4.0 ROADWAY SYSTEM PLAN

This section of the plan updates the county’s functional classification system, identifies potential jurisdictional transfers and provides a rationale for these changes, and discusses designation modifications. These specific elements constitute critical components of the county’s roadway system.

4.1 Existing Functional Classification

Roadway functional classification categories are defined by the role they play in serving the flow of trips through the overall roadway system. Within the Twin Cities Metropolitan Area, the Metropolitan Council has established detailed criteria for roadway functional classifications. This functional classification criteria was included as an appendix in the Metropolitan Council 2030 Transportation Policy Plan. The functional classification criteria from the Metropolitan Council Plan is presented in Appendix E.

The intent of the functional classification system is to create a hierarchy of roads that collect and distribute traffic from neighborhoods to the metropolitan highway system. Roadways with a higher functional classification (arterials) generally provide for longer trips, have more mobility, have limited access and connect larger centers. Roadways with a lower functional classification (collectors and local streets) generally provide for shorter trips, have lower mobility, have more access and connect to higher functioning roadways. A balance of all functions of roadways is important to any transportation network.

The existing Carver County functional classification system has been incorporated into the current Metropolitan Council functional classification map. The functional classification process considered the following roadway and system characteristics:

- The trip length characteristics of the route as indicated by length of route, type and size of traffic generators served and route continuity.
- The ability of the route to serve regional population centers, regional activity centers and major traffic generators.
- The spacing of the route to serve different functions (need to provide access and mobility functions for entire area).
- The ability of the route to provide continuity through individual travelsheds and between travelsheds.
- The role of the route in providing mobility or land access (number of accesses, access spacing, speed, parking and traffic control).
- The relationship of the route to adjacent land uses (location of growth areas, industrial areas, and neighborhoods).

The functional classification system is broken down into four categories – principal arterials, minor arterials (‘A’ and ‘B’), collectors (major and minor) and local roadways.
4.1.1 Principal Arterials

Principal arterials are part of the metropolitan highway system and provide high-speed mobility between the Twin Cities and important locations outside the metropolitan area. They are also intended to connect the central business districts of the two central cities with each other and with other regional business concentrations in the metropolitan area. Principal arterials are generally constructed as limited access freeways in the urban area, but may also be constructed as multiple-lane divided highways.

Carver County is served by two principal arterials:

- TH 212, a varying two-lane/four-lane roadway that runs southwest-northeast through the county.
- TH 7, a two-lane roadway that runs east-west through the northern portion of the county.

4.1.2 Minor Arterials

Minor arterials also emphasize mobility over land access, serving to connect cities with adjacent communities and the metropolitan highway system. Major business concentrations and other important traffic generators are located on minor arterial roadways. In urbanized areas, one to two mile spacing is considered appropriate.

4.1.2.1 ‘A’ Minor Arterials

‘A’ minor arterials are roadways that are of regional importance because they relieve, expand or complement the principal arterial system. ‘A’ minor arterials are categorized into four types, consistent with Metropolitan Council guidelines:

- Relievers – Minor arterials that provide direct relief for metropolitan highway traffic.
- Expanders – Routes that provide a way to make connections between urban areas outside the I-494/I-694 beltway.
- Connectors – Roads that provide good, safe connections to and among communities at the edge of the urbanized area and in rural areas.
- Augmenters – Roadways that augment principal arterials within the I-494/I-694 beltway.

Carver County has ‘A’ Minor Relievers, Expanders and Connectors, but does not have any ‘A’ Minor Augmenter roadways because it is outside of the I-494/I-694 beltway.

4.1.2.2 ‘B’ Minor Arterials

All minor arterials other than ‘A’ minor arterials are classified as ‘B’ minor arterials. ‘B’ minor arterials provide a citywide or inter-city connector function, and serve medium-length to long distance trips.
4.1.3 Collectors

Collectors are designed to serve shorter trips that occur within the county and to provide access from neighborhoods to other collector roadways and the arterial system. They are expected to carry less traffic than arterial roads and to provide access to some properties.

4.1.3.1 Major Collectors

Major collector routes are longer, connect smaller rural communities, carry intra-county traffic and provide access from neighborhoods to the arterial system. They supplement the arterial system by emphasizing mobility over land access. However, because of their location, they are lower-volume roads than arterial routes.

4.1.3.2 Minor Collectors

Minor collectors are less important collector routes that provide supplementary interconnection among rural growth centers and connection to major collector and arterial routes. Their emphasis is on land access, and because of their location they also carry lower-volumes than arterial routes.

4.1.4 Local Streets

Local streets (township roads and city streets) provide access to adjacent properties and neighborhoods. Local streets are generally low speed, and designed to discourage through traffic.

Figure 8 illustrates the existing functional classification of the roadways within Carver County.

