
APPENDIX

A

**PUBLIC
ENGAGEMENT**



Public Input Meeting

76th Avenue South Corridor Study

August 12, 2020



Why this Study?

One Vision! ... with a Phased Approach

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Key Takeaways – “Let’s Manage Expectations”

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- 1 Full-build traffic volumes are a long ways away
- 2 Multi-model transportation must be accommodated for
- 3 76th Ave S needs a high level of access management
- 4 This is visionary – a lot more studying and discussions are still to come
- 5 A phased approach will be implanted to facilitate the future vision
- 6 Go to the website and provide comments (www.76thavestudy.com)



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Zoom Etiquette

Zoom Etiquette – Please mute your microphone

Turn on Participants Panel – rename yourself as needed

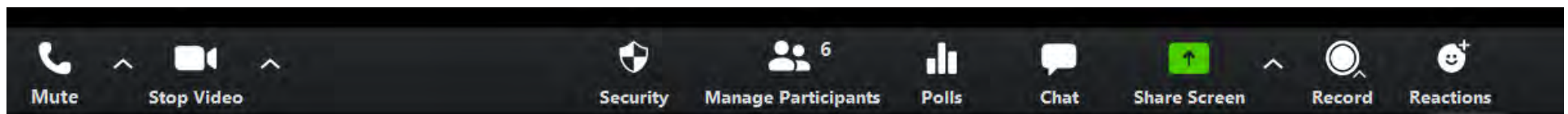
Use the chat box: we are monitoring the conversation;

this is a great place to provide feedback!

Live Polling!



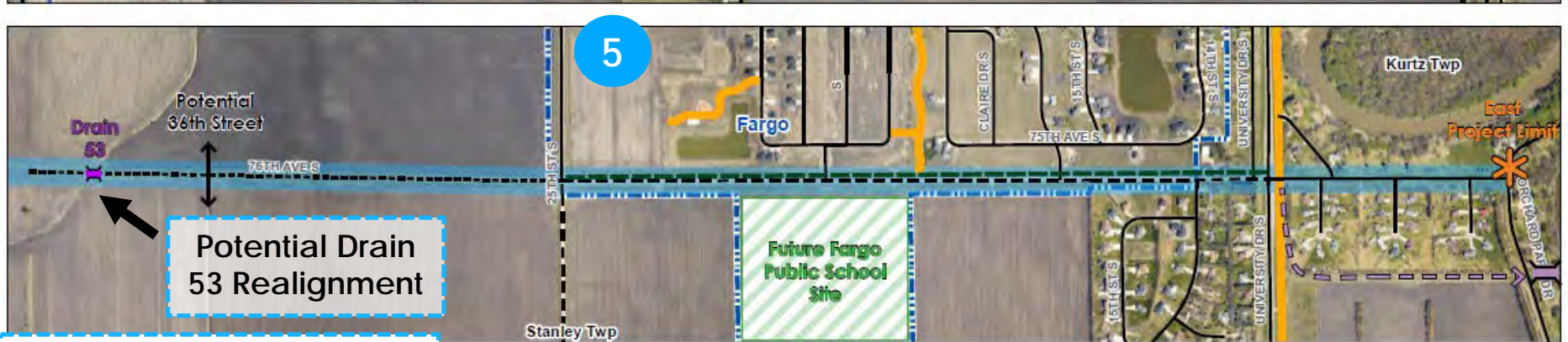
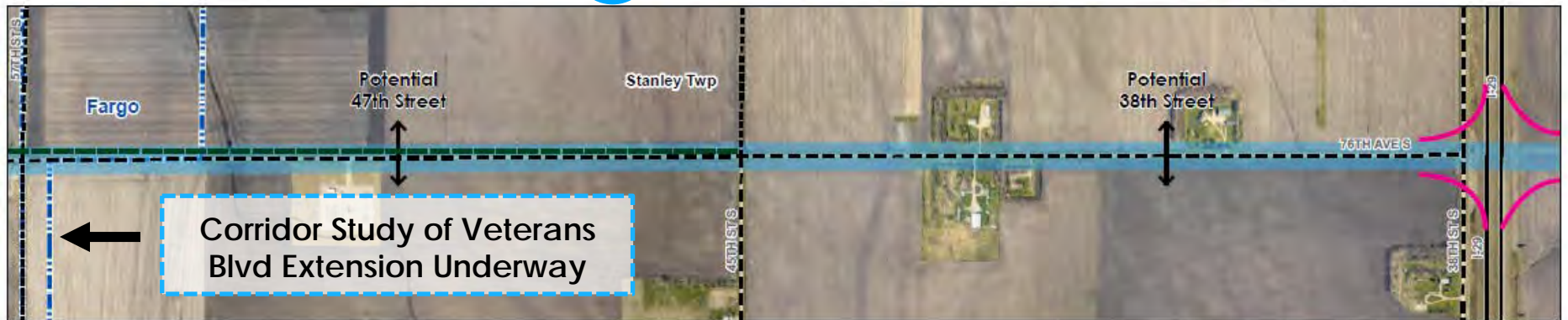
Your Controls are Along this Bar



Agenda

- Introductions
- Why this Study?
- Schedule
- Engagement/ Vision
- Alternatives
- Project Phasing
- Instant Polling





Updates Since Map Completion in January 2019

800 1,600 Feet

	Paved Road		Study Corridor (1-mile section line road)		Programmed Improvements: 4-Lane divided concrete pavement project in 2019 (Cass County Comp Plan)		Future Roundabout
	Gravel Road		Municipal Boundaries		Future Bike Path (previous study)		Potential Interchange (previous study)
	Field Road		Bridge structures (may need to be widened with road widening)		Potential 76th Realignment for Red River Bridge (previous study)		
	Existing On-Street Bikeway		Future road connection (previous study)				
	Existing Shared Use Path						



Schedule

Project Schedule

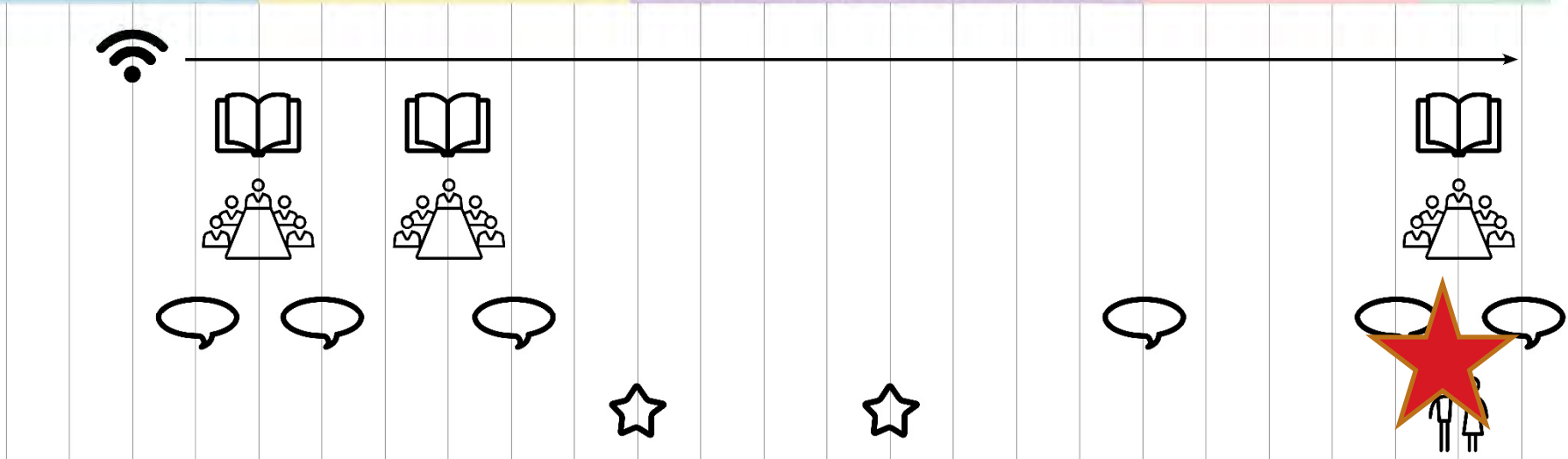
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2018

2019

2020

Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept



Schedule was extended to complete additional travel demand analysis

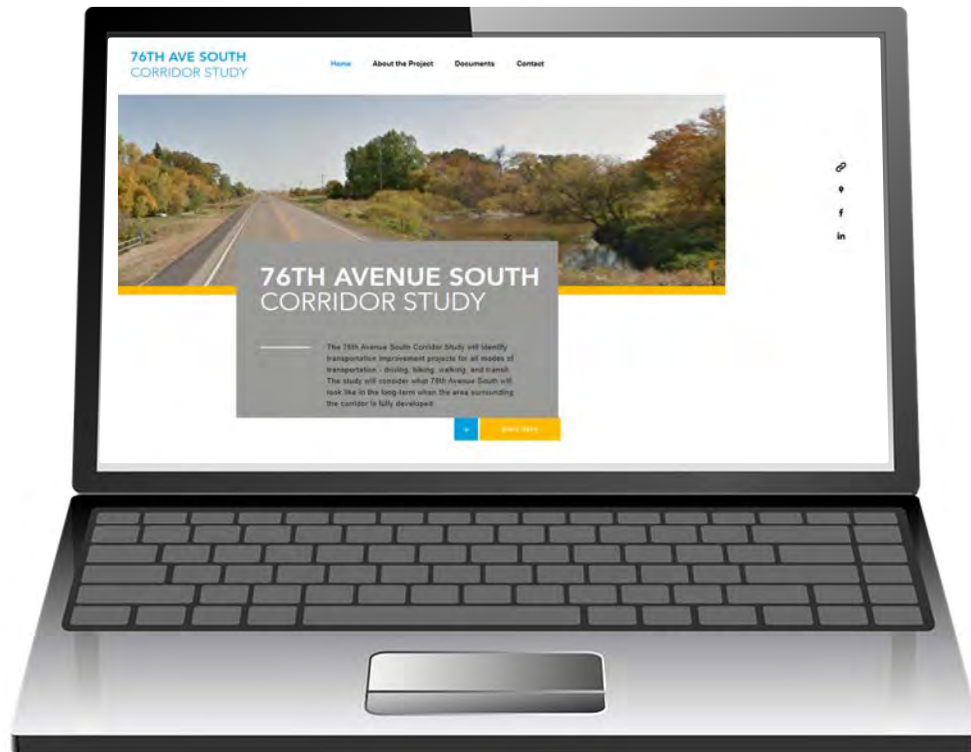
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Engagement

Public Engagement

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Engagement Events to date:

- ✓ 6 SRC Meetings (Steering Committee)
- ✓ 3 Stakeholder Meetings
- ✓ 1 Public Input Meeting
- ✓ 3 Newsletters
- ✓ Visual Preference Survey
- ✓ Question Survey



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Building Blocks Exercise

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Planning Themes

- Mixed use opportunities
- Density drives walkability
- Higher density near I-29 interchange
- **Building orientation**
- More single family in eastern and western terminus
- Supported by **collector street network**



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Alternatives

Developed Two Alternatives

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Alternative 1 Regional Arterial




Purpose is to prioritize east/west traffic with limited Interruptions utilizing alternative intersection treatments.

-  Limited Signals at Intersections
-  Pedestrian/Bicycle Crossings at Underpasses
-  Strong Access Management



Alternative 2 Commercial Arterial

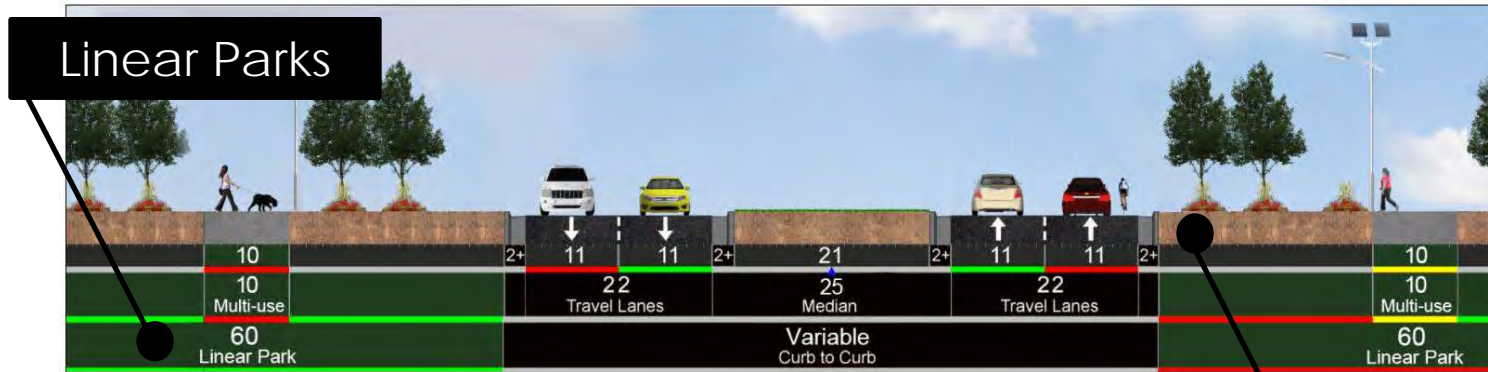
Purpose is to prioritize traffic east/west utilizing mostly traditional signalized intersections.

-  More Traditional Use of Signals
-  Pedestrian/Bicycle Crossings at Underpasses but Predominately Intersections
-  Strong Access Management

Typical Sections

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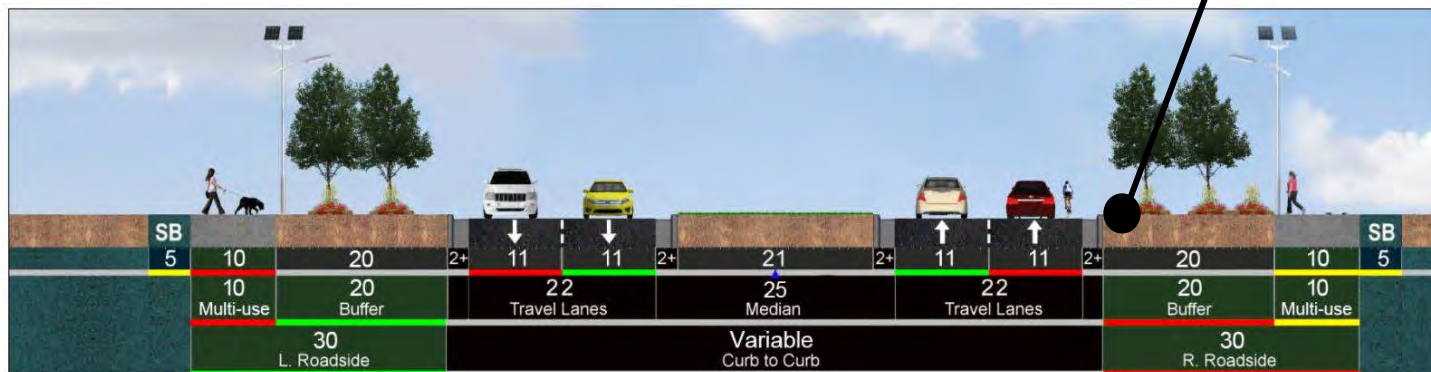
Alternative 1 - Regional Arterial



ROW:
120' – 200'

Ability to Widen to
a 6-Lane Roadway

Alternative 2 - Commercial Arterial



ROW:
120' – 150'

Development

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- LAND USE
- C Commercial
 - MU Mixed Use
 - HD High Density
 - MD Medium Density
 - LD Low Density
 - Park
- STREETS
- Arterial
 - Collector
 - Local
 - Private
 - Parking
 - Trail



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Intersection Treatments

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76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 45TH STREET
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 25TH STREET
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND COUNTY ROAD 17
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 45TH STREET
ALTERNATE 2



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 25TH STREET
ALTERNATE 2



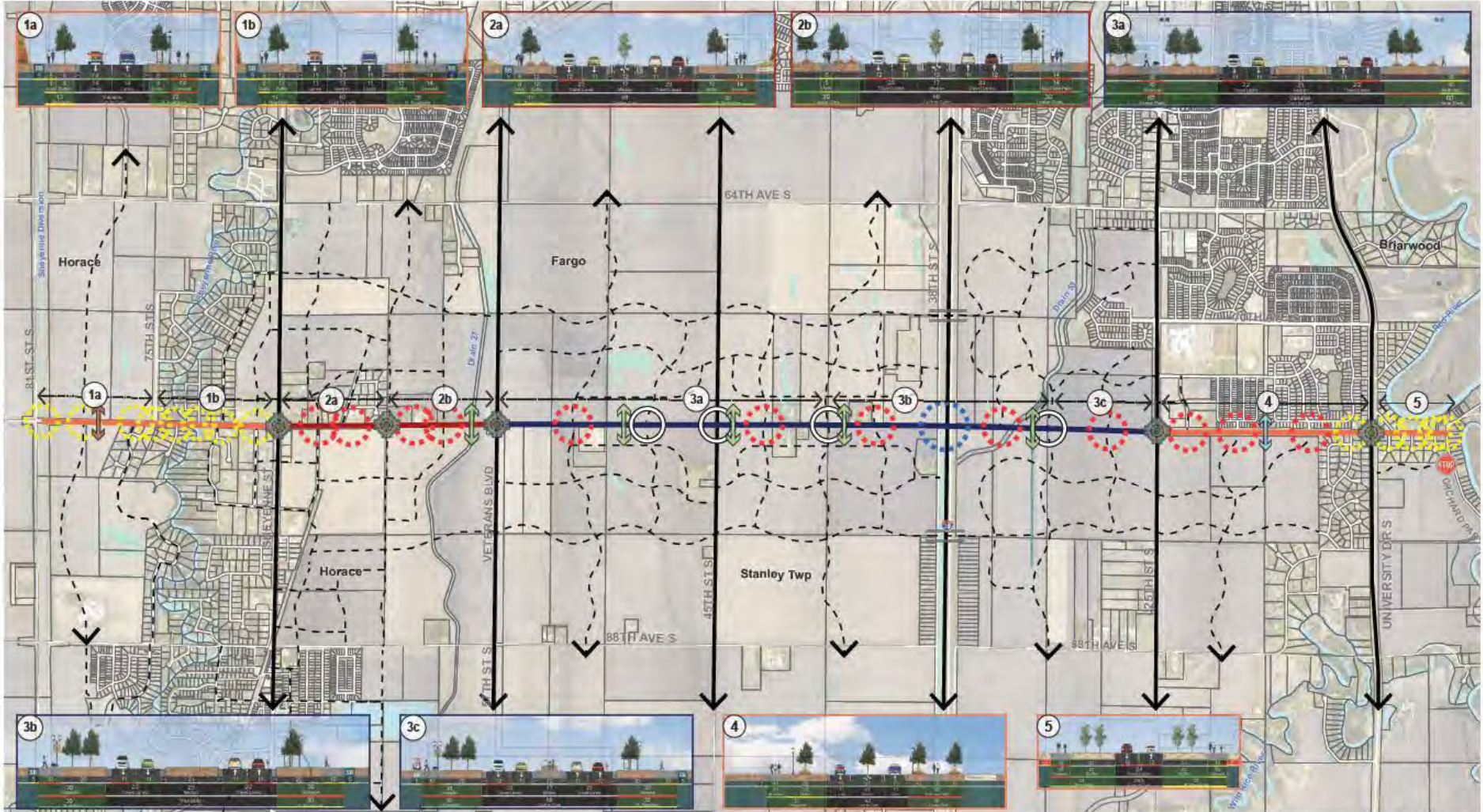
76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND COUNTY ROAD 17
ALTERNATE 2



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Preferred Access Plan (PAP) – Alt 1

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1 in = 1,000 feet

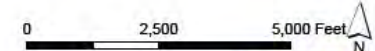
Future Visioning Assumptions Alternative 1: Regional Arterial



