

APPENDIX J

**Duration of Congestion Analysis with Average Annual Volumes and
Adjusted Peak Hour Factors - Land Use Scenario #1**

**Estimation of Hour of Congestion for Intersections and Levels of Trip Reduction
Land Use Scenario 1**

| Hour | US 101 & 32nd | | US 101 & 35th Street | | |
|----------------------------|------------------------|-----------|------------------------|----------------------------------|-------------------------------|
| | Raw Count (April 2005) | | V/C ~ 0.85 Capacity | 2030 AA-Scen1 | 2030 AA-Scen1 |
| | Total Volume | % of Peak | | Full Development Total Volume | 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 4,670 | 1,414 | 1,145 |
| 7:00-8:00 | 1005 | 68.5% | 4,670 | 3,624 | 2,936 |
| 8:00-9:00 | 1052 | 71.7% | 4,670 | 3,794 | 3,073 |
| 9:00-10:00 | 1053 | 71.8% | 4,670 | 3,797 | 3,076 |
| 10:00-11:00 | 1038 | 70.8% | 4,670 | 3,743 | 3,032 |
| 11:00-12:00 | 1280 | 87.3% | 4,670 | 4,616 | 3,739 |
| 12:00-1:00 | 1383 | 94.3% | 4,670 | 4,987 | 4,040 |
| 1:00-2:00 | 1264 | 86.2% | 4,670 | 4,558 | 3,692 |
| 2:00-3:00 | 1317 | 89.8% | 4,670 | 4,749 | 3,847 |
| 3:00-4:00 | 1326 | 90.4% | 4,670 | 4,782 | 3,873 |
| 4:00-5:00 | 1467 | 100.0% | 4,670 | 5,290 | 4,285 |
| 5:00-6:00 | 1271 | 86.6% | 4,670 | 4,583 | 3,712 |
| 6:00-7:00 | 806 | 54.9% | 4,670 | 2,906 | 2,354 |
| 7:00-8:00 | 710 | 48.4% | 4,670 | 2,560 | 2,074 |
| 8:00-9:00 | 282 | 19.2% | 4,670 | 1,017 | 824 |
| Hours of Congestion | | | | 4 | 0 |

| Hour | US 101 & 32nd | | US 101 & 40th Street | | |
|----------------------------|------------------------|-----------|------------------------|----------------------------------|-------------------------------|
| | Raw Count (April 2005) | | V/C ~ 0.75 Capacity | 2030 AA-Scen1 | 2030 AA-Scen1 |
| | Total Volume | % of Peak | | Full Development Total Volume | 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 4,330 | 1,411 | 1,143 |
| 7:00-8:00 | 1005 | 68.5% | 4,330 | 3,617 | 2,929 |
| 8:00-9:00 | 1052 | 71.7% | 4,330 | 3,786 | 3,066 |
| 9:00-10:00 | 1053 | 71.8% | 4,330 | 3,790 | 3,069 |
| 10:00-11:00 | 1038 | 70.8% | 4,330 | 3,736 | 3,026 |
| 11:00-12:00 | 1280 | 87.3% | 4,330 | 4,607 | 3,731 |
| 12:00-1:00 | 1383 | 94.3% | 4,330 | 4,978 | 4,031 |
| 1:00-2:00 | 1264 | 86.2% | 4,330 | 4,549 | 3,684 |
| 2:00-3:00 | 1317 | 89.8% | 4,330 | 4,740 | 3,839 |
| 3:00-4:00 | 1326 | 90.4% | 4,330 | 4,773 | 3,865 |
| 4:00-5:00 | 1467 | 100.0% | 4,330 | 5,280 | 4,276 |
| 5:00-6:00 | 1271 | 86.6% | 4,330 | 4,575 | 3,705 |
| 6:00-7:00 | 806 | 54.9% | 4,330 | 2,901 | 2,349 |
| 7:00-8:00 | 710 | 48.4% | 4,330 | 2,555 | 2,070 |
| 8:00-9:00 | 282 | 19.2% | 4,330 | 1,015 | 822 |
| Hours of Congestion | | | | 7 | 0 |

**Estimation of Hour of Congestion for Intersections and Levels of Trip Reduction
Land Use Scenario 1**

| Hour | US 101 & 32nd Raw Count (April 2005) | | US 101 & 50th Street/South Beach State Park Entrance | | |
|----------------------------|---|-----------|--|---|--|
| | Total Volume | % of Peak | V/C ~ 0.75 Capacity | 2030 AA-Scen1 Full Development Total Volume | 2030 AA-Scen1 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 4,010 | 1,148 | 930 |
| 7:00-8:00 | 1005 | 68.5% | 4,010 | 2,942 | 2,383 |
| 8:00-9:00 | 1052 | 71.7% | 4,010 | 3,080 | 2,495 |
| 9:00-10:00 | 1053 | 71.8% | 4,010 | 3,083 | 2,497 |
| 10:00-11:00 | 1038 | 70.8% | 4,010 | 3,039 | 2,462 |
| 11:00-12:00 | 1280 | 87.3% | 4,010 | 3,748 | 3,036 |
| 12:00-1:00 | 1383 | 94.3% | 4,010 | 4,049 | 3,280 |
| 1:00-2:00 | 1264 | 86.2% | 4,010 | 3,701 | 2,998 |
| 2:00-3:00 | 1317 | 89.8% | 4,010 | 3,856 | 3,123 |
| 3:00-4:00 | 1326 | 90.4% | 4,010 | 3,882 | 3,145 |
| 4:00-5:00 | 1467 | 100.0% | 4,010 | 4,295 | 3,479 |
| 5:00-6:00 | 1271 | 86.6% | 4,010 | 3,721 | 3,014 |
| 6:00-7:00 | 806 | 54.9% | 4,010 | 2,360 | 1,911 |
| 7:00-8:00 | 710 | 48.4% | 4,010 | 2,079 | 1,684 |
| 8:00-9:00 | 282 | 19.2% | 4,010 | 826 | 669 |
| Hours of Congestion | | | | 2 | 0 |

| Hour | US 101 & 32nd Raw Count (April 2005) | | US 101 & Pacific Way | | |
|----------------------------|---|-----------|------------------------|---|--|
| | Total Volume | % of Peak | V/C ~ 0.85 Capacity | 2030 AA-Scen1 Full Development Total Volume | 2030 AA-Scen1 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 2,890 | 1,526 | 1,236 |
| 7:00-8:00 | 1005 | 68.5% | 2,890 | 3,912 | 3,169 |
| 8:00-9:00 | 1052 | 71.7% | 2,890 | 4,095 | 3,317 |
| 9:00-10:00 | 1053 | 71.8% | 2,890 | 4,099 | 3,321 |
| 10:00-11:00 | 1038 | 70.8% | 2,890 | 4,040 | 3,273 |
| 11:00-12:00 | 1280 | 87.3% | 2,890 | 4,982 | 4,036 |
| 12:00-1:00 | 1383 | 94.3% | 2,890 | 5,383 | 4,361 |
| 1:00-2:00 | 1264 | 86.2% | 2,890 | 4,920 | 3,986 |
| 2:00-3:00 | 1317 | 89.8% | 2,890 | 5,126 | 4,153 |
| 3:00-4:00 | 1326 | 90.4% | 2,890 | 5,161 | 4,181 |
| 4:00-5:00 | 1467 | 100.0% | 2,890 | 5,710 | 4,626 |
| 5:00-6:00 | 1271 | 86.6% | 2,890 | 4,947 | 4,008 |
| 6:00-7:00 | 806 | 54.9% | 2,890 | 3,137 | 2,542 |
| 7:00-8:00 | 710 | 48.4% | 2,890 | 2,764 | 2,239 |
| 8:00-9:00 | 282 | 19.2% | 2,890 | 1,098 | 889 |
| Hours of Congestion | | | | 11 | 11 |

**Estimation of Hour of Congestion for Intersections and Levels of Trip Reduction
Land Use Scenario 1**

| Hour | US 101 & 32nd Raw Count (April 2005) | | V/C ~ 0.90 Capacity | US 101 & Abalone Street | |
|----------------------------|---|-----------|------------------------|---|--|
| | Total Volume | % of Peak | | 2030 AA-Scen1 Full Development Total Volume | 2030 AA-Scen1 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 2,950 | 1,569 | 1,271 |
| 7:00-8:00 | 1005 | 68.5% | 2,950 | 4,021 | 3,258 |
| 8:00-9:00 | 1052 | 71.7% | 2,950 | 4,209 | 3,410 |
| 9:00-10:00 | 1053 | 71.8% | 2,950 | 4,213 | 3,413 |
| 10:00-11:00 | 1038 | 70.8% | 2,950 | 4,153 | 3,364 |
| 11:00-12:00 | 1280 | 87.3% | 2,950 | 5,122 | 4,149 |
| 12:00-1:00 | 1383 | 94.3% | 2,950 | 5,534 | 4,483 |
| 1:00-2:00 | 1264 | 86.2% | 2,950 | 5,058 | 4,097 |
| 2:00-3:00 | 1317 | 89.8% | 2,950 | 5,270 | 4,269 |
| 3:00-4:00 | 1326 | 90.4% | 2,950 | 5,306 | 4,298 |
| 4:00-5:00 | 1467 | 100.0% | 2,950 | 5,870 | 4,755 |
| 5:00-6:00 | 1271 | 86.6% | 2,950 | 5,086 | 4,120 |
| 6:00-7:00 | 806 | 54.9% | 2,950 | 3,225 | 2,612 |
| 7:00-8:00 | 710 | 48.4% | 2,950 | 2,841 | 2,301 |
| 8:00-9:00 | 282 | 19.2% | 2,950 | 1,128 | 914 |
| Hours of Congestion | | | | 12 | 11 |

| Hour | US 101 & 32nd Raw Count (April 2005) | | V/C ~ 0.90 Capacity | US 101 & 32nd Street | |
|----------------------------|---|-----------|------------------------|---|--|
| | Total Volume | % of Peak | | 2030 AA-Scen1 Full Development Total Volume | 2030 AA-Scen1 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 4,670 | 1,539 | 1,247 |
| 7:00-8:00 | 1005 | 68.5% | 4,670 | 3,946 | 3,196 |
| 8:00-9:00 | 1052 | 71.7% | 4,670 | 4,131 | 3,345 |
| 9:00-10:00 | 1053 | 71.8% | 4,670 | 4,134 | 3,348 |
| 10:00-11:00 | 1038 | 70.8% | 4,670 | 4,076 | 3,301 |
| 11:00-12:00 | 1280 | 87.3% | 4,670 | 5,026 | 4,070 |
| 12:00-1:00 | 1383 | 94.3% | 4,670 | 5,430 | 4,398 |
| 1:00-2:00 | 1264 | 86.2% | 4,670 | 4,963 | 4,019 |
| 2:00-3:00 | 1317 | 89.8% | 4,670 | 5,171 | 4,188 |
| 3:00-4:00 | 1326 | 90.4% | 4,670 | 5,206 | 4,217 |
| 4:00-5:00 | 1467 | 100.0% | 4,670 | 5,760 | 4,665 |
| 5:00-6:00 | 1271 | 86.6% | 4,670 | 4,990 | 4,042 |
| 6:00-7:00 | 806 | 54.9% | 4,670 | 3,165 | 2,563 |
| 7:00-8:00 | 710 | 48.4% | 4,670 | 2,788 | 2,258 |
| 8:00-9:00 | 282 | 19.2% | 4,670 | 1,107 | 897 |
| Hours of Congestion | | | | 7 | 0 |

**Estimation of Hour of Congestion for Intersections and Levels of Trip Reduction
Land Use Scenario 1**

| Hour | US 101 & 32nd Raw Count (April 2005) | | V/C ~ 0.80 Capacity | US 101 & 62nd Street | |
|----------------------------|---|-----------|------------------------|---|--|
| | Total Volume | % of Peak | | 2030 AA-Scen1 Full Development Total Volume | 2030 AA-Scen1 19% Reduction Total Volume |
| 6:00-7:00 | 392 | 26.7% | 3,490 | 1,085 | 898 |
| 7:00-8:00 | 1005 | 68.5% | 3,490 | 2,781 | 2,302 |
| 8:00-9:00 | 1052 | 71.7% | 3,490 | 2,911 | 2,409 |
| 9:00-10:00 | 1053 | 71.8% | 3,490 | 2,914 | 2,412 |
| 10:00-11:00 | 1038 | 70.8% | 3,490 | 2,873 | 2,377 |
| 11:00-12:00 | 1280 | 87.3% | 3,490 | 3,542 | 2,932 |
| 12:00-1:00 | 1383 | 94.3% | 3,490 | 3,828 | 3,168 |
| 1:00-2:00 | 1264 | 86.2% | 3,490 | 3,498 | 2,895 |
| 2:00-3:00 | 1317 | 89.8% | 3,490 | 3,645 | 3,016 |
| 3:00-4:00 | 1326 | 90.4% | 3,490 | 3,670 | 3,037 |
| 4:00-5:00 | 1467 | 100.0% | 3,490 | 4,060 | 3,360 |
| 5:00-6:00 | 1271 | 86.6% | 3,490 | 3,518 | 2,911 |
| 6:00-7:00 | 806 | 54.9% | 3,490 | 2,231 | 1,846 |
| 7:00-8:00 | 710 | 48.4% | 3,490 | 1,965 | 1,626 |
| 8:00-9:00 | 282 | 19.2% | 3,490 | 780 | 646 |
| Hours of Congestion | | | | 7 | 0 |

HCM Signalized Intersection Capacity Analysis

5: 35th St & US 101

2030 AAV - Full

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume (vph) | 85 | 15 | 35 | 110 | 20 | 140 | 60 | 2075 | 50 | 205 | 2420 | 75 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Lane Width | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 |
| Total Lost time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 3.5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr _t | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Fl _t Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1749 | 1733 | 1450 | 1715 | 1699 | 1421 | 1722 | 3228 | 1406 | 1722 | 3228 | 1406 |
| Fl _t Permitted | 0.74 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1371 | 1733 | 1450 | 1350 | 1699 | 1421 | 1722 | 3228 | 1406 | 1722 | 3228 | 1406 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 85 | 15 | 35 | 110 | 20 | 140 | 60 | 2075 | 50 | 205 | 2420 | 75 |
| RTOR Reduction (vph) | 0 | 0 | 31 | 0 | 0 | 123 | 0 | 0 | 11 | 0 | 0 | 12 |
| Lane Group Flow (vph) | 85 | 15 | 4 | 110 | 20 | 17 | 60 | 2075 | 39 | 205 | 2420 | 63 |
| Confl. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 2 | | 2 | 2 | | 2 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Turn Type | Perm | | Perm | Perm | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | 2 | 2 | | | 6 |
| Actuated Green, G (s) | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 | 4.0 | 75.0 | 75.0 | 16.8 | 87.8 | 87.8 |
| Effective Green, g (s) | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 14.7 | 4.5 | 75.5 | 75.5 | 17.3 | 88.3 | 88.8 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.04 | 0.63 | 0.63 | 0.14 | 0.74 | 0.74 |
| Clearance Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 |
| Vehicle Extension (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | 168 | 212 | 178 | 165 | 208 | 174 | 65 | 2031 | 885 | 248 | 2375 | 1040 |
| v/s Ratio Prot | | 0.01 | | | 0.01 | | 0.03 | c0.64 | | 0.12 | c0.75 | |
| v/s Ratio Perm | 0.06 | | 0.00 | c0.08 | | 0.01 | | | 0.03 | | | 0.04 |
| v/c Ratio | 0.51 | 0.07 | 0.02 | 0.67 | 0.10 | 0.10 | 0.92 | 1.02 | 0.04 | 0.83 | 1.02 | 0.06 |
| Uniform Delay, d ₁ | 49.3 | 46.6 | 46.3 | 50.3 | 46.8 | 46.8 | 57.6 | 22.2 | 8.5 | 49.9 | 15.8 | 4.2 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.72 | 0.28 | 0.23 | 0.95 | 0.91 | 1.59 |
| Incremental Delay, d ₂ | 3.2 | 0.2 | 0.1 | 10.7 | 0.3 | 0.3 | 43.9 | 17.7 | 0.0 | 2.2 | 11.3 | 0.0 |
| Delay (s) | 52.5 | 46.8 | 46.4 | 61.0 | 47.0 | 47.1 | 85.2 | 23.9 | 2.0 | 49.8 | 25.6 | 6.8 |
| Level of Service | D | D | D | E | D | D | F | C | A | D | C | A |
| Approach Delay (s) | | 50.3 | | | 52.8 | | | 25.1 | | | 27.0 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM Average Control Delay | | | 28.1 | | | | | | | | | |
| HCM Volume to Capacity ratio | | | 0.96 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | | | | | | | |
| Intersection Capacity Utilization | | | 100.5% | | | | | | | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Signalized Intersection Capacity Analysis

4: 40th Street & US 101

2030 AAV - Full

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume (vph) | 60 | 15 | 25 | 230 | 15 | 500 | 30 | 1625 | 215 | 500 | 2005 | 60 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Lane Width | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 |
| Frbp, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 1.00 |
| Fipb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Fit Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1739 | 1716 | 1458 | 1714 | 1716 | 1421 | 1739 | 3228 | 1421 | 3340 | 3228 | 1458 |
| Fit Permitted | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1368 | 1716 | 1458 | 1349 | 1716 | 1421 | 1739 | 3228 | 1421 | 3340 | 3228 | 1458 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 60 | 15 | 25 | 230 | 15 | 500 | 30 | 1625 | 215 | 500 | 2005 | 60 |
| RTOR Reduction (vph) | 0 | 0 | 19 | 0 | 0 | 207 | 0 | 0 | 75 | 0 | 0 | 13 |
| Lane Group Flow (vph) | 60 | 15 | 6 | 230 | 15 | 293 | 30 | 1625 | 140 | 500 | 2005 | 47 |
| Conf. Peds. (#/hr) | | | | 2 | | 2 | | | 2 | 2 | | |
| Heavy Vehicles (%) | 2% | 2% | 2% | 3% | 2% | 3% | 2% | 3% | 3% | 3% | 3% | 2% |
| Turn Type | Perm | | Perm | Perm | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 26.7 | 26.7 | 26.7 | 26.2 | 26.2 | 26.2 | 2.4 | 60.9 | 60.9 | 19.9 | 78.4 | 78.4 |
| Effective Green, g (s) | 26.7 | 26.7 | 26.7 | 25.7 | 25.7 | 25.7 | 2.9 | 61.4 | 61.4 | 20.4 | 78.9 | 78.9 |
| Actuated g/C Ratio | 0.22 | 0.22 | 0.22 | 0.21 | 0.21 | 0.21 | 0.02 | 0.51 | 0.51 | 0.17 | 0.66 | 0.66 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.5 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | 304 | 382 | 324 | 289 | 368 | 304 | 42 | 1652 | 727 | 568 | 2122 | 959 |
| v/s Ratio Prot | | 0.01 | | | 0.01 | | 0.02 | c0.50 | | 0.15 | c0.62 | |
| v/s Ratio Perm | 0.04 | | 0.00 | 0.17 | | c0.21 | | | 0.10 | | | 0.03 |
| v/c Ratio | 0.20 | 0.04 | 0.02 | 0.80 | 0.04 | 0.96 | 0.71 | 0.98 | 0.19 | 0.88 | 0.94 | 0.05 |
| Uniform Delay, d1 | 37.9 | 36.6 | 36.4 | 44.7 | 37.4 | 46.7 | 58.1 | 28.8 | 15.9 | 48.6 | 18.6 | 7.3 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.70 | 1.13 |
| Incremental Delay, d2 | 0.3 | 0.0 | 0.0 | 14.8 | 0.1 | 42.0 | 44.2 | 18.6 | 0.6 | 4.4 | 3.2 | 0.0 |
| Delay (s) | 38.3 | 36.6 | 36.4 | 59.4 | 37.4 | 88.7 | 102.3 | 47.4 | 16.5 | 47.0 | 16.2 | 8.2 |
| Level of Service | D | D | D | E | D | F | F | D | B | D | B | A |
| Approach Delay (s) | | 37.6 | | | 78.6 | | | 44.7 | | | 22.0 | |
| Approach LOS | | D | | | E | | | D | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM Average Control Delay | | | 38.3 | | | | | | | | | D |
| HCM Volume to Capacity ratio | | | 0.96 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | | | | 9.0 | | | |
| Intersection Capacity Utilization | | | 97.0% | | | | | | | | | F |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Signalized Intersection Capacity Analysis

2: South Beach State Park & US 101

2030 AAV - Full

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Volume (vph) | 65 | 5 | 35 | 50 | 5 | 85 | 30 | 1720 | 40 | 85 | 2100 | 75 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Total Lost time (s) | 3.5 | 4.0 | | 4.0 | 4.0 | | 3.5 | 3.5 | 4.0 | 4.0 | 3.5 | 3.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frbp, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.87 | | 1.00 | 0.86 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1610 | 1458 | | 1630 | 1473 | | 1614 | 3228 | 1458 | 1630 | 3228 | 1408 |
| Flt Permitted | 0.70 | 1.00 | | 0.73 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1184 | 1458 | | 1254 | 1473 | | 1614 | 3228 | 1458 | 1630 | 3228 | 1408 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 65 | 5 | 35 | 50 | 5 | 85 | 30 | 1720 | 40 | 85 | 2100 | 75 |
| RTOR Reduction (vph) | 0 | 31 | 0 | 0 | 76 | 0 | 0 | 0 | 13 | 0 | 0 | 14 |
| Lane Group Flow (vph) | 65 | 9 | 0 | 50 | 14 | 0 | 30 | 1720 | 27 | 85 | 2100 | 61 |
| Confl. Peds. (#/hr) | 2 | | 2 | | | | 2 | | | | | 2 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 3% | 3% |
| Turn Type | Perm | | | Perm | | | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | | 6 |
| Permitted Phases | 4 | | | 8 | | | | | 2 | | | 6 |
| Actuated Green, G (s) | 8.4 | 8.4 | | 8.4 | 8.4 | | 1.4 | 55.2 | 55.2 | 5.4 | 59.2 | 59.2 |
| Effective Green, g (s) | 8.9 | 8.4 | | 8.4 | 8.4 | | 1.9 | 55.7 | 55.2 | 5.4 | 59.7 | 59.7 |
| Actuated g/C Ratio | 0.11 | 0.10 | | 0.10 | 0.10 | | 0.02 | 0.69 | 0.68 | 0.07 | 0.74 | 0.74 |
| Clearance Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 130 | 151 | | 130 | 153 | | 38 | 2220 | 994 | 109 | 2379 | 1038 |
| v/s Ratio Prot | | 0.01 | | | 0.01 | | 0.02 | c0.53 | | 0.05 | c0.65 | |
| v/s Ratio Perm | c0.05 | | | 0.04 | | | | | 0.02 | | | 0.04 |
| v/c Ratio | 0.50 | 0.06 | | 0.38 | 0.09 | | 0.79 | 0.77 | 0.03 | 0.78 | 0.88 | 0.06 |
| Uniform Delay, d1 | 34.0 | 32.7 | | 33.9 | 32.8 | | 39.4 | 8.5 | 4.2 | 37.2 | 8.0 | 2.9 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.0 | 0.2 | | 1.9 | 0.3 | | 67.6 | 1.7 | 0.0 | 28.9 | 4.3 | 0.0 |
| Delay (s) | 37.0 | 32.9 | | 35.8 | 33.1 | | 106.9 | 10.2 | 4.2 | 66.1 | 12.3 | 3.0 |
| Level of Service | D | C | | D | C | | F | B | A | E | B | A |
| Approach Delay (s) | | 35.4 | | | 34.1 | | | 11.7 | | | 14.0 | |
| Approach LOS | | D | | | C | | | B | | | B | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 14.2 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.82 | | |
| Actuated Cycle Length (s) | 81.0 | Sum of lost time (s) | 7.0 |
| Intersection Capacity Utilization | 87.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 8: Pacific Way & US 101

