



Central Dakota MPO Technical Advisory Committee Meeting

Tuesday, May 13, 2025, at 10:30 AM

Public Works Conference Room 3, Public Works (1025 31st St SE)

Any person needing special accommodation for the meeting is requested to notify the City Clerk's office at 857-4752.

1. ROLL CALL

2. APPROVAL OF MINUTES

2.1. REVIEW AND APPROVAL OF APRIL 8, 2025 MINUTES

Suggested Motion: I move to approve the minutes of the April 8, 2025 meeting as presented.

3. OLD BUSINESS

3.1. MTP CONSULTANT UPDATE

4. OTHER BUSINESS

4.1. NDDOT/FHWA/FTA UPDATE, IF ANY

4.2. OTHER BUSINESS, IF ANY

4.3. OPPORTUNITY FOR PUBLIC COMMENT

5. ADJOURNMENT



Central Dakota MPO Technical Advisory Committee Meeting Minutes

Tuesday, April 8, 2025, at 10:30 AM
Public Works Conference Room 3,
Public Works (1025 31st St SE)

John Van Dyke called the meeting to order at 10:30 AM

1. ROLL CALL

The following were present:

Burlington City- David Anders, Cole Jones
Minot City- Brian Horinka, Doug Diedrichsen, Lance Meyer
Surrey City- Jesse Berg
Ward County- Dana Larsen
NDDOT- Korby Seward, Will Hutchings
MPO Director- John Van Dyke

Absent: Beth Pietsch, Sarah Karhoff

Others Present: Stacy Hanson(virtual), Kristen Sperry(virtual), Stephen Joersz, Angie Stenson(virtual), Diomo Motuba(virtual), Leslie Noehre(virtual), Mike Bitner(virtual), Kevin Macke(virtual), Luke Champa(virtual)

2. APPROVAL OF MINUTES

2.1 REVIEW AND APPROVAL OF THE JANUARY 14, 2025 MINUTES

Brian Horinka wanted to amend the verbiage to item #5 to the following: "Horinka mentioned the need to amend the State Transportation Improvement Program (STIP) to include the Program of Project (POP) in the interim until a Transportation Improvement Program (TIP) is in place."

Motion to approve the minutes of the March 11, 2025 meeting as presented with amendment by Lance Meyer, seconded by Jesse Berg, and favored by all.

3. OLD BUSINESS

3.1 MTP CONSULTANT UPDATE

The consultant team was present virtually to give updates on the travel demand models (Base, 2035, and 2050) and next steps. The model results highlighted roads where V/C (traffic volume relative to road capacity) was highest assuming no road improvements are completed. Models will be rerun with the removal of the 33rd St. SW rail crossing that is no longer part of the network. More updates will be presented as they are completed.





The financial analysis was presented illustrating different funding sources. It was noted that there are local matches that will need to be figured in as well and the consultant team informed the Technical Advisory Committee (Committee) that they will come back with updated numbers.

Phase Two of public engagement will be starting this summer. Following discussion with the Committee, it was determined that given the timing of the effort during the summer months and need to reach those that may be traveling, virtual open houses, online interactive story maps, and other remote engagement tools will be the best approach. A detailed Phase Two plan will be presented at the May meeting.

Jesse Berg motioned to move forward with the virtual-focused approach to Phase Two public engagement. Cole Jones seconded and the vote passed unanimously.

4. OTHER BUSINESS

4.1 NDDOT/FHWA/FTA UPDATE, IF ANY

Will Hutchings informed the Committee about the Vision Zero Conference in Bismarck on May 7th & 8th, with a virtual attendance option being available. The Conference will provide the opportunity to obtain numerous continuing education credits.

Consolidated Planning Grant (CPG) funding levels for 2026 will be provided to the ND MPOs by April 15th.

The NDDOT is undertaking update of their Long Range Transportation Plan (LRTP). In addition, a Bike/Ped plan will be conducted. Bike/Ped data, where available, should be sent to NDDOT.

5.2 OTHER BUSINESS

No other business.

5.3 PUBLIC COMMENT

No one from the public is present.

5. ADJOURNMENT



Van Dyke asked for a motion to adjourn the meeting. So moved by Dana Larsen, seconded by Doug Diedrichsen, and passed unanimously. Meeting adjourned at 11:57 AM.





Central Dakota Metropolitan Planning Organization

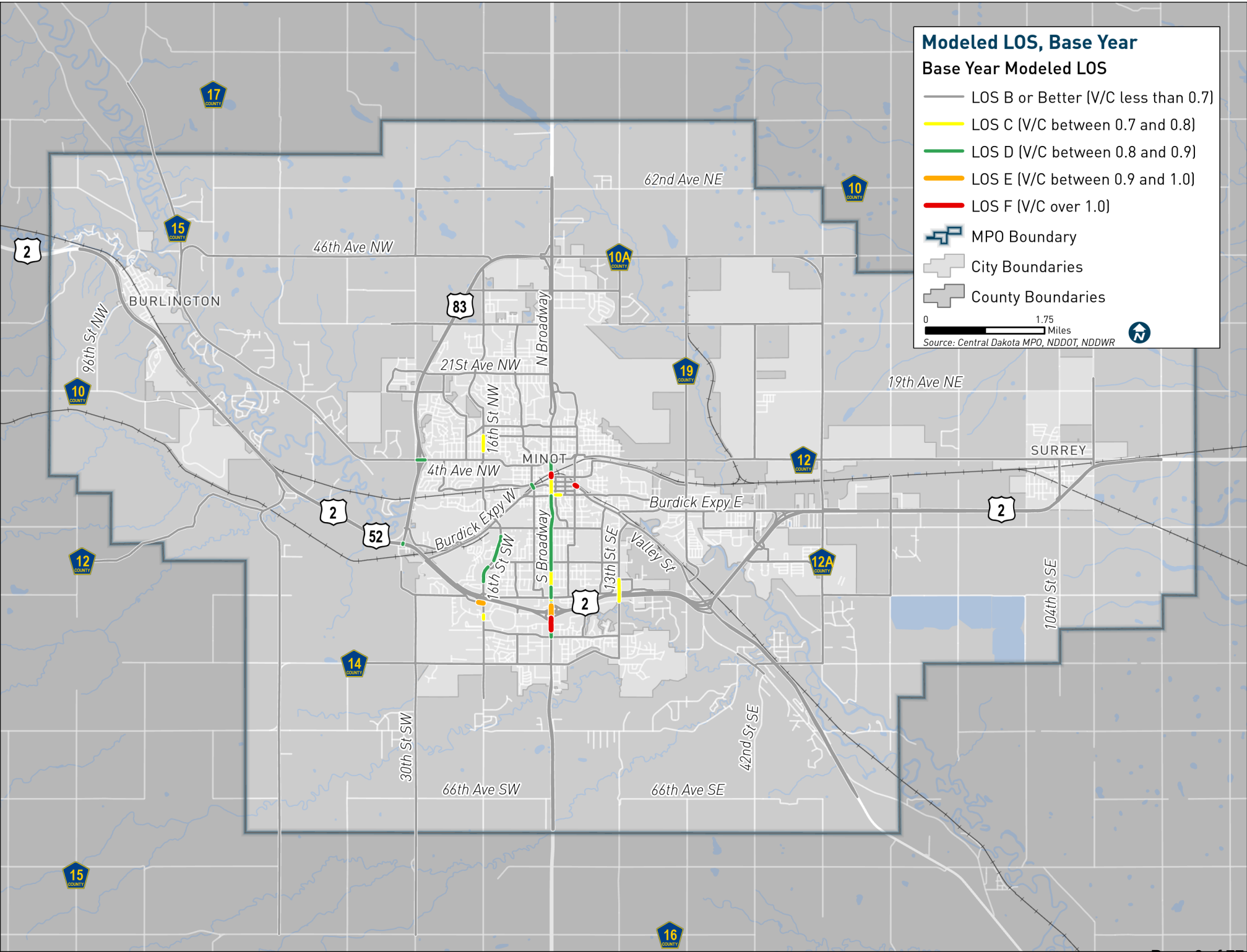
2050 Metropolitan Transportation Plan

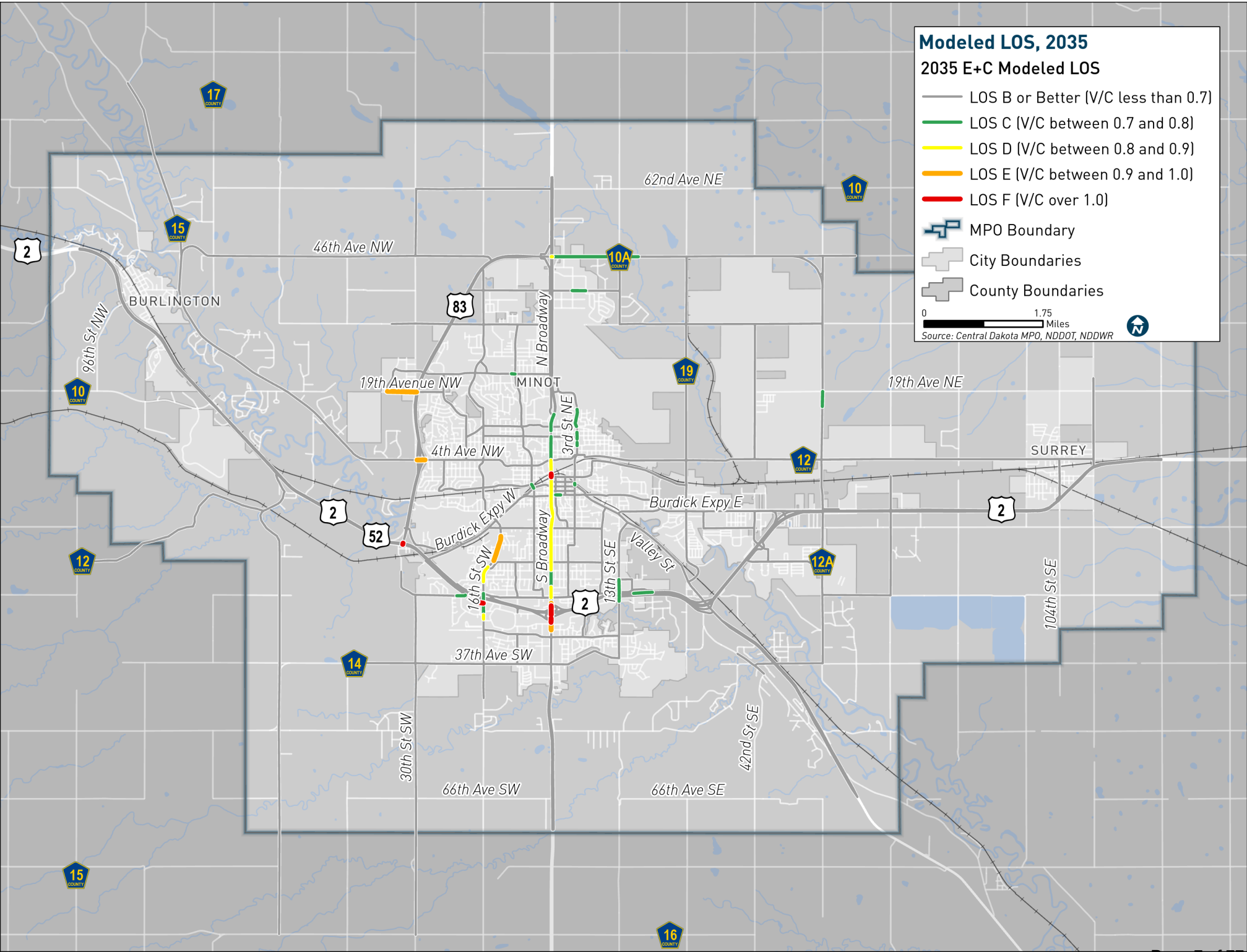
Technical Advisory Committee Meeting

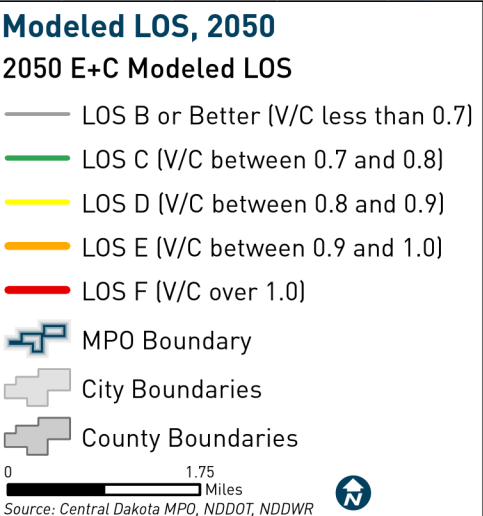
May 13, 2025

Agenda

1. Issues Identification Update
 - a. Travel Demand Model Revised Outputs (Attachment A)
 - b. Draft Issues Identification Report (Attachment B)
 - c. Request: Review Draft Issues Identification Report by May 27th
2. Project Identification Workshop
 - a. Priority Area Summaries (Attachment C)
 - b. Technical Analysis and Project Development Outcomes
 - c. Project Identification and Project List Discussion
 - d. Request: Review Draft Project List and Map by May 20th (Attachment D)
3. Scenario Development Framework
 - a. Request: Information and Discussion
4. Phase 2 Public Engagement Plan
 - a. Request: Information and Discussion
5. Next Steps and Schedule
 - a. Next TAC Meeting Tuesday, June 10, 2025
 - b. Request: Information







INTRODUCTION

The creation of the Central Dakota MPO 2050 Metropolitan Transportation Plan involved significant agency and stakeholder coordination to identify local and regional transportation issues early in the planning process. This engagement was vital to ensuring that the plan's goals, objectives, and recommendations are contextual and responsive to the needs of the Central Dakota MPO region as a place where people live, work, and play. Qualitative and quantitative processes, including detailed data analysis, were used to identify opportunities and areas of concern for long-range transportation planning. Pavement conditions, roadway safety, especially regarding the rate of fatal and serious injury crashes throughout the roadway system, and multimodal facility level of service were key factors analyzed to ensure a transportation system that serves all modes.

INFRASTRUCTURE CONDITIONS

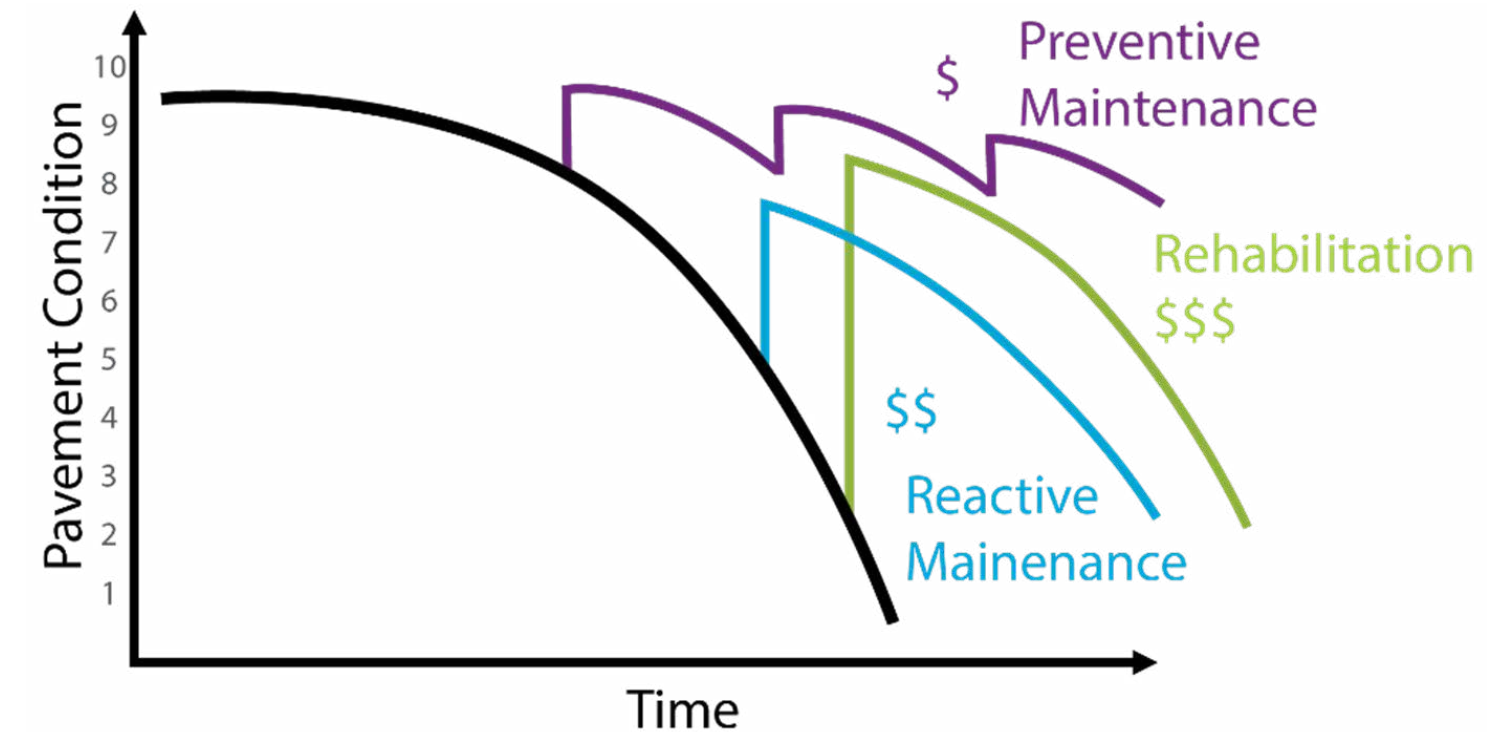
Pavement preservation is one of the most important aspects of transportation system and asset management, as the quality of road surface has impacts on roadway operations, travel time reliability, system safety, vehicle maintenance, and more. While all roads incur future replacement needs, this process can be abated, and roadway service life can be extended through targeted and well-timed maintenance as illustrated in Figure 10.

The foundation of pavement preservation is that it is cheaper to keep good roads in good condition rather than waiting for roads to need full reconstruction. The implementation of a pavement preservation program should be considered to prolong the life of roads while minimizing the overall costs. Generally, pavement preservation follows two key priorities:

- Use proactive preservation strategies to save costs by prolonging roadway life and reducing the need for expensive reconstruction.
- Identify the appropriate life-cycle timing for roadways in the transportation system.

North Dakota DOT facilitates a Pavement Management Program for state owned roadways. The Program has two distinct parts: pavement management and pavement condition data collection. Pavement management uses dTIMS, a software tool that acts as a manager and integrator of asset information. Pavement condition data collection is responsible for collecting, analyzing, and distributing state highway pavement condition and profile data to districts, divisions, and executive management. All 4-lane highways are collected in both directions every year while 2-lane highways alternate directions each year. For non-state-owned facilities, the City of Minot is responsible for driving all roadways within the City limits, as well as in the Cities of Burlington and Surrey and parts of Ward County, and updating Pavement Condition Index (PCI) scores. Typically, arterials are driven in both directions while local streets are driven in one direction.

Image 10: Pavement Preservation versus Rehabilitation Life Cycle Costs Comparison

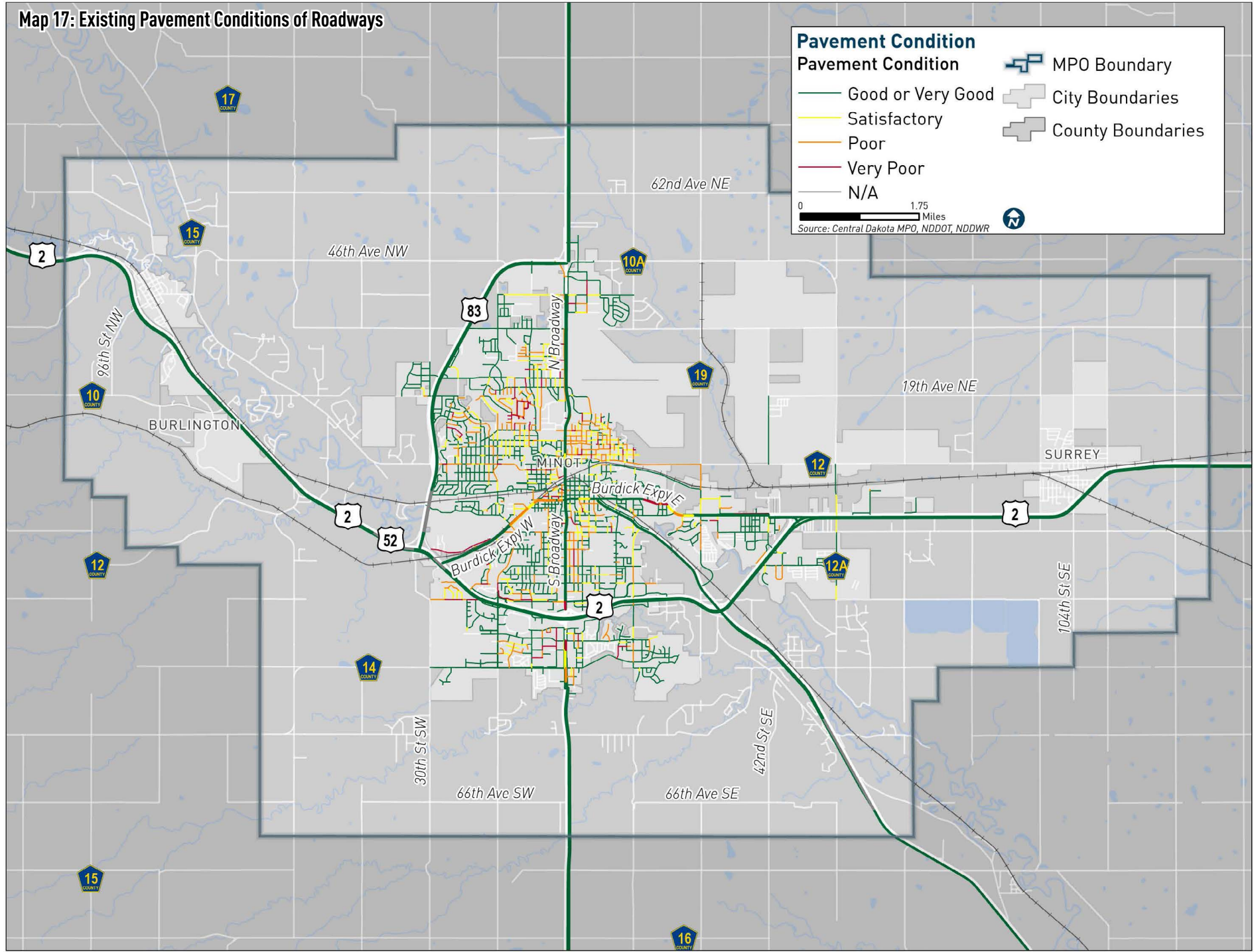


As road surfaces begin to fail, the rate at which they decline accelerates. Likewise, the cost of addressing these issues with roadway surface rapidly increases as low-cost alternatives such as crack sealing give way to expensive preservation and rehabilitation projects. Regular preventative maintenance like crack sealing, micro surfacing, chip sealing, mill and overlays, and other treatments can preserve pavement condition at acceptable levels more efficiently than reactive maintenance. Preventative maintenance focuses on keeping assets in good working order while reactive maintenance repairs assets that have been damaged or are beyond their useful life.

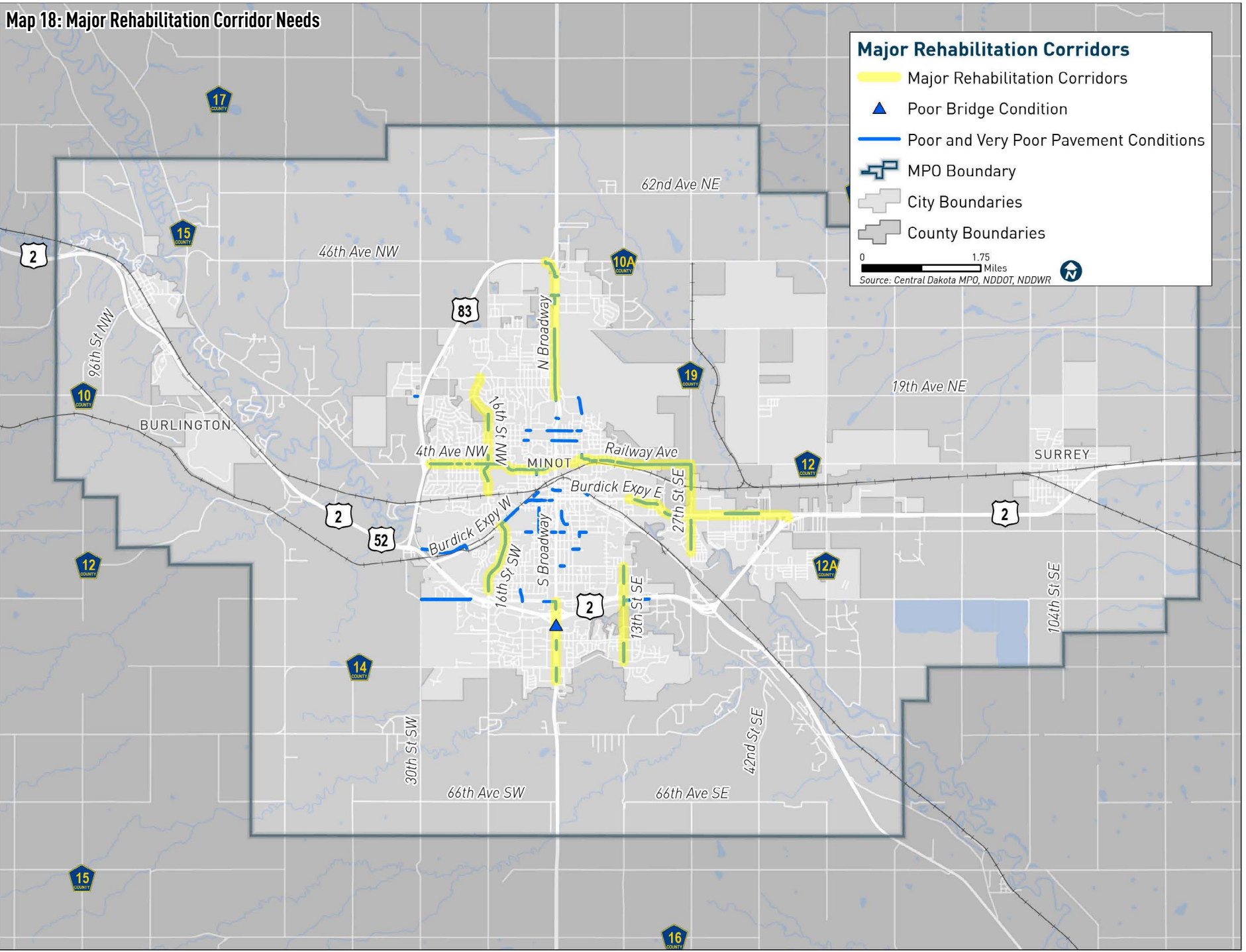
Based on current PCI scores for all roadways in the region, seen in Map 17, the worst performing principal arterial roadways are S Broadway (south of US 2/52), Burdick Expressway E, and Burdick Expressway W. Minor arterials in Poor or Very Poor condition are: 4th Avenue NW and Railway Avenue. There are also several local roads in north Minot that are in the ‘Fair’ category or below. If conditions continue to worsen, full reconstruction of these roadways will be necessary. Bridge conditions across the region also vary with just over half being in ‘Good’ condition and the remaining being in ‘Fair’ condition. One bridge, U.S. Highway 83 over U.S. Highway 52 (functionally classified as a principal arterial) is in ‘Poor’ condition. As stated above, if left in poor conditions, these roadways will require intensive and expensive rehabilitation or reconstruction. Map 18 highlights corridors that are in need of rehabilitation.

Table 13: Pavement Condition Mileage by Roadway Authority

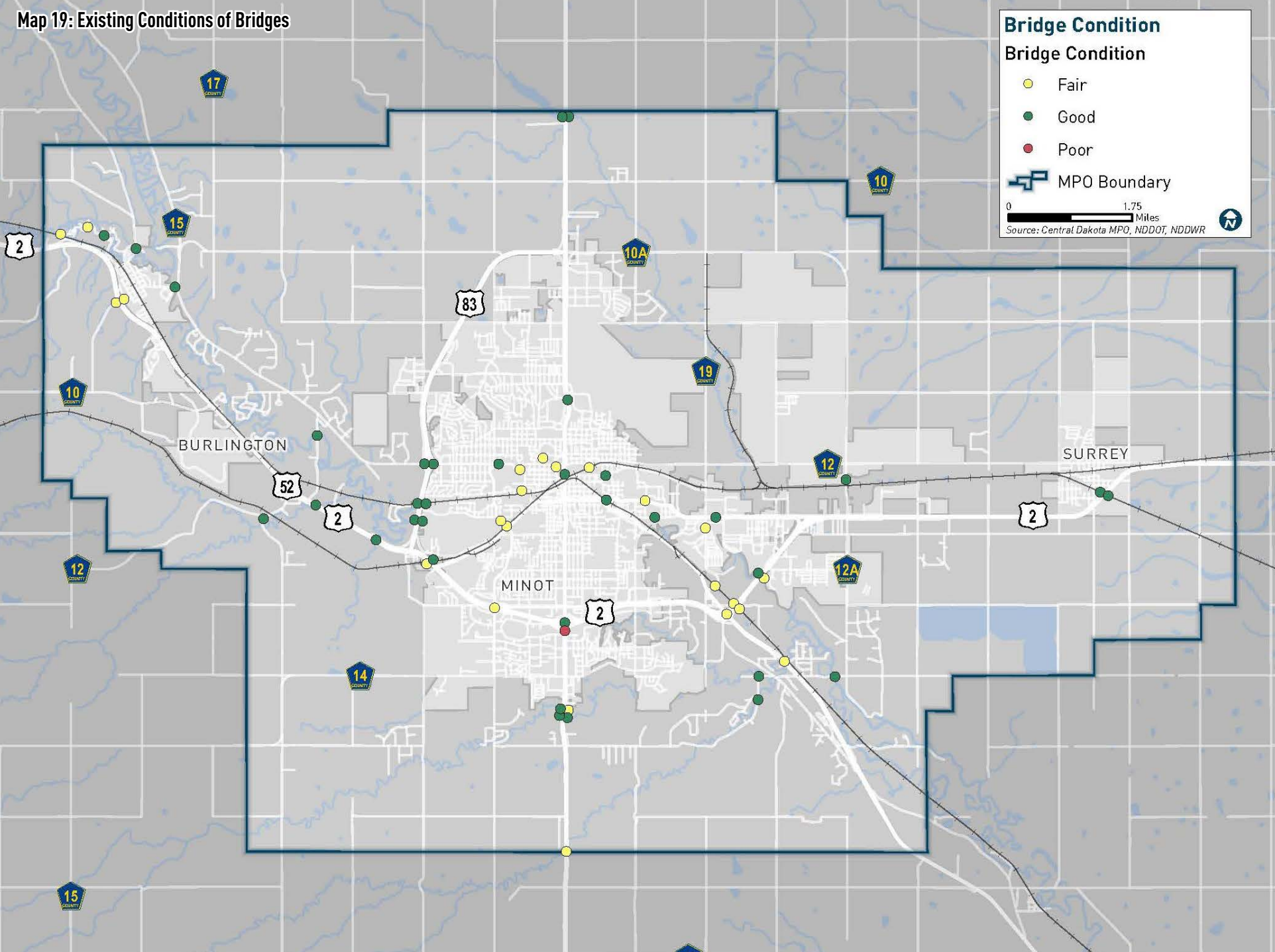
	Very Good	Good	Satisfactory	Poor	Very Poor	N/A
NDDOT	12.30	70.59	1.65	1.31	0.53	3.83
Ward County	0.46	0.00	0.51	1.41	0.06	0.00
City of Minot	101.89	50.47	28.77	35.58	9.05	0.00
Township	0.50	0.49	0.00	0.00	0.00	0.00



Map 18: Major Rehabilitation Corridor Needs



Map 19: Existing Conditions of Bridges



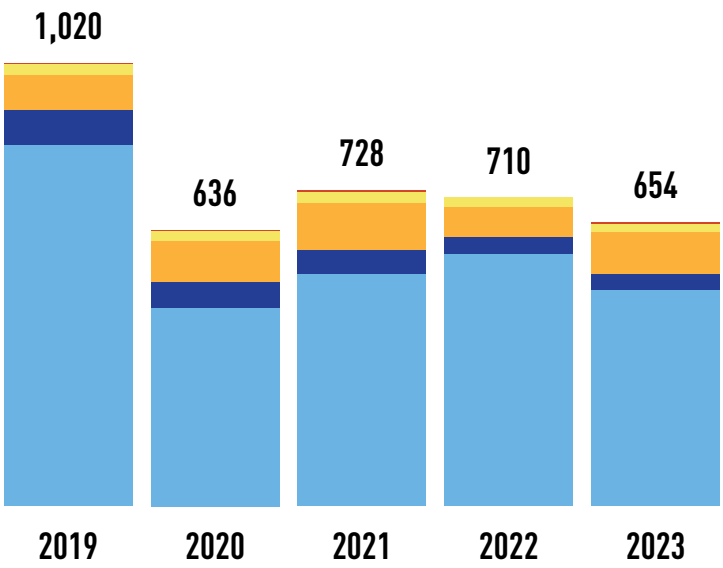
SAFETY ANALYSIS

SAFETY DASHBOARD

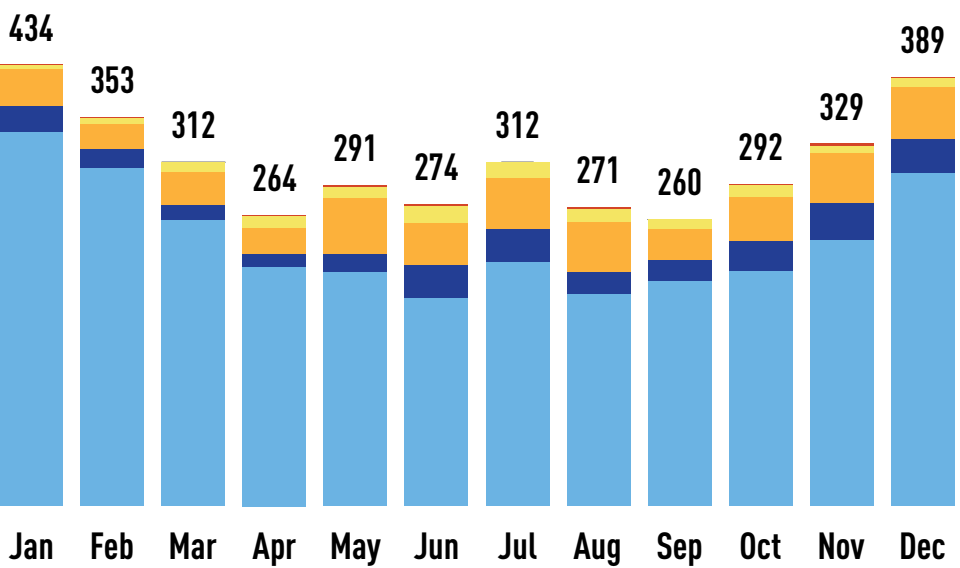
A dashboard was made to support exploration of crash data and crash analysis results. The dashboard features several charts, allows the user to filter data, toggle different datasets on and off, and zoom and pan around the map. Charts enabled viewers to get a more in-depth look at the data, which guided understanding of crash patterns in the area and revealed pieces of data that needed further analysis. Additionally, the ability to zoom and pan around the map meant the project team could explore the crash analysis results more closely than on a static map.