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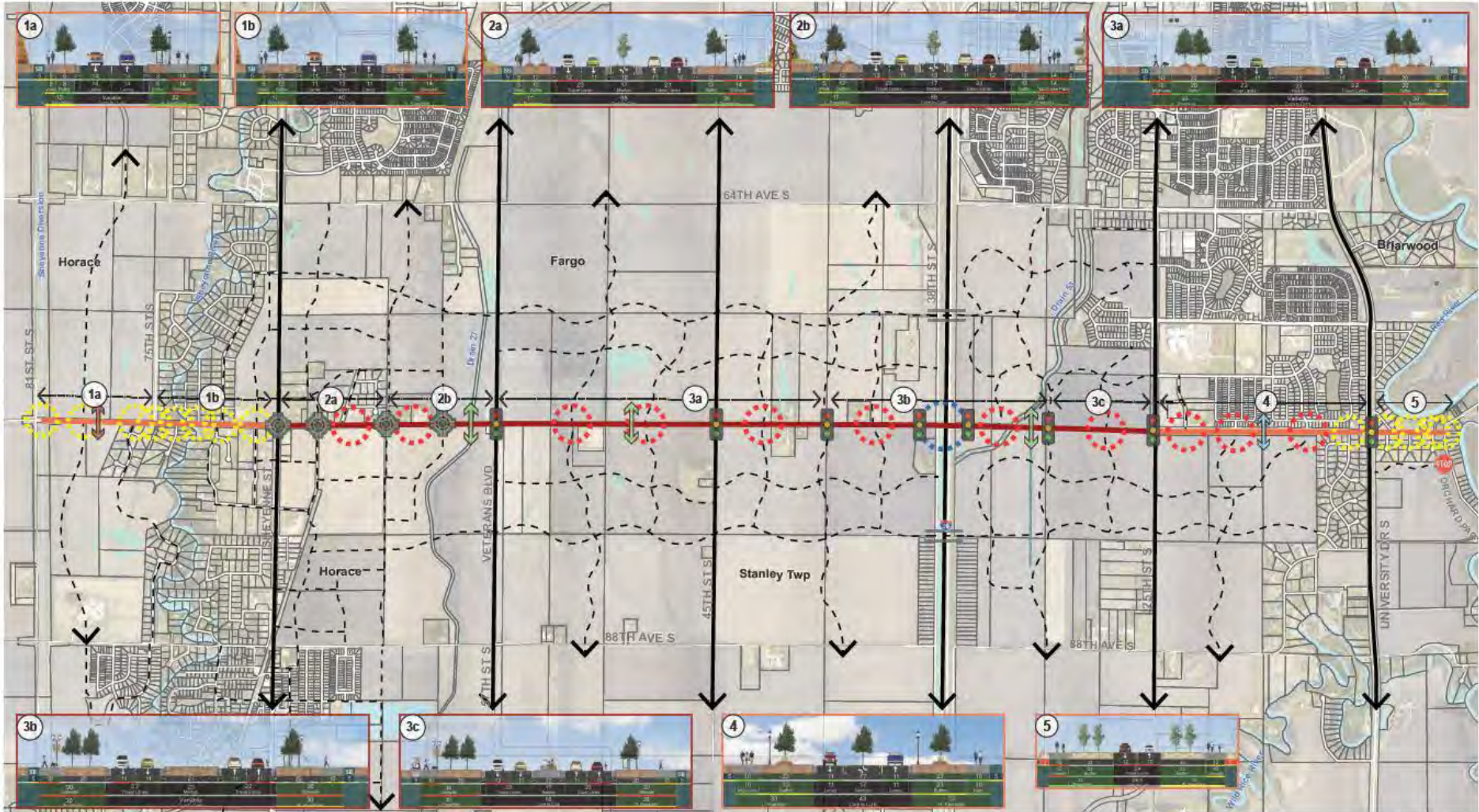
Legend

- | | | |
|---|--|-------------------------------------|
| Regional Arterial | Side-Street Stop Control | Pedestrian Grade Separated Crossing |
| Commercial Arterial | Limited Access - Right In/Right Out | H.A.W.K. Signal Pedestrian Crossing |
| Mixed Use Arterial | Interchange (Free Flow or Partial Free Flow) | R.R.F.B. Signal Pedestrian Crossing |
| Existing/Future North/South Arterial Roadways | Roundabout | |
| Proposed Collector Streets | R-Cut Intersection | |
| Right-of-way Preservation | | |



Preferred Access Plan (PAP) – Alt 2

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1 in = 1,000 feet

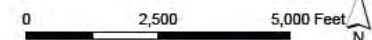
Future Visioning Assumptions Alternative 2: Commercial Arterial



76th Avenue South Corridor Study

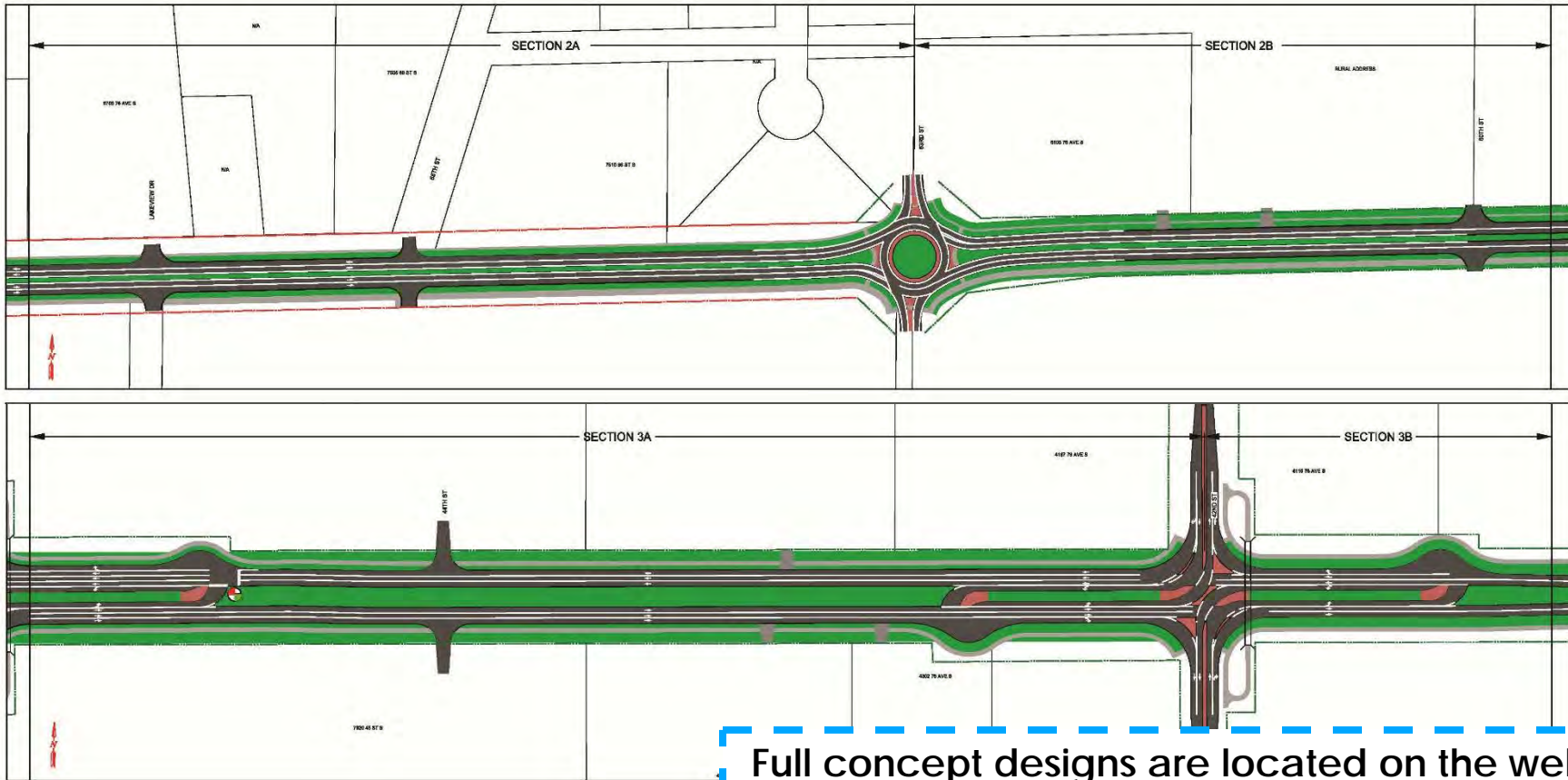
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out or 3/4 Access
- Interchange
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing



Alternative Layouts

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Full concept designs are located on the website

@

www.76thavestudy.com



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Alternative Comparison

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What is the same?



- ✓ **Roadway laneage**
- ✓ Ability to widen once traffic volumes reach full build
- ✓ Collector street **connectivity**
- ✓ Pedestrian linkages across Drain 27 and Drain 53
- ✓ **Strong access management** (limited driveway cuts)
- ✓ Pedestrian crossings at the western and eastern project limits
- ✓ Ideal route for transit thoroughfare
- ✓ **Phasing Plan based on "triggers"**

What is different?



- ✓ **Intersection treatments**
- ✓ Roadway operating capacity
- ✓ Side street delay
- ✓ **Development orientation**
- ✓ Building setback standards
- ✓ Linear Parks (pedestrian walkway)
- ✓ Travel time
- ✓ Cost
- ✓ **Right of Way needs**



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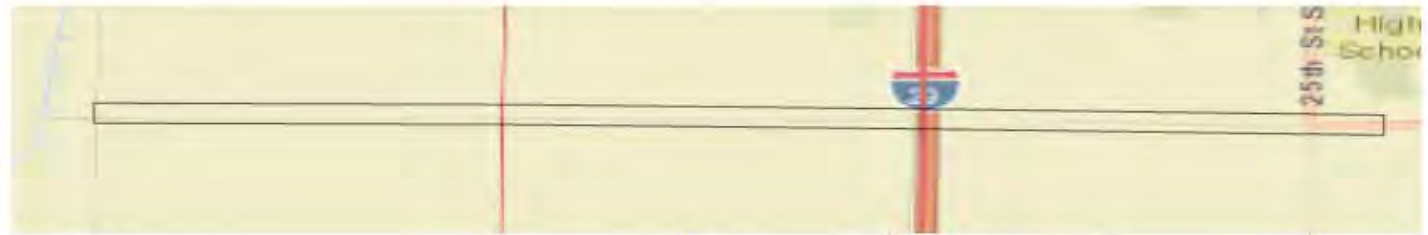
Project Phasing

76th

avenue / phasing plan for alt 1 / segment 3

Legend

- █ Regional Arterial
- █ Commercial Arterial
- █ Mixed Use Arterial
- Roundabout
- R-Cut Intersec
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing



Proposed Cross-Section



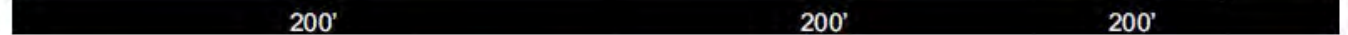
Forecast 2045 A.A.D.T. Full Build A.A.D.T.



Phase 1 Phase 2 Phase 3



Right-of-Way Width (feet)



Ped Crossings, Access & Intersection Control



Proposed Active Mode Facilities, North Proposed Active Mode Facilities, South



Existing Road Ownership Jurisdictional Transfer





Instant Polling

Polling

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Q1. Which of the two alternatives would you prefer?

- A. Alt 1 (Regional Arterial) –
Where traffic is given priority on 76th Ave S and the buildings are further off the corridor and oriented away from the roadway.
- B. Alt 2 (commercial Arterial) –
Where traffic is stops at signalized intersections and pedestrians have more opportunities to cross at-grade. Buildings are closer to the corridor.
- C. Other



Polling

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Q2. Pick all that apply - which of these intersection treatments would work best along the corridor?

- A. Signalized
- B. Roundabouts
- C. R-Cut
- D. Stop Sign Control
- E. Right-in/Right-Out (Median)
- F. Other



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Polling

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Q3. Along 76th Ave S (in the future) what is the best way to get pedestrian and bicyclists across the street?

- A. Signals
- B. Underpasses
- C. Pedestrian Refuge (Flashers or HAWK)
- D. Other



Polling

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Q4. How important is it to have future development oriented towards 76th Ave S versus away from 76th Ave S?

- A. Very important
- B. Somewhat important
- C. Neutral
- D. Unimportant



Thank you!

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CONTACT US

Send a message

Name *

Email *

Message

Send

Project Website



www.76thAveStudy.com

Contact the team

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Metro COG Project Manager



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Stantec Project Manager



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Comments are Requested by
August 21st



76th Avenue South Corridor Study

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76th Avenue South Corridor Study – SRC #1

Metro COG Conference Room – Case Plaza – One 2nd Street North, Suite 232, Fargo, ND 58102

Date: December 18, 2018 from 3:00 to 5:00 pm

Meeting Attendees:

- Peggy Harter – Stantec Consulting
- Joel Paulsen – Stantec Consulting
- Brent Holper – City of Horace
- Barrett Voigt – Cass County
- Kyle Litchy – Cass County
- Michael Maddox – Metro COG
- Jeremy Gorden – City of Fargo
- Aaron Nelson – City of Fargo
- Bob Walton – NDDOT Fargo District
- Mark Lemer – West Fargo Public Schools
- Jim Frueh – Fargo Public Schools
- Jason Benson – Cass County
- Angela Bolstad – Stantec Consulting (via Phone Conference)

Meeting Discussion Items:

1. Welcome and Introductions – Michael Maddox welcomed everyone to the SRC Meeting for the 76th Avenue South Corridor Study. Peggy Harter introduced herself as the Stantec project manager for the corridor study and then introduced the study by reviewing the “About this Project” and “Why this Study” sections of the project newsletter handout. Peggy then asked each SRC member to introduce themselves and provide input as to the most important aspects and needs of this study for their agency. Responses from each SRC members is as follows:
 - Joel Paulsen – Stantec Consulting – assisting Peggy with public and agency outreach. Joel is also working with the City of Horace on the update to their comprehensive plan and wants to ensure that the two plans coordinate efforts where needed. Particularly when looking at future land uses and growth assumptions.
 - Brent Holper – City of Horace – identifying future land use and the future elements and attributes of the corridor in how it looks. To ensure consistency between the multiple stakeholders.
 - Barrett Voigt – Cass County – Land use and transportation



- Kyle Litchy – Cass County – what will happen between 63rd Street and I-29 – who will be the jurisdictional owner.
- Michael Maddox – Metro COG – ensure the roadway will operate at a regional level but also be responsive to the local context.
- Jeremy Gorden – City of Fargo – interested in the future interchange and potential configuration with I-29 and 76th Avenue South
- Aaron Nelson – City of Fargo – how this study relates to the City’s Comp Plan Go2030 and vision/goals of the City of Fargo
- Bob Walton – NDDOT – interested in how we handle the interchange with I-29 or grade separation realizing that we need to provide justification to install the interchange. Also interested in what is being done on the east termini of the corridor with a potential Red River crossing. Is this still a possibility with all the past discussions and current buyouts?
- Mark Lemer – West Fargo School District – interest in traffic flow and how it relates to the future West Fargo school district. They will be a major traffic generator and looking for alternative routes for students and residents of the City of Horace to gain access to the Metro.
- Jim Frueh – Fargo Public School District – interested in traffic flow for Davies and new 80 acres purchased for a future elementary and middle school. Recently purchased from the Boys and Girls Ranch.
- Jason Benson – Cass County – interested in what is going out in Horace with CR 17 and CR 6 along with challenges dealt with in the past on University Drive and potential for future Red River crossing.

Action Item: Jim Frueh will send Peggy Harter the property that was recently purchased by Fargo Public Schools. – **COMPLETE as of 12/19/2018**

2. Review Scope of Work and Project Schedule – Peggy referenced everyone to the scope of work and updated project schedule in their packet. She pointed out the top tasks to be completed for the study and the timeline of their completion with an anticipated study completion date of November 2019.
3. Public Participation Plan – The following items were discussed regarding the public participation plan for the 76th Avenue South corridor study:
 - Project Branding – Peggy reviewed the project branding attachment. No comments were made on the project branding.
 - SRC Meetings – Peggy reviewed the project schedule noting that this is the first of six (6) SRC meetings to occur for this study. She noted that the role of the SRC members were to provide



input and feedback on project materials for the study. The SRC members are also requested to attend all six SRC meetings and the one project public input meeting.

- Stakeholder Meetings – Peggy noted that three (3) stakeholder meetings will occur throughout the study. The first stakeholder meeting will occur in January where Stantec staff will meet one on one with the project stakeholders to discuss the study and any plans within the project area. The second and third stakeholder meetings are planned to be held as a group to have a hand in the visioning and alternative development for the project. The SRC members reviewed the “Adjacent Property Ownership” map handout as they discussed stakeholders for the corridor study. The SRC asked if every jurisdiction will need to approve the plan regarding including elected officials as project stakeholders. Michael Maddox responded that since Metro COG’s policy board, which includes elected officials from every jurisdiction, will have to approve the study, then in a sense they will. Metro COG would like each of the involved jurisdictions to approve the study, but they don’t have to.

The stakeholders identified at the meeting are listed below. Additional stakeholders should be identified by SRC members by January 3, 2019.

- Developers:
 - Kevin Christianson
 - Ace Brandt
 - Dabbert Custom Homes, LLC
 - Eagle Ridge Developer for the Madelyn Meadows Development.
 - Randy Kramer for Tom Mcinnes property
 - Dennis and Cathy Holmen property
- Elected Officials:
 - Mary Scherling – Cass County Commission chair
 - Duan Breitling – Cass County Commissioner with the highway and planning portfolio
 - Shara Fischer – City of Fargo Planning Chair
 - Tony Grindberg – City of Fargo Planning Department’s Commission Liaison (Note: reach out to Tony through Nicole Crutchfield)
 - City of Fargo staff decided not to add any City Commissioners to the stakeholder group
 - John Koerselman – Horace City Council
 - Kory Peterson – City of Horace Mayor
- Stanley Township – Todd Ellig – Stanley Township Chair and Cass County Planning Commission
- Major Utilities – OH Powers, Minnkota (Major substation), Stantec will review maps received by the utility one-call to determine if additional utilities should be added.



- SE Cass Rural Water District
- Fargo Park District
- St. Benedicts Cemetery – Check with Tom Soucy for a contact
- Project Website – Peggy reviewed the project website at www.76thAvestudy.com. The website is currently password protected with the password as “password.” Once the SRC gives final approval of website review, the website will go live in January. The website will allow the public to stay informed throughout the duration of the study. SRC members should send any comments on the project website by January 3, 2019.
- Project Newsletters – Peggy reviewed the project newsletter handout and noted that the three (3) separate newsletters will be sent out during the study. The intent is to keep members of the public informed throughout the study. The committee reviewed the first draft project newsletter. Ms. Harter noted that the newsletter will be mailed out ½ mile both north and south of the corridor limits. Addresses were requested from Fargo, Horace and Cass County for ½ mile both north and south of the corridor within the study limits. The follow items were recommended as changes to the existing project newsletter:
 - Put relevant past studies in order of completion from, newest to oldest
 - The City of Horace noted that there may be a push for 63rd to be more of the north/south arterial than 66th Street. The City has also talked to the property owner about shifting 63rd Street.
 - Have talked to property owners about shifting 63rd
 - Change the future north/south major roadways being shown with arrows from “proposed” to “potential”
 - Concern with showing the school layout as it isn’t currently approved. The school district decided if we hatch over the layout, so it is less legible, then we can show the approved layout on the 2nd Newsletter as it will be approved by then.
 - Peggy Harter noted that we would like to receive any additional comments on the newsletter by January 3rd

ACTION ITEM: Stantec – update the project newsletter

ACTION ITEM: Horace, Fargo and Cass County – provide address lists for the property owners within ½ mile north and south of the corridor to receive the project newsletter within the corridor study boundaries.

- Public input meeting – Peggy noted that there will be one public input meeting after preliminary alternative development has occurred for the corridor. SRC members should do their best to try and attend the meeting. The same meeting will be held twice – once in Fargo and once in Horace.



4. Review Existing and Future Forecast Condition Information – Peggy Harter shared the following documents for discussion with the SRC Members for existing and forecast conditions. Comments discussed during the meeting are identified under each.
 - Existing conditions maps
 - Bob Walton questioned what the existing right of way is along the corridor. Jason Benson responded that right of way west of I29 is the standard 33'. However, this will be changing soon with re-platting for the school property along the south side of 76th Avenue South to have an additional 25-feet of right of way (total 58-feet) from Lake View to 63rd Street.
 - Peggy Harter noted that existing right of way is not showing up on any of the maps. Stantec will add the existing right of way on the jurisdictional ownership map. Stantec will add this to the map including the re-platting happening now with the West Fargo school site.
 - Peggy discussed how everyone is using the future land use plan for decisions, but no one has adopted it yet. We won't be developing new future land use maps of the entire southwest area for each agency to adopt as part of this study, but we do want to make sure we are using the correct planning assumptions as needed for transportation planning purposes.
 - Michael added that future land use is an important element in transportation planning, so it is important to coordinate between the two.
 - The City of Horace and West Fargo School District noted that our existing conditions map may need to be updated to show the proposed 2019 roadway project for current conditions. Peggy said we can add this in as a 2019 committed project to show it as a 4-lane divided concrete pavement roadway.
 - Peggy asked for concurrence on showing a long-range bike facility from 45th Street and 25th Street (as shown in SWMTP). The group suggested we add this as a long-range project to our map. Bob Walton asked Metro COG to amend this into the Bike-Ped plan. Michael Maddox said they can add it into the LRTP that is being updated now as that document supersedes the Bike-Ped Plan.
 - The group asked to add a note of some kind to the bike-ped map indicating that a future Red River crossing at or near 76th Avenue South should have a 10-foot or wider facility to accommodate bicyclists and pedestrians.
 - Jeremy Gorden asked if Drain 53 could be re-routed through the future interchange area at 76th Avenue South. Bob Walton replied that they will not want to reroute the legal drains through NDDOT right of way as that area gets identified as a jurisdictional wetland and then NDDOT struggles to maintain the interchange area or make any needed changes to the interchange area in the future.



