CITY OF LE SUEUR TRANSPORTATION PLAN

EXECUTIVE SUMMARY

The City of Le Sueur is a small community with big growth potential. Its proximity to U.S. Trunk Highway (TH) 169 makes it regionally connected and provides opportunity for significant industrial, commercial, and residential development. The City recognizes this opportunity, identifying a future land use plan for large growth areas both north and south of existing city limits. A functional transportation network will provide structure to this growth by supporting development-driven traffic needs and providing key connections to TH 169.

The City's 2040 Comprehensive Plan, adopted in 2016, includes a transportation chapter that briefly touched on functional classifications and identified goals & policies. This plan is intended to serve as an amendment to the current 2040 plan, with a more in-depth analysis of functional classifications and building upon the goals and policies already identified. The purpose of this amended plan is not to replace the 2040 plan but supplement it by providing the guidance to apply the identified goals and policies necessary for future transportation needs in the City of Le Sueur.

The goal of transportation planning is to provide a framework for future decisions for roadway improvements necessary to achieve a safe, efficient, and maintainable transportation system. This transportation plan accomplishes these objectives by providing information about functional and jurisdictional classifications, access management guidelines, roadway design standards, non-motorized transportation, and recommendations for a suitable future road network.

Transportation Plan

City of Le Sueur

12/10/2020

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OVERVIEW

The City of Le Sueur is a small community with big growth potential. Its proximity to U.S. Trunk Highway (TH) 169 makes it regionally connected and provides opportunity for significant industrial, commercial and residential development. The City recognizes this opportunity, identifying a future land use plan for large growth areas both north and south of existing city limits. A functional transportation network will provide structure to this growth by supporting development-driven traffic needs and providing key connections to TH 169.

This Transportation Plan is an amendment to the City's 2040 Comprehensive Plan. The purpose is to provide guidance to the City of Le Sueur to prepare for transportation needs associated with future growth and development. This plan provides a framework for future decisions regarding infrastructure improvements necessary to achieve safety, access, mobility, and performance standards for the existing and future transportation system. The framework is based on the goals and policies adopted as part of the 2040 Comprehensive Plan.

To accomplish these objectives, this Transportation Chapter of the Comprehensive Plan provides information about:

- The functional hierarchy of streets and roads related to access and capacity requirements
- Existing and potential deficiencies of the arterial-collector street system
- Potential alternatives to enhance the arterial-collector street system capable of accommodating traffic volumes to 2040 and beyond, categorized in funded and planned scenarios
- Access management policies and intersection controls
- Existing trail and sidewalk facilities, and associated potential improvements
- Freight, aviation, and transit network information and its plans

An overview of Le Sueur and its proximity to regional transportation routes is illustrated in **Figure 1** below.

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Figure 1

Regional Location

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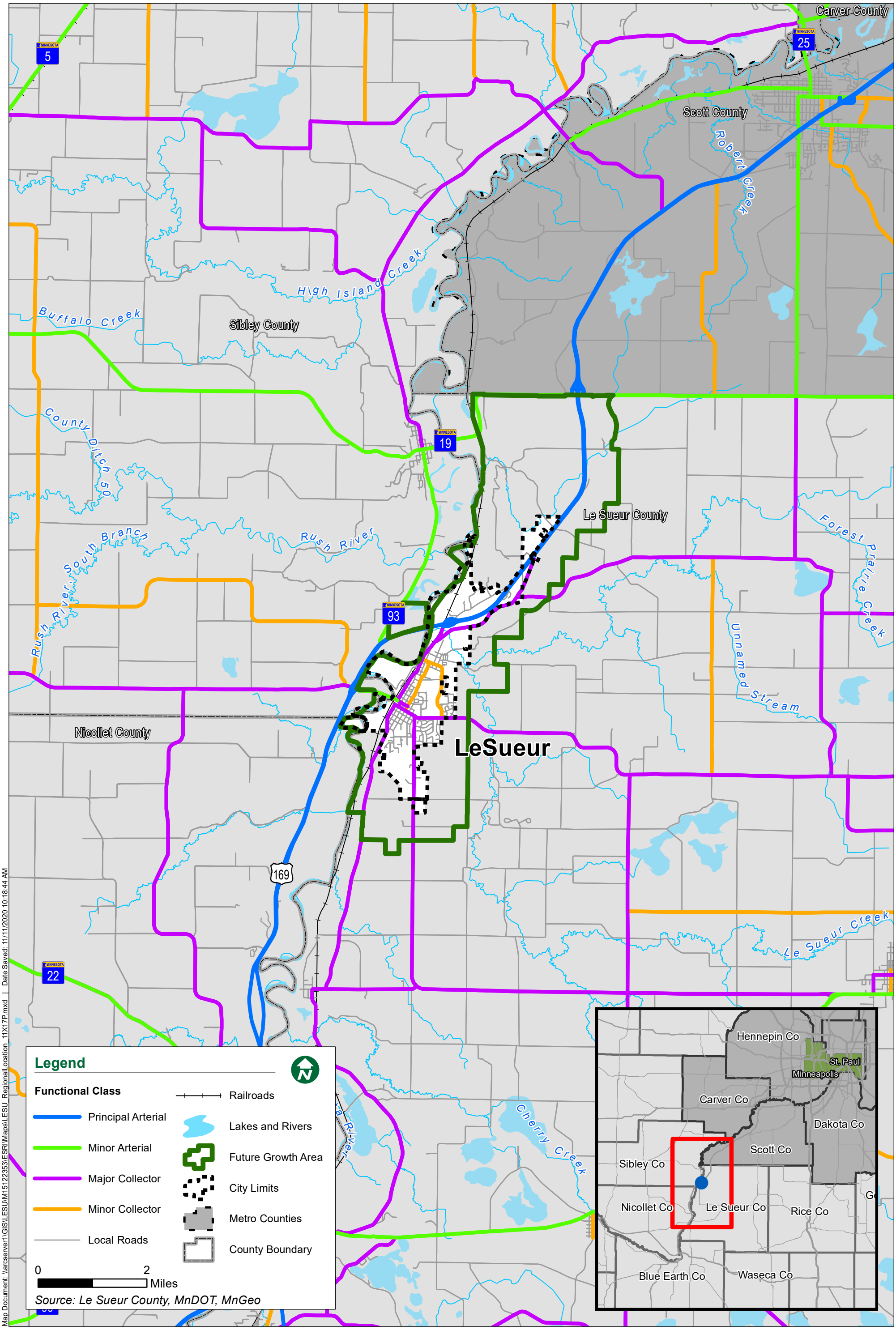

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FUNCTIONAL CLASSIFICATION

The functional classification of roadways provides system organization to effectively distribute traffic from neighborhood streets to collector roadways, then to Minor Arterials, and ultimately to the Principal Arterial highway system. Roads are categorized based on the degree to which they provide access to adjacent land uses and lower level roadways versus providing higher-speed mobility for "through" traffic. Functional classification is a cornerstone of transportation planning and dictates how roads are located and designed to perform their designated function. Functional classification involves determining what functions each roadway should perform prior to determining its technical design features, such as street widths, speed, and intersection control.

The functional classification system typically consists of five major classes of roadways: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Streets. In previous years, the City has lacked any distinction between major and Minor Collectors in the system; two types of roadway serving different scales in the network. This lack of roadway hierarchy inhibits the ability of the City to plan for a system that will effectively support anticipated growth.

The following describes each functional classification, its purpose, and how each type serves a purpose in the City of Le Sueur.

Principal Arterials

Principal Arterials are the highest roadway classification with the primary function of providing mobility for regional trips. Principal Arterials do not provide a land access function and are intended to interconnect regional business concentrations. They are generally constructed as limited access freeways but may also be multi-lane divided highways. They typically connect only with other Principal Arterials (including interstate freeways) and select Minor Arterials and Collector streets. Principal Arterials are responsible for accommodating through trips, as well as trips beginning or ending outside of the Le Sueur area. Highway 169 is the only Principal Arterial in Le Sueur.

Minor Arterials

Minor Arterials provide access points to the highway system and to important locations outside the city. Roads with this classification are also intended to carry short to medium trips that would otherwise use Principal Arterials. While Minor Arterial roadways provide more access than Principal Arterials, their primary function is still to provide mobility rather than access to lower level roadways or adjacent land uses.

Major Collectors

Major Collector roadways provide a balance of the mobility and land-use access functions discussed above. They generally serve trips that are entirely within the city and connect neighborhoods and smaller commercial areas to the arterial network. Major Collectors provide access from local nodes and neighborhoods to Minor Arterials. These roads are generally county or state roads in Le Sueur but may sometimes be under the City's jurisdiction. These roads will carry a moderate level of traffic. Managing access on Major Collector streets is an important objective due to the longer trip generating characteristics of these roads. County Highway 22 (Commerce/Main/Bridge/2nd /Ferry/Elmwood); CSAH 26 (Ferry/Lexington); South Main Street/CSAH 36; Forest Prairie Road (CSAH 28); and Sibley County Road 8 are all Major Collectors in the City of Le Sueur.

Minor Collectors

Minor Collectors are city streets and rural township roadways which facilitate the collection of local traffic and convey it to Major Collectors and Minor Arterials. Minor Collectors are generally shorter in length, with lower volumes and lower speeds than Major Collectors.

