratio     |       |          |        | 0.649 |          | 0.652 |            | 0.652 |        |

**APPENDIX B**

|      |                         |     |      |      |
|------|-------------------------|-----|------|------|
| 10.2 | Stopped Delay (sec/veh) | 9.9 | 10.2 | 10.2 |
| B    | LEVEL OF SERVICE (LOS)  | B   | B    | B    |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

La Cienega Bl. and El Segundo Bl.

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics

**Chevron El Segundo – FCC NOx Reduction Project**

\* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects<br>Movement<br>V/C | Lanes | Capacity | Forecast     |              | W/Proposed   |              | With<br>Project |  |
|------------------------------------|-------|----------|--------------|--------------|--------------|--------------|-----------------|--|
|                                    |       |          | Year<br>2006 | Year<br>2007 | Year<br>2007 | Year<br>2007 |                 |  |
| NB LEFT                            | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| THRU                               | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| RIGHT                              | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| SB LEFT                            | 2.00  | 3120     | 291 0.093    | 292 0.094    | 292 0.094    | 292 0.094    | 292             |  |
| 0.094                              |       |          |              |              |              |              |                 |  |
| THRU                               | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| RIGHT                              | 2.00  | 3120     | 624 0.200    | 627 0.201    | 627 0.201    | 627 0.201    | 627             |  |
| 0.201                              |       |          |              |              |              |              |                 |  |
| EB LEFT                            | 1.00  | 1600     | 86 0.054     | 86 0.054     | 86 0.054     | 86 0.054     | 86              |  |
| 0.054                              |       |          |              |              |              |              |                 |  |
| THRU                               | 2.00  | 3200     | 428 0.134    | 430 0.134    | 430 0.134    | 430 0.134    | 430             |  |
| 0.134                              |       |          |              |              |              |              |                 |  |
| RIGHT                              | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| WB LEFT                            | 0.00  | 0        | 0 0.000      | 0 0.000      | 0 0.000      | 0 0.000      | 0               |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| THRU                               | 3.00  | 4800     | 1795 0.452   | 1804 0.454   | 1804 0.454   | 1804 0.454   | 1804            |  |
| 0.454                              |       |          |              |              |              |              |                 |  |
| RIGHT                              | 0.00  | 0        | 375 0.000    | 377 0.000    | 377 0.000    | 377 0.000    | 377             |  |
| 0.000                              |       |          |              |              |              |              |                 |  |
| Intersection Volume                |       |          | 3599         | 3617         | 3617         | 3617         | 3617            |  |
| Signal Phasing Loss Factor         |       |          |              | 0.05         | 0.05         | 0.05         | 0.05            |  |
| 0.05                               |       |          |              |              |              |              |                 |  |
| Intersection V/C Ratio             |       |          |              | 0.649        | 0.652        | 0.652        | 0.652           |  |
| 0.652                              |       |          |              |              |              |              |                 |  |
| Stopped Delay (sec/veh)            |       |          |              | 9.9          | 10.2         | 10.2         | 10.2            |  |
| 10.2                               |       |          |              |              |              |              |                 |  |
| LEVEL OF SERVICE (LOS)             |       |          |              | B            | B            | B            | B               |  |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB on-ramp and El Segundo Bl.

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A.M. PEAK HOUR

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**APPENDIX B**

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

|       |         |          |       | Forecast |        | W/Proposed |        | With |        |         |        |
|-------|---------|----------|-------|----------|--------|------------|--------|------|--------|---------|--------|
|       |         | Year     |       | 2006     |        | Year       |        | 2007 |        | Project |        |
|       |         | Movement | Lanes | Capacity | Volume | V/C        | Volume | V/C  | Volume | V/C     | Volume |
|       |         | V/C      |       |          |        |            |        |      |        |         |        |
| 0.231 | NB LEFT | 1.50     | 2360  | 543      | 0.230  | 546        | 0.231  | 546  | 0.231  | 546     | 0.231  |
| 0.000 | THRU    | 0.00     | 0     | 0        | 0.000  | 0          | 0.000  | 0    | 0.000  | 0       | 0.000  |
| 0.149 | RIGHT   | 0.50     | 800   | 119      | 0.149  | 120        | 0.149  | 120  | 0.149  | 120     | 0.149  |
| 0.000 | SB LEFT | 0.00     | 0     | 0        | 0.000  | 0          | 0.000  | 0    | 0.000  | 0       | 0.000  |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |      |       |      |       |      |       |      |
|-------|----------------------------|------|------|------|-------|------|-------|------|-------|------|
| 0.000 | THRU                       | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0    | 0.000 | 0    |
| 0.000 | RIGHT                      | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0    | 0.000 | 0    |
| 0.000 | EB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0    | 0.000 | 0    |
| 0.114 | THRU                       | 2.00 | 3200 | 364  | 0.114 | 366  | 0.114 | 366  | 0.114 | 366  |
| 0.168 | RIGHT                      | 1.00 | 1600 | 267  | 0.167 | 268  | 0.168 | 268  | 0.168 | 268  |
| 0.000 | WB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0    | 0.000 | 0    |
| 0.590 | THRU                       | 3.00 | 4800 | 2818 | 0.587 | 2832 | 0.590 | 2832 | 0.590 | 2832 |
| 0.000 | RIGHT                      | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0    | 0.000 | 0    |
|       | Intersection Volume        |      | 4111 |      | 4132  |      | 4132  |      | 4132  |      |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      | 0.05  |      | 0.05  |      |
| 0.871 | Intersection V/C Ratio     |      |      |      | 0.867 |      | 0.871 |      | 0.871 |      |
| 35.7  | Stopped Delay (sec/veh)    |      |      |      | 35.1  |      | 35.7  |      | 35.7  |      |
| D     | LEVEL OF SERVICE (LOS)     |      |      |      | D     |      | D     |      | D     |      |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 NB ramps and El Segundo Bl.

File:

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A.M. PEAK HOUR

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 TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum |    | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |    | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

-----  
 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects<br>V/C | Movement            | Lanes       | Capacity | Forecast |       | W/Proposed |       | With    |         |
|------------------------|---------------------|-------------|----------|----------|-------|------------|-------|---------|---------|
|                        |                     |             |          | Year     | 2006  | Year       | 2007  | Project | Project |
|                        |                     |             |          | Volume   | V/C   | Volume     | V/C   | Volume  | V/C     |
| 0.384                  | NB LEFT             | 2.00        | 3120     | 1193     | 0.382 | 1199       | 0.384 | 1199    | 0.384   |
| 0.000                  | THRU                | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.045                  | RIGHT               | 1.00        | 1600     | 72       | 0.045 | 72         | 0.045 | 72      | 0.045   |
| 0.000                  | SB LEFT             | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.000                  | THRU                | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.000                  | RIGHT               | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.000                  | EB LEFT             | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.107                  | THRU                | 3.00        | 4800     | 509      | 0.106 | 512        | 0.107 | 512     | 0.107   |
|                        | RIGHT               | 1.00 (Free) |          | 120      |       | 121        |       | 121     |         |
| 0.000                  | WB LEFT             | 0.00        | 0        | 0        | 0.000 | 0          | 0.000 | 0       | 0.000   |
| 0.337                  | THRU                | 2.50        | 4000     | 1342     | 0.336 | 1349       | 0.337 | 1349    | 0.337   |
| 0.230                  | RIGHT               | 1.50        | 2360     | 541      | 0.229 | 544        | 0.230 | 544     | 0.230   |
|                        | Intersection Volume |             |          | 3777     |       | 3796       |       | 3796    |         |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |       |       |       |
|-------|----------------------------|-------|-------|-------|
| 0.05  | Signal Phasing Loss Factor | 0.05  | 0.05  | 0.05  |
| 0.771 | Intersection V/C Ratio     | 0.768 | 0.771 | 0.771 |
| 22.1  | Stopped Delay (sec/veh)    | 21.8  | 22.1  | 22.1  |
| C     | LEVEL OF SERVICE (LOS)     | C     | C     | C     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB offramp and Rosecrans Av.

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|
|     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects<br>V/C | Movement                   | Lanes | Capacity | Forecast     |              | W/Proposed   |              | With<br>Project |
|------------------------|----------------------------|-------|----------|--------------|--------------|--------------|--------------|-----------------|
|                        |                            |       |          | Year<br>2006 | Year<br>2007 | Year<br>2007 | Year<br>2007 |                 |
| 0.000                  | NB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.000                  | THRU                       | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.000                  | RIGHT                      | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.000                  | SB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.000                  | THRU                       | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.226                  | RIGHT                      | 2.00  | 3120     | 703          | 0.225        | 707          | 0.226        | 707             |
| 0.000                  | EB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.225                  | THRU                       | 4.00  | 6400     | 1433         | 0.224        | 1440         | 0.225        | 1440            |
| 0.000                  | RIGHT                      | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.000                  | WB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
| 0.359                  | THRU                       | 3.00  | 4800     | 1715         | 0.357        | 1724         | 0.359        | 1724            |
| 0.000                  | RIGHT                      | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               |
|                        | Intersection Volume        |       |          | 3851         |              | 3870         |              | 3870            |
| 0.05                   | Signal Phasing Loss Factor |       |          |              | 0.05         |              | 0.05         | 0.05            |
| 0.636                  | Intersection V/C Ratio     |       |          |              | 0.633        |              | 0.636        | 0.636           |
| 8.6                    | Stopped Delay (sec/veh)    |       |          |              | 8.3          |              | 8.6          | 8.6             |
| B                      | LEVEL OF SERVICE (LOS)     |       |          |              | B            |              | B            | B               |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.



