



## Chapter 5: Future Conditions

This chapter is an overview of potential future conditions for the year 2030 in Ann Arbor if transportation projects and policy continue as they currently exist. In addition, it also assesses three increased land use alternatives and the impact to the transportation network if various improvements and policies are not implemented. Thus, this chapter details what congestion will look like in the future with the currently planned land use changes, as well as two increased land use alternatives studied in this plan.

While Ann Arbor has made a commitment to modes of travel other than the automobile, such as non-motorized or active transportation and transit, currently the automobile is the dominant mode of transportation for the No-Build condition. With the two intensified land use alternatives there is the potential to further enhance alternative modes of transportation, both motorized and non-motorized in the future if significant changes are implemented in the transportation plan.

### Land Use and 2030 Projected Traffic

An evaluation of the No-Build condition at the 2030 planning horizon year was conducted in order to identify future transportation network deficiencies within the City of Ann Arbor. The No-Build condition refers to a baseline scenario in which no transportation improvements are implemented, with the exception of those projects currently programmed in the Washtenaw Area Transportation Study Transportation Improvement Program (WATS TIP) and those projects within the WATS RTP outside of the city of Ann Arbor, as well as approved land use updates from recent plans/studies to reflect the most current picture of Ann Arbor for the future year 2030. This up-to-date current land use vision for 2030 is called Land Use Alternative #1.

The following sections outline the land use updates and alternatives, the methodology used to prepare the traffic forecasts, the projected traffic volumes and operational performance, and the identified transportation deficiencies. Recommendations, and the testing of recommendations, can be found in Chapter 6 of this report.

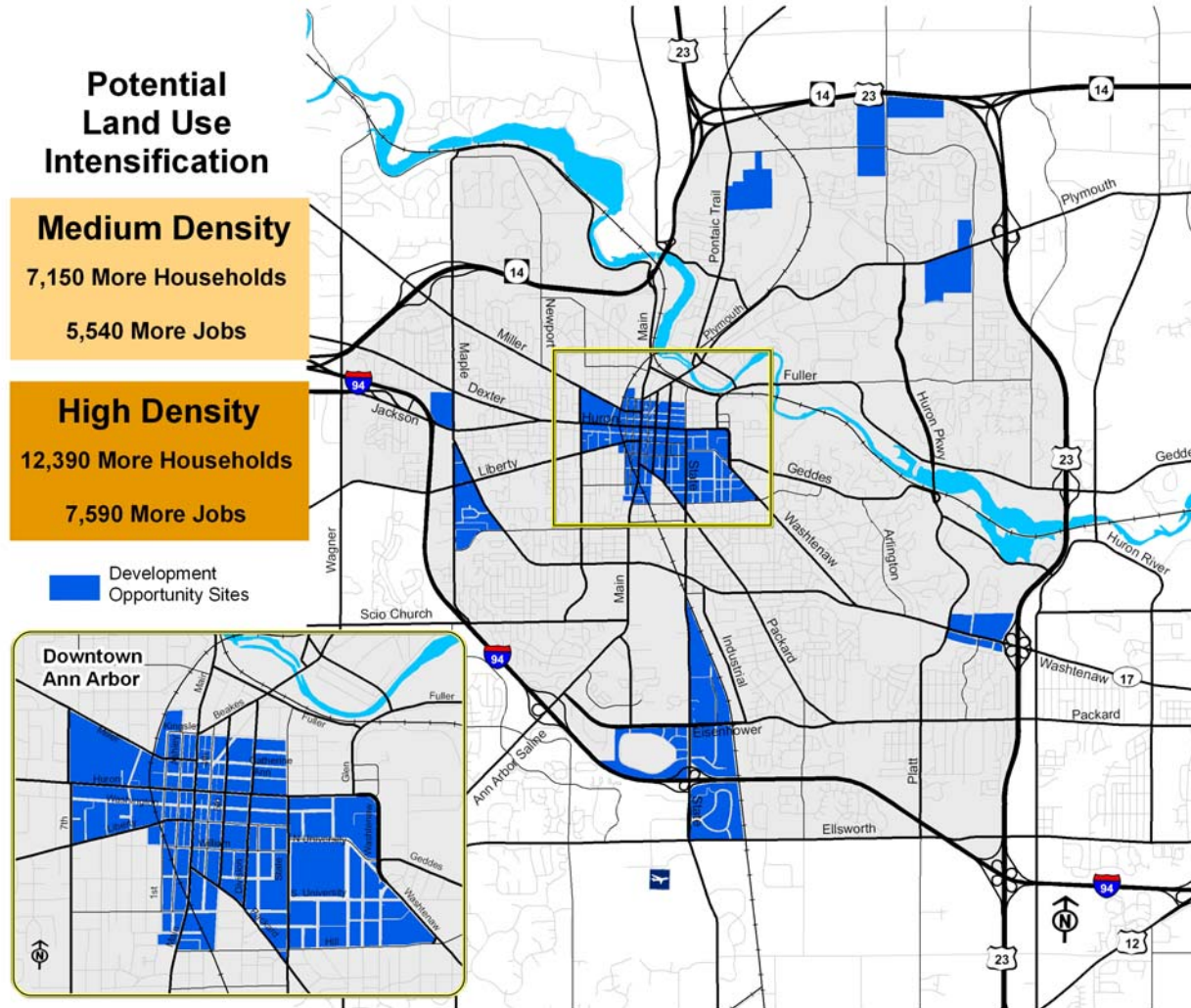
### Land Use Updates

As part of the future conditions analysis, the land use utilized in the current 2030 travel demand forecasting model was reviewed. This process involved several agencies; City of Ann Arbor Staff, WATS, AATA, and the University of Michigan. Various meetings were held with the City Staff to assess the work of many recent plans and studies within the City of Ann Arbor. A list of various land use changes were provided to update the 2030 travel demand forecasting model to better reflect the recent studies and approvals of plans since the last travel model land use update. The detailed list of land use changes provided by the City of Ann Arbor Planning Staff is provided in Appendix D.

Meetings were also held with the University of Michigan Planning, Construction, Medical Center, Administration, and Transportation Staff to better understand land use potential changes planned, as well as to better understand the interaction between the North Campus, Central Campus, South Campus, East Medical Campus, and the sports facilities.

These meetings provided the data to update the travel model land use data. Figure 5-1 provides the potential land use intensifications for a medium density and for a high density growth based on the land use information provided. Based on these land use variations that differ by density there are three land use alternatives assessed.

**Figure 5-1: Potential Land Use Intensification Sites for Medium and High Density**



For purpose of this plan, the 2030 No-Build data was updated with the land use information provided. The three main land use alternatives are as follows:

- Alternative 1: 2030 No-Build + approved additional land use intensity (Base situation)
- Alternative 2: 2030 No-Build + medium range of additional land use intensity
- Alternative 3: 2030 No-Build + high range of additional land use intensity

Table 5-1 shows the total population and employment for the Ann Arbor Transportation Plan (AATP) study area under the three land use alternatives as compared to the 2005 data. Population growth ranges from 4.5% to 19.6%, and employment growth ranges from 20.5% to 28.3% under the base situation (low), medium, and high density alternatives.