Collector streets are predominantly responsible for providing circulation within a city and are typically spaced approximately ½ to 1 mile apart.

Local Roadways

Roadways of this classification typically include city streets and rural township roadways, which facilitate the collection of local traffic and convey it to collectors and Minor Arterials. Their function is to provide direct property access.

The City has identified the proposed functional classifications in **Figure 2** below.

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Figure 2

Functional Classification

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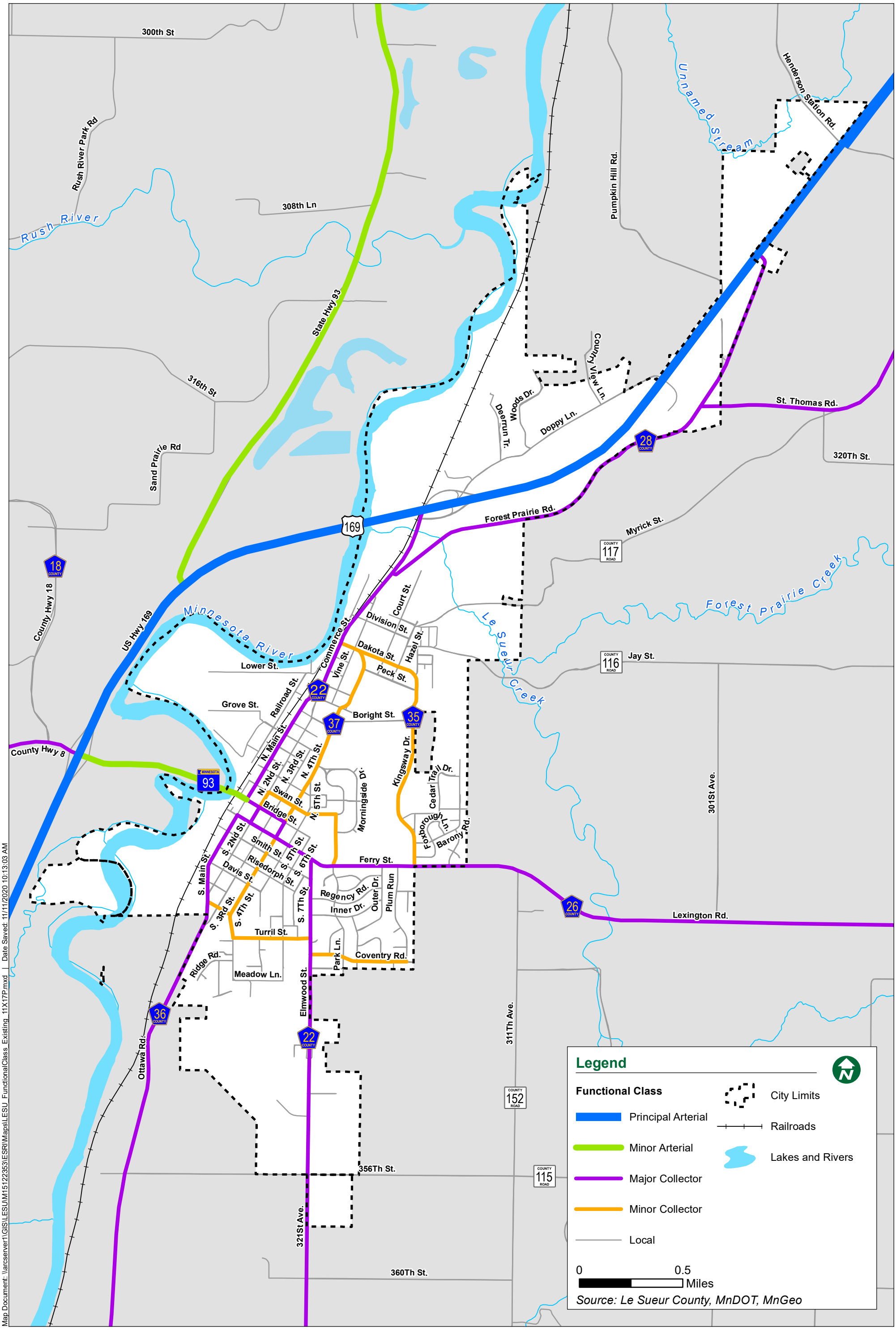

Legend

Functional Class

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

- City Limits
- Railroads
- Lakes and Rivers

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

Map Document: \\arcserver1\GIS\LESU\M15122353\ESRI\Maps\LESU_FunctionalClass_Existing_11X17P.mxd | Date Saved: 11/11/2020 10:13:03 AM

ROADWAY CAPACITY

Roads are designed to handle a defined level of traffic volume, with the intended traffic volume selected based on the roadway functional classification. The capacity of a transportation facility reflects its ability to accommodate a moving stream of people or vehicles. It is a measure of the supply side of transportation facilities. Once the roadway corridor begins to approach or exceed capacity, traffic movements become more difficult and there may be congestion, leading to safety concerns and statistical safety issues. Transportation system congestion and safety issues trigger the need for increased capacity (i.e. additional lanes, new roads, intersection or interchange redesign, or other capacity increasing improvements). **Table 1** describes typical traffic capacities by roadway type and configuration which serve as attributes of system functional classifications.

TABLE 1
TYPICAL TRAFFIC CAPACITY BY ROADWAY TYPE/CONFIGURATION

Functional Classification	Facility Type	Capacity	Approaching Capacity (85% of AADT)
Principal Arterial	4-Lane Rural Freeway	71,000	61,000
Minor Arterial	Rural 2-Lane Undivided	16,000	14,000
Major Collector	Rural 2-Lane Highway	13,000	12,000
	Urban 2-Lane Undivided	11,000	10,000
Minor Collector	Rural 2-Lane	7,700	6,600
	Urban 2-Lane	1,700	1,500
Local	2-Lane Local/Residential Road	1,000	850
	Gravel Road	500	425

Principal and Minor Arterials

Based on the capacities noted above, a two-lane arterial roadway has a daily capacity of 16,000 vehicles per day and a four-lane freeway has a daily capacity of approximately 71,000 vehicles per day. The variability in capacities are directly related to many roadway characteristics including access spacing, traffic control, adjacent land uses, as well as traffic flow characteristics, such as percentage of trucks and number of turning vehicles. Therefore, it is important the peak hour conditions are reviewed to determine the actual level of volume-to-capacity on roadway segments with average daily traffic volumes approaching these capacity values.

Major Collectors and Minor Collector Streets

Major Collector and Minor Collector streets have physical capacities similar to those of a two-lane arterial street; however, the acceptable level of traffic on a residential street is typically significantly less than the street's physical capacity. **Table 1** shows Major Collector roadway capacities of 13,000 vehicles per day in a rural setting and 11,000 per day in an urban setting. Minor Collectors exhibit lower capacities at 7,700 vehicles per day in a rural setting and 1,700 vehicles per day in an urban setting.

The capacity of a gravel road is physically greater than 500 vehicles per day, but based on studies conducted by Minnesota counties, it has been determined an average daily traffic volume (ADT) over 500 justifies paving the roadway. This is justified due to the maintenance costs of keeping a gravel road

in working condition with ADT is over 500, and balancing this against pavement costs, pavement life, and maintenance costs of a paved roadway with the same volumes.

A planning-level traffic capacity analysis was performed using the volume-to-capacity method which identifies existing and forecasted capacity deficiencies in the City of Le Sueur. Generally, congestion and poor traffic operations have not been identified issues in the city. **Figure 3** depicts existing areas of congestion in the city. Data shows that most roadways in the city are operating within capacity. Exceptions include N 4th Street from Swan Street to Boright Street and Dakota Street from N Main Street to N 4th Street, both of which function as Minor Collector roadways that are approaching capacity.

The Le Sueur Downtown Master Plan (2017) identifies truck traffic in downtown as a potential cause of traffic congestion. A recommended strategy from that plan is to create a truck bypass beginning from north to south along the eastern edge of the community (location undetermined in that plan).

An analysis of anticipated 2040 future congestion conditions was also performed. 2040 figures were forecasted through the MnDOT least squares method utilizing a County Adjustment Factor to apply to historic and projected AADT that considers population, labor force, household, and employment data. **Figure 4** depicts locations of anticipated congestion. Roads expected to be over capacity include Bridge Street from 4th Street to 5th Street, 5th Street from Bridge Street to Swan Street, and Dakota Street from North Main Street to 4th Street. The analysis concluded that these roads are only slightly over capacity and judgement indicates that they are expected to still operate efficiently. Roads expected to be approaching capacity include North 4th Street from Swan Street to Boright Street, and Kingsway Drive from 4th Street to Ferry Street.

