

Grand Forks - East Grand Forks Metropolitan Planning Organization

Agenda

TECHNICAL ADVISORY COMMITTEE MEETING WEDNESDAY, MAY 10TH, 2017 – 1:30 P.M. EAST GRAND FORKS CITY HALL TRAINING ROOM

MEMBERS

Lang _____	Laesch/Konickson__	West _____
Ellis _____	Johnson/Hanson _____	Magnuson _____
Bail/Emery _____	Kuharenko/Williams/Yavarow _____	Sanders _____
Gengler/Erickson _____	Bergman/Rood _____	
Riesinger/Audette _____	Christianson _____	

1. CALL TO ORDER
2. CALL OF ROLL
3. DETERMINATION OF A QUORUM
4. MATTER OF APPROVAL OF THE APRIL 12TH, 2017, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE
5. MATTER OF U.S.#2/U.S.BUS#2 STUDY UPDATE.....SRF
6. MATTER OF DRAFT I-29 STUDY HAUGEN
7. MATTER OF NDDOT U.S. BUSINESS #2 PROJECT PROGRAMMED FOR 2019..... HAUGEN
8. MATTER OF NEAR SOUTHSIDE NEIGHBORHOOD STUDY UPDATE..... HAUGEN
9. MATTER OF MNDOT FREIGHT PLAN UPDATE HAUGEN
10. OTHER BUSINESS
 - a. 2017 Annual Work Program Project Update
11. ADJOURNMENT

ANY INDIVIDUAL REQUIRING A SPECIAL ACCOMMODATION TO ALLOW ACCESS OR PARTICIPATION AT THIS MEETING IS ASKED TO NOTIFY EARL HAUGEN, MPO EXECUTIVE DIRECTOR AT (701) 746-2660 OF HIS/HER NEEDS FIVE (5) DAYS PRIOR TO THE MEETING. ALSO, MATERIALS 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 MPO EXECUTIVE DIRECTOR (701) 746-2667 FIVE (5) DAYS PRIOR TO THE MEETING.

**PROCEEDINGS OF THE
TECHNICAL ADVISORY COMMITTEE
Wednesday, April 12th, 2017
East Grand Forks City Hall Training Conference Room**

CALL TO ORDER

Earl Haugen, Chairman, called the April 12th, 2017, meeting of the MPO Technical Advisory Committee to order at 1:31 p.m.

CALL OF ROLL

On a Call of Roll the following members were present: Michael Johnson, NDDOT-Bismarck; Darren Laesch, MnDOT-District 2 (via conference call); Dale Bergman, Grand Forks Cities Area Transit; Ryan Riesinger, Grand Forks Airport Authority; David Kuharenko, Grand Forks Engineering; and Brad Bail, East Grand Forks Consulting Engineer; Brad Gengler, Grand Forks Planning; Jane Williams, Grand Forks Engineering; Stephanie Erickson, Grand Forks Planning; Steve Emery, East Grand Forks Consulting Engineer; and Mike Yavarow, Grand Forks Engineering.

Staff present: Earl Haugen, GF/EGF MPO Executive Director; Jairo Viafara, GF/EGF MPO Senior Planner; Teri Kouba, GF/EGF MPO Senior Planner; and Brandyn Heck, GF/EGF MPO Intern.

Guest(s) present: Al Grasser, Grand Forks Engineering.

DETERMINATION OF A QUORUM

Haugen declared a quorum was present.

INTRODUCTIONS

Haugen asked that Brandyn Heck, MPO Intern, give a brief introduction of himself to the committee. He then asked that the committee state their names and the entity they are representing.

**MATTER OF APPROVAL OF THE MARCH 8TH, 2017, MINUTES OF THE
TECHNICAL ADVISORY COMMITTEE**

Kuharenko referred to Page 7, under “Corridor Impacts”; and pointed out that the word “if” should be placed in front of “you did Merrifield Interchange...”. He then referred to Page 8, second paragraph, fourth line from the bottom, and said that he believes Mr. Grasser would like everything after the word “that” stricken from that sentence.

MOVED BY KUHARENKO, SECONDED BY BAIL, TO APPROVE THE MARCH 8TH, 2017, MINUTES OF THE TECHNICAL ADVISORY COMMITTEE, SUBJECT TO THE CHANGES DISCUSSED.

MOTION CARRIED UNANIMOUSLY.

MATTER OF UPDATE ON SORLIE/KENNEDY BRIDGE PROJECTS

Kennedy Bridge

Laesch reported that updates are on their website: www.mndot.gov/d2/projects/kennedybridge .

Laesch stated that they will be starting the drive pile today, and on Friday morning traffic will be switched over to the southside of the bridge so the westside on-ramp from 4th Street will be closed for the next two weeks, then traffic will be flipped back to the northside and the off-ramp to 4th Street will be closed, and then that will be the traffic control for the rest of the summer as they do the deck on the southside of the bridge, so a lot is going to be happening the next couple of weeks in terms of shifting traffic around, but nothing should be detoured until sometime in June.

Sorlie Bridge

Yavarow reported that as of now the acceptance date will be May 22nd, that is assuming that all the spare parts are provided, because they switched out a bunch of lights.

Information only.

MATTER OF PROPOSED AMENDMENT TO THE FY2017 ANNUAL ELEMENT OF THE 2017-2020 T.I.P.

Haugen reported that we do have a proposed amendment to the Minnesota side of our Annual Element and to the 2018 project listing.

Haugen stated that included in the packet was a couple of items; first was an award letter from the Minnesota Office of Transit. He pointed out that the Office of Transit had a special solicitation take place for 100% State funding if Greater Minnesota Transit Agencies were able to expand service coverage in their community. He stated that East Grand Forks submitted a request to add night-time hours, and also some additional day-time hours as well to their service, and a purchase of one additional coach. He said that Minnesota did authorize an award funding 100% of the request.

Haugen commented that later on the agenda, for the Transit Development Plan Update, you will see how this fits in with what is going on on the transit planning side.

Haugen stated that he will note that it is 100% funding, and it is for a two year period. He added that it is a bit of a pilot project, and MnDOT is requiring that there will be an assessment done so if, for whatever reason, it isn't attracting a ride the funding can be pulled prior to the end of the

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two year period; however after two years there is a little uncertainty as to whether MnDOT will provide further funding for it, but there is some expectation that they will fall back to their normal state aid percentage for funding transit services in Minnesota, and that is basically an 80/20 split, so East Grand Forks is gearing up toward trying to budget for that additional 20% match that they don't have to pay the first two years this would be in service.

Haugen reported that the second amendment that East Grand Forks is proposing is; originally in 2018 their City Sub-target was going to be used on a round-about on Bygland Road and Rhinehart, but as they got into some project development they started having concerns about the timeline for delivery of the project by 2018, so they decided, working with MnDOT, that it is best to swap out that project to 2022 which is in the next four year cycle for East Grand Forks, and deliver some other projects in 2018.

Haugen referred to a graphic showing where the amended projects are located and went over them briefly.

Haugen stated that a public hearing was advertised for the proposed amendments. He added that they did ask that if someone couldn't be here in person that they provide written comments by noon today, and no such comments were received; and there isn't anyone present for discussion, thus staff is recommending that the Technical Advisory Committee forward a recommendation to the MPO Executive Policy Board that they approve the proposed amendments as submitted.

MOVED BY BAIL, SECONDED BY BERGMAN, TO APPROVE FOWARDING A RECOMMENATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE PROPOSED AMENDMENT TO THE FY2017 ANNUAL ELEMENT OF THE 2017-2020 T.I.P., SUBJECT TO CHANGING THE REMARKS SECTION OF PROJECTS 10A THROUGH 10E TO STATE MUNICIPAL STATE AID.

Kuharenko referred to East Grand Forks Project 10e, under the remarks where it says "Other is State Aid", and asked if that is the correct way to list this because if it is State aid shouldn't it be shown under the State column. Haugen responded that it should be deleted. He added, however, that under the East Grand Forks Transit Projects they don't want their Transit State Aid to show up in the State column because to them State is for State Highway Funds. Kuharenko said then, that because this is Transit State Aid monies, now it makes sense. Haugen apologized and explained that in looking at this closer it is their Municipal State Aid account. He said that they are using their Municipal State Aid as their match, and not using local resources, so it is actual State Aid, but it isn't the State's financing of their State Highway System. Bergman asked if it should be listed as Municipal State Aid. Haugen responded that he would check to see how he has to list transit projects, other than Municipal Transit, and maybe clarify that this is not Municipal Transit but Municipal State Aid. Emery pointed out that this listed as dollars under the Municipal State Aid, and if the City had local dollars, it could use a combination of both couldn't it. Haugen responded that they could. Emery stated that they wouldn't have to do this with State Aid. Haugen agreed, adding that you are capped at your federal amount, that is the main thing, and you have some leeway as to how you match it, this is just identifying how he was informed the match was being covered.

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Voting Aye: Johnson, Kuharenko, Bail, Bergman, Gengler, Riesinger, and Laesch.

Voting Nay: None.

Abstain: None.

Absent: Christianson, Magnuson, Lang, West, Ellis, and Sanders.

MATTER OF DRAFT MINNESOTA SIDE FY2018-2021 T.I.P.

Haugen reported that in the next four years this is a draft on the Minnesota side only. He stated that North Dakota is delaying their drafting of a T.I.P./S.T.I.P. document.

Haugen said that this draft assumes that the Executive Policy Board will take similar action to the recommendation you just gave the previous agenda item.

Haugen referred to the draft document, and pointed out that there is a listing of all the projects. He said that, just to again mention, the current draft is just showing the second year of the special state funding, and between now and August, when we do a final document, this may change. He added that we may have to show a lot of those 2017 dollar amounts here in 2018 and shift some 2018 to 2019.

Haugen pointed out that in 2018 are the individual projects that we just recommended be amended into the document, other than that there isn't much going on in East Grand Forks other than transit projects in 2019 and 2020. He stated that in 2021, beside the transit project there are a few things that are taking place that will be added as this is the new year to the draft document. He said that the big project is U.S. #2, the westbound lane will be having some pavement work done and he was just notified an hour ago that the dollar amount for the project has increased to \$10.8 million dollars, so this draft will be modified to show that increase. He added that there were also a couple of applications for some T.A. funds that were successful in being awarded in East Grand Forks.

Haugen asked Mr. Laesch for a little background on the cost increase on the U.S. #2 project. Laesch responded that they are trying to add some additional safety improvements along with that projects so we will looking at some additional turn lanes, trying to incorporate that improvement at Business 2, whatever the study recommends, and then they are also going to look at some turn lanes on the east-bound lane at the same time they do the west-bound lanes so they won't have to do any additional grading.

Haugen reported that this is the draft with the one known change of increasing the U.S. #2 dollar value, and that amount was less than the 25% threshold we have that would force an amendment, so what has been presented to the public has not been substantially changed, therefore staff is recommending approval of the Draft T.I.P. document as presented.

MOVED BY BAIL, SECONDED BY KUHARENKO, TO APPROVE FORWARDING A REDCOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE DRAFT MINNESOTA SIDE FY2018-2021 T.I.P., SUBJECT TO THE INCREASE IN COST FOR THE U.S. #2 PROJECT IN 2021.

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Voting Aye: Johnson, Kuharenko, Bail, Bergman, Gengler, Riesinger, and Laesch.

Voting Nay: None.

Abstain: None.

Absent: Christianson, Magnuson, Lang, West, Ellis, and Sanders.

MATTER OF SUBMISSIONS TO STREET/HIGHWAY PLAN UPDATE RFP

Haugen reported that yesterday several Technical Advisory Committee members were part of the interview process. He stated that they had four submittals, identified in the staff report along with the cover letters from the consulting firms submitting the proposals. He thanked those that assisted staff with the interview process.

Haugen stated that the proposals were well written, and the presentations were really good, but in the end the Selection Committee is recommending we move forward with Kimley-Horn/WSB to perform the Street/Highway Plan Update for us.

Haugen commented that their proposal; when they opened their cost estimate, was roughly \$288,000, and as we do have a \$300,000 budget set aside for a consultant, they were within that parameter.

Haugen reported that they had a good public engagement process, but they also identified three optional things that if the budget would allow we move forward with. He stated that the selection committee is interested in finding out the particulars of those options. He explained that those three options are:

- 1) Using an on-line survey tool, some of you might be familiar with Metroplex – it is an on-line mapping tool that allows people to go and pick their particular intersection or street corridor and a comment box pops up and they can write what they feel is important for us to know about it.
- 2) Having their team participate in pop-up events throughout the communities.
- 3) When we get into alternatives, having what they are naming these project sheets, which would mean there would be one sheet that would provide almost all the basic information you need to know about a specific alternative; what the cost estimate is, graphics showing where it is located, what it is trying to accomplish, etc.

Haugen stated that they have asked Kimley-Horn to provide cost estimates to do these things as separate items in the event we want to do one of them, or two of them, or all three. He said that they responded that they felt that all three could be done within the budget as identified still.

Haugen said that they also asked those present yesterday to take a more fine-tuned look at the tasks as identified in their proposal, and send any additional language clarifications or other items they would like addressed to him by Thursday afternoon so that they can work them out with Kimley-Horn in order to draft a scope of work, and identify the costs. He added that

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Kimley-Horn did feel that this was something they could do. He said that they were also going to do the same on their end as well. He stated that the intent is to have a final draft available Monday so that when the Executive Policy Board meets on Wednesday, we will have completed our negotiations with Kimley-Horn/WSB, and have a draft scope of work with the optional add-ons identified as to which ones we may want to pursue.

Grasser stated that he has some concerns regarding whether or not Kimley-Horn can handle the bi-state differences involved with a multi-state Long Range Transportation Plan. He added that he also has concerns regarding how much should be reserved for change order type activity that he thinks may be an issue with this study, with expending resources up front that we may be looking for later on in the project. Haugen responded that they will do their best to have the proposal that goes before the MPO Executive Policy Board show how these concerns might be addressed.

Haugen added that on the issue of their familiarity with North Dakota, North Dakota are just about to hire them to do one of their state-wide plans as well.

MATTER OF ND FTA 5310 AND 5339 CANDIDATE PROJECTS

Kouba reported that North Dakota began their solicitation process for projects for the 5339, bus and bus facilities funding, and the 5310, individuals with disabilities and the elderly funding programs.

Kouba referred to the staff report and explained that the applications received for both funding sources were from Cities Area Transit, and the priority listing for each is shown in the report. She went over the projects briefly.

MOVED BY GENGLER, SECONDED BY KUHARENKO, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY APPROVE THE CANDIDATE PROJECTS FOR THE ND FTA 5310 AND 5339 PROGRAMS IN THE PRIORITY ORDER SUBMITTED.

Voting Aye: Johnson, Kuharenko, Bail, Bergman, Gengler, Riesinger, and Laesch.

Voting Nay: None.

Abstain: None.

Absent: Christianson, Magnuson, Lang, West, Ellis, and Sanders.

MATTER OF DRAFT TRANSIT DEVELOPMENT PLAN AND TRANSIT ASSET MANAGEMENT

Haugen referred to the packet and pointed out that it included sections that were new to your eyes in the document, and explained that part of it was the Transit Asset Management section and the other was the financial portion. He said that Ms. Kouba does have a power point presentation that she will now walk us through.

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Kouba reported that we are in the final stretch of the Transit Development Plan update, and are bringing forward the draft report, first to this group, the MPO Executive Policy Board and then to both City Councils and Planning Commissions for both preliminary and final approval.

Presentation ensued (a copy of which is included in the file and available upon request).

Kouba gave a summary of the recommended improvements including: 1) proposed new route structure, 2) coordinated human service transportation, 3) performance measures and targets in support of goals, 4) transit asset management; and the financial outlook including 1) limited revenue and 2) getting to cost.

Kouba commented that staff is looking for preliminary approval of the draft report, although there may be some changes in the future.

Bergman stated that one of those items can be corrected now if you want to make note of it and that is that they spent the money locally to operate the radios. He explained that they used to have the 800 Trunking System radios and they no longer make parts for them so they had to change them.

Haugen commented that he was just going to mention that when you look at the route structures, you will see some familiarity with the existing, but you will also see a lot of change. He pointed out that when you look at the headway, the frequency, it may give you some pause that we might not be servicing some areas as frequently as we currently are, but he thinks that perhaps the only place that is true would be Route 3, because it is currently a 30-minute trip to Altru and back downtown, but the proposed route is adding an East Grand Forks loop to that. He stated that what they are trying to accomplish is less need to sit at a transfer center, and to be able to get off the bus and continue on to your destination. He said that on the west side they are maintaining access to the southern part of Grand Forks to UND Campus, however south of 17th it is actually a 30-minute service. He added that, although it might look like the frequency of service is being cut back, we are actually, in some cases improving service where we felt the demand was and scaling back a little where there wasn't. He pointed out that Route 4, during peak hour only, is where we provide a similar service to what downtown to UND is enjoying right now.

Haugen stated that as you hear us present these things you might hear people trying to figure out how it is impacting their frequency; there are some give and take taking place with the frequencies. Williams said, then, that now there will be several routes for the night service rather than just one. Haugen responded that that is correct. He added that with the East Grand Forks State awarded funds, night service will now be available to East Grand Forks residents, both fixed route and demand response services.

Grasser asked if they continue to feel that there isn't enough demand out in the Industrial Park to run a bus out there. Bergman responded that their honest opinion is that there isn't. He explained that they did a survey again out there and the results indicated less of a demand than previous surveys.

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Grasser asked if he heard that, as part of this proposal, you would be eliminating the tripper. Kouba responded that that is correct. Grasser asked if that would be a political hot potato. Bergman responded that as of right now it wouldn't. He explained that they have shifted that route so many times now that they are losing people every year on this right now. He said that they used to have 17 to 18 people on the rider, now they are down to 6, and from one stop to the next you are probably talking about a 5-mile trip because it is so far from where they are going.

Further discussion on the tripper route continued.

Kouba reported that they are holding an open house on April 20th, a Thursday. She explained that the main open house will be held at the Grand Forks City Hall Council Chambers, and in the morning and early afternoon they will be at the Transit Center as well.

Haugen commented that in the draft document they are showing the cost-plus to highlight the deficit that they are trying to find revenue for in order to implement the more frequent service. He stated that they aren't quite sure about the whole TAM process; is it in a sponsored plan, who is the sponsor, is it a stand-alone plan, so it is the best we can do based on the information we are currently enjoying. He said that they were just notified yesterday that the FTA is hosting a TAM workshop for Tier 2, for small transit operators, in Minneapolis on May 23rd, so hopefully we will know more before we finalize this document, as it will need to be modified to address the unknowns of the TAM, from the federal regulatory perspective as well as whether the States are sponsoring TAMs or not.

MOVED BY BERGMAN, SECONDED BY GENGLER, TO APPROVE FORWARDING A RECOMMENDATION TO THE MPO EXECUTIVE POLICY BOARD THAT THEY GRANT PRELIMINARY APPROVAL OF THE DRAFT TRANSIT DEVELOPMENT PLAN UPDATE, AS SUBMITTED.

Voting Aye: Johnson, Kuharenko, Bail, Bergman, Gengler, Riesinger, and Laesch.

Voting Nay: None.

Abstain: None.

Absent: Christianson, Magnuson, Lang, West, Ellis, and Sanders.

MATTER OF SOLICITATION OF COMMENTS ON ANNUAL BIKEWAY MAP

Haugen reported that Mr. Viafara is working on updating the Bikeway Map. He referred to the packet and pointed out that included was the 2017 Map, and then Mr. Viafara also included a critique survey and has a power point presentation he would like to give today.

Presentation (a copy of which is included in the file and available upon request) ensued.

Viafara stated that for the last seven or eight months a small group of people, including a stakeholders committee, staff from the Engineering Department, and staff from the Planning Department have been working together to try to address a portion of the plan development, which is existing conditions.

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Viafara said that two activities are being advanced; one of them was three rides going around selected portions of the network in order to verify the conditions that make rideability more appropriate. He said that what he is trying to do here is to provide you with a brief summary of the things that are taking place.

Viafara commented that the whole purpose of these rides was to do an assessment of some of the conditions or characteristics of the system, where there is cohesiveness, where there is directness, where there is access, and where there is opportunity to have alternative routes; and then to link the existing map to concerns that are brought to us either through plan development or through stakeholders.

Viafara referred to the 2017 Bikeway Map, and explained that it entails the comments that were brought to them by engineering, by planning, and by the stakeholders, they are included. He commented that there is still the opportunity, however, for us to improve the map for the 2018 map.

Viafara cited some examples of issues that can be seen either driving by the bikepaths, or by walking or riding on the bikepaths; including at the corner of 1st Avenue and 3rd Street where there is a stop sign, however there are flowers and plantings around it so it is difficult to be seen; and at Columbia Road and 10th Avenue where it is felt there is a need for a pedestrian crosswalk.

Viafara stated that he believes, as indicted in the report, that these things happen in the fall and summer, so the expectation is that by now many of them have been addressed, or they are already in a plan to be addressed, or they are no longer a concern or issue.

Viafara reported that there were a number of meetings held with engineering and planning staff trying to determine what the real purpose of the map is; if we want to have a map that represents certain elements of the plan, what should be included.

Viafara said that in this case he wants to bring to your attention two points; one is that part of the discussion with engineering and planning had to do with our plan network; but then we also reviewed what is existing, so today he is talking about the existing conditions of the map.

Viafara referred to the critique survey and explained that these are the questions that more or less guide the map critique, it is an exercise for us to become a little more familiar, to bring new eyes, and to try to center the map in relation to the overall plan. He stated that a survey was produced in order to be able to improve the map for the Year 2018. He added that more importantly, the purpose of this overall critique is to try to link closely the purpose of the map and main objectives of goals of the overall bike/ped plan.

Viafara pointed out that if you read those carefully they are “proposed”, because when he wrote this report he had not received some comments from the engineering staff, so they are “proposed”, and the comments he has since received from engineering staff will be taken into consideration.

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Viafara reported that there are a couple of issues that they have been dealing with including the name of the bikeway system. He explained that previously it had been named the Andy Hampsten Bikeway System, but apparently the ordinance doing so was repealed, therefore it has been determined that the 2018 Map will not show any name, and in agreement with the Planning Department, either reinstatement of that name, or assignment of another name will be looked into for future maps. He added that there is also a situation with the map size as well. He explained that our current map is 11x17, but we have received criticism, specifically with the back-side of the map because the information is not very clearly elaborated and people would like to see more information, so it is being proposed that the map be enlarged. He stated that other issues include the readability of the map, as some people have expressed that they are unable to read it clearly; and the contents of the map, such as adding a ledger indicating which paths are in historical neighborhoods and other tools to establish a better relationship between the parks, the transit stuff and other public facilities that allow people to feel comfortable. He said that the last issue is the consideration of a new platform in addition to the paper-based map; probably a web-based map using Google or an application that would provide people with the ability to have these things in their mobile devices.

Williams said that she has one question, as far as clarification, her understanding is that there are two different maps; there is the user map and then there is the one that is in the Long Range Transportation Plan, and those are not the same, so there are two different maps, and is this map for the users, and is what you showed today what the proposed size will be. Viafara responded that there are two different maps and the map he is discussing today is the user map. He added that the map he showed today is what is being proposed via input from the User's Group. Williams stated, though, that she wouldn't be able to print that size at home so it doesn't do her any good. Haugen responded that this would be similar to the size of the bus map, so if you get your bus map and see how it is folded, it compresses down quite well but he agrees it isn't something that you would be able to print, and that is why some other platforms are being explored.

Bergman asked if they would be putting these maps at various locations around town. Viafara responded that that is something that they may consider. He commented that in other cities he has been to, if you go to their bus stops and you will see a large poster size bike map, and that is something that they would maybe discuss doing here, although he doesn't know if there is an agreement with another company that runs the stops or something. Bergman responded that it might be something that could be done at the Transit Center.

Williams asked when they needed corrections for the 2017 Map. Kouba responded that it is already at the printer. Williams stated that there are a couple of things on it that are wrong. She said that she doesn't remember getting that to review. She added that they talked about it a long time ago that we were mixing up the two maps, and she was told that they would get the 2017 map to review before it went out and she doesn't remember seeing it. Kouba responded that notice was sent out in March about the comment period. Williams said that she must have missed it, adding that they will just have to catch it on the 2018 map. She asked, since you already sent it to the printer, what size are you having it printed at. Kouba responded that they are having it printed on 11x17 paper.

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Haugen commented that right now we print about 10,000 maps, at a cost of just under \$1,000, so going to a larger sized map will result in more cost, thus less maps will be printed, or we can go to a combination, we don't have to only have one size printed.

Kuharenko referred to the staff report, under the existing facilities map, and commented that they did do some bike rides this summer, which were all initiated by a resident and avid biker, and they did listen to some concerns he had, but in looking at the report, where it discusses the suitability of the existing bike network for travel, and that if left unattended could significantly reduce bicycle ridership, he is concerned that that is something that could make people think that there is something terribly wrong, and it could keep people away from riding bikes. He added that this is something that didn't come up at all during any of the bike rides, so he does take exception to that statement.

Kuharenko stated that some of the other comments that they got during the ride, such as the stop sign over at 1st and 3rd that you mentioned, that was a question, it isn't that is isn't visible, it is there, it isn't hiding behind a plant or anything, it was just a question as to whether it can be moved out to the street, and that is something that they can do. He added that this is the same with the cross walk at 10th Avenue North, and those are both things he brought to Ms. Williams shortly thereafter.

Kuharenko commented that there are just a number of things in here that seem to be very negative, that these are terrible and they must be fixed, but in reality they were more questions about whether or not it is something that can be done, and this is something that should be looked at. He added that a lot of them they already went through and talked about and addressed. He said that they are always trying to improve their bikeway system as they can, so additions to the system do happen on an annual basis, and they just end up incorporating them into the next map as they do them.

Viafara asked Mr. Kuharenko asked what he would suggest he do, he may be able to correct the report. Kuharenko responded that all in all this is, in general, the staff report based on the map, and the information they got on the bike rides is all well and good, but it is information that is six to eight months old, it is all stuff they did this summer and early fall, and so that portion of the report is odd to him.

Williams said that the comments weren't aimed at the map, they were aimed at the system in general, not on the map. She stated that there is stuff in here that is for the pedestrian element, that you could probably just do another whole staff report on, because economic vitality and accessibility don't have anything to do with the map, which is of existing facilities. She added that those have something to do, and this gets back to her original questions, those definitely have something to do with the map that is going to be in the Long Range Transportation Plan, but not to the existing facilities map. She stated that she would also like to expand a little bit on Mr. Kuharenko's comment that says that the existing...if left unattended could significantly reduce bike ridership, as she isn't sure where that comment came from, because they have a line item every year in their budget for bicycle maintenance, there is no reason that it would be left, but you could make that statement about anything, but we have programs that ensure that that doesn't happen so she isn't sure why that comment would even be in there.

**PROCEEDINGS OF THE
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Wednesday, April 12th, 2017**

Viafara asked if she would suggest that that line be removed. Williams responded that it isn't relative to the map, and anything that isn't relative to the map shouldn't be in there. Viafara asked if she would like another report. Williams responded that if he wants to do another report on the update to the Pedestrian and Bicycle, that would be great, because that is actually what we are working on right now, but as far as trying to give us direction of what needs to be attended, we already know what needs to be attended to and we have budgets to take care of it.

Viafara stated that these comments are not being made to the detriment of the Engineering Department. Williams asked who it was made to then. Viafara responded that it is to the conditions that we are seeing on the ground. Williams asked whose responsibility it is. Viafara responded that it could be your responsibility, but he never mentioned the name of the Engineering Department. Williams said that he doesn't have to if you say something like that because it is the public agency where the facility is that is responsible for the maintenance and such, it's not an individual that you have to keep reminding the individual to do something, this is directly aimed at their agency. Viafara responded that if you read carefully the first paragraph, it is commendation to those involved in the process. Williams suggested that we turn this around the other way, and asked what relevance that statement, how does that support and give positive direction or in some way add more information to it. Viafara responded that it is commendable, all the work you guys are doing. Williams said then, that he should say that, if that is the inference, that, if they were left unintended, however both cities and agencies are doing a good job of maintaining, but she thinks that if that was the intent, it was kind of left hanging there, with an incomplete thought. Viafara responded that he would confer with his supervisor and address your concerns.

Kuharenko said that he has two other minor corrections. He referred to Page 2 of the staff report, the second set of bullets; 11th Avenue South (Garden View Drive Cul de Sac to South 34th Street), and said that it should actually be just Garden View from 42nd to 34th; and then South 20th Street you have it from 40th Avenue South to South 19th Street, and that should be looked at and clarified better. Kouba responded that the South 20th Street bullet is correct. She explained that it curves around and is South 19th, so it is confusing, but it is correct.

Williams asked when they were looking for comments on the 2017 map so corrections can be made to the 2018 map. Viafara responded that they would like comments by May 30th.

Kuharenko said that he would like to thank Mr. Viafara for making a number of those revisions they talked about. He referred to the map and pointed out some of the revisions made.

OTHER BUSINESS

a. 2017 Annual Work Program Project Update

Haugen pointed out that the updated monthly progress table was included for your information.

Williams asked where the Near Southside Neighborhood Study, where does it fit in. Haugen responded that it should be under Corridor Planning. He added that we have ATAC under

**PROCEEDINGS OF THE
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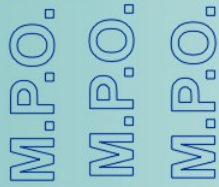
contract and will be doing some counts next week. He said that the RFP for the second consultant got zero response, so we are now following a quote-based selection process. He stated that there are fifteen requests for quotes out, so hopefully we can get three submittals so that we can select a consultant to help deal with the conceptual drawings. He added that he set a deadline for submittal for noon Monday, April 17th, so that they are available for board action on Wednesday.⁷

ADJOURNMENT

HAUGEN DECLARED THE MEETING ADJOURNED AT 3:10 P.M.

Respectfully submitted by,

Peggy McNelis,
Office Manager



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: May 10, 2017** **MPO Executive Board: May 17, 2017**

RECOMMENDED ACTION: Update on the US 2/US Bus 2 Study.

Matter of Update on the US 2/Bus 2 Traffic Study.

Background: The UPWP was amended to include the activity of conducting a traffic study of a stretch of US 2 on the eastside of East Grand Forks. The intent of the study is to assist in developing potential safety projects that could be incorporated into a future proposed resurfacing project along this stretch of US 2. Some recommendations could also be stand-alone safety projects funded outside the resurfacing project.

A draft Report is in the hands of the Steering Committee for their review and comment. The Steering Committee is also holding their last scheduled meeting on Tuesday, May 9th starting at 2:00 pm in the Training Room of EGF City Hall. The EGF City Council will be briefed on the Study at their Working Session on Tuesday, May 9th starting at 5:00 pm.