**Table 5-1: Changes in Ann Arbor Population and Employment by Land Use Alternative**

|                   | 2005    | 2030        |                |             |                |             |                |
|-------------------|---------|-------------|----------------|-------------|----------------|-------------|----------------|
|                   |         | Land Use #1 |                | Land Use #2 |                | Land Use #3 |                |
|                   |         | Total       | Percent Growth | Total       | Percent Growth | Total       | Percent Growth |
| <b>Population</b> | 103,710 | 108,333     | 4.5%           | 115,093     | 11.0%          | 124,085     | 19.6%          |
| <b>Employment</b> | 96,621  | 116,452     | 20.5%          | 121,790     | 26.0%          | 123,944     | 28.3%          |

Figure 5-2 shows the 2030 Land Use Alternative #1 population and employment density and the development opportunity locations. Figures 5-3 and 5-4 (Land Use Alternatives #2 and #3) provide the 2030 medium and high land use alternative land use densities and development opportunity locations.

**Travel Demand Forecasting**

Transportation demand forecasts for the 2030 planning horizon year in the City of Ann Arbor were developed using the WATS travel demand forecasting model. The WATS travel demand model is a macroscopic regional planning tool, covering Washtenaw County. Regional travel demand models provide a macroscopic tool to forecast future travel demands on the roadway network based on land use and socio-economic projections. While the model is an invaluable tool for understanding high-level travel demands throughout the county, it is limited in its sensitivity to detailed traffic operations, such as at individual intersections.

The land use and socio-economic data that dictate travel demand and trip decisions within the model are defined over a discrete area, known as a Traffic Analysis Zone (TAZ). The trips produced within or attracted to the TAZ are then distributed onto the roadway network via links known as centroid connectors, which generally represent the local roadway system and driveways not explicitly included in the model. In general, the more detailed the TAZ structure and centroid connections are, the more accurate a forecast becomes. The 2030 future year No-Build model includes projects identified in the WATS TIP.

The 2030 model was then run for the three updated future alternative land use alternatives based on the information provided from the City of Ann Arbor Planning Staff. The WATS model has some sensitivity to the various modes. The model is currently being updated to be more robust, but the current model was able to provide useful information on current walk, bike, transit, and vehicular potential. Table 5-2 provides the 2030 person trips within Washtenaw County and the percent increase in person trips by mode with each land use alternative from the 2005 data.

**Table 5-2: 2030 Land Use Alternatives Person Trips in Washtenaw County by Mode**

| Mode                    | Land Use #1*            | Land Use #2*            | Land Use #3*            |
|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Walk</b>             | 200,825 (+10%)          | (212,000) (+17%)        | 223,550 (+23%)          |
| <b>Bike</b>             | 11,950 (+10%)           | 12,325 (+14%)           | 12,650 (+17%)           |
| <b>Transit</b>          | 20,775 (+16%)           | 23,050 (+29%)           | 25,450 (+42%)           |
| <b>Vehicular Travel</b> | 1,569,600 (+41%)        | 1,604,525 (+44%)        | 1,646,950 (47%)         |
| <b>Total</b>            | <b>1,803,150 (+36%)</b> | <b>1,851,900 (+40%)</b> | <b>1,908,600 (+44%)</b> |

\*Number of Trips (Percent Increase from 2005)

There are expected increases in person trips with the intensified land use projections compared with the existing 2005 data. Table 5-3 provides the percent by mode projected across each individual land use alternative for the year 2005 and the three 2030 land use alternatives.

Figure 5-2: 2030 Land Use #1 Residential and Employment Density and Development Opportunity Locations

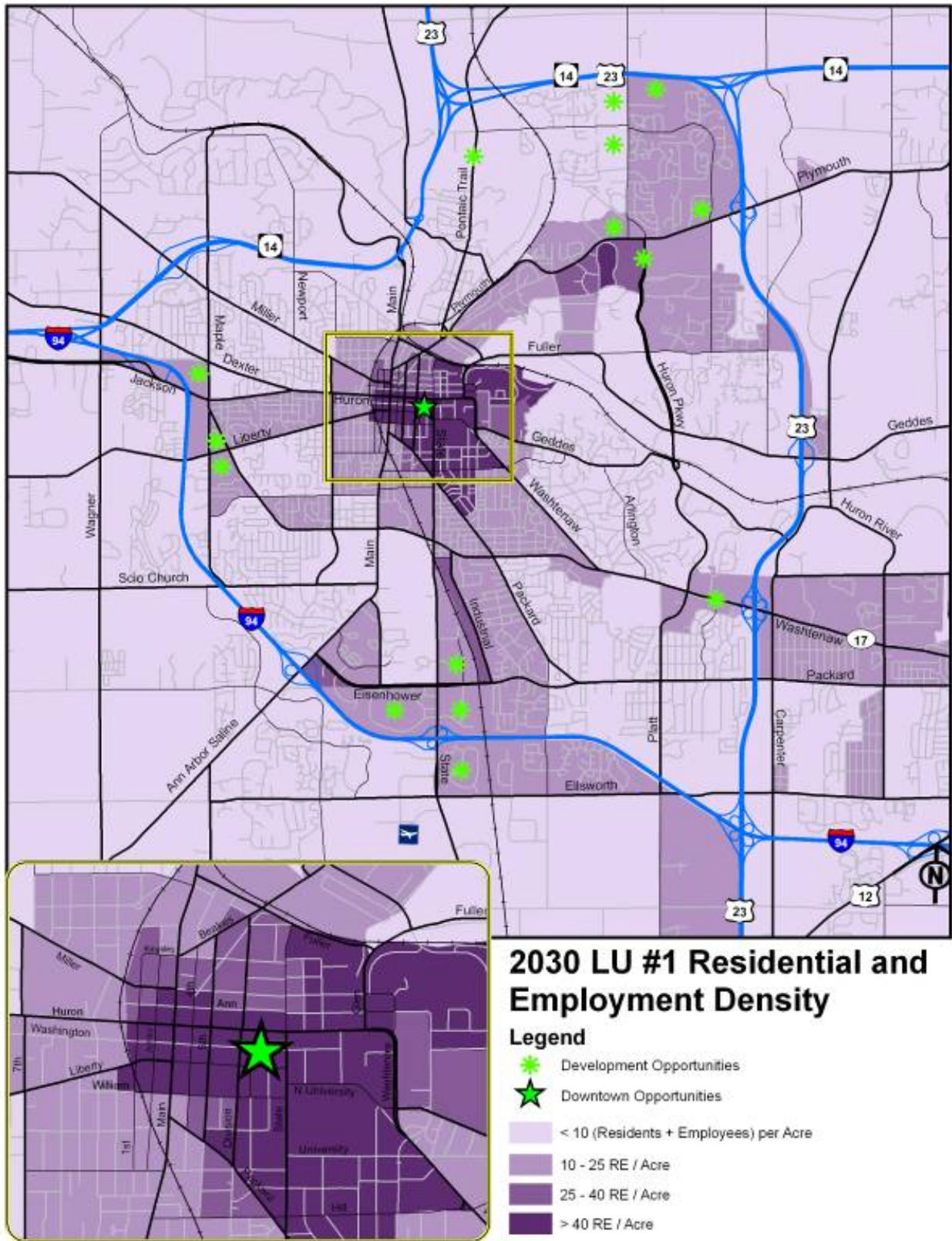


Figure 5-3: 2030 Land Use #2 Residential and Employment Density and Development Opportunity Locations