DASHBOARD OUTCOMES

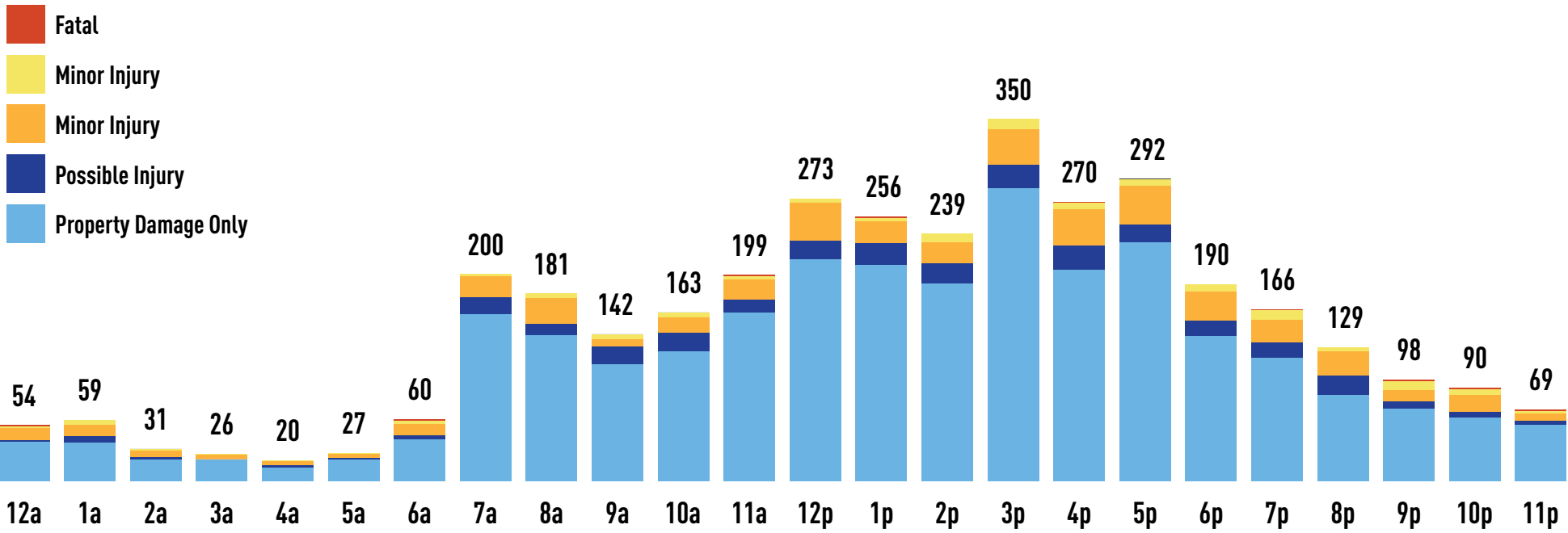
- Crash Timing
 - » Significant overall crash reduction post-2020, but the number of serious crashes has remained steady
 - » A disproportionate number of crashes occur on high access commercial corridors
 - » Highest crash rates occurred in the winter months while the highest severity crashes occurred during the summer months
- Crash Context
 - » Very high number of nighttime crashes
 - » Lane departure crashes are common in rural transition areas and on US Highways
 - » High young driver crash rate
- Pedestrian and Bicycle Crashes
 - » 75% occurred in Historically Disadvantaged Communities (defined as areas with a higher percentage of population of Minorities, Households below the Poverty Line, and Households with at least One Disability)
 - » 38% were Serious or Fatal Crashes
 - » 8% were under the age of 14
 - » 53% of crashes were on roads with over three travel lanes
 - » 45% of crashes occurred in dark lighting conditions
 - » 28% of crashes occurred on roads with a speed limit over 30 MPH



Graph 11: Crashes by Year



Graph 12: Crashes by Month



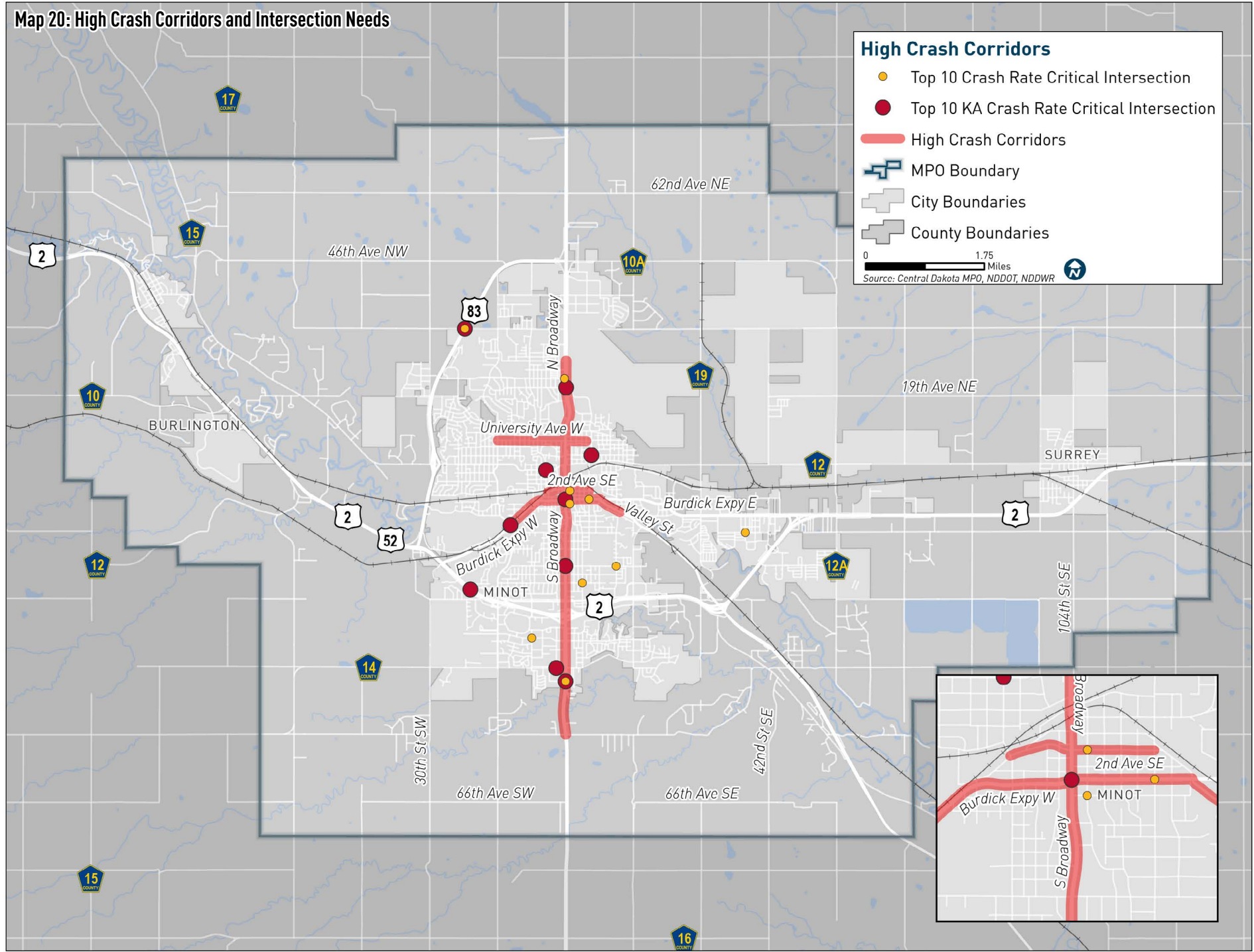
Graph 13: Crashes by Hour

Table 14: Top Critical Index Intersections

Intersection	Crash Rate	KA Crash Rate
5th Ave SW and 1st St SW	2.98	0
2nd Ave SW and 1st St SW	1.93	0
11th Ave SE and 37th St SE	1.68	0
Burdick Expressway E and 3rd St SE	1.22	0
Broadway and 40th Ave SW	1.19	9.14
21st Ave NW and Frontage Road	1.16	0
31st Ave SW and 10th St SW	1.10	0
18th Ave SE and 2nd St SE	0.97	0
16th Ave SE and Hiawatha St SE	0.97	0
US 83 Bypass and 30th Ave NW	0.87	36.25
Burdick Expressway and 16th St SW	0.70	2.79
3rd Ave NW and 6th St NW	0.67	4.78
US 2/52 and Evergreen Ave	0.65	5.63
Broadway and Burdick Expressway	0.62	3.18
6th Ave NE and 3rd St NE	0.53	5.33
37th Ave SW and 4th St SW	0.51	4.66
Broadway and 16th Ave SW	0.42	1.84
20th Ave NW and Airport Rd and Broadway	0.25	2.76

Table 14 lists the top 15 intersections in the MPO boundary that have a critical crash index over 1.50. Figure 5 shows all intersections with a critical crash index over 1 and with more than 1 recorded crash per year. Figure 5 also shows high crash corridors. High crash corridors were defined in order to capture a majority of regional crash issues.

The critical index is a ratio of observed crash rate to the critical crash rate. A critical index of over 1.00 indicates a potential safety concern. (The critical crash rate is a threshold value that allows for a relative comparison among intersections with similar characteristics in a region.)

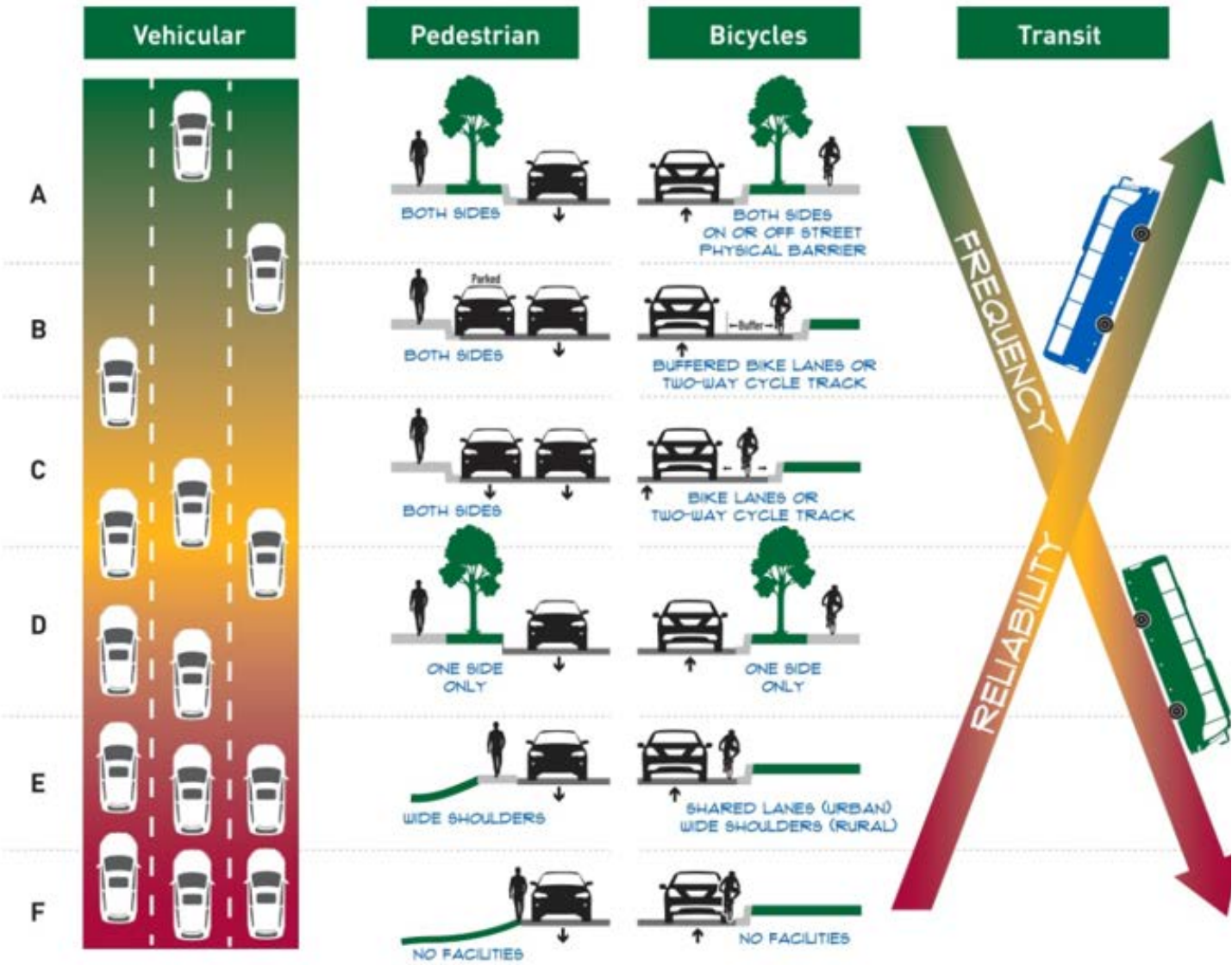


MULTIMODAL LEVEL OF SERVICE

PROCESS

Level of service analysis was conducted for vehicular traffic, pedestrians, bicyclists, and transit. Each analysis had unique inputs that are further described below. Image 11 provides a brief overview of the level of service for each transportation mode.

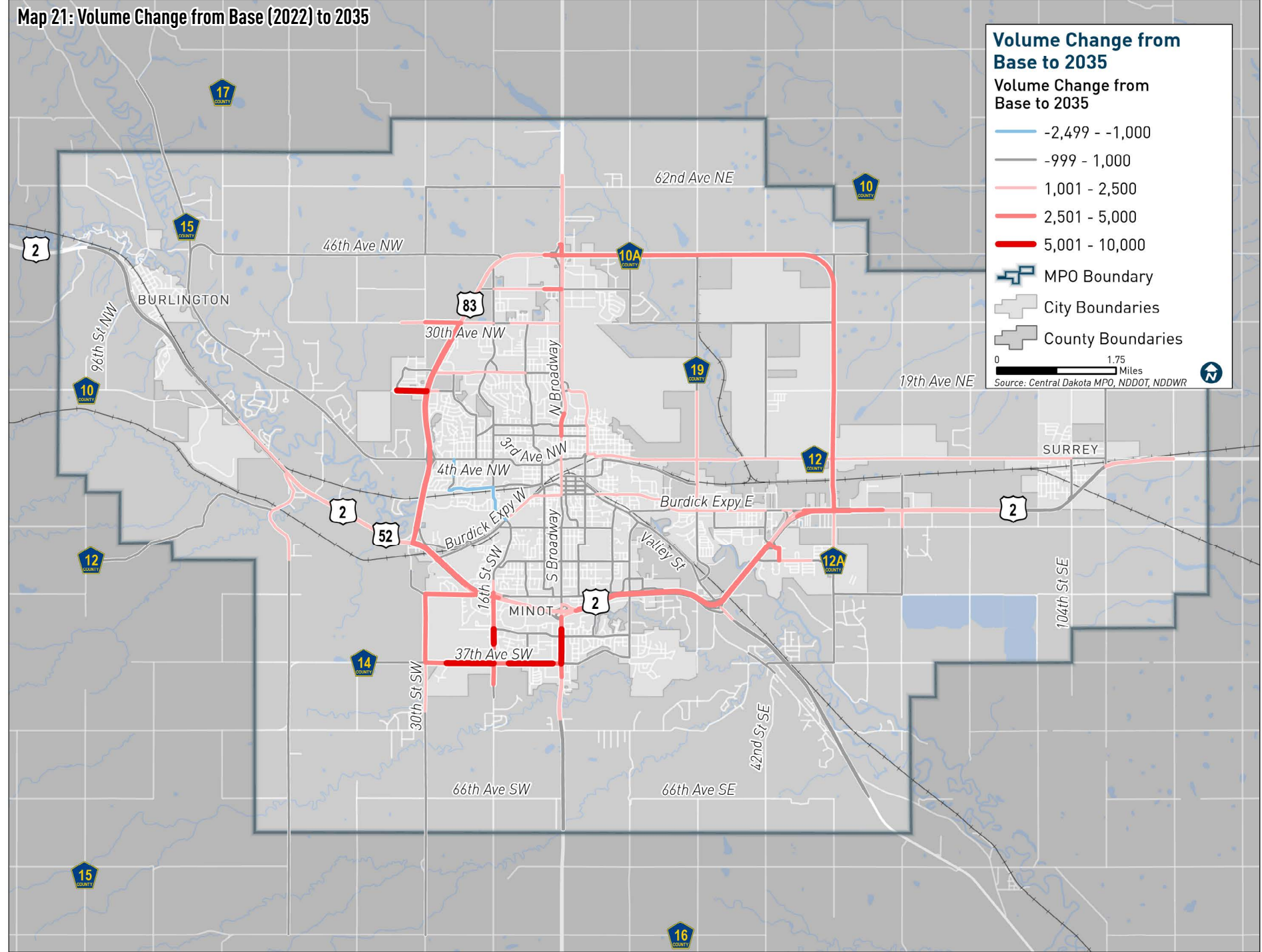
Image 11: Level of Service Summary



VEHICULAR LEVEL OF SERVICE

Vehicular level of service was determined based on the Transportation Demand Model hosted by the NDSU Advanced Traffic Analysis Center. Three growth scenarios were run to determine existing and future conditions of the roadway including the base year (2022), 2035, and 2050 all with the existing plus committed roadway network. The base year (2022) to 2035, 2035 to 2050, and base year to 2050 roadway volume increase maps are shown in Maps 21, 22, and 23. These figures indicate where roadway volumes are expected to grow throughout the region based on planned growth for different time periods.

The projected volume to capacity ratio for the base year (2022), 2035, and 2050 with the existing plus committed roadway network are shown in Figure 24, 25, and 26. These models show how traffic conditions may change in the future and identify where there may be future operation and reliability issues, allowing roadway projects to be adequately planned for to accommodate new conditions. Increases in projected roadway operation and reliability issues can be attributed to a rise in population and a growth in jobs throughout the area.



VOLUME CHANGE FROM BASE (2022) TO 2035

From the base year (2022) to 2035, significant growth within Minot along 37th Avenue SW (Trinity Hospital) and S Broadway, south of US 2/52 is expected. Outside of Downtown Minot, the NE Bypass, US 83 Bypass, and US Highway 2/52 all experience large increases in traffic as well. Some growth is expected on each end of US 2 in the MPO boundary near Burlington and Surrey.

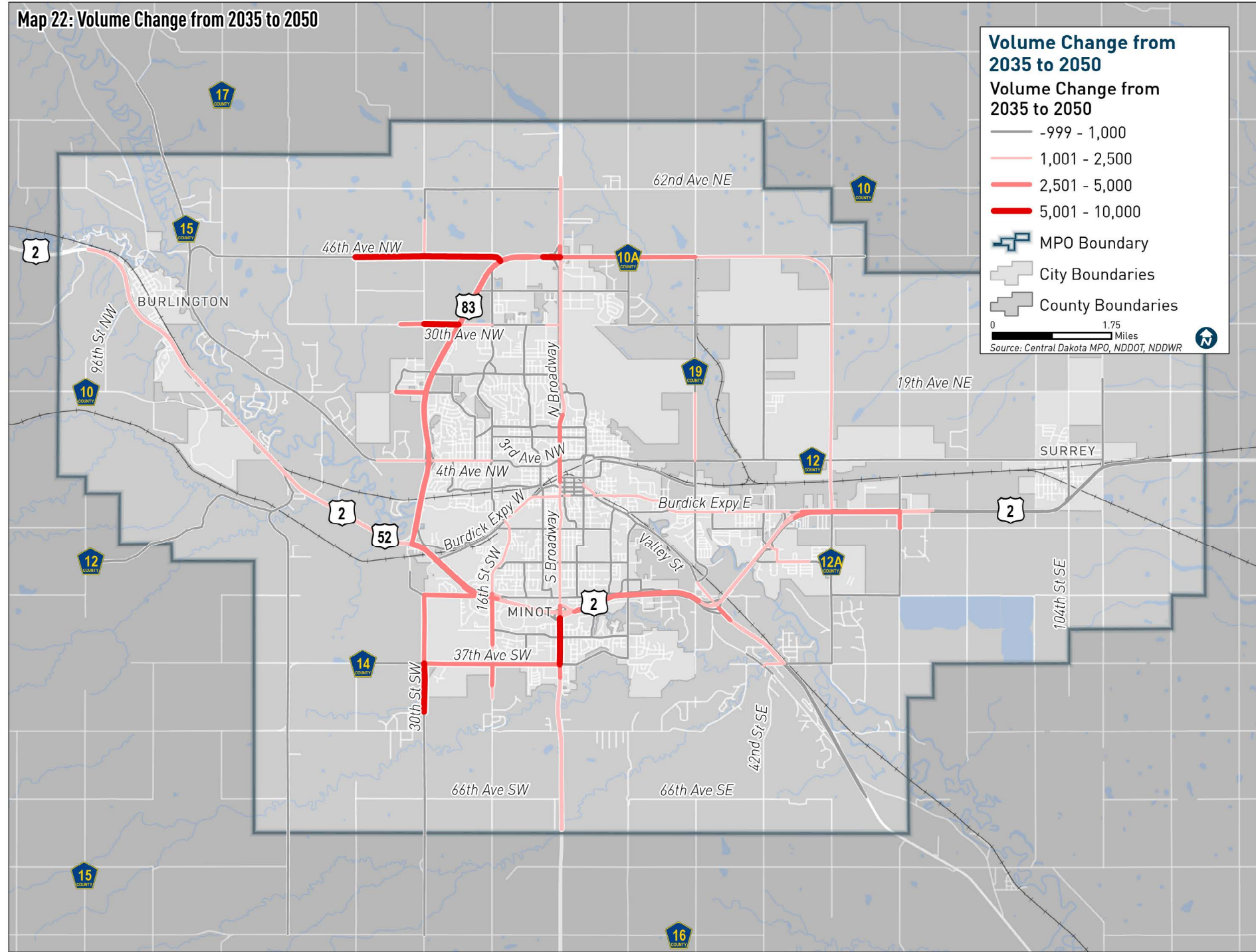
VOLUME CHANGE FROM 2035 TO 2050

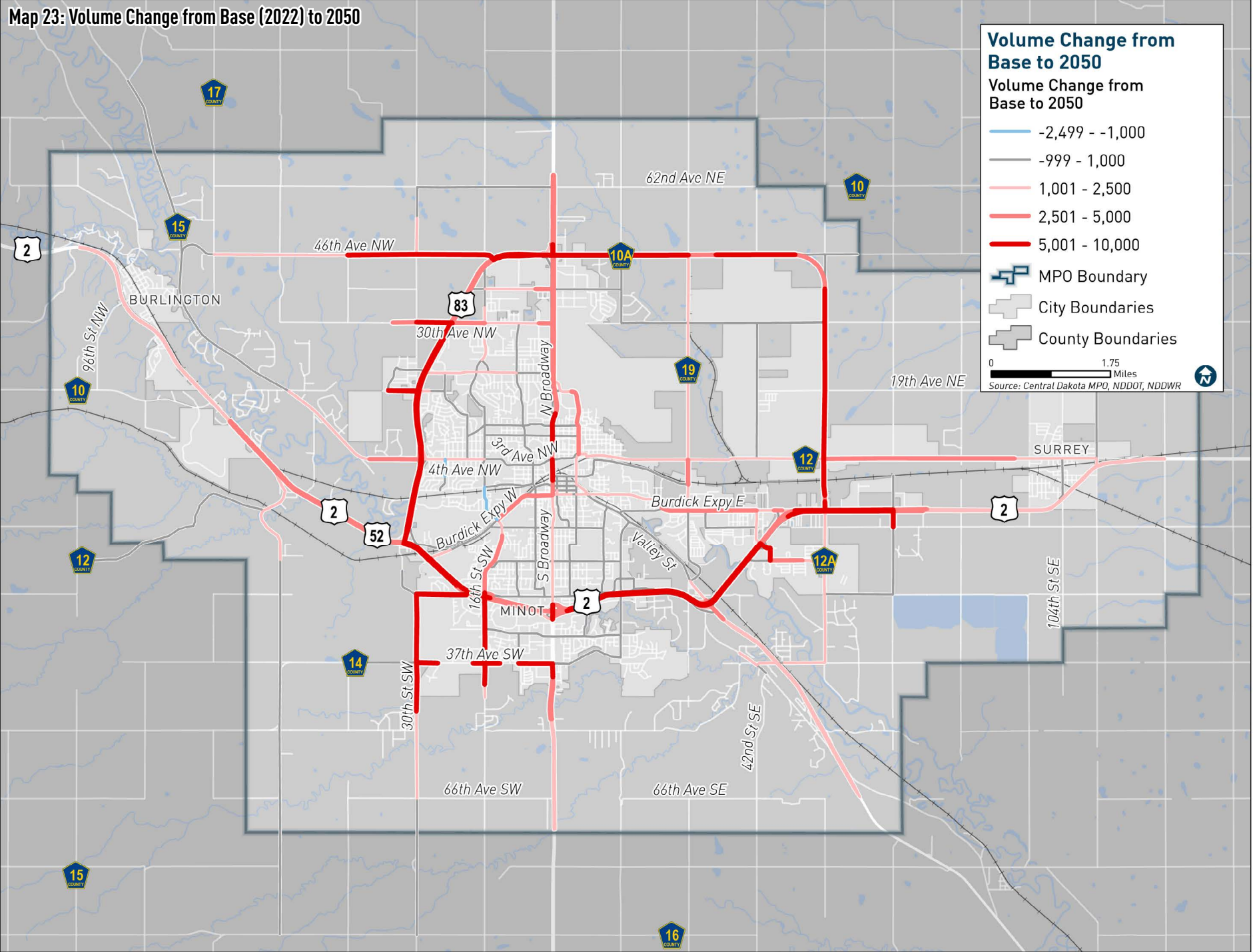
From 2035 to 2050, volume growth occurs farther outside of City boundaries with continued growth along 37th Avenue SW, S Broadway, and US Highway 2/52. 46th Avenue NW, west of US 83 Bypass, also begins to experience increases in traffic. Growth is also seen on US 2/52 through Burlington.

VOLUME CHANGE FROM BASE (2022) TO 2050

From the base year of 2022 to 2050, significant growth is predicted to occur on roadways outside of municipality centers. The growth is concentrated on the ring roads around Minot, but growth is also seen throughout Burlington and Surrey. N Broadway will also experience significant growth through the Downtown Core. However, 25th Street SW and 2nd Avenue SE are expected to see decreases in traffic.

Map 22: Volume Change from 2035 to 2050





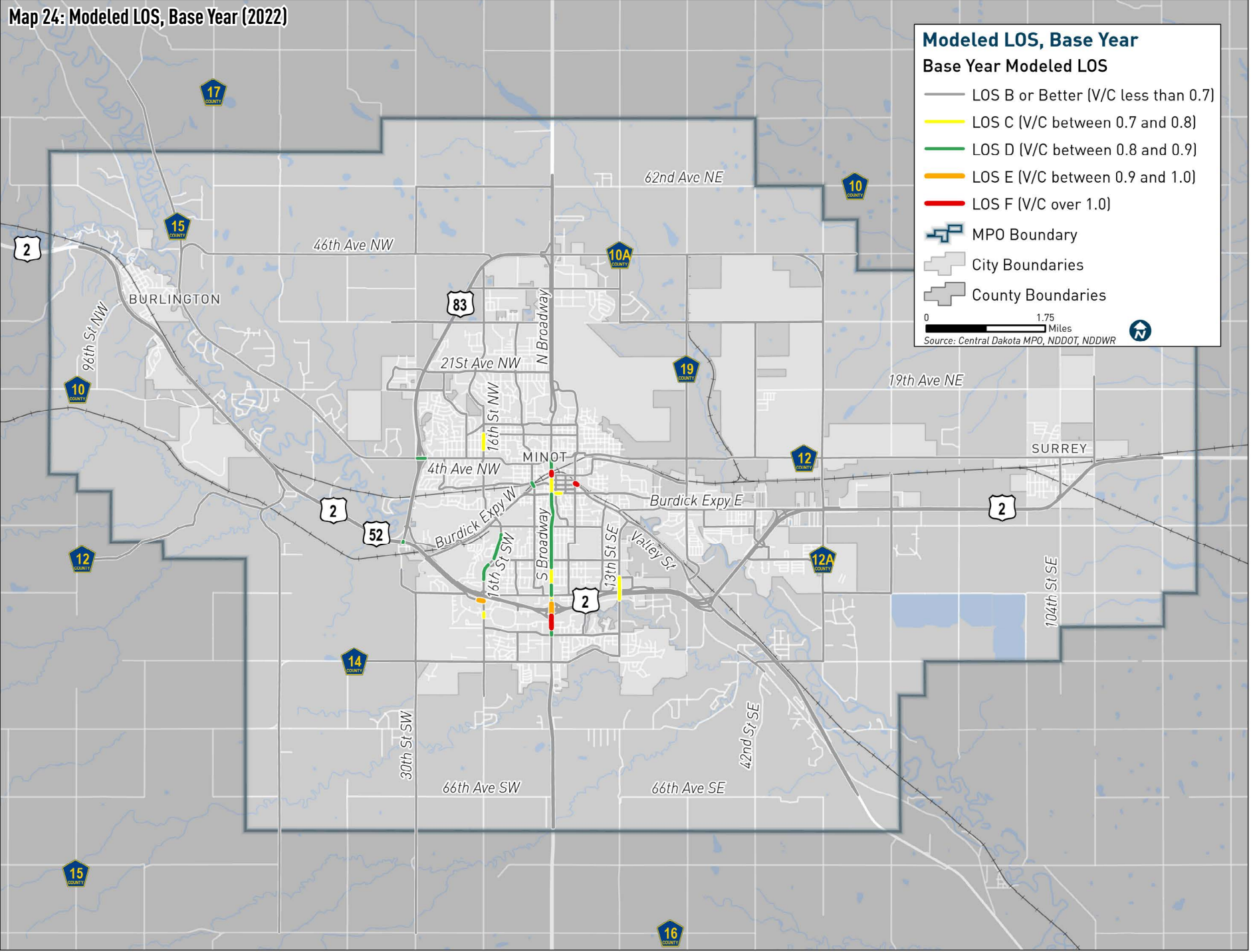
Based on the Travel Demand Model analyses, the level of service decreases with an increase in traffic along the current roadway network. Higher functional class roadways, such as US Highways or those with more lanes, have a greater capacity to accommodate additional traffic, whereas lower functional class roadways or those with only one lane each direction do not. This means that larger amounts of traffic have a greater impact on the level of service on more local roadways compared to US Highways.

A volume to capacity ratio is used to understand how projected increases in volume impact the future operational function of a roadway. The volume to capacity ratio divides the existing or projected volume, depending on the relevant growth scenario, by a planning level capacity threshold. The planning level volumes that were used for this exercise come from the Highway Capacity Manual and were calibrated to North Dakota travel conditions to establish daily capacities. Level of service E and F typically represent a congestion and a capacity issue with the Level of service D approaching capacity.

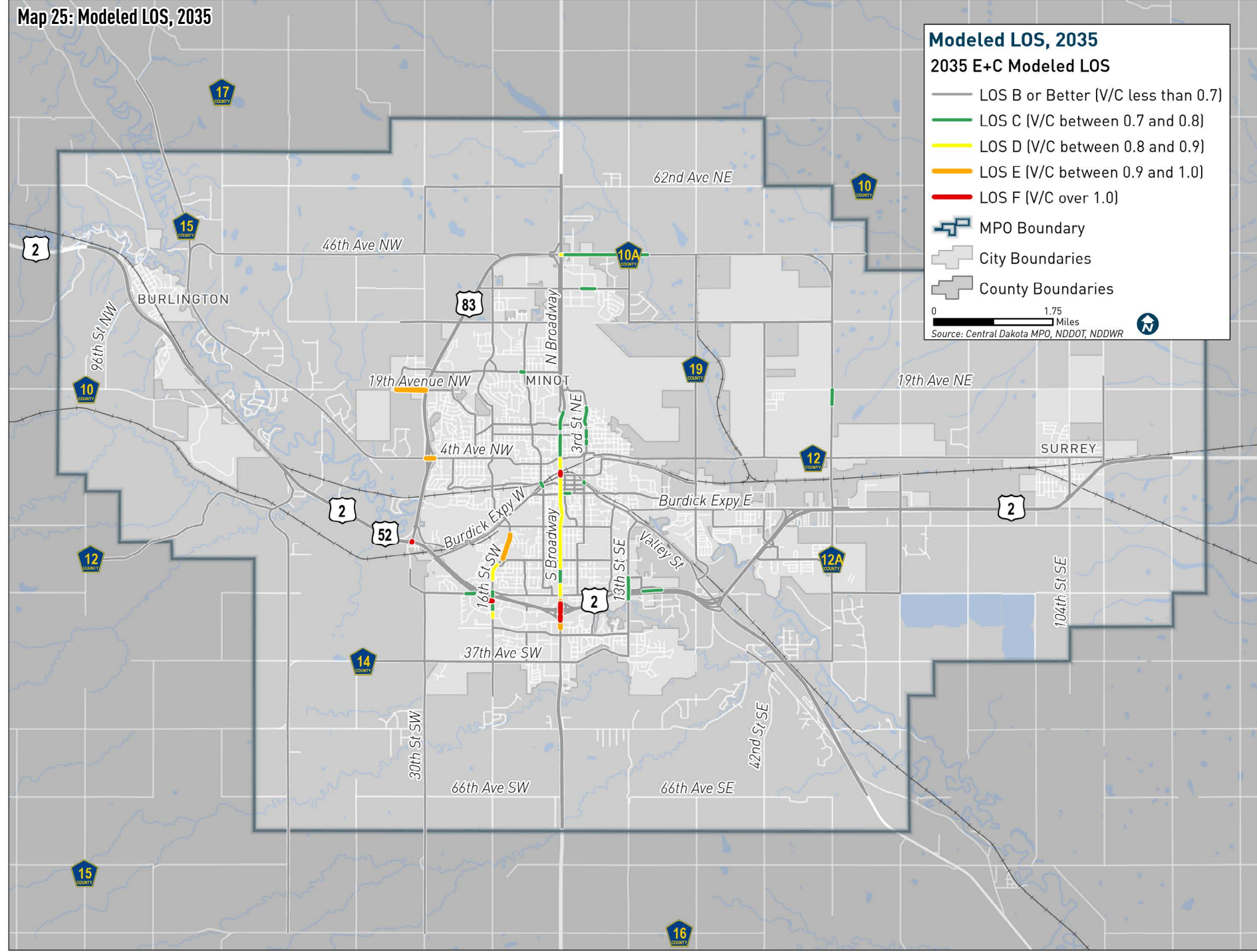
The level of service significantly decreases on S Broadway between US Highway 2/52 and Burdick Expressway by 2050, as well as on perimeter roadways around Minot where development is expected. While S Broadway was built to handle larger amounts of traffic than carried today, the number of access points and surrounding land uses complicates its efficiency. When drivers slow to make turns or are forced to wait for a gap in oncoming traffic to make a turn, traffic behind them is also impacted, causing congestion and lower levels of service.

Maps 24, 25, and 26 illustrate the areas where congestion is forecasted based on the existing roadway characteristics and planned growth indicated by the horizon year for each figure: base year (2022), 2035, and 2050. Map 27 highlights key corridors based on this analysis to identify future reliability and operational transportation projects to plan for and improve the long-term operational function of the highway network.

