Brackenridge Tract
Existing Traffic Analysis
Draft Technical Memorandum

Prepared for:
Prime Strategies, Inc.

Prepared by:
klotz ( ) associates
901 South Mopac Expressway, Bldg V, Suite 220
Austin, Texas 78746

Klotz Associates Project No. 0536.001.000
July 2008
July 31, 2008

Mr. Michael Weaver  
Prime Strategies, Inc.  
1508 S. Lamar Blvd.  
Austin, Texas 78704

Re: Traffic Analysis of Brackenridge Tract based on existing traffic and land uses.  
Klotz Associates Project No. 0536.001.000

Dear Mr. Weaver:

Klotz Associates is pleased to present this draft technical memorandum of our Traffic Analysis for the Brackenridge Tract preformed for Prime Strategies, Inc. If you have questions concerning this report, please contact me at your convenience.

Sincerely,

James Schwerdtfeger, P.E.  
Project Engineer

Enclosures
Brackenridge Tract
Existing Traffic Analysis
Draft Technical Memorandum

Prepared for:
Prime Strategies, Inc.

FOR REVIEW ONLY
Do not use for permitting, bidding or construction.
Engineer: James Schwerdtfeger, P.E.
Engineer Reg. No.: 97266
Date: July 2008

Prepared by

Klotz Associates, Inc.
901 South Mopac Expressway, Bldg V, Suite 220
Austin, Texas 78746

Klotz Associates Project No. 0536.001.000
July 2008
TABLE OF CONTENTS

Study Purpose and Objective ................................................................. 1
Study Methodology ............................................................................. 1
Analysis and Results .......................................................................... 1
2008 Existing Conditions Summary .................................................... 3
References .......................................................................................... 5

List of Tables

Table 1 Definitions of Level of Service (LOS) Criteria ....................... 2
Table 2 Analysis Results for 2008 Existing Conditions ....................... 3

Appendices

Appendix A – Exhibits

Appendix B – Timing and Phasing Sheets

Appendix C – Synchro Output
Study Purpose and Objective

This memo presents a summary of findings for a Traffic Analysis performed by Klotz Associates, Inc. for the existing Brackenridge Tract in Austin, Texas. This analysis shows how the existing traffic within the tract currently operates. The analysis did not address future development or future roadway improvements. The Site Location Map for the study area is shown in Appendix A - Exhibit 1.

Study Methodology

This study consists of two major components listed below.

- Data Collection – Peak hour turning movement counts (TMC’s) were performed from 7:00 a.m. to 9:00 a.m. and 4 p.m. to 6 p.m. at eleven intersections. In addition, automatic traffic recorders (ATR’s) were put in place to collect traffic volumes for a 24-hour period. The TMC’s obtained Tuesday, Wednesday and Thursday were averaged for the analysis. All TMC and ATR data is included in the Brackenridge Tract Data Collection Report by AR Traffic Counting, LLC

- Analysis – An operational analysis of the surrounding roadway network was completed using the TMC’s and ATR’s and Synchro 7.0, a traffic simulation model. Synchro follows procedures developed in the Highway Capacity Manual 2000 (HCS2000) and analyzes the study area in its entirety, rather than as a series of isolated intersections and driveways. The focus of this analysis is to examine existing traffic patterns and issues within the tract.

Analysis and Results

A detailed operational analysis was undertaken to evaluate each intersection’s peak hour capacity and Level of Service (LOS). For the evaluation of existing conditions, Measures of
Effectiveness (MoE’s) were utilized such as intersection delay and LOS associated with this delay. The intersection delay is the average control delay for the signalized intersection and is calculated by taking a volumes-weighted average of all the delays occurring at the intersection. LOS refers to the operational conditions within a traffic stream and their perception by motorists in terms of delay, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. There are six LOS capacity conditions for each roadway facility. These are designated from "A" to "F," with "A" representing a free-flow optimal condition and "F" representing a congested unstable flow condition. Table 1 presents the general criteria associated with each LOS reported for signalized and unsignalized intersections obtained from HCS2000.

**TABLE 1**
Definitions of Level of Service (LOS) Criteria

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Delay Range for Signalized Intersections (sec/veh)</th>
<th>Delay Range for Unsignalized Intersections (sec/veh)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>( \leq 10 )</td>
<td>( \leq 10 )</td>
<td>Very low delays, nearly free traffic flow</td>
</tr>
<tr>
<td>B</td>
<td>( &gt;10 ) and ( &lt;20 )</td>
<td>( \geq 10 ) and ( \leq 15 )</td>
<td>Good Traffic Flow, more vehicles stop than LOS A</td>
</tr>
<tr>
<td>C</td>
<td>( &gt;20 ) and ( &lt;35 )</td>
<td>( &gt;15 ) and ( \leq 25 )</td>
<td>Stable traffic flow, significant number of vehicles stop</td>
</tr>
<tr>
<td>D</td>
<td>( &gt;35 ) and ( &lt;55 )</td>
<td>( &gt;25 ) and ( \leq 35 )</td>
<td>Noticeable traffic congestion, longer delays and queue lengths</td>
</tr>
<tr>
<td>E</td>
<td>( &gt;55 ) and ( &lt;80 )</td>
<td>( &gt;35 ) and ( \leq 50 )</td>
<td>Unstable traffic flow, significant congestion, traffic near roadway capacity</td>
</tr>
<tr>
<td>F</td>
<td>( &gt;80 )</td>
<td>( &gt;50 )</td>
<td>Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds capacity</td>
</tr>
</tbody>
</table>
Detailed Synchro output is included in the appendices to this report. For purpose of analysis, the signal timings were obtained from the City of Austin. The Traffic Signal Timing and Phasing Sheets are included in Appendix B.

Table 4 below presents the delay and LOS simulation results per intersection for the 2008 Existing Condition peak hours.

**TABLE 2**

Analysis Results for 2008 Existing Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>2008 EXISTING CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak Hour</td>
</tr>
<tr>
<td></td>
<td>MOE</td>
</tr>
<tr>
<td>Loop 1 SBFR  7th Street</td>
<td>3.0</td>
</tr>
<tr>
<td>Enfield Rd  Exposition Blvd</td>
<td>48.4</td>
</tr>
<tr>
<td>Lake Austin Blvd  7th Street</td>
<td>2.2</td>
</tr>
<tr>
<td>Lake Austin Blvd  Enfield Rd</td>
<td>3.5</td>
</tr>
<tr>
<td>Lake Austin Blvd  Exposition Blvd</td>
<td>12.8</td>
</tr>
<tr>
<td>Lake Austin Blvd  Loop 1 SBFR</td>
<td>26.9</td>
</tr>
<tr>
<td>Lake Austin Blvd  Red Bud Trail</td>
<td>10.4</td>
</tr>
<tr>
<td>Loop 1 NBFR  Enfield Rd</td>
<td>26.8</td>
</tr>
<tr>
<td>Loop 1 SBFR  Enfield Rd</td>
<td>68.1</td>
</tr>
<tr>
<td>Scenic Dr  Bonnie Rd</td>
<td>5.2</td>
</tr>
<tr>
<td>Westlake Dr  Red Bud Trail</td>
<td>51.5</td>
</tr>
<tr>
<td>5th/6th Street  Loop 1 Exit Ramp</td>
<td>89.3</td>
</tr>
</tbody>
</table>

* Unsignalized intersection

**2008 Existing Condition Summary**

The existing condition analysis show several congested locations. Currently, the Westlake Drive and Red Bud Trail intersection operates at LOS F during both the AM and PM peak conditions.
hours. The poor LOS is largely caused by the heavy left turning movements from Westlake Drive to Red Bud Trail. Lake Austin Boulevard at Red Bud Trail operates at LOS F during the PM peak hour. The poor LOS at this intersection is caused by the heavy left turn movement from Lake Austin Boulevard to Red Bud Trail. Overall, the LOS during the PM peak hour for Lake Austin Boulevard at Loop 1 SBFR is B. Most vehicular movements through this intersection experience minimal delay. However, due to the backup of traffic trying to merge onto the southbound mainlanes of Loop 1, the left-turn movement from westbound Lake Austin Boulevard experiences undue delays. The intersection of 5th and 6th Streets with the northbound Loop 1 exit ramp show a poor LOS during the AM peak hour due to a high number of vehicles turning right onto 5th Street to access downtown. Detailed Synchro output results for all analyzed intersections are included in Appendix C.
References


APPENDIX A – EXHIBITS

Exhibit  1  Site Location Map
Exhibit  2  AM & PM Peak Hours and 24-Hour Traffic Counts
APPENDIX B – TIMING AND PHASING SHEETS

- Enfield @ Exposition
- Exposition @ Lake Austin
- Atlanta (Loop 1 SBFR) @ Lake Austin
- Lake Austin @ Red Bud Trail
- Enfield @ Winsted (Loop 1)
<table>
<thead>
<tr>
<th>PHASE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN SPLIT</td>
<td>PLAN 1</td>
<td>1</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>NOM SPLIT</td>
<td>CYCLE 65</td>
<td>33</td>
<td>32</td>
<td>33</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>CYCLE</td>
<td>130</td>
<td>31</td>
<td>32</td>
<td>37</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>CYCLE</td>
<td>130</td>
<td>34</td>
<td>42</td>
<td>27</td>
<td>27</td>
<td>42</td>
<td>27</td>
<td>27</td>
<td>42</td>
<td>27</td>
<td>27</td>
<td>42</td>
<td>27</td>
<td>27</td>
<td>42</td>
<td>27</td>
<td>27</td>
<td>42</td>
</tr>
</tbody>
</table>

Change ONLY the following:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|
| FUNCTION TYPE | FUNCTION INDEX | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH |
| UNIT | CONNECTOR / BUI | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| PIN | C1S | C1S | C1S | C1S | C1S | C1S | C1S | C1S | C1S |
| 56 | 47 | 58 | 49 | 59 | 43 | 41 | 45 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
### PHASES OVERLAP CONFIGURATION

<table>
<thead>
<tr>
<th>PHASES</th>
<th>TYPE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL B</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL C</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL D</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL E</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL F</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL G</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL H</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL I</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL J</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL K</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL L</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL M</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL N</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL O</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL P</td>
<td>2</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OVERLAPS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>OVERLAP SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td></td>
</tr>
<tr>
<td>OVL B</td>
<td></td>
</tr>
<tr>
<td>OVL C</td>
<td></td>
</tr>
<tr>
<td>OVL D</td>
<td></td>
</tr>
<tr>
<td>OVL E</td>
<td></td>
</tr>
<tr>
<td>OVL F</td>
<td></td>
</tr>
<tr>
<td>OVL G</td>
<td></td>
</tr>
<tr>
<td>OVL H</td>
<td></td>
</tr>
<tr>
<td>OVL I</td>
<td></td>
</tr>
<tr>
<td>OVL J</td>
<td></td>
</tr>
<tr>
<td>OVL K</td>
<td></td>
</tr>
<tr>
<td>OVL L</td>
<td></td>
</tr>
<tr>
<td>OVL M</td>
<td></td>
</tr>
<tr>
<td>OVL N</td>
<td></td>
</tr>
<tr>
<td>OVL O</td>
<td></td>
</tr>
<tr>
<td>OVL P</td>
<td></td>
</tr>
</tbody>
</table>

### PHASE DATA TABLE

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td></td>
</tr>
<tr>
<td>OVL B</td>
<td></td>
</tr>
<tr>
<td>OVL C</td>
<td></td>
</tr>
<tr>
<td>OVL D</td>
<td></td>
</tr>
<tr>
<td>OVL E</td>
<td></td>
</tr>
<tr>
<td>OVL F</td>
<td></td>
</tr>
<tr>
<td>OVL G</td>
<td></td>
</tr>
<tr>
<td>OVL H</td>
<td></td>
</tr>
<tr>
<td>OVL I</td>
<td></td>
</tr>
<tr>
<td>OVL J</td>
<td></td>
</tr>
<tr>
<td>OVL K</td>
<td></td>
</tr>
<tr>
<td>OVL L</td>
<td></td>
</tr>
<tr>
<td>OVL M</td>
<td></td>
</tr>
<tr>
<td>OVL N</td>
<td></td>
</tr>
<tr>
<td>OVL O</td>
<td></td>
</tr>
<tr>
<td>OVL P</td>
<td></td>
</tr>
</tbody>
</table>

### OVERLAPS / PARAMS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>OVL A</th>
<th>OVL B</th>
<th>OVL C</th>
<th>OVL D</th>
<th>OVL E</th>
<th>OVL F</th>
<th>OVL G</th>
<th>OVL H</th>
<th>OVL I</th>
<th>OVL J</th>
<th>OVL K</th>
<th>OVL L</th>
<th>OVL M</th>
<th>OVL N</th>
<th>OVL O</th>
<th>OVL P</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASES</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
<td>141</td>
</tr>
</tbody>
</table>

### Flags

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASES</th>
<th>PHASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVT1PHAS</td>
<td>OVT1PHAS</td>
<td>OVT1PHAS</td>
</tr>
<tr>
<td>OVT1PED</td>
<td>OVT1PED</td>
<td>OVT1PED</td>
</tr>
<tr>
<td>OVT1REC</td>
<td>OVT1REC</td>
<td>OVT1REC</td>
</tr>
<tr>
<td>OVT1RAC</td>
<td>OVT1RAC</td>
<td>OVT1RAC</td>
</tr>
<tr>
<td>OVT1MAC</td>
<td>OVT1MAC</td>
<td>OVT1MAC</td>
</tr>
<tr>
<td>OVT1MIN</td>
<td>OVT1MIN</td>
<td>OVT1MIN</td>
</tr>
<tr>
<td>OVT1MAX</td>
<td>OVT1MAX</td>
<td>OVT1MAX</td>
</tr>
<tr>
<td>OVT1GAP</td>
<td>OVT1GAP</td>
<td>OVT1GAP</td>
</tr>
<tr>
<td>OVT1SOFT</td>
<td>OVT1SOFT</td>
<td>OVT1SOFT</td>
</tr>
<tr>
<td>OVT1CDTL</td>
<td>OVT1CDTL</td>
<td>OVT1CDTL</td>
</tr>
<tr>
<td>OVT1PED</td>
<td>OVT1PED</td>
<td>OVT1PED</td>
</tr>
<tr>
<td>OVT1DTR</td>
<td>OVT1DTR</td>
<td>OVT1DTR</td>
</tr>
<tr>
<td>OVT1SIM</td>
<td>OVT1SIM</td>
<td>OVT1SIM</td>
</tr>
<tr>
<td>OVT1REM</td>
<td>OVT1REM</td>
<td>OVT1REM</td>
</tr>
<tr>
<td>OVT1REX</td>
<td>OVT1REX</td>
<td>OVT1REX</td>
</tr>
<tr>
<td>OVT1PRE</td>
<td>OVT1PRE</td>
<td>OVT1PRE</td>
</tr>
<tr>
<td>OVT1RES</td>
<td>OVT1RES</td>
<td>OVT1RES</td>
</tr>
</tbody>
</table>

### OVERLAP SETTINGS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASES</th>
<th>PHASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td>OVL B</td>
<td>OVL C</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL D</td>
<td>OVL E</td>
<td>OVL F</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL G</td>
<td>OVL H</td>
<td>OVL I</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL J</td>
<td>OVL K</td>
<td>OVL L</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL M</td>
<td>OVL N</td>
<td>OVL O</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL P</td>
<td>OVL A</td>
<td>OVL B</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL C</td>
<td>OVL D</td>
<td>OVL E</td>
</tr>
</tbody>
</table>

### Phase Data Table

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASES</th>
<th>PHASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td>OVL B</td>
<td>OVL C</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL D</td>
<td>OVL E</td>
<td>OVL F</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL G</td>
<td>OVL H</td>
<td>OVL I</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL J</td>
<td>OVL K</td>
<td>OVL L</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL M</td>
<td>OVL N</td>
<td>OVL O</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL P</td>
<td>OVL A</td>
<td>OVL B</td>
</tr>
</tbody>
</table>

### Overlap Settings

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASES</th>
<th>PHASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td>OVL B</td>
<td>OVL C</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL D</td>
<td>OVL E</td>
<td>OVL F</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL G</td>
<td>OVL H</td>
<td>OVL I</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL J</td>
<td>OVL K</td>
<td>OVL L</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL M</td>
<td>OVL N</td>
<td>OVL O</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASES</td>
<td>PHASES</td>
</tr>
<tr>
<td>OVL P</td>
<td>OVL A</td>
<td>OVL B</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASE DATA TABLE # 3</td>
<td>PHASES</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
<td>--------</td>
</tr>
<tr>
<td>OMITPHAS</td>
<td>5, 9, 10</td>
<td>OMITPHAS</td>
</tr>
<tr>
<td>OMIT PED</td>
<td>1, 3, 5, 7, 9, 10</td>
<td>OMIT PED</td>
</tr>
<tr>
<td>MIN RECAL</td>
<td>3, 4, 7, 8</td>
<td>MIN RECAL</td>
</tr>
<tr>
<td>MAXRECAL</td>
<td></td>
<td>MAXRECAL</td>
</tr>
<tr>
<td>SOFT RCL</td>
<td></td>
<td>SOFT RCL</td>
</tr>
<tr>
<td>CDTL SRVC</td>
<td></td>
<td>CDTL SRVC</td>
</tr>
<tr>
<td>PED RECAL</td>
<td>MIN GREEN</td>
<td>PED RECAL</td>
</tr>
<tr>
<td>DUAL ETRY</td>
<td>PASSAGE</td>
<td>DUAL ETRY</td>
</tr>
<tr>
<td>SIM GAP</td>
<td>MAXGRN 1</td>
<td>SIM GAP</td>
</tr>
<tr>
<td>RED REST</td>
<td>MAXGRN 2</td>
<td>RED REST</td>
</tr>
<tr>
<td>AUTO PED</td>
<td>CONDSERV</td>
<td>AUTO PED</td>
</tr>
<tr>
<td>REST WALK</td>
<td>YEL CHG</td>
<td>REST WALK</td>
</tr>
<tr>
<td>PED RECY</td>
<td>RED CLR</td>
<td>PED RECY</td>
</tr>
<tr>
<td>RED LOCK</td>
<td>WALK</td>
<td>RED LOCK</td>
</tr>
<tr>
<td>YEL LOCK</td>
<td>PED CLR</td>
<td>YEL LOCK</td>
</tr>
<tr>
<td>NO EXT</td>
<td>ADDED INI</td>
<td>NO EXT</td>
</tr>
<tr>
<td>NO ADD INI</td>
<td>TIME TO RED</td>
<td>NO ADD INI</td>
</tr>
<tr>
<td>NO GAPRED</td>
<td>TIME BEFORE</td>
<td>NO GAPRED</td>
</tr>
<tr>
<td>NO RANGE</td>
<td>MIN GAP</td>
<td>NO RANGE</td>
</tr>
<tr>
<td>NOMAX LOK</td>
<td>MAX INIT GRN</td>
<td>NOMAX LOK</td>
</tr>
</tbody>
</table>

NOTES:
## Traffic Signal Intersection: Exposition @ Lake Austin

### Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Days</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
<th>Phase 6</th>
<th>Phase 7</th>
<th>Phase 8</th>
<th>Phase 9</th>
<th>Phase 10</th>
<th>Phase 11</th>
<th>Phase 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00</td>
<td>STARTUP 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>04:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>05:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>06:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>07:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Special Functions

- **Ena Flash**: Flash Enter
- **Flas Exit**: Flash Exit
- **Flash Ext**: Flash Extend
- **Flash Cal**: Flash Call
- **Flash Pha**: Flash Phase
- **Flash Sy**: Flash Synch

### Veh Parameters

- **Veh Flag**: Vehicle Flag
- **Veh Pha**: Vehicle Phase
- **Veh Syn**: Vehicle Synch

### Note

Zero denotes the highest priority.
<table>
<thead>
<tr>
<th>PHASE DATA TABLE</th>
<th>PHASE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MIN SPLIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOM SPLIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAX SPLIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTE:</td>
<td>PLAN 20 =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREE MODE</td>
<td>PLAN 33 =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLASH MODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change ONLY the following:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPUT CHANNELS</td>
<td>FUNCTION TYPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUNCTION INDEX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CONNECTOR / BUI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PIN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHANNEL IN 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHANNEL IN 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOGIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTPUT CHANNELS</td>
<td>FUNCTION TYPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUNCTION INDEX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CONNECTOR / BUI 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PIN 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CONNECTOR / BUI 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PIN 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CONNECTOR / BUI 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PIN 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHASES</td>
<td>TYPE</td>
<td>OVL A</td>
<td>OVL B</td>
<td>OVL C</td>
<td>OVL D</td>
<td>OVL E</td>
<td>OVL F</td>
<td>OVL G</td>
<td>OVL H</td>
<td>OVL I</td>
<td>OVL J</td>
<td>OVL K</td>
<td>OVL L</td>
<td>OVL M</td>
<td>OVL N</td>
<td>OVL O</td>
<td>OVL P</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M=MODIFIED</td>
<td>S=SECONDARY</td>
<td>P=PRIMARY</td>
<td>OVL A</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL B</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL C</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL D</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL E</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL F</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL G</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL H</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL I</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL J</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL K</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL L</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL M</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL N</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL O</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVL P</td>
<td>P</td>
<td>S</td>
<td>M</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OVERLAPS

<table>
<thead>
<tr>
<th>OVERLAPS</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENABLE</td>
<td>PED OVERLAP</td>
<td>FLASH YELLOW</td>
<td>ALT FLASH HZ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECALL PRIMARY</td>
<td>RECALL SEC</td>
<td>PED RECALL</td>
<td>PED RECYCLE</td>
<td>AUTO EXTEND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN GREEN</td>
<td>MAX GREEN</td>
<td>GREEN CLEAR</td>
<td>VEL CLEAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED CLEAR</td>
<td>WALK</td>
<td>PED CLEAR</td>
<td>RESERVICE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PHASE DATA TABLE #2

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE</th>
<th>PRE-EMPT</th>
<th>SETTINGS</th>
<th>OVERLAP SETTINGS</th>
<th>PHASE FLAGS</th>
<th>PHASE TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMITPHAS</td>
<td>5, 7, 9 - 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMIT PED</td>
<td>1, 3, 5, 7, 9 - 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN RECAL</td>
<td>1, 2, 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAXRECAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOFT RCL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDTL SRVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED RECAL</td>
<td>MIN GREEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAL ENTRY</td>
<td>PASSAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIM GAP</td>
<td>MAX GRN 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED REST</td>
<td>MAX GRN 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO PED</td>
<td>CONSERV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REST WALK</td>
<td>YEL CHG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED RECY</td>
<td>RED CLR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED LOCK</td>
<td>WALK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEL LOCK</td>
<td>PED CLR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO EXT</td>
<td>ADDED INI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO ADD INI</td>
<td>TIME TO RED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO GAPRED</td>
<td>TIME BEFORE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO RANGE</td>
<td>MIN GAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOMAX LOK</td>
<td>MAX INIT GRN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OVERLAP SETTINGS