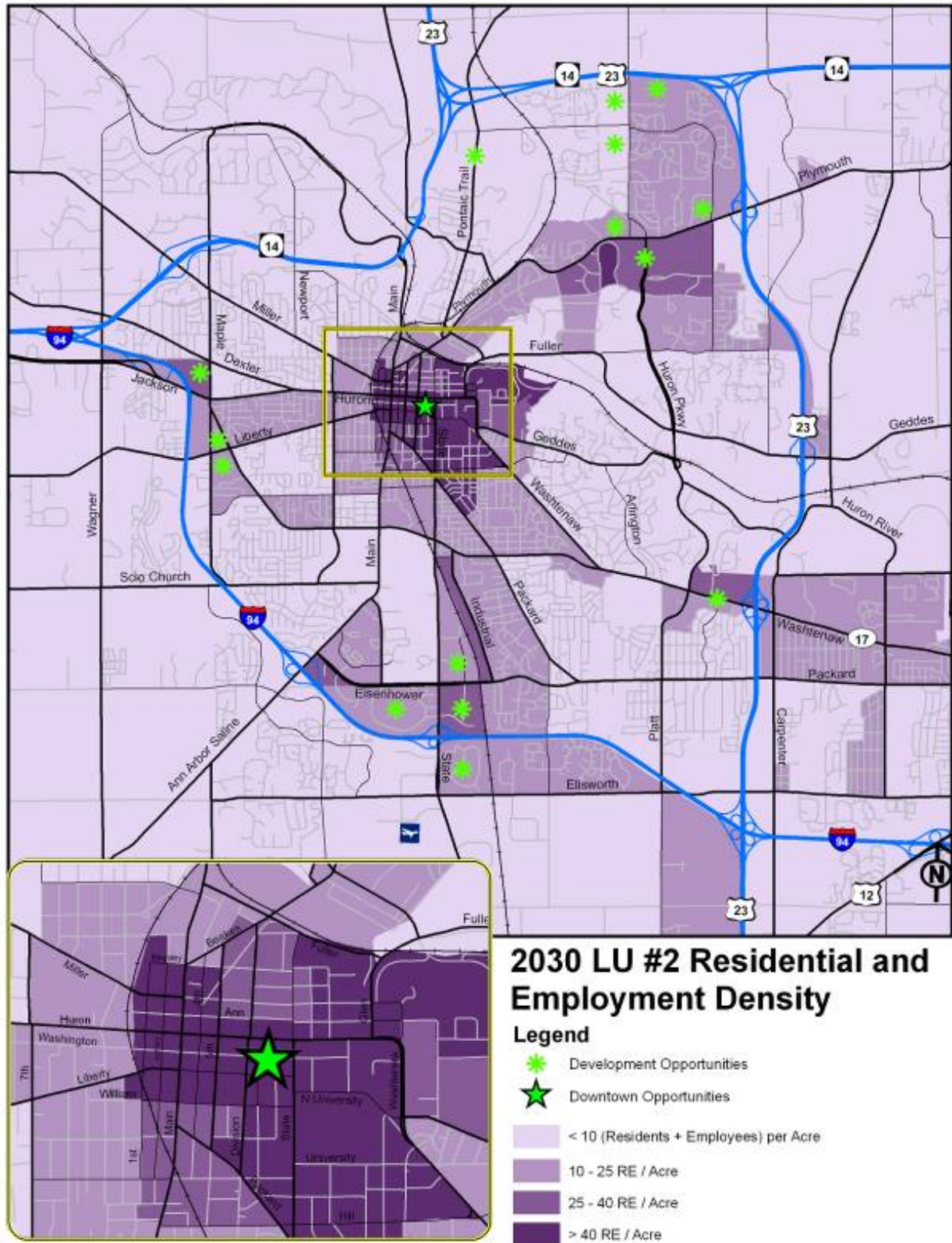
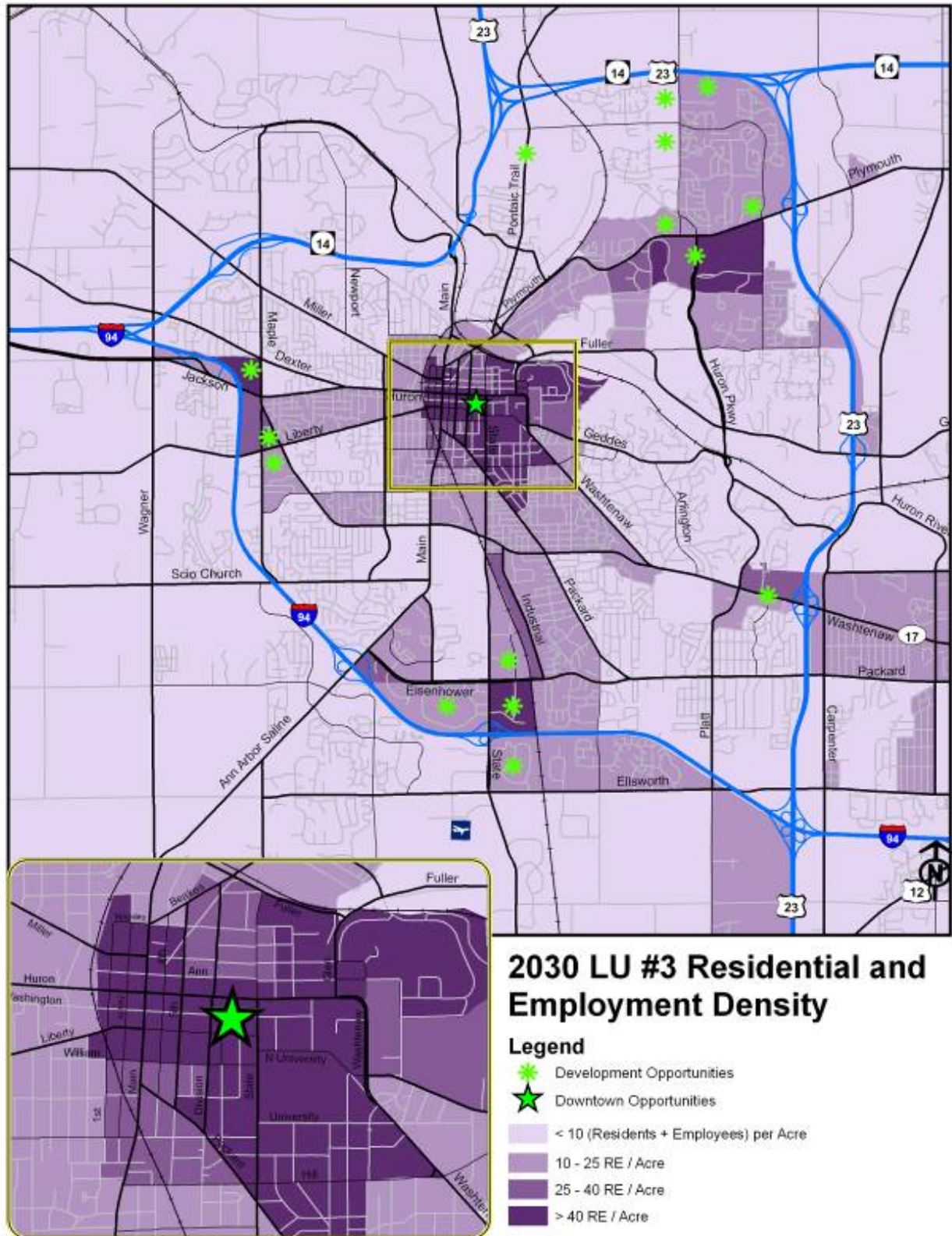


Figure 5-4: 2030 Land Use #3 Residential and Employment Density and Development Opportunity Locations



Further transportation enhancements will be needed to encourage mode shift in the future from drive alone and to accommodate the person trips by mode. This mode share assessment assumes only additional land use changes, but no additional transportation or non-motorized improvements over what exists today.