ACTION ITEM: Stantec – update the existing conditions maps as noted in this summary.

ACTION ITEM: Metro COG – add in the long-term bike facility along 76th Avenue South between 45th Street and 25th Street as part of the LRTP update.

- Relevant Studies Write-Up – Peggy Harter introduced the relevant studies write-up noting that there are multiple past studies and plans that have some relationship or relevance to the 76th Avenue South corridor. She asked each jurisdiction to review the past studies that relate to them and provide comments no later than January 3, 2019. Comments received during the meeting include:
 - Re-order the studies from newest to oldest (same as the order for the list of projects on the inside of the project newsletter.)
 - Make updates to the Go2030 Fargo Comp Plan that were received via e-mail from Aaron ahead of the meeting.

ACTION ITEM: Stantec – Make updates to the relevant studies write-up as noted above.

- Future forecast ADT Volumes discussion – Peggy wanted to begin the discussion with the SRC members on the options for future forecast ADT Volumes. A group discussion should occur on which future forecast traffic volumes to use. She asked the committee members if we should use the SWMTP volumes or should we hold off for the updated LRTP volumes? Michael gave an update on the status of the travel demand model for Metro Grow 2045. Existing and committed network are complete. Metro COG is planning to model growth centers. Physical constraints will be used so growth will be less than SWMTP. The SRC discussed that the travel demand modeling for the SWMTP was done well and is likely the best way to look at the full-build plan for the area so that we know what is needed for preservation for the future long-term needs. Peggy added that we need to agree which travel demand model output we hang our hat on as this will determine the forecast traffic volumes for corridor capacity needs. We will need to decide this as Jan/Feb comes around and we begin our Visioning for the future portion of the study. At the end of this discussion, most SRC members were leaning toward using the TDM results from the SWMTP for identifying future traffic volumes along the corridor. Peggy asked the SRC members to review the SWMTP on Metro COG's website and provide concurrence.

ACTION ITEM: All SRC Members – Review the Southwest Metropolitan Transportation Plan on Metro COG's website by January 15, 2019 and provide feedback on whether we should use the SWMTP Best Case Scenario for development of future corridor daily traffic volume projections.



- Peggy then asked each SRC member to share any new infrastructure plans with the group to include in existing or forecast committed projects – new transportation, utilities, pending developments, schools, etc.
 - Mark Lemer asked about the possibility of 45th Street extending down to 76th Avenue South? This may affect the impacts for the pressure onto I-29 for an interchange. This is a question to the City of Fargo. Michael responded that he knows it will be built down to 64th Avenue South but that will be short one mile down to 76th Avenue South. Peggy Harter asked if the additional one-mile extension could be a County roadway?
 - Jason Benson noted that after 52nd Avenue South is complete, most of CR 6 will be turned over to the Cities (except for the Sheyenne River Bridge which will be done in 2023). Current discussions as to whether the County Commission is going to accept new mileage with the CR 6 turnback are ongoing. Bob Walton added that Cass County will be very busy with roadways if the Red River Diversion is approved.
 - Aaron Nelson noted that the City of Fargo is working on a study right now, not quite complete, but is a growth scenario looking at land consumption rates and what type of density that buildout occurs at. Aaron will send this to us to compare to the SWMTP assumptions.
 - Jason Benson noted that the substation at the intersection of 76th Avenue South and CR 17 could go away. This is a smaller substation and new service could be coming from a new station further to the east.
 - Improvements between CR 17 and 63rd Street will be a 4-lane divided urban roadway section to be completed in 2019. This includes a shared use path/trail on the south side of 76th Avenue South.
 - The City of Horace is also putting in a shared use path along the east side of Lakeview Drive and on the south side as it turns and goes west. Lighting will also go in with the 2019 project, especially at the roundabout. If the underground is in place along the corridor, they could wait to put in the lights until this study identifies a continuous aesthetic.

- 5. Segments of Like Context Exercise – Peggy explained that given the length and differences along the 76th Avenue South corridor, there may be the need to identify segments of like context that will have differing transportation needs. Peggy then distributed the “Segments of Like Context” worksheet to each of the SRC members and provided time for them to rank the criteria that they feel should be used when identifying the segments of like context. Jason Benson questioned what might be the result of the segments of like context? Peggy responded that it may provide guidance on breaking points for some of the following items:
 - Future functional classification



- Future access restrictions
- Future roadway section
- Future right of way needs
- Comparison to the roadway types in Metro COG’s recently completed access study
- Others to be determined.

Each member completed the Segments of Like Context worksheet. The segments of like context could be based on a variety of physical and political features. The worksheet provided five options in which the segments could be broken out into as future traffic volumes, future land uses, natural boundaries (rivers, diversion, drains, etc.), major north-south intersecting roadways (both existing and proposed), and jurisdictional ownership. The SRC was asked to rank each of the criteria based on a scale of 1 to 5 where a score of 1 is the least important and 5 is the most important for consideration. A total of nine scoring sheets were received. The average results of the scoring are shown in the table below:

Criteria	Individual Scores									Total Score	Average Score
Future Traffic Volumes	2	3	5	5	5	4	3	2	2	31	3.44
Future Land Uses	5	5	4	4	3	3	4	4	5	37	4.11
Natural Boundaries (Rivers, diversions, drains, etc.)	2	5	3	2	2	4	3	3	4	28	3.11
Major North-South Intersecting Roadways (Existing and Proposed)	3	5	5	3	4	5	5	5	4	39	4.33
Jurisdictional Ownership	1	2	3	1	1	5	3	1	1	18	2.00

6. Next Project Steps – Peggy reviewed the next project steps as follows:

- **ACTION ITEM: SRC Members** – should send comments on all SRC materials by January 3, 2019. Please see individual action items throughout this meeting summary and respond to them by January 3, 2019 as well.
- Finish existing conditions report – January 2019
- Hold Stakeholder Meeting #1 – January 2019
- Send out Newsletter #1 – January 2019
- Schedule and prepare for SRC #2 – February 2019

The meeting adjourned at 5:00 pm.



SRC Meeting #1 – Meeting Summary

76TH
AVE

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services, Inc.



Peggy Harter PE
Senior Associate
Phone: (701) 566-6020
Peggy.Harter@stantec.com

Attachments: Meeting Sign in Sheet and Meeting Handouts



76th Avenue South Corridor Study

METROCOG
FARGO-WOODHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

76th Avenue South Corridor Study – SRC #1

Metro COG Conference Room – Case Plaza – One 2nd Street North, Suite 232, Fargo, ND 58102

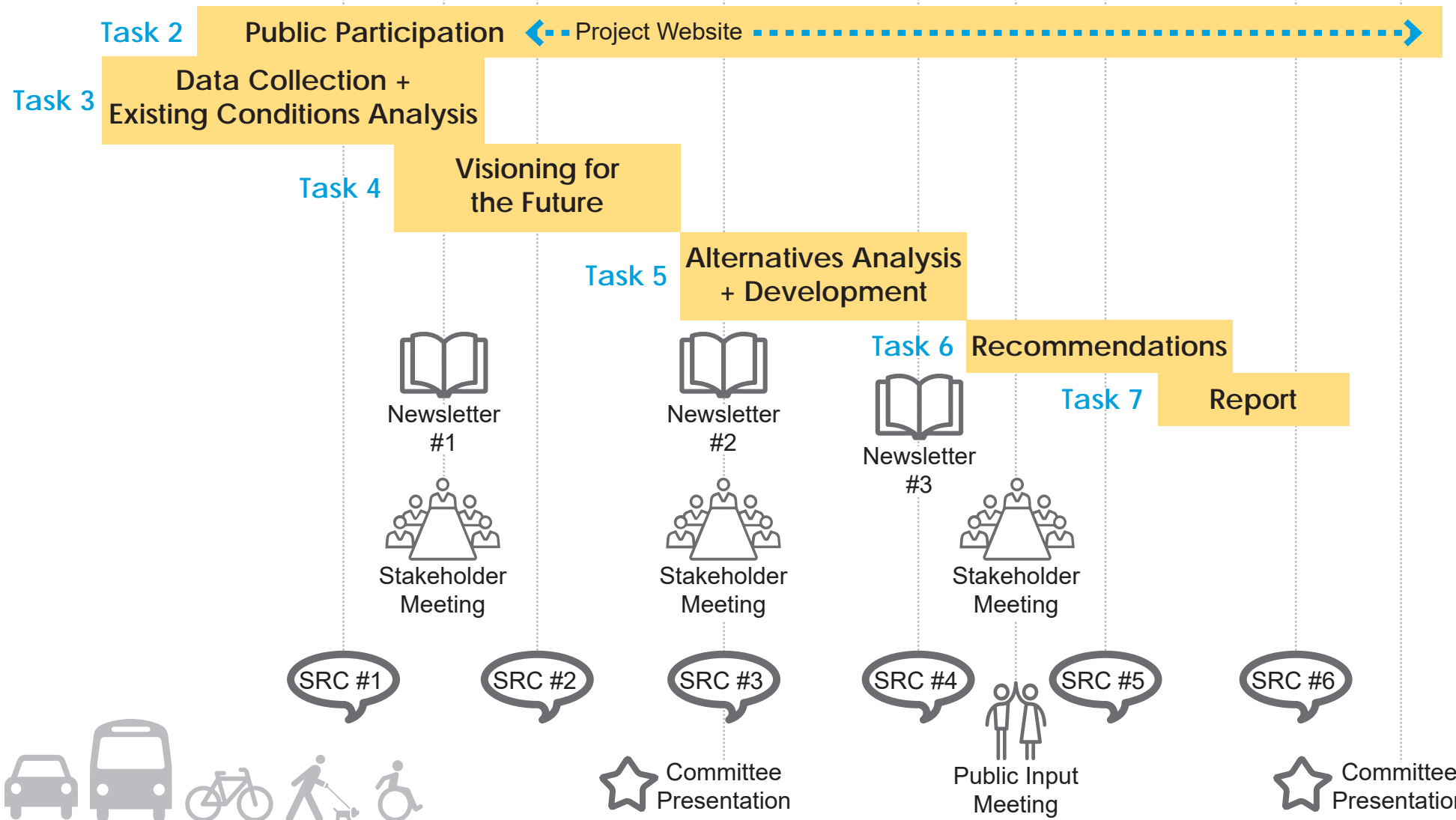
Date December 18, 2018 from 3:00 to 5:00 pm

NAME	ORGANIZATION	EMAIL ADDRESS
Peggy Harter	Stantec	peggy.harter@stantec.com
Joel Paulsen	Stantec	Joel.Paulsen@stantec.com
Brent Holper	Horace	bholper@cityofhorace.com
Barrett Voigt	Cass County	voigtb@casscountync.gov
Kyle Litchy	Cass County	LitchyK@casscountync.gov
Michael Maddox	Metro COG	mmaddox@mmetrocog.org
Jeremy Gordon	City of Fargo	jgordon@fargo.nd.gov
Aaron Nelson	City of Fargo	anelson@fargo.nd.gov
Bob Walton	NDDOT - Fargo	bwalton@nd.gov
MARK LEMER	WEST FARGO SCHOOLS	lemer@west-fargo.k12.nd.us
Jim Frueh	Fargo Public School	fruehij@fargo.k12.nd.us
Jason Benson	Cass County	bensonj@casscountync.gov



PROJECT SCHEDULE

76TH AVE



HEADER

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Sub-Header

More information will go in this section here. Sometimes you will want a call out box to make something stand out. Three styles of call out boxes are included below for reference.

Brand Colors

Colors used in this branding design include:



HEADER

This is a body paragraph. General text will go here. There may be other subheaders in this paragraph that you would need based on the nature of the report or handout.

ICON STYLE

be used in meeting materials, reports or on the website and could be any item (not just transportation).



CALL OUT BOX #1

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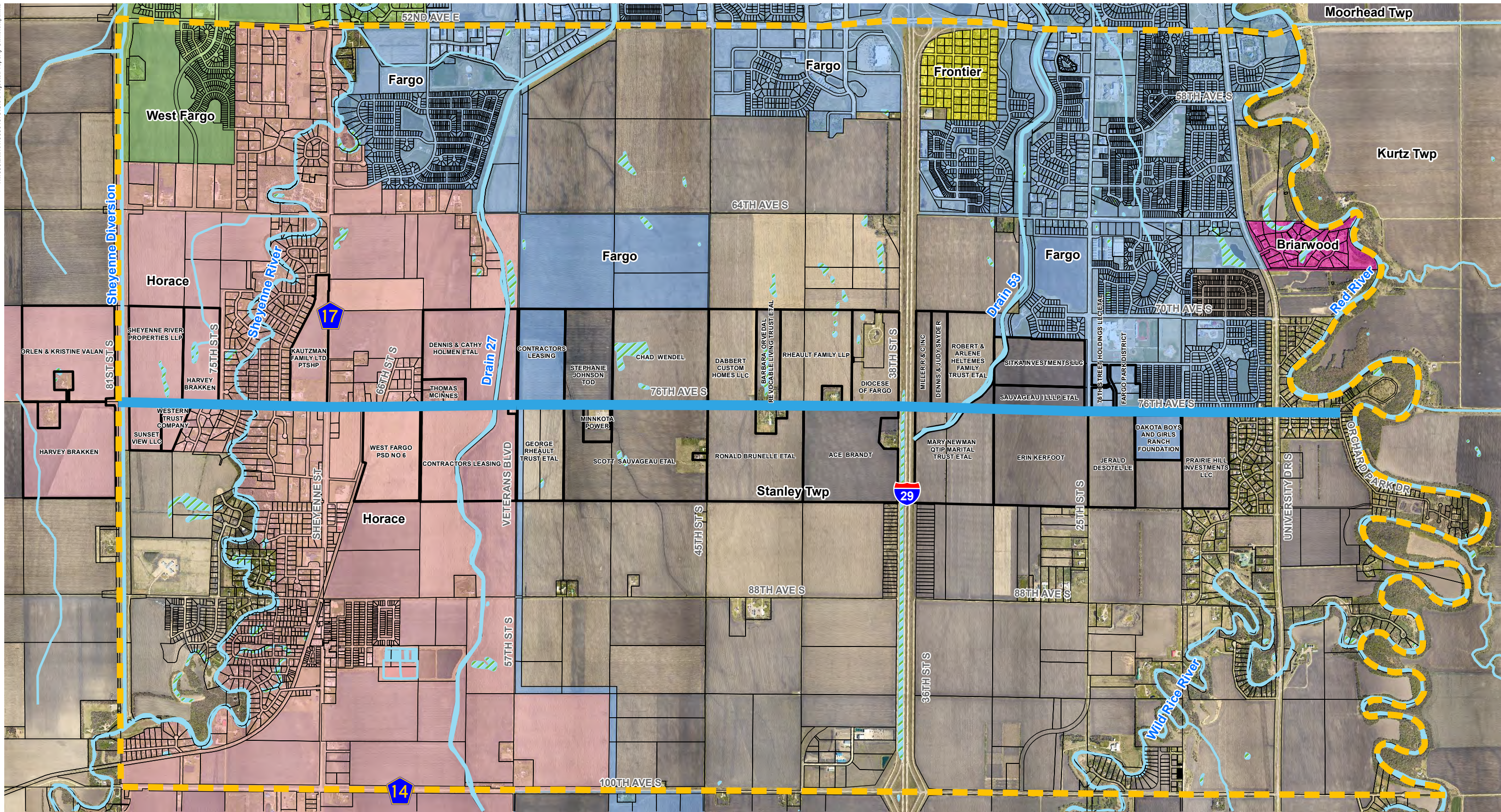
CALL OUT BOX #2

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CALL OUT BOX #3

More information will go in this section here. Sometimes you will want a call out box to make something stand out. Three styles of call out boxes are included for reference.

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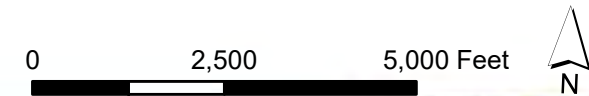
December 12, 2018

Adjacent Property Ownership

- Study Corridor
- Study Area Boundary
- Open Water
- Wetland
- Fargo
- Horace
- West Fargo
- Briarwood
- Frontier



76th Avenue South Corridor Study



METROCOG

Peggy Harter
 Stantec
 2632 47th Street South, Suite 103
 Fargo, ND 58104

NEWSLETTER #1

76TH AVE

ABOUT THE PROJECT

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) along with their project partners (the City of Fargo, City of Horace, Cass County and the North Dakota Department of Transportation) are conducting a corridor study along 76th Avenue South from the Sheyenne Diversion (west project limit) to the Red River of the North (east project limit). The purpose of the 76th Avenue South Corridor Study is to analyze both short term and long term transportation system needs. In order to analyze long term transportation needs for the 76th Avenue South corridor, the study will include a review of future growth assumptions for population, households and jobs within the study area out to the year 2045. The study will also include a visioning process to determine what the vision of the corridor will look like to serve all needed modes of transportation – both motorized vehicles and non-motorized bicycles and pedestrians. Since 76th Avenue South is currently owned by multiple agencies within the project limits (Cass County, City of Horace, Stanley Township, and the City of Fargo), much coordination is needed between these agencies to ensure that the vision is continuous along the corridor as it is developed to serve the transportation needs. There are numerous opportunities for the public to learn more about the 76th Avenue South Corridor Study and provide input throughout the study before the project is complete in November 2019. Please see the project contact information below to check out our study website and subscribe to the project list serve for regular study updates.

WHY THIS STUDY

The 76th Avenue South corridor is located on a one mile section line. Historically, one mile section line roadways become arterial roadways to serve as major transportation corridors as growth occurs around them. The southwest metropolitan area that surrounds this corridor has seen increased growth and development over the past years and is anticipated to see much more growth out to our planning horizon year 2045. Some

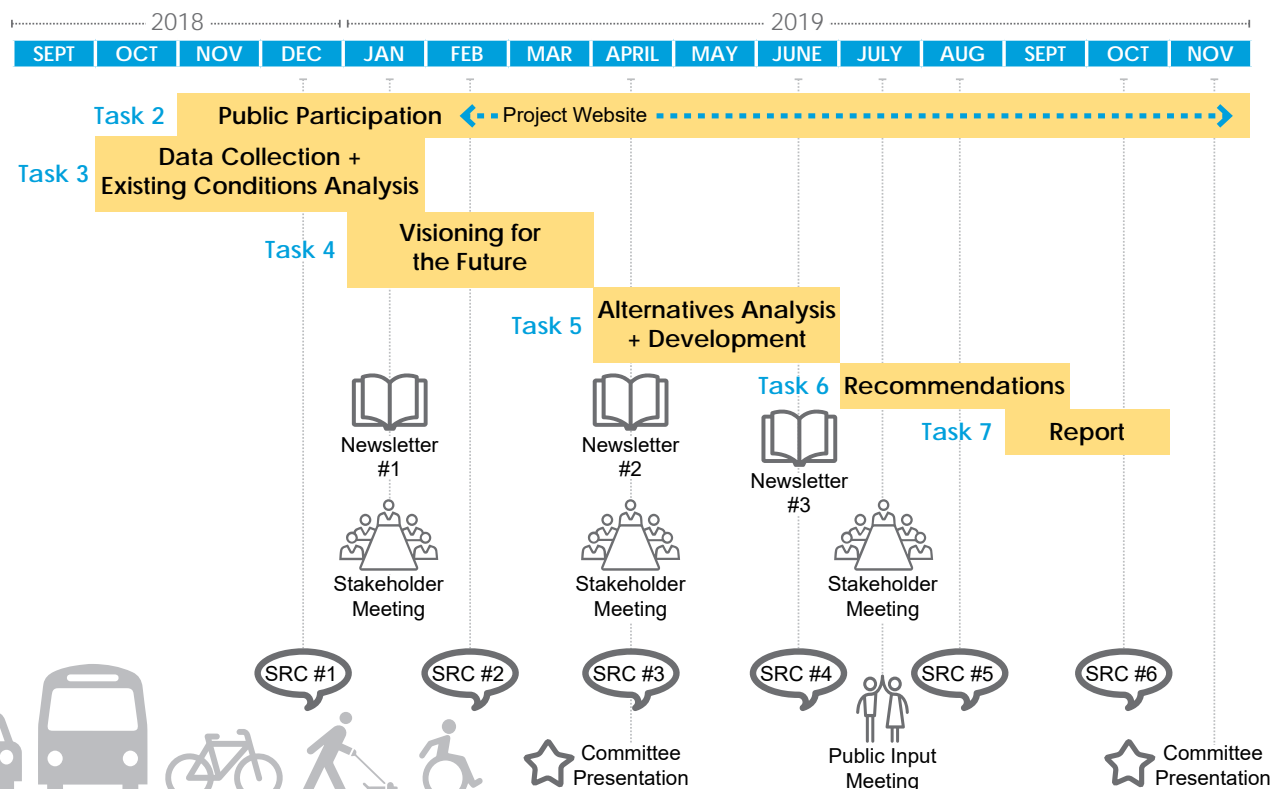
include the existing Davies High School (just north of the corridor), the approved new West Fargo Middle School and High School site (to be located in the southeast quadrant of 76th Avenue South and CR 17 intersection), the City of Horace being provided sanitary sewer service from the City of Fargo, and continued development pressure in the southwest metropolitan area as plans continue for a future diversion for the Red River. This study is also needed to evaluate potential future opportunities from previous studies within the project area such as a 76th Avenue South crossing of the future Red River Diversion, alternative routes to serve the City of Horace into the greater metropolitan area, an interchange at 76th Avenue South and I-29, and a Red River crossing at 76th Avenue South. This corridor study is needed now to evaluate the short-term and long-term needs of the 76th Avenue South corridor to accommodate future growth, to ensure coordination between the multiple agencies, to review information from previous studies, and to plan for and preserve the corridor's needs. We invite you to review the map on the inside of this newsletter for more details.



