Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

TECHNICAL ADVISORY COMMITTEE MEETING

WEDNESDAY, OCTOBER 12TH, 2022 – 1:30 P.M.

East Grand Forks City Hall Training Room/Zoom

PLEASE NOTE: Due to ongoing public health concerns related to COVID-19 the Grand Forks/East Grand Forks Metropolitan Planning Organization (GF/EGF MPO) is encouraging citizens to provide their comments for public hearing items via e-mail at. To ensure your comments are received prior to the meeting, please submit them by 5:00 p.m. one (1) business day prior to the meeting and reference the agenda item(s) your comments address. If you would like to appear via video or audio link for comments or questions, please also provide your e-mail address and contact information to the above e-mail. The comments will be sent to the Technical Advisory Committee members prior to the meeting and will be included in the minutes of the meeting.

MEMBERS

Palo/Peterson _____
Ellis _____
Bail/Emery _____
Brooks _____
Riesinger _____

Mason/Hopkins_____
Zacher/Johnson _____
Kuharenko/Danielson _____
Bergman _____

West _____
Magnuson _____
Sanders _____
Christianson _____

1. CALL TO ORDER

2. CALL OF ROLL

3. DETERMINATION OF A QUORUM

4. MATTER OF APPROVAL OF THE SEPTEMBER 12, 2022, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE

5. MATTER OF FINAL APPROVAL OF THE 2045 METROPOLITAN TRANSPORTATION PLAN (MTP) AMENDMENT .....HALFORD

6. MATTER OF FINAL APPROVAL OF THE UND INTERN.....HALFORD

7. MATTER OF 2024-2027 T.I.P. CANDIDATE PROJECT SOLICITATION..... KOUBA

8. MATTER OF 2050 STREET/HIGHWAY ELEMENT UPDATE .....HALFORD
    a. Presentation For 2050 St/Hwy Element Update – HDR Consulting

9. OTHER BUSINESS
    a. 2021/2022 Unified Work Program Project Update..... KOUBA
        - Transit Development Plan Update
        - Bicycle/Pedestrian Element Update
    b. MPO Updates:
        - Safe Streets For All (SS4A).....HALFORD
        - Bridge Update .....HALFORD
        - Programming Update Workgroup.....HALFORD
        - November TAC Agenda Items .....HALFORD
    c. Agency Updates

10. ADJOURNMENT

INDIVIDUALS REQUIRING A SPECIAL ACCOMMODATION TO ALLOW ACCESS OR PARTICIPATION AT THIS MEETING ARE ASKED TO NOTIFY STEPHANIE HALFORD, TITLE VI COORDINATOR, AT (701) 746-2660 OF HIS/HER NEEDS FIVE (5) DAYS PRIOR TO THE MEETING. IN ADDITION, MATERIALS FOR THIS MEETING CAN BE PROVIDED IN ALTERNATIVE FORMATS: LARGE PRINT, BRAILLE, CASSETTE TAPE, OR ON COMPUTER DISK FOR PEOPLE WITH DISABILITIES OR WITH LIMITED ENGLISH PROFICIENCY (LEP) BY CONTACTING THE TITLE VI COORDINATOR AT (701) 746-2660

PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Monday, September 12th, 2022

CALL TO ORDER

Stephanie Halford, Chairman, called the September 12th, 2022, meeting of the MPO Technical Advisory Committee to order at 11:03 a.m.

CALL OF ROLL

On a Call of Roll the following member(s) were present: Steve Emery, East Grand Forks Engineer; George Palo, NDDOT-Grand Forks District; and Dale Bergman, Cities Area Transit. Via Zoom: Jane Williams, Grand Forks Engineering; Wayne Zacher, NDDOT-Local Planning; Nancy Ellis, East Grand Forks Planning; Ryan Brooks, Grand Forks Planning; Jon Mason, MnDOT-District 2; Ryan Riesinger, Airport Authority; and Rich Sanders, Polk County Engineer.

Absent: Brad Bail, Jason Peterson, Michael Johnson, Lane Magnuson, Nels Christianson, Nick West, and Patrick Hopkins.

Guest(s) present: Kristen Sperry, FHWA-ND; Christian Danielson, Grand Forks Engineering; Bobbi Retzlaff, FHWA-MN; David Murphy, EGF City Administrator; and Durga Vijayakumar, Resident.

Staff: Stephanie Halford, GF/EGF MPO Executive Director; Teri Kouba, GF/EGF MPO Senior Planner; and Peggy McNelis, GF/EGF MPO Office Manager.

DETERMINATION OF A QUORUM

Halford declared a quorum was present.

JANE WILLIAMS' LAST MEETING

Halford reported that this is Jane Williams' last meeting. She stated that she would be passing the torch on to Christian Danielson, who will be the new alternate when David Kuharenko isn't able to attend the meetings.

MATTER OF APPROVAL OF THE AUGUST 10, 2022, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE

MOVED BY ELLIS, SECONDED BY BROOKS, TO APPROVE THE AUGUST 10TH, 2022 MINUTES OF THE TECHNICAL ADVISORY COMMITTEE, AS PRESENTED.

MOTION CARRIED UNANIMOUSLY.

MATTER OF AMENDMENT TO THE MTP

Halford reported that our community is growing and its needs are changing, which is why we update our plans and also why we do amendments here and there. She stated that currently our most recent MTP is our 2045, however we are in the process of updating it to 2050.

Halford commented that the City of East Grand Forks is requesting the MPO amend its 2045 MTP to move the Bygland/Rhinehart Roundabout Project from the short-term to the Illustrative Project list. She said that they are also requesting to add a few projects to the short-term, they are:

1) 5th Ave NE (15th-20th St NE) – Miscellaneous concrete panel/C&G replacement and miscellaneous sidewalk replacement.
2) 5th Ave NE (Highway 2 – 10th St NE) – Miscellaneous concrete panel/C&G replacement.
3) DeMers Ave (4th St to 10th St) – Replace stamped concrete crosswalks, remove bituminous pavement from old RR tracks and replace with concrete pavement, miscellaneous concrete panel/C&G replacement, and miscellaneous sidewalk replacement.

Halford stated that this proposed amendment is being presented to both Cities. She explained that even though it doesn't directly affect both communities each City is asked to consider looking at their individual City Comprehensive Plans. She stated that this request is coming from East Grand Forks, both Cities will need to review their Comprehensive Plans and if Grand Forks feels that their plan needs to be updated we will need to go through a two month process, if they don't then they just need to submit a letter from the City to the MPO saying that this doesn't warrant an update to their Comprehensive Plan and to move forward She said that once we receive notification from Grand Forks we will bring this back to the Technical Advisory Committee.

Halford asked if anyone had any comments or questions on this item. She added that we do have representation from the City of East Grand Forks to help answer any questions you may have. There were no comments or questions.

MOVED BY WILLIAMS, SECONDED BY BERGMAN, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE AMENDMENT TO THE 2045 MTP, AS PRESENTED.

Voting Aye: ***Palo, Brooks, Ellis, Emery, Mason, Riesinger, Zacher, Bergman, Williams, and Sanders.***
Voting Nay: ***None.***
Abstaining: ***None.***
Absent: ***Bail, Peterson, Johnson, Christianson, Kuharenko, Hopkins, West, and Magnuson.***

MATTER OF 2023-2026 T.I.P.

Kouba reported that this has been before you at your meeting last month. She said that it was approved by the Technical Advisory Committee however when it was presented to the MPO Executive Policy Board staff requested that it be tabled in order to include additional public comment on some of the changes that happened since the TIP was released for review and comment prior to last month's meetings.

Kouba stated that there weren't any changes since last month's meetings other than some minor things to the narratives to ensure they reflect the exact same thing that is in the Draft STIPs that are out.

Kouba commented that there one thing that she did change was from the Illustrative Project List to FY2023, and that is the expansion of the Public Transportation Maintenance Building. She explained that this project will include an addition to the building and updating of the equipment. Bergman referred to the table and said that he thinks the grand total is off; he believes it is $8.6 million, but he will double check and get the correct number to staff.

Kouba stated that they are still waiting to hear on some of the Main Street Initiative and the HSIP funding. Zacher responded that you should have gotten notice on the funding for the HSIP projects, they just weren't included in the Draft STIP. He added that for the Main Street Initiative, his understanding is that the recommendation is to be submitted by October 3rd, so they are a little behind on those, and that is about all the information he has at this point, and he still owes this MPO and the other two MPOs the lump sums for the PE. Kouba commented that there will probably be other updates after things have been submitted to FHWA and the approve it.

MOVED BY BERGMAN, SECONDED BY WILLIAMS, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE FINAL FY2023-2026 T.I.P., AS PRESENTED.

Voting Aye:	***Palo, Brooks, Ellis, Emery, Mason, Riesinger, Zacher, Bergman, Williams, and Sanders.***
Voting Nay:	***None.***
Abstaining:	***None.***
Absent:	***Bail, Peterson, Johnson, Christianson, Kuharenko, Hopkins, West, and Magnuson.***

MATTER OF UPDATE ON TRANSIT DEVELOPMENT PLAN (TDP)

Kouba reported that we are very close to getting a final document, and the recommendations received from the public input have been reviewed and will be included in the document.

Kouba said that they have also put together more complete financial and capital plan projects, so they are looking finishing all of that and we will soon begin the final plan comment period.

Kouba referred to a slide presentation (a copy of which is included in the file and available upon request) and went over it briefly.

Kouba commented that they are suggesting doing Microtransit, which is an on-demand shared transportation that utilizes technology to operate efficiently and effectively. She said that rides can be requested on-demand or in advance for pick-up and drop-off at certain locations within a defined zone. She referred to a map and pointed out the different areas where Microtransit is being proposed.

Kouba reported that the next few slides cover each what needs to be done both short term and medium term for each of the routes. She went over the information briefly, commenting that they are suggesting that the MPO and CAT work together to do a specific Microtransit plan to ensure we can determine which areas are preferable and how it will work as well as how it will transfer over in a way that isn't confusing to the public.

Kouba stated that they are keeping most of the UND routes as they are simply because UND is in the process of doing a lot of new construction as well as moving some of their schools around, so they have a better management of the school system as a whole. She said, then, that instead of changing things now and then most likely having to change them again later it makes sense to keep things as they are.

Kouba commented that programmatically they have recommendations to keep things consistent and to strengthen some of the website interactive maps and service planning tools, so they will continue to work on strengthening our partnerships. She added that they also have a list of plans that will hopefully help impact those programs as well.

Kouba stated that they did look at Transit Hubs at Columbia Mall, Grand Forks Mall, and the Metro Transit Center. She said that they will have to look into available funding sources, but at least they are on the books and are in our plan for when funding does become available.

Kouba reported that there are several Capital Improvements including replacing several vehicles to keep them in a state of good repair; and they are also looking at doing updates to the Metro Transit Center; and there are some additional infrastructure needs such as equipment, lighting cleaning tools, and Bus Shelters.

Kouba stated that, as mentioned, there is also a Phase II Addition Planned for the Metro Transit Center for 2023, which we recently received funding for.

Kouba commented that we do have some idea of what those Capital Assets are costing us when they are being looked at so we are making sure they are constrained. She stated that we looked at our revenue, as well, so the revenue and any expenses, currently, throughout the system have been reviewed. She added that we have a forecast of revenue, and you can see that we have inflated it, and have used some slightly different inflation rates, but for the most part there is only about a 2% increase per year. She stated that the forecast is about a 4% increase per year so we are looking at baselines as well as some of the ideas of how much capital costs we will be

looking at as well, so that is also including not just buses but other improvements to other areas of the system.

Kouba said that as you can see there are forecasted expenses shown for Fixed Route, Paratransit and Senior Rider, and for the total system as well.

Kouba stated that, in summary, we are looking at a decrease between our revenues and our expenses each year to the point where we are looking at shortfall in 2029 if nothing is corrected. She said that additional sources of local funding may be necessary to shore up system finances if expenses continue to increase at the forecasted rates.

Kouba said that they are looking at the final plan comment period beginning in October. She added that they are planning on holding a meeting on September 29th, a public meeting that will be done both in person and virtually on-line that can be viewed live or at a later date. She said that they will have printed documents available for the public to look at as well and to give public input on.

Williams said that she has one question; the Micro Transit she thinks is a great idea, but were the areas chosen based on potential ridership or some other way. She said that she is just curious about how it compares to the low-moderate income maps. She stated that her neighborhood is just east of Washington, and south of 17th, that area, and she didn't know what the criteria was for the areas chosen, but that might be a potential area to consider. Kouba responded that they are currently planning for service to continue with bus routes so that area will still be serviced with our fixed route.

Kouba reported that one of the reasons they are looking at Micro Transit, especially for the northern area, the UND area, is because it is one of our EJ areas, and it also has a low ridership, so we are hoping to be able to continue to provide service for people in that area, but also be able to manage our finances a little better.

Ellis commented that she knows that for the East Grand Forks side, they are doing it because they have such limited ridership yet we don't want to completely remove service totally, so right now, even for Route 12, it is kind of on an on-demand service picking up from some of the fixed routes, but it would be easier for them, because it covers such a large area, to not just drop it completely but not to run a service. She added that another reason is just because they are lacking drivers and the other is that it was just a scattered, not consistent ridership, so that is why, from their standpoint, Micro Transit just makes the most sense because we spend so much money with an empty bus driving around for maybe 10 riders one day and the next day only two and then maybe fifteen. Williams said that she agrees that this is the way to go. She added that she actually thinks there are probably several areas in Grand Forks that could also benefit from it, so she actually likes this idea.

Ellis stated that, if she isn't mistaken, we will be studying it in 2024. Halford responded that that is what they are looking at. She said that they are looking at doing it as a special study on Micro

Transit in 2024. Ellis added that the study will be on how to implement it because the idea is great, the implementation is just a little bit harder.

Information only.

OTHER BUSINESS

A. 2021/2022 Annual Work Program Project Update

Kouba referred to the Unified Work Program Project update included in the packet and commented that most of our tasks have been completed, and we are focusing on finishing up our Transit Development plan and are hoping that we will have the final adoption of the plan by December. She said that we are also concentrating on our Bike and Pedestrian as well as our Street and Highway plans.

1) Bike/Ped Plan Update – Kouba reported that we are on track and are looking at doing another Steering Committee meeting on September 26th at 10:00 a.m. to go over the existing conditions as well as to try to get some input on some of the Safe Routes to School components that we have been working on and to set some goals and strategies and objectives and targets for the plan as well.

2) Street/Highway Plan Update – Kouba reported that we have been working on the Street and Highway Update, mostly just on establishing the website and data collection and analysis. She said that they are also working on setting up the first public meeting on September 29th at 5:00 p.m. to get input from the public on issues and needs and goals for the plan itself.

B. Agency Updates

1) GF-EGF MPO

a. Safe Streets For All (SS4A) – Halford reported that she is just working on some follow-up questions for the application.

b. Bridge Update - Halford reported that they will be interviewing some consultants this week.

c. Programming Update Workgroup – Kouba reported that this is a Minnesota side MnDOT Workgroup to get input from various entities such as Cities, Counties, MPOs and other such entities, especially their districts. She said that Jon Mason sits on this for us, which we are grateful for, and he did send an update.

Kouba commented that the group agreed to make the five bridge recommendations as well as the HSIP.

Kouba said that they won't be meeting in September, so we won't have an update in September.

Mason referred to Page 5 of the slide presentation and pointed out that the Recommendations to TP&IC lists the five bridge recommendations.

Information only.

OTHER AGENCIES

None.

ADJOURNMENT

MOVED BY BROOKS, SECONDED BY ELLIS, TO ADJOURN THE SEPTEMBER 12TH, 2022 MEETING OF THE TECHNICAL ADVISORY COMMITTEE AT 11:35 A.M.

MOTION CARRIED UNANIMOUSLY.

Respectfully submitted by,

Peggy McNelis, Office Manager

Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

MPO Staff Report

Technical Advisory Committee:

October 12, 2022

MPO Executive Board:

October 19, 2022

STAFF RECOMMENDED ACTION: Recommend final approval of the proposed amendments to 2045 Metropolitan Transportation Plan (MTP)

TAC RECOMMENDED ACTION:

Matter of the proposed 2045 MTP Amendment

Background:

What the city of East Grand Forks is requesting:

The city of East Grand Forks is requesting the MPO amend the 2045 MTP to move the Bygland /Rhinehart round-a-bout from short-range (2023-2027) to the mid-range (2028-2037). The city further requests the MPO to amend the MTP to add these projects:

- 5th Ave NE (15-20th St NE)
  - Misc concrete panel/C&G replacement
  - Misc sidewalk replacement
- 5th Ave NE (Highway 2 – 10th St NE)
  - Misc concrete panel/C&G replacement
- DeMers Avenue (4th St to 10th St)
  - Replace stamped concrete crosswalks
  - Remove bituminous pavement from old RR Tracks and replace with concrete pavement
  - Misc concrete panel/C&G replacement
  - Misc sidewalk replacement

Amendment Process:

The 2045 Metropolitan Transportation Plan (MTP) was adopted in January 2019. From time to time, amendments are needed to reflect changes that are necessary for a variety of factors. Just as the original 2045 MTP adoption process we need to engage both cities and the proposed amendment is being presented for consideration to each side of the river whether it has a direct affect or not. Essentially, this is an up to 60 days review process in which each City is requested to consider these changes to their individual Comprehensive Plans.

The requested amendment is coming from the East Grand Forks side so Grand Forks will need to review the amendment to see if it meets the requirement to amend their Comprehensive Plan.

- If it does not meet the requirement, then the City of Grand Forks will need to write a letter informing the MPO of this.
- If it does meet the requirement, then the City of Grand Forks will need to update their Comprehensive Plan (Grand Forks is a two-month process).

Once the MPO receives the letter, resolution, or ordinance reflecting the City of Grand Forks approval of the change the MPO will hold a public hearing at the next TAC meeting. Then it goes on to the MPO Executive Board.

Where we are at in the process:

The proposed amendments were reviewed and presented at the September TAC and Executive Board meetings. There were no comments or questions from the TAC. The Executive Board had a few questions/comments that came up: DeMers asked why the roundabout project needs to be moved to the Illustrative Project List? The MPO responded that is what was communicated to the MPO. Mayor Gander was present at the meeting and commented that the conversations that he has been a part of inside City Hall it would seems to make more sense to move the Bygland/Rhinehart round-about project to the mid-range. The MPO has made that adjustment to the request.

Representatives from the City of East Grand Forks attended the recent ATP meeting on September 29th to give them an update on where the city is at with this process and the plan on using the Sub-target Funding. No comments or concerns came out of that update.

The City of Grand Forks has submitted a letter stating they do not need to amend their Comprehensive Plan with East Grand Forks proposed amendments. As well as the City of East Grand Forks submitted a letter, both are attachments.

Findings and Analysis:

- As part of the MPO MTP Amendment Policy, if given final approval, the proposed amendments will go on to the MPO Executive Board October 19, 2022, meeting.

Support Materials:

- Letter and attachment from the City of East Grand Forks asking to amend the 2045 MTP
- Project maps
- East Grand Forks Letter not needing to amend their Comprehensive Plan
- Grand Forks Letter not needing to amend their Comprehensive Plan

City of East Grand Forks

600 DeMers Ave · P.O. Box 373 · East Grand Forks, MN 56721
218-773-2483 · 218-773-9728 fax www.eastgrandforks.net

July 29, 2022

Ms. Stephanie Halford
Grand Forks/East Grand Forks MPO Office
East Grand Forks, MN 56721

Re: Metropolitan Transportation Plan Amendment

Dear Ms. Halford:

The East Grand Forks City Council is requesting to amend the Metropolitan Transportation Plan to utilize the Federal Subtarget Funding available this funding cycle.

A round-a-bout at the intersection of Bygland Rd. and Rhinehart Dr. is in the MTP for this funding cycle. That project was vetoed by the Mayor and the vote to override the veto failed. The City Council subsequently undertook a lengthy discussion and study of how best to utilize the funds.

The City of East Grand Forks is requesting the MPO to amend the MTP to move the Bygland/Rhinehart round-a-bout from the short-term funding list to the illustrative list. The City further requests the MPO to amend the MTP to add the projects listed in the attachment to this letter to the short-term funding list.

Please let me know if you have any questions..

Respectfully yours,

David Murphy
City Administrator

S.P. 119-110-011

O.L. 94

O.L. 75

O.L.

O.L.

5th Ave NE

20th St NE

Venus Dr

Mercury Dr

Mars Dr

NORTH

0 40 80

Scale in Feet

LEGEND

CONCRETE PANEL REPLACEMENT

DRIVEWAY REPLACEMENT

SIDEWALK REPLACEMENT

O.L. 82

O.L. 81

31

24A 24B

23B 23A

16A 16B

15B 15A

31

2A 2B

1B 1A

31

5th Ave NE

Mars Dr

Jupiter Dr

17th St NE

15th St NE

NORTH

0 40 80

Scale in Feet

WIDSETH

ARCHITECTS ▪ ENGINEERS ▪ SCIENTISTS ▪ SURVEYORS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

DATE:

LIC NO

BY	REVISIONS DESCRIPTION	NO#	DATE

DATE:
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CHECKED BY:
JOB NUMBER:

EGF Federal Aid Project
5th Ave NE (N of Hwy 2)
East Grand Forks, Minnesota

Proposal #1

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EX 1.0
SHEET OF

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8/29/2022

S.P. 119-110-010

5th Ave NE

11th St NE

Hwy 2

Central Ave

LEGEND

CONCRETE PANEL REPLACEMENT

DRIVEWAY REPLACEMENT

SIDEWALK REPLACEMENT

NORTH

0 40 80

Scale in Feet

WIDSETH

ARCHITECTS ▪ ENGINEERS ▪ SCIENTISTS ▪ SURVEYORS

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DATE

LIC NO

BY

REVISIONS DESCRIPTION

DATE

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DATE: As Shown

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JOB NUMBER:

EGF Federal Aid Project
5th Ave NE (S of Hwy 2)
East Grand Forks, Minnesota
Proposal #2

SHEET NO.
EX 2.0

SHEET OF

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8/29/2022

S.P. 119-120-010

Central Ave NW

10th St NE

9th St NE

Demers Ave

10th St NW

Hwy 2

NORTH

0 40 80

Scale in Feet

LEGEND

CONCRETE PANEL REPLACEMENT

DRIVEWAY REPLACEMENT

SIDEWALK REPLACEMENT

HIGH PRIORITY AREA

7th St NW

5th St NW

6th St NW

Demers Ave

NORTH

0 40 80

Scale in Feet

WIDSETH

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EGF Federal Aid Project
Demers Ave
East Grand Forks, Minnesota

Proposal #3

SHEET NO.

EX 3.0

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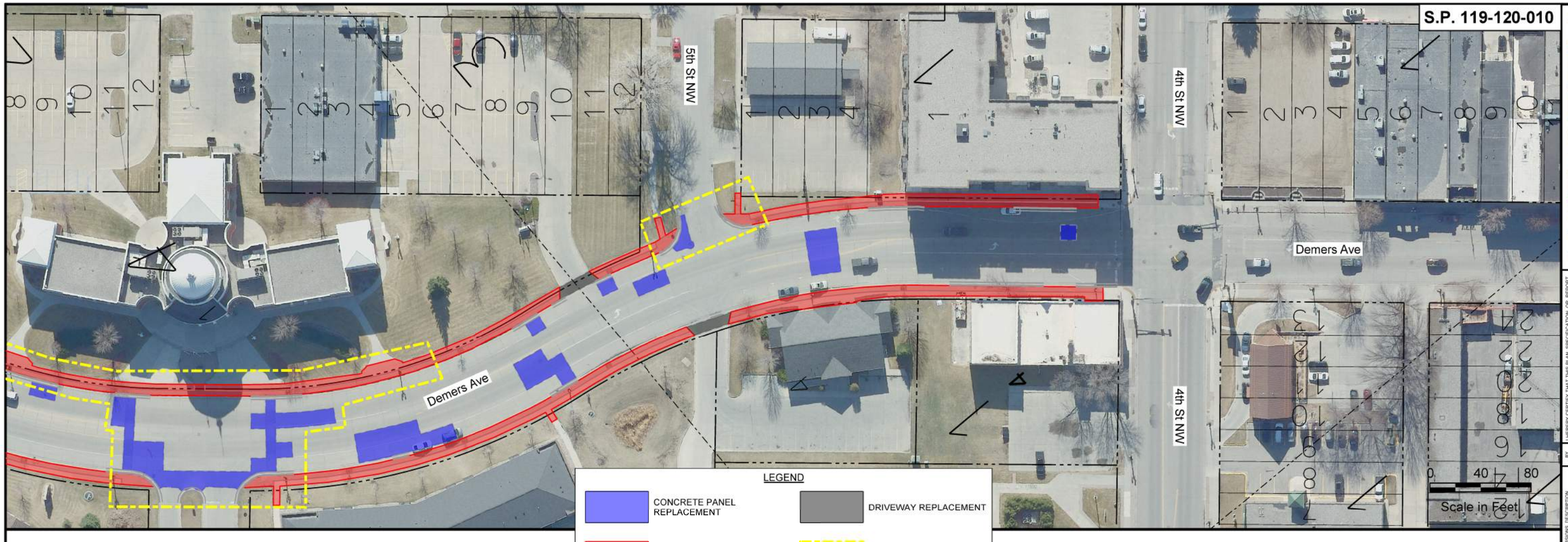
8/29/2022

S.P. 119-120-010



LEGEND

- CONCRETE PANEL REPLACEMENT
- DRIVEWAY REPLACEMENT
- SIDEWALK REPLACEMENT
- HIGH PRIORITY AREA

WIDSETH
ARCHITECTS ▪ ENGINEERS ▪ SCIENTISTS ▪ SURVEYORS

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DATE:
LIC NO

BY	REVISIONS DESCRIPTION	DATE

REVISIONS

DATE:
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JOB NUMBER:

EGF Federal Aid Project
Demers Ave
East Grand Forks, Minnesota
Proposal #3

SHEET NO.
EX 3.1
SHEET OF

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8/29/2022

.ty of East Grand Forks
600 DeMers Ave · P.O. Box 373 · East Grand Forks, MN 56721
218-773-2483 · 218-773-9728 fax www.eastgrandforks.net

October 4, 2022

Stephanie Halford, MPO Executive Director

RE: 2045 MTP Amendment – East Grand Forks project change

Dear Stephanie –

Thank you for contacting me regarding the potential amendment to the East Grand Forks Comprehensive Plan. I am aware that the City of East Grand Forks is currently requesting an amendment to the 2045 MTP plan to include some much-needed repair work on our Federal Aid Streets as our most recent City Subtarget Project instead of the roundabout at Bygland. I feel that this new project is only a minor change to the original plan, and I find no significant impact of the proposed change to our current plan.

Therefore, I will not require an update to our East Grand Forks Comprehensive Plan. I hope that this letter meets your needs for said change and no new amendment is required. Please let me know if you need any further assistance from me or the City of East Grand Forks.

Respectfully,

Nancy Ellis

Nancy Ellis
Community Development Director

255 N. 4th St.
PO Box 5200
Grand Forks, ND 58206-5200

CITY OF GRAND FORKS NORTH DAKOTA

Planning Department
(701) 746-2661

September 27, 2022

Stephanie Halford, MPO Executive Director
(sent via email to stephanie.halford@theforksmpo.org)

RE: 2045 MTP Amendment – EGF Change

Stephanie,

Thank you for the call today. I understand the city of East Grand Forks has made a request to amend the 2045 MTP plan to shuffle the timing of some projects. Since these projects are entirely located in Minnesota and are only a minor change to the original plan, the city of Grand Forks finds no significant impacts of the proposed change as it relates to our current plan, and therefore will not require an update to our Grand Forks Comprehensive Plan.

Please don't hesitate to contact me if you need anything further.

Sincerely,

Ryan P. Brooks
City Planner, City of Grand Forks
(701) 746-2678, rbrooks@grandforksgov.com

Cc: Al Grasser, City Engineer
Todd Feland, City Administrator

Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

MPO Staff Report

Technical Advisory Committee:

October 12, 2022

MPO Executive Board:

October 19, 2022

STAFF RECOMMENDED ACTION: The approval of the partnership with the University of North Dakota for an internship to the MPO Executive Board,

TAC RECOMMENDED ACTION:

Matter of the partnership with the University of North Dakota (UND) for an intern to conduct a Traffic Speed Study for South Side of Grand Forks.

Background:

This discussion started a year ago as a great partnership opportunity with the University of North Dakota (UND) and Grand Forks/East Grand Forks Metropolitan Planning Organization.
The main objectives of the study include:

- Analyze traffic safety and speeding tickets data for South Grand Forks and determine locations that need more detailed speed studies.
- Determine the effects of traffic calming techniques on driver behavior and pedestrian safety.
- Recommend approaches to address traffic safety concerns.

The objective of the internship goes into more detail in the attachments.

Findings and Analysis:

- Effect of traffic calming techniques on traffic speed and pedestrian safety

Support Materials:

- Traffic Speed Study for South Side of Grand Forks Proposal
- Collaborative Research Agreement

Traffic Speed, Traffic Calming Techniques, and Safety Implications for Pedestrians and Bicyclists

Proposal submitted by:

Principal Investigator: **Daba S. Gedafa, Ph.D., P.E., ENV SP, F. ASCE**
Chair and Michael & Sitney Lodoen Endowed Professor
UND Civil Engineering

Proposed Budget: **$30,000.00**

Proposed Time Period: **November 16, 2022-July 15, 2024**

UNIVERSITY OF NORTH DAKOTA
Civil Engineering Department

Proposal Submitted to: **Grand Forks-East Grand Forks Metropolitan Planning Organization**

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

Introduction

Agencies work closely with law enforcement entities, state traffic safety offices, and the National Highway Traffic Safety Administration (NHTSA) to plan and implement policies that can help reduce the number of crashes to combat high costs, injuries, and deaths. One approach is through the Four Es of traffic safety: Enforcement, Engineering, Education, and Emergency Medical Services. The Four Es play an important role in road safety: each component is essential and, when taken together as a unified approach, has had great success in achieving the lowest crash rates in decades. There were 5.5 million police-reported traffic crashes in 2009. Law enforcement officers work diligently to prevent crashes by enforcing traffic safety laws such as seat belt use, child passenger protection, traveling over the speed limit, driving while impaired, and distracted driving. Studies have indicated that increased enforcement and educational campaigns can yield significant changes in driver behavior. A national awareness campaign called "Click It or Ticket" has increased seatbelt use by as much as 85 percent between 2005 and 2009, saving an estimated 72,000 lives. The NHTSA, state DOTs, law enforcement, and state traffic safety offices can prevent crashes by addressing the four components in a holistic way. Technology can also improve and transform the way traffic safety advocates, traffic safety engineers, and other key stakeholders use the Four Es. The Four Es approach has contributed to a steady decline in fatality and injury rates over the past few years. The ultimate safety goal is Toward Zero Deaths (TZD) on all highways, which is a data-driven highway safety strategy that focuses on changing driver culture. The TZD initiative relies on data from crashes and police stops, in concert with the four Es, to determine priority areas and make policy and program changes that will reduce the current fatality rate per million vehicle miles traveled (VMT) from 1.14 to zero.

Data used in this analysis includes vehicle speed, traffic volume at the time of the crash, law enforcement crash investigation information, emergency medical response information, road sensor and design data, and the effectiveness of public education campaigns. This data can be analyzed holistically to assist decision-makers in creating strategies for comprehensive traffic safety improvement plans. Local, state, and federal agencies host this data in various databases, formats, and types of hardware, creating a challenge when integrating this information to create the holistic view of traffic safety needed to coordinate an approach that prevents crashes. Data analysis enables road designers, law enforcement officers, emergency medical responders, and those designing public education campaigns to identify trends and develop highway safety plans and interventions that will have the best return on investment.

Problem Statement

Speeding is a perceived issue in general near the intersection of Belmont Rd and 55th Ave S in particular. A pedestrian struck by a speeding vehicle in a residential neighborhood with low posted speed limits will have a much higher mortality rate. If a driver increases a speed from 20 mph to 30 mph, the pedestrian fatality rate may increase by 40%, especially since the driver's ability to stop quickly decreases as their speed increases. That 10 mph increase in speed affects a driver's stopping distance by about 85 feet, significantly impacting their ability to stop suddenly, especially under wet, snowy, and icy conditions that prevalent in Grand Forks.