Three alternatives are recommended for advancing into the NEPA document. All three should have sufficient funds available to implement one of them with the programmed 2021 pavement surfacing project.

The MPO will need to process an amendment of its MTP to include this project, as well as the reconstruction of the River Road Interchange bridge on US 2 (Gateway Dr.). That process will formally start in June.

Findings and Analysis:

- This activity was added to the UPWP.
- Safety issues have arisen on this stretch of US 2.
- MnDOT has a potential resurfacing project and are considering adding safety improvements to the project.
- MnDOT has agreed to provide the local match to the Study
- SRF has been retained to assist with the Study

Support Materials:

- Alternatives advancing to NEPA

Alternative 1 – No Build

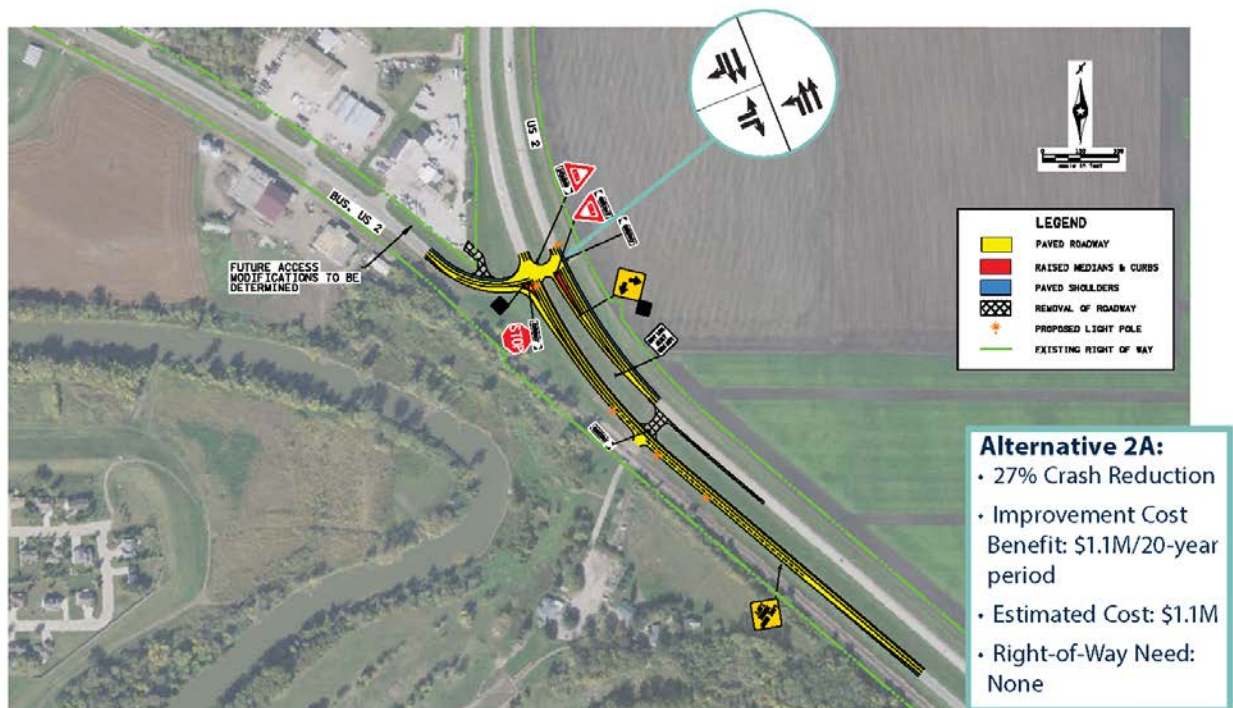
Alternative 1 includes no proposed improvements to the intersection of US 2 and US Bus 2. The intersection would remain within the current geometry and roadway profiles. The current side-street stop control would remain in place with no improvements to intersection lighting or signage. Additionally, no improvements would be made to the turn lane storage length or US 2 median stacking space.

Alternative 2A – Turn Lane Improvements

Alternative 2A provides turn lane improvements to the US 2 westbound left-turn movement and an acceleration lane for eastbound US Bus 2 right-turn movements onto US 2. The existing US 2 median would be re-graded under this alternative to alleviate the uneven roadway profile. All existing intersection movements would be maintained with this alternative. The proposed improvements include:

- Reconstruct an offset westbound US 2 left-turn lane with raised median
- Regrade US 2/US Bus 2 median
- Construct an eastbound acceleration lane for US Bus 2 to US 2
- Close US 2 median at the Stable Days access
- Access modifications at Todd's Trailer Sales

Figure 12. Alternative 2A

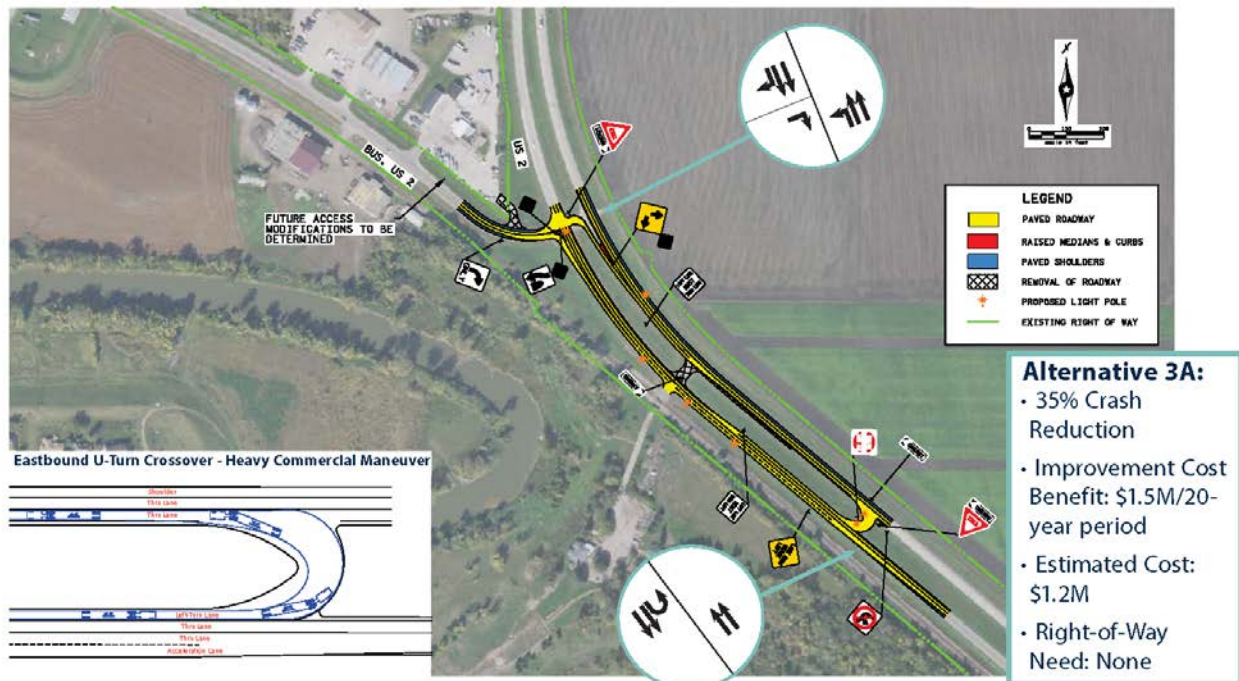


Alternative 3A – Modified RCUT and Acceleration Lane

Alternative 3A was developed to reduce conflicts within the US 2/US Bus 2 median by restricting the lowest volume turning movement (US Bus 2 eastbound left-turn). Under this alternative, the westbound US 2 left-turn lane would be realigned to smooth the left turn movement, while restricting the US Bus 2 eastbound left-turn movement. Though the left-turn movement would be restricted in the traditional sense, the general movement would still be allowed by utilizing the modified RCUT included with this alternative. Under this alternative, US Bus 2 traffic would turn right onto eastbound US 2 and would utilize a U-turn maneuver to access westbound US 2. The U-turn location is placed in a location that allows for the acceleration lane to be maintained. This alternative maintains all but one of the current intersection movements. The proposed improvements for Alternative 3A include:

- Reconstruct an offset westbound US 2 left-turn lane with raised median
- Regrade US 2/US Bus 2 median
- Close the US Bus 2 eastbound left-turn lane
- Construct an eastbound US 2 crossover to facilitate the US Bus 2 left-turn movement to US 2
- Construct an eastbound acceleration lane from US Bus 2 to US 2
- Close US 2 median at the Stable Days access
- Access modifications at Todd's Trailer Sales

Figure 14. Alternative 3A

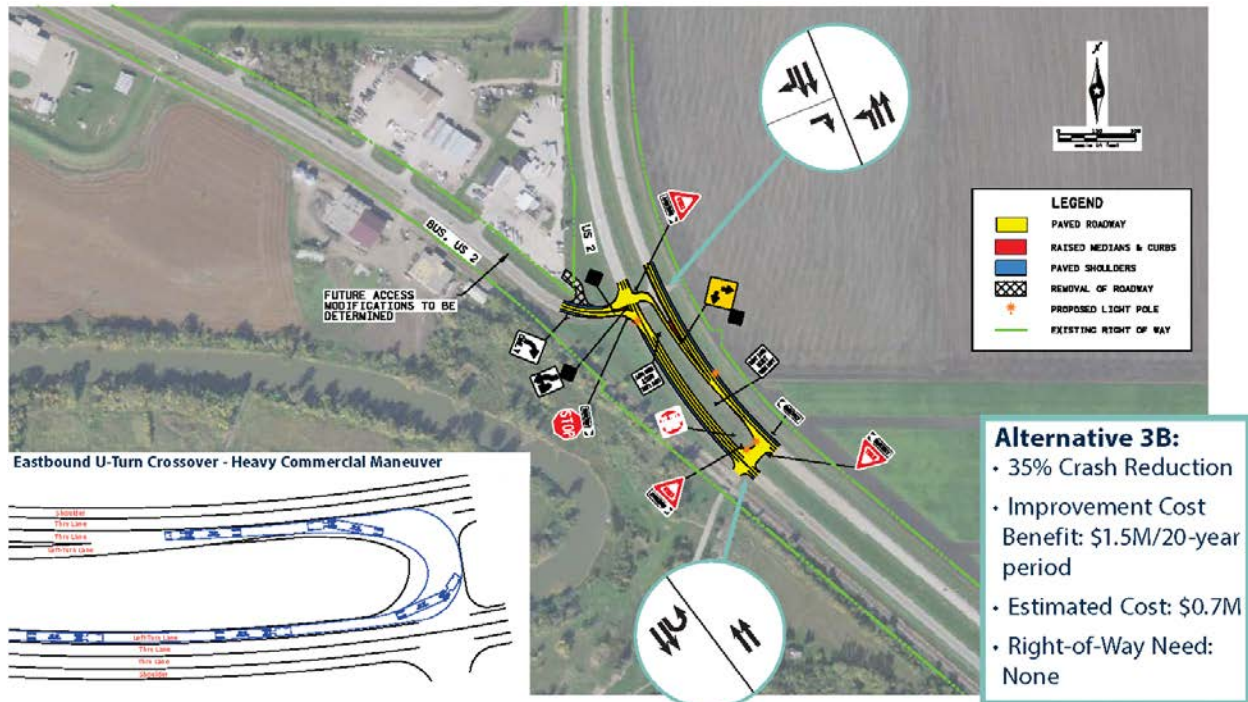


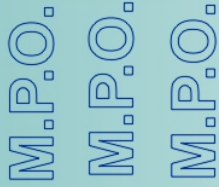
Alternative 3B – Modified RCUT

Alternative 3B proposes similar improvements to Alternative 3A, with slight modifications to reduce impacts to travel time. The westbound US 2 left-turn lane would be treated in the same manner and the US Bus 2 eastbound left-turn movement would be restricted. A median crossover would be constructed using the existing Stable Days median to facilitate U-turn maneuvers. This alternative reduces the distance a driver must travel to make the U-turn maneuver; however, the proposed location creates a situation that does not allow for an acceleration lane. This alternative maintains all but one of the current intersection movements. The proposed improvements for Alternative 3B include:

- Reconstruct an offset westbound US 2 left-turn lane with raised median
- Regrade US 2/US Bus 2 median
- Close the US Bus 2 eastbound left-turn lane
- Construct an eastbound US 2 crossover to facilitate the US Bus 2 left-turn movement to US 2
- Access modifications at Todd's Trailer Sales

Figure 15. Alternative 3B





Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **MPO Technical Advisory Committee: May 10, 2017** **MPO Executive Board: May 17, 2017**

RECOMMENDED ACTION: Update on the I-29 Traffic Operations Study.

Matter of Update on the I-29 Traffic Operations Study.

Background: KLJ was retained for I-29 Traffic Operations Study. A draft Implementation Plan document has been provided to the Steering Committee. A draft document is in the hands of the Steering Committee for their review. Additionally, a presentation is scheduled for later this month to inform the NDDOT Upper Management Team of the Study.

Since the last presentation, the consultant has provided updated information for the 47th Ave interchange access spacing. See attached pages from the draft report. Also, the consultant has provided a chart of the LOS issues for 32nd Ave S., which was included with other updates to the Implementation Section of the draft Report. See pages from the draft report.

The draft Reports Executive Summary is also attached.

Findings and Analysis:

- UPWP identified an activity to conduct an I-29 Traffic Operations Study
- A draft Report has been released to the Steering Committee for review and comment.

Support Materials:

- Draft 47th Ave Interchange access spacing concepts
- Draft Implementation Plan Section
- Draft Executive Summary
- Additional information at: www.drivei29.com

47TH AVENUE

Figure 7-36. Traditional Diamond Interchange Alternative for 47th Avenue

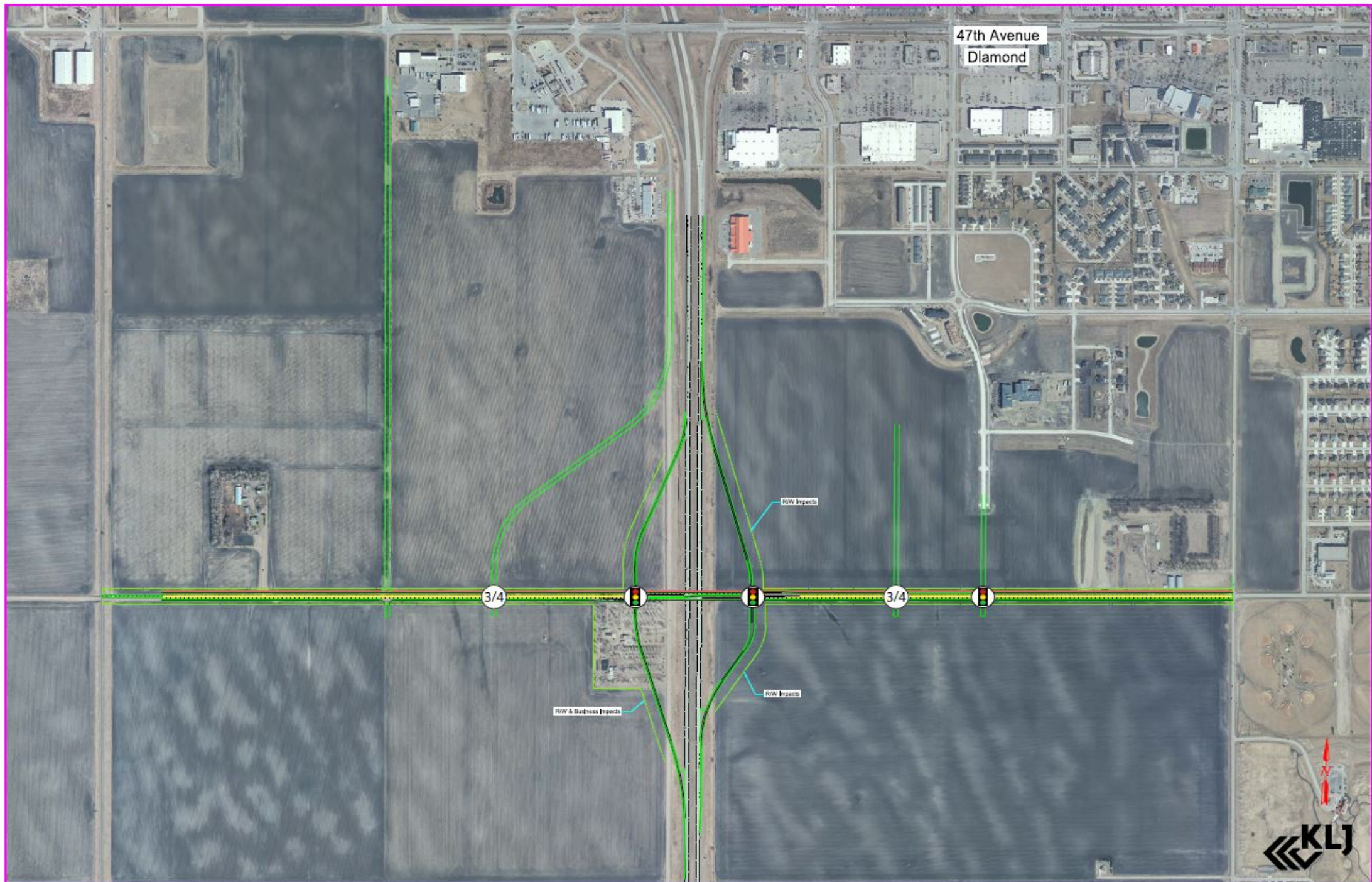


Figure 7-39. Diamond w/ South Loops with change alternative for 47th Avenue

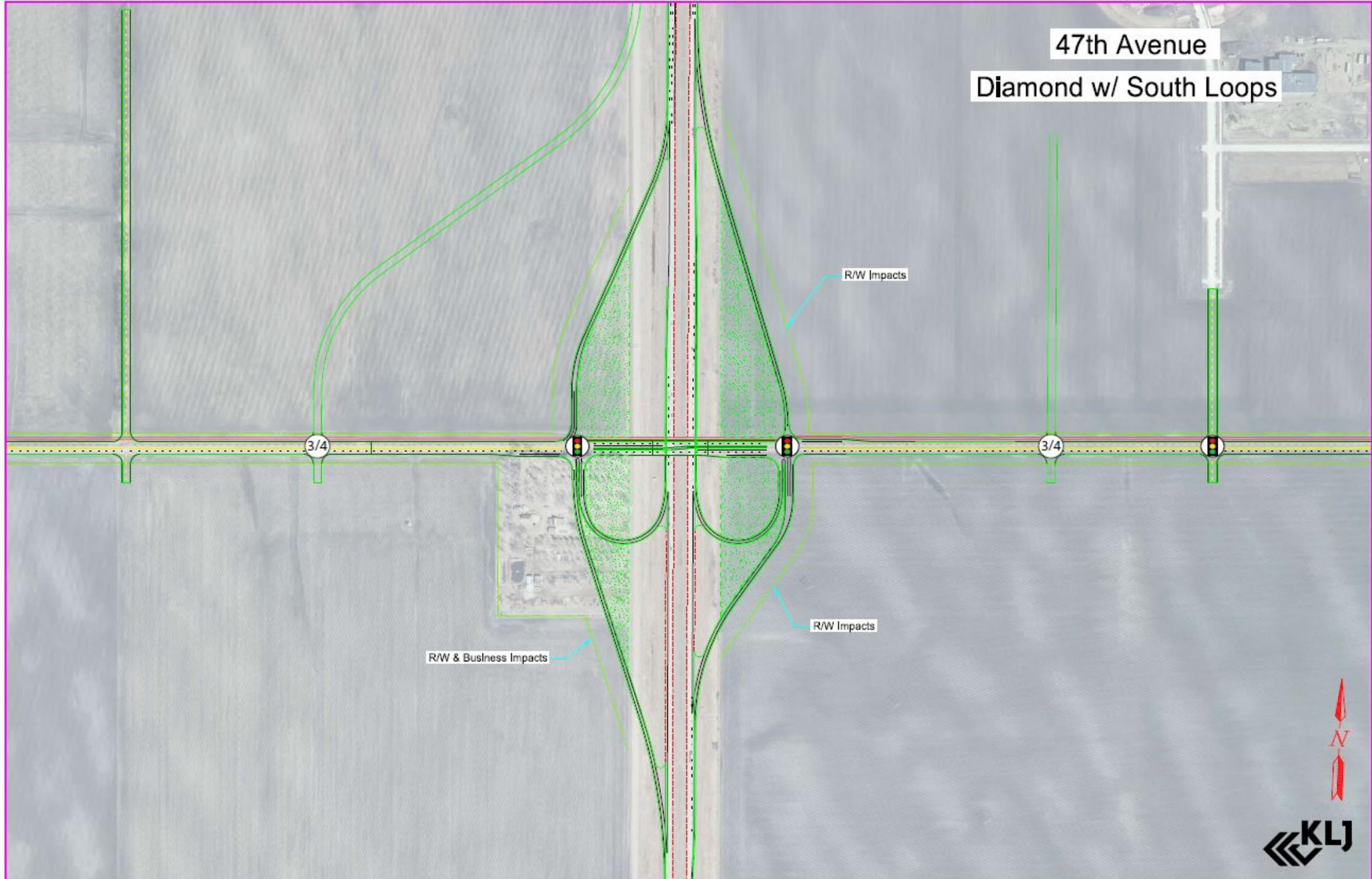
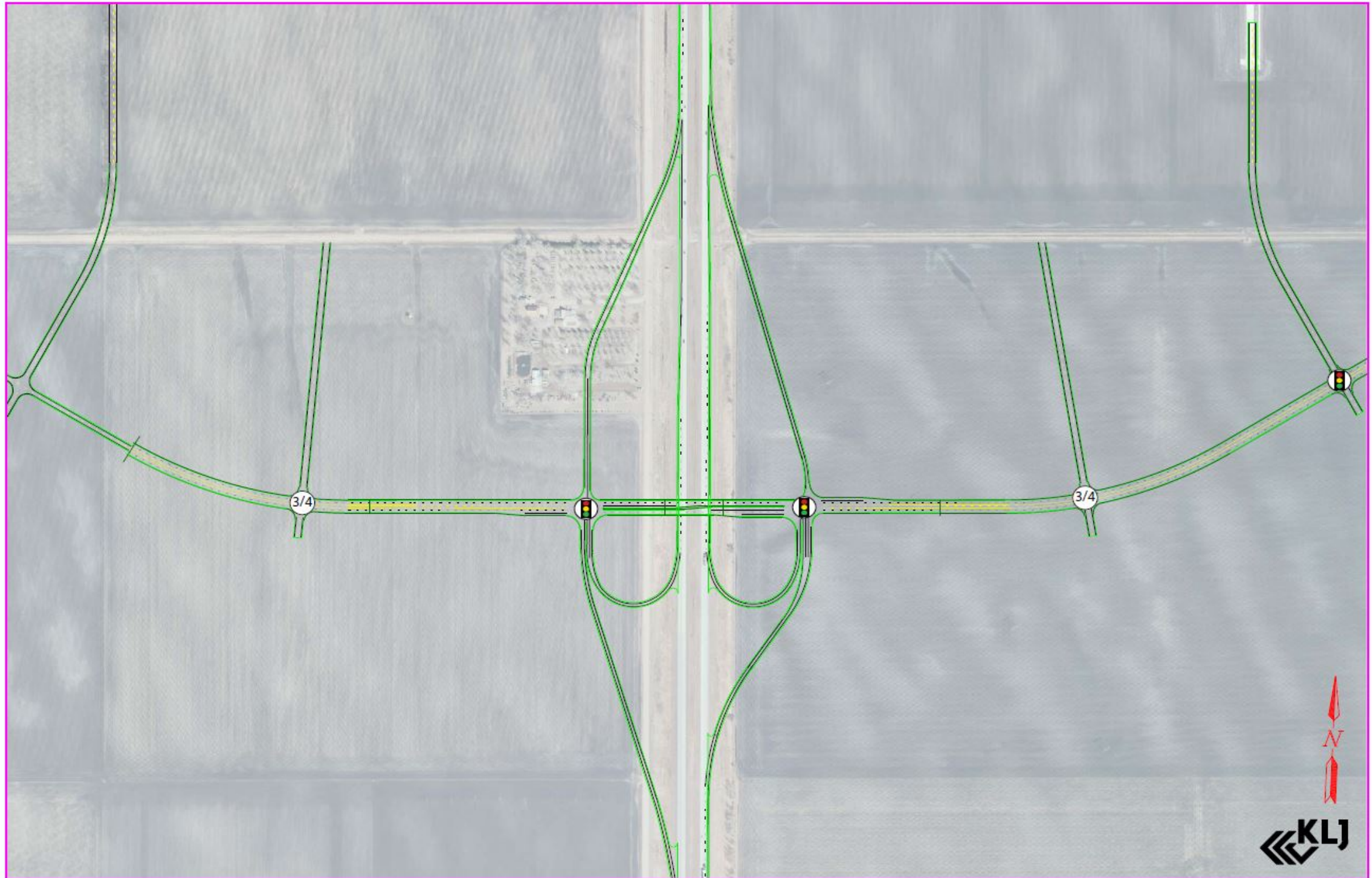
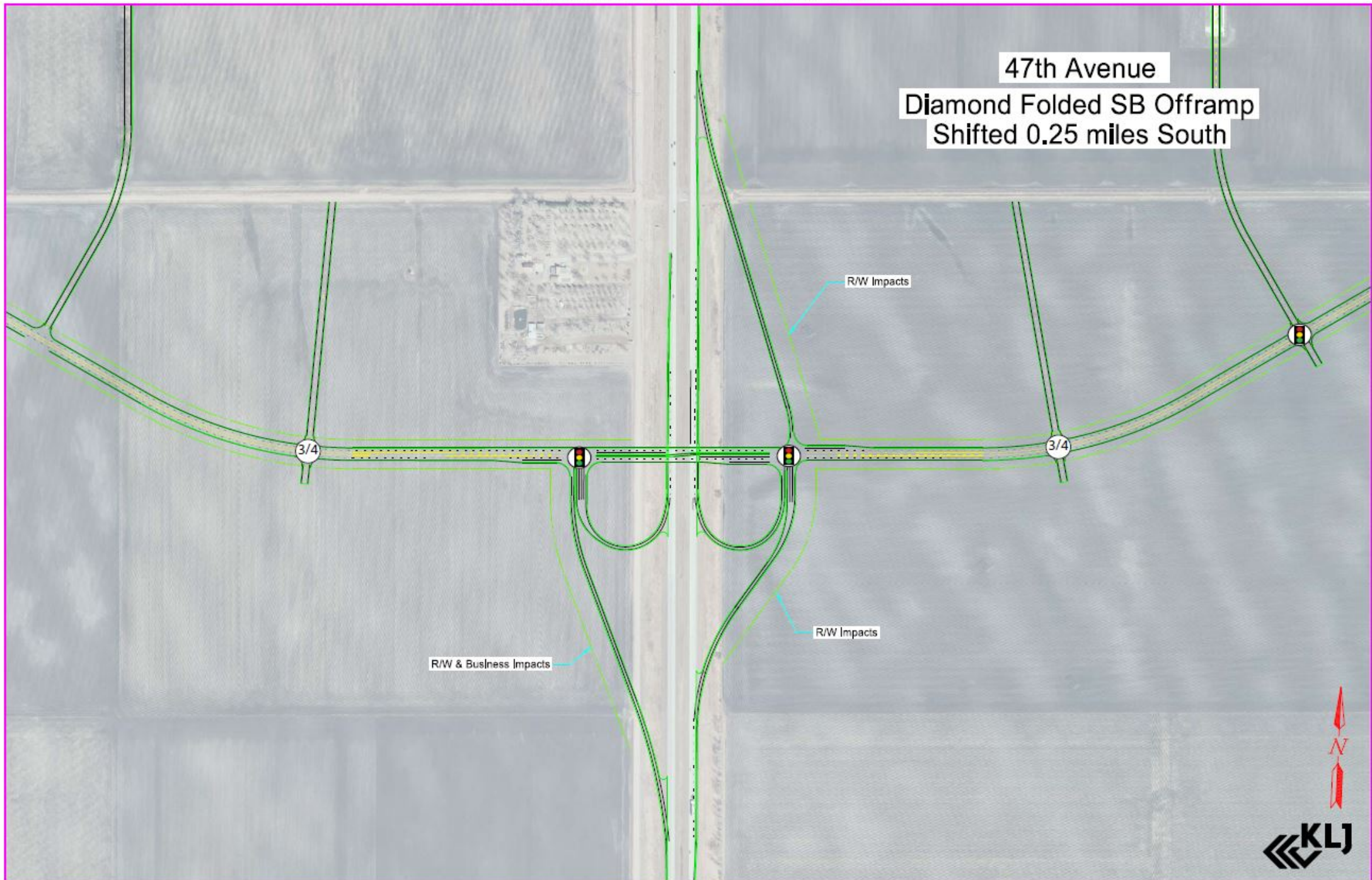
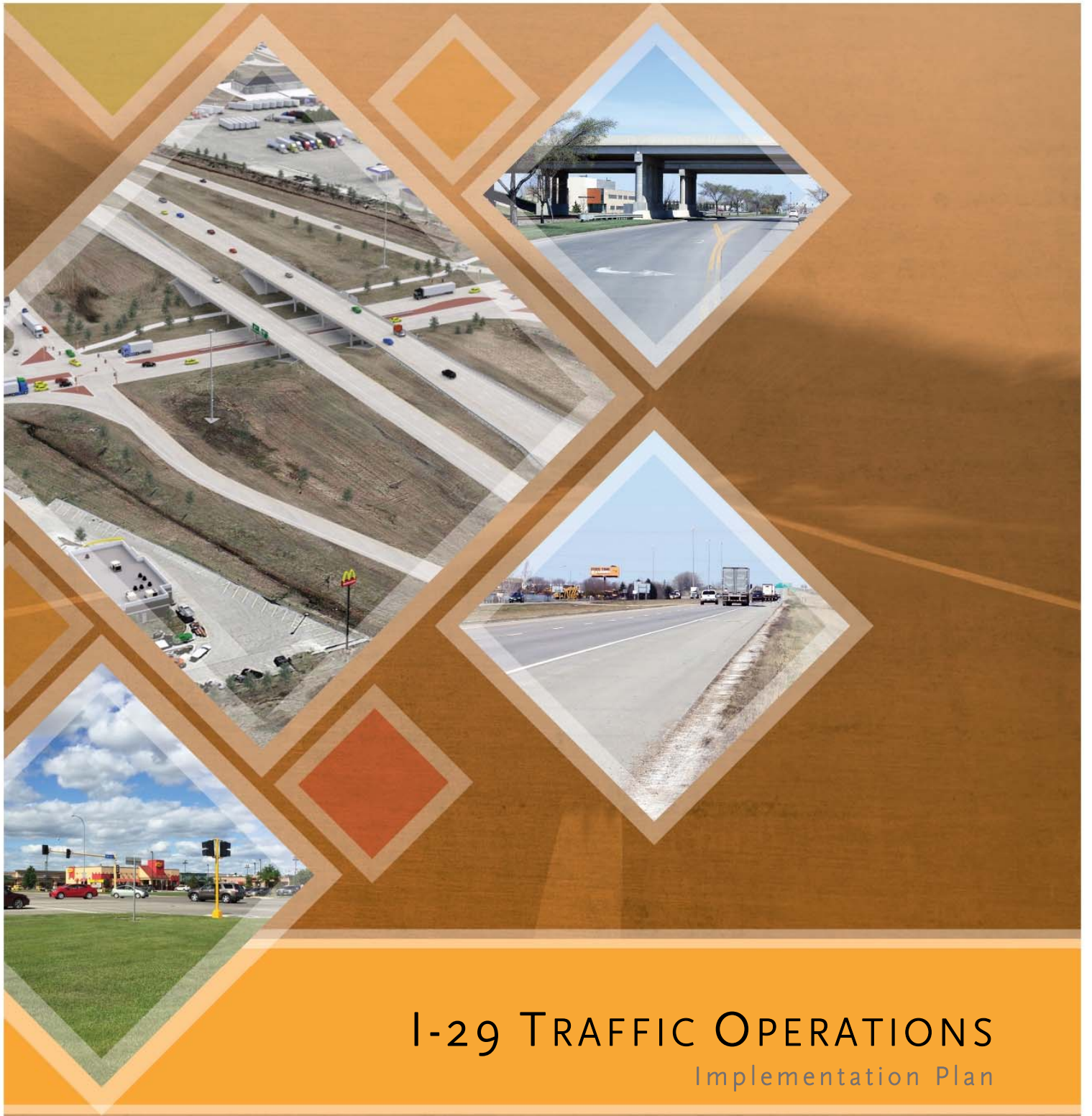


Figure 7-36. Stilted Diamond with South Loops Interchange Alternative for 4th Avenue







I-29 TRAFFIC OPERATIONS

Implementation Plan



8. IMPLEMENTATION PLAN

INTENT

The Implementation Plan for the I-29 Corridor Study is intended to assist the creation of an overall project development and programming architecture for interrelated infrastructure needs throughout the study area. To achieve full build out of the envisioned corridor improvements, a full complement of investments are needed from the City of Grand Forks, Grand Forks County and NDDOT. The GF-EGF MPO Transportation Improvement Program (TIP) will also be a critical tool to implement improvements along the I-29 Corridor.