2030 AAV - Full

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | | ↑ | ↗ | | ↑ |
| Volume (veh/h) | 0 | 0 | 2855 | 105 | 0 | 2750 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 0 | 0 | 2855 | 105 | 0 | 2750 |
| Pedestrians | 2 | | 2 | | | 2 |
| Lane Width (ft) | 0.0 | | 12.0 | | | 12.0 |
| Walking Speed (ft/s) | 4.0 | | 4.0 | | | 4.0 |
| Percent Blockage | 0 | | 0 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 5609 | 2859 | | | 2962 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 5609 | 2859 | | | 2962 | |
| tC, single (s) | 6.5 | 6.3 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.6 | 3.4 | | | 2.2 | |
| p0 queue free % | 100 | 100 | | | 100 | |
| cM capacity (veh/h) | 0 | 21 | | | 118 | |
| Direction, Lane # | NB 1 | NB 2 | SB 1 | | | |
| Volume Total | 2855 | 105 | 2750 | | | |
| Volume Left | 0 | 0 | 0 | | | |
| Volume Right | 0 | 105 | 0 | | | |
| cSH | 1700 | 1700 | 1700 | | | |
| Volume to Capacity | 1.68 | 0.06 | 1.62 | | | |
| Queue Length 95th (ft) | 0 | 0 | 0 | | | |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | | | |
| Lane LOS | | | | | | |
| Approach Delay (s) | 0.0 | | 0.0 | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 0.0 | | | |
| Intersection Capacity Utilization | | | 173.8% | | ICU Level of Service | H |
| Analysis Period (min) | | | 15 | | | |

HCM Unsignalized Intersection Capacity Analysis

7: Abalone St. & US 101

2030 AAV - Full



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|-----------------------------------|-------------|-------------|-------------|----------------------|-------------|------|
| Lane Configurations | | ↗ | | ↑↑ | ↑ | ↘ |
| Volume (veh/h) | 0 | 160 | 0 | 2960 | 2535 | 215 |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 0 | 160 | 0 | 2960 | 2535 | 215 |
| Pedestrians | 2 | | | 2 | 2 | |
| Lane Width (ft) | 12.0 | | | 12.0 | 12.0 | |
| Walking Speed (ft/s) | 4.0 | | | 4.0 | 4.0 | |
| Percent Blockage | 0 | | | 0 | 0 | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | None | |
| Median storage veh | | | | | | |
| Upstream signal (ft) | | | | 1246 | | |
| pX, platoon unblocked | 0.41 | | | | | |
| vC, conflicting volume | 4019 | 2539 | 2752 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 5507 | 2539 | 2752 | | | |
| tC, single (s) | 6.9 | 7.0 | 4.2 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 100 | 0 | 100 | | | |
| cM capacity (veh/h) | 0 | 21 | 140 | | | |
| Direction, Lane # | EB 1 | NB 1 | NB 2 | SB 1 | SB 2 | |
| Volume Total | 160 | 1480 | 1480 | 2535 | 215 | |
| Volume Left | 0 | 0 | 0 | 0 | 0 | |
| Volume Right | 160 | 0 | 0 | 0 | 215 | |
| cSH | 21 | 1700 | 1700 | 1700 | 1700 | |
| Volume to Capacity | 7.75 | 0.87 | 0.87 | 1.49 | 0.13 | |
| Queue Length 95th (ft) | Err | 0 | 0 | 0 | 0 | |
| Control Delay (s) | Err | 0.0 | 0.0 | 0.0 | 0.0 | |
| Lane LOS | F | | | | | |
| Approach Delay (s) | Err | 0.0 | | 0.0 | | |
| Approach LOS | F | | | | | |
| Intersection Summary | | | | | | |
| Average Delay | | 272.5 | | | | |
| Intersection Capacity Utilization | | 162.7% | | ICU Level of Service | H | |
| Analysis Period (min) | | 15 | | | | |

HCM Unsignalized Intersection Capacity Analysis
6: 32nd St & US 101

2030 AAV - Full

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  | |  |  | |  | |
| Volume (veh/h) | 0 | 0 | 45 | 0 | 0 | 720 | 0 | 2240 | 60 | 0 | 2655 | 40 |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Peak Hour 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 |
| Hourly flow rate (vph) | 0 | 0 | 45 | 0 | 0 | 720 | 0 | 2240 | 60 | 0 | 2655 | 40 |
| Pedestrians | | 2 | | | 2 | | | 2 | | | 2 | |
| Lane Width (ft) | | 12.0 | | | 12.0 | | | 12.0 | | | 12.0 | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | |
| Percent Blockage | | 0 | | | 0 | | | 0 | | | 0 | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | 700 | | | | |
| pX, platoon unblocked | 0.39 | 0.39 | | 0.39 | 0.39 | 0.39 | | | | 0.39 | | |
| vC, conflicting volume | 4519 | 4979 | 1352 | 3616 | 4939 | 1124 | 2697 | | | 2302 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 6877 | 8051 | 1352 | 4574 | 7949 | 0 | 2697 | | | 1218 | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.2 | | | 4.2 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 0 | 100 | 68 | 100 | 100 | 0 | 100 | | | 100 | | |
| cM capacity (veh/h) | 0 | 0 | 141 | 0 | 0 | 423 | 147 | | | 220 | | |
| Direction, Lane # | EB 1 | WB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | | | | | |
| Volume Total | 45 | 720 | 1120 | 1120 | 60 | 1770 | 925 | | | | | |
| Volume Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Volume Right | 45 | 720 | 0 | 0 | 60 | 0 | 40 | | | | | |
| cSH | 141 | 423 | 1700 | 1700 | 1700 | 1700 | 1700 | | | | | |
| Volume to Capacity | 0.32 | 1.70 | 0.66 | 0.66 | 0.04 | 1.04 | 0.54 | | | | | |
| Queue Length 95th (ft) | 32 | 1083 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Control Delay (s) | 42.1 | 348.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| Lane LOS | E | F | | | | | | | | | | |
| Approach Delay (s) | 42.1 | 348.2 | 0.0 | | | 0.0 | | | | | | |
| Approach LOS | E | F | | | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| Average Delay | | | 43.9 | | | | | | | | | |
| Intersection Capacity Utilization | | | 122.5% | | ICU Level of Service | | | | H | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

1: SW 62nd St & US 101

2030 AAV - Full

| |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
| Lane Configurations |  |  | |  |  | |  |  | |  |  |  | |
| Volume (veh/h) | 70 | 0 | 25 | 15 | 0 | 10 | 35 | 1710 | 10 | 10 | 2110 | 65 | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | | |
| Peak Hour 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 | |
| Hourly flow rate (vph) | 70 | 0 | 25 | 15 | 0 | 10 | 35 | 1710 | 10 | 10 | 2110 | 65 | |
| Pedestrians | | 2 | | | 2 | | | 2 | | | 2 | | |
| Lane Width (ft) | | 12.0 | | | 12.0 | | | 12.0 | | | 12.0 | | |
| Walking Speed (ft/s) | | 4.0 | | | 4.0 | | | 4.0 | | | 4.0 | | |
| Percent Blockage | | 0 | | | 0 | | | 0 | | | 0 | | |
| Right turn flare (veh) | | | | | | | | | | | | | |
| Median type | | | | | | | | TWTL | | | TWTL | | |
| Median storage (veh) | | | | | | | | 2 | | | 2 | | |
| Upstream signal (ft) | | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | | |
| vC, conflicting volume | 3069 | 3924 | 1059 | 2889 | 3984 | 864 | 2177 | | | 1722 | | | |
| vC1, stage 1 conf vol | 2132 | 2132 | | 1787 | 1787 | | | | | | | | |
| vC2, stage 2 conf vol | 937 | 1792 | | 1102 | 2197 | | | | | | | | |
| vCu, unblocked vol | 3069 | 3924 | 1059 | 2889 | 3984 | 864 | 2177 | | | 1722 | | | |
| tC, single (s) | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 | 4.2 | | | 4.2 | | | |
| tC, 2 stage (s) | 6.5 | 5.5 | | 6.5 | 5.5 | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | | |
| p0 queue free % | 0 | 100 | 89 | 76 | 100 | 97 | 85 | | | 97 | | | |
| cM capacity (veh/h) | 47 | 62 | 221 | 63 | 40 | 298 | 237 | | | 358 | | | |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 | SB 4 | | |
| Volume Total | 70 | 25 | 15 | 10 | 35 | 1140 | 580 | 10 | 1055 | 1055 | 65 | | |
| Volume Left | 70 | 0 | 15 | 0 | 35 | 0 | 0 | 10 | 0 | 0 | 0 | | |
| Volume Right | 0 | 25 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 65 | | |
| cSH | 47 | 221 | 63 | 298 | 237 | 1700 | 1700 | 358 | 1700 | 1700 | 1700 | | |
| Volume to Capacity | 1.49 | 0.11 | 0.24 | 0.03 | 0.15 | 0.67 | 0.34 | 0.03 | 0.62 | 0.62 | 0.04 | | |
| Queue Length 95th (ft) | 169 | 9 | 21 | 3 | 13 | 0 | 0 | 2 | 0 | 0 | 0 | | |
| Control Delay (s) | 442.2 | 23.3 | 78.8 | 17.5 | 22.8 | 0.0 | 0.0 | 15.3 | 0.0 | 0.0 | 0.0 | | |
| Lane LOS | F | C | F | C | C | | | C | | | | | |
| Approach Delay (s) | 332.0 | | 54.3 | | 0.5 | | | 0.1 | | | | | |
| Approach LOS | F | | F | | | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | | |
| Average Delay | | | 8.3 | | | | | | | | | | |
| Intersection Capacity Utilization | | | 81.0% | | ICU Level of Service | | | | | D | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | | |

HCM Signalized Intersection Capacity Analysis

5: 35th St & US 101

2030 Scenario 1 AAV - 19% Reduction

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume (vph) | 69 | 12 | 28 | 89 | 16 | 113 | 49 | 1681 | 41 | 166 | 1960 | 61 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Lane Width | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 |
| Total Lost time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 3.5 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frbp, ped/bikes | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1749 | 1733 | 1450 | 1715 | 1699 | 1421 | 1722 | 3228 | 1406 | 1722 | 3228 | 1406 |
| Flt Permitted | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1376 | 1733 | 1450 | 1354 | 1699 | 1421 | 1722 | 3228 | 1406 | 1722 | 3228 | 1406 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 69 | 12 | 28 | 89 | 16 | 113 | 49 | 1681 | 41 | 166 | 1960 | 61 |
| RTOR Reduction (vph) | 0 | 0 | 25 | 0 | 0 | 100 | 0 | 0 | 10 | 0 | 0 | 12 |
| Lane Group Flow (vph) | 69 | 12 | 3 | 89 | 16 | 13 | 49 | 1681 | 31 | 166 | 1960 | 49 |
| Conf. Peds. (#/hr) | 2 | | 2 | 2 | | 2 | 2 | | 2 | 2 | | 2 |
| Heavy Vehicles (%) | 1% | 1% | 1% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Turn Type | Perm | | Perm | Perm | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | 5.4 | 77.6 | 77.6 | 15.5 | 87.7 | 87.7 |
| Effective Green, g (s) | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 5.9 | 78.1 | 78.1 | 16.0 | 88.2 | 88.7 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.05 | 0.65 | 0.65 | 0.13 | 0.74 | 0.74 |
| Clearance Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 |
| Vehicle Extension (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | 154 | 194 | 162 | 151 | 190 | 159 | 85 | 2101 | 915 | 230 | 2373 | 1039 |
| v/s Ratio Prot | | 0.01 | | | 0.01 | | 0.03 | c0.52 | | 0.10 | c0.61 | |
| v/s Ratio Perm | 0.05 | | 0.00 | c0.07 | | 0.01 | | | 0.02 | | | 0.03 |
| v/c Ratio | 0.45 | 0.06 | 0.02 | 0.59 | 0.08 | 0.08 | 0.58 | 0.80 | 0.03 | 0.72 | 0.83 | 0.05 |
| Uniform Delay, d1 | 49.8 | 47.7 | 47.5 | 50.7 | 47.8 | 47.8 | 55.8 | 15.3 | 7.5 | 49.9 | 10.7 | 4.2 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.71 | 0.25 | 0.14 | 1.05 | 0.90 | 1.44 |
| Incremental Delay, d2 | 2.8 | 0.2 | 0.1 | 6.8 | 0.3 | 0.3 | 6.3 | 2.3 | 0.0 | 1.0 | 0.3 | 0.0 |
| Delay (s) | 52.7 | 47.9 | 47.5 | 57.5 | 48.1 | 48.1 | 46.0 | 6.2 | 1.1 | 53.2 | 10.0 | 6.1 |
| Level of Service | D | D | D | E | D | D | D | A | A | D | A | A |
| Approach Delay (s) | | 50.8 | | | 51.9 | | | 7.2 | | | 13.1 | |
| Approach LOS | | D | | | D | | | A | | | B | |
| Intersection Summary | | | | | | | | | | | | |
| HCM Average Control Delay | | | 13.6 | | | | HCM Level of Service | | | | B | |
| HCM Volume to Capacity ratio | | | 0.78 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | | Sum of lost time (s) | | | 9.0 | | |
| Intersection Capacity Utilization | | | 85.3% | | | | ICU Level of Service | | | E | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: 40th Street & US 101

2030 Scenario 1 AAV - 19% Reduction

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Volume (vph) | 49 | 12 | 20 | 186 | 12 | 405 | 24 | 1316 | 174 | 405 | 1624 | 49 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Lane Width | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 | 14 | 12 | 12 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 |
| Frbp, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 0.98 | 1.00 | 1.00 | 1.00 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1739 | 1716 | 1458 | 1714 | 1716 | 1421 | 1739 | 3228 | 1421 | 3340 | 3228 | 1458 |
| Flt Permitted | 0.75 | 1.00 | 1.00 | 0.75 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1372 | 1716 | 1458 | 1353 | 1716 | 1421 | 1739 | 3228 | 1421 | 3340 | 3228 | 1458 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 49 | 12 | 20 | 186 | 12 | 405 | 24 | 1316 | 174 | 405 | 1624 | 49 |
| RTOR Reduction (vph) | 0 | 0 | 16 | 0 | 0 | 241 | 0 | 0 | 66 | 0 | 0 | 12 |
| Lane Group Flow (vph) | 49 | 12 | 4 | 186 | 12 | 164 | 24 | 1316 | 108 | 405 | 1624 | 37 |
| Confl. Peds. (#/hr) | | | | 2 | | 2 | | | 2 | | 2 | |
| Heavy Vehicles (%) | 2% | 2% | 2% | 3% | 2% | 3% | 2% | 3% | 3% | 3% | 3% | 2% |
| Turn Type | Perm | | Perm | Perm | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 23.2 | 23.2 | 23.2 | 22.7 | 22.7 | 22.7 | 3.2 | 64.7 | 64.7 | 19.6 | 81.1 | 81.1 |
| Effective Green, g (s) | 23.2 | 23.2 | 23.2 | 22.2 | 22.2 | 22.2 | 3.7 | 65.2 | 65.2 | 20.1 | 81.6 | 81.6 |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.19 | 0.18 | 0.18 | 0.18 | 0.03 | 0.54 | 0.54 | 0.17 | 0.68 | 0.68 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.5 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 | 4.0 | 4.5 | 4.5 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 |
| Lane Grp Cap (vph) | 265 | 332 | 282 | 250 | 317 | 263 | 54 | 1754 | 772 | 559 | 2195 | 991 |
| v/s Ratio Prot | | 0.01 | | | 0.01 | | 0.01 | c0.41 | | 0.12 | c0.50 | |
| v/s Ratio Perm | 0.04 | | 0.00 | c0.14 | | 0.12 | | | 0.08 | | | 0.03 |
| v/c Ratio | 0.18 | 0.04 | 0.01 | 0.74 | 0.04 | 0.62 | 0.44 | 0.75 | 0.14 | 0.72 | 0.74 | 0.04 |
| Uniform Delay, d1 | 40.5 | 39.3 | 39.1 | 46.2 | 40.1 | 45.0 | 57.1 | 21.1 | 13.5 | 47.3 | 12.4 | 6.3 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.12 | 0.74 | 0.71 | 0.89 | 0.69 | 0.97 |
| Incremental Delay, d2 | 0.3 | 0.0 | 0.0 | 12.0 | 0.1 | 5.1 | 4.9 | 2.6 | 0.3 | 2.7 | 1.3 | 0.0 |
| Delay (s) | 40.8 | 39.4 | 39.2 | 58.3 | 40.2 | 50.2 | 68.8 | 18.1 | 9.9 | 45.0 | 9.9 | 6.1 |
| Level of Service | D | D | D | E | D | D | E | B | A | D | A | A |
| Approach Delay (s) | | 40.2 | | | 52.5 | | | 18.0 | | | 16.7 | |
| Approach LOS | | D | | | D | | | B | | | B | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 22.6 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.74 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 9.0 |
| Intersection Capacity Utilization | 81.1% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: South Beach State Park & US 101

2030 Scenario 1 AAV - 19% Reduction

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Volume (vph) | 53 | 4 | 28 | 41 | 4 | 69 | 24 | 1393 | 32 | 69 | 1701 | 61 |
| Ideal Flow (vphpl) | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 | 1750 |
| Total Lost time (s) | 3.5 | 4.0 | | 4.0 | 4.0 | | 3.5 | 3.5 | 4.0 | 4.0 | 3.5 | 3.5 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frbp, ped/bikes | 1.00 | 0.99 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 |
| Flpb, ped/bikes | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.87 | | 1.00 | 0.86 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1608 | 1457 | | 1630 | 1472 | | 1614 | 3228 | 1458 | 1630 | 3228 | 1405 |
| Flt Permitted | 0.66 | 1.00 | | 0.74 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1123 | 1457 | | 1263 | 1472 | | 1614 | 3228 | 1458 | 1630 | 3228 | 1405 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 53 | 4 | 28 | 41 | 4 | 69 | 24 | 1393 | 32 | 69 | 1701 | 61 |
| RTOR Reduction (vph) | 0 | 26 | 0 | 0 | 63 | 0 | 0 | 0 | 8 | 0 | 0 | 12 |
| Lane Group Flow (vph) | 53 | 6 | 0 | 41 | 10 | 0 | 24 | 1393 | 24 | 69 | 1701 | 49 |
| Confl. Peds. (#/hr) | 2 | | 2 | | | | 2 | | | | | 2 |
| Heavy Vehicles (%) | 3% | 2% | 3% | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 3% | 3% |
| Turn Type | Perm | | | Perm | | | Prot | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | | | 2 | | | 6 |
| Actuated Green, G (s) | 9.7 | 9.7 | | 9.7 | 9.7 | | 5.0 | 89.4 | 89.4 | 8.9 | 93.3 | 93.3 |
| Effective Green, g (s) | 10.2 | 9.7 | | 9.7 | 9.7 | | 5.5 | 89.9 | 89.4 | 8.9 | 93.8 | 93.8 |
| Actuated g/C Ratio | 0.08 | 0.08 | | 0.08 | 0.08 | | 0.05 | 0.75 | 0.74 | 0.07 | 0.78 | 0.78 |
| Clearance Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 95 | 118 | | 102 | 119 | | 74 | 2418 | 1086 | 121 | 2523 | 1098 |
| v/s Ratio Prot | | 0.00 | | | 0.01 | | 0.01 | c0.43 | | 0.04 | c0.53 | |
| v/s Ratio Perm | c0.05 | | | 0.03 | | | | | 0.02 | | | 0.04 |
| v/c Ratio | 0.56 | 0.05 | | 0.40 | 0.08 | | 0.32 | 0.58 | 0.02 | 0.57 | 0.67 | 0.05 |
| Uniform Delay, d1 | 52.7 | 50.9 | | 52.4 | 51.0 | | 55.5 | 6.6 | 4.0 | 53.7 | 6.0 | 3.0 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.10 | 0.49 | 0.36 |
| Incremental Delay, d2 | 6.9 | 0.2 | | 2.6 | 0.3 | | 2.5 | 1.0 | 0.0 | 4.5 | 1.0 | 0.1 |
| Delay (s) | 59.7 | 51.1 | | 55.0 | 51.3 | | 58.0 | 7.6 | 4.0 | 63.6 | 4.0 | 1.1 |
| Level of Service | E | D | | D | D | | E | A | A | E | A | A |
| Approach Delay (s) | | 56.4 | | | 52.6 | | | 8.4 | | | 6.2 | |
| Approach LOS | | E | | | D | | | A | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM Average Control Delay | | | 9.8 | | | | HCM Level of Service | | | | A | |
| HCM Volume to Capacity ratio | | | 0.65 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | | Sum of lost time (s) | | | | 7.0 | |
| Intersection Capacity Utilization | | | 74.5% | | | | ICU Level of Service | | | | D | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

8: Pacific Way & US 101

2030 Scenario 1 AAV - 19% Reduction

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | | ↑ | ↗ | | ↑ |
| Volume (veh/h) | 0 | 0 | 2313 | 85 | 0 | 2228 |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 0 | 0 | 2313 | 85 | 0 | 2228 |
| Pedestrians | 2 | | 2 | | | 2 |
| Lane Width (ft) | 0.0 | | 12.0 | | | 12.0 |
| Walking Speed (ft/s) | 4.0 | | 4.0 | | | 4.0 |
| Percent Blockage | 0 | | 0 | | | 0 |
| Right turn flare (veh) | | | | | | |
| Median type | | | None | | | None |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 4545 | 2317 | | | 2400 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 4545 | 2317 | | | 2400 | |
| tC, single (s) | 6.5 | 6.3 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.6 | 3.4 | | | 2.2 | |
| p0 queue free % | 100 | 100 | | | 100 | |
| cM capacity (veh/h) | 1 | 46 | | | 198 | |
| Direction, Lane # | NB 1 | NB 2 | SB 1 | | | |
| Volume Total | 2313 | 85 | 2228 | | | |
| Volume Left | 0 | 0 | 0 | | | |
| Volume Right | 0 | 85 | 0 | | | |
| cSH | 1700 | 1700 | 1700 | | | |
| Volume to Capacity | 1.36 | 0.05 | 1.31 | | | |
| Queue Length 95th (ft) | 0 | 0 | 0 | | | |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | | | |
| Lane LOS | | | | | | |
| Approach Delay (s) | 0.0 | | 0.0 | | | |
| Approach LOS | | | | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 0.0 | | | |
| Intersection Capacity Utilization | | | 142.8% | ICU Level of Service | | H |
| Analysis Period (min) | | | 15 | | | |

HCM Unsignalized Intersection Capacity Analysis
7: Abalone St. & US 101



PCL XL error

Subsystem: TEXT

Error: InternalError 0x50

Operator: EndFontHeader

Position: 1391617

NEWPORT TRANSPORTATION SYSTEM PLAN*

This Transportation System Plan (TSP) describes the individual elements that make up the transportation system for the City of Newport. Plus, the TSP represents recommended project improvements and goals and policies towards establishing a coordinated multi-modal transportation network for the City of Newport intended to comply with Statewide Planning Goal 12 and the Transportation Planning Rule.

The complete TSP describes in detail the various components of a transportation system, makes a complete analysis of those various components, and describes the process used to develop the plan. The current Transportation System Plan was completed in 1997 and adopted in 1999. Several updates to the plan were adopted, including major updates in 2008 and 2012. By this reference, the complete TSP as amended by Ordinance No. 1963 is incorporated herein. Where the text references "TSP," the reference is to the TSP as amended unless otherwise noted.

However, the complete plan, including the updates, contains more information than most individuals want to sort through when looking for guidance on how future decisions should be made to implement the plan. This section will therefore summarize the projects contained in the TSP and the goals and policies needed to assure compliance. Persons interested in obtaining a more thorough understanding of the reasoning for the projects, goals, and policies should review the full TSP documentation referenced in Policy 1, Goal 1 of this chapter.

Transportation System Plans for Each Mode

The TSP places a strong emphasis on the preservation and improved operation of the US 20 and US 101 corridors. The City of Newport views US 101 and US 20 as the most important arterials in the multi-modal transportation network and likewise recognizes the importance of these facilities as statewide facilities per the Oregon Highway Plan. In implementation of the City's Comprehensive Plan and the associated Transportation System Plan, the City will strive to maintain the function of these facilities to meet their statewide as well as regional needs.

The Transportation System Plan comprises all the improvements in the Middle Alternative, as developed during the TSP process. The Middle Alternative has been identified as the preferred alternative, which includes transportation improvements that support the identified goals and objectives and the adopted and acknowledged Comprehensive Plan. The following describes the recommended projects for each mode contained in the preferred alternative. For further specifics on the projects, refer to the complete Transportation System Plan.