76th Avenue South Corridor Study



PROJECT SCHEDULE



76th Avenue South Corridor Study



CONTACT INFORMATION

Are you interested in learning more about the project or connecting with our team?

Check out the website to learn more, give comments and subscribe to the project listserve.

www.76thavestudy.com

Send comments to the team:

Peggy Harter
 Stantec Project Manager

2632 47th Street South, Suite 103
 Fargo, ND 58104

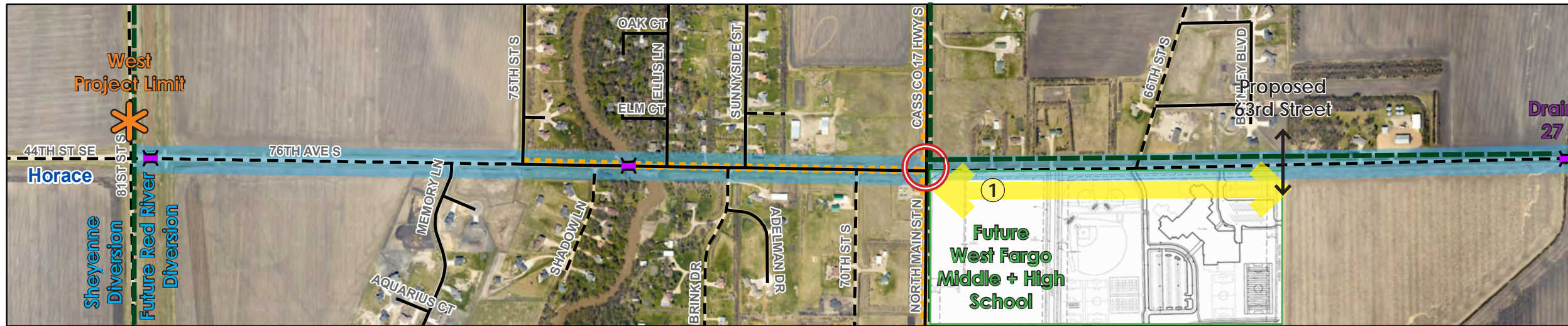
701-566-6020

peggy.harter@stantec.com



76th Avenue South Corridor Study





Why This Study



- Paved Road
- Gravel Road
- Field Road
- Existing On-Street Bikeway
- Existing Shared Use Path
- Study Corridor (1-mile section line road)
- Municipal Boundaries
- Bridge structures (may need to be widened with road widening)
- Future road connection (previous study)
- Programmed Improvements: 4-Lane divided concrete pavement project in 2019 (Cass County Comp Plan)
- Future Bike Path (previous study)
- Potential 76th Realignment for Red River Bridge (previous study)
- Future Roundabout
- Potential Interchange (previous study)

76th Avenue South Corridor Study

PAST PLANS AND STUDIES

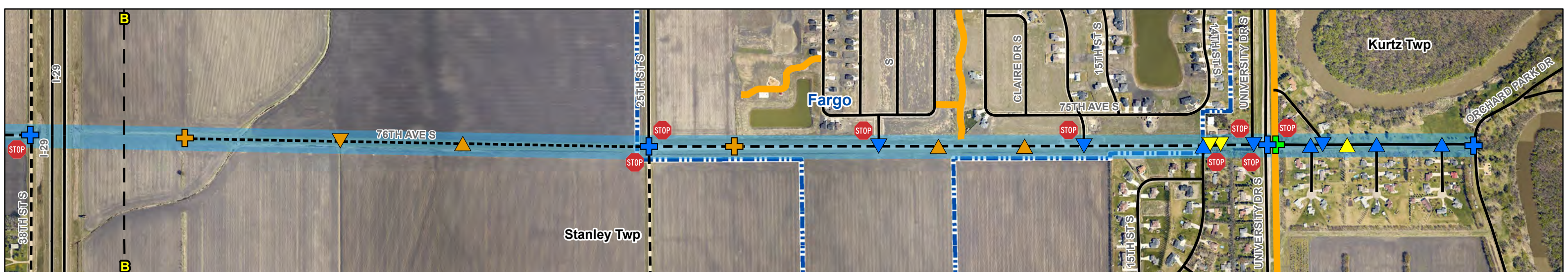
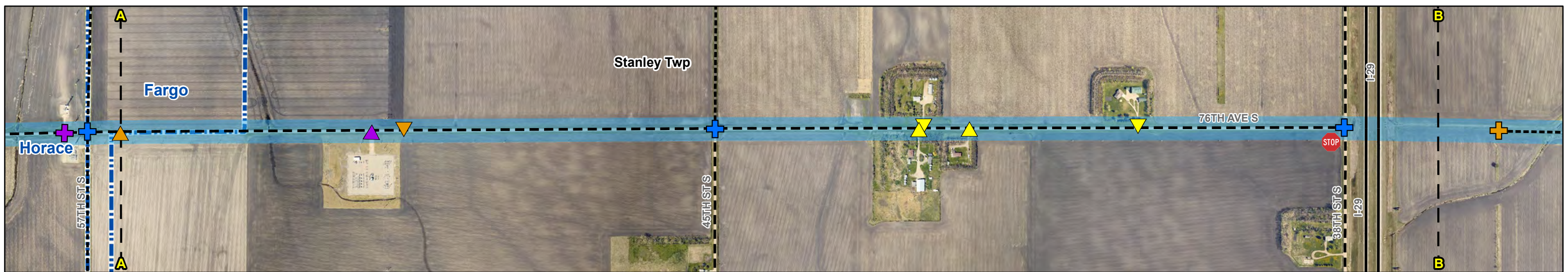
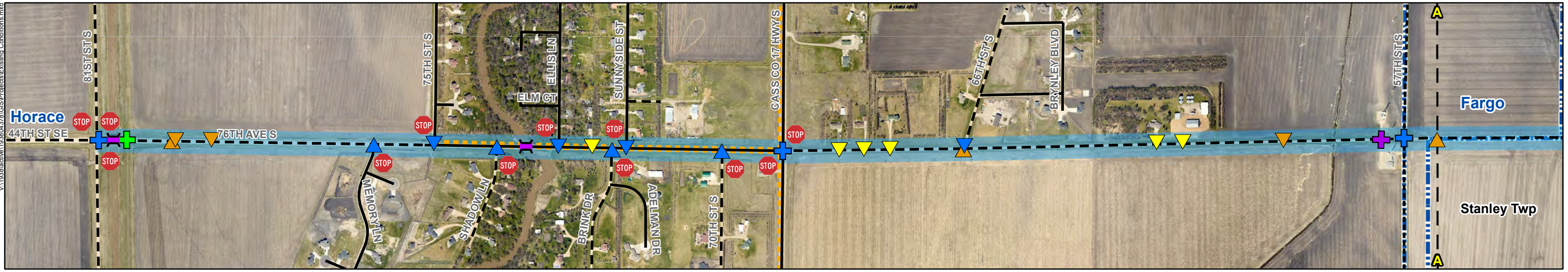
There have been numerous past plans and studies in the region that have included portions of the 76th Avenue corridor. This study uses that work as a spring-board for future planning. Those studies are listed

map.

Key Studies

- Go2030 Fargo Comprehensive Plan (2012)
- Fargo Growth Plan (2007)
- 2028 Horace Comprehensive Plan (2007)
- Cass County Comprehensive and Transportation Plan (2018)
- 2018-2020 Cass County Comprehensive Highway Plan (2018)
- Red River Bridge Corridor and Geotechnical Studies (2003)
- Metro 2040: Long Range Transportation Plan (2014)
- 2019-2022 Draft Transportation Improvement Program (2018)
- South Diversion Master Transportation Plan (2013)
- Sheyenne Street and 76th Avenue South Intersection Study (2018)
- Trestle Street Fargo Schools (2018)
- Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan (2016)
- 2016-2020 Transit Development Plan (2016)
- Fargo-Moorhead Regional Freight Plan (2017)
- FM Alternative Route and Trestle Incident Management Guidebook (2017)
- Trestle Management Strategy (TOIMS) (2011)
- Fargo/West Fargo Parking and Access Requirements Study (2018)
- Southwest Metropolitan Transportation Plan (2016)

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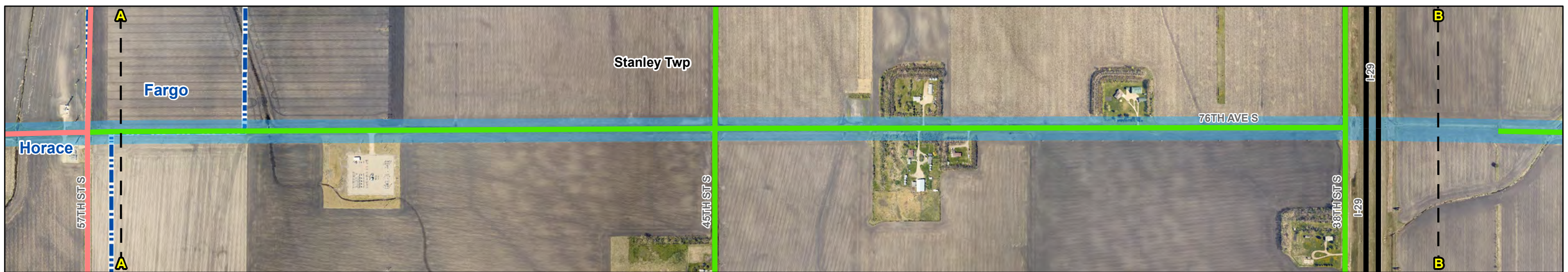
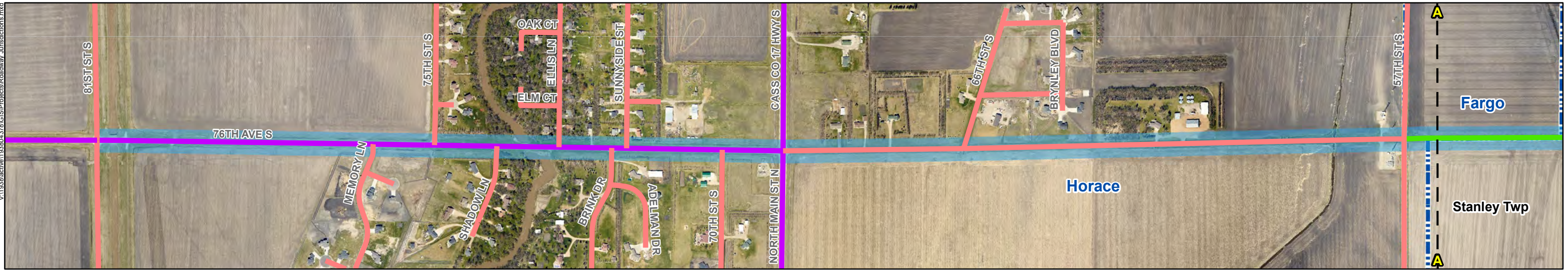
Existing Roadway Conditions



- | | | | | |
|---|--|--------------------------------|----------------------------|-----------------------|
| Access, Field Drive, Both Directions | Access, Private Residential, from South | Access, Public, from North | Paved Road | Study Corridor |
| Access, Field Drive, from North | Access, Private Utility, Both Directions | Access, Public, from South | Gravel Road | Municipal Boundaries |
| Access, Field Drive, from South | Access, Private Utility, from South | Access, Trail, Both Directions | Field Road | Map Panel Match Lines |
| Access, Private Residential, from North | Access, Public, Both Directions | Traffic Control, Stop Sign | Existing On-Street Bikeway | |
| | | Bridge | Existing Shared Use Path | |



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December 12, 2018

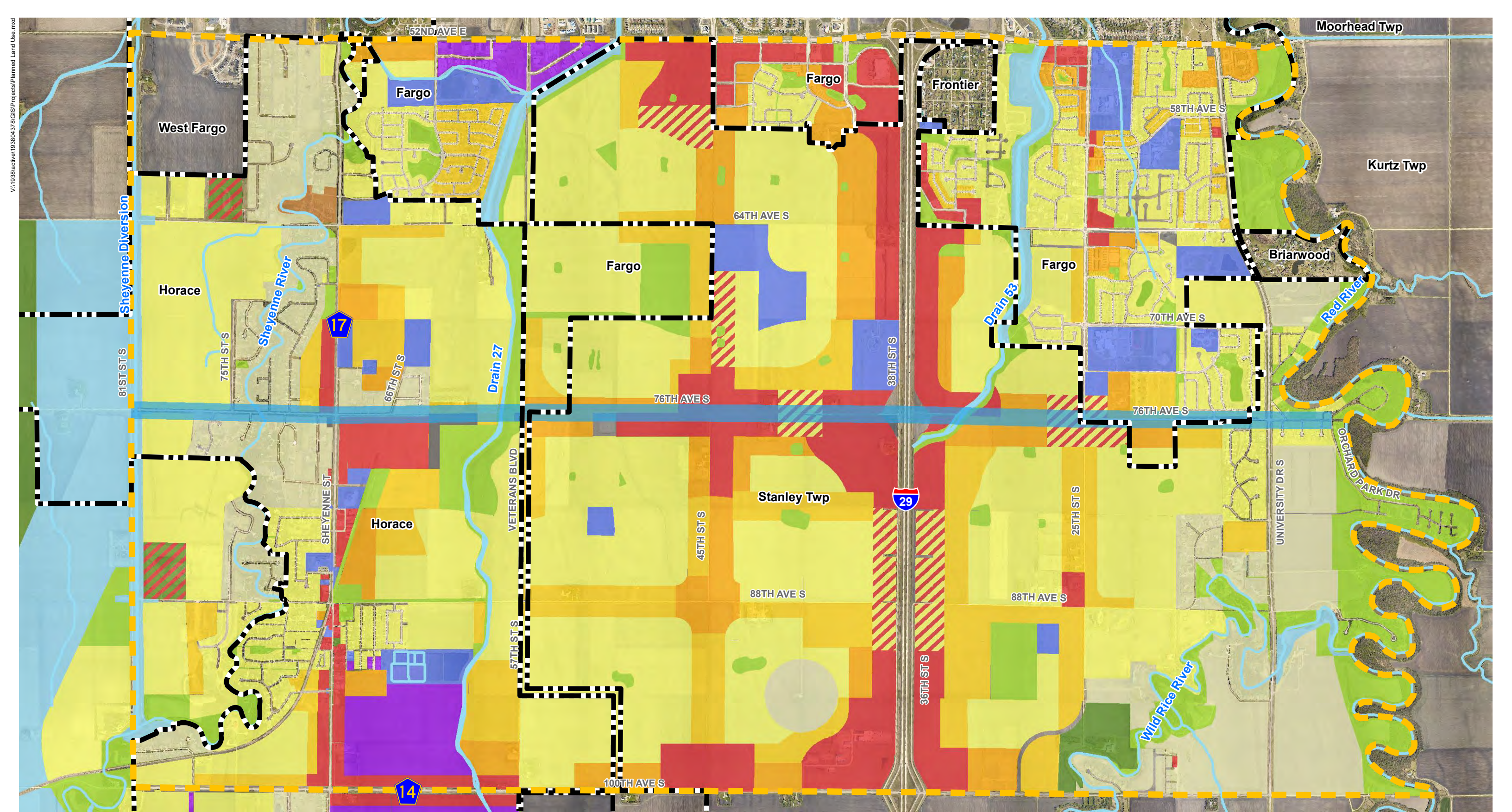
Roadway Jurisdictions



76th Avenue South Corridor Study

- Study Corridor
- Municipal Boundaries
- Map Panel Match Lines
- Roadway Jurisdiction:**
- Fargo
- Horace
- Stanley Twp
- NDDOT
- Cass County





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Area Planned Future Land Use



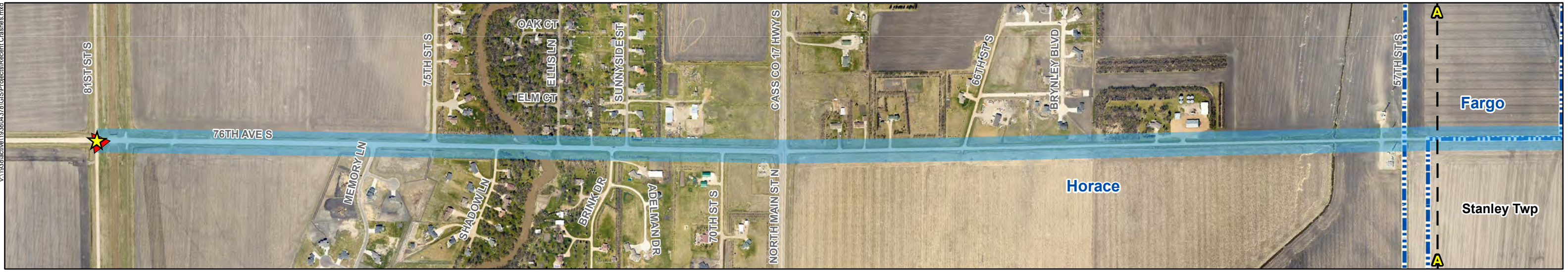
76th Avenue South Corridor Study

- Study Corridor
- Municipal Boundaries
- Study Area Boundary
- Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mobile Home Park
- Mixed Use
- Commercial
- Industrial
- Public and Institutional
- Agricultural/Commercial
- Agricultural
- Drain/Diversion
- Utility
- Parks and Open Space



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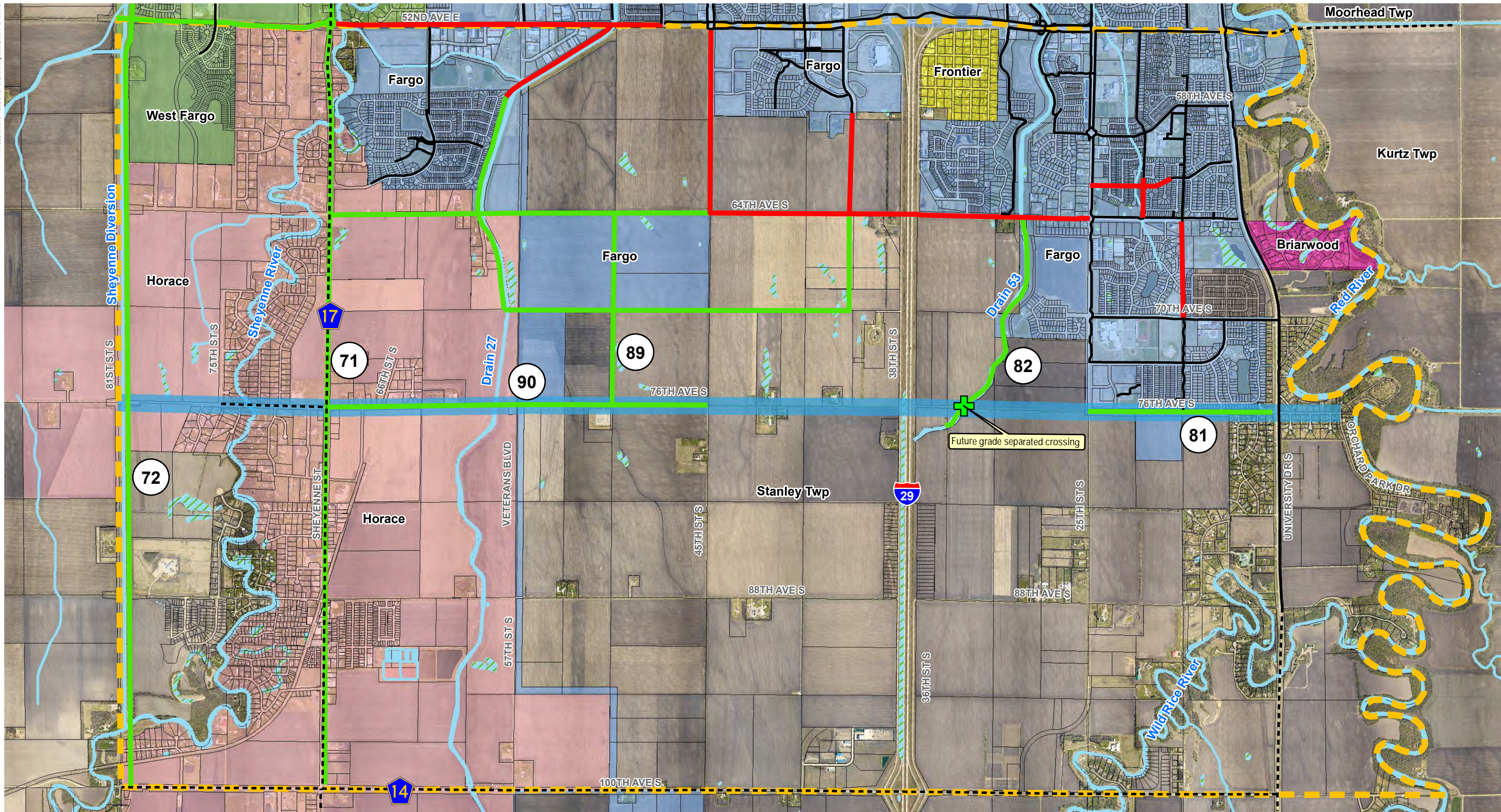
2011 to 2017 Crashes