<table>
<thead>
<tr>
<th>OVERLAP SETTINGS</th>
<th>PHASE FLAGS</th>
<th>PHASE TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-EMPT</td>
<td>SETTINGS</td>
<td>1</td>
</tr>
<tr>
<td>TIMING</td>
<td>ENABLE</td>
<td>NO MEM LOK</td>
</tr>
<tr>
<td>OVERLAP SETTINGS</td>
<td>ENABLE</td>
<td>NO MEM LOK</td>
</tr>
</tbody>
</table>

### PHASE TIMING

<p>| PHASE | PH 1 | PH 2 | PH 3 | PH 4 | PH 5 | PH 6 | PH 7 | PH 8 | PH 9 | PH 10 | PH 11 | PH 12 | PH 13 | PH 14 | PH 15 | PH 16 | PH 17 | PH 18 |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| EB | L/T | WB | LUST | DUMMY | PE | EXPOS | EB | LUST | N-S | PELDS | PELDS | PELDS | PELDS | PELDS | PELDS | PELDS | PELDS | PELDS | PELDS |
| REDREST | MAX GRN 2 | 8.0 | 35.0 | 8.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 | 35.0 | 20.0 |
| AUTO PED | 1 - 20 | CONSERV | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| REST WALK | YEL CHG | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| PED RECY | RED CLR | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| RED LOCK | WALK | 5.0 | 6.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 | 5.0 | 8.0 |
| YEL LOCK | 3, 4 | PED CLR | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 | 17.0 | 12.0 |
| NO EXT | ADDED INI | | | | | | | | | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE DATA TABLE # 3</th>
<th>PHASE DATA TABLE # 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMITPHAS</td>
<td>PHASE TIMING</td>
<td>PHASE TIMING</td>
</tr>
<tr>
<td>OMIT PED</td>
<td>5, 7</td>
<td>1, 3, 5, 7</td>
</tr>
<tr>
<td>MIN RECAL</td>
<td>1, 2, 6</td>
<td>1, 2, 4, 6, 8</td>
</tr>
<tr>
<td>MAXRECAL</td>
<td>SOFT RCL</td>
<td>CDTL SRVC</td>
</tr>
<tr>
<td>PED RECAL</td>
<td>DUAL ETRY</td>
<td>SIMGAP</td>
</tr>
<tr>
<td>DUAL ETRY</td>
<td>PASSAGE</td>
<td>MAXGRN 1</td>
</tr>
<tr>
<td>SIMGAP</td>
<td>MAXGRN 2</td>
<td>PREP RECL</td>
</tr>
<tr>
<td>REDREST</td>
<td>AUTO PED</td>
<td>REST WALK</td>
</tr>
<tr>
<td>YEL LOCK</td>
<td>1, 2, 3, 4, 5, 6, 7, 8</td>
<td>NO EXT</td>
</tr>
<tr>
<td>NO ADD INI</td>
<td>NO RANGE</td>
<td>NO MAX LOK</td>
</tr>
<tr>
<td>NOTES:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Input Channels

<table>
<thead>
<tr>
<th>Function Type</th>
<th>Function Index</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector / BUI</td>
<td>Pin 1</td>
<td></td>
</tr>
<tr>
<td>Channel In 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel In 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>17</td>
<td>19</td>
<td>21</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>18</td>
<td>20</td>
<td>22</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td>20</td>
<td>22</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19</td>
<td>21</td>
<td>23</td>
<td>25</td>
<td>27</td>
<td>29</td>
<td>31</td>
<td>33</td>
<td>35</td>
</tr>
</tbody>
</table>

### Output Channels

<table>
<thead>
<tr>
<th>Function Type</th>
<th>Function Index</th>
<th>Connector / BUI</th>
<th>Pin 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td>Connector / BUI 1</td>
<td>Pin 1</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>Connector / BUI 2</td>
<td>Pin 2</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>Connector / BUI 3</td>
<td>Pin 3</td>
</tr>
</tbody>
</table>

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
|   |   |   |   |   |   |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |     |
|   |   |   |   |   |   |   |   |   |     |     |     |     |     |     |     |     |     |     |     |     |     |
### Phase Data Table 

<table>
<thead>
<tr>
<th>OVL A</th>
<th>OVL B</th>
<th>OVL C</th>
<th>OVL D</th>
<th>OVL E</th>
<th>OVL F</th>
<th>OVL G</th>
<th>OVL H</th>
<th>OVL I</th>
<th>OVL J</th>
<th>OVL K</th>
<th>OVL L</th>
<th>OVL M</th>
<th>OVL N</th>
<th>OVL O</th>
<th>OVL P</th>
<th>OVL Q</th>
</tr>
</thead>
</table>

### Flags / Param

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENABLE</td>
<td>PED OVERLAP</td>
<td>FLASH YELLOW</td>
<td>ALT FLASH HZ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECALL PRIMARY</td>
<td>RECALL SEC</td>
<td>PED RECALL</td>
<td>PED RECYCLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO EXTEND</td>
<td>MIN GREEN</td>
<td>MAX GREEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GREEN CLEAR</td>
<td>YEL CLEAR</td>
<td>RED CLEAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WALK</td>
<td>PED CLEAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESERVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Overlap Settings

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-EMPTY</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>SETTINGS</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENABLE</td>
<td>X</td>
<td>X</td>
<td>STRT MIN GRN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO MEM LOK</td>
<td>X</td>
<td>STRT WALK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAN ENABLE</td>
<td>STRT PED CLR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREEMPTYFLAGS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASE DATA TABLE</td>
<td>PH 1</td>
<td>PH 2</td>
<td>PH 3</td>
<td>PH 4</td>
<td>PH 5</td>
<td>PH 6</td>
<td>PH 7</td>
<td>PH 8</td>
<td>PH 9</td>
<td>PH 10</td>
<td>PH 11</td>
<td>PH 12</td>
<td>PH 13</td>
<td>PH 14</td>
</tr>
<tr>
<td>--------</td>
<td>------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>OMITPHAS</td>
<td>Omit Phases # 3</td>
<td>PHASE</td>
<td>TIMING</td>
<td>MIN GREEN</td>
<td>5.0</td>
<td>10.0</td>
<td>10.0</td>
<td>5.0</td>
<td>10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OMIT PED</td>
<td>Omit Ped</td>
<td>1, 3, 5, 7, 9 - 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN PED</td>
<td>Min Ped</td>
<td>3, 5, 7 - 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAXRECAL</td>
<td>Max Recal</td>
<td>2, 4, 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOFT RCL</td>
<td>Soft Rcl</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDTL SRVC</td>
<td>Cdtl Srvc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED RECAL</td>
<td>Ped Recal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAL ETRY</td>
<td>Dual Etry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIMGAP</td>
<td>Sim Gap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REDREST</td>
<td>Red Rest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTO PED</td>
<td>Auto Ped</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REST WALK</td>
<td>Rest Walk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED RECY</td>
<td>Ped Recy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED LOCK</td>
<td>Red Lock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YEL LOCK</td>
<td>Yel Lock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO EXT</td>
<td>No Ext</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO ADD INI</td>
<td>No Add Ini</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOGAPRED</td>
<td>No Gapred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO RANGE</td>
<td>No Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
- NOMAX LOK: Max Init Grn
**Lake Austin @ Red Bud Trail**

**Traffic Signal Timing & Phasing Sheets**

**Date:** 1/15/2020
**Engineer:** JONATHAN

### Startup Control Mode
- REDSTRT: 1
- MAN PLN: 1
- FREE PLN: 1
- DFSCHED: 1

### Special Functions
- AUXILIARY
  - PHASE SCHEDULE
  - PED PRAMS
  - VEH PARAMETERS

### Signal Phasing Diagram
- Numbers represent green time (seconds)

#### Priorities
- TABLE 1
- TABLE 2
- TABLE 3
- TABLE 4

#### Phases
- ENABLE
- CALL PHASE
- OVERLAP
- ADD INIT
- RED LOCK
- YEL LOCK

#### Schedule
- MAX I
- OVERLAP
- START UP FLASH
- RED REVERT

#### Veh Flags
- VEH PARAMETERS
- VEH DELAY

### Table 1

<table>
<thead>
<tr>
<th>PHASES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE 1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TABLE 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TABLE 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TABLE 4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note:** Zero denotes the highest priority

---

**CITY OF AUSTIN**

**Traffic Signal Intersection:**

- **Date:** 1/15/2020
- **Engineer:** JONATHAN

**Description:**

- **Phase Mode:**
  - Ring 1: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
  - Ring 2: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

**Table:**

<table>
<thead>
<tr>
<th>PL NO</th>
<th>MAX GRN</th>
<th>PH DATA</th>
<th>PH SEQ</th>
<th>OL DATA</th>
<th>ACT CONF</th>
<th>ENA</th>
<th>OFF</th>
<th>VAR</th>
<th>CYCLE</th>
<th>HOLD / YLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FREE</td>
<td>MAX 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Legend:**

- **ENAB:** Enable
- **CALL:** Call
- **EXTEND:** Extend
- **ADD INIT:** Add Init
- **RED LOCK:** Red Lock
- **YEL LOCK:** Yel Lock
- **CALL PHASE:** Call Phase
- **SWITCH PHAS:** Switch Phas
- **OVERLAP:** Overlap
- **DELAY:** Delay

---

**Phase Data Table:**

<table>
<thead>
<tr>
<th>PHASE</th>
<th>PH 1</th>
<th>PH 2</th>
<th>PH 3</th>
<th>PH 4</th>
<th>PH 5</th>
<th>PH 6</th>
<th>PH 7</th>
<th>PH 8</th>
<th>PH 9</th>
<th>PH 10</th>
<th>PH 11</th>
<th>PH 12</th>
<th>PH 13</th>
<th>PH 14</th>
<th>PH 15</th>
<th>PH 16</th>
<th>PH 17</th>
<th>PH 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIN RECAL</td>
<td>MAXRECAL</td>
<td>SOFT RCL</td>
<td>CDTL SRVC</td>
<td>PED RECAL</td>
<td>DUAL ETRY</td>
<td>SIMGAP</td>
<td>REDREST</td>
<td>AUTO PED</td>
<td>REST WALK</td>
<td>PED RECY</td>
<td>RED LOCK</td>
<td>YEL LOCK</td>
<td>NO EXT</td>
<td>NO ADD INI</td>
<td>NOGAPRED</td>
<td>NOMAX LOK</td>
<td>MAX INIT GRN</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>-----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>--------</td>
<td>-----------</td>
<td>-----------</td>
<td>------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2.6</td>
<td></td>
<td></td>
<td>1</td>
<td>2.0</td>
<td>45.0</td>
<td>60.0</td>
<td>0.0</td>
<td>4.0</td>
<td>1.0</td>
<td>5.0</td>
<td>20.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Change ONLY the following:**

<table>
<thead>
<tr>
<th>MIN SPLIT</th>
<th>NOM SPLIT</th>
<th>MAX SPLIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTE:**
- PLAN 20 = FREE MODE
- PLAN 33 = FLASH MODE

**FUNCTION TYPE**

<table>
<thead>
<tr>
<th>FUNCTION INDEX</th>
<th>UNIT</th>
<th>CONNECTOR / BUI</th>
<th>PIN 1</th>
<th>CHANNEL IN 1</th>
<th>LOGIC</th>
</tr>
</thead>
</table>

**INPUT CHANNELS**

<table>
<thead>
<tr>
<th>FUNCTION TYPE</th>
<th>FUNCTION INDEX</th>
<th>CONNECTOR / BUI</th>
<th>PIN 1</th>
<th>CHANNEL IN 1</th>
<th>CONNECTOR / BUI</th>
<th>PIN 2</th>
<th>CONNECTOR / BUI</th>
<th>PIN 3</th>
</tr>
</thead>
</table>

**OUTPUT CHANNELS**

<table>
<thead>
<tr>
<th>PHASES</th>
<th>TYPE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OVERLAPS**

<table>
<thead>
<tr>
<th>OVL A</th>
<th>2</th>
<th>P</th>
</tr>
</thead>
</table>

**PARAM**

<table>
<thead>
<tr>
<th>ENABLE</th>
<th>PED OVERLAP</th>
<th>FLASH YELLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHASES</td>
<td>OVERLAP CONFIGURATION</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>Ph 1</td>
<td>Ph 1</td>
<td></td>
</tr>
<tr>
<td>Ph 2</td>
<td>Ph 2</td>
<td></td>
</tr>
<tr>
<td>Ph 3</td>
<td>Ph 3</td>
<td></td>
</tr>
<tr>
<td>Ph 4</td>
<td>Ph 4</td>
<td></td>
</tr>
<tr>
<td>Ph 5</td>
<td>Ph 5</td>
<td></td>
</tr>
<tr>
<td>Ph 6</td>
<td>Ph 6</td>
<td></td>
</tr>
<tr>
<td>Ph 7</td>
<td>Ph 7</td>
<td></td>
</tr>
<tr>
<td>Ph 8</td>
<td>Ph 8</td>
<td></td>
</tr>
<tr>
<td>Ph 9</td>
<td>Ph 9</td>
<td></td>
</tr>
<tr>
<td>Ph 10</td>
<td>Ph 10</td>
<td></td>
</tr>
<tr>
<td>Ph 11</td>
<td>Ph 11</td>
<td></td>
</tr>
<tr>
<td>Ph 12</td>
<td>Ph 12</td>
<td></td>
</tr>
<tr>
<td>Ph 13</td>
<td>Ph 13</td>
<td></td>
</tr>
<tr>
<td>Ph 14</td>
<td>Ph 14</td>
<td></td>
</tr>
<tr>
<td>Ph 15</td>
<td>Ph 15</td>
<td></td>
</tr>
<tr>
<td>Ph 16</td>
<td>Ph 16</td>
<td></td>
</tr>
<tr>
<td>Ph 17</td>
<td>Ph 17</td>
<td></td>
</tr>
<tr>
<td>Ph 18</td>
<td>Ph 18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVERLAP SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>P = PRIMARY</td>
</tr>
<tr>
<td>S = SECONDARY</td>
</tr>
<tr>
<td>M = MODIFIED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE DATA TABLE # 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE DATA TABLE # 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASE_FLAGS</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>PM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>FLAGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>PM</td>
</tr>
</tbody>
</table>

| ALT FLASH | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM |

| PRE-EMPTY | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM | PM |

<table>
<thead>
<tr>
<th>PHASE</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>PM</td>
</tr>
<tr>
<td>PHASES</td>
<td>PHASE DATA TABLE # 4</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------</td>
</tr>
<tr>
<td>PHASE</td>
<td>TIMING</td>
</tr>
<tr>
<td>OMITPHAS</td>
<td></td>
</tr>
<tr>
<td>OMITPED</td>
<td></td>
</tr>
<tr>
<td>MINRECAL</td>
<td></td>
</tr>
<tr>
<td>MAXRECAL</td>
<td></td>
</tr>
<tr>
<td>SOFTRCL</td>
<td></td>
</tr>
<tr>
<td>CDTLSRVC</td>
<td></td>
</tr>
<tr>
<td>PEDRECAL</td>
<td></td>
</tr>
<tr>
<td>DUALETRY</td>
<td></td>
</tr>
<tr>
<td>SIMGAP</td>
<td></td>
</tr>
<tr>
<td>REDREST</td>
<td></td>
</tr>
<tr>
<td>AUTOPED</td>
<td></td>
</tr>
<tr>
<td>RESTWALK</td>
<td></td>
</tr>
<tr>
<td>PEDRECY</td>
<td></td>
</tr>
<tr>
<td>REDLOCK</td>
<td></td>
</tr>
<tr>
<td>YELLOCK</td>
<td></td>
</tr>
<tr>
<td>NOEXT</td>
<td></td>
</tr>
<tr>
<td>NOADDINI</td>
<td></td>
</tr>
<tr>
<td>NOGAPRED</td>
<td></td>
</tr>
<tr>
<td>NO RANGE</td>
<td></td>
</tr>
<tr>
<td>NOMAXLOK</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
<table>
<thead>
<tr>
<th>Phase</th>
<th>Ring 1:</th>
<th>Ring 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1, a, 2, b, 4, c, 5, d, e, 7, f</td>
<td>2, a, 12, b, 6, c, 7, d, e, 10, f</td>
</tr>
</tbody>
</table>

**Control Mode:**
- Red Start: 1-30
- Preempt: 1-30

**Man Plan:**
- Free Plan: 1

**Flash/Ent Flash/Exit:**
- Flash/Exit: 1

**Engineer:**
- SEC

**Special Functions:**
- Red Revert: 1

**Active Control Parameters:**
- MAX DWELL TIME: 0

**Schedule:**
- FLASH CLR: 6

**Table:**

<table>
<thead>
<tr>
<th>Plan Mode</th>
<th>Max Grn</th>
<th>Ph Data</th>
<th>Ph Seq</th>
<th>Act Conf</th>
<th>Ena</th>
<th>Off</th>
<th>Var</th>
<th>Cycle</th>
<th>Hold/Yld</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Co Ord</td>
<td>MAX I</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>B</td>
<td>73</td>
<td>5</td>
<td>90</td>
</tr>
<tr>
<td>2</td>
<td>Co Ord</td>
<td>None</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>B</td>
<td>18</td>
<td>5</td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>Co Ord</td>
<td>None</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>B</td>
<td>51</td>
<td>5</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>Co Ord</td>
<td>None</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>B</td>
<td>13</td>
<td>5</td>
<td>75</td>
</tr>
<tr>
<td>5</td>
<td>Co Ord</td>
<td>None</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>B</td>
<td>32</td>
<td>5</td>
<td>130</td>
</tr>
</tbody>
</table>

**Rings:**
- Ring 1: 1, 2, 3, 4
- Ring 2: 5, 6, 7, 8

**PRIORITY SEQUENCE:**

<table>
<thead>
<tr>
<th>Table</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Table 2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Table 3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
</tbody>
</table>

**Enable Phase:**
- Enable: X X X X X X

**Switch Phases:**
- Switch Phase: 1

**Delay:**
- Delay: 5

**Advance Clearance:**
- Phase 1: OLA
- Phase 5: OLG

**Signal Phasing Diagram:**

**Tables:**
- Table 1
- Table 2
- Table 3
- Table 4
<table>
<thead>
<tr>
<th>FUNCTION INDEX</th>
<th>UNIT</th>
<th>CONNECTOR / BUI</th>
<th>PIN</th>
<th>CHANNEL IN 1</th>
<th>CHANNEL IN 2</th>
<th>LOGIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 6 13 14 15 16 17 18 19 20 21</td>
<td>1 1 1 1 1 1</td>
<td>C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S</td>
<td>73 74 41 41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| FUNCTION TYPE | OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped |
|---------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 | 1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12 | C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S | | | | |

<table>
<thead>
<tr>
<th>FUNCTION INDEX</th>
<th>UNIT</th>
<th>CONNECTOR / BUI</th>
<th>PIN</th>
<th>CHANNEL IN 1</th>
<th>CHANNEL IN 2</th>
<th>LOGIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12</td>
<td>1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12</td>
<td>C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| FUNCTION TYPE | OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped |
|---------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 | 1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12 | C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S | | | | |

| FUNCTION TYPE | OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped |
|---------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 | 1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12 | C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S | | | | |

| FUNCTION TYPE | OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped OVL Ovlped |
|---------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 | 1 2 13 5 6 15 3 4 14 7 8 16 9 10 11 12 | C1S C1S C1S C1S C1S C1S C1S C1S C1S C1S | | | | |
### PHASES

<table>
<thead>
<tr>
<th>OVERLAP</th>
<th>PHASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVL A</td>
<td>2 P X X</td>
</tr>
<tr>
<td>OVL B</td>
<td>2 P X X X X</td>
</tr>
<tr>
<td>OVL C</td>
<td>2 P X X X X X X</td>
</tr>
<tr>
<td>OVL D</td>
<td>2 P X X X X</td>
</tr>
<tr>
<td>OVL E</td>
<td>2 P X X</td>
</tr>
<tr>
<td>OVL F</td>
<td>2 P X X X X</td>
</tr>
<tr>
<td>OVL G</td>
<td>2 P X X X X X X</td>
</tr>
<tr>
<td>OVL H</td>
<td>2 P X X X</td>
</tr>
<tr>
<td>OVL I</td>
<td>2 P X X X X</td>
</tr>
<tr>
<td>OVL J</td>
<td>2 P X X X X X X</td>
</tr>
<tr>
<td>OVL K</td>
<td>2 P X X X X X</td>
</tr>
<tr>
<td>OVL L</td>
<td>2 P X X X X</td>
</tr>
<tr>
<td>OVL M</td>
<td>2 P X X X</td>
</tr>
<tr>
<td>OVL N</td>
<td>2 P X X</td>
</tr>
<tr>
<td>OVL O</td>
<td>2 P X X X X X</td>
</tr>
<tr>
<td>OVL P</td>
<td>2 P X X X X</td>
</tr>
</tbody>
</table>

### OVERLAPS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>OVERLAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>PH 2</td>
</tr>
<tr>
<td>PH 3</td>
<td>PH 4</td>
</tr>
<tr>
<td>PH 5</td>
<td>PH 6</td>
</tr>
<tr>
<td>PH 7</td>
<td>PH 8</td>
</tr>
<tr>
<td>PH 9</td>
<td>PH 10</td>
</tr>
<tr>
<td>PH 11</td>
<td>PH 12</td>
</tr>
<tr>
<td>PH 13</td>
<td>PH 14</td>
</tr>
<tr>
<td>PH 15</td>
<td>PH 16</td>
</tr>
<tr>
<td>PH 17</td>
<td>PH 18</td>
</tr>
</tbody>
</table>

### FLAGS / PARAMS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>FLAGS / PARAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>ENABLE</td>
</tr>
<tr>
<td>PH 2</td>
<td>PED OVERLAP</td>
</tr>
<tr>
<td>PH 3</td>
<td>FLASH YELLOW</td>
</tr>
<tr>
<td>PH 4</td>
<td>ALT FLASH HZ</td>
</tr>
<tr>
<td>PH 5</td>
<td>RECALL PRIMARY</td>
</tr>
<tr>
<td>PH 6</td>
<td>RECALL SEC</td>
</tr>
<tr>
<td>PH 7</td>
<td>PED RECALL</td>
</tr>
<tr>
<td>PH 8</td>
<td>PEND RECYCLE</td>
</tr>
<tr>
<td>PH 9</td>
<td>AUTO EXTEND</td>
</tr>
<tr>
<td>PH 10</td>
<td>MIN GREEN</td>
</tr>
<tr>
<td>PH 11</td>
<td>MAX GREEN</td>
</tr>
<tr>
<td>PH 12</td>
<td>GREEN CLEAR</td>
</tr>
<tr>
<td>PH 13</td>
<td>PED CLEAR</td>
</tr>
<tr>
<td>PH 14</td>
<td>WALK</td>
</tr>
<tr>
<td>PH 15</td>
<td>YEL CLEAR</td>
</tr>
<tr>
<td>PH 16</td>
<td>4 4 4 4 4 4 4 4 4 4 4 4 0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>PH 17</td>
<td>RED CLEAR</td>
</tr>
<tr>
<td>PH 18</td>
<td>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td>
</tr>
</tbody>
</table>

