

## TECHNICAL MEMORANDUM

Date: May 17, 2024  
To: St. Cloud Area Planning Organization Technical Advisory Committee  
From: Bolton & Menk Future Regional Arterials and Collectors Study Team  
Subject: Task 3.1 Functional Class Peer Review

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### Overview

This memorandum is intended to document the review of existing and future functional classification for peer Metropolitan Planning Organization (MPO) highway systems. It includes an analysis of existing functional classification within the jurisdictional boundaries of the Metropolitan Planning Organization of Johnson County, Iowa (MPOJC), Duluth-Superior Metropolitan Interstate Council (DSMIC), and Rochester Olmstead Council of Governments (ROCOG) compared to the Saint Cloud Area Planning Organization (APO). These peer organizations were selected because they are of similar population size, land area, and population density to the APO. The analysis also quantitatively compares Federal Highway Administration (FHWA) guidance and policy overview.

The functional classification hierarchy was developed to help define a specific roadway's role in serving the larger transportation network. The APO is working to achieve consensus among member jurisdictions on future arterials and collectors locations and provide guidance to help ensure the system's safe and efficient operations. Reviewing peer organizations and their approach to functional classification provides a broader context for consideration as recommendations are developed during this study.

Functional classification determination considers many characteristics but largely depends on two key things: mobility and access. By properly classifying existing and future roadways, policies and guidelines can guide features that help maintain safe and efficient system operations, such as access management and right-of-way preservation.

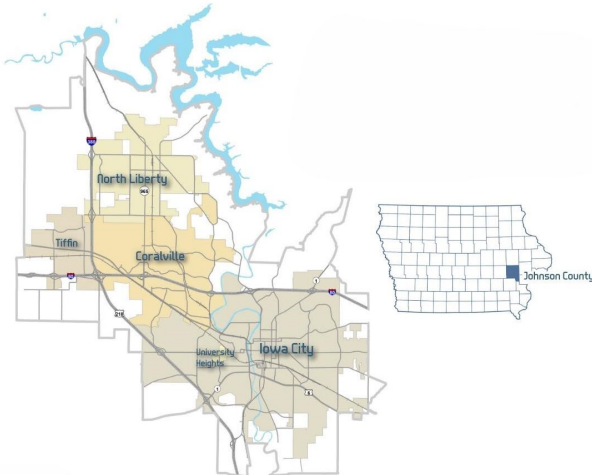
### Existing Functional Classification

Staff reviewed relevant transportation-related documents for the MPOJC, DSMIC, and ROCOG. The following details the findings and comments received from each organization.

#### MPOJC

The MPOJC follows the federal functional classification according to the Iowa Department of Transportation (Iowa DOT) and FHWA. Within the MPOJC boundaries, according to their Future Forward 2050 Long-Range Transportation Plan, Federal Functional Classifications of roads include interstate, principal arterials, minor arterials, collector, and local.





As found in **Table 1** below, MPOJC functional classification designations fall within the guided FHWA ranges except for minor collector, which is below the suggested range, and for principal arterial-interstate classifications, which is above the suggested range but is also a federally required classification for interstate facilities. According to the data from MPOJC, 3.74% or 29.31 miles of road in their jurisdiction do not have a classification assigned.

**Table 1**

| MPOJC Planning Area Existing Functional Classification Overview |         |            |  |                         |
|---|---------|------------|--|-------------------------|
| Description   | Mileage | Percentage | FHWA Guidelines: Rural State/Urban System* | Within FHWA Guidelines? |
| No Classification Assigned                                      | 29.31   | 3.74%      | --   | --                      |
| Local Roads   | 492.98  | 62.87%     | 62%-74%                                    | <b>Yes</b>              |
| Minor Collector   | 5.88    | 0.75%      | 3%-16%                                     | <b>No</b>               |
| Major Collector   | 61.91   | 7.89%      | 3%-16%                                     | <b>Yes</b>              |
| Minor Arterial  | 89.77   | 11.45%     | 7%-14%                                     | <b>Yes</b>              |
| Principal Arterial - Other                                      | 47.03   | 5.99%      | 4%-9%                                      | <b>Yes</b>              |
| Principal Arterial - Interstate                                 | 57.35   | 7.31%      | 1%-3%                                      | <b>No</b>               |

\*Urban System Mileage Extent for Rural States from Highway Functional Classification, Criteria and Procedures 2023 Edition

**DSMIC**

DSMIC uses the federal functional classifications according to FHWA. According to their Sustainable Choices 2045 Long-Range Transportation Plan, all federal functional classifications of roads are used in the DSMIC boundaries: principal arterial - interstate, principal arterial - other, minor arterial, major collector, minor collector, and local roads. According to **Table 2**, DSMIC is the peer region that meets FHWA guidelines on the most functional classifications, with only Local Roads not meeting the guideline (1.5% under the recommended range). Principal Arterial – Interstate is at the top of the guideline range (3.0%).