**Table 5-3: 2005 and 2030 Mode Share Percentages for Washtenaw County**

| Mode         | 2005        | 2030        |             |             |
|--------------|-------------|-------------|-------------|-------------|
|              |             | Land Use #1 | Land Use #2 | Land Use #3 |
| Walk         | 13.70%      | 11.14%      | 11.45%      | 11.71%      |
| Bicycle      | 0.82%       | 0.66%       | 0.67%       | 0.66%       |
| Transit      | 1.35%       | 1.15%       | 1.25%       | 1.33%       |
| Vehicular    | 84.13%      | 87.05%      | 86.63%      | 86.30%      |
| <b>Total</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

The number of trips coming into, within, and going out of the city of Ann Arbor changes significantly with each land use alternative. The Table 5-4 shows the number of person trips by mode for those trips that either originate or are destined to the City of Ann Arbor.

**Table 5-4: Number of Trips Going in, within, and Going out of Ann Arbor**

| Mode               | Going out      | Within         | Coming in      | Total          |
|--------------------|----------------|----------------|----------------|----------------|
| <b>Land Use #1</b> |                |                |                |                |
| Walk               | 2,775          | 106,569        | 4,331          | 113,675        |
| Bicycle            | 906            | 6,110          | 675            | 7,691          |
| Transit            | 2,408          | 13,340         | 3,063          | 18,811         |
| Vehicular          | 121,383        | 213,098        | 280,834        | 615,315        |
| <b>Total</b>       | <b>127,472</b> | <b>339,117</b> | <b>288,903</b> | <b>755,492</b> |
| <b>Land Use #2</b> |                |                |                |                |
| Walk               | 2,947          | 117,632        | 4,593          | 125,172        |
| Bicycle            | 923            | 6,456          | 700            | 8,079          |
| Transit            | 2,515          | 15,398         | 3,192          | 21,105         |
| Vehicular          | 130,798        | 239,537        | 287,011        | 657,346        |
| <b>Total</b>       | <b>137,183</b> | <b>379,023</b> | <b>295,496</b> | <b>811,702</b> |
| <b>Land Use #3</b> |                |                |                |                |
| Walk               | 3,233          | 127,633        | 5,021          | 135,887        |
| Bicycle            | 430            | 21,241         | 85             | 21,756         |
| Transit            | 2,687          | 17,488         | 3,296          | 23,471         |
| Vehicular          | 145,966        | 264,310        | 280,264        | 690,540        |
| <b>Total</b>       | <b>152,316</b> | <b>430,672</b> | <b>288,666</b> | <b>871,654</b> |

As shown in Table 5-4, the total number of person trips is expected to increase from 755,492 with Land Use #1 to a total of 871,654 with Land Use Alternative #3. This is an increase of approximately 15%. However, the number of trips coming into Ann Arbor from outside of the City is actually expected to decrease with Land Use Alternative #3 as compared with #1 and the number of trips exiting the City is expected to increase significantly with Land Use #3. This indicates that there may need to be more emphasis on creating employment opportunities in Land Use #3 within the City of Ann Arbor. Additionally, the number of bicycle trips in Land Use #3 increases significantly, which relates to the congestion of the roadways and that more people will opt to travel by bicycle than other modes of transportation.

The number of vehicle miles traveled (VMT) and vehicle hours traveled (VHT) were also determined from the 2030 model. Table 5-5 shows how the VMT and VHT within the City of Ann Arbor varies between the three different land use alternatives and also compares that back to the 2005 model. These values quoted also do not yet consider any additional transportation enhancements to the current system.

**Table 5-5: 2030 Vehicle Miles of Travel and Vehicle Hours of Travel**

|                                      | 2005      | 2030        |             |           |
|--------------------------------------|-----------|-------------|-------------|-----------|
|                                      |           | Land Use #1 | Land Use #2 | Land U #3 |
| <b>Vehicle Miles of Travel (VMT)</b> | 1,529,938 | 1,887,652   | 1,962,114   | 2,027,143 |
| <b>Vehicle Hours of Travel (VHT)</b> | 46,968    | 63,035      | 66,962      | 70,633    |
| <b>Congested VMT*</b>                | 426,614   | 885,684     | 899,4230    | 1,106,607 |
| <b>Congested VHT*</b>                | 14,783    | 33,198      | 35,046      | 43,508    |

\*Congested indicates any roadway with a LOS E or F

Table 5-6 below shows the increase in VMT and VHT from 2005 to the three Land Use Alternatives in 2030.

**Table 5-6: Percent Increase of VMT and VHT from 2005**

|                                      | 2005      | 2030        |             |             |
|--------------------------------------|-----------|-------------|-------------|-------------|
|                                      |           | Land Use #1 | Land Use #2 | Land Use #3 |
| <b>Vehicle Miles of Travel (VMT)</b> | 1,529,938 | 23%         | 28%         | 32%         |
| <b>Vehicle Hours of Travel (VHT)</b> | 46,968    | 34%         | 43%         | 50%         |
| <b>Congested VMT*</b>                | 426,614   | 108%        | 110%        | 159%        |
| <b>Congested VHT*</b>                | 14,783    | 125%        | 137%        | 194%        |

\*Congested indicates any roadway with a LOS E or F

As shown in the table above, the vehicle hours of travel are expected to increase from 2005 by 23-32% between Land Uses #1 through #3. However, the vehicle hours of travel are expected to grow even more, with a percent increase between 34% with Land Use #1 to 50% with Land Use #3. The larger increases are due to the amount of congested roadways within the city of Ann Arbor. Table 5-7 compares the percent of congested roadways in 2005 and 2030 with the varying Land Use Alternatives.

**Table 5-7: Percent Congested VMT and VHT of Travel**

|                               | 2005 | 2030        |             |             |
|-------------------------------|------|-------------|-------------|-------------|
|                               |      | Land Use #1 | Land Use #2 | Land Use #3 |
| <b>Percent Congested VMT*</b> | 28%  | 47%         | 48%         | 55%         |
| <b>Percent Congested VHT*</b> | 31%  | 53%         | 55%         | 62%         |

\*Congested indicates any roadway with a LOS E or F

In 2005, the percent of congested roadways was approximately 28%, but by 2030 the percentage of congested roadways is expected to be between 47- to 55-percent. The higher percentage of congested roadways occurs with the higher density land uses. The amount of time that vehicles spend on congested roadways is a little bit higher than the percentage of congested roadways, if no additional transportation improvements are made. It is expected that the amount of time spent in congested roadways will increase as well.

### Roadway Network Capacity

Roadway network capacity is typically measured by looking at a volume-to-capacity ratio. As anticipated, future growth in Ann Arbor without mitigation or enhancements to the transportation network will result in more congested roadways. Figure 5-5 illustrates the daily congestion within Ann Arbor with Land Use Alternative #3.

