Regional Roadway System Visioning Study

prepared for
Dakota County, Eagan, Inver Grove Heights, Mendota Heights, Sunfish Lake,
Mn/DOT, Metropolitan Council and FHWA

prepared by
SRF Consulting Group, Inc.

August 2010
INTRODUCTION
The Regional Roadway System Visioning Study is a joint planning effort lead by the Cities of Eagan, Inver Grove Heights, Mendota Heights and Sunfish Lake, Dakota County, and the Minnesota Department of Transportation (Mn/DOT), with participation of the Metropolitan Council and the Federal Highway Administration (FHWA). This plan was developed to articulate a long-term vision of the transportation system that can support long-term growth and development in these communities.

Study Purpose
The overall goal of this study is to develop a long-term roadway system vision that is supported by all jurisdictions and balances land use and transportation improvements for the study area (Figure 1). Significant growth is expected within the study area over the next 20 years and beyond, based on current comprehensive plans. In addition, growth beyond the immediate study area will also contribute to area roadway needs. If the transportation system remains as it is today and this growth occurs, significant congestion and safety issues are anticipated to occur on key arterials and at the I-494/TH 149 and I-494/TH 3 interchanges. In addition, cut-through traffic will likely increase on residential collector streets to avoid these problem areas. A coordinated plan is necessary to handle future growth and development, balance impacts and provide an overall transportation system that supports regional as well as local transportation needs.

Study Process
The following graphic illustrates the study process, which included extensive data collection, development and evaluation of alternatives, as well as final recommendations. The process included significant public and agency involvement culminating in signed resolutions approved by each of the involved Cities and the County Board during July of 2010. During the study process, many key documents were prepared, reviewed by the Study Advisory Committee (SAC) and presented to the public via website and public meetings. This final report serves as a summary of these documents, providing background and context, outlining the study process, identifying key findings, addressing frequently asked questions and developing study recommendations.
KEY FINDINGS

Background and Context

1. The area is served by a number of freeway facilities including I-35E on the west, TH 52 on the east and I-494 on the north. In addition to these facilities, TH 55, TH 149, TH 110 and TH 3 (Robert Street), as well as Lone Oak Road, contribute other backbone arterial functions.

2. Very limited transit services currently exist in the immediate study area. Transit service is primarily provided by the Minnesota Valley Transit Authority (MVTA). The closest park-and-ride facility is located at Pilot Knob Road/I-35E (approximately five miles from the undeveloped area that is a focus of this work). Based on Met Council’s 2030 Transportation Policy Plan, some express bus and/or BRT services on Robert Street may eventually provide some improved transit services to this area.

3. The communities of Mendota Heights and Sunfish Lake are situated to the north of Eagan and Inver Grove Heights (north of I-494), communities that are fully developed. These areas are primarily low-density, large-lot, residential uses with some large areas of open space (lakes, wooded areas and natural areas).

4. The areas proposed for more intense development in northeast Eagan and northwest Inver Grove Heights are currently a combination of farmland, wetlands, wooded areas and large single-family lots. These areas are quite hilly with significant elevation changes.

5. There are two overpasses over I-494 in the study area. One overpass (60th Street) serves approximately eight homes in Sunfish Lake. The other overpass (Argenta Trail – Delaware Avenue – CR 63) is a north-south two-lane collector route that travels through the center of the study area (collecting trips from local land uses and connecting to east-west arterials (TH 110, Lone Oak Road and TH 55).

6. Many of the regional routes in the study area are not conducive for bicycle and pedestrian use due to narrow shoulders and limited sight distances resulting from curves and hills.

Growth and Development

1. The northeast Eagan and northwest Inver Grove Heights area is one of the largest remaining undeveloped tracts on the I-494 beltway (approximately 4,300 acres). Based on the City of Eagan’s Comp Plan, the majority of the employment growth by 2030 will occur in the northeast Eagan study area. Figures 2 and 3 illustrate growth and development plans for the northeast Eagan and northwest Inver Grove Heights areas.

2. This large area is attractive due to its geographic proximity to the Minneapolis/St. Paul International Airport (eight miles), large employment centers including St. Paul (10 miles), downtown Minneapolis (20 miles), Bloomington strip (11 miles) 3M Company (14 miles) and a large retail center MOA (eight miles). These facts suggest that this land will develop at some point. This is consistent with Met Council’s policy to encourage orderly and systematic growth in the region and discourage leap frog development.

3. Significant growth is expected within the study area over the next 20 years, based on community plans. In addition, growth beyond the immediate study area (such as Rosemount and Farmington) will also contribute to demand on existing area roadways with additional through trips.
Figure 3
a. With 2030 Comp Plan land uses, 140,000 additional daily trips will travel to and from the northeast Eagan and northwest Inver Grove Heights growth areas.

b. With 2030++ Buildout land uses, 214,000 additional daily trips will travel to and from the northeast Eagan and northwest Inver Grove Heights growth areas.

c. 2030++ Buildout land uses for northwest Inver Grove Heights include approximately 6,100 new households and 11,300 new jobs.

d. 2030++ Buildout land uses for northeast Eagan include approximately 11,400 new jobs.

4. Based on the Region’s Travel forecast model, approximately 60 percent of these trips have destinations beyond the immediate communities (i.e. Eagan, Inver Grove Heights, Mendota Heights and Sunfish Lake); to job centers, retail etc.

Existing Conditions

1. As shown in Figure 4, existing non-freeway segments where daily volumes exceed planning-level capacity thresholds include TH 55 south of Lone Oak Road, TH 3 south of TH 149 and TH 3 north of Cliff Road. An overloaded roadway segment is where daily volumes projected are in excess of what the facility can reasonably accommodate. An overloaded segment can result in long queues at intersections, no gaps for side-street traffic, and more cut-through traffic on alternative routes during the morning and evening peak periods.

2. Currently, the remaining daily capacity on I-494 between I-35E and TH 149 is approximately 25 percent and between TH 149 and TH 3 is approximately 30 percent. When daily volumes begin to reach what the facility can reasonably accommodate, increased congestion and delays can develop during the morning and evening peak periods. A more detailed operations analysis would be required to address mainline operational issues on I-494.
Existing Segment Capacity Problems (2007-2008)

Legend
- Congested Segments (Volume/Capacity > 1)

Figure 4
3. Of the 25 intersections that were analyzed for both a.m. and p.m. peak hours, the following six intersections along TH 149, TH 55 and TH 3 currently operate at an unacceptable LOS E/F:
   a. TH 149 and TH 110 (p.m. peak hour)
   b. I-494 South Ramps and TH 149 (a.m. peak hour)
   c. TH 55 and TH 149(N) (a.m. peak hour)
   d. TH 55 and TH 149(S) (a.m. and p.m. peak hours)
   e. TH 3 and 70th Street (p.m. peak hour)
   f. TH 3 and TH 149(S) (p.m. peak hour)

4. Safety Concerns – The primary safety concerns are as follows:
   a. Where daily volumes exceed planning-level capacity thresholds of the current transportation network, it could result in:
      - More cut-through traffic on local streets, affecting livability, safety etc. due to increased congestion and delay during peak hour conditions.
      - Excessive delays and lack of gaps at uncontrolled intersections, which increases frustration and contributes to motorists taking greater risks.
   b. Poor alignments, lack of shoulders and steep slopes on collector and some key arterials (e.g. TH 3, Lone Oak Road and Argenta Trail). These characteristics can lead to higher crash and severity rates as volumes increase.
   c. Interchange locations that have operation problems could contribute to back ups onto through lanes and/or weaving sections that are near capacity (e.g. I-494/TH 149 and I-35E ramps). These areas can cause unstable flow and higher crash problems.
   d. High-speed, high-volume signalized intersections where significant queuing and more severe crashes can result at these locations (e.g. TH 55/Argenta Trail).
      - Collision diagrams for 2006-2009 were prepared for the intersection of TH 55 and Argenta Trail. The crash data is from the Minnesota Department of Public Safety (DPS) database. The data only includes crashes that were reported to the DPS. There may be additional crashes of which we are unaware of, as they may not have been reported.
      - The crash rate for this intersection is at the statewide average when compared to other similar intersections.
      - The crashes did increase in 2008 over the 2007 and 2006 data. Of the 12 crashes in 2008, seven were rear end crashes and three were right-angle crashes associated with red light running.
      - 2009 crashes have not been finalized in the DPS system at this time.