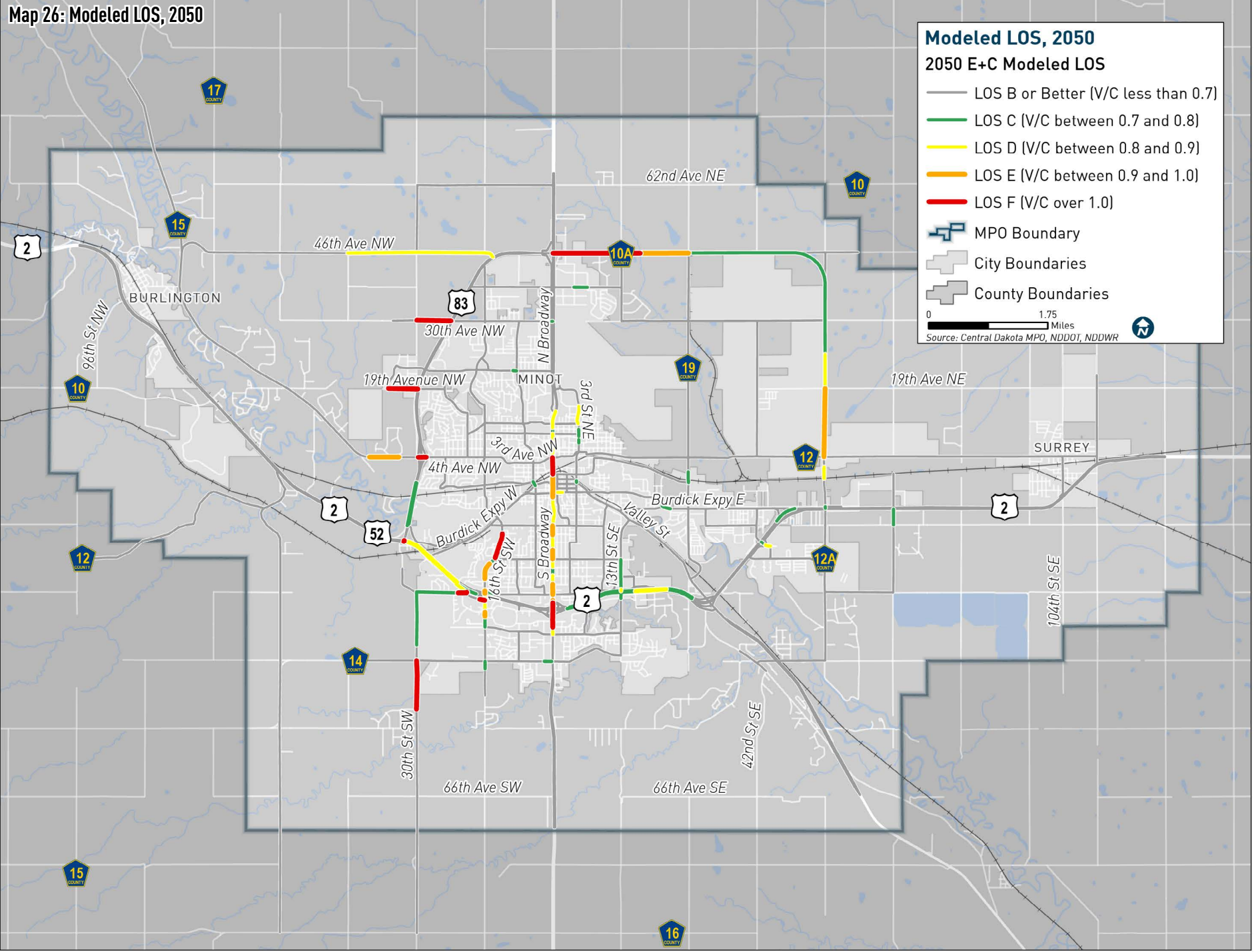
Map 24: Modeled LOS, Base Year (2022)



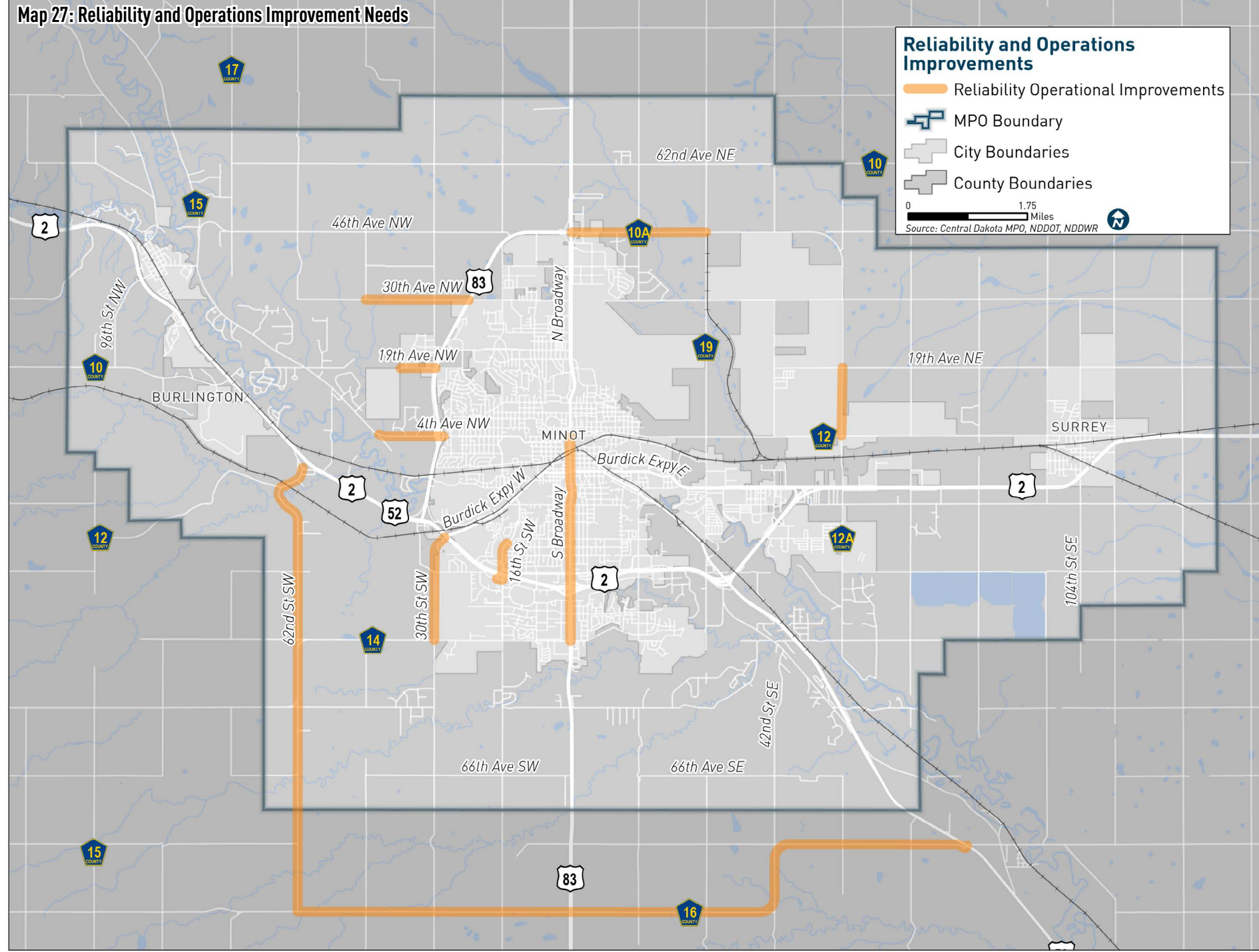
Map 25: Modeled LOS, 2035



Map 26: Modeled LOS, 2050



Map 27: Reliability and Operations Improvement Needs



COMMERCIAL SYSTEMS

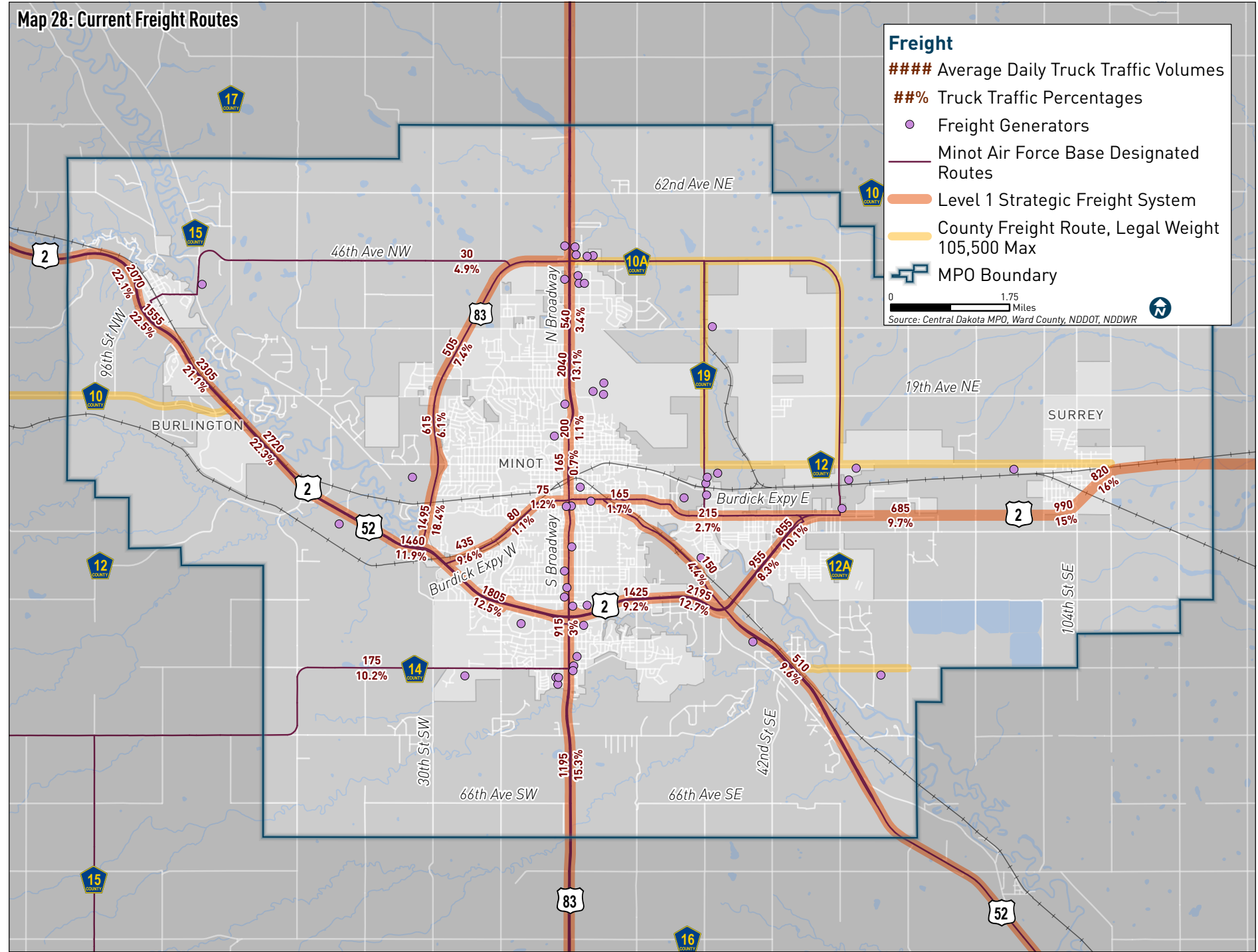
*Section to be expanded pending Future Freight Network Analysis

FREIGHT, RAIL, AIR

Several municipalities have designated truck routes within their jurisdictions. These truck route designations vary but largely exist to restrict trucks to certain highways in urban areas.

In Minot, U.S. Highway 2, 52, and 83, and 83 Bypass have a max weight limit of 105,500 pounds of gross vehicle weight (GVW). While these corridors can and do carry heavy freight, 16th Street SE provides a north/south connection for goods and services to commercial districts south of US 2/52.

Ward County has designated freight routes that include Ward County Northeast Bypass, Highway 10, 10A, 12, 19 and 37th Avenue SE from U.S. Highway 52 to 72nd Street SE. These serve as alternative freight routing outside the U.S. and state highway system. Along U.S. Highway 2 at the 16th Street Southwest interchange there is currently a 16-foot height restriction. Due to the short clearance, large trucks frequently hit the bridge causing delays, damages, and bridge closures. However, over height vehicles traveling this route do not currently have a convenient alternate route for bypassing this height restriction. A lack of alternative roadways creates a negative impact on agriculture products and equipment in the region. The minimum standard height for new bridges in the region is 16.5 feet.



PEDESTRIAN LEVEL OF SERVICE

Pedestrian level of service measures the quality of pedestrian facilities and the experience of moving along a corridor. The following data inputs were used to produce a level of service map for the region:

- Sidewalk Availability
- Sidewalk Width
- Sidewalk Buffer
- Traffic Crossing Control
- Traffic Speeds
- Traffic Volumes
- Traffic Crossing Distances

Together, these inputs were analyzed through a Geographic Information System (GIS) process to produce a ranking of major roadways, excluding local roadways, from A to F. A ranking of 'A' means the facility is very comfortable for pedestrians and that the exposure to traffic is minimal. A ranking of 'F' means the facility is very uncomfortable and that most pedestrians would avoid that facility if given another option. For the CDMPO region, there are zero facilities that have an 'A' ranking.

Overall, the system is sporadically connected with a majority of Collector roadways receiving a 'B' or 'C' score. Minor Arterials and Principal Arterials typically have lower scores ('D', 'E', or 'F') due to traffic volumes, traffic speeds, and sidewalk buffer. Local streets were not included in the Pedestrian level of service analysis; however, the availability of sidewalks on these roadways is uncertain. Some local roadways have sidewalks while others do not. Pedestrian facility connectivity is also limited by man-made barriers including railroad tracks and major roadways (such as US Highways, Burdick Expressway, and Broadway). These barriers typically have few safe crossings and require extensive work to construct additional crossings. Roadways that have uncomfortable or no facilities may force pedestrians into unsafe situations, travel via longer, less direct routes, or require them to travel by other means, such as personal vehicle.

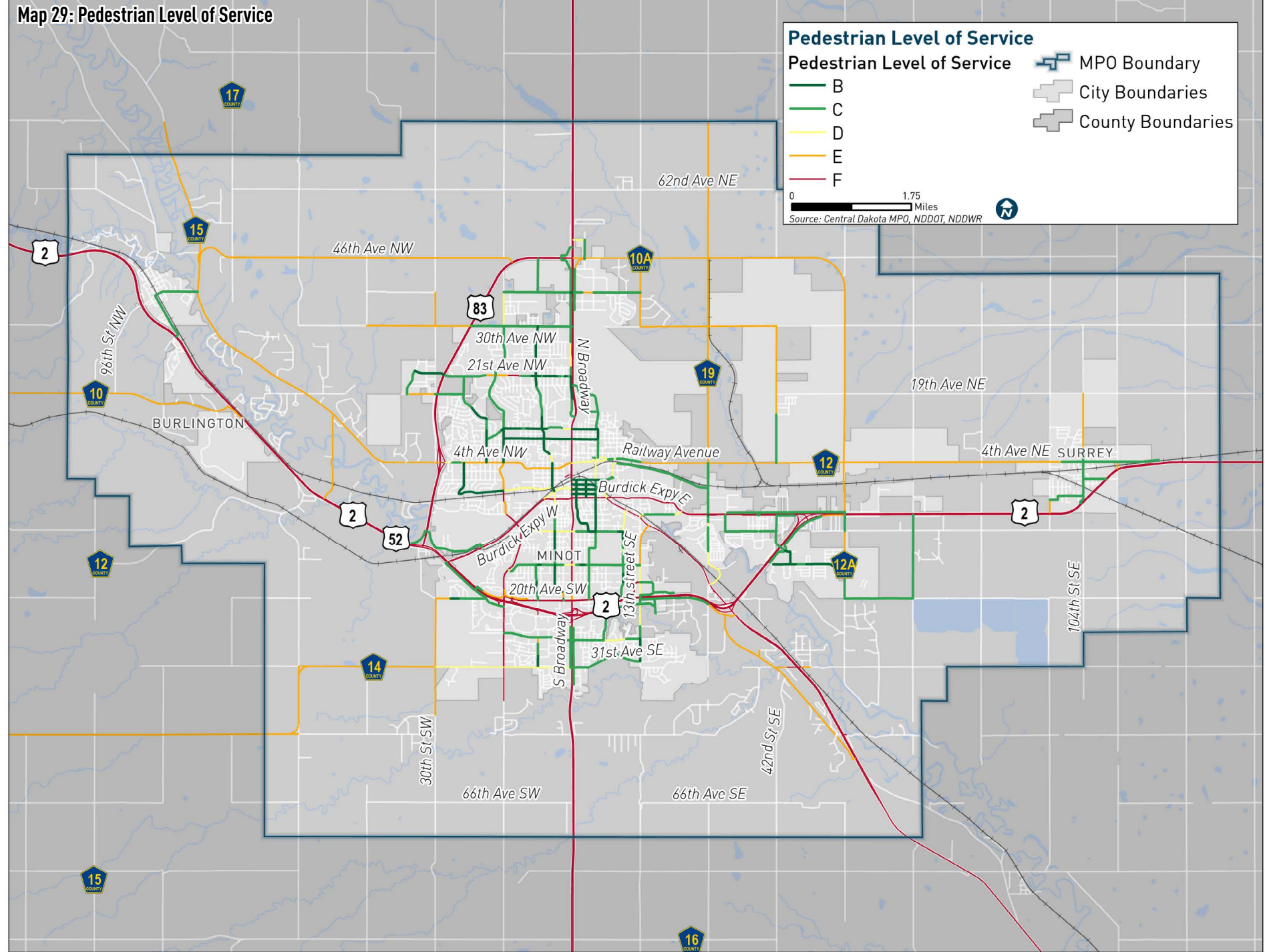


Image 12: Pedestrian Level of Service Known Problem Locations



Broadway (11th Ave SW to US 2/52)

Lacks Buffers
High Volumes
High Speeds
Dense Access



Burdick Expressway

Missing Links
Lacks Buffers
High Volumes
High Speeds
Few Controlled Railroad Crossings outside of Downtown



16th Street NW (4th Ave NW to US 2/52)

Missing Links
Lack of Buffers
Crossing Control Distances are Large



20th Ave SW

No Facilities



4th Avenue NW

Lack of Buffers
Lack of Crossings
Narrow Back-of-Curb Sidewalks

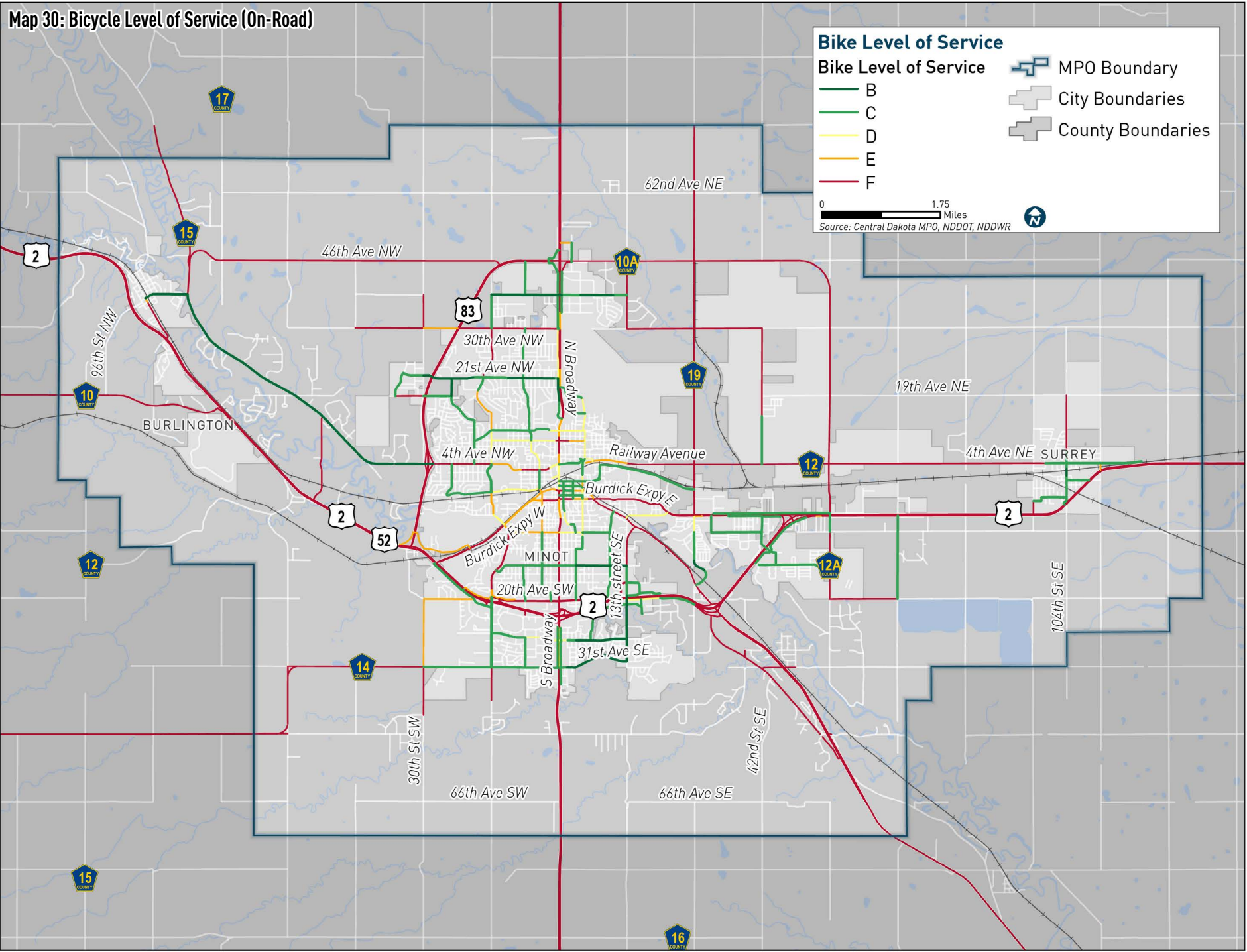
BICYCLE LEVEL OF SERVICE (ON-ROAD)

Bicycle level of service measures the comfort and safety of a roadway from a bicyclist’s perspective. The following data inputs were used to produce a level of service map for the region:

- Facility Availability (On-Street)
- Pavement Conditions (On-Street)
- Access Density
- Traffic Speeds
- Traffic Volumes
- Traffic Crossing Distances

Together, these inputs were analyzed through a GIS process to produce a ranking of major roadways (excludes local roadways) from A to F. A ranking of ‘A’ means the facility is very comfortable for bicyclists and that the exposure to traffic is minimal. A ranking of ‘F’ means the facility is very uncomfortable and that most bicyclists would avoid that facility if given another option. For the CDMPO region, there are zero facilities that have an ‘A’ ranking.

Facilities are more supportive, and have a higher ranking, for east-west travel in newer areas of the region. (Such as 21st Avenue NW, 31st Avenue SW, 36th Avenue NW, and 37th Avenue SW.) However, bicycle travel is far more challenging within the built core of Minot as right-of-way space is limited and buildings directly front the roadway. For those that do not or are unable to drive, but have the ability to bike, this can pose a variety of mobility and safety concerns as the Downtown Core and businesses in South Minot are large employment centers.

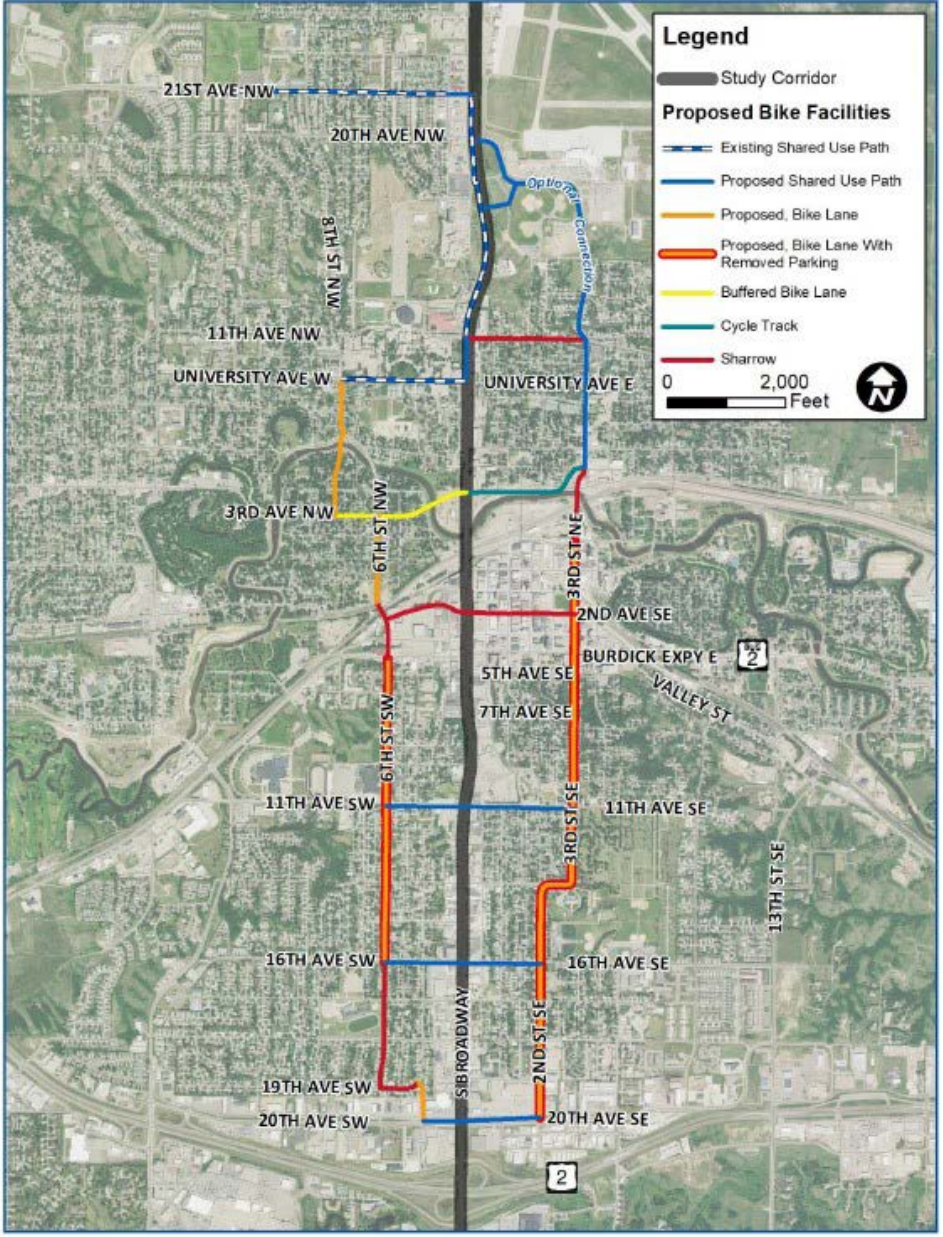


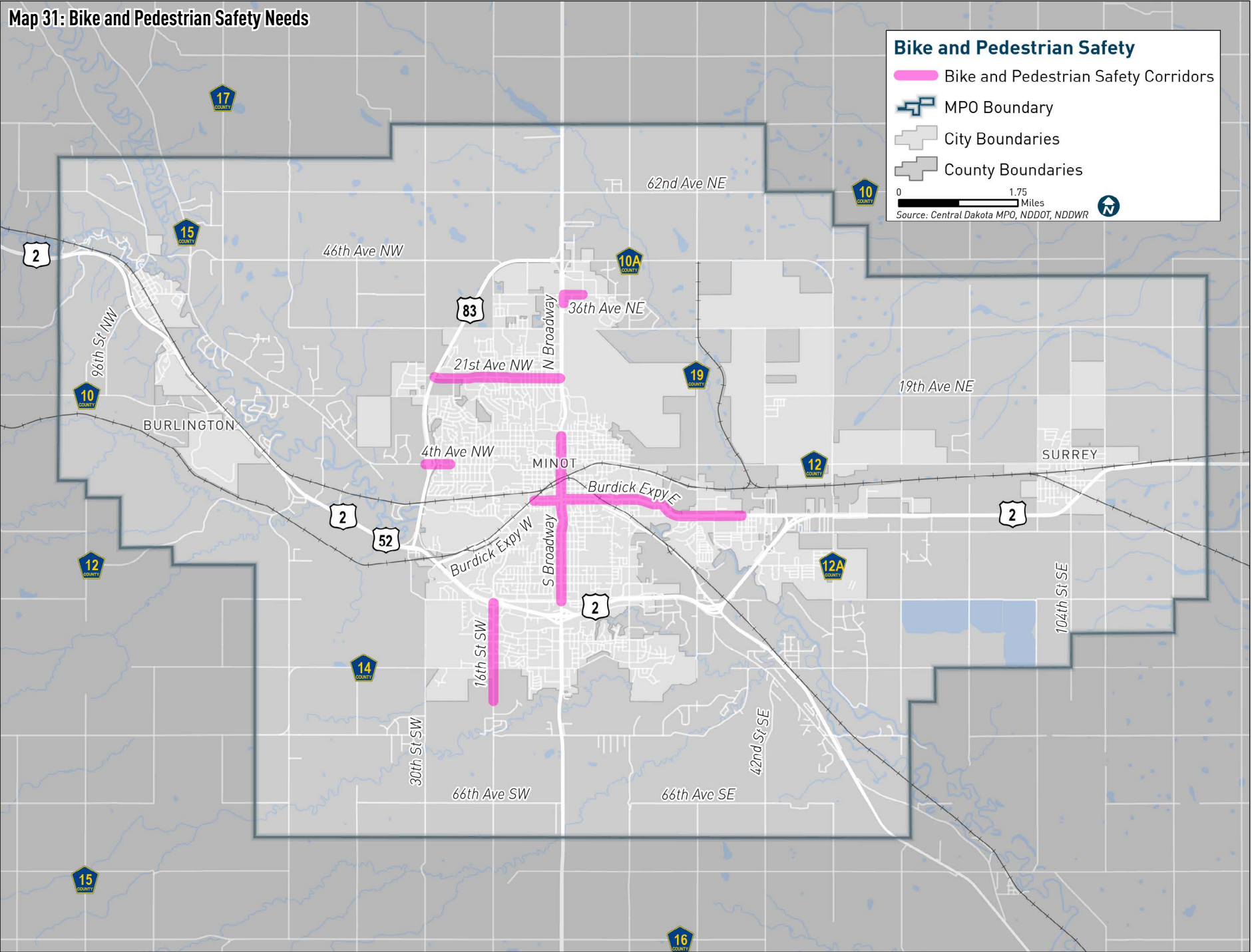
Broadway, 16th Street, the NE Bypass, and the majority of the NW Bypass all face challenges to providing safe facilities for bicyclists whether this is from traffic speeds, amount of vehicular traffic, intersection crossings, or a complete lack of bicycle facilities. The Broadway Corridor Study identified 3rd Street SE and 6th Street SW as primary candidates for north-south bicycle travel as an alternative to the Broadway corridor (Figure 17). Initial public engagement through the Broadway Study was overwhelmingly supportive of either the west, east, or both routes but they would need further planning and public engagement before implementation.

Similar to the Pedestrian level of service, connectivity is limited by man-made barriers which include railroad tracks and major roadways. As there are very few dedicated bicycle facilities within the MPO area, bicyclists typically ride on the sidewalk or in traffic. While vehicular traffic may expect bicyclists on local roadways, they may not expect them riding through interchanges or busy intersections which poses safety issues for all parties involved.

The safety corridors (Map 31) were identified by areas with a high number of bicycle and pedestrian crashes. These areas may not have the infrastructure to support multiple modes of transportation, causing conflicts between the modes. Future projects on these corridors could aim to reduce conflicts and minimize the exposure of vehicles to pedestrians and bicyclists.

Image 13: Alternative Bicycle Routes and Facility Types





TRANSIT LEVEL OF SERVICE

As shown in the Existing Conditions, fixed route transit covers a large majority of residents within the City of Minot while Souris Basin Transportation provides door-to-door service for the public throughout Ward County, meeting the Federal Transit Administration's ADA requirements. To calculate level-of-service for transit riders, the following three inputs were used based on fixed route services:

- Proximity to any Route
- Proximity to Multiple Routes
- Frequency of Routes

Scoring for transit level of service in the CDMPO region is as follows:

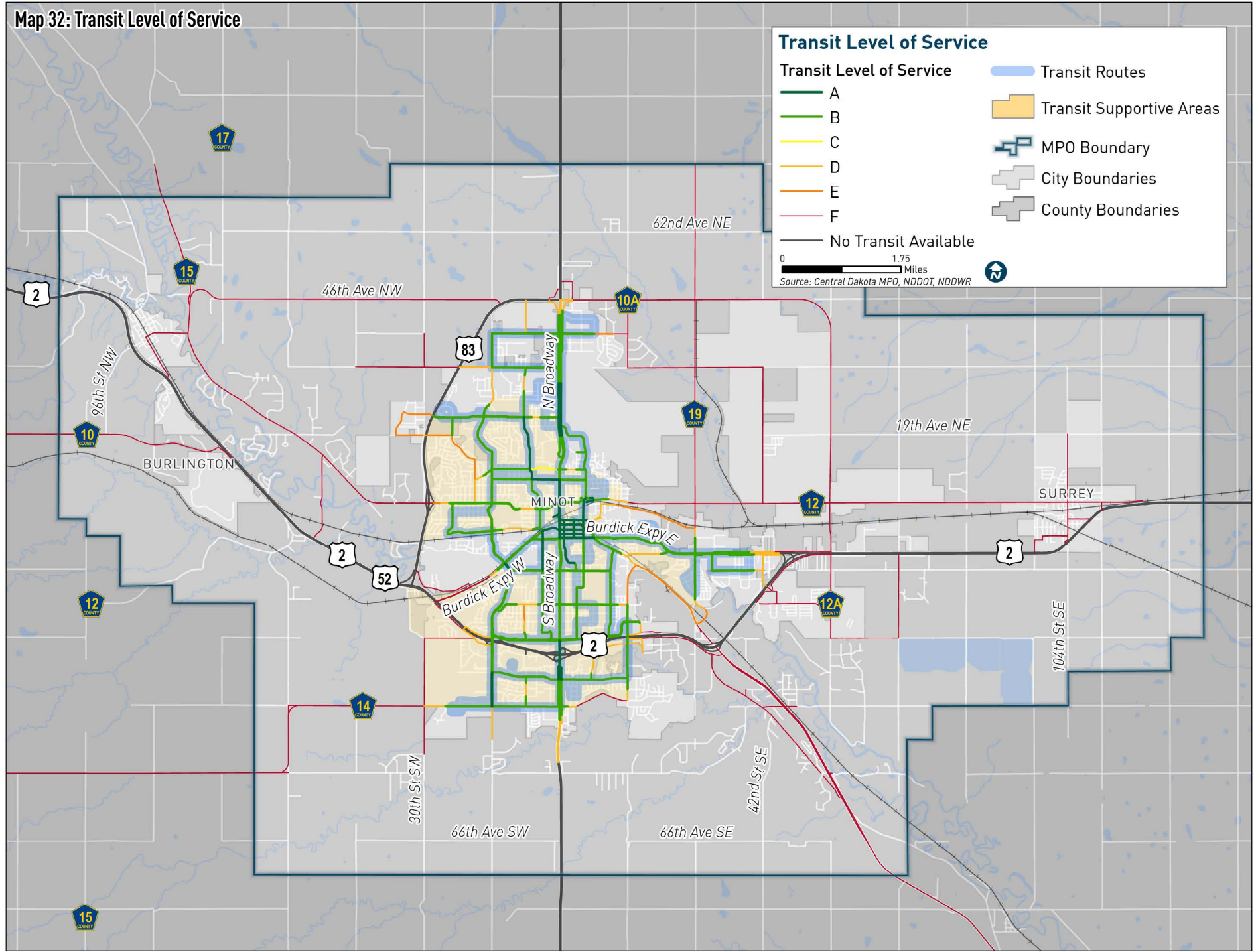
- A - Multiple Routes within 1/8 of a mile
- B - Singular Route within 1/8 of a mile
- C - Multiple Route within 1/4 of a mile (but not 1/8 of mile)
- D - Singular Route within 1/4 of a mile (but not 1/8 of mile)
- E - Singular Route within 1/2 Mile
- F - Roadways that do not have transit today but could support it in the future
- No Transit - Roadways that do not have transit today and are not likely to have it in the future (i.e. highways)

The road network was selected using 1/8, 1/4, and 1/2 mile buffers from the transit routes. Where there were multiple routes within 1/8th mile of the road segment, that segment received a score of A. Where there was a single route within 1/8th mile of the road segment, that segment received a score of B, and so on. If a segment had a single route within 1/8th mile and multiple routes within 1/4 mile, the segment received the higher LOS score. Roadways that do not have transit today, but could support it in the future, received a score of F while roadways that do not have transit service today, and are unlikely to have it in the future, are labeled as 'No Transit'. Table 15 shows the breakdown of the roadway system (in miles) and the associated score.