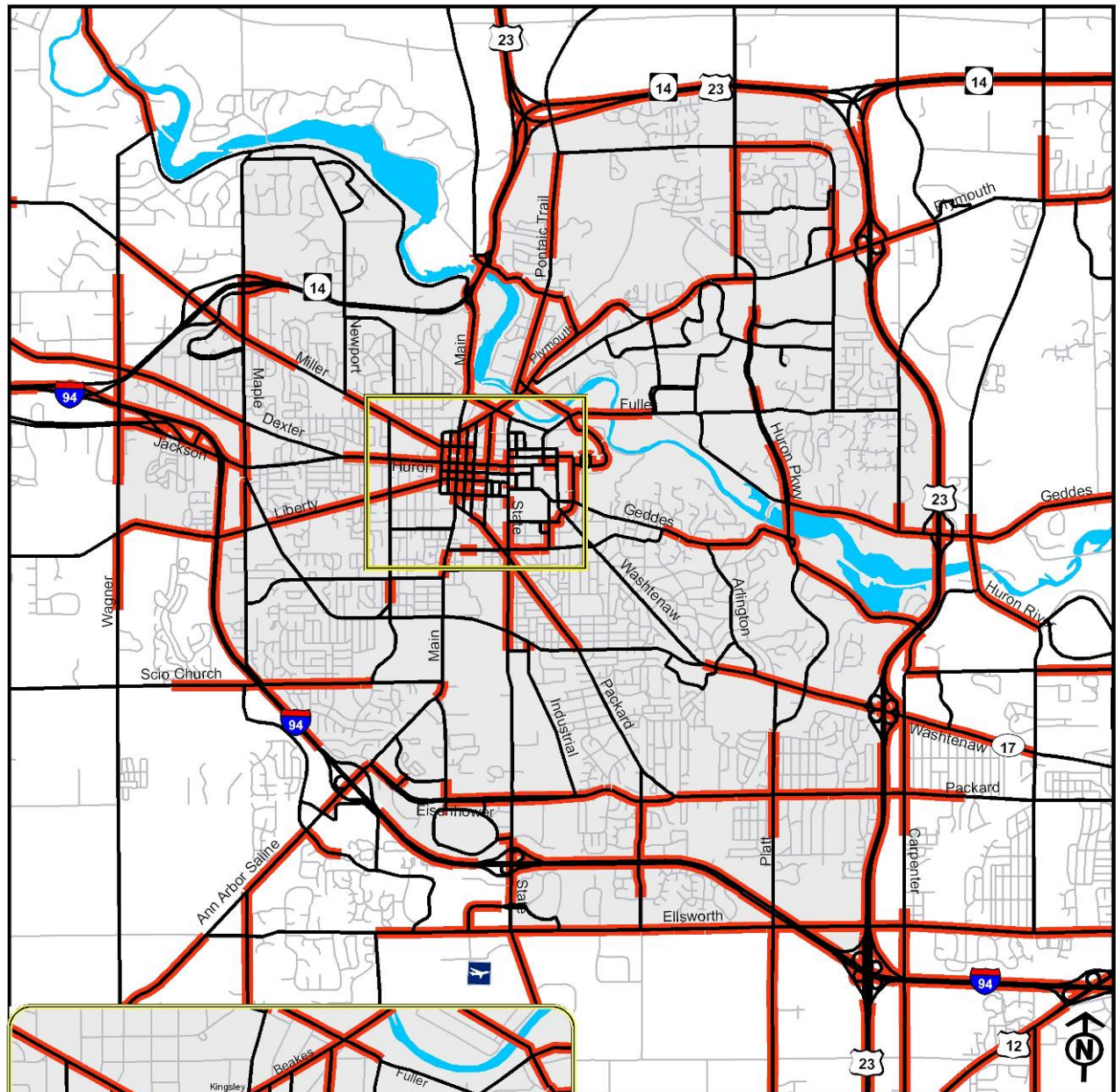
Based on the 2030 Daily Roadway Congestion with the intensified land use, the areas of concern are as follows:

- Main corridors in downtown (Huron Street, Main Street, State Street, Liberty Road, Division Street, etc.);
- Plymouth Road;
- Geddes Avenue;
- Packard Street;
- Washtenaw Avenue;
- Fuller Street;
- Miller Road;
- Ann Arbor-Saline;
- Huron Parkway;
- Dexter Road; and
- Jackson Road.

Intersection concerns include the following:

- Ann Arbor-Saline at Eisenhower Parkway
- Ann Arbor-Saline at I-94 WB Off Ramp
- Main Street at Depot Street
- Main Street at Scio Church
- State Street at Eisenhower Parkway
- State Street at Ellsworth Road
- State Street at I-94 EB Off-Ramp
- State Street at I-94 WB Off-Ramp
- State Street at Hilton/Victors Way

Figure 5-5: 2030 Daily Roadway Congestion with Intensified Land Use



### 2030 Daily Roadway Congestion

#### Legend

- Zero to Slight Congestion (V/C < 0.9)
- Moderate to Severe Congestion (V/C > 0.9)
- Local Roads

### Projected Traffic Volumes for Intersection Analysis

In order to evaluate detailed intersection operations for future conditions, forecasted intersection turning-movement volumes for 2030 conditions were developed using estimates from the refined WATS travel demand forecasting model. A multi-step approach was utilized to refine the model estimates based on actual field counts, volume balancing, and adjustments of discrepancies with the base-year traffic forecast.

- Step 1: Volumes were compared between the 2005 and 2030 model forecasts to determine the percentage growth anticipated at each intersection approach.
- Step 2: The anticipated percentage growth was adjusted to account for the growth already encountered between the 2005 base year and the 2007 existing conditions year.
- Step 3: The reduced anticipated growth percentage was applied to the existing conditions volume to produce a raw volume forecast.
- Step 4: Minor adjustments were conducted to balance volumes.

### Projected Traffic Operations and Identified Deficiencies

Congestion along roadways can be determined using the average daily traffic volumes and the capacity that is available along a roadway. Roadways can typically carry approximately 2,000 to 2,400 vehicles per lane per hour, at a maximum, without any signalization and at optimal roadway conditions. Once signals and driveways are added along the roadways, capacity is reduced significantly. Higher classification roadways have a greater capacity due to less signals and driveways, while local roadways have the least capacity per lane.

The projected volumes along with the network improvements included in the TIP and CIP were input into Synchro, a traffic engineering software, for the sixteen intersections throughout Ann Arbor to determine the anticipated control delay and level of service for each intersection. Intersection delay and level of service results for the AM and PM peak hour analyses are summarized in Tables 5-8 and 5-9.

While the analysis of existing conditions showed varying levels of service, future conditions show the majority of intersections operating under poor levels of service in one or both peak hours of the day. Figures 5-6 through 5-8 provide the level of service for the study intersections for the AM and PM peak hours for Land Use Alternatives #1, #2, and #3, respectively.