Some of the methods that can be used to increase a driver's adherence to yielding for pedestrians and reducing their traffic speed are the installation of "Stop for Pedestrian" and "Yield to Pedestrians within Crosswalks" signs. The Manual on Uniform Traffic Control Devices (MUTCD) by the Federal Highway Administration (FHWA) includes in-roadway "Yield to Pedestrians within Crosswalks" signs that can be placed at uncontrolled marked crosswalks

(FHWA 2009). In-roadway signs may be effective since they are directly in the motorist's field of view. *Gedafa et al. (2014)* determined that placing a yield sign at a crosswalk was the most effective way of increasing the likelihood of a vehicle yielding for pedestrians; however, the authors recommended research on the repeatability of their results at other sites to increase the robustness of their findings.

Objectives of the Study

The main objectives of the study include:

- Analyze crash data and speeding tickets data for Grand Forks and determine locations that need more detailed studies.
- Determine the effects of traffic calming techniques on driver behavior and pedestrian & bicyclist safety.
- Recommend approaches to address traffic safety concerns.

Research Approach

The research approach needed to achieve the specified objectives is described in four different tasks. The tasks will be completed within 21 months, and the final report will include all experimental plans, data collection, data analysis, results, conclusions, and recommendations.

Task 1: Literature Review

This task will begin with reviewing relevant publications, research reports, guidance documents, and other agency practices. The review will focus on the effects of traffic speed on safety and countermeasures in general, Northeast North Dakota and Northwest Minnesota in particular. Past studies in Grand Forks, Fargo, West Fargo, etc. will be the starting point for the literature review. Some of the sources for the literature review include:

- The Transportation Research Information Services database (TRIS),
- Compendex and internet databases,
- Publications by the National Highway Traffic Safety Administration (NHTSA), Federal Highway Administration (FHWA), State Highway Agency, and other agencies, and
- Searching topics on the Community of Science and Science citation web pages.

Task 2: Traffic Safety and Speeding Tickets Analysis

Crash data for Grand Forks for the past five years will be obtained from the Traffic Safety Office of the North Dakota Department of Transportation. Speeding-related crashes will be investigated, along with the locations of traffic speed related accidents. Speeding tickets for the past five years will be obtained from Grand Forks Police Department (GFPD) and analyzed to determine the locations that need further study. Dr. Gedafa started communicating with Penny Johnson, Records Administration Bureau of the GFPD, to obtain speeding tickets data. The analysis will help determine the focus areas of the study.

Task 3: Execution of the Plan

Figure 1 illustrates a preliminary study area for traffic speed study, which is between Belmont Rd and S. Washington St, and 32nd Ave S and 55th Ave South. The study will determine the focus area(s) based on safety and speeding ticket analysis in Task 2 in discussions with the MPO and other stakeholders.

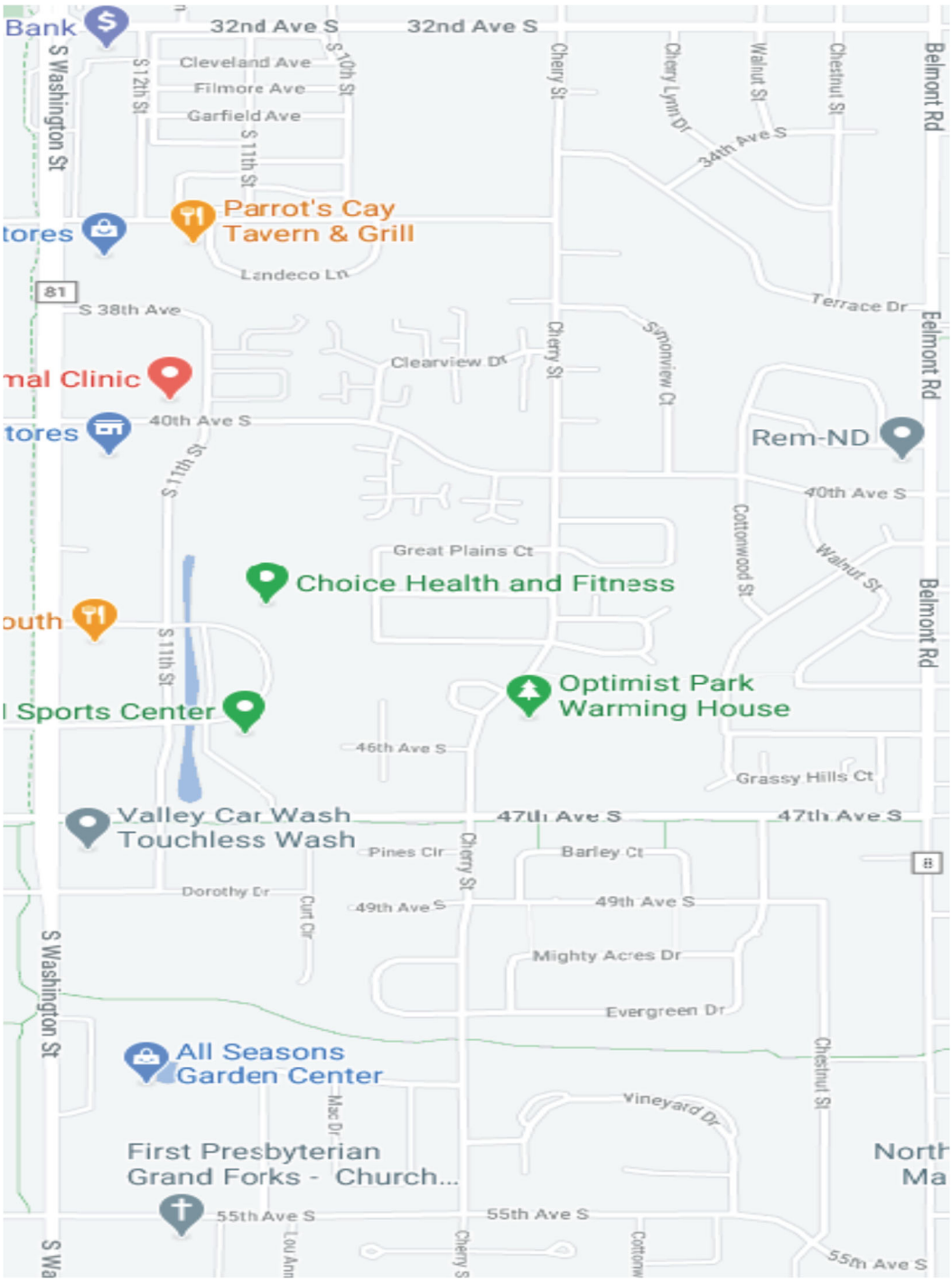

Figure 1. Tentative study area.

Effect of Traffic Calming Techniques on Traffic Speed, Pedestrian and Bicyclist Safety

The Institute of Transportation Engineers defines traffic calming as the combination of measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming consists of physical design and other measures put in place on existing roads to reduce vehicle speeds and improve safety for pedestrians and cyclists.

For example, vertical deflections (speed humps, speed tables, and raised intersections), horizontal shifts, and roadway narrowing are intended to reduce speed and enhance the street environment for non-motorists. Closures that obstruct traffic movements in one or more directions, such as median barriers, are intended to reduce cut-through traffic. Traffic calming measures can be implemented at an intersection, street, neighborhood, or area-wide level *(USDOT 2021)*.

"Road diets" are one approach to traffic calming. Road diets involve a reduction in the width or number of vehicular travel lanes and reallocate that space for other uses such as bicycle lanes, pedestrian crossing islands, left turn lanes, or parking. Safety and operational benefits for vehicles and pedestrians include *(USDOT 2021)*:

- decreasing vehicle travel lanes for pedestrians to cross,
- providing room for a pedestrian crossing median,
- improving safety for bicyclists when bicycle lanes are added,
- providing an opportunity for on-street parking
- reducing rear-end and side-swipe crashes,
- improving speed limit compliance, and
- decreasing crash severity when crashes do occur.

Implementation of traffic calming measures can reduce traffic speed, reduce motor-vehicle collisions, and improve safety for pedestrians and cyclists. These measures can also increase pedestrian and bicycling activity *(USDOT 2021)*.

West Fargo's project team with a major contribution from the SRC came up with the list of traffic calming solutions that can be implemented *(METROCOG 2021)*. Some of the criteria that were used to come up with the list were feasibility, effectiveness, maintenance, and other criteria such as emergency services or vehicular impacts. The list includes lane narrowing, curb extension, pinchpoint, chicane, median island, mini roundabout, speed hump, pavement material, diverter, and landscaping. The UND research team will explore traffic calming techniques that can be implemented in Grand Forks-East Grand Forks area cost-effectively.

The effect of "Yield to Pedestrians in the Crosswalk" and "Stop for Pedestrian" Signs are included as examples. Additional traffic calming techniques will be decided once data analysis is complete to know the needs in coordination with the MPO, the City of Grand Forks Engineering Department, neighbors, and other stakeholders.

Traffic speed data will be collected using radar guns (Dr. Gedafa's team owns two radar guns) and equipment owned by the City of Grand Forks Engineering Department (Jane Williams, City of Grand Forks Traffic Engineer, is committed to this project once the location(s) are determined) in addition to analyzing existing traffic speed.

Effects of Yield and Stop Signs on Pedestrian Safety and Traffic Speed

Engineers have traditionally marked crosswalks for three reasons: to increase pedestrian safety by identifying the safest location to cross the street, to alert drivers to the possibility of pedestrians crossing at that location, and to increase a pedestrian's level of service and safety *(Van Houten et al. 2002)*. Crosswalk markings and their correlation to increased pedestrian safety have been the subject of much debate. *Zegeer et al. (2001)* compared 1,000 marked and 1,000 unmarked crosswalks in 30 U.S. cities. Their study indicated only one instance where there was a significant difference in the number of crashes between marked and unmarked crosswalks: crosswalks on multilane roads with an uncontrolled approach had significantly more crashes than unmarked crosswalks if the road had average annual daily traffic (AADT) above 12,000. The study also indicated that more than 70% of pedestrians cross at marked locations: most notably those younger

than 12 and more than 64 years old. Research indicates that marked crosswalks can lead to a false sense of security; however, behavioral data collected from multiple sites before and after crosswalks were installed contradicted this hypothesis. This data indicated that marked crosswalks were associated with somewhat higher levels of pedestrian-observing behavior and somewhat lower driver speeds *(Knoblauch et al. 1999).*

Several studies have demonstrated that "Yield to Pedestrian" signs placed in-roadways can increase the percentage of motorists yielding for pedestrians (*FHWA 2009, Huang and Zegeer 2000*). In-roadway signs were also evaluated in other studies by *Turner et al. (2006).* The research team collected data on motorist yielding behavior at 42 crosswalks in different regions of the United States. The results indicated that the in-roadway signs were associated with yielding rates of 87% for two-lane roads and were highly cost-effective in increasing yielding behavior. *Gedafa et al. (2014)* also determined that yield signs installed at any location results in vehicles yielding for pedestrians. The placement of the sign at a crosswalk is the most effective method for increased yielding and the presence of a yield sign results in a lower average traffic speed. These findings imply that the risk to pedestrians and bicyclists is lower in the presence of the sign. These studies need to be validated with additional studies at different locations.

Yield to Pedestrian Data with and without Yield and Stop Sign

Yield to pedestrian data will be collected with and without yield and stop signs at locations where pedestrian presence is significant and no yield and stop signs have been in use, including school zones. Pedestrian and vehicle speed data will be collected with the signs located at crosswalk following Manual on Uniform Traffic Control Devices (MUTCD) guidelines. The data for all locations will be collected in the morning and afternoon, with and without the signs. A graduate student will collect live data, ensuring safety by remaining at a safe distance from the roadway during data collection so that the flow of pedestrians and vehicles will not be affected and to avoid alerting the drivers. "Yield to Pedestrian" and "Stop for Pedestrian" signs will be used alternately at the same location to determine the effectiveness of each.

Four different behaviors will be observed with and without the signs during each data collection session: the number of drivers who yield for pedestrians, the number of drivers who do not yield for pedestrians when they could, the number of vehicle-pedestrian conflicts, and the number of pedestrians trapped at the centerline. Vehicle types observed in this study will be motorcycles, cars, and trucks.

Pedestrian's right of way in crosswalk includes driver and pedestrian responsibilities according to North Dakota Century code: when traffic-control signals are not in place or not in operation, the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger; and no pedestrian may suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard.

If the driver stops or slows down and allows the pedestrian to cross, they will attain a score of "yielding." A driver will be scored as not yielding if the driver passes in front of the pedestrian but can stop when the pedestrian arrives at the crosswalk. The Institute of Transportation Engineers (ITE) signal-timing formula, which considers driver reaction time, safe deceleration rate, posted speed, and road grade, will be used to calculate the distance beyond which a driver can safely stop for a pedestrian. A mark will be placed at this distance, and those drivers who pass this mark before

the pedestrian starts to cross will be scored as yielding to pedestrians because they may not have sufficient distance to stop safely.

A conflict between a driver and a pedestrian will be scored whenever a driver suddenly stops or swerves to avoid striking a pedestrian, or whenever a pedestrian jumps, runs, or suddenly steps backward to avoid being hit by a vehicle. A pedestrian will be scored as trapped at the center whenever they must wait at the centerline or median for 5 seconds or more *(Ellis et al. 2007)*.

Traffic Speed

The effects of the signs on traffic speed will be studied at the same locations. Decatur Doppler hand-held traffic radar speed guns will be used to collect traffic speed data with and without the signs. Speed data will be collected early in the morning and late in the afternoon to avoid pedestrian traffic, the presence of which could skew the vehicle speed data. Posted speed limit (PSL) data will also be recorded.

Task 4: Data Analysis and Report Writing

Before and after comparisons will be completed to determine the effects of the signs and potential calming techniques.

Significant Difference Test for Yield to Pedestrian

The data will be analyzed using a chi-squared test as a test of independence with the null hypothesis that the two categorical variables are independent. Two-proportion z-tests will follow to compare proportions from dichotomous variables as a significant difference test. A significance level of 5% (type I error of 0.05) will be used for all tests.

Significant Difference Test for Traffic Speed

An independent, unpaired, or student t-test will be used to examine the significant differences between the traffic speeds with or without the signs, and before or after the speed study. An independent t-test uses the difference of means between two groups in statistical tests *(SAS 2005)*, expressed in terms of a p-value, representing the weight of evidence for rejecting the null hypothesis *(Ott and Longnecker 2001)*. The null hypothesis can be rejected when the mean of difference between comparisons is significantly different, or where the p-value is less than the selected significance level (α). A significance level of 5% (type I error of 0.05) will be used for all t-tests.

Status Reports and Deliverables

The research team will provide monthly status report in a format preferred by the MPO. The final report draft will include literature reviews, experimental plans, data collection and analysis, conclusions, and recommendations. The recommendations will specifically address the effects of traffic speed on safety, and countermeasures including the four Es and traffic calming techniques. At least one of the research team members will present research results to the MPO and its stakeholders if necessary. The research team will revise final report drafts based on stakeholder comments before submitting the final report.

Budget and Time Schedule

Table 1 lists the budget for this project. Dr. Gedafa will be paid for approximately seven days of summer salary for his efforts. One ¼-time graduate student (10-hrs per week) will be paid for 21-months. Benefit for Dr. Gedafa and the graduate student are calculated at 25% and 1% of their

salaries, respectively. The budget for supplies has also been included. An indirect cost rate of 10% has been used instead of the regular UND indirect rate to match what is used for State and Local Agencies. The tentative start and end dates for the project are November 16, 2022, and July 15, 2024. The research team has the experience, expertise, and resources to complete the project within the schedule and budget. UND Civil Engineering will cover tuition for the graduate student, which is about $32,700.

Table 1. Budget

	Amount ($)
Salary	
Daba Gedafa	3,372
MS Student	21,840
Fringe Benefits	
Daba Gedafa (25% of Salary)	843
Graduate Student (1% of Salary)	218
Supplies	1,000
Total Direct	27,273
Indirect Cost (10% of Direct Cost)	2,727
Grand Total	30,000

References

Ellis, R., R. Van Houten, and J. L. Kim. (2007). "In-Roadway "Yield to Pedestrians Signs": Placement Distance and Motorist Yielding," *Transportation Research Record, 2002*:84-89.

FHWA. (2009). *Manual of Uniform Traffic Control Devices 2009 Edition*. Federal Highway Administration (FHWA), Washington, D.C.

Gedafa, D. S., B. Kaemingk, B. Mager, J. Pape, M. Tupa, and T. Bohan. (2014). "Impacts of Alternative Yield Sign Placement on Pedestrian Safety," *Transportation Research Record*, *2464* (1):11-19.

Huang, H., and C. Zegeer. (2000). "Effects of Innovative Pedestrian Signs at Unsignalized Locations," *Transportation Research Record, 1705*:43-52.

Knoblauch, R. L., M. Nitzburg, and R. L. Seifert. (1999). *Pedestrian Crosswalk Case Studies.* Federal Highway Administration (FHWA), U.S. Department of Transportation, Washington, D.C.

METROCOG. (2021). *West Fargo Traffic Calming Study*, West Fargo, North Dakota.

Ott, L. R., and M. Longnecker. (2001). *An Introduction to Statistical Methods and Data Analysis*. 5th edition, California: Duxbury, Pacific Grove.

SAS Institute, Inc. (2005). *JMP 6.0 Statistics and Graphics Guide*. Cary.

Turner, S., K. Fitzpatrick, M. Brewer, and E. S. Park. (2006). "Motorist Yielding for Pedestrians at Unsignalized Intersections: Findings From a National Study on Improving Pedestrian Safety," *Transportation Research Record, 1982*:1-12.

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Van Houten, R., J. E. L. Malenfant, and D. McCusker. (2001). "Advance Yield Markings: Reducing Motor Vehicle–Pedestrian Conflicts at Multilane Crosswalks with Uncontrolled Approach," *Transportation Research Record, 1773*:69-74.

Zegeer, C. V., J. R. Stewart, H. Huang, and P. Lagerwey. (2001). "Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations," *Transportation Research Record, 1773*:56–68.

COLLABORATIVE RESEARCH AGREEMENT
UND0026623

This document sets forth the Agreement between the Grand Forks-East Grand Forks Metropolitan Planning Organization having its principal place of business in Grand Forks, ND (hereinafter referred to as COMPANY), and the University of North Dakota, an institution of higher education and an arm of the State of North Dakota, located in Grand Forks, ND (hereinafter referred to as UND). The parties to this Agreement are sometimes hereinafter referred to individually as a "Party" and collectively as the "Parties."

WHEREAS UND is willing to conduct a project entitled "Traffic Speed Study for South Side of Grand Forks" and COMPANY, will receive the results of said project. THEREFORE, COMPANY and UND agree as follows.

Article 1 – Scope of Work

UND agrees to perform the scope of work as set forth in the proposal (hereinafter referred to as Project) which was submitted to UND and is attached as APPENDIX A.

Article 2 – Period of Performance

The Agreement will become effective and will commence on August 16, 2022. UND shall use its best efforts to complete the Project by May 15, 2023. Should UND determine an extension to complete the Project is necessary, the proposed extension and reason for the extension shall be submitted to COMPANY. COMPANY and UND shall act in good faith to reach an agreed upon extension date, which shall be put in writing.

Article 3 – Consideration and Payment

This is a Cost Reimbursable agreement. The total cost to perform the Project is estimated to be and may not exceed $30,000.00. Invoices shall be submitted to COMPANY for payment monthly.

The final invoice will be submitted by UND, no later the 90 days after the end date of this agreement.

Invoices should be sent to:	_____
Project Contact person for COMPANY:	_____
Financial Contact person for COMPANY:	_____
Project Contact person for UND:	Daba S. Gedafa, Ph.D, daba.gedafa@und.edu
Financial Contact person for UND:	Chassi Herman, chassi.herman@und.edu
Administrative Contact person for UND	Sherry Zeman, sherry.zeman@und.edu

Article 4 – Progress Reports

Quarterly progress reports detailing a summary of the activities in the previous quarter are due no later than 30 days after the quarter end. The first reporting period shall commence upon the effective date of this agreement. The final report shall be a technical report and shall include the following sections: Summary, Introduction, Methods & Materials, Results, Discussion and References.

Article 5 – Publications

UND has the right to publish all research data and methods resulting from its work under this Agreement. UND will submit all manuscripts and abstracts for review and comment prior to submission for publication, and COMPANY shall have the right to require that its confidential and/or proprietary information be removed or otherwise protected. Failure of COMPANY to respond within 30 days after submission will indicate its approval to publish in the form in which submitted.

Publications will acknowledge funding with the following or substantially similar language: "Research funding was provided by GF/EGF Metropolitan Planning Organization (COMPANY)"

Article 6 – Confidentiality

A. Confidential Information from COMPANY

1. Receipt of Confidential Information. In the course of UND's direct performance hereunder, UND may receive confidential and proprietary information of COMPANY's required to be disclosed for the purposes of performing the study. Such confidential and proprietary information may include, without limitation, oral or written information regarding COMPANY's business or technology, including discoveries, inventions, research and development efforts, processes, samples, methods, product know-how, and all derivatives, improvements, enhancements to any of the above which are disclosed to UND under this Agreement, as well as information of third parties as to which COMPANY has an obligation of confidentiality (collectively, "Confidential Information"). Whenever practicable, Confidential Information shall be conspicuously marked as such.

2. Duty of Confidentiality. UND shall not disclose such Confidential Information to third parties other than those with a need to know, such as members of the IACUC, employees, subcontractors, agents and affiliates involved in conducting the Project and who are already bound by similar obligations of confidentiality to UND. UND's non-disclosure obligations do not apply (i) if the Confidential Information is made publicly available through no fault of UND, (ii) if the Confidential Information is completely and independently developed by UND as evidenced by prior written records, (iii) if disclosure is required by law, provided that adequate advance and prompt notice is given to COMPANY as reasonably possible, and that such disclosure is only made to the extent required by law, or if written permission for disclosure is granted by COMPANY, which shall not be construed to supersede any law or regulation, or (iv) to information that fails to qualify for at least one exception to North Dakota's open records laws. UND also agrees to use Confidential Information only for the purpose of fulfilling the obligations

under this Agreement and, if requested, shall return all Confidential Information to COMPANY at the end of the Study.

3. Cooperation regarding Legally Required Disclosure. In the event that UND is requested pursuant to, or required by, applicable law or regulation or by legal process to disclose any confidential information, UND agrees to provide COMPANY with prompt written notice of such request or requirement in order to enable COMPANY to seek an appropriate protective order or other remedy, to consult with UND with respect to COMPANY taking steps to resist or narrow the scope of such request or legal process, or to waive compliance, in whole or in part, with the terms of this paragraph. In any such event, UND will use reasonable efforts to ensure that all confidential information and other information that is so disclosed will be accorded confidential treatment. Notwithstanding the foregoing, nothing herein shall be construed to prevent UND from complying with its obligations under North Dakota's open records laws.

B. Confidential Data from UND

COMPANY shall treat as confidential any scientific data that UND has provided to COMPANY (collectively, "Confidential Data"). Any such information or data shall not be issued, reproduced or disclosed other than for the purpose of carrying out this Agreement and shall only be disclosed to those COMPANY employees who are directly concerned with the use and evaluation of the confidential data, and who are bound by confidentiality obligations at least as stringent as those contained herein.

C. The Parties agree that the obligations of non-disclosure stated in this article shall remain in effect for five (5) years following the termination of this Agreement.

Article 7 – INTELLECTUAL PROPERTY AND PATENT RIGHTS

A. Ownership of inventions conceived or reduced to practice in the course of the performance of this Agreement ("Inventions") shall be defined in accordance with the rules of inventorship as practiced in the United States of America. Inventions made solely by COMPANY that arise out of the performance of this Agreement, will be solely owned by COMPANY ("COMPANY Inventions"). Inventions made solely by UND that arise out of the performance of this Agreement will be solely owned by UND ("UND Inventions"). Inventions made jointly by COMPANY and UND that arise out of the performance of this Agreement will be jointly owned by UND and COMPANY ("Joint Inventions"), and in the absence of an agreement to the contrary, such as a license as proposed in 7.C.3 below, UND and COMPANY may each exercise its ownership rights in and to the Joint Inventions.

B. UND shall promptly disclose to COMPANY in writing all UND Inventions, and Joint Inventions made jointly with COMPANY, and whether patentable or not. COMPANY shall promptly disclose to UND in writing all Inventions made by COMPANY jointly with UND, and whether patentable or not. UND shall promptly execute all documents and take all such other action as may be reasonably requested by COMPANY in order to permit COMPANY to obtain the benefit of and perfect its rights under this Agreement, and shall cause any employees and/or collaborators, including without limitation its agents and students, to take such action. In particular, UND shall make available all relevant clinical and laboratory data, as well as samples of materials obtained in the course of or as a result of the performance of this Agreement. COMPANY shall reimburse UND for any reasonable out-of-pocket expenses required to be incurred in connection with making such data and samples available.

C. Licenses

1. Internal Use Only. COMPANY shall be entitled to a non-exclusive, non-commercial, non-transferable, royalty-free license for all UND Inventions for COMPANY's internal, non-commercial research purposes only ("COMPANY Internal Use License").

2. Nonexclusive License. Within ninety (90) days after Notification to COMPANY by the University of a Disclosure under Section 7.B, COMPANY may request, as follows, a non-exclusive, non-transferable, limited term, royalty-bearing license to UND Inventions covered by such Disclosure. This non-exclusive license would be to make, have made, use, lease, or sell products and/or services which embody some or all of the UND Inventions covered by the Disclosure; provided that COMPANY agrees (a) to demonstrate reasonable efforts to commercialize the Intellectual Property, and (b) to pay all patenting and other intellectual property protection costs and related expenses for countries chosen by mutual agreement with UND (and to pay all costs and related expenses for countries chosen by the COMPANY but not chosen by UND). Any costs for intellectual property protection under this article are subject to the University's other non-exclusive licensee's for UND Inventions and COMPANY will only pay its pro-rata portion on any country filing in which it desires to participate in. Such non-exclusive license is subject to the standard terms and conditions of UND's non-exclusive licenses and to negotiation of and agreement between UND and COMPANY on reasonable economic conditions.

3. Exclusive License. Within one hundred and eighty (180) days after Notification to COMPANY by UND of a Disclosure under Section 7.B, COMPANY may request an exclusive, royalty-bearing, non-transferable, limited-term license to UND Inventions and/or UND's rights in Joint Inventions covered by the Disclosure in the United States and/or any other country for which COMPANY alone or COMPANY and UND jointly elect to obtain intellectual property protection. This exclusive license will be to make, have made, use, lease, sell, or otherwise dispose of products and/or services which embody some or all of the Inventions covered by the Disclosure; provided that the COMPANY agrees (i) to demonstrate reasonable efforts to commercialize the Intellectual Property, and

(ii) to pay all patenting and Intellectual Property protection costs and related expenses. An exclusive license is subject to the standard terms and conditions of UND's licenses and to negotiation of and agreement between the UND and COMPANY on reasonable economic conditions. In the event of COMPANY's written request for such exclusive license, UND will not conduct any such negotiations with any other party during the first one hundred eighty (180) days after Notification to COMPANY by UND of a Disclosure under Section 7.B.

4. University License. UND will have a non-exclusive, non-transferable, non-royalty bearing, non-commercial license to use and make derivative works of all COMPANY Inventions for internal academic and research purposes ("UND Internal Use License").

D. It is recognized and understood that the existing inventions and technologies of COMPANY, and/or UND are their separate property, respectively, and are not affected by this Agreement and neither party shall have any claims to or rights in such existing inventions and technologies of the other party, except to the extent set forth in a separate written agreement between the parties which shall not be affected by this Agreement.

E. COMPANY hereby represents and warrants that all of COMPANY's employees and collaborators have a legal obligation to assign to COMPANY all intellectual property or developments made by such employees or collaborators, in each case sufficient for COMPANY to fulfill its obligations under this Agreement.

F. UND hereby represents and warrants that all of UND's employees have a legal obligation to assign to UND all intellectual property or developments made by such employees, in each case sufficient for UND to fulfill its obligations under this Agreement.

Article 8 – Independent Contractor

UND is an Independent Contractor, not a partner or joint venture, and shall not act as an agent for COMPANY, nor shall UND be deemed to be an employee of COMPANY for any purpose whatsoever. UND shall not have any authority, either express or implied, to enter into any agreement, to incur any obligations on behalf of the COMPANY, or to commit COMPANY in any manner whatsoever without COMPANY's express prior written consent.

Article 9 – Termination

If UND should fail to fulfill one or more of its obligations under this Agreement or breach any one or more of the terms and conditions of this Agreement, COMPANY may, upon its election, at any time terminate this Agreement by giving not less than thirty (30) days' prior written notice of termination to UND specifying any such breach or default. In the event of termination pursuant to this Article, UND shall stop all work hereunder. No costs incurred after the effective date of termination will be allowable, except 1) those costs which UND could not reasonably avoid or eliminate, 2) those costs which were otherwise authorized by the termination notice, or 3) those costs which were incurred in UND's satisfactory fulfillment of its obligations under this Agreement. In no event will the total of payments

under this Agreement, if terminated, exceed the amount authorized by COMPANY in Article 3 of this Agreement.

Either party may terminate this Agreement for convenience by thirty (30) days' written notice to the other party. In the event of such termination, UND shall immediately stop all work and shall be reimbursed for allowable costs incurred under such termination and for all costs incurred after the effective date of such termination, which UND could not reasonably avoid or eliminate or which were otherwise authorized by the termination notice. In no event will the total of payments under this Agreement, if terminated, exceed the amount authorized by the COMPANY in Article 3 of this Agreement.

Article 10 – Liability

Each Party shall be responsible for claims, losses, damages, and expenses which are proximately caused by the negligence or wrongful acts or omissions of that party or its employees, agents, or representatives acting within the scope of their employment. Nothing herein shall preclude either party from asserting against third parties any defenses to liability it may have under the law or be construed to create a basis for a claim or suit when none would otherwise exist. This provision shall survive the termination of this Agreement.

Article 11 – Governing Law

This Agreement shall be governed by, construed, and enforced in accordance with the laws of the state of North Dakota.

Article 12 - Miscellaneous

This Agreement, with attached APPENDIX A, constitutes the entire agreement between the parties relative to the subject matter.

All changes, alterations, or modifications to this Agreement will be in writing and signed by the authorized officials of the parties hereto.

If one or more of the provisions of the Agreement are held invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year last specified below:

COMPANY	**UNIVERSITY OF NORTH DAKOTA**
By: _____	By: _____
Name: _____	Ms. Michael P. Sadler
Title: _____	Director, Research &Sponsored Program Dev
Date: _____	Date: _____

APPENDIX A-1
SCOPE OF WORK

Traffic Speed Study for South Side of Grand Forks

Proposal submitted by:

Principal Investigator: **Daba S. Gedafa, Ph.D., P.E., ENV SP**
Chair and Associate Professor of UND Civil Engineering

Proposed Budget: **$30,000.00**

Proposed Time Period: **August 16, 2021-May 15, 2023**

UNIVERSITY OF NORTH DAKOTA

Civil Engineering Department

Proposal Submitted to: **Grand Forks-East Grand Forks Metropolitan Planning Organization**

Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

Introduction

Agencies work closely with law enforcement entities, state traffic safety offices, and the National Highway Traffic Safety Administration (NHTSA) to plan and implement policies that can help reduce the number of crashes in an effort to combat high costs, injuries, and deaths. One approach is through the Four Es of traffic safety: Enforcement, Engineering, Education, and Emergency Medical Services. The Four Es play an important part in road safety: each component is essential and, when taken together as a unified approach, has had great success in achieving the lowest crash rates in decades. There were 5.5 million police-reported traffic crashes in 2009. Law enforcement officers work diligently to prevent crashes by enforcing traffic safety laws such as seat belt use, child passenger protection, traveling over the speed limit, driving while impaired, and distracted driving. Studies have indicated that increased enforcement and educational campaigns can yield significant changes in driver behavior. A national awareness campaign called "Click It Or Ticket" has increased seatbelt use by as much as 85 percent between 2005 and 2009, saving an estimated 72,000 lives. The NHTSA, state DOTs, law enforcement, and state traffic safety offices can prevent crashes by addressing the four components in a holistic way. Technology can also improve and transform the way traffic safety advocates, traffic safety engineers, and other key stakeholders use the Four Es. The Four Es approach has contributed to a steady decline in fatality and injury rates over the past few years. The ultimate safety goal is Toward Zero Deaths (TZD) on all highways, which is a data-driven highway safety strategy that focuses on changing driver culture. The TZD initiative relies on data from crashes and police stops, in concert with the four Es, to determine priority areas and make policy and program changes that will reduce the current fatality rate per million vehicle miles traveled (VMT) from 1.14 to zero.