- Crash Severity:**
- Non-incapacitating injury
- Property Damage Only
- Study Corridor
- Municipal Boundaries
- Map Panel Match Lines



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December 12, 2018

Existing and Proposed Bicycle and Pedestrian Facilities

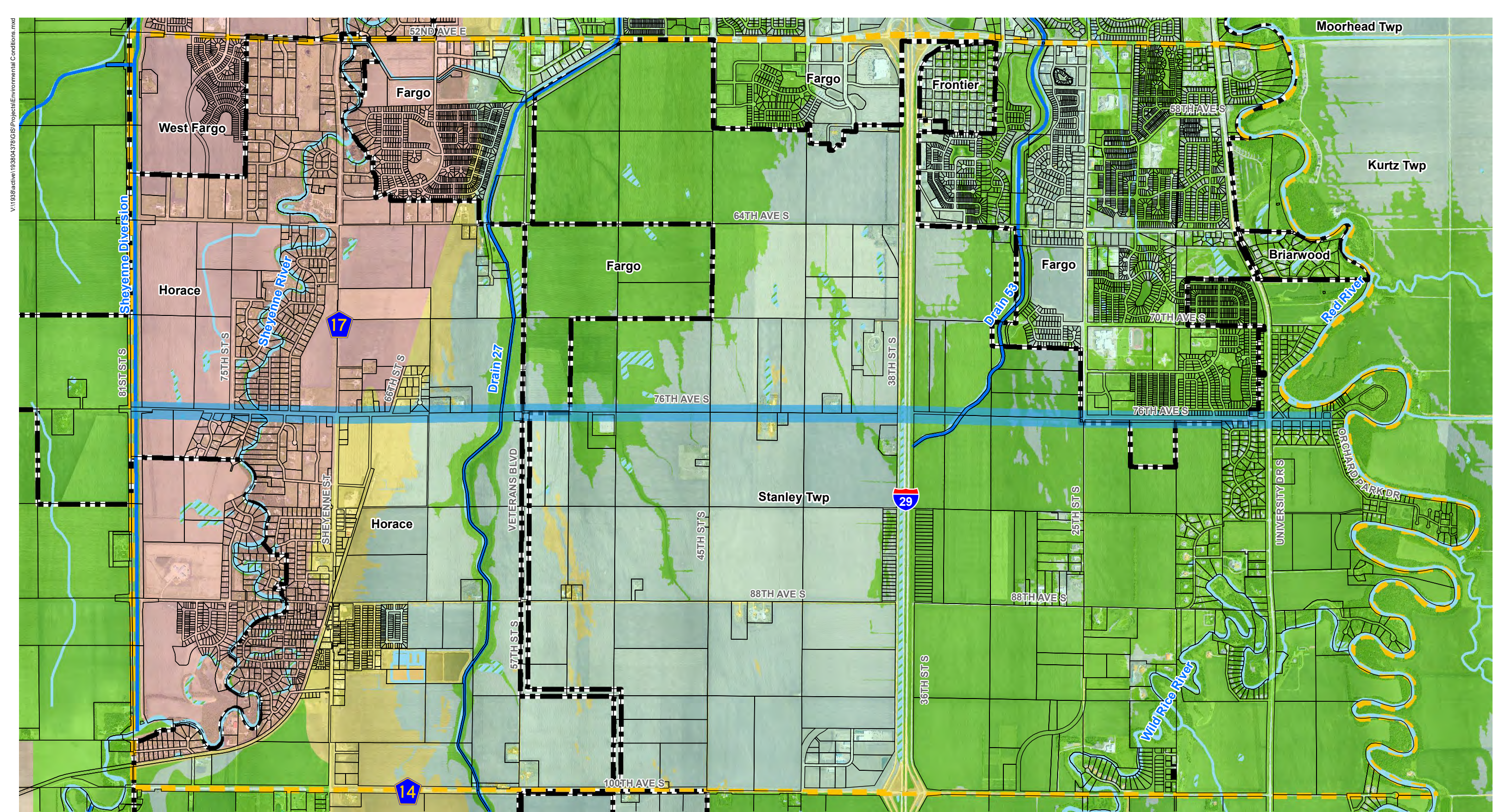
- Existing On-Street Bikeway
- Existing Shared Use Path
- Short Range Project
- Long Range Project
- (123) Future Shared Use Path Projects
- Study Corridor
- Study Area Boundary
- Open Water
- Wetland
- Fargo
- Horace
- West Fargo
- Briarwood
- Frontier



76th Avenue South Corridor Study



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





December 12, 2018

Environmental Conditions



76th Avenue South Corridor Study

-  Study Corridor
 -  Study Area Boundary
 -  Drainage Ditches
 -  Open Water
 -  Wetland
- FEMA Flood Zone:**
-  Area with 1% Annual Chance Flood Hazard
 -  Area with 0.2% Annual Chance Flood Hazard
 -  Area of Minimal Flood Hazard
 -  Area with Reduced Flood Risk due to Levee

 Municipal Boundaries

0 2,500 5,000 Feet



METROCOG

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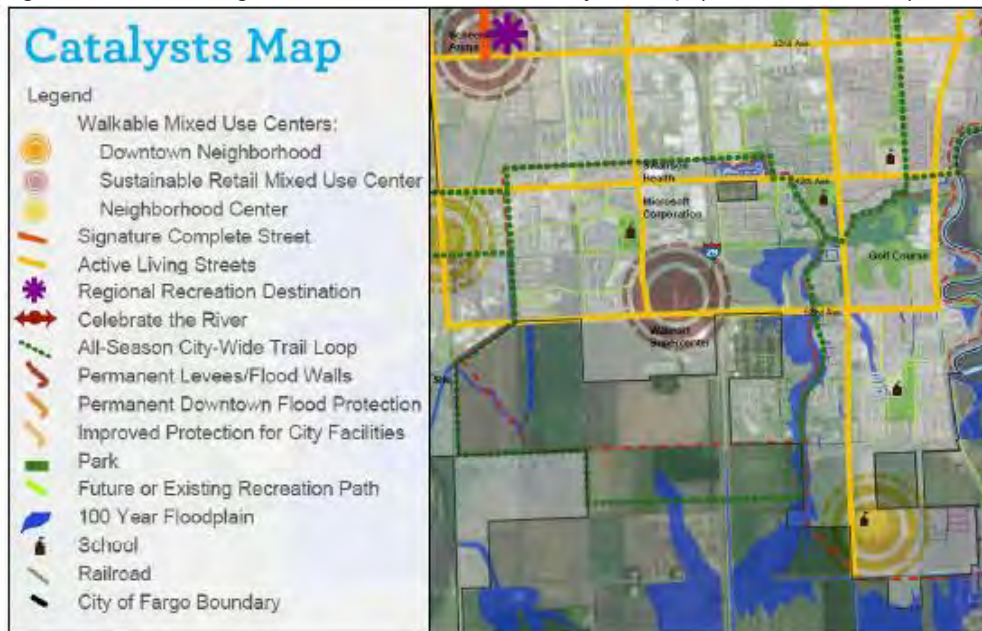
RELATED PLANNING STUDIES SUMMARY

Go 2030 Fargo Comprehensive Plan (May 2012)

Adopted in 2012, Go2030 is the comprehensive plan for the City of Fargo. It represents the foundation for city policies related to growth and development. In the process of creating Go2030, city planners brought together residents, business owners, and policy makers to reach a consensus on a future vision of Fargo. This vision led to the development of guiding principles, key initiations and catalysts, recommendations, and implementation steps. Transportation was listed as one of the nine guiding principles in the plan. Within these categories, thirty-nine key initiatives were developed. The three top transportation related key initiatives were as follows; Bicycle/Pedestrian Infrastructure (Rank = 4), Complete Streets (Rank = 18), and Transit Improvements (Rank = 19).

Go 2030 defines a catalyst as an idea that has the potential to accelerate development and enhance quality of life. The only catalyst close to 76th Avenue South is a neighborhood center located just north of 76th Avenue South, and east of 25th Street at Davis High School. Neighborhood Centers are less dense and more residential in nature. These areas should incorporate neighborhood services such as schools, parks, and walkability enhancements.

Figure 1: South Fargo Recreation Trail and Catalysts Map (Source: Go2030)



2007 Fargo Growth Plan (2007)

The 2007 Growth Plan is a growth management plan that builds upon previous efforts to establish a comprehensive land use plan, which guides development of the City of Fargo's urban fringe and southern extraterritorial area (ETA). By state statute, Fargo exercises influence over an ETA that extends up to four miles beyond city limits. All the county land within the study area falls within the City of Fargo's ETA.

The 2007 Growth Plan designates two tiers for land development, with the purpose of restricting the leap-frog development which requires costly extension of city infrastructure. The plan states that growth over the first 20-year period (through approximately 2025) should occur in Tier 1, and that development in Tier 2 should be limited during that time. 76th Avenue South is entirely in Tier 1, meaning growth is encouraged along the corridor. This tiered system became the basis of the geographical growth areas defined in the Southwest Metropolitan Transportation Plan (SWMTP) which was heavily referenced for this study.

2028 Horace Comprehensive Plan (September 2007)

The 2028 Horace Comprehensive Plan discusses the city's infrastructural, geographical, and geological barriers to growth. The plan emphasizes that low quantities of surface and ground water limit the capacity of the wastewater treatment system and will limit future development if alternatives are not available. Without an expansion to the sanitary sewer system, onsite septic systems must be used, forcing development with very low density. Were these barriers to growth removed, the plan estimates that the population of Horace could reach 20,000 by the year 2030.

The comprehensive plan highlights desirable areas of development which include north of 88th Avenue South and east of County Road 17 and/or south of the developed parts of the city and east of County Road 17. The expansion of 64th Avenue South, 76th Avenue South, and 88th Avenue South to arterial roadways is also encouraged to provide convenient access. Future development will be dictated by the location of floodplains and the potential construction of a Red River Diversion. In the short term, the orientation of the city, with respect to the Sheyenne River and diversion, requires most of the new development to continue eastward. The population of Horace is less than 5,000; therefore, the city's ETA extends 1 mile beyond its border, based on the formula specified in the North Dakota Century Code (NDCC). When the population



surpasses 5,000, the ETA may be extended to 2 miles. NDCC requires joint jurisdiction with the township or county in the outer half of the ETA.

Since the completion of the 2028 Horace Comprehensive Plan, the City of Fargo has extended sanitary sewer infrastructure to provide sanitary sewer service to the City of Horace. The City of Horace has recently begun the process of updating their comprehensive plan. The comprehensive plan update is anticipated to be completed in 2019. Coordination between this study and the comprehensive plan update will be ongoing.

Cass County Comprehensive and Transportation Plan (July 2018)

The 2018 Comprehensive Plan is a broad vision and guide for the future of Cass County by providing guiding principles, strategies, objectives, and policies that address land use, growth management, and community development. This plan acknowledges the importance of intergovernmental coordination for 76th Avenue South due to its proposed future classification as a major arterial roadway.

Development potential along 76th Avenue South includes a new West Fargo High School/Middle School complex south of 76th Avenue and east of County Road 17 and an interchange with I-29. In order to address projected development and proactively respond to the multijurisdictional nature of the road, Cass County has decided to take over jurisdictional ownership of 76th Avenue South as County Road 6 (CR 6). Improvements to the corridor have been programmed in the Cass County Capital Improvements Program for 2019 and 2021. After the urbanization of 76th Avenue South is completed, the county proposes to turnback portions to the City of Fargo and City of Horace.

2019-2023 Cass County Comprehensive Highway Plan (2018)

The Cass County Comprehensive Highway Plan identifies system principals and standards, evaluates the existing transportation system, identifies future system needs, develops a maintenance plan, identifies funding sources, and outlines implementation strategies for the operation and maintenance of the Cass County roadway network. The plan also provides a framework for long range highway and bridge planning decisions. The 5 Year Capital Improvement Plan for 2019-2023 lists the following projects on 76th Avenue South which would need to include:

- County Road 17 to 63rd Street – 4-lane divided concrete grading & surfacing to be completed in 2019



- Roundabout at County Road 17 & 76th Avenue South Intersection

Red River Bridge Corridor and Geotechnical Studies (2003)

In 2003, a series of corridor and geotechnical studies identified two preferred corridors and a third hybrid alternative for a future crossing of the Red River in the south metro area. The studies were intended to provide the preliminary planning for the construction of a crossing 15-20 years from the time of publication; identify topographical and geological limitations and associated alignment issues; and estimate the cost of completing each alternative. The three alternatives include 70th Avenue South; 76th/70th Avenue South, with the west approach via 76th Avenue South and the east approach via 70th Avenue South; and 76th Avenue South.

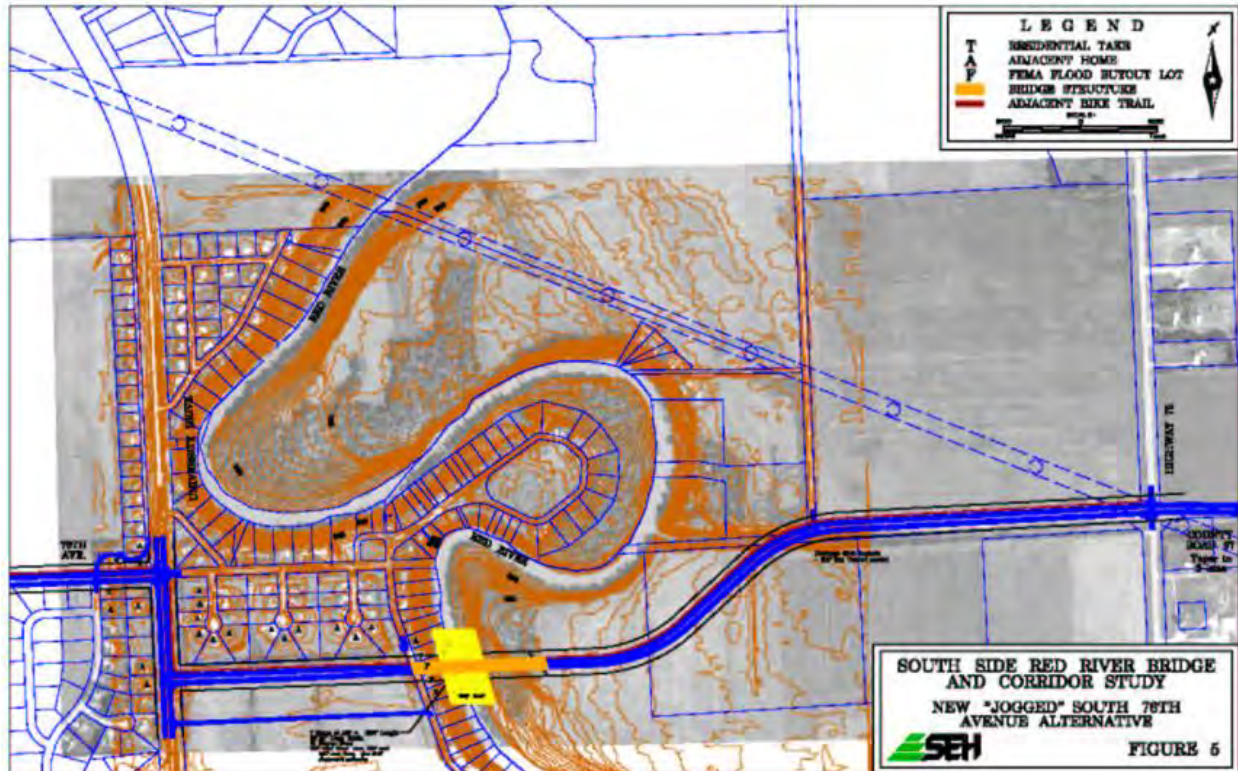
In Phase 4 of the studies, two additional “jogged” alternatives were proposed to avoid residential impacts and farmland severance under the 76th Avenue South Alternative. Phase 4 concludes that all bridge locations and corridor alignments are technically feasible. It emphasizes the tradeoff between the selection of a straight alignment for the 76th Avenue South Alternative, with its associated residential and farmland impacts, and the selection of a “jogged” alignment, which is less desirable in terms of traffic circulation. Although the 70th Avenue South Alternative avoids that tradeoff, it introduces a new 6.2-mile arterial corridor 0.5 mile north of 76th Avenue South and 0.5 mile south of 64th Avenue South, which is less than the preferred 1-mile spacing between arterial roads. Recent subdivision approvals along the 70th Avenue South corridor between University Drive South and I-29 have resulted in major hurdles to the use of this route. Many riverfront properties south of 76th Avenue South were bought out with funds from the Federal Emergency Management Agency (FEMA), which limits opportunities to acquire ROW for a bridge structure.

Most recent discussion indicates the New “Jogged” 76th Avenue South alternative as the preferred at this time. This alternative would shift 76th Avenue approximately 750 feet south before it continues east, crossing the Red River. This alternative is shown below in Figure 2.

Discussions with the project partners needs to occur to determine how plans are progressing to secure right of way needs for a future Red River crossing alignment near 76th Avenue South and to determine if the “jogged” alignment is still the preferred river crossing location.



Figure 2: 76th Avenue South Red River Crossing “Jogged” Alignment



Metro 2040: Long Range Transportation Plan (July 2014)

Metro 2040 was completed in 2014 and is the long-range transportation plan (LRTP) for the Fargo-Moorhead metropolitan area. This plan guides how the region will grow and spend transportation dollars over the next twenty-five years. The LRTP identifies a non-fiscally constrained visioning plan and fiscally constrained projects for short-term, mid-term, and long-term completion. The projects along 76th Avenue South are listed below and shown in Figure 3. The projects are shown within their planning horizon years (short-, mid- and long-term). Illustrative projects indicate that funding is not available at this time but were identified in the travel demand model as needed to mitigate congestion between the years 2031 and 2040.

- Short-Term (2015-2020) - None
- Midterm (2021-2030)
 - #45 - New 4-lane arterial roadway from 38th Street SW to 25th Street South
 - #46 - New 4-lane arterial roadway from 25th Street South to County Road 81



- Long-Term (2031-2040)
 - #38a - New 4-lane arterial roadway from 45th Street South to 38th Street SW
 - #38b - New 4-lane arterial roadway from 45th Street South to Veterans Blvd Extension
- Illustrative
 - #37 - New 4-lane arterial roadway from County Road 17 to Veterans Blvd Extension
 - #21 - New interchange at I-29 and 76th Avenue South
 - #87 - Construct a new 2-lane bridge

Figure 3: LRTP Fiscally Constrained Projects (Source: Metro 2040)



2019-2022 Draft Transportation Improvement Program (September 2018)

The Transportation Improvement Program (TIP) lists surface improvements scheduled for implementation in the Fargo-Moorhead region during the next four fiscal years, where a fiscal year starts on October 1st and ends on September 31st. This document is developed in cooperation with the Minnesota Department of Transportation (MnDOT), the North Dakota Department of Transportation (NDDOT), Metro Area Transit (MATBUS) of Fargo-Moorhead, local municipal and county jurisdictions, and other organizations and agencies eligible for project sponsorship. The draft TIP for 2019 – 2022 does not show any existing planned projects directly on the 76th Avenue South Corridor. However, it does include a grade separation of Interstate 29 (I-29) at 64th Avenue South to be constructed in 2020. 64th Avenue South is the mile section line future arterial roadway located directly to the north of 76th Avenue South. This project will have a major influence on trip patterns within the 76th Avenue South corridor study area.

South Diversion Master Transportation Plan (October 2013)

To reduce flood risk for the metropolitan area, the US Army Corps of Engineers (USACE) conducted a 2011 study which identified a 30-mile diversion alignment extending around Horace, Fargo, and West Fargo. The new river channel would begin at Cass County Highway 17 just south of Horace and terminate north of the confluence of the Red River and Sheyenne River near the City of Georgetown, Minnesota. In addition, an embankment would be constructed between the Diversion Inlet and the Red River and continue into Minnesota until it reaches high ground.

The Diversion Authority has officially submitted “Plan B” as a revised footprint to the original preferred alternative following expressed concerns from the Minnesota DNR and others impacted by the diversion. If the DNR approves, construction of the diversion and outlet structures will begin shortly after. The 76th Avenue South roadway is proposed to have a major bridge structure crossing of the future Red River Diversion.