**Table 5-8: AM Peak Hour Intersection Level of Service and Delay by Land Use Alternative**

| Intersection                        | Land Use 1 |                  | Land Use 2 |                  | Land Use 3 |                  |
|-------------------------------------|------------|------------------|------------|------------------|------------|------------------|
|                                     | Delay*     | Level of Service | Delay*     | Level of Service | Delay*     | Level of Service |
| Ann Arbor-Saline at Eisenhower Pkwy | 29.5       | C                | 32.0       | C                | 84.8       | F                |
| Ann Arbor-Saline at I-94 WB         | 24.6       | C                | 22.8       | C                | 23.7       | C                |
| Eisenhower Pkwy at Boardwalk Street | 12.4       | B                | 13.1       | B                | 14.1       | B                |
| Liberty Road at Seventh Street      | 21.8       | C                | 22.3       | C                | 22.7       | C                |
| Main Street at Depot Street         | 67.0       | E                | 73.6       | E                | 74.4       | E                |
| Main Street at Scio Church          | 19.5       | B                | 21.3       | C                | 21.4       | C                |
| Main Street at Summit Street        | 24.2       | C                | 32.4       | C                | 38.8       | D                |
| Miller Street at Seventh Street     | 32.2       | C                | 36.9       | D                | 39.8       | D                |
| Packard Road at Jewett              | 6.7        | A                | 6.8        | A                | 6.9        | A                |
| Packard Road at Stone School        | 10.5       | B                | 11.5       | B                | 12.2       | B                |
| State Street at Eisenhower Pkwy     | 41.1       | D                | 44.9       | D                | 47.5       | D                |
| State Street at Ellsworth Road      | 81.0       | F                | 85.9       | F                | 90.1       | F                |
| State Street at I-94 EB Off-Ramp    | 91.6       | F                | 105.8      | F                | 119.5      | F                |
| State Street at I-94 WB Off-Ramp    | 80.6       | F                | 91.5       | F                | 107.7      | F                |
| State Street at NB Victors Way**    | 24.6       | C                | 27.9       | C                | 25.4       | C                |
| State Street at SB Hilton**         | 5.9        | A                | 6.2        | A                | 4.5        | A                |

\*Delay is reported in seconds per vehicle

\*\*State at Victors/Hilton is assumed to be signalized under future conditions

**Table 5-9: PM Peak Hour Intersection Level of Service and Delay by Land Use Alternative**

| Intersection                        | Land Use 1         |                  | Land Use 2         |                  | Land Use 3         |                  |
|-------------------------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|
|                                     | Delay (sec / veh*) | Level of Service | Delay (sec / veh*) | Level of Service | Delay (sec / veh*) | Level of Service |
| Ann Arbor-Saline at Eisenhower Pkwy | 102.7              | F                | 197.9              | F                | 109.4              | F                |
| Ann Arbor-Saline at I-94 WB         | 92.2               | F                | 101.8              | F                | 107.0              | F                |
| Eisenhower Pkwy at Boardwalk Street | 25.3               | C                | 33.1               | C                | 38.2               | D                |
| Liberty Road at Seventh Street      | 37.6               | D                | 41.5               | D                | 43.9               | D                |
| Main Street at Depot Street         | 93.3               | F                | 103.4              | F                | 110.4              | F                |
| Main Street at Scio Church          | 80.4               | F                | 104.3              | F                | 123.9              | F                |
| Main Street at Summit Street        | 39.7               | D                | 37.7               | D                | 42.0               | D                |
| Miller Street at Seventh Street     | 24.5               | C                | 30.3               | C                | 32.5               | C                |
| Packard Road at Jewett              | 8.6                | A                | 8.7                | A                | 8.8                | A                |
| Packard Road at Stone School        | 9.6                | A                | 10.1               | B                | 10.6               | B                |
| State Street at Eisenhower Pkwy     | 78.8               | E                | 90.9               | F                | 100.1              | F                |
| State Street at Ellsworth Road      | 146.3              | F                | 172.2              | F                | 188.2              | F                |
| State Street at I-94 EB Off-Ramp    | 93.8               | F                | 43.3               | D                | 47.4               | D                |
| State Street at I-94 WB Off-Ramp    | 29.0               | C                | 37.4               | D                | 44.7               | D                |
| State Street at NB Victors Way**    | 22.7               | C                | 21.0               | C                | 23.9               | F                |
| State Street at SB Hilton**         | 14.2               | B                | 64.8               | E                | 63.2               | E                |