Data used in this analysis includes vehicle speed, traffic volume at the time of the crash, law enforcement crash investigation information, emergency medical response information, road sensor and design data, and the effectiveness of public education campaigns. This data can be analyzed holistically to assist decision-makers in creating strategies for comprehensive traffic safety improvement plans. Local, state, and federal agencies host this data in various databases, formats, and types of hardware, creating a challenge when integrating this information to create the holistic view of traffic safety needed to coordinate an approach that prevents crashes. Data analysis enables road designers, law enforcement officers, emergency medical responders, and those designing public education campaigns to identify trends and develop highway safety plans and interventions that will have the best return on investment.

Problem Statement

Safety and traffic concerns arise from increased vehicle traffic, excessive speed, and a disregard for stop signs in South Grand Forks. Speeding is a perceived issue near the intersection of Belmont Rd and 55th Ave S in particular. A pedestrian struck by a speeding vehicle in a residential neighborhood with low posted speed limits will have a much higher mortality rate. If a driver increases their speed from 20 mph to 30 mph, the pedestrian fatality rate may increase by 40%, especially since the driver's ability to stop quickly decreases as their speed increases. That 10 mph increase in speed affects a driver's stopping distance by about 85 feet, significantly impacting their ability to stop suddenly, especially under wet, snowy, and icy conditions.

One method used to increase a driver's adherence to yielding for pedestrians and reducing their traffic speed is the installation of "Yield to Pedestrians within Crosswalks" signs. The Manual on Uniform Traffic Control Devices (MUTCD) by the Federal Highway Administration (FHWA) includes in-roadway "Yield to Pedestrians within Crosswalks" signs that can be placed at

uncontrolled marked crosswalks *(FHWA 2009*); however, the manual does not specify where these signs should be located in relation to the crosswalks. In-roadway signs may be effective since they are directly in the motorist's field of view and are located in close proximity to the crosswalk. One variable that has not yet been systematically and widely evaluated is the relationship between in-roadway sign placement relative to the crosswalk and the effect on yielding behavior. *Ellis et al. (2007)* conducted studies in Tampa, Florida, on the effects of placing these signs at different positions from crosswalks. The results indicated that placing the signs at the crosswalk line was either more or equally effective as placement at other locations. *Gedafa et al. (2014)* determined that placing a yield sign at a crosswalk was the most effective way of increasing the likelihood of a vehicle yielding for pedestrians; however, the authors recommended research on the repeatability of their results at other sites to increase the robustness of their findings. The primary motivation for this study is to fill data gaps by analyzing the effects of yield signs on pedestrian safety and traffic speed.

Objectives of the Study

The main objectives of the study include:

- Analyze traffic safety and speeding tickets data for South Grand Forks and determine locations that need more detailed speed studies.
- Determine the effects of traffic calming techniques on driver behavior and pedestrian safety.
- Recommend approaches to address traffic safety concerns.

Research Approach

The research approach needed to achieve the specified objectives is described in four different tasks. The tasks will be completed within 21 months, and the final report will include all experimental plans, data collection, data analysis, results, conclusions, and recommendations.

Task 1: Literature Review

This task will begin with reviewing relevant publications, research reports, guidance documents, and other agency practices. The review will focus on the effects of traffic speed on traffic safety and countermeasures. Some of the sources for the literature review include:

- The Transportation Research Information Services database (TRIS),
- Compendex and internet databases,
- Publications by the National Highway Traffic Safety Administration (NHTSA), Federal Highway Administration (FHWA), State Highway Agency, and other agencies, and
- Searching topics on the Community of Science and Science citation web pages.

Task 2: Traffic Safety and Speeding Tickets Analysis

Crash data for the study area will be obtained from the Traffic Safety Office of the North Dakota Department of Transportation. Speeding-related crashes will be investigated, along with the locations of traffic speed related accidents. Speeding tickets will be obtained from GFPD and analyzed to determine the locations that need further study. The PI started communicating with Penny Johnson, Records Administration Bureau of the GFPD, to obtain speeding tickets data.

Task 3: Execution of the Plan

Figure 1 illustrates the study area, which is between Belmont Rd and S. Washington St, and 32nd Ave S and 55th Ave South. The study area can be expanded or reduced according to discussions held with the Grand Forks-East Grand Forks Metropolitan Planning Organization (GF-EGF MPO) and other stakeholders.

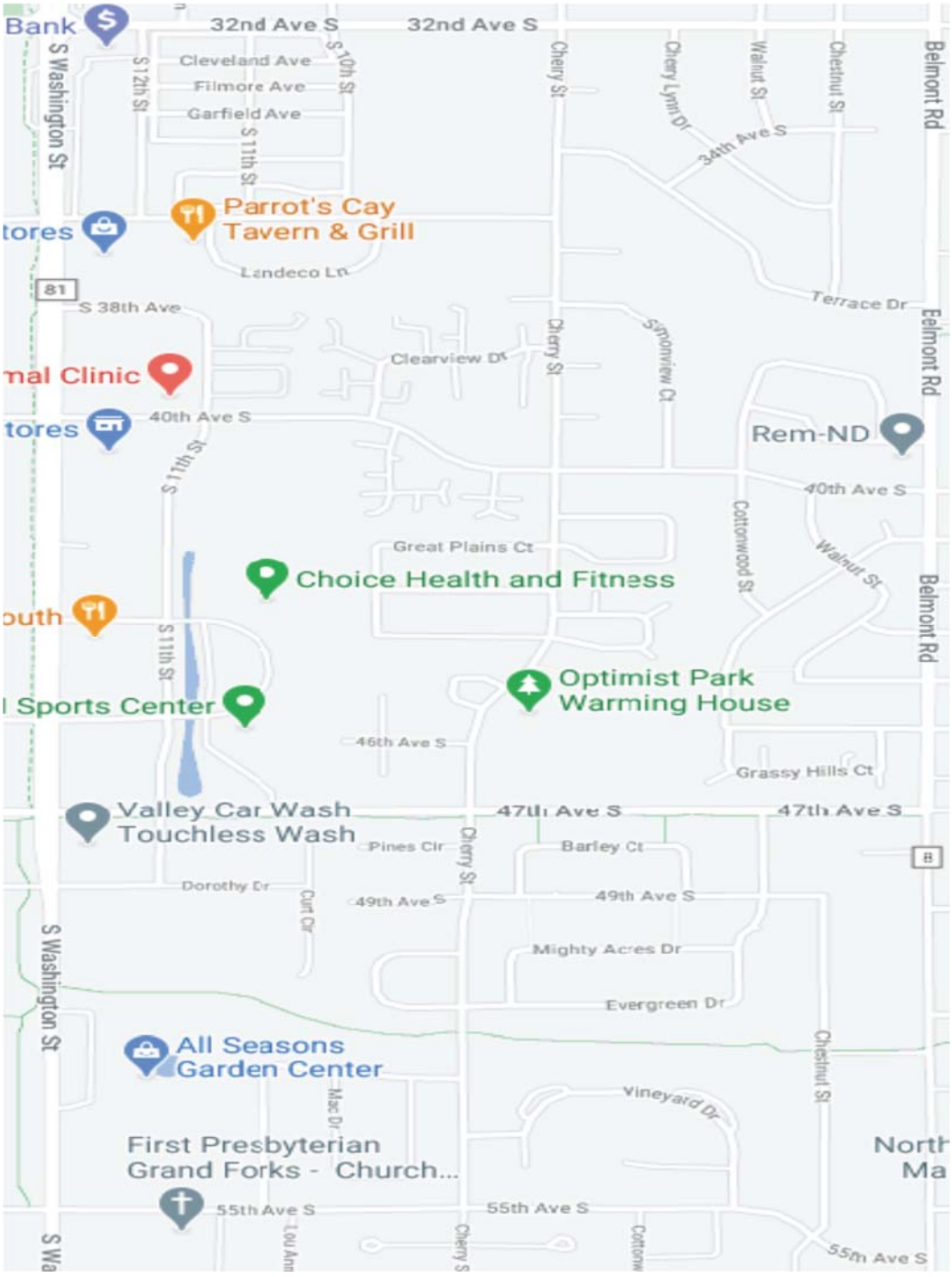

Figure 1. Study area.

Effect of Traffic Calming Techniques on Traffic Speed and Pedestrian Safety

The Institute of Transportation Engineers defines traffic calming as the combination of measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming consists of physical design and other measures put in place on existing roads to reduce vehicle speeds and improve safety for pedestrians and cyclists. For example, vertical deflections (speed humps, speed tables, and raised intersections), horizontal shifts, and roadway narrowing are intended to reduce speed and enhance the street environment for non-motorists. Closures that obstruct traffic movements in one or more directions, such as median barriers, are intended to reduce cut-through traffic. Traffic calming measures can be implemented at an intersection, street, neighborhood, or area-wide level *(USDOT 2021)*.

"Road diets" are one approach to traffic calming. Road diets involve a reduction in the width or number of vehicular travel lanes and reallocate that space for other uses such as bicycle lanes, pedestrian crossing islands, left turn lanes, or parking. Safety and operational benefits for vehicles and pedestrians include *(USDOT 2021)*:

- decreasing vehicle travel lanes for pedestrians to cross,
- providing room for a pedestrian crossing median,
- improving safety for bicyclists when bicycle lanes are added,
- providing an opportunity for on-street parking (which also serves as a buffer between pedestrians and vehicles),
- reducing rear-end and side-swipe crashes,
- improving speed limit compliance, and
- decreasing crash severity when crashes do occur.

Implementation of traffic calming measures can reduce traffic speed, reduce motor-vehicle collisions, and improve safety for pedestrians and cyclists. These measures can also increase pedestrian and bicycling activity *(USDOT 2021)*.

A traffic speed study will be conducted on the current locations of concern for the study area and additional locations based on a traffic safety and speeding tickets data analysis. The effect of "Yield to Pedestrians in the Crosswalk" signs is included as an example. Additional traffic calming techniques will be decided once data analysis is complete to know the needs in coordination with the MPO, the City of Grand Forks Engineering Department, neighbors, and other stakeholders.

A speed study will be conducted using radar guns (Dr. Gedafa's team owns two radar guns) and equipment owned by the City of Grand Forks Engineering Department (Jane Williams, City of Grand Forks Traffic Engineer, is committed to this project once the location(s) are determined).

Effects of Yield Signs on Pedestrian Safety and Traffic Speed

Engineers have traditionally marked crosswalks for three reasons: to increase pedestrian safety by identifying the safest location to cross the street, to alert drivers to the possibility of pedestrians crossing at that location, and to increase a pedestrian's level of service and safety *(Van Houten et al. 2002)*. Crosswalk markings and their correlation to increased pedestrian safety have been the subject of much debate. *Zegeer et al. (2001)* compared 1,000 marked and 1,000 unmarked crosswalks in 30 U.S. cities. Their study indicated only one instance where there was a significant difference in the number of crashes between marked and unmarked crosswalks: crosswalks on multilane roads with an uncontrolled approach had significantly more crashes than unmarked crosswalks if the road had average annual daily traffic (AADT) above 12,000. The study also indicated that more than 70% of pedestrians cross at marked locations: most notably those younger

than 12 and more than 64 years old. Recent research indicates that marked crosswalks can lead to a false sense of security; however, behavioral data collected from multiple sites before and after crosswalks were installed contradicted this hypothesis. This data indicated that marked crosswalks were associated with somewhat higher levels of pedestrian-observing behavior and somewhat lower driver speeds *(Knoblauch et al. 1999). Van Houten et al. (2001)* addressed the problem by placing "Yield Here for Pedestrian" signs in advance of the crosswalk. The study demonstrated a marked reduction in conflicts (67% to 87%) and a significant increase in the distance motorists began to slow in advance of the crosswalk.

Several studies have demonstrated that "Yield to Pedestrian" signs placed in-roadways can increase the percentage of motorists yielding for pedestrians (*FHWA 2009, Huang and Zegeer 2000*). In-roadway signs were also evaluated in other studies by *Turner et al. (2006).* The research team collected data on motorist yielding behavior at 42 crosswalks in different regions of the United States. The results indicated that the in-roadway signs were associated with yielding rates of 87% for two-lane roads and were highly cost-effective in increasing yielding behavior. *Gedafa et al. (2014)* also determined that yield signs installed at any location results in vehicles yielding for pedestrians. The placement of the sign at a crosswalk is the most effective method for increased yielding and the presence of a yield sign results in a lower average traffic speed. These findings imply that the risk to pedestrians is lower in the presence of the sign. These studies need to be validated with additional studies at different locations.

Yield to Pedestrian Data

Yield to pedestrian data will be collected with and without yield signs at locations where pedestrian presence is significant, including school zones. Pedestrian and vehicle speed data will be collected with "Yield to Pedestrian" signs located at five different locations, all in-roadway: 0 ft - placed on the edge of crosswalk so that it will not be an obstacle to the pedestrians, as shown in Figure 2, and 30 ft, 60 ft, 90 ft, and 120 ft before the crosswalk along the centerline in both directions. The data for all locations will be collected in the morning and afternoon, with and without the yield signs. A graduate student will collect live data, ensuring safety by remaining at a safe distance from the roadway during data collection so that the flow of pedestrians and vehicles will not be affected and to avoid alerting the drivers.

Figure 2. Location of yield to pedestrian sign.

According to the pedestrian crossing law in North Dakota, the driver of a vehicle shall yield the right of way to a pedestrian by slowing down or stopping while they are crossing the roadway within a crosswalk, when the pedestrian has crossed half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching closely from the opposite half of the roadway. Four different behaviors will be observed with and without signs positioned at different locations during each data collection session: the number of drivers who yield for pedestrians, the number of drivers who do not yield for pedestrians when they could, the number of vehicle-pedestrian conflicts, and the number of pedestrians trapped at the centerline. Vehicle types observed in this study will be motorcycles, cars, and trucks.

If the driver stops or slows down and allows the pedestrian to cross, they will attain a score of "yielding." A driver will be scored as not yielding if the driver passes in front of the pedestrian but can stop when the pedestrian arrives at the crosswalk. The Institute of Transportation Engineers (ITE) signal-timing formula, which considers driver reaction time, safe deceleration rate, posted speed, and road grade, will be used to calculate the distance beyond which a driver can safely stop for a pedestrian. A mark will be placed at this distance, and those drivers who pass this mark before the pedestrian starts to cross will be scored as yielding to pedestrians because they may not have sufficient distance to stop safely.

A conflict between a driver and a pedestrian will be scored whenever a driver suddenly stops or swerves to avoid striking a pedestrian, or whenever a pedestrian jumps, runs, or suddenly steps backward to avoid being hit by a vehicle. A pedestrian will be scored as trapped at the center whenever they have to wait at the centerline or median for 5 seconds or more *(Ellis et al. 2007)*.

Traffic Speed

Traffic speed data will be collected at the same locations as the yield to pedestrian data. Decatur Doppler hand-held traffic radar speed guns will be used to collect traffic speed data with and without yield signs. Speed data will be collected early in the morning and late in the afternoon to avoid pedestrian traffic, the presence of which would skew the vehicle speed data. Posted speed limit (PSL) data will also be recorded.

Task 4: Data Analysis and Report Writing

Before and after comparisons will be completed to determine the effects of yield signs and potential temporary calming techniques.

Significant Difference Test for Yield to Pedestrian

The data will be analyzed using a chi-squared test as a test of independence with the null hypothesis that the two categorical variables are independent. Two-proportion z-tests will follow to compare proportions from dichotomous variables as a significant difference test. A significance level of 5% (type I error of 0.05) will be used for all tests.

Significant Difference Test for Traffic Speed

An independent, unpaired, or student t-test will be used to examine the significant differences between the traffic speeds with or without yield signs, and before or after the speed study. An independent t-test uses the difference of means between two groups in statistical tests *(SAS 2005)*, expressed in terms of a p-value, representing the weight of evidence for rejecting the null hypothesis *(Ott and Longnecker 2001)*. The null hypothesis can be rejected when the mean of difference between comparisons is significantly different, or where the p-value is less than the

selected significance level (α). A significance level of 5% (type I error of 0.05) will be used for all t-tests.

The final report draft will include literature reviews, experimental plans, data collection and analysis, conclusions, and recommendations. The recommendations will specifically address the effects of traffic speed on safety, and countermeasures including the four Es and speed bumps or speed tables. At least one of the research team members will present research results to the GF-EGF MPO and its stakeholders if necessary. The research team will revise final report drafts based on stakeholder comments before submitting the final report.

Budget and Time Schedule

Table 1 lists the budget for this project. Dr. Gedafa will be paid for approximately seven days of summer salary for his efforts. An MS student will be paid for 21-months at the 30% (12 hours per week) UND Standard Graduate Research Assistant rate. Fringe benefits for Dr. Gedafa and the MS student are calculated at 25% and 1% of their salaries, respectively. The budget for supplies has also been included. An indirect cost rate of 10% has been used instead of the regular UND indirect rate to match what is used for State and Local Agencies. The tentative start and end dates for the project are August 16, 2021, and May 15, 2023. The research team has the experience, expertise, and resources to complete the project within the schedule and budget.

Table 1. Budget

	Amount ($)
Salary	
Daba Gedafa	3,372
MS Student	21,840
Fringe Benefits	
Daba Gedafa (25% of Salary)	843
MS Student (1% of Salary)	218
Supplies	1,000
Total Direct	27,273
Indirect Cost (10% of Direct Cost)	2,727
Grand Total	30,000

References

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Ott, L. R., and M. Longnecker. (2001). *An Introduction to Statistical Methods and Data Analysis*. 5th edition, California: Duxbury, Pacific Grove.

SAS Institute, Inc. (2005). *JMP 6.0 Statistics and Graphics Guide*. Cary.

Turner, S., K. Fitzpatrick, M. Brewer, and E. S. Park. (2006). "Motorist Yielding for Pedestrians at Unsignalized Intersections: Findings From a National Study on Improving Pedestrian Safety," *Transportation Research Record, 1982*:1-12.

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Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

MPO Staff Report

Technical Advisory Committee:
October 12, 2022

MPO Executive Board:
October 19, 2022

STAFF RECOMMENDED ACTION: FY 2024-2027 Transportation Improvement Program (TIP) Solicitation

TAC RECOMMENDED ACTION:

Matter of the FY2024-2027 TIP Solicitation.

Background:

Annually, the MPO, working in cooperation with the state DOTs and transit operators, develop a Transportation Improvement Program (TIP), which also serves as the transit operators' Program of Projects (POP). The TIP covers a four-year period and identifies all transportation projects scheduled to have federal transportation funding. The process runs over an eleven-month period with several public meetings ranging from solicitation of projects for specific programs and comments on listed projects.

This is the best opportunity to add projects to the TIP. We do this TIP annually so that adjustments can be made on a regular set schedule. We have the authority to wait to solicit for a new TIP document every fourth year instead of annually. We continue to believe an annual solicitation and adoption of a new TIP best serves our purposes. With the excitement of opening the TIP up for new projects, we cannot lose sight that we are still required to be consistent with our Metropolitan Transportation Plan (MTP) that contains a financial plan that is fiscally constrained. This financial plan also serves as the financial plan for our TIP programming responsibilities. New projects should focus on being submitted for the last year, or fourth year, of the TIP since no projects have been formally programmed for that year. For this solicitation most of the programs are for 2027.

The solicitation of the many federal funding programs are opening soon. With Infrastructure Investment and Jobs Act (IIJA) there are new programs that the State Department of Transportations are in the process of establishing a solicitation process. This could make for shorter deadlines in the application process or the final TIP adoption process. The MPO needs the committees help to communicate deadlines and processes of these programs. Don't forget many of these programs need to go through the MPO process as well, so leave room in your timelines.

Each state has different deadlines for various programs. Staff has compiled the solicitations they know the deadlines for each state.

Minnesota Solicitation List				Application			
Program	Funding Year	Letter of Intent Deadline	Review Letters of Intent Deadline	Council Approval	MPO Deadline	MnDOT Deadline	Selection Deadline
Transportation Alternatives (TA)	2027	November 4, 2022	November 18, 2022	Yes	December 1, 2022	January 13, 2023	April 14, 2023
Local Highway Safety Improvement Program (HSIP)	2024-2027	N/A	N/A	Yes	October 26, 2022	Novemeber 23, 2022	

North Dakota Solicitation List			Application		
Program	Funding Year	Start of Solicitation	Council Approval	MPO Deadline	NDDOT Deadline
Transit	FY2024	October 3, 2022	Yes	November 30, 2022	December 30, 2022
Urban Highway/Rail Crossing Safety	FY2023	September 15, 2022	Yes	October 26, 2022	November 30, 2022
Highway Safety Improvement Program (HSIP)	FY2024-2027	October 4, 2022	Yes	November 30, 2022	December 31, 2022

The MPO's TIP Procedural Manual identifies the general process for projects for the TIP. In general, the projects from the FY2023-2026 TIP have been prioritized and selected to be done in the year identified in the TIP. Despite that, every project will need to be reviewed based on a variety of changes.

Findings and Analysis:

- The 2045 MTP list of projects with the fiscally constrained Plan.
- Programmed projects for 2024, 2025, 2026 already create fiscally constrained funds.
- 2027 is the first year that funds have not been programmed specifically towards projects, yet the MTP has identified the priority projects for consideration.
- Each State has a slightly different timeline for consideration of candidate projects from various programs.

Support Materials:

- The 2045 MTP fiscally constrained projects list.
- The 2024-2026 TIP projects list.

NDDOT State of Good Repair Financially Constrained (2023 to 2045)

Table 3

Ref #	Roadway	Termini	Project Type	Agency	Time Frame	Federal/State Funds	City Match	YOE Total
REP-224	US 2 (Gateway Drive)	Grand Forks I-29 East to Columbia Road	CPR/DBR/Grind	NDDOT	Short-Range	$753,000	$0	$753,000
REP-225	US 2 (Gateway Drive)	Gateway Drive-Columbia Road to Red River	CPR/DBR/Grind	NDDOT	Short-Range	$811,000	$0	$811,000
REP-228A	US 2 Business	Grand Forks - Gateway Drive to DeMers	Chip Seal	NDDOT	Short-Range	$45,900	$5,100	$51,000
REP-237	US 2 (Gateway Drive)	Grand Forks I-29 East to Columbia Road	CPR & Grind	NDDOT	Short-Range	$753,000	$0	$753,000
REP-238	US 2 (Gateway Drive)	Gateway Drive - Columbia Road to Red River	CPR & Grind	NDDOT	Short-Range	$811,000	$0	$811,000
REP-266A	US 81 Business	Grand Forks - South Washington Street (Hammerling to 8th Avenue South)	Reconstruct	NDDOT	Short-Range	$5,329,800	$592,200	$5,922,000
REP-268A	US 81 Business	Grand Forks - South Washington Street (8th Avenue South to DeMers Avenue)	Reconstruct	NDDOT	Short-Range	$1,065,600	$118,400	$1,184,000
REP-296	US 2 (Gateway Drive)	8 MI East of Grand Forks AFB to 2 MI West of Columbia Rd	Chip Seal	NDDOT	Short-Range	$205,000	$0	$205,000
REP-305	Various	Various	Regional Traffic Signal Upgrade	NDDOT	Short-Range	$6,514,200	$723,800	$7,238,000
REP-239A	I-29	N of ND 15 to Near 32nd Avenue Grand Forks (NB)	CPR & Grind	NDDOT	Short-Range	$1,946,000	$0	$1,946,000
REP-239B	I-29	N of ND 15 to Near 32nd Avenue Grand Forks (SB)	CPR & Grind	NDDOT	Short-Range	$1,946,000	$0	$1,946,000
REP-223	US 2 (Gateway Drive)	Grand Forks 55th Street East to I-29 East Bound	CPR/DBR/Grind	NDDOT	Mid-Range	$570,600	$63,400	$634,000
REP-232	US 2 Business	DeMers to Red River (include 5th to 6th)	CPR/Grind	NDDOT	Mid-Range	$158,000	$0	$158,000
REP-236	US 2 (Gateway Drive)	Grand Forks 55th Street East to I-29 West Bound	CPR & Grind	NDDOT	Mid-Range	$634,000	$0	$634,000
REP-258A & REP 259A	US 81 Business	I-29 to South Washington Street	Reconstruct	NDDOT	Mid-Range	$27,718,200	$3,079,800	$30,798,000
REP-262A	US 81 Business	Grand Forks South Washington Street (32nd Avenue South to 26th Avenue South)	CPR & Grind	NDDOT	Mid-Range	$256,500	$28,500	$285,000
REP-263A	US 81 Business	Grand Forks - South Washington Street (26th Avenue to Hammerling)	CPR & Grind	NDDOT	Mid-Range	$621,900	$69,100	$691,000
REP-277	US 81 Business	Grand Forks North Washington Street (.05 MI S 8th to 8th Avenue)	CPR & Grind	NDDOT	Mid-Range	$9,000	$1,000	$10,000
REP-278	US 81 Business	Grand Forks North Washington Street (8th Avenue to 9th Avenue)	CPR & Grind	NDDOT	Mid-Range	$29,700	$3,300	$33,000
REP-279	US 81 Business	Grand Forks North Washington Street (9th Avenue NE to 13th Avenue)	CPR & Grind	NDDOT	Mid-Range	$262,800	$29,200	$292,000
REP-280	US 81 Business	Grand Forks North Washington Street (13th Avenue NE to US 2)	CPR & Grind	NDDOT	Mid-Range	$36,000	$4,000	$40,000
REP-281	US 81 Business	Grand Forks North Washington Street (JCT US 2 to STA 105)	CPR & Grind	NDDOT	Mid-Range	$285,300	$31,700	$317,000
REP-284	Hwy 297 (Demers Avenue)	Grand Forks DeMers Avenue (I-29 to Near 34th Street)	CPR & Grind	NDDOT	Mid-Range	$540,900	$60,100	$601,000
REP-285	Hwy 297 (Demers Avenue)	Grand Forks DeMers Avenue (34th Street to US 2)	CPR & Grind	NDDOT	Mid-Range	$1,641,600	$182,400	$1,824,000
REP-286	Hwy 297 (Demers Avenue)	Grand Forks DeMers Avenue (I-29 to US 2)	CPR & Grind	NDDOT	Mid-Range	$2,046,600	$227,400	$2,274,000
REP-292	US 81 Business	DeMers Avenue to Dyke Avenue	CPR/Grind	NDDOT	Mid-Range	$66,600	$7,400	$74,000
REP-294	US 81 Business	Dyke Avenue to .05 Mi South of 8th Avenue	Reconstruction	NDDOT	Mid-Range	$8,505,000	$945,000	$9,450,000
REP-297	US 2 (Gateway Drive)	8 MI East of Grand Forks AFB to 2 MI West of Columbia Rd	Mill & HBP 2"	NDDOT	Mid-Range	$1,365,000	$0	$1,365,000
REP-240A	I-29	Near 32nd Avenue South N of HWY 2 Interchange	CPR & Grind	NDDOT	Mid-Range	$1,635,000	$0	$1,635,000
REP-242A	I-29	N of ND 15 N to Near 32nd Avenue Grand Forks	CPR & Grind	NDDOT	Mid-Range	$504,000	$0	$504,000
REP-246A	I-29	US 2 North	CPR & Grind	NDDOT	Mid-Range	$1,134,000	$0	$1,134,000
REP-248A	I-29	South of North Grand Forks Interchange to North of North Grand Forks Interchange South Bound	CPR & Grind	NDDOT	Mid-Range	$86,000	$0	$86,000
REP-243B	I-29	Near 32nd Avenue North to 32nd Avenue	CPR & Grind	NDDOT	Mid-Range	$32,000	$0	$32,000
REP-245B	I-29	South US 2 to North US 2	CPR & Grind	NDDOT	Mid-Range	$1,044,000	$0	$1,044,000
REP-254	I-29	N of US 2 North to South of N Grand Forks Interchange	CPR & Grind	NDDOT	Mid-Range	$1,302,000	$0	$1,302,000
REP-228B	US 2 Business	Grand Forks - Gateway Drive to DeMers	Mill & HBP 3"	NDDOT	Long-Range	$2,537,100	$281,900	$2,819,000
REP-228C	US 2 Business	Grand Forks - Gateway Drive to DeMers	Chip Seal	NDDOT	Long-Range	$99,000	$11,000	$110,000
REP-258B	US 81 Business	32nd Avenue South Grand Forks (STA 14 to 95) 4 LN	CPR & Grind	NDDOT	Long-Range	$0	$0	$0
REP-259B	US 81 Business	32nd Avenue South Grand Forks (STA 95 to S. Washington) 5 LN	CPR & Grind	NDDOT	Long-Range	$0	$0	$0
REP-262B	US 81 Business	Grand Forks South Washington Street (32nd Avenue South to 26th Avenue South)	CPR & Grind	NDDOT	Long-Range	$365,400	$40,600	$406,000
REP-263B	US 81 Business	Grand Forks - South Washington Street (26th Avenue to Hammerling)	CPR & Grind	NDDOT	Long-Range	$885,600	$98,400	$984,000
REP-266B	US 81 Business	Grand Forks - South Washington Street (Hammerling to 8th Avenue South)	CPR & Grind	NDDOT	Long-Range	$502,200	$55,800	$558,000
REP-268B	US 81 Business	Grand Forks - South Washington Street (8th Avenue South to DeMers Avenue)	CPR & Grind	NDDOT	Long-Range	$144,900	$16,100	$161,000
REP-289	US 2 (Gateway Drive)	US 2 over the Red River, Bridge 9090 (Kennedy)	Repaint Bridge	NDDOT	Long-Range	$2,750,000	$0	$2,750,000
REP-291	US 2 Business	US 2B over the Red River, Bridge 4700 (Sorlie)	Repaint Bridge	NDDOT	Long-Range	$2,475,000	$275,000	$2,750,000
REP-293	US 81 Business	DeMers Avenue to Dyke Avenue	CPR/Grind	NDDOT	Long-Range	$94,500	$10,500	$105,000
REP-295	US 81 Business	Dyke Avenue to .05 Mi South of 8th Avenue	CPR/Grind	NDDOT	Long-Range	$296,100	$32,900	$329,000
REP-298	US 2 (Gateway Drive)	8 MI East of Grand Forks AFB to 2 MI West of Columbia Rd	Chip Seal	NDDOT	Long-Range	$399,000	$0	$399,000
REP-306	Various	Various	Regional Traffic Signal Upgrade	NDDOT	Long-Range	$14,301,900	$1,589,100	$15,891,000
REP-299	I-29	HWY 2 Interchange to North of Grand Forks (NB)	CPR & Grind	NDDOT	Long-Range	$3,511,000	$0	$3,511,000
REP-240B	I-29	Near 32nd Avenue South N of HWY 2 Interchange	CPR & Grind	NDDOT	Long-Range	$2,326,000	$0	$2,326,000
REP-243A	I-29	Near 32nd Avenue North to 32nd Avenue	CPR & Grind	NDDOT	Long-Range	$717,000	$0	$717,000
REP-244A	I-29	32nd Avenue North to South US 2	CPR & Grind	NDDOT	Long-Range	$3,790,000	$0	$3,790,000
REP-245A	I-29	South US 2 to North US 2	CPR & Grind	NDDOT	Long-Range	$3,790,000	$0	$3,790,000
REP-247	I-29	North of US 2 North to South of North Grand Forks Interchange	CPR & Grind	NDDOT	Long-Range	$0	$0	$0
REP-242B	I-29	N of ND 15 N to Near 32nd Avenue Grand Forks	CPR & Grind	NDDOT	Long-Range	$122,000	$0	$122,000
REP-244B	I-29	32nd Avenue North to South US 2	CPR & Grind	NDDOT	Long-Range	$46,000	$0	$46,000
REP-246B	I-29	US 2 North	CPR & Grind	NDDOT	Long-Range	$1,486,000	$0	$1,486,000
REP-248B	I-29	South of North Grand Forks Interchange to North of North Grand Forks Interchange South Bound	CPR & Grind	NDDOT	Long-Range	$0	$0	$0
REP-300	I-29	HWY 2 Interchange to North of Grand Forks (NB)	CPR & Grind	NDDOT	Long-Range	$3,511,000	$0	$3,511,000
					Totals	$114,814,900	$8,583,100	$123,398,000

City of Grand Forks Financially Constrained State of Good Repair (2023-2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	Federal Funds and Local Match	Additional City Funds	YOE Total
REP-043	Columbia Road	Columbia Road Railroad Overpass North of DeMers Ave.	Overpass	City of Grand Forks	Short-Range	**$5,625,000**	**$1,856,000**	**$7,481,000**
REP-045	Point Bridge	Bridge	Rehabilitation	City of Grand Forks	Short-Range	**$1,048,000**	**$0**	**$1,048,000**
REP-301	Various	Various	Traffic Signal Upgrade	City of Grand Forks	Short-Range	**$3,901,000**	**$250,000**	**$4,151,000**
REP-044	North Columbia Road	8th Avenue North to US 2 (Gateway Drive)	Reconstruct	City of Grand Forks	Short-Range	**$7,994,000**	**$2,638,000**	**$10,632,000**
REP-046	North Columbia Road	University Avenue to 8th Avenue North	Reconstruct	City of Grand Forks	Mid-Range	**$9,724,000**	**$3,209,000**	**$12,933,000**
REP-049	South Washington Street	32nd Avenue South to 47th Avenue South	Concrete Pavement Rehabilitation (CPR)	City of Grand Forks	Mid-Range	**$8,428,000**	**$2,781,000**	**$11,209,000**
REP-050	South Columbia Road	17th Avenue South to 32nd Avenue South	Concrete Pavement Rehabilitation (CPR)	City of Grand Forks	Mid-Range	**$8,590,000**	**$2,835,000**	**$11,425,000**
REP-051	South Columbia Road	DeMers Avenue to 17th Avenue South	Concrete Pavement Rehabilitation (CPR)	City of Grand Forks	Mid-Range	**$7,131,000**	**$2,353,000**	**$9,484,000**
REP-060	S 48th Street	DeMers Avenue to 10th Avenue South	Reconstruct	City of Grand Forks	Mid-Range	**$3,241,000**	**$1,070,000**	**$4,311,000**
REP-061	S 48th Street	10th Avenue South to 15th Avenue South	Reconstruct	City of Grand Forks	Mid-Range	**$3,241,000**	**$1,070,000**	**$4,311,000**
REP-041	32nd Avenue South	South 10th Street to Cherry Street	Reconstruct	City of Grand Forks	Mid-Range	**$1,783,000**	**$588,000**	**$2,371,000**
REP-052	Columbia Road**	47th - 62nd and Washington SED - 62nd	Maintenance and Operations	City of Grand Forks	Long-Range	**$6,847,000**	**$2,260,000**	**$9,107,000**
REP-053B	Columbia Road	32nd Avenue South to 47th Avenue South	Concrete Pavement Rehabilitation (CPR)	City of Grand Forks	Long-Range	**$11,763,000**	**$3,882,000**	**$15,645,000**
REP-302	Various	Various	New Traffic Signal or Roundabout	City of Grand Forks	Long-Range	**$2,883,000**	**$951,000**	**$3,834,000**
REP-303	Various	Various	New Traffic Signal or Roundabout	City of Grand Forks	Long-Range	**$2,883,000**	**$951,000**	**$3,834,000**
REP-304	Various	Various	New Traffic Signal or Roundabout	City of Grand Forks	Long-Range	**$2,883,000**	**$951,000**	**$3,834,000**
REP-307	Various	Various	Traffic Signal Upgrade	City of Grand Forks	Long-Range	**$8,937,000**	**$2,949,000**	**$11,886,000**
REP-042	32nd Avenue South	Cherry Street to Belmont Road	Reconstruct	City of Grand Forks	Long-Range	**$3,921,000**	**$1,294,000**	**$5,215,000**
					Totals	**$100,823,000**	**$31,888,000**	**$132,711,000**

** Columbia Road project includes two separate termini. These projects are being packaged together by the City of Grand Forks for a future NDDOT Urban Roads Program grant funding request.