### PRE - EMPT FLAGS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PRE - EMPT FLAGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>ENABLE</td>
</tr>
<tr>
<td>PH 2</td>
<td>NO MEM LOK</td>
</tr>
<tr>
<td>PH 3</td>
<td>MAN ENABLE</td>
</tr>
<tr>
<td>PH 4</td>
<td>STRT PEND CLR</td>
</tr>
<tr>
<td>PH 5</td>
<td>NO OVER FLUSH</td>
</tr>
<tr>
<td>PH 6</td>
<td>ENT 1 PHASE</td>
</tr>
<tr>
<td>PH 7</td>
<td>NO OVER NEXT</td>
</tr>
<tr>
<td>PH 8</td>
<td>ENT 2 PHASE</td>
</tr>
<tr>
<td>PH 9</td>
<td>OMIT IN DELAY</td>
</tr>
<tr>
<td>PH 10</td>
<td>Dwell PHASE</td>
</tr>
<tr>
<td>PH 11</td>
<td>NO OVER MAX</td>
</tr>
<tr>
<td>PH 12</td>
<td>PEND NOT DARK</td>
</tr>
<tr>
<td>PH 13</td>
<td>Dwell PED</td>
</tr>
<tr>
<td>PH 14</td>
<td>MIN PRESENCE</td>
</tr>
<tr>
<td>PH 15</td>
<td>RECALL PHASE</td>
</tr>
<tr>
<td>PH 16</td>
<td>RECALL TUNE</td>
</tr>
<tr>
<td>PH 17</td>
<td>OVERLAP TUNE</td>
</tr>
<tr>
<td>PH 18</td>
<td>EXIT PHASE</td>
</tr>
</tbody>
</table>

### OVERLAP SETTINGS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>OVERLAP SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 2</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 3</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 4</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 5</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 6</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 7</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 8</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 9</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 10</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 11</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 12</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 13</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 14</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 15</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 16</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 17</td>
<td>22 22 22 22 22</td>
</tr>
<tr>
<td>PH 18</td>
<td>22 22 22 22 22</td>
</tr>
</tbody>
</table>

### PHASE DATA TABLE

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE DATA TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>PH 2</td>
</tr>
<tr>
<td>PH 3</td>
<td>PH 4</td>
</tr>
<tr>
<td>PH 5</td>
<td>PH 6</td>
</tr>
<tr>
<td>PH 7</td>
<td>PH 8</td>
</tr>
<tr>
<td>PH 9</td>
<td>PH 10</td>
</tr>
<tr>
<td>PH 11</td>
<td>PH 12</td>
</tr>
<tr>
<td>PH 13</td>
<td>PH 14</td>
</tr>
<tr>
<td>PH 15</td>
<td>PH 16</td>
</tr>
<tr>
<td>PH 16</td>
<td>PH 17</td>
</tr>
<tr>
<td>PH 17</td>
<td>PH 18</td>
</tr>
</tbody>
</table>

### SETTINGS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>STRT MIN GRN</td>
</tr>
<tr>
<td>PH 2</td>
<td>STRT WALK</td>
</tr>
<tr>
<td>PH 3</td>
<td>STRT PEND CLR</td>
</tr>
<tr>
<td>PH 4</td>
<td>ENT 1 PHASE</td>
</tr>
<tr>
<td>PH 5</td>
<td>ENT 2 PHASE</td>
</tr>
<tr>
<td>PH 6</td>
<td>Dwell PHASE</td>
</tr>
<tr>
<td>PH 7</td>
<td>INITIAL Dwell</td>
</tr>
<tr>
<td>PH 8</td>
<td>Dwell PED</td>
</tr>
<tr>
<td>PH 9</td>
<td>RECALL PHASE</td>
</tr>
<tr>
<td>PH 10</td>
<td>OVERLAP PHASE</td>
</tr>
<tr>
<td>PH 11</td>
<td>EXIT PHASE</td>
</tr>
</tbody>
</table>

### PARAMETERS

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PARAMETERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 2</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 3</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 4</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 5</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 6</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 7</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 8</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 9</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 10</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 11</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 12</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 13</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 14</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 15</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 16</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 17</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>PH 18</td>
<td>4 4 4 4 4 4</td>
</tr>
</tbody>
</table>
### PHASE DATA TABLE

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE DATA TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>PH 2</td>
</tr>
<tr>
<td>PH 3</td>
<td>PH 4</td>
</tr>
<tr>
<td>PH 5</td>
<td>PH 6</td>
</tr>
<tr>
<td>PH 7</td>
<td>PH 8</td>
</tr>
<tr>
<td>PH 9</td>
<td>PH 10</td>
</tr>
<tr>
<td>PH 11</td>
<td>PH 12</td>
</tr>
<tr>
<td>PH 13</td>
<td>PH 14</td>
</tr>
<tr>
<td>PH 15</td>
<td>PH 16</td>
</tr>
<tr>
<td>PH 17</td>
<td>PH 18</td>
</tr>
</tbody>
</table>

### PHASE DATA TABLE

<table>
<thead>
<tr>
<th>PHASES</th>
<th>PHASE DATA TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 1</td>
<td>PH 2</td>
</tr>
<tr>
<td>PH 3</td>
<td>PH 4</td>
</tr>
<tr>
<td>PH 5</td>
<td>PH 6</td>
</tr>
<tr>
<td>PH 7</td>
<td>PH 8</td>
</tr>
<tr>
<td>PH 9</td>
<td>PH 10</td>
</tr>
<tr>
<td>PH 11</td>
<td>PH 12</td>
</tr>
<tr>
<td>PH 13</td>
<td>PH 14</td>
</tr>
<tr>
<td>PH 15</td>
<td>PH 16</td>
</tr>
<tr>
<td>PH 17</td>
<td>PH 18</td>
</tr>
</tbody>
</table>

### NOTES:

OLK IS THE E - W PEDS ON THE WEST SERVICE ROAD NORTH SIDE.

OLK IS THE E - W PEDS ON THE EAST SERVICE ROAD SOUTH SIDE.

LS 12

LS 11
APPENDIX C - SYNCHRO OUTPUT

2008 Existing Conditions AM Peak Hour
2008 Existing Conditions PM Peak Hour
Synchro Output - 2008 Existing Conditions AM Peak Hour
### HCM Unsignalized Intersection Capacity Analysis

**1: 7th Street & Loop 1 SBFR**

#### Movement

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th>EBD</th>
<th>TEL</th>
<th>SBD</th>
<th>TEL</th>
<th>NBT</th>
<th>SBD</th>
<th>SBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (veh/h)</td>
<td>161</td>
<td>0</td>
<td>0</td>
<td>429</td>
<td>90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign Control</td>
<td>Free</td>
<td>Free</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.92</td>
<td>0.79</td>
<td>0.92</td>
<td>0.79</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hourly flow rate (vph)</td>
<td>229</td>
<td>0</td>
<td>0</td>
<td>543</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrians</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Width (ft)</td>
<td>8.8</td>
<td>8.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking Speed (ft/s)</td>
<td>3.5</td>
<td>3.3</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Blockage</td>
<td>100</td>
<td>70</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right turn flare (veh)</td>
<td>232</td>
<td>263</td>
<td>406</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median type</td>
<td>If</td>
<td>If</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median storage veh</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Intersection Analysis

| Volume Total | 229 | 217 | 217 | 223 |
| Volume Left | 0 | 0 | 0 | 0 |
| Volume Right | 229 | 0 | 0 | 114 |
| cSH | 763 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.30 | 0.13 | 0.13 | 0.13 |
| Queue Length 95th (ft) | 32 | 0 | 0 | 0 |
| Control Delay (s) | 11.7 | 0 | 0 | 0 |
| Lane LOS | B |
| Approach Delay (s) | 11.7 | 0 |
| Approach LOS | B |

#### Analysis Summary

| Average Delay | 3.0 |
| Intersection Capacity Utilization | 28.2% |
| LGU Level of Service | A |
| Analysis Period (min) | 15 |
### Lane Configurations

<table>
<thead>
<tr>
<th>Volume (vph)</th>
<th>59</th>
<th>204</th>
<th>78</th>
<th>63</th>
<th>145</th>
<th>117</th>
<th>35</th>
<th>272</th>
<th>192</th>
<th>132</th>
<th>301</th>
<th>43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal Flow (vphpl)</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Lane Util. Factor</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Frt</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
<td>0.966</td>
</tr>
<tr>
<td>Frl Prot</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
</tr>
<tr>
<td>Stad. Flow (prot)</td>
<td>0</td>
<td>3388</td>
<td>0</td>
<td>0</td>
<td>3315</td>
<td>0</td>
<td>0</td>
<td>3321</td>
<td>0</td>
<td>0</td>
<td>3441</td>
<td>0</td>
</tr>
<tr>
<td>Frl Permitted</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
<td>0.991</td>
</tr>
<tr>
<td>Stad. Flow (perm)</td>
<td>0</td>
<td>3388</td>
<td>0</td>
<td>0</td>
<td>3315</td>
<td>0</td>
<td>0</td>
<td>3321</td>
<td>0</td>
<td>0</td>
<td>3441</td>
<td>0</td>
</tr>
<tr>
<td>Right Turn on Req</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Stad. Flow (RTOR)</td>
<td>29</td>
<td>75</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>218</td>
<td>2828</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
<td>357</td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>Adj Flow (vph)</td>
<td>66</td>
<td>227</td>
<td>87</td>
<td>70</td>
<td>161</td>
<td>130</td>
<td>39</td>
<td>302</td>
<td>213</td>
<td>147</td>
<td>334</td>
<td>48</td>
</tr>
</tbody>
</table>

### Shared Lane Traffic (%)

| Lane Group Flow (vph) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Left | Right | Left | Left | Left | Left | Left |
| Median Width (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Link Offset (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crosswalk Width (ft) | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

### Two Way Left Turn Lane

| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turn Type | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split |
| Protected Phases | 8 | 8 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Permitted Phases | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Minimum Stop (s) | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 | 37.0 |
| Total Stop (s) | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 | 28.5 |
| Maximum Green (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |

### Lead-Lag Optimizer

| Walk Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Flash Don't Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |
| Pedestrian Calls (hr/hr) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Act Effect Green (s) | 33.0 | 26.0 | 28.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| Adjusted d/C Ratio | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| v/c Ratio | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Control Delay | 39.2 | 40.3 | 36.2 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.2 | 40.3 | 36.2 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 |
| LOS | D | D | D | D | D | D | D | D | D | D | D | D |

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45
%user_name%
## Lanes, Volumes, Timings

### 74: Enfield Road & Exposition Blvd

<table>
<thead>
<tr>
<th>Lane Group</th>
<th>A</th>
<th>A/B</th>
<th>B</th>
<th>B/C</th>
<th>C</th>
<th>C/D</th>
<th>D</th>
<th>D/E</th>
<th>E</th>
<th>E/F</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach Delay</td>
<td>39.2</td>
<td>40.3</td>
<td>54.2</td>
<td>54.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach LOS</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Intersection Summary

- **Area Type:** Other
- **Cycle Length:** 130
- **Actuated Cycle Length:** 130
- **Offset:** 51 (70%); Referenced to phase 2: NBTL, Start of Green
- **Natural Cycle:** 100
- **Control Type:** Precedence
- **Maximum v/c Ratio:** 0.73
- **Intersection Signal Delay:** 48.4
- **Intersection Capacity Utilization:** 61.0%
- **Analysis Period (min):** 15

### Splits and Phases:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Existing 2008 - AM Peak

**7/1/2008 7:45 - 8:45**

%user_name%
# HCM Unsignalized Intersection Capacity Analysis

**69: 7th Street & Lake Austin Blvd**

7/8/2008

<table>
<thead>
<tr>
<th>Movement</th>
<th>N</th>
<th>W</th>
<th>E</th>
<th>S</th>
<th>SE</th>
<th>SW</th>
<th>N</th>
<th>W</th>
<th>E</th>
<th>S</th>
<th>SE</th>
<th>SW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume (veh/h)</strong></td>
<td>0</td>
<td>100</td>
<td>17</td>
<td>929</td>
<td>550</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sign Control</strong></td>
<td>Stop</td>
<td>Free</td>
<td>Free</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Hour Factor</strong></td>
<td>0.92</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hourly flow rate (vph)</strong></td>
<td>0</td>
<td>111</td>
<td>19</td>
<td>1032</td>
<td>611</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pedestrians</strong></td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lane Width (ft)</strong></td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Walking Speed (ft/s)</strong></td>
<td>7.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Percent Blockage</strong></td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Right turn flare (veh)</strong></td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Median type</strong></td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Median storage veh</strong></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Upstream signal (ft)</strong></td>
<td>164</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>pX, platoon unblocked</strong></td>
<td>0.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>vC, conflicting volume</strong></td>
<td>1186</td>
<td>306</td>
<td>611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>vC1, stage 1 conf vol</strong></td>
<td>905</td>
<td>306</td>
<td>611</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>vCu, unblocked vol</strong></td>
<td>6.8</td>
<td>7.0</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>tC, signal (s)</strong></td>
<td>3.5</td>
<td>3.3</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>tC, 2 stage (s)</strong></td>
<td>100</td>
<td>84</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>p0 queue free %</strong></td>
<td>236</td>
<td>587</td>
<td>957</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Direction</strong></td>
<td>N</td>
<td>W</td>
<td>E</td>
<td>S</td>
<td>SE</td>
<td>SW</td>
<td>N</td>
<td>W</td>
<td>E</td>
<td>S</td>
<td>SE</td>
<td>SW</td>
</tr>
<tr>
<td><strong>Volume Total</strong></td>
<td>111</td>
<td>363</td>
<td>688</td>
<td>306</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Volume Left</strong></td>
<td>0</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Volume Right</strong></td>
<td>0</td>
<td>111</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cSH</td>
<td>687</td>
<td>957</td>
<td>1700</td>
<td>1700</td>
<td>1700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Volume to Capacity</strong></td>
<td>0.10</td>
<td>0.02</td>
<td>0.40</td>
<td>0.18</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Queue Length 95th (ft)</strong></td>
<td>14</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control Delay (s)</strong></td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lane LOS</strong></td>
<td>B</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approach Delay (s)</strong></td>
<td>11.2</td>
<td>0.2</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Approach LOS</strong></td>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intersection LOS</strong></td>
<td>0.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intersection Capacity Utilization</strong></td>
<td>4.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ICU Level of Service</strong></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Analysis Period (min)</strong></td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume Configurations</td>
<td>LB.T</td>
<td>EBR</td>
<td>SWO</td>
<td>WBT</td>
<td>EST</td>
<td>SLP</td>
<td>KEB</td>
<td>NCE</td>
<td>NED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume (veh/h)</td>
<td>17</td>
<td>0</td>
<td>41</td>
<td>100</td>
<td>0</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sign Control</th>
<th>Free</th>
<th>Free</th>
<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peak Hour Factor</th>
<th>0.90</th>
<th>0.92</th>
<th>0.90</th>
<th>0.90</th>
<th>0.92</th>
<th>0.90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly flow rate (vph)</td>
<td>19</td>
<td>0</td>
<td>46</td>
<td>111</td>
<td>0</td>
<td>110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pedestrians</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Width (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking Speed (ft/s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Blockage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right turn flare (veh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median type</td>
<td>None</td>
<td></td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median storage veh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream Signal (s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pX, platoon unblocked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VC, conflicting volume</td>
<td>19</td>
<td>221</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vC1, stage 1 conf vol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vC2, stage 2 conf vol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vCu, unblocked vol</td>
<td>19</td>
<td>221</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C, single (s)</td>
<td>4.1</td>
<td>6.4</td>
<td>5.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C, 2 stage (s)</td>
<td>2.2</td>
<td>3.5</td>
<td>3.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p0 queue free %</td>
<td>97</td>
<td>100</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM capacity (veh/h)</td>
<td>1561</td>
<td>743</td>
<td>1056</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Volume Total            | 19   | 157  | 110  |      |      |      |
| Volume Left             | 0    | 46   | 0    |      |      |      |
| Volume Right            | 19   | 111  | 0    |      |      |      |
| cSH                    | 1700 | 1691 | 1056 |      |      |      |
| Volume to Capacity      | 0.01 | 0.03 | 0.10 |      |      |      |
| Queue Length 95th (ft)  | 0    | 2    | 9    |      |      |      |
| Control Delay (s)       | 0.0  | 2.3  | 8.8  |      |      |      |
| Lane LOS                | A    | A    |      |      |      |      |
| Approach Delay (s)      | 0.0  | 2.4  | 8.8  |      |      |      |
| Approach LOS            |      |      |      |      |      |      |
| Intersection Capacity Utilization | 17.9% | ICU Level of Service | A |      |      |      |
| Analysis Period (min)   | 15   |      |      |      |      |      |

Average Delay 4.6
### HCM Unsignalized Intersection Capacity Analysis

#### 72: 7th Steet Spur & Lake Austin Blvd

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th>Volume (veh/h)</th>
<th>Sign Control</th>
<th>Grade</th>
<th>Peak Hour Factor</th>
<th>Hourly Flow Rate (veh)</th>
<th>Pedestrians</th>
<th>Lane Width (ft)</th>
<th>Walking Speed (ft/s)</th>
<th>Percent Blockage</th>
<th>Right turn Flare (veh)</th>
<th>Median Type</th>
<th>Median Storage Veh</th>
<th>Upstream Indicator (ft)</th>
<th>PX, Platoon Unblocked</th>
<th>VC, Conflicting Volume</th>
<th>VC1, Stage 1 Conf Vol</th>
<th>VC2, Stage 2 Conf Vol</th>
<th>VCu, Unblocked Vol</th>
<th>C Single</th>
<th>TC, 2 Stage (s)</th>
<th>F(r)</th>
<th>p0 Queue Free %</th>
<th>CM Capacity (veh/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46</td>
<td>Stop</td>
<td>0%</td>
<td>0.90</td>
<td>1182</td>
<td>361</td>
<td>721</td>
<td></td>
<td></td>
<td></td>
<td>None</td>
<td>None</td>
<td>319</td>
<td>0.90</td>
<td>1182</td>
<td>361</td>
<td>721</td>
<td>978</td>
<td>361</td>
<td>721</td>
<td></td>
<td>3.5</td>
<td>3.3</td>
</tr>
</tbody>
</table>

#### Traffic Analysis Results

<table>
<thead>
<tr>
<th>Volume (Total)</th>
<th>Volume (Left)</th>
<th>Volume (Right)</th>
<th>cSH</th>
<th>Volume to Capacity</th>
<th>Queue Length 95th (ft)</th>
<th>Control Delay (s)</th>
<th>Lane LOS</th>
<th>Approach Delay (s)</th>
<th>Approach LOS</th>
<th>Average Delay</th>
<th>Intersection Capacity Utilization</th>
<th>CU Level of Service</th>
<th>Analysis Period (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>0</td>
<td>0</td>
<td>221</td>
<td>0.21</td>
<td>0.24</td>
<td>25.5</td>
<td>D</td>
<td>25.5</td>
<td>D</td>
<td>0.6</td>
<td>35.7%</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

*Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45*  
%user_name%
<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (veh/h)</td>
<td>182</td>
<td>7</td>
<td>45</td>
<td>271</td>
</tr>
<tr>
<td>Sign Control</td>
<td>Stop</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Hourly flow rate (vph)</td>
<td>194</td>
<td>7</td>
<td>48</td>
<td>288</td>
</tr>
<tr>
<td>Pedestrians</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Width (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking Speed (ft/s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Blockage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right turn flare (veh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median type (veh)</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median storage veh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream signal (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pX, platoon unblocked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vC1, stage 1 conf vol</td>
<td>121</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>vC2, stage 2 conf vol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vCu, unblocked vol</td>
<td>121</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>IC, single (s)</td>
<td>6.4</td>
<td>6.2</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>IC, 2 stage (s)</td>
<td>3.5</td>
<td>3.3</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>p0 queue free %</td>
<td>76</td>
<td>99</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>SM capacity (veh/h)</td>
<td>872</td>
<td>1024</td>
<td>1566</td>
<td></td>
</tr>
</tbody>
</table>

**Directional Flow**

| Volume Left                  | 194   | 0     | 0     | 7     |
| Volume Right                 |       |       |       |       |
| cSH                          | 877   | 1700  | 1700  | 1566  |
| Maximum Capacity (veh/h)     | 0.23  | 0.09  | 0.17  | 0.20  |
| Queue Length 95th (ft)       | 22    | 0     | 0     | 0     |
| Control Delay (s)            | 10.3  | 0.0   | 0.0   | 0.5   |
| Lane LOS                     | B     | A     |       |       |
| Approach Delay (s)           | 10.3  | 0.0   | 0.0   | 0.3   |
| Approach LOS                 | B     |       |       |       |