---

1 Capacity analysis results identify a Level of Service (LOS), which indicates how well an intersection is operating. The LOS results are based on average delay per vehicle. Intersections are given a ranking from LOS A through LOS F. LOS A indicates the best traffic operation and LOS F indicates an intersection where demand exceeds capacity. In the Twin Cities metropolitan area, LOS A through D is generally considered acceptable by drivers.
5. Regional Access – There are a number of existing access points to the regional system in the area. Regional access is primarily provided at the I-494/TH 149 interchange; other regional access points include I-494/TH 3, I-35E/Lone Oak Road and interchanges along TH 52. Based on the analysis, the current conditions of regional access points on I-494 are as follows:
   a. The I-494/TH 149 interchange is near capacity.
   b. The spacing between TH 149 and the I-35E system interchange is approximately 1,600 to 2,000 feet; this is much shorter than desired given the volumes entering and exiting (weave issue). Mn/DOT recently completed some ramp work to mitigate congestion issues with the ramps to and from I-35E. This has improved flow.
   c. The spacing between the TH 149 interchange and the TH 3 interchange on I-494 is over two-miles.
   d. The I-494/TH 3 interchange has no reported operational issues.
   e. Other regional access points exist along TH 52 and I-35E; there were no reported operational issues at these locations.

6. Spacing of arterials – The current spacing of major arterials and unique roadway alignments will not support the amount of growth and density planned. Met Council recommends ½ mile to one-mile spacing between arterials for fully-developed areas. Significant improvements are needed to densify the arterial grid system to accommodate the planned growth for this area.

Alternatives Analysis (Future Conditions)

All alternative improvements are shown in Table 1. In general, funding for transportation improvements is limited and a majority of the improvements identified are not in current local, regional and/or state plans. The timing or phasing of improvements will depend on many factors including timing of development, completion of subsequent environmental processes, applicable modifications to comprehensive plans and funding sources. These alternatives will require more analysis and evaluation in accordance with environmental regulations and planning requirements, should they move forward to the next steps.

1. Alternative A (Figures 5 and 6)
   a. Alternative A does not address:
      i. Traffic congestion based on 2030 planned land uses or beyond 2030 planned land uses.
      ii. Met Council arterial spacing requirements for fully-developed areas.
   b. Alternative A results indicate:
      i. Daily volumes exceed planning-level capacity thresholds of current collector systems, resulting in increased congestion and delays during peak hour conditions.
      ii. Daily volumes exceed planning-level capacity thresholds of current arterials (TH 55, TH 149, TH 3), resulting in increased congestion and delays during peak hour conditions.
## TABLE 1

<table>
<thead>
<tr>
<th>Map Reference</th>
<th>ROADWAY IMPROVEMENTS</th>
<th>Alternative A</th>
<th>Alternative B</th>
<th>Alternative C</th>
<th>Alternative D</th>
<th>Alternative E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lone Oak Road - 2 to 4 lanes</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>Local street realignments</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>65th Street extension</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>TH 55 Frontage Road realignment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>5</td>
<td>TH 3 - 2 to 4 lanes (at TH 149)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>6</td>
<td>TH 149 - 2 to 4 lanes (north of TH 3)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>Baffin Trail realignment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>8</td>
<td>CSAH 28 realignment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>9</td>
<td>Lone Oak Road - 4 to 6 lanes (near I-35E)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>10</td>
<td>TH 55 - 4 to 6 lanes (common section)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>11</td>
<td>TH 149 - 4 to 6 lanes (north of TH 55)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>12</td>
<td>TH 3 - 2 to 4 lanes (north of TH 55)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>13</td>
<td>TH 3 interchange improvements</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>14</td>
<td>TH 149 interchange improvements</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>15</td>
<td>New I-494 interchange</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>16</td>
<td>I-494 improvements between I-35E and TH 149</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>17</td>
<td>TH 55/Argenta Trail - high capacity or long-term interchange</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>18</td>
<td>Argenta Trail - 2 to 6 lanes</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>19</td>
<td>Argenta Trail - 6 lane realignment and local street realignments</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>20</td>
<td>Northwest Parkway Realignment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

* Consistent with the Cities' Comprehensive Plans
Figure 5
ii. The remaining daily capacity on I-494 between I-35E and TH 149 is approximately five percent and between TH 149 and TH 3 is approximately 12 percent. When daily volumes begin to reach what the facility can reasonably accommodate, increased congestion and delays can develop during the morning and evening peak periods. A more detailed operations analysis would be required to address mainline operational issues on I-494.

iv. Increase in cut-through traffic on local streets.

v. Increased congestion and delay at the TH 149 interchange ramp intersections.

vi. Safety issues would be expected on overload and cut-through segments, and most of the current local system as it tries to serve much greater demand.

vii. Increase in daily traffic volumes on Delaware Avenue from 5,850 to 9,600 vehicles per day south of TH 110 and 2,350 to 11,800 vehicles per day north of I-494.

2. **Alternative B – Improve current arterials with no new access to I-494 (Figures 7 and 8)**

   a. **Alternative B does not address:**

      i. Traffic congestion based on planned land use beyond 2030 (additional 75,000 trips), as it falls short of serving this demand.

   b. **Alternative B results indicate:**

      i. Better distribution of trips; however, overload problems will continue to exist on TH 55 (between the TH 149 junctions) and at the TH 149 and TH 3 interchanges with I-494.

      ii. The remaining daily capacity on I-494 between I-35E and TH 149 is approximately five percent and between TH 149 and TH 3 is approximately 12 percent. When daily volumes begin to reach what the facility can reasonably accommodate, increased congestion and delays can develop during the morning and evening peak periods. A more detailed operations analysis would be required to address mainline operational issues on I-494.

      iii. Significant improvement to the arterial grid system that can form the foundation for serving planned land uses to the 2030 timeframe.

      iv. Some cut-through traffic is expected to exist due to overloads on TH 55 and at the TH 149 and TH 3 interchanges.

      v. Increased congestion and delay at the TH 149 and TH 3 interchange ramp intersections compared to existing and Alternative A.

      vi. Safety concerns focused around overload areas and areas where cut-through traffic occurs (e.g. Mendota Heights Road).

      vii. Increase in daily traffic volumes on Delaware Avenue from 5,850 to 8,900 vehicles per day south of TH 110 and 2,350 to 10,700 vehicles per day north of I-494.
Figure 7
3. Alternatives C/D – Improve current arterials with new access to I-494 at Argenta Trail/Delaware Avenue and new interchange at TH 55 and Argenta Trail (Figures 9, 10 and 11)

   a. Alternatives C/D do not address:

      i. I-494/TH 149 weaving issue without some improvements/modifications to the TH 149 interchange.

      ii. Congestion and delays on TH 55 between Lone Oak Road and TH 149 (S).

   b. Alternatives C/D results indicate:

      i. Better balance of traffic demands between the TH 149 and TH 3 interchanges and future new interchange on I-494.

      ii. Daily traffic volumes are at or near capacity on I-494 between I-35E and TH 149 and between TH 149 and TH 3. When daily volumes are at the threshold of what the facility can reasonably accommodate, increased congestion and delays can develop during the morning and evening peak periods. A more detailed operations analysis would be required to address mainline operational issues on I-494.

      iii. New I-494 interchange would serve regional trips (i.e., relatively low local interchange to interchange use).

      iv. New I-494 interchange locations could meet general spacing guidelines of at least one mile between interchanges. The interchange spacing would need to be verified with an operational analysis of the mainline and local system.