4.1.5 Functional Classification Comparison

Carver County is located within the Metropolitan Council seven-county metro area. Table 10 compares the current breakdown by functional classification of all the roadways in both the seven-county metro area and Carver County in mileage and percentage. The county should attempt to stay relatively consistent with the roadway classification percentages in the seven-county area. However, since Carver County is one of the faster growing counties, it can expect to be on the high end of many of these categories.

**TABLE 10**
Seven-County Metro Area and Carver County Existing Functional Classification Breakdown

<table>
<thead>
<tr>
<th></th>
<th>Mileage Totals</th>
<th>Mileage Percentages</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>7-County Total</td>
<td>Carver County</td>
</tr>
<tr>
<td>Principal Arterials</td>
<td>1,627.35</td>
<td>46.83</td>
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<tr>
<td></td>
<td></td>
<td>8.92 %</td>
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<tr>
<td></td>
<td></td>
<td>4.23 %</td>
</tr>
<tr>
<td>Minor Arterials</td>
<td>2,618.69</td>
<td>224.36</td>
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<tr>
<td></td>
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<td>14.35 %</td>
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<td></td>
<td></td>
<td>20.26 %</td>
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<td>Collectors</td>
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<td>68.05 %</td>
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<tr>
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<td></td>
<td>63.10 %</td>
</tr>
<tr>
<td>Total</td>
<td>18,246.57</td>
<td>1,107.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100.0 %</td>
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</tr>
</tbody>
</table>

4.2 Future Functional Classification

4.2.1 Future Functional Classification Plan

To better highlight proposed functional classification changes, the county was divided into seven subareas. These subarea divisions and the complete future functional classification roadway network are shown in Figure 9. Also in Figure 9, all of the future functional classification changes to roadway segments not currently on the county’s functional classification system were categorized into a year range in which they were expected to be added to the county roadway network (i.e. by year 2010, 2020, 2030, or after 2030 [2031]). The larger subarea figures along with the tables presenting the rationale for the proposed functional classification changes in each subarea are included in Appendix F.

As evident in Figure 9, the three main objectives in the development of the future roadway network included:

- Create more continuous north/south routes through the county
- Improve traffic circulation by incorporating bypasses and beltways around and away from existing downtown areas
- Create a collector classification frontage road system for TH 212 between Carver and Norwood Young America

Figure 9 and the subarea maps included in Appendix F illustrate the Future Functional classification for the range of time from 2010 to 2030. As the population and employment of the region continues to grow and urban development encompasses more of the land area, additional principal arterial roadways will be needed, beyond the planning horizon of this study (e.g., 2031 and on). Based on spacing, connectivity, and other functional classification criteria, the following routes have tentatively been identified by the county as future (post 2030) principal arterials:

- TH 41 – from the north county border to TH 212.
- CSAH 33/CR 131/TH 5 – from the north county border running south along CSAH 33, utilizing a new roadway segment connection to CR 131, continuing south along CR 131 connecting with TH 5 south of TH 212, running to the south county border.
- CSAH 30/Little Avenue/Market Avenue/CSAH 53 – from the north county border running south, utilizing new roadway segment connections along with segments of Little Avenue, Market Avenue and CSAH 53 to the south county border.

4.3 Jurisdictional Transfers

The jurisdiction of roadways is an important element in the Roadway Systems Plan because it affects a number of critical organizational functions and obligations (regulatory, maintenance, construction and financial). The primary goal is to match the roadway’s function with the government-level best suited to handle the route’s function.
Future TH 41 river crossing will be a Principal Arterial. Alignment in EIS phase.

Anticipated construction period

Source: Metropolitan Council, Carver County
Since the adoption of the 1999 Carver County Transportation Plan, the following transfer recommendations have been completed:

- CR 110 (County to City of Waconia)
- CR 111 (County to City of Chaska)
- CSAH 30 (County to Regional Park)
- Guernsey Avenue (Dahlgren/Laketown Townships to County)
- Old TH 212 (CSAH 61) (State to County)

Three additional general guidelines established for Carver County to help evaluate and identify roadways that should be on the future (2030) county or state system are listed below:

- All future ‘A’ Minor Arterial roadways will be on the county system (this includes all new roadway segments as well as current city/township roadway segments needed to create the continuity of ‘A’ Minor Arterial routes).
- Generally, all new roadway segments with a future functional classification of ‘B’ Minor Arterial or below will not be on the county roadway system.
- All short, low-volume and/or discontinuous roadway segments will not be on the county roadway system.