The TSP was amended in 2008 to add a North Side Local Street Plan to support commercial development and redevelopment activity within the area bounded by 12th Street on the north, John Moore/Harney Drive on the east, the Pacific Ocean on the west, and the Yaquina Bay on the south. The 2008 amendment included a more comprehensive Pedestrian and

Bicycle Plan for the entire City. In February of 2010 a refinement plan was prepared for the South Beach Peninsula to identify transportation and related improvements to SE Marine Science Drive, SE Ferry Slip Road, SE Pacific Way, SE 25th Street and SW Abalone Street, needed to support marine research and industrial development anchored by the new NOAA Pacific marine operations center. The TSP was last amended in 2012 to address needed system improvements south of the Yaquina Bay Bridge in Newport's South Beach Area, including an infrastructure refinement plan for the Coho / Brant neighborhood situated west of Highway 101 and north of SW 35th Street.

*Added by Ordinance No. 1802 (1-4-99); Amended by Ordinance No. 1963 (8-18-08) and Ordinance No. 2045 (11-5-12).

The City has concentrated recent efforts on addressing transportation and land use issues in the South Beach area (south of the Yaquina Bay Bridge) where a significant amount of the City's new development is anticipated. A combination of anticipated 2030 levels of land development in South Beach and increasing background traffic volumes along US 101 will result in greater congestion levels, particularly during the summertime peak. However, traffic growth is likely to be high enough that other times of the year will also experience significant congestion. The City has an adopted South Beach Urban Renewal Plan that includes street improvements which will be critical new components of the system. However, due to limited State transportation funding for bridge improvement or replacement, the capacity of the Yaquina Bay Bridge is expected to continue to be the major constraint in the operation of the transportation system south of the bridge. Because of this, the City and ODOT worked together to identify a transportation system and management strategy that will support future growth in South Beach, one that includes alternative mobility standards for US 101, strategic improvements to the state highway, and a variety of improvements to both the local roadway system and the pedestrian and bicycle system. The improvements are discussed further in the *Transportation Planning in South Beach* section. The local and state actions and improvements that are identified for South Beach constitute the reasonable limits of what can be done to improve congestion on US 101, short of building more capacity into the Yaquina Bay Bridge. The City is committed to finding long-term solutions sufficient to address the existing capacity and structural limitations of the existing structure that affect the bridge's ability to carry vehicles and pedestrians. To this end, the City will continue to engage ODOT, Lincoln County, and its other regional partners in conversations regarding future project planning and funding that would lead to improvements to, and possibly replacement of, the Yaquina Bay Bridge.

Roadway Improvements

The roadway improvements include new roadway construction for extensions and improvements to existing facilities as well as the development of new facilities. The recommended roadway improvements are listed in Table 1 and are discussed in more detail in the Transportation System Plan. Table 1 identifies project location, description and priority for projects in the local roadway system. As indicated by headings in Table 1, the projects listed are identified by the 1997 TSP, as well as updates to this plan in 2008 and 2012. All project cost estimates are shown in 2012 dollars; cost estimates for projects from the 1997 TSP (and 2008 update) have been adjusted for projects that have been altered or partially implemented. Costs for projects yet to be implemented have been adjusted to account for inflation.

Table 1: Roadway Improvement Projects

| Project Description | Functional Class | Sidewalks | Bicycle Lanes | Priority | Estimated Cost (\$2012) | Source |
|--|------------------|-----------|----------------|----------|-------------------------|-----------------------------|
| New Roadway Projects or Extensions | | | | | | |
| NE Harney Street between NE 3 rd and Hwy 20 | Minor Arterial | Yes | Yes | High | \$824,000 | 2012 Cost Estimate |
| North-South Arterial – Phase IB (between NE 7 th St and NE 32 nd St) From 1997 TSP | Minor Arterial | No | No | Medium | \$3,720,000 | 1997 TSP |
| Extend NW Nye St to Ocean View Dr From 1997 TSP | Minor Arterial | Yes | Yes | High | \$240,000 | 1997 TSP |
| Connect SE 1 st St (between SE Douglas and SE Fogarty) | Local | Yes | Yes (one side) | Low | \$250,000 | 1997 TSP |
| Extend NE Avery St (between NE 71 st St and NE 73 rd St) | Local | Yes | No | Low | \$369,000 | 2012 Cost Estimate |
| Extend SW Abbey St to SW Elizabeth St | Collector | Yes | No | Medium | \$141,000 | 2012 Cost Estimate |
| Extend NE 5 th St (between NE 7 th Dr and Newport Heights Rd) | Local | No | No | Low | \$1,680,000 | 2012 Cost Estimate |
| Extend NW Biggs to NW 60 th St and Extend NW 60 th St to US 101 | Collector | Yes | No | Low | \$102,000 | 1997 TSP/1995 Cost Estimate |
| Extend NW Harney Dr (between US 101 and Ocean View Dr) | Collector | Yes | Yes | Medium | \$452,000 | 1997 TSP/1995 Cost Estimate |
| Extend SW Abalone from SW 29 th Street to SW 35 th Street/US 101 | Collector | Yes | Yes | High | \$2,315,000 | 2012 Coho / Brant Plan |
| Ash Street at SE 40 th Street, extend to approx. 1,200 feet south | Collector | Yes | Yes | Medium | \$1,473,000 | 2012 SB TSP update |
| New SE 50 th Street segment extending from existing road to South Beach State Park entrance | Collector | Yes | Yes | Low | \$1,565,000 | 2012 SB TSP update |

| Project Description | Functional Class | Sidewalks | Bicycle Lanes | Priority | Estimated Cost (\$2012) | Source |
|--|-------------------------|------------------|----------------------|-----------------|--------------------------------|------------------------|
| New road from SE 50 th Street to SE 62 nd Street at US 101 | Collector | Yes | Yes | Low | \$5,017,000 | 2012 SB TSP update |
| Extend SW 28 th Street south from SW 27 th Street to connect with SW Brant Street | Local | Yes | No | Low | \$554,000 | 2012 Coho / Brant Plan |
| Construct SW 35 th street from US 101 to SE Ferry Slip Rd | Collector | Yes | Yes | Medium | \$653,000 | 2012 Coho / Brant Plan |
| Improvements to Existing Roadways | | | | | | |
| Reconstruct NE 3 rd St (between NE Eads St and NE Harney Dr) | Local | Yes | No | Medium | \$243,000 | 1997 TSP |
| Extension of 60 th east of Highway 101 to connect with Hazel Ct and the improvement of hazel down to NE 57 th Street | Collector | Yes | No | Low | \$94,000 | 1997 TSP |
| Widen US 101 to five lanes (NE NE 31 st Street to North City Limits) | Principal Arterial | Yes | Yes | Low | \$13,000,000 | 1997 TSP |
| Widen US 20 to five lanes (John Moore Rd to US 101) | Principal Arterial | Yes | Yes | Medium | \$1,730,000 | 1997 TSP |
| Add travel lanes on US 101 from Yaquina Bay Bridge to SE 32 nd Street and restrict westbound movements at Pacific Way to emergency and transit vehicles only. | Principal Arterial | Yes | Yes | Medium | \$659,000 | 2012 SB TSP update |
| Add travel lanes on US 101 from SE 40 th Street to South Beach State Park/New SW 50 th Street | Principal Arterial | Yes | Yes | Low | \$1,602,000 | 2012 SB TSP update |
| Add travel lanes on US 101 from New SE 50 th Street to SW 62 nd Street | Principal Arterial | Yes | Yes | Low | \$799,000 | 2012 SB TSP update |
| Widen and pave SE Ash Street from Ferry Slip to SE 40 th | Collector | Yes | Yes | High | \$506,000 | 2012 SB TSP update |
| Add eastbound through lane to receive traffic from second southbound through lane at SE 40 th and US 101 | Collector | No. | No. | Medium | \$161,000 | 2012 SB TSP update |
| Widen SE Ferry Slip to three lane section from SE Marine Science Dr to SE 29 th St | Minor Arterial | Yes | Yes | Medium | \$547,000 | 2010 SB Peninsula Plan |

| Project Description | Functional Class | Sidewalks | Bicycle Lanes | Priority | Estimated Cost (\$2012) | Source |
|---|-------------------------|------------------|----------------------|-----------------|--------------------------------|----------------------------|
| Widen and pave SW 27 th St from SW Brant St to SW Abalone St | Local | Yes | No | High | \$145,000 | 2012 Coho / Brant Plan |
| Widen and pave SW 27 th St from SW Coho St to existing improvements | Local | Yes | No | Low | \$101,000 | 2012 Coho / Brant Plan |
| Widen and pave SW 28 th St from Brant to Abalone slope (with pedestrian stairs down embankment) | Local | No | No | Low | \$303,000 | 2012 Coho / Brant Plan |
| Widen and pave SW 29 th St from SW Coho St to SW Brant St | Local | No | No | Low | \$229,000 | 2012 Coho / Brant Plan |
| Widen and pave SW 30 th from SW Brant St to SW Abalone St | Local | Yes | Yes | High | \$311,000 | 2012 Coho / Brant Plan |
| Widen and pave SW Coho St from SW 29 th St to SW 30 th St | Local | Yes | Yes | Low | \$186,000 | 2012 Coho / Brant Plan |
| Widen and pave SW Brant St from SW 27 th to SW 30 th St | Local | Yes | No | High | \$707,000 | 2012 Coho / Brant Plan |
| North Side Local Street Plan Street and Roadway Projects | | | | | | |
| Improve to 2-lane NE Benton Street from NE 8th Street to NE 10th Street | Local | Yes | No | High | \$316,000 | 2008 North Side TSP update |
| SW 9th St/ NE Benton St Connectivity Enhancement; Pedestrian xing and signage improvements from Abbey to NE 11th to facilitate corridor as a local parallel route to US 101 and access between US 20 and the bay front. Consider all way stop at 9th/Hurbert. | Local | | | High | \$34,000 | 2008 North Side TSP update |
| Improve to 3-lane urban standard NE 1st Street from US 101 to US 20 to provide westbound-to-northbound bypass of US 101 and US 20 intersection. | Local | Yes | Yes | High | \$557,000 | 2008 North Side TSP update |

| Project Description | Functional Class | Sidewalks | Bicycle Lanes | Priority | Estimated Cost (\$2012) | Source |
|--|--|------------------|----------------------|-----------------|---|----------------------------|
| Improve to 2-lane urban standard SW Neff Street from US 101 to SW 2nd Street to add system connectivity. | Local | Yes | Yes | High | \$515,000 | 2008 North Side TSP update |
| Improve to 2-lane urban standard SW 7th Street from SW 2nd Street to SW Elizabeth Street to add system connectivity. | Collector | Yes | Yes | Low | \$19,200,000 | 2008 North Side TSP update |
| Alternative Port Access Road Improvements; Evaluate improvements to SE Benson Road and/or SE John Moore Drive to improve access to waterfront area | Collector (Benson) Arterial (John Moore) | | | Medium/Low | Planning study needed to determine alignment and cost | 2008 North Side TSP update |

Transportation System Management/New Traffic Signals

Transportation System Management is a traffic control tool that attempts to maximize the efficiency of the existing transportation system without additional roadway capacity. TSM projects can be characterized as being low-capital cost alternatives that can be implemented in a relatively short time frame and that aim to make better use of existing facilities, either by operational changes or by better traffic management.

There are several TSM projects that have been recommended for implementation in Newport. These projects are listed in Table 2 below. Table 2 identifies project location, description and priority for TSM projects in the local roadway system. As indicated by headings in Table 2, the projects listed are identified by the 1997 TSP, as well as updates to this plan in 2008, 2010 and 2012. All project cost estimates are shown in 2012 dollars; cost estimates for projects from the 1997 TSP (and 2008 update) have been adjusted to account for inflation.

Table 2: Transportation Management System (TSM) Improvement Projects

| Location/ Limits | Project Description | Priority | Estimated Cost (\$ 2012) | Source |
|--|--|----------|-----------------------------|----------|
| TSM Improvement Projects – City-wide | | | | |
| US 101 Revisions (between OR 20 and Yaquina Bay Bridge) | Removal of on-street parking, no bike lanes, left turns only at Bayley, Abbey, Hurbert, Angle, and Olive Bridge) | High | \$31,000 | 1997 TSP |
| US 101/NE Avery Street | Access management modification (right-in, right-out only) | High | \$18,000 | 1997 TSP |
| John Moore Rd at SE Bay Blvd | Provide realignment and channelization | High | \$51,000 | 1997 TSP |
| US 101 to Cape | Provide island and channelization | High | \$7,500 | 1997 TSP |
| Naterlin at US 101 (Yaquina Bay Bridge) | Provide realignment and channelization | High | \$45,000 | 1997 TSP |
| NE 52 nd St Area Improvements | Improve NE Lucky Gap between NE 52 nd St and NE 54 th St; provide access from Longview Hills to NE 52 nd St | Medium | \$1,000,000 | 1997 TSP |
| NW 56 th St Improvement Area | Eliminate Old Hwy Loop between NW 55 th St and NW 58 th St; extend NW 56 th St to US 101; improve NW Gladys St between NW 56 th St and NW 60 th St as a frontage road | High | \$545,000 | 1997 TSP |
| US 101 | Surface Parking Lots for 101 Business: Construct surface parking lots to supplement parking removed from 101 restriping | Medium | \$270,000 | 1997 TSP |
| Abbey St | Construct a new parking structure on Abbey St parking lot (4 levels with top level open); include bike racks; restripe Bay Blvd to accommodate parallel parking south of Fall St to Naterlin Dr | Low | \$3,975,000 | 1997 TSP |
| NE 57 th St | Eliminate US 101 access; cul-de-sac NE 57 th St on its western terminus; connect NE Hazel Ct to NE 60 th St | Medium | \$270,000 | 1997 TSP |
| SW 2 nd St between US 101 and SW Angle St | Close SW 2 nd St between US 101 and SW Angle St (to be completed as part of signalization project at US 101 and Angle St) | Low | \$45,000 | 1997 TSP |
| US 101 and Hurbert St | Signal improvements to provide for left turns | High | \$270,000 | 1997 TSP |
| US 101/OR 20 | Signal revisions/improvements; realign E Olive St | High | \$1,120,000 | 1997 TSP |

| Location/ Limits | Project Description | Priority | Estimated Cost (\$ 2012) | Source |
|--|---|-----------------|-------------------------------------|----------------------------|
| US 101 at NW 11th Street | Realign intersection to eliminate slight off-set. Consider need for additional east/west turning lanes and/or signalization improvements. | High | \$570,000 ROW needed | 2008 North Side TSP update |
| US 101 at NW 6th Street | Realign intersection to eliminate off-set. Consider need for added east/west turning lanes and/or improved signal to address congestion problem. | High | \$730,000 ROW needed | 2008 North Side TSP update |
| North Side Local Street Plan TSM Improvement Projects | | | | |
| US 101, US 20 north to NW 12th Street | Evaluate opportunities for driveway and/or minor street closures or consolidation. | High | As redevelopment occurs. | 2008 North Side TSP update |
| US 101 at US 20 | Add 2nd southbound left turn lane. Widen eastbound US 20 to receive 2 lanes of traffic, transition to one lane east of US 101. | High | \$885,000 ROW needed | 2008 North Side TSP update |
| US 20 at NE Coos Street | Add signal and improve intersection to encourage north/ south local street alternative to US 101. Signal could help relieve congestion at NE Eads. | High | \$605,000 | 2008 North Side TSP update |
| US 20 at SE John Moore Drive | Add north/south left turn lanes and adapt signal phase. Combine northbound right/through lanes. | Medium | \$220,000 | 2008 North Side TSP update |
| SW Hatfield Drive at SW Bay Boulevard | Stripe separate right and left turn lanes, add crosswalk and no parking designation on Hatfield Dr. Add curb extensions on Bay Blvd. to facilitate pedestrian crossing. | High | \$52,000 | 2008 North Side TSP update |
| SW 2nd Street, SW Coast Street to SW Lee Street | Realign intersections of SW Lee Street, SW Hurbert Street, SW High Street and SW Coast Street to eliminate off-sets. | Medium | \$805,000 ROW needed | 2008 North Side TSP update |
| US 101 at Angle Street | Modify 1997 TSP to install traffic signal and left turn lanes on US 101. Remove on-street parking in vicinity of intersection to accommodate added lanes. Consider alternative to retain on-street parking by eliminating lefts on US 101 at Angle and evaluating local connectivity thru refinement plan after installation of signal at US 101/Abbey. | Medium | \$600,000 | 2008 North Side TSP update |
| US 101 at Hurbert Street | Modify 1997 TSP to install left turn lanes on US 101. Remove on-street parking in area of intersection for | High | \$100,000 | 2008 North Side TSP update |

| Location/ Limits | Project Description | Priority | Estimated Cost (\$ 2012) | Source |
|---|---|-----------------|---|-----------------------------|
| | added lanes. Consider alternative to retain on-street parking by eliminating lefts on US 101 at Hurbert and evaluating local connectivity thru refinement plan after installation of signal at US 101/Angle. | | | |
| John Moore Drive at Bay Blvd. | Stripe John Moore for separate left and right turns. Modify curb radii to enhance right turns from John Moore onto Bay. Add eastbound left turn lane and pedestrian crossing. | High | \$400,000 | 2008 North Side TSP update |
| Various Locations | Signage Improvements: <ul style="list-style-type: none"> ▫ Directional signs from US 20 to both John Moore and 9th for Bay Front visitors ▫ Directional signs from Bay Front parking lots and along Bay Blvd to Naterlin for Ocean access ▫ Improve signage to parking on Bay | High | \$21,000 | 2008 North Side TSP update |
| South Beach TSM Improvement Projects | | | | |
| US 101 at 32 nd Street | Remove traffic signal from intersection of US 101 and SE 32 nd Street. Convert intersection of US 101 and 32 nd Street right in and right out. Add one travel lane in each direction, construct multi-use path on west side with buffer and shoulder. Add shoulder/bike lane and sidewalk on east side of the highway. Acquire right-of-way as needed and institute access management. | High | \$787,000 (\$190,000 for interim improvements per 2012 Coho/Brant Refinement Plan) | 2012 South Beach TSP update |
| US 101 at 35 th Street | Widen intersection to add channelization and install traffic signal. Add one travel lane in each direction and construct multi-use path on west side with buffer and shoulder. Add shoulder/bike lane and sidewalk on east side of US 101. Construct 35 th Street to connect with US 101 (approx. 600-700 ft.) with multi-use path on north side and sidewalk on south side. Acquire right-of-way as needed and institute access management. | High | \$1,935,000 (\$1,119,000 for interim improvements per 2012 Coho/Brant Refinement Plan) | 2012 South Beach TSP update |
| US 101 at SW 40 th Street | Widen intersection to add channelization and install traffic signal. Add one travel lane in each | Medium | \$2,624,000 | 2012 South Beach TSP update |

| Location/ Limits | Project Description | Priority | Estimated Cost (\$ 2012) | Source |
|--|--|----------|-----------------------------|-----------------------------|
| | direction and construct multi-use path on west side with buffer and shoulder. Add shoulder/bike lane and sidewalk on the east side of US 101 north of 40 th Street and shoulder to the south. Add sidewalks on north side of 40 th [cost does not include 2 nd EB through lane to receive dual SB lefts from US 101 (see Project #12)]. Acquire right-of-way as needed and institute access management. | | | |
| US 101 at South Beach State Park/New SW 50 th Street | Construct traffic signal and intersection improvements to add new east leg. Multi-use path with buffer on west side of US 101 and shoulder/bike lanes on both sides. Multi-use path on north side of 50 th and sidewalk on south side. | Low | \$1,970,000 | 2012 South Beach TSP update |
| US 101 at SW 62 nd Street | Widen intersection to add channelization. Shoulder/bike lanes on both sides of US 101. Multi-use path on west side of US 101 with buffer and north side of 62 nd . Sidewalk on south side of 62 nd . | Low | \$1,054,000 | 2012 South Beach TSP update |
| SE Ferry Slip Road | Close intersection of US 101 at SE Ferry Slip Road, and overlay and widen roadway from SE 32 nd Street to north end of SE Ash Street (~1,100 feet). | High | \$144,000 | 2012 South Beach TSP update |
| SE 40 th Steet at US 101 to approx. 500-700 feet east | Add eastbound through lane to receive traffic from second south bound through lane at intersection of 40 th Street with US 101 | Medium | \$154,000 | 2012 South Beach TSP update |

New Traffic Signals

It has been identified that as traffic volumes increase, several intersections throughout Newport will require the installation of traffic signals. The cost for each traffic signal is estimated at \$500,000, totaling \$3.5 million for seven signals. This includes the cost for installation and signal coordination infrastructure but does not include intersection road work.

Listed below are the locations that will likely require new traffic signals or turn lanes, as traffic volumes increase. Intersection road work, such as turn lanes, also may be needed with these traffic signals. New traffic signals on state highways must be authorized by the State Traffic Engineer. These intersections should be monitored to determine the point in time at which signalization is warranted:

- US 101 at Abbey Street (High)
- US 101 at Angle Street (Low)
- US 101 at NE 36th St. (Medium)
- US 101 at NE 73rd St. (Low)
- US 101 at SE 35th Street (High)
- US 101 at SW 40th Street (High)
- US 101 at South Beach State Park/New SW 50th Street (Low)

Transportation modeling shows that traffic flow near the bridge would be improved by relocating the traffic signal at 32nd Street southward to 35th Street. When the planned 35th Street intersection widening is complete and a traffic signal is installed, the traffic signal from the intersection of US 101 and SE 32nd Street will be removed and replaced with a stop sign for motorists approaching US 101 from the side street. In addition, the 32nd Street intersection with US 101 will be limited to right in and right out traffic movements.

Functional Classification System

Streets perform various roles in a community, ranging from carrying large volumes of through traffic to providing direct access to abutting property. These functions are often conflicting, and a hierarchical classification system is needed to determine the appropriate function and purpose of each roadway.

Figures 1 through 3, and Table 43 presents the recommended functional classification system plan for the City of Newport. This plan recommends four roadway classifications as follows:

- **Principal Arterials** – These facilities carry the highest volumes of through traffic and primarily function to provide mobility and not access. Principal arterials provide continuity for intercity traffic through the urban area and are usually multi-lane facilities. The only facilities identified as principal arterials are US Highways 101 and 20.
- **Minor Arterials** – These facilities interconnect and augment the principal arterial system and accommodate trips of somewhat shorter length. Such facilities interconnect residential, shopping, employment, and recreational activities within the community.
- **Collector Streets** – These streets provide both land access and movement within residential, commercial, and industrial uses. These streets gather traffic from local roadways and serve as connectors to arterials.

- **Local Streets** – These streets provide land access to residential and other properties within neighborhoods and generally do not intersect any arterial routes. All remaining streets not listed in Table 4 are classified as local streets.