      v. Significant reduction or shift in volumes from parallel routes south of I-494 (TH 149, TH 3) to Argenta Trail. This reduces overloads on these routes and their respective interchanges, as well as TH 55 between the TH 149 junctions.

      vi. Increase in daily traffic volumes on Delaware Avenue from 5,850 to 11,100 vehicles per day south of TH 110 and 2,350 to 11,300 vehicles per day north of I-494 (similar to No Build and Alternative B).

      vii. New I-494 interchange alternatives reduce vehicle miles traveled (VMT) as well as vehicle hours of travel (VHT) over no build conditions. These alternatives also shift more trips to I-494 (sooner) increasing safety (freeways have lower crash risk than highways with stop-controlled and signalized intersections).

      viii. A high-volume, high-capacity intersection upgrade, or a long-term interchange needs to be considered at the intersection of TH 55 and Argenta Trail. A new TH 55 interchange provides limited spacing between Argenta Trail and TH 3. The travel demand for the TH 3 west ramps to and from TH 55 is low. Therefore, it is likely that the TH 3 west ramps will need to be removed, if and when a new interchange is constructed.
Figure 11

Legend
- Congested Segments
  (Volume/Capacity > 1)
- XX Year 2030 Daily Volumes
4. **Alternative E – Improve current arterials with new access to I-494 east of Argenta Trail/Delaware Avenue and new interchange at TH 55 and Argenta Trail (Figures 12, 13 and 14)**

   a. **Alternative E does not address:**
      
      i. I-494/TH 149 weaving issue without some improvements/modifications to the TH 149 interchange
      
      ii. Congestion and delays on TH 55 between Lone Oak Road and TH 149 (S).

   b. **Alternative E results indicate:**
      
      i. Better balance of traffic demands between the TH 149 and TH 3 interchanges and future new interchange on I-494.
      
      ii. Daily traffic volumes are at or near capacity on I-494 between I-35E and TH 149 and between TH 149 and TH 3. When daily volumes are at the threshold of what the facility can reasonably accommodate, increased congestion and delays can develop during the morning and evening peak periods. A more detailed operations analysis would be required to address mainline operational issues on I-494.
      
      iii. New I-494 interchange would serve regional trips (i.e., relatively low local interchange to interchange use).
      
      iv. New I-494 interchange locations could meet general spacing guidelines of at least one mile between interchanges. The interchange spacing would need to be verified with an operational analysis of the mainline and local system.
      
      v. Significantly reduce or shift volumes from parallel routes south of I-494 (TH 149, TH 3) to Argenta Trail. This reduces overloads on these routes and their respective interchanges, as well as along TH 55 between the TH 149 junctions.
      
      vi. Increase in daily traffic volumes on Delaware Avenue from 5,850 to 11,100 vehicles per day south of TH 110 and 2,350 to 9,900 vehicles per day north of I-494 (similar to No Build and Alternative B).
      
      vii. New I-494 interchange alternatives reduce vehicle miles traveled (VMT) as well as vehicle hours of travel (VHT) over no build conditions. These alternatives also shift more trips to I-494 (sooner) increasing safety (freeways have lower crash risk than highways with stop-controlled and signalized intersections).
      
      viii. A high-volume, high-capacity intersection upgrade, or a long-term interchange needs to be considered at the intersection of TH 55 and Argenta Trail. A new TH 55 interchange provides limited spacing between Argenta Trail and TH 3. The travel demand for the TH 3 west ramps to and from TH 55 is low. Therefore, it is likely that the TH 3 west ramps will need to be removed, if and when a new interchange is constructed.
Figure 13
Environmental Screening

1. Many facets of a project-level environmental analysis (cultural resources, endangered species, hazardous materials, noise, air, water quality etc.) have not been evaluated at this stage of system planning.

2. The study focused on a high-level screening of environmental elements to identify potential environmental issues. More environmental work will need to be done for each project as it moves forward into an official environmental process.

3. Public input brought forth many environmental, social and economic concerns with the new interchange alternatives; especially with Alternatives C and D.

4. High-level screening did not identify significant differences at the system-level; however, Alternatives C and D have more wetlands and a water quality pond in close proximity to the proposed interchange location. In addition, residents, as well as the communities of Mendota Heights and Sunfish Lake feel that Alternatives C and D (with the interchange directly on Delaware Avenue) are incompatible with the function of Delaware Avenue and the residential area it serves.

Public and Agency Involvement

1. The study process has included a Study Advisory Committee (SAC). This committee includes the following members, who have met seven times:
   a. Dakota County Transportation Department
   b. City of Eagan
   c. City of Inver Grove Heights
   d. City of Mendota Heights
   e. City of Sunfish Lake
   f. Mn/DOT
   g. Metropolitan Council
   h. FHWA

   The study was led by Dakota County, with the participation of the agencies listed above. The study was funded jointly by Dakota County, Mn/DOT, Inver Grove Heights and Eagan.

2. Public and agency input has been gathered from meetings with agency staff, meetings with City Councils, a community meeting (February 25, 2010) and three open houses (June 24, 2009, November 10, 2009 and May 26, 2010). Notices for open houses were place in the paper and direct mailings have been sent to approximately 1,000 property owners. The community meeting and open houses were integrated into the study process to inform the public and solicit their input on the proposed alternatives. To help clarify issues and address some of the key comments made by the public throughout the study process, the Frequently Asked Questions (FAQs) document included in Appendix A was prepared. Public and agency input was taken into consideration as the study recommendation was developed.
RECOMMENDATIONS

The intent of the study is to identify a transportation system plan that can support long-term growth and development in the region, as well as complement and build upon current transportation systems. The study area has one of the largest undeveloped areas (approximately 4,300 acres) adjacent to the I-494/I-694 beltway. This area will develop over time and as a result, add more traffic to the current transportation system. In addition, growth is also occurring in surrounding communities, particularly to the south and east; this traffic also impacts the transportation system in this area. It is therefore important to identify potential improvements needed to support this future growth, as well as ensure safe and efficient travel into, through and out of the area. With this plan and subsequent environmental studies, the appropriate agencies can work toward implementing improvements over time, as needs arise, and as opportunities and funding permit. In addition, the plan will allow for avoidance and minimization of property impacts and disruptions in services, especially as development occurs in the study area.

The study recommendations need to be put in the following planning context.

- The study is not an official environmental study and therefore does not carry any official environmental standing. More detailed analysis will need to be done to fully assess environmental, design and operational issues in accordance with the National Environmental Policy Act (NEPA) and Minnesota Environmental regulations at the time individual projects are developed. The study focused on a high-level screening of environmental elements to identify potential environmental issues, including a review of natural wetland inventory, special habitat designations and right-of-way impacts to residential and commercial properties.

- While a specific system alternative is identified as an outcome of this study, all of the remaining system alternatives (alternatives not selected) will need to be carried into future environmental studies to fulfill environmental requirements. However, some of these alternatives may end up in a considered, but dismissed narrative.

- Any changes in interstate access require a significant amount of analysis and study to ensure safe and efficient operations of the system. This lengthy process may ultimately determine that an additional access may not be warranted, or other modifications of the system may be needed in conjunction with access changes.