Table 15: Level of Service Ranking by Mileage

Level of Service Ranking	Mileage (Miles)
A	13.42
B	60.02
C	.43
D	15.64
E	6.54
F	79.00
No Transit	64.60

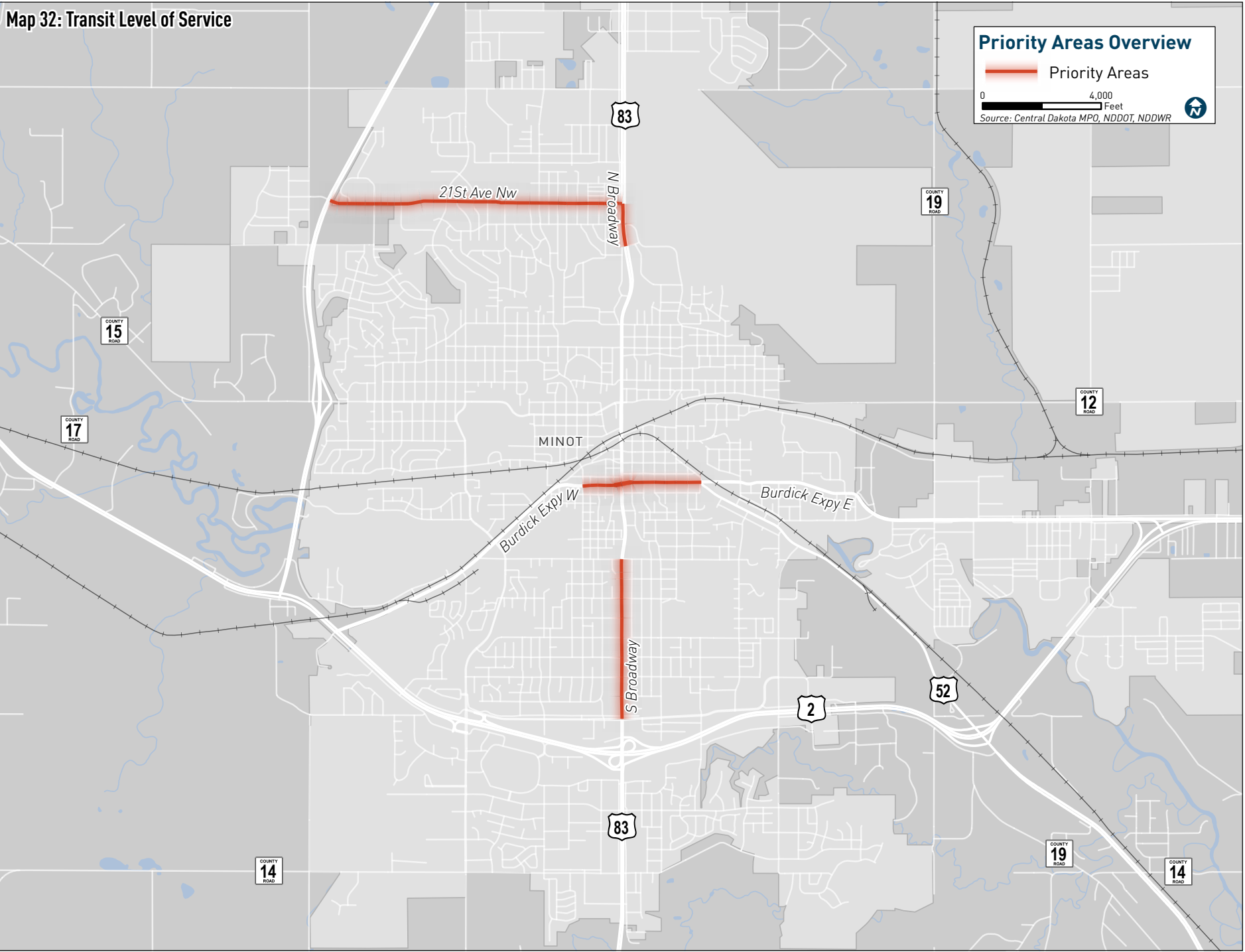
With the transition of the region to an urbanized area and a designated Metropolitan Planning Organization, sufficient funding will be needed to continue operating service as it currently exists today. Minot City Transit’s Section 5311 funding will be discontinued and Section 5307 allocation will not provide a sufficient amount to cover demand-response services that are currently being contracted with Souris Basin Transportation. Additionally, the transit system will likely transition from a flag stop system to a fixed stop system which may require extra funding and possible adjustments of the routes. With these possible adjustments, an opportunity to connect Burlington and Surrey to Minot and each other may be presented. Bringing in additional municipalities, and additional riders, may help offset some operating costs.



PRIORITY AREAS

The corridors identified in Map 33 have been prioritized due to their high crash rates, previous identification of importance, and potential for successful roadway modification. They were also identified by local agency leadership as areas in need. The MPO could consider further study of these corridors for modification as funding and other opportunities present themselves.

Map 32: Transit Level of Service



The following two-page project sheets highlight the four priority corridors within the Metropolitan Planning Organization’s jurisdiction:

- 21st Avenue between U.S. Highway 83 Bypass and U.S. Highway 83/Broadway
- Burdick Expressway between 6th Street SW and Valley Street
- N Broadway from 19th Avenue NW to 21st Avenue NW
- S Broadway from 11th Avenue SW to 20th Avenue SW

The project sheets are divided into front and back pages. The front pages include information about Existing Conditions. Existing Conditions include Vehicular Conditions (including crash types and traffic counts), Alternative Modes (including shared-use paths, sidewalks, and Disadvantaged Block Groups), Key Issues the corridor faces, and roadway distribution by type. The back pages include information about Alternative Solutions. These solutions could include geometric treatments, pedestrian and bicycle facility improvements, and traffic control. The project sheets also include information about implementation and funding sources that could be leveraged. The goal of the project sheets is not to determine final solutions, but to identify key needs and the sale of improvements to calibrate scoping and programming efforts. All federally funded projects need to follow federal environmental review and NDDOT design processes.

To note, disadvantaged block groups are categorized based on the number of indicators the block group flags for (zero, one, two, and three). Indicators include the percentage of minority population, households with at least one disability, and households below the poverty level.

A concentration of disadvantaged block groups may highlight areas with high percentages of people who do not drive or have a limited ability to drive, underscoring the importance of access to transit and safe pedestrian and bicycle facilities.

< Priority Area Project Sheets Available Separately for Review >

PHASE ONE PUBLIC ENGAGEMENT SUMMARY

Phase One of the MTP focused on gathering input from a diverse range of stakeholders, community members, and local organizations to better understand the region’s transportation needs, priorities, and challenges. Through a combination of surveys, public meetings, and targeted outreach efforts, this phase aimed to establish a strong foundation of public input to combine with the analyzed data. The detailed results from Phase 1 Public Engagement related to identification of transportation issues can be found in Appendix B.

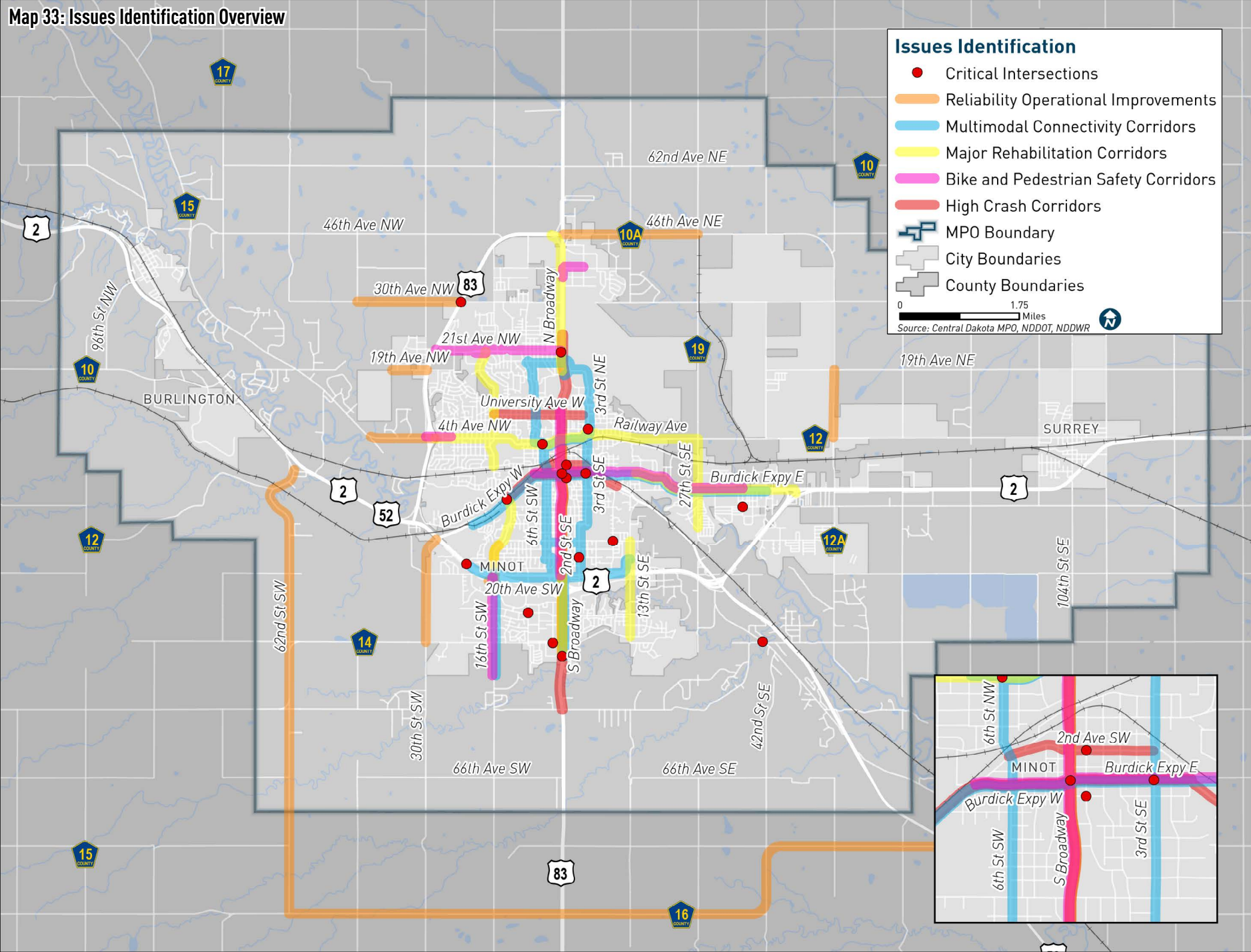
Common themes around transportation issues emerged from public engagement that are important to consider in the overall issues identification for the regional transportation system:

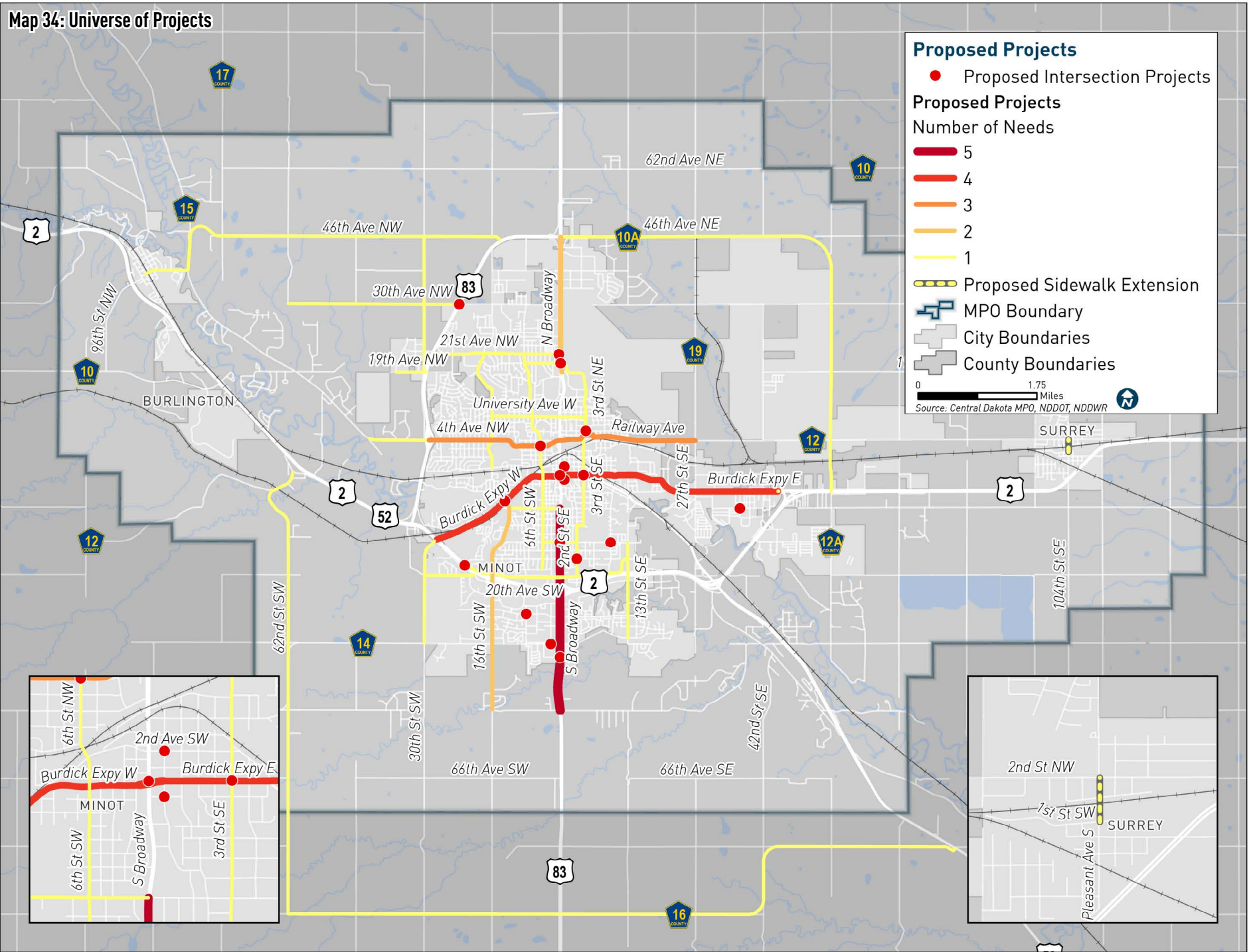
- Reoccurring issue areas were identified: Intersections such as 16th St SW and US 2/52, and sections of Broadway, were consistently flagged as areas in need of transportation improvement.
- Snow removal: The need for more consistent snow removal on sidewalks and secondary streets was a concern mentioned from several agency categories including emergency management to underserved populations.
- Lack of transit options: A shared frustration was expressed over the lack of evening and weekend transit services, as well as the difficulty of connecting rural areas to city services.
- Need for unified planning and communication: Several groups and comments emphasized the importance of cohesive communication and planning, whether for snow removal, transit information, or collaboration between agencies.
- Desire for walkability: Many stakeholders expressed a desire for greater investments in pedestrian infrastructure, including safer crossings, well-lit paths, and better-maintained sidewalks.

SUMMARY OF ISSUES IDENTIFICATION

The Issues Identification Overview map integrates the Needs maps presented throughout this document, highlighting areas of overlap and pinpointing where improvements are most needed. Each Needs map identified key areas through data-driven analysis and community engagement responses. This approach enabled the combination of individual project locations into corridors, resulting in the creation of the most impactful projects for consideration during the project alternatives development phase. From Map 33, Map 34 was created to smooth corridor extents, add in additional projects identified through stakeholder meetings, and identify the most dangerous intersections. Broadway ranks the highest with the most identified needs while Burdick Expressway between US 2 and US 2/52 and 4th Avenue is next with 4 and 3 needs identified.

Map 33: Issues Identification Overview





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Draft Project List (05.07.2025)

ID #	Project Roadway	From	To	Number of Needs	Primary Need	Notes
1	S Broadway	11th Ave SW	54th Ave SW	5	Bike and Ped, Multimodal Conn., Rehabilitation, High Crash Corridor, Rehabilitation, Reliability & Ops Improvements	
2	N Broadway	19th Ave NW	CR 10A	2	Rehabilitation, High Crash Corridor	
3	21st Avenue	83 Bypass	Broadway/83	1	Bike and Ped	
4	Burdick Expressway	US 2/52	US 2	4	Bike and Ped, Multimodal Conn., Rehabilitation, High Crash Corridor	
5						
6	16th Street SW	US 2/52	54th Ave SW	2	Bike and Ped, Multimodal Conn.	
7	16th Street SW	W Burdick Expressway	US 2/52	2	Rehabilitation, Reliability & Ops Improvements	
8	4th Ave NW	US 83 Bypass	3rd St NE	3	Bike and Ped, Multimodal Conn., Rehabilitation	
9						
10	20th Ave SW	Evergreen Ave	13th St SE	1	Multimodal Conn.	
11	8th St NW/6th St NW/6th St SW	21st Ave NW	20th Ave SW	1	Multimodal Conn.	
12	3rd St NE/3rd St SE/2nd St SE	20th Ave NW	20th Ave SE	1	Multimodal Conn.	
13	20th Ave NW	8th St NW	Broadway	1	Multimodal Conn.	
14	16th Ave SE/16th Ave SW	6th St SW	2nd St SE	1	Multimodal Conn.	
15	20th Ave SW	30th St SW	Elk Drive/22nd Ave SW	1	Rehabilitation	
16	13th St SE	16th Ave SE	35th Ave SE/37th Ave SE	1	Rehabilitation	
17	CR 16/93rd Ave SW/62nd St SW	US 52	CR 17	1	Reliability & Ops Improvements	
18	30th St SW	37th Ave SW	US 2/52	1	Reliability & Ops Improvements	Modernization Improvements
19	4th Ave NW	US 83 Bypass	41st St NW	1	Reliability & Ops Improvements	Modernization / Access Management Improvements
20	19th Ave NW	US 83 Bypass	35th St SW	1	Reliability & Ops Improvements	Modernization / Access Management Improvements
21	30th Ave NW	US 83 Bypass	62nd St NW	1	Reliability & Ops Improvements	Modernization Improvements
22	CR 10A	N Broadway	US 2	1	Reliability & Ops Improvements	Capacity improvements
23	University Ave E	16th St NW	3rd St NE	1	High Crash Corridor	
24	30th St NW	19th Ave NW	46th Ave NW	1	Reliability & Ops Improvements	Modernization Improvements
25						
26	11th Ave SW	16th Street SW	S Broadway	1	Multimodal Conn.	Selected due to proximity to schools, back of curb sidewalks, no bicycle facilities
27	46th Ave NW	US 83 Bypass	Johnson Street	1	Multimodal Conn.	Selected due to predicted growth, connectivity to Burlington sidewalks
28	Pleasant Ave S	1st Street	4th Ave NE	1	Multimodal Conn.	Sidewalk Needs
29	16th St NW	2nd Ave SW	21st Ave NW	1	Rehabilitation	

Draft Project List: Intersection Safety Locations (05.07.2025)

ID #	Intersection Location	Crash Rate	KA Crash Rate	Critical Index
30	Broadway and 40th Ave SW	1.19	9.14	4.60
31	1st St SW and US 2 and 5th Ave SW	2.98	0.00	3.24
32	Broadway and Burdick Expressway	0.62	3.18	3.17
33	US 2 and 55th St SE and Frontage Rd	0.65	5.63	1.95
34	US 83 Bypass and US 2 and 30th Ave NW	0.87	36.25	1.91
35	31st Ave SW and 10th St SW	1.10	0.00	1.82
36	11th Ave SW and 2nd Ave SW and 37th St SE	1.68	0.00	1.81
37	37th Ave SW and 4th St SW	0.51	4.66	1.71
38	3rd St NE and 6th Ave NE and Burdick Expressway	0.53	5.33	1.69
39	Burdick Expressway and 3rd St SE	1.22	0.00	1.67
40	2nd St SE and 18th Ave SE	0.97	0.00	1.58
41	Broadway and 16th Ave SW	0.42	1.84	1.44
42	2nd Ave and 1st St SW and Broadway	1.93	0.00	1.40
43	21st Ave NW and 2nd St NW	1.16	0.00	1.37
44	31st Ave SW and 36th Ave NW and Hiawatha St	0.97	0.00	1.25
45	Broadway and Airport Road and 20th Ave NW	0.25	2.76	1.16
46	3rd Ave NW and 3rd Ave NW / 4th Avenue NW and 6th St NW and 6th St SW	0.67	4.78	1.11
47	Burdick Expressway and 16th St SW	0.70	2.79	1.04

PRIORITY AREA EXISTING CONDITIONS / S BROADWAY FROM 11TH AVE SW TO 20TH AVE SW

CONTEXT

- Functional Classification: Principal Arterial
- Pavement Condition: Poor
- Speed Limit: 35 mph
- ROW Width (Approx. including sidewalks): 100 feet
- Public Transit: South Route
- Access Points per Mile: 82

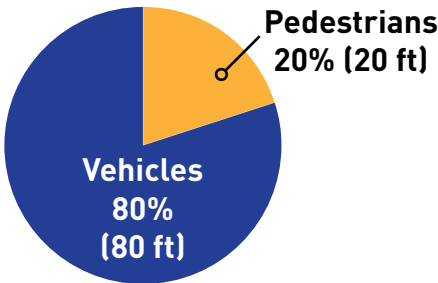
KEY ISSUES

- Excessive access points makes turning dangerous for vehicles and pedestrians/bicyclists
- Lack of safe crossings for pedestrians/bicyclists
- Lack of adequate buffer space between the roadway and sidewalk
- High traffic volumes make turning onto and off of the corridor impractical at unsignalized locations
- High traffic speeds make transit stops dangerous for stopping transit buses and passengers
- Continued traffic growth will deteriorate already challenging traffic flow conditions, putting an increased emphasis on safe and orderly corridor design

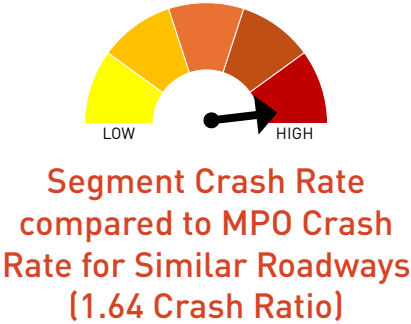
BROADWAY CORRIDOR STUDY REPORT - FINDINGS

- Increased access management scenarios substantially improve network delay
- Consolidating access to adjacent parcels will reduce conflict points by up to 79%
- Consolidation and closure of access points will be paired with access improvements from adjacent roadways for alternative entry
- Strong public and business support

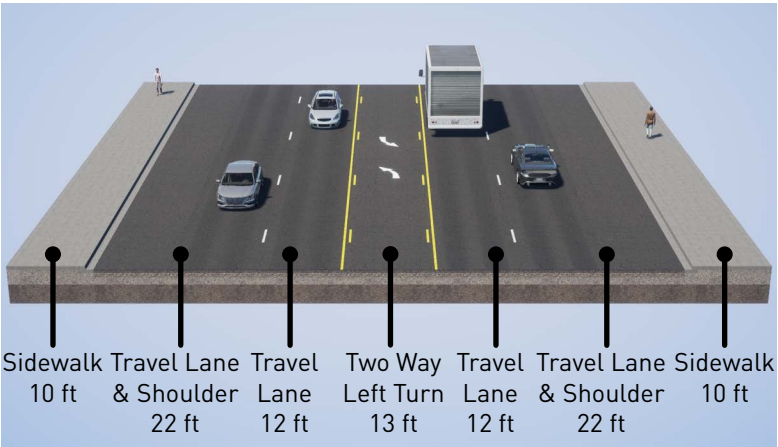
SAFETY & MULTIMODAL TRANSPORT



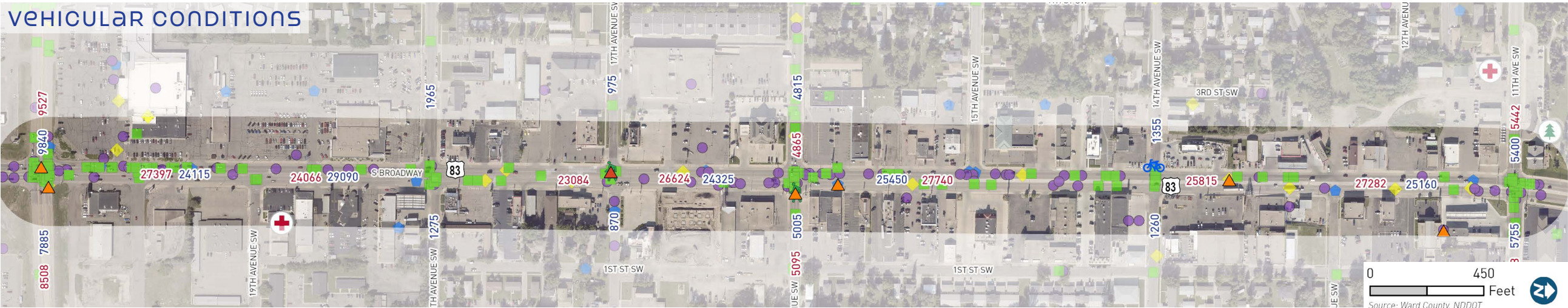
Bus Routes Providing Hourly Service
South Route



EXISTING ROADWAY SECTION

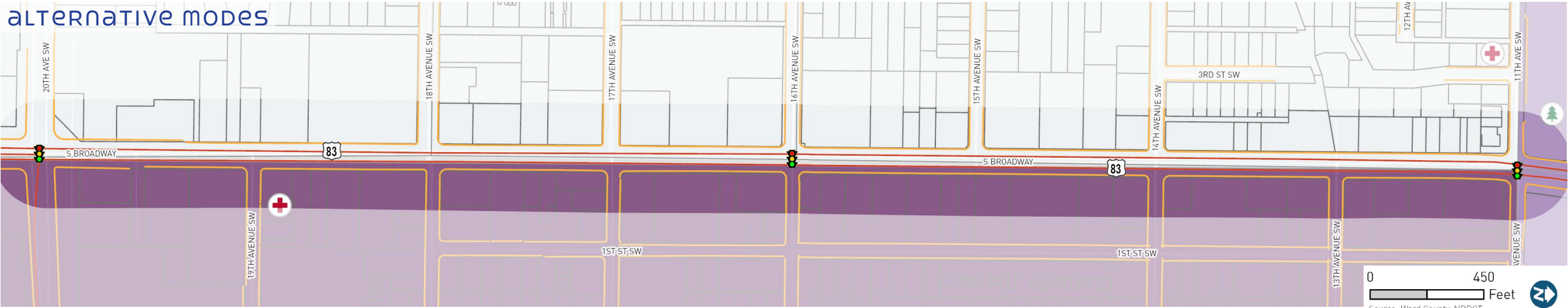


VEHICULAR CONDITIONS

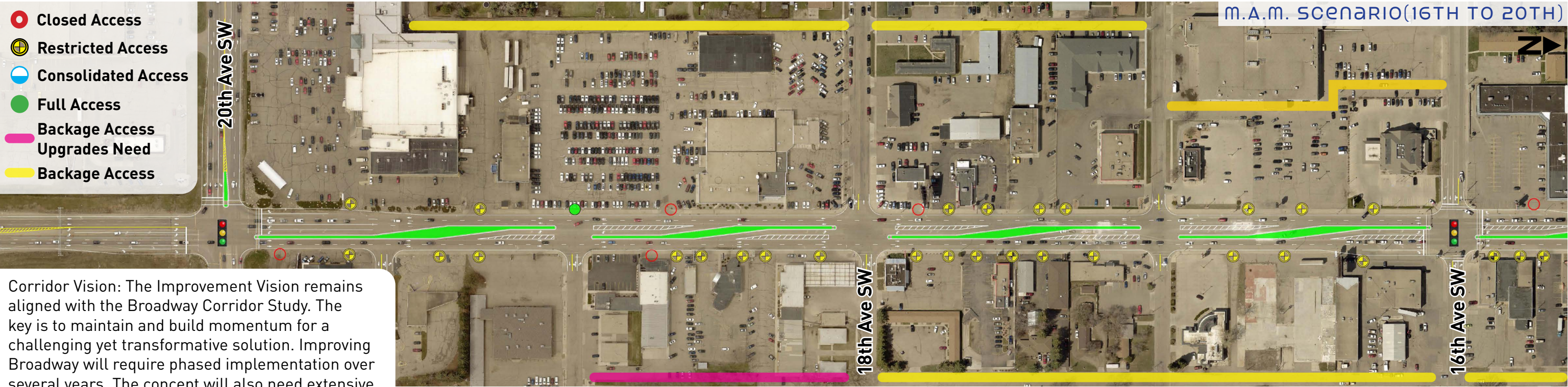
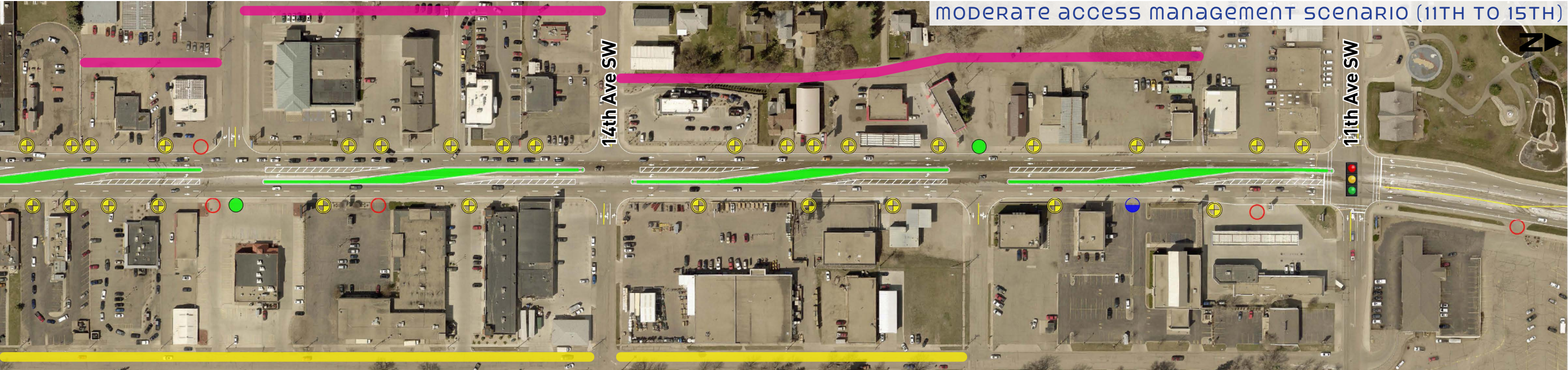


- #### Existing Average Daily Traffic Counts
- #### 2050 Modeled Daily Traffic Counts
- Fatal and Incapacitating Crashes (2019-2023)
 - ▲ Fatal (1)
 - ▲ Incapacitating Injury (5)
- Bike and Pedestrian Crashes (2019-2023)
 - 🚲 Bike
 - 🚶 Pedestrian
- Crash Types (2019-2023)
 - All Angled Crash Types/Head-On (129)
 - Rear-End (95)
 - Sideswipe (11)
 - Collision with Stationary Object (11)

ALTERNATIVE MODES



- Traffic Signals
- Shared Use Path
- Sidewalks
- Transit Routes
- Parcels
- Destinations
 - 🌳 Park & Recreation
 - 🏥 Medical Facility
- Disadvantaged Block Groups
 - 0 Indicators
 - 1 Indicator in Top Quartile
 - 2 Indicators in Top Quartile
 - 3 Indicators in Top Quartile



- Closed Access
- Restricted Access
- Consolidated Access
- Full Access
- Backage Access Upgrades Need
- Backage Access

Corridor Vision: The Improvement Vision remains aligned with the Broadway Corridor Study. The key is to maintain and build momentum for a challenging yet transformative solution. Improving Broadway will require phased implementation over several years. The concept will also need extensive coordination with property owners to ensure proper backage road design, supporting reduced mainline access. Early project development, potentially aided by grant funding, will enhance the feasibility and timely implementation of these improvements.