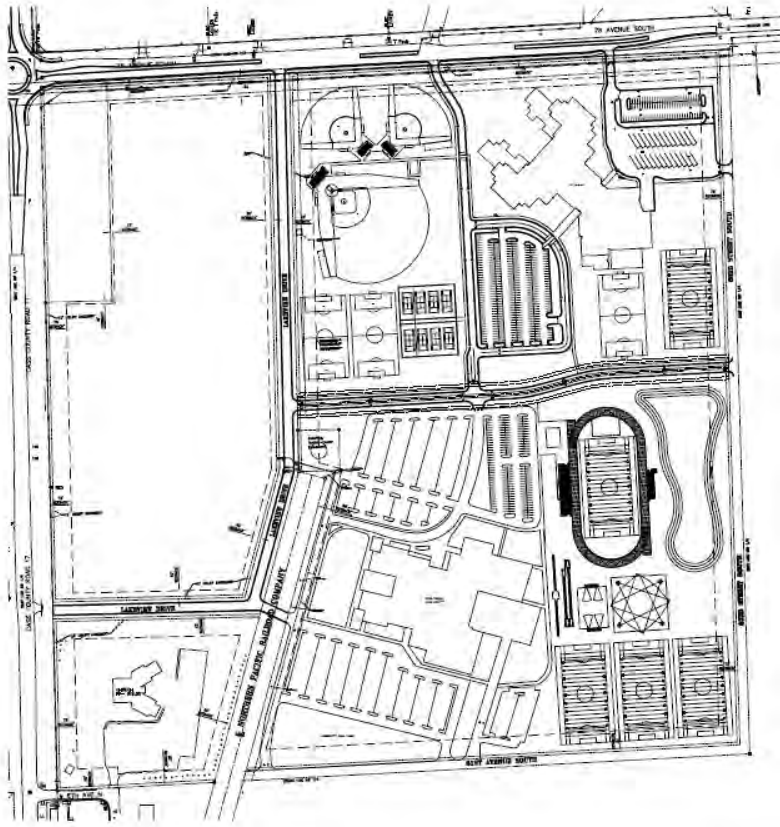
Future West Fargo School Site (November 2018)

In September 2018 a bond referendum was passed to build a new high school and middle school on the south side of the West Fargo district, within the city limits of Horace. The new school site will be located at the SE corner of County Road 17 and 76th Avenue South and will be fed by the attendance area that encompasses the areas



south of 40th Ave S on the west side of the Sheyenne River and south of 52nd Ave S on the east side of the Sheyenne River. Initially, the middle school will hold 800 students and can be expanded in the future to 1,200 students. The high school will be built to accommodate 1,000 students and can be expanded to 1,550 students if the need arises. Figure 4 shows the most current layout of the proposed new West Fargo Middle and High School site.

Figure 4: Current Layout (November 2018) of the Proposed New West Fargo Middle and High School Site (Source: West Fargo School District)



Sheyenne Street and 76th Avenue South Intersection Study (November 2018)

A traffic impact study was completed to identify traffic operations and safety impacts from the proposed West Fargo Middle School and High School on the intersections immediately adjacent to the school site. The study noted that the intersection of County Road 17 (CR 17) and 76th Avenue is anticipated to become a roundabout in the future.



Even with the construction of this roundabout, delays are still expected at the intersections of 76th Avenue and Lakeview Drive, 76th Avenue and West Middle School Access, and CR 17 and Lakeview Drive once maximum enrollment has been achieved. However, these delays are expected to be confined to the peak 15 minutes before and after school. The study recommended a further evaluation of a second roundabout at CR17 and Lakeview Drive. This roundabout would provide corridor continuity with the planned CR17 and 76th Avenue roundabout and provide additional traffic capacity for those entering and existing the school site.

Traffic Impact Study for New West Fargo Schools (September 2018)

A new West Fargo High School and Middle School complex is proposed on the south side of 76th Avenue South, east of CR 17. This traffic impact study was completed to identify the impacts of the proposed school site on the traffic operations and safety for the intersections of CR 17 at 64th Avenue South and CR 17 at 76th Avenue South. Analysis consisted of three scenarios; no-build (existing), initial school opening in 2020 (1, 800 students), and school at maximum capacity (2,750 students).

The study showed if no intersection improvements were made, and the school was at maximum capacity, the intersection of 76th Avenue South & CR 17 would operate at a LOS F for both school start and release times. Only minor delays were anticipated at the 64th Avenue South & CR 17 intersection; and were therefore not analyzed for further mitigation strategies. Further mitigation strategies for 76th Avenue South & CR 17 included adding a traffic signal with turning lanes or a single lane roundabout. Ultimately, the City of Horace and Cass County have determined that they will construct a single-lane roundabout at this intersection with free right turn movements serving traffic to and from the east.

Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan (2016)

The Bicycle and Pedestrian Plan is a sub-element of Metro COG's LRTP and is thus updated every five years and has a twenty-year planning horizon. The plan's purpose is to review existing issues and needs as they relate to bicycle and pedestrian facilities with a transportation component. Based on the area's needs, Metro COG develops goals, objectives, and recommendations to enhance safety and connectivity in the current bicycle and pedestrian network.

Through the public participation process various bicycle and pedestrian network improvements were identified. These improvements were categorized as either short-



range or long-range projects within their corresponding jurisdiction. In the plan, Cass County has a proposed long-range project for construction of a shared use path along 76th Avenue South from CR 17 to 45th Street.

2016-2020 Transit Development Plan (December 2016)

Metro Area Transit (MATBUS) provides fixed-route and demand-response transit service to the cities of Fargo, West Fargo, Moorhead, and Dilworth. There are currently no existing transit services along 76th Avenue or any proposed improvements noted in the 2016-2020 Transit Development Plan.

Fargo-Moorhead Regional Freight Plan (September 2017)

The Fargo-Moorhead Regional Freight Plan (FMRFP) was developed to gain a better understanding of the transportation service needs of industrial and retail sectors in the local Fargo-Moorhead economy. The need for an interstate beltway or by-pass to keep trucks from passing through the urban core was discussed as part of recommended corridors for preservation. The Regional Freight Plan notes that related studies including the Traffic Operations Incident Management Study (TOIMS), LRTP, and SWMTP all identify in a varying level of degree that 76th Avenue South is an important corridor to preserve. The SWMTP takes this one step further, identifying 76th Avenue South as a four-lane southern bypass route with six-lanes between 45th Street and I-29.

Traffic Operations Incident Management Strategy (TOIMS) (March 2011)

The Traffic Operations Incident Management Study (TOIMS) was created to assist in the movement of people and goods in the event of an incident or emergency. This study identified a network of emergency alternate routes; low-cost roadway improvements; operational strategies and improvements; policies and protocols to enhance the existing emergency roadway network within the Fargo-Moorhead area. Important to 76th Avenue South, the TOIMS recommends adding the entire corridor to the list of Regionally Significant Transportation Infrastructure (RSTI) Corridors.

In addition to 76th Avenue South being identified as a RSTI corridor, it was also identified as being a long-term beltway option. The purpose of a beltway route is to provide a reliable, high speed bypass around the Fargo-Moorhead urban core that can be used for the movement of freight, for inter-regional travel wishing to avoid the urban



area, as a reliever route to congested Interstates or arterials, or as an alternate route/evacuation route during incidents or emergency situations. Several key issues were identified with using 76th Avenue South as a beltway alignment. These issues include its overall proximity to a fast-growing urban area and its proximity to the City of Horace which creates access issues. Key identified improvements needed along 76th Avenue South to make it a beltway corridor are identified in the TOIMS as follows:

- Paving CR 6/76th Avenue South from CR 15 to 25th Street South, except for a segment in Horace from the Sheyenne River to CR 17.
- Constructing a new interchange at I-29/76 Avenue South
- Constructing a new four-lane Red River bridge at 76th Avenue South/80th Avenue South to accommodate a future four-lane section.
- Paving Clay County 67/80th Avenue South from the Red River to Sabin
- Constructing a new roadway alignment to bypass Sabin

FM Alternative Route & Traffic Incident Management Guidebook (December 2017)

The FM Alternative Route & Traffic Incident Management Guidebook is a document which was created to assist officials and emergency responders in the event of an emergency, where the diversion of traffic is necessary. The guidebook discusses general objectives and emergency response routes to help funnel large volumes of traffic, including trucks, to various areas dependent on the incident or event location. No routes or specifics to the 76th Avenue S corridor are referenced in this document.

Fargo/West Fargo Parking & Access Requirements Study (October 2018)

This study lists four main goals which are to 1) develop guidelines that encourage safe traffic flow, as well as a comfortable walking and biking experience, 2) develop access and roadway guidelines that complement land use form, as opposed to just functional classifications, 3) reduce the need to build excess off-street parking, and 4) enable sustainable development patterns. This study does not include specifics to 76th Avenue South in its current condition. However, it will be used as a reference document as the planning process differentiates 76th Avenue south into varying segments of like context and identifies the future vision of the corridor segments.

Southwest Metropolitan Transportation Plan (SWMTP) (May 2016)



The Southwest Metropolitan Transportation Plan (SWMTP) was developed to address the steady growth of the area south of 52nd Avenue South and between 81st Street South and the Red River. This plan fully encompasses the 76th Avenue South study limits and will be a heavily referenced document during the planning process. Analysis completed as part of the SWMTP included a tiered growth approach for the best fit scenario for the years 2020, 2030, 2040, and 2040+, and a sensitivity analysis for four network alternative scenarios. Three of the four scenarios involved 76th Avenue South and are as follows; 76th Avenue South Beltway between I-94 and Cass County Road 15 (2040), 76th Avenue South – Grade Separation Only at I-29 (2030), and 76th Avenue South – No connection across I-29 (2030).

Based on the results of the various model analysis, the SWMTP identified projects needed to accommodate future growth assumptions. The projects identified, specific to 76th Avenue South are shown below in Table 1.

The opportunity to expand on or improve the existing multimodal facilities in the area was also examined in the SWMTP. These improvements include identification of a transit corridor along 76th Avenue South between 45th Street and 25th Street and two trail connections from 81st Street S to 45th Street and from 25th Street to University Drive.



Table 1: SWMTP Identified Improvement Projects on 76th Avenue South

Year of Identified Improvement	Roadway Segment or Intersection	Identified Improvement
2020	CR 17 to I-29	Upgrade existing rural gravel 2-lane to a paved 2-lane
2020	25 th Street S to University Dr	Upgrade existing rural 2-lane to an urban 2-lane
2030	48 th Street S to I-29	Expand existing 2-lane to a divided 4-lane
2030	I-29 to 31 st Street S	Construct interchange and divided 4-lane roadway
2030	31 st Street S to 25 th Street S	Construct 3-lane roadway
2030	76 th Ave S & 48 th Street S	Install Traffic Signal*
2030	76 th Ave S & 45 th Street S	Install Traffic Signal*
2030	76 th Ave S & 38 th Street S	Install Traffic Signal*
2030	76 th Ave S & 31 st Street S	Install Traffic Signal*
2030	76 th Ave S & 25 th Street S	Install Traffic Signal*
2040	CR 17 to 48 th Street	Construct 3-lane roadway
2040	38 th Street S to I-29	Expand 4-lane to a divided 6-lane and add loops to NW and SE quadrants of interchange
2040	76 th Ave S & CR 17	Install Traffic Signal*
2040+	CR17 to 48 th Street S	Expand 3-lane to a divided 4-lane
2040+	48 th Street S to 45 th Street S	Expand 4-lane to 6-lane
2040+	45 th Street S to 38 th Street S	Expand 4-lane to 8-lane
2040+	38 th Street S to I-29	Expand 6-lane to 8-lane
2040+	I-29 to 31 st Street S	Expand 4-lane to 6-lane
2040+	31 st Street S to 25 th Street S	Expand 3-lane to a divided 4-lane

* Although the SWMTP identifies a traffic signal at multiple intersections, intersection control studies and warrants will need to be completed to determine the appropriate and warranted traffic control for all major intersections along the corridor.



Existing & Future ADT Volumes from Relevant Studies



Roadway Segments		Existing ADT			SWMTP Future ADT*				Cass County Comp Plan Future ADT	WF School Traffic Study Future ADT	Metro 2040 Future ADT***		Metro Grow 2045
From	To	Metro COG 2015 Maps	SWMTP 2016	WF School Traffic Study (July 2018)	2020 Future	2030 Future	2040 Future	2040+ Future	2045 Future (SWMTP 2040)	2025 Future** (Based on TM)	2020 E+C	2040 Fiscally Constrained	TBD
81st Street S	CR17	765	755	790	800	900	900	3,600	Not Shown	890	1,750	2,650	
CR17	57th Street S	None	None	None	1,500	6,300	6,100	5,800	6,100	5,955	250	2,400	
57th Street S	45th Street S	None	None	None	1,900	16,800	16,700	32,000	16,700	N/A	300	6,500	
45th Street S	38th Street	None	None	None	3,200	21,000	28,000	52,000	28,000	N/A	300	8,400	
38th Street	I-29					31,000	38,000	49,000	38,000			6,600	
I-29	25th Street S	None	None	None	None	17,200	24,000	19,500	Not Shown	N/A	None	None	
25th Street S	University Dr	330	330	None	400	1,400	1,600	2,200	Not Shown	N/A	100	2,000	
University Dr	Forest River Rd	None	None	None	None	None	None	None	Not Shown	N/A	None	None	

* Estimated Study Area Population from SWMTP:

2020 Future = 35,262

2030 Future = 52,978

2040 Future = 64,465

2040+ Future = Not Given

**Assumes AM Peak Hour Turning Movements are 20% of ADT

***If Multiple ADTs were available for the same segment an average was calculated



76th Avenue South Corridor Study

SEGMENTS OF LIKE CONTEXT

The project team is working to develop segments of like context along 76th Avenue South, based on a variety of physical and political features. Segments could be divided based on the volume of traffic projected along the segment, ownership, future land use characteristics, or by natural or roadway boundaries. The project team would like your feedback to identify which criteria are most important for determining the breaks in the segments.

Please rank the following criteria below where a score of 1 is least important and 5 is most important for consideration.

Criteria	Score				
	Least important				Most important
Future Traffic Volumes	1	2	3	4	5
Future Land Uses	1	2	3	4	5
Natural Boundaries (Rivers, diversions, drains etc.)	1	2	3	4	5
Major North-South Intersecting Roadways (Existing and Proposed)	1	2	3	4	5
Jurisdictional Ownership	1	2	3	4	5

Additional Comments or Suggestions on Segments of Like Context



76th Avenue South Corridor Study – SRC #2

Metro COG Conference Room – Case Plaza – One 2nd Street North, Suite 232, Fargo, ND 58102

Date: February 20, 2019 from 1:00 to 4:00 pm

Meeting Attendees:

- Peggy Harter – Stantec Consulting
- Mike Rutkowski – Stantec Consulting
- Carron Day – Stantec Consulting
- James Dahlman – City of Horace/Interstate Engineering
- Matt Lower – City of Horace
- Barrett Voigt – Cass County
- Jason Benson – Cass County
- Tom Soucy – Cass County
- Michael Maddox – Metro COG
- Cindy Gray – Metro COG
- Jeremy Gorden – City of Fargo
- Aaron Nelson – City of Fargo
- Bob Walton – NDDOT Fargo District
- Mark Lemer – West Fargo Public Schools
- Richard Duran – FRA (via Phone Conference)
- Angela Bolstad – Stantec Consulting (via Phone Conference)

Meeting Discussion Items:

1. Welcome and Introductions

Peggy Harter welcomed everyone to the SRC Meeting for the 76th Avenue South Corridor Study and asked the meeting attendees to introduce themselves and their agency that they are representing. Peggy then reviewed the project schedule and provided a project update as follows:

- Held SRC #1 on December 18, 2018
- The Project Website is LIVE <https://www.76thavestudy.com>
- Sent Newsletter #1 to everyone within a ½ mile buffer of 76th Ave S
- Held one on one meetings with multiple project stakeholders
- Completed Draft Existing Conditions Chapter



2. Comments on the Existing Conditions Chapter

Peggy referenced the existing conditions chapter handout that was also previously sent out to the entire SRC via email and that no comments have been received to date. Due to the busy meeting scheduled, the SRC would not be taking time to go through the report page by page during the meeting. Peggy requested that all additional comments be sent to her via e-mail no later than Thursday February 28, 2019 by 4:00 p.m. At that time the existing conditions chapter will be finalized and placed on the project website. Peggy noted that the relevant studies section of the report is the largest portion of the report and that has already been reviewed by the committee. Peggy asked that the SRC members pay special attention to the existing right of way section to ensure that it is correct. Peggy highlighted the summarized issues shown within the chapter below:

- Multijurisdictional ownership along the corridor
- Development is happening faster in Horace and slower in Fargo than anticipated in the SWMTP
- The roadway typical section is a rural roadway section with a mixture of paved, gravel, and dirt surface types
- Traffic volumes will increase as development continues and we need to determine what future traffic volumes to utilize as we plan for the future of the corridor
- No adopted FLU map in Horace and Fargo
- The future functionality of 76th Avenue in a regional planning context is unknown and needs to be determined
- Corridor preservation has not been started
- Multi-modal transportation elements are not present, and it is not currently a complete streets corridor

Action Item: SRC Members send comments on existing conditions report by February 28, 2019 by 4:00 p.m.

Action Item: Stantec finalize existing conditions report with comments received and post to project website.

3. Review Stakeholder Meeting Summary

Peggy noted that Stantec met with many of the identified project stakeholders in January and February 2019. A handout was provided that included the summary of discussion items from the stakeholder meetings. Peggy noted that the discussion items were formatted into categories instead of per individual meeting and that some of the developer information was asked to be kept confidential and



therefore was not part of the meeting summary. Peggy reviewed highlights from the stakeholder meetings as follows:

- #1 Question: When will the interchange be built?
- Future development in Horace have concerns for access
- Infill development in south Fargo over the next 3 years
- Opportunity for Drain 53 realignment near 76th Ave
- Consider appropriate amount of right of way – enough but not too much
- Potential for “Downtown Horace” along south side of 76th Avenue South
- Elected officials are looking to this study for access and r/w recommendations
- Lots of support for a connection from CR 17 east to 45th Street and north to 52nd Avenue South
- Support for shared use path along roadway
- Many of the stakeholders did not see a need for a Red River crossing at 76th Avenue South – felt it was a bridge crossing to nowhere with a lack of development this far south on the Minnesota side of the Red River

Upon completion of reviewing these items, Bob Walton added that although the stakeholders or developers don't see a need for a future Red River crossing at or near 76th Avenue South, that he feels it would be short sighted for us not to plan for one. Folks never thought a crossing would be needed at 32nd Avenue South and people now wonder why there was never a crossing at 32nd Avenue South. All of the SRC members seemed to be in agreement that we should be planning or considering a Red River Bridge crossing at or near 76th Avenue South.

4. Visioning for the Future – Planning to Accommodate Future Traffic Needs

Peggy Harter began the discussion about how we plan for future traffic needs noting that we know where we are today, and the next step will be to determine our needs for a Full Buildout scenario. Today's conditions include all rural ditches, all 2-lane roadway and a mix of roadway surfacing (some pavement, mostly gravel, and some field roads). Our full buildout traffic volume needs will be based on a travel demand model (TDM) that represents full socioeconomic buildout within the southwest metro transportation planning (SWMTP) area. These will be our “ultimate” traffic volumes to be accommodated along the 76th Avenue South corridor that will help us build our ultimate typical sections and identify preservation needs such as right of way and access management. We have multiple options for TDM that represent longer term future traffic volumes including SWMTP 2040, SWMTP 2040+, recent 2045 TDM (No-Build Scenario), 2045 TDM (Build Scenario with NO interchange at 76th Avenue South) and 2045 TDM (Build Scenario with interchange at 76th Avenue South). Peggy noted that the results of the varying TDM's identified vary significantly as shown in the



SRC Meeting #2 – Meeting Summary

table below. Stantec will work with Metro COG and project partners to come to a consensus on which TDM results to use for full buildout needs. She noted that could result in a need for an updated TDM.

Roadway Segments		Existing ADTs		SWMTF Future ADTs				Metro 2040 Future ADTs		Metro Grow 2045 ADTs		
From	To	Metro COG 2015 Maps	WF School Traffic Study (July 2018)	2020 Future	2030 Future	2040 Future	2040+ Future	2020 E+C	2040 Fiscally Constrained	2045 No-Build	2045 Needs-Based	2045 Needs-Based + 76th Ave Interchange
81st Street S	CR17	765	790	800	900	900	3,600	1,750	2,650	1,370	1,232	1,208
CR17	57th Street S	None	None	1,500	6,300	6,100	5,800	250	2,400	3,902	150	260
57th Street S	45th Street S	None	None	1,900	16,800	16,700	32,000	300	6,500	4,002	732	1,731
45th Street S	38th Street	None	None	3,200	21,000	28,000	52,000	300	8,400	4,605	1,381	6,656
38th Street	I-29				31,000	38,000	49,000		6,600	7,010	2,293	16,352
I-29	25th Street S	None	None	None	17200	24,000	19,500	None	None	4,781	5,764	12,624
25th Street S	University Dr	330	None	400	1,400	1,600	2,200	100	2,000	4,900	6,254	NA
University Dr	Red River	None	None	None	None	None	None	None	None	NA	NA	NA

Peggy then discussed that once we determine design needs & function for the corridor, we can phase out our projects based on “Triggers”. Because there is a lot of developable land in the Southwest Metro planning area, the rate at which it develops is dependent on many factors. It will be difficult to predict specific years for needed projects. The triggers will be identified based on the following items:

- Phase I Projects – will be based on corridor “connectivity” needed to serve development.
- Phase II through Full Build – will be based on capacity needs and traffic volume increases for roadway expansions. This will be identified through actual traffic counts and updated TDM’s for the Metropolitan Transportation Plans (MTPs).