The following recommendations have been developed through the involvement of the Cities of Eagan, Inver Grove Heights, Mendota Heights, and Sunfish Lake; Dakota County, the Minnesota Department of Transportation (MnDOT), the Metropolitan Council, and the Federal Highway Administration (FHWA). The recommendations are based on technical analysis, as well as public and committee input. These recommendations constitute a vision for the area transportation system that will allow the system to support area growth (as identified in local 2030 Comprehensive Plans) safely and efficiently.
The following key improvements that constitute the vision are listed below and shown in Figure 15:

a. Lone Oak Road (CSAH 26) – expand 2 to 4 lanes from TH 55 to Athena Way (where it is currently 4 lanes).

b. 65th Street – extend from Babcock Trail to Lone Oak Point.

c. CSAH 28 Realignment north of TH 55.

d. TH 3 – expand 2 to 4 lanes from Cliff Road to TH 55.

e. TH 149 – expand 2 to 4 lanes from TH 3 to Rich Valley Boulevard.

f. Baffin Trail Realignment – alignment to be determined in future studies.

g. CSAH 28 Realignment south of TH 55 – connection to Argenta Trail will be determined during future studies associated with the installation of a full interchange in the long term.

h. Lone Oak Road (CSAH 26) – expand 4 to 6 lanes from the I-35E West Ramps to Neil Armstrong Boulevard.

i. TH 55 – expand 4 to 6 lanes from TH 149 south junction to TH 149 north junction.

j. TH 149 – expand 4 to 6 lanes from TH 55 to I-494. This project recently received STP federal dollars for construction.

k. TH 3 – consider 2 to 4 lane expansion in the long term from Upper 55th Street to TH 55.

l. TH 149 Interchange Improvements with I-494 Mainline between I-35E and TH 149 – additional analysis is needed in an Interstate Access Request (IAR). As part of this study, a preliminary analysis was completed to determine how the TH 149 interchange ramps are currently being used, in relation to I-35E and I-494. Further study is necessary to determine the solutions to address the capacity problems at the TH 149 interchange and weaving issues between TH 149 and the I-35E exit.

m. Delaware Avenue – improvements as required by actual traffic conditions. Such improvements may include turn lanes, shoulders, and trails/sidewalks. No additional through lanes will be required.

n. New I-494 Interchange near Argenta Trail – approximately ½ mile east of the existing overpass with a configuration to minimize potential impacts to Hornbean Lake on the north. Additional analysis is needed in an Interstate Access Request (IAR).

o. TH 55/Argenta Trail – consider a high-volume, high-capacity intersection upgrade, or a long-term interchange at this location. 2030 Comprehensive Plan growth assumptions do not reflect a need to separate grades based on traffic volumes. Buildout traffic volumes are borderline. In the vicinity of TH 55, continue to keep Argenta Trail as the through route and CR 28 connection into Argenta Trail (note: this is a change from the recommendations of the “County Road 28 Corridor Study” completed in 2000). Plan for an alignment of future CR 28 east of Argenta Trail that would intersect Argenta Trail where interchange ramps would be located if an interchange were to be constructed in the future. It is likely that the TH 3 West Ramps would need to be removed, if and when a new interchange is constructed.
Legend
- Purple: Future Roadway
- Blue: 4 Lane Expansion
- Orange: 6 Lane Expansion
- Red: I-494 Modification

Note: These needs are not currently funded.
p. Argenta Trail – realign and expand to 6 lanes from TH 55 to I-494. This likely would be built first as a 4-lane roadway, then expanded to 6 lanes in the future as demands increase.

2. Based on the analysis and input throughout the study process, Alternative “E” is recommended as the “locally-preferred”\(^2\) system vision with new access to I-494. As noted in 1(n), this recommended vision includes a new interchange along I-494. The Study Partners should continue to investigate the technical and environmental acceptability of adding an additional interchange access to I-494. This recommendation is made for the following reasons.

a. It addresses the growth anticipated in 2030, based on approved area Comprehensive Plans, including the 2030 growth anticipated for NE Eagan and NW Inver Grove Heights.

b. It limits overloads of key arterial segments which are difficult and costly to expand beyond six lanes (i.e., more urbanized area along TH 55 from south junction of TH 149 to north junction of TH 149; and TH 149 from TH 55 to I-494).

c. It eliminates overloaded interchanges on I-494 at TH 149 and TH 3 by better balancing transportation demand among other regional access points and a new interchange access. This maximizes long-term flexibility of the overall transportation system.

d. It reduces travel demands at the I-494/TH 149 interchange, which is in close proximity to the I-35E system interchange. Currently, there are operational and safety problems with traffic from the TH 149 loop wanting to travel westbound on I-494, weaving with westbound I-494 traffic exiting to I-35E within approximately 2,300 feet. Additional modifications to the I-494/TH 149 interchange and the I-494 mainline will be needed in the future. With a new I-494 interchange at the proposed Alternative E location, 40 percent of the traffic using the TH 149 westbound loop would be relocated to the new interchange, approximately 8,200 feet further east. This will provide a longer distance for vehicles to sort themselves out, which makes the weave and right-lane congestion issues easier to address in the long-term on I-494.

e. It has the lowest right-of-way acreage impacts of all new I-494 interchange alternatives and the lowest number of residential and commercial property acquisitions based on current properties.

f. It maintains logical system connections with existing Argenta Trail and Delaware Avenue thereby providing access to and from communities to the north; yet the traffic demands along Delaware Avenue for this option are very similar to the other system improvement options.

g. Alternative E is in close proximity to Hornbeam Lake and this proximity will need to be evaluated more closely in subsequent environmental studies. Interchange designs that limit encroachments and impacts to this area should be considered.

\(^2\) Mn/DOT and FHWA cannot commit to one alternative until the environmental process is completed.
h. Alternative E’s interchange location and proposed alignment for Argenta Trail will be
designed to minimize impacts to wetlands and avoid where possible. Its location does a
better job of avoiding areas that have been identified as Regionally Significant Ecological
Areas (defined by the DNR using Minnesota Land Cover Classification System – 2008).
Alternatives C and D have some impacts to wetlands and the areas identified as
regionally significant ecological areas. These areas are located adjacent to existing
Argenta Trail and in the Argenta Trail and I-494 overpass area (Figure 16).

i. Alternative E has a low percentage of local trips using the regional system for a short
distance (i.e., interchange to interchange on I-494). A high percentage of the trips
accessing the regional system using the new interchange have other regional
destinations in the region.

j. It avoids undesirable direct impacts to residences immediately north of I-494 in the area
of Delaware Avenue, as well as shifts the alignment of Argenta Trail to the east of a
developed residential area on the south side of I-494.

k. The location of the new I-494 interchange in Alternatives C and D are not consistent
with Mendota Heights and Sunfish Lake Comprehensive Plans (i.e., Alternative E is
located in Inver Grove Heights). The new interchange location and potential realignment
of Argenta Trail is consistent with the Inver Grove Heights Comprehensive Plan.

3. An Interchange Warrant Analysis has been completed and submitted to FHWA, through
Mn/DOT, to obtain formal feedback on the additional access on I-494 at location “E”. A more
detailed and comprehensive operations and safety analysis will be required, assuming the
access process moves forward (see Recommendation #4).

4. If FHWA indicates that the warrant analysis has merit to move forward to the next step (this
decision doesn’t signify support for the access change, only that it warrants greater analysis);
then the next step is to complete an Interstate Access Request (IAR). This process will address in
more detail operations and safety issues on I-494. Based on input from FHWA and Mn/DOT, this
analysis will need to develop solutions for the capacity problems at the TH 149 interchange and
weave issues on I-494 associated with I-35E and TH 149. This analysis will require a formal
layout for the interchange and other access changes, as well as an environmental study that
meets state and federal requirements.

5. All agencies should continue to pursue a variety of funding sources, both public and private. As
one example, the City of Eagan has previously instituted a system to generate funds for future
transportation improvements in Northeast Eagan. This type of funding should be considered in
Northwest Inver Grove Heights. In addition, they should work to identify projects that could be
incorporated into Capital Improvement Programs.

6. While this study identifies basic right-of-way footprints and general access considerations,
subsequent efforts will further define specific property acquisitions and detailed access
strategies for all arterial and collector routes. Based on volumes and function, access to Argenta
Trail south of I-494 and north of TH 55 will be limited to three full-access points. This will guide
future development and allow study partners to take advantage of opportunities as they arise.
This corridor should also be planned for a minimum of 200 feet in width of right-of-way
considering the 6-lane needs and the need to coordinate with transit planning that has been
completed to-date (Figure 17).
7. Specific improvements to Delaware Avenue north of I-494 will need to be agreed upon by Dakota County, Mendota Heights and Sunfish Lake if the need arises based on actual traffic conditions.