**Chevron El Segundo – FCC NOx Reduction Project**

I-405 NB ramps and Rosecrans Bl.

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects<br>V/C | Movement | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |
|------------------------|----------|-------|----------|----------|-------|------------|-------|-----------------|
|                        |          |       |          | Year     | 2006  | Year       | 2007  |                 |
|                        | NB LEFT  | 2.00  | 3120     | 737      | 0.236 | 741        | 0.237 | 741             |
| 0.237                  |          |       |          |          |       |            |       |                 |

**APPENDIX B**

|       |                            |      |      |      |       |      |       |       |       |       |
|-------|----------------------------|------|------|------|-------|------|-------|-------|-------|-------|
| 0.000 | THRU                       | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.045 | RIGHT                      | 1.00 | 1600 | 71   | 0.044 | 71   | 0.045 | 71    | 0.045 | 71    |
| 0.000 | SB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | THRU                       | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | RIGHT                      | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | EB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.224 | THRU                       | 4.00 | 6400 | 714  | 0.223 | 718  | 0.224 | 718   | 0.224 | 718   |
| 0.000 | RIGHT                      | 0.00 | 0    | 711  | 0.000 | 715  | 0.000 | 715   | 0.000 | 715   |
| 0.000 | WB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.349 | THRU                       | 3.00 | 4800 | 1008 | 0.347 | 1013 | 0.349 | 1013  | 0.349 | 1013  |
| 0.000 | RIGHT                      | 0.00 | 0    | 659  | 0.000 | 662  | 0.000 | 662   | 0.000 | 662   |
|       | Intersection Volume        |      | 3900 |      |       | 3920 |       | 3920  |       | 3920  |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.636 | Intersection V/C Ratio     |      |      |      | 0.634 |      |       | 0.636 |       | 0.636 |
| 8.6   | Stopped Delay (sec/veh)    |      |      |      | 8.4   |      |       | 8.6   |       | 8.6   |
| B     | LEVEL OF SERVICE (LOS)     |      |      |      | B     |      |       | B     |       | B     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB ramps and Hindry Ave.

File:

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A.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |
|-----------------|----------|-------|----------|----------|-------|------------|-------|-----------------|
|                 |          |       |          | Year     | 2006  | Year       | 2007  |                 |
| V/C             |          |       |          | Volume   | V/C   | Volume     | V/C   | Volume          |
| 0.001           | NB LEFT  | 1.00  | 1600     | 1        | 0.001 | 1          | 0.001 | 1               |
| 0.027           | THRU     | 2.00  | 3200     | 53       | 0.027 | 53         | 0.027 | 53              |
| 0.000           | RIGHT    | 0.00  | 0        | 32       | 0.000 | 32         | 0.000 | 32              |
| 0.148           | SB LEFT  | 2.00  | 3120     | 458      | 0.147 | 460        | 0.148 | 460             |
| 0.057           | THRU     | 1.00  | 1600     | 81       | 0.057 | 81         | 0.057 | 81              |
| 0.000           | RIGHT    | 0.00  | 0        | 10       | 0.000 | 10         | 0.000 | 10              |
| 0.005           | EB LEFT  | 1.00  | 1600     | 8        | 0.005 | 8          | 0.005 | 8               |
| 0.017           | THRU     | 1.00  | 1600     | 25       | 0.017 | 25         | 0.017 | 25              |
| 0.000           | RIGHT    | 0.00  | 0        | 2        | 0.000 | 2          | 0.000 | 2               |

**APPENDIX B**

|       |                            |      |      |     |       |      |       |       |       |       |
|-------|----------------------------|------|------|-----|-------|------|-------|-------|-------|-------|
| 0.060 | WB LEFT                    | 0.50 | 800  | 48  | 0.060 | 48   | 0.060 | 48    | 0.060 | 48    |
| 0.090 | THRU                       | 0.50 | 800  | 72  | 0.090 | 72   | 0.090 | 72    | 0.090 | 72    |
| 0.230 | RIGHT                      | 2.00 | 3120 | 715 | 0.229 | 719  | 0.230 | 719   | 0.230 | 719   |
|       | Intersection Volume        |      | 1505 |     |       | 1513 |       | 1513  |       | 1513  |
| 0.05  | Signal Phasing Loss Factor |      |      |     | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.320 | Intersection V/C Ratio     |      |      |     | 0.318 |      |       | 0.320 |       | 0.320 |
| 5.0   | Stopped Delay (sec/veh)    |      |      |     | 5.0   |      |       | 5.0   |       | 5.0   |
| A     | LEVEL OF SERVICE (LOS)     |      |      |     | A     |      |       | A     |       | A     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

California St. and Imperial Hwy.

File:

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A.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum |    | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |    | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL      |                            |          |        | Forecast |        | W/Proposed |        | With    |        |
|----------|----------------------------|----------|--------|----------|--------|------------|--------|---------|--------|
| Projects |                            |          |        | Year     | 2006   | Year       | 2007   | Project |        |
| Movement | Lanes                      | Capacity | Volume | V/C      | Volume | V/C        | Volume | V/C     | Volume |
| V/C      |                            |          |        |          |        |            |        |         |        |
| NB       | LEFT                       | 1.00     | 1600   | 8        | 0.005  | 8          | 0.005  | 8       | 0.005  |
| 0.005    |                            |          |        |          |        |            |        |         |        |
|          | THRU                       | 1.00     | 1600   | 2        | 0.001  | 2          | 0.001  | 2       | 0.001  |
| 0.001    |                            |          |        |          |        |            |        |         |        |
|          | RIGHT                      | 1.00     | 1600   | 169      | 0.106  | 170        | 0.106  | 170     | 0.106  |
| 0.106    |                            |          |        |          |        |            |        |         |        |
| SB       | LEFT                       | 1.00     | 1600   | 31       | 0.019  | 31         | 0.019  | 31      | 0.019  |
| 0.019    |                            |          |        |          |        |            |        |         |        |
|          | THRU                       | 1.00     | 1600   | 0        | 0.007  | 0          | 0.007  | 0       | 0.007  |
| 0.007    |                            |          |        |          |        |            |        |         |        |
|          | RIGHT                      | 0.00     | 0      | 11       | 0.000  | 11         | 0.000  | 11      | 0.000  |
| 0.000    |                            |          |        |          |        |            |        |         |        |
| EB       | LEFT                       | 1.00     | 1600   | 7        | 0.004  | 7          | 0.004  | 7       | 0.004  |
| 0.004    |                            |          |        |          |        |            |        |         |        |
|          | THRU                       | 3.00     | 4800   | 1408     | 0.296  | 1415       | 0.297  | 1415    | 0.297  |
| 0.297    |                            |          |        |          |        |            |        |         |        |
|          | RIGHT                      | 0.00     | 0      | 12       | 0.000  | 12         | 0.000  | 12      | 0.000  |
| 0.000    |                            |          |        |          |        |            |        |         |        |
| WB       | LEFT                       | 1.00     | 1600   | 130      | 0.081  | 131        | 0.082  | 131     | 0.082  |
| 0.082    |                            |          |        |          |        |            |        |         |        |
|          | THRU                       | 3.00     | 4800   | 1650     | 0.358  | 1658       | 0.360  | 1658    | 0.360  |
| 0.360    |                            |          |        |          |        |            |        |         |        |
|          | RIGHT                      | 0.00     | 0      | 68       | 0.000  | 68         | 0.000  | 68      | 0.000  |
| 0.000    |                            |          |        |          |        |            |        |         |        |
|          | Intersection Volume        |          |        | 3496     |        | 3513       |        | 3513    | 3513   |
| 0.05     | Signal Phasing Loss Factor |          |        |          | 0.05   |            | 0.05   |         | 0.05   |
| 0.450    | Intersection V/C Ratio     |          |        |          | 0.448  |            | 0.450  |         | 0.450  |
| 5.0      | Stopped Delay (sec/veh)    |          |        |          | 5.0    |            | 5.0    |         | 5.0    |
| A        | LEVEL OF SERVICE (LOS)     |          |        |          | A      |            | A      |         | A      |

**APPENDIX B**

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Main Street and Imperial Hwy.