IMPLEMENTATION OPPORTUNITIES

- Given proposed and programmed projects, what are potential funding sources?
- Impacts: Reduced access
 - Programmed Projects: City of Minot South Broadway Reconstruction (Long timeline and costly to fund)

- Potential Funding Sources:
 - Highway Safety Improvements Program (HSIP): At intersections to improve pedestrian and bicycle crossings, geometric roadway improvements
 - Infrastructure for Rebuilding America (INFRA): Broadway/US Highway 83 corridor extends to US/Canada border, funds could be used for corridor reconstruction

- Transportation Alternatives (TA): Pedestrian and bicycle crossing improvements
- Rural Surface Transportation Grant Program: Corridor reconstruction, pedestrian and bicycle improvements
- Flexible Transportation Fund Program: Safety improvements for all road users, pedestrian and bicycle improvements, landscaping and streetscape improvements, can be used as a match for USDOT

PRIORITY AREA EXISTING CONDITIONS / N BROADWAY FROM 19TH AVE NW TO 21ST AVE NW

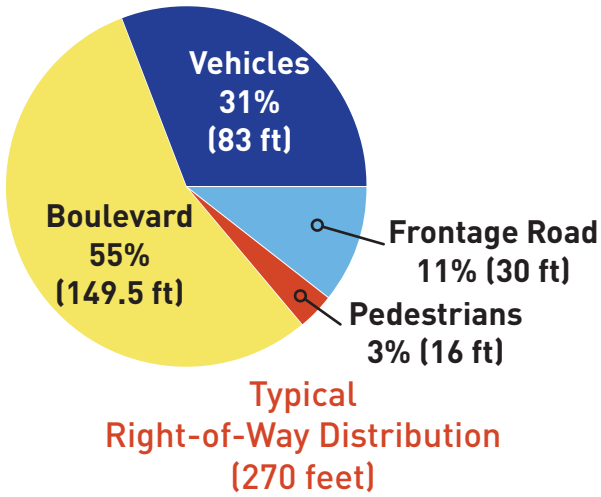
CONTEXT

- Functional Classification: Principal Arterial
- Pavement Condition: Good
- Speed Limit: 40 mph
- Curb-to-Curb Width (Approx.): 90 feet
- ROW Width (Approx.): 270 feet
- Public Transit: North and North Central Routes

KEY ISSUES

- Traffic control locations should be revisited to consider increased demand along 21st Avenue and new development along 19th Avenue
- The combination of high speeds and intersecting traffic have led to the intersections of 20th and 21st to be identified as Critical Crash locations
- Over-representation of angled crashes at the traffic signal requires further investigation of causes at 20th Avenue
- Recent development to the southeast and northwest of the corridor require a review of the most appropriate pedestrian and cyclist routing configuration

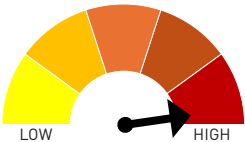
SAFETY & MULTIMODAL TRANSPORT



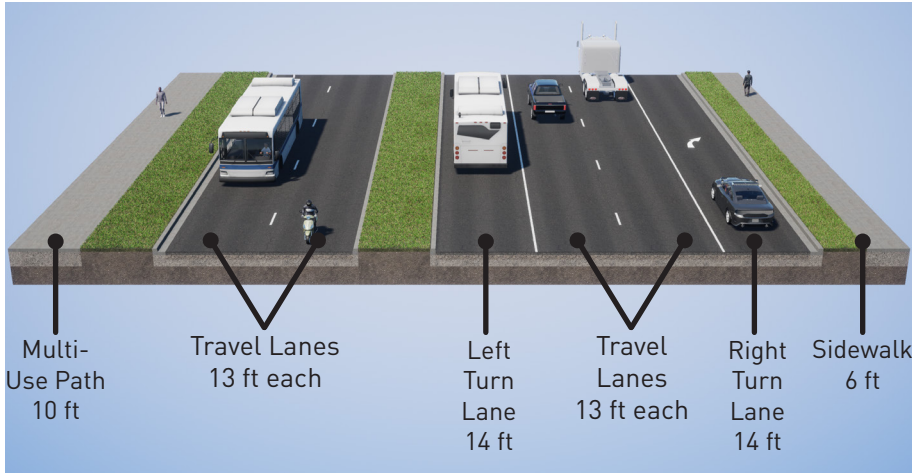
Bus Routes Providing Hourly Service

- North Central Route
- North Route

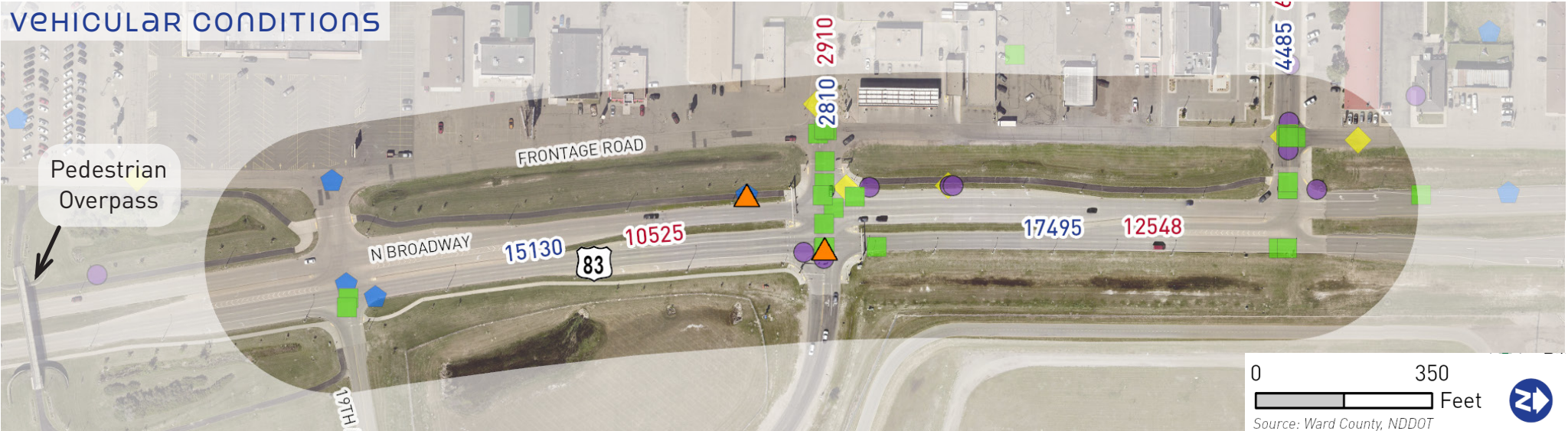
Segment Crash Rate compared to MPO Crash Rate for Similar Roadways (1.9 Crash Ratio)



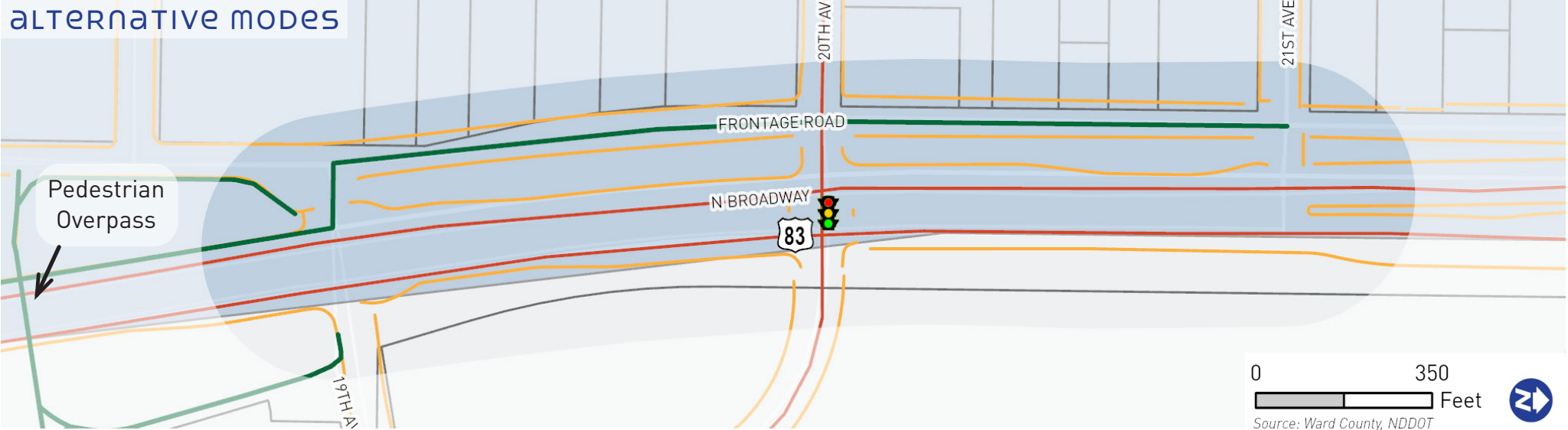
EXISTING ROADWAY SECTION



VEHICULAR CONDITIONS



ALTERNATIVE MODES



Existing Average Daily Traffic Counts

2050 Modeled Daily Traffic Counts

Fatal and Incapacitating Crashes (2019-2023)

Incapacitating Injury

Bike and Pedestrian Crashes (2019-2023)

Bike

Pedestrian

Crash Types (2019-2023)

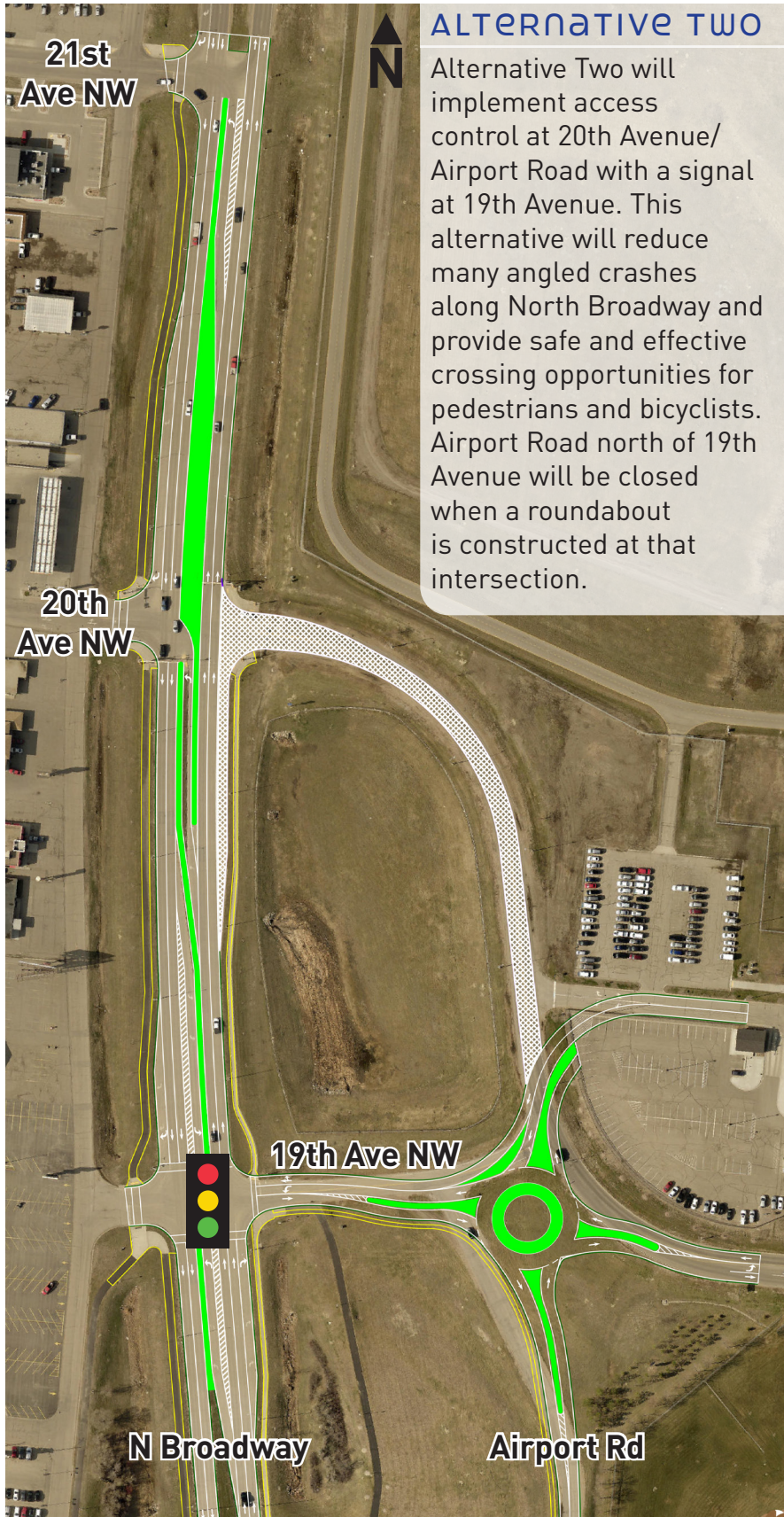
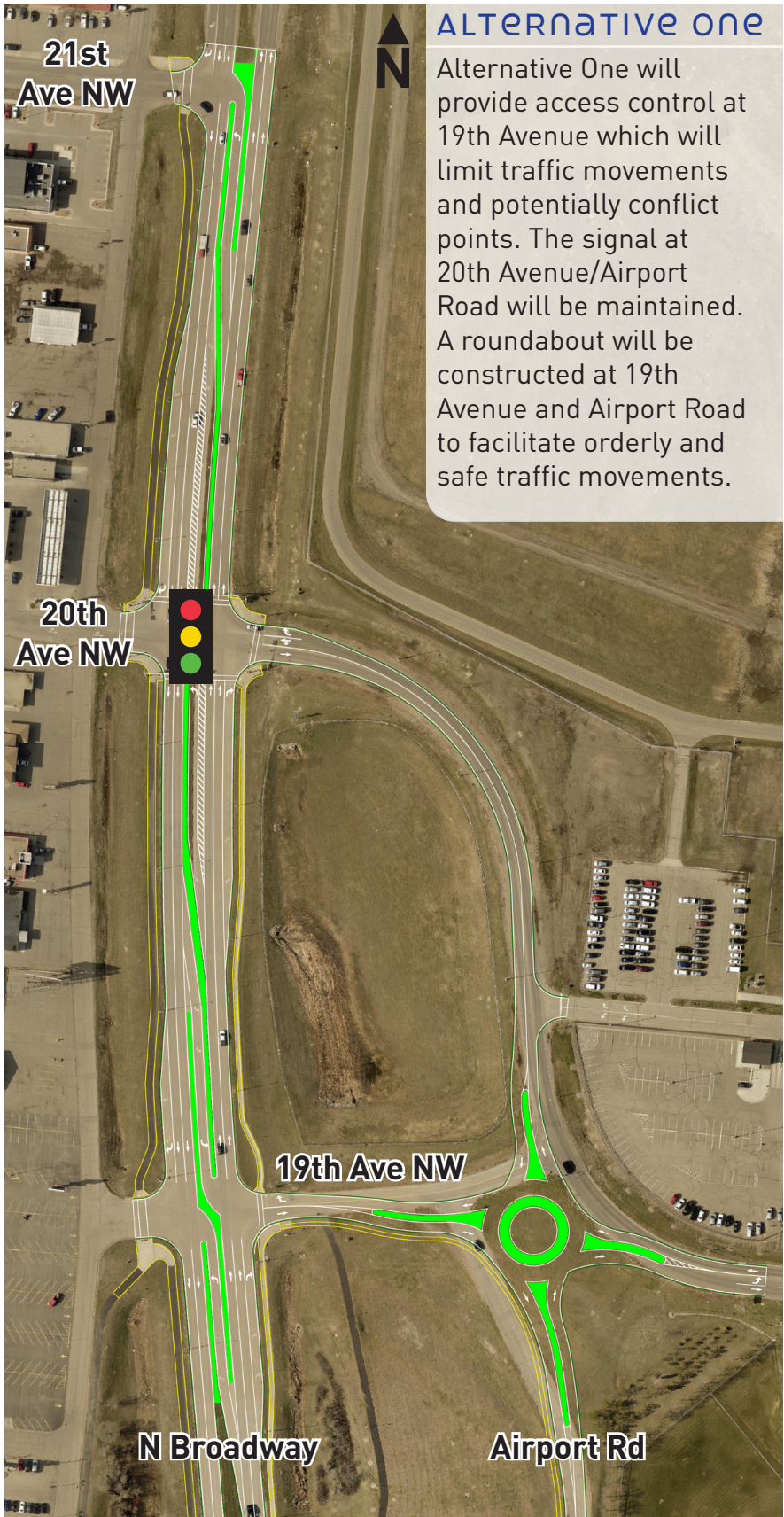
All Angled Crash Types/Head-On (19)

Rear-End (8)

Sideswipe (2)

Collision with Stationary Object (3)

PRIORITY AREA ALTERNATIVE SOLUTIONS /
N BROADWAY FROM 19TH AVE NW TO 21ST AVE NW



Corridor Vision: Reduce the number of angled crashes by increasing access control and reconfiguring roadways that lead to the Minot International Airport and to the critical 21st Avenue arterial. Modifications will also provide better routing for pedestrians and bicyclists through improved facilities.

IMPLEMENTATION OPPORTUNITIES

- Given proposed and programmed projects, what are potential funding sources?
- Impacts: Median curblane alterations and turning movement reductions
 - Programmed Projects: City of Minot North Broadway near Airport Street Lighting District
 - Potential Funding Sources:
 - Highway Safety Improvements Program (HSIP): Medians to reduce turning movements
 - Infrastructure for Rebuilding America (INFRA): Broadway/US Highway 83 corridor extends to US/Canada border, funds could be used for corridor reconstruction
 - Rural Surface Transportation Grant Program: Corridor reconstruction, pedestrian and bicycle improvements
 - Flexible Transportation Fund Program: Safety improvements for all road users, pedestrian and bicycle improvements, can be used as a match for USDOT grants

COMPARISON OF ALTERNATIVES TO CURRENT CONDITIONS

	Accessibility (How easily people can reach their destinations via the network)	Safety	Multimodal
Alt 1. Signal at 20th Ave/ Airport Rd and Access Control at 19th and 21st Ave	Worst	Best	Unchanged
Alt 2. Signals at 19th Ave NW and 21st Ave NW	Best	Better	Best
Do Nothing / No Build Scenario	Better	Worst	Unchanged

PRIORITY AREA EXISTING CONDITIONS / 21ST AVENUE FROM 83 BYPASS TO BROADWAY/83

CONTEXT

- Functional Classification: Minor Arterial
- Pavement Condition: Satisfactory/Good
- Speed Limit:
 - US 83 Bypass to 13th St NW: 30 mph
 - 13th St NW to Broadway: 25 mph
- ROW Width (Approx. including sidewalks):
 - US 83 Bypass to 12th St NW: 90 feet
 - 12th St NW to Broadway: 80 feet
- Public Transit: Northwest and North Central Routes
- Access Points per Mile:
 - US 83 Bypass to 12th St NW: 12
 - 12th St NW to Broadway: 80

KEY ISSUES

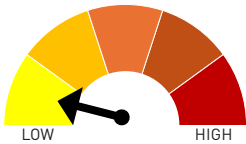
- New high school was recently completed but the corridor lacks continuous pedestrian and bicycle routes
- Lack of safe pedestrian crossings across 21st Avenue and controlled access for existing traffic
- Inconsistent roadway cross-section deviates from two-, four-, and three-lanes as the corridor progresses from west to east
- 21st Avenue NW is one of the primary growth corridors in Minot in the near-term. However, traffic forecasts through 2050 indicate that two-lanes of through capacity will provide acceptable levels of traffic flow.
- Traffic during school pickup and dropoff periods impact mobility throughout the corridor, and particularly at the intersection of 16th Street NW and 21st Avenue NW.

SAFETY & MULTIMODAL TRANSPORT

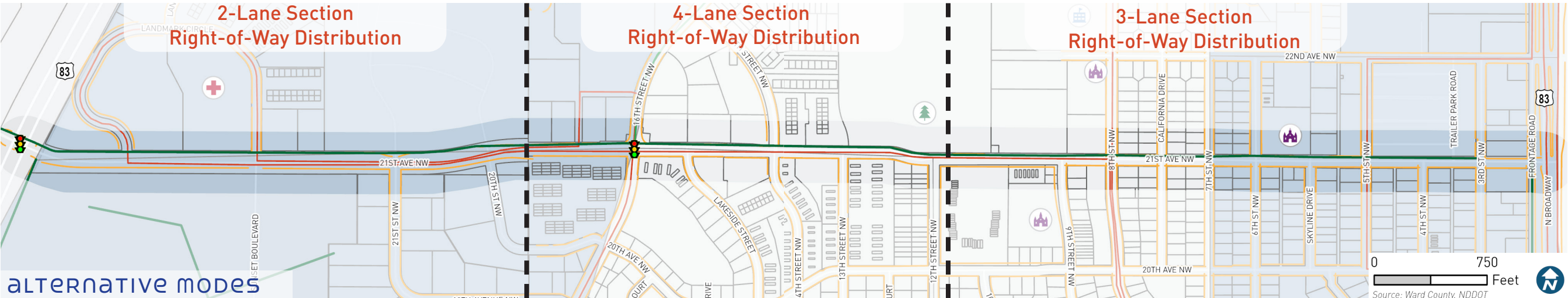
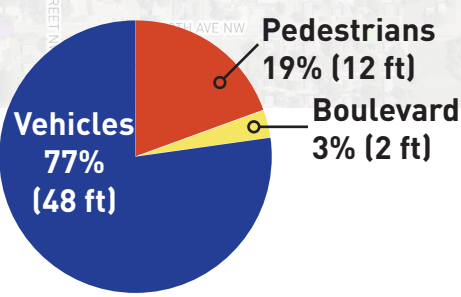
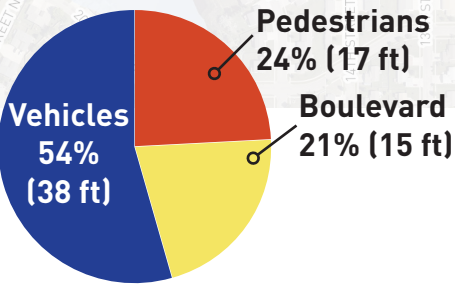
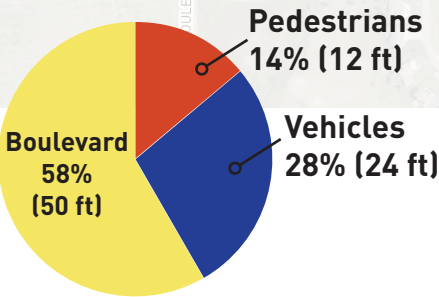
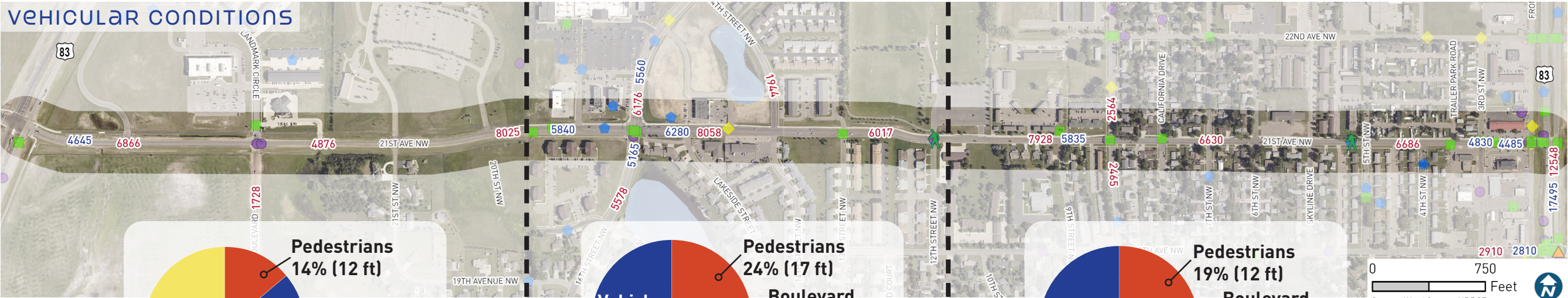
Bus Routes Providing
Hourly Service

-  North Central Route
-  Northwest Route

Segment Crash Rate compared
to MPO Crash Rate for Similar
Roadways (0.58 Crash Ratio)



VEHICULAR CONDITIONS



-  Traffic Signals
-  Shared Use Path
-  Sidewalks
-  Transit Routes
-  Parcels
- Destinations**
-  Park & Recreation
 -  Medical Facility
 -  Place of Worship
 -  School
- Disadvantaged Block Groups**
- 0 Indicators
 - 1 Indicator in Top Quartile
 - 2 Indicators in Top Quartile
 - 3 Indicators in Top Quartile

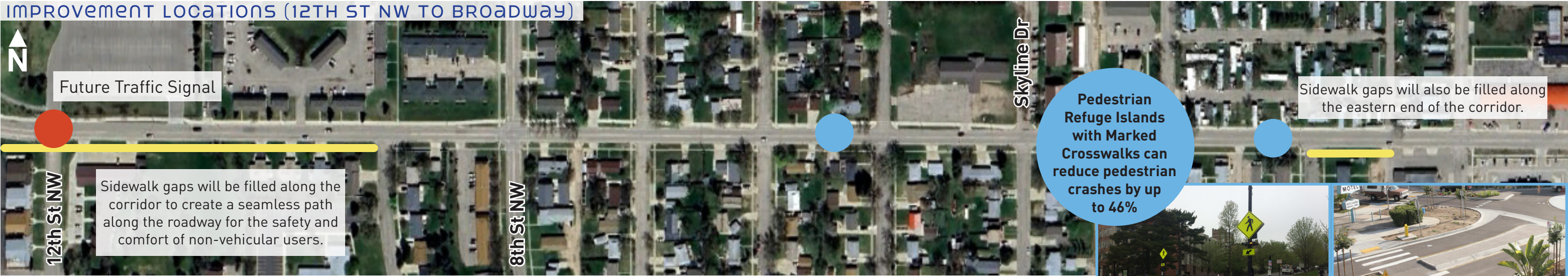
PRIORITY AREA *ALTERNATIVE SOLUTIONS* / 21ST AVENUE FROM 83 BYPASS TO BROADWAY/83

Corridor Vision: Consolidate the cross section into one-lane in each direction with varying median space availability and usage based on surrounding land use and traffic needs. Pedestrian and bicycle facilities will be improved to ensure safe movements for all users.

IMPROVEMENT LOCATIONS (83 BYPASS TO 12TH ST NW)



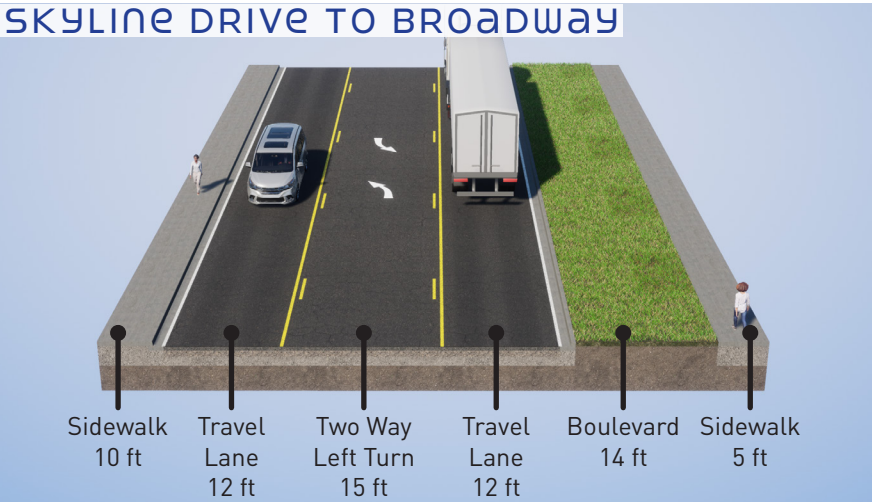
IMPROVEMENT LOCATIONS (12TH ST NW TO BROADWAY)



IMPLEMENTATION OPPORTUNITIES

- Impacts: Potential right-of-way needs on west end of corridor, reduced access
- Programmed Projects: City of Minot 21st Avenue NW Sidewalk Phase 1
- Potential Funding Sources:
 - Transportation Alternatives (TA): Construction of bicycle and pedestrian facilities and traffic calming improvements, Safe Routes to School (SRtS) projects
 - Highway Safety Improvements Program (HSIP): At intersections to improve pedestrian and bicycle crossings, geometric roadway improvements
 - Flexible Transportation Fund Program: Safety improvements for all road users, pedestrian and bicycle improvements, can be used as a match for USDOT grants
 - Better Utilizing Investments to Leverage Development (BUILD): Complete reconstruction of the roadway with pedestrian facilities

SKYLINE DRIVE TO BROADWAY



PROPOSED THREE LANE SECTION

Reconfigure to a three-lane section by removing on-street parking. A separated turn lane will benefit vehicles turning into driveways and local streets as traffic volumes increase. Converting a four-lane roadway to three lanes can reduce crashes by up to 75%.

Raised medians will reduce crash potential by reducing high severity conflict points, funnel traffic to locations that can warrant traffic control devices, serve as snow storage and pedestrian refuge, and offer aesthetic opportunities.

PRIORITY AREA EXISTING CONDITIONS / BURDICK EXPRESSWAY FROM 6TH ST SW TO VALLEY ST

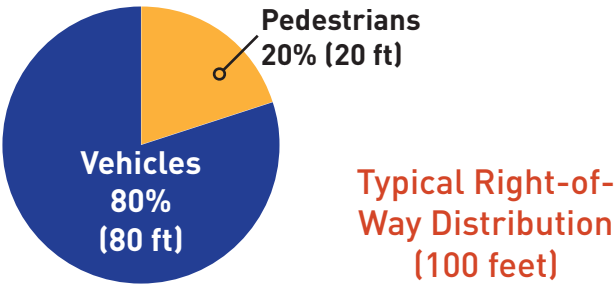
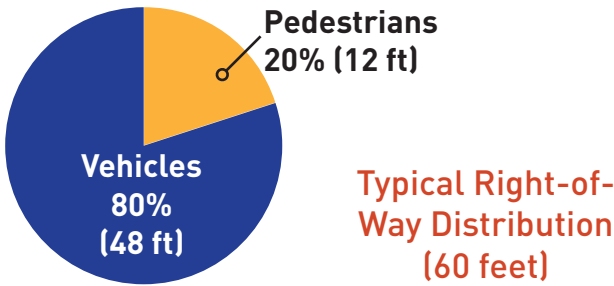
CONTEXT

- Functional Classification: Principal Arterial
- Pavement Condition: Poor
- Speed Limit: 30mph
- ROW Width (Approx. including sidewalks):
 - 6th St SW to Main St: 100 feet
 - Main St to Valley St: 60 feet
- Public Transit: All Minot City Routes connect on Burdick Expressway
- Access Points per Mile: 46

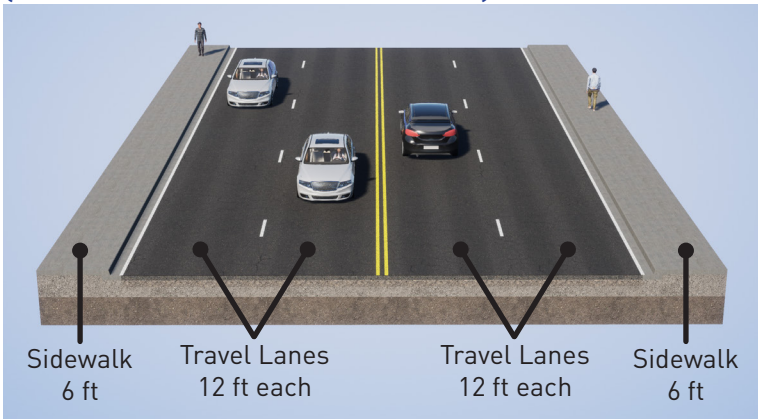
KEY ISSUES

- Sidewalks directly adjacent to fast moving traffic
- No bicycle facilities
- High crash rates due to the lack of a center turn-lane
- Intersection with Broadway is one of the highest crash intersections in the region and this segment of Burdick ranked 17th on NDDOT’s High Priority Corridors list
- Multiple Ped/Bike crashes at intersection with Main Street

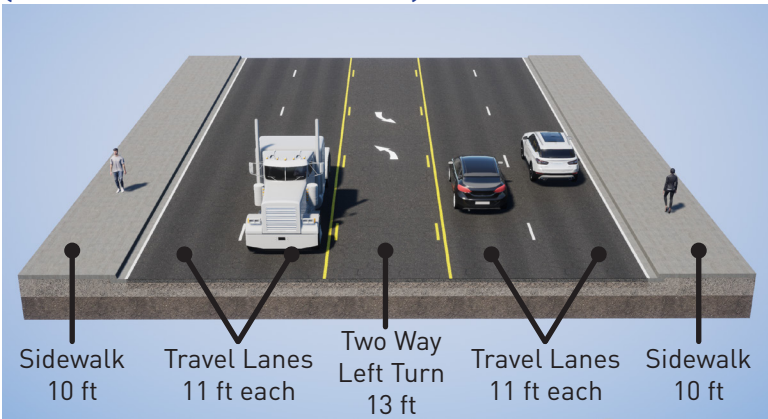
SAFETY & MULTIMODAL TRANSPORT



EXISTING SECTION (BROADWAY TO VALLEY)

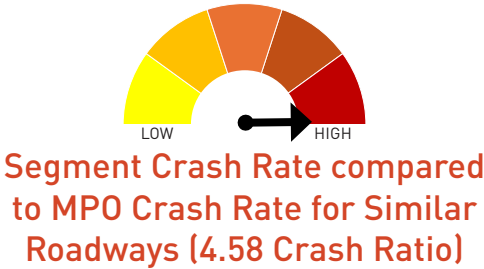


EXISTING SECTION (6TH TO BROADWAY)



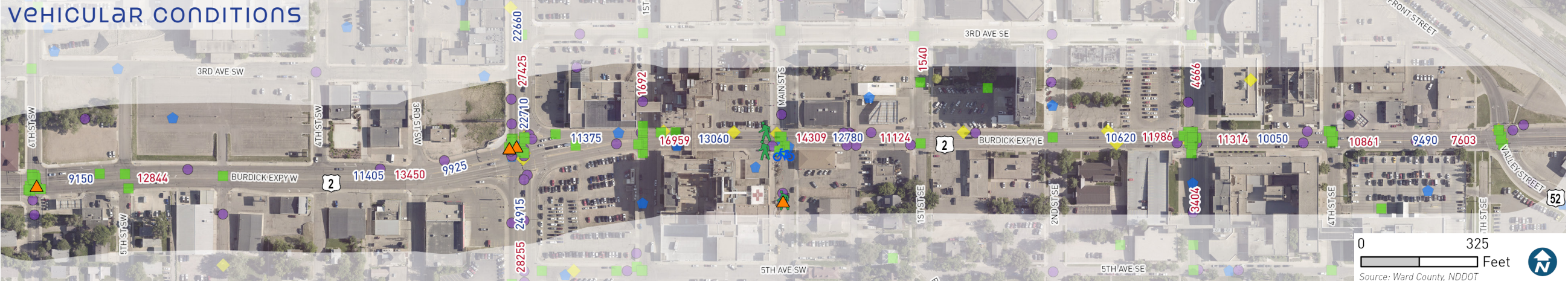
Bus Routes Providing Hourly Service

- | | |
|-------------|---------------------|
| North Route | Northwest Route |
| South Route | North Central Route |
| East Route | Southeast Route |
| West Route | Southwest Route |



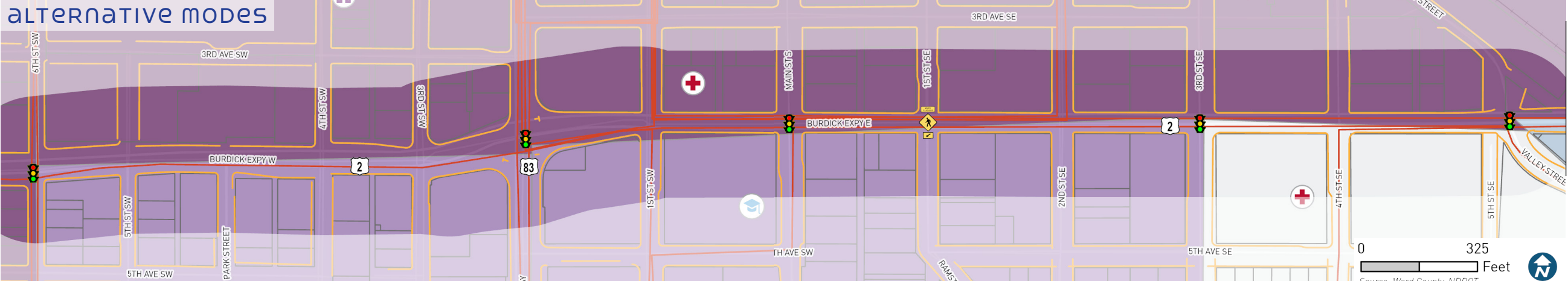
61 Angle and Rear-End Crashes occurred between 2019 and 2023 east of Broadway on Burdick

VEHICULAR CONDITIONS



- #### Existing Average Daily Traffic Counts
- #### 2050 Modeled Daily Traffic Counts
- Fatal and Incapacitating Crashes (2019-2023)
 - ▲ Incapacitating Injury (3)
- Bike and Pedestrian Crashes (2019-2023)
 - 🚲 Bike
 - 🚶 Pedestrian
- Crash Types (2019-2023)
 - All Angled Crash Types/Head-On (93)
 - Rear-End (49)
 - ◆ Sideswipe (15)
 - ⬠ Collision with Stationary Object (15)

ALTERNATIVE MODES



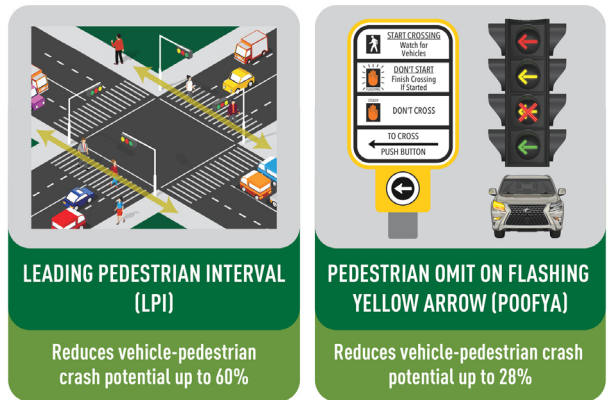
- Traffic Signals
- Pedestrian Beacon
- Shared Use Path
- Sidewalks
- Transit Routes
- Parcels
- Destinations
 - 🎓 Higher Education
 - 🏥 Medical Facility
- Disadvantaged Block Groups
 - 0 Indicators
 - 1 Indicator in Top Quartile
 - 2 Indicators in Top Quartile
 - 3 Indicators in Top Quartile

PRIORITY AREA ALTERNATIVE SOLUTIONS / BURDICK EXPRESSWAY FROM 6TH ST SW TO VALLEY ST

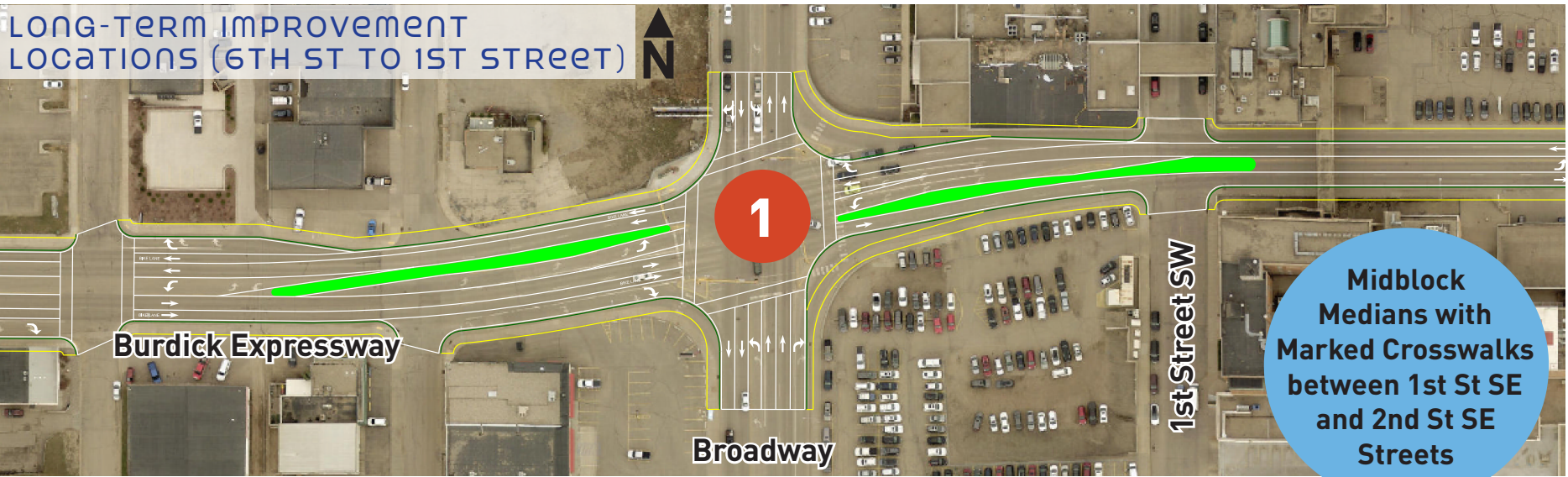
Corridor Vision: Reduce the number of crashes along the roadway by implementing a 4 to 3-lane roadway to provide dedicated turn lanes and expand pedestrian and bicycle facilities. These concepts also increase the aesthetic appeal of the corridor.