Figure 2: Functional Classification of Roadways – Downtown Map

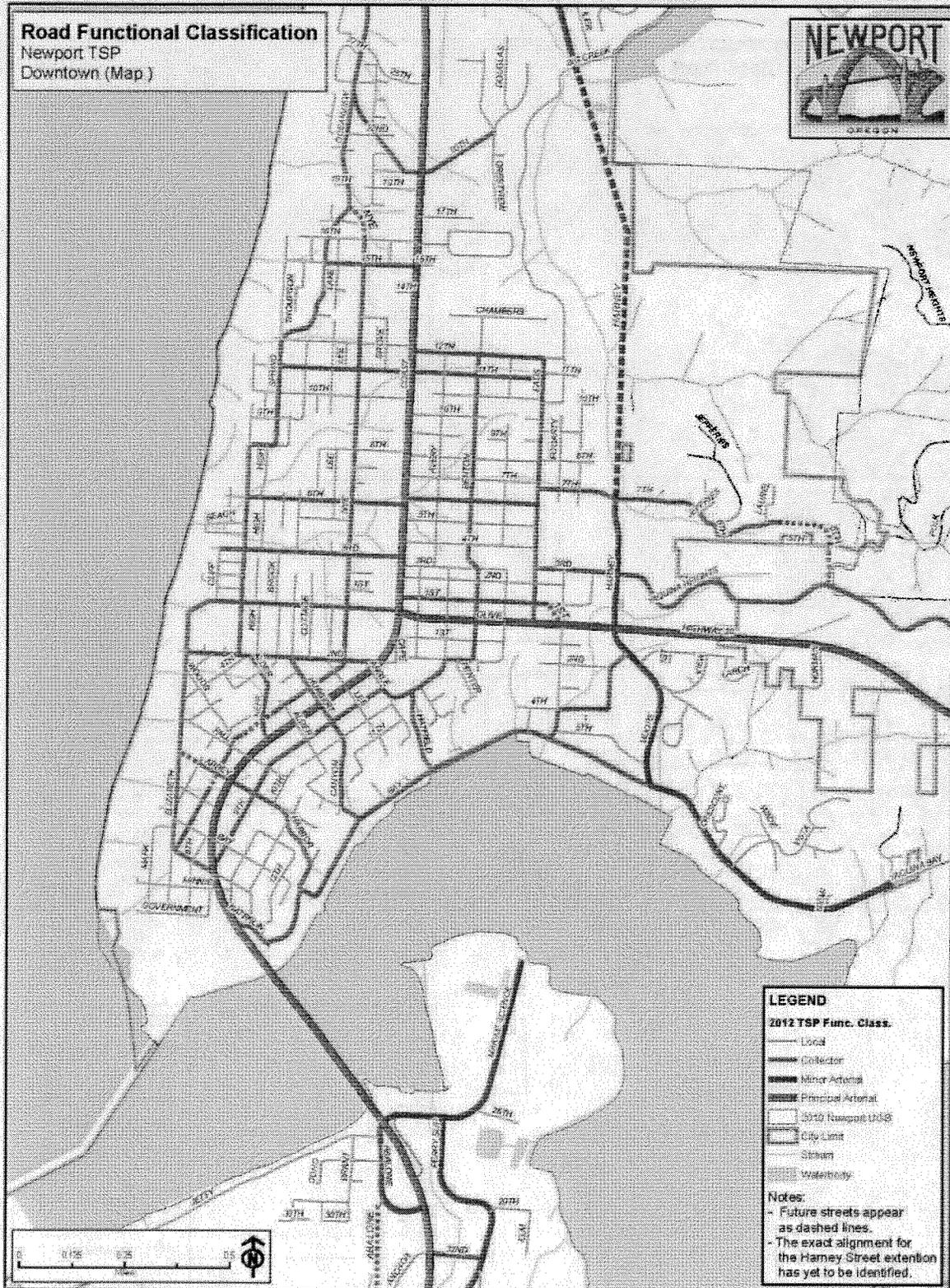


Figure 3: Functional Classification of Roadways – South Beach Map

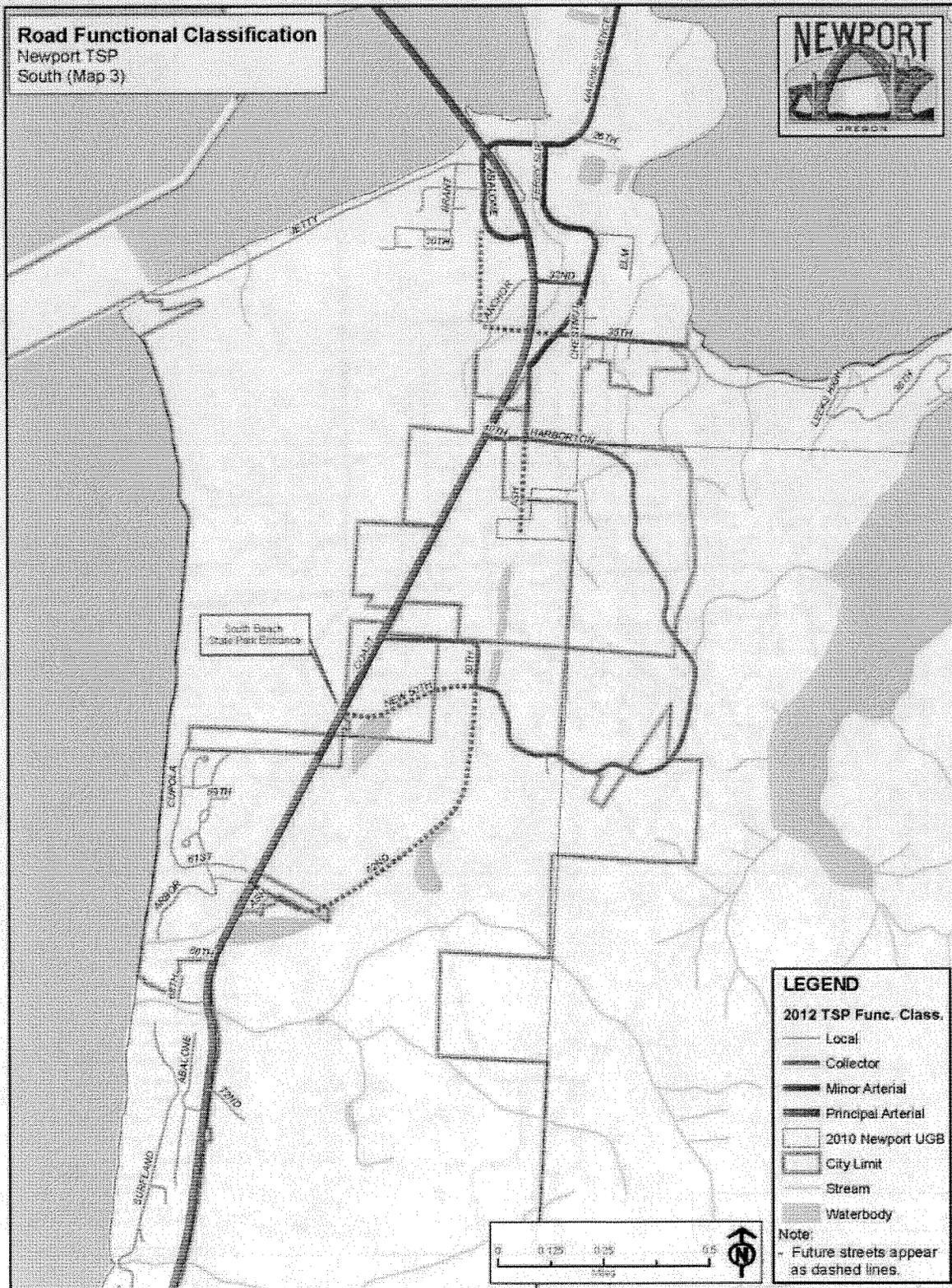


Table 4: Functional Classification of Roadways

| Principal Arterials | Limits |
|---|--|
| US Hwy 101 US Hwy 20 | North UGB Limits to South UGB Limits Hwy 101 to East UGB Limits |
| Minor Arterials | Limits |
| SW Abalone St SE Bay Blvd SE Ferry Slip Rd Harney Dr John Moore Rd North-South Arterial SE Marine Science Dr | Hwy 101 to SE Marine Science Dr John Moore Rd to East UGB Limits SE Marine Science Dr to SE Ash St Hwy 101 to Hwy 20 SE Bay Blvd to Hwy 20 Harney Dr to Harney Dr SW Abalone St to end of Street |
| Collectors | Limits |
| SW Abalone St SE Abbey St SW Alder St SW Angle St SE Ash St SE Avery St NE Avery St SE Bay Blvd SW Bayley St NE Benton St SW Canyon Way NW Coast St NE Coos St NE Eads St NW Edenview Way SW Elizabeth St SW Fall St SW Fall St SE Ferry Slip Road SE Fogarty St SW Harbor Way SE Harborton St SE Harney Dr SW Hatfield Dr SW Hurbert St SW Naterlin Dr SW Neff Way NW Nye St SW Nye St NW Ocean View Dr W Olive St NW Spring St NE Yaquina Heights Rd NE 1 st St SE 2 nd St SW 2 nd St NW 3 rd St NE 3 rd St | Stub out at cemetery to SW 35 th St Hwy 101 to SW Harbor Way SW 2 nd St to SW Neff Way SW 2 nd St to SW 9 th St SE Ferry Slip to southern terminus SE 2 nd St to East Olive (Hwy 20) NE 73 rd to North UGB Limits SE John Moore Rd to SW Naterlin Dr SW 7 th St to SW 11 th St NE 3 rd St to NE 12 th St SW Hurbert St to SW Fall St SW 2 nd St to NW 8 th St NE 3 rd St to SE 2 nd St East Olive (Hwy 20) to NE 12 th St Hwy 101 to NW Ocean View Dr SW Bayley St to W Olive St SW Canyon Way to SW Bay Blvd SW Elizabeth St to Hwy 101 SE Marine Science Dr to SE Ash St SE Bay Blvd to SE 4 th St SW Abbey St to SW 13 th St SE 40 th St to SE 50 th St SE 4 th St to SE John Moore Rd SW 9 th St to SW Bay Blvd SW 2 nd St to SW Canyon Way SW Government St to SW Bay Blvd SW Alder St to Hwy 101 West Olive St to NW Ocean View Dr SW 2 nd St to West Olive St NW 12 th St to Hwy 101 SW Elizabeth St to Hwy 101 NW 8 th St to NW 12 th St NE Harney Dr to Hwy 20 Hwy 20 to Hwy 101 SE Benton St to SE Coos St SW Elizabeth St to SW Angle St NW Coast St to Hwy 101 NW Harney St to NE Eads St |

| | |
|------------------------|---|
| SE 4 th St | SE Fogarty St to SE Harney Dr |
| NW 6 th St | NW Coast St to Hwy 101 |
| NE 6 th St | Hwy 101 to NE Eads St |
| NE 7 th St | NE 7 th Dr to Yaquina Heights Dr |
| SW 7 th St | SW 2 nd St to SW Elizabeth St |
| NW 8 th St | NW Coast St to NW Spring St |
| SW 9 th St | Hwy 101 to SE 10 th St |
| SE 10 th St | SE Benton St to SW 9 th St |
| NW 11 th St | NW Spring St to Hwy 101 |
| NE 11 th St | Hwy 101 to NE Eads St |
| NE 12 th St | Hwy 101 to NE Eads St |
| SW 13 th St | SW Harbor Way to SW Bay St |
| NW 15 th St | NW Ocean View Dr to Hwy 101 |
| NE 20 th St | Hwy 101 to NE Crestview Dr |
| SE 32 nd St | Hwy 101 to SE Ferry Slip Road |
| SE 35 th St | Hwy 101 to eastern terminus |
| SE 40 th St | Hwy 101 to SE Harborton St |
| SE 50 th St | SE Harborton St to US 101 |
| SE 62 nd St | SE 50 th St to Hwy 101 |
| NE 73 rd St | Hwy 101 to NE Avery St |

The hierarchical functional classification system requires different design standards for each roadway classification. For instance, major thoroughfare routes require different access control standards, paving requirements, right-of-way widths, and traffic safety devices. The TSP includes graphics showing the typical design standards for each roadway under the functional classification system.

The suggested design standards are to be used as a guideline for roadway construction, including the development of new roads and the reconstruction of existing roads. The roadway design standards are established to ensure consistency throughout the City, but because the City has diverse topographic and natural constraints, they must provide flexibility for unique and special situations. The City also may permit alternate street cross-section design in response to the challenges and needs of specific areas, where these standards are supported by the recommendations of a refinement planning process. Recent examples of where a more flexible approach to roadway design was adopted include the Coho/Brant and South Beach Peninsula Transportation Refinement Plans.

Transportation Planning in South Beach

Overview

Primary access to businesses and residents in South Beach principally relies on US 101. Recent analysis of the transportation system's capability to support existing and future growth indicates that the existing Oregon Highway Plan's (OHP) mobility standards or "targets" would not be met along US 101 for the 2030 planning horizon. This condition results from the combination of background traffic growth (e.g., through traffic) and anticipated development within the South Beach area. Substantial highway improvements in South Beach would not be sufficient to respond to the additional travel demand because the system is limited by the capacity of the Yaquina Bay Bridge, given its physical constraints as well as system infrastructure costs. To respond to this expected future condition, and to come into compliance with the State's expectations for mobility on US 101, the TSP identifies a variety of improvements to local street, bicycle, and pedestrian systems, as well as to US 101 that will improve local circulation and

facilitate traffic movements on US 101. The identified improvements on the local roadway system, are described in Table 1¹. The Oregon Transportation Commission recognizes that the mobility targets established in OHP Table 6 may not be feasible or practical in all circumstances. OHP Policy 1F states that alternate mobility targets can be developed to reflect the balance between relevant objectives related to land use, economic development, social equity, and mobility and safety for all modes of transportation. New mobility standards for US 101 have been identified and analyzed in conjunction with planned transportation system improvements in the report titled "Newport Transportation System Plan Update - Alternate Mobility Standards Final Technical Memorandum #13 Summary of Measures of Effectiveness," dated April 2012 in order to confirm that the mobility targets can reasonably be met within the planning horizon.

The Oregon Transportation Commission has sole authority to set standards for state facilities. The City supports the application of alternative mobility standards at intersections on US 101 in order to facilitate planned growth in South Beach. This change to mobility standards on US 101 as a result of planning done in 2011-12 represents a decision to accept a higher level of congestion. In recognition of the constraint that the existing Yaquina Bay Bridge poses to access to South Beach, and the lack of funds for large capacity improvements on the highway system in the foreseeable future, the City has chosen to help implement the State's alternate mobility standards, given that a higher level of controlled congestion on US 101 is an acceptable trade-off for accommodating economic development and reduced costs of total transportation system improvements associated with development.

An infrastructure refinement plan was prepared for the Coho/Brant neighborhood concurrent with the preparation of the TSP. That plan identifies needed improvements to local and collector streets in the neighborhood considering the transportation network identified in the TSP update for the greater South Beach area.

Development of an Alternative Mobility Standard

A substantial seasonal increase in traffic volumes occurs on US 101 during the summer months due to tourist traffic. During the peak traffic months of July and August, Newport weekday traffic is 21% higher than the annual average traffic volumes and 40% higher than traffic volumes during January. The Oregon Highway Plan (OHP)'s mobility targets apply during this peak summer traffic period.² Current traffic conditions in South Beach, however, are better than the conditions allowed by the OHP mobility targets.³

The capacity of the two-lane Yaquina Bay Bridge also affects highway operations in South Beach. The narrow travel lanes, lack of highway shoulders and the significant road grade from the middle of the bridge to its south end in South Beach affect the bridge's capacity when compared to a typical highway. The TSP Update calculated that the two-lane bridge's capacity is about 25% less than a typical highway. No replacement bridge can be expected in the planning horizon to provide additional capacity, so South Beach traffic movements will continue to be affected by this condition in 2030.

¹ In 2012, Ordinance 2045 updated the TSP to include transportation improvements for South Beach. The technical memoranda that constitute the analysis and recommendations for the transportation system in South Beach are documented and included in Ordinance 2045. *Newport Transportation System Plan Update - Alternate Mobility Standards Final Technical Memorandum #13 Summary of Measures of Effectiveness* informs the development of alternate mobility standards for US 101 in the South Beach study area. The development of these standards is based on the findings of technical memoranda #5, #10, #11 and #12 prepared for the Newport Transportation System Plan (TSP) Update.

² OHP Policy 1F, Table 6.

³ Newport TSP Technical Memorandum #5.

OHP mobility targets apply at the end of the planning horizon to evaluate the effect of future community development on highway operations, and substantial development is expected in South Beach during the planning horizon. Traffic volumes that would result from the level of development expected to occur in South Beach by 2030 were combined with ODOT's projections for background traffic growth. These future traffic volumes then were evaluated with the current local road network and current highway configuration, and with the existing road network and a five-lane highway alternative. The analysis showed that the existing network and the existing highway could not meet the OHP mobility targets anywhere in the system. Congestion would be so severe that traffic volumes would exceed the capacity of all highway intersections and the average travel speed would be 3.9 miles per hour for northbound traffic, and 2.5 miles per hour for southbound traffic on the existing highway. When the analysis included a five-lane highway, conditions north of 50th Street still could not meet the OHP targets and still exceeded capacity. South of 50th Street, most highway movements could meet the OHP targets, but none of the intersecting streets could. The average travel speed for a five-lane highway would be less than nine miles per hour for northbound traffic and less than six miles per hour for southbound traffic.⁴

A local road network is proposed in the South Beach Urban Renewal Plan to provide a local transportation system that is better able to support development in South Beach. The network would provide a more interconnected local street system that would allow local travel to occur on city streets rather than solely on the highway. This network was included in the Preferred System for the TSP Update because it would provide better long-term traffic conditions than the existing network and a five-lane highway.

The OHP mobility targets cannot be met on US 101 in South Beach because of high seasonal traffic and the reduced highway capacity caused by the Yaquina Bay Bridge. The OHP calls for consideration of alternative mobility standards where it is infeasible to meet the OHP mobility targets. Future traffic conditions in South Beach will be affected by high seasonal traffic and the reduced capacity of the Yaquina Bay Bridge. The alternative mobility standard incorporates a seasonal adjustment to use the annual average traffic volume; assigns new mobility targets; evaluates mobility only at existing traffic signals and at the locations where signalized intersections are proposed as part of the TSP Update; and accounts for the development of community services in South Beach, thereby minimizing future travel on US 101 to reach such services elsewhere in Newport. The results are alternative mobility standards effective at the current signalized US-101/SE 32nd Street intersection and at the future signalized highway intersections at South 35th Street, SE 40th Street and at SE 50th Street/South Beach State Park.

⁴ Newport TSP Update, Technical Memorandum #11.

Trip Budget Program

The purpose of the Trip Budget Program is to ensure that the planned transportation system meets the needs of existing and future development in South Beach. The underlying premise of the program is that the planned transportation system can accommodate a reasonable level of land development and still operate at an acceptable level. The assumed number of trips that will be generated by development in South Beach over a 20-year planning horizon was determined based on projected population growth and permitted land uses, but with the assumption that not all areas were 100% buildable due to environmental constraints.⁵ The land uses in this scenario, and the vehicular trips this future growth will generate, are anticipated to be accommodated on the adopted planned transportation system over a similar time horizon. The Trip Budget Program will be used to maintain the balance between the expected land uses and the identified needed transportation improvements in South Beach.

The City maintains a zoning overlay for South Beach that sets the parameters for allocating trips to new development and provides a framework for how and when the City of Newport and ODOT will revisit 20-year growth assumptions. The overlay, titled the South Beach Transportation Overlay Zone (“SBTOZ”), includes developable and redevelopable land in the South Beach portion of Newport, from the Yaquina Bay Bridge south to properties accessing SE 62nd Street (Figure 2: South Beach Overlay Zone). The SBTOZ helps the City track the consumption of trips from future development. It is a tool to assess new growth and compare it to the assumptions upon which the transportation system and improvements are based.

TAZ Trip Budgets

The Trip Budget Program is based on the number of trips projected to be generated from new development in South Beach over a 20-year time horizon. South Beach transportation analysis zones (“TAZs”) were created, as shown in Figure 2, to forecast future trips. Future development assumptions were made based on existing land use designations, environmental constraints in the area, and information gathered from property owners and businesses regarding assumptions about the amount of development that could be expected for each of the TAZs within the planning horizon. Table XX lists the TAZs in the SBTOZ and the PM peak hour trip total for each TAZ, at the time of plan adoption. The total number of trips available in the SBTOZ at the time of plan adoption also is shown in Table XX; these totals are the basis for the Trip Budget Program.

⁵ Land Use Scenario #2 in Newport Transportation System Plan Update - Alternate Mobility Standards Technical Memorandum #12 Analysis of South Beach Land Use Scenarios. Further supported by technical reports titled “Review of Newport TSP Update – Technical Memorandum #10: Biological/Wetlands Review” and “Newport Transportation System Plan Update – Alternate Mobility Standards Technical Memorandum #11 2030 Baseline System.”

Table 4: South Beach Overlay Zone Trip Budget Totals

| Area | TAZ Trip Budget ¹ |
|---------------------------------------|------------------------------|
| Area A | 1,237 |
| Area B and C | 798 |
| Area D | 606 |
| Area E | 167 |
| Area F | 626 |
| Area G | 257 |
| Area H | 300 |
| Area I | 181 |
| Area J | 200 |
| Trip Reserve Total² | 490 |
| SBTOZ Trip Total | 4,862 |

¹TAZ Trip Budgets are projected PM Peak Hour Trips forecasted for each TAZ during the next 20 years. TAZ Trip Budgets are based upon Scenario #2 in the "Newport Transportation System Plan Update--Alternate Mobility Standards Final Technical Memorandum #12."
² The SBTOZ Trip Reserve Total is 10% of the PM Peak Hour Trips from each TAZ. These trips can be allocated anywhere within the SBTOZ through Newport Zoning Code provisions.

City shall develop a process for the allocating trips out of the TAZ Trip Budget. Such a process may provide for vesting trips with a valid land use decision or through the issuance of a vesting letter. As part of the trip allocation process, the City is responsible for determining whether or not remaining trips available in the TAZ can accommodate the development proposal. Proposed developments that would generate more PM peak hour trips than what remains in the budget for the TAZ can be approved only by submitting a land use application requesting to use trips from the Trip Reserve Fund or through mitigation supported with a traffic impact analysis.

Trip Reserve Fund

Trips from the Trip Reserve Fund can be allocated to development projects anywhere within the SBTOZ. The trips in the reserve fund were calculated based on the cumulative total of all the TAZs in the SBTOZ and roughly equal 10% of the total PM peak hour trips available in the SBTOZ, as shown in Table 4. Reserve trips may be allocated across TAZ boundaries, to any land use type that is permitted by the underlying zoning.⁶ Through the SBTOZ, the City applies the following criteria to determine when trips should be allocated out of the Trip Reserve Fund to support a proposed development project:

- There are insufficient unassigned trips remaining in the TAZ to accommodate the proposed types of use(s).
- The proposal to use trips from the Trip Reserve Fund to meet the requirements of the Trip Budget is supported by a Transportation Impact Analysis.
- There are sufficient trips available in the Trip Reserve Fund to meet the expected trip generation needs of the proposal.

Approval of the allocation of trips from the Trip Reserve Fund is a discretionary decision, subject to attendant public notice, opportunity to comment, and an appeals process. Allocation of reserve trips is approved only where a transportation analysis demonstrates that the impacts from the

⁶ As opposed to TAZ trips, which must be allocated within the TAZ boundaries where development is proposed.

proposed development is consistent with the planned preferred transportation system, or that the transportation impacts can be mitigated with improvements proposed as part of the development.

Transportation Impact Analysis Requirement

To ensure that the number of trips available in the Trip Budget and Trip Reserve Fund are not being exceeded by development, the City will need to know the expected trip generation from each development proposal. In order for this information to be included in a development application, the City has traffic-related submittal requirements in the Zoning Ordinance. For development proposals, including changes in uses that will have a limited impact on the transportation system, this can be accomplished by determining the number of PM peak hour trips expected from the future development and ensuring that the effect to the transportation system is consistent with the transportation improvements planned for South Beach. Additional traffic analysis is required for higher traffic generating uses, such as development proposals that include a requested change in the underlying land use designation or zone or proposals that request trips from the Trip Reserve Fund to support a development proposal. The "two tiered" nature of such submittals in the City Zoning Ordinance requires a Trip Assessment Letter of all applicants, and requires a Transportation Impact Analysis ("TIA") when certain prescribed threshold conditions are met. The TIA section in the Zoning Code also includes thresholds that, if met or exceeded by a development proposal, would require that a TIA be submitted to the City for review and approval through a Type III review process.

The Zoning Code shall describe the thresholds for requiring a TIA that are applicable to development anywhere in Newport. The required elements of a TIA also are described. However, City staff has some discretion to determine the level of analysis necessary, based in part on the size and expected impact of the proposed project. Initial information on a proposed project and expected transportation impacts is gained through a pre-application conference between City staff and the applicant. The zoning code should allow the City to require needed transportation improvements as a condition of approval when the TIA shows that there is a need for the improvements. A fee-in-lieu option may also be included in the zoning code to provide for some flexibility as to when those improvements are made.