Major investments identified by the I-29 Corridor Study were related back to the currently approved goals within in the 2040 GF-EGF MPO LRTP. Table 8-1 shows the relationship between the 2040 LRTP Goals and major investments discussed through the I-29 Corridor Study.

Table 8-1: Linkages to the LRTP Goals

Project	LRTP Goals							
	Economic Vitality	Security	Accessibility & Mobility	Environmental/ Quality of Life	Efficient System Management	Integration & Connectivity	System Preservation	Safety
North Washington/CR 11/US 81								
Access Modification + Ramp Modification			x				x	x
Gateway Drive/US 2								
Northeast Loop Modification	x	x	x				x	x
Gateway Drive Grade Separation	x	x	x	x		x		x
DeMers Avenue/ND 297								
42nd Street Grade Separation	x	x	x	x	x	x		x
Capacity Enhancements (No Bridge Widening)	x		x				x	x
32nd Avenue/US 81B								
Reconstruct 38th Street to Columbia Road	x		x				x	
47th Avenue								
Construct New Interchange	x	x	x	x			x	
Merrifield Road/CR 6								
Modify Overpass to Full Interchange	x	x	x					

Figure 8-1 demonstrates the overall range of identified projects for the I-29 Corridor. Note that identified non-interstate rehabilitation projects on Gateway Drive/US 2 and 32nd Avenue/US 81B are included in this discussion. Their inclusion is done so due to their impact on investments in projects directly related to the I-29 Corridor Study. The development of the I-29 Corridor Study identifies several improvements which are dependent upon each other (E.g. 32nd Avenue/US 81B and 47th Avenue), therefore coordinating the various parts of several individual projects is critical to realize the full implementation of significant infrastructure along the I-29 corridor. To assist with initiating a trajectory towards completion of the most essential projects along the I-29 Corridor, the Implementation Plan lays a framework for moving projects into project development and eventual implementation.

The plan has been developed with three distinct stages. Given the complexity of several projects identified within the I-29 Corridor Study, several projects will take five to 10 years (or more in some cases) to complete project development activities. The most challenging aspect of implementation of the I-29 Corridor Study will be the actual programming of local, state and federal funds. It is important to recognize that as a corridor level study, the I-29 Implementation Plan is not cost constrained; it demonstrates the orchestration of needed next steps to achieve full build out and is based on needs identified in previous phases of this report, occasionally influenced by pavement reconstruction needs and schedules. Of

those improvements included in the I-29 Corridor Study, none are currently cost constrained in the GF-EGF MPO Long Range Transportation Plan (LRTP).

NEEDS COMPARISON

Comparing needs for different improvements can be a very complicated process. For example, how do you compare a railroad grade separation improvement to a new interchange to a new loop? A railroad grade separation generates major delays but only occurs a few times per day, mostly during off-peak periods. A new interchange may provide massive relief for several hours of the day but may not be needed for several years.

The current Transportation Improvement Program (TIP) process utilizes a project scoring and ranking process. A more technically based project specific evaluation process was needed to support the I-29 Corridor Study Implementation Plan. To assess needs, a five point needs index was developed to show relative need. This starts with the technical information compiled in this study and other studies as necessary to compare quantified benefits. Quantified benefits incorporate vehicle hours of delay, vehicle miles travelled and crash reduction factors. For example, the 2040 yearly quantified benefits for an interchange at 47th Avenue is \$3.2 million and for a railroad grade separation at 42nd Street and DeMers Avenue is \$0.6 million. Where quantified benefits were not readily availability, level of service and railroad crossing exposure were compared.

This information was used to provide an educated estimate of need for every improvement over \$1 million for existing, 2025 and 2040 time periods. This information will be refined by the Steering Committee. The results are illustrated in Table 8-2.

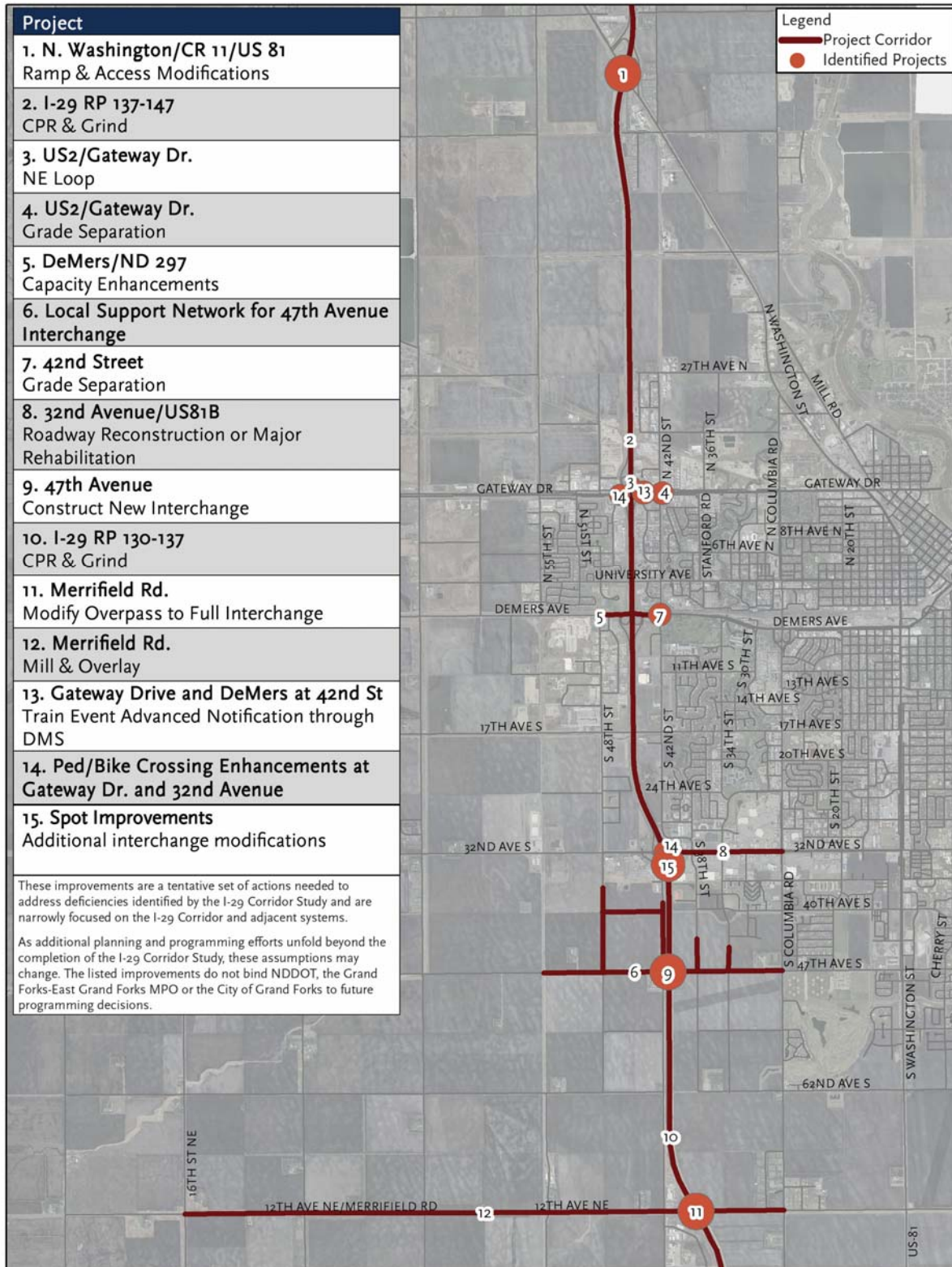
Table 8-2: Needs by Year

Location	Improvement	Need			Notes
		Existing	2025	2040	
North Washington Street/CR 11/US 81	Interchange and Access Improvements	0	0.5	1	The Washington Street improvements are preventive in nature and not based on quantified deficiencies.
Gateway Drive/US 2	Interchange Improvements	1	2	5	The Gateway Drive interchange operates at LOS "F" by 2040.
	Railroad Grade Separation	2	2.5	3	Queuing onto the interstate when train events and peak hours coincide. The railroad grade separation has a crossing exposure of 245,000 by 2040.*
DeMers Avenue/ND 297	Interchange Improvements	2	4	5	The DeMers Avenue interchange operates at LOS "E" by 2025 and LOS "F" by 2040.
	42nd Street Railroad Grade Separation	3	3.5	4	The grade separation has a yearly quantified benefit of \$0.6 million dollars by 2040 and crossing exposure of 749,700 by 2040.*
32nd Avenue/US 81B	New Interchange at 47th Avenue	2	5	5	32nd Avenue Operates at LOS "F" by 2025, has a yearly quantified benefit of \$3.2 M by 2040.
Merrifield Road/CR 6	New Interchange	2.5	3	3.5	The Merrifield Interchange has a yearly quantified benefit of 2.4 million dollars by 2040.

0 = No need, 5 = Greatest Need

* Based on previous study, may require updating

Figure 8-1: Full Build



PROJECT IMPLEMENTATION PHASES

Three distinct project implementation phases have been developed to support the I-29 Corridor Study. Given both the complexity and interrelationships of several projects, each implementation phase is structured to show the gradual progression of projects from the I-29 Corridor Study (planning phase) further into project development and towards eventual programming and construction.

COMMITTED PROJECTS & SHORT RANGE: 2017 - 2025

The first phase of the implementation plan includes the period of the imminent GF-EGF TIP plus the next four years thereafter. This window also matches the interim modeling period (2025) developed for the I-29 Corridor Study. The imminent TIP for the GF-EGF MPO will include regionally significant local, state and federal projects to the year 2021. Therefore project needs for the years 2017 to 2021 are considered committed. The only committed project within the I-29 Study area is the recently programmed Mill & Overlay of Merrifield Road (CR 6) from CR 5 to Columbia Road. Even still, many significant smaller scale improvements, all costs estimates are below \$1 million, have scalable programming limits such that they could move into the TIP in the short range.

- **ITS Queue Flushing Preemption at Gateway Drive/US 2 and 32nd Avenue/US 81B:** Improvement will help reduce potential for queuing to and onto the Interstate until permanent interchange improvements can be built. The cost of this improvement is estimated at \$60,000 for the three ramps.
- **Train Event Advanced Notification through DMS at Gateway Drive/US 2 and 42nd Street Railroad Crossings:** This improvement will help reduce potential for queuing to and onto the Interstate until grade separation can permanently resolve problem. A more detailed evaluation of communication mechanisms between the railroad crossings and NDDOT DMS system needs to be completed prior to developing a reliable cost estimate.
- **Pedestrian Crossing Enhancements at Gateway Drive/US 2 and 32nd Avenue/US 81B:** Improvements to signalize crossings of the ramp and across 32nd Avenue and Gateway. The cost of this improvement is estimated at \$100,000 for the three ramps.

Figure 8-4 demonstrates the short-range phase of project implementation efforts required to realize the gradual build out of the I-29 Corridor Study. Cost shown demonstrate a year of expenditure estimate to the mid-range of the phase for which construction is anticipated per the I-29 Corridor Study. Projects in the short-range are adjusted to YOE of 2022. Table 8-3 demonstrates a more descriptive dialogue of the implementation efforts needed at each phase of implementation for the most significant projects.

Table 8-3 should be treated as a tentative set of actions needed to address needs identified by the I-29 Corridor Study. As additional planning and programming efforts unfold beyond the completion of the I-29 Corridor Study, these assumptions may change.

MID-RANGE 2026-2030

This phase of implementation represents the midyear of the current LRTP. The stage of the implementation plan would be considered a mid-range set of action items. Figure 8-5 demonstrates the mid-term phase of project development efforts required to implement the I-29 Corridor Study.

Costs shown demonstrate a year of expenditure estimate to the mid-range of the phase for which construction is anticipated per the I-29 Corridor Study. Projects in the mid-range are adjusted to YOE of 2028. Included in Figure 8-5 are two NDDOT planned Concrete Pavement Repair (CPR) projects which have been tentatively defined by the Grand Forks District. These CPR projects are related study area investments, even if not directly related to earlier recommendations of the I-29 Corridor Study. Table 8-3 demonstrates a more descriptive dialogue of the implementation efforts needed at each phase of implementation for the most significant projects. Table 8-3 should be treated as a tentative set of actions needed to address needs identified by the I-29 Corridor Study. As additional planning and programming efforts unfold beyond the completion of the I-29 Corridor Study, these assumptions may change.

LONG RANGE: 2031-2040+

This stage represents year 11 and beyond the current TIP and extends to the life of the current 2040 Long Range Transportation Plan (LRTP). Figure 8-6 demonstrates the long-range phase of project development efforts required to implement the I-29 Corridor Study.

Costs shown demonstrate a year of expenditure estimate to the mid-range of the phase for which construction is anticipated per the I-29 Corridor Study. Projects in the mid-range are adjusted to YOE of 2036. Table 8-3 demonstrates a more descriptive dialogue of the implementation efforts needed at each phase of implementation for the most significant projects. Table 8-3 should be treated as a tentative set of actions needed to address needs identified by the I-29 Corridor Study. As additional planning and programming efforts unfold beyond the completion of the I-29 Corridor Study, these assumptions may change.

STAGES OF PROJECT DEVELOPMENT & DELIVERY

The I-29 Implementation Plan assists with stratifying the stage of planning and project development required to deliver each of the above mentioned projects. This is specifically important for more of the complex projects and for those projects which will require additional scoping to move out of the planning phase and deeper into advanced project development. The Implementation Plan has been developed around the following generalized Stages of Project Delivery:

- **Planning & Environmental (Preliminary Engineering/Scoping):** Reflects additional planning or project level scoping to continue to define and delineate alternatives and project feasibility. This phase also includes the transition into the development of relevant environmental documentation. In many cases, the alternatives developed as part of the I-29 Corridor Study are assumed to be ready to move further into project development (i.e. environmental/NEPA). In the case of interchanges at 47th Avenue and Merrifield Road/CR 6, this phase includes completion of an IJR. However, some of these actions may not result in a signed environmental document until such time as Federal funds are programmed, or FHWA fiscal constraint requirements can be met.
- **Right-of-Way, Design and Construction (Advanced Project Development):** Reflects efforts following completion of a signed environmental document. These are stages of advanced project development involving actual final design and right of way. Included in this phase would also be efforts to secure final programming (or project selection). Advanced project development includes the construction phase.

The implementation plan will assign one of these two general categories to identified improvements listed in the I-29 Corridor Study. Smaller less significant projects which will likely fit more easily into the GF-EGF TIP or move quickly in the first phase or two are not noted. For more complex projects, the transition through these stages is more gradual, and more thoughtfulness is needed on how these projects continue to transition out of planning and further into project development.

32ND AVENUE/US 81B NEEDS

Due to the major investment needed at 32nd Avenue/US 81B, and the coordinated needs between 32nd Avenue/US 81B and 47th Avenue, additional analysis was completed to determine the approximate thresholds where 32nd Avenue/US 81B begins to breakdown. This analysis increased the modeled traffic volumes based on linear growth between the existing and approved 2025 ADT projections and then between the approved 2025 ADT and 2040 ADT projections.

- According to the 2025 P.M. peak hour analysis, deficiencies along the corridor emerged. However, there are key issues that emerge before 2025.
 - » At around 40 percent (2019) of the growth between 2015 and 2025, deficient operations are expected at 38th Street.
 - » By 70 percent (2022) of the growth between 2015 and 2025, the northbound off-ramp begins to queue onto the interstate.
 - » By 2025, deficient operations are expected at the West Ramp, East Ramp and 38th Street intersections during the P.M. peak hour.

- With the Spot Improvements on 32nd Avenue/US 81B, 2025 operations are improved to LOS “D” across the corridor. However, as growth continues capacity constraints on the overpass bridge begin to emerge around 2030, or 30 percent of growth expected between 2025 and 2040. The capacity constraints result in deficient operations at the West Ramp intersection and queues onto the interstate.

Figure 8-2: 2015 to 2025 Growth Thresholds with Existing Configuration on 32nd Avenue/US 81B

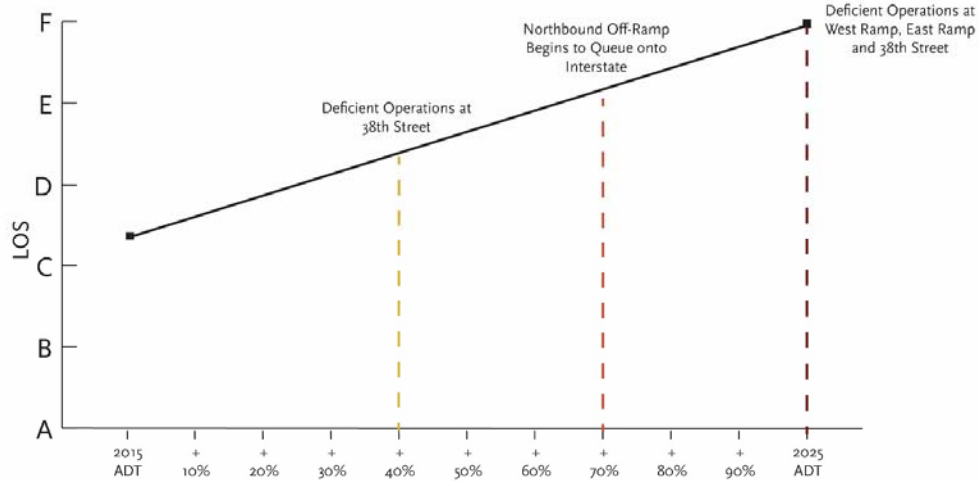
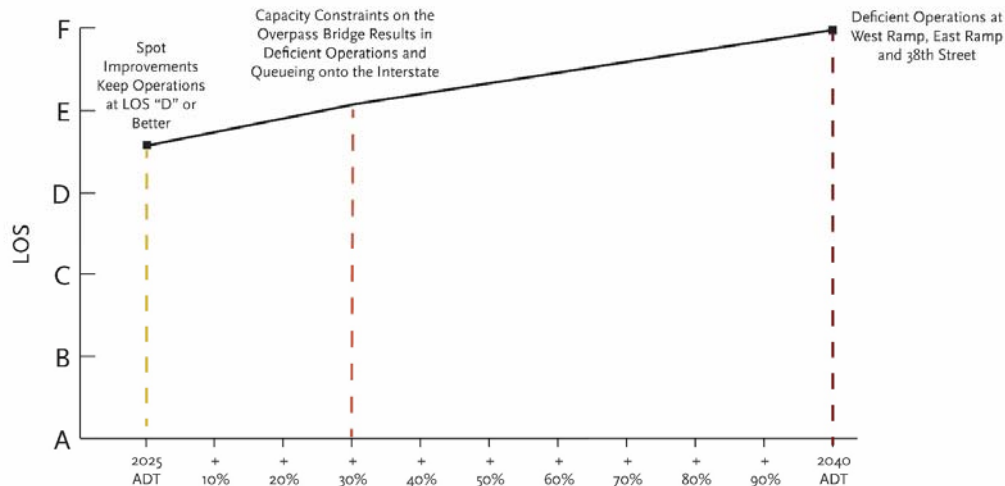


Figure 8-3: 2025 to 2040 Growth Thresholds with Spot Improvements on 32nd Avenue/US 81B



ANCILLARY INVESTMENTS TO SUPPORT 47TH AVENUE INTERCHANGE

As noted, the Implementation Plan for the I-29 Corridor Study is not cost constrained. Further, it is a demonstration of needed improvements more narrowly focused on the I-29 Corridor and adjacent systems. To that end, development of a future interchange at 47th Avenue will require substantial additional investment in local roadways. In current year dollars, total needs to provide local roadway system to support 47th Avenue is estimated at nearly \$17.0 million. This system of roadways is shown as part of Figure 8-1 and Figure 8-4, and includes extension and/or completion of 34th Street, 38th Street,

42nd Street, 47th Street, 48th Street and 40th Avenue. These needs are necessary to support the development of the 47th Avenue interchange and outpace constrained and unfunded needs listed in the 2040 LRTP or Grand Forks CIP. These improvements could be considered the minimum commitment in local roadway investments to achieve FHWA or NDDOT support for a new interchange at 47th Avenue.

Table 8-3: Implementation Matrix

Project	Implementation Phase		
	2017-2025	2026-2030	2031 -2040+
North Washington/CR 11/US 81			
Access Modification + Ramp Modification	No Action	Reevaluate potential access changes and ramp modifications as part of scoping process for I-29 CPR Project (2030). Develop more detailed programming assessment for these improvements at that time.	If no action taken in previous phase, reevaluate to reflect changing conditions.
Gateway Drive/US 2			
Northeast Loop Modification	No Action	No Action	Proceed with planning level alternative into preliminary engineering and advanced project development. Program in TIP.
Gateway Drive Grade Separation	Evaluate region wide project need with 2045 LRTP Update to determine relative regional significance.	Develop additional planning/scoping documents to assist to further refine alternatives and feasibility.	
DeMers Avenue/ND 297			
42nd Street Grade Separation	Complete Preliminary Engineering. Complete NEPA. Move into Advanced Project Development. Secure Project Programming.	Advanced Project Development. Secure Project Programming (if applicable)	
Demers Capacity Enhancements (No Widening)	Preliminary Engineering. Move into Advanced Project Development.		
32nd Avenue/US 81B			
Reconstruct or Major Rehabilitation 38th Street to Columbia Road	Evaluate project concepts with 2045 LRTP update. Preliminary Engineering. Evaluate capacity needs based on progress of 47th Avenue Interchange implementation.	Advanced Project Development. Project developed in step with the coordinated efforts for future 47th Avenue Interchange.	
Interim Improvements	Preliminary Engineering. Move into Advanced Project Development.		
47th Avenue			
Construct New Interchange	Initiate IJR. Complete NEPA	Advanced Project Development. Secure Project Programming.	
Merrifield Road/CR 6			
Modify Overpass to Full Interchange	No Action	Update IJR and restart project scoping. Consider potential coordination with I-29 CPR Project (2030).	Proceed into Advanced Project Development.
Planning & Environmental			
Advanced Project Development & Programming			
Planning, Environmental + Advanced Project Development			

Figure 8-4: Short Term Implementation Plan (2017-2025)

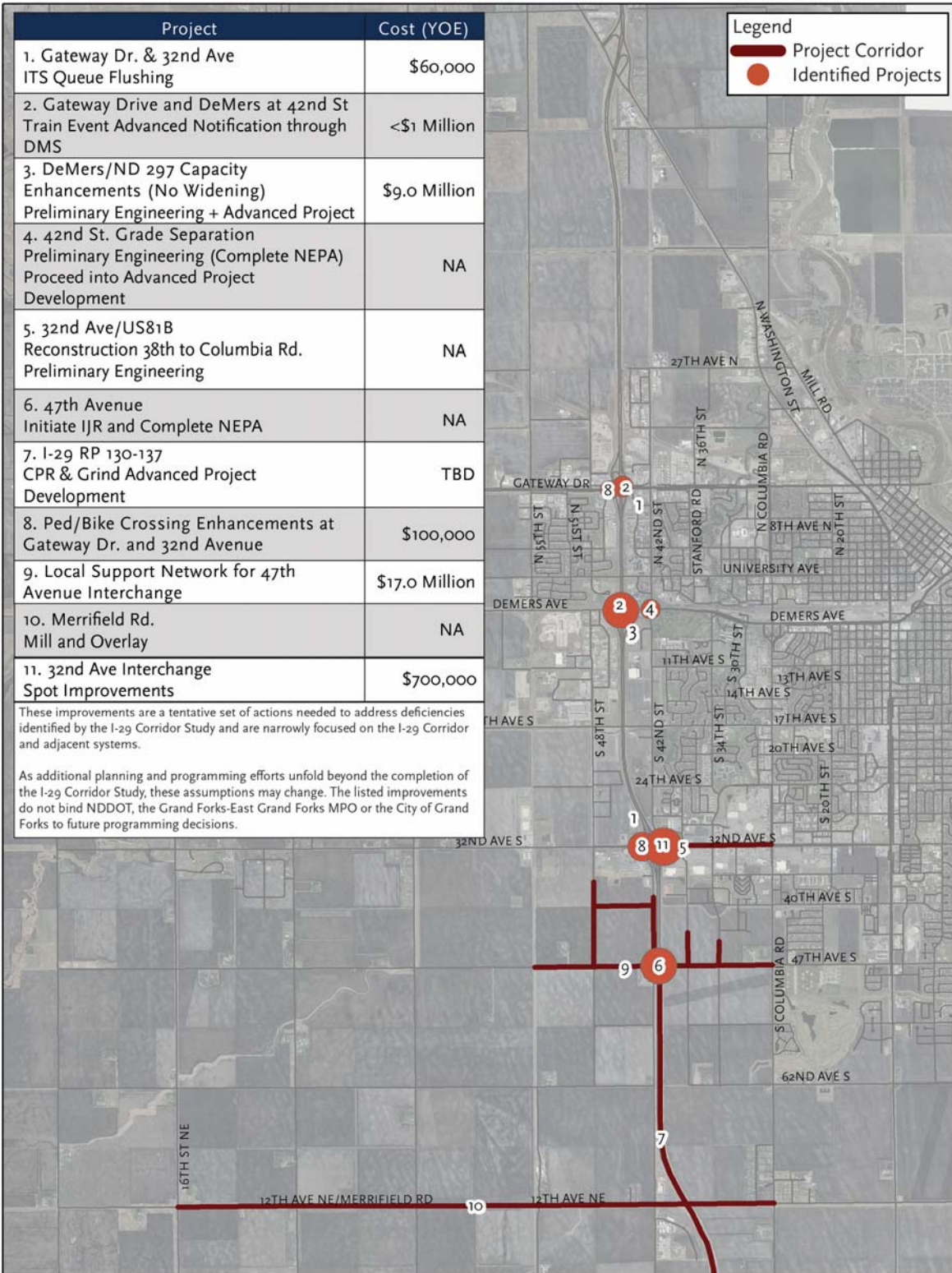


Figure 8-5: Mid Term Implementation Plan (2026-2030)