SHORT-TERM IMPROVEMENTS

1 Signal Crossing Enhancements - Improvements such as leading pedestrian intervals (LPI), protected only on flashing yellow arrow (POOFYA) and no right-turn on red during pedestrian actuation will prioritize pedestrian safety in Minot's downtown area by reducing vehicle-pedestrian crash potential by up to 60%.



2 4-lane to 3-lane Road Diet -
Reducing the roadway from 4-lanes to 3-lanes provides opportunities to increase the safety of the corridor, while meeting its capacity needs. A 3-lane roadway can support traffic volumes of over 18,000 vehicles per day. While on-street bicycle facilities are typically common on a 3-lane road diet, these facilities in conjunction with abundant conflict points, high traffic volumes, and high speeds have not been popular across the city. As an interim solution, striping can be used to delineate lanes and narrow the travel area.



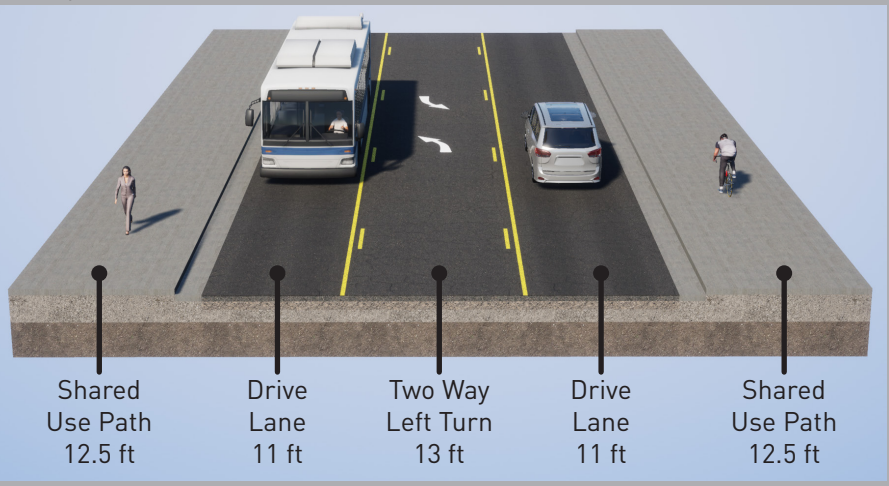
IMPLEMENTATION OPPORTUNITIES

Given proposed and programmed projects, what are potential funding sources?

- Impacts: Median curblane alterations and access restrictions
- Programmed Projects: None
- Potential Funding Sources:
 - Highway Safety Improvements Program (HSIP): Signal Crossing enhancements, geometric roadway improvements

EAST BURDICK LONG-TERM IMPROVEMENTS

Curb-Separated Facilities - Pedestrian and bicycle facilities will provide comfortable experiences for users while increasing safety. Pedestrian refuge islands can fill the two-way left-turn lane areas at key midblock crossing locations to further enhance multimodal safety.

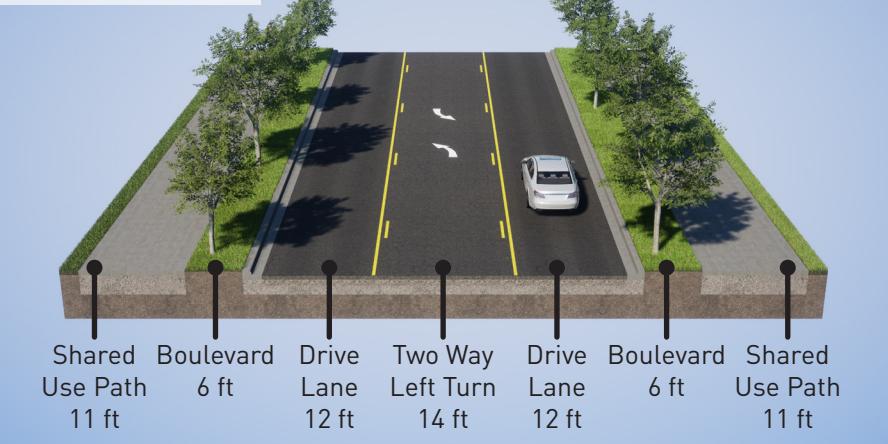


- Safe Streets and Roads for All (SS4A): Signal Crossing enhancements as part of a Demonstration project
- Transportation Alternatives (TA): Construction of bicycle and pedestrian facilities and traffic calming improvements
- Better Utilizing Investments to Leverage Development (BUILD): Complete reconstruction of the roadway with grade-separated facilities

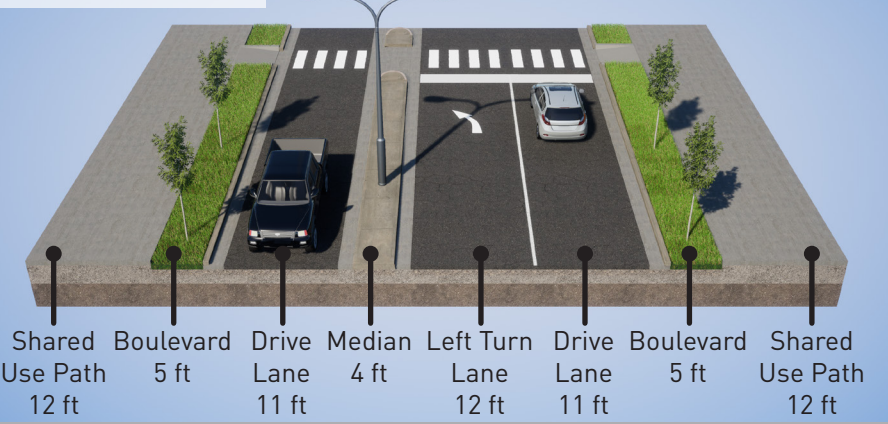
WEST BURDICK LONG-TERM IMPROVEMENT ALTERNATIVES

Two long-term alternatives were evaluated for the west side of Burdick, given the extra space available. The first alternative creates larger boulevards and pedestrian and bicycle areas to enhance the area's aesthetic appeal and provide a buffer for pedestrians and cyclists. The second alternative repurposes some of that space for a raised median to reduce conflicts and improve overall safety, though it would require some access revisions.

OPTION ONE



OPTION TWO





May 13, 2025

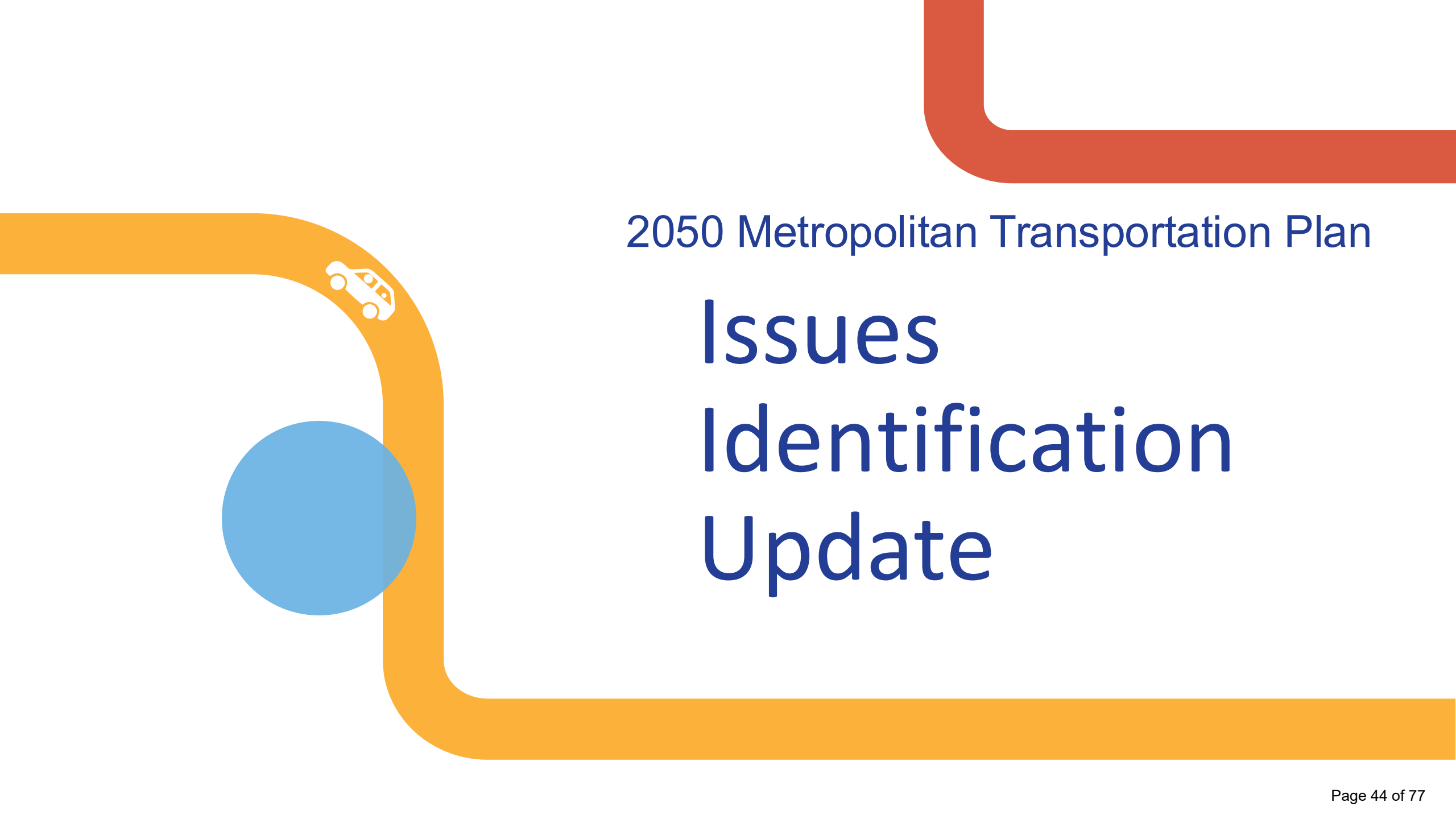
Technical Advisory Committee Meeting



Today's Topics

1. Issues Identification Update
2. Project Identification Workshop
3. Scenario Development Framework
4. Phase 2 Engagement Plan
5. Next Steps and Schedule



A decorative graphic on the left side of the slide. It features a thick orange line that starts horizontally, curves 90 degrees down, and then continues horizontally. A small white car icon is positioned on the first curve of the orange line. A solid blue circle is placed near the first curve of the orange line. In the top right corner, there is a thick red line that starts vertically and curves 90 degrees to the right.

2050 Metropolitan Transportation Plan

Issues Identification Update

Issues Identification Update

1. Travel Demand Model Revisions

- a. Updates to Volume to Capacity Ratio Outputs

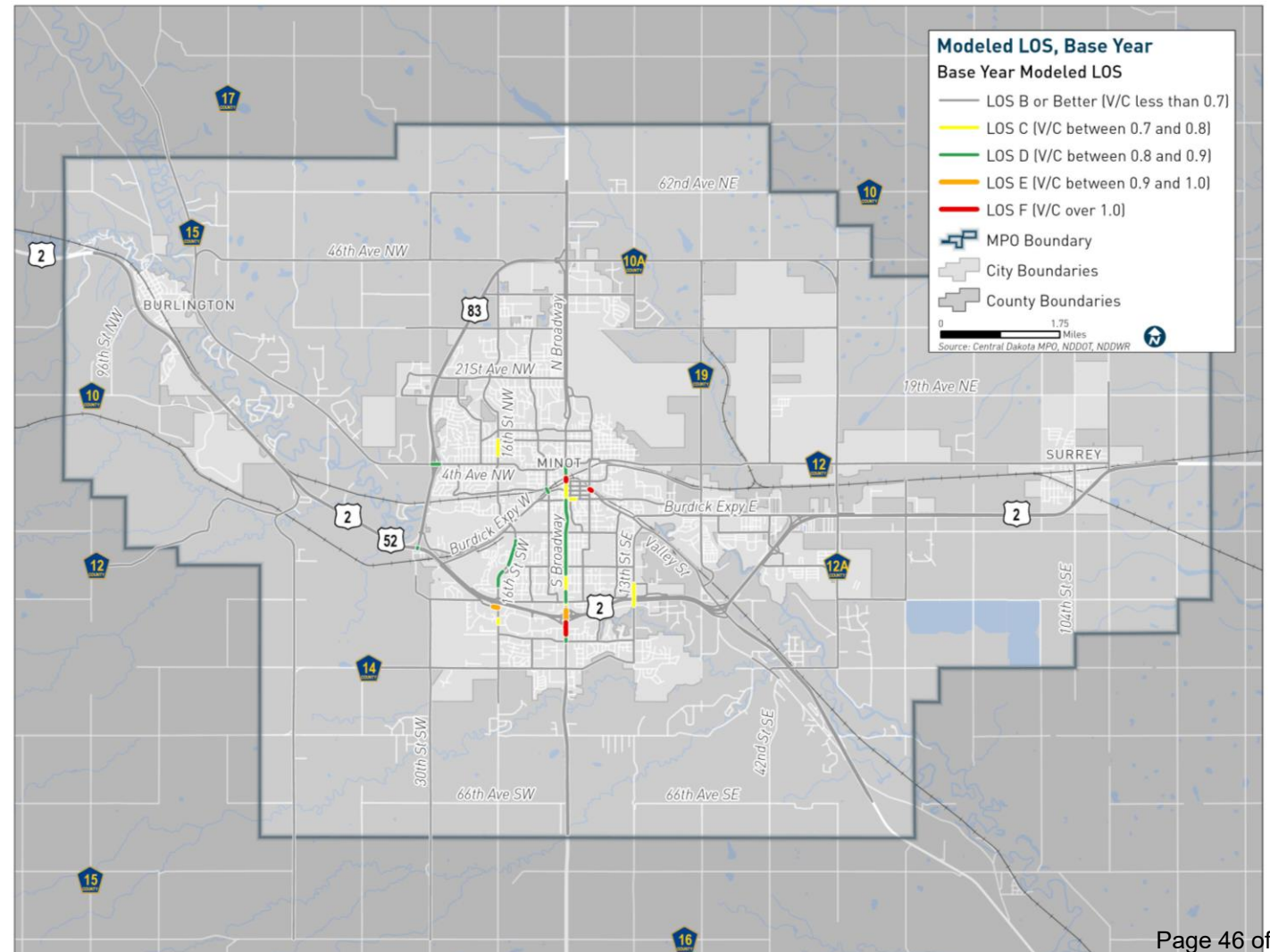
2. Draft Issues Identification Report for Review

- a. Content presented at February and April TAC meetings
- b. Includes Priority Area Summaries for review
- c. Comments on draft documents requested by **May 27th**



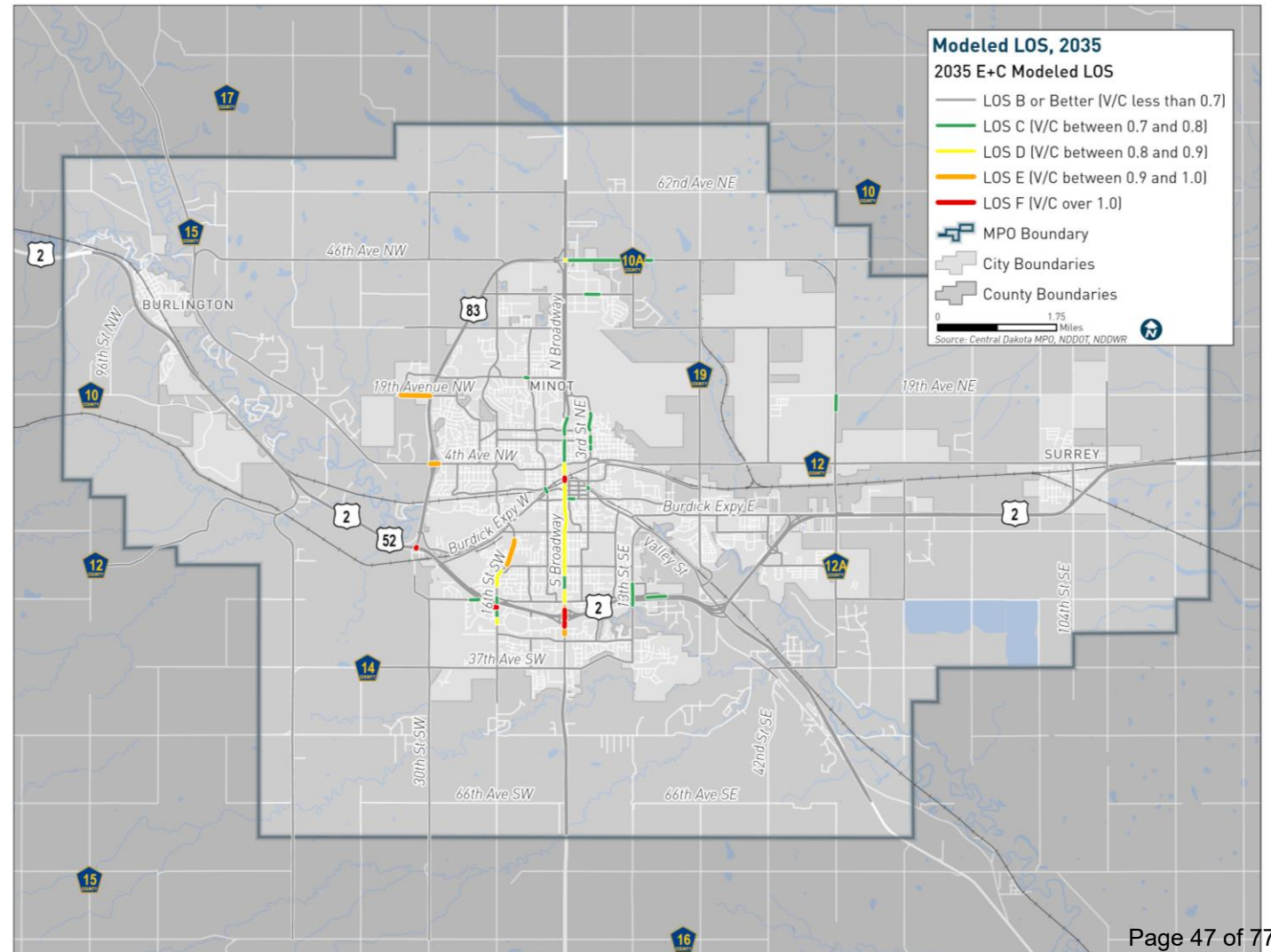
Base Model Volume to Capacity (V/C) Outputs

- Base year **2022**
 - Existing plus committed project roadway network
- Used planning level volume to capacity thresholds
- Areas of existing congestion
 - S Broadway
 - Interchange zones



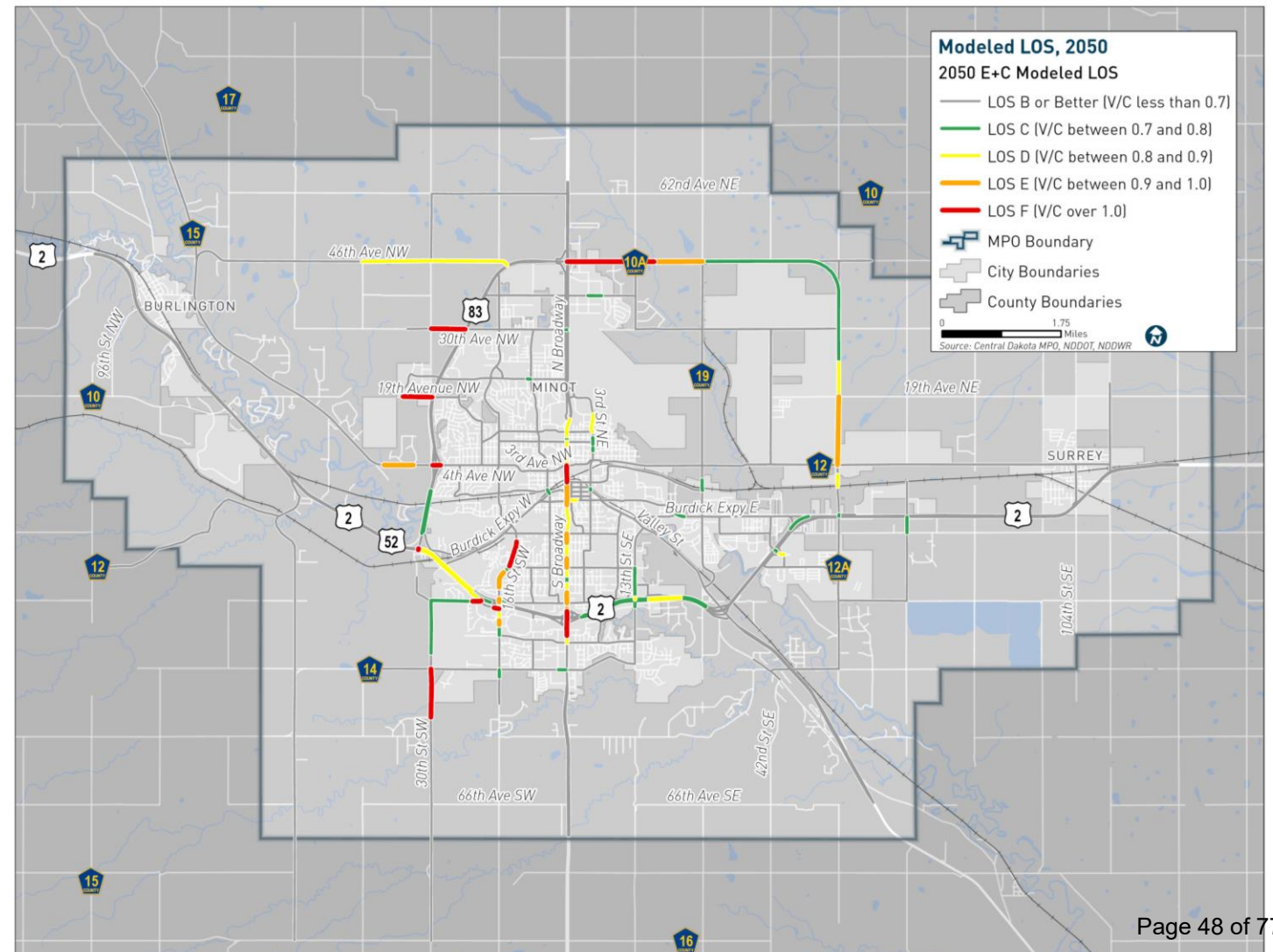
2035 Volume to Capacity (V/C) Outputs

- **2035 volume to capacity outputs**
 - The level of service declines on Broadway through the center of the region
 - New issues start to emerge at intersections and with the supporting roadway network



2050 Volume to Capacity V/C Outputs

- **2050** volume to capacity outputs
- Level of service issues emerge consistent with planned growth areas
 - 46th Ave NE
 - East-west connections to US 83
 - 30th St SW near Trinity Hospital campus
 - 16th St SW
 - 55th St NE
- Broadway will continue to experience declining levels of service



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2050 Metropolitan Transportation Plan

Project Identification Workshop

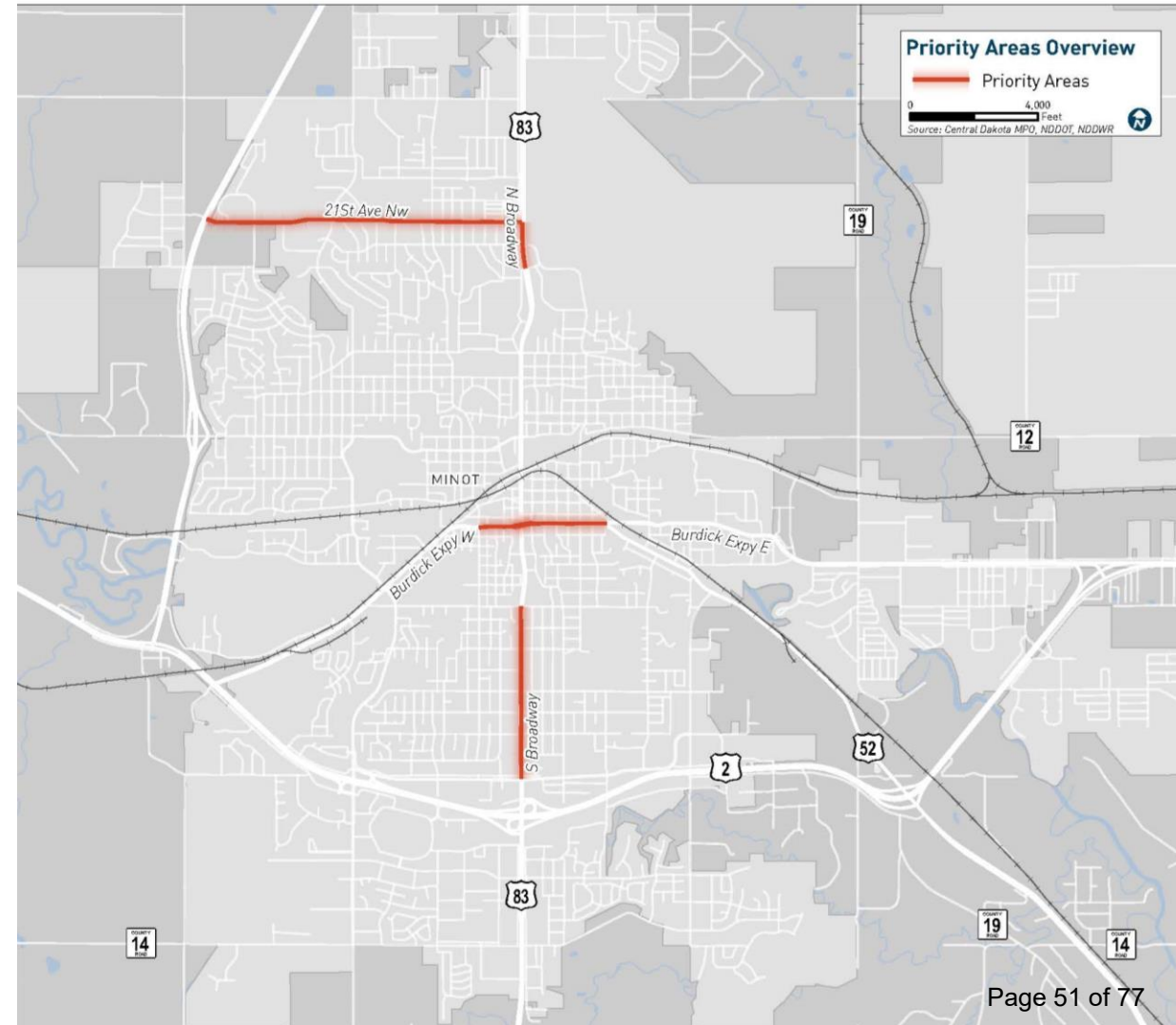
Level of Detail

- Priority is Toward Multimodal Corridors Critical for Regional Demand
- Forthcoming Planning Efforts:
 - CDMPO Transit Development Plan
 - Minot Safe Streets for All Plan
 - CDMPO Pedestrian and Bicycle Plan
- Future Planning Needs:
 - Pavement condition data collection and pavement management planning
 - Regional Freight Needs Study
 - Future Corridor Studies



Priority Areas

- Four Priority Areas for detailed analysis
- Subgroup meeting held with stakeholders on March 10th
- Incorporated feedback and revisions into draft summaries



PRIORITY AREA EXISTING CONDITIONS / S BROADWAY FROM 11TH AVE SW TO 20TH AVE SW

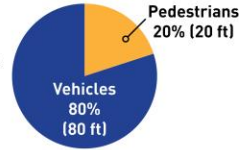
CONTEXT

- Functional Classification: Principal Arterial
- Pavement Condition: Poor
- Speed Limit: 35 mph
- ROW Width (Approx. including sidewalks): 100 feet
- Public Transit: South Route
- Access Points per Mile: 82

KEY ISSUES

- Excessive access points makes turning dangerous for vehicles and pedestrians/bicyclists
- Lack of safe crossings for pedestrians/bicyclists
- Lack of adequate buffer space between the roadway and sidewalk
- High traffic volumes make turning onto and off of the corridor impractical at unsignalized locations
- High traffic speeds make transit stops dangerous for stopping transit buses and passengers
- Continued traffic growth will deteriorate already challenging traffic flow conditions, putting an increased emphasis on safe and orderly corridor design

SAFETY & MULTIMODAL TRANSPORT



Typical
Distri

Bus Routes Providing
Hourly Service
South Route



EXISTING ROADWAY SECTION



BROADWAY CORRIDOR STUDY REPORT - FINDINGS

- Increased access management scenarios substantially improve network delay
- Consolidating access to adjacent parcels will reduce conflict points by up to 79%
- Consolidation and closure of access points will be paired with access improvements from adjacent roadways for all entry
- Strong public and business support

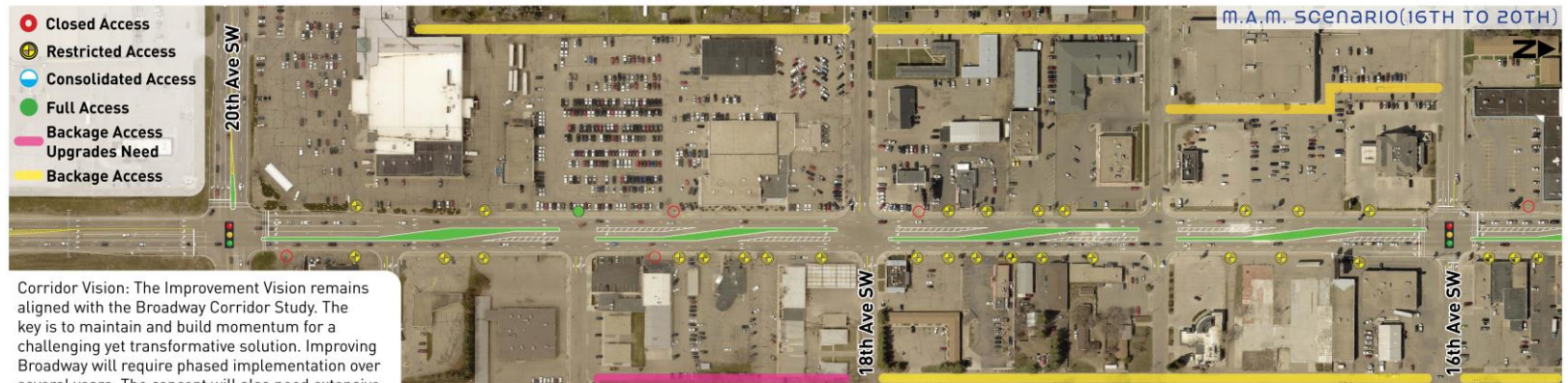
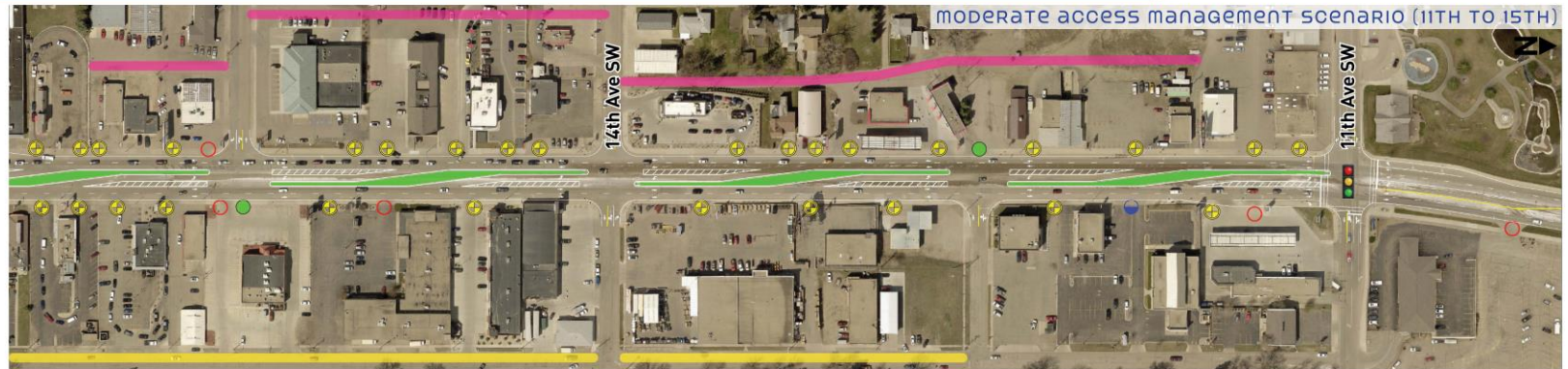
VEHICULAR CONDITIONS



ALTERNATIVE MODES



PRIORITY AREA ALTERNATIVE SOLUTIONS / S BROADWAY FROM 11TH AVE SW TO 20TH AVE SW



Corridor Vision: The Improvement Vision remains aligned with the Broadway Corridor Study. The key is to maintain and build momentum for a challenging yet transformative solution. Improving Broadway will require phased implementation over several years. The concept will also need extensive coordination with property owners to ensure proper backage road design, supporting reduced mainline access. Early project development, potentially aided by grant funding, will enhance the feasibility and timely implementation of these improvements.