8. The Study Partners should take additional steps in subsequent studies to further develop pedestrian and bicycle accommodations within the planned corridors so that safety is addressed on segments as well as at nodes/intersections for other modes. In addition, designs and land uses should be planned to accommodate transit where it is applicable.

9. The Study Partners need to consider strategies to reducing demand for access to the regional system. With future planning, the City of Eagan and Inver Grove Heights should promote mixed land uses with integrated pedestrian/bicycle facilities that encourage and increase internal trips and decrease regional peak hour trips. In addition, TDM requirements should be considered for higher trip generation land uses to reduce peak hour demand on the roadway system, as transit service opportunities are realized in this area of Dakota County. As part of this effort, the Study Partners should also look at land uses and their role in supporting transit service. In particular, it should further define/develop transit’s role in this area given the potential transitway alignment identified in the Robert Street Corridor Feasibility Study. This alignment is consistent with the proposed Argenta Trail realignment and interchange location in Alternative “E” (see Figure 12).

Mn/DOT, Dakota County, Eagan and Inver Grove Heights should conduct additional system planning work south of TH 55 to define and reconcile future roadway connections between the RRSVS and the Rosemount/Empire/UMore Transportation System Study.
NEXT STEPS
The study recommendations include additional studies, processes and activities to move the planning process forward. The focus of these activities is to provide more detailed information to agencies, property owners and other stakeholders as it becomes available and to provide a solid framework for implementation. The following have been extracted from the recommendations and repeated in one location.

1. The improvements included in the system vision should be incorporated into appropriate capital improvement programs as the following occurs:
   a. As safety and/or operational issues occur on the existing transportation system
   b. As opportunities arise to coordinate with development or other outside funding sources
   c. As necessary environmental reviews/studies are completed
   d. Specific to the interchange, all necessary supporting roadway system connections must be in place prior to, or at the time of, building a new access to I-494. Through this study, the main benefit of a new interchange lies in its ability to accommodate regional trips. The system must be in place to allow the interchange to support this need.

2. All system improvements included in these recommendations should be reflected in the appropriate agency planning documents, including:
   a. City of Eagan and City of Inver Grove Heights Comprehensive and Transportation Plans
   b. Dakota County Transportation Plan
   c. Dakota County Plat Review Needs Map

3. The Cities of Eagan, Inver Grove Heights, Mendota Heights, and Sunfish Lake, and Dakota County should submit these recommendations to be included in future updates of the Metropolitan Council’s TPP and Mn/DOT’s TSP.

4. An Interchange Warrant Analysis has been completed and submitted to FHWA, through Mn/DOT, to obtain formal feedback on the additional access on I-494 as shown in Alternative “E”. Depending on FHWA evaluation and comments, a more detailed and comprehensive operations and safety analysis of the I-494 facility will be required (see Recommendation #4).

5. A Highway Interchange Request should be made to the Metropolitan Council prior to beginning the FHWA’s Interchange Access Request process, if FHWA agrees to proceed to the next step.

6. All agencies should continue to pursue a variety of funding sources, both public and private. As one example, the City of Eagan has previously instituted a system to generate funds for future transportation improvements in Northeast Eagan. This type of funding should be considered in Northwest Inver Grove Heights. In addition, they should work to identify projects that could be incorporated into Capital Improvement Programs.

7. The City of Inver Grove Heights should work with Dakota County to further define specific property acquisitions and detailed access strategies for all arterial and collector routes, including an access management plan for Argenta Trail between I-494 and TH 55.

8. The Cities of Mendota Heights and Sunfish Lake should continue discussions with Dakota County to agree upon future improvements to Delaware Avenue north of I-494, if the need arises based on actual traffic conditions.
9. Subsequent studies should be completed to provide safer pedestrian and bicycle accommodations within the planned corridors, as well as the intersections. In addition, designs and land uses should be planned to accommodate transit where it is applicable.

10. The Study Partners need to consider strategies to reducing demand for access to the regional system. With future planning, the City of Eagan and Inver Grove Heights should promote mixed land uses with integrated pedestrian/bicycle facilities that encourage and increase internal trips and decrease regional peak hour trips. In addition, TDM requirements should be considered for higher trip generation land uses to reduce peak hour demand on the roadway system, as transit service opportunities are realized in this area of Dakota County. As part of this effort, the Study Partners should also look at land uses and their role in supporting transit service. In particular, it should further define/develop transit’s role in this area given the potential transitway alignment identified in the Robert Street Corridor Feasibility Study.

11. Dakota County, Eagan and Inver Grove Heights should conduct additional system planning work south of TH 55 to define and reconcile future roadway connections to the south of TH 55 to bring consistency between the RRSVS and the Rosemount/Empire/UMore Transportation System Study.

RESOLUTIONS
As a conclusion to the Regional Roadway System Visioning Study, the study recommendations were presented to each of the four City Councils and the County Board for approval in July of 2010. All resolutions were formally signed and included in Appendix B.
APPENDIX A
FREQUENTLY ASKED QUESTIONS (FAQS)
FREQUENTLY ASKED QUESTIONS (FAQS)
Updated February 1, 2010

The following FAQs and responses are intended to help clarify issues and address some of the key concerns and comments made by the public throughout the course of the study.

1. **How were the projected traffic volumes developed for each of the system improvement options?** – The Metropolitan Council's regional model is being used for the study's traffic modeling. This type of regional model is the industry standard for analyzing these types of transportation system and land use questions. This model incorporates the 2030 population and employment projections for all communities within the Twins Cities Metropolitan Area as well as travel behavior characteristics such as use of other modes, travel times, trip lengths and vehicle occupancy. It also takes into account the number of lanes and speeds of all major roadways, and future planned improvements within the regional system. Although the traffic forecast volumes are only shown for the study area, the modeling does take into account the change in travel patterns for motorists north (West St. Paul) and south of the study area, with and without a new interchange. The Study Committee is comfortable that the model is working appropriately because it does accurately reflect current traffic conditions by using current land use assumptions. That said, the projected traffic volumes produced by the model are only as good as the land use assumptions used. For more information regarding the future land use assumptions, see FAQ #10.

2. **What are the traffic impacts to Delaware Avenue between I-494 and TH 110? Will this segment of Delaware Avenue need to be expanded?** – Traffic is expected to increase on Delaware Avenue between I-494 and TH 110 with or without an interchange. This is not unexpected given the limited number of freeway crossings, the proximity of growth in the area, and the function of the roadway in the overall system.

   This roadway has limited shoulders, steep slopes and intersections with limited sight distance as it traverses hilly terrain in this area. The average daily traffic along Delaware Avenue today varies from 2,350 vehicles per day north of I-494 to 5,850 vehicles per day south of TH 110.

   **Without a new interchange** (Figure A1), volumes on Delaware Avenue are expected to grow to 8,900 (by TH 110) and 10,700 (by I-494) vehicles per day by the year 2030, due to planned growth in the area (based on proposed land uses shown in updated 2030 Comp Plans). Beyond 2030, volumes on Delaware Avenue are expected to grow to 11,100 (by TH 110) and 11,700 (by I-494) vehicles per day.