**Performance Measures**

<p>| Average Delay                | 3.5   |       |       |       |
| Intersection Capacity Utilization | 26.6% | ICU Level of Service | A |
| Analysis Period (min)        | 15    |       |       |       |</p>
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume (vph)</strong></td>
<td>207</td>
<td>90</td>
<td>235</td>
<td>642</td>
<td>400</td>
</tr>
<tr>
<td><strong>Ideal Flow (vph/plt)</strong></td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td><strong>Storage Length (ft)</strong></td>
<td>0</td>
<td>180</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Storage Lanes</strong></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Taper Length (ft)</strong></td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td><strong>Lane Util. Factor</strong></td>
<td>1.00</td>
<td>1.00</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Link Length (ft)</strong></td>
<td>850</td>
<td>850</td>
<td>850</td>
<td>850</td>
<td>850</td>
</tr>
<tr>
<td><strong>Right Turn on Red</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Link Speed (mph)</strong></td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td><strong>Link Distance (ft)</strong></td>
<td>2718</td>
<td>3614</td>
<td>164</td>
<td>164</td>
<td>164</td>
</tr>
<tr>
<td><strong>Travel Time (s)</strong></td>
<td>52.9</td>
<td>70.4</td>
<td>3.2</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Peak Hour Factor</strong></td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>Adj. Flow (vph)</strong></td>
<td>220</td>
<td>96</td>
<td>251</td>
<td>683</td>
<td>426</td>
</tr>
<tr>
<td><strong>Shared Lane Traffic (%)</strong></td>
<td>220</td>
<td>96</td>
<td>0</td>
<td>934</td>
<td>639</td>
</tr>
<tr>
<td><strong>Enter Blocked Intersection</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Lane Alignment</strong></td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td><strong>Median Width (ft)</strong></td>
<td>12</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Link Offset (ft)</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Crosswalk Width (ft)</strong></td>
<td>16</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Two way Left Turn Lane</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Headway Factor</strong></td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Turning Speed (mph)</strong></td>
<td>15</td>
<td>9</td>
<td>15</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td><strong>Turn Type</strong></td>
<td>Perm</td>
<td>Perm</td>
<td>Perm</td>
<td>Perm</td>
<td>Perm</td>
</tr>
<tr>
<td><strong>Protected Phases</strong></td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Permitted Phases</strong></td>
<td>23.0</td>
<td>23.0</td>
<td>8.0</td>
<td>23.0</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Minimum Split (s)</strong></td>
<td>23.0</td>
<td>23.0</td>
<td>16.0</td>
<td>23.0</td>
<td>23.0</td>
</tr>
<tr>
<td><strong>Total Split (s)</strong></td>
<td>35.4%</td>
<td>35.4%</td>
<td>24.6%</td>
<td>64.8%</td>
<td>40.0%</td>
</tr>
<tr>
<td><strong>Maximum Green (s)</strong></td>
<td>18.0</td>
<td>18.0</td>
<td>11.0</td>
<td>37.0</td>
<td>21.0</td>
</tr>
<tr>
<td><strong>Yellow Time (s)</strong></td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>All Red Time (s)</strong></td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Lost Time Adjust (s)</strong></td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
</tr>
<tr>
<td><strong>Total Lost Time (s)</strong></td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Lead/Lag</strong></td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td><strong>Lead/Lag Optimize?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Walk Time (s)</strong></td>
<td>5.0</td>
<td>5.0</td>
<td>6.0</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td><strong>First Don't Walk (s)</strong></td>
<td>13.0</td>
<td>13.0</td>
<td>12.0</td>
<td>16.0</td>
<td></td>
</tr>
<tr>
<td><strong>Pedestrian Calls (#/hr)</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Act. Eff. Green (s)</strong></td>
<td>190.0</td>
<td>190.0</td>
<td>190.0</td>
<td>190.0</td>
<td>190.0</td>
</tr>
<tr>
<td><strong>Actuated g/C Ratio</strong></td>
<td>0.28</td>
<td>0.28</td>
<td>0.58</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td><strong>V/C Ratio</strong></td>
<td>0.43</td>
<td>0.18</td>
<td>0.64</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td><strong>Control Delay</strong></td>
<td>21.2</td>
<td>6.7</td>
<td>10.1</td>
<td>14.9</td>
<td></td>
</tr>
</tbody>
</table>
### Intersection Summary: 67: Exposition Blvd & Lake Austin Blvd

**Cycle Length:** 65

**Actuated Cycle Length:** 65

**Offset:** 11 (17%), Referenced to phase 2:NWT and 6:SETL, Start of Green

**Control Type:** Prelimed

**Maximum V/C Ratio:** 0.64

**Intersection Signal Delay:** 12.8

**Intersection Capacity Utilization:** 83.5%

**ICU Level of Service:** B

**Analysis Period (min):** 15

**Splits and Phases:**

- Phase A
- Phase B
- Phase C
- Phase D
- Phase E
- Phase F

---

**Queue Delay:**

- Phase A: 0.0
- Phase B: 0.0
- Phase C: 0.0
- Phase D: 0.0

**Total Delay:**

- Phase A: 21.2
- Phase B: 6.7
- Phase C: 10.1
- Phase D: 14.9

**Approach Delay:**

- Phase A: 16.8
- Phase B: 10.1
- Phase C: 14.9

---

**Existing 2008 - AM Peak:** 7/1/2008 7:45 - 8:45

%user_name%
## Lanes, Volumes, Timings

**24: Lake Austin Blvd & Loop 1 SBFR**

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th>Left</th>
<th>Right</th>
<th>Center</th>
<th>Median</th>
<th>Shoulder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Volume (vph)</strong></td>
<td>693</td>
<td>223</td>
<td>356</td>
<td>654</td>
<td>288</td>
</tr>
<tr>
<td><strong>Ideal Flow (vph)</strong></td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td><strong>Storage Length (ft)</strong></td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td><strong>Storage Lanes</strong></td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Taper Length (ft)</strong></td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td><strong>Lane Util. Factor</strong></td>
<td>0.88</td>
<td>1.00</td>
<td>1.00</td>
<td>0.95</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Flt Protected</strong></td>
<td>0.850</td>
<td>0.950</td>
<td></td>
<td>0.950</td>
<td></td>
</tr>
<tr>
<td><strong>Satd. Flow (proj)</strong></td>
<td>2787</td>
<td>0</td>
<td>1770</td>
<td>3539</td>
<td>1770</td>
</tr>
<tr>
<td><strong>Flt Permitted</strong></td>
<td>0.950</td>
<td>0.950</td>
<td></td>
<td>0.950</td>
<td></td>
</tr>
<tr>
<td><strong>Satd. Flow (perm)</strong></td>
<td>2787</td>
<td>0</td>
<td>1770</td>
<td>3539</td>
<td>1770</td>
</tr>
<tr>
<td><strong>Right Turn on Red</strong></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Satd. Flow (RTOR)</strong></td>
<td>42</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Link Speed (mph)</strong></td>
<td>35</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Link Distance (ft)</strong></td>
<td>249</td>
<td>882</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Travel Time (s)</strong></td>
<td>4.8</td>
<td>17.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Hour Factor</strong></td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>Adj. Flow (vph)</strong></td>
<td>770</td>
<td>248</td>
<td>396</td>
<td>727</td>
<td>298</td>
</tr>
<tr>
<td><strong>Shared Lane Traffic (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lane Group Flow (vph)</strong></td>
<td>1018</td>
<td>0</td>
<td>396</td>
<td>727</td>
<td>298</td>
</tr>
<tr>
<td><strong>Enter Blocked Intersection</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Lane Alignment</strong></td>
<td>Right</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td><strong>Median Width (ft)</strong></td>
<td>12</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Link Offset(ft)</strong></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crosswalk Width(ft)</strong></td>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Two way Left Turn Lane

| **Headway Factor** | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| **Turning Speed (mph)** | 35   | 9    | 15   | 15   | 9    |      |      |
| **Turn Time** | custom | custom | Perm | custom | custom | Perm | custom |
| **Protected Phases** | 2    | 13   | 56   | 4     | 1    | 3    | 5    |
| **Permitted Phases** | 2    | 5    | 5    | 4     | 1    | 3    | 5    |
| **Minimum Split (s)** | 20.0 | 28.0 | 28.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| **Total Split (s)** | 30.0 | 0.0  | 34.0 | 54.0 | 26.0 | 26.0 | 26.0 |
| **Total Split (%)** | 33.33 | 0.0% | 37.8% | 71.1% | 28.9% | 28.9% | 0.0% |
| **Maximum Green (s)** | 24.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| **Yellow Time (s)** | 5.0  |      | 5.0  |      | 5.0  |      | 5.0  |
| **All Red Time (s)** | 1.0  |      | 1.0  |      | 1.0  |      | 1.0  |
| **Lost Time Adjust (s)** | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 |
| **Total Lost Time (s)** | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |
| **Lead/Lag** | Lag  | Lead | 0     | 0     | 0     | 0     | 0     |
| **Lead Lag Optimize** | Yes | Yes  | 0     | 0     | 0     | 0     | 0     |
| **Walk Time (s)** | 5.0  | 5.0  | 5.0  | 5.0  | 5.0  | 5.0  | 5.0  |
| **Flash Don't Walk (s)** | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 | 15.0 |
| **Pedestrian Calls (#/hr)** | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| **Act Eff Green/s** | 24.0 | 60.0 | 60.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| **Actuated g/C Ratio** | 0.29 | 0.67 | 0.67 | 0.24 | 0.24 | 0.24 | 0.24 |
| **WC Ratio** | 0.22 | 0.34 | 0.31 | 0.69 | 0.40 | 0.40 | 0.40 |
| **Control Delay** | 138.9 | 7.4 | 6.7 | 40.4 | 18.1 |

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45

%user_name%

Synchro 7 - Report

Page 1
Lanes, Volumes, Timings
24: Lake Austin Blvd & Loop 1 SBFR 7/8/2008

<table>
<thead>
<tr>
<th>Lane Length</th>
<th>0.0</th>
<th>0.0</th>
<th>0.0</th>
<th>0.0</th>
<th>0.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queued Delay</td>
<td>0.0</td>
<td>4.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Delay</td>
<td>138.9</td>
<td>7.4</td>
<td>6.7</td>
<td>40.4</td>
<td>18.1</td>
</tr>
<tr>
<td>LOS</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Approach Delay</td>
<td>6.9</td>
<td>28.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach LOS</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Intersection Summary

Area Type | Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (16%), Referenced to phase 2.EBR and 6.WBTL, Start of Green
Natural Cycle: 90
Control Type: Pre timed
Maximum V/C Ratio: 2.22
Intersection Signal Delay: 59.8
Intersection LOS: E
Intersection Capacity Utilization: 76.6%
ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 24: Lake Austin Blvd & Loop 1 SBFR

existing 2008 - AM Peak 7/1/2008 7:45 - 8:45
%user_name%

Synchro 7 - Report Page 2
<table>
<thead>
<tr>
<th>Lane Configuration</th>
<th>N</th>
<th>E</th>
<th>S</th>
<th>W</th>
<th>NET</th>
<th>NBT</th>
<th>SBT</th>
<th>NBS</th>
<th>WBT</th>
<th>SBS</th>
<th>NBSBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
<td>292</td>
<td>593</td>
<td>260</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
</tr>
<tr>
<td>Ideal Flow (vph)</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Storage Length (ft)</td>
<td>0</td>
<td>130</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storage Lanes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lane Util. Factor</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Fit Protected</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
</tr>
<tr>
<td>Sattd. Flow (prot)</td>
<td>1787</td>
<td>1599</td>
<td>1787</td>
<td>1811</td>
<td>1716</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fit Permitted</td>
<td>0.950</td>
<td>0.338</td>
<td>0.950</td>
<td>0.338</td>
<td>0.950</td>
<td>0.338</td>
<td>0.950</td>
<td>0.338</td>
<td>0.950</td>
<td>0.338</td>
<td>0.950</td>
</tr>
<tr>
<td>Sattd. Flow (perm)</td>
<td>1787</td>
<td>1599</td>
<td>1787</td>
<td>1811</td>
<td>1716</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Right Turn on Red</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sattd. Flow (K/TOR)</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
<td>144</td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>37.3</td>
<td>70.4</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Peak Flow Factor</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Heavy Vehicles (%)</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Shared Lane Traffic (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Group Flow (vph)</td>
<td>307</td>
<td>624</td>
<td>295</td>
<td>167</td>
<td>295</td>
<td>167</td>
<td>295</td>
<td>167</td>
<td>295</td>
<td>167</td>
<td>295</td>
</tr>
<tr>
<td>Enter Blocked Intersection</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lane Alignment</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
</tr>
<tr>
<td>Median Width(ft)</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Link Crossfall(ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crosswalk Width(ft)</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Two-Way Left/Turn Lane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headway Factor</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Turning Speed (mph)</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Number of Detectors</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Detector Template</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td>Leading Detector(ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Trailing Detector(ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 1 Position(ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 1 Size(ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Detector 1 Type</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
</tr>
<tr>
<td>Detector 2 Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detector 1 Extend(s)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Detector 2 Queue(s)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Detector 1 Delay(s)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Detector 2 Position(ft)</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
<td>944</td>
</tr>
<tr>
<td>Detector 2 Size(ft)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Detector 2 Type</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
<td>CH+Ex</td>
</tr>
<tr>
<td>Detector 2 Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn Type</td>
<td>Perm</td>
<td>pm+pt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protected Phases</td>
<td>24</td>
<td>25</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Permitted Phases</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45
%user_name%

Synchro 7 - Report
Page 10
## Data Collection

<table>
<thead>
<tr>
<th>Detector Phase</th>
<th>4</th>
<th>5</th>
<th>2</th>
<th>6</th>
</tr>
</thead>
</table>

### Switch Phase

<table>
<thead>
<tr>
<th>Minimum Initial (s)</th>
<th>4.0</th>
<th>4.0</th>
<th>4.0</th>
<th>4.0</th>
<th>4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Split (s)</td>
<td>21.0</td>
<td>21.0</td>
<td>9.0</td>
<td>21.0</td>
<td>21.0</td>
</tr>
<tr>
<td>Total Split (s)</td>
<td>28.0</td>
<td>28.0</td>
<td>15.0</td>
<td>37.0</td>
<td>22.0</td>
</tr>
</tbody>
</table>
| Total Split (%)     | 33.31| 33.31| 23.1%| 56.9%| 33.8%| 0.0%
| Maximum Green (s)   | 23.0| 23.0| 10.0| 32.0| 17.0|
| Yellow Time (s)     | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s)    | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s)| -1.0| -1.0| -1.0| -1.0| -1.0| 0.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag            | Yes | Yes | Yes | Yes | Yes |
| Lead/Lag Optimize   | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s)| 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode         | None| None| None| None| None |
| Walk Time (s)       | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Flash/Off Walk (s)  | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Pedestrian Calls (#/hr)| 0 | 0 | 0 | 0 | 0 |
| Act. Eff. Green (s) | 15.6| 15.6| 25.3| 25.3| 10.3|
| Actuated g/C Ratio  | 0.32| 0.32| 0.51| 0.51| 0.21|
| IC Ratio            | 0.54| 0.67| 0.67| 0.67| 0.67|
| Control Delay       | 18.2| 5.6 | 11.3| 8.0 | 13.5|
| Queue Delay         | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay         | 18.2| 5.6 | 11.3| 8.0 | 13.5|
| LOS                 | B   | A   | B   | A   | B   |
| Approach Delay      | 9.7 | 10.1| 13.5| 13.5| 13.5|
| Approach LOS        | B   | A   | B   | A   | B   |

### Additional Information

- **Area Type**: Other
- **Cycle Length**: 65
- **Actuated Cycle Length**: 49.2
- **Natural Cycle**: 55
- **Control Type**: Actuated-Uncoordinated
- **Maximum v/c Ratio**: 0.67
- **Intersection Signal Delay**: 10.4
- **Intersection LOS**: B
- **Intersection Capacity Utilization**: 57.6%
- **ICU Level of Service**: B

### Analysis Period

<table>
<thead>
<tr>
<th>66: Red Bud Trail &amp; Lake Austin Blvd</th>
</tr>
</thead>
</table>

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45

%user_name%
<table>
<thead>
<tr>
<th>Lanes, Volumes, Timings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>59: Enfield Road &amp; Loop 1 NBFR</strong></td>
</tr>
<tr>
<td><strong>7/8/2008</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lane Configurations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
</tr>
<tr>
<td>232 1255 0 0 396 174 11 75 672</td>
</tr>
<tr>
<td>Ideal Flow (vph/ft)</td>
</tr>
<tr>
<td>1900 1900 1900 1900 1900 1900 1900 1900 1900 1900</td>
</tr>
<tr>
<td>Lane Util Factor</td>
</tr>
<tr>
<td>0.95 0.95 1.00 1.00 0.95 0.95 1.00 1.00 1.00 1.00</td>
</tr>
<tr>
<td>Frt</td>
</tr>
<tr>
<td>0.954 0.850</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protected</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.992</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Satd. Flow (prot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 3511 0 0 3376 0 1770 1863 2787 0 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Satd. Flow (perm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1954 0 0 3376 0 1770 1863 2787 0 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Right Turn on Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes  Yes  Yes</td>
</tr>
<tr>
<td>Satd. Flow (RTOR)</td>
</tr>
<tr>
<td>49 190</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Link Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 30 25 25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Link Distance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>480 411 383 103</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Travel Time(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>195 98 103 23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peak Hour Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.92 0.92 0.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adj Flow (vph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>237 1282 0 0 404 178 112 77 886 0 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shared Lane Traffic (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Group Flow (vph)</td>
</tr>
<tr>
<td>0 1515 0 0 692 0 112 77 688 0 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enter Blocked Intersection</th>
</tr>
</thead>
<tbody>
<tr>
<td>No  No  No  No  No  No  No  No  No  No  No  No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lane Alignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left  Right  Left  Right  Left  Right  Left  Right  Left  Right</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median Width(ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0 12 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Link Offset (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 0 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crosswalk Width(ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 16 16 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two way Left Turn Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headway Factor</td>
</tr>
<tr>
<td>1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turning Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 19 15 19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turn Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prot  Perm  Perm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protected Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 6 6 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permitted Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 8 8 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Split (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Split (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62.0 94.0 0.0 0.0 32.0 0.0 36.0 36.0 36.0 0.0 0.0 0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Green (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.0 72.3 0.0 0.0 24.8 0.0 27.3 27.3 27.3 0.0 0.0 0.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yellow Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All-Red Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lost Time Adjust (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 4.0 4.0 4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Lost Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 4.0 4.0 4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead-Lag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead-Lag Optimize?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Act. EC (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>85.0 88.0 32.0 32.0 32.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuated g/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.86 0.22 0.25 0.25 0.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>V/C Ratio (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.79 0.76 0.76</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Control Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.9 51.0 41.4 39.8 42.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Queue Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5 51.0 41.4 39.8 42.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5 51.0 41.4 39.8 42.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A A A A A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approach Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5 51.0 42.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approach LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A D D D D</td>
</tr>
</tbody>
</table>

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45 Synchro 7 - Report Page 6
### Intersection Summary

**Area Type**: Other  
**Cycle Length**: 130  
**Actuated Cycle Length**: 130  
**Offset**: 18 (14%), Referenced to phase 1:WBTL and 6, Start of Green  
**Natural Cycle**: 95  
**Control Type**: Pre-timed  
**Maximum V/C Ratio**: 1:11  
**Intersection Signal Delay**: 26.8  
**Intersection LOS**: C  
**Intersection Capacity Utilization**: 74.1%  
**ICU Level of Service**: D  
**Analysis Period (min)**: 15  

### Splits and Phases

<table>
<thead>
<tr>
<th>Lane</th>
<th>Splits</th>
<th>Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>#42</td>
<td>a2</td>
<td>a4</td>
</tr>
<tr>
<td></td>
<td>H59</td>
<td>H53</td>
</tr>
<tr>
<td></td>
<td>a18</td>
<td>a5</td>
</tr>
<tr>
<td>#42</td>
<td>a12</td>
<td>a1</td>
</tr>
<tr>
<td></td>
<td>H59</td>
<td>H53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a6</td>
</tr>
<tr>
<td>#59</td>
<td></td>
<td>a8</td>
</tr>
<tr>
<td></td>
<td>Left</td>
<td>Center</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Lanes</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Volume (vph)</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Ideal Flow (vphp)</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Lane Util Factor</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Frt</td>
<td>0.97</td>
<td>0.97</td>
</tr>
<tr>
<td>Fit Protected</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Satd. Flow (prot)</td>
<td>3481</td>
<td>3481</td>
</tr>
<tr>
<td>Fit permitted</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Satd. Flow (perm)</td>
<td>3481</td>
<td>3481</td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>480</td>
<td>480</td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>1352</td>
<td>1352</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Heavy Vehicles (%)</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Adj. Flow (vph)</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>Shared Lane Traffic (%)</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Lane Group Flow (vph)</td>
<td>964</td>
<td>964</td>
</tr>
<tr>
<td>Enter Blocked Intersection</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lane Alignment</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td>Median Width(ft)</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Link Offset(ft)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crosswalk Width(ft)</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Headway Factor</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Turning Speed (mph)</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Turn Type</td>
<td>Prot</td>
<td>Prot</td>
</tr>
<tr>
<td>Protected Phases</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Permitted Phases</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Minimum Split (s)</td>
<td>45.0</td>
<td>45.0</td>
</tr>
<tr>
<td>Total Split (s)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Split (%)</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Maximum Green (s)</td>
<td>43.0</td>
<td>43.0</td>
</tr>
<tr>
<td>Yellow Time (s)</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>All Red Time(s)</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Lost Time Adjust (s)</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Lost Time (s)</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Lead/Lag</td>
<td>Lead</td>
<td>Lag</td>
</tr>
<tr>
<td>Lead/Lag Optimizer</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Act Eflct Green (s)</td>
<td>87.0</td>
<td>87.0</td>
</tr>
<tr>
<td>Actuated C/Ratio</td>
<td>0.32</td>
<td>0.32</td>
</tr>
<tr>
<td>W/C Ratio</td>
<td>0.36</td>
<td>0.36</td>
</tr>
<tr>
<td>Control Delay</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Queue Delay</td>
<td>1.11</td>
<td>1.11</td>
</tr>
<tr>
<td>Total Delay</td>
<td>115.8</td>
<td>115.8</td>
</tr>
<tr>
<td>LOS</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Approach Delay</td>
<td>71.8</td>
<td>71.8</td>
</tr>
<tr>
<td>Approach LOS</td>
<td>F</td>
<td>F</td>
</tr>
</tbody>
</table>
Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 18 (14%), referenced to phase 1 WBTL and 6 Start of Green
Natural Cycle: 95
Control Type: Pre-timed
Maximum V/C Ratio: 1.11
Intersection Signal Delay: 69.1
Intersection Capacity Utilization: 78.8%
ICU Level of Service: D
Analysis Period (min): 15

Splits and Phases: 42: Enfield Road & Loop 1 SBFR

Existing 2008 - AM Peak 7/1/2008 7:45 - 8:45
%user_name%

Synchro 7 - Report
Page 5
## HCM Unsignalized Intersection Capacity Analysis
### 82: Bonnie Road & Scenic Drive

### Movement

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th>Left</th>
<th>Right</th>
<th>Median</th>
<th>Bus</th>
<th>Pedestrians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (veh/h)</td>
<td>75</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sign Control</td>
<td>Stop</td>
<td>Stop</td>
<td>Free</td>
<td>Free</td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.50</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>Hourly Flow Rate (vph)</td>
<td>0</td>
<td>0</td>
<td>66</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pedestrians</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Lane Width (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking Speed (ft/s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Blockage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right turn flare (veh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Type</td>
<td>None</td>
<td></td>
<td>None</td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Median storage veh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream signal (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pX, platoon unblocked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vC1, stage 1 conf vol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vC2, stage 2 conf vol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vCu, unblocked vol</td>
<td>78</td>
<td>64</td>
<td>64</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>p0 queue free %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>93</td>
<td>99</td>
</tr>
<tr>
<td>cSH</td>
<td>390</td>
<td>506</td>
<td>187</td>
<td>920</td>
<td>816</td>
</tr>
<tr>
<td>Volume Total</td>
<td>0</td>
<td>79</td>
<td>33</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Volume Left</td>
<td>0</td>
<td>66</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Volume Right</td>
<td>79</td>
<td>0</td>
<td>33</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Volume Capacities</td>
<td>1700</td>
<td>938</td>
<td>1565</td>
<td>1559</td>
<td></td>
</tr>
<tr>
<td>Queue Length (ft)</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Control Delay (s)</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Lane LOS</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach Delay (s)</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Approach LOS</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Delay</td>
<td>5.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intersection Capacity Utilization</td>
<td>66.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICU Level of Service</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis Period (min)</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Existing 2008 - AM Peak
7/1/2008 7:45 - 8:45
%user_name%
## Lane Configurations