IMPLEMENTATION OPPORTUNITIES

Given proposed and programmed projects, what are potential funding sources?

- Impacts: Reduced access
- Programmed Projects: City of Minot South Broadway Reconstruction (Long timeline and costly to fund)

Potential Funding Sources:

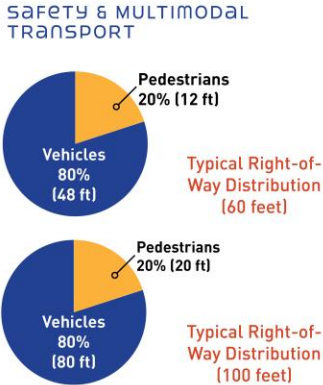
- Highway Safety Improvements Program (HSIP):** At intersections to improve pedestrian and bicycle crossings, geometric roadway improvements
- Infrastructure for Rebuilding America (INFRA):** Broadway/US Highway 83 corridor extends to US/Canada border, funds could be used for corridor reconstruction

- Transportation Alternatives (TA):** Pedestrian and bicycle crossing improvements
- Rural Surface Transportation Grant Program:** Corridor reconstruction, pedestrian and bicycle improvements
- Flexible Transportation Fund Program:** Safety improvements for all road users, pedestrian and bicycle improvements, landscaping and streetscape improvements, can be used as a

PRIORITY AREA EXISTING CONDITIONS /
BURDICK EXPRESSWAY FROM 6TH ST SW TO VALLEY ST

- CONTEXT
- Functional Classification: Principal Arterial
 - Pavement Condition: Poor
 - Speed Limit: 30mph
 - ROW Width (Approx. including sidewalks):
 - 6th St SW to Main St: 100 feet
 - Main St to Valley St: 60 feet
 - Public Transit: All Minot City Routes connect on Burdick Expressway
 - Access Points per Mile: 46

- KEY ISSUES
- Sidewalks directly adjacent to fast moving traffic
 - No bicycle facilities
 - High crash rates due to the lack of a center turn-lane
 - Intersection with Broadway is one of the highest crash intersections in the region and this segment of Burdick ranked 17th on NDDOT's High Priority Corridors list
 - Multiple Ped/Bike crashes at intersection with Main Street



EXISTING SECTION
(BROADWAY TO VALLEY)



EXISTING SECTION
(6TH TO BROADWAY)



PRIORITY AREA ALTERNATIVE SOLUTIONS /
BURDICK EXPRESSWAY FROM 6TH ST SW TO VALLEY ST

Corridor Vision: Reduce the number of crashes along the roadway by implementing a 4 to 3-lane roadway to provide dedicated turn lanes and expand pedestrian and bicycle facilities. These concepts also increase the aesthetic appeal of the corridor.

SHORT-TERM IMPROVEMENTS

- 1 Signal Crossing Enhancements - Improvements such as leading pedestrian intervals (LPI), protected only on flashing yellow arrow (POOFYA) and no right-turn on red during pedestrian actuation will prioritize pedestrian safety in Minot's downtown area by reducing vehicle-pedestrian crash potential by up to 60%.



2 4-lane to 3-lane Road Diet -

Reducing the roadway from 4-lanes to 3-lanes provides opportunities to increase the safety of the corridor, while meeting its capacity needs. A 3-lane roadway can support traffic volumes of over 18,000 vehicles per day. While on-street bicycle facilities are typically common on a 3-lane road diet, these facilities in conjunction with abundant conflict points, high traffic volumes, and high speeds have not been popular across the city. As an interim solution, striping can be used to delineate lanes and narrow the travel area.

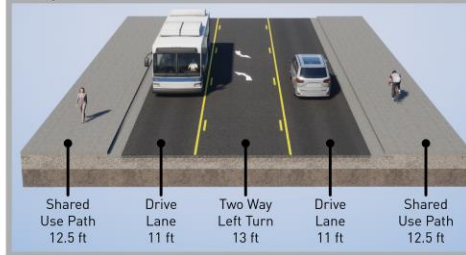
IMPLEMENTATION OPPORTUNITIES

Given proposed and programmed projects, what are potential funding sources?

- Impacts: Median curbline alterations and access restrictions
- Programmed Projects: None
- Potential Funding Sources:
 - Highway Safety Improvements Program (HSIP): Signal Crossing enhancements, geometric roadway improvements

EAST BURDICK LONG-TERM IMPROVEMENTS

Curb-Separated Facilities - Pedestrian and bicycle facilities will provide comfortable experiences for users while increasing safety. Pedestrian refuge islands can fill the two-way left-turn lane areas at key midblock crossing locations to further enhance multimodal safety.



LONG-TERM IMPROVEMENT
LOCATIONS (6TH ST TO 1ST STREET)



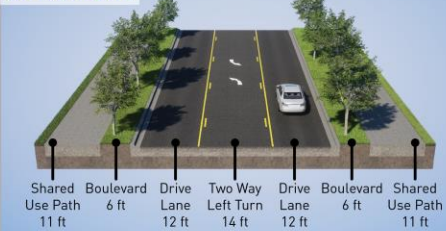
Midblock Medians with Marked Crosswalks between 1st St SE and 2nd St SE Streets

- Safe Streets and Roads for All (SS4A): Signal Crossing enhancements as part of a Demonstration project
- Transportation Alternatives (TA): Construction of bicycle and pedestrian facilities and traffic calming improvements
- Better Utilizing Investments to Leverage Development (BUILD): Complete reconstruction of the roadway with grade-separated facilities

WEST BURDICK LONG-TERM IMPROVEMENT
ALTERNATIVES

Two long-term alternatives were evaluated for the west side of Burdick, given the extra space available. The first alternative creates larger boulevards and pedestrian and bicycle areas to enhance the area's aesthetic appeal and provide a buffer for pedestrians and cyclists. The second alternative repurposes some of that space for a raised median to reduce conflicts and improve overall safety, though it would require some access revisions.

OPTION ONE



OPTION TWO



PRIORITY AREA EXISTING CONDITIONS / 21ST AVENUE FROM 83 BYPASS TO BROADWAY/83

CONTEXT

- Functional Classification: Minor Arterial
- Pavement Condition: Satisfactory/Good
- Speed Limit:
 - US 83 Bypass to 13th St NW: 30 mph
 - 13th St NW to Broadway: 25 mph
- ROW Width (Approx. including sidewalks):
 - US 83 Bypass to 12th St NW: 90 feet
 - 12th St NW to Broadway: 80 feet
- Public Transit: Northwest and North Central Routes
- Access Points per Mile:
 - US 83 Bypass to 12th St NW: 12
 - 12th St NW to Broadway: 80

KEY ISSUES

- New high school was recently completed but the corridor lacks continuous pedestrian and bicycle routes
- Lack of safe pedestrian crossings across 21st Avenue and controlled access for existing traffic
- Inconsistent roadway cross-section deviates from two-, four-, and three-lanes as the corridor progresses from west to east
- 21st Avenue NW is one of the primary growth corridors in Minot in the near-term. However, traffic forecasts through 2050 indicate that two-lanes of through capacity will provide acceptable levels of traffic
- Traffic during school pickup and dropoff periods impact mobility throughout the corridor, and particularly at the intersection of 1st Street NW and 21st Avenue NW.

SAFETY & MULTIMODAL TRANSPORT

- Bus Routes Providing Hourly Service
- North Central Route
 - Northwest Route

Segment Crash Rate compared to MPO Crash Rate for Similar Roadways (0.58 Crash Ratio)



PRIORITY AREA ALTERNATIVE SOLUTIONS / 21ST AVENUE FROM 83 BYPASS TO BROADWAY/83

Corridor Vision: Consolidate the cross section into one-lane in each direction with varying median space availability and usage based on surrounding land use and traffic needs. Pedestrian and bicycle facilities will be improved to ensure safe movements for all users.

IMPROVEMENT LOCATIONS (83 BYPASS TO 12TH ST NW)



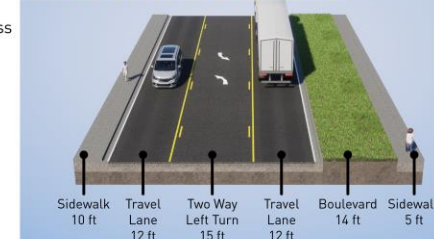
IMPROVEMENT LOCATIONS (12TH ST NW TO BROADWAY)



IMPLEMENTATION OPPORTUNITIES

- Impacts: Potential right-of-way needs on west end of corridor, reduced access
- Programmed Projects: City of Minot 21st Avenue NW Sidewalk Phase 1
- Potential Funding Sources:
 - Transportation Alternatives (TA): Construction of bicycle and pedestrian facilities and traffic calming improvements, Safe Routes to School (SRTS) projects
 - Highway Safety Improvements Program (HSIP): At intersections to improve pedestrian and bicycle crossings, geometric roadway improvements
 - Flexible Transportation Fund Program: Safety improvements for all road users, pedestrian and bicycle improvements, can be used as a match for USDOT grants
 - Better Utilizing Investments to Leverage Development (BUILD): Complete reconstruction of the roadway with pedestrian facilities

SKYLINE DRIVE TO BROADWAY



PROPOSED THREE LANE SECTION

Reconfigure to a three-lane section by removing on-street parking. A separated turn lane will benefit vehicles turning into driveways and local streets as traffic volumes increase. Converting a four-lane roadway to three lanes can reduce crashes by up to 75%.

Raised medians will reduce crash potential by reducing high severity conflict points, funnel traffic to locations that can warrant traffic control devices, serve as snow storage and pedestrian refuge, and offer aesthetic opportunities.

PRIORITY AREA EXISTING CONDITIONS /
N BROADWAY FROM 19TH AVE NW TO 21ST AVE NW

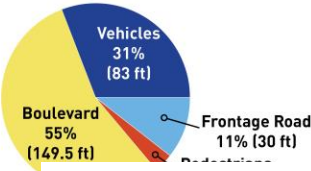
CONTEXT

- Functional Classification: Principal Arterial
- Pavement Condition: Good
- Speed Limit: 40 mph
- Curb-to-Curb Width (Approx.): 90 feet
- ROW Width (Approx.): 270 feet
- Public Transit: North and North Central Routes

KEY ISSUES

- Traffic control locations should be revisited to consider increased demand along 21st Avenue and new development along 19th Avenue
- The combination of high speeds and intersecting traffic have led to the intersections of 20th and 21st to be identified as Critical Crash locations
- Over-representation of angled crashes at the traffic signal requires further investigation of causes at 20th Avenue
- Recent development to the southeast and northwest of the corridor require a review of the most appropriate pedestrian and cyclist routing configuration

SAFETY & MULTIMODAL TRANSPORT



Bus Routes Providing Hourly Service

- North Central Route
- North Route

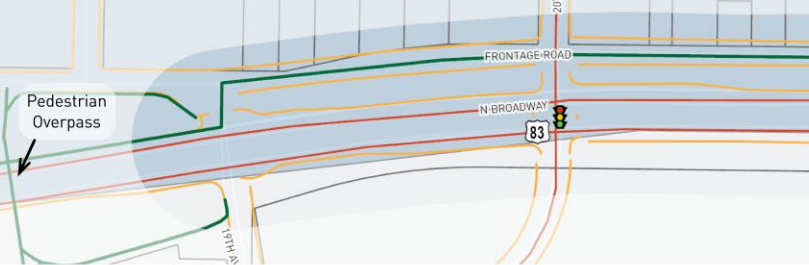
Segment Crash Rate compared to MPO Crash Rate for Similar Roadways (1.9 Crash Ratio)



VEHICULAR CONDITIONS



ALTERNATIVE MODES



PRIORITY AREA ALTERNATIVE SOLUTIONS /
N BROADWAY FROM 19TH AVE NW TO 21ST AVE NW



Corridor Vision: Reduce the number of angled crashes by increasing access control and reconfiguring roadways that lead to the Minot International Airport and to the critical 21st Avenue arterial. Modifications will also provide better routing for pedestrians and bicyclists through improved facilities.

IMPLEMENTATION OPPORTUNITIES

- Given proposed and programmed projects, what are potential funding sources?
- Impacts: Median curbline alterations and turning movement reductions
 - Programmed Projects: City of Minot North Broadway near Airport Street Lighting District
 - Potential Funding Sources:
 - Highway Safety Improvements Program (HSIP): Medians to reduce turning movements
 - Infrastructure for Rebuilding America (INFRA): Broadway/US Highway 83 corridor extends to US/Canada border, funds could be used for corridor reconstruction
 - Rural Surface Transportation Grant Program: Corridor reconstruction, pedestrian and bicycle improvements
 - Flexible Transportation Fund Program: Safety improvements for all road users, pedestrian and bicycle improvements, can be used as a match for USDOT grants

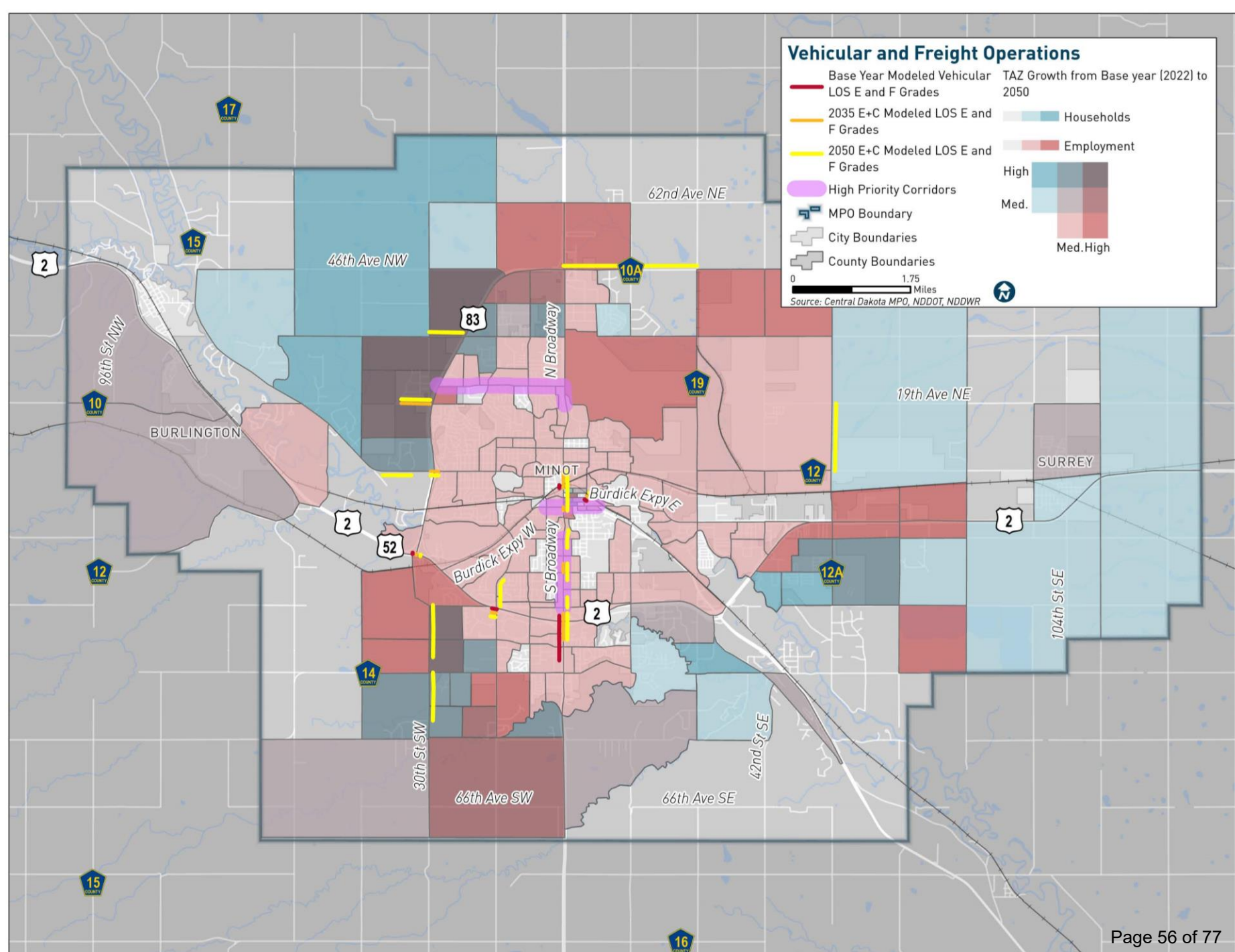
COMPARISON OF ALTERNATIVES TO CURRENT CONDITIONS

	Accessibility (How easily people can reach their destinations via the network)	Safety	Multimodal
Alt 1. Signal at 20th Ave/ Airport Rd and Access Control at 19th and 21st Ave	Worst	Best	Unchanged
Alt 2. Signals at 19th Ave NW and 21st Ave NW	Best	Better	Best
Do Nothing / No Build Scenario	Better	Worst	Unchanged

Vehicular and Freight Operations

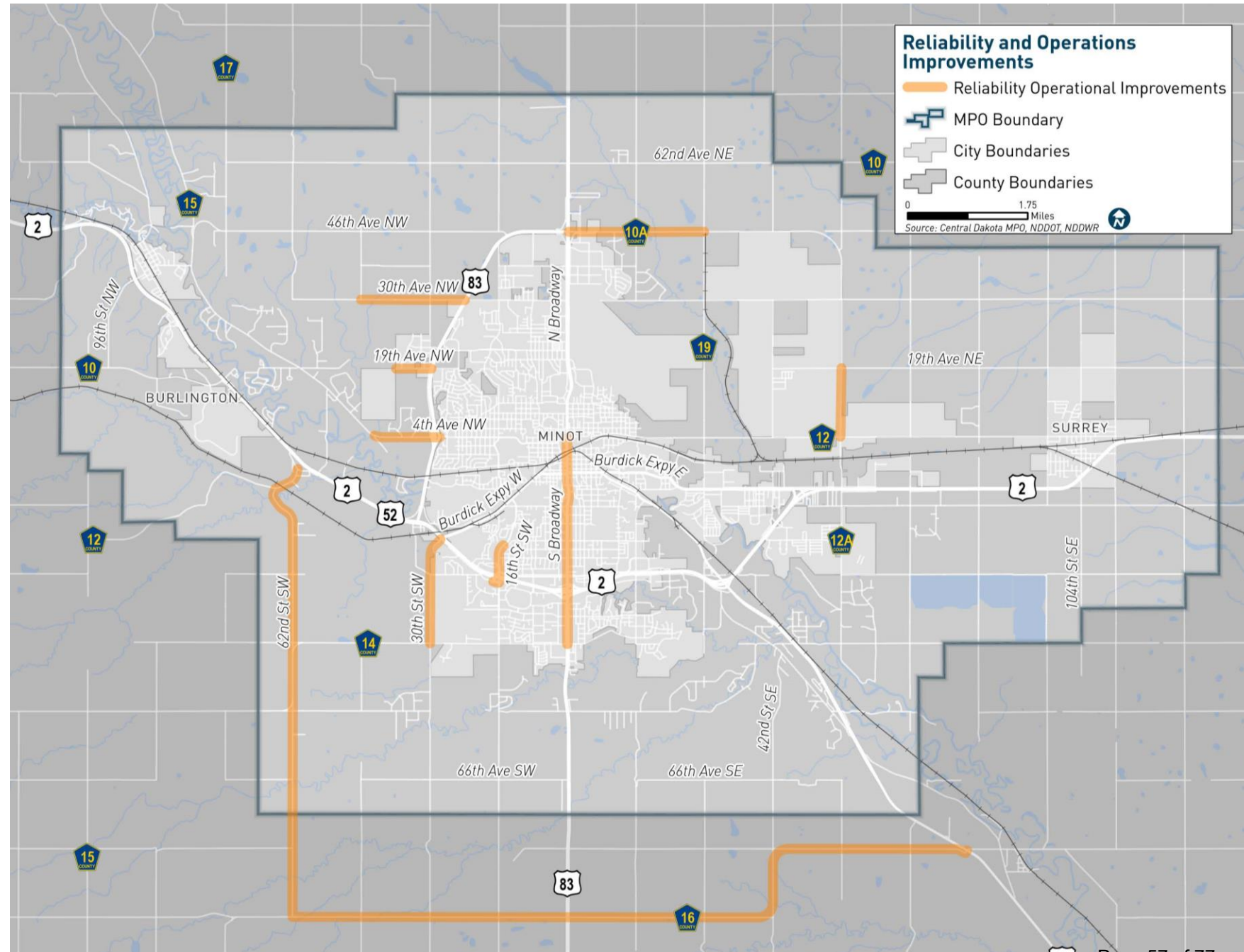
Layers:

- Base, 2035, and 2050 Travel Demand Model Results
- Traffic Analysis Zone Household and Job Data
- Priority Areas

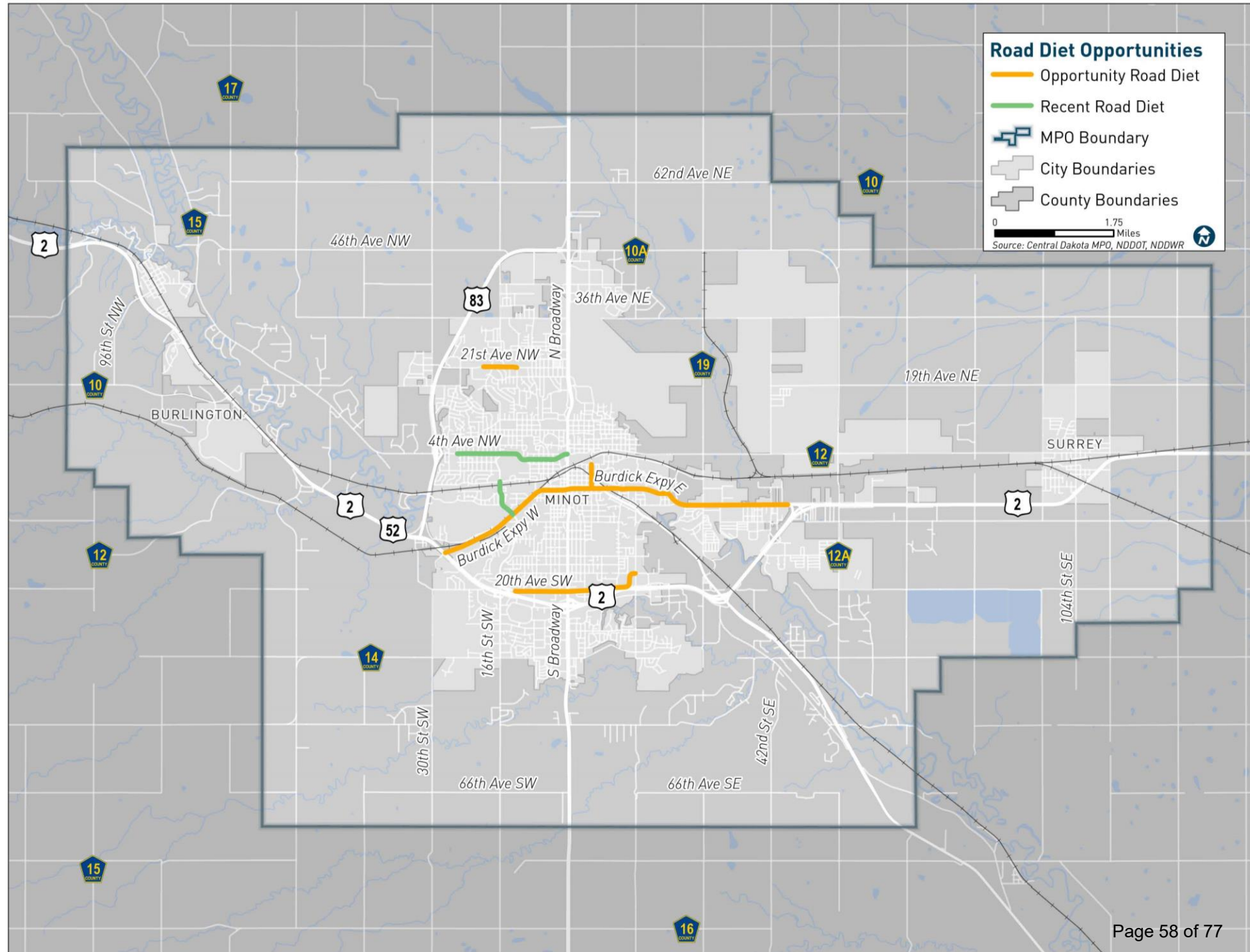


Reliability & Operations Imp.

- SW and SE Connector Corridor will have widespread Traffic Relief Benefits
- Several Corridor Improvements Needed to Support Future Growth
- Non-Widening Related Operations Issues on Broadway

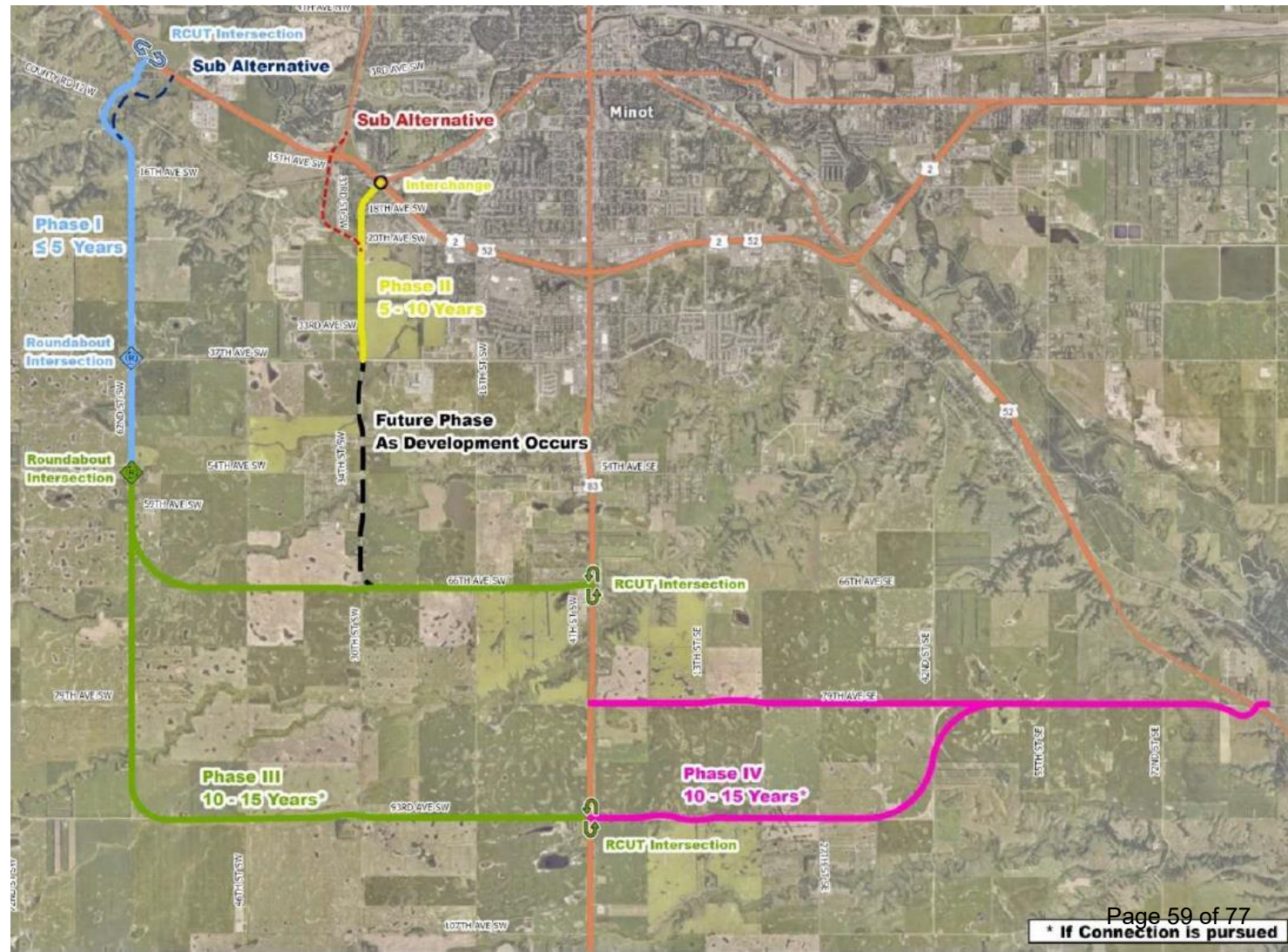


Road Diet Opportunities



SW and SE Connector Corridors

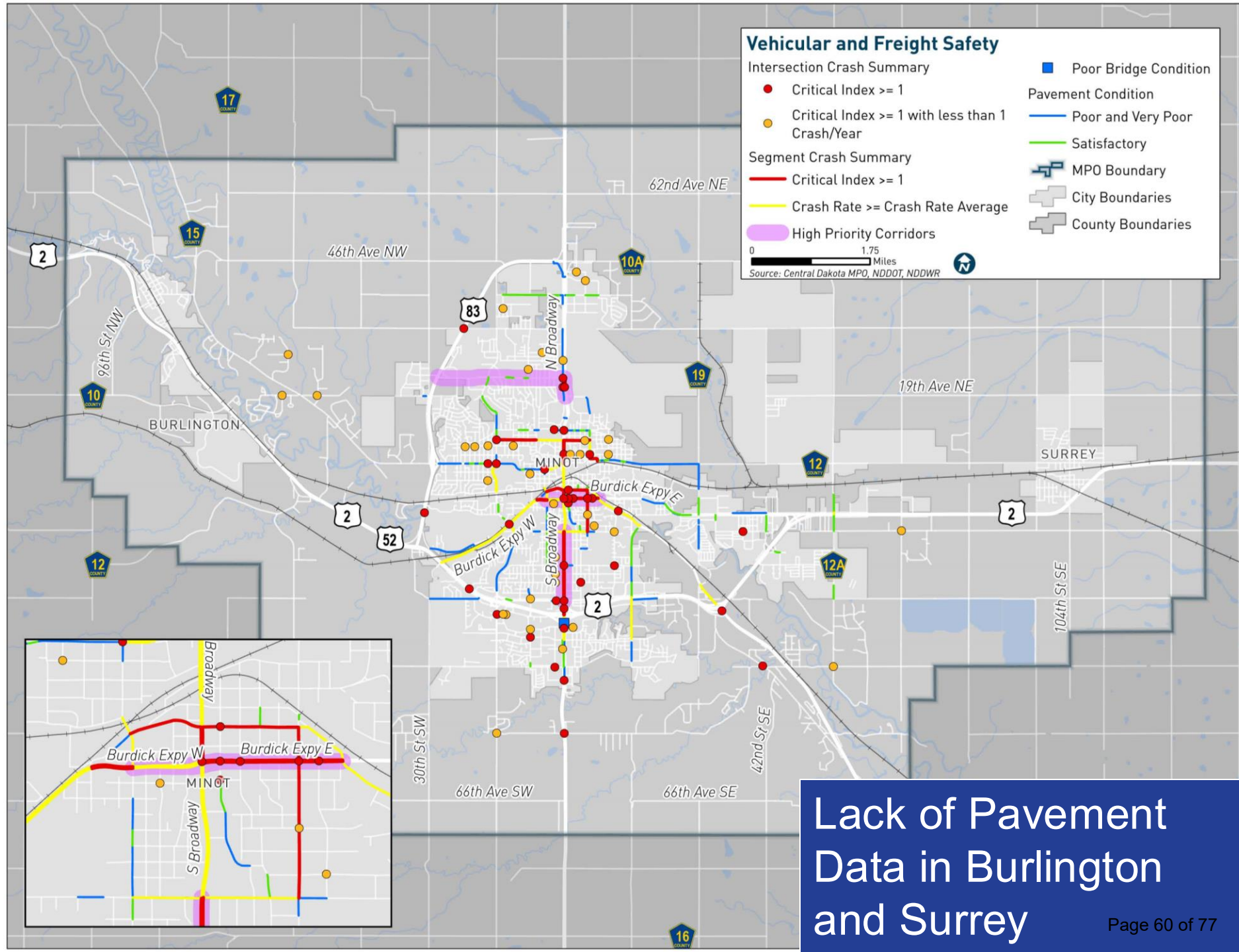
- Internal Route
Projected Significant Benefits to Internal Traffic (i.e. 16th Street and Broadway)
- External Route
Projected Significant Benefits to Regional Traffic (i.e. US 2, US 83, and US 52)



Vehicular and Freight Safety

Layers:

- Crash and Fatality Rate
- Pavement and Bridge Conditions
- Priority Areas

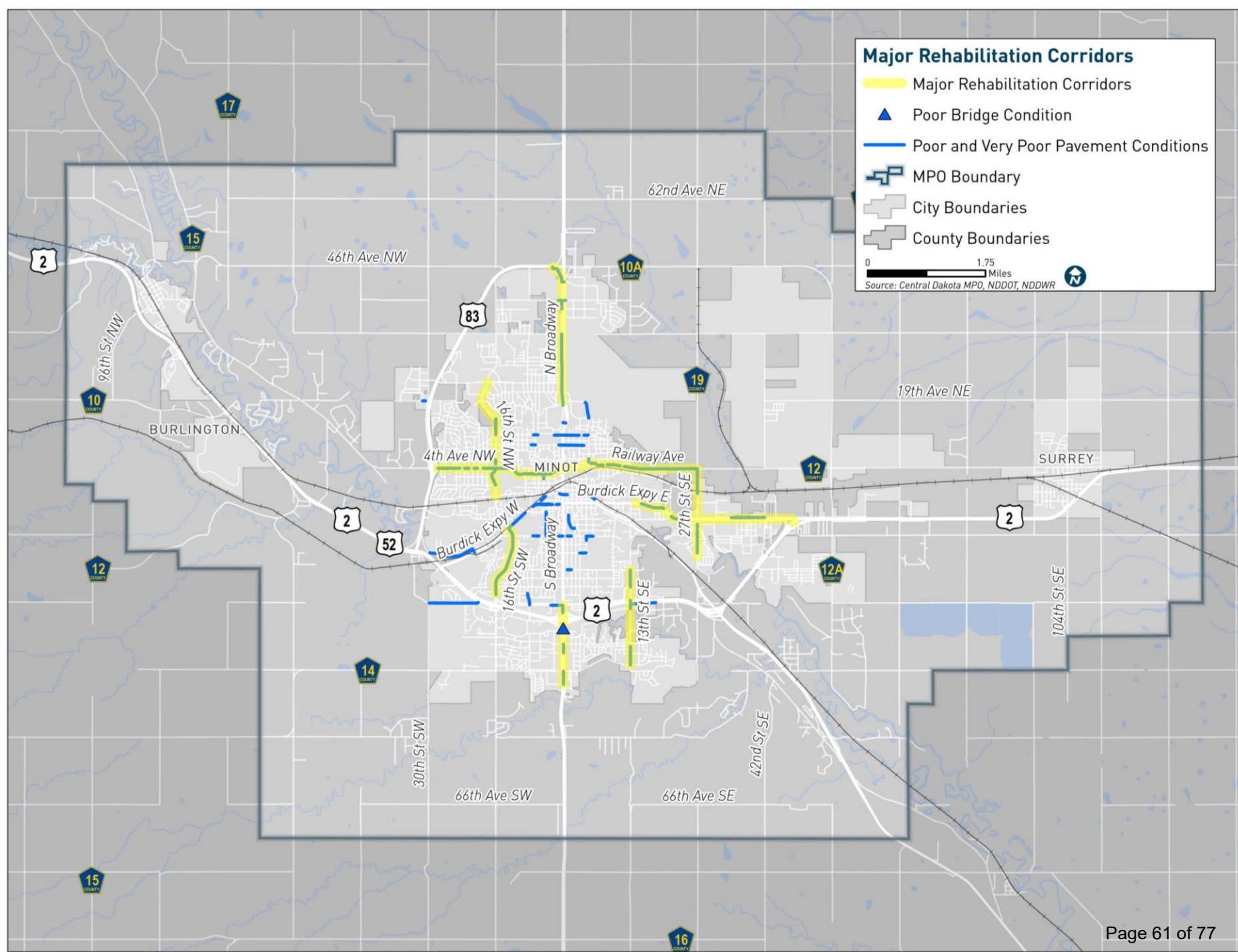


Lack of Pavement Data in Burlington and Surrey

Pavement Improvements

Corridors

- N Broadway
- S Broadway
- 4th Avenue NW
- Railway Avenue NE
- CR 19A
- 16th Street SW
- 13th Street SE
- Burdick Expressway