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Figure 3

Existing AADT and Roadway Capacity

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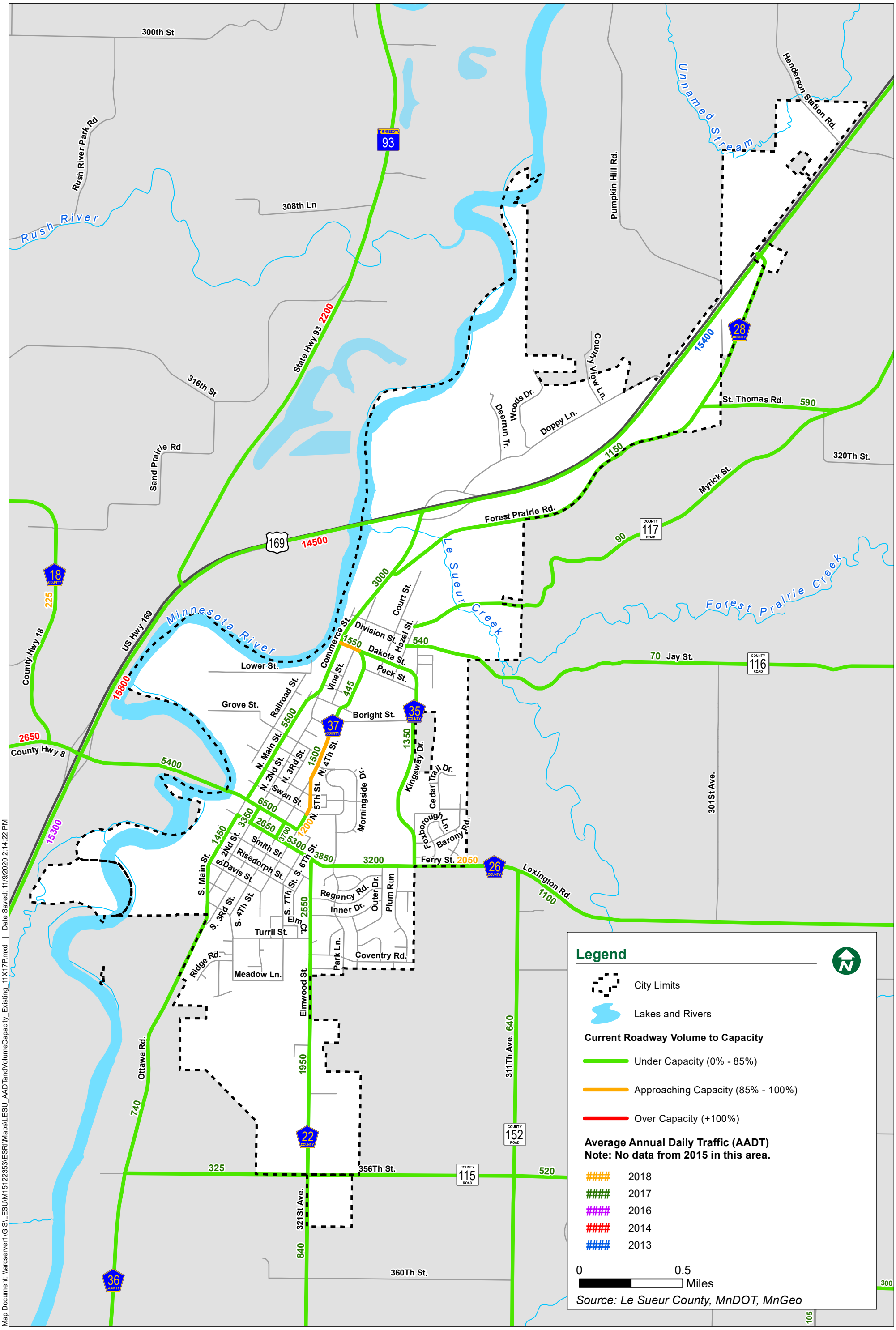

Legend

- City Limits
- Lakes and Rivers

Current Roadway Volume to Capacity

- Under Capacity (0% - 85%)
- Approaching Capacity (85% - 100%)
- Over Capacity (+100%)

Average Annual Daily Traffic (AADT)
Note: No data from 2015 in this area.

####	2018
####	2017
####	2016
####	2014
####	2013

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

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CITY OF LeSueur MINNESOTA

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Figure 4

2040 AADT and Roadway Capacity

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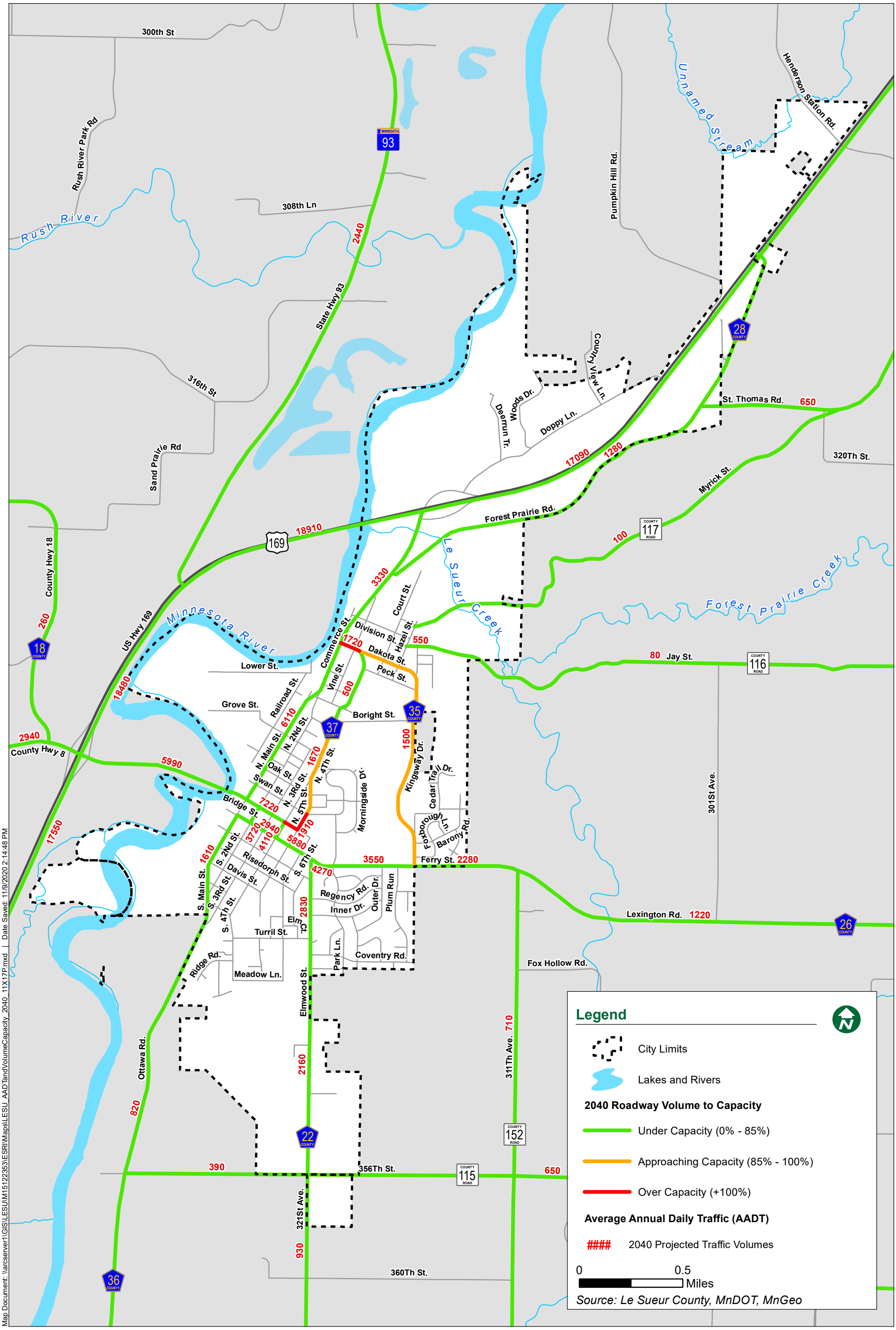

Legend

- City Limits
- Lakes and Rivers

2040 Roadway Volume to Capacity

- Under Capacity (0% - 85%)
- Approaching Capacity (85% - 100%)
- Over Capacity (+100%)

Average Annual Daily Traffic (AADT)

- ### 2040 Projected Traffic Volumes

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

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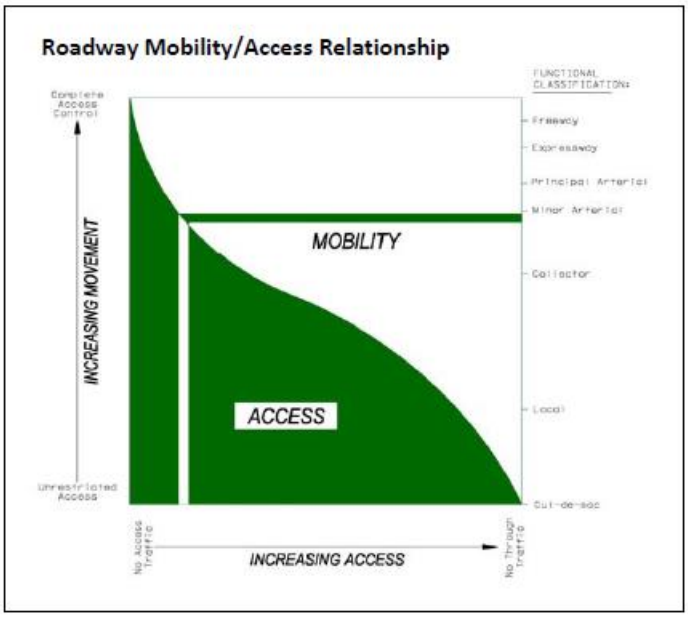
ACCESS MANAGEMENT GUIDELINES

Access management guidelines are developed to maintain traffic flow on the network so each roadway can provide its functional duties, while providing adequate access for private properties to the transportation network. This harmonization of access and mobility is the keystone to effective access management.