File:

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: Construction traffic impact
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

|     |          |            |      |
|-----|----------|------------|------|
| ALL | Forecast | W/Proposed | With |
|-----|----------|------------|------|

**Chevron El Segundo – FCC NOx Reduction Project**

|          |                            |             |          | Year   | 2006  | Year   | 2007  | Project |       |        |
|----------|----------------------------|-------------|----------|--------|-------|--------|-------|---------|-------|--------|
| Projects | Movement                   | Lanes       | Capacity | Volume | V/C   | Volume | V/C   | Volume  | V/C   | Volume |
| 0.146    | NB LEFT                    | 1.50        | 2360     | 344    | 0.146 | 346    | 0.146 | 346     | 0.146 | 346    |
| 0.003    | THRU                       | 0.50        | 800      | 2      | 0.002 | 2      | 0.003 | 2       | 0.003 | 2      |
| 0.405    | RIGHT                      | 1.00        | 1600     | 644    | 0.403 | 647    | 0.405 | 647     | 0.405 | 647    |
| 0.000    | SB LEFT                    | 0.00        | 0        | 1      | 0.000 | 1      | 0.000 | 1       | 0.000 | 1      |
| 0.003    | THRU                       | 1.00        | 1600     | 0      | 0.003 | 0      | 0.003 | 0       | 0.003 | 0      |
| 0.000    | RIGHT                      | 0.00        | 0        | 4      | 0.000 | 4      | 0.000 | 4       | 0.000 | 4      |
| 0.000    | EB LEFT                    | 0.00        | 0        | 0      | 0.000 | 0      | 0.000 | 0       | 0.000 | 0      |
| 0.206    | THRU                       | 3.00        | 4800     | 985    | 0.205 | 990    | 0.206 | 990     | 0.206 | 990    |
|          | RIGHT                      | 1.00 (Free) |          | 172    |       | 173    |       | 173     |       | 173    |
| 0.264    | WB LEFT                    | 1.00        | 1600     | 420    | 0.262 | 422    | 0.264 | 422     | 0.264 | 422    |
| 0.257    | THRU                       | 3.00        | 4800     | 1225   | 0.255 | 1231   | 0.257 | 1231    | 0.257 | 1231   |
| 0.000    | RIGHT                      | 0.00        | 0        | 1      | 0.000 | 1      | 0.000 | 1       | 0.000 | 1      |
|          | Intersection Volume        |             |          | 3798   |       | 3817   |       | 3817    |       | 3817   |
| 0.05     | Signal Phasing Loss Factor |             |          |        | 0.05  |        | 0.05  |         |       | 0.05   |
| 0.670    | Intersection V/C Ratio     |             |          |        | 0.667 |        | 0.670 |         |       | 0.670  |
| 12.0     | Stopped Delay (sec/veh)    |             |          |        | 11.7  |        | 12.0  |         |       | 12.0   |
| B        | LEVEL OF SERVICE (LOS)     |             |          |        | B     |        | B     |         |       | B      |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

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TRIPS GENERATED BY PROJECTS

| HOUR  | PROJECT (or Project Group) | A.M.PEAK | HOUR  | P.M.PEAK |
|-------|----------------------------|----------|-------|----------|
| exit  |                            | enter    | exit  | enter    |
| _____ | _____                      | _____    | _____ | _____    |

**APPENDIX B**

1 Chevron construction  
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LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Construction traffic impact  
 Ambient Traffic Growth: .5 % per year

| Year 2006                           |            | Forecast<br>Year 2007 |            | Plus Proposed<br>Project |            | +V/C   |
|-------------------------------------|------------|-----------------------|------------|--------------------------|------------|--------|
| LOS                                 | DELAY V/C  | LOS                   | DELAY V/C  | LOS                      | DELAY V/C  |        |
| Sepulveda(SR1) and El Segundo Bl.   |            |                       |            |                          |            |        |
| E                                   | 54.5 0.973 | E                     | 55.4 0.977 | E                        | 55.4 0.977 | +0.000 |
| Sepulveda(SR1) and Rosecrans Av.    |            |                       |            |                          |            |        |
| D                                   | 37.9 0.886 | D                     | 38.6 0.890 | D                        | 38.6 0.890 | +0.000 |
| Sepulveda(SR1) and Imperial Hwy     |            |                       |            |                          |            |        |
| C                                   | 19.9 0.749 | C                     | 20.3 0.753 | C                        | 20.3 0.753 | +0.000 |
| Aviation Bl. and El Segundo Bl.     |            |                       |            |                          |            |        |
| D                                   | 34.8 0.865 | D                     | 35.4 0.870 | D                        | 35.4 0.870 | +0.000 |
| Aviation Bl. and Rosecrans Av.      |            |                       |            |                          |            |        |
| E                                   | 48.0 0.940 | E                     | 48.9 0.944 | E                        | 48.9 0.944 | +0.000 |
| La Cienega Bl. and I-405 SB ramps   |            |                       |            |                          |            |        |
| B                                   | 9.9 0.649  | B                     | 10.2 0.652 | B                        | 10.2 0.652 | +0.000 |
| La Cienega Bl. and El Segundo Bl.   |            |                       |            |                          |            |        |
| B                                   | 9.9 0.649  | B                     | 10.2 0.652 | B                        | 10.2 0.652 | +0.000 |
| I-405 SB on-ramp and El Segundo Bl. |            |                       |            |                          |            |        |
| D                                   | 35.1 0.867 | D                     | 35.7 0.871 | D                        | 35.7 0.871 | +0.000 |
| I-405 NB ramps and El Segundo Bl.   |            |                       |            |                          |            |        |
| C                                   | 21.8 0.768 | C                     | 22.1 0.771 | C                        | 22.1 0.771 | +0.000 |
| I-405 SB offramp and Rosecrans Av.  |            |                       |            |                          |            |        |
| B                                   | 8.3 0.633  | B                     | 8.6 0.636  | B                        | 8.6 0.636  | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)  
 delay = average stopped delay in seconds per vehicle  
 LOS = Level of Service

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LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Construction traffic impact  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| Year 2006 |  | Forecast<br>Year 2007 |  | Plus Proposed<br>Project |  |
|-----------|--|-----------------------|--|--------------------------|--|
|-----------|--|-----------------------|--|--------------------------|--|



**Chevron El Segundo – FCC NOx Reduction Project**

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| LOS                              | DELAY | V/C   | LOS | DELAY | V/C   | LOS | DELAY | V/C   | +V/C   |
|----------------------------------|-------|-------|-----|-------|-------|-----|-------|-------|--------|
| I-405 NB ramps and Rosecrans Bl. |       |       |     |       |       |     |       |       |        |
| B                                | 8.4   | 0.634 | B   | 8.6   | 0.636 | B   | 8.6   | 0.636 | +0.000 |
| I-405 SB ramps and Hindry Ave.   |       |       |     |       |       |     |       |       |        |
| A                                | 5.0   | 0.318 | A   | 5.0   | 0.320 | A   | 5.0   | 0.320 | +0.000 |
| California St. and Imperial Hwy. |       |       |     |       |       |     |       |       |        |
| A                                | 5.0   | 0.448 | A   | 5.0   | 0.450 | A   | 5.0   | 0.450 | +0.000 |
| Main Street and Imperial Hwy.    |       |       |     |       |       |     |       |       |        |
| B                                | 11.7  | 0.667 | B   | 12.0  | 0.670 | B   | 12.0  | 0.670 | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

**APPENDIX B**

Sepulveda(SR1) and El Segundo Bl

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

|          |         | Forecast |       | W/Proposed |        | With    |        |
|----------|---------|----------|-------|------------|--------|---------|--------|
|          |         | Year     | 2006  | Year       | 2007   | Project |        |
| ALL      |         | Year     | 2006  | Year       | 2007   | Project |        |
| Projects |         | Movement | Lanes | Capacity   | Volume | V/C     | Volume |
| V/C      |         |          |       |            | V/C    | V/C     | V/C    |
|          | NB LEFT | 2.00     | 3120  | 264        | 0.085  | 265     | 0.085  |
|          |         |          |       | 265        | 0.085  | 265     | 0.085  |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |      |       |      |       |      |       |      |
|-------|----------------------------|------|------|------|-------|------|-------|------|-------|------|
| 0.325 | THRU                       | 4.00 | 6400 | 1859 | 0.324 | 1868 | 0.325 | 1868 | 0.325 | 1868 |
| 0.000 | RIGHT                      | 0.00 | 0    | 212  | 0.000 | 213  | 0.000 | 213  | 0.000 | 213  |
| 0.076 | SB LEFT                    | 2.00 | 3120 | 235  | 0.075 | 236  | 0.076 | 236  | 0.076 | 236  |
| 0.493 | THRU                       | 4.00 | 6400 | 3139 | 0.490 | 3155 | 0.493 | 3155 | 0.493 | 3155 |
| 0.057 | RIGHT                      | 1.00 | 1600 | 90   | 0.056 | 90   | 0.057 | 90   | 0.057 | 90   |
| 0.129 | EB LEFT                    | 1.00 | 1600 | 205  | 0.128 | 206  | 0.129 | 206  | 0.129 | 206  |
| 0.187 | THRU                       | 2.00 | 3200 | 594  | 0.186 | 597  | 0.187 | 597  | 0.187 | 597  |
| 0.270 | RIGHT                      | 1.00 | 1600 | 430  | 0.269 | 432  | 0.270 | 432  | 0.270 | 432  |
| 0.284 | WB LEFT                    | 1.50 | 2360 | 668  | 0.283 | 671  | 0.284 | 671  | 0.284 | 671  |
| 0.123 | THRU                       | 1.50 | 2400 | 293  | 0.122 | 294  | 0.123 | 294  | 0.123 | 294  |
| 0.180 | RIGHT                      | 1.00 | 1600 | 287  | 0.179 | 288  | 0.180 | 288  | 0.180 | 288  |
|       | Intersection Volume        |      |      | 8276 |       | 8317 |       | 8317 |       | 8317 |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      | 0.05  |      | 0.05  |      |
| 1.099 | Intersection V/C Ratio     |      |      |      | 1.094 |      | 1.099 |      | 1.099 |      |
| 94.6  | Stopped Delay (sec/veh)    |      |      |      | 92.8  |      | 94.6  |      | 94.6  |      |
| F     | LEVEL OF SERVICE (LOS)     |      |      |      | F     |      | F     |      | F     |      |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Sepulveda (SR1) and Rosecrans Ave