Trip Generation Calculation

The number of PM peak hour trips a proposed development is expected to put on the transportation system is based on trip generation by use in the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. One identified way to reduce the number of trips across the Yaquina Bay Bridge to reach essential goods and services is to promote a mix of uses in South Beach and to encourage service-related uses not currently found south of the bridge. Consistent with this approach, certain land use types must only consider the "primary trips" for the use rather than the trips that also would accrue from "passby" or "diverted-link" trips. Passby and diverted link trips involve intermediate stops on the way from a trip origin to a primary destination. "Passby" or "diverted linked" trips are identified by the type of use in the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. The following uses will be required to calculate only "primary trips":

- Personal service oriented uses, such as professional offices and branch banks.
- Sales or general retail uses, total retail sales area under 15,000 square feet, such as a grocery store. This does not include restaurants.
- Repair oriented uses.

Monitoring the Trip Budget Program

The trip generation information obtained from the Trip Assessment Letter required of each development proposal, as well as alterations or changes in use, in South Beach will be used by City staff to keep the Trip Budget updated. Upon approval of the trip allocation, City staff will update the available PM peak hour trip total for the subject TAZ by deducting the trips allocated to the permitted development. In the case of a change in use, where the new use generates less trips than the previous use, or through mitigation capacity is added to the system then trips may be added to the Trip Budget. The Trip Reserve Fund will be similarly updated when development is allocated trips from the Fund.

The Planning Commission and City Council should receive periodic updates on the status of the Trip Budget. The frequency of these updates may depend upon the respective body's work program but occur at least once a year.

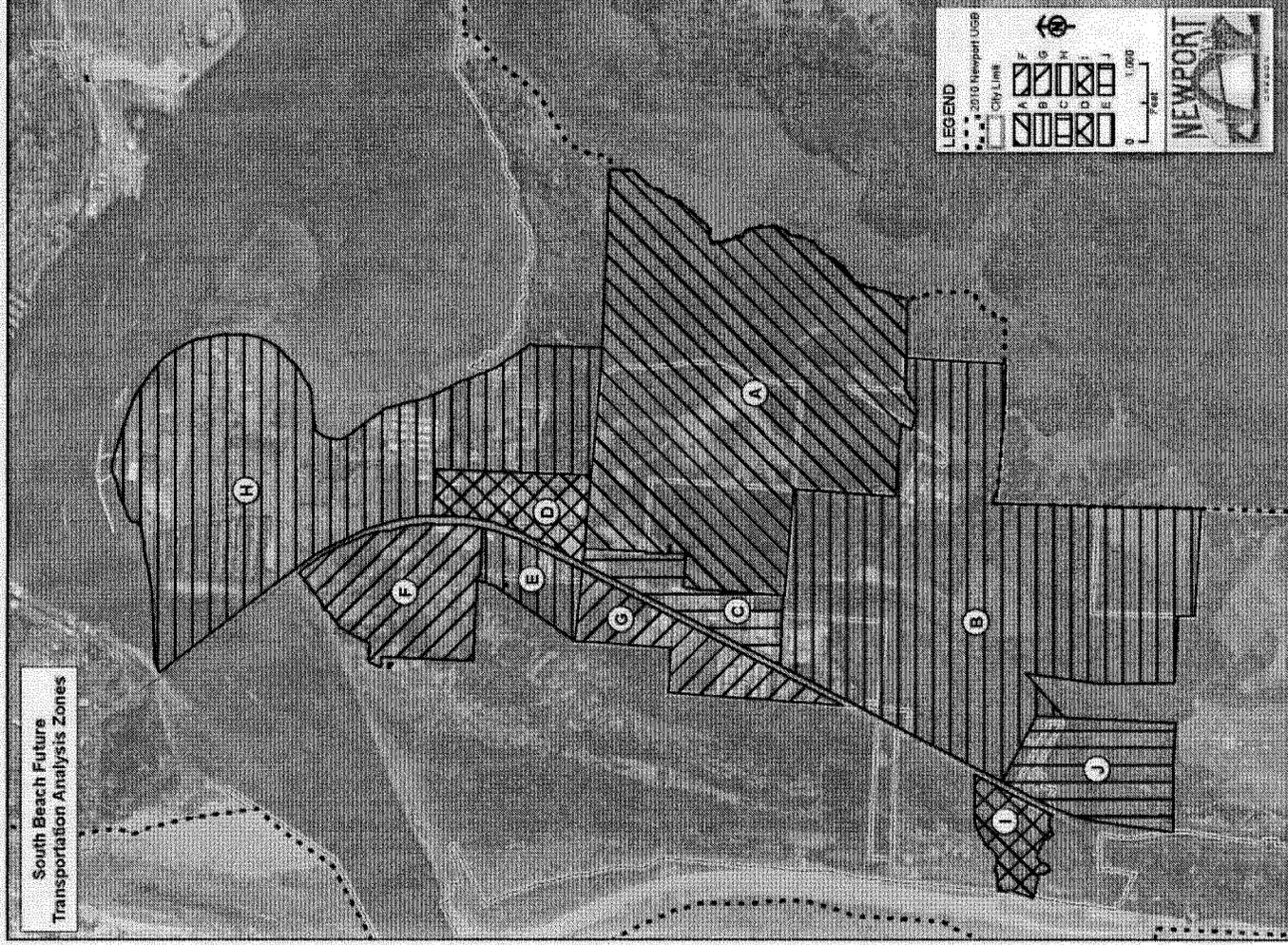
Amending the Trip Budget Program

It is unlikely that development will match up precisely to the assumptions in the future transportation analysis and, despite the flexibility afforded by the trip reserve, the Trip Budget Program may need to be updated to reflect actual development trends or to accommodate economic development opportunities that were not foreseen at the time of its adoption. These updates will be accomplished by:

- A comprehensive reassessment of the trip budget program that will begin no more than 10 years from effective date of Trip Budget Program ordinance.
- A reevaluation of the Newport Transportation System Plan and the associated trip budget will occur when 65% of the total trips in any given TAZ have been committed to permitted development.
 - This review will be initiated no later than 6 months from the time the threshold is reached. In anticipation of development reaching the 65% threshold, the City could also choose to commence the review any time development pressure in a certain TAZ warrants such an action.
 - The development proposal that triggers the 65% Review will not be denied based on this required review. Subsequent development proposals within the subject TAZ may also be reviewed and approved by the City during the review process. If the review necessitates updates to the Trip Budget Program, proposed changes will be adopted through a TSP and associated Zoning Code amendments.
 - To ensure that the 65% Review provides timely information, it will be completed within 12 months from initiation, or pursuant to a schedule that is part of a work program previously agreed upon by both the City and ODOT.

Major updates or adjustments of the land use scenarios and the trip budget for South Beach will require a legislative amendment to the TSP. Transportation Planning Rule findings of compliance with the adopted transportation system plan must support the modification.

Figure 4: South Beach Overlay Zone⁷



⁷ Corresponds with Figure 2-2 from Newport Transportation System Plan Update - Alternate Mobility Standards Technical Memorandum #12 Analysis of South Beach Land Use Scenarios.
TSP Page - 10 -

Pedestrian Facility Improvements

Specific to the City's pedestrian plan are recommendations for a continuous sidewalk system in good repair that will connect existing and future pedestrian and transit traffic generators. Emphasis is given to the pedestrian/transit interface. Also critical to the plan is the support it provides for tourist foot traffic, from the main traffic area and to specific tourist attractions. To this end, sidewalk improvements were identified to link existing sidewalks and to provide a system of sidewalks to ensure a balanced transportation system that offers realistic non-motorized alternatives. Early City efforts focused on providing safe and convenient travel for children who walk to school. The pedestrian and bicycle plan was greatly expanded in 2008 when the City adopted a new Pedestrian and Bicycle Plan. The City's existing pedestrian facilities and proposed pedestrian system are illustrated in the 2008 Pedestrian and Bicycle Plan.⁸ The update to the transportation system serving South Beach resulted in recommended projects that will enhance the pedestrian experience south of the bridge, including sidewalks along the west side of US 101, south to 35th Street, which will be part of future roadway improvements, and a multi-use path and sidewalks east of the highway, along 40th Street, Harborton Road, and 50th Street. South Beach improvements are illustrated Figure 3, Recommended South Beach Pedestrian and Bicycle Projects.

In 2011 the City conducted a series of charrettes with the public to improve recreational access to Agate Beach. The Agate Beach Wayside Project resulted in a conceptual design and list of associated improvements after extensive outreach by the City of Newport and Lincoln County with neighboring property owners, business owners, Oregon Department of Transportation, the Oregon Parks and Recreation Department, Surfrider Foundation, and other stakeholders. Major elements of the project include: improved parking lot circulation and safety; pedestrian improvements for Lucky Gap Trail; pedestrian improvements to North Agate Beach (i.e. "surfer access"), and; improvements to NW Agate Way and sidewalks on NW Gilbert Way.

Table 5 includes the recommended pedestrian facility improvements needed over the next 20 years. As indicated in the source column in Table 5, the projects listed are identified in the 1997 TSP, as well as updates to this plan in 2008 and 2012. All project cost estimates are shown in 2011 dollars; cost estimates for projects from the 1997 TSP (and 2008 update) have been adjusted to account for inflation.

Planning level cost estimates have been prepared for projects needed to provide continuous sidewalks within the school bus perimeter and in the core area, and to provide sidewalks where they do not currently exist on streets that will be part of the future arterial or collector network.

Adding sidewalks along a roadway are only part of the pedestrian solution; many busy streets and intersections are difficult to cross and can be barriers to walking. Allowing people to cross streets as freely as possible is important in maintaining a pedestrian-friendly environment. Often the width of the street, the geometry of the intersection, and the signal timing are designed only for the needs of the vehicle; not the pedestrian.

To increase pedestrian crossing opportunities and safety, two approaches can be considered: (1) designing roads that allow crossings to occur safely by incorporating design features such as raised medians or signal timing that creates gaps in traffic; or (2) constructing actual pedestrian crossings with pedestrian-activated signals, mid-block curb extensions, marked crosswalks, etc.

⁸ See maps 2-1, 3-1, 3-2, and 3-3 in the 2008 Pedestrian and Bicycle Plan. Note that the location of the shared use path and the proposed sidewalk along Highway 101 depicted on Map 3-3, Proposed Pedestrian System in South Newport, has been updated; see Figure 3, Recommended South Beach Pedestrian and Bicycle Projects.

There are a variety of locations in Newport where crosswalk improvements are necessary to maintain pedestrian safety. The 2008 Pedestrian and Bicycle Plan identify several techniques that can be implemented at busy intersections.

Bicycle Facility Improvements

US 101 is the state-designated bike route that is known nationally as the Oregon Coast Bike Route. In Newport, the Oregon Coast Bike Route diverges from the highway between Ocean View Drive and the Yaquina Bay Bridge onto city streets located west of the highway that have lower traffic volumes and are closer to the Pacific Ocean. Other City-designated routes are along Ocean View Drive, Coast Street, and Elizabeth Street. These routes are currently signed, but lack separated bike lanes. The City's goal is to provide bicycle routes that enable safe and efficient travel for through bike traffic traveling along the Oregon Coast, as well as to provide a system for traveling within the city. The system of bicycle facilities has been designed to connect both north-south and east-west bicycle traffic. It has also been designed to connect all major generators of bicycle traffic with residential neighborhoods and tourist facilities. The pedestrian and bicycle plan was greatly expanded and adopted by the City of Newport in 2008. The existing bicycle facilities and proposed bicycle facilities are illustrated in the 2008 Pedestrian and Bicycle Plan.⁹ The update to the transportation system serving South Beach resulted in recommended projects to enhance the pedestrian experience south of the bridge. Sidewalks will be extended on both sides of the highway south to 35th Street. South of 35th Street, a multi-use path will be constructed on the west side of the highway; a sidewalk will be constructed on the east side. Multi-use paths and sidewalks will be constructed along SE 40th Street, Harborton Road and the new alignment for SE 50th Street.

Table 5 presents the recommended bicycle route improvements. The cost estimate for upgrading existing roads to include bicycle lanes has been prepared for each route or series of routes. The cost estimates for bicycle facilities on new roadways have been included in the roadway construction cost estimates. All project cost estimates are shown in 2012 dollars; cost estimates for projects from the 1997 TSP (and 2008 update) have been adjusted to account for inflation.

⁹ See Maps 2-2, 3-4, 3-5, and 3-6 in the 2008 Pedestrian and Bicycle Plan. The location of the proposed shared use path in South Beach was updated by the 2012 South Beach amendments (see Figure 3 Recommended South Beach Pedestrian and Bicycle Projects).

Table 5: Recommended Pedestrian and Bicycle Improvements¹⁰

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|---|------------------|--|---------------------|-----------------|---------------------------------|---------------------|
| US 101 Crossings | | | | | | |
| NW 68th Undercrossing | n/a | An undercrossing of US 101 at NW 68th | ODOT / Newport | Low | \$2,340,000 | 2008 Ped. Bike Plan |
| Mid-block between 16th Street & 17th Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk | ODOT / Newport | Low | \$265,000 | 2008 Ped. Bike Plan |
| NW 15 th Street | n/a | Add crosswalk | ODOT / Newport | Low | \$11,500 | 2008 Ped. Bike Plan |
| 13th Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk | ODOT / Newport | Low | \$265,000 | 2008 Ped. Bike Plan |
| 10th Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk | ODOT / Newport | Medium | \$265,000 | 2008 Ped. Bike Plan |
| 8th Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk | ODOT / Newport | Medium | \$265,000 | 2008 Ped. Bike Plan |
| 3rd Street / 4th Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk | ODOT / Newport | High | \$265,000 | 2008 Ped. Bike Plan |
| 2nd Street (outside City Hall) | n/a | Add median, raised stop bars, appropriate signage, and striped continental | ODOT / Newport | High | \$265,000 | 2008 Ped. Bike Plan |

¹⁰ All project estimates, unless otherwise noted, are shown in 2012 dollars. Costs are escalated at a 4% per year from the previous project estimate (1997, 2008 or 2011).

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|---|--|---|----------------|----------|--------------------------|-----------------------------|
| | | crosswalk | | | | |
| SW Angle Street | n/a | Add curb extensions | ODOT / Newport | High | \$78,000 | 2008 Ped. Bike Plan |
| SW Lee Street | n/a | Add curb extensions | ODOT / Newport | High | \$53,000 | 2008 Ped. Bike Plan |
| SW Hurbert Street | n/a | Add curb extensions | ODOT / Newport | High | \$38,000 | 2008 Ped. Bike Plan |
| SW Alder Street | n/a | Add curb extensions | ODOT / Newport | High | \$53,000 | 2008 Ped. Bike Plan |
| SW Neff Way | n/a | Add median, raised stop bars, appropriate signage | ODOT / Newport | Medium | \$265,000 | 2008 Ped. Bike Plan |
| SW Abbey Street | n/a | Tighten the turning radius for vehicles, add marked crosswalks | ODOT / Newport | Low | \$205,000 | 2008 Ped. Bike Plan |
| SW Bay Street | n/a | Tighten the turning radius for vehicles, add marked crosswalks | ODOT / Newport | Low | \$205,000 | 2008 Ped. Bike Plan |
| Mid-block between SW Bayley Street & SW Minnie Street | n/a | Add median, raised stop bars, appropriate signage, and striped continental crosswalk, and curb extensions | ODOT / Newport | Medium | \$265,000 | 2008 Ped. Bike Plan |
| Sidewalks | | | | | | |
| US 101 ¹¹ | Yaquina Bay Bridge to Abalone Street | Construct sidewalk on west side of highway | | | \$186,000 | 2012 South Beach TSP update |
| US 101 ¹² | Abalone Street to Anchor Way/35 th Street | Construct sidewalk on west side of highway | | | \$332,000 | 2012 South Beach TSP update |

¹¹ Funding currently proposed from FEMA as part of tsunami evacuation route. The Ash Street Extension roadway improvement project (south of SE 40th Street) shows a multi-use path at this location. This estimate is for an independent sidewalk improvement.

¹² Project included as part of the Ash Street Extension roadway improvement project (south of SE 40th Street) as a multi-use path.

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|----------------------|--|--|---------------------|-----------------|---------------------------------|---------------------|
| NE Avery Street | US 101 to end of street | Construct sidewalk on west side of street | Newport | Medium | \$219,000 | 2008 Ped. Bike Plan |
| NE 71st Street | NE Avery Street to NE Echo Ct | Construct sidewalk on south side of street | Newport | Low | \$115,000 | 2008 Ped. Bike Plan |
| NE 70th Street | NE Avery St to fire access easement road | Construct sidewalk on north side of street | Newport | Low | \$79,000 | 2008 Ped. Bike Plan |
| Fire Access Easement | NE 70th St to NE 71st St | Construct pedestrian accessway | Newport | Low | \$18,000 | 2008 Ped. Bike Plan |
| US 101 | NE Avery St to Agate Beach Access Rd | Construct sidewalk on west side of street | ODOT / Newport | Low | \$700,000 | 2008 Ped. Bike Plan |
| NE 57th Street | US 101 to NE Evergreen Ln | Construct sidewalk on south side of street | Newport | Medium | \$130,000 | 2008 Ped. Bike Plan |
| NE Evergreen Lane | End of street to NE 54th St | Construct sidewalk on west side of street | Newport | Low | \$245,000 | 2008 Ped. Bike Plan |
| NE 54th Street | NE Evergreen Ln to NE 56th St | Construct sidewalk on north side of street | Newport | Low | \$60,000 | 2008 Ped. Bike Plan |
| NE 56th Street | NE 54th St to NE Lucky Gap St | Construct sidewalk on east/south of street | Newport | Low | \$85,000 | 2008 Ped. Bike Plan |
| NE Lucky Gap Street | NE 56th St to NE 57th St | Construct sidewalk on east side of street | Newport | Low | \$55,000 | 2008 Ped. Bike Plan |
| NW 60th Street | US 101 to end of street | Construct sidewalk on both sides of street | Newport | Medium | \$155,000 | 2008 Ped. Bike Plan |
| NW 58th Street | US 101 to end of street | Construct sidewalk on both sides of street | Newport | Medium | \$225,000 | 2008 Ped. Bike Plan |
| NW 57th Street | NW Gladys St to end of street / NW Biggs St to end of street | Construct sidewalk on south side of street | Newport | Low | \$115,000 | 2008 Ped. Bike Plan |
| NW 56th Street | US 101 Access Rd to | Construct sidewalk on south side of | Newport | Medium | \$145,000 | 2008 Ped. Bike Plan |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|------------------------|------------------------------|---|---------------------|-----------------|---------------------------------|---------------------|
| | end of street | street | | | | |
| NW 55th Street | US 101 to end of street | Construct sidewalk on north side of street | Newport | Medium | \$160,000 | 2008 Ped. Bike Plan |
| NW Rhododendron Street | NW 55th St to NW 60th St | Construct sidewalk on east side of street | Newport | Medium | \$105,000 | 2008 Ped. Bike Plan |
| NW Biggs Street | NW 56th St to NW 60th St | Construct sidewalks on both sides of street | Newport | Medium | \$155,000 | 2008 Ped. Bike Plan |
| NW Gladys Street | NW 56th St to NW 60th St | Construct sidewalks on west side of street | Newport | Low | \$90,000 | 2008 Ped. Bike Plan |
| NW Lighthouse Drive | US 101 to end of street | Construct sidewalks on north side of street | Newport | Low | \$335,000 | 2008 Ped. Bike Plan |
| NE Harney Street | US 101 to NE Big Creek Rd | Construct sidewalks on south side of street | Newport | Medium | \$210,000 | 2008 Ped. Bike Plan |
| NE Lakewood Drive | NE Harney to end of street | Construct sidewalk on one side of street | Newport | Medium | \$190,000 | 2008 Ped. Bike Plan |
| NE Crestview Drive | NE 20th St to end of street | Complete sidewalk gaps on west side of street | Newport | Low | \$34,000 | 2008 Ped. Bike Plan |
| NE Crestview Place | NE 20th St to end of street | Construct sidewalks on west side of street | Newport | Low | \$63,000 | 2008 Ped. Bike Plan |
| NE 20th Place | NE 20th St to end of street | Construct sidewalks on south side of street | Newport | Low | \$61,000 | 2008 Ped. Bike Plan |
| NE Douglas Street | NE 20th Pl to end of street | Construct sidewalks on west side of street | Newport | Low | \$59,000 | 2008 Ped. Bike Plan |
| NW Oceanview Drive | US 101 to NW Spring St | Construct sidewalks on west side of street | Newport | Low | \$495,000 | 2008 Ped. Bike Plan |
| NW Spring Street | NW Oceanview Dr to NW 8th St | Construct sidewalks on west side of street | Newport | Medium | \$105,000 | 2008 Ped. Bike Plan |
| NW 8th Street | NW Spring St to NW Coast St | Construct sidewalks on north side of street | Newport | Medium | \$32,000 | 2008 Ped. Bike Plan |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|-------------------|--|--|---------------------|-----------------|---------------------------------|---------------------|
| NW 15th Street | NW Oceanview Dr to NW Grove St | Construct sidewalks on south side of street | Newport | Low | \$68,000 | 2008 Ped. Bike Plan |
| NW 12th Street | NW Spring St to just east of NW Nye St | Construct sidewalks on south side of street | Newport | Medium | \$87,000 | 2008 Ped. Bike Plan |
| NW 11th Street | NW Spring St to US 101 | Complete sidewalk gaps on both sides of street | Newport | High | \$130,000 | 2008 Ped. Bike Plan |
| NW 10th Street | NW Spring St to NW Nye St | Construct sidewalk on south side of street | Newport | Medium | \$79,000 | 2008 Ped. Bike Plan |
| NW 6th Street | NW Coast St to NW Nye St | Construct sidewalks on north side of street | Newport | High | \$183,000 ¹³ | 2008 Ped. Bike Plan |
| NW 12th Street | US 101 to NE Benton St | Complete sidewalk gaps on south side of street | Newport | High | \$60,000 | 2008 Ped. Bike Plan |
| NE 8th Street | US 101 to NE Eads St | Construct sidewalks on one side of the street | Newport | Medium | \$130,000 | 2008 Ped. Bike Plan |
| NE 7th Street | US 101 to NE Eads St | Construct sidewalks on one side of the street | Newport | High | \$130,000 | 2008 Ped. Bike Plan |
| NE Jeffries Place | NE 7th St to end of street | Construct sidewalks on west side of street | Newport | Low | \$39,000 | 2008 Ped. Bike Plan |
| NE 7th Drive | NE 7th St to end of street | Construct sidewalks on west side of street | Newport | Low | \$94,000 | 2008 Ped. Bike Plan |
| NE 6th Street | NE 7th Drive to end of street | Construct sidewalks on south side of street | Newport | Low | \$100,000 | 2008 Ped. Bike Plan |
| NE 4th Street | US 101 to NE Douglas St | Construct sidewalks on both sides of street | Newport | High | \$170,000 | 2008 Ped. Bike Plan |
| NE 3rd Street | NE Eads St to NE Harney St | Complete sidewalk gaps on both sides of street | Newport | High | \$140,000 | 2008 Ped. Bike Plan |
| NE 2nd Street | US 101 to NE Eads St | Complete sidewalk gaps on both sides of street | Newport | Medium | \$125,000 | 2008 Ped. Bike Plan |

¹³ Project cost estimate developed in 2012.