   **With a new interchange** (Figure A1), volumes on Delaware Avenue are expected to be 11,100 (by TH 110) and 11,300 (by I-494) vehicles per day for Alternative C/D. For Alternative E, volumes on Delaware Avenue are expected to be 11,100 (by TH 110) and 9,900 (by I-494) vehicles per day. These volumes represent planned growth in the area beyond 2030. Dakota County typically considers improving roadways to four lanes when volumes reach the 15,000 to 18,000 vehicles per day range. The conclusions we can draw from this information include:
Figure A1

Existing = 2,350 vehicles/day
Alt. A (2030) = 11,800 vehicles/day
Alt. B (2030) = 10,700 vehicles/day
Alt. B (beyond 2030) = 11,700 vehicles/day
Alt. C/D (beyond 2030) = 11,300 vehicles/day
Alt. E (2030) = 9,200 vehicles/day
Alt. E (beyond 2030) = 11,100 vehicles/day

Existing = 5,850 vehicles/day
Alt. A (2030) = 9,600 vehicles/day
Alt. B (2030) = 8,900 vehicles/day
Alt. B (beyond 2030) = 11,100 vehicles/day
Alt. C/D (beyond 2030) = 11,100 vehicles/day
Alt. E (2030) = 8,900 vehicles/day
Alt. E (beyond 2030) = 11,100 vehicles/day

Delaware Avenue
a. Traffic volumes will increase on Delaware Avenue due to future development with or without a new interchange.

b. Even with the growth in traffic due to future development, there is not a need to widen Delaware Avenue to four lanes, with or without a new interchange.

c. With or without a new interchange planned, growth in traffic volumes may require the County and the Cities to consider improving Delaware Avenue by adding left and right turn lanes at intersections where they do not currently exist to minimize intersection conflicts and crashes.

d. While the roadway may not need to expand to four lanes, concerns have also been raised regarding pedestrian and bicycle accommodation along Delaware Avenue. This suggests that improving the roadway to include shoulders and trails would benefit the public even under existing traffic conditions.

3. Why don’t the volumes on Delaware Avenue increase more under the interchange options?

Additional forecasting work was conducted to confirm the previous forecasts for the build out land use conditions. There are three primary reasons why more volume did not show up under the interchange options. These are as follows:

a. Land uses along and north of TH 110 have good access to the regional system via TH 110 to the east to I-494 and TH 52 or TH 110 to the west to I-35E and TH 62/5/55. Consequently, a new interchange at Delaware Avenue/Argenta Trail attracts only a modest amount of new traffic (there are other attractive routes to get to areas north of I-494). The model estimates approximately 1,000 vehicles per day would be new through traffic on Delaware Avenue (trips attracted to the new interchange), predominately from the areas along Delaware Avenue and Charlton Street north of TH 110. These trips are off-set by an equal number of intercepted trips from south of I-494 (see following bullet).

b. Under Alternative B (a no interchange scenario), both the TH 149 and TH 3 interchanges would experience congestion by 2030. This would result in more traffic using Argenta Trail/Delaware Avenue to avoid delays associated with TH 55, TH 149 and TH 3 (primary routes used to access the other adjacent interchanges). With a new interchange (Alternatives C, D and E), traffic can access the regional system more conveniently at I-494 because the existing interchanges at TH 149 and TH 3 would be less congested and it would also serve to intercept previous through trips from south of I-494.

c. The area north of I-494 that is most likely to use the new interchange is not projected to generate significant amounts of traffic. Most of the land uses along Delaware Avenue that would contribute to new cut-through traffic are existing, low-density traffic generators. These include the Dodge Nature Center tracts north and south of TH 110, Somerset Golf Course and large lot low-density residential areas (all of Sunfish Lake). While Sibley High School generates a significant amount of traffic overall, only a small portion of its service area is located in residential areas south of I-494.
4. **Why don’t you expand other roadways and interchanges instead of adding a new interchange?** – Expanding other roadways and interchanges is being considered under all of the alternatives. Alternative A (no build with minimal improvements) includes the expansion of Lone Oak Road to a four-lane roadway. Alternative B, without a new I-494 interchange, includes major improvements (expansion) to Lone Oak Road (4-lanes), TH 149 (6-lanes), TH 3 (4-lanes), and TH 55 (6-lanes). Even with these expansions in roadway capacity, congestion and operational problems are still expected to occur on TH 55, TH 149 and in the TH 149 interchange area (assuming 2030 land uses). Alternatives C, D and E also include the expansion of local arterial roadways to provide increased capacity. In addition, the land use assumptions beyond 2030 will result in greater congestion problems in these same areas. Although Alternative B does a much better job than Alternative A, it still leaves some segments and intersections significantly over loaded.

5. **Is the TH 149 (Dodd Road) interchange being closed?** – This study will not recommend closure of the TH 149 ramps to/from I-494. The Dodd Road interchange is in close proximity to the I-35E system interchange which transfers regional movements between I-494 and I-35E. The short distance between ramps at Dodd Road and I-35E along with high volumes using these ramps causes operational and safety concerns (requires vehicles to cross or weave through traffic stream to the adjacent lane). While Mn/DOT has done some work on the I-35E ramps, which has improved overall flow in the system interchange area, operational issues will continue to worsen over time in the weave area between TH 149 and I-35E. In addition, peak hour volumes on the Dodd Road to westbound I-494 loop ramp are over 1,100 vehicles today. This peak hour volume is close to capacity for a loop ramp.

Given the weaving issue with I-35E and the capacity issue with the loop ramps, Federal Highway Administration (FHWA) asked that the study investigate ways to address these issues including looking at modifications to TH 149 as well as new access to I-494 to the west. FHWA has been clear in letting the Study partners know that some modifications to the existing system will be necessary to address operational issues on I-494 and to mitigate any new interchange access. To further the overall understanding of who uses the TH 149 interchange, a traffic modeling exercise was conducted to identify the TH 149 west ramp users (as this is where the 2030 weaving and overloading will exist). Several scenarios were modeled to identify potential traffic shifts and the impacts of these shifts to the overall system, including adjacent interchanges and routes leading to those interchanges. While none of the study alternatives include closing the TH 149 ramps, it did report the findings of the modeling work.

The most likely solution to this weaving issue on I-494 would be to reconfigure the TH 149 ramps to/from westbound I-494 such that they only could access I-494 (and not connect with the I-35E ramps).

---

3 Overloaded—term given to a roadway segment where daily volumes projected are in excess of what the facility can reasonably accommodate. An overloaded segment can result in long queues at intersections, no gaps for side-street traffic, and more cut-through traffic on alternative routes during the morning and evening peak periods.
6. **Why is there not more environmental information presented?** – The area has many natural features and wildlife habitat that are important to residents in the area. While we agree that it is important to address these concerns, the Visioning Study is a system-level planning study that will aid agencies in developing a transportation vision for the area to support planned land uses for local communities. It is **not** intended to be an official environmental study that can address the environmental issues to the level of detail needed for construction. In order to move forward on any of the roadway improvements, individual project environmental studies and processes will be required to identify, evaluate and mitigate potential environmental impacts.

7. **What is the timing and funding for improvements?** – In general, funding for transportation improvements is limited and most of the improvements identified are not in current local, regional and/or state plans. The intent of the study is to identify a roadway system vision that could gain support from all jurisdictions and accommodate transportation needs of the area assuming planned growth over the next 20 to 30 years. The study will not identify a timeline for future projects or funding sources. Timing or phasing of improvements will depend on many factors including timing of development, completion of subsequent environmental processes, applicable modifications to comprehensive plans and funding sources. Most of these all require extensive public involvement and approval processes that will occur over many years.

8. **What was the notification process for the Open House meetings?** - There have been a number of methods used to provide notice of what is happening with the study. The study area includes over 10,000 parcels and therefore presents challenges in directly contacting property owners. Property owners directly adjacent to existing or potential future roadways that could be directly affected by decisions made through this study (totaling close to 1,000) were sent mailings prior to both open houses. Those attending the first open house in June were added to the mailing list if they were not on the list originally. Those who attended the second open house in November have also been added to the mailing list. Notices were sent to local newspapers prior to each open house and a number of stories have been written in the local and regional newspapers throughout the course of the study. Presentations have been made to the City Councils and to the County Board to create awareness and to ask for input. The County has also developed a page on its website to share the latest information on the study.