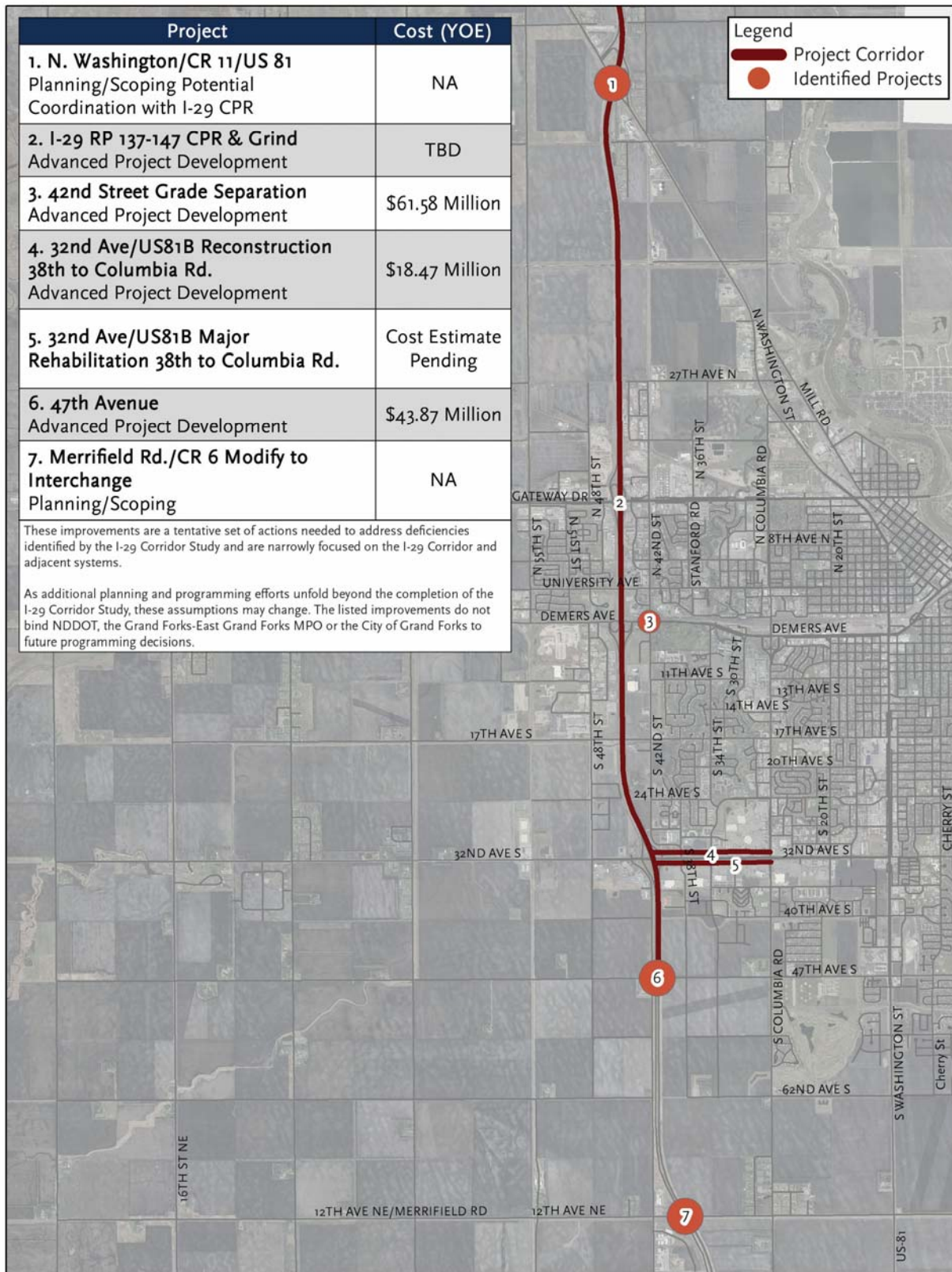
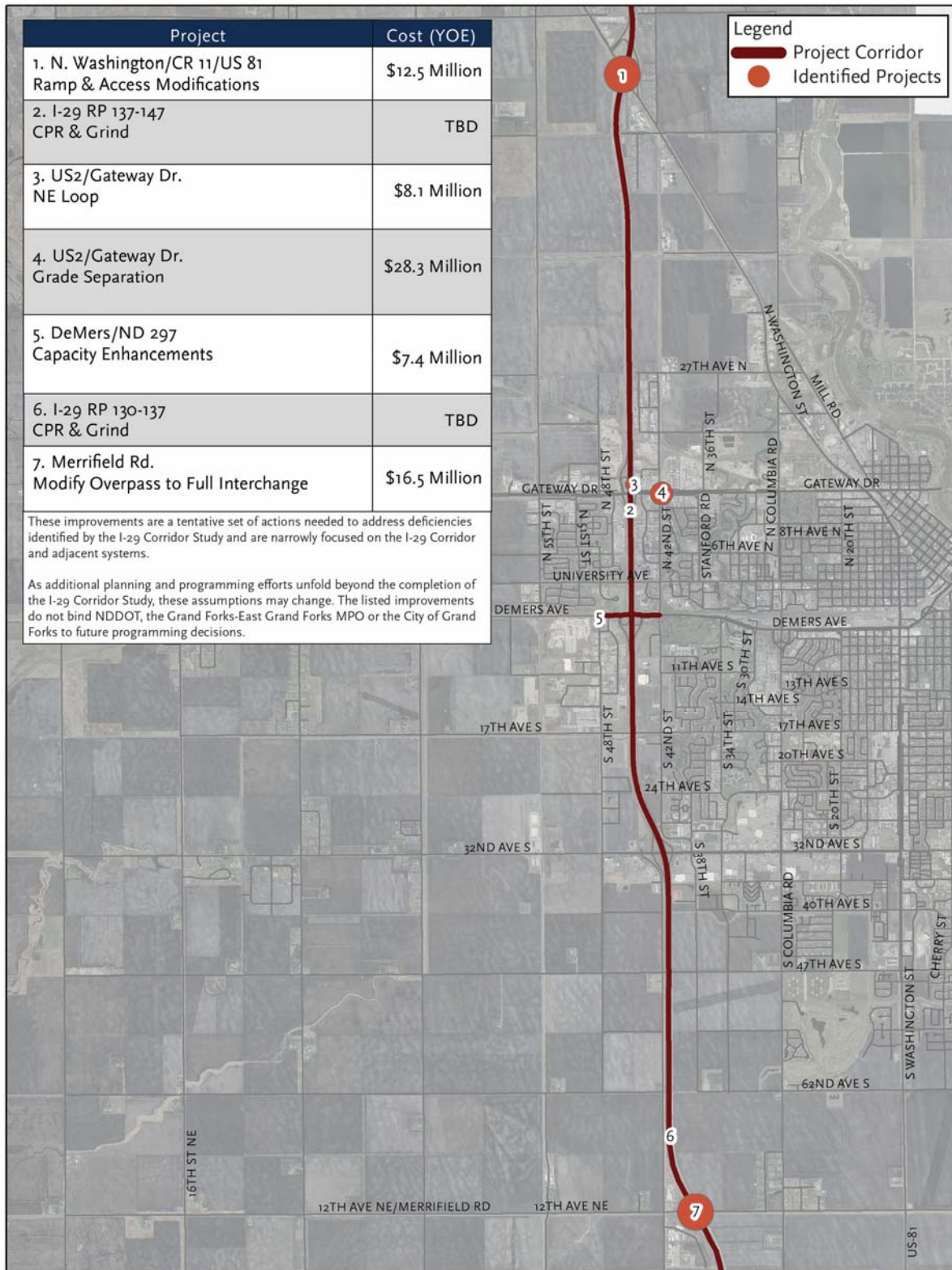


Figure 8-6: Long Term Implementation Plan (2031 - 2040+)



PROGRAMMING MATRIX

Given the range of investment needs along the I-29 Corridor, a multitude of funding partnerships will be needed to bring projects to fruition. Table 8-4 demonstrates a Programming Matrix to assist with understanding the funding strategy for implementation of the I-29 Corridor Study. The following programming matrix identifies the broad funding partnership for each of the prioritized improvements identified in the I-29 Implementation Plan. Excluded from the programming matrix are projects with a total cost less than \$1.0 million.

Table 8-4: Programming Matrix

Project	Programming					
	Interstate Maintenance (NHPP)	Regional (NHPP)	Urban (STP)	State	City	County
North Washington/CR 11/US 81						
Access Modification + Ramp Modification	x	x		x		x
Gateway Drive/US 2						
Northeast Loop Modification	x	x	o	x	o	
Gateway Drive Grade Separation		x	o	x	o	
DeMers Avenue/ND 297						
42nd Street Grade Separation		o	x	o	x	
Demers Capacity Enhancements (No Widening)	o	x	o	x	x	
32nd Avenue/US 81B						
Reconstruct 38th Street to Columbia Road		x	o	x	x	
47th Avenue						
Construct New Interchange	x		o	x	o	
Merrifield Road/CR 6						
Modify Overpass to Full Interchange	x		o	x	o	o

x = Eligible Program Participant o = Eligible but not required Program Participant
 Not shown but relevant would be the FAST Freight Program. Assumes these funds would be allocated through NHPP.

Funding splits and cost sharing agreements for each project listed in Table 8-4 may vary based on the uniqueness of how projects are developed. However, the baseline guidance for project cost eligibility and cost sharing is per the *NDDOT Local Government Manual*. In regard to NHPP funds, NDDOT must address statewide needs with these funds so investments of NHPP funds within the study area are balanced by NDDOT against statewide needs.

Projects such as Merrifield Road (CR 6) are currently fully within the jurisdiction of Grand Forks County. However, by the time a full interchange nears project development, it may well be inside of Grand Forks city limits. Therefore, programming participation is shown for both the city and county. Projects on or adjacent to the NDDOT Regional System (i.e. 42nd Street Grade Separation) are shown with a potential for Regional funding. Urban funds are shown on both Regional and or Interstate projects. This is done to indicate that broad partnerships may be needed to fully program these investments on a more accelerated time frame.

PROGRAMMING SPLITS

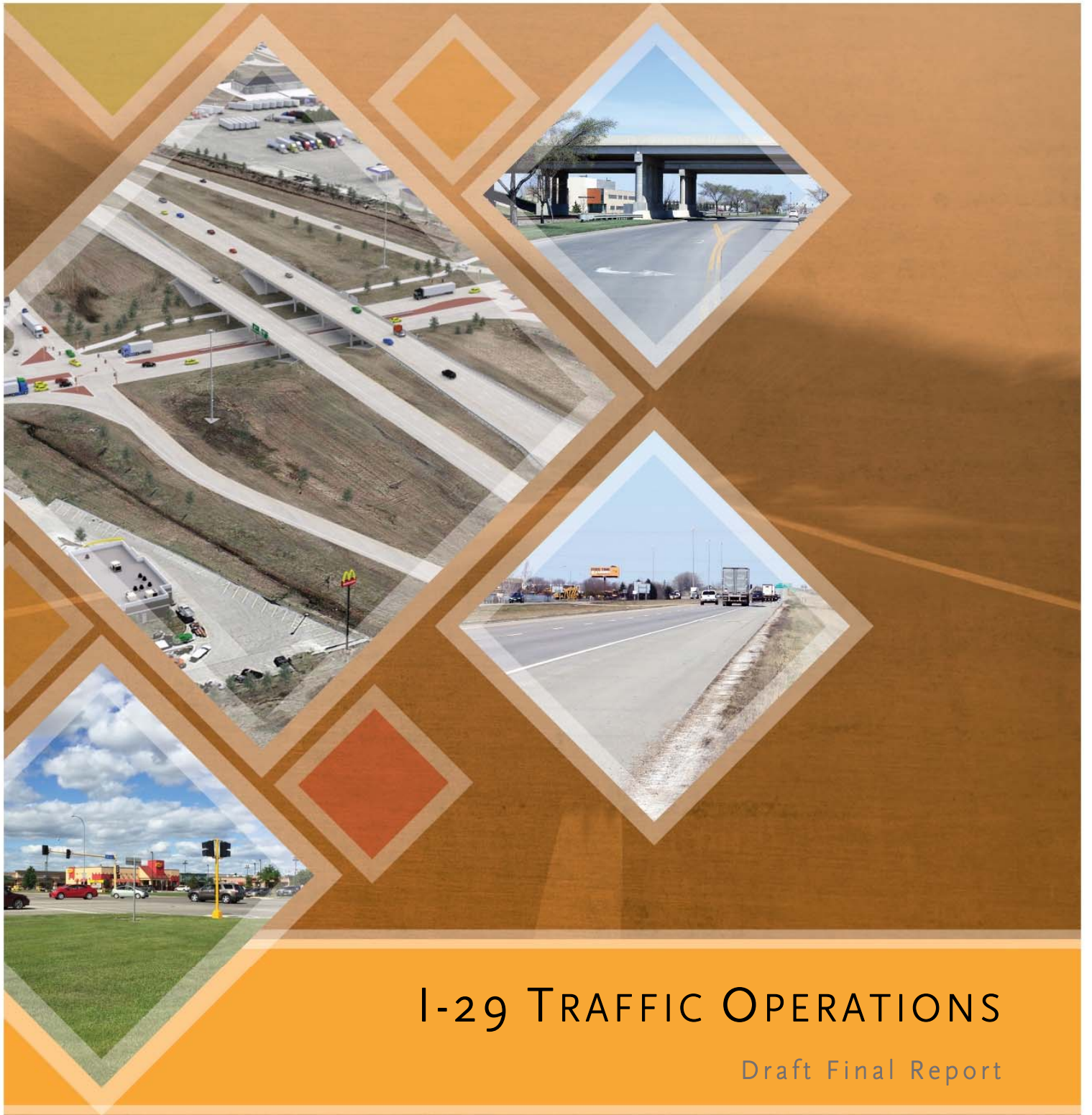
Table 8-5 demonstrates a tentative set of programming and cost splits for the most significant project improvements identified through the I-29 Corridor Study. These cost splits are based upon current local, state and federal funding guidance. More specific guidance regarding local, state and federal funding splits is available in the *NDDOT Local Government Manual*. These splits generally follow that guidance, however Table 8-5 represents a best-case scenario. It is likely many of these improvements will require more local resources to construct improvements in the phases identified by the I-29 Corridor Study.

Table 8-5: Funding Matrix

Project	Total Cost (2017 \$)	Total Cost (YOE \$)	Funding Split (YOE \$)			
			Federal	State	City	County
North Washington/CR 11/US 81						
Access Modification + Ramp Modification	\$5.700	\$12.489	\$9.99	\$1.25	\$0.000	\$1.25
Gateway Drive/US 2						
Northeast Loop Modification	\$6.600	\$14.461	\$11.57	\$1.45	\$1.45	\$0.000
Gateway Drive Grade Separation	\$28.300	\$62.009	\$49.61	\$6.20	\$6.20	\$0.000
DeMers Avenue/ND 297						
42nd Street Grade Separation*	\$40.000	\$61.578	\$21.55	\$0.000	\$40.026	\$0.000
Capacity Enhancements (No Bridge Widening)	\$7.400	\$9.003	\$7.20	\$0.90	\$0.90	\$0.000
32nd Avenue/US 81B						
Reconstruct 38th Street to Columbia Road	\$12.000	\$18.473	\$14.78	\$1.85	\$1.85	\$0.000
47th Avenue						
Construct New Interchange	\$28.500	\$43.874	\$39.49	\$4.39	\$0.000	\$0.000
Merrifield Road/CR 6						
Modify Overpass to Full Interchange	\$16.480	\$36.110	\$32.50	\$3.61	\$0.000	\$0.000

* 25% Urban Roads + 10% Regional; Balance of cost Local

**YOE costs were estimated using the midpoint of the implementation phase for which they are anticipated to be constructed.



I-29 TRAFFIC OPERATIONS

Draft Final Report

APRIL 2017





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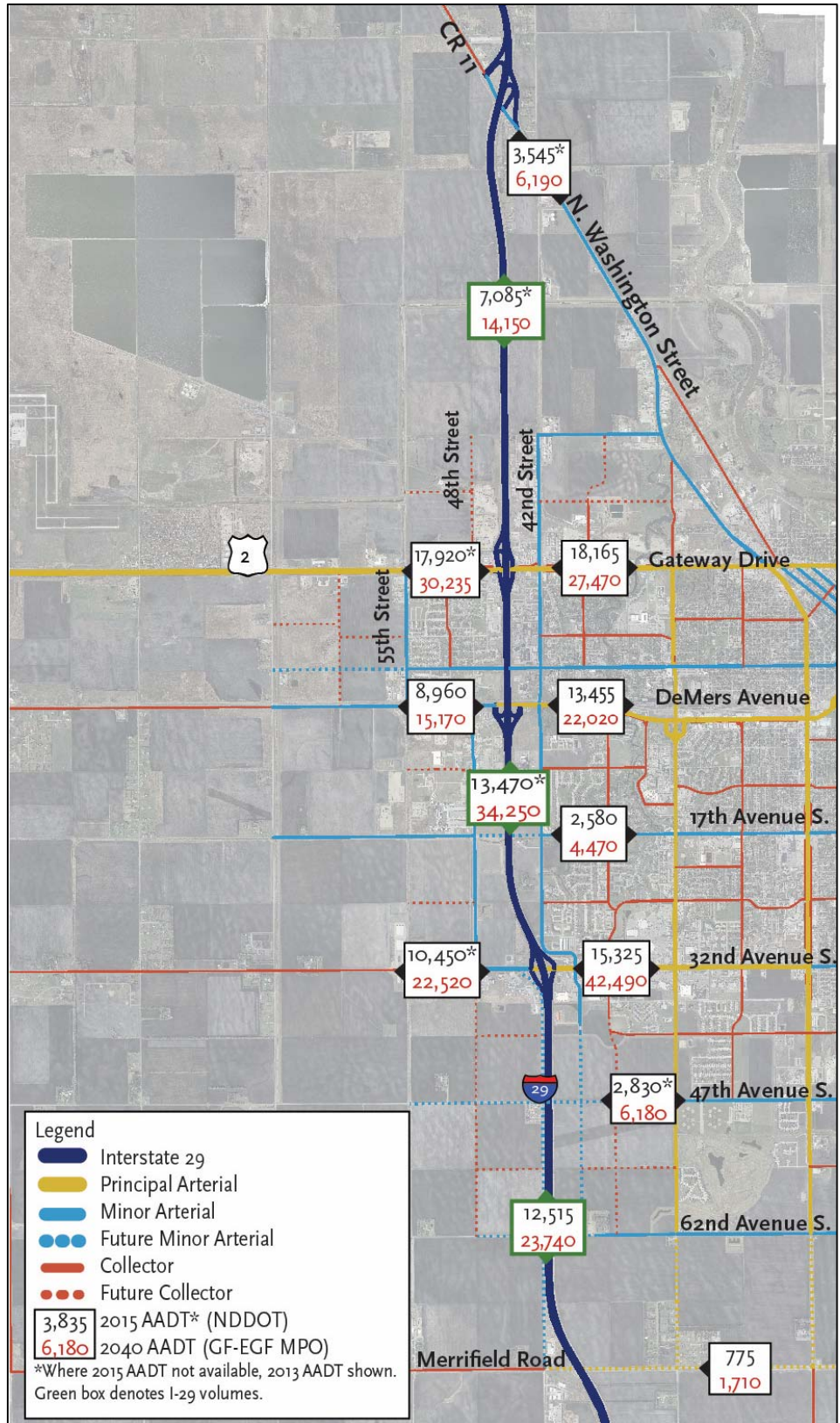
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1. EXECUTIVE SUMMARY

Interstate 29 (I-29) is one of the most widely traveled corridors in the area and is critical to the region's economic vitality. This corridor serves many purposes: moving freight, providing regional access to the University of North Dakota (UND) campus, special event travel (Alerus Center), out-of-town shoppers and daily commuters. While intended to provide regional accessibility and mobility, this corridor provides local accessibility and mobility as well.

I-29 runs through the City of Grand Forks on a north-south alignment near the city's western border. Three interchanges and one overpass are located along I-29 in Grand Forks at Gateway Drive/ US Highway 2, University Avenue (overpass), DeMers Avenue/ North Dakota Highway 297 and 32nd Avenue South/ US Highway 81B. Just north of Grand Forks, an interchange is located at North Washington Street/ Grand Forks County Road 11/ US Highway 81. Just south of Grand Forks, an overpass is located at Merrifield Road/ Grand Forks County Road 6. These interchanges, overpasses and the areas of I-29 in between comprise the 10-mile study area, as shown in Figure 1-1.

Figure 1-1: Study Area



STUDY APPROACH

The study approach for this project was based on three phases, which began with issues identification, moved to developing an improvement plan and ended with plan approval. Each phase contained intermediate memos, review from the Steering Committee and public input opportunities. The phases are summarized below, with the intermediate memos and public input summary in the appendices.

Figure 1-2: Study Process



PUBLIC INPUT

Each phase included stakeholder and public engagement with Steering Committee meetings, public input meetings and updates to the MPO's Technical Advisory Committee. A summary of the engagement efforts can be found in Appendix F.

STEERING COMMITTEE

The Steering Committee was a diverse group of stakeholders with varying interests along the corridor. Members of the Steering Committee included:

- FHWA North Dakota
- NDDOT Grand Forks District
- NDDOT Local Government
- NDDOT Traffic Operations
- Grand Forks – East Grand Forks Metropolitan Planning Organization
- Grand Forks County Engineering
- Grand Forks County Planning and Zoning
- City of Grand Forks Engineering
- City of Grand Forks Planning and Community Development

MPO TECHNICAL ADVISORY COMMITTEE

The Grand Forks – East Grand Forks Metropolitan Planning Organization has a standing committee, the Technical Advisory Committee (TAC) that advises their governing body, the Policy Board on technical matters. Members on the TAC represent Grand Forks, East Grand Forks, Cities Area Transit, Airport Authority, NDDOT and MnDOT.

ISSUES IDENTIFICATION

The purpose of this phase was to establish the current and future needs and opportunities for the corridor.

INTERMEDIATE MEMOS

The issues identification phase was comprised of four intermediate memos which established the existing and future conditions of the study area, operations during special events and the environmental constraints.

- The Existing Conditions analysis identified existing conditions along the study corridor, including land use, traffic operations, safety, multimodal facilities, infrastructure conditions, lighting and access management.
- The Future Conditions analysis identified future conditions along the study corridor through refined traffic forecasts based on a variety of scenarios. It developed 2025 and 2040 traffic projections and operations.
- Alerus Center Events analysis evaluated the impacts a major event at the Alerus Center, located west of I-29 between Gateway Drive/US 2 and DeMers Avenue/ND 297, has on current and future operations of the interstate.
- The Environmental Constraints analysis identified the affected environment and established the purpose and need for the project, which was used later to evaluate alternatives.

MPO TECHNICAL ADVISORY COMMITTEE UPDATES

Throughout this stage there were two updates to the TAC, which included a brief summary of the analysis completed for the existing conditions analysis, future conditions analysis, environmental constraints and the events conditions analysis.

STEERING COMMITTEE MEETINGS

There were two Steering Committee meetings during this phase; the first reviewed the existing conditions and the second reviewed the future conditions, environmental constraints and the events analysis. Each of the Steering Committee Meetings included a technical presentation and discussion where the Steering Committee was given the opportunity to identify additional issues and provide feedback. Comments received from these meetings have been incorporated into the report.

PUBLIC ENGAGEMENT

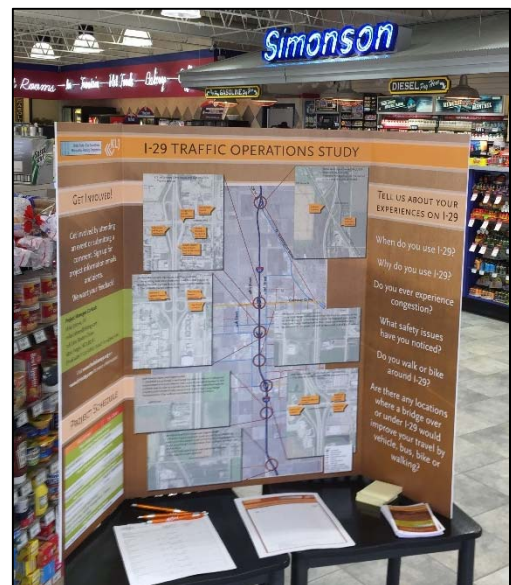
Public Input Meeting #1

The first public input series was held on April 14th, 2016, with the intent to gather feedback on existing and future issues within the I-29 corridor study area. The series consisted of three meetings held throughout the day at various locations along the study corridor, including

- Columbia Mall on South Columbia Road from 12:30 to 2:30 P.M.
- Simonson Station Store on 4720 Gateway Drive from 2:45 to 4:45 P.M.
- Alerus Center at 1200 South 42nd Street from 5 to 7 P.M.

The Columbia Mall and Simonson Station Store meetings were informal discussions including a display board and members of the study team on-hand to answer questions. The Alerus Center meeting was an open house format with a formal presentation.

Figure 1-3: Pop-Up Meeting at Simonson Station Store



A variety of techniques were used to inform the public about their opportunity to comment on the project.

- A press release and box ad were published 10 days before the meeting.
- Information was posted on www.drivei29.com.
- Fliers were distributed to the Steering Committee, the Grand Forks Region Economic Development Council, Grand Forks City Commission and the Grand Forks County Commission.
- Advertisement on the Dynamic Message Signs north and south of Grand Forks on I-29.

Fifteen people attended one of the three meetings held throughout the day. Including four at the Columbia Mall, three at the Simonson Station Store and eight at the Alerus Center.

IMPROVEMENT PLAN DEVELOPMENT

The improvement plan phase evaluated high level infrastructure scenarios, specific improvement opportunities and a plan for implementation.

INTERMEDIATE REPORTS

The improvement plan development phase was comprised of three intermediate memos:

- The Macro-Level Alternatives analysis used the project purpose and need statement, cost-benefit analysis and cost-effectiveness analysis to evaluate a variety of grade separations, interchanges and red river crossings that altered regional traffic patterns to reduce network wide delay and miles travelled and should be included in future infrastructure scenarios.
- The Micro-Level Alternatives analysis evaluated each of the four existing interchanges and two future interchange opportunity locations to identify necessary improvements such as loops, lane configurations, traffic control, turn lanes and other improvements.
- The Implementation Plan created a project development and programming framework for infrastructure needs throughout the study area.

MPO TECHNICAL ADVISORY COMMITTEE UPDATES

Throughout this stage there were two updates to the TAC. The first occurred after the Macro Level Analysis was completed, which presented the infrastructure scenarios to be carried forward for further analysis. The second occurred after the Micro Level Analysis which presented alternatives based on the analysis and Value Planning workshop.

STEERING COMMITTEE MEETINGS

There were four Steering Committee meetings during this phase; two occurred during the development of the Macro-Level Alternatives memo, one during the Micro-Level alternatives and one during the Implementation Plan. Comments received from these meetings have been incorporated into the final report.

Figure 1-4: Public Input Meeting Advertisement on DMS along I-29



PUBLIC ENGAGEMENT

The second public input meeting was held on February 16th, 2017, with the intent to gather feedback on the alternatives and the implementation plan. The meeting was held at the Alerus Center at 1200 South 42nd Street from 5:30 to 7:30 P.M. This meeting included an open house and formal presentation. After the presentation, attendees were given ballots to indicate their preference on the alternatives presented and implementation strategies.

A variety of techniques were used to inform the public about their opportunity to comment on the project.

- A press release and box ad were published 10 days before the meeting.
- Information was posted on the project website.
- Fliers were distributed to the Steering Committee, the Grand Forks Region Economic Development Council, Grand Forks City Commission and the Grand Forks County Commission.

Eleven people attended the meeting.

PLAN APPROVAL

The plan approval phase was comprised of project wrap-up activities, including developing the final report and appendices, presenting to guiding committees and agencies, including City, County and State stakeholders and the last public input meeting.

KEY APPENDICES

A variety of supporting information has been included in the appendices to the final report, including the following key items:

- **Interstate Access Justification Report for 47th Avenue** which evaluates the 47th Avenue interchange using FHWA's Eight Policy Points to substantiate the need for an interchange at the 47th Avenue location.
- **Interstate Access Justification Report for Merrifield Road/CR 6** which evaluates the Merrifield road/CR 6 interchange using FHWA's Eight Policy Points to substantiate the need for an interchange at the Merrifield Road/CR 6 location.
- **Public Involvement Summary** includes the meeting materials used to advertise the public input meetings, the materials presented and all comments received.

PRESENTATIONS

This section to be updated when complete.

NDDOT Management Presentation

At the NDDOT Management Meeting, existing and future conditions, as well as all technically feasible alternatives for the study area were presented to NDDOT for comment.

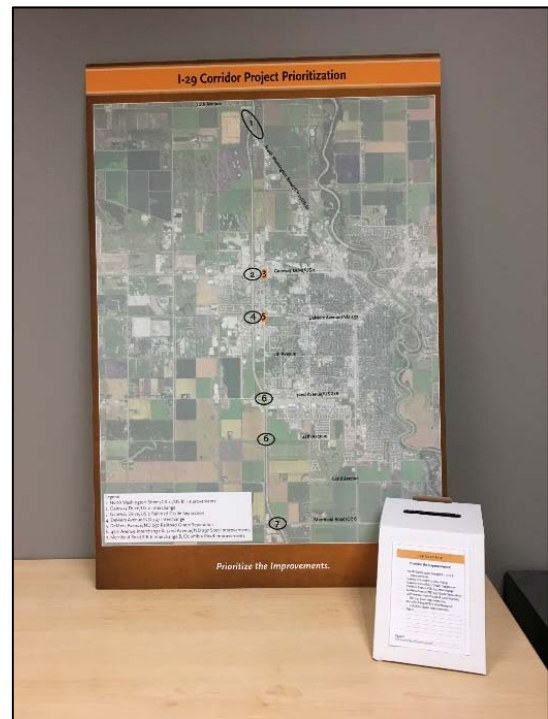
City Council of the Whole

The final report was presented to the Grand Forks City Council of the Whole...

MPO Technical Advisory Committee

The final report was presented to the TAC for comment. ..

Figure 1-5: Voting Ballot Boxes



MPO Policy Board

The final report was presented to the Policy Board for comment...

Public Engagement

The final public input meeting...

SUMMARY OF KEY ISSUES, IMPROVEMENT AND IMPLEMENTATION PLANS

This section presents the key issues identified from the analysis completed in each phase of the report, as detailed above. Each location includes key existing and future issues and opportunities, the prioritized improvements and the implementation plan. The improvements were prioritized based on technical scoring, Steering Committee weighting and ranking and public input. The technical scoring is based on the following criteria:

- Local operations – average delay for the combined intersection operations in seconds per vehicle, estimated using traffic simulation software.
- Mainline operations – average density for the 500-foot upstream section of off-ramps and 500-foot downstream section of on-ramps, estimated using traffic simulation software.
- Environmental impacts – permanent ecological, socioeconomic, business, cultural and recreational impacts.
- Safety – estimated crash potential for rear-end, sideswipe and crossing conflict, estimated using Vissim outputs in FHWA's Supplementary Safety Assessment Model.
- Cost – estimated project cost and construction impacts.

NORTH WASHINGTON STREET/CR 11/US 81

The North Washington Street/CR11/US 81 interchange experiences the least traffic in the study area, carrying fewer than 4,000 vehicles per day. By 2040, this number increases to more than 8,000 vehicles per day. Most traffic through this interchange functional area is coming-from or going-to the city. With interstate access for several large industrial properties this interchange experiences around 33 percent heavy truck traffic. These volumes are unlikely to require major capacity enhancements.

The presence of the Glasston Subdivision on the southwest side of North Washington Street/CR 11/US 81 and skew of the I-29 creates complicated intersection configurations, specifically tight turning radii, leading to truck off-tracking. Additionally, there are no turn lanes along North Washington Street/CR 11/US 81.

In 1.25 miles, there are eight access points. The high posted speeds (55 miles per hour or more), proximity to the interchange functional area and the industrial uses generating relatively high truck traffic makes access management an important element of improving current and future safety.