\*Delay is reported in seconds per vehicle

\*\*State at Victors/Hilton is assumed to be signalized under future conditions

Figure 5-6: 2030 Land Use #1 Intersection Level of Service Map

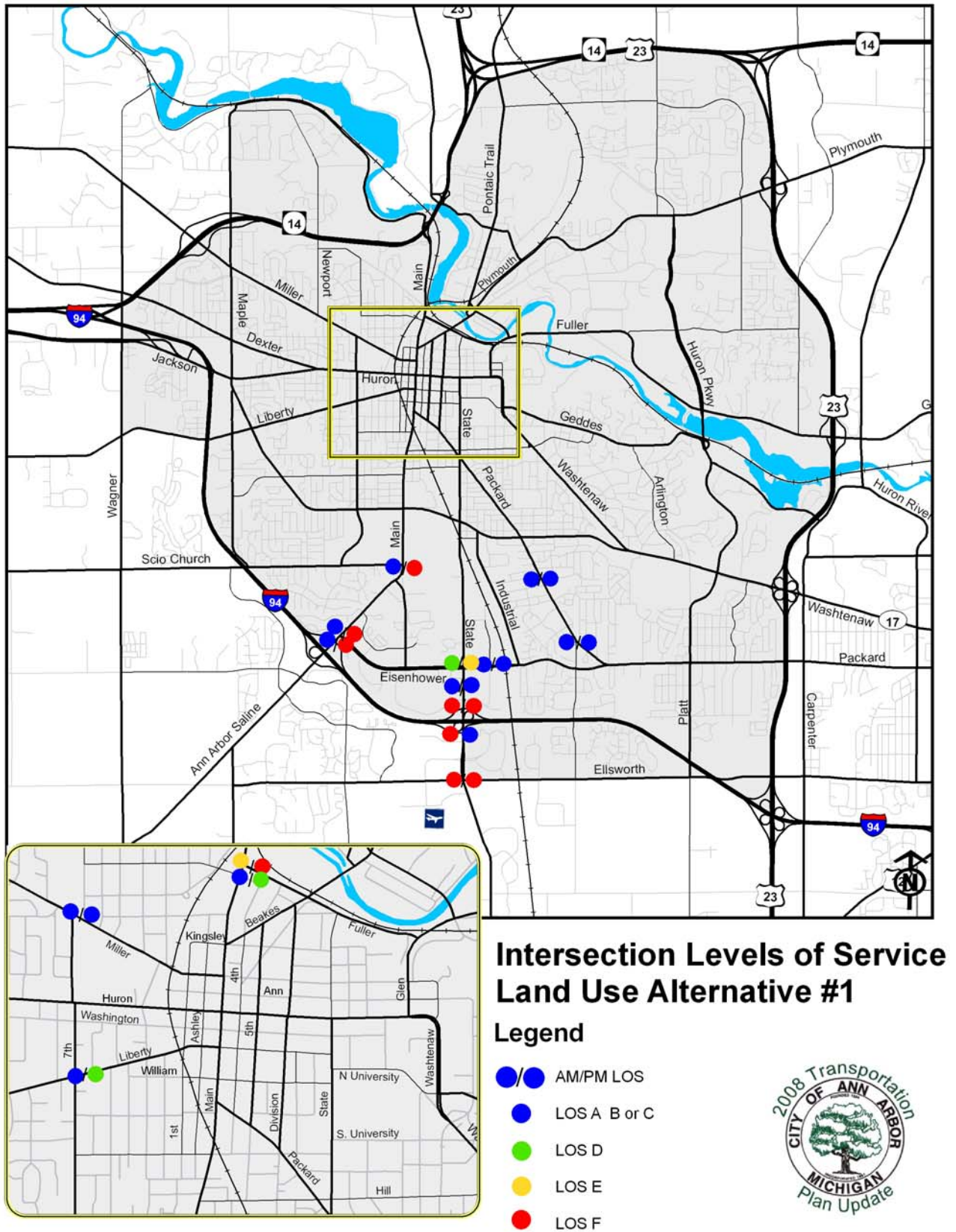
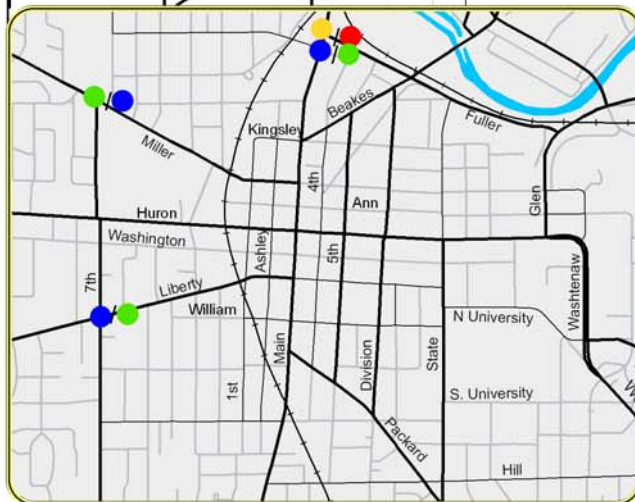
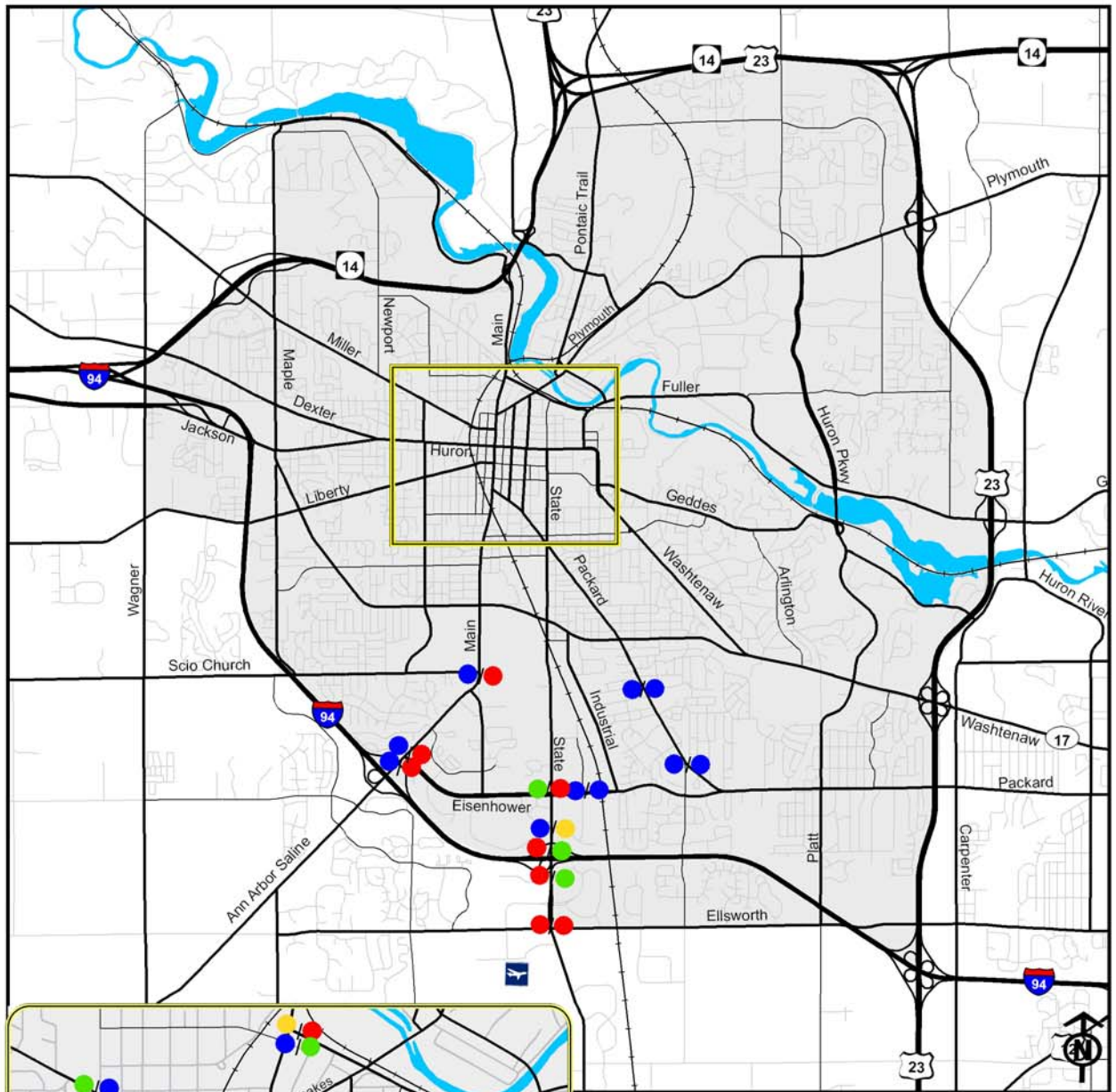