Action Item – Stantec to work with Metro COG to identify TDM to utilize for Full Build traffic volume needs for the corridor.

5. Visioning for the Future – Building Blocks Exercise

Mike Rutkowski went through an exercise comparing the existing conditions of the 76th Avenue South Corridor to the 32nd Avenue South corridor, which is fairly built out. The comparison included ½ mile north and south of both corridors and for the same project length. Both areas compared were a total of 4,000 acres. The comparison is as follows:

76th Avenue South:

- Population Density = 0.17 persons per acre
- Total Population = 716
- Total Businesses = 19



- Total Residential Units = 255

32nd Avenue South:

- Population Density = 6.8 persons per acre
- Total Population = 27,567
- Total Businesses = 1,092
- Total Residential Units = 10,000

The purpose of this comparison is to start to get an idea of how much the 76th Avenue South corridor could develop. Once we begin to identify land uses and densities along the corridor, it may be a good comparison to other built out corridors in town for future full build traffic volume needs. This is a good example of the reasoning we are doing an exercise today to look at future land use types and densities along the 76th Avenue South corridor within ½ mile north and south of the corridor from the Sheyenne Diversion to the Red River.








Mike went on to explain the logistics of the building blocks exercise including the following:

- SRC members were broken out into two groups to complete the exercise individually.
- Each group was given a map of the corridor with the aerial photo turned on and various shading of the corridor as “green” – areas ripe for new or redevelopment, “yellow” – areas that may have potential for development or redevelopment, and “red” areas that are firm in their existing or future development and uses.
- Each SRC members was given a “Making the Place” handout that identified the various colors for land use types and densities for size of Legos to be placed on the maps. The intent is to place the various colors and number of Legos on the map where it is shown to be ripe for new or redevelopment. The making the place map is shown in the photo below:



Making the Place



Lego	What?	Examples	😊	😞
COMMERCIAL <i>(block = neighborhood center, 100-acres)</i>	Buy groceries, shoes, a car, or a meal		More of these mean shorter trips, more variety and options, lower prices	In the wrong place and using bad/cheap design, these mean more parking lots and traffic, lower home value
LOW-DENSITY RESIDENTIAL <i>(4 block = 30 homes, 8 block = 100 homes)</i>	Living in a single-family, detached home, probably with a garage and in a subdivision with the others of the same		Quiet places for people to live to call their own and invest in for the future	Can be costly to own and maintain; requires a lot of land; often requires a car for every trip that is made
MEDIUM- & HIGH-DENSITY RESIDENTIAL <i>(4 block = 100 homes, 8 block = 200 homes)</i>	Living a duplex, townhomes, condominium or apartment with shared greenspace		Easy to afford for young, lower-income, and elderly; often located near complementary uses (shopping, schools)	More localized traffic; poor design can devalue other properties over time
FARMING, OPEN SPACE, & PASSIVE PARKS <i>(block = 100-acre open space or farm)</i>	Visiting natural, undisturbed lands; growing food; walking through trees by yourself or with your family		Integrated green space into "harder" urban / suburban places; job diversity, sense of place	Generally lower tax revenues (or none) received, putting more burden on other property owners
SCHOOLS & GOVERNMENT <i>(block = school or government complex 50-acres)</i>	Going to school or getting a driver's license renewed		Necessary to have them; good job opportunities; especially nice when they are near where you live or work	Local generator of traffic and lower or no revenue returns than some other land uses
INDUSTRIAL <i>(block = manufacturing or large distribution facility, 100-acres)</i>	Light- or heavy-manufacturing, distribution with trucks or be rail		Supports living-wage jobs directly, and other jobs indirectly; strong revenue source	Some (but not all) have operating or visual characteristics that lower nearby property values or present health concerns
ACTIVE PARKS, GREENWAYS, & PLAYGROUNDS <i>(block = 25-acre park)</i>	Taking the children to play on the swings or participate in organized sports with others		Great for relaxing, public health, and keeping green areas near built-up places	Lower tax revenues; often needs good maintenance and law enforcement presence to be perceived as an asset

- The two groups were asked to complete the Building Blocks exercise twice. The first time would assume no future interchange at 76th Avenue South and I-29 but it would include a grade separation. The second time would assume a future interchange at 76th Avenue South and I-29.
- The groups were each given a certain amount of time to complete their building blocks mapping exercise for both scenarios. Group 1 included Cindy Gray, Matt Lower, Bob Walton, Jeremy Gorden and Jason Benson. Group 2 included Mark Lemer, Michael Maddox, Barret Voigt, Aaron Nelson, and Tom Soucy.
- The results of the two groups are shown via photographs below.



SRC Meeting #2 – Meeting Summary

76TH AVE

Scenario 1 – Grade Separation Only at 76th Avenue South & I-29 (No Interchange)
Group 1 Results of Scenario 1 are shown in the photo below:



Group 2 Results of Scenario 1 are shown in the photo below:



76th Avenue South Corridor Study

METROCOG
FARGO-WOODHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

Scenario 2 – Interchange at 76th Avenue South & I-29

Group 1 Results of Scenario 2 are shown in the photo below:



Group 2 Results of Scenario 2 are shown in the photo below:



Action Item – Stantec will utilize the photos to create a map that shows the land uses and densities identified by the two SRC groups for both scenarios.

6. Visioning for the Future – Live polling questions on how do you see 76th Avenue South in 30 years? Mike Rutkowski kicked off this exercise with a quote “If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places. – Fred Kent.” He noted that we are going to do a live polling exercise that will give us a better idea for both long term planning assumptions and the vision of the 76th Avenue South corridor. The polling questions and results are shown below. The first questions is a test question.

1. Are the NDSU Bison headed to the NCAA Championship? (Multiple Choice)		
	Responses	
	Percent	Count
Of course!	20%	2
Not this year	60%	6
No idea – I am not a basketball fan!	20%	2
Totals	100%	10

2. I foresee an I-29 interchange at 76th Ave South as being warranted and supported in the future. (Multiple Choice)		
	Responses	
	Percent	Count
Strongly Agree	60%	6
Agree	30%	3
Disagree	10%	1
Strongly Disagree	0%	0
Totals	100%	10

3. The Red River Diversion should be planned as happening within the next 10 years. (Multiple Choice)		
	Responses	
	Percent	Count
Strongly Agree	80%	8
Agree	20%	2
Disagree	0%	0
Strongly Disagree	0%	0
Totals	100%	10



4. I believe 76th Ave South should serve as a beltway type facility to serve large traffic volumes with highly controlled accesses. (Multiple Choice)

	Responses	
	Percent	Count
Strongly Agree	20%	2
Agree	40%	4
Disagree	40%	4
Strongly Disagree	0%	0
Totals	100%	10

5. What should 76th Ave South look like (predominantly) in 20 to 30 years? (Multiple Choice)

	Responses	
	Percent	Count
2-Lane/3-Lane rural roadway	0%	0
4-Lane divided	50%	5
6-Lane divided	0%	0
5-Lane	10%	1
Expressway (limited signals)	20%	2
Other?	20%	2
Totals	100%	10

6. Which modes are most important to improve for 76th Ave South? (pick two) (Multiple Choice - Multiple Response)

	Responses	
	Percent	Count
Walking	33%	6
Bicycling	11%	2
Driving	33%	6
Transit	22%	4
Totals	100%	18



SRC Meeting #2 – Meeting Summary

7. What is the biggest challenge with 76th Ave South as we look to redesign it? (pick two) (Multiple Choice - Multiple Response)		
	Responses	
	Percent	Count
Integrating pedestrian facilities	13%	2
Aesthetics/ appearance	27%	4
Maintaining safe speeds	20%	3
Economic Development	13%	2
Incorporating Transit	7%	1
Dealing with Congestion	7%	1
Integrating bike facilities	7%	1
Other?	7%	1
Totals	100%	15

8. What is the highest priority need along 76th Ave South? (pick two) (Multiple Choice - Multiple Response)		
	Responses	
	Percent	Count
Safety Improvements	6%	1
Bike Lanes	6%	1
Sidewalks	6%	1
Streetscape / Landscaping	24%	4
Stormwater Improvements	6%	1
Intersection Redesign	6%	1
Connectivity	41%	7
Signage	0%	0
Economic Development Opportunities	6%	1
Widening (More Lanes)	0%	0
Totals	100%	17

9. Do your priorities change depending on the segment of the 76th Avenue South corridor? (Multiple Choice)		
	Responses	
	Percent	Count
Yes	56%	5
No	33%	3
It Depends?	11%	1
Totals	100%	9



10. Would you support access management along 76th Avenue South? (Multiple Choice)		
	Responses	
	Percent	Count
Never	0%	0
Unsure	0%	0
Maybe	11%	1
Definitely	89%	8
Totals	100%	9

11. How do we pay for needed improvements? (Multiple Choice)		
	Responses	
	Percent	Count
Transportation sales tax	25%	2
Federal STP	12%	1
Bond Referendum	25%	2
Private Development	12%	1
TIGER/Grants	0%	0
Public/Private partnerships	25%	2
Totals	100%	8

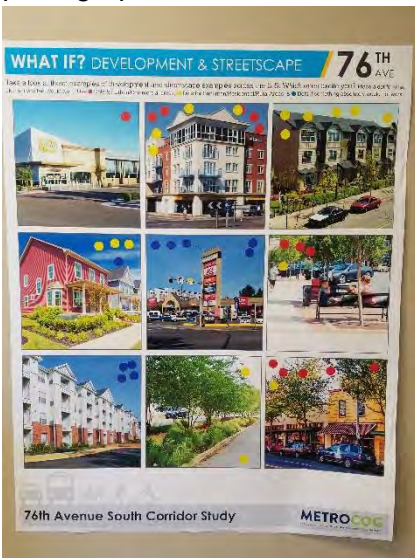
12. How do you rate the quality (in terms of design and appearance) of existing development along the corridor? (Multiple Choice)		
	Responses	
	Percent	Count
Bad	62%	5
Okay	25%	2
Good	0%	0
Excellent	12%	1
Totals	100%	8



13. What type of development is missing along 76th Avenue South? (Pick Two) (Multiple Choice - Multiple Response)		
	Responses	
	Percent	Count
Local restaurants	18%	3
Multifamily/ Mix of housing	41%	7
Commercial/retail	35%	6
Department stores	0%	0
Industrial/ Business Park	0%	0
Active Parks/Open Space	6%	1
Rural preservation/Agricultural	0%	0
Other?	0%	0
Totals	100%	17

7. Visioning for the Future – Visual Preference Boards Dotmocracy Voting

The SRC members were asked to vote for their preferences for facility types in the future as the corridor is developed. The categories included development and streetscape, bicycles, pedestrians, transit and parking, and street design. The group was asked to place a yellow dot if they feel the elements work well in residential areas, a red dot for the elements that work well in commercial areas, and a blue dot if this element does not work for this corridor in any case. The results are shown in the photographs below:





8. Next Project Steps – Peggy reviewed the next project steps as follows:

- Finalize Existing Conditions Report and Post to Project Website. Comments by Feb 28, 2019!
- Gain consensus on TDM and FLUs for the corridor
- Send out Newsletter #2
- Hold Stakeholder Meeting #2
- Prepare for and schedule SRC #3 – April 2019 – Finalize Visioning and Discuss Alternatives to Develop
- Committee Presentation #1 – April 2019

The meeting adjourned at 4:00 pm.

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services, Inc.



Peggy Harter PE
Senior Associate
Phone: (701) 566-6020
Peggy.Harter@stantec.com

Attachments: Meeting Sign in Sheet



SRC Meeting #2

76th Avenue South Corridor Study



76th Avenue South Corridor Study



Agenda

1. Welcome, Introductions, and Project Updates
2. Comments on Existing Conditions Chapter
3. Review Stakeholder Meeting Summary
4. Visioning for the Future
5. Next Steps



Welcome, Introductions, and Project Updates

Welcome and Introductions

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Please Introduce Yourself!

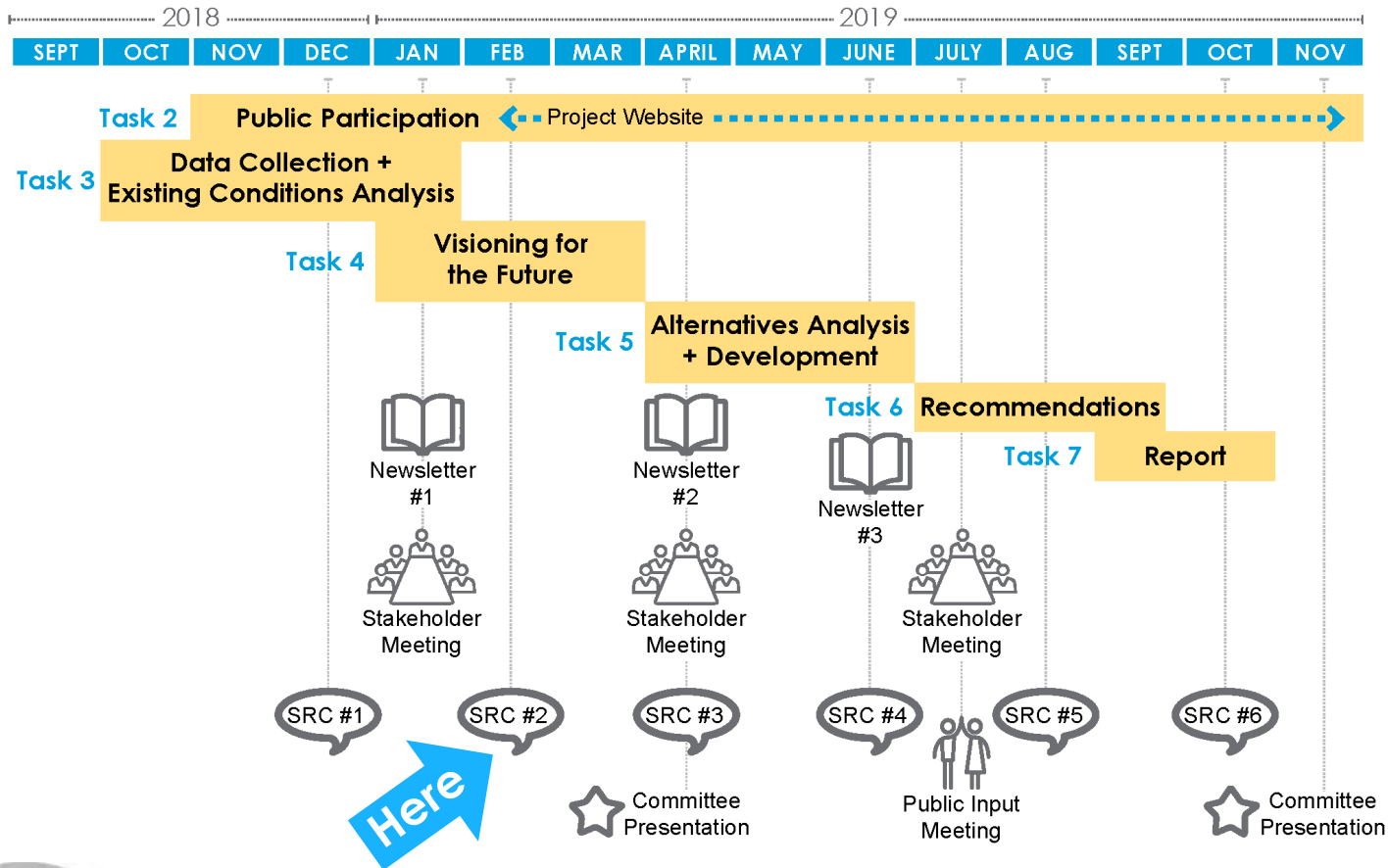


76th Avenue South Corridor Study

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Project Schedule

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76th Avenue South Corridor Study

Project Updates

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- Held SRC #1 on December 18, 2018
- The Project Website is LIVE
<https://www.76thavestudy.com>
- Sent Newsletter #1 to everyone within a ½ mile buffer of 76th Ave S
- Held one on one meetings with 11 Stakeholders
- Completed Draft Existing Conditions Chapter



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Existing Conditions Chapter

Existing Conditions Chapter

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Handout
Draft
Existing
Conditions
Report

Comments?



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Existing Conditions Report - Issues

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Handout Draft Existing Conditions Report

- Multijurisdictional ownership along the corridor
- Development is happening faster in Horace and slower in Fargo than anticipated in the SWMTP
- The roadway typical section is a rural roadway section with a mixture of paved, gravel, and dirt surface types
- Traffic volumes will increase as development continues and we need to determine what future traffic volumes to utilize as we plan for the future of the corridor
- No adopted FLU map in Horace and Fargo
- The future functionality of 76th Avenue in a regional planning context is unknown and needs to be determined
- Corridor preservation has not been started
- Multi-modal transportation elements are not present and it is not currently a complete streets corridor



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Review Stakeholder Meeting Summary

Stakeholder Meeting Summary

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Handout
Stakeholder
Meeting
Summary

- #1 Question: When will the interchange be built?
- Future development in Horace have concerns for access
- Infill development in south Fargo over the next 3 years
- Opportunity for Drain 53 realignment near 76th Ave
- Consider appropriate amount of right of way – enough but not too much



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Stakeholder Meeting Summary

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Handout
Stakeholder
Meeting
Summary

- Potential for “Downtown Horace” along south side of 76th Avenue South
- Elected officials are looking to this study for access and r/w recommendations
- Lots of support for a connection from CR 17 east to 45th Street and north to 52nd Avenue South
- Support for shared use path along roadway



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Visioning for the Future

Today to Full Buildout

- Today's Conditions
 - All Rural Ditches, All 2-Lane Roadway, Some Pavement, Mostly Gravel, Some Field Road
- Full Buildout Needs – Will be based on Full Build TDM Results
 - Identify Ultimate Traffic Needs to Preserve Right of Way and Access Management
- Once we determine Design & Function – we can phase out our projects based on “Triggers”



“Triggers” for Project Phasing

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There is a lot of developable land in the Southwest Metro planning area. The rate at which it develops is dependent on many factors. It will be difficult to predict specific years for needed project.

- Corridor connectivity needed for development (Phase I)
- Capacity Issues and Traffic Volume Increases for roadway expansions (Phases II through Full Build)



Which Travel Demand Model (TDM) Will We Use?

- TDM Options Available
 - SWMTP – 2040 ADT Volumes
 - SWMTP – 2040 + ADT Volumes
 - 2045 No Build ADT Volumes
 - 2045 Build Needs ADT Volumes (No Interchange at 76th Avenue South)
 - 2045 Build Needs ADT Volumes (Interchange at 76th Avenue South)



Future Traffic Volumes Discussion

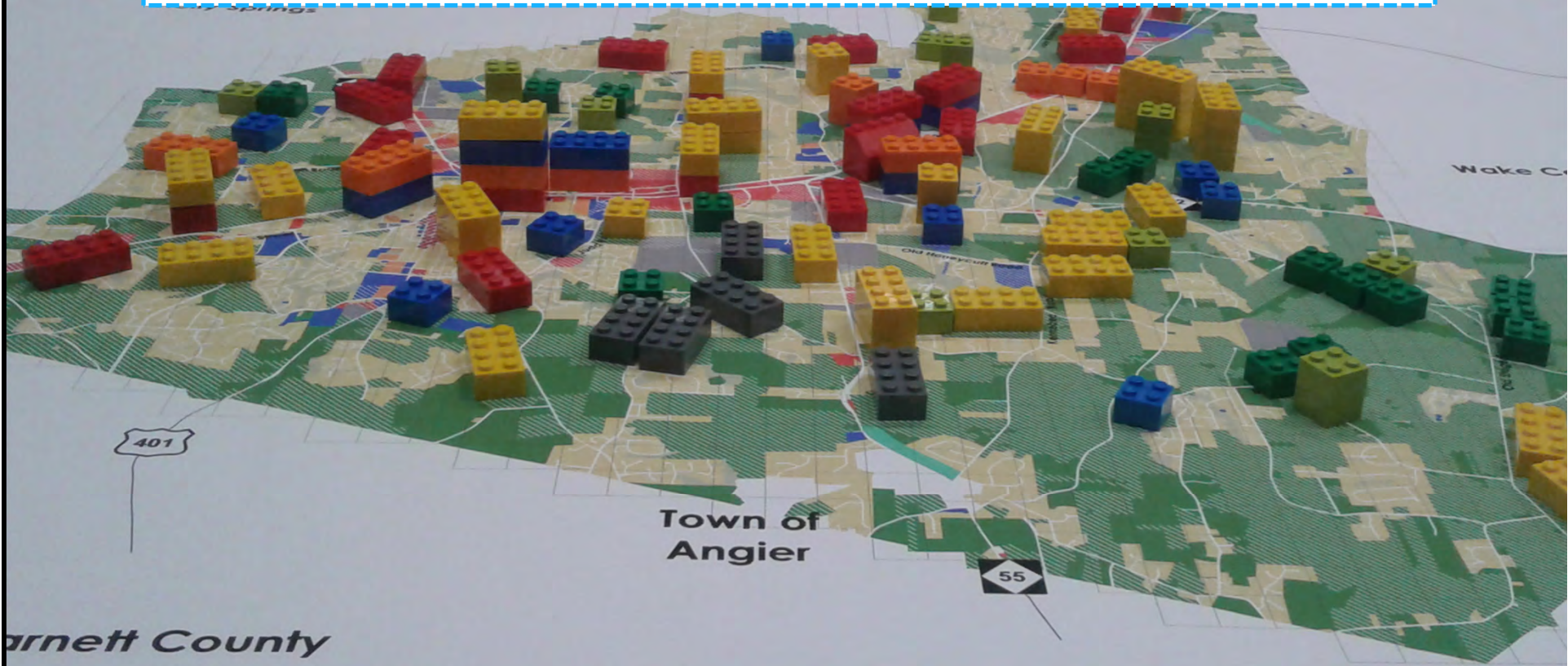
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Which Travel Demand Model (TDM) Will We Use?