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|---------------------------|--|--|---------------------|-----------------|---------------------------------|---------------------|
| SE 1st Street | US 101 to SE Douglas St | Construct sidewalks on south side of street | Newport | High | \$105,000 | 2008 Ped. Bike Plan |
| SE 2nd Street | SE Benton St to SE Douglas St | Construct sidewalks on south side of street | Newport | High | \$46,000 | 2008 Ped. Bike Plan |
| SE Benton Street | SE 1st St to US 20 | Construct sidewalks on west side of street | Newport | High | \$18,000 | 2008 Ped. Bike Plan |
| SE Coos Street | SE 2nd St to US 20 | Construct sidewalk on west side of street | Newport | Medium | \$39,000 | 2008 Ped. Bike Plan |
| SE Douglas Street | SE 2 nd St to US 20 | Construct sidewalk on west side of street | Newport | Medium | \$39,000 | 2008 Ped. Bike Plan |
| SE 2 nd Street | SE Fogarty St to SE Harney St | Construct sidewalks on south side of street | Newport | High | \$45,000 | 2008 Ped. Bike Plan |
| SE 4 th Street | SE Fogarty St to SE Harney St | Construct sidewalks on south side of street | Newport | High | \$45,000 | 2008 Ped. Bike Plan |
| SE Harney Street | SE 4 th Street to SE 2 nd St | Construct sidewalks on east side of street | Newport | High | \$39,000 | 2008 Ped. Bike Plan |
| Bay Blvd | Length of street | Complete sidewalk gaps on both sides of street | Newport | Medium | \$185,000 | 2008 Ped. Bike Plan |
| SW Hatfield Drive | SW Bay Blvd to SW 10 th St | Construct sidewalks on west side of street | Newport | Low | \$67,000 | 2008 Ped. Bike Plan |
| SW Harbor Drive | SW Bay St to SW 11 th St | Construct sidewalks on west side of street | Newport | High | \$51,000 | 2008 Ped. Bike Plan |
| SW Neff Way / SW Alder St | US 101 to SW 2 nd St | Construct sidewalks on both sides of street | Newport | High | \$170,000 | 2008 Ped. Bike Plan |
| SW 7 th Street | SW Alder St to SW Elizabeth St | Construct sidewalks on north side of street | Newport | Medium | \$180,000 | 2008 Ped. Bike Plan |
| SW Elizabeth Street | SW Government St to SW Abbey St | Construct sidewalk on west side of street | Newport | High | \$145,000 | 2008 Ped. Bike Plan |
| SW | Yaquina State | Construct sidewalk | State Parks / | Low | \$140,000 | 2008 Ped. |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|--|--|--|---------------------|-----------------|---------------------------------|--|
| Government Street / Yaquina State Park | Park | adjacent to road through park | Newport | | | <i>Bike Plan</i> |
| SE Marine Science Dr | SW Abalone to end of street | Construct sidewalks on south and east side of street | Newport | Medium | \$250,000 | <i>2010 South Beach Peninsula Plan</i> |
| SE Ferry Slip Road | SE 29 th St to SE Marine Science Dr | Construct sidewalks on east side of street | Newport | Medium | \$27,000 | <i>2010 South Beach Peninsula Plan</i> |
| SW Brant Street | SW Abalone St to end of street | Construct sidewalks on west side of street | Newport | High | \$433,000 ¹² | <i>2012 Coho/Brant Infra. Plan</i> |
| SE 35 th Street | SE Ferry Slip Rd to end of street | Construct sidewalk on one side of street | Newport | High | \$400,000 | <i>2008 Ped. Bike Plan</i> |
| SE Fogarty Street | US 20 to SE Bay Blvd | Construct sidewalk on east side of street | Newport | Medium | \$110,000 | <i>2008 Ped. Bike Plan</i> |
| NE 36 th Street | US 101 to NE Harney St | Construct sidewalk on one side of street | Newport | Medium | \$135,000 | <i>2008 Ped. Bike Plan</i> |
| NE 10 th Court | NE Eads to NE Benton St | Construct sidewalks on both sides of street | Newport | Medium | \$120,000 | <i>2008 Ped. Bike Plan</i> |
| NE 10 th Street | NE Benton St to US 101 | Construct sidewalks on both sides of street | Newport | Medium | \$125,000 | <i>2008 Ped. Bike Plan</i> |
| NE 5 th Street | NE Benton St to NE Eads St | Construct sidewalks on both sides of street | Newport | Medium | \$125,000 | <i>2008 Ped. Bike Plan</i> |
| NE Fogarty Street | US 20 to NE 3 rd Street | Construct sidewalks on both sides of street | Newport | Medium | \$115,000 | <i>2008 Ped. Bike Plan</i> |
| SE Moore Drive | Bay Blvd to SE 2 nd Street | Construct sidewalk on west side of road | Newport | Medium | \$125,000 | <i>2008 Ped. Bike Plan</i> |
| SE 2 nd Street | SE Moore Drive west | Construct sidewalks on both sides of street | Newport | Medium | \$23,000 | <i>2008 Ped. Bike Plan</i> |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|-----------------------------------|--|--|---------------------|-----------------|---------------------------------|-----------------------------|
| SE 5 th Street | SE Moore Drive west | Construct sidewalks on both sides of street | Newport | Medium | \$180,000 | 2008 Ped. Bike Plan |
| San-Bay-O Circle | Proposed connection to Crestview to proposed connection to Chambers Ct | Construct sidewalk along one side of street from proposed connections to Crestview and to Chambers Court | Newport | Medium | \$48,000 | 2008 Ped. Bike Plan |
| Sidewalks and Bike Lanes | | | | | | |
| 40 th Street | East of US 101 to South Beach Village | Construct bicycle lane and sidewalk along north side of street | | | \$89,000 | 2012 South Beach TSP update |
| NW Nye Street | NW 15 th St to SW 2 nd St | Construct bicycle lanes on both sides of street and complete sidewalk gaps on east side of street | Newport | High | \$195,000 | 2008 Ped. Bike Plan |
| NE Benton Street / NE Coos Street | NE 12 th Street to US 20 | Construct bicycle lanes and sidewalks on both sides of street | Newport | Medium | \$525,000 | 2008 Ped. Bike Plan |
| NE 7 th Street | NE Eads St to NE 6 th St | Construct bicycle lanes on both sides of street and sidewalks on south side of street | Newport | High | \$215,000 | 2008 Ped. Bike Plan |
| NE Harney Street | US 20 to NE 3 rd Street | Construct bicycle lanes and sidewalks on both sides of street and sidewalks on south side of street | Newport | Medium | \$91,000 | 2008 Ped. Bike Plan |
| US 20 | NE Harney St / SE Moore Dr to US 101 intersection | Construct bicycle lanes and fill in sidewalk gaps on both sides of street | ODOT / Newport | Medium | \$55,000 | 2008 Ped. Bike Plan |
| SW 10 th Street | SW Hatfield Dr to SE 2 nd St | Stripe bicycle lanes on south side of street and fill in sidewalk gaps on both sides of street | Newport | Medium | \$45,000 | 2008 Ped. Bike Plan |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|--|---|--|--------------|----------|--------------------------|------------------------|
| SW 2 nd Street | SW Nye St to SW Coast St | Strip bicycle lanes on both sides of the street and complete sidewalk gaps on north side of the street | Newport | Low | \$72,000 | 2008 Ped. Bike Plan |
| SW 26 th Street | SW Brant St to SW Abalone St | Construct sidewalk on north side and striped bike lane on south side of the street | Newport | Medium | \$52,000 | 2012 Coho / Brant Plan |
| Recommended Bicycle System Improvements | | | | | | |
| Bicycle Parking | | Parking at major bus stops and bus stations (for tourists) | | High | \$28,000 | 2008 Ped. Bike Plan |
| Bicycle Racks | | Racks for all Dial-a-Ride vehicles (10 racks) | | High | \$14,000 | 2008 Ped. Bike Plan |
| West Olive St | Elizabeth St to Nye St | Striping for bicycle lanes along identified roadways to complete the East-West Bike Route. | | High | \$3,000 | 2008 Ped. Bike Plan |
| SW 2 nd St | Nye St to Angle St | | | | | |
| Angle St | SW 2 nd St to SW 9 th St | | | | | |
| SW 9 th St/Avery St | Angle St to SE 1 st St | | | | | |
| SE 1 st St | Avery St to Fogarty St | | | | | |
| Fogarty St | SE 1 st St to SE 2 nd St | | | | | |
| SE 2 nd St | Fogarty St to Harney Dr | | | | | |
| John Moore Rd | Harney Dr to US 20 | | | | | |
| Eads St | NE 12 th St to NE 3 rd St | | | | | |
| NE 3 rd St | Eads St to Harney Rd | | | | | |
| Big Creek Rd | Harney Dr to NE 12 th St | Provide bikeway; also includes sidewalk improvements. | | Medium | \$205,000 | 2008 Ped. Bike Plan |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|---|--|---|--------------|----------|--------------------------|---------------------|
| | | Road will be closed to traffic after completion of the North-South Arterial. | | | | |
| Ocean View Dr | US 101 to the new Nye St extension | Add bicycle route signs along identified roadways to provide a north-south alternate bicycle route to US 101 (signed route only). | | High | \$1,000 | 2008 Ped. Bike Plan |
| Nye St | Ocean View Dr to Olive St | | | | | |
| Olive St | Nye St to the Beach at Elizabeth St | | | | | |
| Elizabeth St | Olive St to SW 2 nd St (connects to existing bicycle path along Elizabeth St) | | | | | |
| Bicycle Lanes | | | | | | |
| SW Canyon Way | SW Fall St to SW 9 th St | Construct bicycle lane on east side of street | Newport | Low | \$11,000 | 2008 Ped. Bike Plan |
| US 101 | Yaquina Bay Bridge to South Beach State Park Access | Stripe bicycle lanes on both sides of street | ODOT | Low | \$64,000 | 2008 Ped. Bike Plan |
| West Olive | US 101 to SW Elizabeth St | Stripe bicycle lanes on both sides of street | Newport | Medium | \$24,000 | 2008 Ped. Bike Plan |
| New Boat Launch Pathway | Marine Science Dr to New Boat Launch | Designate bike and pedestrian lane on access road on Northern edge of parking lot | Port | Low | \$11,000 | 2008 Ped. Bike Plan |
| Shared Roadways / Bicycle Boulevards | | | | | | |
| Oregon Coast Bicycle Route | US 101 to Yaquina Bay Bridge | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | Medium | \$9,000 | 2008 Ped. Bike Plan |
| NE Harney | US 101 to NE | Implement Level 1 | Newport | Low | \$2,000 | 2008 Ped. |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|-----------------------------------|------------------------------|--|---------------------|-----------------|---------------------------------|----------------------------|
| Street | Big Creek Rd | and 2 bicycle boulevard applications (signage, pavement markings) | | | | <i>Bike Plan</i> |
| 11th Street | NW Spring St to NE Eads St | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | High | \$2,000 | <i>2008 Ped. Bike Plan</i> |
| 6th Street | NW Coast St to NE Eads St | Implement Levels 1, 2 and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments) | Newport | High | \$2,000 | <i>2008 Ped. Bike Plan</i> |
| NW 3rd Street / NW 4th Street | NW Coast St to NE Eads St | Implement Levels 1, 2 and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments) | Newport | Medium | \$3,000 | <i>2008 Ped. Bike Plan</i> |
| SW 7th Street | SW 2nd St to SW Elizabeth St | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | Medium | \$2,000 | <i>2008 Ped. Bike Plan</i> |
| SW 10th / 9th Street | SE 2nd St to SW Bay St | Implement Levels 1, 2 and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments) | Newport | High | \$3,000 | <i>2008 Ped. Bike Plan</i> |
| SW Canyon Way / SW Hurbert Street | SW Bay Blvd to NW 6th St | Implement Levels 1, 2 and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments) | Newport | High | \$3,000 | <i>2008 Ped. Bike Plan</i> |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|---------------------------------|-------------------------------|--|---------------------|-----------------|---------------------------------|---------------------|
| SW Bay Street | SW 9th St to SW 12th St | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | High | \$1,000 | 2008 Ped. Bike Plan |
| SW 10th Street / SW 12th Street | SW Bay St to US 101 | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | High | \$1,000 | 2008 Ped. Bike Plan |
| Bay Blvd | SW Naterlin Dr to SE Moore Dr | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | Medium | \$3,000 | 2008 Ped. Bike Plan |
| South Beach State Park | US 101 | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | Low | \$3,000 | 2008 Ped. Bike Plan |
| NE Eads Street | US 20 to NE 12th Street | Implement Levels 1, 2 and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments) | Newport | High | \$18,000 | 2008 Ped. Bike Plan |
| SE Moore Drive | Bay Blvd to US 20 | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | High | \$2,000 | 2008 Ped. Bike Plan |
| SW 26 th Street | US 101 to west of town | Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings) | Newport | Medium | \$1,000 | 2008 Ped. Bike Plan |
| Old Boat Launch access | US 101 to old boat launch | Implement Level 1 and 2 bicycle blvd applications (signage, pavement markings) | Newport | Low | \$17,000 | 2008 Ped. Bike Plan |

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|-----------------------------------|--|--|----------------|----------|------------------------------|--|
| Shared-use Paths | | | | | | |
| Ferry Slip Road | Marine Science Drive to SE 29 th Street | Shared use path | Newport | High | \$77,000 | 2010 South Beach Peninsula Plan |
| Bay Road | | Shared use path | Newport | Medium | \$432,000 | 2008 Ped. Bike Plan |
| Harborton Road | 40 th Street to 50 th Street | Multi-use path along south side with bicycle lanes and sidewalk along north side | Newport | Medium | \$1,344,000 | 2012 South Beach TSP update |
| Realigned 50 th Street | East of US 101 to existing 50 th Street ¹⁴ | Multi-use path along north side with bicycle lanes and sidewalk along south side | ODOT / Newport | Low | \$435,000 | 2012 South Beach TSP update |
| US 101 | SE Ash St to South Beach State Park | Construct shared-use path on west side of road | ODOT / Newport | Low | \$349,000 | 2012 South Beach TSP update |
| NE Big Creek Road | NE Harney St to NE 12 th St | Construct a shared-use path along the NE Big Creek right-of-way | Newport | Medium | \$520,000 | 2008 Ped. Bike Plan |
| SE 2 nd Street Bridge | SE Douglas St to SE Fogarty St | Construct a non-motorized shared-use bridge over the existing ravine to provide a more direct connection to Yaquina View Elementary School from the nearby residential areas | Newport | Low | \$1,750,000 to \$3,500,000 | 2008 Ped. Bike Plan |
| Yaquina Bay Bridge | Bridge | Shared use path along west side of bridge; Provide a dedicated travel space for bicyclists and pedestrians | Newport | Low | \$16,000,000 to \$21,000,000 | 2008 Ped. Bike Plan; 2012 South Beach TSP update |

¹⁴ Project included as part of the Ash Street Extension roadway improvement project north of SE 40th Street as a multi-use path.

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|-------------------------------|--|---|---------------------|-----------------|---------------------------------|---------------------|
| North Jetty Trail | SW Naterlin Dr to north jetty | Construct a shared-use path out the north jetty | Newport | High | \$920,000 | 2008 Ped. Bike Plan |
| San-Bay-O Connection | San-Bay-O Circle to NE Crestview | Construct a shared-use path connection; requires an easement over private property. Exact location uncertain. | Newport | Medium | \$41,000 | 2008 Ped. Bike Plan |
| Route to Main Shopping Area | NE Chambers Ct to Frank Wade Park and Park to San-Bay-O Circle | Construct a shared-use path connecting to main shopping area | Newport | High | \$96,000 | 2008 Ped. Bike Plan |
| Path across old RV Park | SE Pacific Way to Marine Science Dr | Improve pathway through RV park, route pedestrians off blind corner at SE Pacific Drive and Marine Science Dr | Newport | High | \$1,000 | 2008 Ped. Bike Plan |
| Estuary Trail Access | SE 35 th St to Chestnut St | Provide a dedicated travel space for bicyclists and pedestrians as an alternative to Idaho Point Road | Newport | Medium | \$205,000 | 2008 Ped. Bike Plan |
| Connector to OCCC | SE 35 th St to OCCC | Provide a dedicated travel space for bicyclists and pedestrians | Newport | Medium | \$530,000 | 2008 Ped. Bike Plan |
| Ash Extension | Ash Street end to SE 35 th St | Provide a dedicated travel space for bicyclists and pedestrians along railway right-of-way | Newport | Medium | \$225,000 | 2008 Ped. Bike Plan |
| Connector to US 101 Stairways | US 101 to SW 26 th and SW 27 th Avenues | Provide access to US 101 stairways | Newport | High | \$93,000 | 2008 Ped. Bike Plan |
| Develop of SW Coho St | S Jetty Rd to SW 29 th St | Construct shared use path | Newport | Medium | \$84,000 ¹⁵ | 2008 Ped. Bike Plan |

¹⁵ Project cost developed in 2012 as part of the *Newport Coho/Brant Infrastructure Refinement Plan*.

| Project | From - to | Description | Project Lead | Priority | Estimated Cost (\$ 2012) | Source |
|--|--|---|---------------------|-----------------|---------------------------------|-----------------------------------|
| Connector – SW 29 th Street or SW 30 th Street | State Park and South Beach neighborhood | Links into State Park trail system | Newport | High | \$129,000 ¹⁶ | 2008 Ped. Bike Plan |
| Connector | State Park to South Shore | Links into State Park trail system | Newport | Medium | \$185,000 | 2008 Ped. Bike Plan |
| Connector | South Shore to Airport | Links State Park trail system to airport | Newport | Low | \$1,050,000 | 2008 Ped. Bike Plan |
| Yaquina Bay Estuary Trail Extension | Yaquina Bay Trail to SE 35th Street | Extends existing trail | Newport | High | \$380,000 | 2008 Ped. Bike Plan |
| NW Coast Street | NW 8th St to NW 11th St | Provide bicycle and pedestrian improvements over existing gravel road | Newport | Medium | \$135,000 | 2008 Ped. Bike Plan |
| NW Nye Street | NW 15th St to Oceanview | Construct shared-use path connecting Nye to Oceanview | Newport | Medium | \$130,000 | 2008 Ped. Bike Plan |
| SW Coho St | Jetty Way to SW 29 th St | Construct shared-use path | Newport | Medium | \$82,000 | 2012 Coho / Brant Plan |
| Jetty Way | SW 26 th St to South Beach State Park parking areas | Construct shared-use path | OPRD / Newport | Low | \$486,000 | 2012 Coho / Brant Plan |
| SW Abalone Street | SE Marine Science Dr to US 101 | Construct sidewalks on west side of street | Newport | High | \$490,000 | 2012 Coho/Bra nt Infra. Plan |
| Wayside Improvements | | | | | | |
| Agate Beach | SW Corner of US 101 and NW Agate Way to north end of Agate Beach | Realign parking, improve streets, sidewalks, trails, and construct restroom/showers | Newport | High | \$697,120 ¹⁷ | 2011 Agate Beach Design Charrette |

¹⁶ Project cost developed in 2012 as part of the *Newport Coho/Brant Infrastructure Refinement Plan*.

¹⁷ Project cost developed in 2011. Project funded in 2012 with FHWA Scenic Byways Grant.

Transit Plan

It is difficult for cities the size of Newport to support fixed-route transit. The City had attempted to provide such transit service through the Newport Area Transit System, but low ridership and funding constraints lead to discontinuation of the service in July 1991. In November 1992, Lincoln County, with some funding from the City of Newport, began operation of a county-wide public transit system, the Central Coast Connection. The name was later changed to Lincoln County Transit (LCT). Lincoln County Transit currently provides the combined services of a scheduled stop system and a dial-a-ride service. County employees coordinate a daily fixed-route intercity shuttle system with east and south county buses operating as feeder lines to the intercity shuttle. The LCT shuttle makes intercity runs from Newport to Lincoln City daily. Newport is the hub for all intercity routes. The LCT shuttle and the intercity feeder lines between Siletz, Toledo, Waldport, Yachats, and Newport are open to the general public. LCT has added a coast to valley service that operates five days from Newport to Corvallis and Albany Amtrak. Dial-a-ride service operates on a demand/response basis for Newport residents.

Lincoln County Transit provides bus service to the South Beach community through the "Newport City Loop," between 7:30 a.m. to 5:30 p.m., seven days a week. Stops are provided north and south of the Yaquina Bay Bridge. Improvements to the transit system could make bus ridership more viable for South Beach employees and residents, with the dual benefit of reducing single-occupancy trips on US 101 and supporting economic development in the area. Anecdotal evidence supports the assertion that the infrequency of bus service and the daytime-only service hours hinder employees working in South Beach from commuting by bus. In addition to the recommended transit improvements included in the TSP, the City is committed to working with Lincoln County Transit to improve the bus system and, in particular, increasing ridership in South Beach and decreasing local single-occupancy vehicle trips on US 101 and the Yaquina Bay Bridge.

Table 6 displays all the recommended transit improvements included in the Plan with their associated annual or capital costs. Funding is from state and federal sources.

Table 6: Recommended Transit Improvements

| Transit Improvements | Priority | Estimated Annual Operating Costs | Estimated Capital Cost |
|---|-----------------|---|-------------------------------|
| Support expanded daily Lincoln County Transit Service to enhance commute options for Newport employers and access to retail districts | High | \$434,200 | ----- |
| Provide covered bus shelters at major bus stops | High | | \$40,000 |
| Enhance dial-a-ride service through the use of private taxis as a backup service | Medium | 8,000 | ----- |
| Construct a centrally located transit facility | Low | | \$500,000 |
| | | | |
| Total Cost (Transit Improvements) | | | \$540,000 |

Airport Transportation Plan

The Newport Municipal Airport is owned by the City of Newport. It is classified as a General Aviation General Utility category airport and is a public airport capable of handling corporate-type aircraft. The Newport Municipal Airport Master Plan outlines a staged development program for the airport (see Table 7, below).

Table 7: Staged Development Program – Projected Development

| Stage II (1995-1999) | Local | FAA | Other | Total |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|
| Road Relocation | \$18,000 | \$162,000 | \$0 | \$180,000 |
| Land Acquisition | \$1,000 | \$9,000 | \$0 | \$10,000 |
| Hangar Taxiways | \$4,000 | \$32,000 | \$0 | \$36,000 |
| Auto Parking | \$40,000 | \$0 | \$0 | \$40,000 |
| Aircraft Apron | \$11,000 | \$94,000 | \$0 | \$105,000 |
| Clear Zone Earthwork | \$10,000 | \$90,000 | \$0 | \$100,000 |
| Runway Marking | \$200 | \$1,800 | \$0 | \$2,000 |
| Single-Unit Hangars (5) | \$0 | \$0 | \$125,000 | \$125,000 |
| FBO Hangar | \$0 | \$0 | \$300,000 | \$300,000 |
| Corporate Hangar | \$0 | \$0 | \$200,000 | \$200,000 |
| Airport Maintenance Shop | \$200,000 | \$0 | \$0 | \$200,000 |
| ARFF Station/City Fire Station | \$9,000 | \$81,000 | \$0 | \$90,000 |
| Total Stage II | \$293,200 | \$469,800 | \$625,000 | \$1,388,000 |
| Stage III (2000-2009) | | | | |
| Terminal | \$300,000 | \$280,000 | \$0 | \$580,000 |
| Auto Parking | \$225,000 | \$0 | \$0 | \$225,000 |
| Terminal Roadway | \$22,000 | \$198,000 | \$0 | \$220,000 |
| Apron Expansion | \$10,000 | \$90,000 | \$0 | \$100,000 |
| Relocate VOR | \$50,000 | \$0 | \$0 | \$50,000 |
| Parallel Taxiway Extension | \$39,000 | \$351,000 | \$0 | \$390,000 |
| Overall Runway 16-34 & Taxiway | \$88,000 | \$787,000 | \$0 | \$875,000 |
| Runway 2-20 Taxiway | \$23,000 | \$207,000 | \$0 | \$230,000 |
| Corporate Hangars (2) | \$0 | \$0 | \$400,000 | \$400,000 |
| Single-Unit Hangars (5) | \$0 | \$0 | \$375,000 | \$375,000 |
| Total Stage III | \$757,000 | \$1,913,000 | \$775,000 | \$3,445,000 |
| Total Stages II and III | \$1,050,200 | \$2,382,800 | \$1,400,000 | \$4,833,000 |

Source: Newport Municipal Airport Master Plan, 1991.

Water Transportation

The upland areas adjacent to, and development within, Yaquina Bay are controlled by the City of Newport, Lincoln County, the Port of Newport, and the State of Oregon. The tourism, commercial fishing, and commercial shipping industries that use the bay provide a significant part of the local economy. The Recommended Water Transportation Plan considers a wide variety of needs and acknowledges the competition between marine-related industries for certain tracts of waterfront property.

Recommended improvement projects for the port have been prioritized into three categories based on the time frame for implementation (see Table 8, below). Funding has not been determined for all of the projects.