File:

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes | Capacity | Forecast  |           | W/Proposed |         | With   |       |
|-----------------|----------|-------|----------|-----------|-----------|------------|---------|--------|-------|
|                 |          |       |          | Year 2006 | Year 2007 | Year 2007  | Project |        |       |
| V/C             |          |       |          | Volume    | V/C       | Volume     | V/C     | Volume | V/C   |
| 0.105           | NB LEFT  | 2.00  | 3120     | 327       | 0.105     | 329        | 0.105   | 329    | 0.105 |
| 0.245           | THRU     | 4.00  | 6400     | 1559      | 0.244     | 1567       | 0.245   | 1567   | 0.245 |
| 0.408           | RIGHT    | 1.00  | 1600     | 649       | 0.406     | 652        | 0.408   | 652    | 0.408 |
| 0.208           | SB LEFT  | 2.00  | 3120     | 645       | 0.207     | 648        | 0.208   | 648    | 0.208 |
| 0.612           | THRU     | 3.00  | 4800     | 2924      | 0.609     | 2939       | 0.612   | 2939   | 0.612 |
| 0.145           | RIGHT    | 1.00  | 1600     | 231       | 0.144     | 232        | 0.145   | 232    | 0.145 |
| 0.058           | EB LEFT  | 2.00  | 3120     | 181       | 0.058     | 182        | 0.058   | 182    | 0.058 |
| 0.132           | THRU     | 3.00  | 4800     | 632       | 0.132     | 635        | 0.132   | 635    | 0.132 |
| 0.165           | RIGHT    | 1.00  | 1600     | 262       | 0.164     | 263        | 0.165   | 263    | 0.165 |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |     |       |      |       |       |       |       |
|-------|----------------------------|------|------|-----|-------|------|-------|-------|-------|-------|
| WB    | LEFT                       | 2.00 | 3120 | 511 | 0.164 | 514  | 0.165 | 514   | 0.165 | 514   |
| 0.165 |                            |      |      |     |       |      |       |       |       |       |
|       | THRU                       | 2.00 | 3200 | 555 | 0.173 | 558  | 0.174 | 558   | 0.174 | 558   |
| 0.174 |                            |      |      |     |       |      |       |       |       |       |
|       | RIGHT                      | 1.00 | 1600 | 499 | 0.312 | 501  | 0.313 | 501   | 0.313 | 501   |
| 0.313 |                            |      |      |     |       |      |       |       |       |       |
|       | Intersection Volume        |      | 8975 |     |       | 9020 |       | 9020  |       | 9020  |
|       | Signal Phasing Loss Factor |      |      |     | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.05  |                            |      |      |     |       |      |       |       |       |       |
|       | Intersection V/C Ratio     |      |      |     | 1.059 |      |       | 1.064 |       | 1.064 |
| 1.064 |                            |      |      |     |       |      |       |       |       |       |
|       | Stopped Delay (sec/veh)    |      |      |     | 80.8  |      |       | 82.6  |       | 82.6  |
| 82.6  |                            |      |      |     |       |      |       |       |       |       |
|       | LEVEL OF SERVICE (LOS)     |      |      |     | F     |      |       | F     |       | F     |
| F     |                            |      |      |     |       |      |       |       |       |       |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Sepulveda(SR1) and Imperial Hwy

File:

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----|---|----|---|---|---|---|---|---|---|---|----|----|----|
|     |   | NL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 9   | SR  | 9  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 13  | EL  | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|    |     |    |   |   |   |   |   |   |   |   |   |   |   |
|----|-----|----|---|---|---|---|---|---|---|---|---|---|---|
| 0  | WT  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0  | WR  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Sum | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast |        | W/Proposed |        | With    |         |
|-----------------|----------------------------|-------|----------|----------|--------|------------|--------|---------|---------|
|                 |                            |       |          | Year     | 2006   | Year       | 2007   | Project | Project |
| V/C             |                            |       |          | Volume   | V/C    | Volume     | V/C    | Volume  | V/C     |
| 0.113           | NB LEFT                    | 1.00  | 1600     | 180      | 0.112  | 181        | 0.113  | 181     | 0.113   |
| 0.421           | THRU                       | 3.00  | 4800     | 2011     | 0.419  | 2021       | 0.421  | 2021    | 0.421   |
| 0.684           | RIGHT                      | 1.00  | 1600     | 1089     | 0.681  | 1094       | 0.684  | 1094    | 0.684   |
| 0.110           | SB LEFT                    | 2.00  | 3120     | 341      | 0.109  | 343        | 0.110  | 343     | 0.110   |
| 0.380           | THRU                       | 4.00  | 6400     | 2380     | 0.377  | 2392       | 0.379  | 2392    | 0.380   |
| 0.000           | RIGHT                      | 0.00  | 0        | 34       | 0.000  | 34         | 0.000  | 43      | 0.000   |
| 0.064           | EB LEFT                    | 2.00  | 3120     | 187      | 0.060  | 188        | 0.060  | 201     | 0.064   |
| 0.061           | THRU                       | 3.00  | 4800     | 291      | 0.061  | 292        | 0.061  | 292     | 0.061   |
| 0.096           | RIGHT                      | 1.00  | 1600     | 153      | 0.096  | 154        | 0.096  | 154     | 0.096   |
| 0.066           | WB LEFT                    | 2.00  | 3120     | 205      | 0.066  | 206        | 0.066  | 206     | 0.066   |
| 0.073           | THRU                       | 3.00  | 4800     | 349      | 0.073  | 351        | 0.073  | 351     | 0.073   |
| 0.262           | RIGHT                      | 1.00  | 1600     | 417      | 0.261  | 419        | 0.262  | 419     | 0.262   |
| 0.05            | Intersection Volume        |       |          | 7637     |        | 7675       |        | 7697    |         |
| 1.018*          | Signal Phasing Loss Factor |       |          |          | 0.05   |            | 0.05   |         | 0.05    |
| 16.8            | Intersection V/C Ratio     |       |          |          | 1.011* |            | 1.014* |         | 1.018*  |
| F               | Stopped Delay (sec/veh)    |       |          |          | 16.1   |            | 16.4   |         | 16.8    |
|                 | LEVEL OF SERVICE (LOS)     |       |          |          | F      |            | F      |         | F       |

**Chevron El Segundo – FCC NOx Reduction Project**

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. \* Including a penalty factor of 0.3 for "multi" right turns per AFA report.

Aviation Bl and El Segundo Bl

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

|     |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Sum |     |   |   |   |   |   |   |   |   |   |    |    |    |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Forecast |      | W/Proposed | With |
|-----------------|----------|------|------------|------|
|                 | Year     | 2006 | Year       | 2007 |

**APPENDIX B**

| Movement                   | Lanes | Capacity | Volume | V/C   | Volume | V/C   | Volume | V/C   | Volume | V/C   |
|----------------------------|-------|----------|--------|-------|--------|-------|--------|-------|--------|-------|
| NB LEFT                    | 1.00  | 1600     | 149    | 0.093 | 150    | 0.094 | 150    | 0.094 | 150    | 0.094 |
| NB THRU                    | 2.00  | 3200     | 897    | 0.327 | 901    | 0.329 | 901    | 0.329 | 901    | 0.329 |
| NB RIGHT                   | 0.00  | 0        | 150    | 0.000 | 151    | 0.000 | 151    | 0.000 | 151    | 0.000 |
| SB LEFT                    | 1.00  | 1600     | 241    | 0.151 | 242    | 0.151 | 242    | 0.151 | 242    | 0.151 |
| SB THRU                    | 2.00  | 3200     | 800    | 0.250 | 804    | 0.251 | 804    | 0.251 | 804    | 0.251 |
| SB RIGHT                   | 1.00  | 1600     | 78     | 0.049 | 78     | 0.049 | 78     | 0.049 | 78     | 0.049 |
| EB LEFT                    | 2.00  | 3120     | 220    | 0.071 | 221    | 0.071 | 221    | 0.071 | 221    | 0.071 |
| EB THRU                    | 3.00  | 4800     | 1139   | 0.237 | 1145   | 0.238 | 1145   | 0.238 | 1145   | 0.238 |
| EB RIGHT                   | 1.00  | 1600     | 246    | 0.154 | 247    | 0.155 | 247    | 0.155 | 247    | 0.155 |
| WB LEFT                    | 2.00  | 3120     | 605    | 0.194 | 608    | 0.195 | 608    | 0.195 | 608    | 0.195 |
| WB THRU                    | 3.00  | 4800     | 606    | 0.157 | 609    | 0.158 | 609    | 0.158 | 609    | 0.158 |
| WB RIGHT                   | 0.00  | 0        | 148    | 0.000 | 149    | 0.000 | 149    | 0.000 | 149    | 0.000 |
| Intersection Volume        |       |          | 5279   |       | 5305   |       | 5305   |       | 5305   |       |
| Signal Phasing Loss Factor |       |          |        | 0.05  |        | 0.05  |        | 0.05  |        | 0.05  |
| Intersection V/C Ratio     |       |          |        |       | 0.959  |       | 0.964  |       | 0.964  |       |
| Stopped Delay (sec/veh)    |       |          |        |       | 51.8   |       | 52.7   |       | 52.7   |       |
| LEVEL OF SERVICE (LOS)     |       |          |        |       | E      |       | E      |       | E      |       |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Aviation Bl and Rosecrans Ave