Mobility, as defined for this Transportation Plan, is the ability to move people, goods, and services via a transportation system component from one place to another. The degree of mobility depends on a number of factors, including the ability of the roadway system to perform its functional duty, the capacity of the roadway, and the operational level of service on the roadway system.

Access is the relationship between local land use and the transportation system. There is an inverse relationship between the amount of access provided and the ability to move through-traffic on a roadway. As higher levels of access are provided, the ability to move traffic is reduced. The graphic below illustrates the relationship between access and mobility.



In Le Sueur, spacing guidelines are recommended as a strategy to effectively manage existing ingress/egress onto City streets and to provide access controls for new development and redevelopment. The access spacing guidelines for Le Sueur are consistent with current practices of other cities, as well as with MnDOT. The hierarchy of the functional classification system should be maintained when applying the access spacing guidelines to the roadway network (i.e. a collector street should have priority access to a Minor Arterial roadway over a Local street or adjacent property). **Table 2** presents the access standards and access spacing for the Le Sueur roadway network. Please refer to Le Sueur County's minimum access spacing guidelines identified in their current Transportation Plan.

TABLE 2
ACCESS SPACING GUIDELINES FOR COLLECTOR ROADWAYS[1]

Type of Access by Land Use Type	Major Collector	Minor Collector
Low and Medium Density Residential		
Private Access	Not Permitted[2]	As Needed[3]
Minimum Corner Clearance from a Collector Street	660-ft	300-ft
Commercial, Industrial or High Density Residential		
Private Access		
Minimum Corner Clearance from a Collector Street	660-ft	660-ft

[1] These guidelines apply to City streets only. Le Sueur County and MnDOT have access authority for roadways under their jurisdiction. Please refer to Le Sueur County's minimum access spacing guidelines identified in their current Transportation Plan.
[2] Access to Major Collectors is limited to public street access. Steps should be taken to redirect private accesses on Major Collectors to other local streets. New private access to Major Collectors is not permitted unless deemed necessary.
[3] Private access to Minor Collectors is to be evaluated by other factors. Whenever possible, residential access should be directed to non-continuous streets rather than Minor Collector roadways. Commercial/Industrial properties are encouraged to provide common accesses with adjacent properties when access is located on the Minor Collector system. Cross-traffic between adjacent compatible properties is to be accommodated when feasible. A minimum spacing between accesses of 660' in commercial, industrial, or high-density residential areas is encouraged for the development of turn lanes and driver decision reaction areas.

Review of the accesses in the City of Le Sueur has identified the following proposed recommendations for improvement as outlined below:

- Coventry Road "Minor Collector" to County Road 22/Elmwood Avenue "Major Collector" roadway
- Central Street "Local" to County Road 35/Kingsway Drive "Minor Collector" roadway
- Ridge Road "Local" to Distel Drive "Local" roadway
- Distel Drive "Local" to South Fourth Street "Local" roadway
- South Park Lane "Local" to future local roadway
- Glenview Court "Local" to future local roadway
- Coventry Road "Minor Collector" to future minor collector roadway
- Barlows Knoll "Local" to future minor collector roadway
- Cedar Trail Drive "Local" to future local roadway
- Birch Street "Local" to future major collector roadway

ROADWAY DESIGN STANDARDS

Geometric Design Standards

Geometric design standards are directly related to a roadway's functional classification and the amount of traffic that the roadway is designed to carry. For the City of Le Sueur, geometric design standards are based on proven performance and the ability to achieve adequate capacity within the roadway network, as well as a level of acceptance by adjacent land uses. The Geometric Design Standards are illustrated as follows in **Figures 5-7** and each component identified in the typical sections is essential to a particular roadway's ability to perform its function in the roadway network.

Roadway and travel lane widths are directly associated with a roadway's ability to carry vehicular traffic. In addition to the travel width, minimum shoulder/parking lane widths are also required to accommodate parked or stalled vehicles. Roadway widths not meeting the Geometric Design Standards will result in decreased performance of the roadway and additional travel demand on the adjacent roadway network.

Please refer to Le Sueur County's geometric design standards identified in their current Transportation Plan for additional information specific to County roadways.

Design Speed

The design speed of a roadway is generally related to the roadway's function in the system. The focus of Minor Arterial roadways is mobility; therefore, these roadways should be designed to accommodate higher travel speeds. Likewise, Minor Collector roadways are more focused on accessibility and should be designed to accommodate lower travel speeds. The function of Major Collectors is balanced between mobility and accessibility; therefore, these roadways should be designed accordingly. Local roadways are focused solely on accessibility, both for motorists and pedestrians; therefore, these roadways are designed for the lowest design speeds. **Table 3** below presents the recommended design speeds for the buildout of Le Sueur's future roadway network.

TABLE 3
ROADWAY DESIGN SPEED GUIDELINES

Functional Classification	Design Speed [1]
Local Roadway	20-30 mph
Minor Collector Roadway	30 mph
Major Collector Roadway (Urban)	30-45 mph
Major Collector Roadway (Rural)	40-55 mph
Minor Arterial Roadway	45-55 mph

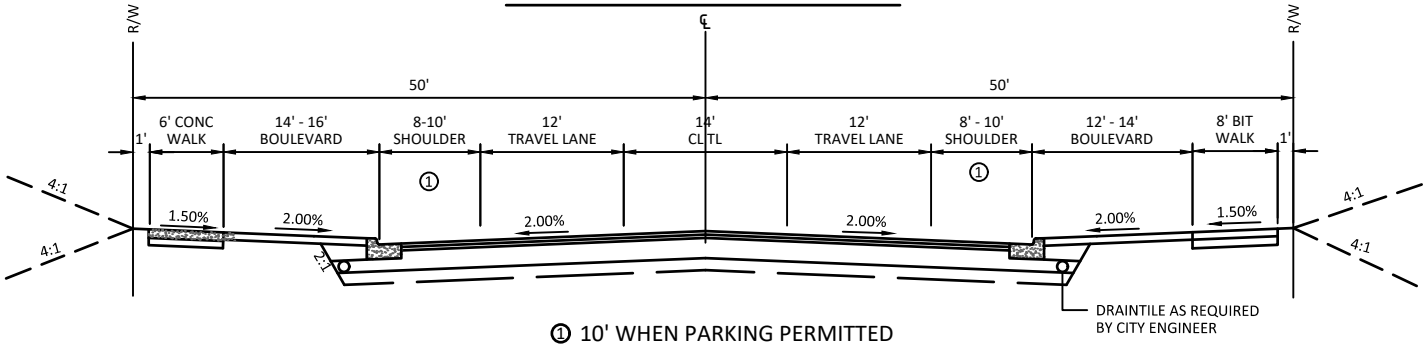
[1] For City roadways, the speed is at the discretion of the City Engineer and approval by the City Council.

GEOMETRIC DESIGN STANDARDS FOR MAJOR COLLECTORS

FIGURE 5

CITY OF LE SUEUR, MN

TYPICAL SECTION OF MAJOR COLLECTOR



① 10' WHEN PARKING PERMITTED

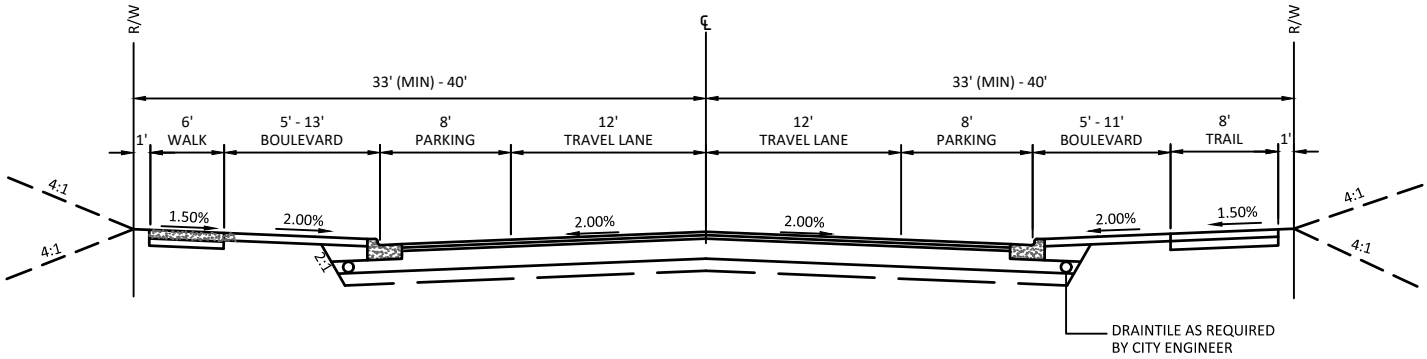
1. Design standards for Minor Arterials shall be under the jurisdiction of MnDOT and Le Sueur County.
2. Additional ROW will be needed at intersection to accommodate turn lanes, at the discretion of the City Engineer.