9. **How was the Study funded?** – The study was funded jointly by Dakota County, MnDOT, Inver Grove Heights and Eagan. Various separate efforts had been undertaken previously; however, it was felt that a more coordinated effort was needed because proposed changes in this area have broad system implications. Mendota Heights and Sunfish Lake are not financially participating because most of the future growth and development that this study is addressing is not occurring within their jurisdictions. However, Mendota Heights and Sunfish Lake were asked to be an equal partner throughout the study to provide input on alternatives analysis, findings and recommendations because this future growth will affect them regardless of what the roadway system vision ends up to be.
10. **What future land use assumptions are being used to project traffic? Are these future growth assumptions reasonable?** – This study uses land use information from local comprehensive plans that were updated in 2009. The Met Council has encouraged orderly and systematic growth in the region and has discouraged leap frog development where possible. Growth in this area, along the I-494 beltway, is consistent with orderly growth. In addition, minimum residential density that the Met Council will accept is 3.0 to 5.0 dwelling units per acre. Planned land use densities are at 3.25 dwelling units per acre in the Inver Grove Heights’ northwest area. Given private property rights, agencies can direct and guide development and ensure that these developments meet applicable regulations and design standards, but they can’t prevent them from occurring. Maps illustrating growth and development plans for the northeast Eagan and northwest Inver Grove Heights areas are included in the Growth and Development section of the Key Findings document.

11. **How does a new interchange redistribute volumes to the regional system?** – Figure A2 identifies where the new interchange trips at the I-494 location east of the existing Argenta Trail alignment would come from. For instance, 32 percent of the trips using the new interchange would come from the existing TH 149 interchange. Thirteen percent of the trips using the new interchange did not come from an existing interchange, but were attracted to this interchange from other arterials in the area. The redistribution of traffic provides a better balance of trips among the other regional access points and a new I-494 interchange access. Most importantly, it reduces the volume and congestion from the overloaded I-494 interchanges at TH 149 and TH 3. The redistribution of trips adds flexibility to the transportation system, while reducing the vehicle miles traveled (VMT) and vehicle hours traveled (VHT).
Figure A2

Legend:
- Full Access
- Partial Access
- Regional Roads

X% Percent of New Interchange Trips from each Location

Non-Freeway = 13%
APPENDIX B
SIGNED RESOLUTIONS
CITY OF SUNFISH LAKE  
DAKOTA COUNTY, MINNESOTA  

RESOLUTION 10-   

A RESOLUTION DISCUSSING THE REGIONAL ROADWAY SYSTEM VISIONING STUDY  

WHEREAS, Dakota County partnered with the Minnesota Department of Transportation, the Metropolitan Council, the Federal Highway Administration, the City of Eagan, the City of Inver Grove Heights, the City of Mendota Heights, and the City of Sunfish Lake to conduct a transportation study in northern Dakota County with the goal of developing a long-term roadway system vision that is supported by all jurisdictions and balances land use and transportation improvements for the study area based on projected growth in Eagan and Inver Grove Heights; and  

WHEREAS, the City of Sunfish Lake has participated in this study process with staff representatives, elected officials and interested residents at all stages of the study; and  

WHEREAS, the City of Sunfish Lake has continually stated its objection to an interchange at Delaware Avenue and I-494; and  

WHEREAS, the City of Sunfish Lake has participated in all three public open houses and the two neighborhood meetings held on this study; and  

WHEREAS, the City of Mendota Heights formed an adhoc committee to track the progress of this study and ensure that the city’s position was made clear that included membership from the city council, city staff, city residents, Sunfish Lake and contract professionals; and  

WHEREAS, the City of Sunfish Lake fully supports the need to undertake planning in order to prepare for and respond to future growth.  

NOW THEREFORE BE IT RESOLVED, the City of Sunfish Lake offers the following comments to Dakota County’s draft recommendations on the Regional Roadway System Visioning Study:  

1. Supports the recommendation of a future interchange being placed at Alternative E, if and only if there is an extensive environmental review which demonstrates no adverse effects to Hornbeam Lake and its adjacent land area.  

2. Any future improvements to Delaware Avenue must be driven by the cities of Mendota Heights and Sunfish Lake. The character of Delaware Avenue is unique and best understood by the two cities and their residents.
3. The city supports using and expanding the existing infrastructure that exists in Eagan and Inver Grove Heights to the fullest extent possible to deal with their growth. The city’s concern is in the approach taken by the study using one rate of growth. The study should be flexible enough to accommodate up or down the level of infrastructure and financial investment actually needed as the growth actually occurs. The actual development and investment should be based on actual growth to avoid both overinvestment and underinvestment.

4. Priority should be given to transportation projects that take place within Eagan and Inver Grove Heights to internalize traffic flows within the new growth areas.

5. Inver Grove Heights and Eagan should promote mixed land uses with integrated pedestrian/bicycle facilities in addition to supporting 21st century transit planning which would help reduce individual traffic trips within the system.

BE IT FURTHER RESOLVED, that while the City of Sunfish Lake understands that this is a traffic study, the importance of the information that has not been studied, including the environmental factors and financial implications, needs to be studied before final decisions can be made on all of the recommendations.

BE IT FURTHER RESOLVED, that the City of Sunfish Lake intends to stay fully engaged on this issue in the future to ensure that the plans do not change that would negatively impact the city and its residents.

Adopted by the City Council of the City of Sunfish Lake this 6th day of July 2010.

CITY OF SUNFISH LAKE

Molly Park, Mayor

ATTEST:

Catherine Iago, City Clerk
CITY OF MENDOTA HEIGHTS  
DAKOTA COUNTY, MINNESOTA  

RESOLUTION 10-48  

A RESOLUTION DISCUSSING THE REGIONAL ROADWAY SYSTEM VISIONING STUDY  

WHEREAS, Dakota County partnered with the Minnesota Department of Transportation, the Metropolitan Council, the Federal Highway Administration, the City of Eagan, the City of Inver Grove Heights, the City of Mendota Heights, and the City of Sunfish Lake to conduct a transportation study in northern Dakota County with the goal of developing a long-term roadway system vision that is supported by all jurisdictions and balances land use and transportation improvements for the study area based on projected growth in Eagan and Inver Grove Heights; and  

WHEREAS, the City of Mendota Heights has participated in this study process with staff representatives, elected officials and interested residents at all stages of the study; and  

WHEREAS, the City of Mendota Heights has continually stated its objection to an interchange at Delaware Avenue and I-494 and expressed concerns about related issues; and  

WHEREAS, the City of Mendota Heights has participated in all three public open houses and the two neighborhood meetings held on this study; and  

WHEREAS, the City of Mendota Heights formed an ad-hoc committee that included membership from the city council, city staff, residents, Sunfish Lake and a contract professional to track the progress of this study and ensure that the city’s position was made clear; and  

WHEREAS, the City of Mendota Heights fully supports the need to undertake planning in order to prepare for and respond to future growth.  

NOW THEREFORE BE IT RESOLVED, the City of Mendota Heights offers the following comments to Dakota County’s draft recommendations on the Regional Roadway System Visioning Study:  

1. Supports the recommendation of a future interchange being placed at Alternate E, approximately ¼ mile east of the current Delaware Avenue interchange. Any potential future interchange at Delaware Avenue will not be supported by the City of Mendota Heights.  

2. Any future improvements to Delaware Avenue must be driven by the City of Mendota Heights. The character of Delaware Avenue is unique and best
understood by the city and our residents. The local government unit is best suited to determine any future changes.

3. Mendota Heights supports the right of Eagan and Inver Grove Heights to develop their infrastructure within the Metropolitan Council’s approved growth limits while at the same time we encourage them to develop the transportation element of this planning totally within their city limits. It has been represented to the City of Mendota Heights by Dakota County staff that the growth projections in Eagan and Inver Grove Heights are based on their approved 2030 comprehensive plans and Mendota Heights is relying on these projections in its decision making process. The study should be flexible enough to accommodate up or down the level of infrastructure and financial investment needed as the growth occurs. The development and investment should be based on actual growth to avoid both overinvestment and underinvestment.

4. Priority should be given to transportation projects that take place within Eagan and Inver Grove Heights to internalize traffic flows within the new growth areas.

BE IT FURTHER RESOLVED, that while the City of Mendota Heights understands that this is a traffic study, the information that has not been studied including the environmental factors and financial implications, all of the information needs to be studied before final decisions can be made on all of the recommendations.