City of Grand Forks Main Street Financially Constrained (2023-2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Total Federal/City Match
MUL-006	Eastern Downtown Area	Eastern Downtown Area	Revitalization	City of Grand Forks	Short-Range	**$1,000,000**
MUL-018	N 3rd Street	DeMers Avenue to 1st Avenue North	Reconstruct	City of Grand Forks	Short-Range	**$1,776,385**
MUL-019	N 3rd Street	1st Avenue North to 2nd Avenue North	Reconstruct	City of Grand Forks	Short-Range	**$1,776,385**
MUL-020	N 3rd Street	2nd Avenue North to University Avenue	Reconstruct	City of Grand Forks	Short-Range	**$1,776,385**
MUL-005	Northern Downtown Area	Northern Downtown Area	Revitalization	City of Grand Forks	Mid-Range	**$1,000,000**
MUL-023	N 4th Street	DeMers Avenue to 1st Avenue North	Reconstruct	City of Grand Forks	Mid-Range	**$2,431,056**
MUL-024	N 4th Street	1st Avenue North to 2nd Avenue North	Reconstruct	City of Grand Forks	Mid-Range	**$2,431,056**
MUL-025	N 4th Street	2nd Avenue North to University Avenue	Reconstruct	City of Grand Forks	Mid-Range	**$2,431,056**
MUL-007	Southern Downtown Area	Southern Downtown Area	Revitalization	City of Grand Forks	Long-Range	**$1,000,000**
MUL-004	Western Downtown Area	Western Downtown Area	Revitalization	City of Grand Forks	Long-Range	**$1,000,000**
MUL-021	S 3rd Street	DeMers Avenue to Kittson Avenue	Reconstruct	City of Grand Forks	Long-Range	**$4,324,540**
MUL-022	S 3rd Street	Kittson Avenue to Division Avenue	Reconstruct	City of Grand Forks	Long-Range	**$6,919,263**
MUL-026	S 4th Street	DeMers Avenue to Kittson Avenue	Reconstruct	City of Grand Forks	Long-Range	**$4,324,539**
MUL-027	S 4th Street	Kittson Avenue to Division Avenue	Reconstruct	City of Grand Forks	Long-Range	**$6,919,263**
					Total	**$39,109,928**

Grand Forks County State of Good Repair Financially Constrained Project List (2023-2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Federal/County Match	YOE County Funds Only
Various	Various	Various	Chip Seal	Grand Forks County	Short-Range		**$618,000**
REP-023A	CR 6 (12th Avenue NE)	County Road 8 (9th Street NE) to 8th Street NE	Mill & Overlay	Grand Forks County	Short-Range	**$329,000**	
REP-026A	32nd Avenue South	CR 5 (16th Street NE) to Railroad Tracks	Mill & Overlay	Grand Forks County	Short-Range	**$987,000**	
Various	Various	Various	Chip Seal	Grand Forks County	Mid-Range		**$1,162,000**
REP-009B	CR 5 (16th Street NE)	County Road 6 (12th Avenue NE) to US 2 (Gateway Drive)	Mill & Overlay	Grand Forks County	Mid-Range	**$2,702,000**	
Various	Various	Various	Chip Seal	Grand Forks County	Long-Range		**$1,459,000**
REP-030C	County Road 17 (South Columbia Rd)	County Road 81 to 62nd Avenue South	Mill & Overlay	Grand Forks County	Long-Range	**$3,845,000**	
					Totals	**$7,863,000**	**$3,239,000**

Safety/Operations Financially Constrained Project List - North Dakota Portion of MPO (2023-2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Total Federal/State/Local
PS0-004	Various	Various	Install Red Light Confirmation Indicators for the Through Lane Traffic	City of Grand Forks	Short-Range	**$101,000**
PS0-006	Various	Various	Advanced Walk Timer Bicycle/Pedestrian Upgrade	City of Grand Forks	Short-Range	**$357,000**
PS0-003	Various	Various	Rural Intersection and Segment Safety Upgrades	Grand Forks County	Short-Range	**$466,000**
PS0-005	Various	Various	Install Red Light Confirmation Indicators for the Through Lane Traffic	NDDOT/City	Short-Range	**$13,000**
PS0-007	Various	Various	Advanced Walk Timer Bicycle/Pedestrian Upgrade	NDDOT/City	Short-Range	**$171,000**
PS0-012	DeMers Avenue	at 16th Street Northeast	Rural Intersection Safety Upgrades	Grand Forks County	Short-Range	**$105,000**
PS0-013	Gateway Drive	at Airport Drive	Intersection Reconfiguration and ITS Improvements	NDDOT/City/County	Short-Range	**$2,266,000**
PS0-011	Gateway Drive/US 2	at Stanford Road	Realign Stanford Road to North 36th Street	City of Grand Forks	Mid-Range	**$1,316,000**
DIS-045	Interstate 29	at Gateway Drive	Upgrade to Existing Interchange (NE Loop and Other Upgrades)	NDDOT	Mid-Range	**$0**
DIS-003	Gateway Dr	Cambridge St (RE Arena Entrance)to Columbia Rd	Reconstruct intersection at Columbia Rd, signalize intersection, remove north frontage road access (see study)	NDDOT	Mid-Range	**$0**
					Total	**$4,795,000**

Safety/Operations Example Project List - Minnesota Portion of MPO

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Total Federal/State/Local
PS0-009	Various	Various	Access Management and Safety Upgrades	MnDOT	Short-Range	**$852,000**
PS0-010	Various	Various	Signal and Turn Lane Upgrades	MnDOT	Short-Range	**$881,000**
PS0-014	US 2	W JCT TH 220 MSAS 120 RT/EGF	Signal and Turn Lane Upgrades	MnDOT	Short-Range	**$4,417,000**
PS0-015	US 2	5th Avenue NEM 98/EGF	Signal and Turn Lane Upgrades	MnDOT	Short-Range	**$1,355,000**
PS0-008	Various	Various	Rumble Strip and Edgeline Safety Upgrades	Polk County	Short-Range	**$27,000**
DIS-008	Bygland Road	at 13th Avenue	Roundabout	City of East Grand Forks	Long-Range	**$5,271,000**
DIS-007	Bygland Road	at 5th Avenue	Roundabout	City of East Grand Forks	Long-Range	**$5,271,000**
					Total	**$18,074,000**

MnDOT Financially Constrained State of Good Repair Projects (2023-2045)

Table 12

Ref #	Roadway	Termini	Project Type	Agency	Time Frame	Federal/State Funds	City Match	YOE Total
REP-213	US 2	Over River Road NW	Replace Bridge	MnDOT	Short-Range	**$5,600,000**	**$0**	**$5,600,000**
REP-215	US 2 Business	US 2B from 2nd Street to 4th Street	Replace 3 Signal Systems	MnDOT	Short-Range	**$600,000**	**$0**	**$600,000**
REP-220	US 2	EB from 0.2 Miles East of US 2 Business to 0.3 Miles East of CSAH 15	Bituminous Mill and Overlay	MnDOT	Short-Range	**$4,100,000**	**$0**	**$4,100,000**
REP-217	US 2 Business	US 2B from DeMers Ave to US 2	Resurfacing with potential turnback	MnDOT	Mid-Range	**$2,000,000**	**$0**	**$2,000,000**
REP-218	US 2/MN 220	US 2 from North Dakota border to US 2B/ MN 220 from US 2 to CSAH 29	Concrete Rehabilitation	MnDOT	Mid-Range	**$4,000,000**	**$0**	**$4,000,000**
REP-287	US 2 Business	US 2B from North Dakota Border to 4th Street	Concrete Pavement Replacement/Rehabilitation, Rehabilitate Sorlie Bridge	MnDOT	Mid-Range	**$3,000,000**	**$0**	**$3,000,000**
REP-219	US 2	US 2 WB from 0.5 miles W of the W JCT of MN 220 (East Grand Forks) to 0.3 miles E of Polk CSAH 15 (Fisher)	Resurfacing	MnDOT	Long-Range	**$15,000,000**	**$0**	**$15,000,000**
REP-288	US 2	US 2 over the Red River, Bridge 9090 (Kennedy)	Repaint Bridge	MnDOT	Long-Range	**$2,750,000**	**$0**	**$2,750,000**
REP-290	US 2 Business	US 2B over the Red River, Bridge 4700 (Sorlie)	Repaint Bridge	MnDOT	Long-Range	**$2,750,000**	**$0**	**$2,750,000**
					Totals	**$39,800,000**	**$0**	**$39,800,000**

City of East Grand Forks State of Good Repair Financially Constrained (2023 to 2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Total
REP-194	Point Bridge	Across Red River	Rehabilitation	City of East Grand Forks	Short-Range	**$1,048,000**
REP-209	Bygland Road	6th St SE - 8th St SE	Reconstruction	City of East Grand Forks	Short-Range	**$980,000**
REP-210	Bygland Road	Heartsville Coulee Crossing	Reconstruction	City of East Grand Forks	Short-Range	**$710,000**
REP-202	10th Street NE	5th Ave NE - Central Ave	Reconstruction	City of East Grand Forks	Mid-Range	**$2,576,000**
REP-207B	Rhinehart Drive	13th St SE - 6th St SE	Reconstruction	City of East Grand Forks	Mid-Range	**$3,816,000**
REP-197	8th Ave NW	20th St NW - 23rd St NW	Reconstruction	City of East Grand Forks	Long-Range	**$2,502,000**
REP-211	Bygland Road	13th St SE - 8th St SE	Reconstruction	City of East Grand Forks	Long-Range	**$4,300,830**
					Total	**$15,932,830**

Polk County State of Good Repair Financially Constrained Project List (2023-2045)

Ref#	Roadway	Termini	Project Type	Agency	Time Frame	YOE Federal/County Match	YOE County Funds Only
REP 001	CSAH 72	TH 220 to South EGF City Boundary	Mill & Overlay	Polk County	Short-Range	**$202,800**	**$0**
REP 002	CSAH 73	US 2 to CSAH 29	Mill & Overlay	Polk County	Mid-Range	**$286,000**	**$0**
REP 003	CSAH 76	US 2 to CR 17	Mill & Overlay	Polk County	Mid-Range	**$352,000**	**$0**
					Totals	**$840,800**	**$0**

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #120001 PCN	Grand Forks	NA	Operating subsidy for proposed Grand Forks transit service. The service will operate 6 days a week and averages 62.5 hours of revenue service daily. Bus for the period January 1, 2024 to December 31, 2024 (costs for fixed-route service are estimates).	REMARKS: Total operating cost for Public Transit Fixed-Route and Demand Response Estimated fixed route fare is $292,381 East Grand Forks contract payment is shown as other UND contributes for Shuttle service shown as otherr					
	Grand Forks	Operations			Operations		3,673,170		
	Fixed-Route Transit Service	Entitlement	Excludes FTA Programs 5309 and 5310 costs		Capital		0.00		
					P.E.		0.00		
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				3,673,170 / 1,285,166 / 279,026 / 982,504 / 1,126,485	CONSTR.		0.00		
				FTA 5307 (50/50)	TOTAL		3,673,170		
Grand Forks #120002 PCN	Grand Forks	NA	Capital Purchase/Replacement of Safety and/or security hardware and software **NOTE:** Grand Forks Public Transportation consist of Fixed-Route, Demand Response service.	REMARKS:					
	Grand Forks	Capital			Operations		0.00		
					Capital		16,400		
					P.E.		0.00		
	Fixed-Route Transit Service	Entitlement		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				16,400 / 13,120 / 0 / 0 / 3,280	CONSTR.		0.00		
				FTA 5307 (80/20)	TOTAL		16,400		
				REMARKS:					

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

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FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #120003 PCN	Grand Forks	Columbia Road	Structure rehabilitation fo the Columbia Road Overpass between 9th Ave S and 2nd Ave N	REMARKS:					
	NDDOT	Principal Arterial			Operations		0.00		
					Capital		0.00		
					P.E.		0.00		
	Reconstruction	Discrestionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				8,930,000 / 6,744,000 / / / 2,186,000	CONSTR.		8,930,000		
				Urban Roads Local Program	TOTAL		8,930,000		
Grand Forks #120004 PCN 23348	Grand Forks	varies	The NDDOT will rehab traffic signals on the Urban Regional Roads system throughout Grand Forks	REMARKS:					
	NDDOT	varies			Operations		0.00		
					Capital		0.00		
					P.E.		0.00		
	ITS Rehab	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				6,668,000 / 5,334,400 / 1,058,700 / / 274,900	CONSTR.		6,668,000		
				Urban Regional Secondary Roads Program	TOTAL		6,668,000		
Grand Forks #120005 PCN 23333	Grand Forks	I29	High Tension Median Cable Guardrail From North of Buxton interchange to 32nd Ave S.	REMARKS: portion inside the MPO Planning Area					
	NDDOT	Interstate			Operations		**0.00**		
					Capital		**0.00**		
					P.E.		**0.00**		
	Safety	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		**0.00**		
				4,469,000 / 4,022,000 / 447,000 / /	CONSTR.		4,469,000		
				Highway Safety Improvement Program	TOTAL		4,469,000		

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #120006 PCN	Grand Forks	I-29	CPR, grinding of I-29 near the 32nd Ave S Interchange and southward to ND 15 (Thompson) Interchange. Both directions.	REMARKS: STIP has listed as two separate projects. 3 miles are within the MPO area					
	NDDOT	Interstate			Operations		0.00		
					Capital		0.00		
					P.E.		0.00		
	Rehabilitation	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				1,906,000 / 1,716,000 / 190,000 /	CONSTR.		1,906,000		
				Interstate Maintenance Program	TOTAL		1,906,000		
Grand Forks #120007 PCN	Grand Forks	S 5th St	Construct a roundabout at the S 5th St, Belmont Rd, and Division Ave intersection	REMARKS:					
	Grans Forks	Minor Arterial			Operations		0.00		
					Capital		0.00		
					P.E.		0.00		
	Construct	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				1,600,000 / 1,280,000 / / / 320,000	CONSTR.		1,600,000		
				Main Street	TOTAL		1,600,000		
Grand Forks #120008 PCN	Grand Forks	N 4th St	Recontruction between 1st Ave N and 2nd Ave N	REMARKS:					
	Grand Forks	Minor Arterial			Operations		0.00		
					Capital		0.00		
					P.E.		0.00		
	Reconstruct	Discrectionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		0.00		
				2,700,000 / 2,160,000 / / / 540,000	CONSTR.		2,700,000		
				Main Street	TOTAL		2,700,000		

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

FY 2024 Grouped Projects

Project Phase		TOTAL	FEDERAL	STATE	OTHER	LOCAL
Preliminary Engineering (PE)	Identifies the cost estimates for each phase. Only PE has any project phase cost estimates. No ROW or Utilities phases for projects within MPO Area	0	0	0	0	0
Right of Way (ROW)		0	0	0	0	0
Utilities		0	0	0	0	0

Grouped prjects are for all North Dakota side projects in the MPO Study Area that have not had the project phase already authorized.

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST (THOUSANDS) AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2025
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #121001 PCN	Grand Forks	NA	Operating subsidy for proposed Grand Forks transit service. The service will operate 6 days a week and averages 62.5 hours of revenue service daily. Bus for the period January 1, 2025 to December 31, 2025 (costs for fixed-route service are estimates).	REMARKS: Total operating cost for Public Transit Fixed-Route and Demand Response Estimated fixed route fare is $292,381 East Grand Forks contract payment is shown as other UND contributes for Shuttle service shown as other					
	Grand Forks	Operations			Operations			3,764,999	
	Fixed-Route Transit Service	Entitlement	Excludes FTA Programs 5309 and 5310 costs		Capital			0.00	
					P.E.			0.00	
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				3,764,999 / 1,317,295 / 286,001 / 1,007,066 / 1,154,647	CONSTR.			0.00	
				FTA 5307 (50/50)	TOTAL			3,764,999	
Grand Forks #121002 PCN	Grand Forks	NA	Capital Purchase/Replacement of Safety and/or security hardware and software	REMARKS:					
	Grand Forks	Capital	**NOTE:** Grand Forks Public Transportation consist of Fixed-Route, Demand Response service.		Operations			0.00	
					Capital			16,810	
					P.E.			0	
	Fixed-Route Transit Service	Entitlement		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0	
				16,810 / 13,450 / 0 / 0 / 3,360	CONSTR.			0	
				FTA 5307 (80/20)	TOTAL			16,810	
				REMARKS:					

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #121003 PCN 23349	Grand Forks	32nd Ave S	The NDDOT will do a pavement preservation project between I-29 and S Washington St. Pavement preservation to be CPR, grinding and microseal	REMARKS: This project is pending funding in 2025 and if not will be funded in 2026					
	NDDOT	Principal Arterial			Operations			0.00	
					Capital			0.00	
					P.E.			0.00	
	Rehabilitation	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				3,356,000 / 2,684,800 / 335,600 / / 335,600	CONSTR.			3,356,000	
				Urban Regional Secondary Roads Program	TOTAL			3,356,000	
Grand Forks #121004 PCN	Grand Forks	N Columbia Rd	Reconstruct between University Ave and 8th Ave N	REMARKS:					
	Grand Forks	Principle Arterial			Operations			0.00	
					Capital			0.00	
					P.E.			0.00	
	Reconstruction	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				7,302,000 / 5,167,000 / / / 2,135,000	CONSTR.			7,302,000	
				Urban Roads Local Program	TOTAL			7,302,000	
Grand Forks #121005 PCN	Grand Forks	US 2	Expantion Joint Modification on the Sorlie Bridge	REMARKS:					
	NDDOT	Principal Arterial			Operations			0.00	
					Capital			0.00	
					P.E.			0.00	
	Rehabilitation	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				27,040 / 21,883 / 5,157 / /	CONSTR.			27,040	
				National Highway System- State Project	TOTAL			27,040	

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #121006 PCN	Grand Forks	I-29	CPR, grinding of I-29 near the 32nd Ave S interchange and northward of US 81 interchange. Both directions.	REMARKS: STIP has listed as two separate projects					
	NDDOT	Interstate			Operations			0.00	
					Capital			0.00	
					P.E.			0.00	
	Rehabilitation	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				2,799,000 / 2,519,000 / 280,000 / /	CONSTR.			2,799,000	
				Interstate Maintenance	TOTAL			2,799,000	
Grand Forks #121007 PCN 23668	Grand Forks	Varies	Install dynamic speed signs at various school zone locations within Grand Forks	REMARKS:					
	Grand Forks	Varies			Operations			0.00	
					Capital			0.00	
					P.E.			0.00	
	Safety	Discrectionery		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			0.00	
				40,000 / 36,000 / / / 4,000	CONSTR.			40,000	
				Urban Roads Program	TOTAL			40,000	
PCN				REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

FY 2025 Grouped Projects

Project Phase		TOTAL	FEDERAL	STATE	OTHER	LOCAL
Preliminary Engineering (PE)	**Identifies the cost estimates for each phase. No PE, ROW or Utilities phases for projects within MPO Aea**	0	0	0	0	0
Right of Way (ROW)		0	0	0	0	0
Utilities		0	0	0	0	0

Grouped projects are for all North Dakota side projects in the MPO Study Area that have not had the project phase already authorized.

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSI-FICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #122001 PCN	Grand Forks / Fixed-Route Transit Service	NA / Operations / Entitlement	Operating subsidy for proposed Grand Forks transit service. The service will operate 6 days a week and averages 62.5 hours of revenue service daily. Bus for the period January 1, 2025 to December 31, 2025 (costs for fixed-route service are estimates). Excludes FTA Programs 5309 and 5310 costs	REMARKS: Total operating cost for Public Transit Fixed-Route and Demand Response estimated fixed route fare is $292,381. East Grand Forks contract payment is shown as other. UND contributes for Shuttle service shown as other.					
					Operations				3,859,124
					Capital				0.00
					P.E.				0.00
				TOTAL: 3,859,124 / FEDERAL: 1,350,227 / STATE: 293,151 / OTHER: 1,032,243 / LOCAL: 1,183,514	R.O.W.				0.00
					CONSTR.				0.00
				FTA 5307 (50/50)	TOTAL				3,859,124
Grand Forks #122002 PCN	Grand Forks / Fixed-Route Transit Service	NA / Capital / Entitlement	Capital Purchase/Replacement of Safety and/or security hardware and software. **NOTE:** Grand Forks Public Transportation consist of Fixed-Route, Demand Response service.	REMARKS:					
					Operations				0.00
					Capital				16,810
					P.E.				0.00
				TOTAL: 16,810 / FEDERAL: 13,450 / STATE: 0 / OTHER: 0 / LOCAL: 3,360	R.O.W.				0.00
					CONSTR.				0.00
				FTA 5307 (80/20)	TOTAL				16,810
				REMARKS:					

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #122005 PCN 23740	Grand Forks	Gateway Dr	CPR, Grinding between I-29 and Red River	REMARKS:					
	NDDOT	Principle Arterial			Operations				0.00
					Capital				0.00
					P.E.				0.00
	Rehabilitation	Discretionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				0.00
				4,447,000 / 3,557,600 / 889,400 / /	CONSTR.				4,447,000
				State Highways	TOTAL				4,447,000
Grand Forks #122006 PCN 23739	Grand Forks	N Washington St	Reconstruction between DeMers Ave and 8th Ave N Agggr Base, Pcc Pave, Signals, Lighting, Walk/Drive Ways	REMARKS:					
	NDDOT	Principle Arterial			Operations				0.00
					Capital				0.00
					P.E.				0.00
	Reconstruction	Discretionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				0.00
				5,147,000 / 4,117,600 / 514,700 / / 514,700	CONSTR.				5,147,000
				State Highways	TOTAL				5,147,000
Grand Forks #122007 PCN 22786	Grand Forks	I-29	Construct in Grand Forks a New Southside interchange	REMARKS:					
	NDDOT	Interstate			Operations				0.00
					Capital				0.00
					P.E.				0.00
	Construction	Discretionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				0.00
				52,600,000 / 47,340,000 / 2,630,000 / / 2,630,000	CONSTR.				52,600,000
				State Highways	TOTAL				52,600,000

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
Grand Forks #522008 PCN	Grand Forks	Point Bridge	In Grand Forks & East Grand Forks. Rehab of the Point Bridge (ND BR#0000GF02) (MN BR#60506) over the Red River of the North	REMARKS: East Grand Forks covers the other half of the total project. Shown is for Grand Forks only					
	Grand Forks	Minor Arterial			Operations				0.00
					Capital				0.00
					P.E.				0.00
	Rehabilitation	Discretionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				0.00
				1,200,000 / 960,000 / / / 240,000	CONSTR.				1,200,000
				Urban Raods	TOTAL				1,200,000
Grand Forks #122009 PCN 23669	Grand Forks	S Washinton St	Intersection improvements at 28th Ave S Adding length to left utrn lane.	REMARKS:					
	Grand Forks	Principle Arterial			Operations				0.00
					Capital				0.00
					P.E.				0.00
	Reconstruction	Discretionary		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				0.00
				280,000 / 252,000 / 14,000 / / 14,000	CONSTR.				6,500,000
				Highway Safety Improvement Program	TOTAL				6,500,000
				REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

FY 2026 Grouped Projects

Project Phase		TOTAL	FEDERAL	STATE	OTHER	LOCAL
Preliminary Engineering (PE)	Identifies the cost estimates for each phase. This year there are no project phases so all cost estimates are zero	0	0	0	0	0
Right of Way (ROW)		0	0	0	0	0
Utilities		0	0	0	0	0

Grouped projects are for all North Dakota side projects in the MPO Study Area that have not had the project phase already authorized.

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSI-FICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST (THOUSANDS) AND SOURCE OF FUNDING					STAGING	ANNUAL ELEMENT	FUTURE EXPENDITURES		
										2023	2024	2025	2026
									Operations				
									Capital				
									P.E.				
				TOTAL	FEDERAL	STATE	OTHER	LOCAL	R.O.W.				
									CONSTR.				
				FUNDING SOURCE					TOTAL				
			Grand Forks TOTALS										
									Operations	3,583,580	3,673,170	3,764,999	3,859,124
									Capital	8,867,808	16,400	16,810	16,810
									P.E.	0	0	0	0
				TOTAL	FEDERAL	STATE	OTHER	LOCAL	R.O.W.	0	0	0	0
				145,180,740	115,065,168	9,191,459	3,980,352	16,943,802	CONSTR.	17,911,000	26,273,000	13,524,040	69,894,000
									TOTAL	30,362,388	29,962,570	17,305,849	73,769,934

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

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URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT	FUTURE EXPENDITURES		
						2023	2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
East Grand Forks #220001	East Grand Forks East Grand Forks Fixed-Route Transit Service	NA Operations Entitlement	Operating subsidy for proposed East Grand Forks fixed-route transit service. The service will operate 6 days a week and averages 36 hours of revenue service daily. Bus for the period January 1, 2024 to December 31, 2024 (Costs for fixed-route service are estimates). TRF-0018-24B	REMARKS: Contract fixed route services with City of Grand Forks Estimated payment to GF is $560,000 Estimated fare is $4,772 **Other is MN Transit Formula Funds** TOTAL 586,240 / FEDERAL 127,310 / STATE 0 / OTHER 363,322 / LOCAL 90,836 FTA 5307					
					Operations		586,240		
					Capital		0.00		
					P.E.		NA		
					R.O.W.		NA		
					CONSTR.		NA		
					TOTAL		586,240		
East Grand Forks #220002	East Grand Forks East Grand Forks Paratransit Service for Disabled Persons	NA Operations Entitlement	Operating subsidy for demand response service for disabled persons and senior citizens covering the period January 1, 2024 to December 31, 2024. The paratransit service operates the same hours of operation as the fixed-route transit service (costs for paratransit service are estimates) TRF-0018-24A	REMARKS: Contract demand response service Estimated fare is $16,880 **Other is MN Transit Formula Funds** TOTAL 151,820 / FEDERAL 0 / STATE 0 / OTHER 114,700 / LOCAL 20,240 State Transit Funds					
					Operations		151,820		
					Capital		0		
					P.E.		NA		
					R.O.W.		NA		
					CONSTR.		NA		
					TOTAL		151,820		
East Grand Forks #220003	East Grand Forks East Grand Forks Fixed- Route Transit Service	N/A Capital Entitlement	City of East Grand Forks Purchase One (1) Class 400 LF Replacement Gas Bus TRS-0018-24C	REMARKS: **Other is MN Transit Formula Funds** TOTAL 182,000 / FEDERAL 145,600 / STATE / OTHER 18,200 / LOCAL 18,200 FHWA STPBG Program Flexed					
					Operations		0		
					Capital		182,000		
					P.E.		N/A		
					R.O.W.		N/A		
					CONSTR.		N/A		
					TOTAL		182,000		