IMPROVEMENT PLAN

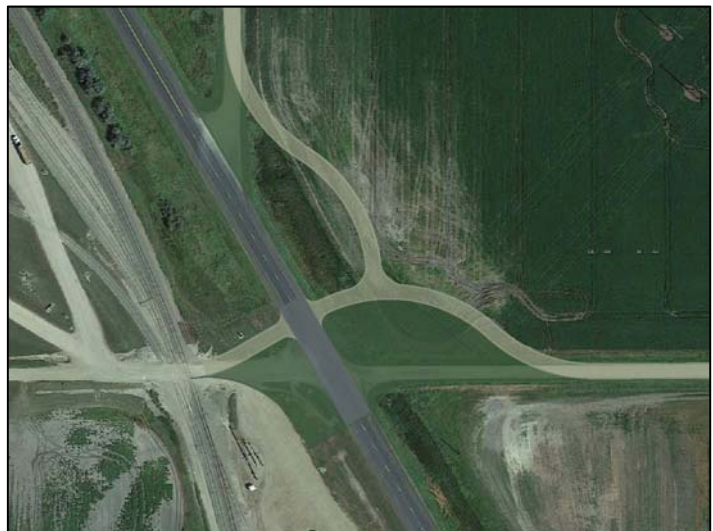
Highest Ranked Alternative

The prioritized improvement plan for the North Washington Street/CR 11/US 81 includes the following:

- Left-turn and right-turn lanes at the ramp intersections.
- Access consolidation at the Sproule Farms and Simplot Grower Solutions.
- Consolidating and realigning the northbound on- and off-ramps and the southbound on-ramp at the interchange.
- Access consolidation at 42nd Street and 54th Avenue. This improvement is optional and should only be pursued if deemed necessary in the future.

The combined set of improvements would prevent future operational and safety issues from developing by reducing crash potential at unsignalized intersections with additional turn lanes and reducing access risk by consolidating accesses. With no current

Figure 1-6: Access Consolidation at 42nd Street and 54th Avenue



or future operational or safety deficiencies identified, many of the alternatives presented here are low impact and low priority.

Other Improvements

The other improvement studied was to realign the northbound on-ramp with the private driveway on the west side of North Washington Street/CR 11/US 81. This realignment would help prevent off-tracking of southeast to northbound trucks and limit driver expectancy issues.

IMPLEMENTATION PLAN

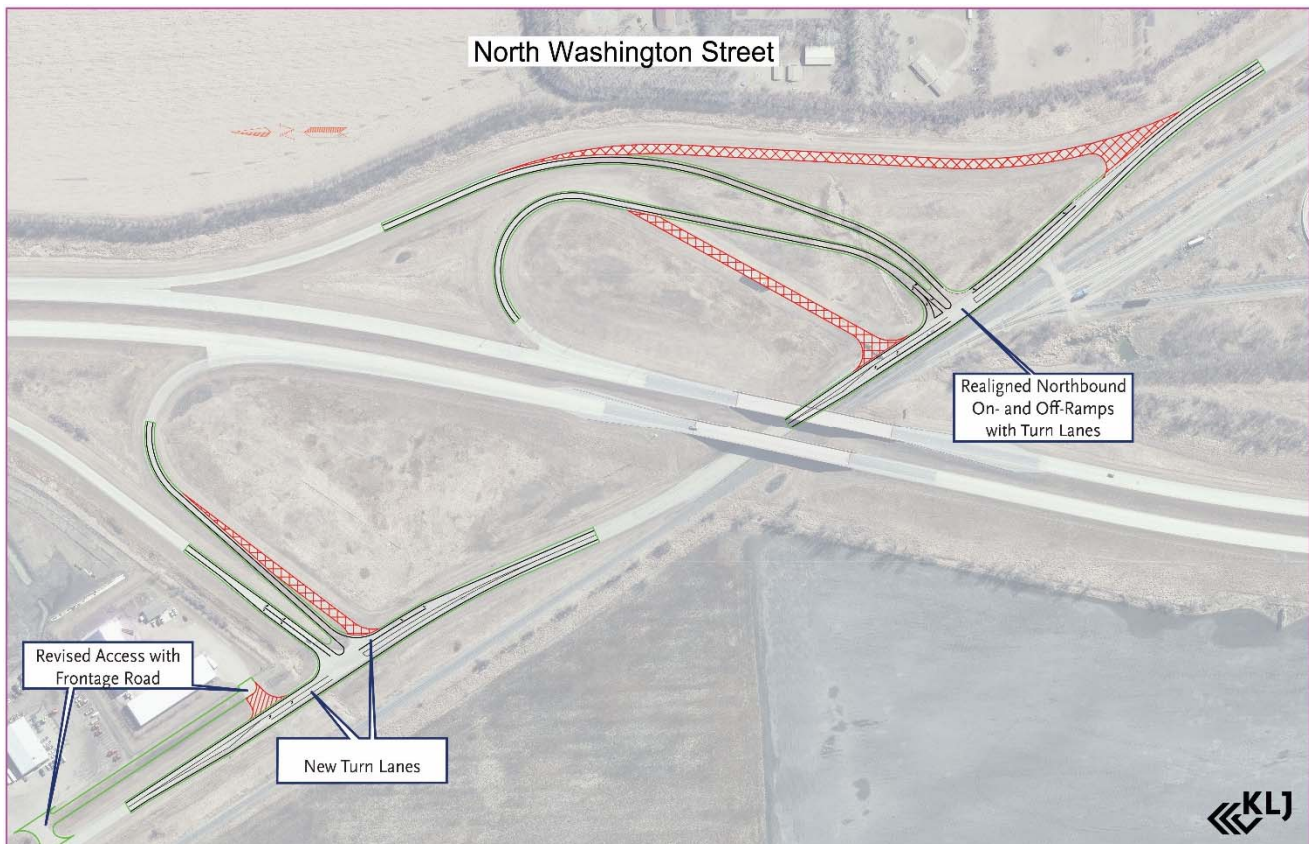
With no identified capacity or safety needs, the improvements prioritized for the North Washington Street/CR 11/US 81 are not urgent. There is the potential to reevaluate potential access management changes and ramp modifications during the scoping process for the 2030 I-29 CPR & Grind project. If improvements are not made during the 2030 project, needs should be reevaluated in the long term.

Cost

The estimated cost in 2017 dollars is \$5.98 million (\$12.5 million in 2035 dollars). This includes:

- \$55,000 for access consolidation at the Sproule Farms and Simplot Grower Solutions
- \$375,000 for the optional access consolidation at 42nd Street and 54th Avenue
- \$300,000 for turn lanes
- \$5.25 million for the East Ramp realignment

Figure 1-7: North Washington Street/CR 6/US 81 Improvement Plan



GATEWAY DRIVE/US 2

Gateway Drive/US 2 is a major local, state and national corridor: it connects the west coast as far east as Michigan; designated on the National Network by the Federal Highway Administration; and helps carry more than half of North Dakota's Freight. With two truck stops, access to an industrial corridor, a National Highway System route, Strategic Highway Network and "Super-Haul Expanded Envelope Corridor", Gateway Drive/US 2 produces heavy truck traffic, greater than 12 percent, which is 10 percentage points higher than typical urban corridors. This corridor is the most widely traveled corridor in the study area, carrying more than 16,000 vehicles under current conditions. While not yet deficient, current peak hour operations create a crash trend, likely associated with congestion and queueing onto across closely spaced adjacent intersections.

Dense access spacing introduces conflicts into the traffic flow as vehicles enter and exit the mainline. In less than a half mile, there are five access points, including four signalized intersections. The one unsignalized intersection, 43rd Street, sees angle crashes caused by drivers on the minor approach trying to find an acceptable gap. Long queues and heavy traffic may reduce acceptable gaps and obstruct vision of conflicting traffic.

Access spacing, combined with heavy traffic, including heavy truck traffic creates poor traffic flow and operations. By 2040, traffic operations at many of the study intersections in the interchange functional area fall to poor or deficient levels and queues reach the interstate.

This interchange functional area also sees challenges due to the at-grade railroad crossing of the Glasston Subdivision east of 42nd Street. While the Glasston Subdivision only sees an average of six trains per day currently, local and regional developments and the potential rerouting of the Mill Spur are expected to increase that number up to twelve trains per day. On average, each train causes more than five minutes of delay, which creates major delays and increased crash potential on the interstate by introducing stopped vehicles onto the highway. As a result of the Glasston Subdivision Railroad Crossings Mitigation Study, a grade separation was recommended.

IMPROVEMENT PLAN

Interchange Improvements

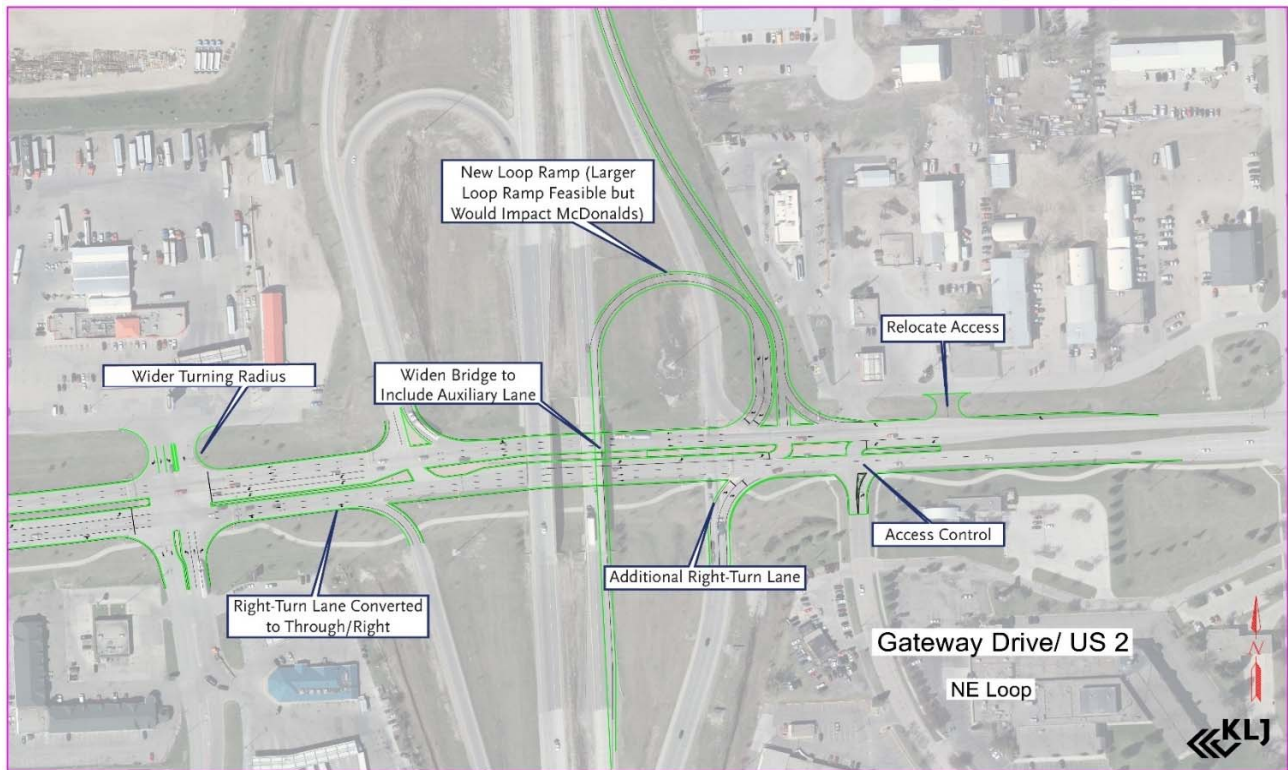
Highest Ranked Alternative

Analysis completed for this study confirmed the analysis and recommendations of the US 2 Corridor Study which prioritized the Northeast Loop Alternative. The Northeast Loop alternative would

- Widen the east I-29 bridge to include a new auxiliary lane for the northeast loop.
- Provide an additional northbound right-turn lane at the I-29 East Ramp for improved operations.
- Convert the eastbound right-turn lane at 47th Street to a shared through/right-turn lane to improve flow onto the I-29 southbound on-ramp.
- Relocate the north approach of 43rd Street 175 feet east and convert to right-in/right-out. Restrict left-out of the south access of 43rd Street.
- Retaining wall to separate the I-29 northbound on-ramp from the existing McDonald's parking lot. A larger northeast loop ramp has also been considered to mitigate queueing onto the interstate, which would require buying out McDonalds but would mitigate the need for a retaining wall.
- Wider turning radius for westbound right-turns at 47th Street to better accommodate truck traffic entering the Simonson Travel Center and help eliminate trucks broaching the curb or hitting the traffic signal pole.
- Incorporate queue flushing on the off-ramps and new loop ramp that includes queue detection which overrides the traffic control signal to give green time to the off-ramp to prevent queues from extending back or onto I-29.
- Pedestrian crossing improvements at the ramp intersections that would include pedestrian actuation and prevent right-turns on red when a pedestrian is present.

This alternative improves local and mainline operations to LOS "B" through 2040 and is expected to reduce crash potential by 48.6 percent.

Figure 1-8: Gateway Drive/US 2 Improvement Plan



Other Improvements

Two other alternatives analyzed provide acceptable local and mainline operations and reduce crash potential, but come at a much higher cost for implementation. They will be carried forward into environmental documentation and can be found in Chapter 7:

- The Diverging Diamond Interchange improves operations but results in access impacts west of I-29 with the needs of a backage road.
- Modified Single Point Urban Interchange improves operations but results in business impacts to the McDonalds in the northeast quadrant of the interchange.

There were other alternatives analyzed in the US 2 Corridor Study but were not carried forward for analysis in this study because they did not meet the project purpose and need.

- Single Point Urban Interchange
- Roundabouts with Northeast Loop

Grade Separation Improvements

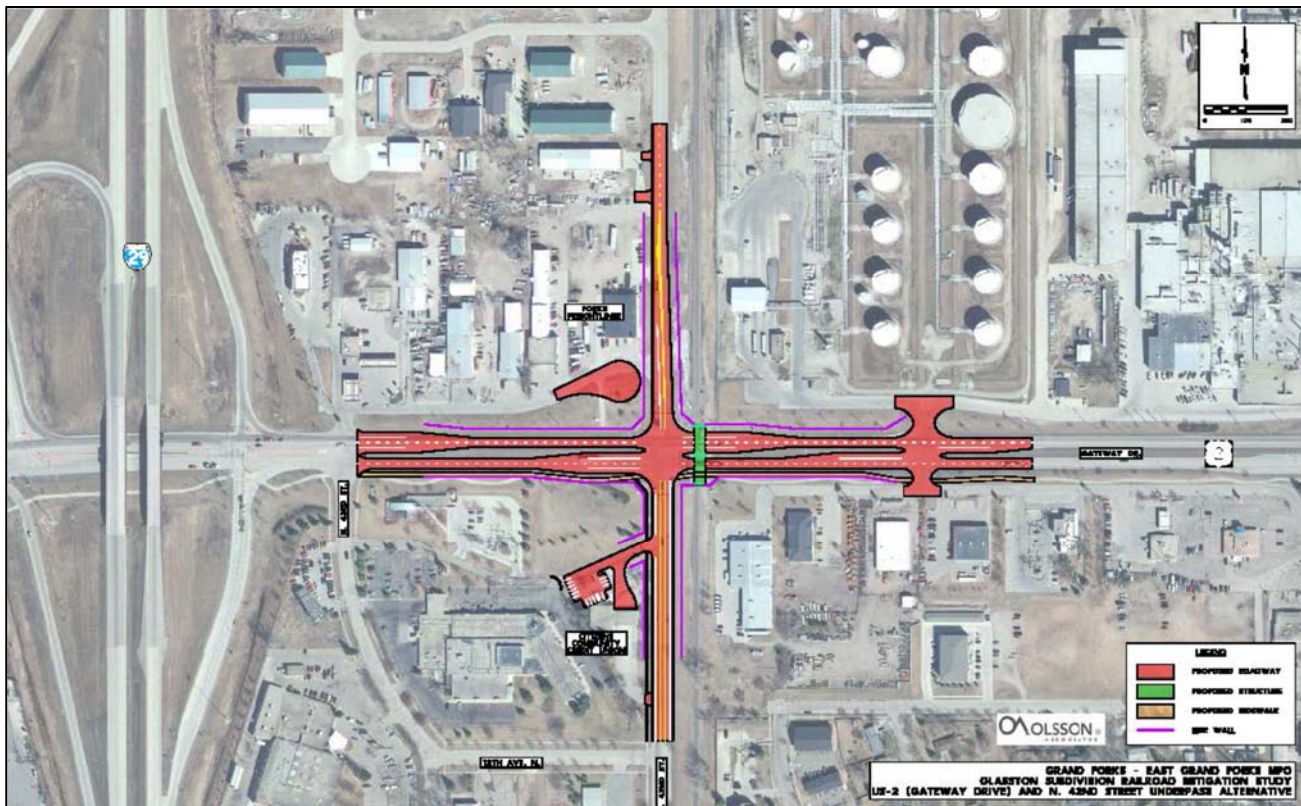
Highest Ranked Alternative

The Glasston Subdivision Railroad Crossings Mitigation Study prioritized an underpass alternative if the Mill Spur line is to be closed. That study only evaluated one configuration, but more may be required as part of any environmental documentation and is outside the scope of this study. Based on the planning level designs, it would require closing the frontage road access to 42nd Street, north of Gateway Drive/US 2. The compatibility between the access management plan included in the interchange improvement plan and this grade separation alternative would need to be evaluated during project development.

Other Improvements

The Glasston Subdivision Railroad Crossings Mitigation Study did not provide any additional grade separation build alternatives. It is likely that additional alternatives design efforts will be completed before project development will occur.

Figure 1-9: Glasston Subdivision Railroad Grade Separation Alternative



IMPLEMENTATION PLAN

Interchange Improvements

The interchange improvements are needed before 2040, when traffic operations degrade to LOS “F”. This means that efforts to implement the most significant needs of the improvement plan (Northeast Loop, access management) do not need to begin until approximately 2031 (beginning of the mid-term phase), when preliminary engineering and advanced project development will begin and the project should be programmed into the TIP.

The Northeast Loop Alternative has an estimated cost of \$6.6 million in 2017 dollars (\$14.5 million in 2035 dollars).

Interim Improvements

The queue flushing improvements (\$20,000 in 2017 dollars per ramp) and pedestrian crossing enhancements (\$30,000 in 2017 dollars per ramp) are relatively low cost and should be implemented as soon as feasible, possibly in the next TIP.

Grade Separation Improvements

While train events that occur during peak hour traffic result in queueing onto the interstate during current events, the grade separation is not warranted without the closure of the Mill Spur, according to Benefit-Cost analysis completed in the Glasston Subdivision Railroad Crossings Mitigation Study, and future train growth associated with local and regional developments. In the short term, this project should be evaluated against with the 2045 LRTP update to determine its

regional significance and priority. Based on this evaluation, additional planning, scoping and project development activities should occur as reasonable.

Interim Improvements

In the interim, advanced notification of train events can be used on the existing DMS to encourage drivers to choose a more appropriate route. This will help reduce potential for queuing to and onto the interstate.

DEMERS AVENUE/ND 297

DeMers Avenue/ND 297 serves major traffic generators like the University of North Dakota campus, Alerus Center and the industrial park. Traffic to these and other major generators are often blocked or impacted by frequent train events at the 42nd Street at-grade railroad crossing north of DeMers Avenue/ND 297. Based on the 42nd Street Grade Separation Technical Needs Assessment, completed in 2014, train delays average more than five minutes and frequently approach 20 minutes. This produces 60 hours of total delay experienced each day, which is 50 percent greater than the highest threshold set by the Federal Highway Administration to justify a grade separation.

By 2025, recurring congestion, like peak hour traffic, and nonrecurring congestion, like train events on the Grand Forks Subdivision, will overburden this interchange functional area, which has just one through lane in each direction. By 2040, nearly every intersection in this functional area operates deficiently during the A.M. peak and travel time through the interchange functional area increases eight minutes, taking nearly four times longer to get through the interchange than during free flow conditions. Furthermore, train blockages at 42nd Street just north of DeMers Avenue/ND 297 create queuing that extends to the interchange and is forecasted to reroute several thousand vehicles onto the interstate by 2040.

In the last five years, there were more than 100 crashes in the DeMers Avenue/ND 297 functional area, with 65.4 percent occurring at the 42nd Street intersection. Of these crashes at 42nd Street, 28 (40 percent of all 42nd Street crashes) were left-turn crashes. With increasing recurring and nonrecurring congestion, driver frustration may be fueling riskier behavior, including running yellow and red lights. There was also a rear-end crash trend at the East Ramp, including five (35.7 percent of crashes at this intersection) northbound rear-end crashes. This could be associated with long queues at the yield controlled right-turn when motorists look upstream for gaps in traffic and not forward, and then collide with vehicles ahead.

IMPROVEMENT PLAN

Interchange Improvements

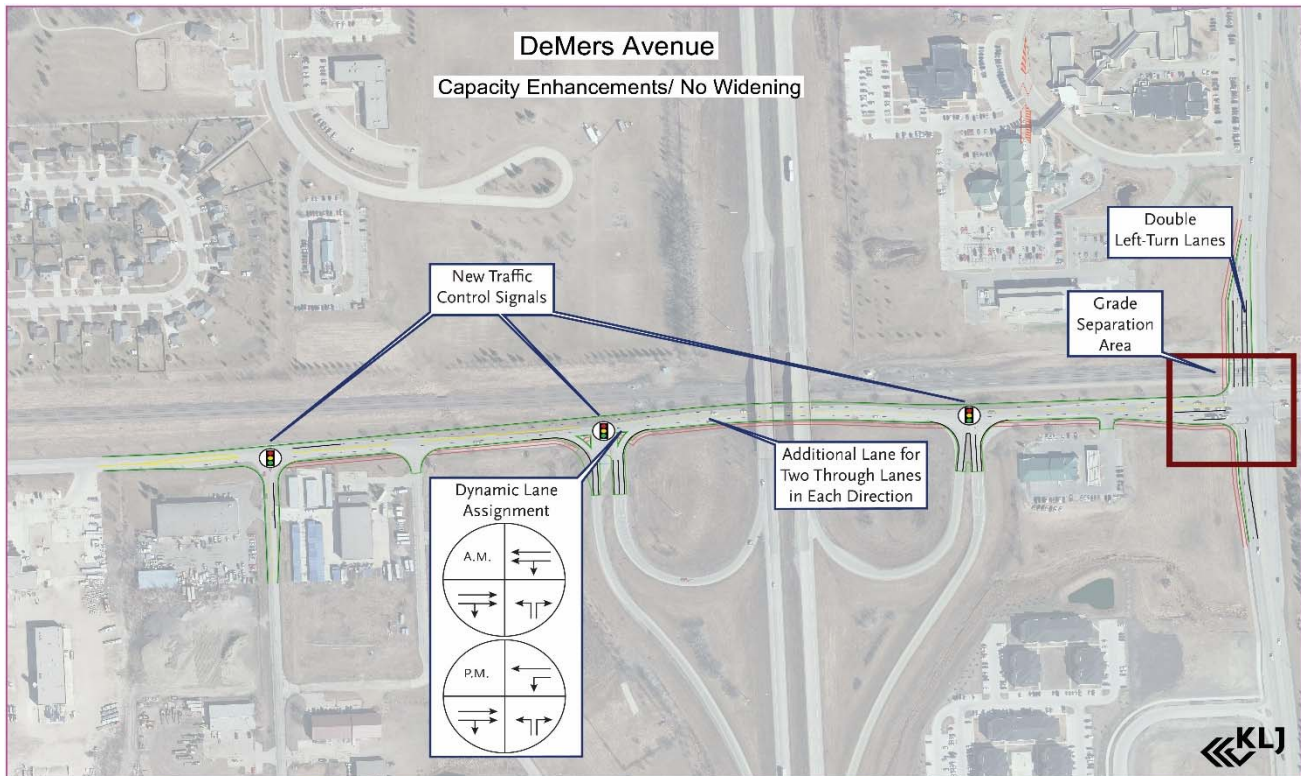
Highest Ranked Alternative

The Capacity Enhancements with No Bridge Widening alternative was the prioritized alternative for DeMers Avenue/ND 297. This alternative would:

- Add one lane of traffic, without impacting the existing bridge.
- Use dynamic lane assignment; during the A.M. peak period, the westbound lanes would operate as two through lanes with a shared left turn lane but during the P.M. peak period, the westbound lanes would operate as one through lane and one left turn lane.
- Incorporate traffic control signals at the 48th Street, West Ramp and East Ramp intersections.
- Install queue flushing included on the West Ramp and East Ramp intersections.

This alternative is the lowest cost alternative with acceptable levels of service under 2040 conditions at \$7.40 million and would have a positive impact on operations, expected to be at LOS “C” during both A.M. and P.M. peak hours, and reduce crash potential by 5.4 percent. The improvements are expected to prevent queuing onto the interstate, mitigate crash trends and improve traffic flow and levels of service.

Figure 1-10: DeMers Avenue/ND 297 Improvement Plan



Other Improvements

Three other build alternatives were evaluated but did not provide similar benefits. The Capacity Enhancements with Bridge Widening is feasible and should be carried forward to the environmental document.

- Capacity Enhancements with Bridge Widening is the highest cost alternative. It did not drastically improve local and mainline operations or safety compared to the prioritized alternative that did not include widening. This alternative provides a 2.9 percent improvement in operations for the peak hours over the Capacity Enhancements with No Bridge Widening but with a cost 154.1 percent higher.

The Roundabouts with Ramp Metering, Multilane Roundabouts and Spot Improvements alternatives have deficient operations under higher growth scenarios so do not meet the Purpose and Need established for this project and should be discarded.

- Roundabouts with Ramp Metering, the Multilane Roundabouts and Spot Improvements alternatives provide acceptable local and mainline operations as the prioritized improvement under the 2040 Existing Interstate Access Scenario. However, under higher growth scenarios, like the 47th Avenue Interchange Scenario (increases traffic on DeMers Avenue/ND 297 by 7.0 percent) or the 47th Avenue and Merrifield Road/CR 6 interchange scenario (increases traffic on DeMers Avenue/ND 297 by 10.1 percent), operations began to deteriorate to unacceptable levels under higher growth scenarios.

Grade Separation Improvements

Highest Ranked Alternative

Interchange improvements cannot resolve the queueing and delay issues that occur during train events. However, the interchange improvements do not impact or preclude any of the grade separation alternatives analyzed in the 2014

Documented Categorical Exclusions (CatEx) report. With no signed environmental document, no preferred alternative has been officially developed, but the need has been established and Alternative “B” was prioritized:

- Alternative “B”: Lower 42nd Street Roadway Below Railroad and DeMers Avenue, Shift Alignment West of Existing
 - » \$40.0 million in 2017 dollars.
 - » This would create an underpass and shift 42nd Street to form a jug handle.
 - » This alternative would limit access to right-in/right-out at the gas station in the southwest corner of the DeMers Avenue/ND 297 and 42nd Street.

The build alternatives included in the CatEx would mitigate nonrecurring congestion associated with train events on the Grand Forks subdivision and improve multimodal crossing safety. They would provide more than \$9.2 million worth of safety and delay benefits between 2017 and 2040.

Alternately, building an interchange that could handle the storage of blocked vehicles during a train event would be cost prohibitive and unnecessary for most times of the day. Planning level cost estimates suggest \$31 million would be needed to build up the interstate and related infrastructure to carry the rerouted traffic. A railroad grade separation would mitigate nonrecurring congestion associated with train events, and when combined with the interchange improvements, would ensure acceptable day-to-day local and mainline operations.

Other Improvements

The other build alternative that was included in the CatEx included Alternative “C”, which would

- Lower the DeMers Avenue and 42nd Street intersection below the railroad on its existing alignment
- This alternative would construct an underpass on the existing alignment.
- This alternative would relocate the access to the gas station in the southwest corner of the DeMers Avenue/ND 297 and 42nd Street.

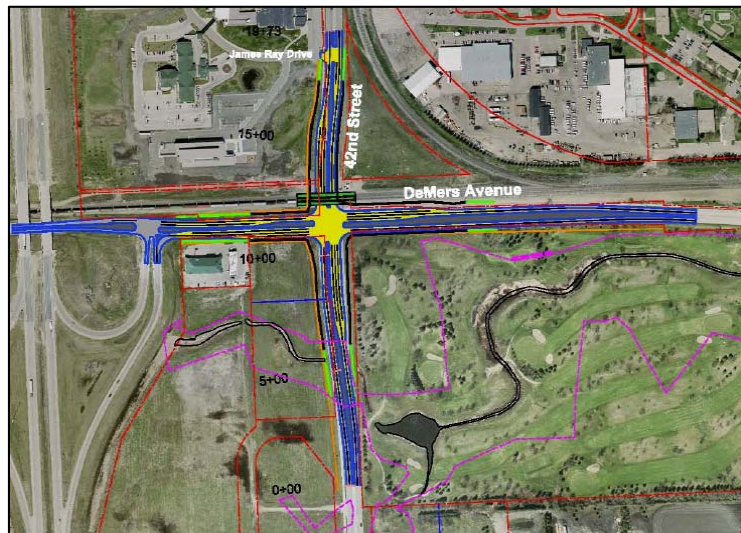
IMPLEMENTATION PLAN

With deficient operations expected by 2025, the interchange improvements and railroad grade separation at the DeMers Avenue/ND 297 interchange functional area were identified as high priority needs.

Figure 1-11: Railroad Grade Separation Alternative B for 42nd Street



Figure 1-12: Railroad Grade Separation Alternative C for 42nd Street



Interchange Improvements

Given the needs identified by 2025, preliminary engineering and advanced project development should occur in the short term (2017-2025). The Capacity Enhancements with No Bridge Widening Alternative has an estimated cost of \$7.4 million in 2017 dollars (\$9.0 million in 2021 dollars).

Interim Improvements

The queue flushing improvements (\$20,000 in 2017 dollars per ramp) are relatively low cost and should be implemented as soon as feasible, possibly in the next TIP.

Grade Separation Improvements

A grade separation at the Grand Forks Subdivision at-grade crossing will require a finalized NEPA document. Environmental documentation, preliminary engineering and project programming should be completed in the short term, 2017-2025. In the mid-term, it is expected that advanced project development, including construction could occur. The grade separation has an estimated cost of \$40 million in 2017 dollars (\$61.6 million in 2028 dollars).

Interim Improvements

More immediately, advanced notification of train events can be used on the existing DMS to encourage drivers to choose a more appropriate route. This will help reduce potential for queueing to and onto the interstate until the grade separation can permanently resolve the problem.

32ND AVENUE/US 81B AND 47TH AVENUE S

KEY ISSUES

32nd Avenue/US 81B serves as a major existing commercial corridor in Grand Forks; 47th Avenue is a major east-west arterial supporting the growth occurring on the south side of Grand Forks. The areas surrounding the existing 32nd Avenue/US 81B interchange and heading south to 47th Avenue are forecasted to be the largest population and employment growth centers in the city through 2040. Specifically, 58 percent of new employment opportunities and 46 percent of new housing opportunities are expected to occur within one mile of either the 32nd Avenue/US 81B interchange or the proposed interchange location at 47th Avenue.