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Projects or Project Groups (1 = Proposed Project) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| Sum   |   |   |   |   |   |   |   |   |   |    |    |    |



**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |
|-----------------|----------|-------|----------|----------|-------|------------|-------|-----------------|
|                 |          |       |          | Year     | 2006  | Year       | 2007  |                 |
|                 |          |       |          | Volume   | V/C   | Volume     | V/C   | Volume          |
|                 |          |       |          |          |       |            |       | V/C             |
| NB              | LEFT     | 1.00  | 1600     | 275      | 0.172 | 276        | 0.173 | 276             |
| 0.173           |          |       |          |          |       |            |       |                 |
|                 | THRU     | 3.00  | 4800     | 658      | 0.251 | 661        | 0.252 | 661             |
| 0.252           |          |       |          |          |       |            |       |                 |
|                 | RIGHT    | 0.00  | 0        | 545      | 0.000 | 548        | 0.000 | 548             |
| 0.000           |          |       |          |          |       |            |       |                 |
| SB              | LEFT     | 1.00  | 1600     | 348      | 0.218 | 350        | 0.219 | 350             |
| 0.219           |          |       |          |          |       |            |       |                 |
|                 | THRU     | 3.00  | 4800     | 1360     | 0.391 | 1367       | 0.393 | 1367            |
| 0.393           |          |       |          |          |       |            |       |                 |
|                 | RIGHT    | 0.00  | 0        | 518      | 0.000 | 521        | 0.000 | 521             |
| 0.000           |          |       |          |          |       |            |       |                 |
| EB              | LEFT     | 1.00  | 1600     | 275      | 0.172 | 276        | 0.173 | 276             |
| 0.173           |          |       |          |          |       |            |       |                 |

**APPENDIX B**

|       |                            |      |      |      |       |      |       |       |       |       |
|-------|----------------------------|------|------|------|-------|------|-------|-------|-------|-------|
| 0.252 | THRU                       | 3.00 | 4800 | 658  | 0.251 | 661  | 0.252 | 661   | 0.252 | 661   |
| 0.000 | RIGHT                      | 0.00 | 0    | 545  | 0.000 | 548  | 0.000 | 548   | 0.000 | 548   |
| 0.177 | WB LEFT                    | 2.00 | 3120 | 550  | 0.176 | 553  | 0.177 | 553   | 0.177 | 553   |
| 0.279 | THRU                       | 3.00 | 4800 | 1211 | 0.278 | 1217 | 0.279 | 1217  | 0.279 | 1217  |
| 0.000 | RIGHT                      | 0.00 | 0    | 122  | 0.000 | 123  | 0.000 | 123   | 0.000 | 123   |
|       | Intersection Volume        |      | 7065 |      |       | 7100 |       | 7100  |       | 7100  |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      |       | 0.05  |       | 0.05  |
| 1.068 | Intersection V/C Ratio     |      |      |      | 1.063 |      |       | 1.068 |       | 1.068 |
| 83.7  | Stopped Delay (sec/veh)    |      |      |      | 81.9  |      |       | 83.7  |       | 83.7  |
| F     | LEVEL OF SERVICE (LOS)     |      |      |      | F     |      |       | F     |       | F     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

La Cienega Bl and I-405 SB ramps

File:

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |   |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|---|
|     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |   |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0 |

**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast     |              | W/Proposed   |              | With<br>Project |              |
|-----------------|----------------------------|-------|----------|--------------|--------------|--------------|--------------|-----------------|--------------|
|                 |                            |       |          | Year<br>2006 | Year<br>2007 | Year<br>2007 | Year<br>2007 | Year<br>2007    | Year<br>2007 |
| V/C             |                            |       |          | Volume       | V/C          | Volume       | V/C          | Volume          | V/C          |
| 0.000           | NB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.090           | THRU                       | 1.50  | 2400     | 216          | 0.090        | 217          | 0.090        | 217             | 0.090        |
| 0.050           | RIGHT                      | 1.50  | 2360     | 117          | 0.050        | 118          | 0.050        | 118             | 0.050        |
| 0.183           | SB LEFT                    | 1.00  | 1600     | 292          | 0.183        | 293          | 0.183        | 293             | 0.183        |
| 0.113           | THRU                       | 3.00  | 4800     | 539          | 0.112        | 542          | 0.113        | 542             | 0.113        |
| 0.000           | RIGHT                      | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.000           | EB LEFT                    | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.000           | THRU                       | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.000           | RIGHT                      | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.282           | WB LEFT                    | 1.50  | 2360     | 663          | 0.281        | 666          | 0.282        | 666             | 0.282        |
| 0.000           | THRU                       | 0.00  | 0        | 0            | 0.000        | 0            | 0.000        | 0               | 0.000        |
| 0.149           | RIGHT                      | 0.50  | 800      | 119          | 0.149        | 120          | 0.149        | 120             | 0.149        |
| 0.05            | Intersection Volume        |       |          | 1946         |              | 1956         |              | 1956            |              |
| 0.05            | Signal Phasing Loss Factor |       |          |              | 0.05         |              | 0.05         |                 | 0.05         |
| 0.606           | Intersection V/C Ratio     |       |          |              | 0.603        |              | 0.606        |                 | 0.606        |
| 5.6             | Stopped Delay (sec/veh)    |       |          |              | 5.3          |              | 5.6          |                 | 5.6          |

**APPENDIX B**

B LEVEL OF SERVICE (LOS) B B B

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

La Cienega Bl and El Segundo Bl

File:

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|
|     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

**Chevron El Segundo – FCC NOx Reduction Project**

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast |       |        |       | W/Proposed |         | With   |
|-----------------|----------------------------|-------|----------|----------|-------|--------|-------|------------|---------|--------|
|                 |                            |       |          | Year     | 2006  | Year   | 2007  | 2007       | Project |        |
| V/C             |                            |       |          | Volume   | V/C   | Volume | V/C   | Volume     | V/C     | Volume |
| 0.000           | NB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.000           | THRU                       | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.000           | RIGHT                      | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.216           | SB LEFT                    | 2.00  | 3120     | 672      | 0.215 | 675    | 0.216 | 675        | 0.216   | 675    |
| 0.000           | THRU                       | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.139           | RIGHT                      | 2.00  | 3120     | 430      | 0.138 | 432    | 0.139 | 432        | 0.139   | 432    |
| 0.102           | EB LEFT                    | 1.00  | 1600     | 162      | 0.101 | 163    | 0.102 | 163        | 0.102   | 163    |
| 0.408           | THRU                       | 2.00  | 3200     | 1299     | 0.406 | 1305   | 0.408 | 1305       | 0.408   | 1305   |
| 0.000           | RIGHT                      | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.000           | WB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0      | 0.000 | 0          | 0.000   | 0      |
| 0.164           | THRU                       | 3.00  | 4800     | 604      | 0.163 | 607    | 0.164 | 607        | 0.164   | 607    |
| 0.000           | RIGHT                      | 0.00  | 0        | 177      | 0.000 | 178    | 0.000 | 178        | 0.000   | 178    |
|                 | Intersection Volume        |       | 3344     |          |       | 3361   |       | 3361       |         | 3361   |
| 0.05            | Signal Phasing Loss Factor |       |          |          | 0.05  |        |       | 0.05       |         | 0.05   |
| 0.674           | Intersection V/C Ratio     |       |          |          | 0.671 |        |       | 0.674      |         | 0.674  |
| 12.4            | Stopped Delay (sec/veh)    |       |          |          | 12.1  |        |       | 12.4       |         | 12.4   |
| B               | LEVEL OF SERVICE (LOS)     |       |          |          | B     |        |       | B          |         | B      |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

**APPENDIX B**

I-405 SB on-ramp and El Segundo Bl

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum |     | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     |     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL Projects | Movement | Lanes | Capacity | Forecast  |           | W/Proposed |           | With Project |
|--------------|----------|-------|----------|-----------|-----------|------------|-----------|--------------|
|              |          |       |          | Year 2006 | Year 2007 | Year 2007  | Year 2007 |              |
| V/C          | V/C      | V/C   | V/C      | V/C       | V/C       | V/C        | V/C       | V/C          |
| NB           | LEFT     | 1.50  | 2360     | 280 0.119 | 281 0.119 | 281 0.119  | 281 0.119 | 281 0.119    |