GEOMETRIC DESIGN STANDARDS FOR MINOR COLLECTORS

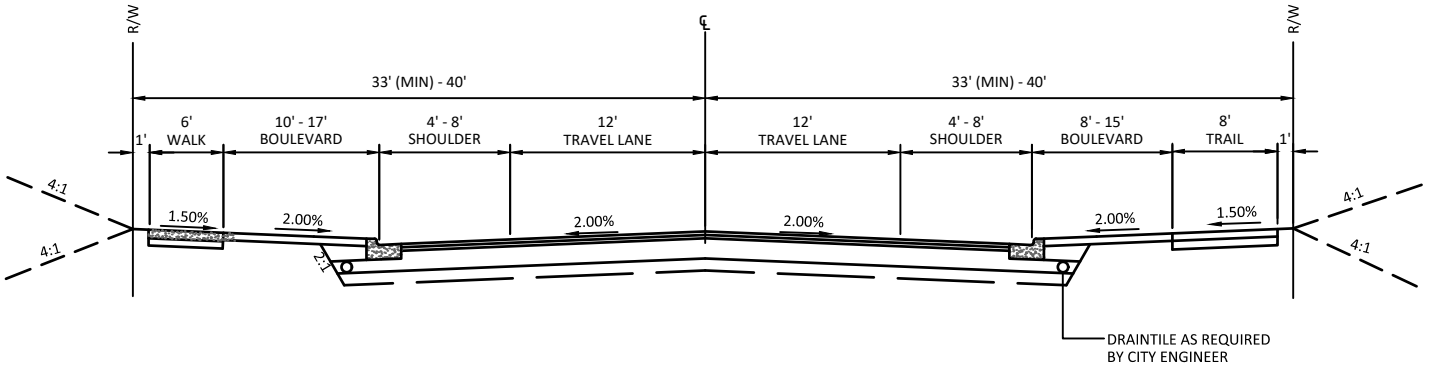
FIGURE 6

CITY OF LE SUEUR, MN

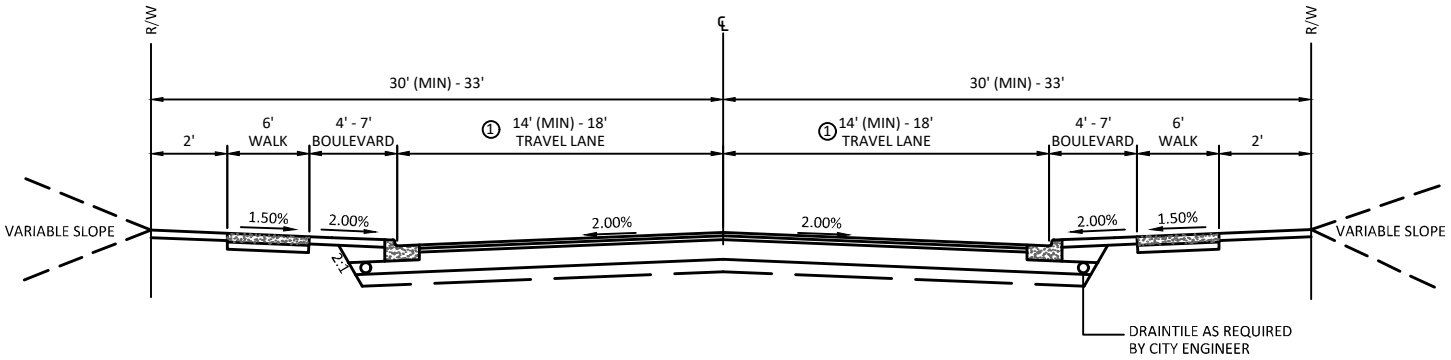
TYPICAL SECTION OF MINOR COLLECTOR WITH PARKING



TYPICAL SECTION OF MINOR COLLECTOR WITHOUT PARKING



TYPICAL SECTION OF LOCAL STREETS



① MINIMUM LANE WIDTH AT THE DISCRETION AND APPROVAL OF THE CITY ENGINEER.

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Non-Motorized Transportation

Bicycle and pedestrian circulation is an important component of the transportation system that needs to continue to be developed. As the City and employment opportunities within the City grow, the system will develop alternatives for residents to travel about without utilizing an automobile. It is the desire of the City to develop alternative modes of transportation to reduce traffic demand.

Along Minor Arterials, a minimum 8' bituminous trail is recommended on at least one side of the roadway. Similar to the type of travel on the adjacent roadway, the trail will accommodate higher volume and longer pedestrian and bicycle trips. A 10' bituminous trail would be more desirable as the 10' width would better accommodate two-way travel safely. Trails and/or walk should be provided along both sides of Minor Arterials to facilitate travel to safe crossing locations.

Along Major Collector roadways, an 8' bituminous trail and 6' concrete walk are recommended on either side of the roadway to accommodate local pedestrian and bicycle travel. The pedestrian facilities on both sides of these roadways allow for pedestrian travel within the corridor without introducing excessive crossing demand on Major Collectors. A 6' concrete walk and 8' bituminous trail will accommodate pedestrian travel along the corridor, as well as provide a safe, comfortable link between lower volume residential streets and the other pedestrian facilities within the community.

Along Minor Collector roadways, a 6' concrete sidewalk is recommended on each side of the roadway. With the anticipated vehicular volumes on Minor Collector streets, pedestrians can safely cross the roadway; however, pedestrian travel along the roadway may become uncomfortable.

At the discretion of the City, in commercial and industrial areas, the requirements for trails and sidewalks may vary to accommodate additional pedestrian and bicycle traffic and provide connectivity. Additional information and guidance for future improvements to the non-motorized transportation system can be found within the Trail System Analysis of the City's adopted Parks, Open Spaces and Trails Master Plan.

Right of Way Width

Right-of-Way is directly related to the roadway's width and its ability to carry vehicular and pedestrian traffic in a safe and efficient manner. The roadway right-of-way widths identified in Figures 5-7 are the minimum required for major collector, minor collector, and local streets, respectively.

- For Local Roadway streets in residential areas, a minimum right-of-way width of 60' is necessary, with a width of 66' preferred for the desired width of roadway and pedestrian facilities.

- For Minor Collector streets in residential areas, a minimum right-of-way width of 66' is necessary, with a width of 80' preferred for the added roadway width, as well as to provide added setback distance between roadway and homes along the roadway.

- For Major Collector streets, a minimum right-of-way width of 100' or greater will be required within commercial areas to accommodate potential for higher traffic volumes and the need for additional lanes.

- All right-of-way requirements may be decreased or increased at the discretion of the City Engineer, with approval of the City Council.

Refer to Le Sueur County's right-of-way requirements for County roads in their Current Transportation Plan. The City should obtain identified local and county right-of-way through the platting process during new developments to accommodate long-term roadway and sidewalk/trail needs.

ROADWAY JURISDICTION

Roadway jurisdiction identifies the responsible government agency. Roadways do not stop at corporate boundaries. They span the community extending into adjacent rural areas. They also serve more than local needs, providing access to the region and ultimately the nation. Jurisdictional classification determines what government entity is responsible for development, maintenance and access to the roadway. Jurisdiction includes City, Le Sueur County, State (MnDOT) and the Federal Highway Administration (FHWA).

Figure 8 depicts the existing roadway jurisdictional classification system in Le Sueur.

Jurisdictional designation is based on a variety of issues and factors including functional classification, system continuity, access control, type of trips served (purpose and length), traffic volumes, legal requirements, historical practices, and funding and maintenance issues. The primary goal in reviewing jurisdiction is to match the roadway's function with the unit of government best suited for its responsibility.

Changes in roadway jurisdiction are rare, but these "turnbacks" do occur on occasion. In Le Sueur, a recent turnback of State Highway 112 from the State to Le Sueur County as County Road 22 was accomplished.

As a result of this large transfer and per the current Le Sueur County Transportation Plan, a roadway identified as a potential turn back/transfer candidate from County to City is County Road 37, between County Road 22 and County Road 35. County Road 37 currently serves as a third north south County Road connection through the City and operates more for local circulation and property access than regional connectivity.

Figure 9 depicts the proposed future roadway jurisdictional classification system in Le Sueur.