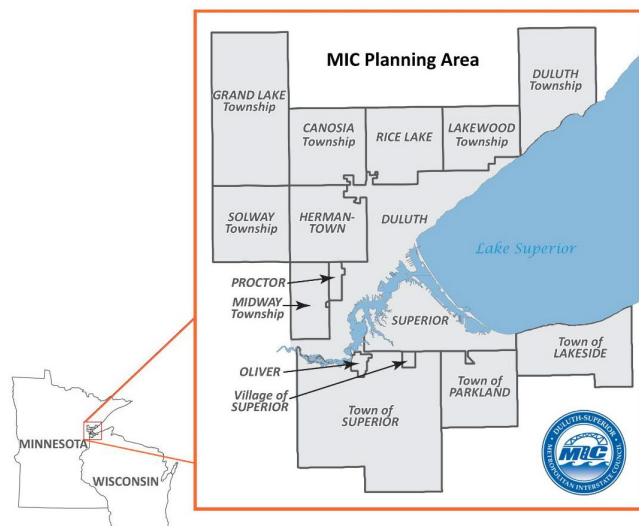


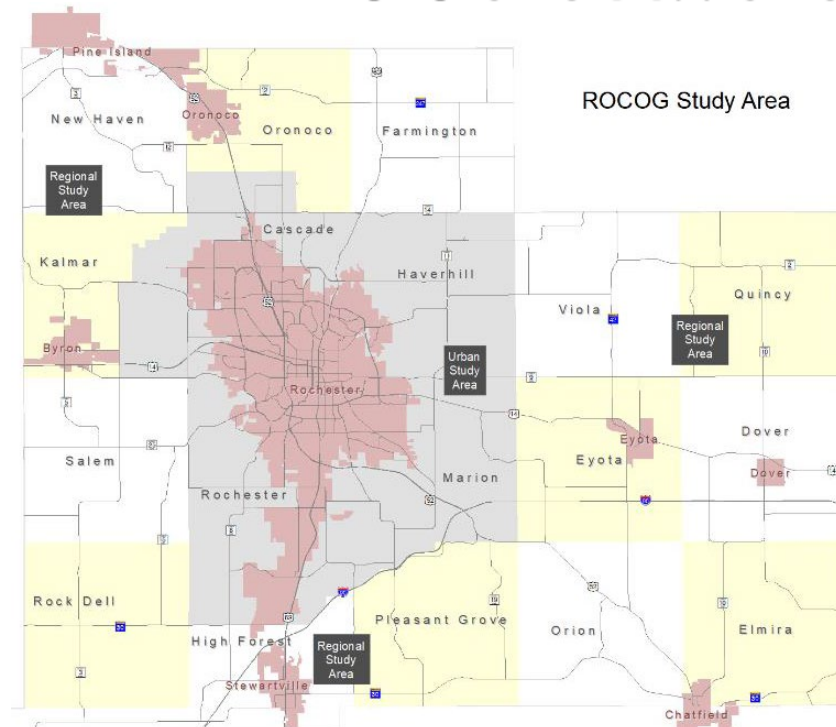
Table 2

| DSMIC Planning Area Existing Functional Classification Overview |         |            |  |                         |
|---|---------|------------|--|-------------------------|
| Description   | Mileage | Percentage | FHWA Guidelines: Rural State/Urban System* | Within FHWA Guidelines? |
| Local Roads   | 729.5   | 60.5%      | 62%-74%                                    | <b>No</b>               |
| Minor Collector   | 79.7    | 6.6%       | 3%-16%                                     | <b>Yes</b>              |
| Major Collector   | 150.0   | 12.4%      | 3%-16%                                     | <b>Yes</b>              |
| Minor Arterial  | 115.9   | 9.6%       | 7%-14%                                     | <b>Yes</b>              |
| Principal Arterial - Other                                      | 92.0    | 7.6%       | 4%-9%                                      | <b>Yes</b>              |
| Other Freeways & Expressways                                    | 2.0     | 0.2%       | 0%-2%                                      | <b>Yes</b>              |
| Principal Arterial - Interstate                                 | 36.3    | 3.0%       | 1%-3%                                      | <b>Yes</b>              |