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT	FUTURE EXPENDITURES		
						2023	2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
East Grand Forks #220004	East Grand Forks	DeMers Ave	On DeMers Ave (USB2) at 2nd St NW & 4th St NW, Signal System Replacement/ADA Improvements	REMARKS:					
	MnDOT	Principal Arterial			Operations		0		
					Capital		0		
					P.E.		NA		
	Signal Replacement	Discretionary	Project # 6001-68	TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.		NA		
				1,200,000 / 643,218 / 146,782 / 0 / 410,000	CONSTR.		1,200,000		
				Statewide Performance Program	TOTAL		1,200,000		
East Grand Forks #			Intentionally left blank	REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				
East Grand Forks #			Intentionally left blank	REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
East Grand Forks #221001	East Grand Forks	NA	Operating subsidy for proposed East Grand Forks fixed-route transit service. The service will operate 6 days a week and averages 36 hours of revenue service daily. Bus for the period January 1, 2025 to December 31, 2025 (Costs for fixed-route service are estimates).	REMARKS: Contract fixed route services with City of Grand Forks Estimated payment to GF is $560,000 Estimated fare is $4,917 **Other is MN Transit Formula Funds**					
	East Grand Forks	Operations			Operations			603,830	
					Capital			0	
					P.E.			NA	
	Fixed-Route Transit Service	Entitlement	TRF-0018-25B	TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			NA	
				603,830 / 131,130 / 0 / 374,222 / 93,561	CONSTR.			NA	
				FTA 5307	TOTAL			603,830	
East Grand Forks #221002	East Grand Forks	NA	Operating subsidy for demand response service for disabled persons and senior citizens covering the period January 1, 2025 to December 31, 2025. The paratransit service operates the same hours of operation as the fixed-route transit service (costs for paratransit service are estimates)	REMARKS: Contract demand response service Estimated fare is $17,391 **Other is MN Transit Formula Funds**					
	East Grand Forks	Operations			Operations			156,380	
					Capital			0	
					P.E.			NA	
	Paratransit Service for Disabled Persons	Entitlement	TRF-0018-25A	TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.			NA	
				156,380 / 0 / 0 / 118,141 / 20,847	CONSTR.			NA	
				State Transit Funds	TOTAL			156,380	
East Grand Forks #			Intentionally left blank	REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
East Grand Forks #222001	East Grand Forks	N/A	Operating subsidy for proposed East Grand Forks fixed-route transit service. The service will operate 6 days a week and averages 36 hours of revenue service daily. Bus for the period January 1, 2026 to December 31, 2026 (Costs for fixed-route service are estimates).	REMARKS: Contract fixed route services with City of Grand Forks Estimated payment to GF is $560,000 Estimated fare is $5,128					
	East Grand Forks	Operations			Operations				621,945
					Capital				0
					P.E.				N/A
	Fixed-Route Transit Service	Entitlement	TRF-0018-26B	TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				N/A
				621,945 / 135,000 / / 385,449 / 96,368	CONSTR.				N/A
				FTA 5307	TOTAL				621,945
East Grand Forks #222002	Eagst Grand Forks	N/A	Operating subsidy for demand response service for disabled persons and senior citizens covering the period January 1, 2026 to December 31, 2026. The paratransit service operates the same hours of operation as the fixed-route transit service (costs for paratransit service are estimates)	REMARKS: Contract demand response service Estimated fare is $17,912 **Other is MN Transit Formula Funds**					
	East Grand Forks	Operations			Operations				161,070
					Capital				0
					P.E.				N/A
	Paratransit Service for Disabled Persons	Entitlement	TRF-0018-26A	TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				N/A
				161,070 / 0 / 0 / 121,685 / 21,472	CONSTR.				N/A
				State Transit Funds	TOTAL				161,070
East Grand Forks #222003	East Grand Forks	N/A	Purchase Class 400 replacement vehicle	REMARKS: **Other is MN Transit Formula Funds**					
	East Grand Forks	Capital	TRS-0018-26A		Operations				0
					Capital				193,000
					P.E.				N/A
	Fixed- Route Transit Service	Entitlement		TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				N/A
				193,000 / 154,400 / / 19,300 / 19,300	CONSTR.				N/A
				FHWA STPBG Program Flexed	TOTAL				193,000

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSIFICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT 2023	FUTURE EXPENDITURES 2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
East Grand Forks #522008	East Grand Forks	Point Bridge	In Grand Forks & East Grand Forks, MSAS 113, Rehab the Point Bridge (MN BR#60506) (ND BR#0000GF02) over the Red River of the North, includes mill and overly of bridge approach on 1st St SE in East Grand Forks	REMARKS: Grand Forks covers the other half of the total project. Shown is for East Grand Forks only. Other costs are non-construction costs. Other Revenue is MN State Aid					
	East Grand Forks	Minor Arterial			Operations				0
					Capital				0
					P.E.				N/A
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				N/A
	Bridge Repair	Discretionary	119-113-008	1,150,000 / 860,000 / 0 / 290,000 / 0	CONSTR.				1,150,000
				NWATP City Sub-target	TOTAL				1,150,000
East Grand Forks #			Intentionally left blank	REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				
East Grand Forks #			Intentionally left blank	REMARKS:					
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
					TOTAL				

GRAND FORKS - EAST GRAND FORKS METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2023 - 2026

URBAN AREA / PROJECT NUMBER	PROJECT LOCATION / RESPONSIBLE AGENCY / PROJECT TYPE	FACILITY / CLASSI-FICATION / FUNDING STATUS	PROJECT DESCRIPTION	ESTIMATED COST AND SOURCE OF FUNDING	STAGING	ANNUAL ELEMENT	FUTURE EXPENDITURES		
						2023	2024	2025	2026
					Operations				
					Capital				
					P.E.				
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.				
					CONSTR.				
				FUNDING SOURCE	TOTAL				
			East Grand Forks TOTALS		Other	0			
					Operations	716,570	738,060	760,210	783,015
					Capital	0	182,000	0	193,000
					P.E.	0	0	NA	NA
				TOTAL / FEDERAL / STATE / OTHER / LOCAL	R.O.W.	0	0	NA	NA
				7,515,855 / 3,450,258 / 146,782 / 2,932,119 / 898,662	CONSTR.	1,793,000	1,200,000	0	1,150,000
					TOTAL	2,509,570	2,120,060	760,210	2,126,015

Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

MPO Staff Report

Technical Advisory Committee:

October 12, 2022

MPO Executive Board:

October 19, 2022

STAFF RECOMMENDED ACTION: Update to the 2050 Street and Highway Plan

TAC RECOMMENDED ACTION:

Matter of update to the 2050 Street and Highway Plan and the Interm-Existing Conditions Document

Background:

The five-year update to the Street and Highway Plan provides an opportunity for the community partners to revisit the changing priorities and needs for the regional system. Going beyond just checking the boxes of federal requirements and reviewing shifting growth patterns and community priorities. HDR and team plan to put emphasis on community engagement throughout the process. HDR has teamed up with CPS, Ltd. And Praxis Strategy Group to help drive community engagement and stakeholder engagement.

Shifting Federal priorities and grant opportunities also can help inform how the Street and Highway Plan identifies and recommends projects and strategies. New attention on equity and climate change, electric vehicle infrastructure planning needs, and new planning emphasis areas should be incorporated into development of the plan to not only develop a compliant transportation plan, but to identify and position projects in the transportation plan to best compete for Federal funding. The HDR team approach brings together the unique local transportation landscape with Federal priorities to create a useful and compliant transportation plan.

The consultant will be utilizing the MPO's TAC to provide input and oversight throughout the study process. Since the TAC meets monthly, and will meet as needed, to provide input and guidance through the study process, particularly at key decision points in the study. At the October TAC meeting HDR and team will give you an update on where we are at in the process and an overview of the Interm.-Existing Conditions Document.

Findings and Analysis:

- The Street & Highway plan is an element of the MTP

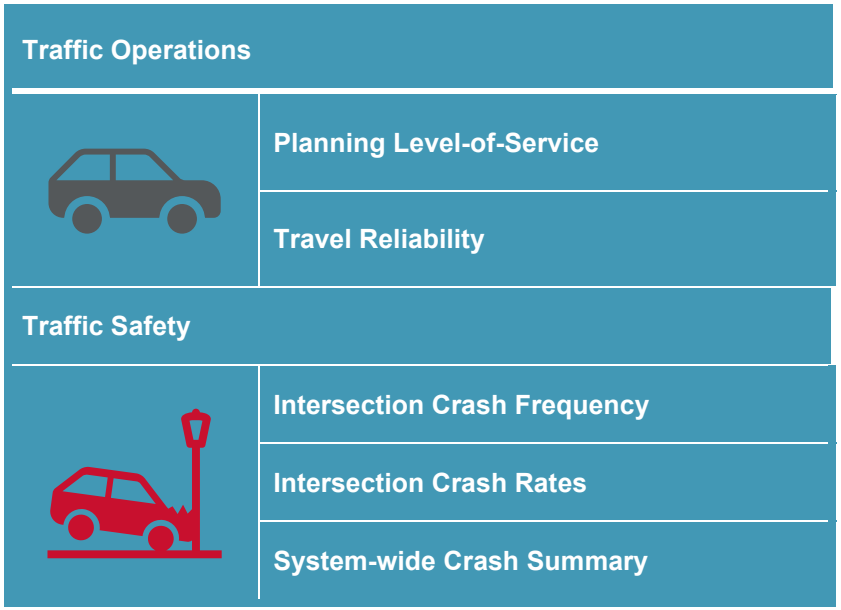
Support Materials:

- Interm-Existing Conditions Document

Existing Conditions Interim Memorandum

Existing conditions of the Grand Forks-East Grand Forks Metropolitan Planning Organization's (MPO) street and highway system were reviewed to develop an understanding of the system's current needs and opportunities. Based on these existing conditions, a baseline for evaluating future street and highway system scenarios can be established.

This memorandum will describe the existing street and highway system through a review of traffic operations and traffic safety. Traffic operations were analyzed through a planning level-of-service (LOS) approach as well as a review of travel reliability for passenger vehicles and trucks. Traffic safety topics include an identification of the top intersections in terms of crash frequency and crash rates and a system-wide summary of crash statistics.



Existing Traffic Operations

Traffic operations for the MPO area were analyzed to understand where operational issues are occurring. Two approaches to analyzing operations were used:

- **Planning Level-of-Service**
- **Passenger and freight travel reliability**

Planning Level-of-Service

A baseline evaluation of current traffic operations was based on combining:

- Traffic operations analysis results provided by previous studies.
- An original planning-level approach to estimating LOS across the network where recent study results were not available.

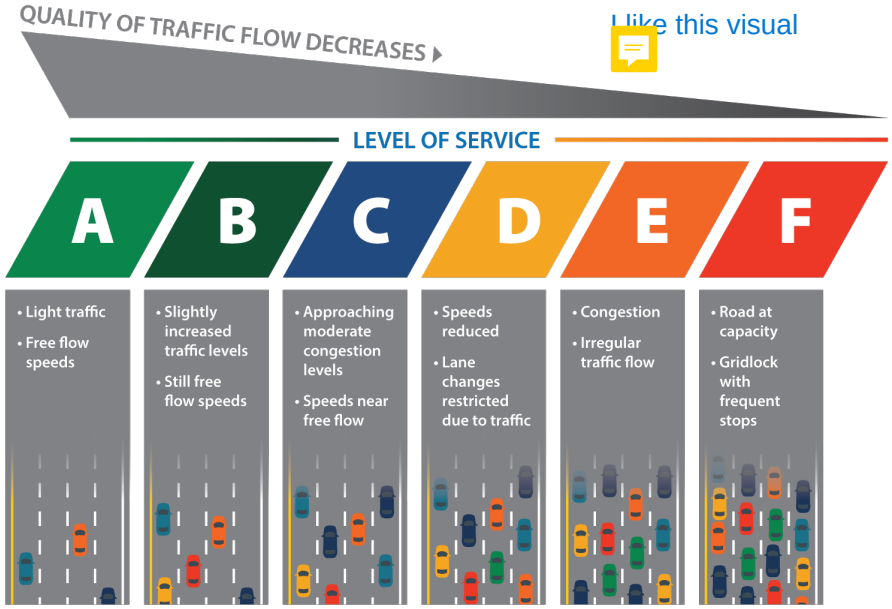
A high-level planning approach to estimating LOS was used to evaluate traffic congestion during typical peak hour travel conditions. This approach compares observed traffic volumes to estimated thresholds where traffic approaches or exceeds a typical capacity for the MPO's functionally classified street network. This comparison results in a Volume-to-capacity (V/C) ratio, which is then described using a standard classification wherein LOS A represents free flow traffic while LOS F represents complete gridlock. **Figure 1** demonstrates the LOS classifications.

The LOS analysis conducted for the MPO's existing conditions incorporated findings from recently completed planning studies then built off these findings using original analysis to review operations for streets not included in these previous studies. The studies reviewed as part of this effort were:

- **2019 Downtown Transportation Study**
- **2019 Mn 220 N Corridor Study**
- **2019 U.S. 2/U.S. 81 Skewed Intersection Study**
- **2022 FuFeng Development Traffic Impact Study**
- **2022 Future Bridge Traffic Impact Study**

The planning LOS identified in these studies are shown in **Figure 2**.

Figure 1: Planning LOS Classifications



As shown in **Figure 2**, most corridors reviewed in recent planning studies were operating at LOS B or better, however a few corridors were identified as having peak hour LOS of C or worse. Corridors identified in past planning studies as operating at LOS C or worse are detailed in **Table 1**.

Figure 3 shows the complete planning LOS for the MPO area, building off the operational analyses conducted for the previous planning efforts. This analysis used traffic volume data from North Dakota Department of Transportation (NDDOT) and Minnesota Department of Transportation (MnDOT) while design capacities were developed using guidance found in the Florida Department of Transportation's Quality/Level of Service Handbook. Why Florida?

The majority of the MPO street network is operating at LOS B or above, and many of the segments operating at LOS C or below were identified in the previous studies. Those segments operating at LOS C or below and that were not identified in the previous studies are summarized in **Table 2**.

Table 1: Congested Corridors Identified in Previous Studies

Corridor	LOS	Source
Central Avenue NW	C	2019 Downtown Transportation Study
Mn 220 N	C	2019 Mn 220 N Corridor Study
Kittson Avenue	D	2019 Downtown Transportation Study
Washington Street	D	2022 Future Bridge Traffic Impact Study

Table 2: Congested Corridors Identified in Existing Conditions Analysis

Corridor	LOS	Source
Columbia Road	C/D	2050 Street and Highway Plan Analysis
24th Street S	C	2050 Street and Highway Plan Analysis
S 20th Street	C	2050 Street and Highway Plan Analysis
32nd Avenue S	C	2050 Street and Highway Plan Analysis
DeMers Avenue	C	2050 Street and Highway Plan Analysis

In smaller text below each corridor have labeled what segment of that road is this LOS, for example: Columbia Road from DeMers Ave to 24th Ave. You do have it labeled to the side on the map and you don't want to clutter the map up but it is good information to know the segment.

Figure 2: Recent Study Reported Traffic LOS

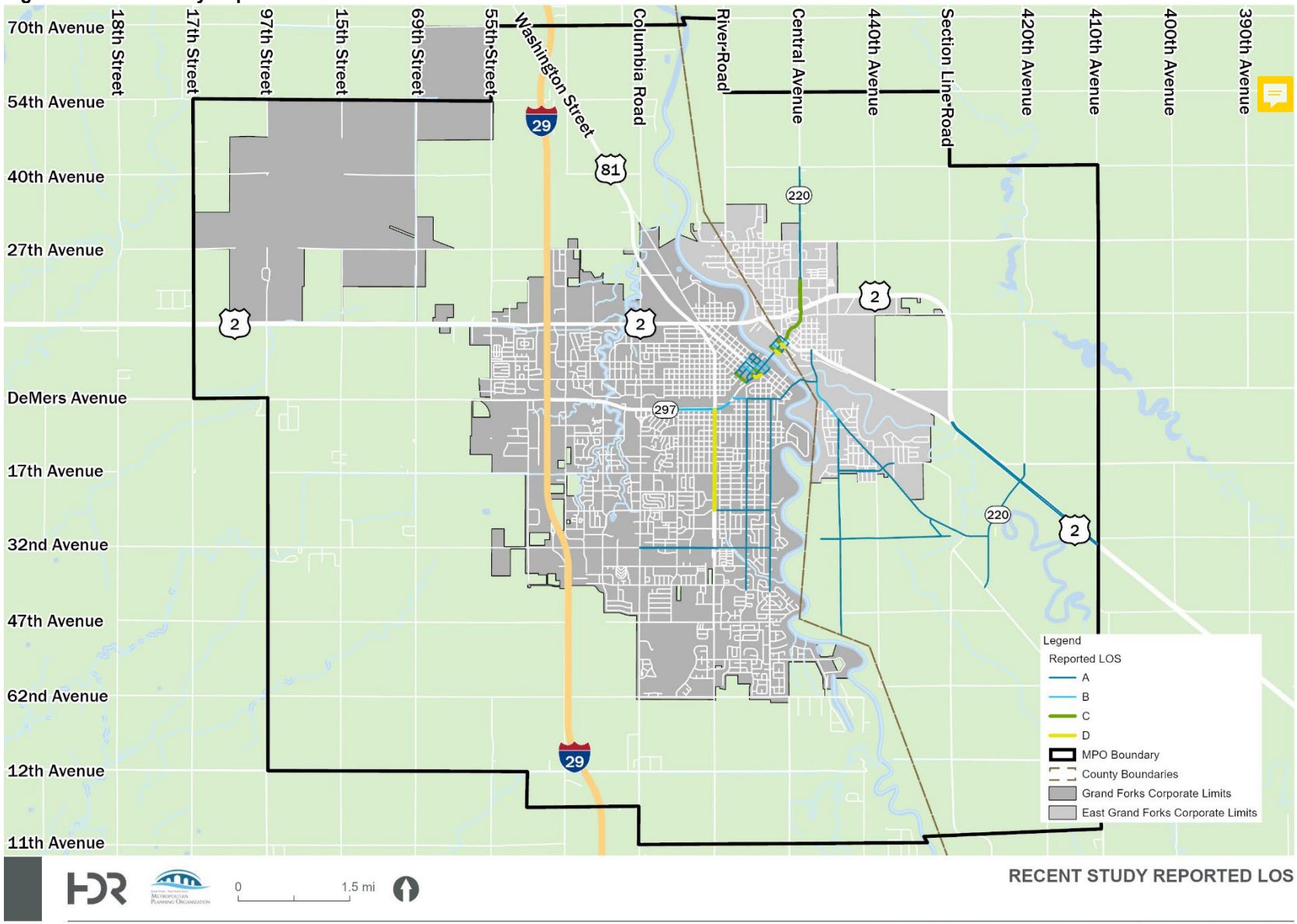
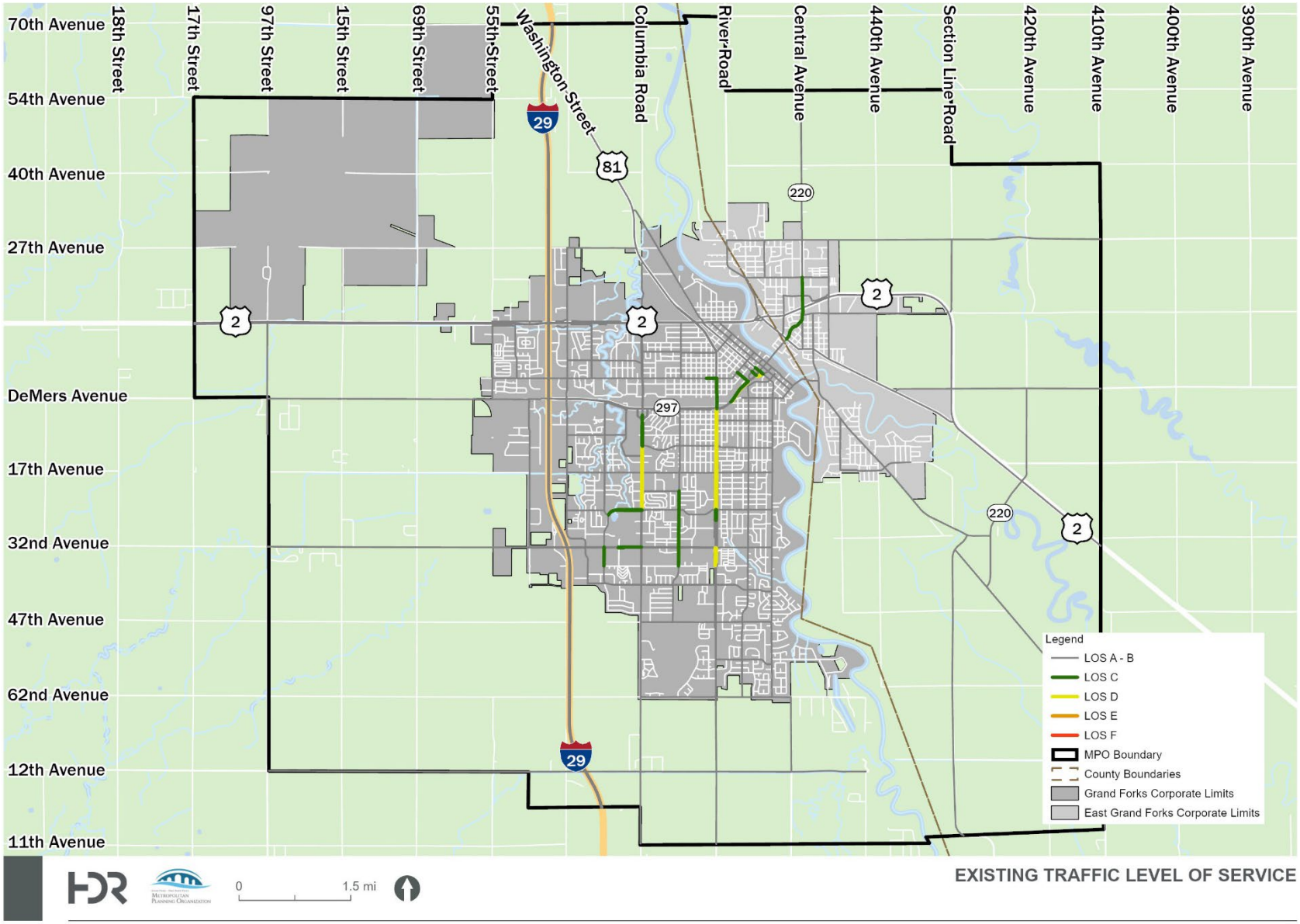


Figure 3: Existing Traffic Operations



Travel Reliability

Travel reliability is a measure of how predictable travel times are across a corridor and pertains to both passenger and freight truck traffic. A corridor can experience travel delays, but if it is consistently experiences the same level of peak period travel delays it is predictable and therefor "reliable". Reliability is described using a metric referred to as Level of Travel Time Reliability (LOTTR) when reporting conditions for passenger traffic while Truck Travel Time Reliability Index (TTTR) is used to report freight truck reliability conditions.

Federal reporting requirements obligate the MPO to report travel reliability for the Interstate system and the non-Interstate National Highway System (NHS) annually. As part of these Federal reporting requirements, the MPO has adopted travel time reliability targets based on the LOTTR and TTTRI metrics mentioned above. The targets span four years, with the current four-year period beginning in 2018; these targets are to be revisited during 2022.[1] The MPO's travel reliability performance targets are shown in **Table 3**.

Reliability data used for the MPO's existing reliability conditions was sourced from the National Performance Research Dataset (NPMRDS) for the year 2021.

Table 3: Grand Forks-East Grand Forks MPO System Reliability Performance Targets

Performance Measure	Target
Percent of Reliable Person Miles on the Interstate	90%
Percent of Reliable Person Miles on the non-Interstate NHS	ND 85%; MN 90%
Interstate Truck Travel Time Reliability Index	1.5

Source: Grand Forks-East Grand Forks MPO

[1] Grand Forks-East Grand Forks MPO, 2023 – 2026 Transportation Improvement Program

Figure 4 through **Figure 6** summarize the MPO's progress towards meeting the adopted performance targets for passenger and freight truck travel reliability. It is noted that the system-wide target assumed for passenger travel reliability on the non-Interstate NHS is 90 percent of person miles traveled despite the target being 85 percent for the MPO area within North Dakota while the target is 90 percent for the MPO area within Minnesota. **Meeting the target is being at target or above**.

The figures present reliability results for each month of 2021; the target can be considered achieved for passenger travel reliability if the monthly LOTTR exceeds the target shown in the table whereas the monthly TTRI target is considered met by being below the target shown in **Figure 6**.

Passenger travel reliability conditions for the Interstate found within the MPO exceed the target of 90 percent or more of reliable person miles each month during 2021, demonstrating that travel times along the I-29 corridor are predictable and users are typically able to anticipate how traffic will flow when using the corridor.

Reliability conditions along the non-Interstate NHS exhibited much more monthly variation than the Interstate system, as the assumed passenger reliability target was only met during six months of 2021.

Figure 4: Monthly Interstate LOTTR for the MPO Area, 2021

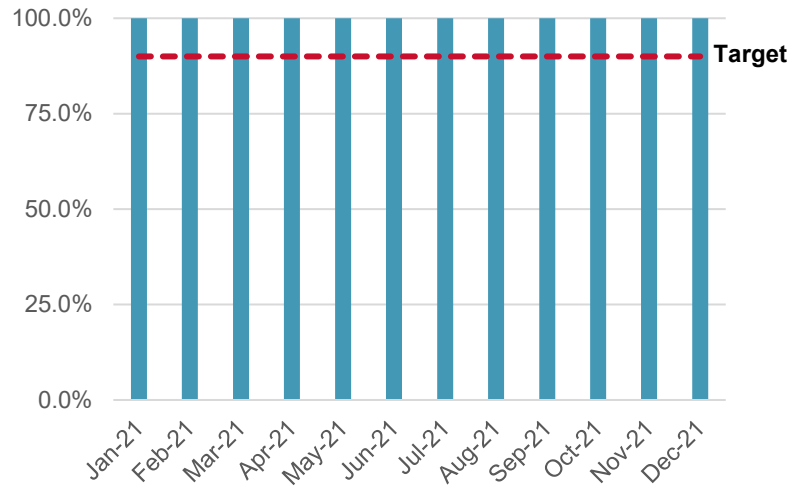
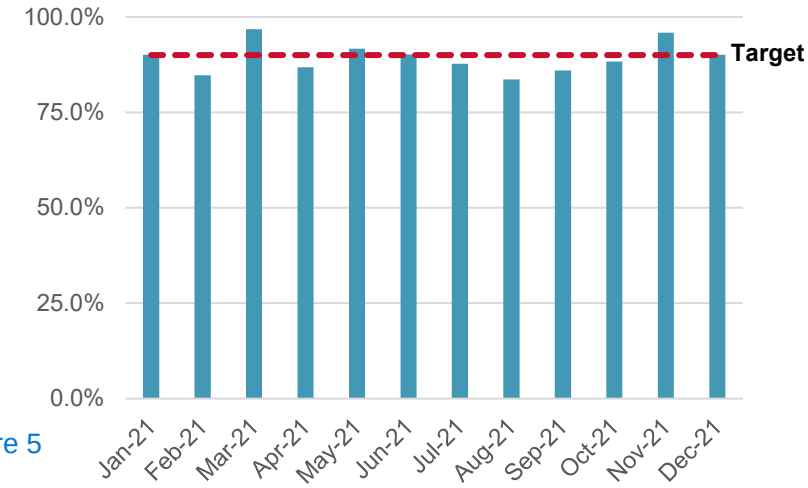


Figure 5: Monthly non-Interstate NHS LOTTR for the MPO Area, 2021



Can you go over Figure 5

Source: National Performance Research Dataset, 2021

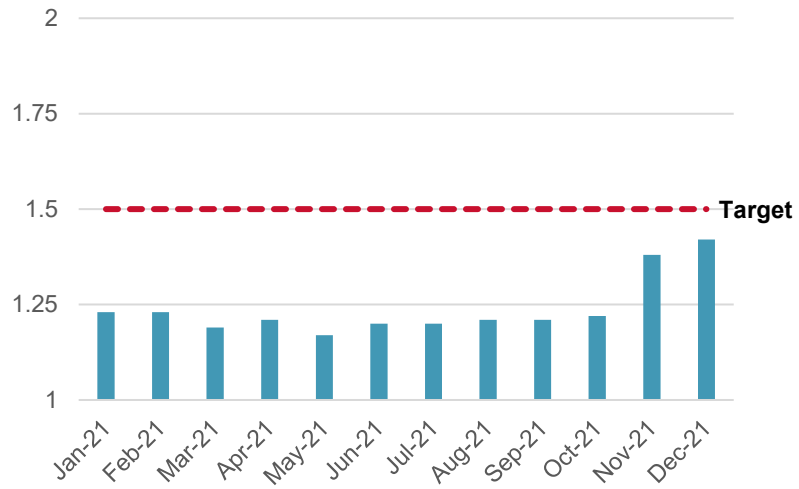
Freight truck reliability for the MPO's Interstate system has a target of 1.5 for the Interstate system. **Meeting the target is a TTTR less than or equal to 1.5**. As shown, the target was met each month during 2021 and reflects passenger reliability conditions for the I-29 corridor. Similar to passenger vehicle traffic, freight truck operators can generally anticipate travel times along the I-29 corridor in the MPO area.

Figure 7 through **Figure 9** illustrates passenger and freight truck reliability conditions for the Interstate and non-Interstate NHS corridors within the MPO area. **Figure 7** demonstrates LOTTR for the Interstate system in which the majority of the corridor recorded an LOTTR at or below 1.25. I-29 southbound at U.S. 2 recorded the highest Interstate LOTTR which was 1.30.

Passenger reliability conditions for the non-Interstate NHS, shown in **Figure 8**, demonstrate several MPO corridors that experience reliability scores outside of targets. U.S. 2 has several segments that recorded an LOTTR above 1.50 as did segments of DeMers Avenue and 32nd Avenue.

Freight truck reliability for the Interstate system is shown in **Figure 9**. TTTRI for I-29 south of DeMers Avenue was below 1.35 ~~while~~ but increased to over 1.5 between DeMers Avenue and U.S. 2/Gateway Drive. North of Gateway Drive, TTTRI dropped to 1.30.