Figure 5-7: 2030 Land Use #2 Intersection Level of Service Map



**Intersection Levels of Service  
Land Use Alternative #2**

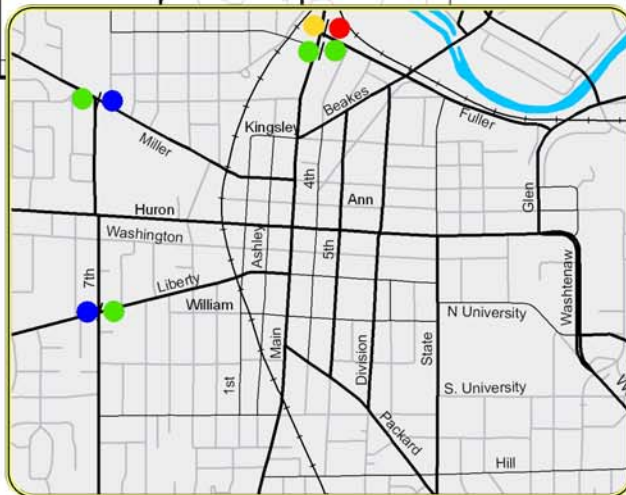
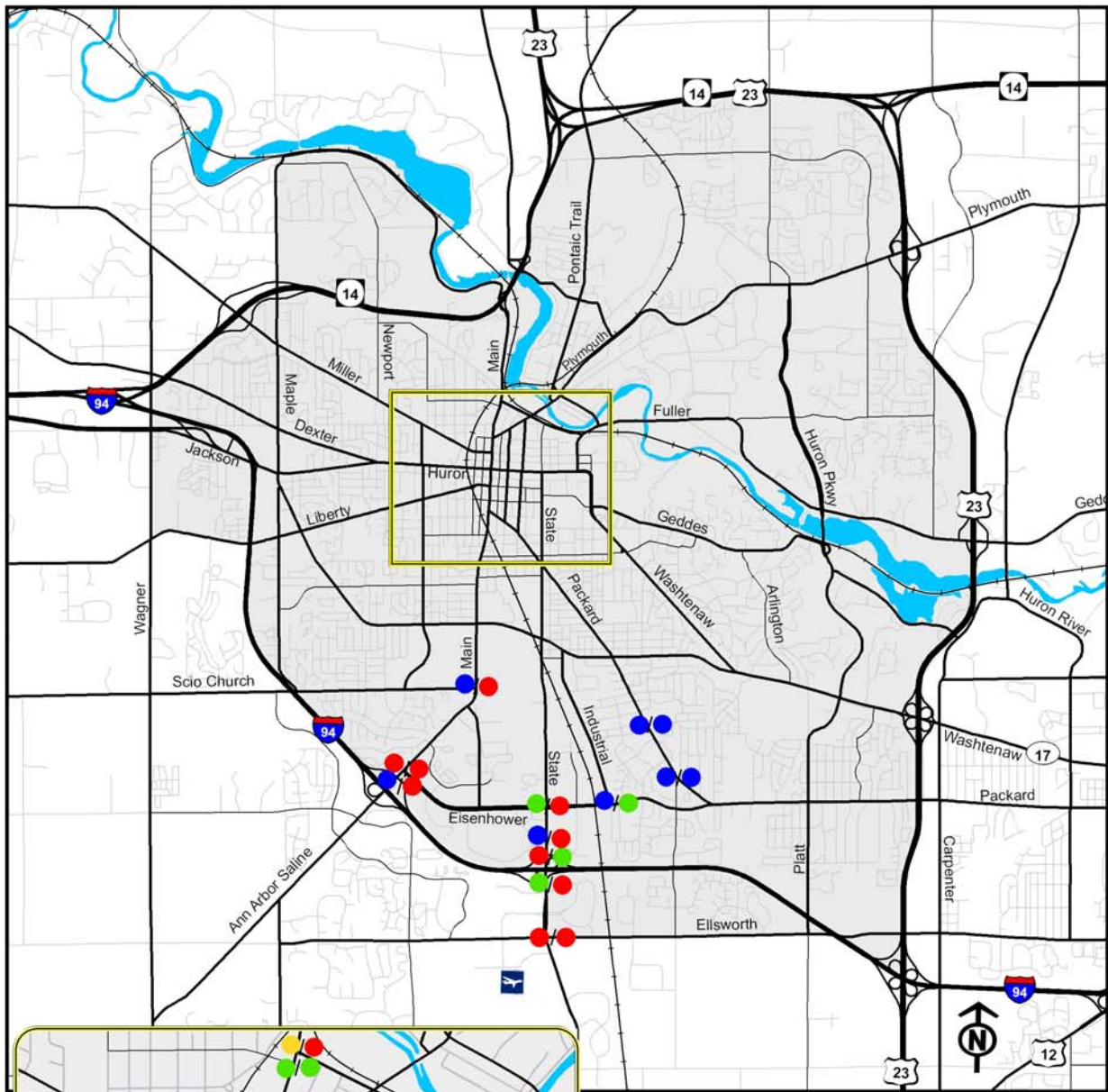
**Legend**

- / ● AM/PM LOS
- LOS A B or C
- LOS D
- LOS E
- LOS F



*\*State at Victors/Hilton assumes worse Level of Service for the two intersections*

Figure 5-8: 2030 Land Use #3 Intersection Level of Service Map



**Intersection Levels of Service  
Land Use Alternative #3**

**Legend**

- /● AM/PM LOS
- LOS A B or C
- LOS D
- LOS E
- LOS F



*\*State at Victors/Hilton assumes worse Level of Service for the two intersections*

In the future 2030 AM peak hour, it is expected that Main Street at Depot Street will be at a LOS E for any of the three land use alternatives. State Street between Ellsworth and Eisenhower Parkway has increased congestion and operational issues if no improvements are made in this corridor. In Land Use Alternative #3 the intersection of Ann Arbor-Saline Road/Eisenhower Parkway is anticipated to operate at a poor level of service with no improvements.

For the future 2030 PM peak hour, over half of the studied intersections are expected to operate at a LOS D or worse in the three land alternatives. Those intersections along Ann Arbor-Saline Road / Main Street are expected to fail, as well as intersections around State Street near Briarwood Mall. The intersection of Main Street at Depot Street is also expected to operate at a poor level of service in all three land use alternatives.

### **Future 2030 Transit Conditions**

With energy costs rising, the environmental movement broadening its base, and the overall growth in the region, it is anticipated that ridership will continue to increase on AATA routes for both in-town and commuter trips.

Currently a number of AATA routes – including the #2 Plymouth and #4 Washtenaw corridors – are experiencing overcrowding in the AM and PM peaks. Without transit investment, it is expected that ridership will increase between by 4,000 to 10,000 riders due to future population and employment growth, which will overwhelm most routes on the AATA system based on the existing service. Buses that accommodated passenger loads comfortably with two buses an hour just a few years ago could expect crush loads during AM and PM peaks if current trends continue with no changes to the AATA schedule or transit investment by the community.

Exacerbating the problem is the fact all AATA bus routes run on regular surface streets and deal with the same traffic conditions as motor vehicles. As traffic conditions within the city worsen, transit as a mode choice will fall farther and farther behind due to deteriorating traffic conditions unless specific investment is made to give transit an efficient advantage over the automobile.

It is expected that those routes that are carrying heavy loads currently will likely see the increase in ridership. This is due to the expected land use intensifications shown in Figure 5-1 of this report. The Land Use Intensifications are expected along Plymouth Road, Washtenaw Avenue, State Street, Liberty Road and within Downtown Ann Arbor.

### **Future 2030 Non-Motorized Transportation Conditions**

As shown in Table 5-2 of this report, the percentage of people that will be walking and biking within Washtenaw County is expected to increase by 10% with Land Use Alternative #1 and continue to increase further with more land use intensifications. For Land Use #3, the increase in walking trips is expected to increase by 23% while the bicycle trips would increase by 17%. As the roadways become more congested, the non-motorized options become more attractive to travelers, especially for trips that are shorter than two miles. While Table 5-3 shows that the percentage of mode share for the county does not change that much with each Land Use Alternative, Table 5-4 breaks those percentages down into those travelling within the City of Ann Arbor. Table 5-10 summarizes only those trips within the City of Ann Arbor and how those trips are expected to change with each Land Use Alternative.

**Table 5-10: 2030 Land Use Alternatives Person Trips by Mode within the City of Ann Arbor**

| <b>Mode</b>             | <b>Land Use #1</b> | <b>Land Use #2</b> | <b>Land Use #3</b> |
|-------------------------|--------------------|--------------------|--------------------|
| <b>Walk</b>             | 106,569 (31%)      | 117,632 (31%)      | 127,633 (30%)      |
| <b>Bike</b>             | 6,110 (2%)         | 6,456 (2%)         | 21,241 (5%)        |
| <b>Transit</b>          | 13,340 (4%)        | 15,398 (4%)        | 17,488 (4%)        |
| <b>Vehicular Travel</b> | 213,098 (63%)      | 239,537 (63%)      | 264,310 (61%)      |
| <b>Total</b>            | <b>339,117</b>     | <b>379,023</b>     | <b>430,672</b>     |

Table 5-10 shows that with the higher intensity land use alternative (#3), there is more of a propensity to switch to non-motorized travel than vehicular travel. This is due to the added congestion on the roadways from the increase in trips within the City.