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Figure 8

Existing Roadway Jurisdictions

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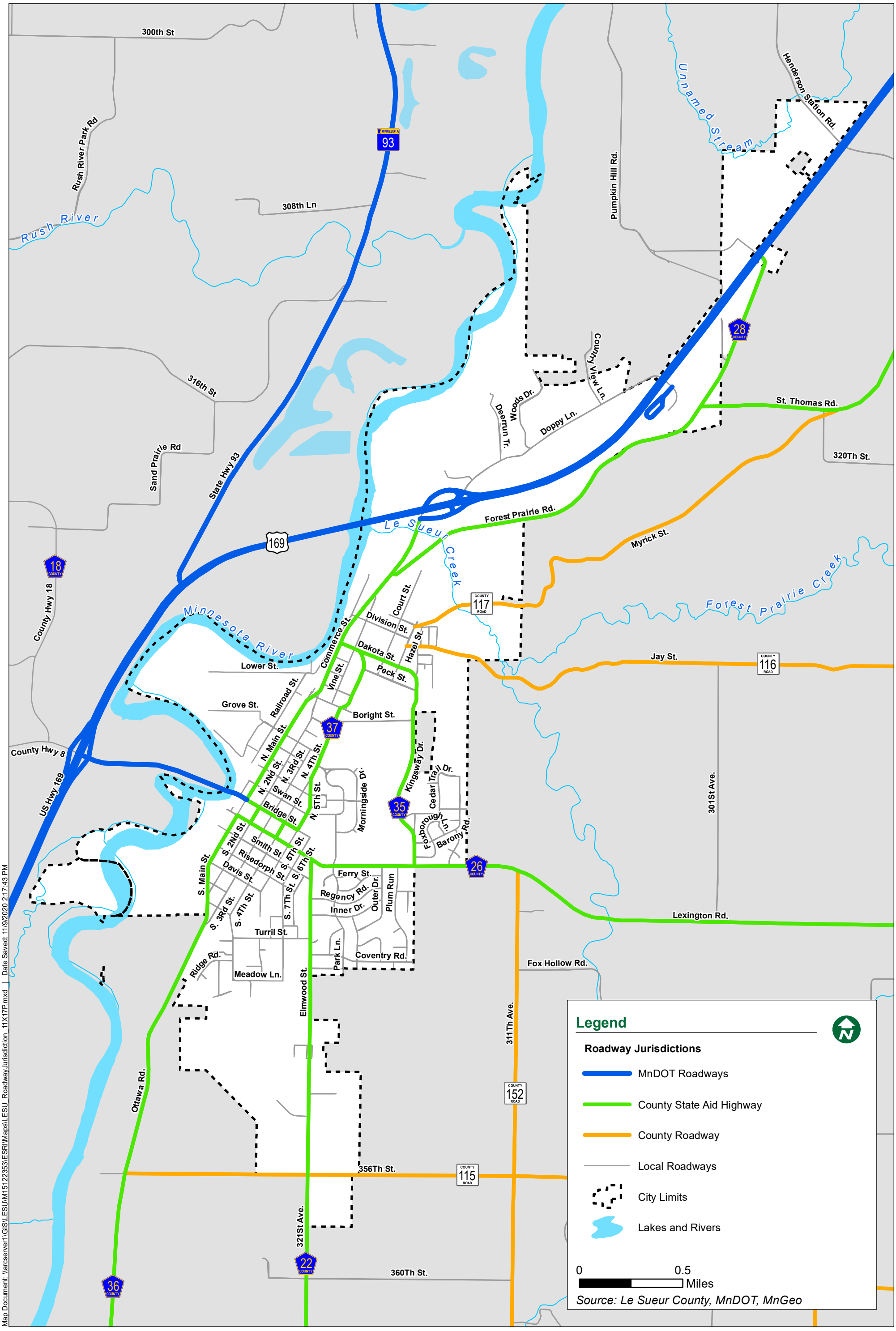

Legend

Roadway Jurisdictions

- MnDOT Roadways
- County State Aid Highway
- County Roadway
- Local Roadways
- City Limits
- Lakes and Rivers

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

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Figure 9

Future Roadway Jurisdictions

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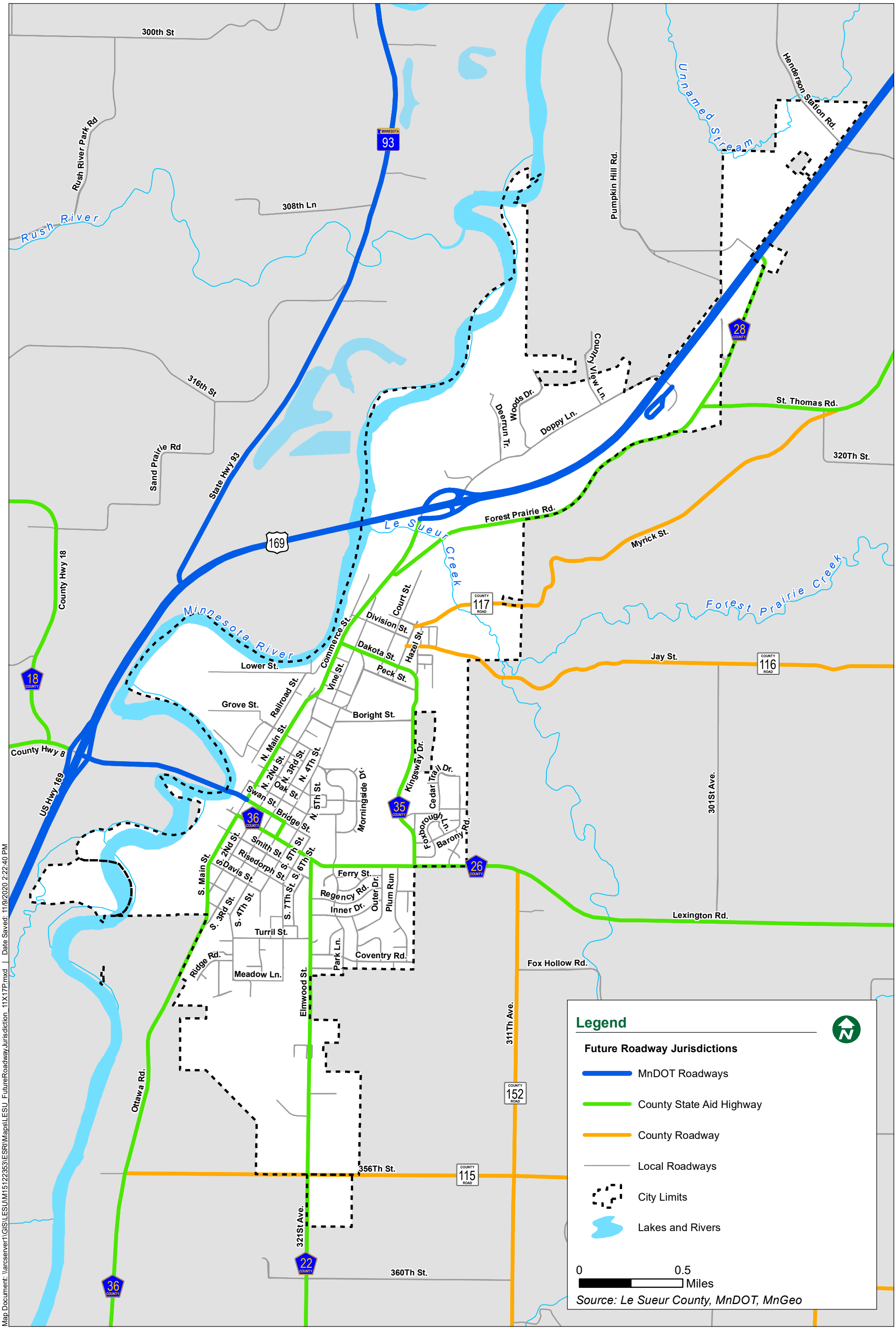

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FREIGHT

Arterial Roadways

The City of Le Sueur lies adjacent to TH 169 and the Union Pacific railway. Therefore, a significant amount of freight traffic flows through Le Sueur on a regular basis.

US 169 is a corridor of statewide significance for freight traffic, serving as the primary corridor for movement of goods between south central Minnesota, southwest Minnesota, northern Iowa and the Minneapolis / St. Paul metropolitan area. 11% of traffic on US 169 is freight traffic, which equates to 2300 heavy commercial vehicles per day traversing Le Sueur.

Truck traffic to and from US 169 from gravel pits located south of the city travels through downtown and along Ottawa Road (CSAH 36) and 321st Avenue (CSAH 22). The 2017 Downtown Master Plan notes, "These large vehicles have major impacts on roads, contribute noise and pollution, and detract from the overall visitor experience." The Master Plan proposes a truck bypass between CR 35 and CR 115, with an alignment to be determined. Other recommendations to reduce truck traffic in downtown Le Sueur include the Highway 112 turnback and streetscape improvements, and incorporation of speed reduction measures with signage and streetscape design (bumpouts, road narrowing.

Freight traffic is also impacted by weight restrictions on roads and bridges. **Figure 10** identifies the weight restricted roadways and bridges in Le Sueur.

Railroads

Union Pacific operates one railroad corridor in the Le Sueur area, along the west side of the city, parallel to TH 169. According to the Minnesota Department of Transportation Freight office, there are approximately 5 trains per day, with a maximum design speed of 49 miles per hour.

TRANSIT

Transit service in Le Sueur is provided by Minnesota River Valley Transit (MRVT). MRVT provides transportation services in the cities of St. Peter, Le Sueur and Kasota. Services in the City of Le Sueur include on demand dial-a-ride and the fixed route Le Sueur to St. Peter to Mankato Corridor Route. The Corridor Route generally operates Mondays and Thursdays, and the 2nd Saturday of each month.

Figure 11 depicts the Freight, Rail and Transit system in Le Sueur.