BE IT FURTHER RESOLVED, that the City of Mendota Heights intends to stay fully engaged with this issue in the future to ensure that any plans changes do not negatively impact the city and its residents. Mendota Heights has enjoyed a positive relationship with the neighboring cities and the county and believes it is important to be a part of the decision making process. The transparency in government decision making that we have experienced with the county and the visioning study is important to Mendota Heights now and in the future.

Adopted by the City Council of the City of Mendota Heights this Sixth day of July 2010.

ATTEST

By Nancy Bauer, Acting City Clerk

CITY COUNCIL
CITY OF MENDOTA HEIGHTS

By John J. Huber, Mayor
CITY OF INVER GROVE HEIGHTS
DAKOTA COUNTY, MINNESOTA

RESOLUTION ADOPTING THE REGIONAL ROADWAY SYSTEM VISIONING STUDY RECOMMENDATIONS

RESOLUTION NO. 10-102

WHEREAS, the City of Inver Grove Heights, along with the Minnesota Department of Transportation, Dakota County, and the City of Eagan, entered into an agreement to study future transportation improvements in northwest Inver Grove Heights, northeast Eagan, Mendota Heights, and Sunfish Lake; and

WHEREAS, these entities subsequently selected SRF to conduct the study; and

WHEREAS, the intent of the study is to identify a transportation system plan that can support long-term growth and development in the region, as well as complement and build upon current transportation systems; and

WHEREAS, the study was guided by a technical advisory committee consisting of the Minnesota Department of Transportation, Dakota County, Metropolitan Council, Federal Highway Administration, and the cities of Inver Grove Heights, Eagan, Sunfish Lake, and Mendota Heights; and

WHEREAS, SRF conducted a technical analysis of future development in Inver Grove Heights, Eagan, and surrounding cities and alternative transportation improvement alternatives; and

WHEREAS, considerable public input was obtained through three open houses and various other meetings; and

WHEREAS, SRF has concluded by preparing a list of recommendations; and

WHEREAS, these recommendations are found to be consistent with the Inver Grove Heights Comprehensive Plan.
NOW, THEREFORE, BE IT RESOLVED, THAT THE CITY COUNCIL OF THE
CITY OF INVER GROVE HEIGHTS hereby adopts the Regional Roadway System
Visioning Study Recommendations.

BE IT FURTHER RESOLVED, that the City Council of the City of Inver Grove
Heights:

- Strongly supports an interchange at I-494 as shown on Alternate E and
  finds such an interchange necessary to serve future regional and local
  transportation needs.
- Strongly supports an interchange at Highway 55 and Argenta Trail and
  finds such an interchange necessary to serve future traffic volumes
  and to eliminate traffic safety hazards.

Passed by the City Council of the City of Inver Grove Heights on the 12th day of July
2010.

AYES: 5
NAYS: 0

[Signature]
George Tournelle, Mayor

ATTEST:

[Signature]
Melissa Rheamne, Deputy Clerk
CITY OF EAGAN
DAKOTA COUNTY, MINNESOTA
RESOLUTION OF SUPPORT
REGIONAL ROADWAY SYSTEM VISIONING STUDY

WHEREAS, Dakota County partnered with the Minnesota Department of Transportation, the Metropolitan Council, the Federal Highway Administration, the City of Eagan, the City of Inver Grove Heights, the City of Mendota Heights, and the City of Sunfish Lake to conduct a transportation study in northern Dakota County with the goal of developing a long-term roadway system vision that is supported by all jurisdictions and balances land use and transportation improvements for the study area based on projected growth in Eagan, Inver Grove Heights and the surrounding region; and

WHEREAS, the City of Eagan has participated in this study process with staff representatives and elected officials at all stages of the study; and

WHEREAS, the City of Eagan has participated in all three public open houses and the two neighborhood meetings held on this study; and

WHEREAS, the City of Eagan fully supports the need to undertake planning in order to prepare for and respond to future growth.

NOW, THEREFORE, BE IT RESOLVED that the City of Eagan hereby supports the draft recommendations in the Regional Roadway System Visioning Study, including the following:

1. Placement of a future interchange at Alternate E, approximately ¼ mile east of the current Argenta Trail/Delaware Avenue (County Road 63) overpass.

Adopted by the City Council for the City of Eagan this 20th day of July 2010.

CITY OF EAGAN
CITY COUNCIL

By: Maria Petersen
Its Mayor

Attest: Maria Petersen
Its Clerk

CERTIFICATION

I, Maria Petersen, Clerk of the City of Eagan, Dakota County, Minnesota, do hereby certify that the foregoing resolution was duly passed and adopted by the City Council of the City of Eagan, Dakota County, Minnesota, in a regular meeting thereof assembled this 20th day of July, 2010.

Maria Petersen, City Clerk
Adopt Recommendations For County Project 97-85 Regional Roadway System Visioning Study

WHEREAS, to promote safe and efficient transportation throughout the County and region, Dakota County partnered with the Minnesota Department of Transportation (Mn/DOT), the Metropolitan Council, the Federal Highway Administration, and the Cities of Eagan, Inver Grove Heights, Mendota Heights, and Sunfish Lake and is the lead agency for County Project (CP) 97-85, Regional Roadway System Visioning Study; and

WHEREAS, the study included investigation of potential future transportation system needs in northern Dakota County to develop a vision for the transportation system that will result in safe and efficient travel in the area as cost-effectively as possible, while at the same time recognizing agency land use development objectives; and

WHEREAS, the Cities of Eagan and Inver Grove Heights have planned for continued growth and development through their 2030 Comprehensive Plans that will result in additional impacts to the area transportation system; and

WHEREAS, continued growth in surrounding communities will result in additional impacts to the area transportation system; and

WHEREAS, representatives of Dakota County, Mn/DOT, the Metropolitan Council, Federal Highway Administration, and the cities of Mendota Heights, Sunfish Lake, Eagan, and Inver Grove Heights, have participated as members of a Study Advisory Committee and have reviewed study findings and recommendations; and

WHEREAS, the study process involved the public through public open houses, neighborhood meetings, and city council meetings; and

WHEREAS, they study recommends a Regional Roadway System Vision to support future growth in the in the area in a way that will result in a safe and efficient system of City, County, State, and Federal roadways in the future; and

WHEREAS, the County recognizes there are additional steps necessary to gain necessary agency approvals before the improvements included in the recommendations can be constructed; and

WHEREAS, the Dakota County Engineer recommends adoption of the recommendations for County Project 97-85, Regional Roadway System Visioning Study.

NOW, THEREFORE, BE IT RESOLVED, That the Dakota County Board of Commissioners hereby adopts the study recommendations for County Project 97-85, the Regional Roadway System Visioning Study, as presented to the Physical Development Committee of the Whole on July 27, 2010.

STATE OF MINNESOTA
County of Dakota

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th></th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris</td>
<td>X</td>
<td>Harris</td>
<td></td>
</tr>
<tr>
<td>Gaylord</td>
<td>X</td>
<td>Gaylord</td>
<td></td>
</tr>
<tr>
<td>Egan</td>
<td>X</td>
<td>Egan</td>
<td></td>
</tr>
<tr>
<td>Schouweiler</td>
<td>X</td>
<td>Schouweiler</td>
<td></td>
</tr>
<tr>
<td>Workman</td>
<td>X</td>
<td>Workman</td>
<td></td>
</tr>
<tr>
<td>Krause</td>
<td>X</td>
<td>Krause</td>
<td></td>
</tr>
<tr>
<td>Branning</td>
<td>X</td>
<td>Branning</td>
<td></td>
</tr>
</tbody>
</table>

I, Kelly Olson, Clerk to the Board of the County of Dakota, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Dakota County, Minnesota, at their session held on the 10th day of August 2010, now on file in the County Administration Department, and have found the same to be a true and correct copy thereof.

Witness my hand and official seal of Dakota County this 11th day of August 2010.

Clerk to the Board