By 2040, volumes on 32nd Avenue/US 81B are expected to exceed 43,500 vehicles each day east of I-29. Furthermore, the commercial nature of the corridor results in a P.M. peak hour that is more than 60 percent higher than the A.M. peak hour. This peaking, combined with growth projections discussed above, results in deficient operations on 32nd Avenue/US 81B by 2025 including queueing onto the interstate during the P.M. peak hour. By 2040, deficiencies begin to occur during the A.M. peak as well. These deficiencies could not be mitigated with improvement scenarios that include widening 32nd Avenue/US 81B to eight lanes.

A major factor in the capacity issues is the bottleneck at 38th Street. 38th Street is a minor north-south arterial which serves destinations to the north like the Alerus Center, and dense existing and future commercial and residential developments to the south. Without a 47th Avenue interchange ADT on 38th Street south of 32nd Avenue/US 81B will exceed 20,600 vehicles per day, while 38th Street north of 32nd Avenue/US 81B will approach 15,000 vehicles per day by 2040.

The expected future growth will have significant impacts to 32nd Avenue/US 81B; 47th Avenue has been identified as a parallel corridor to help relieve that demand.

Additional issues identified at this location include:

- Crash trends at this interchange location were primarily due to negative offset turn lanes, congestion, long queues and poor traffic flow. The negative offset turn lanes at the 32nd Avenue/US 81B and 38th Street intersection will be improved as part of a safety project on the corridor.
- Access spacing between the 42nd Street west frontage road and the West Ramp becomes challenging as that intersection becomes important for the future growth area.

- While currently rated as “Good”, pavement from the East Ramp to Columbia Road is expected to be degraded and require reconstruction between 2030 and 2040.

IMPROVEMENT PLAN

47th Avenue

Highest Ranked Alternative

Analysis completed for this study found a 47th Avenue interchange to have a positive cost-benefit and a high cost-effectiveness. It was also the most effective solution for mitigating deficient operations on 32nd Avenue/US 81B, providing more efficient circulation to the large growth areas, both east and west of I-29 and south of 32nd Avenue/US 81B. The following set of improvements have been prioritized:

- Diamond interchange with south loops and mixing lanes on the current 47th Avenue alignment. This would include traffic control signals at the ramp and a shared-use path.
- Improved five-lane urban section that extends from the west adjacent intersection (48th Street) to Columbia Road. Traffic control signal would be installed at the east adjacent intersection (34th Street).

An interchange at 47th Avenue would have many benefits to the Grand Forks regional transportation network:

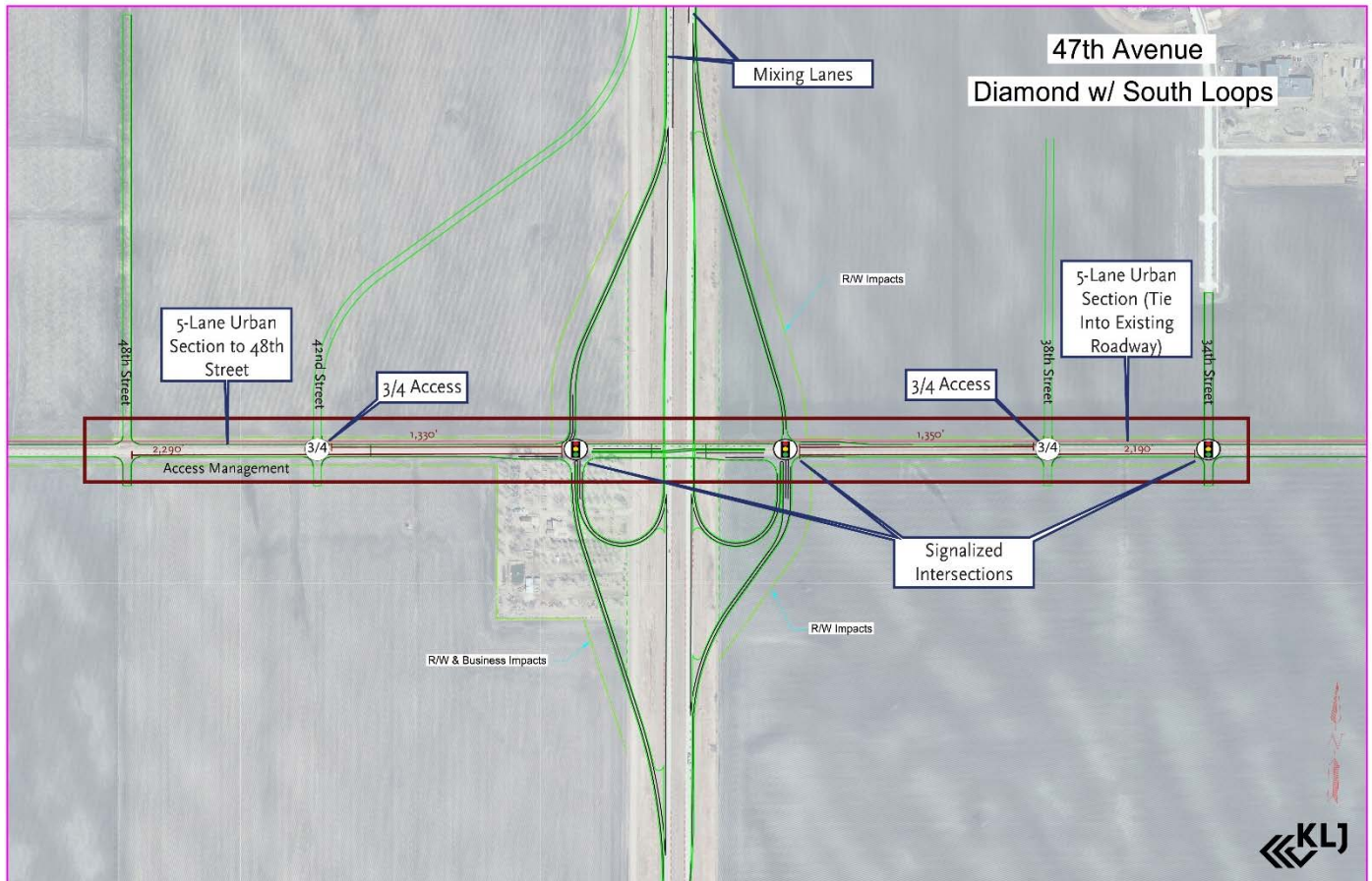
- Reduce 13,500 vehicle miles traveled each day.
- Reduce 1,100 vehicle hours traveled each day.
- Reduces need for significant investment on 32nd Avenue corridor for additional capacity by reducing traffic by 40.3 percent. This allows 32nd Avenue/US 81B to operate at LOS “D” with the Spot Improvements Alternative, which includes double left-turn lanes on the eastbound, westbound and southbound approaches and an extended right-turn lane on the eastbound approach at the 38th Street intersection and a double right-turn lane on the northbound off-ramp.
- While this interchange is expected to increase traffic on I-29 by 21.2 percent, there is adequate capacity on I-29 without degrading operations to a deficient level.
- Net decrease in crash potential on I-29 of 10.2 percent to 28.6 percent, depending on the configuration. Even with a 21.2 percent increase in traffic on I-29, the lack of queueing onto the interstate from 32nd Avenue/US 81B provides a net safety benefit.

Other Improvements

Three other alternatives were analyzed and will be carried forward into environmental analysis:

- Traditional Diamond Interchange is a standard diamond interchange with signals at the West Ramp, East Ramp and first adjacent intersection east of the interchange. This alternative provides challenges between the 32nd Avenue/US 81B southbound on-ramp and the 47th Avenue southbound off-ramp, which results in some lane densities that fall to LOS “D” during the 2040 P.M. peak. This alternative has the worst mainline operations of all alternatives studied. The deficiencies do not occur consistently across the full hour of analysis so do not change mainline levels of service but are concerning to providing high-speed and safe operations of I-29.
- Shifted Diamond with South Loops Interchange is a standard diamond interchange, including a southwest and southeast loop ramp shifted 0.25 miles south. This alternative provides acceptable operations, but during the 2040 P.M. peak hour, some lane densities fall to LOS “D” and has a higher estimated crash potential.
- Shifted Diamond with No Business Impacts is a diamond interchange with a southwest loop ramp for the on and off movements for the southbound movements. It is the lowest cost alternative and requires the least amount of ROW, but does result in densities at LOS “D” during the 2040 P.M. peak hour. Momentary queueing on the off-ramp reaches back to the interstate, but given its brevity it does not change the mainline level of service across the full hour of analysis, but are concerning to providing high-speed and safe operations of I-29. This alternative is the only one that does not require a buyout of the campground in the southwest quadrant of the interchange. While impacts to businesses are never taken lightly when evaluating infrastructure projects, it is unlikely the campground would be compatible with the dense urban environment planned for the area.

Figure 1-13: Diamond with South Loops and Mixing Lanes



32nd Avenue/US 81B

Highest Ranked Alternative

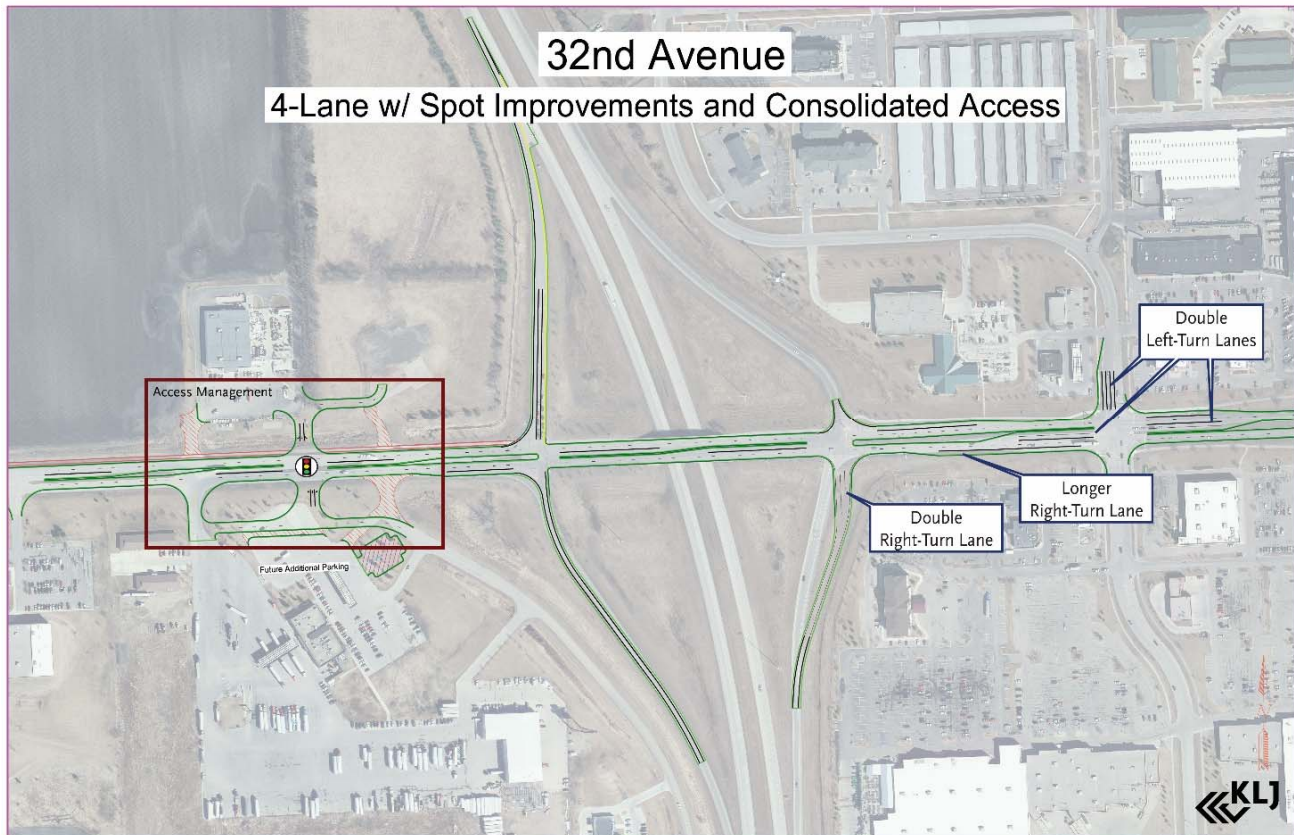
The Spot Improvements Alternative was the prioritized alternative for 32nd Avenue/US 81B. This alternative would:

- At 38th Street, extend the eastbound right-turn lane (435 feet, full width) and install double left-turn lanes on the eastbound, westbound and southbound approaches. Operate the southbound double left-turn lane as a flashing yellow arrow.
- At the East Ramp, a double right-turn lane on the northbound off-ramp.
- Traffic control signal and access modification at the 42nd Street west frontage road intersection.
- Queue flushing on the off-ramps
- Pedestrian crossing enhancements at the ramp intersections include pedestrian actuation and prohibit right-turns.
- Reconstruct or major rehabilitation of pavement from the East Ramp to Columbia Road.

Combined with the construction of the 47th Avenue interchange, the spot improvements would result in all study intersections operating at LOS “D” or better during both peak hours through 2040. This alternative would minimize queuing onto the interstate and improve traffic flow, which should mitigate some of the most prevalent crash trends. The signal at the 42nd Street west frontage road and improvements to the existing signal timing should improve pedestrian crossing safety.

These improvements would not be enough to keep operations at LOS “D” or better through 2040 without a 47th Avenue interchange. As growth accelerates west of I-29 and south of 32nd Avenue/US 81B the traffic patterns change resulting in more turning movements competing with through movements.

Figure 1-14: 32nd Avenue/US 81B Prioritized Improvements



INTERIM IMPROVEMENTS

The queue flushing improvements (\$20,000 in 2017 dollars per ramp) and pedestrian crossing enhancements (\$30,000 in 2017 dollars per ramp) are relatively low cost and should be implemented as soon as feasible, possibly in the next TIP.

Other Improvements

Other interchange alternatives were studied for this interchange, assuming a 47th Avenue interchange and no widening needed: Consolidated East Ramp, Northwest Loop Ramp, Southwest Loop Ramp and Diverging Diamond Interchange. These alternatives do provide some benefits to local and mainline operations and safety, but come with much more significant costs, ranging from \$13.6 million to \$21.5 million.

Ultimately, the Steering Committee recommended to discard these alternatives. Only the Spot Improvements and Do Nothing alternatives will move forward to the environmental document. This conforms to 23 CFR 450 Appendix A.

IMPLEMENTATION PLAN

The improvement plan for 32nd Avenue/US 81B assumes the construction of a 47th Avenue interchange. The low-cost improvements, queue flushing and pedestrian crossing enhancements, should be considered for inclusion in the next Transportation Improvement Plan. In the short term, 2017-2025, remaining spot improvements should be evaluated with the 2045 LRTP update and capacity needs should be monitored and analyzed against the progress of the 47th Avenue interchange project. In the mid-term, advanced project development should proceed to perform reconstruction or major rehabilitation from the East Ramp intersection to Columbia Road. The spot improvements, including turn lanes, should be coordinated with these efforts, if not before.

With 32nd Avenue/US 81B likely to be over capacity as soon as 2025, a new interchange at 47th Avenue is a high priority for the Grand Forks transportation network. An updated Interstate Justification Report should be initiated and the NEPA document completed by 2025. By 2030, advanced project development should occur with project funding secured.

The Spot Improvement Alternative for 32nd Avenue/US 81B will likely keep operations acceptable through 2025 but will not keep operations acceptable to 2040. Growth anticipated by 2040 will overburden 32nd Avenue/US 81B, even as an eight-lane section.

MERRIFIELD ROAD/CR 6

KEY ISSUES

For several decades, efforts have been made to identify an alternative bypass/reliever route around the metro area, primarily for truck traffic and the Merrifield Road/CR 6 corridor has been the center of this plan. Currently, without a Red River crossing and bypass, trucks are routed through dense urban areas on Gateway Drive/US 2 or DeMers Avenue/ND 297. During beet harvest, high volumes of trucks use DeMers Avenue/ND 297, creating conflicts with local traffic, pedestrians, bicycles and school activity. This study excluded a Red River crossing from further analysis after it was screened out for not meeting the project purpose and need, which required benefits to traffic conditions within the I-29 study area, nor offering a cost-effective solution to build the interchange and river crossing. The analysis found an interchange at this location has many benefits to the overall transportation network, including reducing traffic on I-29 and the adjacent interchanges nearly five percent and reducing network vehicle miles traveled (VMT) by nearly 75 million miles from 2025 to 2040.

The Merrifield Road/CR 6 is the southern edge of flood protection for the City of Grand Forks and will likely be the furthest south any development stretches. This corridor will likely grow in importance as development occurs to move south. Even still, the corridor provides sufficient capacity for existing and future traffic projections without any deficient operations. However, with pavement conditions in “Poor” or “Satisfactory” some pavement management activities will be necessary, with one programmed to occur in 2018.

IMPROVEMENT PLAN

Highest Ranked Alternative

The prioritized interchange ramp design is a traditional diamond interchange with ramps that could, in the future, incorporate a northwest and southeast loop ramps for additional capacity. Turn lanes and bridge widening were incorporated. Constructing an interchange at this location would not require any additional traffic control at the ramp intersections, through 2040.

An interchange at this location would attract between 4,800 to 6,000 vehicles per day east of I-29, depending on whether the 47th Avenue interchange is built. There are few changes west of I-29. These are not new trips on the network, but those that have been rerouted from other county roadways. This increase in traffic could necessitate improved traffic control, either a traffic control signal or roundabout, and turn lanes at the Merrifield Road/CR 6 and Columbia Road intersection to mitigate deficient peak hour operations. Based on model results, vehicles are attracted to the Columbia Road and Washington Street corridors as parallel routes into the city.

Converting the overpass to a full interchange, plus traffic control at the Merrifield Road/CR 6 and Columbia Road intersection has costs that range between \$16.5 million to \$18.1 million in 2017 dollars. This does not include the costs for the mill and overlay between 16th Street NE and Columbia Road.

An interchange at Merrifield Road/CR 6 would have many benefits to the Grand Forks regional transportation network and I-29 specifically:

- Reduce 18,000 vehicle miles traveled each day by 2040
- Reduce 647 vehicle hours traveled each day by 2040
- Reduce traffic on mainline I-29 by 4.1 percent by 2040
- Even though there are new merge and diverge conflict points, no safety impacts are expected because of the reduction of traffic on mainline I-29.

Figure 1-15: Prioritized Merrifield Road/CR 6 Improvements



Other Improvements

No other interchange configurations were evaluated in this study because of the previous efforts given to this interchange and the adequate capacity. However, stakeholders have identified other potential designs to be considered in a final environmental document:

- Increasing the space between the ramp intersections so turn lanes can be accommodated outside the bridge and mitigate the need for bridge widening.
- Roundabouts at the ramp intersections to remove the need for turn lanes and mitigate the need for bridge widening.
- Widen the bridge to accommodate the turn lanes and improve pedestrian/bicycle facilities and crossing width for oversized agricultural equipment.

IMPLEMENTATION PLAN

The Merrifield Road/CR 6 interchange has no immediate operational or safety needs but does provide network-wide VMT benefits. Planning and scoping activities will likely occur in the mid-term, between 2026 and 2030, with advanced project development to occur between 2030 and 2040. There are opportunities to coordinate the development of the interchange and related improvements with planned I-29 and Merrifield Road/CR 6 pavement management projects in 2030.

The interchange has an estimated cost of \$16.5 million 2017 dollars (\$36.1 million in 2035 dollars).

SUMMARY OF NEEDS

Figure 1-16 shows the prioritized improvements for the I-29 Traffic Operations study corridor, summarized below.

- **North Washington Street/CR 11/US 81.** Realign the northbound ramps, construct turn lanes and consolidate access.
- **Gateway Drive/US 2.** Install a northeast loop ramp for northbound to westbound movements and access and turn lane modifications. Construction of a grade separation would benefit the local and regional transportation network.
 - » Small scale improvements including queue flushing on the off-ramps, pedestrian crossing improvements and train event advanced notification using the dynamic message signs should be considered for programming before 2025.
- **DeMers Avenue/ND 297.** Add capacity to four-lanes through the interchange functional area and install traffic control signals at the 48th Street, West Ramp and East Ramp intersections. Construction of a grade separation would benefit the local and regional transportation network.
 - » Small scale improvements including queue flushing on the off-ramps and train event advanced notification using the dynamic message signs should be considered for programming before 2025.
- **32nd Avenue/US 81B.** Implement spot improvements including dual left-turn lanes on the southbound, eastbound and westbound approaches and a longer eastbound right-turn lane at the 38th Street intersection, dual right-turn lane at the northbound off-ramp and access management at the 42nd Street west frontage road intersection. The 42nd Street west frontage road intersection will need a traffic control signal between 2025 and 2040.
 - » Before 2025, the dual left-turn lanes and right-turn lane at 38th Street and dual right-turn lane at the northbound off-ramp will be necessary for operations.
 - » Small scale improvements including queue flushing on the off-ramps, pedestrian improvements at the ramp crossings should be considered for programming before 2025.
- **47th Avenue.** Construct a diamond interchange with southeast and southwest loop ramps, mixing lanes including a five-lane urban section from 48th Street west of I-29 to 34th Street east of I-29 and traffic control signals at the West Ramp, East Ramp and 34th Street intersections.
- **Merrifield Road/CR 6.** Construct interchange ramps and install traffic control at the Columbia Road intersection.

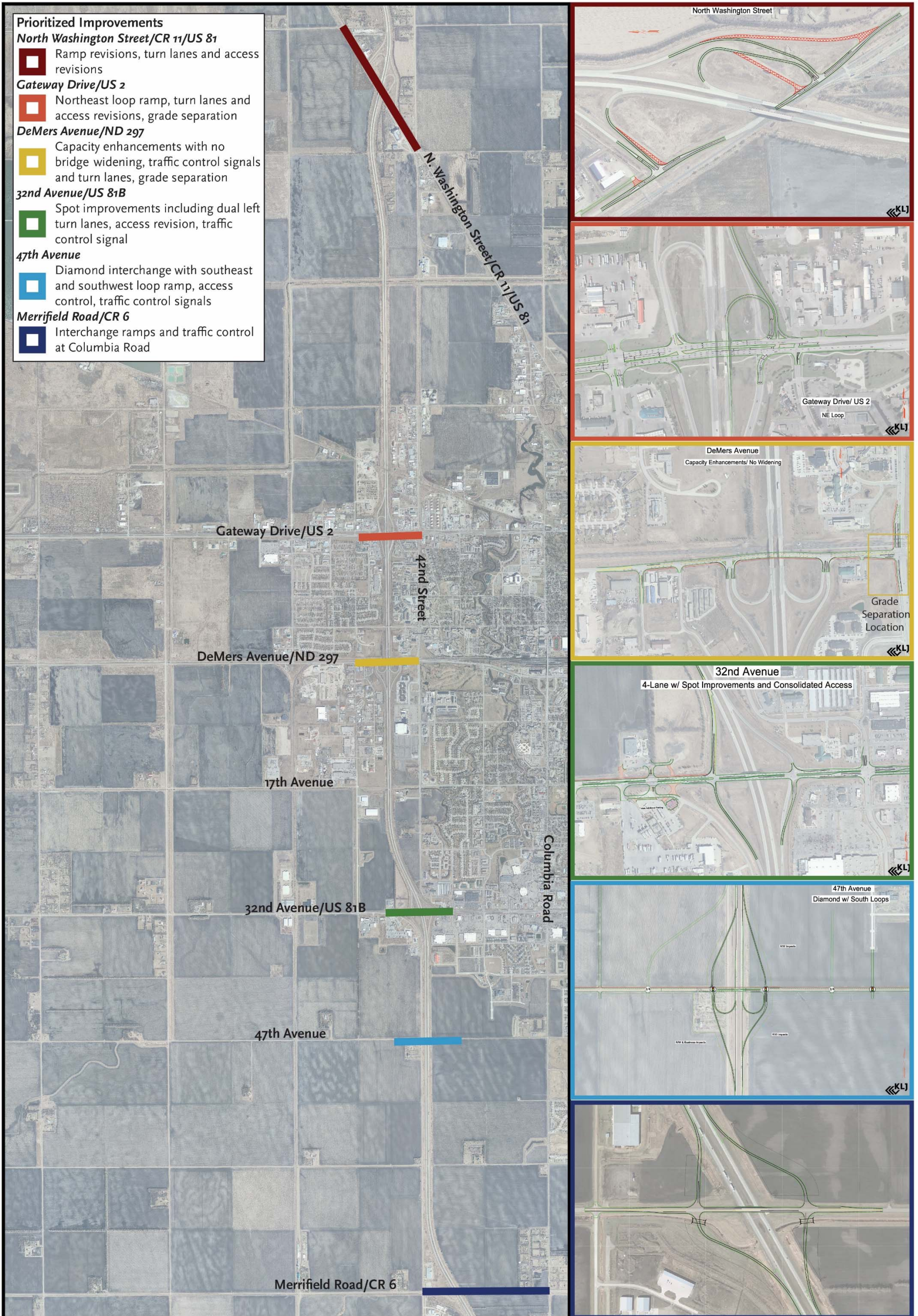
Table 1-1: Summary of Prioritized Improvements

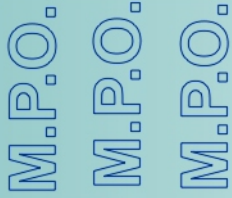
Location	Key Issues	Highest Ranked Alternative*	Interim Solutions	Cost**	Year of Implementation
North Washington Street/CR11/US 81	<ul style="list-style-type: none"> Challenging geometric conditions, with tight turning radii. Dense access spacing. No turn lanes. 	<ul style="list-style-type: none"> Access consolidation at the Sproule Farms and Simplot Grower Solutions. Left-turn and right-turn lanes at the ramp intersections. Consolidating and realigning the northbound on- and off-ramps and the southbound on-ramp at the interchange. Optional: Access consolidation at 42nd Street and 54th Avenue. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> \$5.98 Million <ul style="list-style-type: none"> \$430,000 for access consolidations \$300,000 for turn lanes \$5.25 million for East Ramp realignment 	<ul style="list-style-type: none"> 2030 CPR project could incorporate these improvements.
Gateway Drive/US 2	<ul style="list-style-type: none"> Heavy truck traffic. Dense access and signal spacing leads to poor traffic flow. Deficient operations by 2040 with queueing onto the interstate. Impacted by train events that block Gateway Drive/US 2 resulting in queueing onto the interstate. 	<ul style="list-style-type: none"> Northeast Loop Alternative <ul style="list-style-type: none"> Double right-turn lane at northbound off-ramp Access restrictions at 43rd Street Railroad grade separation on Gateway Drive/US 2 east of 42nd Street 	<ul style="list-style-type: none"> Queue flushing on off-ramps Pedestrian crossing enhancements Advanced train event notification with existing DMS 	<ul style="list-style-type: none"> \$6.62 Million for Northeast Loop Ramp Alternative \$28.3 Million for Railroad Grade Separation 	<ul style="list-style-type: none"> Interim solutions as soon as feasible. Northeast Loop Alternative considered in Long-Term (2031-2040+). Railroad grade separation to undergo additional planning/scoping beginning in Mid-Term (2026-2030).
DeMers Avenue/ND 297	<ul style="list-style-type: none"> Interchange impacted by train events that block 42nd Street. Under current conditions, traffic is rerouted onto interstate and queues extend to interstate. Limited capacity with three-lane section and no traffic control results in poor operations by 2025. Left-turn angle crash trends and rear-end crash trends that could be mitigated with improved traffic flow. 	<ul style="list-style-type: none"> Capacity Enhancements with No Bridge Widening Alternative <ul style="list-style-type: none"> Additional through lane Dynamic lane assignment at West Ramp Intersection Traffic control signals Railroad grade separation at 42nd Street north of DeMers Avenue/ND 297 	<ul style="list-style-type: none"> Queue flushing on off-ramps Advanced train event notification with existing DMS 	<ul style="list-style-type: none"> \$7.40 Million for Capacity Enhancements with No Bridge Widening Alternative \$40.0 Million for Railroad Grade Separation 	<ul style="list-style-type: none"> Interim solutions as soon as feasible. Interchange improvements should undergo preliminary engineering, environmental documentation and advanced project development before 2025. Railroad grade separation should begin preliminary engineering and environmental documentation by 2025. Advanced project development expected by 2030.
32 nd Avenue/US 81B & 47 th Avenue	<ul style="list-style-type: none"> Major growth areas around 32nd Avenue/US 81B and 47th Avenue result in the 32nd Avenue/US 81B corridor over capacity by 2025 without interim improvements. Queues extend onto the interstate. Access spacing between 42nd Street west frontage road and West Ramp intersection leads to challenging operations as growth to the south continues. Degraded pavement expected by 2030. 	<ul style="list-style-type: none"> Interchange at 47th Avenue <ul style="list-style-type: none"> Prioritized the Diamond with South Loops and Mixing Lanes Alternative Spot Improvement Plan at 32nd Avenue/US 81B <ul style="list-style-type: none"> Double left-turn lanes on 38th Street intersection on eastbound, westbound and southbound approaches Longer eastbound right-turn lane at 38th Street intersection Double right-turn lane on northbound off-ramp Access management at 42nd Street 	<ul style="list-style-type: none"> 32nd Avenue/US 81B <ul style="list-style-type: none"> Queue flushing on off-ramps Pedestrian crossing enhancements 	<ul style="list-style-type: none"> \$915,000 for Spot Improvement Plan at 32nd Avenue/US 81B \$28.5 Million for 47th Avenue Interchange 	<ul style="list-style-type: none"> Interim solutions as soon as feasible. 32nd Avenue/US 81B interchange improvements necessary by 2025 and should undergo preliminary engineering in the Short-Term (2017-2025). Interstate Access Report initiated and environmental documentation completed in the short-term for 47th Avenue interchange. Advanced project development to occur in Mid-Term.
Merrifield Road/CR 6	<ul style="list-style-type: none"> No specific issues on Merrifield Road/CR 6 Interchange at Merrifield Road/CR 6 would reduce traffic on I-29 by nearly five percent and reduce network vehicle miles traveled by nearly 75 million miles from 2025 to 2040. 	<ul style="list-style-type: none"> Construct Interchange Ramps <ul style="list-style-type: none"> Widen bridge to incorporate left-turn lanes and improved operations for bicycles and pedestrians and oversized agricultural equipment. Traffic control at the Columbia Road intersection. 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> \$16.8 - \$18.1 Million <ul style="list-style-type: none"> \$16.5 Million to construct interchange ramps with turn lanes and widening bridge \$300,000 to \$1.6 Million for traffic control at Columbia Road intersection 	<ul style="list-style-type: none"> The Interstate Access Report should be updated and scoping should occur in the Mid-Term. Advanced project development to occur in the Long-Term.

*Construction and Right-of-Way Costs only. Reported in 2017 dollars.