Table 8: Recommended Port Improvement Projects

| Priority 1 – Develop in the Next 5 Years Project | Cost (\$ X 1,000) | Funding Source |
|--|------------------------------|---------------------------|
| Rehabilitation of Port Dock 5 Pier | 75 | Port |
| Multi-Level Parking Structure | 2,000 | Urban Renewal |
| Revitalization of Newport International Terminal | Unknown | Port |
| Rehabilitation of Existing Corps of Engineers Breakwater and d175 Feet of New West Extension | 1,200 | Corps/State/Port |
| Marine Commercial Lease Facility | Undetermined | Undetermined |
| Priority 2 – Develop in the Next 5 to 10 Years Project | | |
| Widening of Bay Blvd | Undetermined | Undetermined |
| Public Viewing Dock | Undetermined | Undetermined |
| Priority 3 – Develop in Next 10 to 15 Years Project | | |
| Second Ship Berth | 32,000 | Port |
| Second Barge Berth | 5,800 | Port |

Source: Public Facilities Plan, 1990 and Port of Newport Staff Review, 1996

Rail Transportation

Willamette and Pacific Railroad provides freight service from the western Willamette Valley to the terminus of the rail line at Toledo, six miles east of Newport. There is no direct service into Newport.

Pipeline Transportation

Current pipeline service includes transmission lines for electricity, cable television, and telephone service, and pipeline transport of water, sewage, and natural gas. The Newport TSP encourages the continued use of these services for the movement of these commodities through the City.

The Plan also recognizes the increasing likelihood that telecommuting and other “super-highway” technologies will become viable alternatives to physical commuting, thus reducing and possibly even eliminating some auto trips during the peak hours. The use of telecommuting and other similar technologies should be encouraged through land use policy and plans.

Other Elements of TSP

Funding

The City of Newport Transportation System Plan also contains a section on the funding of the various projects and an analysis of transportation funding alternatives. For a complete discussion on the available options, please refer to the TSP and the adopted TSP updates.

There are a variety of funding options available to the City of Newport. To fund all of the recommended capital improvement projects in the TSP and the TSP updates would most likely require a number of new revenue sources. For purposes of illustration, the following provides an example of what it would take to fund the entire TSP (see Table 9). The funding options include:

- Obtain \$16 million in additional revenue from State grants and programs
- Use revenue bonds to pay for recommended parking structure
- Create local improvement districts to pay for neighborhood street improvement projects
- Increase SDC charges from \$300/dwelling unit to \$837 (from 20% to 50% of needed capital expenditure)
- Implement a city-wide street utility fee (e.g. \$2/month for all residences)

Table 9 shows that the new funding sources would generate a surplus of revenue of about \$1 million in Years 1-5. If this surplus were carried forward into Year 6-10, there would be enough revenue for all of the recommended capital improvement projects.

Table 9 shows that the new funding sources would generate a surplus of revenue of about \$1 million in Years 1-5. If this surplus were carried forward into Years 6-10, there would be enough revenue for all of the recommended capital improvement projects.

Table 9 displays a potential scenario that would fund the entire recommended 1997 TSP over the 20 year period. It does show that the recommended 1997 TSP can realistically be implemented over the next 20 years. Regardless, the following funding strategy should include the following:

- Aggressively pursue federal and state funding options for capital improvement projects, especially for US 20 and US 101.
- Increase System Development Charges (SDCs) to a more comparable rate with surrounding communities (i.e. 50 to 60% of the needed revenue, \$875 to \$1,000 per dwelling unit).
- Seek one or more of the local funding options previously discussed.
- Carefully prioritize capital improvement projects.

Access Management

The purpose of the Access Management Plan is to define an effective access management program that will enhance mobility and improve the safety of roadways in the City of Newport. Access management strategies that limit the number of conflict points, separate conflicts as much as possible, reduce deceleration requirements, and separate turning traffic from traffic will all contribute to better mobility and safety on the City of Newport's roadways.

The primary focus of the access management plan is on the major arterials in the City of Newport; US 101 and US 20. The plan seeks to maintain the function of these roadways as the primary through routes in the City of Newport. The Access Management Plan as detailed in the TSP establishes policies and criteria that support this function.

The Access Management Plan must address the growth in traffic in Newport through planning for the future transportation system. The Oregon Transportation Planning Rule requires in Section 660-12-045 Subsection (2):

Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors, and sites for their identified functions. Such regulations shall include: (a) Access control measures, for example, driveways and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities; [...]

Access management can be most effectively implemented when it is integrated into the land use permitting process. Or developing areas, this allows jurisdictions an immediate tool to implement their access management goals as these areas apply for permits and submit plans for agency review. Applying access management to a developed arterial – representative of the conditions of many sections of US 101 and US 20 in the City of Newport – is a much more difficult task due to right-of-way limitations and the economic concerns of adjacent property owners. In such areas, access management can best be implemented as adjacent properties redevelop or as part of roadway improvement or retrofit plans.

Access management is a set of measures to regulate access to streets, roads, and highways from public roads and private driveways. The purpose of access management is to maximize the efficiency and safety of the existing roadway while preserving the flow of traffic and limiting the number of traffic conflicts. A traffic conflict occurs where the paths of two traffic movements intersect. Crossing conflicts are the most serious because of the potential for collisions. The area and complexity of the crossing conflicts are also affected by the roadway cross-section. For example, with a four-lane cross-section, each conflict involves two lanes, whereas with a two-lane section, each of the conflict points involves only one lane.

There are many different strategies for accomplishing access management, but the common theme of all strategies is to reduce traffic conflicts. Strategies to reduce conflicts are listed below followed by select examples for tools that can be used to implement the strategy:

- Limit the number of conflict points
 - / Installation of median barriers or closure to eliminate left turns at ingress and egress points
 - / Installation of traffic signals at high volume intersections or driveways
 - / Optimization of traffic signal spacing and coordination
 - / Installation of physical barriers along frontage properties, e.g. curbs, fences, Landscaping
 - / Regulate maximum width of driveways

- Separate conflicts as much as possible when they cannot be eliminated
 - / Regulate minimum spacing of driveways
 - / Consolidate access for adjacent properties
 - / Regulate maximum number of driveways per frontage property

- / Consolidate existing access as parcels redevelop
- / Require access on adjacent cross-section (when available) in lieu of driveways on major highways
- Reduce deceleration requirements
 - / Improve driveway sight distance
 - / Increase effective approach width of driveway
 - / Restrict parking on roadway adjacent to driveway to increase driveway turning speeds
 - / Install right-turn acceleration lane
- Separate turning traffic from through traffic
 - / Install continuous two-way left turn lane
 - / Require adequate internal design and circulation plan
 - / Provide local service roads
 - / Encourage connections between adjacent properties

Many of these tools can be used within the City of Newport. Specific recommendations for application of these access management strategies will be provided in the Goals and Policies section.

During the development of the Newport TSP, specific access management goals were established for the City of Newport's primary arterials, US 101, and US 20. These access management goals address these facilities in both the established and the developing areas of the City as defined in the maps contained in the Access Management Plan contained in the TSP. The goals reflect the input of the Technical Advisory Committee, the Citizens Sounding Board, and public input from the Open Houses as well as correspondence from members of the public.

Supporting access management goals were developed for the two types of areas in the City: established areas and developing areas. The goals for these areas are defined below as well as the range of strategies that were explored by the study team.

Established Areas

Many properties now having direct access to the highway within these established areas will eventually redevelop. At such time, alternate access may be provided and existing private accesses can be closed. The reduction in traffic conflicts, due to preventing future private accesses and closing old private accesses, will allow the highway to operate safely at higher volumes of traffic.

The types of access management tools most appropriate for these established areas include:

- Optimize traffic signal spacing and coordination
- Install physical barriers along frontage properties, e.g. curbs, fences, landscaping
- Regulate maximum width of driveways
- Regulate minimum spacing of driveways
- Consolidate access for adjacent properties
- Regulate maximum number of driveways per frontage property
- Require access on adjacent cross-street (when available) in lieu of driveways on US 101 and US 20
- Require adequate internal design and circulation plan
- Encourage connections between adjacent properties
- Install traffic signals at high volume intersections or driveways

Spacing goals for the established areas are 500 feet for driveways, ¼ mile for public roads, and ½ mile for signals. As redevelopment occurs, these spacing standards and access management tools should be evaluated and applied as appropriate to the specific needs of the project.

Developing Areas

The types of access management tools most appropriate for these areas are:

- Install median barriers or closure to eliminate left turns at ingress and egress points
- Install traffic signals at high volume intersections or driveways
- Optimize traffic signal spacing and coordination
- Install physical barriers along frontage properties, e.g. curbs, fences, landscaping
- Regulate maximum width of driveways
- Regulate minimum spacing of driveways
- Consolidate access for adjacent properties
- Regulate maximum number of driveways per frontage of property
- Require access on adjacent cross-street (when available) in lieu of driveways on major highways
- Improve driveway sight distance
- Increase effective approach width of driveway
- Install right-turn acceleration lane
- Install continuous two-way left turn lane
- Require adequate internal design and circulation plan
- Provide local service roads
- Encourage connections between adjacent properties

Spacing standards for primary arterials in developing areas are 800 feet for driveways, ½ to one mile for public roads, and ½ to one mile for signals. As development and redevelopment occurs, these spacing standards and access management tools should be evaluated and applied as appropriate to the specific needs of the project.

GOALS AND POLICIES

The following goals and policies are intended to guide the decision makers and the development community in the administration of the Transportation System Plan (TSP) and the development of applicable implementing ordinances consistent with the TSP. This section is not intended to provide review criteria for specific projects or to function as a capital improvement plan.

Goal 1: To provide a safe and efficient multi-modal transportation system consistent with the Transportation System Plan.

Policy 1: To improve and maintain a transportation system that is consistent with the adopted 1997 TSP, as amended by the following updates:

- A. Transportation system Plan Update Technical Memo # 2 (Northside Local Street Plan) dated July 2008.
- B. Transportation System Plan Update Technical Memo # 4 (Pedestrian and Bicycle Plan) dated July 2008.

- C. Newport Transportation System Plan Update - Alternate Mobility Standards Final Technical Memorandum #13 Summary of Measures of Effectiveness dated April 2012.
- D. South Beach Peninsula Transportation Refinement Plan, dated February 9, 2010.
- E. Agate Beach Wayside Improvements Design Charrette Concept Plan dated, March 2, 2011.
- F. Coho/Brant Infrastructure Refinement Plan, dated July 2012.

Policy 2: To develop implementing ordinances and funding options consistent with the following:

A. Street System Plan

1. New roadway projects, transportation management system improvements and improvements to existing roadways shall be consistent with the TSP subject to available funding.
2. Streets created as part of a subdivision shall be designed in accordance with the adopted street design classification system in the TSP and the development standards in the subdivision ordinance unless a modification through the subdivision approval process is granted. The City shall require all new development to make street frontage improvements consistent with adopted engineering standards proportional to the impact of the development on public facilities.
3. The City will implement street cross-section designs that deviate from adopted street classification system standards where such designs apply to a defined area, respond to area-specific challenges and needs, and are supported by the findings and recommendations of an adopted Refinement Plan.
4. The City shall require that any change to the acknowledged Comprehensive Plan land use designations must make a finding that the change will not reduce the function of streets, especially Highway 101 and Highway 20, as identified in the TSP.
5. The City supports optimizing the existing transportation system through modifications to US 101 and local transportation system improvements in South Beach, as identified in the TSP. The capacity of the Yaquina Bay Bridge is expected to continue to be the major constraint in the operation of the transportation system south of the bridge, and funding for a new or expanded facility is not likely in the foreseeable future.
6. To ensure that capacity on US 101 is sufficient to accommodate planned local growth south of the Yaquina Bay Bridge, the City supports adoption of alternate mobility standards by the Oregon Transportation Commission for the section of highway between the bridge and South 62nd Street. These standards will allow a higher level of congestion than would be acceptable without the alternate standards. The alternate standards will support economic development and reduce the costs of total transportation system improvements associated with development.
7. Comprehensive plan land use changes and development proposals that meet established thresholds for traffic generation or heavy vehicles, or that propose to

take access directly from US 101, shall submit a transportation impact analysis as part of the application. The analysis shall evaluate the impacts of the development and propose mitigation that would allow transportation facilities to operate under conditions consistent with the planned transportation system. These analyses are a necessary tool to aid City decision-making related to the transportation system and its adequacy to accommodate both existing and future users. Whenever a direct property connection to US 101 is proposed, the City will coordinate with ODOT to ensure that the analysis addresses both state and local requirements.

8. Many of the commercial activities needed by residents are missing from the South Beach community. South Beach residents currently must travel across the Yaquina Bay Bridge to obtain these goods and services. Development of commercial uses that provide for the goods and services needed in the South Beach community warrants special consideration by the City of Newport. The Newport Development Code shall include special traffic analysis provisions for certain uses in order to encourage such development.

9. The City shall monitor the transportation impacts of development in South Beach through a South Beach Transportation Overlay Zone (SBTOZ) and an associated Trip Budget Program to ensure that vehicle trips that result from new development do not exceed the number of trips that can be accommodated by the planned transportation system. When development in the SBTOZ occurs inside the urban growth boundary but outside City limits, the City shall coordinate with Lincoln County through the development approval process to ensure that County-approved trips are recorded.

10. The Trip Budget Program envisions circumstances where an applicant may identify measures as part of a traffic impact analysis that mitigate the impacts the development will have on the transportation system allowing trips to be authorized in excess of what would otherwise be permitted in the TAZ. An amendment to the TSP is not required in such cases; however, the City should update the Trip Budget to reflect the additional trips.

11. The City shall continue to engage ODOT in conversations regarding future project planning and funding that would lead to improvements to, and possibly replacement of, the Yaquina Bay Bridge. A recent decision by the Oregon Department of Transportation to place the bridge on the "Weight-Restricted Bridges on Major State Routes" list highlights the need for Newport to find long term solutions that sufficiently address the existing capacity and structural limitations that affect the bridge's ability to carry vehicles and pedestrians.

B. Pedestrian System Plan

1. The City shall provide a continuous pedestrian network consistent with the TSP, to the greatest extent possible considering funding limitations, topographic constraints, and existing development patterns.

2. The City shall provide a safe walking environment.

3. The City shall provide a pedestrian-oriented urban design especially on the Bay Front, in the City Center, and in Nye Beach.

4. The City shall work to implement the Goal, Policies and Implementation Strategies related to pedestrian facilities identified on pages 1-3 and 1-4 of the Newport Pedestrian and Bicycle Plan adopted in 2008. The City also shall work to implement identified pedestrian system improvements in South Beach, consistent with the adopted TSP.

C. Bicycle System Plan

1. The City shall provide a safe and efficient bicycle network consistent with the TSP, considering funding limitations, topographic constraints, and existing development patterns.

2. The City shall work to implement the Goal, Policies and Implementation Strategies related to bicycle facilities identified on pages 1-3 and 1-4 of the Newport Pedestrian and Bicycle Plan adopted in 2008. The City shall also work to implement identified bicycle system improvements in South Beach, consistent with the adopted TSP.

D. Transit System Plan

1. The City shall support the Lincoln County Transit Service consistent with the TSP considering funding limitations, topographic constraints, and existing development patterns.

2. The City shall work with Lincoln County Transit to identify and address the following:

- a. Barriers to transit ridership, such as frequency of buses, convenience and proximity of the transit stops to employment areas, etc.
- b. Enhancements to service, including but not limited to modifying existing transit loops, adding stops to the loops, or adding additional routes.
- c. Impediments to providing service (funding, ridership numbers, etc.)
- d. Physical amenities to promote transit use, such as shelters, signage, benches, posted schedules, signal timing/preferential treatment at intersections, etc.

3. The City shall continue to work with Lincoln County Transit, ODOT, and Lincoln County to identify opportunities for transit improvements in the planned roadway system, such as "queue-jump" opportunities for buses through intersection configurations and preferential signal timing along US 101.

4. The City shall encourage new retail, office, industrial, and institutional developments to provide transit facilities on site if identified in an adopted transit plan and shall work to ensure that there are safe pedestrian and bicycle connections through and from the site to existing and planned transit routes.

5. The City shall explore with Lincoln County Transit opportunities to provide shuttle service across the bay during the busy tourist season to help reduce traffic congestion, i.e. on the Yaquina Bay Bridge, subject to the availability of funding.

E. Access Management Plan

1. The City shall implement an access management strategy for the established and developing areas of the City of Newport along Highway 101, Highway 20,

and other arterials that supports the City's Transportation Goal and ensures that those streets can accommodate traffic in a safe and efficient manner as traffic increases.

2. In established areas of the City of Newport as identified in the TSP, the City shall encourage consolidation or reduction of accesses as possible during property redevelopment and/or frontage improvements. Spacing goals for the established areas are 500 feet for driveways, ¼ mile for public roads, and ½ mile for signals. As redevelopment occurs, these spacing standards and access management tools should be evaluated and applied as appropriate to the specific needs of the project.

3. In developing areas of the City of Newport as identified in the TSP, as sites develop or redevelop, accesses shall be planned, consolidated, and/or reduced to meet the spacing standard to the greatest extent possible. Spacing standards for primary arterials in developing areas are 800 feet for driveways, ½ mile to one mile for public roads, and ½ mile to one mile for signals.

4. The City shall develop specific ordinance provisions to further this access management plan.

F. Funding Plan

1. The City shall continue to employ a variety of local funding options such as the local gas tax, street utility fee, general obligation bonds, local improvement districts, developer exactions, system development charges, to fund the planned transportation system.

2. The City shall carefully prioritize capital improvement projects through the development, maintenance, and implementation of the TSP and Capital Improvement Program.

3. The City shall aggressively pursue federal and state funding options for capital improvement projects, especially for Highways 101 and 20.

4. The City shall continue to plan for and finance needed infrastructure improvements necessary to support economic development consistent with adopted urban renewal plans.

5. The City shall pursue extending the South Beach Urban Renewal Plan to provide funding for projects beyond the year 2020 if needed to better coordinate City plans with the timeline for future state funding.

CHAPTER 14.43 SOUTH BEACH TRANSPORTATION OVERLAY ZONE (SBTOZ).

14.43.010. Purpose. The purpose of the SBTOZ is to promote development in the South Beach area of Newport in a way that maintains an efficient, safe, and functional transportation system. This Section implements the Trip Budget Program for South Beach established in the Newport Transportation System Plan to ensure that the planned transportation system will be adequate to serve future land use needs.

14.43.020. Boundary. The boundary of the SBTOZ is shown on City of Newport Zoning Map.

14.43.030. Applicability. The provisions of this Section shall apply to development that has the effect of increasing or decreasing vehicle trips to a property that is within the city limits. Any conflict between the standards of the SBTOZ and those contained within other chapters of the Newport Zoning Ordinance shall be resolved in favor of the SBTOZ.

14.43.040. Permitted Land Uses. Any permitted use or conditional use authorized in the underlying zone may be permitted, subject to the applicable provisions of this Ordinance and the additional provisions of this overlay zone.

14.43.050. Definitions

- A. Transportation Analysis Zone (TAZ). A geographical area used in transportation planning modeling to forecast travel demands.
- B. Trip. A single or one-direction vehicle movement with either the origin or destination inside the area being studied as specified in the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.
- C. Primary Trip. A trip made for the specific purpose of visiting the generator. The stop at the generator is the primary reason for the trip. The trip typically goes from origin to generator and then returns to the origin. Primary trips do not include "passby" or "diverted linked" trips as those terms are defined in the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.
- D. Trip Budget Program. The program for tracking the number of vehicle trips attributed to new development as described in Chapter 14.43 of the Newport Zoning Ordinance and Transportation System Plan element of the Newport Comprehensive Plan.

14.43.060. Trip Generation. Proposed development on parcels within the SBTOZ may not generate more PM peak hour trips than are budgeted for the TAZ in which the parcel is located, except as provided in Section 14.43.100.

- A. Documentation that this requirement is met can be provided through the submittal of a Trip Assessment Letter, pursuant to 14.43.080.A, or a Traffic Impact Analysis, if required by 14.45.010.
- B. The PM peak hour trip generation is determined through the latest edition of the ITE Trip Generation Manual. The following uses are required to calculate primary trips only, as defined in 14.43.050.C:
 - (1) Personal service oriented uses.
 - (2) Sales or general retail uses, total retail sales area under 15,000 square feet.
 - (3) Repair oriented uses.

14.43.070. Trip Budget Ledger. The Community Development Director shall maintain a ledger which contains the following:

- A. For each TAZ, the total number of vehicular PM peak-hour trips permitted to be generated by future development projects.
- B. The balance of unused PM peak-hour trips within each TAZ.
- C. The balance of unused PM peak-hour trips in the Trip Reserve Fund.
- D. For each TAZ, where applicable, the number of trips allocated from the Trip Reserve Fund.
- E. For each TAZ, where applicable, the number of additional trips authorized as a result of mitigation performed in accordance with recommendations contained in a Traffic Impact Analysis approved by the City of Newport, pursuant to Chapter 14.45.
- F. The percentage of the total trips that have been allocated within each TAZ.

14.43.080. Trip Assessment Letter.

- A. Proposed development that would increase or decrease the number of vehicle trips being generated to or from a property must submit a Trip Assessment Letter that demonstrates that the proposed development or use will not generate more PM peak-hour trips than what is available in the trip budget for the TAZ in which it is located. A Trip Assessment Letter shall be prepared and submitted:
 - (1) Concurrent with a land use that is subject to a land use action; or

(2) If no land use action is required, than prior to issuance of a building permit.

- B. Upon request by the applicant, the City shall develop and provide applicant with a Trip Assessment Letter.
- C. The latest edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE) shall be used as the standard by which to determine expected PM peak hour vehicle trips, unless a specific trip generation study that is approved by the City Engineer indicates an alternative trip generation rate is appropriate.
- D. A copy of the Trip Assessment Letter will be provided to ODOT prior to City action on the proposal.
- E. A Trip Assessment Letter shall rely upon information contained in a Traffic Impact Analysis, where such analysis has been prepared pursuant to Chapter 14.45 of this Ordinance.

14.43.090. Allocation of Trips. Trips are allocated by TAZ in the SBTOZ. The trip totals for each TAZ, available for future allocation within the SBTOZ, can be obtained from the Community Development Department.

- A. Trips may not be transferred from one TAZ to another.
- B. Total number of trips allocated to any TAZ may be exceeded only through:
 - (1) The allocation of trips from the Trip Reserve Fund, pursuant to 14.43.100, or
 - (2) Mitigation of the expected impacts of the proposed development, supported by a Traffic Impact Analysis (Chapter 14.45).
- C. City shall allocate trips to proposed development by deducting them from the Trip Budget Ledger if trips available in the Trip Budget Ledger meet or exceed the number of trips identified in the Trip Assessment Letter.
- D. Except as otherwise provided in this subsection, City shall deduct trips from the Trip Budget Ledger at such time as a land use decision is approved and is to treat those trips as vested so long as that land use decision is valid. In the event a land use decision expires, the City shall add the trips back to the Trip Budget Ledger.
 - (1) For a tentative (preliminary) plat that does not include phases, trips shall be vested so long as the application for final plat is submitted within the time established by the Subdivision Ordinance;

- (2) For a tentative (preliminary) plat that includes phases the total vesting period for all phases shall not be greater than ten (10) years;
- (3) For a final plat, trips shall vest for a period of ten (10) years from the date the plat is recorded;
- (4) City shall not deduct trips from the Trip Budget Ledger at such time as a land use decision is issued for a property line adjustment, partition plat, or minor replat; and
- (5) An applicant seeking approval of a tentative or final plat may elect to have the City not deduct trips from the Trip Budget Ledger at such time as a land use decision is approved. In such cases the land use decision shall note that use of the resulting lots may be limited to available trips within the TAZ as documented in the Trip Budget Ledger.

E. For development that is not subject to a land use decision, the City shall deduct trips from the Trip Budget Ledger at such time as a Trip Assessment Letter is submitted or requested by the applicant. The number of trips deducted is to be documented in writing as vested with the development for a period of six months or until such time as a building permit is issued, whichever is shorter. If a building permit is not obtained within this timeframe then the City shall add the trips back to the Trip Budget Ledger. City implementation of this subsection shall be a ministerial action.