Figure 6: Monthly Interstate TTTR for the MPO Area, 2021



Source: National Performance Research Dataset, 2021

Figure 7: Interstate Passenger Level of Travel Time Reliability

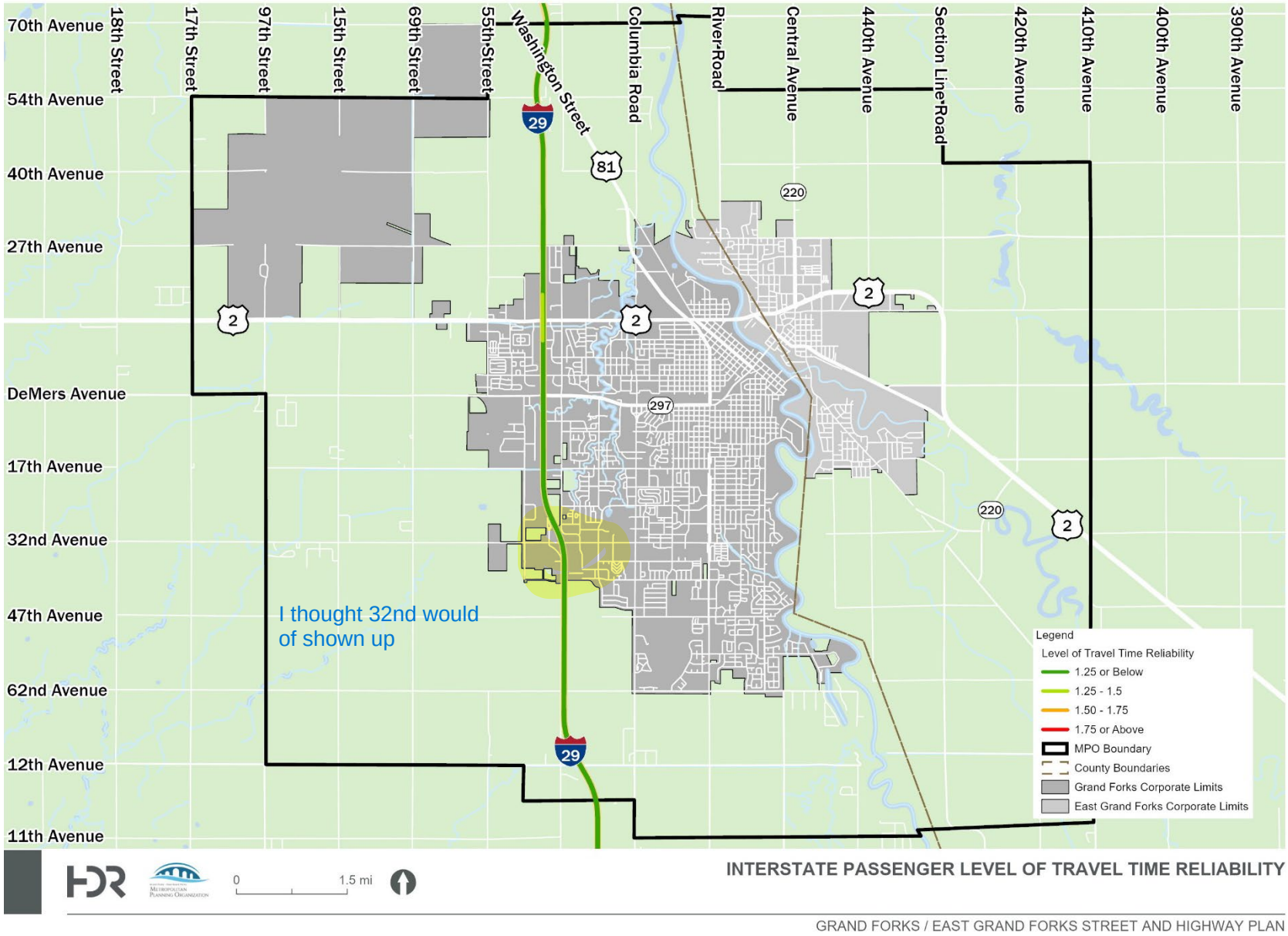


Figure 8: Non-Interstate NHS Passenger Level of Travel Time Reliability

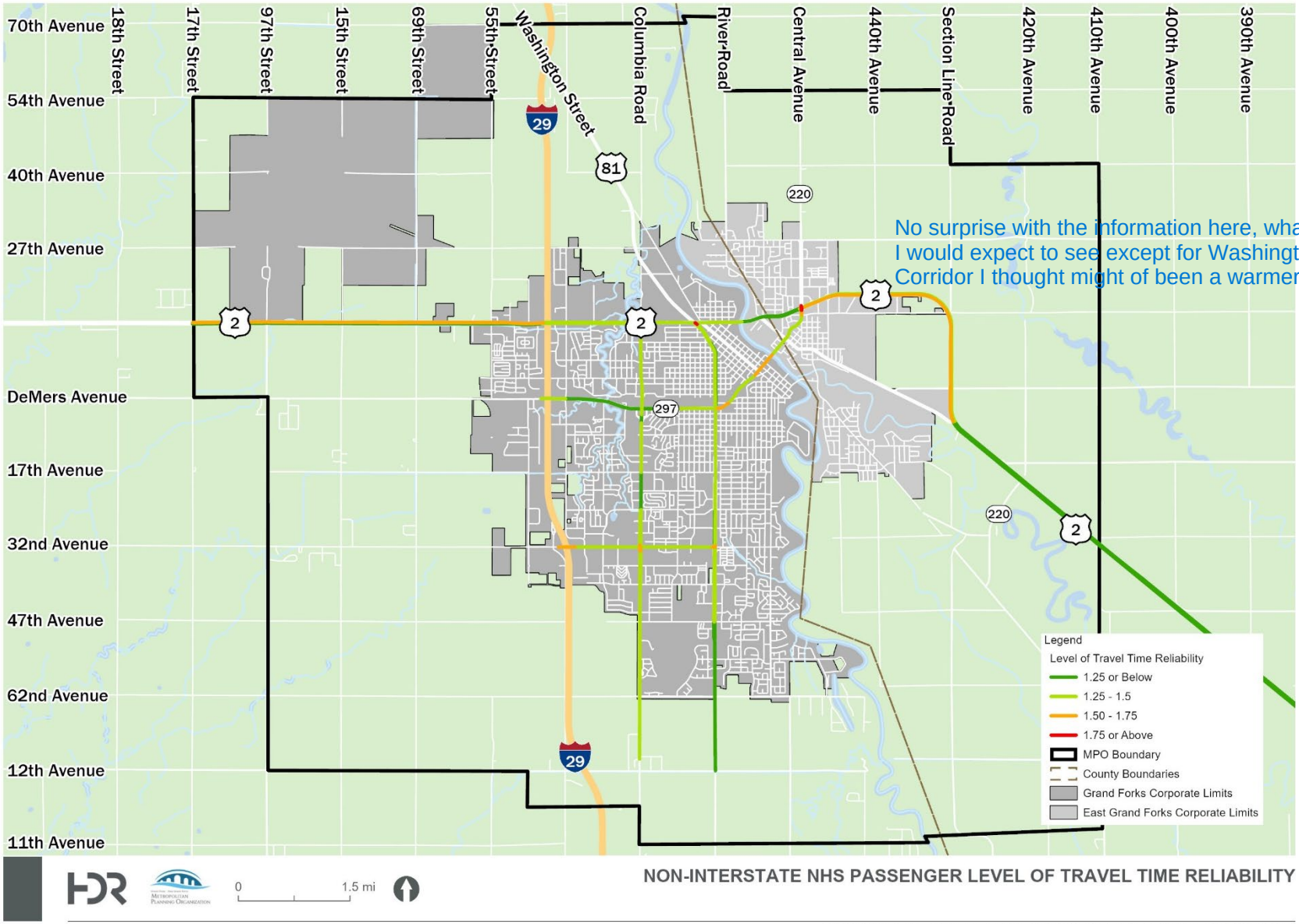
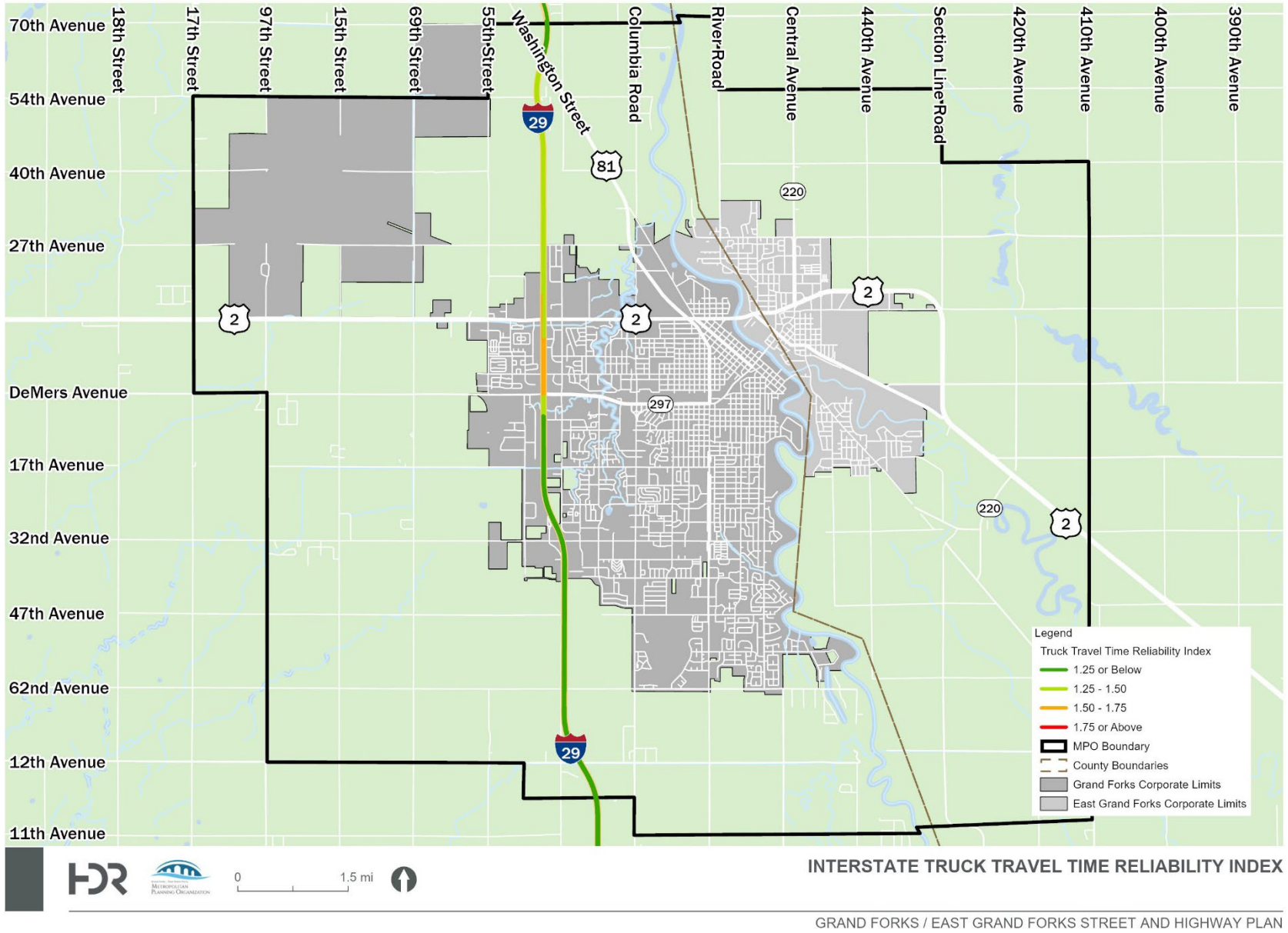


Figure 9: Interstate Truck Travel Time Reliability Index



Traffic Safety

Traffic safety conditions for the Grand Forks-East Grand Forks area were analyzed using historic crash data for the years 2016 through 2021.Crash data for the MPO area within North Dakota was sourced from NDDOT while crash data covering the MPO area within Minnesota was sourced from MnDOT.

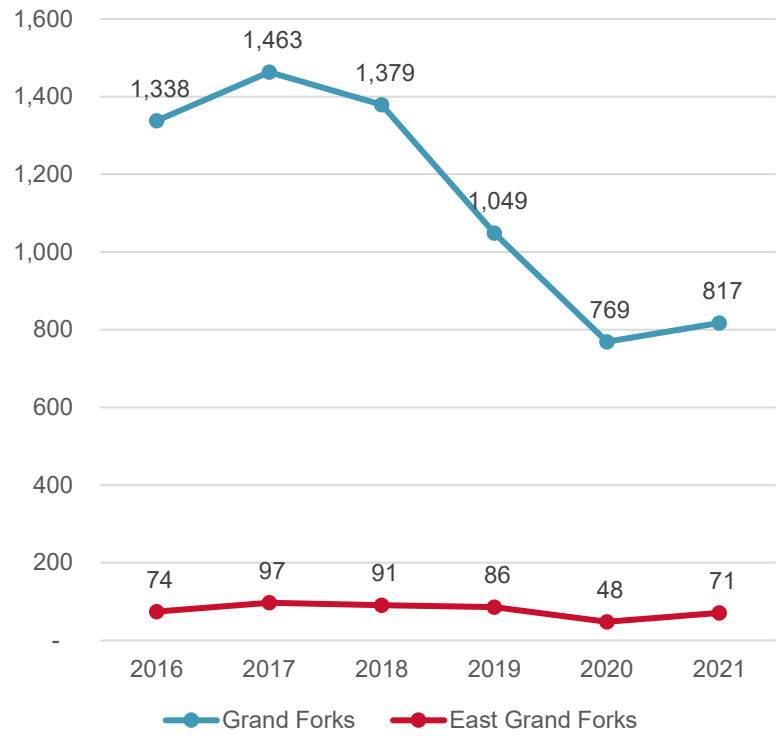
Figure 10 shows the annual number of crashes that occurred in the MPO area between 2016 and 2021. The number of crashes that occurred in Grand Forks rose between 2016 and 2017 before declining in 2018. Note two different factors that led to a sharp decline in after 2018:

- Starting in 2019, the North Dakota classification of Property Damage Only crashes changed from $1,000 damage to $4,000 damage. This change eliminated many minor crashes that were previously reported from being included.
- A major factor influencing the decrease in crashes in 2020 was the COVID-19 public health pandemic in which local shelter-in-place ordinances limited opportunities for travel thereby reducing vehicle miles traveled; this drop in travel resulted in fewer crashes.

The year 2021 represented an increase again in crash levels as shelter-in-place ordinances began to be lifted and travel started a return towards pre-pandemic levels.

The annual crash trend in East Grand Forks followed a similar pattern although far fewer crashes occurred in East Grand Forks compared to Grand Forks.

Figure 10: Crashes by Year for the MPO Area, 2016-2021



Source: North Dakota DOT, Minnesota DOT

Do you think it is going to continue this trend until it levels out with the new factors or do you see something else happening?

Crash Timing

Crash timing looks at when traffic crashes occur to gain and understanding of when these events occurred within the MPO area. Timing is viewed through two perspectives—crashes by month, and crashes by day of week.

CRASHES BY MONTH

Understanding when crashes occurred on a monthly basis can highlight seasonal patterns that could have influenced these events. Weather can be a major factor related to crashes, and winter weather in Grand Forks – East Grand Forks means the accumulation of snow and ice on roads can lead to unsafe surface conditions.

Figure 11 summarizes MPO area crashes by month they occurred between 2016 and 2021. As seen in the figure, crashes peaked in the months of January, February, and December, which likely reflects the influence of winter weather on traffic safety. Warmer months recorded fewer crashes and the general trend was an increase in crashes as the winter months approached.

CRASHES BY DAY OF WEEK

Figure 12 summarizes MPO area crashes by day of week they occurred between 2016 and 2021. As seen in the figure, the majority of crashes occurred on weekdays, with the largest number of crashes occurring on Tuesday. The implication here is that peak traffic volumes can result in higher crash frequencies compared to a weekend day when traffic volumes are potentially more spread out throughout the day.

Figure 11: MPO Area Crashes by Month, 2016-2021

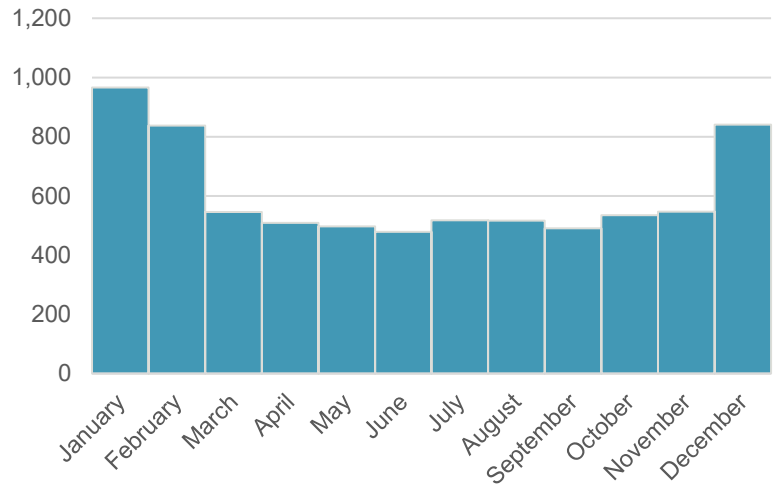
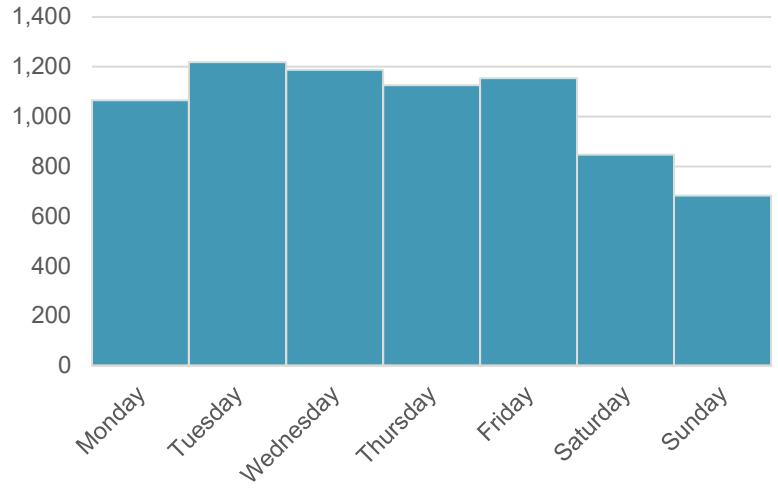


Figure 12: MPO Area Crashes by Day of Week, 2016-2021



Source: Grand Forks-East Grand Forks MPO

Intersection Crash Frequency

Intersection crash frequency is a useful metric for identifying potential candidates for safety improvements. This metric looks at the number of crashes associated with an intersection during a time period. Based on NDDOT and MnDOT crash data for the years 2016 through 2021, the 20 intersections summarized in **Table 4** and shown in **Figure 13** were identified as the top crash frequency intersections within the MPO area.

The top crash frequency intersection within the MPO area was Washington Street and DeMers Avenue, which recorded 119 crashes between 2016 and 2021. This intersection recorded nearly 25 more crashes than the second ranked intersection of 32nd Avenue and 31st Street in the southern part of Grand Forks. The third ranked intersection of 42nd Street and DeMers Avenue is also within the limits of Grand Forks and recorded 78 crashes during the six-year period.

The overall trend associated with these top crash frequency intersections is most clearly seen in Figure 11 where the intersections exhibiting the highest crash frequencies are located on corridors with the highest traffic volumes throughout the MPO area—nearly every top crash frequency intersection involved at least one of the following corridors:

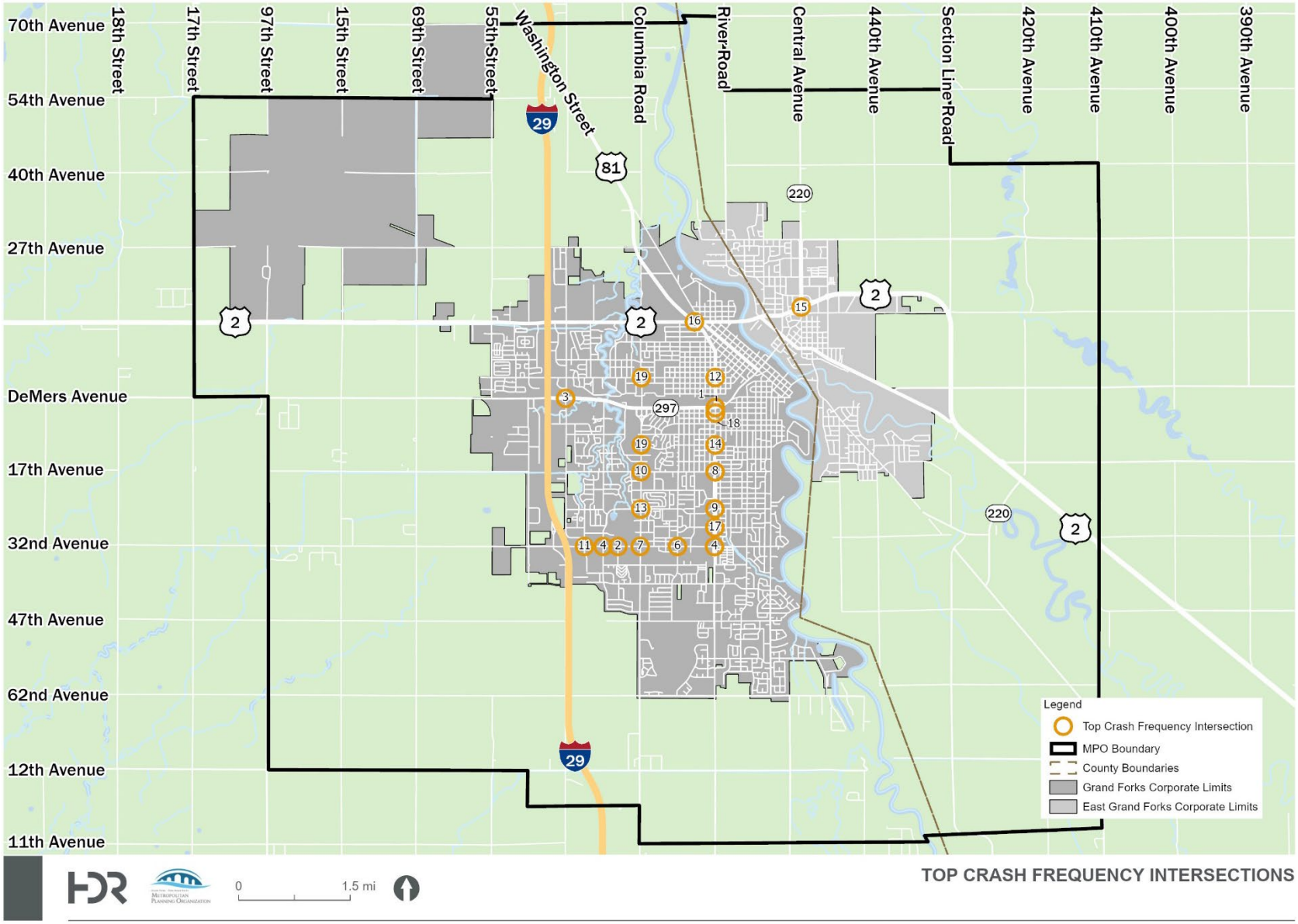
- **Washington Street**
- **Columbia Road**
- **32nd Avenue**

Table 4: Top Crash Frequency Intersections, 2016-2021

Intersection	Crash Frequency (2016-2021)	Crash Frequency Rank
Washington Street & DeMers Avenue	119	1
32nd Avenue & 31st Street	95	2
42nd Street & DeMers Avenue	78	3
32nd Avenue & 34th Street	77	4
Washington Street & 32nd Avenue	77	4
32nd Avenue & 20th Street	76	6
Columbia Road & 32nd Avenue	72	7
Washington Street & 17th Avenue	69	8
Washington Street & 24th Avenue	68	9
Columbia Road & 17th Avenue	65	10
32nd Avenue & 38th Street	58	11
Washington Street & University Avenue	57	12
Columbia Road & 24th Avenue	55	13
Washington Street & 13th Avenue	52	14
U.S. Highway 2 & Central Avenue	49	15
Washington Street & Gateway Drive	46	16
Washington Street & 28th Avenue	44	17
Washington Street & 7th Avenue	39	18
Columbia Road & University Avenue	38	19
Columbia Road & 13th Avenue	38	19

Source: Grand Forks-East Grand Forks MPO

Figure 13: Top Crash Frequency Intersections



Intersection Crash Rates

While intersection crash frequencies assess how often crashes occur at a location, crash rates take this analysis a step further by incorporating the level of entering traffic volumes, to normalize the evaluation of crashes across all intersection locations. The purpose of incorporating this entering volume exposure measure is to account for the number of vehicles that enter an intersection, as higher traffic volumes generally correlate with higher crash frequencies. Thus, a location with a high a crash frequency and high entering traffic volumes may be relatively safer than an intersection with a similar frequency of crash events but lower entering traffic volumes. This analysis followed guidance set forth by FHWA in which crash rates per 1 million entering vehicles were calculated.

The top crash rate intersections for the MPO area are summarized in **Table 5** and their locations are shown in **Figure 14**. It is noted that a threshold of 18 or more crashes was applied when identifying the top crash intersections.

As seen in Figure 14, most of the top crash rate intersections are found within Grand Forks, with the sole intersection of Gateway Drive and Central Avenue in East Grand Forks making the top 20 crash rate intersections. Overall, the top crash rate intersections coincide with the top crash frequency intersections. Also of note is the intersection of 18th Avenue and 16th Street, outside the limits of Grand Forks.

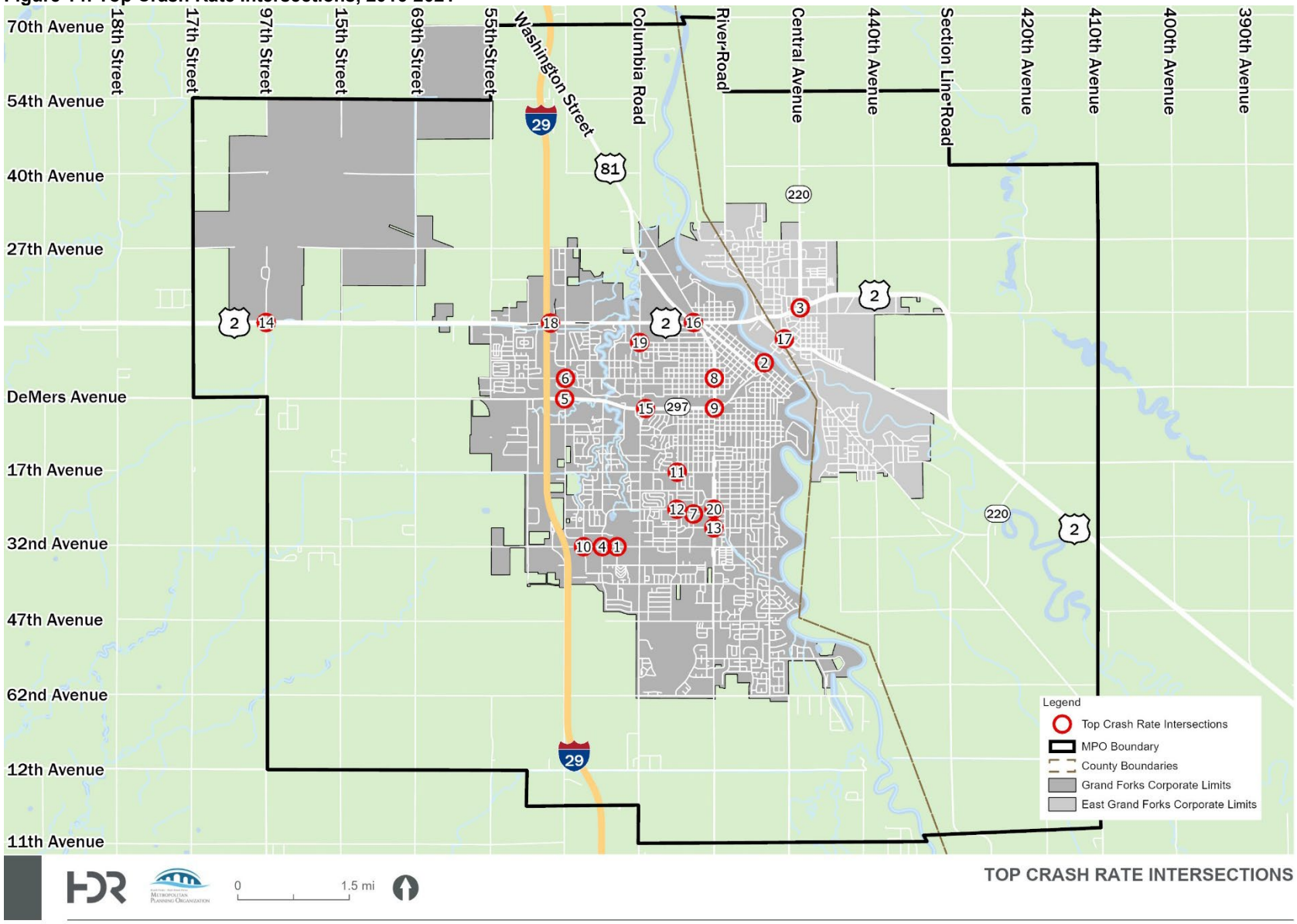
Table 5: Top Crash Rate Intersections, 2016-2021

Intersection	Crash Rate (2016-2021)	Crash Rate Rank
32nd Avenue & 31st Street	1.78	1
DeMers Avenue & 3rd Street	1.52	2
Gateway Drive & Central Avenue	1.34	3
32nd Avenue & 34th Street	1.20	4
DeMers Avenue & 42nd Street	1.19	5
University Avenue & 42nd Street	1.14	6
24th Avenue & 17th Street	1.14	7
Washington Street & University Avenue	1.07	8
DeMers Avenue & Washington Street	1.02	9
32nd Avenue & 42nd Street	1.00	10
17th Avenue & 20th Street	0.95	11
24th Avenue & 20th Street	0.92	12
Washington Street & 28th Avenue	0.89	13
18th Avenue & 16th Street	0.87	14
DeMers Avenue & Columbia Road	0.83	15
Washington Street & Gateway Drive	0.79	16
DeMers Avenue & 4th Street	0.76	17
Gateway Drive & I-29	0.75	18
Columbia Road & 10th Avenue	0.74	19
Washington Street & 24th Avenue	0.73	20

Source: Grand Forks-East Grand Forks MPO

Good information it tells the story having this table 5 and table 4, its not just apples to apples.
32nd Avenue did have their turning lanes redone either last year or the year before it will be interesting to start to see the shift because those improvements were for safety reasons.

Figure 14: Top Crash Rate Intersections, 2016-2021



Crash Severity

Crash severity summarizes the types of crashes that occurred within the MPO area based on the severity of each crash event. Severity is described as the most serious injury sustained by an individual involved in the crash, and is organized into five categories:

- **Fatal crash**
- **Serious injury crash**
- **Minor injury crash**
- **Possible injury crash**
- **Property damage only (PDO)**

MPO AREA CRASHES

Table 6 summarizes annual crash severities for the MPO area. The majority of crashes that occurred within the MPO area between 2016 and 2021 resulted in property damage only, meaning that no individual involved in the crash event was injured. The next largest proportion of crashes resulted in possible injury, while crashes resulting in minor injuries ranked third in terms of crash severity.

Serious injury crashes peaked in 2016 and 2019 as 18 crashes of this severity occurred. Fatal crashes were the lowest in 2016, then rose in frequency each year through 2021 when 5 crashes within the MPO area resulted in a fatality. As noted previously, the PDO crash thresholds changed in 2019, so trends in this category of data between 2018 and 2019 should be disregarded.

TOP CRASH INTERSECTIONS

Table 7 summarizes crash severities for the top crash frequency intersections. A total of four fatal crashes were associated with these high crash frequency locations while 15 crashes resulting in incapacitating injury occurred. The majority of crashes associated with these locations resulted in property damage only.

Table 6: Crash Severity by Year for the MPO Area, 2016-2021

	Fatal	Incapacitating	Non-incapacitating	Possible Injury	PDO	Total
2016	-	18	139	161	1,094	**1,412**
2017	2	14	125	159	1,260	**1,560**
2018	4	11	102	143	1,210	**1,470**
2019	4	18	136	139	838	**1,135**
2020	4	12	125	77	599	**817**
2021	5	12	124	92	655	**888**
Total	**19**	**85**	**751**	**771**	**5,656**	**7,282**

Source: Grand Forks-East Grand Forks MPO

More information on the ups and downs in the graph.

Table 7: Crash Severity for the MPO's Top Crash Frequency Intersections

Crash Frequency Rank	Intersection	Jurisdiction	Fatal	Incapacitating Injury	Non-incapacitating injury	Possible Injury	PDO	Total
1	Washington Street & DeMers Avenue	Grand Forks	1	0	11	20	87	119
2	32nd Avenue & 31st Street	Grand Forks	0	2	15	19	59	95
3	42nd Street & DeMers Avenue	Grand Forks	0	0	6	11	61	78
4	32nd Avenue & 34th Street	Grand Forks	1	4	13	15	44	77
4	Washington Street & 32nd Avenue	Grand Forks	0	1	5	17	54	77
6	32nd Avenue & 20th Street	Grand Forks	1	1	12	15	47	76
7	Columbia Road & 32nd Avenue	Grand Forks	1	2	5	14	50	72
8	Washington Street & 17th Avenue	Grand Forks	0	0	7	6	56	69
9	Washington Street & 24th Avenue	Grand Forks	0	0	8	11	49	68
10	Columbia Road & 17th Avenue	Grand Forks	0	1	8	8	48	65
11	32nd Avenue & 38th Street	Grand Forks	0	0	10	8	40	58
12	Washington Street & University Avenue	Grand Forks	0	1	5	11	40	57
13	Columbia Road & 24th Avenue	Grand Forks	0	0	7	8	40	55
14	Washington Street & 13th Avenue	Grand Forks	0	1	5	13	33	52
15	U.S. Highway 2 & Central Avenue	East Grand Forks	0	0	8	6	35	49
16	Washington Street & Gateway Drive	Grand Forks	0	2	0	5	39	46
17	Washington Street & 28th Avenue	Grand Forks	0	0	7	4	33	44
18	Washington Street & 7th Avenue	Grand Forks	0	0	5	8	26	39
19	Columbia Road & University Avenue	Grand Forks	0	0	3	4	31	38
19	Columbia Road & 13th Avenue	Grand Forks	0	0	6	7	25	38
Total			**4**	**15**	**146**	**210**	**897**	**1,272**

Source: Grand Forks-East Grand Forks MPO

Manner of Crash

Manner of crash refers to the way in which two vehicles come together during a crash event. Understanding the manner in which crashes occur can guide the development of safety countermeasures at high crash locations.

MPO AREA CRASHES

Table 8 summarizes the manner in which crashes occurred within the MPO area between 2016 and 2021. The main types of crashes that occurred were angle crashes, front to rear ("rear-end"), and non-collision with a motor vehicle, which indicates that a single vehicle crash. Rear to rear was the least common type of crash to occur while over 100 crashes did not have a manner of crash recorded.

TOP CRASH INTERSECTIONS

Table 9 summarizes the manner in which crashes occurred at the top crash frequency intersections. Most crashes that occurred at these locations were front to rear and angle crashes, which are common crash types associated with intersections.