\*Urban System Mileage Extent for Rural States from Highway Functional Classification, Criteria and Procedures 2023 Edition

## ROCOG

Functional Classifications in the ROCOG boundaries follow federal functional classifications according to the Minnesota Department of Transportation (MnDOT) and FHWA. Classifications include interstate, other freeways and expressways, principal arterial – other, minor arterial, major collector, minor collector, and local. **Table 3** details existing functional classification compared to FHWA guidelines. ROCOG does not meet FHWA guidelines for principal arterial – other (below), other freeways and expressways (above), and principal arterials – interstate (none). Principal arterials are subject to FHWA approval, so even though these designations are outside the guidance, extra critical review and approval of the Principal Arterial designation are required.



**Table 3**

| ROCOG Planning Area Existing Functional Classification Overview |         |            |  |                         |
|---|---------|------------|--|-------------------------|
| Description   | Mileage | Percentage | FHWA Guidelines: Rural State/Urban System* | Within FHWA Guidelines? |
| Local Roads   | 539.95  | 63.57%     | 62%-74%                                    | <b>Yes</b>              |
| Minor Collector   | 41.47   | 4.88%      | 3%-16%                                     | <b>Yes</b>              |
| Major Collector   | 104.86  | 12.35%     | 3%-16%                                     | <b>Yes</b>              |
| Minor Arterial  | 100.59  | 11.84%     | 7%-14%                                     | <b>Yes</b>              |
| Principal Arterial - Other                                      | 21.52   | 2.53%      | 4%-9%                                      | <b>No</b>               |
| Other Freeways and Expressways                                  | 41.00   | 4.8%       | 0%-2%                                      | <b>No</b>               |
| Principal Arterial - Interstate                                 | 0       | 0%         | 1%-3%                                      | <b>No</b>               |

\*Urban System Mileage Extent for Rural States from Highway Functional Classification, Criteria and Procedures 2023 Edition

## Future Functional Classification

### MPOJC

The MPOJC has regional recognition of individual roadway future functional classification. However, according to Kent Ralston, Executive Director, and Transportation Planner, it is only used when a community wants to apply for federal dollars through the MPO to construct a new roadway. The Iowa DOT's policy allows future roads to be classified, but only if the roadway is fully funded or programmed in a community's five-year Capital Improvement Plan. Future roadways are screened the same way an existing road would be – termini, connectivity to other similar future functional classification routes, anticipated average daily traffic, etc. to determine a future functional classification. Once a future functional classification is assigned, MPOJC will evaluate the road for its funding, just like an existing roadway.

The MPOJC does not have any regional categories or special designations of roads.

### DSMIC

According to Richard Sarran, Senior GIS Specialist, and Ron Chicka, Executive Director, the DSMIC does not use future functional classification. The DSMIC area is not growing at a rate where they expect changes to their functional classification. Additionally, they do not have any regional categories or special designations of roads.

### ROCOG

The ROCOG planners developed an MPO Functional Designation System (FDS) plan to attempt to indicate to the public and stakeholders current functions (like the federal functional classification does) and the highest function anticipated to serve in the next 20-25 years. They use FDS instead of a future functional classification terminology to avoid confusion with existing functional classification because reclassification requires documentation and approval through the DOT in Minnesota. This approach provides a broader context for understanding functional designation beyond a future functional

classification map. In the FDS, all considerations of the typical factors that affect federal functional classification are used, plus anticipated growth scenario(s) and future land use plans, according to Jarrett Hubbard, Principal Planner for ROCOG, in a May 3, 2024 memo to the study team. A larger number of categories are used in the FDS to distinguish various cross-section or travel management features, reflecting adjacent land use and primary corridor users. Additionally, the FDM includes an underlying Land Use Context classification to allow for incorporating policies related to corridor designation – land use context pairings. The intention is to integrate land use considerations in the transportation plan more closely. Chapter 10 of the Long-Range Transportation Plan 2045 details this system and describes network development principles. ROCOG has found the FDS, which is focused on local development, effective.

## **Summary**

This memorandum details information from three peer MPO organizations in Minnesota and Iowa of comparable population size, area, and population density. This analysis aims to provide the TAC with insight from other regions as they work with the project team to analyze functional classification for the APO and provide policy and guideline recommendations.

As this analysis shows, each organization approaches future functional classification differently. Staff comments clearly show that the organizations work to balance future and existing functional classifications with their impacts on funding and communication with stakeholders while assessing future land use and growth to maintain a safe and efficient transportation network.