**Additional alternatives included in body of report will need to be included in any relevant environmental document. Highest ranked based on technical analysis, Steering Committee weighting and public input.

Figure 1-16: Summary of Highest Ranked Alternatives





Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: May 10, 2017** **MPO Executive Board: May 17, 2017**

RECOMMENDED ACTION: Update on the NDDOT US Business 2 Project Programmed for 2019

Matter of the NDDOT US Business 2 Project.

Background:

NDDOT has started to engage community members on the future project on US Bus 2 (N. 5th St and DeMers Ave). Attached is a timeline that was provided.

NDDOT staff, as well as MnDOT staff, were reminded that as part of the Sorlie Bridge project decision, the approaches would be addressed with a temporary fix (done) and then address a more permanent fix with this 2019 project.

N. 5th St.

We currently have identified a bike facility be installed on the street. The current Bike Plan would suggest sharrows; previous plans suggested bike lanes. We also note that like recent work that completed a curb extension at St. Mike's School that the Near North Neighborhood Plan identified other locations receive this treatment (notably university).

DeMers Avenue

Although depicted as an either a mill and overlay with very little enhancements versus a reconstruction with much more enhancements possible, we would like to offer that a mill and overlay could also include more enhancements than currently suggested. It may mean separating into two separate project developments; however, complexity of project development should not be the driving consideration. Simply adding ADA compliant curb ramps does not make the sidewalk accessible.

So we do not believe it should be suggested as such a stark option versus a more open option.

Our current understanding of what reconstruction includes as part of the expectation from our Federal Partners is addressing all sub-standard issues. One of the biggest issue that we expect to be raised is the issue of capacity. Although our past MTP have not identified LOS deficiencies, (up to the horizon year of 2040) the recent traffic operations analysis (never completed past a draft report) indicated that sometime between 2044 and 2057 additional through lanes would be needed. An update is now beginning that will use the horizon year of 2045 for its traffic demand forecasting. The most common decision the MPO has done in its existence (and among the parties involved prior to the MPO) has been to intentionally not add capacity to the DeMers Ave corridor.

Rather, the subsequent MTPs have identified the need to invest in capacity in other corridors via new Red River crossings. The timeline for the decision of DeMers coincides with the timeline of the 2045 Update.

2008 Downtown Plan did not recommend curb extensions along DeMers Ave; yet did indicate that it should be re-evaluated after the traffic signals were upgraded. The 2008 report did state that inadequate gaps existed, particularly at the west end of the Sorlie Bridge. The signal upgrades were expected to increase vehicle platoons that would then improve gaps.

Our Downtown Parking Plans have maintained parallel parking for DeMers Avenue. One particular reason has been the keen interest by the NDDOT to not change to diagonal parking along this particular street. The Plans have generally stated that other options exist to allow the parking to remain.

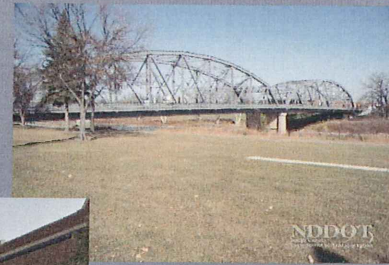
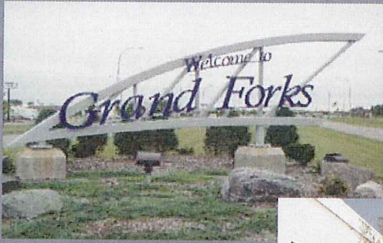
The MPO has not planned any particular treatment for bicycling along DeMers Ave other than understanding that bicyclists are allowed on the street. We know that sidewalk biking is prohibited. We know it is virtually not enforced. We also note that the Sorlie Bridge sidewalks are not of sufficient width to safely accommodate both mixed use and have had signs installed directing bicyclists to walk their bikes across the bridge. Little pavement width exists to accommodate creating a separate lane for bicyclists. Further, choke points exist at the flood walls. Further, the ability to extend any bike lane beyond the segment of DeMers between N. 5th St and the Sorlie Bridge raises the keen question of why designate such a facility if it is for only a short stretch. We do think share the road signs or bicyclists should take the full lane could be considered to provide more awareness of bicyclists.

ANALYSIS AND FINDINGS OF FACT:

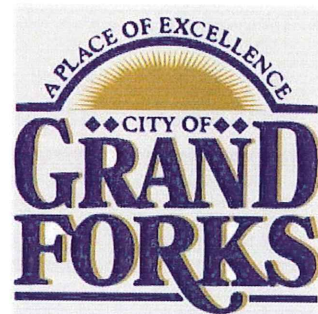
- None

SUPPORT MATERIALS:

- NDDOT US 2 Business Loop Packet




US 2 Business Loop
Project Development
Downtown Grand Forks, ND



Project Location Map




Demers Ave
Project Type Pending


5th Street
Mill & Overlay, ADA Ramps

Tentative Project Timeline

April – May 2017

Individual/Small Group Stakeholder Meetings

May – June 2017

Develop/Draw Alternatives

June - July 2017

Group Stakeholder Meeting – Review & refine alternatives that are developed from the input of individual and small group stakeholder meetings.

August – September 2017

Traffic Operations Study – Analyze refined alternatives to determine impacts to traffic.

October 2017

Public Input Meeting – Present alternatives and traffic analysis results to general public & stakeholders for comments.

October - November 2018

Public Involvement Report – A document detailing public comments and concerns will be created to be appended to the decision document that determines which alternative will move forward.

November 2018

Decision Document – A document detailing each alternative will be circulated for a formal vote from the Grand Forks City Council, as well as various NDDOT divisions. The document will then go the NDDOT Deputy Director of Engineering for final approval.

November – September 2018

Environmental Documentation & Project Design

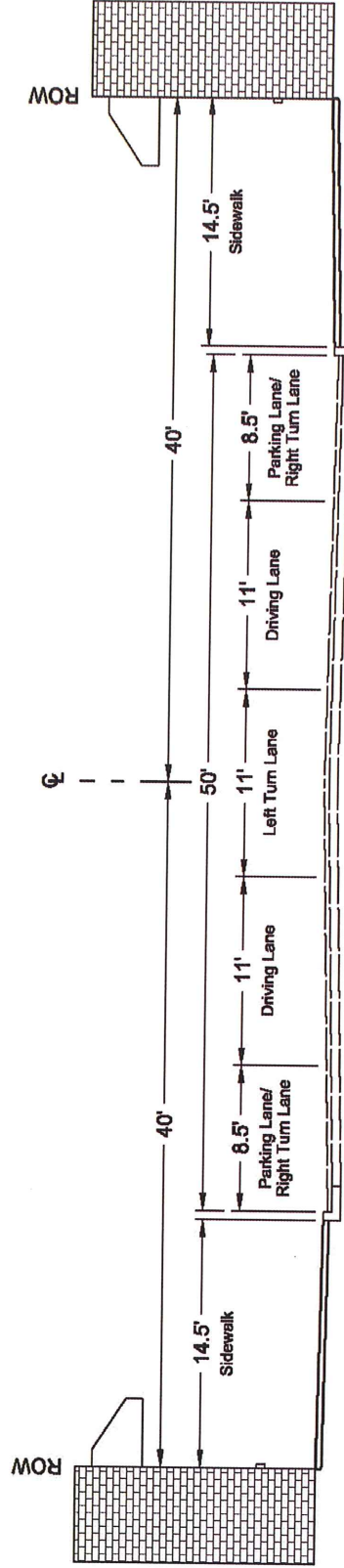
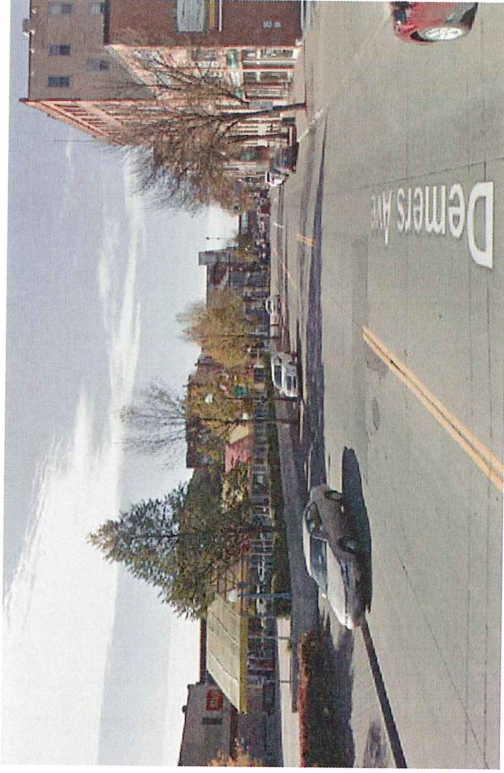
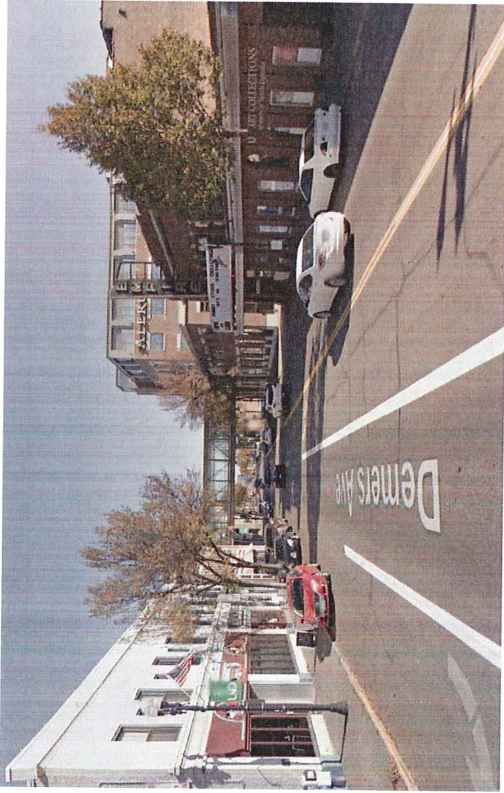
November 2018

Tentative Project Bid Date (Subject to Funding Availability)

Summer 2019

Project Construction (Subject to Funding Availability)

Demers Ave Today



Average Daily Traffic (2013*) = 13750
*Updated Traffic Counts Pending

Project Types – Demers Ave

Two main options can be considered for Demers Ave, each with its own advantages and disadvantages.



Mill & Overlay

A mill & overlay would consist of milling some of the existing bituminous pavement off and overlaying with new bituminous pavement. A mill & overlay is easy to construct but has a limited design life and a limited ability to include new features.

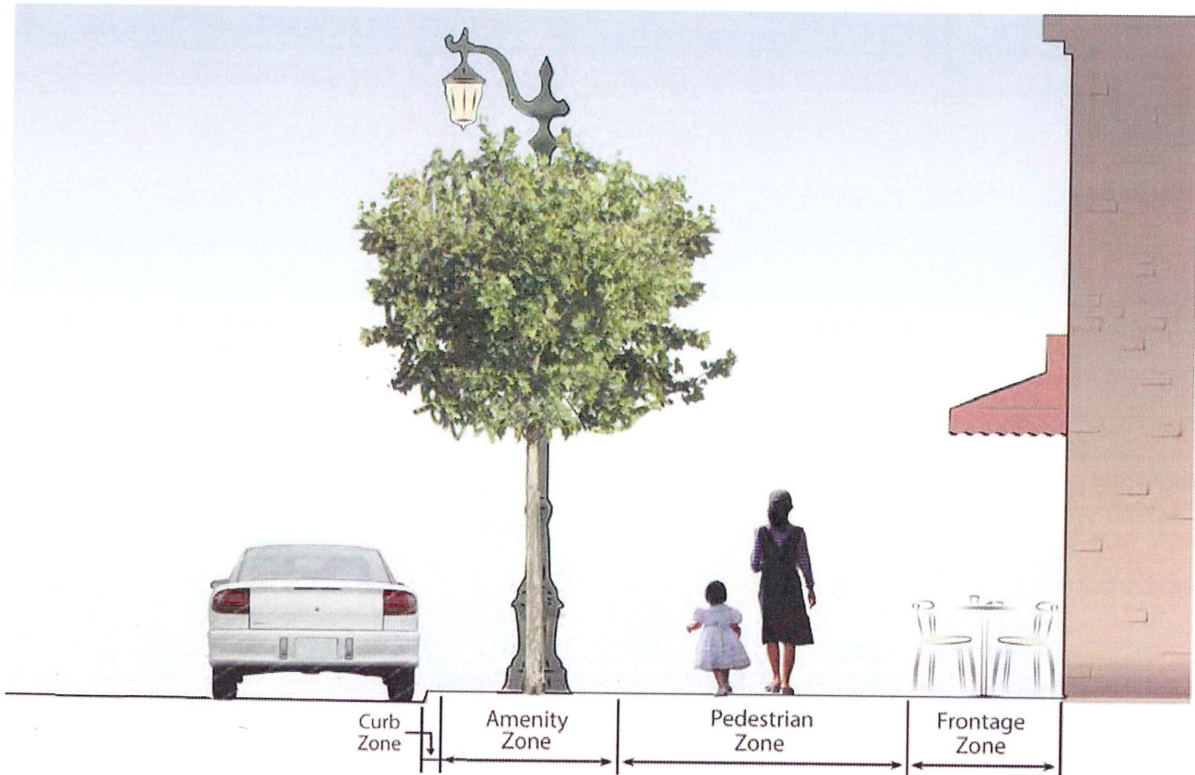
Reconstruction

Reconstruction would involve removing the roadway and sidewalk in its entirety and replacing it with a new roadway with new features. See the following pages for some potential design features. Reconstruction has a long design life and allows for new features to be included but will take a full construction season to complete.

Project Type	Estimated Design Life	Estimated Construction Time	Ability to Include New Features
Mill & Overlay	10 Years	4-6 Weeks	Very Limited
Reconstruction	30 Years	4-6 Months	Extensive

Design Features

1. Sidewalk Zones



Frontage Zone

The frontage zone describes the section of the sidewalk that functions as an extension of the building. This zone provides a buffer between walking pedestrians and obstacles associated with the adjacent buildings, such as doors that protrude into the sidewalk when open, sidewalk/patio seating, or stopped pedestrians who are window shopping. The frontage zone should be a minimum of 2 feet wide.

Pedestrian Zone

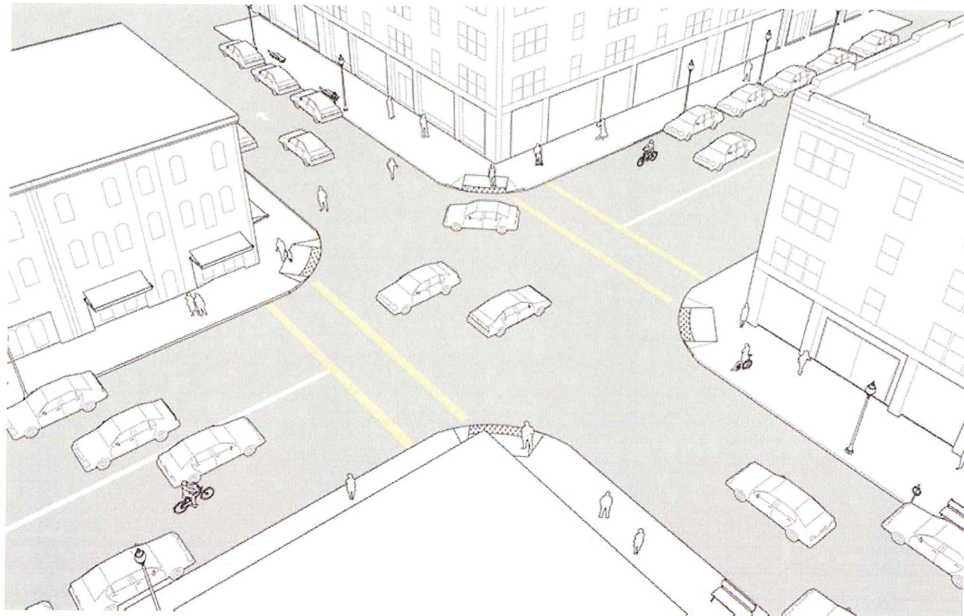
The pedestrian zone is the primary pathway that runs parallel to the street. This zone ensures that pedestrians have a safe and adequate place to walk and should be a minimum of 5 feet wide.

Amenity Zone

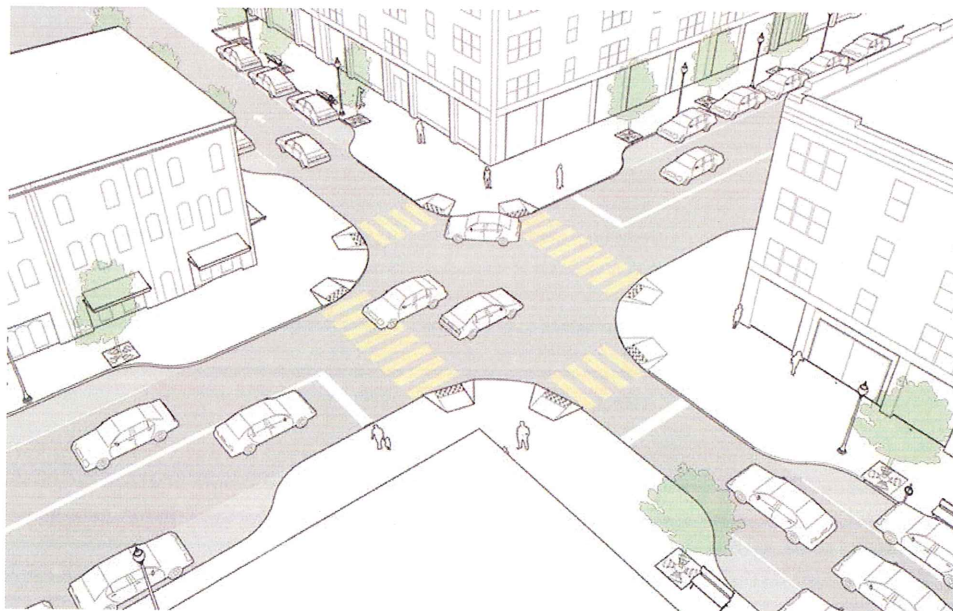
The amenity zone, also known as the street furniture zone, is defined as the section of the sidewalk between the curb and the pedestrian zone in which street furniture and amenities, such as lighting, benches, utility poles, trees, and bicycle parking are provided. The amenity zone should be a minimum of 2 feet wide.²

2. Curb Extensions

Curb extensions, also called curb bulb outs or gateways, extend the sidewalk out into the parking lane or right turn lane to shorten the roadway width that pedestrians have to cross. Extensions also provide better sight distance for pedestrians and oncoming cars since parked cars are no longer in the sight line between them. While curb extensions can be put in with little to no impact on parking, right turns would need to be eliminated to accommodate the extensions.



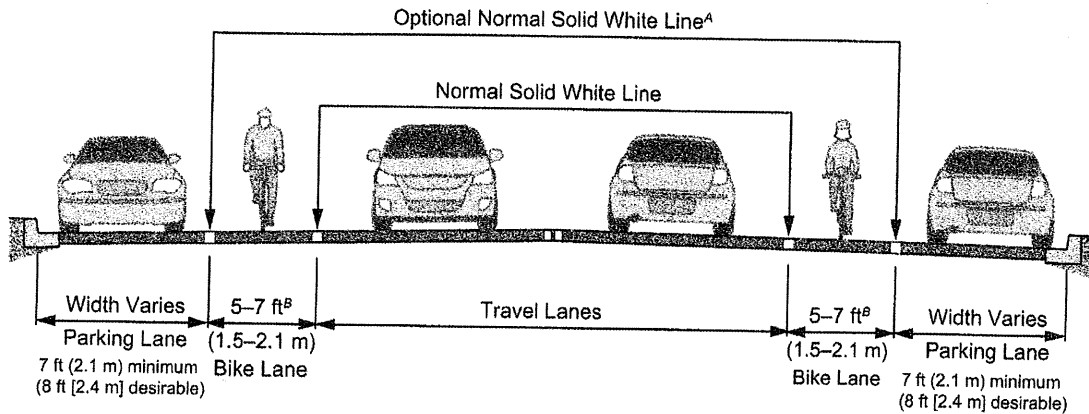
Similar layout to Existing Demers Ave



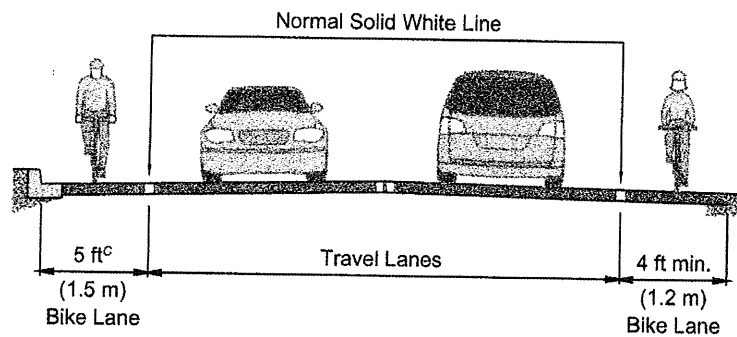
Layout with Curb Extensions

3. Bike Lanes

Bike lanes allocate road space for use by bicyclists. Those lanes allow bicyclists to ride where they are more likely to be seen by traffic than if they were on the sidewalk. They also allow bicyclists to ride at their desired speed regardless of the speed of adjacent vehicular traffic. Bike lanes are not intended to accommodate all bicycle movements on a roadway, such as making turns or passing other bicyclists.



On Street Parking



Parking Prohibited

Notes:

- ^A An optional normal (4-6-in./100-150-mm) solid white line may be helpful even when no parking stalls are marked (because parking is light), to make the presence of a bicycle lane more evident. Parking stall markings may also be used.
- ^B Bike lanes up to 7 ft (2.1 m) in width may be considered adjacent to narrow parking lanes with high turnover.
- ^C On extremely constrained, low-speed roadways (45 mph [70 km/h] or less) with curbs but no gutter, where the preferred bike lane width cannot be achieved despite narrowing all other travel lanes to their minimum widths, a 4-ft (1.2-m) wide bike lane can be used.

4. Parking

On-street parking provides motorist access to destinations along streets and has 3 common types: Parallel, Diagonal, and Back in Diagonal.

Parallel parking along streets is the most common, and typically the preferred type. This is what is currently used along Demers Ave. As shown in the bike lane figures, parallel parking lanes should be a minimum of 7 feet wide but 8 feet is desirable.

Diagonal parking can provide more parking spots if the roadway width can accommodate the parking spots. However on roadways with significant amounts of traffic, such as Demers Ave, diagonal parking spots increase crash potential, can be difficult to get out of, and can significantly inhibit traffic flow. Diagonal parking should be avoided.

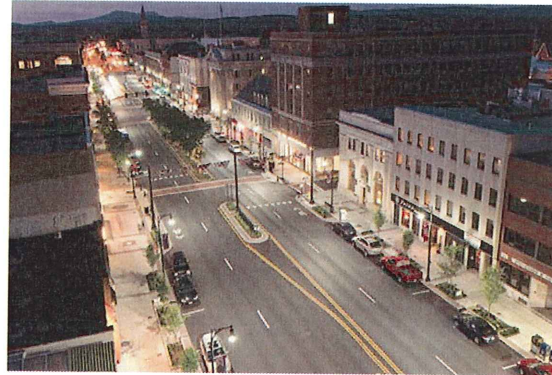
Back-in diagonal parking can provide more parking spots as well if the roadway width can accommodate the parking spots. This offers advantages over traditional diagonal parking such as being easier to get out, but still inhibits traffic flow. Depending on the angle that is used for either type of diagonal parking, spots take up anywhere from 15-17 feet.



5. Roadway Enhancements

Roadway enhancements improve the aesthetics and perception of the roadway as well as the community. Enhancements could include:

- Trees/Shrubs/Flowers
- Stamped and/or Colored Concrete
- Brick Pavers
- Planters
- Park Benches
- Decorative Lighting
- Decorative Traffic Signals
- And more...



There are a numerous possibilities and different combinations of enhancements that can be used when reconstructing a roadway, but there are restrictions that apply to funding these features. The current process provides a set amount of money that can be used to pay for the features based on the overall project cost. That set amount is subject to the approximate project funding split of 80% Federal, 10% State, and 10% city. Any cost above the set amounts spent on enhancements would have to be 100% city funding.

<u>Overall Project Cost</u>	<u>Amount Available for Enhancements</u>
<\$1,000,000	\$50,000
\$1,000,000 - \$2,500,000	\$100,000
\$2,500,000 – \$5,000,000	\$150,000
\$5,000,000 – \$10,000,000	\$200,000
\$10,000,000 – \$20,000,000	\$275,000
>\$20,000,000	\$350,000

The total cost of all enhancements don't apply to the set amounts. Lighting for example; since lighting would be installed regardless of whether decorative lights were wanted, only the cost to upgrade the standard light poles to decorative light poles would be applied to set amount available for enhancements.

Decorative Lighting Cost – Standard Lighting Cost = Cost applied to Enhancements
Amount

Most common enhancements are eligible for federal aid funding, but there are some things that are not. That is determined on a case by case basis, as enhancements are approved.

Comments

Comments should be submitted by May 19th, 2017

5th Street Project – Mill & Overlay, Replace ADA Ramps

Comments:

Demers Avenue Project

What should be done with Demers Ave?

Mill & Overlay Demers Avenue

If so:

Keep Demers Ave the way it is, just fix the pavement.

Fix the pavement and remove a parking lane; use that width to put in bike lanes.

Other: _____

Reconstruct Demers Avenue

If so, what features should be included?

On-Street Parking

Bike Lanes

Wider Sidewalks

Curb Extensions

Other _____



Due to the limited available width, please select no more than 2 of these 3 features.

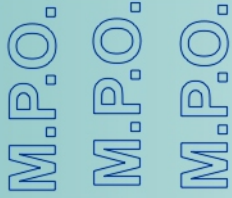
If reconstruction was selected, what roadway enhancements should be included in the project?

Continued on the back of the page...

Other Comments:

Please Return to:

Michael Wilz, P.E.
Design Division
ND Dept. of Transportation
608 East Boulevard Ave
Bismarck, ND 58505-0700
Phone: 701-328-4457
Fax: 701-328-0310
mwilz@nd.gov



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: May 10, 2017** **MPO Executive Board: May 17, 2017**

RECOMMENDED ACTION: Approve Addendum for ATAC to Add a Walkability Activity .

Matter of the Near Southside Neighborhood Traffic Study

Background:

The 2017 Work Program includes an activity to assist the City of Grand forks and Near Southside Neighborhood Association study traffic patterns in, around and through the near southside. Some of the focus is on how to slow traffic down and whether techniques of slowing traffic down displace traffic significantly to just shift the issue to another street. Additional focus is on the walk and bicycling concerns of the neighborhood.

Traffic data has been collected. ATAC has the data and is completing the analysis. The MPO Board did authorize ATAC also complete speed studies. Although previous reports had included speed data, this data was collected using speed trailers. The neighborhood felt this artificially lowered speeds due to the fact a Police Department trailer was present.

A common technique to assess the walking environment of an area is to conduct a walkability survey. ATAC has done this technique in other communities in North Dakota. Attached are two types of surveys that provide additional information. Both essentially train staff and volunteers to a common foundation of what walkability is. With this base understanding, then the group walk the neighborhood and complete the survey. This data will be used along with the traffic data to assist in understanding the walking issues that may be present in this neighborhood.

In developing the 2045 Land Use Plans, we heard a lot about improving the walking and bicycling environments. Specific locations were mentioned far and few between. We could consider this as a pilot study to help understand why common responses about citywide concerns can be better understood when studied in a specific area.

There has been discussion about both Cities applying for Walk Friendly Community status; this is similar to the Bike Friendly Community status that was awarded a bronze level a few years ago. An update to the Bike Friendly Award is currently being done.

ATAC has estimated a cost of \$2,024.

ANALYSIS AND FINDINGS OF FACT:

- In February, an RFP was Released

- No proposals were received on the Deadline of noon March 31st.
- The MPO was instructed to proceed through the request for quotes process
- The MPO has invited 15 firms to provide a quote; seeking at least three.

SUPPORT MATERIALS:

- Walkability Surveys

Walkability Checklist

How walkable is your community?

Take a walk with a child and decide for yourselves.

Everyone benefits from walking. These benefits include: improved fitness, cleaner air, reduced risks of certain health problems, and a greater sense of community. But walking needs to be safe and easy. Take a walk with your child and use this checklist to decide if your neighborhood is a friendly place to walk. Take heart if you find problems, there are ways you can make things better.

Getting started:

First, you'll need to pick a place to walk, like the route to school, a friend's house or just somewhere fun to go. The second step involves the checklist. Read over the checklist before you go, and as you walk, note the locations of things you would like to change. At the end of your walk, give each question a rating. Then add up the numbers to see how you rated your walk overall. After you've rated your walk and identified any problem areas, the next step is to figure out what you can do to improve your community's score. You'll find both immediate answers and long-term solutions under "Improving Your Community's Score..." on the third page.



Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk

Rating Scale:



1. Did you have room to walk?

- Yes Some problems:
- Sidewalks or paths started and stopped
 - Sidewalks were broken or cracked
 - Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - No sidewalks, paths, or shoulders
 - Too much traffic
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

4. Was it easy to follow safety rules? Could you and your child...

- Yes No Cross at crosswalks or where you could see and be seen by drivers?
- Yes No Stop and look left, right and then left again before crossing streets?
- Yes No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- Yes No Cross with the light?

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

2. Was it easy to cross streets?

- Yes Some problems:
- Road was too wide
 - Traffic signals made us wait too long or did not give us enough time to cross
 - Needed striped crosswalks or traffic signals
 - Parked cars blocked our view of traffic
 - Trees or plants blocked our view of traffic
 - Needed curb ramps or ramps needed repair
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

5. Was your walk pleasant?

- Yes Some problems:
- Needed more grass, flowers, or trees
 - Scary dogs
 - Scary people
 - Not well lighted
 - Dirty, lots of litter or trash
 - Dirty air due to automobile exhaust
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

3. Did drivers behave well?

- Yes Some problems: Drivers ...
- Backed out of driveways without looking
 - Did not yield to people crossing the street
 - Turned into people crossing the street
 - Drove too fastp
 - Sped up to make it through traffic lights or drove through traffic lights?
 - Something else _____

Rating: (circle one) Locations of problems:
1 2 3 4 5 6 _____

How does your neighborhood stack up? Add up your ratings and decide.