14.43.100. Trip Reserve Fund. The Trip Reserve Fund total is maintained by the Community Development Department.

- A. Development proposals that require trips from the Trip Reserve Fund to satisfy the requirements of this Section are subject to a Type III review process.
- B. Trips from the Trip Reserve Fund may be used to satisfy the requirements of this Section for any permitted land use type, provided all of the following criteria is met:
 - (1) There are insufficient unassigned trips remaining in the TAZ to accommodate the proposed types of use(s);
 - (2) The proposal to use trips from the Trip Reserve Fund to meet this Section is supported by a Transportation Impact Analysis, pursuant to Chapter 14.45; and

- (3) There are sufficient trips available in the Trip Reserve Fund to meet the expected trip generation needs of the proposal.

14.43.110. Notice of Allocation of Trips. Notice of a proposal to allocate trips from the Trip Budget and notice of the subsequent decision is not required. The City will provide notice of an application for approval of trips from the Trip Reserve Fund in a manner consistent with that of a Type III notice procedure.

14.43.120. Amending the Trip Budget Program.

- A. A comprehensive reassessment of the Trip Budget Program will occur no later than 10 years from the effective date of this ordinance.
- B. The Trip Budget Program shall be evaluated for compliance with the provisions of OAR 660-012 prior to, or concurrent with, changes in the comprehensive plan land use designations within the SBTOZ.
- C. A reevaluation of the Trip Budget Program is required when 65% of the total trips in any given TAZ have been committed to permitted development.
 - (1) A 65% Review will be initiated by the City and coordinated with ODOT. A 65% Review must be initiated no later than 6 months from the time the threshold is reached.
 - (2) The 65% Review will be completed within 12 months from initiation, or pursuant to a schedule that is part of a work program previously agreed upon by both the City and ODOT. Prior to completion, applicants can propose mitigation and potentially obtain approval of proposed development, pursuant to OAR 660-012-0060.

City of Newport
South Beach Future Transportation Analysis
Zones
October 30, 2012

State of Oregon
Department of Transportation

PERIMETER OF SOUTH BEACH FUTURE TRANSPORTATION ANALYSIS

ZONES A - J

A tract of land situated in Sections 8, 9, 16, 17, 20, 21, 29, and 30, Township 11 South, Range 11 West, Willamette Meridian, City of Newport, Lincoln County, Oregon, the said tract being more particularly described as follows:

BEGINNING at a point on the South line of said Section 16, which point is the Southeast corner of that tract of land designated Parcel 4 in Statutory Bargain and Sale Deed recorded in Document 200716072, deed records of Lincoln County, the said point bears N89°54'54"E 288.22 feet, per County Survey 16166, from a three-inch diameter brass cap marking the corner common to Sections 16, 17, 20 and 21 in said Township and Range;

thence Easterly along the South line of said Section 16 to the Easterly line of the City of Newport Urban Growth Boundary (UBG) as amended in City of Newport Ordinance No. 1899 and adopted by the City Council of the City of Newport on December 4, 2006;

thence Southwesterly and Southerly along said UBG to its intersection with the South line of said Section 21;

thence Westerly along the South line of said Section 21, 420 feet, more or less, to a brass cap marking the corner common to Sections 20, 21, 28 and 29 in said Township and Range;

thence continuing Westerly, along the South line of said Section 20 (being also the North line of said Section 29), 1150 feet, more or less, to the most Southerly corner of that tract of land designated Tract "B" in Statutory Special Warranty Deed recorded in Document 2011-02151, deed records of Lincoln County, said corner being marked by a 5/8-inch iron rod set in County Survey 10586;

thence N72°28'34"W along the Southerly line of said tract 218.43 feet, per County Survey 15273, to the East 1/16th line of said Section 20;

thence Southerly along the East 1/16th line of said Section 20, and continuing Southerly along the East 1/16th line of said Section 29 to the East-West quarter line thereof;

thence Westerly along said East-West quarter line to the center of said Section 29, being the Southwest corner of Small's Addition to Yaquina City, as recorded in Plat Book 4, Page 37;

thence Northerly along the North-South quarter line of said Section 29, 330 feet, more or less, to the Northwest corner of Small's Addition to Yaquina City;

thence Westerly, parallel with said East-West quarter line, to the Easterly line of that tract of land described in deed to the City of Newport recorded in MF 131-430, deed records of Lincoln County, said tract being shown in County Survey 10740;

thence Northerly along said Easterly line, and continuing along the Easterly line of that tract of land described in deed to the City of Newport recorded in Book 101, Page 594, deed records of Lincoln County, to the most Northerly corner of said City of Newport tract;

thence Southwesterly along the Northerly line of said City of Newport tract 752 feet, more or less, to the West 1/16th line of said Section 29;

thence Southerly along said West 1/16th line to the East-West quarter line of said Section 29;

thence Westerly along said East-West quarter line to the Easterly right-of-way line of the South Coast Highway (Hwy 101);

thence Northerly along said Easterly right-of-way line to the most Southerly corner of Lot 6, Block 2, Surfland Unit No. 2, as recorded in Plat Book 8, Page 73;

thence Westerly in a straight line, crossing said South Coast Highway, to the most Northeasterly corner of Tract 'J', Southshore, as recorded in Plat Book 15, Page 53;

thence Westerly along the Northerly line of said Tract 'J' to the most Westerly corner of Lot 8, Southshore;

thence Northerly in a straight line, crossing Tract 'L' (Arbor Drive), to the most Easterly corner of Lot 7, Southshore;

thence Northwesterly along the North line of said Lot 7, 244 feet, more or less, to the Northwest corner thereof, said corner being the Northeast corner of Tract 'A', Southshore;

thence Westerly along the North line of said Tract 'A' 72 feet, more or less, to the Ocean Shore Boundary, defined as the vegetation line in Oregon Revised Statutes Chapter 390-770;

thence Northerly in a straight line to the Southwest corner of the Beach Home Condominiums at Southshore, Stage 8, as recorded in Condominium Book 1, Page 150;

thence Northerly along the West line and Easterly along the North line of said condominium plat to the Northeast corner thereof, said corner being on the Westerly line of Tract 'M', Southshore (Cupola Drive);

thence Easterly in a straight line, crossing said Tract 'M', to the most Westerly corner of Tract 'C', Southshore, said corner being on the Easterly line of said Tract 'M';

thence Northerly and Easterly along the Northerly line of said Tract 'C', and continuing along the Northerly lines of Tracts 'M', 'D' and 'E' to a 3-inch diameter brass cap marking the corner common to Sections 19, 20, 29 and 30, Township 11 South, Range 11 West, Willamette Meridian, said corner being the Initial Point of the plat of Southshore;

thence continuing Easterly along the Northerly line of said Tract 'E' and the Northerly line of Tract 'P' and its Easterly extension to the Easterly right-of-way line of said South Coast Highway;

thence Northeasterly along said Easterly right-of-way line to the West 1/16th line of said Section 20;

thence Northerly along said West 1/16th line to a point on the Westerly right-of-way line of Hwy 101, said point being on the East line of South Beach State Park, as shown in County Survey 10457;

thence continuing Northerly along the West 1/16th line of said Section 20, 2100 feet, more or less, to the NW 1/16th corner of said Section 20;

thence, continuing Northerly along said West line 82.51 feet (N04°05'38"E 82.51 feet per County Survey 10457) to an angle point in the boundary of South Beach State Park;

thence Easterly along said boundary 551 feet, more or less, to the southerly extension of the East line of South Beach State Park;

thence Northerly along said extension and said East line 1212.5 feet, more or less, to a point on the North line of said Section 20, said point bears N85°24'57"W 775.50 feet from the quarter corner on the North line of said Section 20 per County Survey 10457;

thence Northeasterly in a straight line to a 5/8 inch iron rod set in County Survey 15289 at the Southwest corner of that tract of land described in deed recorded in Document 2006-19503, deed records of Lincoln County;

thence Northerly along the West line of said tract, and continuing Northerly along the West line of that tract of land described in MF 113-499, deed records of Lincoln County, and its Northerly extension to the South line of Block 18, Waggoner's Addition to South Beach, as recorded in Plat Book 4, Page 13;

thence Westerly along said South line to the West right-of-way line of SW Dungeness Street (formerly Clay Street);

thence Northerly along said right-of-way line to the South line of SW 29th Street;

thence Westerly along said South line to the West line of Waggoner's Addition to South Beach;

thence Northeasterly along said West line to the Northwest corner thereof, being the Northwest corner of Emerald Bay Estates Condominium Stage II, as recorded in Condominium Book 1, Page 114;

thence Easterly along the North line of said Stage II and Emerald Bay Estates Condominium, Stage 1, as recorded in Condominium Book 1, Page 111, and continuing Easterly along the North line of Block 1, Waggoner's Addition To South Beach, to the Southwest corner of Block 5, South Beach, as recorded in Plat Book 3, Page 3;

thence Northeasterly along the Northwesterly line of said Block 5 and Block 6, South Beach to the Northeast corner of Lot 3, said Block 6, said corner being an angle point in the Northwesterly line of Lot 7, Playa Del Sur Townhouse Subdivision, as recorded in Plat Book 18, Page 14A;

thence, continuing Northerly and Northeasterly along the Northwesterly line of Playa Del Sur Townhouse Subdivision to the most Northerly corner thereof;

thence Northeasterly in a straight line to the Northwest corner of The Regatta, A Condominium, as recorded in Condominium Book 1, Page 201;

thence Northeasterly along the Northwesterly line of The Regatta, A Condominium and its Northeasterly extension to the Northeasterly right-of-way line the South Coast Highway (Hwy 101);

thence Northwesterly along said Northeasterly right-of-way line to its intersection with the 2010 Newport Urban Growth Boundary;

thence along said Urban Growth Boundary as it meanders Easterly, Northerly and Southerly along the Marina Artificial Water Line and the shore of Yaquina Bay to its intersection with the Northerly line of the plat of Harborton, as recorded in Plat Book 6, Page 19;

thence Southeasterly along said Northerly line, and continuing Southeasterly along the Easterly line of Harborton to its intersection with the North right-of-way line of SE 35th Street (40 feet wide), said intersection being Southeast corner of the plat of Neolha Point Townhomes, as recorded in Plat Book 18, Page 7;

thence Southeasterly along the North right-of-way line of SE 35th Street to its intersection with the Northerly extension of the most Northerly East line of that tract of land designated

City of Newport
South Beach Future Transportation Analysis
Zones
October 30, 2012

State of Oregon
Department of Transportation

Parcel 3 in Statutory Bargain and Sale Deed recorded in Document 200716072, deed records of Lincoln County;

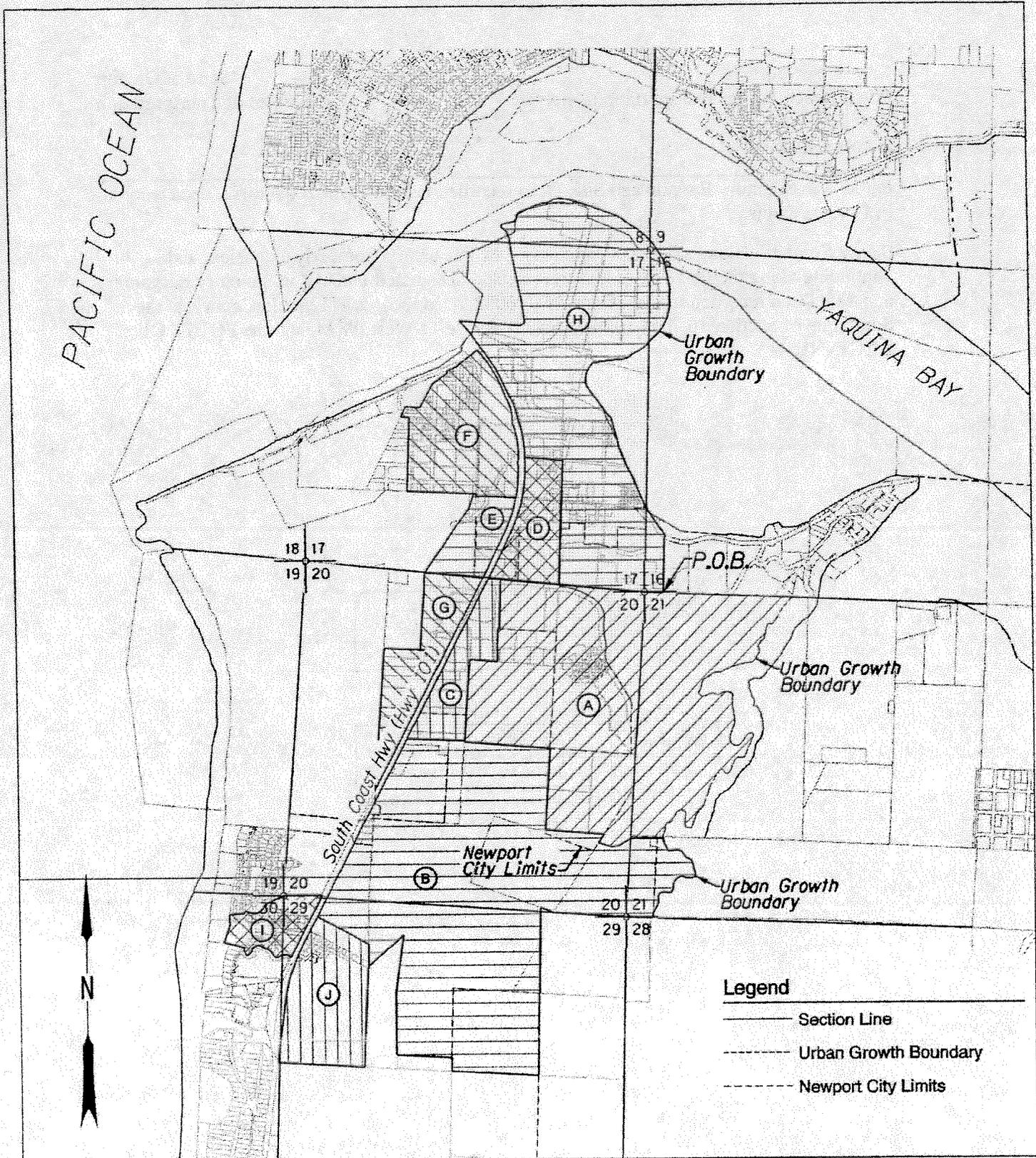
thence Southerly along said most Northerly East line and its Southerly extension, and continuing along the East line of that tract of land designated Parcel 4 in Statutory Bargain and Sale Deed recorded in Document 200716072, deed records of Lincoln County, to the South line of Section 16, Township 11 South, Range 11 West, W.M. and the **POINT OF BEGINNING**.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
JULY 19, 1994
JOHN V. THATCHER
2681

RENEWS: 7/1/2014

SIGNED: _____



Sections 8, 9, 16, 17, 20, 21, 29, & 30
 T. 11S, R. 11W, W.M.
 City of Newport
 Lincoln County, Oregon

South Beach Future
 Transportation Analysis Zones A-J
 Map By

CH2MHILL

Survey & Mapping
 2020 SW 4TH AVE. SUITE 300 PORTLAND, OR 97201
 PH: (503) 235-5000

CHAPTER 14.44 TRANSPORTATION STANDARDS

14.44.010 Purpose. The purpose of this Chapter is to provide planning and design standards for the implementation of public and private transportation facilities and city utilities and to indicate when and where they are required. Streets are the most common public spaces, touching virtually every parcel of land. Therefore, one of the primary purposes of this Chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic from planned growth and provide a range of transportation options, including options for driving, walking, bus, and bicycling. This Chapter implements the City's Transportation System Plan.

14.44.020 When Standards Apply. The standards of this section apply to new development or redevelopment for which a building permit is required that places demands on public or private transportation facilities or city utilities. Unless otherwise provided, all construction, reconstruction, or repair of transportation facilities, utilities, and other public improvements within the City shall comply with the standards of this Chapter.

14.44.030 Engineering Design Criteria, Standard Specifications and Details. The design criteria, standard construction specifications and details maintained by the City Engineer, or any other road authority within Newport, shall supplement the general design standards of this Chapter. The City's specifications, standards, and details are hereby incorporated into this code by reference.

14.44.040 Conditions of Development Approval. No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of the development on public facilities. Findings in the development approval shall indicate how the required improvements are directly related and roughly proportional to the impact.

14.44.050 Transportation Standards.

- A. Development Standards. The following standards shall be met for all new uses and developments:
1. All new lots created, consolidated, or modified through a land division, partition, lot line adjustment, lot consolidation, or street vacation must have frontage or approved access to a public street.
 2. Streets within or adjacent to a development subject to Chapter 13.05, Subdivision and Partition, shall be improved in accordance with the Transportation System Plan, the provisions of this Chapter, and the street standards in Section 13.05.015.
 3. Development of new streets, and additional street width or improvements planned as a portion of an existing street, shall be improved in accordance Chapter 13.05, and public streets shall be dedicated to the applicable road authority;

4. Substandard streets adjacent to existing lots and parcels shall be brought into conformance with the standards of Chapter 13.05.
- B. Guarantee. The City may accept a future improvement guarantee in the form of a surety bond, letter of credit or non-remonstrance agreement, in lieu of street improvements, if it determines that one or more of the following conditions exist:
1. A partial improvement may create a potential safety hazard to motorists or pedestrians;
 2. Due to the developed condition of adjacent properties it is unlikely that street improvements would be extended in the foreseeable future and the improvement associated with the project under review does not, by itself, provide increased street safety or capacity, or improved pedestrian circulation;
 3. The improvement would be in conflict with an adopted capital improvement plan; or
 4. The improvement is associated with an approved land partition or minor replat and the proposed land partition does not create any new streets.
- C. Creation of Rights-of-Way for Streets and Related Purposes. Streets may be created through the approval and recording of a final subdivision or partition plat pursuant to Chapter 13.05; by acceptance of a deed, provided that the street is deemed in the public interest by the City Council for the purpose of implementing the Transportation System Plan and the deeded right-of-way conforms to the standards of this Code; or other means as provided by state law.
- D. Creation of Access Easements. The City may approve an access easement when the easement is necessary to provide viable access to a developable lot or parcel and there is not sufficient room for public right-of-way due to topography, lot configuration, or placement of existing buildings. Access easements shall be created and maintained in accordance with the Uniform Fire Code.
- E. Street Location, Width, and Grade. The location, width and grade of all streets shall conform to the Transportation System Plan, subdivision plat, or street plan, as applicable and are to be constructed in a manner consistent with adopted City of Newport Engineering Design Criteria, Standard Specifications and Details. Street location, width, and grade shall be determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets, pursuant to the requirements in Chapter 13.05.

CHAPTER 14.45 TRAFFIC IMPACT ANALYSIS

14.45.010. Applicability. A Traffic Impact Analysis (TIA) shall be submitted to the city with a land use application under any one or more of the following circumstances:

- A. To determine whether a significant affect on the transportation system would result from a proposed amendment to the Newport Comprehensive Plan or to a land use regulation, as specified in OAR 660-012-0060.
- B. ODOT requires a TIA in conjunction with a requested approach road permit, as specified in OAR 734-051-3030(4).
- C. The proposal may generate 100 PM peak-hour trips or more onto city streets or county roads.
- D. The proposal may increase use of any adjacent street by 10 vehicles or more per day that exceeds 26,000 pound gross vehicle weight.
- E. The proposal includes a request to use Trip Reserve Fund trips to meet the requirements of Chapter 14.43, South Beach Transportation Overlay Zone.

14.45.020. Traffic Impact Analysis Requirements.

- A. Pre-application Conference. The applicant shall meet with the City Engineer prior to submitting an application that requires a Traffic Impact Analysis (TIA). This meeting will be coordinated with ODOT when an approach road to US-101 or US-20 serves the property so that the completed TIA meets both City and ODOT requirements.
- B. Preparation. The submitted TIA shall be prepared by an Oregon Registered Professional Engineer that is qualified to perform traffic engineering analysis and will be paid for by the applicant.
- C. Typical Average Daily Trips and Peak Hour Trips. The latest edition of the Trip Generation Manual, published by the Institute of Transportation Engineers (ITE) shall be used to gauge PM peak hour vehicle trips, unless a specific trip generation study that is approved by the City Engineer indicates an alternative trip generation rate is appropriate. An applicant may choose, but is not required, to use a trip generation study as a reference to determine trip generation for a specific land use which is not well represented in the ITE Trip Generation Manual and for which similar facilities are available to count.

- D. Intersection-level Analysis. Intersection-level analysis shall occur at every intersection where 50 or more peak hour vehicle trips can be expected as a result of the proposal.
- E. Transportation Planning Rule Compliance. The TIA shall comply with the requirements of OAR 660-012-0060.
- F. Structural conditions. The TIA shall address the condition of the impacted roadways and identify structural deficiencies or reduction in the useful life of existing facilities related to the proposed development.
- G. Heavy vehicle routes. If the proposal includes an increase in 10 or more of the vehicles described in Section 14.45.010.D, the TIA shall address the provisions of Section 14.45.020.F for the routes used to reach US-101 or US-20.

14.45.030. Study Area. The following facilities shall be included in the study area for all TIAs:

- A. All site-access points and intersections (signalized and unsignalized) adjacent to the proposed site. If the proposed site fronts an arterial or collector street, the analysis shall address all intersections and driveways along the site frontage and within the access spacing distances extending out from the boundary of the site frontage.
- B. Roads through and adjacent to the site.
- C. All intersections needed for signal progression analysis.
- D. In addition to these requirements, the City Engineer may require analysis of any additional intersections or roadway links that may be adversely affected as a result of the proposed development.

14.45.040. Approval Process. When a TIA is required, the applicable review process will be the same as that accorded to the underlying land use proposal. If a land use action is not otherwise required, then approval of the proposed development shall follow a Type II decision making process.

14.45.050. Approval Criteria. When a TIA is required, a development proposal is subject to the following criteria, in addition to all criteria otherwise applicable to the underlying proposal:

- A. The analysis complies with the requirements of 14.45.020;
- B. The TIA demonstrates that adequate transportation facilities exist to serve the proposed development or identifies mitigation measures that resolve the traffic

safety problems in a manner that is satisfactory to the City Engineer and, when state highway facilities are affected, to ODOT; and

- C. Where a proposed amendment to the Newport Comprehensive Plan or land use regulation would significantly affect an existing or planned transportation facility, the TIA must demonstrate that solutions have been developed that are consistent with the provisions of OAR 660-012-0060; and
- D. For affected non-highway facilities, the TIA establishes that any Level of Service standards adopted by the City have been met, and development will not cause excessive queuing or delays at affected intersections, as determined in the City Engineer's sole discretion; and
- E. Proposed public improvements are designed and will be constructed to the standards specified in Chapter 14.44 Transportation Standards or Chapter 13.05, Subdivision and Partition, as applicable.

14.45.060. Conditions of Approval. The City may deny, approve, or approve a development proposal with conditions needed to meet operations, structural, and safety standards and provide the necessary right-of-way and improvements to ensure consistency with the City's Transportation System Plan

14.45.070. Fee in lieu Option. The City may require the applicant to pay a fee in lieu of constructing required frontage improvements.

- A. A fee in lieu may be required by the City under the following circumstances:
 - (1) There is no existing road network in the area.
 - (2) There is a planned roadway in the vicinity of the site, or an existing roadway stubbing into the site, that would provide better access and local street connectivity.
 - (3) When required improvements are inconsistent with the phasing of transportation improvements in the vicinity and would be more efficiently or effectively built subsequent to or in conjunction with other needed improvements in area.
 - (4) For any other reason which would result in rendering construction of otherwise required improvements impractical at the time of development.
- B. The fee shall be calculated as a fixed amount per linear foot of needed transportation facility improvements. The rate shall be set at the current rate of construction per square foot or square yard of roadway built to adopted City or ODOT standards at the time of application. Such rate shall be determined by the

City, based upon available and appropriate bid price information, including but not limited to surveys of local construction bid prices, and ODOT bid prices. This amount shall be established by resolution of the City Council upon the recommendation of the City Engineer and reviewed periodically. The fee shall be paid prior to final plat recording for land division applications or issuance of a building permit for land development applications.

- C. All fees collected under the provisions of Section 14.45.070 shall be used for construction of like type roadway improvements within City of Newport's Urban Growth Boundary, consistent with the Transportation System Plan. Fees assessed to the proposed development shall be roughly proportional to the benefits the proposed development will obtain from improvements constructed with the paid fee.