Table 8: Manner of Crash for MPO Area Crashes, 2016-2021

Manner of Crash	2016	2017	2018	2019	2020	2021	Total
Angle	413	525	467	394	311	294	**2,404**
Sideswipe - Same Direction	107	110	118	95	51	51	**532**
Sideswipe - Opposing	28	25	21	22	13	3	**112**
Front to Rear	442	473	425	287	201	266	**2,094**
Front to Front	55	74	45	66	53	47	**339**
Rear to Rear	6	5	9	7	0	4	**31**
Rear to Side	16	23	35	10	2	11	**97**
Non-Coll. w/Motor Veh.	324	300	318	230	166	190	**1,528**
Other	1	5	2	8	3	2	**21**
Unknown	20	20	30	16	17	20	**123**
Total	**1,412**	**1,560**	**1,470**	**1,135**	**817**	**888**	**7,282**

Source: Grand Forks-East Grand Forks MPO

Table 9: Manner of Crash for the MPO's Top Crash Frequency Intersections, 2016-2021

Crash Frequency Rank	Intersection	Front to Rear	Angle	Sideswipe (Same Dir.)	Sideswipe (Opposing)	Front to Front	Non-Coll. w/Motor Veh.	Rear to Side	Rear to Rear	Other	Unknown	Total
1	Washington St & DeMers Ave	50	41	12	0	11	5	0	0	0	0	119
2	32nd Ave & 31st St	16	59	4	1	9	6	0	0	0	0	95
3	42nd St & DeMers Ave	30	31	2	1	4	10	0	0	0	0	78
4	32nd Ave & 34th St	16	45	7	2	5	2	0	0	0	0	77
4	Washington St & 32nd Ave	46	20	3	1	1	6	0	0	0	0	77
6	32nd Ave & 20th St	12	41	6	1	5	10	1	0	0	0	76
7	Columbia Rd & 32nd Ave	40	19	6	0	2	5	0	0	0	0	72
8	Washington St & 17th Ave	39	18	4	0	3	5	0	0	0	0	69
9	Washington St & 24th Ave	30	26	3	2	4	3	0	0	0	0	68
10	Columbia Rd & 17th Ave	30	22	5	1	4	3	0	0	0	0	65
11	32nd Ave & 38th St	21	25	6	1	4	1	0	0	0	0	58
12	Washington St & University Ave	25	17	3	1	6	5	0	0	0	0	57
13	Columbia Rd & 24th Ave	23	23	1	2	2	4	0	0	0	0	55
14	Washington St & 13th Ave	27	17	2	2	1	3	0	0	0	0	52
15	U.S. 2 & Central Ave	22	17	2	1	5	0	0	0	0	2	49
16	Washington St & Gateway Dr	26	9	5	0	1	4	1	0	0	0	46
17	Washington St & 28th Ave	15	21	2	1	4	1	0	0	0	0	44
18	Washington St & 7th Ave	17	13	3	0	2	4	0	0	0	0	39
19	Columbia Rd & University Ave	16	13	4	0	1	3	1	0	0	0	38
19	Columbia Rd & 13th Ave	20	7	4	1	4	1	1	0	0	0	38
Total		**521**	**484**	**84**	**18**	**78**	**81**	**4**	**0**	**0**	**2**	**1,272**

Source: Grand Forks-East Grand Forks MPO

Bicycle and Pedestrian Safety

Providing safe bicycle and pedestrian infrastructure is a critical component of a well-functioning multimodal transportation system. A review of crashes involving a pedestrian and/or bicyclist was conducted for the 2016 to 2021 crash data that was analyzed for the traffic safety conditions analysis.

Table 10

Table 9 summarizes the total number of pedestrian and bicycle-involved crashes that occurred in Grand Forks and East Grand Forks. A total of 105 crashes occurred over the six years, with 53 of these crashes involving a bicyclist and 52 involving a pedestrian. Similar to vehicular crashes, the majority of pedestrian and bicycle-involved crashes occurred in Grand Forks.

Pedestrian and bicycle-involved crashes decreased each year between 2016 and 2018, before peaking with 27 total crashes in 2019. Crashes decreased in 2020, which coincided with the COVID-19 public health pandemic, before increasing back to a pre-pandemic level in 2021. The locations of all pedestrian and bicycle-involved crashes that occurred in the MPO area are shown in **Figure 16**.

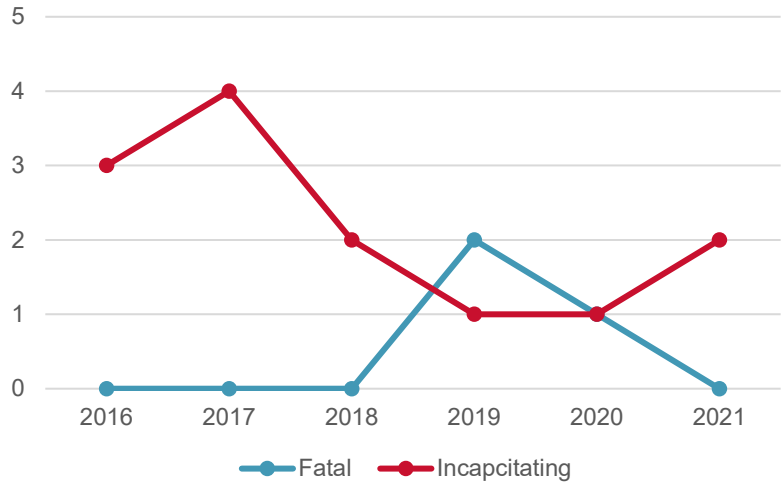
Figure 15 summarizes the pedestrian and bicycle-involved crashes that resulted in a fatality or incapacitating injury. A total of three pedestrian and bicycle-involved crashes resulted in a fatality, with two of these crashes occurring in 2019 and one occurring in 2020. Crashes resulting in incapacitating injuries peaked in 2017 before decreasing each year through 2020. Pedestrian and bicycle-involved crashes rose in 2021. The locations of fatal and incapacitating pedestrian and bicycle-involved crashes are shown in **Figure 17**.

Table 10: Pedestrian and Bicycle-Involved Crashes, 2016-2021

	2016	2017	2018	2019	2020	2021	Total
Grand Forks							
Pedestrian	9	7	5	13	5	10	49
Pedalcycle (Bicyclist)	10	8	4	14	5	11	52
East Grand Forks							
Pedestrian	1	0	1	0	0	1	3
Pedalcycle (Bicyclist)	0	1	0	0	0	0	1
Total	20	16	10	27	10	22	105

Source: Grand Forks-East Grand Forks MPO

Figure 15: Fatal and Incapacitating Pedestrian and Bicycle-Involved Crashes, 2016-2021



Source: Grand Forks-East Grand Forks MPO

Figure 16: Pedestrian and Bicycle-Involved Crashes, 2016-2021

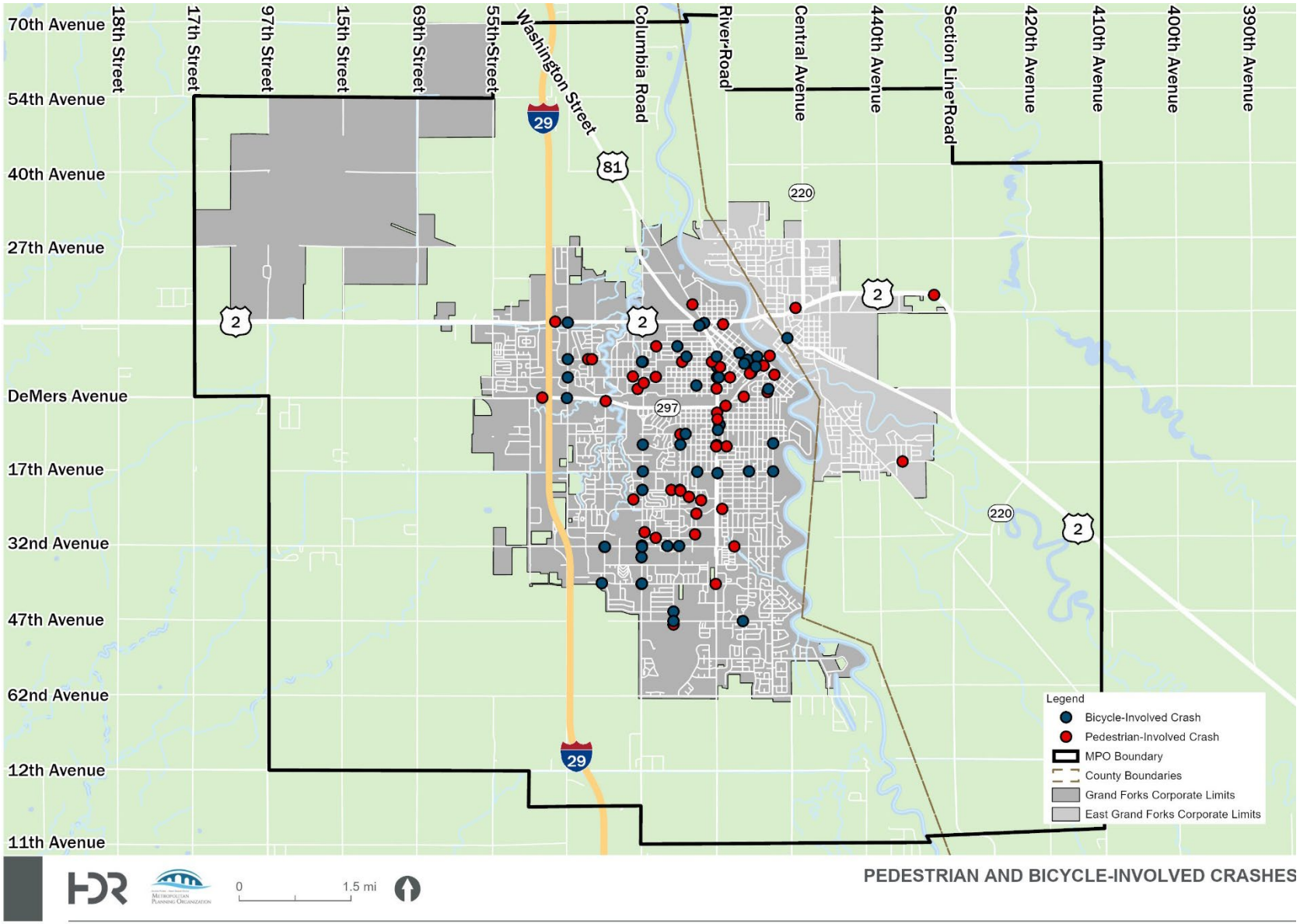
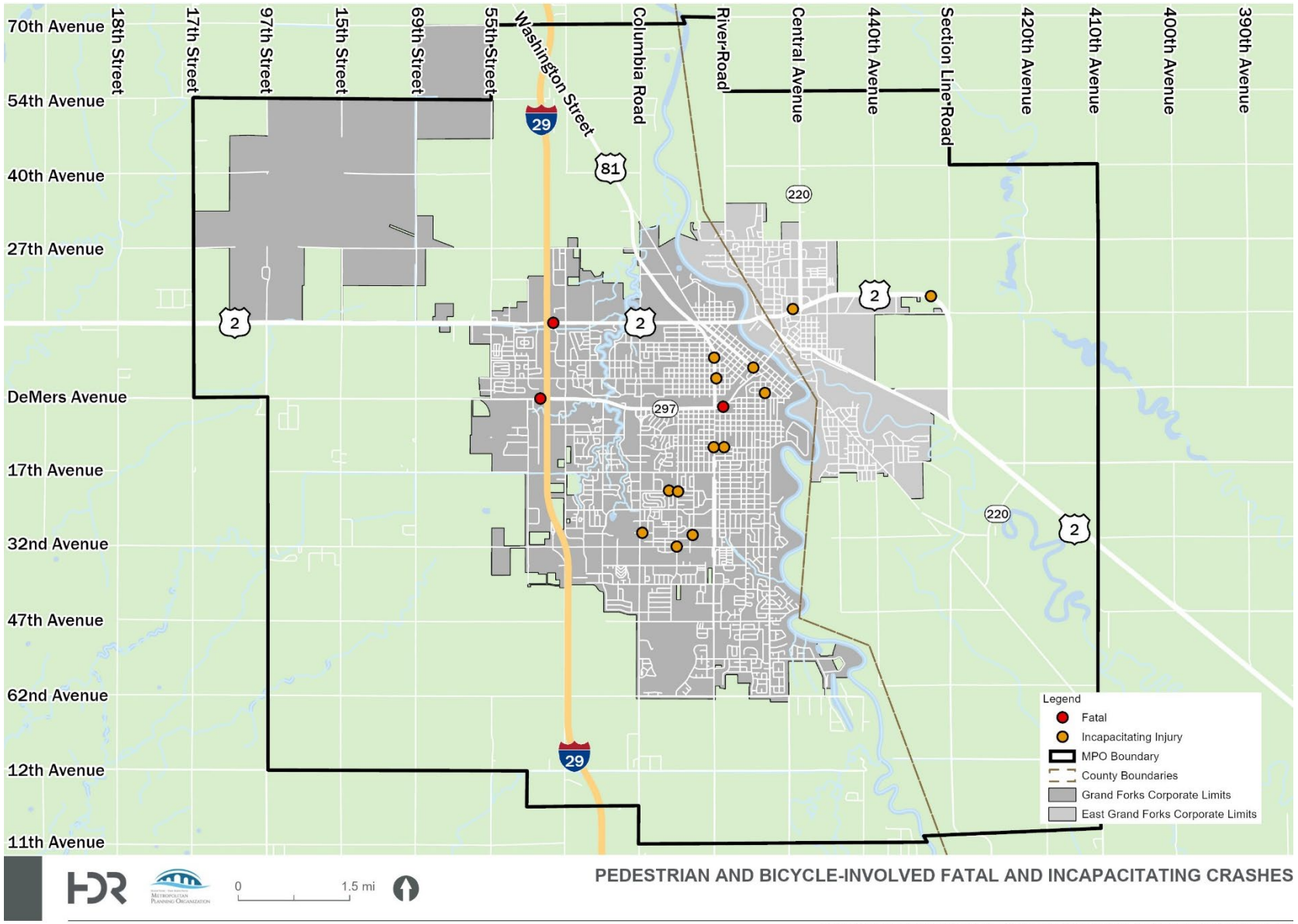


Figure 17: Pedestrian and Bicycle-Involved Fatal and Incapacitating Crashes, 2016-2021



Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

STREET AND HIGHWAY PLAN UPDATE

MPO TAC MEETING

OCTOBER 12, 2022

STREET AND HIGHWAY PLAN

AGENDA

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

- Street and Highway Plan Background
- Existing Conditions-Traffic Operations and Safety
- November 3rd Public Open House
- Next Steps

STREET AND HIGHWAY PLAN BACKGROUND

Grand Forks - East Grand Forks
Metropolitan Planning Organization

- What is the Street and Highway Plan?
  - MPO Region's plan to accomplish transportation goals
  - Central part of the MPO's Metropolitan Transportation Plan
    - Federally-required, the MPO must update every 5 years
  - Street and Highway Plan projects are basis for MPO's Transportation Improvement Program (TIP)
  - Fiscally-constrained
  - Promotes regional performance measures and targets

Street and Highway Plan Components	
Vision, Goals, and Objectives	
Existing and Future Conditions	
Alternatives Development	
Financial Plan	
Fiscally-Constrained Plan	
Performance Measures	
Public Engagement	

2050 STREET AND HIGHWAY PLAN SCHEDULE

Baseline Conditions	Nov 2022
Goals and Objectives	Dec 2022
Alternatives Analysis	Jan – May 2022
Alternatives Analysis	Jan – May 2022
Recommendations	July 2023
Draft Plan	Aug 2023

Open House 1

Open House 2

Open House 3

EXISTING CONDITIONS PROGRESS

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

Work Completed or in Progress

Safety
- Crash Hot Spots
- Regional Summary

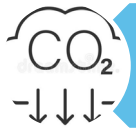
Traffic Operations
- Summarize LOS from Detailed Studies
- Regional V/C Analysis Where Detailed Studies Aren't Available
- Reliability Analysis

Pavement and Bridge
- Reviewing pavement data
- Reviewing National Bridge Inventory Data

Road Network
- Functional Classification Review

Still Ahead

Future Conditions
- Traffic Forecasts
- Future Congestion



Carbon Footprint
- Apply Methodology from Previous Plan
- Update with Recent Travel Data

Environmental Baseline
- Assemble Data
- Identify Constraints

EXISTING CONDITIONS-TRAFFIC OPERATIONS

Grand Forks - East Grand Forks
Metropolitan Planning Organization

Planning Level-of-Service (LOS)

- Estimates areas of peak congestion
- Compares daily traffic volumes to roadway design capacities

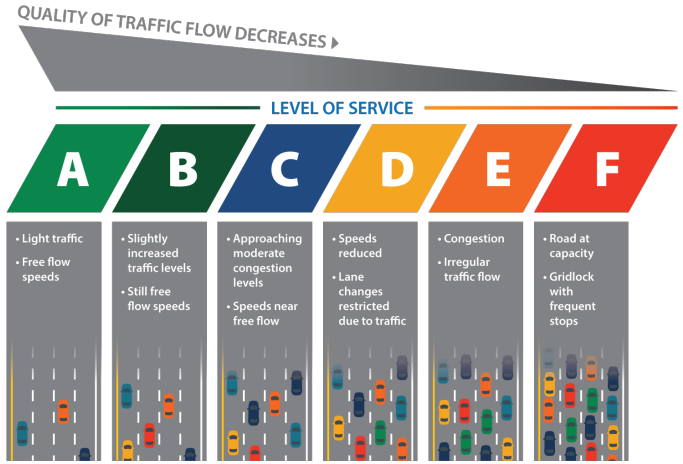
Travel Reliability

- Measures predictability of travel times along a corridor

EXISTING CONDITIONS-TRAFFIC OPERATIONS

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

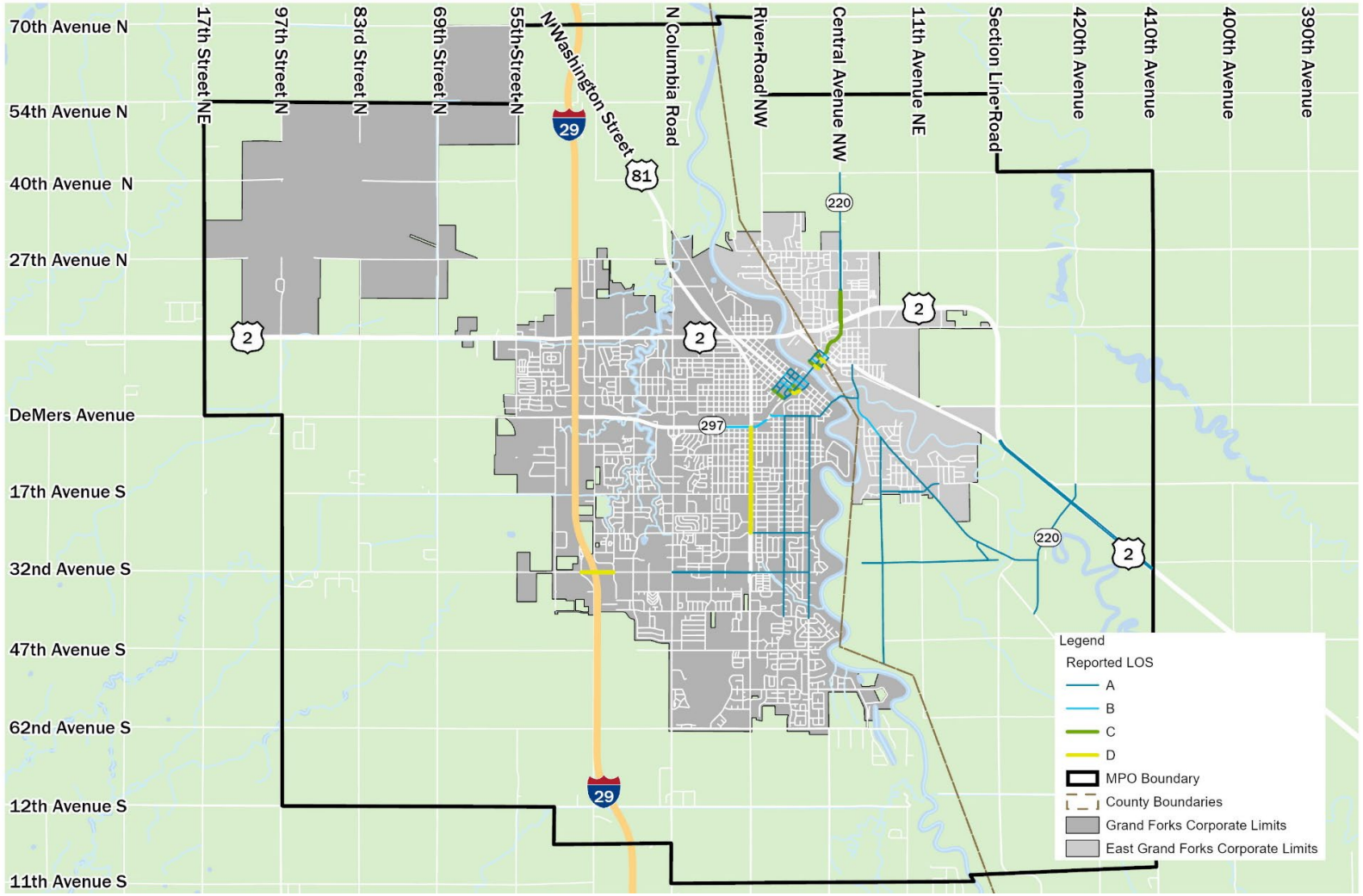
- Planning LOS
  - Previously reported LOS
    - 2050 MTP incorporates LOS reported in recent planning studies
    - Studies completed since publication of 2045 Streets and Highway Plan



Sources of Reported LOS

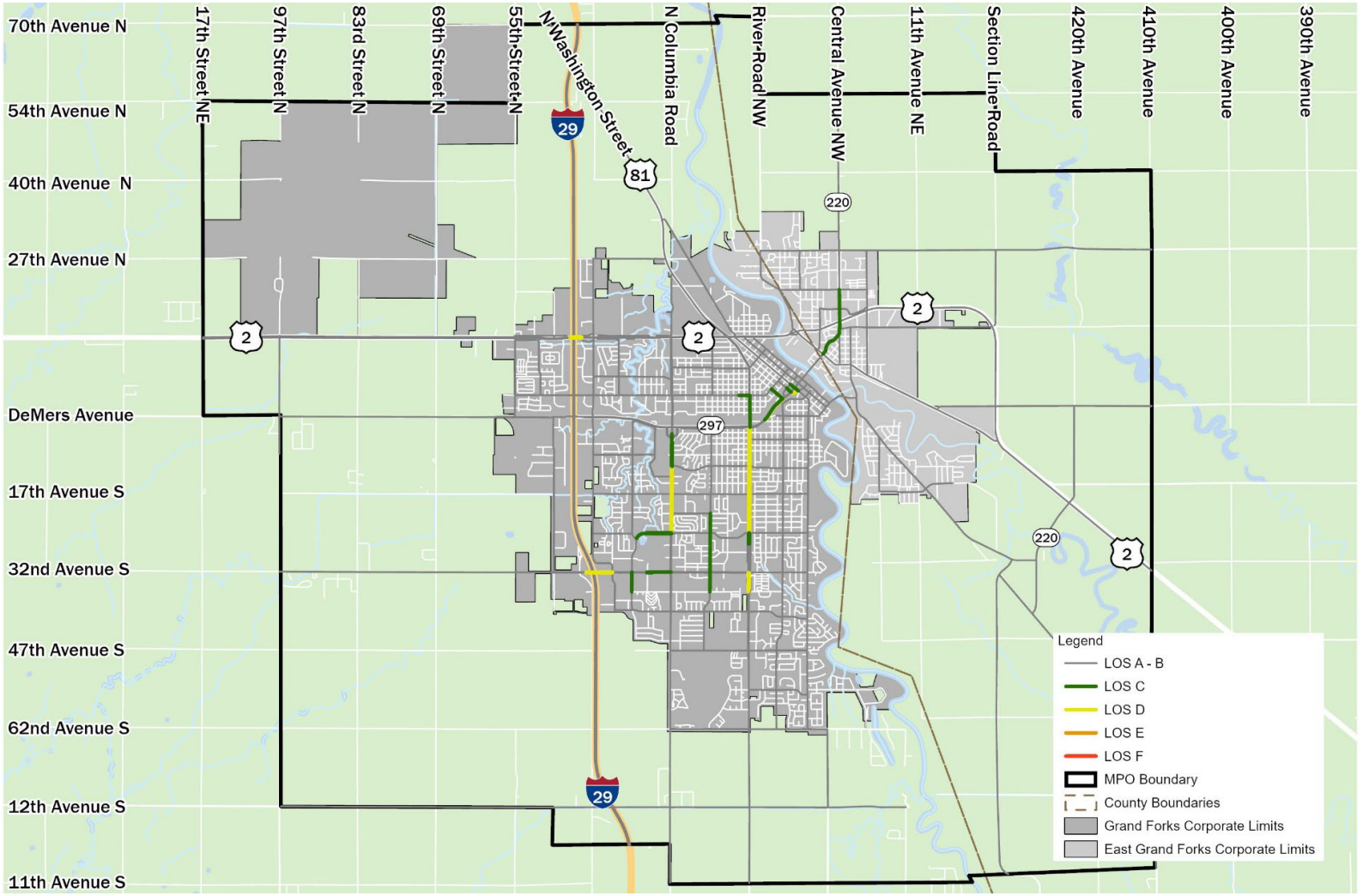
- I-29 Traffic Operations Study (2017)
- Downtown Transportation Study (2019)
- Mn 220 N Corridor Study (2019)
- U.S. 2/U.S. 81 Skewed Intersection Study (2019)
- FuFeng Development Traffic Impact Study (2022)
- Future Bridge Traffic Impact Study (2022)

TRAFFIC OPERATIONS – RECENT STUDIES



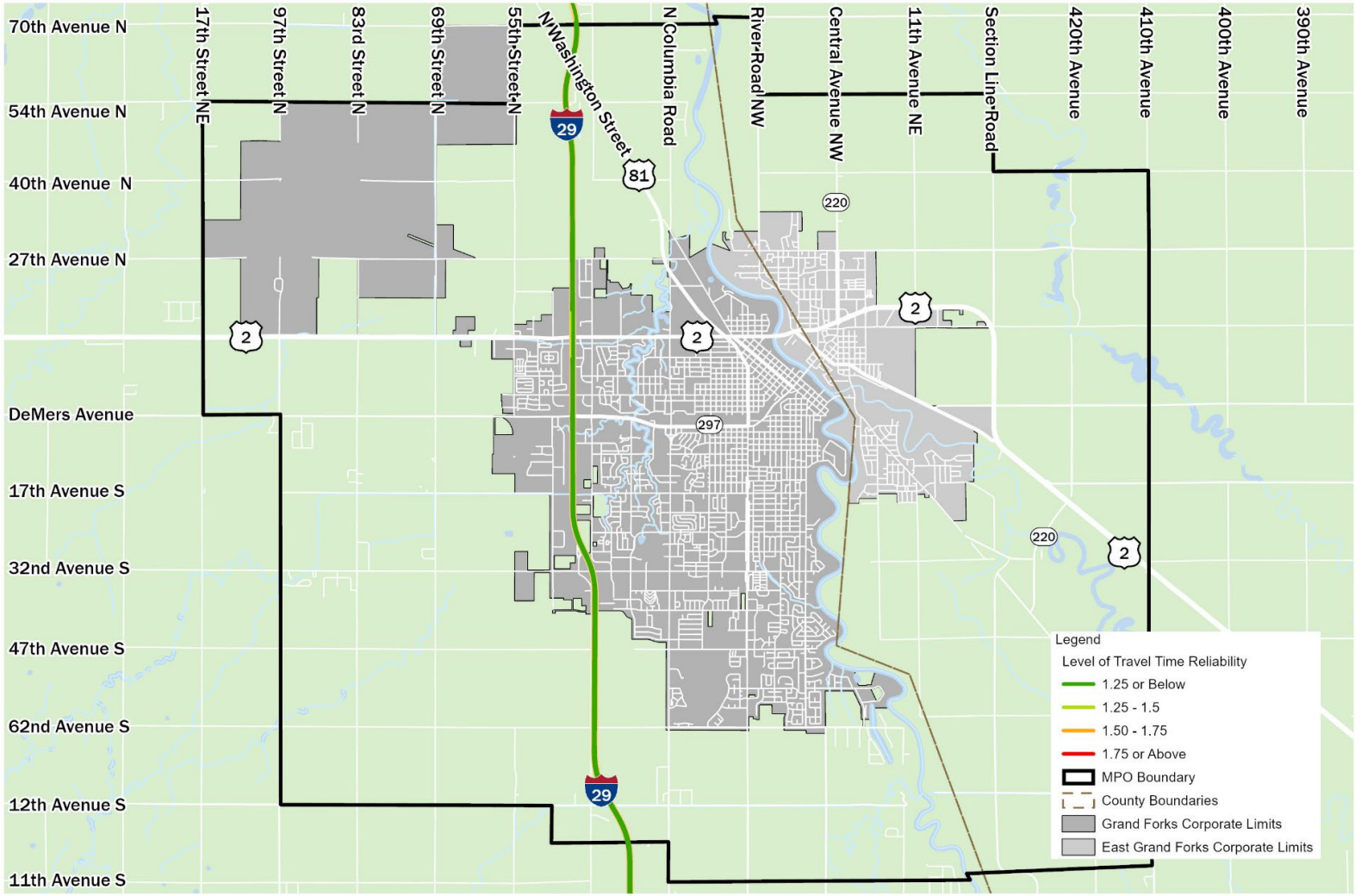
Corridor	LOS	Source
Central Avenue NW	C	2019 Downtown Transportation Study
Mn 220 N	C	2019 Mn 220 N Corridor Study
Kittson Avenue	D	2019 Downtown Transportation Study
32nd Street S	D	2017 I-29 Traffic Operations Study
Washington Street	D	2022 Future Bridge Traffic Impact Study

TRAFFIC OPERATIONS – PLANNING LEVEL V/C

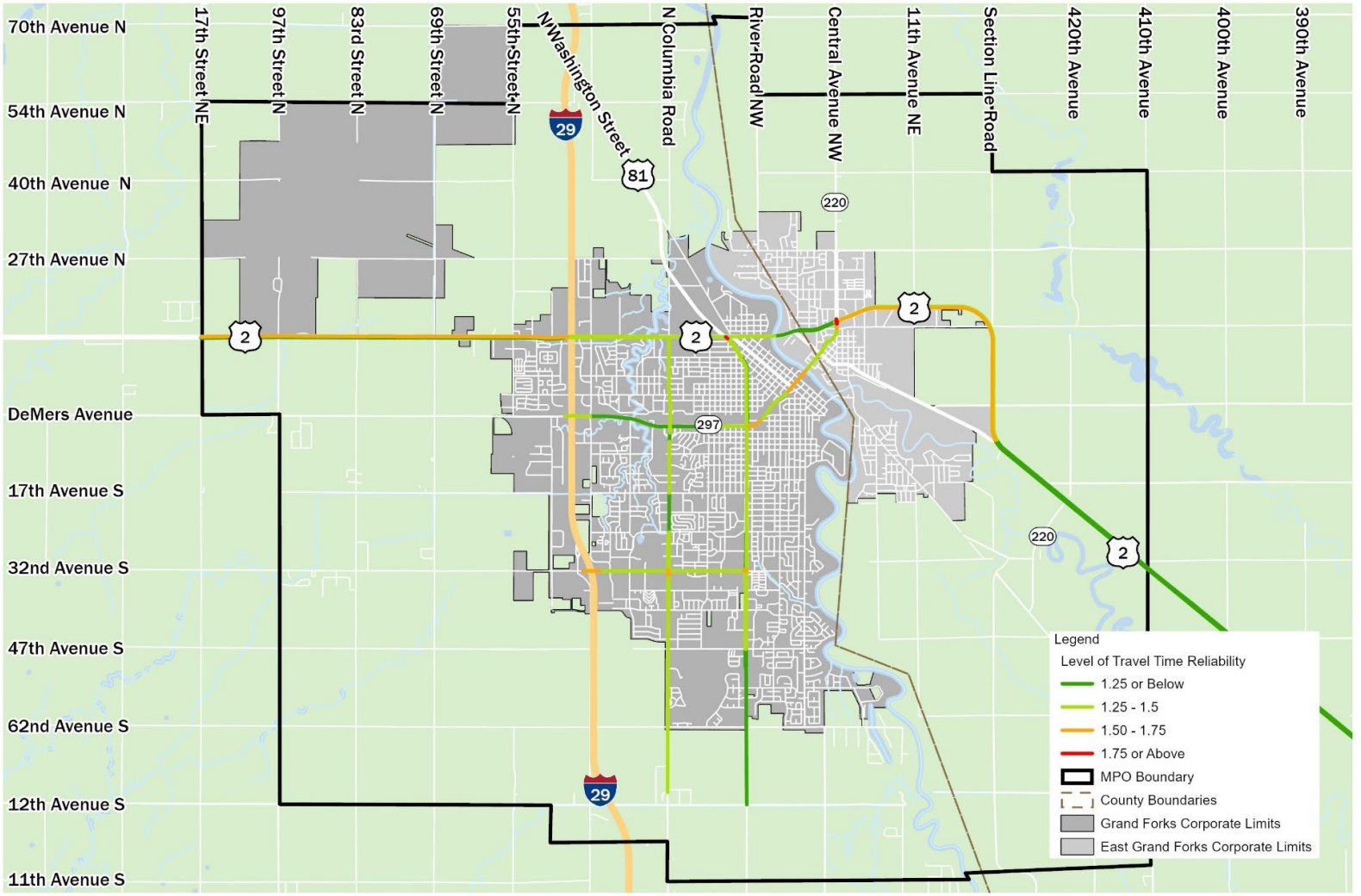


Corridor	LOS	Source
S Columbia Road: DeMers Ave to 24th Ave S	C/D	2050 Street and Highway Plan Analysis
24th Street S: S 34th St to S Columbia Rd	C	2050 Street and Highway Plan Analysis
S 20th Street: 20th Ave S to 36th Ave S	C	2050 Street and Highway Plan Analysis
32nd Avenue S: S 31st St to S Columbia Rd	C	2050 Street and Highway Plan Analysis
DeMers Avenue: 5th Ave S to N 8th St	C	2050 Street and Highway Plan Analysis