<table>
<thead>
<tr>
<th>Sign Control</th>
<th>Stop</th>
<th>Stop</th>
<th>Stop</th>
<th>Stop</th>
<th>Stop</th>
<th>Stop</th>
<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
<td>5</td>
<td>109</td>
<td>20</td>
<td>193</td>
<td>38</td>
<td>174</td>
<td>11</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Hourly Flow Rate (vph)</td>
<td>5</td>
<td>116</td>
<td>21</td>
<td>205</td>
<td>40</td>
<td>185</td>
<td>12</td>
</tr>
</tbody>
</table>

## Volume Analysis

| Volume Total (vph) | 143 | 205 | 226 | 534 | 399 | 310 |
| Volume Left (vph)  | 5   | 205 | 0   | 0   | 405 | 0   |
| Volume Right (vph) |     |     | 185 | 405 | 0   | 4   |
| Exit (s)           | 0.05 | 0.63 | 0.54 | 0.42 | 0.53 | 0.02 |
| Departure Headway (s) | 6.2 | 8.9 | 7.8 | 7.5 | 8.3 | 7.8 |
| Degree Utilization | 0.36 | 0.51 | 0.49 | 0.41 | 0.92 | 0.67 |
| Capacity (veh/h)   | 367 | 397 | 453 | 482 | 425 | 453 |
| Control Delay (s)  | 17.3 | 18.4 | 16.8 | 102.6 | 52.8 | 23.8 |
| Approach Delay (s) | 17.3 | 18.0 | 102.6 | 40.1 |

## HCM Unsignalized Intersection Capacity Analysis

| Analysis Period (min) | 15 |

| Delay | 0.45 |
| HCM Level of Service | F |
| Intersection Capacity Utilization | 83.9% |
| CU Level of Service | E |
Synchro Output – 2008 Existing Conditions PM Peak Hour
### Lane Configurations

<table>
<thead>
<tr>
<th>Volume (veh/h)</th>
<th>Sign Control</th>
<th>Grade</th>
<th>Peak Hour Factor</th>
<th>Hourly Flow Rate (vph)</th>
<th>Pedestrians</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stop</td>
<td>0%</td>
<td>0.91</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Free</td>
<td>0%</td>
<td>0.91</td>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Free</td>
<td>0%</td>
<td>0.91</td>
<td>0</td>
<td>Free</td>
</tr>
<tr>
<td></td>
<td>Free</td>
<td>0%</td>
<td>0.91</td>
<td>0</td>
<td>Free</td>
</tr>
<tr>
<td></td>
<td>Free</td>
<td>0%</td>
<td>0.91</td>
<td>0</td>
<td>Free</td>
</tr>
</tbody>
</table>

### Percent Blockage

- Right turn flare (veh): None

### Median Storage (veh)

- Upstream signal (ft): 882

### Traffic Volume

<table>
<thead>
<tr>
<th>VC1, stage 1 conf vol</th>
<th>VC2, stage 2 conf vol</th>
<th>vC2, unblocked vol</th>
</tr>
</thead>
<tbody>
<tr>
<td>557</td>
<td>204</td>
<td>565</td>
</tr>
</tbody>
</table>

### Traffic Flow

<table>
<thead>
<tr>
<th>LC, Single (s)</th>
<th>LC, 2 stage (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.8</td>
<td>10.7</td>
</tr>
</tbody>
</table>

### Traffic Volume

<table>
<thead>
<tr>
<th>Volume</th>
<th>Left</th>
<th>Right</th>
<th>cSH</th>
<th>Volume to Capacity</th>
<th>Queue Length 99th (ft)</th>
<th>Control Delay (s)</th>
<th>Lane LOS</th>
<th>Approach Delay (s)</th>
<th>Approach LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>111</td>
<td>0</td>
<td>0</td>
<td>805</td>
<td>0.12</td>
<td>0</td>
<td>0.0</td>
<td>B</td>
<td>0.0</td>
<td>B</td>
</tr>
</tbody>
</table>

### Traffic Volume

- Average Delay: 1.6
- Intersection Capacity Utilization: 23.3%
- CU Level of Service: A
- Analysis Period (min): 15
### Lanes, Volumes, Timings

**74: Enfield Road & Exposition Blvd**

<table>
<thead>
<tr>
<th>Lane Configurations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
</tr>
<tr>
<td>Ideal Flow (vphpl)</td>
</tr>
<tr>
<td>Lane Util Factor</td>
</tr>
<tr>
<td>Frt</td>
</tr>
<tr>
<td>Veh Protected</td>
</tr>
<tr>
<td>Sadt. Flow (prot)</td>
</tr>
<tr>
<td>Filt. Permitted</td>
</tr>
<tr>
<td>Sadt. Flow (perm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Right Turn On Red</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sadt. Flow (RTOR)</td>
<td>29</td>
<td>135</td>
<td>18</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>30</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>218</td>
<td>2828</td>
<td>357</td>
<td>551</td>
<td></td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>5.0</td>
<td>6.43</td>
<td>7.8</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>Heavy Veh. (%)</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Adj. Flow (vph)</td>
<td>78</td>
<td>233</td>
<td>100</td>
<td>116</td>
<td>181</td>
</tr>
<tr>
<td>Shared Lane Traffic (%)</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Group Flow (vph)</td>
<td>411</td>
<td>0</td>
<td>523</td>
<td>0</td>
<td>756</td>
</tr>
<tr>
<td>Ect. Block. Intersec</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lane Alignment</td>
<td>Left</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td>Median Width (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Link Offset (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crosswalk Width (ft)</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Two way Left Turn Lane

| Headway Factor (s) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | 9 | 15 | 9 | 15 | 9 | 15 | 9 | 15 | 9 | 15 | 9 |
| Turn Type          | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split | Split |
| Protected Phases   | 8 | 8 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Permitted Phases   | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Minimum Split (s)  | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s)    | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (%)    | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% | 20.8% |
| Maximum Green (s)  | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| Yellow Time (s)    | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All Red Time (s)   | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | 0.0 | -1.0 | -1.0 | 0.0 | -1.0 | -1.0 | 0.0 | -1.0 | -1.0 | 0.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |

### Lead/Lag

<table>
<thead>
<tr>
<th>Lead/Lag Criterize?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk Time (s)</td>
</tr>
<tr>
<td>Flash Don't Walk (s)</td>
</tr>
<tr>
<td>Pedestrian Calls (#hr)</td>
</tr>
<tr>
<td>Act. Effect Green(s)</td>
</tr>
<tr>
<td>Actuated g/C Ratio</td>
</tr>
<tr>
<td>V/C Ratio</td>
</tr>
<tr>
<td>Control Delay</td>
</tr>
<tr>
<td>Queue Delay</td>
</tr>
<tr>
<td>Total Delay</td>
</tr>
</tbody>
</table>

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name% Synchro 7 - Report
Page 13
LANES, VOLUMES, TIMINGS
74: ENFIELD ROAD & EXPOSITION BLVD

<table>
<thead>
<tr>
<th>Lane</th>
<th>LOS</th>
<th>E</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.8</td>
<td>29.9</td>
<td>55.0</td>
<td>63.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lane</th>
<th>LOS</th>
<th>E</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.8</td>
<td>29.9</td>
<td>55.0</td>
<td>63.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area Type</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Length: 130</td>
<td></td>
</tr>
<tr>
<td>Actuated Cycle Length: 130</td>
<td></td>
</tr>
<tr>
<td>Offset: 120 (92%), Referenced to phase 2: NBTL, Start of Green</td>
<td></td>
</tr>
<tr>
<td>Natural Cycle: 100</td>
<td></td>
</tr>
<tr>
<td>Control Type: Pretimed</td>
<td></td>
</tr>
<tr>
<td>Maximum v/c Ratio: 0.90</td>
<td></td>
</tr>
<tr>
<td>Intersection Signal Delay: 51.6</td>
<td></td>
</tr>
<tr>
<td>Intersection Capacity Utilization: 80.5%</td>
<td></td>
</tr>
<tr>
<td>ICU Level of Service D</td>
<td></td>
</tr>
<tr>
<td>Analysis Period (min) 15</td>
<td></td>
</tr>
</tbody>
</table>

Splits and Phases: 74: ENFIELD ROAD & EXPOSITION BLVD

<table>
<thead>
<tr>
<th>Lane</th>
<th>a2</th>
<th>a4</th>
<th>a6</th>
<th>a8</th>
</tr>
</thead>
</table>

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00
%user_name%
## HCM Unsignalized Intersection Capacity Analysis

### 69: 7th Street & Lake Austin Blvd

### Lane Configurations

<table>
<thead>
<tr>
<th>Lane</th>
<th>N.W.</th>
<th>N.E.</th>
<th>S.E.</th>
<th>S.W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (veh/h)</td>
<td>0</td>
<td>76</td>
<td>33</td>
<td>876</td>
</tr>
<tr>
<td>Volume (veh/h)</td>
<td>0</td>
<td>993</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Sign Control

<table>
<thead>
<tr>
<th>Type</th>
<th>Free</th>
<th>Free</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Peak Hour Factor

| Factor | 0.92 | 0.90 | 0.90 | 0.92 |

### Hourly flow rate (vph)

| Flow Rate | 0 | 78 | 34 | 976 | 1103 | 0 |

### Pedestrians

<table>
<thead>
<tr>
<th>Type</th>
<th>Width (ft)</th>
<th>Walking Speed (ft/s)</th>
<th>Percent Blockage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Upstream Signal (ft)

| Distance | 164 |

### Veh/Platoon Unblocked

| Volume | 1680 | 552 | 1103 |

### VC1, stage 1 conf vol

| Volume | 1680 | 552 | 1103 |

### VC2, stage 2 conf vol

| Volume | 1680 | 552 | 1103 |

### VC1, unblocked vol

| Volume | 1680 | 552 | 1103 |

### IC, single (s)

| Duration | 6.0 | 12.2 |

### IC, 2 stage (s)

| Duration | 3.5 | 3.3 | 2.2 |

### p0 queue free %

| Percentage | 100 | 84 | 94 |

### Approach Capacity (veh/h)

| Capacity | 393 | 475 | 623 |

### Volume to Capacity

| Volume to Capacity | 0.16 | 0.06 | 0.38 | 0.32 | 0.32 |

### Queue Length 50th (ft)

| Queue Length | 15 | 4 | 0 | 0 | 0 |

### Control Delay (s)

| Delay | 4.1 | 18.0 | 0.0 | 10.0 | 0.0 |

### Lane LOS

| LOS | B | A |

### Approach Delay (s)

| Delay | 14.1 | 15.6 | 0.0 |

### Approach LOS

| LOS | B |

### Intersection Unsignalized Capacity Utilization

| Utilization | 50.1% | A |

### Analysis Period (min)

| Period | 15 |
### Intersection Analysis

#### Lane Configurations

<table>
<thead>
<tr>
<th>Volume (veh/h)</th>
<th>32</th>
<th>0</th>
<th>22</th>
<th>70</th>
<th>0</th>
<th>114</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign Control</td>
<td>Free</td>
<td>Free</td>
<td>Stop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade (ft)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>Hourly flow rate (vph)</td>
<td>32</td>
<td>0</td>
<td>23</td>
<td>73</td>
<td>0</td>
<td>114</td>
</tr>
</tbody>
</table>

#### Pedestrians

- Lane Width (ft): [Table]
- Walking Speed (fps): [Table]
- Percent Blocked: [Table]
- Right turn flare (veh): [Table]
- Median type: None
- Median storage veh: [Table]

#### Upstream Signal (ft)

- pX, platoon unblocked

#### vC1, stage 1 conf vol

- vC1, unblocked vol: 32, 151, 32

#### vC2, stage 2 conf vol

- vCu, unblocked vol: 32, 151, 32

#### tC, 1 stage (s)

- tC, 2 stage (s): 4.1, 6.3, 6.2

#### p0 queue free %

- p0 queue free %: 99, 100, 89

#### CM capacity (veh/h)

- CM capacity: 1550, 829, 1041

### Volume Analysis

<table>
<thead>
<tr>
<th>Volume Total</th>
<th>32</th>
<th>96</th>
<th>114</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Left</td>
<td>0</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Volume Right</td>
<td>1700</td>
<td>1580</td>
<td>1041</td>
</tr>
</tbody>
</table>

#### Queue Length 95th (ft)

- 0 | 1 | 10

#### Control Delay (s)

- 0.0 | 18 | 8.5

#### Lane LOS

- A | A

#### Approach Delay (s)

- 0.0 | 18 | 8.5

#### Approach LOS

- A

### Additional Data

- Average Delay: 5.0
- Intersection Capacity Utilization: 17.1%
- ICU Level of Service: N/A
- Analysis Period (min): 15

---

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name%
### HCM Unsignalized Intersection Capacity Analysis

#### 72: 7th Steet Spur & Lake Austin Blvd

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th>WBWB WBGB GGBB GGGB GGGW</th>
<th>WBWB WBGB GGBB GGGB GGGW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (veh/h)</td>
<td>722 0 0 878 993 114</td>
<td>42 0 0 476 1193 127</td>
</tr>
<tr>
<td>Sign Control</td>
<td>Stop</td>
<td>Free</td>
</tr>
<tr>
<td>Grade</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.90 0.92 0.92 0.90 0.90 0.90</td>
<td></td>
</tr>
<tr>
<td>Hourly flow rate (vph)</td>
<td>24 0 0 976 1103 127</td>
<td></td>
</tr>
</tbody>
</table>

#### Pedestrians

<table>
<thead>
<tr>
<th>Lane Width (ft)</th>
<th>Walking Speed (ft/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Right turn flare (veh)

<table>
<thead>
<tr>
<th>Median type</th>
<th>Median storage veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

#### Upstream signal (ft)

<table>
<thead>
<tr>
<th>px, platoon unblocked</th>
</tr>
</thead>
</table>

#### VC1, stage 1 conf vol

<table>
<thead>
<tr>
<th>VC1 stage 1 vol</th>
</tr>
</thead>
</table>

#### VC2, stage 2 conf vol

<table>
<thead>
<tr>
<th>VC2 stage 2 vol</th>
</tr>
</thead>
</table>

#### vCu, unblocked vol

<table>
<thead>
<tr>
<th>IC, single (s)</th>
<th>IC, 2 stage (s)</th>
</tr>
</thead>
</table>

#### F (s)

<table>
<thead>
<tr>
<th>p0 queue free %</th>
</tr>
</thead>
</table>

#### C1, capacity (veh/h)

<table>
<thead>
<tr>
<th>C1, capacity (veh/h)</th>
</tr>
</thead>
</table>

### Existing Traffic Conditions

<table>
<thead>
<tr>
<th>Volume Total</th>
<th>24</th>
<th>488</th>
<th>288</th>
<th>736</th>
<th>194</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Left</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Volume Right</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>127</td>
</tr>
<tr>
<td>csH</td>
<td>88</td>
<td>1700</td>
<td>1700</td>
<td>1700</td>
<td>1700</td>
</tr>
<tr>
<td>Volume to Capacity</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
<td>0.43</td>
<td>0.29</td>
</tr>
<tr>
<td>Queue Length (ft)</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Control Delay (s)</td>
<td>60.9</td>
<td>6.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Lane LOS</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach Delay (s)</td>
<td>60.9</td>
<td>6.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Approach LOS</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional Analysis Results

<table>
<thead>
<tr>
<th>Average Delay</th>
<th>0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersection Capacity Utilization</td>
<td>41.1</td>
</tr>
<tr>
<td>Analysis Period (min)</td>
<td>15</td>
</tr>
</tbody>
</table>

*Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00*

%user_name%
HCM Unsignalized Intersection Capacity Analysis
77: Enfield Road & Lake Austin Blvd

<table>
<thead>
<tr>
<th>Volume (veh/h)</th>
<th>WB1</th>
<th>WB2</th>
<th>WB3</th>
<th>WB4</th>
<th>NB1</th>
<th>NB2</th>
<th>SB1</th>
<th>SB2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>440</td>
<td>15</td>
<td>111</td>
<td>267</td>
<td>11</td>
<td>17</td>
<td>267</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sign Control</th>
<th>Stop</th>
<th>Free</th>
<th>Free</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Grade %</th>
<th>0%</th>
<th>0%</th>
<th>0%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Peak Hour Factor</th>
<th>0.95</th>
<th>0.95</th>
<th>0.95</th>
<th>0.95</th>
<th>0.95</th>
<th>0.95</th>
</tr>
</thead>
</table>

| Hourly flow rate (vph) | 463  | 16  | 117 | 276 | 12  | 113 |

<table>
<thead>
<tr>
<th>Pedestrians</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Lane Width (ft)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Walking Speed (ft/s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Percent Blockage</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Right turn flare (veh)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Median Type</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Median storage veh</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Upstream signal (ft)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>pX, platoon unblocked</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>vC1, conflicting vol</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>vC2, stage 1 vol</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>vCu, unblocked vol</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>IC, single (s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>IC, 2 stage (s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>F (s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>p0 queue free %</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>EM, capacity (veh/h)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Volume Total</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Volume Left</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Volume Right</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>cSH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Volume to Capacity</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Queue Length 95th (ft)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Control Delay (s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Lane LOS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Approach Delay (s)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Approach LOS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Average Delay</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Intersection Capacity Utilization</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Analysis Period (min)</th>
</tr>
</thead>
</table>

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name%

Synchro 7 - Report
Page 5
### Lanes, Volumes, Timings

**67: Exposition Blvd & Lake Austin Blvd**

#### Lane Configurations

| Volume (vph) | 286 | 208 | 328 | 427 | 362 | 363 |
| Ideal Flow (v ph) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 180 | 0 | 0 | 0 | 0 |
| Storage Lanes | 1 | 1 | 0 | 0 | 0 | 0 |
| Taper Length (ft) | 25 | 25 | 25 | 25 | 25 | 25 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 0.95 | 0.95 |
| Ext. Lanes | 0.850 | 0.850 | 0.847 | 0.847 | 0.847 | 0.847 |
| Fit Protected | 0.950 | 0.979 | 0.979 | 0.979 | 0.979 | 0.979 |
| Satd. Flow (prot) | 1770 | 1583 | 1583 | 3345 | 3352 | 3352 |
| Fit Permitted | 0.950 | 0.565 | 0.565 | 0.565 | 0.565 | 0.565 |
| Satd. Flow (perm) | 1770 | 1583 | 1583 | 3345 | 3352 | 3352 |
| Right Turn on Red | Yes | Yes | Yes | Yes | Yes | Yes |
| Satd. Flow (RTOR) | 4224 | 4224 | 4224 | 4224 | 4224 | 4224 |
| Link Speed (mph) | 35 | 35 | 35 | 35 | 35 | 35 |
| Link Distance (ft) | 2718 | 3614 | 3614 | 164 | 164 | 164 |
| Travel Time (s) | 52.9 | 70.4 | 70.4 | 3.2 | 3.2 | 3.2 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 308 | 224 | 353 | 459 | 712 | 390 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 308 | 224 | 0 | 812 | 1102 | 0 |
| Enter Blocked (Intersection) | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Right | Left |
| Median Width (ft) | 12 | 0 | 0 | 0 | 0 | 0 |
| Link Offset (ft) | 0 | 0 | 0 | 0 | 0 | 0 |
| Crosswalk Width (ft) | 16 | 16 | 16 | 16 | 16 | 16 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | 9 | 15 | 9 |
| Turn Yiel | Protected | Permitted | Permitted | Permitted | Perm & Pl | Perm & Pl |
| Protected Phases | 4 | 1 | 6 | 2 | 2 | 2 |
| Permitted Phases | 4 | 4 | 8 | 8 | 8 | 8 |
| Minimum Split (s) | 23.0 | 23.0 | 9.0 | 23.0 | 26.0 | 26.0 |
| Total Split (s) | 30.0 | 30.0 | 24.0 | 60.0 | 26.0 | 0.0 |
| Total Split (%) | 33.3% | 33.3% | 26.7% | 66.7% | 40.0% | 0.0% |
| Max Gun Green (s) | 25.0 | 25.0 | 10.0 | 55.0 | 51.0 | 51.0 |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| All Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | 0.0 |
| Total Lost Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lead/Lag Optimizer | Yes | Yes | Yes | Yes | Yes | Yes |
| Lead/Lag Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Walk Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Flash Smart Walk (s) | 13.0 | 13.0 | 12.0 | 12.0 | 16.0 | 16.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Act. Effect Green (s) | 26.0 | 26.0 | 56.0 | 32.0 | 32.0 | 32.0 |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| %V/C Ratio | 0.60 | 0.36 | 0.36 | 0.52 | 0.86 | 0.86 |
| Control Delay | 33.4 | 5.4 | 9.7 | 38.1 | 38.1 | 38.1 |

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name%
Lanes, Volumes, Timings
67: Exposition Blvd & Lake Austin Blvd

Queue Delay: 0.0 0.0 0.0 0.0
Total Delay: 33.4 5.4 9.7 38.1
LOS: C A A D
Approach Delay: 21.6 9.7 38.1
Approach LOS: A D

Intersection Summary:

Area Type: Other
Cycle Length: 90
Adjusted Cycle Length: 90
Offset: 78 (87%), Referenced to phase 2:NWT and 6:SETL, Start of Green
Natural Cycle: 60
Control Type: Prewired
Max Vic Ratio: 0.88
Intersection Signal Delay: 25.1
Intersection Capacity Utilization: 77.1%