**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |      |       |      |       |       |       |       |
|-------|----------------------------|------|------|------|-------|------|-------|-------|-------|-------|
| 0.000 | THRU                       | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.289 | RIGHT                      | 0.50 | 800  | 230  | 0.287 | 231  | 0.289 | 231   | 0.289 | 231   |
| 0.000 | SB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | THRU                       | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | RIGHT                      | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.000 | EB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.293 | THRU                       | 2.00 | 3200 | 932  | 0.291 | 937  | 0.293 | 937   | 0.293 | 937   |
| 0.521 | RIGHT                      | 1.00 | 1600 | 829  | 0.518 | 833  | 0.521 | 833   | 0.521 | 833   |
| 0.000 | WB LEFT                    | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
| 0.228 | THRU                       | 3.00 | 4800 | 1087 | 0.226 | 1092 | 0.228 | 1092  | 0.228 | 1092  |
| 0.000 | RIGHT                      | 0.00 | 0    | 0    | 0.000 | 0    | 0.000 | 0     | 0.000 | 0     |
|       | Intersection Volume        |      | 3358 |      |       | 3375 |       | 3375  |       | 3375  |
| 0.05  | Signal Phasing Loss Factor |      |      |      | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.632 | Intersection V/C Ratio     |      |      |      | 0.629 |      |       | 0.632 |       | 0.632 |
| 8.2   | Stopped Delay (sec/veh)    |      |      |      | 7.9   |      |       | 8.2   |       | 8.2   |
| B     | LEVEL OF SERVICE (LOS)     |      |      |      | B     |      |       | B     |       | B     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 NB ramps and El Segundo Bl

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|----|----|----|
|     | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes       | Capacity | Forecast  |           | W/Proposed |           | With<br>Project |
|-----------------|----------|-------------|----------|-----------|-----------|------------|-----------|-----------------|
|                 |          |             |          | Year 2006 | Year 2007 | Year 2007  | Year 2007 |                 |
| V/C             |          |             |          | Volume    | V/C       | Volume     | V/C       | Volume          |
| 0.105           | NB LEFT  | 2.00        | 3120     | 327       | 0.105     | 329        | 0.105     | 329             |
| 0.000           | THRU     | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.195           | RIGHT    | 1.00        | 1600     | 311       | 0.194     | 313        | 0.195     | 313             |
| 0.000           | SB LEFT  | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000           | THRU     | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000           | RIGHT    | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000           | EB LEFT  | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.287           | THRU     | 3.00        | 4800     | 1371      | 0.286     | 1378       | 0.287     | 1378            |
|                 | RIGHT    | 1.00 (Free) |          | 176       |           | 177        |           | 177             |
| 0.000           | WB LEFT  | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |



**Chevron El Segundo – FCC NOx Reduction Project**

|       |                            |      |      |     |       |     |       |     |       |     |
|-------|----------------------------|------|------|-----|-------|-----|-------|-----|-------|-----|
| 0.121 | THRU                       | 2.50 | 4000 | 483 | 0.121 | 485 | 0.121 | 485 | 0.121 | 485 |
| 0.102 | RIGHT                      | 1.50 | 2360 | 239 | 0.101 | 240 | 0.102 | 240 | 0.102 | 240 |
|       | Intersection Volume        |      | 2907 |     | 2922  |     | 2922  |     | 2922  |     |
| 0.05  | Signal Phasing Loss Factor |      |      |     | 0.05  |     | 0.05  |     | 0.05  |     |
| 0.532 | Intersection V/C Ratio     |      |      |     | 0.530 |     | 0.532 |     | 0.532 |     |
| 5.0   | Stopped Delay (sec/veh)    |      |      |     | 5.0   |     | 5.0   |     | 5.0   |     |
| A     | LEVEL OF SERVICE (LOS)     |      |      |     | A     |     | A     |     | A     |     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB offramp and Rosecrans Ave

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |   |   |   |   |   |   |   |   |   |    |    |    |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|
|     |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**APPENDIX B**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |
|-----------------|----------------------------|-------|----------|----------|-------|------------|-------|-----------------|
|                 |                            |       |          | Year     | 2006  | Year       | 2007  |                 |
|                 |                            |       |          | Volume   | V/C   | Volume     | V/C   | Volume          |
|                 |                            |       |          | V/C      |       | V/C        |       | V/C             |
|                 |                            |       |          |          |       |            |       |                 |
| 0.000           | NB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           | THRU                       | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           | RIGHT                      | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           | SB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           | THRU                       | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.234           | RIGHT                      | 2.00  | 3120     | 726      | 0.233 | 730        | 0.234 | 730             |
| 0.000           | EB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.375           | THRU                       | 4.00  | 6400     | 2389     | 0.373 | 2401       | 0.375 | 2401            |
| 0.000           | RIGHT                      | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           | WB LEFT                    | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.341           | THRU                       | 3.00  | 4800     | 1630     | 0.340 | 1638       | 0.341 | 1638            |
| 0.000           | RIGHT                      | 0.00  | 0        | 0        | 0.000 | 0          | 0.000 | 0               |
|                 | Intersection Volume        |       |          | 4745     |       | 4769       |       | 4769            |
| 0.05            | Signal Phasing Loss Factor |       |          |          | 0.05  |            | 0.05  | 0.05            |
| 0.625           | Intersection V/C Ratio     |       |          |          | 0.622 |            | 0.625 | 0.625           |
| 7.5             | Stopped Delay (sec/veh)    |       |          |          | 7.2   |            | 7.5   | 7.5             |
| B               | LEVEL OF SERVICE (LOS)     |       |          |          | B     |            | B     | B               |

Note: If turns must be made from a through lane, turning volumes are

**Chevron El Segundo – FCC NOx Reduction Project**

included in the v/c ratio of the through lane. A curb lane  
 20 feet or wider is treated as having an unmarked right turn  
 pocket.

I-405 NB ramps and Rosecrans Bl

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P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

| Sum |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|
| 0   | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

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INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL      |      | Forecast | W/Proposed | With    |
|----------|------|----------|------------|---------|
| Projects | Year | 2006     | Year 2007  | Project |

**APPENDIX B**

| Movement                   | Lanes | Capacity | Volume | V/C   | Volume | V/C   | Volume | V/C   | Volume | V/C   |
|----------------------------|-------|----------|--------|-------|--------|-------|--------|-------|--------|-------|
| NB LEFT                    | 2.00  | 3120     | 590    | 0.189 | 593    | 0.190 | 593    | 0.190 | 593    | 0.190 |
| NB THRU                    | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| NB RIGHT                   | 1.00  | 1600     | 191    | 0.119 | 192    | 0.120 | 192    | 0.120 | 192    | 0.120 |
| SB LEFT                    | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| SB THRU                    | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| SB RIGHT                   | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| EB LEFT                    | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| EB THRU                    | 4.00  | 6400     | 1553   | 0.373 | 1561   | 0.375 | 1561   | 0.375 | 1561   | 0.375 |
| EB RIGHT                   | 0.00  | 0        | 837    | 0.000 | 841    | 0.000 | 841    | 0.000 | 841    | 0.000 |
| WB LEFT                    | 0.00  | 0        | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 | 0      | 0.000 |
| WB THRU                    | 3.00  | 4800     | 1026   | 0.320 | 1031   | 0.322 | 1031   | 0.322 | 1031   | 0.322 |
| WB RIGHT                   | 0.00  | 0        | 511    | 0.000 | 514    | 0.000 | 514    | 0.000 | 514    | 0.000 |
| Intersection Volume        |       |          | 4708   |       | 4732   |       | 4732   |       | 4732   |       |
| Signal Phasing Loss Factor |       |          |        | 0.05  |        | 0.05  |        | 0.05  |        | 0.05  |
| Intersection V/C Ratio     |       |          |        |       | 0.613  |       | 0.615  |       | 0.615  |       |
| Stopped Delay (sec/veh)    |       |          |        |       | 6.3    |       | 6.5    |       | 6.5    |       |
| LEVEL OF SERVICE (LOS)     |       |          |        |       | B      |       | B      |       | B      |       |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB ramps and Hindry Ave

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P.M. PEAK HOUR

-----  
 TRIPS AT INTERSECTION FROM EACH PROJECT

| Projects or Project Groups (1 = Proposed Project) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| Sum   |   |   |   |   |   |   |   |   |   |    |    |    |

**Chevron El Segundo – FCC NOx Reduction Project**

|   |     |   |   |   |   |   |   |   |   |   |   |   |   |
|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | NL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | NT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | NR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ST  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | SR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | EL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ET  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | ER  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WT  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | WR  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | Sum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