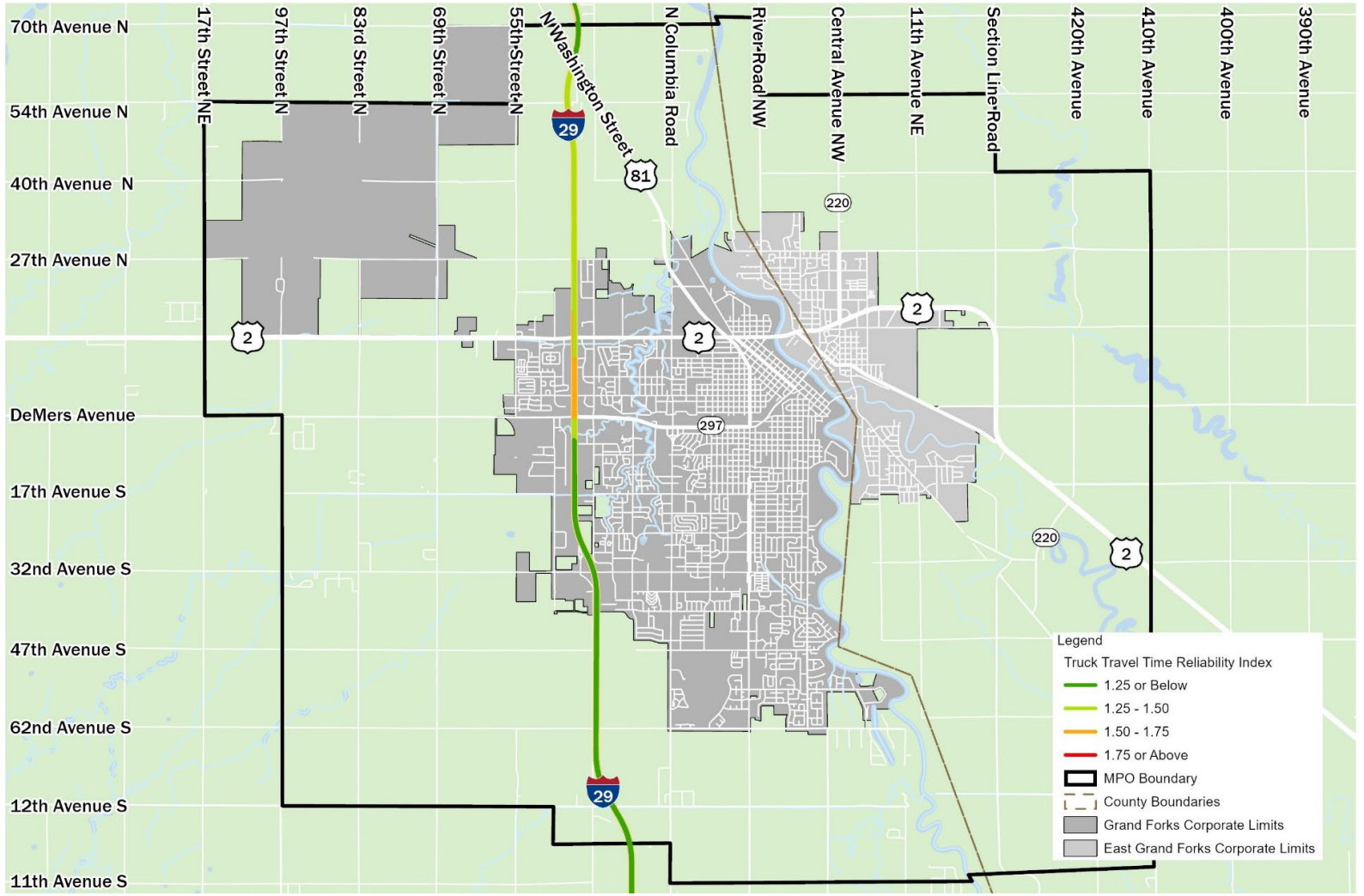
TRAVEL RELIABILITY - INTERSTATE



TRAVEL RELIABILITY – NON-INTERSTATE



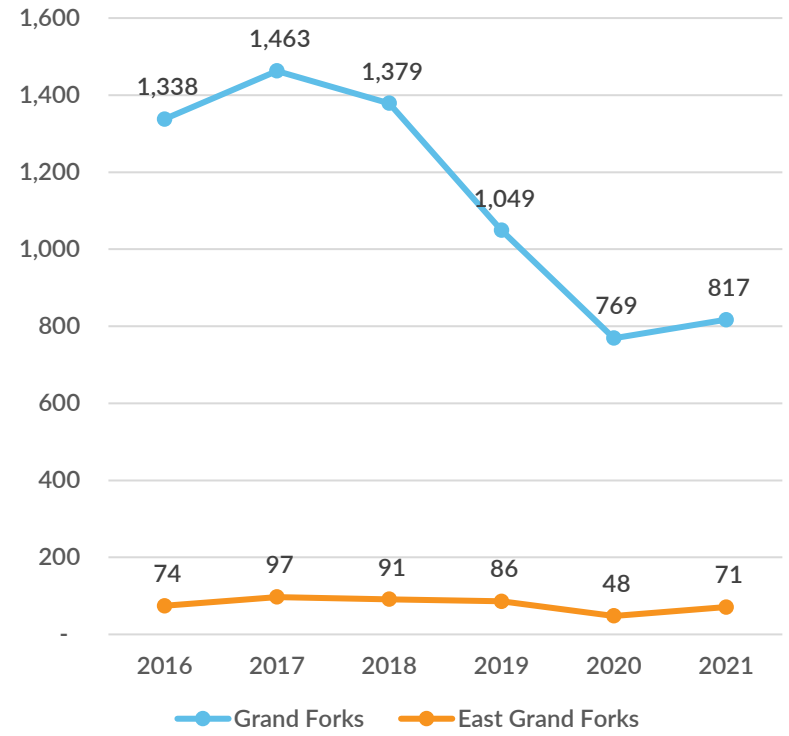
TRUCK TRAVEL RELIABILITY



EXISTING CONDITIONS-TRAFFIC SAFETY

- Overview of existing MPO safety conditions review
  - Based on historic crash data for years 2016-2021
    - Sources of crash data are NDDOT and MnDOT
  - Review looks at:
    - Crash timing
    - Top crash frequency intersections
    - Top crash rate intersections
    - Crash severity
    - Manner of crash
    - Bicycle and pedestrian crash conditions

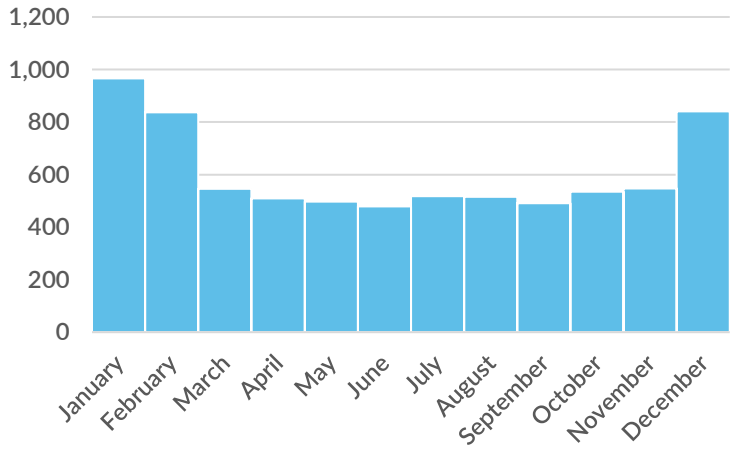
Crashes by Year for the MPO Area, 2016-2021



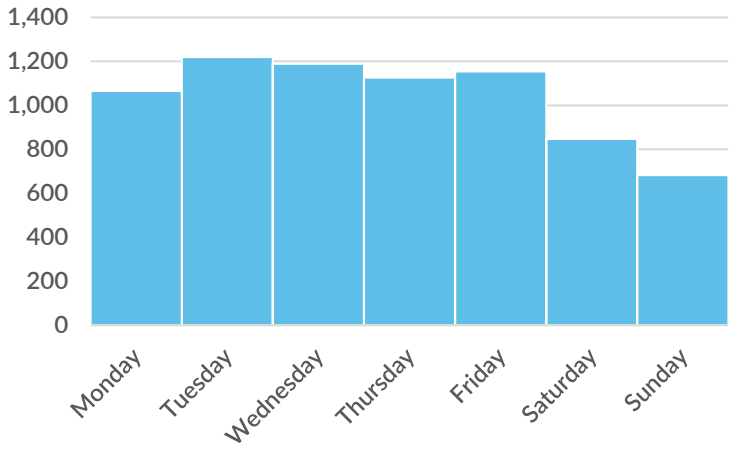
EXISTING CONDITIONS-TRAFFIC SAFETY

- Crash Timing
  - Understand when crashes occur on…
    - Monthly basis
    - Daily basis
  - Aids in identify temporal factors influencing crashes, such as:
    - Winter driving conditions
    - Low light conditions (overnight and early morning)
    - Peak period traffic conditions

Crashes by Month for the MPO Area, 2016-2021



Crashes by Day for the MPO Area, 2016-2021



EXISTING CONDITIONS-TRAFFIC SAFETY

- Crash Severity
  - Summary of crashes based on severity of event
  - MPO is federally-required to report fatal and incapacitating injury performance
- Five severity categories:
  - Fatal crash
  - Incapacitating injury crash
  - Non-incapacitating injury crash
  - Possible injury crash
  - Property damage only (PDO) crash
    - NDDOT PDO threshold changed in 2019 from $1,000 to $4,000
      - Result is fewer reported crashes from 2019-2021

Crashes Severities for the MPO Area, 2016-2021

	Fatal	Incapacitating	Non-incapacitating	Possible Injury	PDO	Total
2016	-	18	139	161	1,094	1,412
2017	2	14	125	159	1,260	1,560
2018	4	11	102	143	1,210	1,470
2019	4	18	136	139	838	1,135
2020	4	12	125	77	599	817
2021	5	12	124	92	655	888
Total	19	85	751	771	5,656	7,282

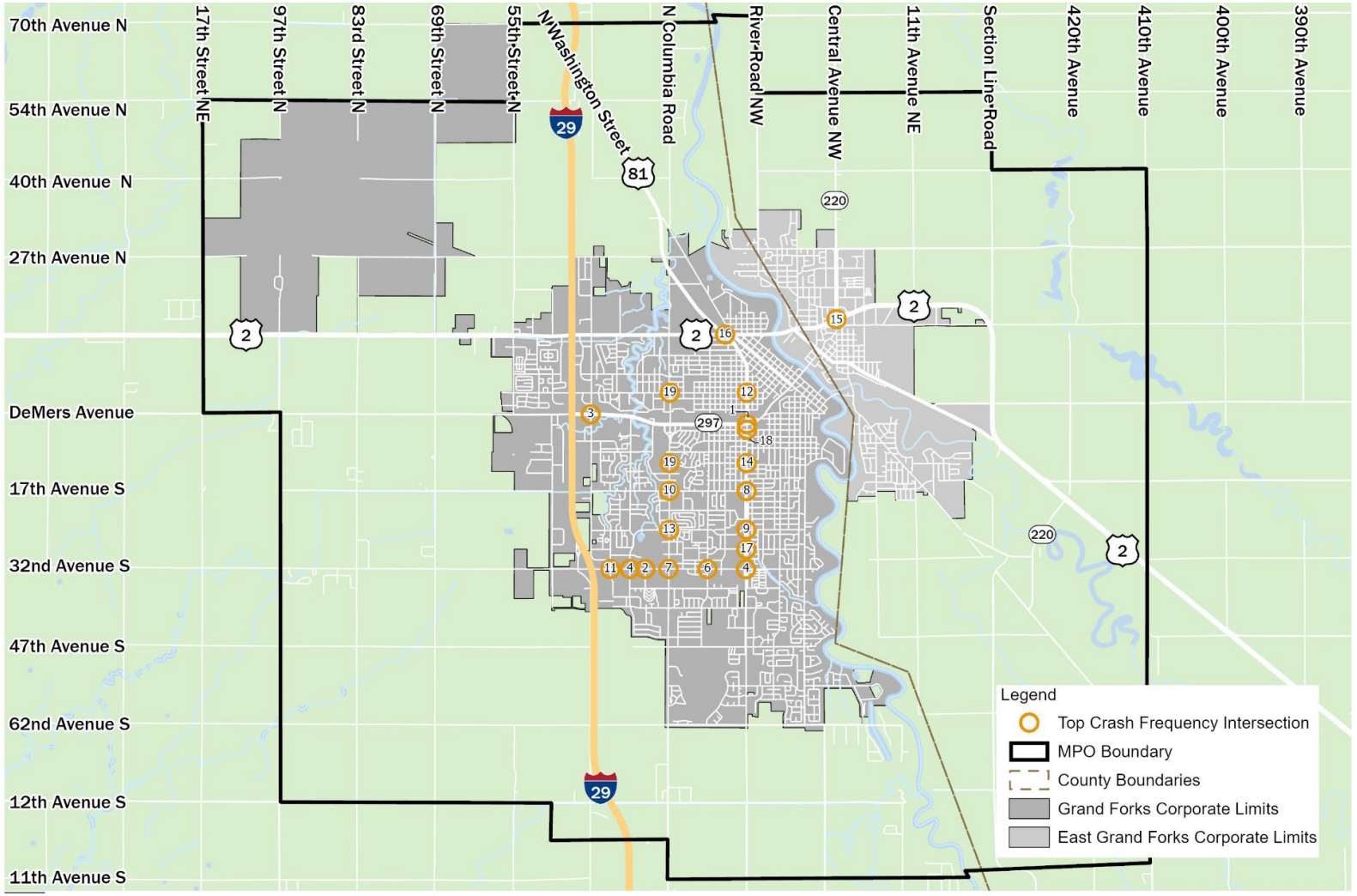
EXISTING CONDITIONS-TRAFFIC SAFETY

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

- Top Crash Frequency Intersections
  - Top 20 intersections where crashes occurred, 2016-2021
    - Crash assumed intersection-related if occurring within 150'
  - Identifies potential candidates for safety improvements

Intersection	Crash Frequency (2016-2021)	Crash Frequency Rank
Washington Street & DeMers Avenue	119	1
32nd Avenue & 31st Street	95	2
42nd Street & DeMers Avenue	78	3
32nd Avenue & 34th Street	77	4
Washington Street & 32nd Avenue	77	4
32nd Avenue & 20th Street	76	6
Columbia Road & 32nd Avenue	72	7
Washington Street & 17th Avenue	69	8
Washington Street & 24th Avenue	68	9
Columbia Road & 17th Avenue	65	10
32nd Avenue & 38th Street	58	11
Washington Street & University Avenue	57	12
Columbia Road & 24th Avenue	55	13
Washington Street & 13th Avenue	52	14
U.S. Highway 2 & Central Avenue	49	15
Washington Street & Gateway Drive	46	16
Washington Street & 28th Avenue	44	17
Washington Street & 7th Avenue	39	18
Columbia Road & University Avenue	38	19
Columbia Road & 13th Avenue	38	19

EXISTING CONDITIONS-TRAFFIC SAFETY



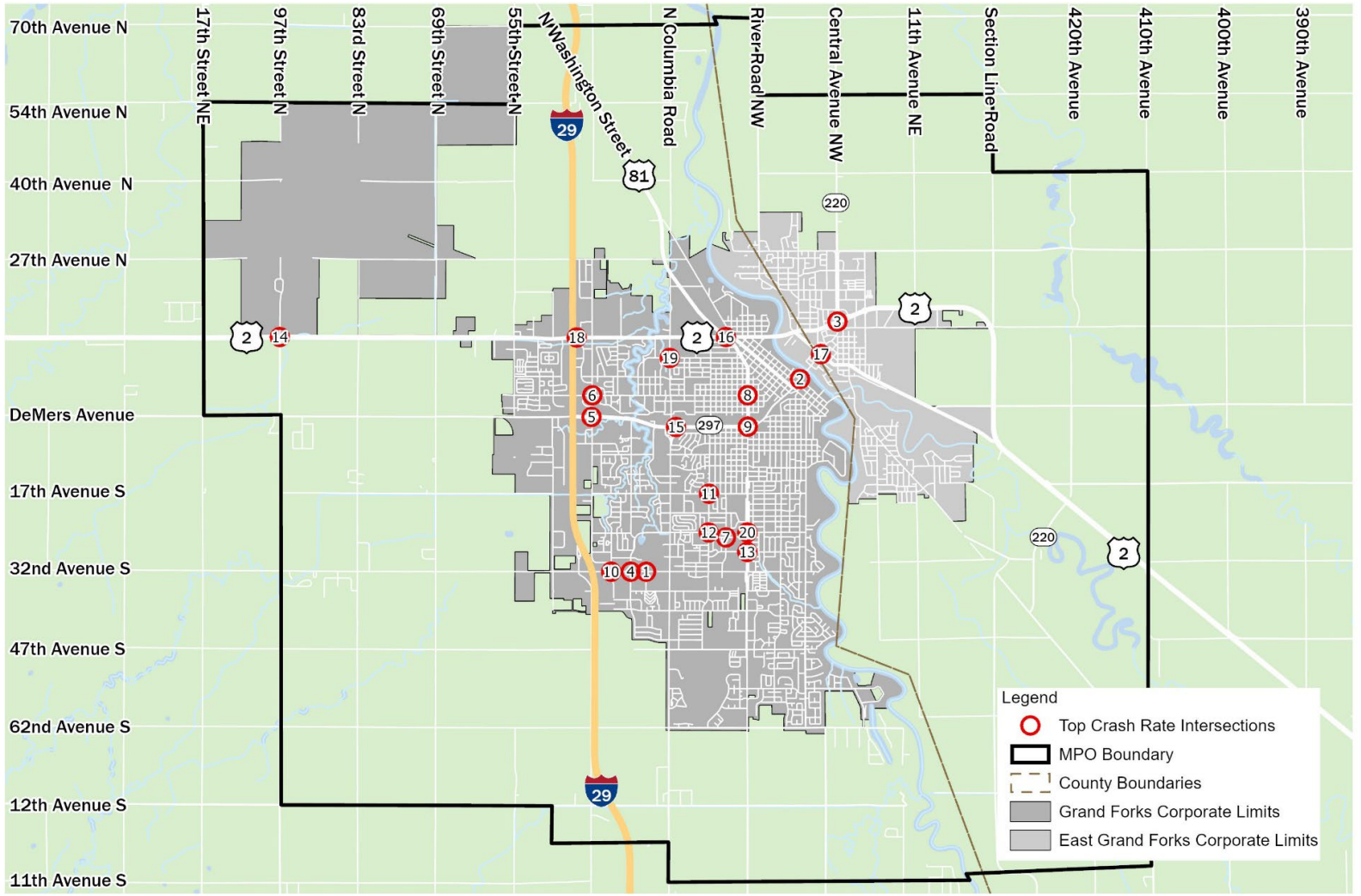
EXISTING CONDITIONS-TRAFFIC SAFETY

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

- Top Crash Rate Intersections
  - Top 20 intersections in terms of crash rate, 2016-2021
  - Crash rate normalizes traffic exposure
    - Crash rate per 1 million entering vehicles
    - Provides standardized approach for evaluating intersection safety
  - Identifies potential candidates for safety improvements

Intersection	Crash Rate (2016-2021)	Crash Rate Rank
32nd Avenue & 31st Street	1.78	1
DeMers Avenue & 3rd Street	1.52	2
Gateway Drive & Central Avenue	1.34	3
32nd Avenue & 34th Street	1.20	4
DeMers Avenue & 42nd Street	1.19	5
University Avenue & 42nd Street	1.14	6
24th Avenue & 17th Street	1.14	7
Washington Street & University Avenue	1.07	8
DeMers Avenue & Washington Street	1.02	9
32nd Avenue & 42nd Street	1.00	10
17th Avenue & 20th Street	0.95	11
24th Avenue & 20th Street	0.92	12
Washington Street & 28th Avenue	0.89	13
18th Avenue & 16th Street	0.87	14
DeMers Avenue & Columbia Road	0.83	15
Washington Street & Gateway Drive	0.79	16
DeMers Avenue & 4th Street	0.76	17
Gateway Drive & I-29	0.75	18
Columbia Road & 10th Avenue	0.74	19
Washington Street & 24th Avenue	0.73	20

EXISTING CONDITIONS-TRAFFIC SAFETY



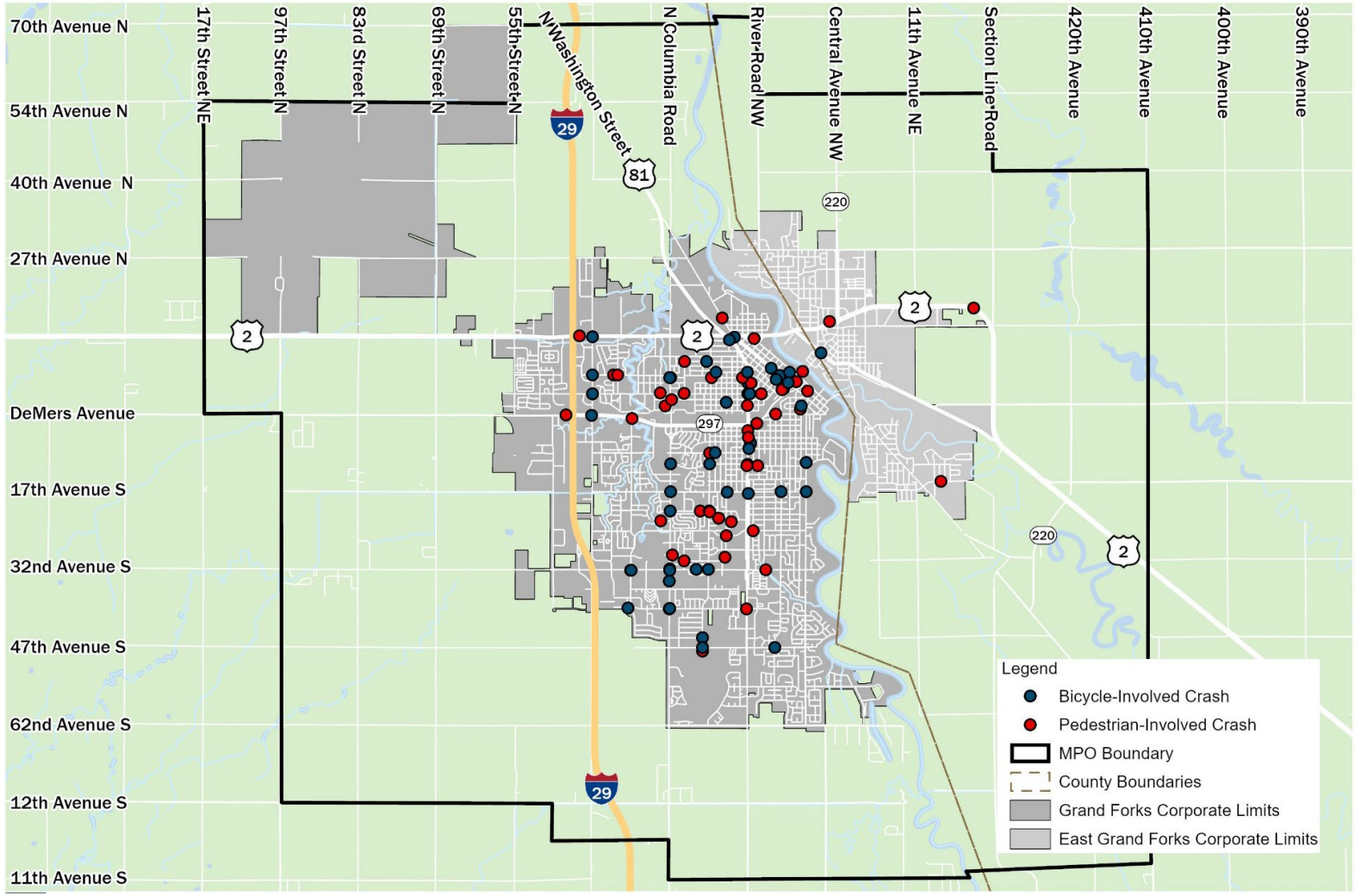
EXISTING CONDITIONS-BICYCLE AND PEDESTRIAN SAFETY

- Bicycle and Pedestrian Safety
  - Review of where bicycle and pedestrian-related crashes occurred

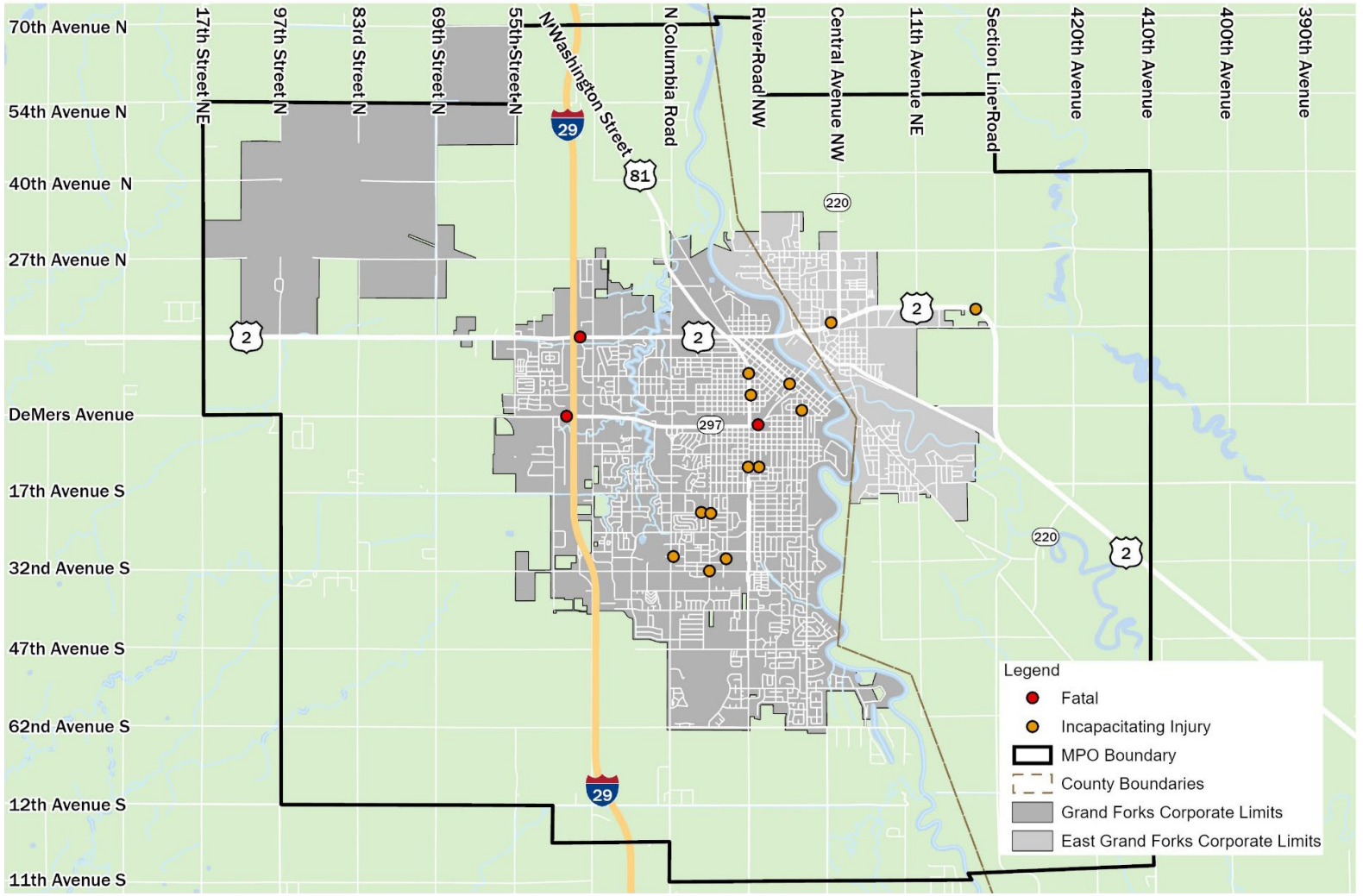
Manner of Crash for the MPO Area, 2016-2021

	2016	2017	2018	2019	2020	2021	Total
Grand Forks							
Pedestrian	9	7	5	13	5	10	49
Pedalcycle (Bicyclist)	10	8	4	14	5	11	52
East Grand Forks							
Pedestrian	1	0	1	0	0	1	3
Pedalcycle (Bicyclist)	0	1	0	0	0	0	1
Total	20	16	10	27	10	22	105

EXISTING CONDITIONS-BICYCLE AND PEDESTRIAN SAFETY



EXISTING CONDITIONS-BICYCLE AND PEDESTRIAN SAFETY



FIRST PUBLIC ENGAGEMENT MILESTONE

Grand Forks - East Grand Forks
METROPOLITAN PLANNING ORGANIZATION

- Scheduled for November 3
- Public Open House Format:
  - East Grand Forks City Hall, 5-7 PM
  - No formal presentation
  - Boards
  - Opportunities for input on issues/needs and goals
- Stakeholder Committee
  - Grand Forks Library, 8:30-10 AM
  - Focus Group representing a diverse set of perspectives
  - Similar activities and feedback as public
- Online Self-Paced Meeting

NEXT STEPS

Grand Forks - East Grand Forks
METROPOLITAN
PLANNING ORGANIZATION

- Finalize Baseline Conditions
- Finalize materials for November Public Engagement
- Online Engagement
- Develop Goals, Objectives, Policies, & Performance Measures

THANK YOU!

QUESTIONS?

MPO Unified Planning Work Program 2021-2022

Project	Task	% Complete	Original Completion Date	Projected Completion Date
Grand Forks Land Use Plan Update	Website is: www.gf2050plan.com Completed	100%	31-Dec-21	30-Jun-22
East Grand Forks Land Use Plan Update	website is: www.egfplan.org COMPLETED	100%	30-Jun-21	31-Dec-21
Future Bridge Traffic Impact Study	Website established: www.forks2forksbridge.com/info COMPLETED	100%	31-Dec-20	2/29/2022
Pavement Management System Update	Completed	100%	31-Dec-21	29-Jul-22
Transit Development Program TDP	The last day for public comments on the draft was Oct. 7th. All comments will be incorrporated into the final draft to be presented as an update to both City's Comprehensive Plans.	80%	31-Mar-22	31-Dec-22
Bicycle & Pedestrian Element Update	The advisory committee met on Sept. 26th. They were asked to review the Vision, Goals & Objectives, and Performance Measures by Oct. 7th. Then working to have a public meeting in Nov. or Dec.	45%	31-Mar-23	
Street & Highway Plan/ MTP Update	Exicting Conditions report is out for comment to the TAC. A public meeting will be held on Nov. 3rd from 5pm to 7pm. Also, see presentation for more information.	35%	29-Feb-24	
Aerial Photo	COMPLETED	100%	30-Nov-21	30-Nov-21
Traffic Count Program	On-going	100%	On-going	