Potential jurisdictional transfers should be pursued as opportunities arise. Some examples of opportune times for discussing jurisdictional issues are:

- When municipalities reach a population of 5,000 and create their Municipal State Aid (MSA) system. (i.e. City of Watertown)
- When a new segment of roadway is constructed that replaces the function of a current roadway
- During improvements or major rehabilitation of a facility that is identified as a potential transfer candidate
4.4 System Designation

While all Carver County highways are signed as County Roads (CR), for the funding purposes the county highway system is divided into two categories, County State Aid Highways (CSAH) and County Roads (CR). The difference in designation relates to the route’s function and funding. The CSAH system originated in the mid 1950s to provide an integrated network of secondary roads servicing the state’s rural transportation needs. Routes qualifying or designated as CSAHs are eligible to receive state funding for maintenance and construction activities, while CRs are funded with local property tax dollars. In Carver County, generally 2-digit numbered county roads are eligible for State Aid (i.e., CR 18, CR 10); while 3-digit county roads (i.e., CR 131, CR 153) are funded only with local tax dollars. Administration of the CSAH system is based on a detailed set of rules administered by the Minnesota Department of Transportation Office of State Aid. These rules outline requirements and responsibilities including designation, maintenance and reconstruction.

Reviewing the system designation ensures that demographic and transportation changes in the county have been adequately addressed through system designation changes. Route designation, as outlined in Chapter 8820.07 of the State Aid Rules “Selection Criteria,” parallels the functional classification criteria used to designate collector and arterial routes. State Aid criteria are summarized as follows:

- State Aid routes carry heavier traffic volumes or are functionally classified as collector or arterial routes on the county’s functional classification system.
- State Aid routes connect towns, communities, shipping points and markets within a county or in adjacent counties; provide access to churches, schools, community meeting halls, industrial areas, state institutions and recreational areas; or serve as a principal rural mail route and school bus route.
- State Aid routes provide an integrated and coordinated highway system, consistent with projected traffic demands.

In 2001 Carver County requested that the State Aid Screening Board designate an additional 11.70 miles of CSAH mileage. The Board approved 7.76 miles of the request or about 70 percent. These changes helped the county increase its annual State Aid allocation from Mn/DOT. Currently, there are two segments being requested for designation change, totaling 4.21 miles. Both of these segments are along Pioneer Trail (CSAH 11 to TH 41) and (TH 41 to CSAH 17 (Audubon Road). Hopefully these Carver County changes will be seriously considered in the near future by the Screening Board.

Carver County’s transportation system should be periodically reviewed to identify additional potential designation changes, based on functional classification changes, jurisdiction changes, proposed new roadway alignments and major construction projects recommended by this plan.

Other methods of revising designations remain available for the county to consider. These include three approaches:

1. As cities grow beyond 5,000 in population and become eligible for Municipal State Aid (MSA), it may be possible to have these cities accept on to their new MSA system, CSAH roads within their boundaries. Appropriately selected, these changes could help cities by increasing their State Aid “needs” while also benefiting the county by freeing-up CSAH mileage that could then be assigned to existing CRs or new routes.
2. If existing MSA eligible cities have less than 20 percent of their municipal roadways designated MSA, it may be advantageous to the city to have the county upgrade a CSAH within the city and then have the city accept it on to its MSA system. In this example, the city obtains county assistance for a roadway important to the city, and then the county, by transferring the CSAH designation to MSA, frees up CSAH mileage to be used on another important road in its system.

3. The county can maintain its current CSAH designations, but increase its “needs” and therefore increase funding for these roadways by regularly updating its “after the fact right-of-way” and “miscellaneous after the fact” needs data.

As explained above, system designation and continually updating “State Aid needs” is an important element to the county’s transportation system because it can affect the sources of funding and facility standards. The county has done a good job of updating its CSAH system, and it should continue monitoring opportunities to leverage state funds.

The long-term (2030) designation vision for the roadway system in Carver County is illustrated in Figures 10 and 11, which represent the proposed 2030 CR/CSAH and TH roadway systems in the county.
**Legend**

- **Future County Road System**
- **Potential County Road Turnbacks**
- **Interchange Access Locations**
- **Potential Interchange Preservation Location**
- **Local Access Locations**
- **Definition: Long-Term Full-Movement Intersection**
- **Railroads**
- **Carver County**
- **Municipal Boundaries**
- **City Growth Areas 2030**
- **US Highways**
- **State Highways**
- **County Roads**

**Figure 10**

**FUTURE CSAH/CR SYSTEM**

**Future County Road System**

**Potential County Road Turnbacks**

**Interchange Access Locations**

**Potential Interchange Preservation Location**

**Local Access Locations**

**Definition: Long-Term Full-Movement Intersection**

**Railroads**

**Carver County**

**Municipal Boundaries**

**City Growth Areas 2030**

**US Highways**

**State Highways**

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**Figure 10**

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**Figure 10**

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- **City Growth Areas 2030**
- **US Highways**
- **State Highways**
- **County Roads**
TH designation will move from current location along TH 25 to CSAH 33/CR 131 alignment.

TH 284 will be turned back to county or townships/cities.

Future TH 5 Alignment

TH 212 Access

Interchange Access Locations

Potential Interchange Preservation Location

Local Access Locations

Definition: Long-Term Full-Movement Intersection

Railroads

Carver County

Municipal Boundaries

City Growth Areas 2030

US Highways

State Highways

County Roads