- | | | |
|---------------------|--------------|---|
| 1. _____ | 26-30 | Celebrate! You have a great neighborhood for walking. |
| 2. _____ | 21-25 | Celebrate a little. Your neighborhood is pretty good. |
| 3. _____ | 16-20 | Okay, but it needs work. |
| 4. _____ | 11-15 | It needs lots of work. You deserve better than that. |
| 5. _____ | 5-10 | It's a disaster for walking! |
| Total: _____ | | |

Now that you've identified the problems,
go to the next page to find out how to fix them.

Now that you know the problems, you can find the answers.

Improving your community's score

1. Did you have room to walk?

Sidewalks or paths started and stopped
Sidewalks broken or cracked
Sidewalks blocked
No sidewalks, paths or shoulders
Too much traffic

What you and your child can do immediately

- pick another route for now
- tell local traffic engineering or public works department about specific problems and provide a copy of the checklist

What you and your community can do with more time

- speak up at board meetings
- write or petition city for walkways and gather neighborhood signatures
- make media aware of problem
- work with a local transportation engineer to develop a plan for a safe walking route

2. Was it easy to cross streets?

Road too wide
Traffic signals made us wait too long or did not give us enough time to cross
Crosswalks/traffic signals needed
View of traffic blocked by parked cars, trees, or plants
Needed curb ramps or ramps needed repair

- pick another route for now
- share problems and checklist with local traffic engineering or public works department
- trim your trees or bushes that block the street and ask your neighbors to do the same
- leave nice notes on problem cars asking owners not to park there

- push for crosswalks/signals/ parking changes/curb ramps at city meetings
- report to traffic engineer where parked cars are safety hazards
- report illegally parked cars to the police
- request that the public works department trim trees or plants
- make media aware of problem

3. Did drivers behave well?

Backed without looking
Did not yield
Turned into walkers
Drove too fast
Sped up to make traffic lights or drove through red lights

- pick another route for now
- set an example: slow down and be considerate of others
- encourage your neighbors to do the same
- report unsafe driving to the police

- petition for more enforcement
- request protected turns
- ask city planners and traffic engineers for traffic calming ideas
- ask schools about getting crossing guards at key locations
- organize a neighborhood speed watch program

4. Could you follow safety rules?

Cross at crosswalks or where you could see and be seen
Stop and look left, right, left before crossing
Walk on sidewalks or shoulders facing traffic
Cross with the light

- educate yourself and your child about safe walking
- organize parents in your neighborhood to walk children to school

- encourage schools to teach walking safely
- help schools start safe walking programs
- encourage corporate support for flex schedules so parents can walk children to school

5. Was your walk pleasant?

Needs grass, flowers, trees
Scary dogs
Scary people
Not well lit
Dirty, litter
Lots of traffic

- point out areas to avoid to your child; agree on safe routes
- ask neighbors to keep dogs leashed or fenced
- report scary dogs to the animal control department
- report scary people to the police
- report lighting needs to the police or appropriate public works department
- take a walk with a trash bag
- plant trees, flowers in your yard
- select alternative route with less traffic

- request increased police enforcement
- start a crime watch program in your neighborhood
- organize a community clean-up day
- sponsor a neighborhood beautification or tree-planting day
- begin an adopt-a-street program
- initiate support to provide routes with less traffic to schools in your community (reduced traffic during am and pm school commute times)

A Quick Health Check

Could not go as far or as fast as we wanted
Were tired, short of breath or had sore feet or muscles
Was the sun really hot?
Was it hot and hazy?

- start with short walks and work up to 30 minutes of walking most days
- invite a friend or child along
- walk along shaded routes where possible
- use sunscreen of SPF 15 or higher, wear a hat and sunglasses
- try not to walk during the hottest time of day

- get media to do a story about the health benefits of walking
- call parks and recreation department about community walks
- encourage corporate support for employee walking programs
- plant shade trees along routes
- have a sun safety seminar for kids
- have kids learn about unhealthy ozone days and the Air Quality Index (AQI)

Need some guidance? These resources might help...

Great Resources

WALKING INFORMATION

Pedestrian and Bicycle Information Center (PBIC)

UNC Highway Safety Research Center
Chapel Hill, NC
www.pedbikeinfo.org
www.walkinginfo.org

National Center for Safe Routes to School

Chapel Hill, NC
www.saferoutesinfo.org

For More Information about Who Can Help Address Community Problems

www.walkinginfo.org/problems/help.cfm

State Bicycle & Pedestrian Coordinators

<http://www.walkinginfo.org/assistance/contacts.cfm>

FEDERAL POLICY, GUIDANCE AND FUNDING SOURCES FOR WALKING FACILITIES

Federal Highway Administration

Bicycle and Pedestrian Program
Office of Natural and Human Environment
Washington, DC
www.fhwa.dot.gov/environment/bikeped/index.htm

PEDESTRIAN SAFETY

Federal Highway Administration

Pedestrian and Bicycle Safety Team
Office Of Safety
Washington, DC
http://safety.fhwa.dot.gov/ped_bike/

National Highway Traffic Safety Administration

Traffic Safety Programs
Washington, DC
www.nhtsa.dot.gov/people/injury/pedbimot/pedSAFE


SIDEWALK ACCESSIBILITY INFORMATION

US Access Board

Washington, DC
Phone: (800) 872-2253;
(800) 993-2822 (TTY)
www.access-board.gov




Appendix B – Neighborhood Walking Survey



KANSAS CITY WALKABILITY PLAN

Neighborhood Walking Survey



How to use this tool:

1. Gather friends and neighbors to help with ideas.
2. Follow the instructions to create a map for each of the three sections.
3. Fill out the additional questions in sections two and three.

Submit the completed package to City Planning staff.

Walking is the most basic form of transportation. People walk everywhere – from home to work, to shop, to school, and to the park. During the day, workers might walk to lunch or to conduct personal business. Both ends of all trips in a car or bus are also walk trips.

In spite of how important walking is, it is often overlooked when planning our city. That changed with *FOCUS Kansas City*, which states that walking is an important mode of transportation and that we should plan for the pedestrian.

The NEIGHBORHOOD WALKING SURVEY tool has been developed to help people who live and work in a neighborhood decide for themselves and make clear to the City what they need and want in terms of walking.

The survey will probably take 1-2 hours to complete. We encourage you to get out and see your neighborhood while you complete the survey.

This survey is divided into three sections. Section 1 tells us where you are walking to and from today, and where you might want to walk in the future. Section 2 tells us how walking conditions in your neighborhood rate. Section 3 determines how you walk in your community and what improvements would make your neighborhood more walkable.

1

Where do you want to go?

What are the places in your neighborhood that you get to by walking? Accompanying this assessment are 3 maps and 4 colored pens. On the map marked "Where do you walk/want to get to by walking?", please do the following:

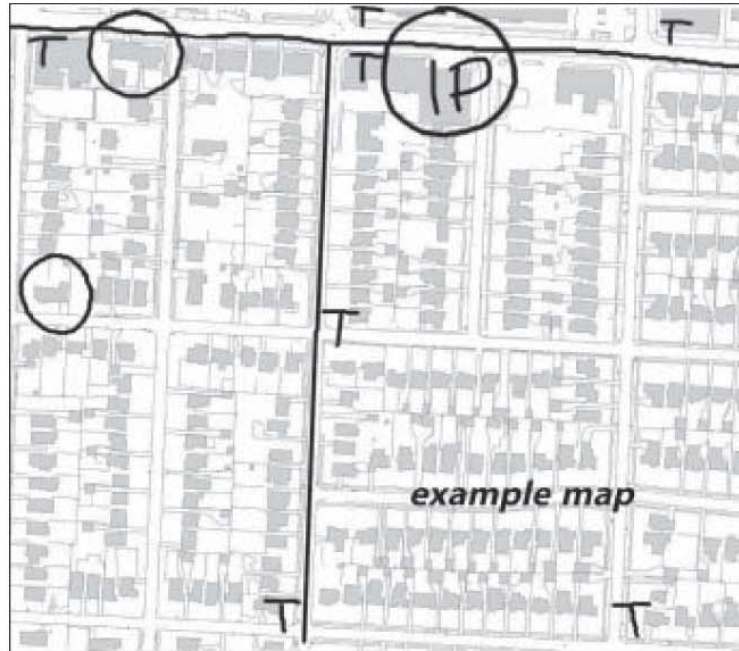
Circle Places You Go

Circle **all** major places you go in the following colors:

RED – shopping locations

BLUE – workplaces

GREEN – schools, parks, places of worship



Draw Bus Routes

Using a black pen, draw the bus routes within your neighborhood and place a "T" where there are bus or other transit stops.



Add Important Places You Go

Please place an "IP" for "important places" you go most often, or have a need to go. Choose the 1 or 2 most important places.



2a

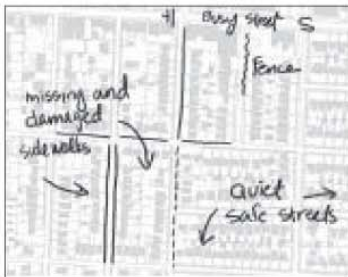
How do walking conditions in your area rate?

The next step of the neighborhood walkability survey is to identify the strengths and weaknesses of your neighborhood for walking. On the map called "Rating Walking Conditions" there are five categories of information.

COMPLETENESS: It is important to know how complete your sidewalk system is. Are there whole parts missing? Are there major parts that are broken and where you can't walk?

Draw Sidewalks in Blue

1. Use the blue pen to draw a dashed line to identify all locations of major problem areas, such as cracked sidewalks.
2. Draw a solid line for any sidewalks not shown on the map.



example map

STREET CROSSINGS: The ability to safely cross streets is an important part of the walking system. It might be relatively easy to cross a local two lane street, but it is harder to cross a street with 3-4 lanes and lots of traffic. How safe are your street crossings?

Draw Street Crossings in Red

1. Circle the most important places to cross in red.
2. Draw a red "S" for each traffic signal.
3. Draw in crosswalks in red.

DIRECTNESS: The distance the walker must go affects whether they choose to walk. If they have to go a long way to get around barriers, they might decide to drive instead. How direct are walking paths in your neighborhood?

Draw Barriers in Black

1. Draw a jagged black line to show barriers to walking.
2. Write a short explanation on the map. (These barriers might be physical – such as a freeway, deep ditch, or fence – or they might be barriers like a wide, busy street which is unsafe to cross.)

PHYSICAL INTEREST AND AMENITY: Walkers like places that are pleasant, visually interesting and well maintained. Do you enjoy walking in your neighborhood?

Draw the Best and Worst Places in Green

1. Highlight the best places to walk with a solid green circle.
2. Highlight the worst places to walk with a dashed green circle.
3. Write a short explanation for your choices. Explain why each of these places are either good or bad.

SECURITY: If people feel unsafe walking in an area, they will typically choose not to walk there. In general, how safe do you feel walking in your neighborhood?

Draw Security Issues in Red

1. Circle and label any areas where you think you are unsafe walking.
2. Write the 2 or 3 reasons you feel an area is unsafe on the edge of the map.

2b

Take a walk and decide for yourself.

Walking needs to be safe, easy and pleasant. Grab this checklist, take a walk, and use it to decide if your neighborhood is a friendly place to walk. Take heart if you find problems; there are ways you can make things better.

GETTING STARTED: Take a walk through your neighborhood and think about the five categories in section 2a. Read over this checklist before you go and as you walk, note the locations of things you would like to change. At the end of your walk, give an overall rating to each question and then add up the numbers to see how you rated your walk.



LOCATION OF YOUR WALK:

From _____

To _____

1. Did you have room to walk?

- There were sidewalks, paths, or shoulders Yes No
- Sidewalk started and stopped Yes No
- Sidewalks were broken or cracked Yes No
- Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc. Yes No
- Too much traffic Yes No
- Something else? _____
- Locations of Problems: _____

Rating (circle one): 1 2 3 4 5 6

2. Was it easy to cross streets?

- There were crosswalks and walk/don't walk signals Yes No
- Road was too wide Yes No
- Timing on walk signal was long enough Yes No
- Parked cars blocked our view of traffic Yes No
- Trees or plants blocked our view of traffic Yes No
- There were curb ramps in good repair Yes No
- Something else? _____
- Locations of Problems: _____

Rating (circle one): 1 2 3 4 5 6

3. Did drivers behave well?

- Looked before backing out Yes No
- Yielded to people crossing the street Yes No
- Turned into crosswalk when people were crossing Yes No
- Drove Slowly Yes No
- Sped up to make it through traffic lights or drove through red lights Yes No
- Something else? _____
- Locations of Problems: _____

Rating (circle one): 1 2 3 4 5 6

4. Was it easy to follow safety rules? Could you...

- Cross at crosswalks where you could see and be seen by drivers? Yes No
- Easily see both directions before crossing streets? Yes No
- Walk on sidewalks or shoulders facing traffic where there were no sidewalks? Yes No
- Cross with the light? Yes No
- Something else? _____
- Locations of Problems: _____

Rating (circle one): 1 2 3 4 5 6

5. Was your walk pleasant?

- Some unpleasant things Yes No
- Needed more grass, flowers, trees, or interesting sights Yes No
- Scary dogs Yes No
- There was good lighting Yes No
- Clean, little litter Yes No
- Something else? _____
- Locations of Problems: _____

Rating (circle one): 1 2 3 4 5 6

3

Where do you walk/want to walk?

Look back at the maps you prepared in Section 1 and Section 2. Think about how these maps describe both where you would like to go in your neighborhood and how you feel when walking to and from these places.

Create a Summary Map

1. Draw the most important destinations and walking routes on your summary map in **BLUE**.
2. Pick the most important positive and negative things about where you walk, and add them to your summary map in **GREEN**.

Walking Wishes

Now that you have reviewed and summarized your work, think about the five most important changes you would like to see in your neighborhood. Write down five specific "walking wishes" in the space provided below.

1. _____

2. _____

3. _____

4. _____

5. _____

Name of Neighborhood:

Boundaries:

Contact Person:

Mailing Address:

Daytime Phone:

E-mail

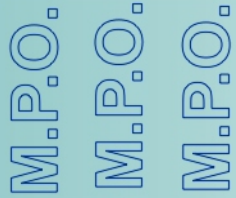
Thank you for letting the City know what you think about improving walkability in Kansas City! You can use survey results to help justify requests for resources needed for important improvements in your neighborhood.

Return Survey & Maps to:

City Planning and Development Department
 15th Floor, City Hall
 414 E. 12th Street
 Kansas City, MO 64106-2705
 (816) 513-2855
planning@kcmo.org



KANSAS CITY WALKABILITY PLAN
 Neighborhood Walking Survey



Grand Forks - East Grand Forks Metropolitan Planning Organization

MPO Staff Report **Technical Advisory Committee: May 10, 2017** **MPO Executive Board: May 17, 2017**

RECOMMENDED ACTION: Matter of MnDOT Freight Plan Update

Matter of the MnDOT Freight Plan Update.

Background: MnDOT has initiated an update to its State Freight Plan. Although MnDOT had just completed an extensive update to its Freight Plan in 2016, FAST required some amendments. MnDOT is trying to survey the public's perception of freight investments. Attached is a survey form that will be distributed at the TAC meeting with hope it will be completed and returned.

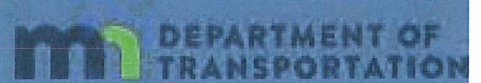
Also attached is a presentation MnDOT recently gave concerning this. In it you will notice that MnDOT will be soliciting candidate projects to include into the new Freight Plan.

Findings and Analysis:

- None

Support Materials:

- MnDOT Freight Survey
- MnDOT Presentation of Freight Plan Update.



HELP MNDOT INVEST IN OUR FREIGHT SYSTEM

The FAST Act created a new funding program, the National Highway Freight Program, which provides formula money to Minnesota to make improvements to our highway system that benefit freight movement. All public roads are eligible, not just MnDOT's system.

WE NEED TO DECIDE WHAT KIND OF PROJECTS TO INVEST IN.

There are many types of highway projects that help freight. We've divided types of projects into broad categories, and we want you to tell us which category to prioritize. The FAST Act also allows up to 10% of the money to be used for intermodal improvements in port or rail facilities, so we have included that as a category

PLANNING HELPS GUIDE THESE DECISIONS.

This feedback will help us write Minnesota's first Freight Investment Plan. Required by the FAST Act, this plan will show where the important freight needs are, and list which projects we will spend the money on.



WHAT DO YOU THINK MNDOT SHOULD FOCUS ON?

YOU CAN HELP MNDOT PLAN WHERE THE MONEY GOES.

Rank the categories below in order of importance, from 1 to 3.

Category A: Safety

This category covers projects that improve the safety of freight movement on highways.

Example of project types include:

- Truck parking at rest areas
- Wider shoulders

Rank: _____

Category B: Freight Congestion/Freight Efficiency Improvement

This category covers projects that improve the mobility and efficient movement of freight on highways. Example project types include:

- Bridge clearance increases
- Adding turn lanes or passing lanes
- Geometric improvements for truck movement at intersections
- Rail highway grade separation
- Long-term pavement repairs
- Capacity increases

Rank: _____

Category C: First/last mile connections

This category covers projects that improve access to and from freight-generating facilities. Project types from the other two categories could fall under this category. To be in this category the project cannot be on the NHS.

Rank: _____



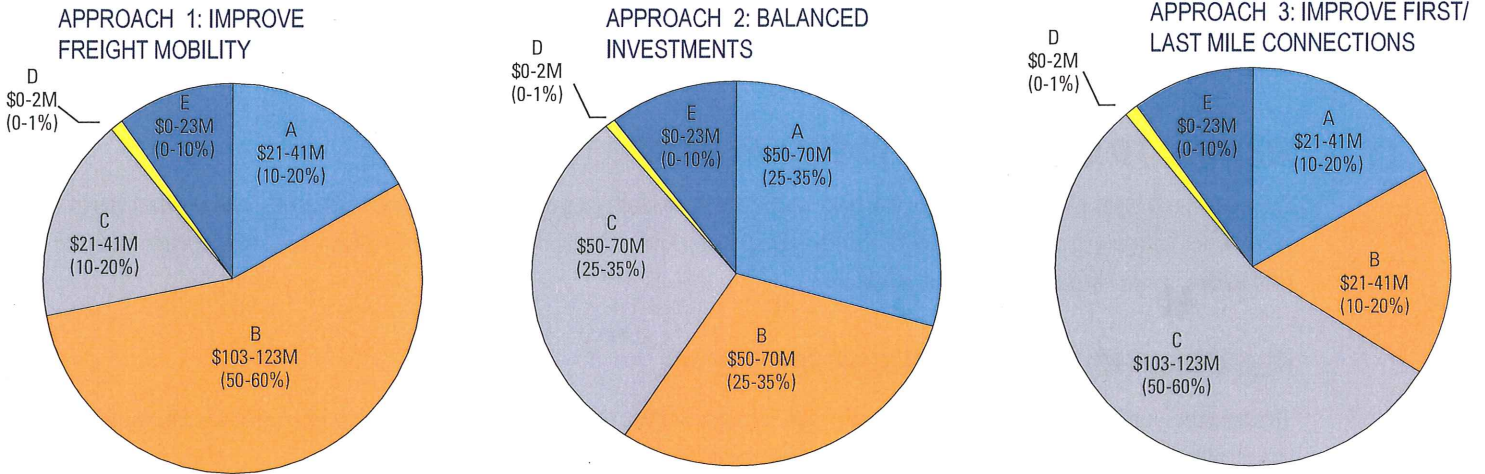


WHICH APPROACH BEST ADDRESSES YOUR PRIORITIES?

We are planning for a 10-year, \$230 million budget for freight funding. Take a look at the different scenarios and let us know which approach best aligns with your priorities for improvements to the freight highway system over the next 10 years.

Note: Amounts for categories D and E stay the same in each scenario.

Circle which scenario below best addresses your priorities:



Key:
■ A: Safety
■ B: Freight Congestion/Improvement
■ C: First/Last Mile Connections
■ D: Planning, Data Collection
■ E: Intermodal Port and Rail Improvements

ESTIMATED COSTS OF EXAMPLE PROJECT TYPES:

Example projects in Category A:	
Rest area truck parking expansion	\$1 million per rest area
Widening shoulders	\$100,000-400,000 for 1 mile of shoulder
Weigh station bypass	\$300,000-800,000
ITS truck rollover system	\$350,000 per system
Example projects in Category B:	
Bridge clearance improvements	\$3 million per bridge
Rail-highway grade separation	\$10-30 million
Interchanges (TH to non-TH)	\$20-30 million
Long term pavement fixes	\$400,000 per 12 foot lane mile in greater MN, \$700,000 per 12 foot lane mile in metro
New Digital Message Sign	\$120,00 for overhead sign, \$43,000 for post mounted sign
Example projects in Category C:	
Upgrade county road to 10- ton	\$1.5 million per mile



TELL US ABOUT YOURSELF

Zipcode: _____

Who do you represent? Circle any that apply.

- MnDOT
- MPO
- RDC
- County
- City
- Private Sector
- Other _____

David.tomporowski@state.mn.us
 395 John Ireland Blvd., MS 440
 Saint Paul, MN 55155



Freight Investment Plan Update

Brad Utecht | Investment Planning Director
MPO Meeting – May 2, 2017

National Highway Freight Program (NHFP)

- New program in FAST Act
- Provides formula funding to be used for freight projects
- Funds may be used on non-state-owned highways
- Program goals cover:
 - Infrastructure and operational improvements to US highways
 - Improving safety, security, efficiency, resiliency of freight transport
 - Improve state of good repair of the National Highway Freight Network
 - Using innovation and advanced technology
 - Supporting multi-state planning
 - Reducing environmental impacts of freight movement
- These funds are different than FASTLANE



National Highway Freight Program Funds

- These are statewide totals
- Based on November 2015 Forecast
- Numbers are in **millions of dollars**

2016	2017	2018	2019	2020
\$17.7	\$16.9	\$18.5	\$20.8	\$23.1

National Highway Freight Network

- Money must be spent on the National Highway Freight Network (NHFN)
 - Currently just the Interstates
- Money can be spent off the Interstates as long as the project area is designated as a Critical Urban or Rural Freight Corridor
 - CUFC statewide limit: 75 miles
 - CRFC statewide limit: 150 miles
- “Urban” = urbanized areas of metropolitan planning organizations
- “Rural” = everywhere else

FY 2016-2018 Selected Projects

District	FY	Project	Amount
1	16	I-35 unbonded overlay- Substitute for bonds	\$17.7
4	17	I-94 Bridge Anti-icing replacement	\$1.0
7	17	I-90 unbonded overlay (shelf project)	\$3.3
M	17	I-35W 86 th bridge clearance	\$4.1
M	17	I-35W Bridge Anti-icing replacement	\$0.5
M	17	I-94 St. Croix Truck Parking increase	\$1.0
CO	17	Freight Planning	\$0.2
1	18	Twin Ports Interchange Pre design	\$3.0
6	18	Weigh station upgrades	\$3.6
M	18	I-94 Goose Cr. Truck Parking increase	\$0.2
M	18	I-694, 94, 494 Interchange truck enhance	\$19.5

Freight Investment Plan

- Freight Investment Plan
 - Required under FAST Act to spend freight program dollars
 - Will be treated as an amendment to the 2016 Statewide Freight System Plan
 - Fiscally Constrained
 - Initial Draft – September 2017
 - Approval by FHWA in December 2017
- Investment plan covers a 10 year horizon
 - 2018-2022 – project list
 - 2023-2027 – investment by category

Freight Investment Plan Advisory Group

Name	Organization	Representing
MnDOT Central Office		
Mark Gieseke	MnDOT OTSM	Statewide Planning and Programming
Mark Nelson	MnDOT OTSM	Statewide Planning
Ed Idzorek	MnDOT Operations Division	MnDOT Portfolio Manager
Bill Gardner	MnDOT OFCVO	MnDOT Freight Office
Amber Blanchard	MnDOT Bridge Office	Bridge Program Planning
Peter Buchen	MnDOT Traffic Office	Traffic Safety
Glen Engstrom	MnDOT Materials Office	Pavement Program Planning
Ted Schoenecker	MnDOT State Aid	State Aid Counties and Cities
MnDOT Districts		
Jon Huseby	MnDOT District 8 Engineer	Greater MN Districts
Bryan Anderson	MnDOT District 1	Greater MN District Planners
Shiloh Wahl	MnDOT District 4	Asst District Engineers, Program Development
Pat Bursaw	MnDOT Metro District	Metro District Planning
Locals		
Steve Peterson	Met Council	Large MPO
Ron Chicka	Duluth/Superior MIC	Greater MN MPOs
Annette Fiedler	SWRDC	Regional Development Commissions
Lisa Freese	Scott County	Counties
Steve Bot	City of St. Michael	Cities
FHWA		
Kris Riesenber	FHWA	Federal Programs

Decisions on Freight Investment Plan so far

- Statewide Program
- Focus on projects with clearly defined freight benefits
- Will consider new projects, add-ons to existing projects, and up-scoping existing projects
- For pavement projects, prioritize long-term fixes
- Do not want to swap funds with already-funded projects

Decisions on Freight Investment Plan so far

- Can include program delivery cost with construction cost
- Up to 10% intermodal spending target
- No local spending target
- Minimum and maximum award amount
- Investment Categories and Scenarios for Outreach
- Upcoming solicitation, project-driven approach for corridor designation

Decisions on Freight Investment Plan so far

- All projects within the Metropolitan Council planning boundary must be a Tier 1, Tier 2, or Tier 3 corridor on the Metropolitan Council's Highway Truck Corridor Study or the project must provide a direct connection to one of these three tiers.
- Geographic split: No split with minimum threshold of at least 20% of the money in either Metro (defined as MnDOT Metro District) or Greater Minnesota.

Process/work plan

Work Plan item	Month (all 2017)
Outreach with investment scenarios	February-May
Finalize evaluation criteria and measures for project selection	April Advisory Group meeting
Set investment direction based on preferred scenario	May Advisory Group meeting
Discuss draft solicitation/application	May Advisory Group meeting
Begin solicitation for FY 19-22 projects	June
Select projects and determine CUFC and CRFC	August
Draft plan prepared	End of September

- Program will be administered in the form of a solicitation
- Solicitation will be sent out to:
 - MnDOT Districts
 - Cities, Counties, and Townships via MnDOT State Aid Office
 - Other groups as needed (port authorities, etc.)
- Applicant must describe how the project is consistent with relevant local, regional and state plans. Applicants are encouraged to consult with their Area Transportation Partnership and/or Metropolitan Planning Organization. ATP and/or MPO approval will be required for final project approval.

Outreach throughout February-May

Outreach so far:

In person:

- Metro District CIC
- PCMG/CMG
- MnDOT Operations Division
- Minnesota Freight Advisory Committee
- ACTT
- Met Council TAC Funding & Programming

Remotely or via survey:

- MnDOT Districts (via District Planners and ATPs)
- Cities and Counties (via MnDOT State Aid)
- Regional Development Commissions

Proposed Investment Categories

- A: Safety
- B: Freight Congestion/Freight Efficiency Improvement
- C: First/last mile connections
- D: Other (planning, data collection)
- E: Intermodal port and rail



Example Freight Projects

Freight Congestion/Efficiency

- Long term pavement fixes that provide clear freight benefits
- Bridge work (increasing clearance)
- Turn lanes, bypass lanes
- Turning radius, geometric improvements
- Intersection/interchange improvements
- Rail/highway grade separation
- Capacity increases
- Work zone improvements for trucks
- Traffic signal optimization

Safety

- Truck parking at rest areas
- Adding/widening of shoulders
- Rail/highway grade separation

First/last mile

- Upgrading to 10-ton
- Improving access to freight-generating facilities

Intermodal port and rail facilities

Planning, data collection









Thank you!

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Maureen Jensen
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TABLE OF CONTENTS* UPDATE MAY, 2017

CODE	AREA	PROJECT SCHEDULE/TIMELINE		% COMPLETED	FISCAL YEAR	COMPLETION DATE
		Task(s)	ACTIVITY			
	Introduction					
300.1	PLANNING AND IMPLEMENTATION		ACTIVITIES			
300.1	Plan Update	1	The model development is in the data collection and methodology development stage. Cleaning up & formatting data obtained to represent the employment centers. The data shows the type of employment and the number of employees by NAICS code.	35%	2106	16-Dec
300.1	Bicycle & Pedestrian Planning Element (Update) NEW	2-3-4-5	MPO staff prepared responses to Department of Engineering regarding concerns on the advancement of the Goals and Objectives of the Bicycle and Pedestrian Plan. Staff also prepared materials, disseminated them and solicited comments to support preparation of Bikeway Map, 2018. Staff contributed to the preparation of the Complete Streets Workshop (April, 28) in cooperation with Federal Highway Administration (ND), NDDOT and MN DOT. Staff continued with the preparation of the draft report of the Bicycle and Pedestrian Element Update.	60%	2016	May-16
300.1	Transit Development Planning Element (Update) NEW		Transit Development Plan: Project 96% Completed. Prepared draft Final Report. Submitted draft for review	96%	2016	Feb-17
300.2	CORRIDOR PLANNING					
300.2	Traffic Count Program	Ongoing	A no-cost extension has been recently approved by the MPO as intersections are offline		2015	31-May-15
300.2	Corridor Preservation	Ongoing	Ongoing		2015	Ongoing
300.2	Bygland Road Study				2015	30-Nov-15
300.2	32nd Signal Timing				2015	31-Dec-15
300.3	TRANSPORTATION IMPROVEMENT PROGRAM (TIP) ANNUAL				2016	
300.4	LAND USE PLAN		ACTIVITIES			
300.4	Grand Forks 2045 Land Use Plan Update			99%	2015-16	31-Aug-16
300.4	East Grand Forks 2045 Land Use Plan Update				2015	31-Mar-16
300.5	SPECIAL STUDIES		ACTIVITIES			
	Aerial Photo				2015	
300.5	MAP-21/FAST (2015)		Ongoing		2015	Ongoing
300.5	I-29 Traffic Operations Study	1	In April, Consultant finalized the draft report. Pending comments on the draft report, Consultant has advanced 100% of the technical analysis (9/9 deliverables), Advanced 85% of stakeholder involvement (6/7 Steering Committee Meetings) and advanced 66% of the public engagement activities (2/3 public input meetings).	100%	2015	7/30/2016 (Work extended to 2017)
300.5	School Safety Study Discovery Elementary Safe Routes to School Report, 2016	6B		100%	2015	1-Jul-16
300.6	PLAN MONITORING, REVIEW AND EVALUATION		ACTIVITIES			
300.7	GEOGRAPHIC INFORMATION SYSTEMS (GIS) DEVELOPMENT					
	Geographic Information Systems (GIS) Development	Ongoing	Ongoing in-house		2015	Ongoing
	Pavement Management Program	Completed			2015	Completed
	Glasston Subdivision Railroad Mitigation Study	Completed			2015	31-Dec-15

Note: Brief project update review for information only. It does not replace Project Reports.