-----  
 INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |
|-----------------|----------|-------|----------|----------|-------|------------|-------|-----------------|
|                 |          |       |          | Year     | 2006  | Year       | 2007  |                 |
|                 |          |       |          | Volume   | V/C   | Volume     | V/C   | Volume          |
|                 |          |       |          | V/C      |       | V/C        |       | V/C             |
| NB              | LEFT     | 1.00  | 1600     | 0        | 0.000 | 0          | 0.000 | 0               |
| 0.000           |          |       |          |          |       |            |       |                 |
|                 | THRU     | 2.00  | 3200     | 218      | 0.098 | 219        | 0.099 | 219             |
| 0.099           |          |       |          |          |       |            |       |                 |
|                 | RIGHT    | 0.00  | 0        | 97       | 0.000 | 97         | 0.000 | 97              |
| 0.000           |          |       |          |          |       |            |       |                 |
| SB              | LEFT     | 2.00  | 3120     | 726      | 0.233 | 730        | 0.234 | 730             |
| 0.234           |          |       |          |          |       |            |       |                 |
|                 | THRU     | 1.00  | 1600     | 162      | 0.194 | 163        | 0.195 | 163             |
| 0.195           |          |       |          |          |       |            |       |                 |
|                 | RIGHT    | 0.00  | 0        | 148      | 0.000 | 149        | 0.000 | 149             |
| 0.000           |          |       |          |          |       |            |       |                 |
| EB              | LEFT     | 1.00  | 1600     | 144      | 0.090 | 145        | 0.090 | 145             |
| 0.090           |          |       |          |          |       |            |       |                 |

**APPENDIX B**

|       |                            |      |      |     |       |      |       |       |       |       |
|-------|----------------------------|------|------|-----|-------|------|-------|-------|-------|-------|
| 0.053 | THRU                       | 1.00 | 1600 | 80  | 0.052 | 80   | 0.053 | 80    | 0.053 | 80    |
| 0.000 | RIGHT                      | 0.00 | 0    | 4   | 0.000 | 4    | 0.000 | 4     | 0.000 | 4     |
| 0.050 | WB LEFT                    | 0.50 | 800  | 40  | 0.050 | 40   | 0.050 | 40    | 0.050 | 40    |
| 0.065 | THRU                       | 0.50 | 800  | 52  | 0.065 | 52   | 0.065 | 52    | 0.065 | 52    |
| 0.061 | RIGHT                      | 2.00 | 3120 | 188 | 0.060 | 189  | 0.061 | 189   | 0.061 | 189   |
|       | Intersection Volume        |      | 1859 |     |       | 1868 |       | 1868  |       | 1868  |
| 0.05  | Signal Phasing Loss Factor |      |      |     | 0.05  |      |       | 0.05  |       | 0.05  |
| 0.539 | Intersection V/C Ratio     |      |      |     | 0.536 |      |       | 0.539 |       | 0.539 |
| 5.0   | Stopped Delay (sec/veh)    |      |      |     | 5.0   |      |       | 5.0   |       | 5.0   |
| A     | LEVEL OF SERVICE (LOS)     |      |      |     | A     |      |       | A     |       | A     |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

California St and Imperial Hwy  
 File:  
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 P.M. PEAK HOUR

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TRIPS AT INTERSECTION FROM EACH PROJECT

| Sum | Projects or Project Groups (1 = Proposed Project) |     |   |   |   |   |   |   |   |    |    |    |
|-----|---|-----|---|---|---|---|---|---|---|----|----|----|
|     | 1   | 2   | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0   | NL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NT  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | NR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | ST  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | SR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 0   | EL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |
| 260 | ET  | 260 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  |

**Chevron El Segundo – FCC NOx Reduction Project**

|     |     |     |   |   |   |   |   |   |   |   |   |   |   |
|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|
| 0   | ER  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0   | WL  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1   | WT  | 1   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0   | WR  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 261 | Sum | 261 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

INTERSECTION LEVEL OF SERVICE (LOS)

- \* Scenario: 440 workers
- \* Geometrics: Existing Geometrics
- \* Ambient Traffic Growth: .5 % per year

| ALL<br>Projects | Movement                   | Lanes | Capacity | Forecast |       | W/Proposed |       | With<br>Project |       |
|-----------------|----------------------------|-------|----------|----------|-------|------------|-------|-----------------|-------|
|                 |                            |       |          | Year     | 2006  | Year       | 2007  | Volume          | V/C   |
| 0.006           | NB LEFT                    | 1.00  | 1600     | 10       | 0.006 | 10         | 0.006 | 10              | 0.006 |
| 0.000           | THRU                       | 1.00  | 1600     | 0        | 0.000 | 0          | 0.000 | 0               | 0.000 |
| 0.075           | RIGHT                      | 1.00  | 1600     | 119      | 0.074 | 120        | 0.075 | 120             | 0.075 |
| 0.062           | SB LEFT                    | 1.00  | 1600     | 98       | 0.061 | 98         | 0.062 | 98              | 0.062 |
| 0.010           | THRU                       | 1.00  | 1600     | 7        | 0.010 | 7          | 0.010 | 7               | 0.010 |
| 0.000           | RIGHT                      | 0.00  | 0        | 9        | 0.000 | 9          | 0.000 | 9               | 0.000 |
| 0.005           | EB LEFT                    | 1.00  | 1600     | 8        | 0.005 | 8          | 0.005 | 8               | 0.005 |
| 0.290           | THRU                       | 3.00  | 4800     | 1118     | 0.235 | 1124       | 0.236 | 1384            | 0.290 |
| 0.000           | RIGHT                      | 0.00  | 0        | 9        | 0.000 | 9          | 0.000 | 9               | 0.000 |
| 0.137           | WB LEFT                    | 1.00  | 1600     | 218      | 0.136 | 219        | 0.137 | 219             | 0.137 |
| 0.334           | THRU                       | 3.00  | 4800     | 1528     | 0.332 | 1536       | 0.334 | 1537            | 0.334 |
| 0.000           | RIGHT                      | 0.00  | 0        | 67       | 0.000 | 67         | 0.000 | 67              | 0.000 |
| 0.05            | Intersection Volume        |       |          | 3191     |       | 3207       |       | 3468            |       |
| 0.05            | Signal Phasing Loss Factor |       |          |          | 0.05  |            | 0.05  |                 | 0.05  |
| 0.539           | Intersection V/C Ratio     |       |          |          | 0.482 |            | 0.484 |                 | 0.539 |
| 5.0             | Stopped Delay (sec/veh)    |       |          |          | 5.0   |            | 5.0   |                 | 5.0   |





**Chevron El Segundo – FCC NOx Reduction Project**

| ALL<br>Projects<br>Movement | Lanes       | Capacity | Forecast  |           | W/Proposed |           | With<br>Project |
|-----------------------------|-------------|----------|-----------|-----------|------------|-----------|-----------------|
|                             |             |          | Year 2006 | Year 2007 | Year 2007  | Year 2007 |                 |
| V/C                         | Volume      | V/C      | Volume    | V/C       | Volume     | V/C       | Volume          |
| NB LEFT                     | 1.50        | 2360     | 153       | 0.065     | 154        | 0.065     | 154             |
| 0.065                       |             |          |           |           |            |           |                 |
| THRU                        | 0.50        | 800      | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000                       |             |          |           |           |            |           |                 |
| RIGHT                       | 1.00        | 1600     | 419       | 0.262     | 421        | 0.263     | 421             |
| 0.263                       |             |          |           |           |            |           |                 |
| SB LEFT                     | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000                       |             |          |           |           |            |           |                 |
| THRU                        | 1.00        | 1600     | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000                       |             |          |           |           |            |           |                 |
| RIGHT                       | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000                       |             |          |           |           |            |           |                 |
| EB LEFT                     | 0.00        | 0        | 0         | 0.000     | 0          | 0.000     | 0               |
| 0.000                       |             |          |           |           |            |           |                 |
| THRU                        | 3.00        | 4800     | 936       | 0.195     | 941        | 0.196     | 1201            |
| 0.250                       |             |          |           |           |            |           |                 |
| RIGHT                       | 1.00 (Free) |          | 273       |           | 274        |           | 274             |
| 0.326                       |             |          |           |           |            |           |                 |
| WB LEFT                     | 1.00        | 1600     | 519       | 0.324     | 522        | 0.326     | 522             |
| 0.326                       |             |          |           |           |            |           |                 |
| THRU                        | 3.00        | 4800     | 773       | 0.162     | 777        | 0.163     | 778             |
| 0.163                       |             |          |           |           |            |           |                 |
| RIGHT                       | 0.00        | 0        | 4         | 0.000     | 4          | 0.000     | 4               |
| 0.000                       |             |          |           |           |            |           |                 |
| Intersection Volume         |             |          | 3077      |           | 3092       |           | 3353            |
| Signal Phasing Loss Factor  |             |          |           | 0.05      |            | 0.05      | 0.05            |
| 0.05                        |             |          |           |           |            |           |                 |
| Intersection V/C Ratio      |             |          |           | 0.634     |            | 0.637     | 0.691           |
| 0.691                       |             |          |           |           |            |           |                 |
| Stopped Delay (sec/veh)     |             |          |           | 8.4       |            | 8.7       | 14.1            |
| 14.1                        |             |          |           |           |            |           |                 |
| LEVEL OF SERVICE (LOS)      |             |          |           | B         |            | B         | B               |
| B                           |             |          |           |           |            |           |                 |