Analysis Period (min) 15

Splits and Phases: 67: Exposition Blvd & Lake Austin Blvd

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00
%user_name%

Synchro 7 - Report
Page 12
## Lanes, Volumes, Timings

### 24: Lake Austin Blvd & Loop 1 SBFR

### Lane Configurations

<table>
<thead>
<tr>
<th>Volume (vph)</th>
<th>EBR</th>
<th>EB2</th>
<th>W/B</th>
<th>W/T</th>
<th>SB1</th>
<th>SB2</th>
<th>LB</th>
<th>SB3</th>
<th>SB4</th>
<th>SB5</th>
<th>SB6</th>
<th>SB7</th>
<th>SB8</th>
<th>SB9</th>
<th>SB10</th>
<th>SB11</th>
<th>SB12</th>
<th>SB13</th>
<th>SB14</th>
</tr>
</thead>
<tbody>
<tr>
<td>253</td>
<td>290</td>
<td>468</td>
<td>1139</td>
<td>230</td>
<td>219</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ideal Flow (vph)</th>
<th>1900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Length (ft)</td>
<td>100</td>
</tr>
<tr>
<td>Storage Lanes</td>
<td>2</td>
</tr>
<tr>
<td>Taper Length (ft)</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lane Util. Factor</th>
<th>0.88</th>
<th>1.00</th>
<th>1.00</th>
<th>0.95</th>
<th>1.00</th>
<th>0.95</th>
<th>0.95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fit Protected</td>
<td>0.950</td>
<td>0.950</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satd. Flow (vph)</td>
<td>2814</td>
<td>0</td>
<td>1767</td>
<td>3574</td>
<td>1767</td>
<td>3367</td>
<td>0</td>
</tr>
<tr>
<td>Fit Permitted</td>
<td>0.950</td>
<td>0.950</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Satd. Flow (perm) | 2814 | 0 | 1767 | 3574 | 1767 | 3367 | 0 |

<table>
<thead>
<tr>
<th>Right Turn on Red</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satd. Flow (FT/O)</td>
<td>82</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Link Speed (mph)</th>
<th>35</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link Distance (ft)</td>
<td>248</td>
<td>882</td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>4.8</td>
<td>17.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peak Hour Factor</th>
<th>0.97</th>
<th>0.97</th>
<th>0.97</th>
<th>0.97</th>
<th>0.97</th>
<th>0.97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Vehicles (%)</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Adj. Flow (vph)</td>
<td>539</td>
<td>289</td>
<td>462</td>
<td>1174</td>
<td>237</td>
<td>226</td>
</tr>
</tbody>
</table>

| Shared Lane Traffic (%) | 622 | 0 | 462 | 1174 | 237 | 370 | 10 |

<table>
<thead>
<tr>
<th>Lane Group Flow (vph)</th>
<th>0</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Alignment</td>
<td>Right</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Right</td>
<td></td>
</tr>
<tr>
<td>Median Width (ft)</td>
<td>12</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link Offset (ft)</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crosswalk Width (ft)</td>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two Way Left Turn Lane</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headway Factor</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Lane Change Speed (mph)</td>
<td>43</td>
<td>9</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turn Type</th>
<th>cust</th>
<th>cust</th>
<th>Perm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected Phases</td>
<td>2</td>
<td>13</td>
<td>56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permitted Phases</th>
<th>2</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Split (s)</td>
<td>24.0</td>
<td></td>
</tr>
<tr>
<td>Total Split (s)</td>
<td>24.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Split (%)</td>
<td>26.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Maximum Green (s)</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td>Yellow Time (s)</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>All-Red Time (s)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Lost Time Adjust (s)</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Total Lost Time (s)</td>
<td>4.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead-Lag</th>
<th>Lead</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead-Lag Optimize?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuated g/C Ratio</th>
<th>0.22</th>
<th>0.71</th>
<th>0.71</th>
<th>0.20</th>
<th>0.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>V/C Ratio</td>
<td>1.20</td>
<td>1.38</td>
<td>0.46</td>
<td>0.86</td>
<td>10.48</td>
</tr>
<tr>
<td>Control Delay</td>
<td>129.0</td>
<td>6.2</td>
<td>6.3</td>
<td>43.4</td>
<td>23.3</td>
</tr>
<tr>
<td>Queue Delay</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Delay</td>
<td>129.0</td>
<td>6.2</td>
<td>6.3</td>
<td>43.4</td>
<td>23.3</td>
</tr>
</tbody>
</table>

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name%
Lanes, Volumes, Timings
24: Lake Austin Blvd & Loop 1 SBFR

<table>
<thead>
<tr>
<th>Lane Group</th>
<th>EBR</th>
<th>WBTL</th>
<th>SBTL</th>
<th>IEBR</th>
<th>IWBTL</th>
<th>ICU</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS</td>
<td>F</td>
<td>A</td>
<td>D</td>
<td>B</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Approach Delay</td>
<td>6.3</td>
<td></td>
<td>31.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approach LOS</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
</tbody>
</table>

Intersection Limitation
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 15 (17%), Referenced to phase 2:EBR and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: PreTimed
Maximum V/C Ratio: 2.2

Intersection Signal Delay: 44.0
Intersection LOS: D
Intersection Capacity Utilization: 76.8%
ICU Level of Service: D
Analysis Period (min) 15

Splits and Phases:

- s1
- s2
- s3
- s4
- s5
- s6
Lanes, Volumes, Timings
66: Red Bud Trail & Lake Austin Blvd

<table>
<thead>
<tr>
<th>Lane Group</th>
<th>EB</th>
<th>WM</th>
<th>EB</th>
<th>NB</th>
<th>NT</th>
<th>NB</th>
<th>SB</th>
<th>SB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
<td>747</td>
<td>461</td>
<td>708</td>
<td>186</td>
<td>377</td>
<td>441</td>
<td>541</td>
<td>661</td>
</tr>
<tr>
<td>Ideal Flow (vphpl)</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Storage Length (ft)</td>
<td>130</td>
<td>130</td>
<td>130</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Storage Lanes</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Taper Length (ft)</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Lane Util. Factor</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Flt Protect.</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
<td>0.950</td>
</tr>
<tr>
<td>Satd Flow (psct)</td>
<td>1805</td>
<td>1615</td>
<td>1665</td>
<td>1900</td>
<td>1761</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flt Permitted</td>
<td>0.950</td>
<td>0.100</td>
<td>0.100</td>
<td>0.100</td>
<td>0.100</td>
<td>0.100</td>
<td>0.100</td>
<td>0.100</td>
</tr>
<tr>
<td>Satd Flow (perm)</td>
<td>1761</td>
<td>1615</td>
<td>1665</td>
<td>1900</td>
<td>1761</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Right Turn on Red</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Satd Flow (RTOR)</td>
<td>1805</td>
<td>1615</td>
<td>1665</td>
<td>1900</td>
<td>1761</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>30</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
<td>1643</td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>37.3</td>
<td>70.4</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Heavy Vehicles (%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Adj Flow (vph)</td>
<td>288</td>
<td>485</td>
<td>745</td>
<td>177</td>
<td>397</td>
<td>463</td>
<td>463</td>
<td>463</td>
</tr>
<tr>
<td>Shared Lane Traffic (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Group Flow (vph)</td>
<td>288</td>
<td>485</td>
<td>745</td>
<td>177</td>
<td>397</td>
<td>463</td>
<td>463</td>
<td>463</td>
</tr>
<tr>
<td>Enter Blocked Intersection</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Lane Alignment</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
<td>Left</td>
<td>Right</td>
<td>Right</td>
<td>Right</td>
</tr>
<tr>
<td>Median Width (ft)</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Link Offset (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crosswalk Width (ft)</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Two Way Left Turn Lane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headway Factor</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Turning Speed (mph)</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Number of Detectors</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Detector Template</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Thru</td>
<td>Thru</td>
<td>Thru</td>
<td>Thru</td>
<td>Thru</td>
</tr>
<tr>
<td>Leading Detector (ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Tailing Detector (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 1 Position (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 1 Size (ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Detector 1 Type</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
<td>CI+Ex</td>
</tr>
<tr>
<td>Detector 2 Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detector 2 Extend (s)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 2 Queue (s)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 2 Delay (s)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Detector 2 Position (ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Detector 2 Size (ft)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Turn Type</td>
<td>Perm</td>
<td>pm+pt</td>
<td>pm+pt</td>
<td>pm+pt</td>
<td>pm+pt</td>
<td>pm+pt</td>
<td>pm+pt</td>
<td>pm+pt</td>
</tr>
<tr>
<td>Protected Phases</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Permitted Phases</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00
%user_name%

Synchro 7 - Report
Page 9
### Lanes, Volumes, Timings

#### 66: Red Bud Trail & Lake Austin Blvd

**Switch Phase**
- Minimum Initial (s): 4.0, 4.0, 4.0, 4.0, 4.0, 4.0
- Minimum Split (s): 21.0, 21.0, 21.0, 21.0, 21.0, 21.0
- Total Split (s): 21.0, 21.0, 29.0, 59.0, 40.0, 0.0
- Total Split (%): 23.3%, 23.3%, 32.2%, 76.7%, 44.4%, 0.0%
- Maximum Green (s): 16.0, 16.0, 24.0, 64.0, 36.0
- Yellow Time (s): 4.0, 4.0, 4.0, 4.0, 4.0
- All Red Time (s): 4.0, 4.0, 4.0, 4.0, 4.0
- Lost Time Adjust (s): -1.0, -1.0, -1.0, -1.0, 0.0
- Total Lost Time (s): 4.0, 4.0, 4.0, 4.0, 4.0
- Lead/Lag: Lead, Lag
- Lead/Lag Optimizer: Yes
- Vehicle Extension (s): 3.0, 3.0, 3.0, 3.0, 3.0
- Recall Mode: None
- Walk Time (s): 5.0
- Flash Don't Walk (s): 1.0
- Pedestrian Calls (#/hr): 0
- Actuated g/C Ratio: 0.19, 0.19, 0.73, 0.73, 0.40
- V/C Ratio: 0.86, 0.70, 1.26, 0.13, 3.14
- Control Delay: 61.0, 9.3, 158.0, 4.1, 104.8
- Queue Delay: 0.0, 0.0, 0.0, 0.0, 0.0
- Total Delay: 61.0, 9.3, 158.0, 4.1, 104.8
- LOS: C, C, E, A, C, F
- Approach Delay: 28.6, 128.4, 104.8
- Approach LOS: C, E, F

### Area Type
- Other

#### Cycle Length: 90

- Actuated Cycle Length: 69.6
- Natural Cycle: 110
- Control Type: Actuated-Uncoordinated
- Maximum V/C Ratio: 1.26

#### Intersection Signal Delay: 90.3

#### Intersection Capacity Utilization: 111.2%

#### ICU Level of Service: H

#### Analysis Period (min): 30

---

**Splits and Phases:** 66: Red Bud Trail & Lake Austin Blvd

---

Existing 2008 - PM Peak: 7/1/2008 5:00 - 6:00

%user_name%

Synchro 7 - Report

Page 10
## Lane Configurations

<table>
<thead>
<tr>
<th>Volume (vph)</th>
<th>Ideal Flow (vph)</th>
<th>Lane Util. Factor</th>
<th>Frt</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0.85</td>
<td>0.95</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0.85</td>
<td>0.95</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Flow Protection**

<table>
<thead>
<tr>
<th>Satd. Flow (prot)</th>
<th>Satd. Flow (perm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.992</td>
<td>0.950</td>
</tr>
</tbody>
</table>

**Satd. Flow**

<table>
<thead>
<tr>
<th>Satd. Flow (RTOR)</th>
<th>Link Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.01</td>
<td>30</td>
</tr>
</tbody>
</table>

**Link Distance**

<table>
<thead>
<tr>
<th>Link Distance (ft)</th>
<th>Travel Time (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>480</td>
<td>10.9</td>
</tr>
</tbody>
</table>

**Peak Hour Factor**

<table>
<thead>
<tr>
<th>Peak Hour Factor</th>
<th>Heavy Vehicles (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.97</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

**Adj. Flow**

<table>
<thead>
<tr>
<th>Shared Lane Traffic (%)</th>
<th>Lane Group Flow (vph)</th>
<th>Enter Blocked Intersection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>No</td>
</tr>
</tbody>
</table>

**Lane Alignment**

<table>
<thead>
<tr>
<th>Lane Alignment</th>
<th>Median Width (ft)</th>
<th>Link Offset (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Crosswalk Width**

<table>
<thead>
<tr>
<th>Crosswalk Width (ft)</th>
<th>Two way Left Turn Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

**Headway Factor**

| 1.00                  |

**Turning Speed (mph)**

| 15                   |

**Turn Type**

<table>
<thead>
<tr>
<th>Prot. Phases</th>
<th>Perm. Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

**Minimum Split (s)**

| 10.0           |

**Total Split (s)**

| 30.0           |

**Total Split (%)**

| 23.1%          |

**Maximum Green (s)**

| 20.0           |

**Yellow Time (s)**

| 4.0            |

**All Red Time (s)**

| 1.0            |

**Lost Time Adjust (s)**

| -1.0           |

**Total Lost Time (s)**

| 1.0           |

**Act / Lag Optimize?**

| Yes            |

**Act. Eff. Green (s)**

| 94.0           |

**Act. g/C Ratio**

| 0.23           |

**w/c Ratio**

| 0.89           |

**Control Delay**

| 4.5           |

**Queue Delay**

| 0.0           |

**Total Delay**

| 1.5           |

**LOS**

| A              |

**Approach Delay**

| 1.5           |

**Approach LOS**

| A              |
### Lanes, Volumes, Timings

**42: Enfield Road & Loop 1 SBFR**

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (vph)</td>
<td>0</td>
<td>2 227</td>
<td>279</td>
<td>810</td>
<td>893</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ideal Flow (vppl)</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
<td>1900</td>
</tr>
<tr>
<td>Lane Util. Factor</td>
<td>1.00</td>
<td>0.94</td>
<td>0.96</td>
<td>0.95</td>
<td>0.95</td>
<td>0.97</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Frt</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Ftt Protected</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
<tr>
<td>Std. Flow (prot)</td>
<td>0</td>
<td>3393</td>
<td>0</td>
<td>0</td>
<td>3516</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ftt Permitted</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
<td>0.855</td>
</tr>
<tr>
<td>Std. Flow (perm)</td>
<td>0</td>
<td>3393</td>
<td>0</td>
<td>0</td>
<td>2365</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Right Turn on Red</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Std. Flow (RTOR)</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td>Link Speed (mph)</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Link Distance (ft)</td>
<td>2828</td>
<td>480</td>
<td>1352</td>
<td>197</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Time (s)</td>
<td>64.3</td>
<td>10.9</td>
<td>28.3</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Heavy Vehicles (%)</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Adj. Flow (vph)</td>
<td>244</td>
<td>264</td>
<td>853</td>
<td>729</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared Lane Traffic (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Group Flow (vph)</td>
<td>0</td>
<td>738</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enter Blocked Intersection</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane Alignment</td>
<td>Left</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
<td>Right</td>
<td>Left</td>
<td>Left</td>
</tr>
<tr>
<td>Median Width (ft)</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link Offset (ft)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crosswalk Width (ft)</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Two Way Left Turn Lane**

| Approach Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | 9 | 15 | 9 | 15 | 9 |
| Turn Type | Prot | Perm |
| Protected Phases | 2 | 1 | 2 | 1 | 4.12 |

| Minimum Split (s) | 19.0 | 10.0 |
| Total Split (s)   | 0.0 | 26.0 | 0.0 | 80.0 | 195.0 | 0.0 | 0.0 | 0.0 |
| Total Split (%)   | 0.0% | 19.2% | 0.0% | 61.5% | 80.8% | 0.0% | 0.0% | 0.0% |
| Maximum Green (s) | 25.0 | 25.0 |
| Yellow Time (s)   | 4.0 | 4.0 |
| All-Red Time (s)  | 15.0 | 15.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lead/Lag | Lead | Lag |
| Lead/Lag Optimize | Yes | Yes |
| Act Eff Green (s) | 21.0 | 21.0 |
| Control Delay (s) | 133.3 | 133.3 |
| Control Delay (s) | 13.3 | 13.3 |
| Delay (s) | 133.3 | 133.3 |
| Total Delay (s) | 133.3 | 133.3 |
| LOS | A | A |
| Delay (s) | 133.3 | 133.3 |
| Approach Delay | 133.3 | 133.3 |
| Approach LOS | A | A |

*Existing 2008 - PM Peak 7/1/2008 5:00 - 8:00*

*Synchro 7 - Report*

Page 3
### Lane Configurations

<table>
<thead>
<tr>
<th>Volume (veh/h)</th>
<th>Stop</th>
<th>Stop</th>
<th>Free</th>
<th>Free</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Sign Control
- Peak Hour Factor: 0.91
- Hourly flow rate (vph): 77
- Pedestrians
  - Lane Width (ft): 0
  - Walking Speed (ft/s): 0
  - Percent Blockage: 0%
  - Right turn flare (veh): None
  - Median Type: None
  - Median storage veh: None
  - Upward signal (fl): PX, platoon unblocked
  - Signal 1 (fl): vC1, stage 1
  - Signal 2 (fl): vC2, stage 2
  - vCu, unblocked vol: 163
  - tC, single (s): 7.1
  - tC, 2 stage (s): 4.1
  - p0 queue free %: 100
  - SM capacity, veh/h: 1459

### Volume Totals
- Volume Left: 0
- Volume Right: 0
- cSH: 1700
- Volume to Capacity: 0.00
- Queue Length 95th (ft): 0
- Control Delay (s): 0
- Lane LOS: A
- Approach Delay (s): 0
- Approach LOS: A

### Average Delay
- 3.4

### Intersection Capacity Utilization
- 17.8%

### Analysis Period (min)
- 15

---

Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00

%user_name%
## HCM Unsignalized Intersection Capacity Analysis
### 87: Red Bud Trail & Westlake Drive

**7/8/2008**

<table>
<thead>
<tr>
<th>Lane Configurations</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume (vph)</td>
<td>9</td>
<td>63</td>
<td>12</td>
<td>352</td>
<td>159</td>
<td>279</td>
<td>20</td>
<td>235</td>
<td>296</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
<td>0.98</td>
</tr>
<tr>
<td>Hourly flow rate (vph)</td>
<td>9</td>
<td>64</td>
<td>12</td>
<td>359</td>
<td>162</td>
<td>285</td>
<td>20</td>
<td>240</td>
<td>302</td>
</tr>
</tbody>
</table>

| Volume Total (vph) | 86 | 359 | 447 | 562 | 280 | 157 |
| Volume Left (vph)  | 9 | 356 | 140 | 20 | 280 | 80 |
| Volume Right (vph) | 12 | 0 | 285 | 302 | 0 | 14 |
| Head (s)           | 0.95 | 0.52 | 0.63 | 0.50 | 0.52 | 0.05 |
| Departure Headway (s) | 9.3 | 8.3 | 7.3 | 7.5 | 8.6 | 8.0 |
| Degree Utilization | 0.22 | 0.22 | 0.31 | 0.18 | 0.67 | 0.35 |
| Capacity (veh/h)   | 370 | 359 | 487 | 482 | 408 | 439 |
| Control Delay (s)  | 14.9 | 38.4 | 36.8 | 125.4 | 226.1 | 14.1 |
| Approach Delay (s) | 14.9 | 43.1 | 125.4 | 21.8 |
| Approach LOS       | E | E | E | E | E | E |

**Existing 2008 - PM Peak 7/1/2008 5:00 - 6:00**

*%user_name%*
B3. CITY OF AUSTIN 2025 METROPOLITAN AREA TRANSPORTATION PLAN (AMATP): ROADWAY RECOMMENDATIONS CENTRAL ROADWAY RECOMMENDATIONS; SUMMARY OF CHANGES FROM CAMPO 2025 TRANSPORTATION PLAN
2025 Austin Metropolitan Area Transportation Plan

Central

City of Austin Jurisdiction
- Desired Development Zone
- Drinking Water Protection Zone

AMATP
- PFWY
- MAD 6
- MAU 6
- MAD 4
- MAU 4
- MAD 2
- MAU 2
- EXP 6
- MNR 4
- MNR 2

Produced by City of Austin Transportation, Planning and Sustainability Department Long Range Land Use and Transportation Planning September 20, 2004

This map is provided by the City of Austin for the sole purpose of assisting regional planning and is not warranted for any other use. No warranty is made regarding its accuracy or completeness.
2025 Austin Metropolitan Area Transportation Plan Summary

Summary of City of Austin 2025 AMATP changes from the CAMPO 2025 Transportation Plan
Adopted by Austin City Council, June 7, 2001

The Austin City Council adopted the TPS Staff Recommended 2025 AMATP Update with some amendments, as Ordinance No. 010607-48. Those voting aye were Mayor Watson, Mayor Pro Tem Goodman, and Council Members Alvarez, Slusher and Wynn. Those abstaining were Council Members Griffith and Thomas. Since that time Council has amended the Plan on August 16, 2001; August 23, 2001; September 27, 2001; and May 23, 2002.

Currently there are five roadway amendments pending consideration by City Boards and Commissions: 38 ½ Street, Manor Road Dessau Road, Riverplace Boulevard, and RM 2222/Koenig Lane.

Specific Roadway Changes
The Council has adopted the CAMPO 2025 roadway size and functional classifications, except those described in Table 1 (see below). Some roadway segments were deleted or downgraded from the CAMPO 2025 Plan. The currently adopted 2025 AMATP reflects these changes, as of September 27, 2001.

It should be noted that extensive changes were made to the "Remarks" sections of many roads. In general these changes can be described as follows:

- All roadway segments with portions located in the Barton Springs Edwards Aquifer (BSEA) Recharge Zone, BSEA Contributing Zone, and the Northern Edwards Aquifer (NEA) Recharge Zone have the remark "Recommend compliance with US Fish and Wildlife Service guidelines and standards (Attachment 1) to ensure non-degradation and water quality protection." For roadway segments located only in the NEA Recharge Zone the remark reads: "Recommend compliance with TNRCC Edwards Rules 30 TAC 213." Finally, all these roadway segments have a remark noting compliance with Attachment 2, which outlines City of Austin roadway construction process and standards if expenditure of bond monies are anticipated in the Drinking Water Protection Zone.

- All segments of Loop 1 were adopted with the Remark "Adopt as currently exists. Size and ROW to be determined at a later date." This is also reflected in Table 1.

- The Remark "CAMPO to explore ways to improve public safety without taking out businesses or damaging the environment" was added on Lamar Blvd. (W. Anderson – 51st St., Town Lake – Ben White Blvd.), Airport Blvd. (N. Lamar – IH 35, Manor – US 183), and S. 1st St. (Cesar Chavez – FM 1626.)

- The Remark "Design and ROW to be determined during Corridor Planning. Minimize ROW acquisition and design consistent with Corridor Plan process, while maintaining ability to acquire ROW for bicycle, pedestrian, public safety, and urban design amenities" was added to Airport Blvd. (N. Lamar Blvd. – US 183), Burnet Rd. (RM 2222 – 45th St.), and Lamar Blvd/Loop 275 (US 183 – Justin Ln., W. 5th – US 290).

- The CAMPO Bike Route System column now supplements the adopted Austin Bicycle Plan, by specific roadway segment.

- Additional remarks were added to various segments, and are too numerous to include in this summary. The complete 2025 AMATP should be consulted to identify modifications to the Remarks in the CAMPO 2025 Plan.