CITY OF LeSueur MINNESOTA

Transportation Plan

Figure 10

Weight Restricted Roadways and Bridges

September 2020

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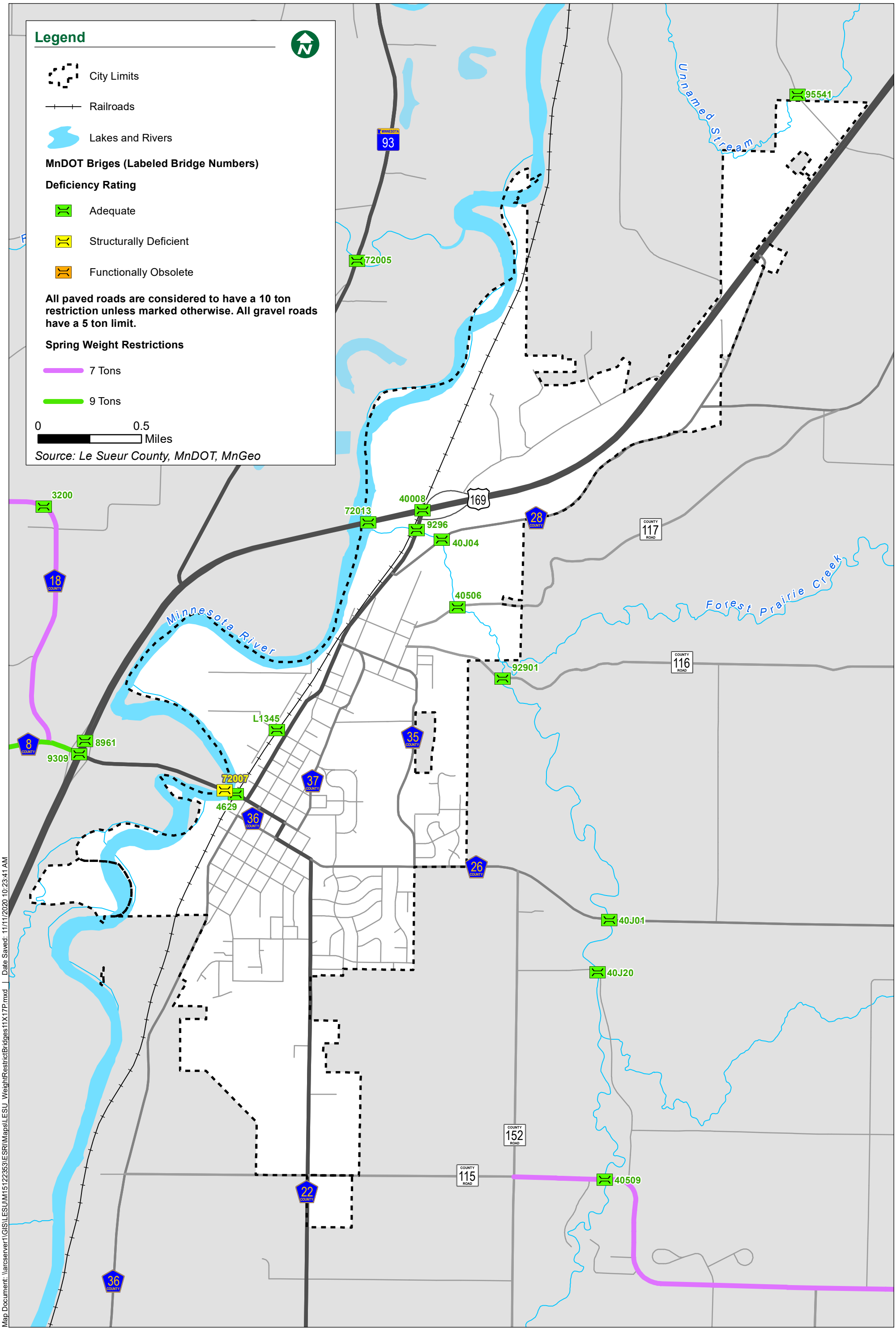

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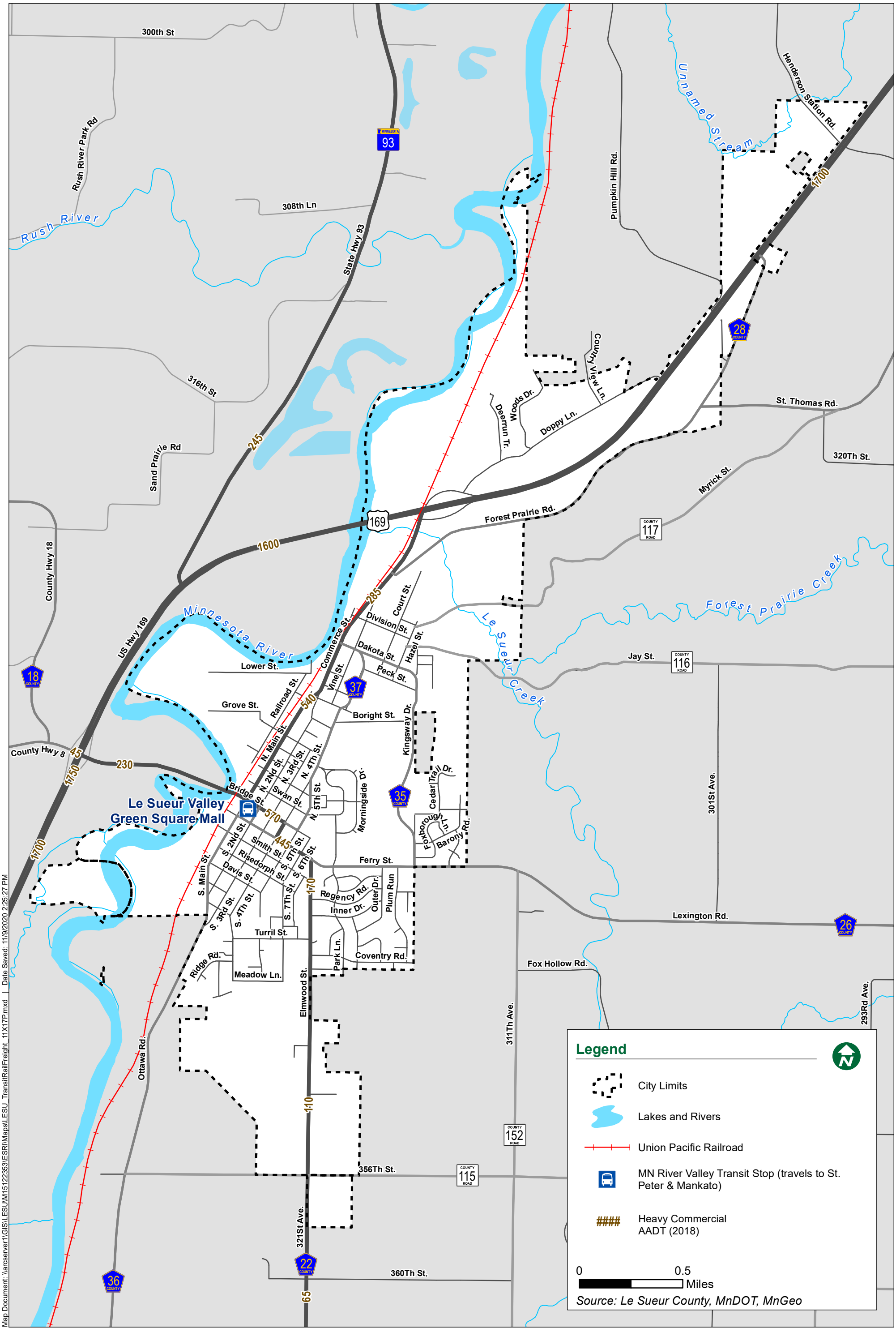

Legend

- City Limits
- Lakes and Rivers
- Union Pacific Railroad
- MN River Valley Transit Stop (travels to St. Peter & Mankato)
- #### Heavy Commercial AADT (2018)

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

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FUTURE ROADWAY PLAN

The transportation system in the Le Sueur area is in a rural to urban transition and is anticipating steady future growth. As growth continues to occur, specifically outward to the north and south, it will be important for the City to develop a roadway system that is efficient and consistent with the transportation system principles and standards.

Future Roadway Corridors

A supporting future road network has been developed in consideration of long-term growth in the 2040 growth area and is illustrated in **Figure 12** identifies the functional classifications of the future roadway system, and **Figure 13** illustrates the future roadway network. This network was developed in consideration of the Le Sueur Future Land Use map, dated April 2020.

A suitable arterial-collector system to accommodate future development and traffic patterns is necessary in the long term growth area of Le Sueur. The existing county and state highways have historically provided much of the local circulation and connectivity; however, these roadways will be less capable of meeting both the future local and regional travel demands. A City collector system consisting of Major and Minor Collector roadways is recommended to provide acceptable local traffic circulation and access to developing areas, as well as to enable the Principal Arterial and Minor Arterial roadways to serve longer, regional travel. The primary focus of future roadway planning is on Major and Minor Collectors in areas with commercial, industrial, and residential growth. The placement of new collector roadways is based on a recommended spacing guideline of ½ to 1 mile. The placement for local roads is typically focused on the extension of existing stubs and realization that there will be a need for additional local roads; however, final need and placement will depend upon how development occurs. Lastly, roadway planning in areas designated as rural is generally very limited. It is not anticipated that all the proposed streets will be constructed by 2040; rather, collector and local streets should be constructed as development occurs.

The roadway corridors identified are conceptual, based on network needs, and should be used as a guide for development of the City's roadway system. In most cases, the actual roadway alignments are flexible to meet the needs of future development, at the discretion of the City Engineer. If not already completed, additional studies will be necessary to determine specific roadway alignments and intersection spacing. It is recommended actual routes be further evaluated in conjunction with development demand, ideally before submittal of preliminary plats in the subject area.

Roadway Capacity Needs

Street expansion should be considered at the time of pavement reconstruction on local roadways identified as collectors or higher classification. Expansion of local roadways solely triggered by capacity demands is not anticipated, with exception to intersection improvements of local roadways at trunk or county highways in Le Sueur.