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

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TRIPS GENERATED BY PROJECTS

| HOUR  | PROJECT (or Project Group) | A.M. PEAK | HOUR | P.M. PEAK |
|-------|----------------------------|-----------|------|-----------|
| enter |                            | exit      |      | enter     |
| exit  |                            |           |      |           |

**APPENDIX B**

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1 Chevron construction  
 260 0 0 180

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: 440 workers  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| Year 2006                          | Forecast  |           | Plus Proposed Project |           |           |     |       |       |   |
|------------------------------------|-----------|-----------|-----------------------|-----------|-----------|-----|-------|-------|---|
|                                    | Year 2006 | Year 2007 | Year 2006             | Year 2007 | Year 2007 |     |       |       |   |
| LOS                                | DELAY     | V/C       | LOS                   | DELAY     | V/C       | LOS | DELAY | V/C   | + |
| Sepulveda(SR1) and El Segundo Bl   |           |           |                       |           |           |     |       |       |   |
| F                                  | 92.8      | 1.094     | F                     | 94.6      | 1.099     | F   | 94.6  | 1.099 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| Sepulveda(SR1) and Rosecrans Ave   |           |           |                       |           |           |     |       |       |   |
| F                                  | 80.8      | 1.059     | F                     | 82.6      | 1.064     | F   | 82.6  | 1.064 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| Sepulveda(SR1) and Imperial Hwy    |           |           |                       |           |           |     |       |       |   |
| C                                  | 16.1      | 0.711     | C                     | 16.4      | 0.714     | C   | 16.8  | 0.718 |   |
| +0.004                             |           |           |                       |           |           |     |       |       |   |
| Aviation Bl and El Segundo Bl      |           |           |                       |           |           |     |       |       |   |
| E                                  | 51.8      | 0.959     | E                     | 52.7      | 0.964     | E   | 52.7  | 0.964 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| Aviation Bl and Rosecrans Ave      |           |           |                       |           |           |     |       |       |   |
| F                                  | 81.9      | 1.063     | F                     | 83.7      | 1.068     | F   | 83.7  | 1.068 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| La Cienega Bl and I-405 SB ramps   |           |           |                       |           |           |     |       |       |   |
| B                                  | 5.3       | 0.603     | B                     | 5.6       | 0.606     | B   | 5.6   | 0.606 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| La Cienega Bl and El Segundo Bl    |           |           |                       |           |           |     |       |       |   |
| B                                  | 12.1      | 0.671     | B                     | 12.4      | 0.674     | B   | 12.4  | 0.674 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |
| I-405 SB on-ramp and El Segundo Bl |           |           |                       |           |           |     |       |       |   |
| B                                  | 7.9       | 0.629     | B                     | 8.2       | 0.632     | B   | 8.2   | 0.632 |   |
| +0.000                             |           |           |                       |           |           |     |       |       |   |

**Chevron El Segundo – FCC NOx Reduction Project**

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I-405 NB ramps and El Segundo Bl  
 A 5.0 0.530 A 5.0 0.532 ..... A 5.0 0.532  
 +0.000

I-405 SB offramp and Rosecrans Ave  
 B 7.2 0.622 B 7.5 0.625 ..... B 7.5 0.625  
 +0.000

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)  
 delay = average stopped delay in seconds per vehicle  
 LOS = Level of Service

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: 440 workers  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| V/C | Year 2006                       |       |       | Forecast Year 2007 |       |       | Plus Proposed Project |       |       |       |
|-----|---------------------------------|-------|-------|--------------------|-------|-------|-----------------------|-------|-------|-------|
|     | LOS                             | DELAY | V/C   | LOS                | DELAY | V/C   | LOS                   | DELAY | V/C   |       |
|     | -----                           | ----- | ----- | -----              | ----- | ----- | -----                 | ----- | ----- |       |
|     | I-405 NB ramps and Rosecrans Bl |       |       |                    |       |       |                       |       |       |       |
|     | B                               | 6.3   | 0.613 | B                  | 6.5   | 0.615 | .....                 | B     | 6.5   | 0.615 |
|     | +0.000                          |       |       |                    |       |       |                       |       |       |       |
|     | I-405 SB ramps and Hindry Ave   |       |       |                    |       |       |                       |       |       |       |
|     | A                               | 5.0   | 0.536 | A                  | 5.0   | 0.539 | .....                 | A     | 5.0   | 0.539 |
|     | +0.000                          |       |       |                    |       |       |                       |       |       |       |
|     | California St and Imperial Hwy  |       |       |                    |       |       |                       |       |       |       |
|     | A                               | 5.0   | 0.482 | A                  | 5.0   | 0.484 | .....                 | A     | 5.0   | 0.539 |
|     | +0.054                          |       |       |                    |       |       |                       |       |       |       |
|     | Main Street and Imperial Hwy    |       |       |                    |       |       |                       |       |       |       |
|     | B                               | 8.4   | 0.634 | B                  | 8.7   | 0.637 | .....                 | B     | 14.1  | 0.691 |
|     | +0.054                          |       |       |                    |       |       |                       |       |       |       |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)  
 delay = average stopped delay in seconds per vehicle  
 LOS = Level of Service

**APPENDIX B**

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: 440 workers  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| Year 2006                          |              | Forecast<br>Year 2007 |              | Plus Proposed<br>Project |           | +V/C   |
|------------------------------------|--------------|-----------------------|--------------|--------------------------|-----------|--------|
| LOS                                | DELAY V/C    | LOS                   | DELAY V/C    | LOS                      | DELAY V/C |        |
| Sepulveda(SR1) and El Segundo Bl   | F 92.8 1.094 | F 94.6 1.099          | F 94.6 1.099 | F 94.6 1.099             |           | +0.000 |
| Sepulveda(SR1) and Rosecrans Ave   | F 80.8 1.059 | F 82.6 1.064          | F 82.6 1.064 | F 82.6 1.064             |           | +0.000 |
| Sepulveda(SR1) and Imperial Hwy    | C 16.1 0.711 | C 16.4 0.714          | C 16.4 0.714 | C 16.8 0.718             |           | +0.004 |
| Aviation Bl and El Segundo Bl      | E 51.8 0.959 | E 52.7 0.964          | E 52.7 0.964 | E 52.7 0.964             |           | +0.000 |
| Aviation Bl and Rosecrans Ave      | F 81.9 1.063 | F 83.7 1.068          | F 83.7 1.068 | F 83.7 1.068             |           | +0.000 |
| La Cienega Bl and I-405 SB ramps   | B 5.3 0.603  | B 5.6 0.606           | B 5.6 0.606  | B 5.6 0.606              |           | +0.000 |
| La Cienega Bl and El Segundo Bl    | B 12.1 0.671 | B 12.4 0.674          | B 12.4 0.674 | B 12.4 0.674             |           | +0.000 |
| I-405 SB on-ramp and El Segundo Bl | B 7.9 0.629  | B 8.2 0.632           | B 8.2 0.632  | B 8.2 0.632              |           | +0.000 |
| I-405 NB ramps and El Segundo Bl   | A 5.0 0.530  | A 5.0 0.532           | A 5.0 0.532  | A 5.0 0.532              |           | +0.000 |
| I-405 SB offramp and Rosecrans Ave | B 7.2 0.622  | B 7.5 0.625           | B 7.5 0.625  | B 7.5 0.625              |           | +0.000 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: 440 workers  
 Geometrics: Existing Geometrics  
 Ambient Traffic Growth: .5 % per year

| Year 2006 |           | Forecast<br>Year 2007 |           | Plus Proposed<br>Project |           | +V/C |
|-----------|-----------|-----------------------|-----------|--------------------------|-----------|------|
| LOS       | DELAY V/C | LOS                   | DELAY V/C | LOS                      | DELAY V/C |      |

## Chevron El Segundo – FCC NOx Reduction Project

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|                                 |     |       |   |     |       |   |      |       |        |
|---------------------------------|-----|-------|---|-----|-------|---|------|-------|--------|
| I-405 NB ramps and Rosecrans Bl |     |       |   |     |       |   |      |       |        |
| B                               | 6.3 | 0.613 | B | 6.5 | 0.615 | B | 6.5  | 0.615 | +0.000 |
| I-405 SB ramps and Hindry Ave   |     |       |   |     |       |   |      |       |        |
| A                               | 5.0 | 0.536 | A | 5.0 | 0.539 | A | 5.0  | 0.539 | +0.000 |
| California St and Imperial Hwy  |     |       |   |     |       |   |      |       |        |
| A                               | 5.0 | 0.482 | A | 5.0 | 0.484 | A | 5.0  | 0.539 | +0.054 |
| Main Street and Imperial Hwy    |     |       |   |     |       |   |      |       |        |
| B                               | 8.4 | 0.634 | B | 8.7 | 0.637 | B | 14.1 | 0.691 | +0.054 |

Notes:

v/c = volume to capacity ratio (capacity utilization ratio)

delay = average stopped delay in seconds per vehicle

LOS = Level of Service