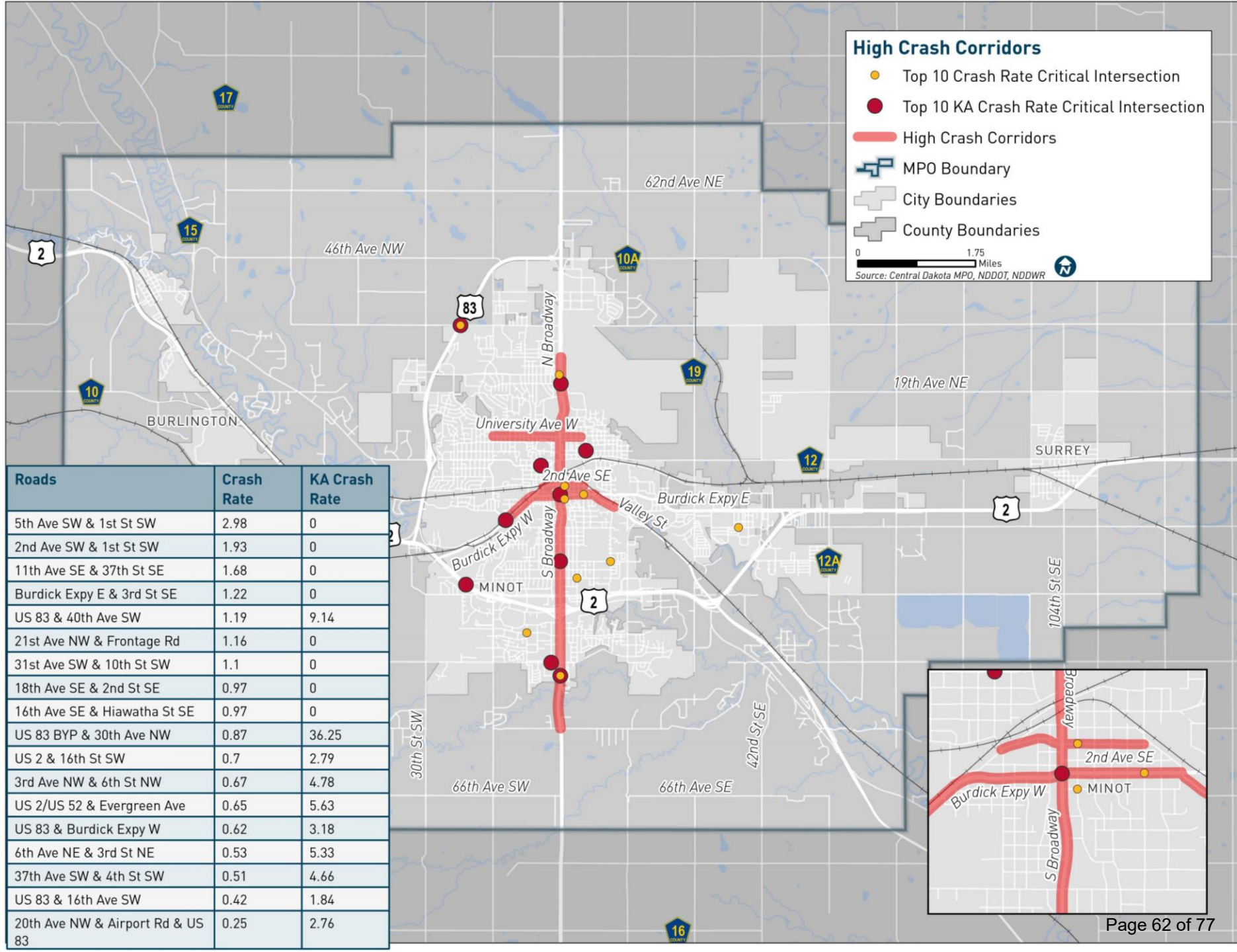
Vehicular Safety Improvements

Corridors

- **Broadway**
- **Burdick**
- **Expressway**
- **2nd Avenue SE**
- **University Avenue W**

Intersections

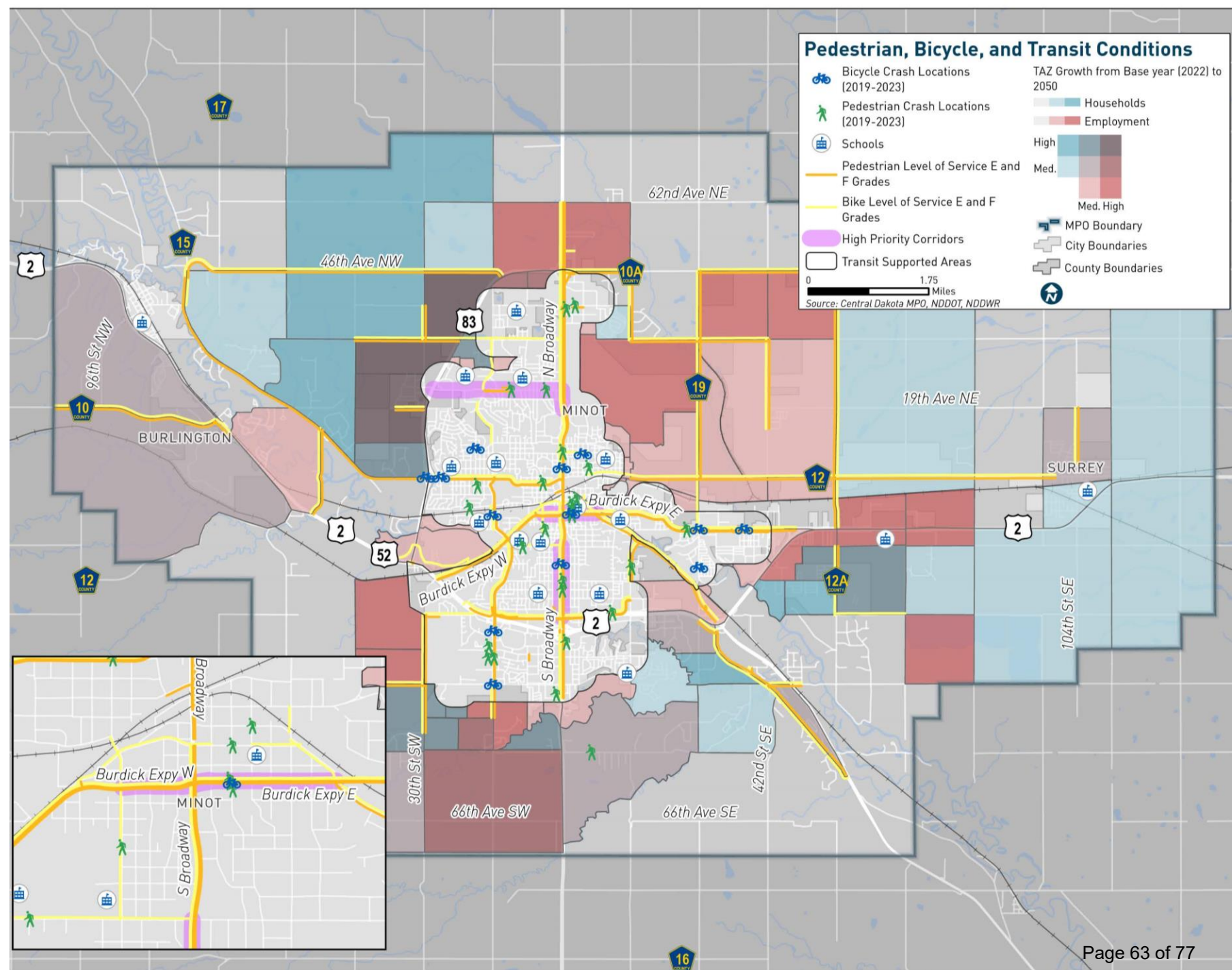
- **Top 10 Crash Rate**
- **Top 10 Serious Crash Rate**



Pedestrian, Bicycle, and Transit Conditions

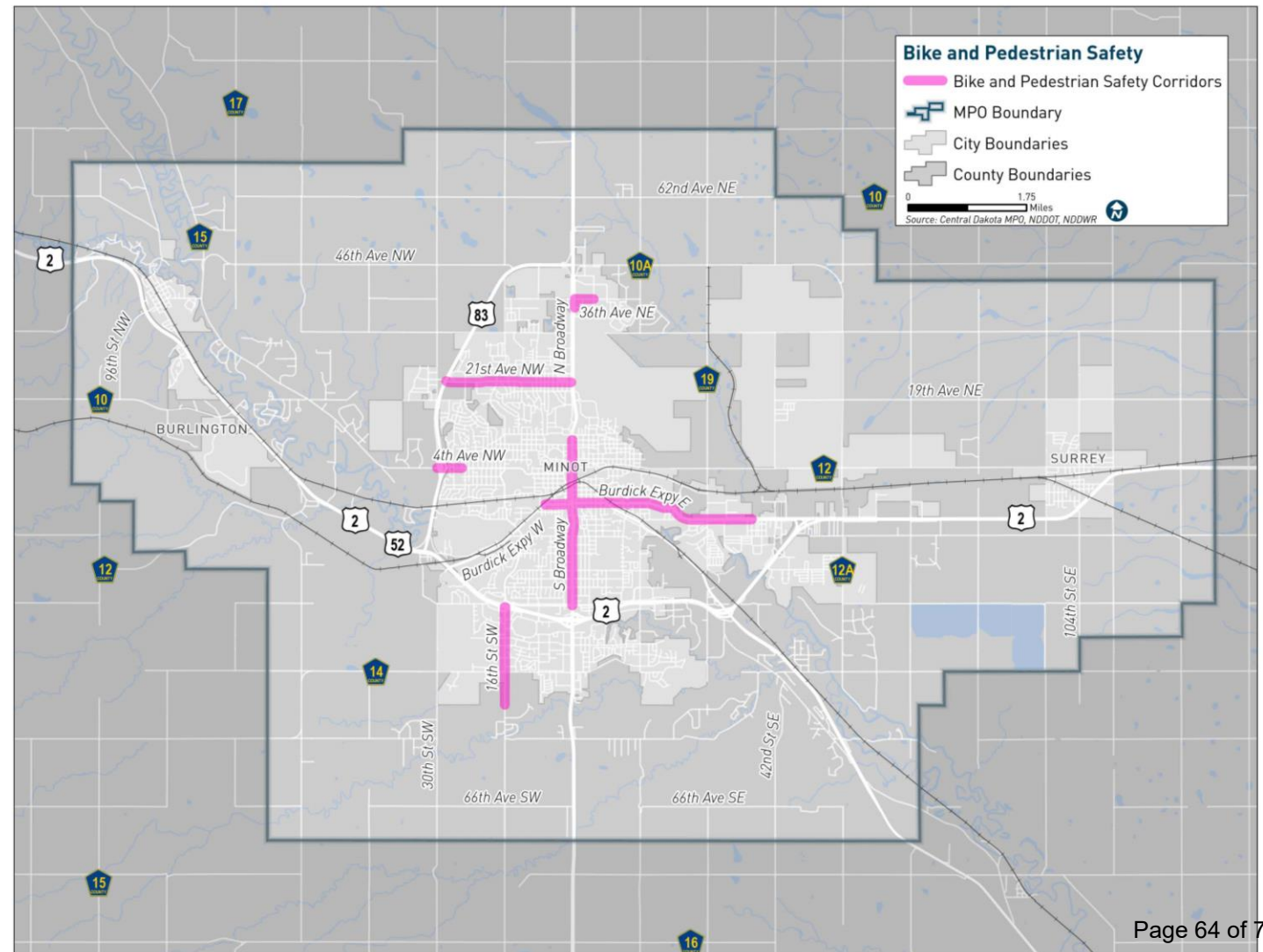
Layers

- Ped/Bike Crashes
- Ped and Bike Level of Service
- Transit Supported Areas



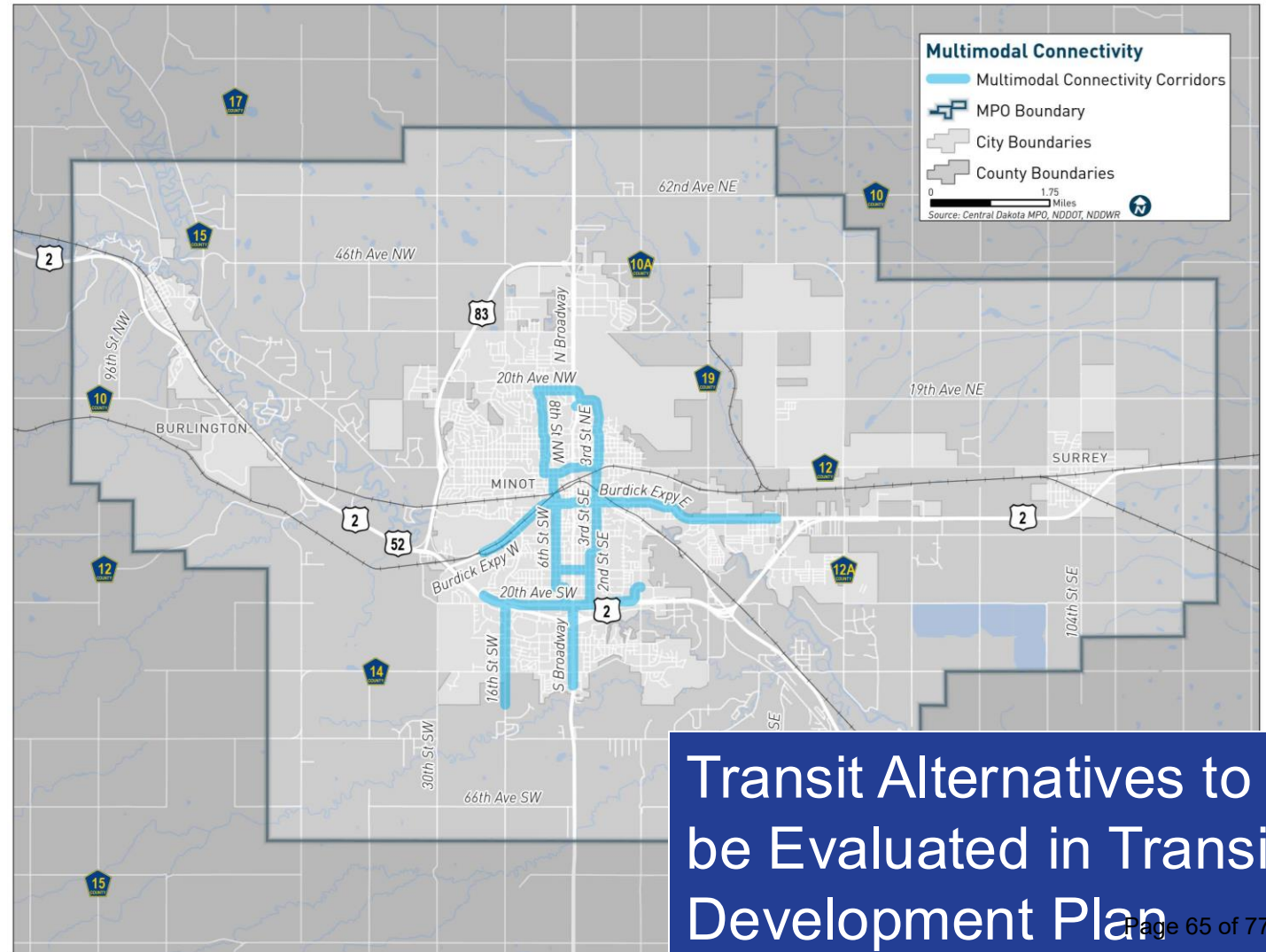
Bike and Ped Crossing Safety

- High volumes of bike and pedestrian crashes
- Corridors
 - 21st Avenue NW
 - Broadway
 - Burdick Expressway E
 - 10th Street SW
 - Portion of 4th Ave NW and 36th Ave NW

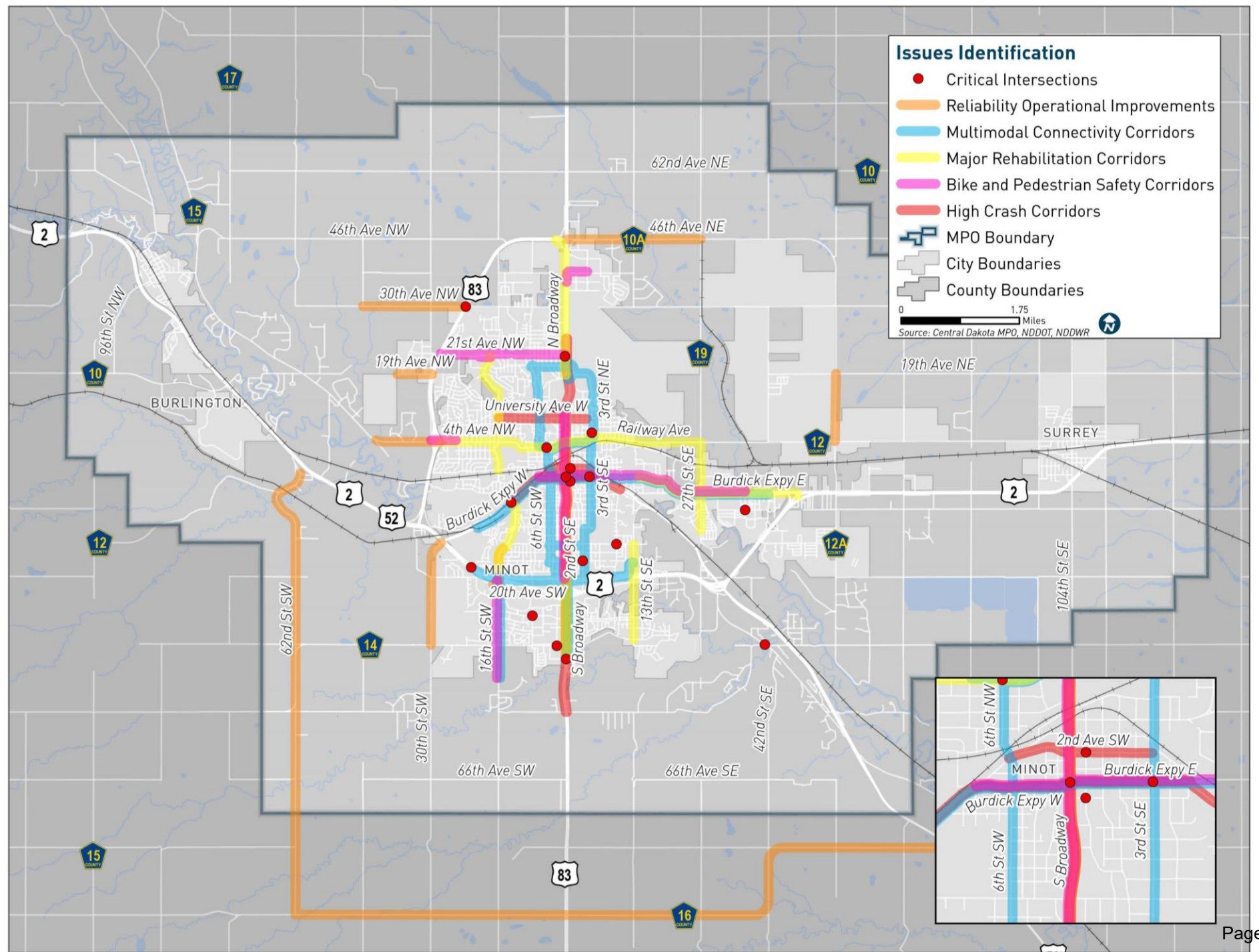


Linear Multimodal Improvement Corridors

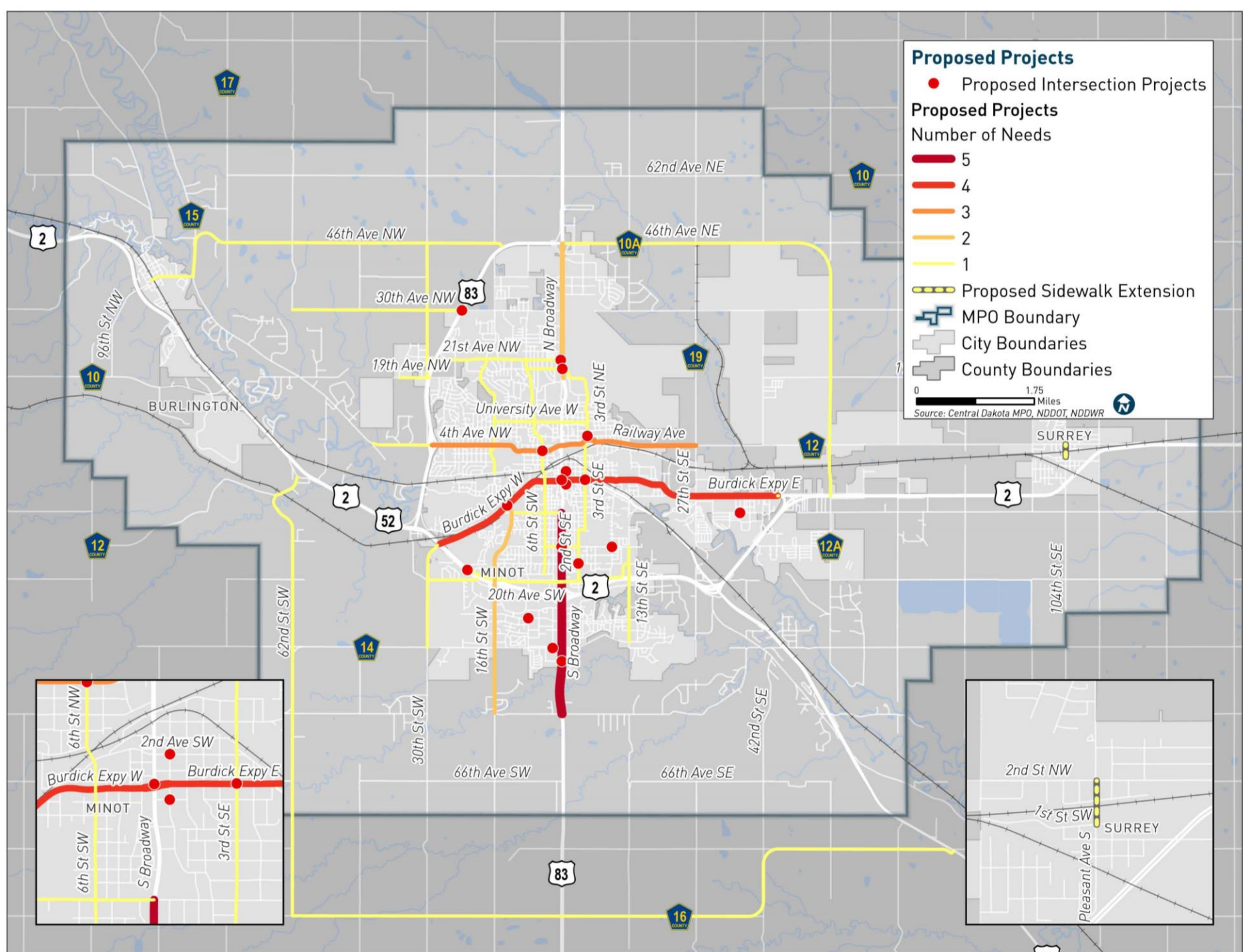
- **North-South through the heart of Minot**
 - North of US 2: 3rd Street E and 6th Street W – Bike Corridors
 - Broadway and 16th Street South of US 2 – Ped/Bike
- **East-West Gaps:**
 - Burdick Expressway – Bike Gap
 - 20th Avenue S – Ped/Bike Gap



Issues Identification Map

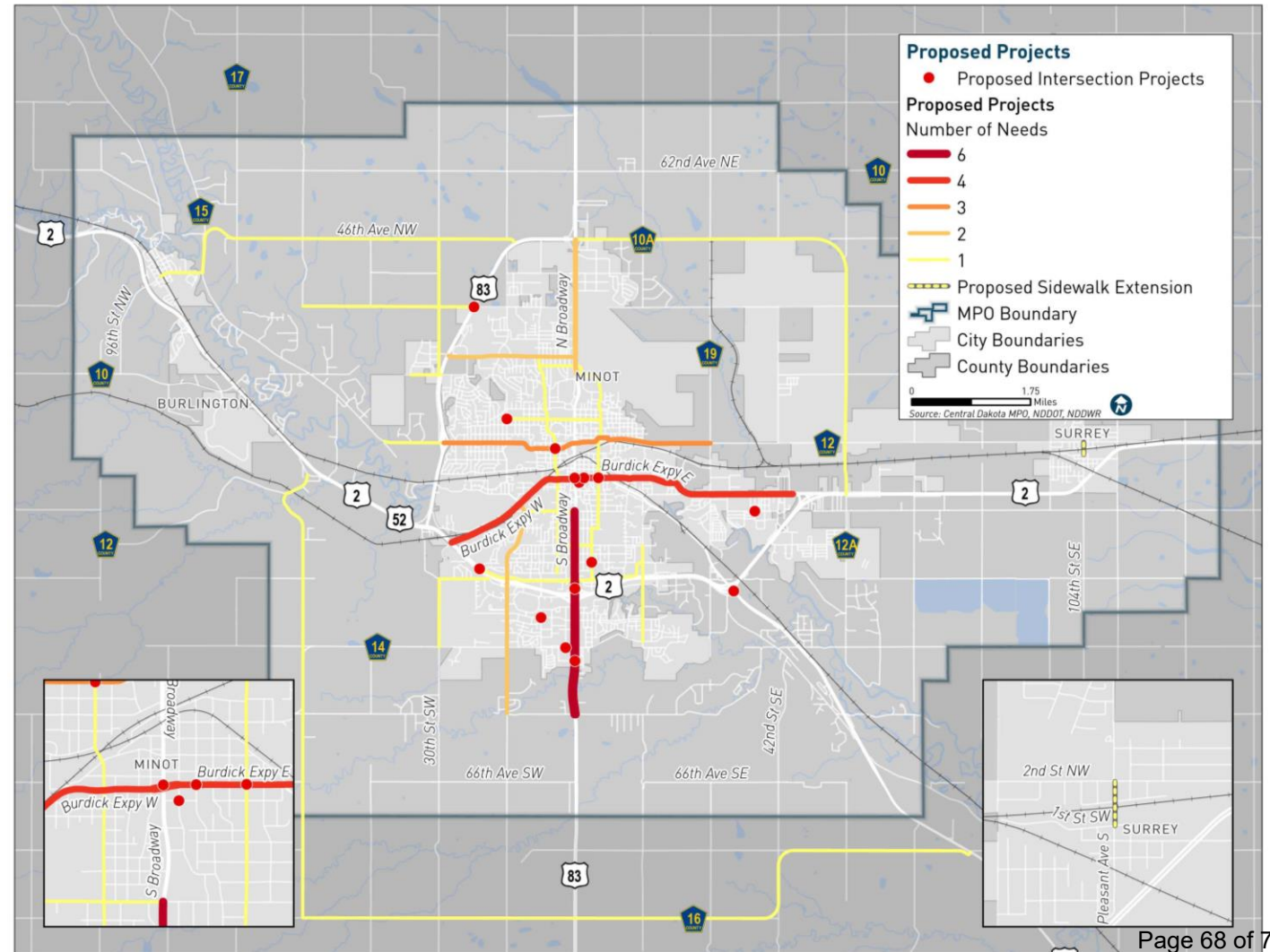


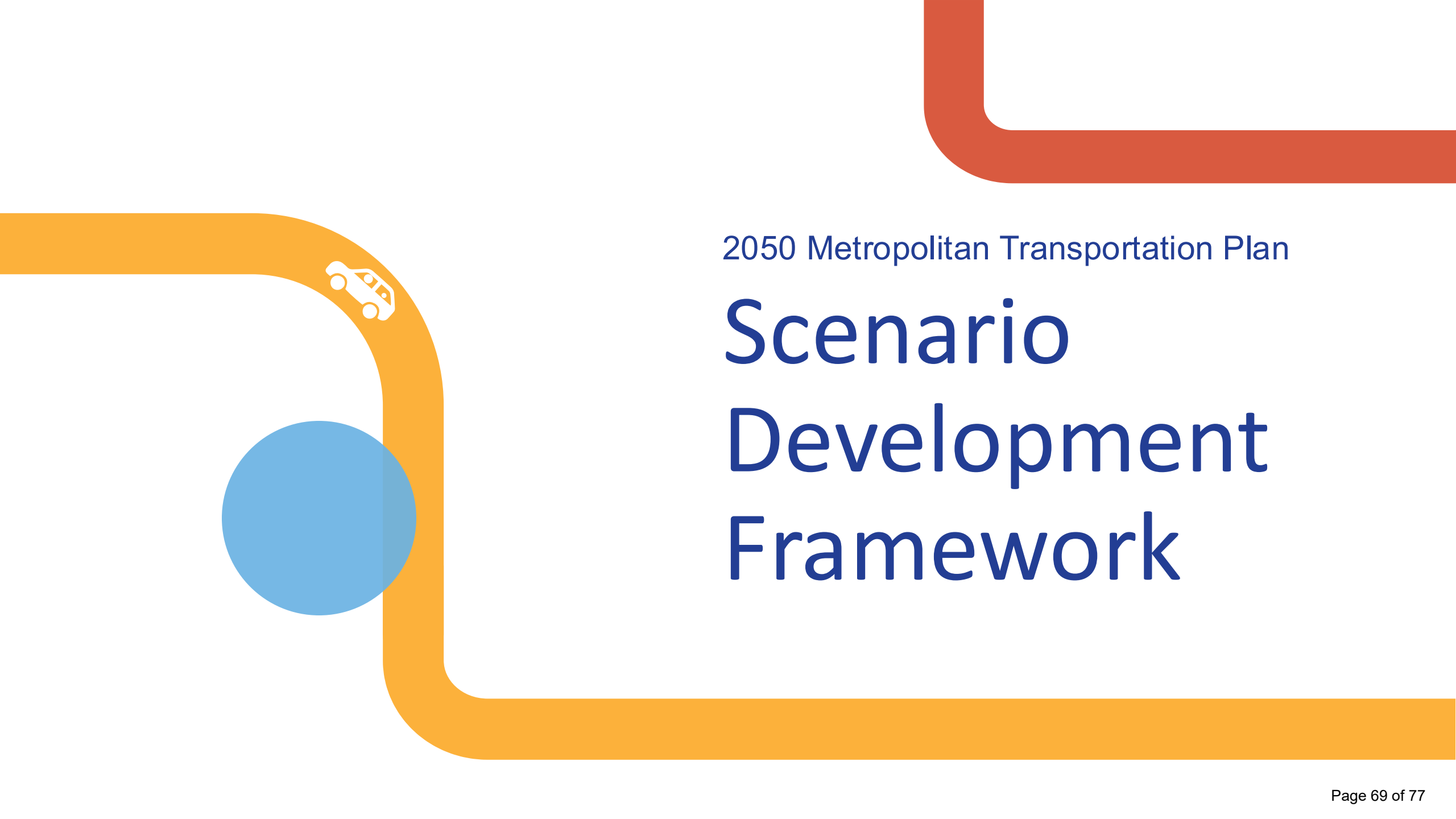
Project List Universe



Project List Universe – What is missing?

- What is missing?
 - New projects
 - Projects identified in other plans
 - Long-term Pavement Rehabilitation or Reconstruction Needs
- Identify project priorities
 - What are your priority projects?
 - What are your known or preferred project timeframes?



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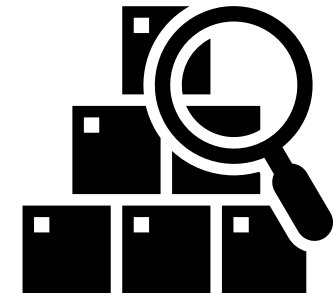
2050 Metropolitan Transportation Plan

Scenario Development Framework

Scenario Development

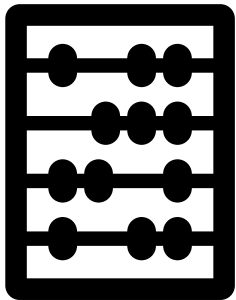


- Add any missing projects or local priorities not listed
- Feedback on desired project timeframes



Scenario Development

Develop
fiscally
constrained
project
scenarios



Assign
investment
type eligibility

- Rehabilitation, Reconstruction, Capacity Expansion/Extension, Safety, Bike & Ped, Transit

Fiscal
Constraint
Framework

- Match available funding by investment type with eligible projects
- Assign priority and timeframe to projects

Scenario
Development

- Generate alternatives with different project groupings for available funding
- Project groupings identified based on data analysis and agency feedback in addition to reflecting MTP goals
- **Example:** Safety focused investment scenarios throughout, New connections-focused scenario, Modernization and multimodal-focused scenario, Balanced scenario



2050 Metropolitan Transportation Plan

Phase 2 Engagement Plan

Phase 2 Engagement Strategy

- **Engagement Goals**

- Continue to develop an understanding of regional transportation issues
- Gain community insight on:
 - Priority projects and investment types
 - Specific project lists

- **Planned Outcomes**

- Project List
- Scenario Types



Phase 2 Marketing and Promotional Tools

- **Marketing and Promotional tools to be used:**

- **Boosted Social Media**

- Social media platforms like Facebook, Twitter, and Instagram will be used to share project updates, invite public participation, and disseminate important information.

- **Newspaper Ad/Minot Daily News Digital Ad**

- Newspaper ads will be placed in local newspapers such as the Minot Daily News to inform the public about the MTP and invite participation.

- **Minot Daily News follow Up Story**

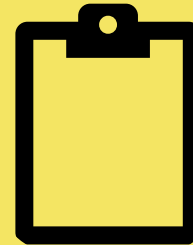
- **Press release**



Phase 2 Engagement Tools

Website with Story Map

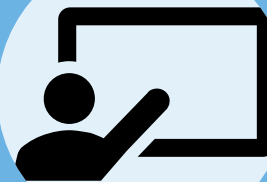
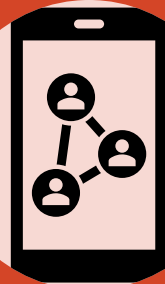
Incorporate project scenario maps



Online Survey

Feedback on projects and scenarios

Phase 2 Marketing Tools



Virtual Open House

Week of July 14th

Comment Period open on end of June – end of July

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Next Steps and Schedule

Next Steps and Schedule

- **Tuesday, May 20th**
 - TAC feedback on project list and project priorities
 - TAC feedback on Issues Identification report and Priority area summaries by **May 27th**
- **Now – June 2nd**
 - Finalize universe of projects
 - Develop cost estimates
 - Develop fiscally constrained scenarios
- **June 10th TAC meeting**
 - Review and provide feedback on scenarios
 - Confirm phase 2 public engagement materials