Policy & Process Recommendations Adopted by City Council
The City's 2025 AMATP Update and subsequent amendments were conveyed under the signature of the City Manager advising the CAMPO Transportation Policy Board of the City's Plan adoption, conditions and amendments, for their consideration in the December 2003 CAMPO Plan Update. The City Council requested that CAMPO re-examine all proposed road expansions in the DWPZ to ensure that they protect safety while at the same time making any roadway expansions consistent with Austin's growth management policies. The City Council also requested that the roadway upgrades not be constructed until the applicable series of reviews are completed and the environmental impacts are adequately addressed. Finally, the City Council established a six-month process to recommend changes in AMATP 2025 to CAMPO by December 2001. This target date was extended to allow for a more thorough study. City staff worked with Urban Transportation Commission, Environmental Board, and Planning Commission, to evaluate the environmental suitability of proposed roadway recommendations. On October 9, 2002, as the final step in this process, the Planning Commission unanimously approved the staff-recommended Environmental Suitability Matrix.

### Table 1. Summary of City 2025 AMATP Changes in Road Size or Classification from CAMPO 2025 Plan

*(as Adopted by Austin City Council, June 7, 2001, Ordinance No. 010607-48)*

<table>
<thead>
<tr>
<th>ROADWAY</th>
<th>SEGMENT</th>
<th>EXISTING 1997</th>
<th>CAMPO 2025</th>
<th>City AMATP 2025</th>
<th>SOURCE OF RECOMMENDED CHANGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barton Springs Rd.</td>
<td>Loop 1 - Robert E. Lee Rd</td>
<td>MNR 4</td>
<td>MAD 4</td>
<td>MAD 4</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Braker Ln.</td>
<td>Jollyville Rd. - US 183 (N)</td>
<td>MAD 4</td>
<td>MAD 8</td>
<td>MAD 6</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Braker Ln/Blue Goose Rd.</td>
<td>Parmer - FM 973</td>
<td>--</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Bullick Hollow Rd.</td>
<td>FM 2769 - RM 620</td>
<td>MNR 2</td>
<td>MNR 2</td>
<td>MNR 2</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>City Park Rd.</td>
<td>Emma Long Park - RM 2222</td>
<td>MNR 2</td>
<td>MNR 2</td>
<td>MNR 2</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Congress Ave.</td>
<td>Bon White - Stassney</td>
<td>MAU 4</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Davis Ln.</td>
<td>Loop 1 - Slaughter Ln.</td>
<td>MAD 0/4</td>
<td>MAD 6</td>
<td>Delete</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Duval Rd.</td>
<td>US 183 - Whispering Valley Dr.</td>
<td>MAU 2</td>
<td>MAD 4</td>
<td>MAD 2</td>
<td>Council, B&amp;C, Staff</td>
</tr>
<tr>
<td></td>
<td>Whispering Valley Dr. - Loop 1 (N)</td>
<td>MAU 4/ MAD 4</td>
<td>MAD 4</td>
<td>MAU 4/ MAD 4</td>
<td>Council, B&amp;C, Staff</td>
</tr>
<tr>
<td>FM 1826</td>
<td>US 290 (W) - Slaughter Ln.</td>
<td>MNR 2</td>
<td>MAD 8</td>
<td>MAD 4</td>
<td>Council</td>
</tr>
<tr>
<td>S. First St.</td>
<td>Barton Springs Rd. - US 290</td>
<td>MNR 4</td>
<td>MAD 4</td>
<td>Existing</td>
<td>Council, 8-23-01</td>
</tr>
<tr>
<td></td>
<td>US 290 - Stassney</td>
<td>MNR 4</td>
<td>MAD 4</td>
<td>Existing</td>
<td>Council, 8-23-01</td>
</tr>
<tr>
<td>51st St.</td>
<td>N. Lamar Blvd. - Airport Blvd.</td>
<td>MNR 2/3</td>
<td>MNR 4</td>
<td>MNR 2/3</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Frate Barker Rd.</td>
<td>Brodie - Manchaca</td>
<td>MNR 2</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, 9-27-01</td>
</tr>
<tr>
<td></td>
<td>Shr 45 (S) - Brodie</td>
<td>--</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, 9-27-01</td>
</tr>
<tr>
<td>Howard Ln./CR 175</td>
<td>Parmer In. - Brushy Creek Road</td>
<td>--</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td></td>
<td>Brushy Creek Rd. - Davis Springs Rd. / Avery Ranch Blvd.</td>
<td>--</td>
<td>MAD 4</td>
<td>Delete</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Justin Ln.</td>
<td>Woodrow Ave. - N. Lamar Blvd.</td>
<td>MNR 2</td>
<td>MNR 4</td>
<td>MNR 2</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Lamar Blvd./Loop 343</td>
<td>Riverside - Barton Springs Rd.</td>
<td>MAD 4</td>
<td>MAD 6</td>
<td>Exists</td>
<td>Council, 8-23-01</td>
</tr>
<tr>
<td></td>
<td>Barton Springs Rd. - Manchaca</td>
<td>MAD 4</td>
<td>MAD 6</td>
<td>Exists</td>
<td>Council, 8-23-01</td>
</tr>
<tr>
<td></td>
<td>Manchaca - US 290 (W)</td>
<td>MAD 4</td>
<td>MAD 6</td>
<td>Exists</td>
<td>Council, 8-23-01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Loop 1 (MOPAC Blvd.)</th>
<th>SH 45 - Parmer Ln.</th>
<th>MAU 4</th>
<th>Toll FWY 6/HOV</th>
<th>MAU 4</th>
<th>Council, B&amp;C, CM, Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parmer - Far West Blvd.</td>
<td>FWY 6</td>
<td>FWY6/HOV</td>
<td>FWY 6</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Far West - Town Lake</td>
<td>PKY 6</td>
<td>PKY 6/HOV</td>
<td>PKY 6</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Town Lake - Loop 360</td>
<td>FWY 6</td>
<td>FWY6/HOV</td>
<td>FWY 6</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Loop 360 - US 290</td>
<td>PKY 6</td>
<td>FWY6/HOV</td>
<td>PKY 6</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>US 290 - William Cannon</td>
<td>MAD 6</td>
<td>FWY 6/HOV</td>
<td>MAD 6</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>William Cannon - Slaughter</td>
<td>PKY 4</td>
<td>PKY 6/HOV</td>
<td>PKY 4</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Slaughter - SH 45</td>
<td>MAD 4</td>
<td>PKY 6</td>
<td>MAD 4</td>
<td>Same</td>
<td></td>
</tr>
<tr>
<td>Northeast Drive</td>
<td>US 290(E) - Manor Rd.</td>
<td>MNR 2</td>
<td>MNR 2</td>
<td>Delete</td>
<td>Council, B&amp;C, Staff</td>
</tr>
<tr>
<td>Parkfield Dr.</td>
<td>Braker Ln. - Rundberg Ln.</td>
<td>MNR 2/4</td>
<td>MAD 4</td>
<td>MNR 2/4</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>Parmer Ln.</td>
<td>US 290 -FM 973</td>
<td></td>
<td>Delete</td>
<td>Council, B&amp;C, Staff</td>
<td></td>
</tr>
<tr>
<td>RM 2222/ Koenig/ Allandale Rd.</td>
<td>Loop 360 - Loop 1</td>
<td>MAU 4</td>
<td>MAD 4</td>
<td>MAU 4</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>SH 45 (S)</td>
<td>FM 1626 - IH 35</td>
<td>--</td>
<td>Toll PKY 6</td>
<td>Delete</td>
<td>Council</td>
</tr>
<tr>
<td>Steck Ave.</td>
<td>Mesa Dr. - Loop 1</td>
<td>MNR 4</td>
<td>MAD 4</td>
<td>MNR 4</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td></td>
<td>Loop 1 - Burnet Rd.</td>
<td>MNR 4</td>
<td>MAD 4</td>
<td>MNR 4</td>
<td>Council, B&amp;C, CM, Staff</td>
</tr>
<tr>
<td>US 290 (W)</td>
<td>Fitzhugh Rd. - FM 1826</td>
<td>MAU 4</td>
<td>FWY 6</td>
<td>MAU 4</td>
<td>Council</td>
</tr>
</tbody>
</table>

*Key to Road Classifications (see CAMPO 2025 Plan glossary for definitions)*

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWY</td>
<td>Freeway</td>
</tr>
<tr>
<td>HOV</td>
<td>High Occupancy Vehicle Lane</td>
</tr>
<tr>
<td>MNR</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>MAD</td>
<td>Major Arterial Divided</td>
</tr>
<tr>
<td>MAU</td>
<td>Major Arterial Undivided</td>
</tr>
<tr>
<td>PKY</td>
<td>Parkway</td>
</tr>
</tbody>
</table>

Table 1 Notes:

1 Staff and City Manager recommended that no change be considered until the CAMPO PAC (Policy Advisory Committee, now "Transportation Policy Board," or "CAMPO TPB") had completed further evaluation of alternatives. Planning Commission recommended that no additional right-of-way be taken for improvements to Loop 1 and that HOV lanes be taken from the main lanes. Council adopted the 2025 AMATP Update with Loop 1 as the roadway that exists. All segments of Loop 1 were adopted with the Remark “Adopt as currently exists. Size and ROW to be determined at a later date.”

2 Parmer and Braker lane realignments were recommendations of Travis County and City of Austin staff, in response to subdivision activity. These were recommended by the Boards and Commissions, and adopted by Council June 7, 2001.

3 These roadway changes were originally recommended by City of Austin Department staff, endorsed and recommended by the Boards and Commissions, and adopted by Council June 7, 2001.

4 These changes were adopted by Council June 7, 2001 based on their own deliberations.

5 AMATP 2nd Quarter Amendment Cycle 2002. Duval Road requested by citizens; Northeast Drive requested by Environmental Board.

Learn More: AMATP Frequently Asked Questions
Return to TPSD Long Range Transportation Planning
Go to TPSD Home Page (Transportation, Planning & Sustainability Dept.)
This map was developed by CAMPO for the purpose of aiding in regional transportation planning decisions and is not warranted for any other use. No warranty is made by CAMPO regarding its accuracy or completeness.
The All Systems Go Long-Range Transit Plan addresses the pressures of regional population growth in the Greater Austin area, estimated to double in the next 25 years. Thousands of citizens helped create the plan, which includes Capital MetroRail, Capital MetroRapid, expanded Local and Express bus services, more Park & Ride locations and possible future rail services in Central Texas.

**Capital MetroRail**

The Red Line will run on 32-miles of existing freight tracks between Leander and Downtown Austin. It will provide convenient service for suburban and central Austin residents in 2009.

**Capital MetroRapid**

Sleek new high-tech buses “talk” to traffic signals, shortening bus travel times by as much as 20 percent. Capital MetroRapid stops feature “real time” next bus signs, giving customers the exact arrival time of their next bus.

**Circulators**

When Capital MetroRail service begins, Local and special shuttle bus service will connect customers to and from key destinations.

**Future Connections**

Capital Metro is reviewing transit circulator alternatives, such as a modern streetcar,* to serve the University of Texas, the Capitol Complex, Mueller Community and Downtown Austin.

**Regional Commuter Rail**

A proposal by the Austin-San Antonio Intermunicipal Commuter Rail District would use existing tracks along MoPac Expressway to serve north and south Austin, and also would connect to Georgetown, San Marcos and San Antonio.

*Any potential future rail service would require a referendum.

**Being planned by the Austin-San Antonio Intermunicipal Commuter Rail District.**
Figure 1:
Proposed Urban Rail Corridors

B6. CITY OF AUSTIN 1988 BICYCLE PLAN: (EXCERPTED) RECOMMENDATIONS FOR LOOP 1; LAKE AUSTIN BLVD.; ENFIELD ROAD/15TH STREET; EXPOSITION BLVD.; RED BUD TRAIL; W. CESAR CHAVEZ STREET; 5TH STREET; 6TH STREET
## Austin Bicycle Plan Recommendations

Including ALL ATS Jurisdictions

<table>
<thead>
<tr>
<th>Route - Seg</th>
<th>Segment Start, End</th>
<th>Priority</th>
<th>Class Rating</th>
<th>Rec Faculty</th>
<th>Existing Facility</th>
<th>Existing Pavement Width</th>
<th>New Pavement Required</th>
<th>2003 AAMHTS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>218.11</td>
<td>US 183 to Morrow S.</td>
<td>2</td>
<td>4.3</td>
<td>Sh09</td>
<td>sh12</td>
<td>62</td>
<td>0</td>
<td>MAD 6</td>
</tr>
<tr>
<td>218.02</td>
<td>Pecan Grove to Fairfield Dr.</td>
<td>2</td>
<td>4.3</td>
<td>wcf5</td>
<td>sh12</td>
<td>63</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>218.02</td>
<td>Farner Ln. to Tiger Lane</td>
<td>2</td>
<td>4.7</td>
<td>sh06</td>
<td>NONE</td>
<td>42</td>
<td>10</td>
<td>Existing</td>
</tr>
</tbody>
</table>

### Loop 1 (Mopac Blvd.)

- 343.10 | Town Lake to RM 2244 | 2 | 5 | Path | NONE | 0 | FWY 45/180 |
- 343.15 | Slaughter Ln. to SH 45 | 2 | 4.3 | wcf18 | NONE | 12 | Existing |
- 343.14 | Wilcom Cannon to Slaughter Ln. | 2 | 4 | wcf5 | NONE | 12 | Existing |
- 343.13 | US 290 (W) to Wilcom Cannon | 2 | 4.3 | Path | NONE | 0 | FWY 4 |
- 343.12 | Loop 360 to US 290(W) | 1 | 5 | sh06 | NONE | 12 | Existing |
- 343.11 | RM 2244 to Loop 360 | 2 | 5 | Path | NONE | 0 | FWY 45/180 |
- 343.09 | RM 2222 to Town Lake | 2 | 5 | Path | NONE | 0 | PKY 61/180 |
- 343.08 | Far West to RM 2222 | 2 | 5 | Path | NONE | 0 | PKY 61/180 |
- 343.07 | Spicewood Springs to Far West | 2 | 5 | Path | NONE | 0 | FWY 61/180 |
- 343.06 | SH 13 (N) to Spicewood Springs | 2 | 5 | Path | NONE | 0 | FWY 61/180 |
- 343.05 | US 183 (S) to Steck | 2 | 5 | Path | NONE | 0 | FWY 61/180 |
- 343.04 | Steck to SH 13 (N) | 2 | 5 | Path | NONE | 0 | FWY 61/180 |
- 343.03 | Burnet Ln. to Steck | 2 | 5 | Path | NONE | 0 | Existing |
- 343.02 | Pecan Grove to Burnet Ln. | 2 | 5 | Path | NONE | 0 | Existing |
- 343.01 | SH 45 (N) to Pecan Grove | 2 | 5 | Path | NONE | 0 | FWY 4 |

### Loop 360

- 364.13 | Loop 1 to Lamar Blvd. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.09 | Westlake Dr to Bee Caves Rd./RM 2244 | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.01 | Loop 1 to US 183 | 1 | 2 | sh06 | sh12 | 44 | 4 | Existing |
- 364.10 | Lost Creek to Westbank Dr. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.11 | Westbank Dr. to Walsh Tarleton | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.02 | US 183 to Mountain Ridge | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.03 | Mountain Ridge to Great Hills | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.04 | Great Hills to Spicewood Springs Rd. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.05 | Spicewood Springs Rd. to Lakewood Dr. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.06 | Lakewood Dr. to FM 2222 | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.09 | Bee Caves Rd. to RM 2244 to Lost Creek | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.12 | Walsh Tarleton to Loop 1 | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.07 | FM 2222 to Westlake Dr. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.08 | Great Hills to Mountain Ridge | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |
- 364.12 | Lost Creek to Westlake Dr. | 1 | 2 | sh06 | sh06 | 60 | 0 | Existing |

### MLK Blvd./FM 989

- 44.03 | Greenwood Ave to Springdale Rd. | 1 | 4.3 | sh06 | NONE | 44 | 12 | Existing |
- 44.02 | Airport Blvd to Greenwood Ave. | 1 | 4 | sh06 | sh12 | 60 | 2 | Existing |
- 44.04 | Tanner Rd. / Webberville Rd. to US 183 (S) | 1 | 3.7 | sh06 | sh12 | 60 | 2 | Existing |
- 44.05 | US 183 (S) to Johnny Morris Rd. | 1 | 3.7 | sh06 | sh12 | 60 | 2 | Existing |
- 44.06 | Johnny Morris Rd. to Decker Lane | 1 | 3.7 | sh06 | sh12 | 60 | 2 | Existing |
- 246.03 | Springdale Rd. to Tanner Rd. / Webberville Rd. | 2 | 4.3 | sh06 | sh12 | 60 | 0 | Existing |

### Mopac Ped/Bike Bridge

- 364.04 | W 1st St to Briarbend | 1 | 1 | Path | Path | 14 | 0 | None |

### Norhill Dr.

- 364.21 | Highland Hills Dr. to Parkcrest Dr. | 1 | 3.3 | sh06 | sh12 | 48 | 4 | Existing |

### RM 2222

- 419.05 | Loop 360 to Lakewood Dr. | 2 | 4.3 | sh06 | NONE | 48 | 0 | MAD 4 |

*VC = Wide Curb, BL = Bike Lane, sh = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
* *Stress Rating: 1 = Low, 2 = Moderate, 3 = High, 5 = Very High (may not be suitable for bicycle use)*

Page 210 of 7/16/08
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>29.05</td>
<td>Northwood Rd. to Fairview Rd.</td>
<td>1</td>
<td>2.3</td>
<td>A5</td>
<td>h12</td>
<td>30</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>29.01</td>
<td>Bull Creek Rd. to 35th St.</td>
<td>1</td>
<td>3.7</td>
<td>A5</td>
<td>h12</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>29.04</td>
<td>35th St. to Northwood Rd.</td>
<td>1</td>
<td>3.2</td>
<td>A5</td>
<td>h12</td>
<td>27</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>29.03</td>
<td>34th St. to 35th St.</td>
<td>1</td>
<td>2.5</td>
<td>A5</td>
<td>h12</td>
<td>23</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>35.02</td>
<td>Bull Creek Rd. to 35th St.</td>
<td>1</td>
<td>3.7</td>
<td>w14</td>
<td>h12</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>35.06</td>
<td>Northwood Rd. to 39th St.</td>
<td>1</td>
<td>3.7</td>
<td>w14</td>
<td>h12</td>
<td>27</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>Jester Blvd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75.01</td>
<td>RM 2222 to Jester Dr. / Adler Rd.</td>
<td>1</td>
<td>1.7</td>
<td>A5</td>
<td>w14</td>
<td>61</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>Johnny Morris Rd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61.86</td>
<td>Yellow Lane to FM 800</td>
<td>1</td>
<td>2.0</td>
<td>A5</td>
<td>NONE</td>
<td>33</td>
<td>0</td>
<td>M4</td>
</tr>
<tr>
<td>67.05</td>
<td>Poinciana Dr. to Yellow Lane</td>
<td>1</td>
<td>2</td>
<td>B5</td>
<td>w18</td>
<td>20</td>
<td>0</td>
<td>M4</td>
</tr>
<tr>
<td>Jollyville Rd. / Pond Springs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.02</td>
<td>McNeel Dr. to Balcones Woods Dr.</td>
<td>1</td>
<td>4.2</td>
<td>B5</td>
<td>h12</td>
<td>60</td>
<td>2</td>
<td>Existing</td>
</tr>
<tr>
<td>21.03</td>
<td>Balcones Woods Dr. to Great Hills Tr.</td>
<td>1</td>
<td>4.2</td>
<td>B5</td>
<td>h12</td>
<td>60</td>
<td>2</td>
<td>Existing</td>
</tr>
<tr>
<td>21.01</td>
<td>US 183 to McNeil Dr.</td>
<td>1</td>
<td>4</td>
<td>B5</td>
<td>h12</td>
<td>46</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>Jones Rd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.27</td>
<td>Pack Saddle Pass / Buffalo Pass</td>
<td>1</td>
<td>3.3</td>
<td>B5</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>25.02</td>
<td>Buffalo Pass. Dr. to Arcadia Rd.</td>
<td>2</td>
<td>3.3</td>
<td>B5</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>25.07</td>
<td>Westgate Blvd. to Pack Saddle Pass</td>
<td>2</td>
<td>3</td>
<td>B5</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Justin Lane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.21</td>
<td>Burnet Rd. to Woodrow Ave.</td>
<td>1</td>
<td>1</td>
<td>B5</td>
<td>h12</td>
<td>40</td>
<td>0</td>
<td>M4</td>
</tr>
<tr>
<td>22.22</td>
<td>Woodrow Ave. to Lamar Blvd.</td>
<td>1</td>
<td>1</td>
<td>B5</td>
<td>h12</td>
<td>40</td>
<td>0</td>
<td>M4</td>
</tr>
<tr>
<td>Kennelwood Rd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.04</td>
<td>Scenic Dr. to Rockin Dr.</td>
<td>2</td>
<td>1.7</td>
<td>TC</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Kramer Lane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.01</td>
<td>FM 1325 to Merci</td>
<td>1</td>
<td>4</td>
<td>B5</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>12.03</td>
<td>Merci to Lamar Blvd.</td>
<td>1</td>
<td>4</td>
<td>TC</td>
<td>w14</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Kroger St.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.20</td>
<td>Fairview Dr. to Becker St.</td>
<td>1</td>
<td>1</td>
<td>TC</td>
<td>h14</td>
<td>40</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>La Crosse Ave.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>334.01</td>
<td>Mopac to Vickers</td>
<td>1</td>
<td>1.7</td>
<td>A5</td>
<td>w16</td>
<td>48</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>334.32</td>
<td>Dahlgren Ave. to 1st Street E. Escarpment</td>
<td>1</td>
<td>2</td>
<td>B5</td>
<td>w16</td>
<td>48</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>334.33</td>
<td>Escarpment to 1st Street E. Escarpment</td>
<td>1</td>
<td>2</td>
<td>A5</td>
<td>w16</td>
<td>48</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>334.34</td>
<td>Dahlgren to Mopac</td>
<td>1</td>
<td>2</td>
<td>A5</td>
<td>w16</td>
<td>48</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>Ladera Norte</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.10</td>
<td>Railroad Dr. to Far West Blvd.</td>
<td>1</td>
<td>1.7</td>
<td>TC</td>
<td>w14</td>
<td>40</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Lafayette Ave.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>354.07</td>
<td>E. 35th St. to E. 39th St.</td>
<td>1</td>
<td>1.7</td>
<td>TC</td>
<td>w15</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>Lake Austin Blvd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.07</td>
<td>Exposition to Boulevard</td>
<td>1</td>
<td>4.3</td>
<td>A5</td>
<td>NONE</td>
<td>45</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>25.08</td>
<td>Hawn to 1st Street E. Escarpment</td>
<td>1</td>
<td>4.3</td>
<td>A5</td>
<td>NONE</td>
<td>45</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>50.06</td>
<td>Hawn to Loop 1</td>
<td>1</td>
<td>1</td>
<td>B5</td>
<td>h12</td>
<td>55</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>50.02</td>
<td>Redbud Trail to Exposition</td>
<td>1</td>
<td>3.7</td>
<td>B5</td>
<td>NONE</td>
<td>45</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>354.07</td>
<td>Enfield Rd. / Scenic Dr. to Radburn Trail</td>
<td>1</td>
<td>3.3</td>
<td>B5</td>
<td>NONE</td>
<td>47</td>
<td>0</td>
<td>none</td>
</tr>
</tbody>
</table>