Future Agency Coordination

The identified accesses along TH 169 in **Figure 13** are all currently full access intersections and will be important to be maintained as growth is experienced to the north. New access to TH 169, designated a principal arterial, would require extensive review and approval from MnDOT. Future improvements at these intersections may be considered, including both at-grade or grade-separated. Coordination with MnDOT as part of the development of this plan concluded there is a planned surfacing improvement to TH 169 between TH 93 and the existing MnDOT rest area for the year 2030. MnDOT shared there is currently no plan that addresses any other improvements for the portion of TH 169 in Le Sueur and

confirmed the value of further studying the intersections within the growth area. This study is referred to as an interchange study. An interchange study is an extensive analysis of projected land use and traffic forecasts to evaluate intersection capacity and needs. In developing rural areas, like the northern growth area, interchange spacing guidelines is 2+ miles. The distance between the existing northern interchange and the TH 19 interchange is approximately 5 miles. Based on this an interchange study is justified and a recommended action to better understand the access needs too difficult to forecast as part of this study. Lastly, an interchange study is required prior to any interchange approval and would greatly aid in facilitating multi-agency collaboration with other future improvements.

CITY OF LeSueur MINNESOTA

Transportation Plan — Functional Classification and Future Roadways

Figure 12

November 2020

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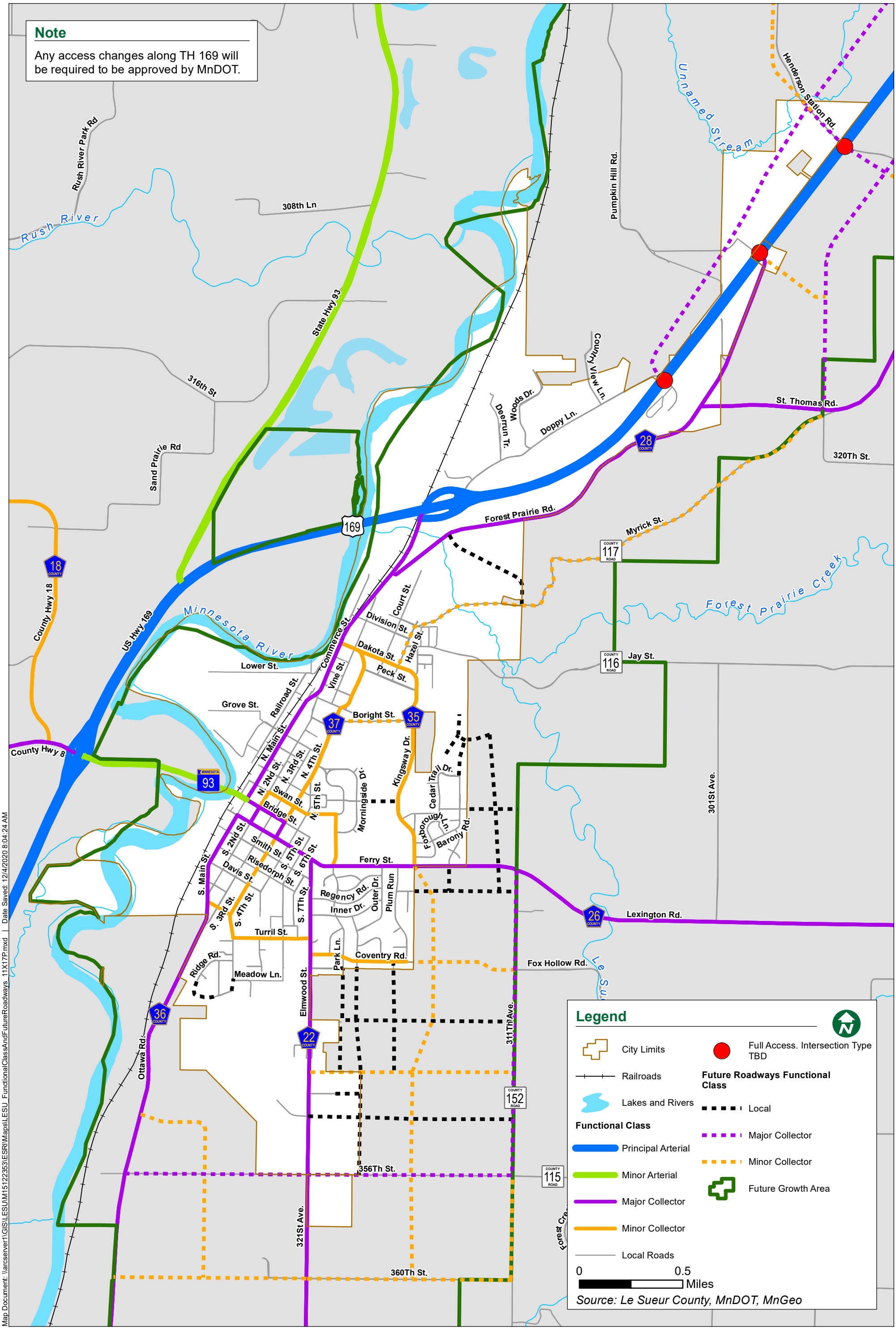
Note

Any access changes along TH 169 will be required to be approved by MnDOT.



Legend

- City Limits
- Railroads
- Lakes and Rivers

Functional Class

- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local Roads

- Full Access. Intersection Type TBD

Future Roadways Functional Class

- Local
- Major Collector
- Minor Collector
- Future Growth Area

0 0.5 Miles

Source: Le Sueur County, MnDOT, MnGeo

CITY OF LeSueur MINNESOTA

Transportation Plan

Figure 13

Future Roadway Network

November 2020

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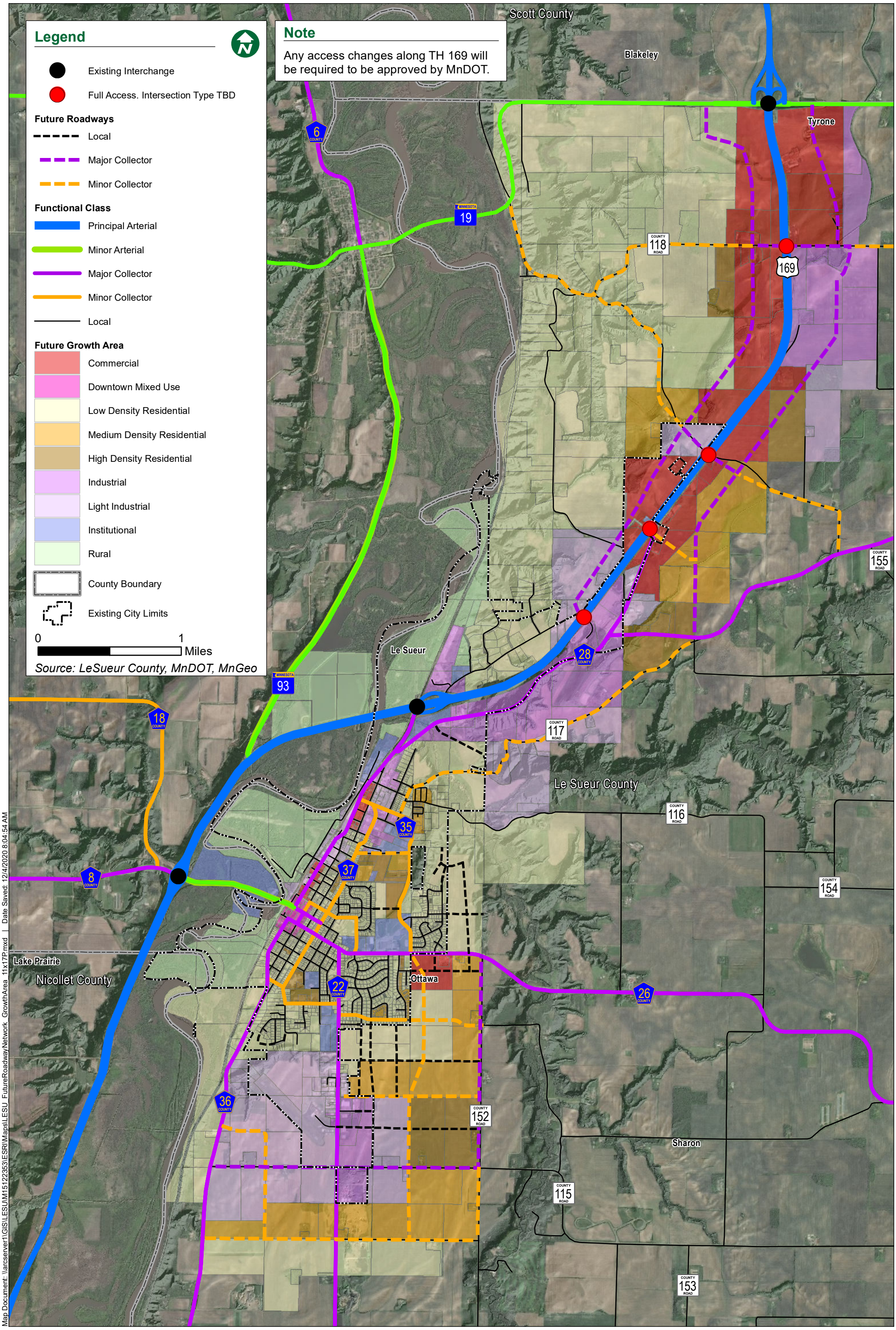

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