*WC = Wide Cul. , BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lanes
** Stress Rating: 1=very low (for all bicyclists), 2=low, 3=moderate, 4=high, 5=very high (may not be suitable for bicycle use)
## Austin Bicycle Plan Recommendations
### Including All ATS Jurisdictions

<table>
<thead>
<tr>
<th>Route - Seg</th>
<th>Segment Start, End</th>
<th>Priority</th>
<th>Stress Rating</th>
<th>Rec. Facility</th>
<th>Existing Facility</th>
<th>AADTT Pavement Width</th>
<th>New Pavement Required</th>
<th>2020 AMTP Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eberhart Lane</strong></td>
<td>78.03 S. 1st St. to Congress Ave</td>
<td>1</td>
<td>1</td>
<td>w/c f4</td>
<td>85</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>78.02 Cooper Lane / Speel Lane to S. 1st St</td>
<td>1</td>
<td>1</td>
<td>w/c f4</td>
<td>85</td>
<td>44</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Edgecliff Terrace</strong></td>
<td>51.28 Travis Park to Travis Heights Blvd</td>
<td>1</td>
<td>1</td>
<td>w/c f4</td>
<td>85</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Edgmont Dr.</strong></td>
<td>23.27 Welcome to Glen Road Dr.</td>
<td>1</td>
<td>1</td>
<td>75</td>
<td>wc16</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>W. Elliot St.</strong></td>
<td>47.28 Lamar to Georgiaian</td>
<td>1</td>
<td>1</td>
<td>75</td>
<td>wc14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Emerald Forest Dr.</strong></td>
<td>51.58 Aberdeen to Aislynn Lane</td>
<td>1</td>
<td>1</td>
<td>w/c f4</td>
<td>85</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>31.59 Aislynn Lane to Epper Lane</td>
<td>1</td>
<td>1</td>
<td>w/c f4</td>
<td>85</td>
<td>44</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56.01 Epper Lane to Wilson Cannon Dr</td>
<td>1</td>
<td>1</td>
<td>75</td>
<td>wc16</td>
<td>44</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enfield Rd / 15th St.</strong></td>
<td>49.02 Pecos St. to Exposition Blvd</td>
<td>1</td>
<td>2</td>
<td>85</td>
<td>wc16</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>48.03 Exposition Blvd. to Forest Tr.</td>
<td>1</td>
<td>2</td>
<td>85</td>
<td>NONE</td>
<td>40</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>48.01 Lake Austin Blvd / Emeric Dr. to Pecos St</td>
<td>1</td>
<td>2</td>
<td>85</td>
<td>wc16</td>
<td>38</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>48.04 Forest Tr. to Loop 1</td>
<td>1</td>
<td>2</td>
<td>85</td>
<td>NONE</td>
<td>40</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>48.05 Loop 1 to Henson Rd</td>
<td>1</td>
<td>2</td>
<td>85</td>
<td>NONE</td>
<td>40</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>23.01 Enoch Rd to Woodlawn Blvd</td>
<td>2</td>
<td>4</td>
<td>85</td>
<td>NONE</td>
<td>40</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>23.02 Woodlawn Blvd to Lamar Blvd</td>
<td>2</td>
<td>4</td>
<td>85</td>
<td>NONE</td>
<td>40</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>23.03 Lamar Blvd to West Ave.</td>
<td>2</td>
<td>4</td>
<td>85</td>
<td>NONE</td>
<td>60</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>23.04 West Ave to Red River</td>
<td>2</td>
<td>4</td>
<td>85</td>
<td>NONE</td>
<td>60</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>23.05 Red River to IH-35</td>
<td>2</td>
<td>4</td>
<td>85</td>
<td>NONE</td>
<td>60</td>
<td>10</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td><strong>Englewood Dr.</strong></td>
<td>31.55 Phileo Dr. to Orleans Blvd</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>31.56 Orleans Blvd to Aberdeen</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Escarpey Blvd.</strong></td>
<td>3.06 La Crosse Blvd to By Rd</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5.01 Davis Ln to Slaughter Ln</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.02 Convict Hill to Williams Creek (CL)</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.01 Williams Creek Rd to Convict Hl</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.03 Williams Creek (CL) to Davis Ln.</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>35</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Esquen Dr.</strong></td>
<td>62.06 Copano to Craftwood</td>
<td>1</td>
<td>1</td>
<td>75</td>
<td>wc14</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Exposition Blvd.</strong></td>
<td>25.01 35th St to Waco Ave Rd</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>25.05 Enfield Rd to Lake Austin Blvd</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>25.01 Waco Ave Rd to Windstar Rd</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>25.03 Windsor Rd to Bracken Rd</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>25.05 Bracken Rd to Enfield Rd.</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td>25.04 North Pkwy to Bracken Rd</td>
<td>1</td>
<td>2</td>
<td>wc15</td>
<td>wc15</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
<td></td>
</tr>
<tr>
<td><strong>Fairfield Dr.</strong></td>
<td>16.08 Chalmers Rd. to Waco</td>
<td>1</td>
<td>2</td>
<td>wc14</td>
<td>wc14</td>
<td>30</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

*WC = Wide Curb, BL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Calming or Bike Lane
** Stress Rating: 1 = poor to low (for at cyclists), 2 = low, 3 = moderate, 4 = high; 5 = not suitable for bicycle use*
### Austin Bicycle Plan Recommendations
**Including All ATS Jurisdictions**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>23.05</td>
<td>Lost Horizon to Greet Hills</td>
<td>1</td>
<td>2.7</td>
<td>w14</td>
<td>w14</td>
<td>44</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>51.22</td>
<td>Davis St. to Holly St.</td>
<td>1</td>
<td>1.7</td>
<td>70</td>
<td>w14</td>
<td>34</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>51.23</td>
<td>Holly St. to Cummins St.</td>
<td>1</td>
<td>1.7</td>
<td>70</td>
<td>w14</td>
<td>34</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>45.05</td>
<td>Pearl Rd. In. to Euler Ln</td>
<td>1</td>
<td>2.7</td>
<td>70</td>
<td>NONE</td>
<td>25</td>
<td>3</td>
<td>none</td>
</tr>
<tr>
<td>51.42</td>
<td>Cumberland to Barton Blvd.</td>
<td>1</td>
<td>1.7</td>
<td>70</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>13.02</td>
<td>Little Bee Creek to Forest View Dr.</td>
<td>1</td>
<td>2.7</td>
<td>75</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>55.02</td>
<td>Westlake Drive to Forest View Dr.</td>
<td>1</td>
<td>4</td>
<td>65</td>
<td>NONE</td>
<td>12</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>55.03</td>
<td>Forest View Dr. to Stratford Dr.</td>
<td>1</td>
<td>2.7</td>
<td>60</td>
<td>w15</td>
<td>12</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>52.04</td>
<td>Stratford Dr. to Lake Austin Blvd.</td>
<td>1</td>
<td>3.7</td>
<td>61</td>
<td>w12</td>
<td>12</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.08</td>
<td>Dunlap Lane to 29th St.</td>
<td>1</td>
<td>3.7</td>
<td>75</td>
<td>61</td>
<td>62</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>61.20</td>
<td>E. Cesar Chavez St. to Davis St.</td>
<td>1</td>
<td>2.7</td>
<td>w14</td>
<td>w14</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.15</td>
<td>7th St. to 6th St.</td>
<td>1</td>
<td>3.7</td>
<td>65</td>
<td>NONE</td>
<td>65</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.16</td>
<td>50th St. to 4th St.</td>
<td>1</td>
<td>3.7</td>
<td>65</td>
<td>w12</td>
<td>65</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.19</td>
<td>10th St. to 9th St.</td>
<td>1</td>
<td>1.7</td>
<td>65</td>
<td>w14</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.18</td>
<td>26th St. to 25th St.</td>
<td>1</td>
<td>2.7</td>
<td>65</td>
<td>w10</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.17</td>
<td>25th St. to 24th St.</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>w12</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.12</td>
<td>15th St. to 12th St.</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.10</td>
<td>Manor Rd. to 13th St.</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>w12</td>
<td>62</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.09</td>
<td>28th St. to Manor Rd.</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>w12</td>
<td>62</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.05</td>
<td>41st St. to 38 1/2 St.</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>w12</td>
<td>48</td>
<td>2</td>
<td>Existing</td>
</tr>
<tr>
<td>51.04</td>
<td>41 1/2 St. to 41st St.</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>61</td>
<td>48</td>
<td>2</td>
<td>Existing</td>
</tr>
<tr>
<td>51.03</td>
<td>41st St. to 40th St.</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>w12</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.02</td>
<td>32nd St. to 40th St.</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>61</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.15</td>
<td>9th St. to 6th St.</td>
<td>1</td>
<td>3.7</td>
<td>65</td>
<td>NONE</td>
<td>55</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.13</td>
<td>12th St. to 10th St.</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>51.07</td>
<td>Harris Lane to Dunlap Lane</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>w12</td>
<td>48</td>
<td>4</td>
<td>Existing</td>
</tr>
<tr>
<td>51.06</td>
<td>38 1/2 St. to Harris Lane</td>
<td>1</td>
<td>3.3</td>
<td>65</td>
<td>w12</td>
<td>48</td>
<td>4</td>
<td>Existing</td>
</tr>
<tr>
<td>51.11</td>
<td>N.E. to 10th St.</td>
<td>1</td>
<td>3</td>
<td>65</td>
<td>61</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>52.25</td>
<td>5th St. to 7th St.</td>
<td>1</td>
<td>3.7</td>
<td>65</td>
<td>61</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>25.24</td>
<td>Barstow Lane to Munchana Rd.</td>
<td>1</td>
<td>2</td>
<td>w14</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>74.01</td>
<td>Barstow Lane to Mumpson Dr.</td>
<td>1</td>
<td>2</td>
<td>w14</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>355.02</td>
<td>IH 35 to Carmichael Rd.</td>
<td>1</td>
<td>1.7</td>
<td>75</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>307.02</td>
<td>Southwest Pkwy. to Travis Country Club</td>
<td>1</td>
<td>2.7</td>
<td>75</td>
<td>NONE</td>
<td>44</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>15.02</td>
<td>Stratford Dr. to Sugar Shack</td>
<td>1</td>
<td>1.7</td>
<td>w14</td>
<td>w14</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>15.02</td>
<td>Sugar Shack to George B. Haysley</td>
<td>1</td>
<td>1.7</td>
<td>w14</td>
<td>w14</td>
<td>40</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*W1 = Wide Curvy, SL = Bike Lane, SH = Shoulder, SL = Shared Lane, TC = Traffic Counting or # of Lanes
**Stress Rating: 1 = Very low (for all bicyclists), 2 = low, 3 = moderate, 4 = high, 5 = very high (may not be suitable for bicycle use)*

7/16/98 Page 195
## Austin Bicycle Plan Recommendations
### Including All ATS Jurisdictions

<table>
<thead>
<tr>
<th>Route - Seg.</th>
<th>Segment Start, End</th>
<th>Priority</th>
<th>Stress Rating</th>
<th>Rec Facility</th>
<th>Existing Facility</th>
<th>Ave Pavement Width</th>
<th>New Pavement Required</th>
<th>2020 AMTD Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>214.00</td>
<td>Chicon Road to Block Avenue</td>
<td>2</td>
<td>47</td>
<td>wc</td>
<td>NONE</td>
<td>64</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>214.05</td>
<td>US 183 to Chicon Road</td>
<td>2</td>
<td>4</td>
<td>wc/ls</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>214.09</td>
<td>FM 2222 to 49th St/Pooler Ave.</td>
<td>2</td>
<td>43</td>
<td>wc/ls</td>
<td>NONE</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>214.08</td>
<td>Anderson Ln. to FM 2222</td>
<td>2</td>
<td>4</td>
<td>wc/ls</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td><strong>Cameron Rd / Dessau Rd</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>228.06</td>
<td>Coronado Hts Dr. to St. Johns Ave.</td>
<td>2</td>
<td>4</td>
<td>bc</td>
<td>NONE</td>
<td>67</td>
<td>6</td>
<td>MAD 8</td>
</tr>
<tr>
<td>228.05</td>
<td>Ferguson Lane to Ruheinsford Lane</td>
<td>2</td>
<td>3</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>12</td>
<td>MAD 6</td>
</tr>
<tr>
<td>228.07</td>
<td>St. Johns Ave. to US 260</td>
<td>2</td>
<td>4</td>
<td>bc</td>
<td>NONE</td>
<td>68</td>
<td>4</td>
<td>MAD 6</td>
</tr>
<tr>
<td>228.08</td>
<td>US 200 to Randi</td>
<td>2</td>
<td>43</td>
<td>bc</td>
<td>NONE</td>
<td>40</td>
<td>12</td>
<td>MAD 4</td>
</tr>
<tr>
<td>228.94</td>
<td>Rundberg Lane to Ferguson Lane</td>
<td>2</td>
<td>3</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>12</td>
<td>MAD 6</td>
</tr>
<tr>
<td>228.99</td>
<td>Randi to 51st St.</td>
<td>2</td>
<td>43</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>12</td>
<td>MAD 4</td>
</tr>
<tr>
<td><strong>Cameron Road</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57.13</td>
<td>Ruheinsford Lane to US 183</td>
<td>1</td>
<td>27</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>12</td>
<td>MAD 6</td>
</tr>
<tr>
<td>57.14</td>
<td>US 183 to Coronado Hts Dr</td>
<td>1</td>
<td>4</td>
<td>bc</td>
<td>NONE</td>
<td>67</td>
<td>6</td>
<td>MAD 6</td>
</tr>
<tr>
<td>217.07</td>
<td>Rundberg Lane to Ferguson Lane</td>
<td>2</td>
<td>3</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>12</td>
<td>MAD 4</td>
</tr>
<tr>
<td><strong>Cannonleau Dr.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302.05</td>
<td>Mathews Ln. to Bastel Ln.</td>
<td>1</td>
<td>13</td>
<td>TO</td>
<td>wc/16</td>
<td>45</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>302.06</td>
<td>Bisset Ln. to Stanley Ave.</td>
<td>1</td>
<td>23</td>
<td>TO</td>
<td>NONE</td>
<td>25</td>
<td>3</td>
<td>none</td>
</tr>
<tr>
<td>302.10</td>
<td>Stanley Ave. to Cannonleau Ln.</td>
<td>1</td>
<td>13</td>
<td>TO</td>
<td>NONE</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>Cardinal Lane</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70.02</td>
<td>S 5th St to S 1st St</td>
<td>1</td>
<td>23</td>
<td>TO</td>
<td>sh/21</td>
<td>26</td>
<td>4</td>
<td>none</td>
</tr>
<tr>
<td>70.01</td>
<td>Garden Ridge Lane to S. 5th St</td>
<td>1</td>
<td>17</td>
<td>TO</td>
<td>wc/14</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>Casey</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.49</td>
<td>Bon Viv Ln to Mt. Vernon Dr.</td>
<td>1</td>
<td>17</td>
<td>TO</td>
<td>wc/14</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>W César Chávez St.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47.56</td>
<td>Colorado to Congress Ave.</td>
<td>1</td>
<td>43</td>
<td>bc</td>
<td>NONE</td>
<td>50</td>
<td>12</td>
<td>Existing</td>
</tr>
<tr>
<td>47.50</td>
<td>Colorado to Brazos</td>
<td>1</td>
<td>3</td>
<td>bc</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>50.01</td>
<td>Colorado to Brazos</td>
<td>1</td>
<td>43</td>
<td>wc/15</td>
<td>NONE</td>
<td>50</td>
<td>6</td>
<td>Existing</td>
</tr>
<tr>
<td>247.06</td>
<td>Pleasant Valley Rd. to E. 7th St</td>
<td>2</td>
<td>37</td>
<td>wc/15</td>
<td>NONE</td>
<td>44</td>
<td>4</td>
<td>Existing</td>
</tr>
<tr>
<td>247.06</td>
<td>SH 35 to Brushy St</td>
<td>2</td>
<td>4</td>
<td>wc/14</td>
<td>sh/21</td>
<td>40</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>247.01</td>
<td>Moapa to Lamar Blvd.</td>
<td>2</td>
<td>47</td>
<td>wc/15</td>
<td>NONE</td>
<td>60</td>
<td>2</td>
<td>Existing</td>
</tr>
<tr>
<td>247.02</td>
<td>Lamar Blvd. to San Antonio Blvd.</td>
<td>2</td>
<td>4</td>
<td>wc/15</td>
<td>wc/15</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>247.03</td>
<td>San Antonio Blvd. to Colorado Blvd.</td>
<td>2</td>
<td>4</td>
<td>wc/15</td>
<td>wc/15</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>247.04</td>
<td>Brazos to Trinity</td>
<td>2</td>
<td>3</td>
<td>wc/15</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>247.05</td>
<td>Trinity St. to IH 35</td>
<td>2</td>
<td>43</td>
<td>wc/15</td>
<td>NONE</td>
<td>60</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td>247.07</td>
<td>Brushy St. to Pleasant Valley</td>
<td>2</td>
<td>3</td>
<td>wc/14</td>
<td>wc/14</td>
<td>36</td>
<td>0</td>
<td>Existing</td>
</tr>
<tr>
<td><strong>Cherry Lane</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>212.06</td>
<td>Rockmead Ave. to Kyle Park Rd</td>
<td>2</td>
<td>1.5</td>
<td>TO</td>
<td>wc/14</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>Cherrywood Rd.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59.03</td>
<td>34th St. to Manor Rd</td>
<td>1</td>
<td>1</td>
<td>wc/14</td>
<td>N/E</td>
<td>40</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>59.01</td>
<td>Whitire Blvd. to Anchor Lane/E. 38-12 St.</td>
<td>1</td>
<td>1.3</td>
<td>wc/14</td>
<td>wc/14</td>
<td>30</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td>59.02</td>
<td>Anchor Lane/E. 38-12 St. to 34th St.</td>
<td>1</td>
<td>1.7</td>
<td>wc/14</td>
<td>wc/14</td>
<td>40</td>
<td>0</td>
<td>none</td>
</tr>
<tr>
<td><strong>Chesnut Ave.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59.04</td>
<td>Manor Rd. to 12th St.</td>
<td>1</td>
<td>1.7</td>
<td>wc/14</td>
<td>wc/14</td>
<td>40</td>
<td>0</td>
<td>none</td>
</tr>
</tbody>
</table>

*WC = Wide Curb, BC = Bike Lane, SH = Shoulder, SL = Shared Lane, TO = Traffic Calming or Bike Lanes
* Stress Rating: 1 = very low for all bicyclists, 2 = low, 3 = moderate, 4 = high, 5 = very high (may not be suitable for bicycle use)
# Austin Bicycle Plan Recommendations

## Including All ATS Jurisdictions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>374.14</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.02</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.07</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.15</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.32</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.35</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.55</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.60</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.62</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.64</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.66</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.70</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.72</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.74</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.76</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.78</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
<tr>
<td>375.80</td>
<td>51st St.</td>
<td>51st St. to Downtown</td>
<td>1</td>
<td>3.7</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>0</td>
</tr>
</tbody>
</table>

**Notes:**
- WC = Wall Curb
- BL = Bike Lane
- SH = Shoulder
- SL = Shared Lane
- TC = Traffic Calming or Bike Lanes
- **Stress Rating:** Low (for all bicycles), 1-4 low, 5-9 moderate, 10 high, Shuney High (may not be suitable for bicycle use)

7/10/68 Page 172
B7. CITY OF AUSTIN BICYCLE PLAN UPDATE: DRAFT EXISTING BIKE LANES, DRAFT EXISTING FACILITIES; DRAFT EXISTING AND PROPOSED ROUTES; DRAFT SOUTHEAST EXISTING AND PROPOSED ROUTES; DRAFT SOUTHWEST EXISTING AND PROPOSED ROUTES
Bus Rapid Transit, or BRT, is a term used for a public transportation system that uses a high quality bus service, and accompanying improvements to infrastructure, vehicles and scheduling above the ordinary bus line. BRT is intended to offer users the quality of rail transit, at a lower cost. BRT systems could travel within existing roadway lanes, or in a designated lane. Below is some research done on BRT system requirements, existing systems and information on station design.

- All busways fall within one of two types: “On-street” or “Off-street”

1. BRT Design – On Street

- On-street types;
  - 1 - Mixed-flow lanes (operates alongside other traffic types)
  - 2 - Mixed flow lanes with queue jumpers (same as above, but with additional lane to allow for passing at a traffic bottlenecks such as intersections)
  - 3 - On-street bus lanes (lanes dedicated to bus-only use)
  - 4 - Bus-only streets (entire roadway is dedicated to BRT).

- On-street types can employ various types of physical separation. Separation strategies include medians, bollards, curbing, walls & fencing.

- Examples of on-street BRT systems include:
  - 1 - Boston: Silver Line & Washington Line (predominantly on-street bus lanes)
  - 2 - Eugene, OR: EmX Green Line (combination mixed-flow lanes with queue jumpers & on-street bus lanes)
3 - Las Vegas: North Las Vegas MAX (combination mixed-flow lanes with queue jumpers & on-street bus lanes)
4 - Los Angeles: Metro Rapid (all mixed flow lanes)

2. BRT Design – Off Street

- Off-street types include;
  - 1 - Expressway bus lanes (HOV lanes)
  - 2 - At-grade transitways (for example, on abandoned rail lines)
  - 3 - Grade-separated transitways. (elevated or tunneled busways)

- Examples of off-street BRT systems include:
  - 1 - Miami: South Dade Busway (at-grade transitway)
  - 2 - Pittsburgh: East Busway (predominantly grade-separated transitway)
  - 3 - Ottawa: Transitway (mix of on & off-street, but predominantly grade-separate transitway)

- Minimum lane width is dependent upon lane type & bus size, but general rule of thumb is:
  - 11’ width minimum for 8.5’ wide buses.
  - 12’ – 13’ = ideal lane width.

- Turning lane requirements: 45’ radius minimum

3. BRT Station Design

- Minimum station spacing = 1 per mile of BRT line

- Minimum station length:
  - 50’ long for 40 – 45’ buses
  - 65’ long for 60’ articulated buses

- Minimum loading dimensions (provide 2 loading positions):
  - 100’ for 40’ – 45’ buses
  - 140’ – 150’ for 60’ buses

4. Photos from existing BRT systems (please see next page)
• Boston:
• Ecuador

Photo by Transalt.org

• Las Vegas

Photo by SoCalMetro, Flickr
• Los Angeles