Roadway Segments		Existing ADTs		SWMTP Future ADTs				Metro 2040 Future ADTs		Metro Grow 2045 ADTs		
From	To	Metro COG 2015 Maps	WF School Traffic Study (July 2018)	2020 Future	2030 Future	2040 Future	2040+ Future	2020 E+C	2040 Fiscally Constrained	2045 No-Build	2045 Needs-Based	2045 Needs-Based + 76th Ave Interchange
81st Street S	CR17	765	790	800	900	900	3,600	1,750	2,650	1,370	1,232	1,208
CR17	57th Street S	None	None	1,500	6,300	6,100	5,800	250	2,400	3,902	150	260
57th Street S	45th Street S	None	None	1,900	16,800	16,700	32,000	300	6,500	4,002	732	1,731
45th Street S	38th Street	None	None	3,200	21,000	28,000	52,000	300	8,400	4,605	1,381	6,656
38th Street	I-29				31,000	38,000	49,000		6,600	7,010	2,293	16,352
I-29	25th Street S	None	None	None	17,200	24,000	19,500	None	None	4,781	5,764	12,624
25th Street S	University Dr	330	None	400	1,400	1,600	2,200	100	2,000	4,900	6,254	NA
University Dr	Red River	None	None	None	None	None	None	None	None	NA	NA	NA



Building Blocks Exercise



Jarrnett County

Town of Angier

55

Rural Development Preferences Game

Building Blocks Exercise

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Population Density for 76th Avenue S - .17 persons per acre

Population Density for 32nd Avenue S – 6.8 persons per acre

76th Ave S: Total population 716
 Total Businesses – 19
 Total Residential Units – 255

32nd Ave S: Total Population – 27,567
 Total Businesses – 1,092
 Total Residential Units – 10,000

Total acres – 4,000



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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Ripe & Firm Map

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Making the Place



Lego	What?	Examples	😊	☹️
<p>COMMERCIAL <i>(block = neighborhood center-100-acres)</i></p>	<p>Buy groceries, shoes, a car, or a meal</p>		<p>More of these mean shorter trips, more variety and options, lower prices</p>	<p>In the wrong place and using bad/cheap design, these mean more parking lots and traffic, lower home value</p>
<p>LOW-DENSITY RESIDENTIAL <i>(4 block = 50 homes; 8 block = 100 homes)</i></p>	<p>Living in a single-family, detached home, probably with a garage and in a subdivision with the others of the same</p>		<p>Quiet places for people to live to call their own and invest in for the future</p>	<p>Can be costly to own and maintain; requires a lot of land; often requires a car for every trip that is made</p>
<p>MEDIUM- & HIGH-DENSITY RESIDENTIAL <i>(4 block = 100 homes; 8 block = 200 homes)</i></p>	<p>Living a duplex, townhomes, condominium or apartment with shared greenspace</p>		<p>Easy to afford for young, lower-income, and elderly; often located near complementary uses (shopping, schools)</p>	<p>More localized traffic; poor design can devalue other properties over time</p>
<p>FARMING, OPEN SPACE, & PASSIVE PARKS <i>(block = 100-acre open space or farm)</i></p>	<p>Visiting natural, undisturbed lands; growing food; walking through trees by yourself or with your family</p>		<p>Integrated green space into "harder" urban / suburban places; job diversity, sense of place</p>	<p>Generally lower tax revenues (or none) received, putting more burden on other property owners</p>
<p>SCHOOLS & GOVERNMENT <i>(block = school or government complex 50-acres)</i></p>	<p>Going to school or getting a driver's license renewed</p>		<p>Necessary to have them; good job opportunities; especially nice when they are near where you live or work</p>	<p>Local generator of traffic and lower or no revenue returns than some other land uses</p>
<p>INDUSTRIAL <i>(block = manufacturing or large distribution facility 100-acres)</i></p>	<p>Light- or heavy-manufacturing, distribution with trucks or be rail</p>		<p>Supports living-wage jobs directly, and other jobs indirectly; strong revenue source</p>	<p>Some (but not all) have operating or visual characteristics that lower nearby property values or present health concerns</p>
<p>ACTIVE PARKS, GREENWAYS, & PLAYGROUNDS <i>(block = 25-ace park)</i></p>	<p>Taking the children to play on the swings or participate in organized sports with others</p>		<p>Great for relaxing, public health, and keeping green areas near built-up places</p>	<p>Lower tax revenues; often needs good maintenance and law enforcement presence to be perceived as an asset</p>



Building Blocks Exercise

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- Two table groups
- Familiarize yourself with the Legos (type/density) and map (study area)
- 1st Mapping Exercise: How do you think it will develop?
 - Assume no I-29 interchange
 - Place legos (scaled to map) representing LU Types
 - Take a picture
- 2nd Mapping Exercise: How do you think it will develop?
 - Assume I-29 interchange
 - Place legos (scaled to map) representing LU Types
 - Take a picture
- Present findings



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Visioning Exercise

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“If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places.”

—Fred Kent,
Project for Public Spaces

Let's Vote!

76TH AVE

How do you see 76th Ave South in 20 to 30 years?

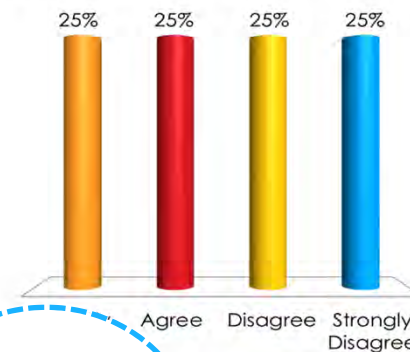


Visioning Exercise

76TH AVE

The Red River Diversion should be planned as happening within the next 10 years.

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree



Key Pad
Polling
Exercise

Real Time
Results

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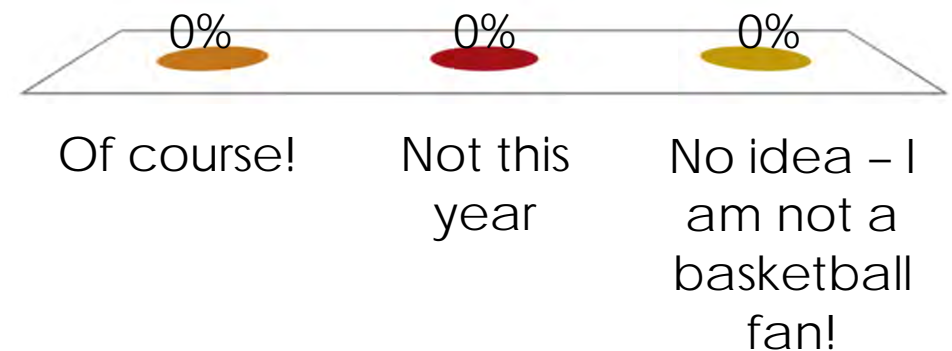
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Let's Vote!

76TH
AVE

Are the NDSU Bison headed to the NCAA Championship?

- A. Of course!
- B. Not this year
- C. No idea – I am not a basketball fan!

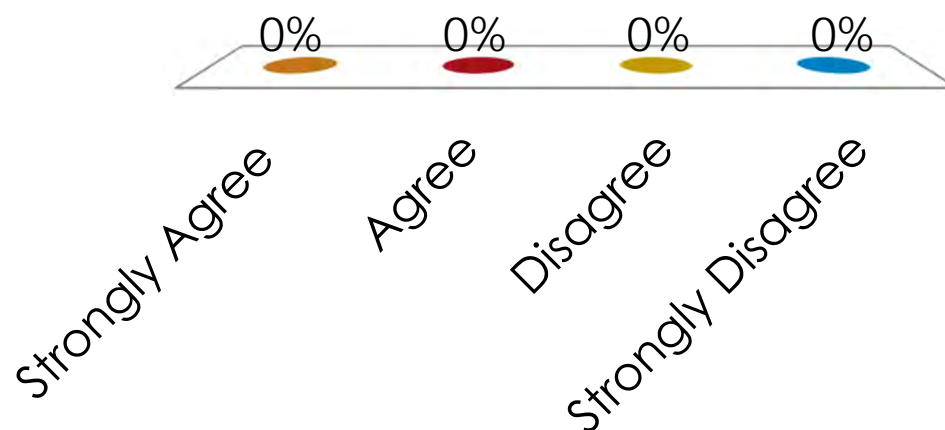


Let's Vote!

76TH AVE

I foresee an I-29 interchange at 76th Ave South as being warranted and supported in the future.

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

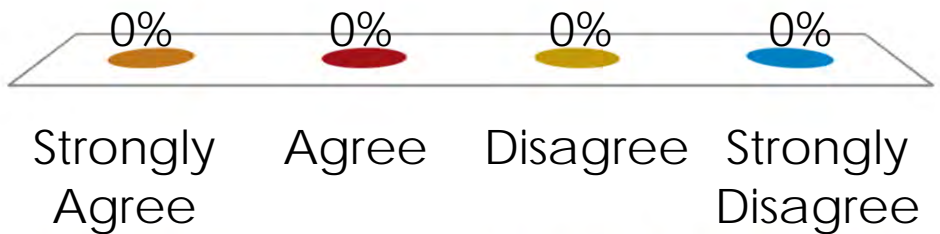


Let's Vote!

76TH
AVE

The Red River Diversion should be planned as happening within the next 10 years.

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree



Let's Vote!

76TH AVE

I believe 76th Ave South should serve as a beltway type facility to serve large traffic volumes with highly controlled accesses.

Note: This type of facility will require an I-29 interchange and Red River Bridge crossing in the future.

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

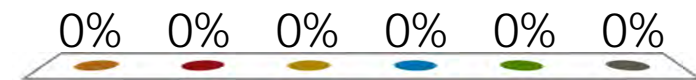


Let's Vote!

76TH AVE

What should 76th Ave South look like (predominantly) in 20 years?

- A. 2-Lane/3-Lane rural roadway
- B. 4-Lane divided, partial control of access (some driveways/intersections), sidewalks, street trees, etc.
- C. 6-Lane divided, controlled access (intersections only), sidepath, street trees, etc.
- D. 5-Lane, driveways, sidewalks, street trees, etc.
- E. Expressway (limited signals)
- F. Other?



2-Lane/3-Lane rural...
4-Lane divided, ...
6-Lane divided, ...
5-Lane, driveways, ...
Expressway (limited...)
Other?

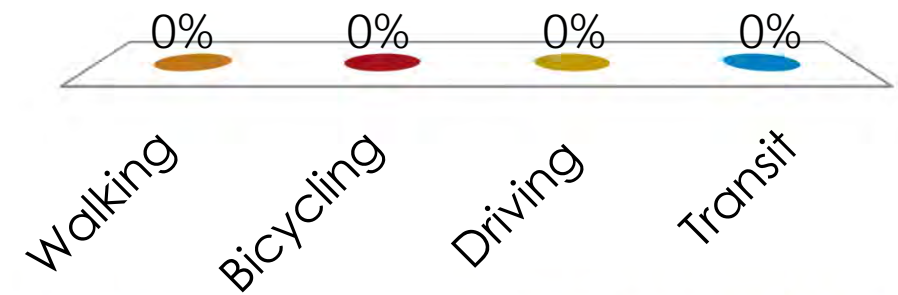


Let's Vote!

76TH AVE

Which modes are most important to improve for 76th Ave South? (pick two)

- A. Walking
- B. Bicycling
- C. Driving
- D. Transit



76th Avenue South Corridor Study

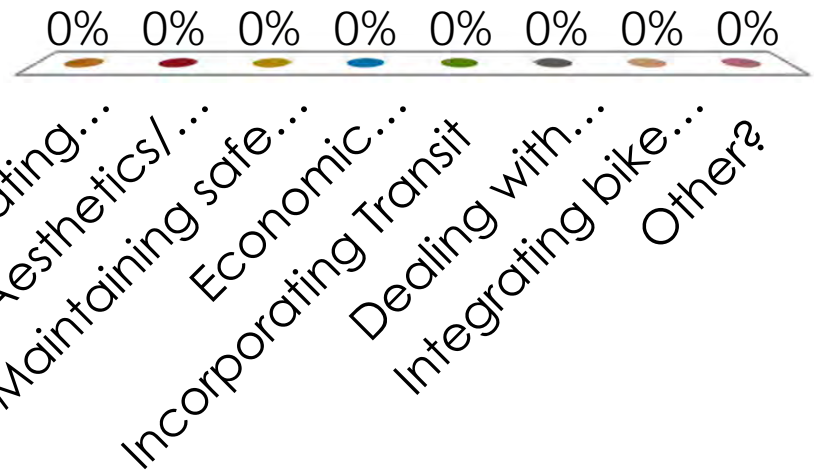
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Let's Vote!

76TH AVE

What is the biggest challenge with 76th Ave South as we look to redesign it? (pick two)

- A. Integrating pedestrian facilities (sidewalks, ped countdowns, lighting, etc.)
- B. Aesthetics/ appearance
- C. Maintaining safe speeds
- D. Economic Development
- E. Incorporating Transit
- F. Dealing with Congestion
- G. Integrating bike facilities
- H. Other?

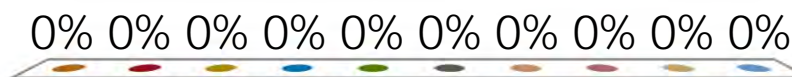


Let's Vote!

76TH AVE

What is the highest priority need along 76th Ave South? (pick two)

- A. Safety Improvements
- B. Bike Lanes
- C. Sidewalks
- D. Streetscape / Landscaping
- E. Stormwater Improvements
- F. Intersection Redesign
- G. Connectivity
- H. Signage
- I. Economic Development Opportunities
- J. Widening (More Lanes)



Safety Improvements
Bike Lanes
Sidewalks
Streetscape / ...
Stormwater ...
Intersection Redesign
Connectivity
Signage
Economic ...
Widening (More Lanes)

76th Avenue South Corridor Study

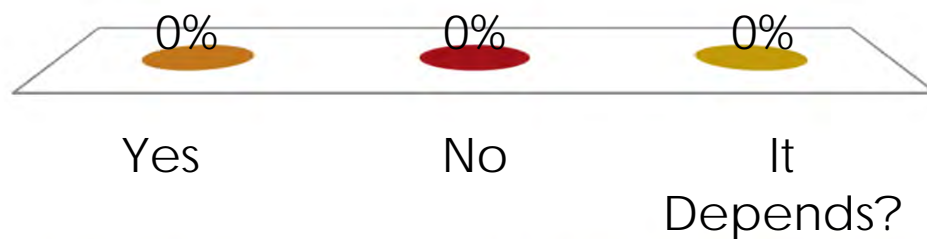
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Let's Vote!

76TH AVE

Do your priorities change depending on the segment of the 76th Avenue South corridor?

- A. Yes
- B. No
- C. It Depends?



76th Avenue South Corridor Study

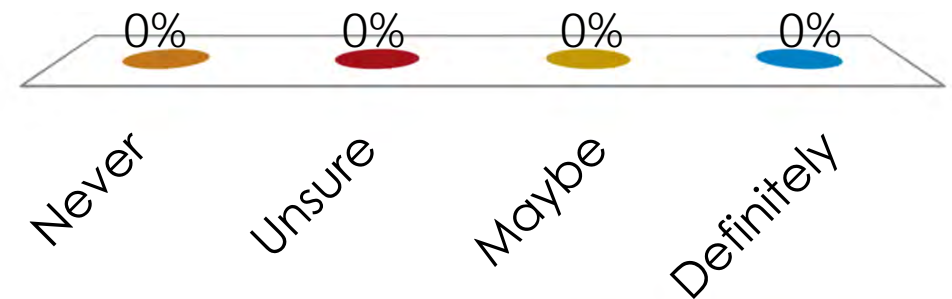
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Let's Vote!

76TH AVE

Would you support access management along 76th Avenue South?

- A. Never
- B. Unsure
- C. Maybe
- D. Definitely

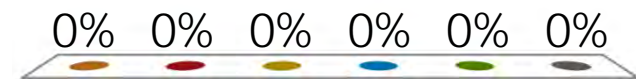


Let's Vote!

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How do we pay for needed improvements?

- A. Transportation sales tax
- B. Federal STP
- C. Bond Referendum
- D. Private Development
- E. TIGER/Grants
- F. Public/Private partnerships



Transportation sales tax
Federal STP
Bond Referendum
Private Development
TIGER/Grants
Public/Private...



76th Avenue South Corridor Study

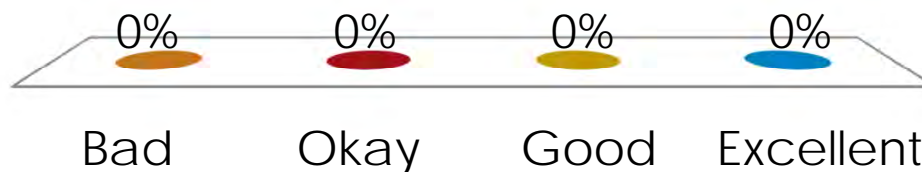
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Let's Vote!

76TH AVE

How do you rate the quality (in terms of design and appearance) of existing development along the corridor?

- A. Bad
- B. Okay
- C. Good
- D. Excellent

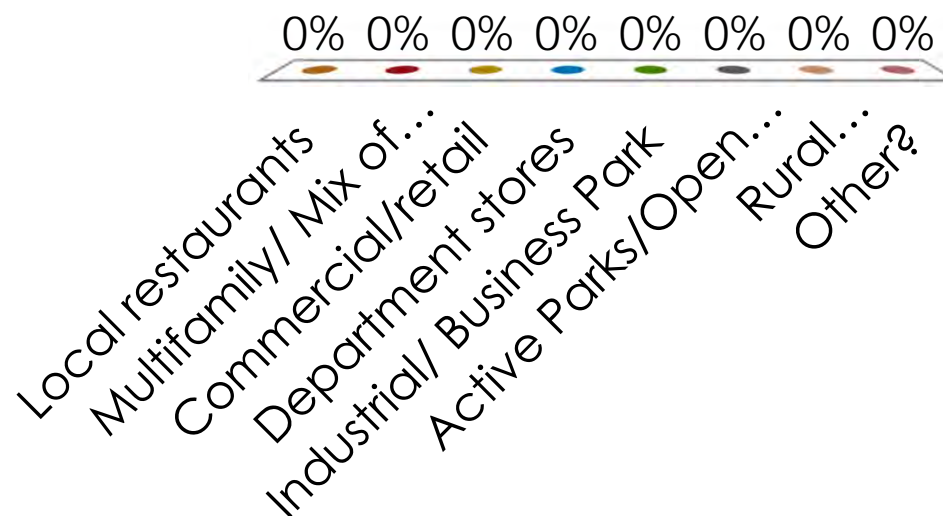


Let's Vote!

76TH AVE

What type of development is missing along 76th Avenue South? (Pick Two)

- A. Local restaurants
- B. Multifamily/ Mix of housing
- C. Commercial/retail
- D. Department stores
- E. Industrial/ Business Park
- F. Active Parks/Open Space
- G. Rural preservation/Agricultural
- H. Other?



- Facility Type Preferences Exercise
 - Bike
 - Pedestrian
 - Transit & Parking
 - Streetscape
 - Street Design

Place a **Yellow** dot for residential preference

Place a **RED** dot for commercial preference

Place a **Blue** dot for this doesn't work for this corridor

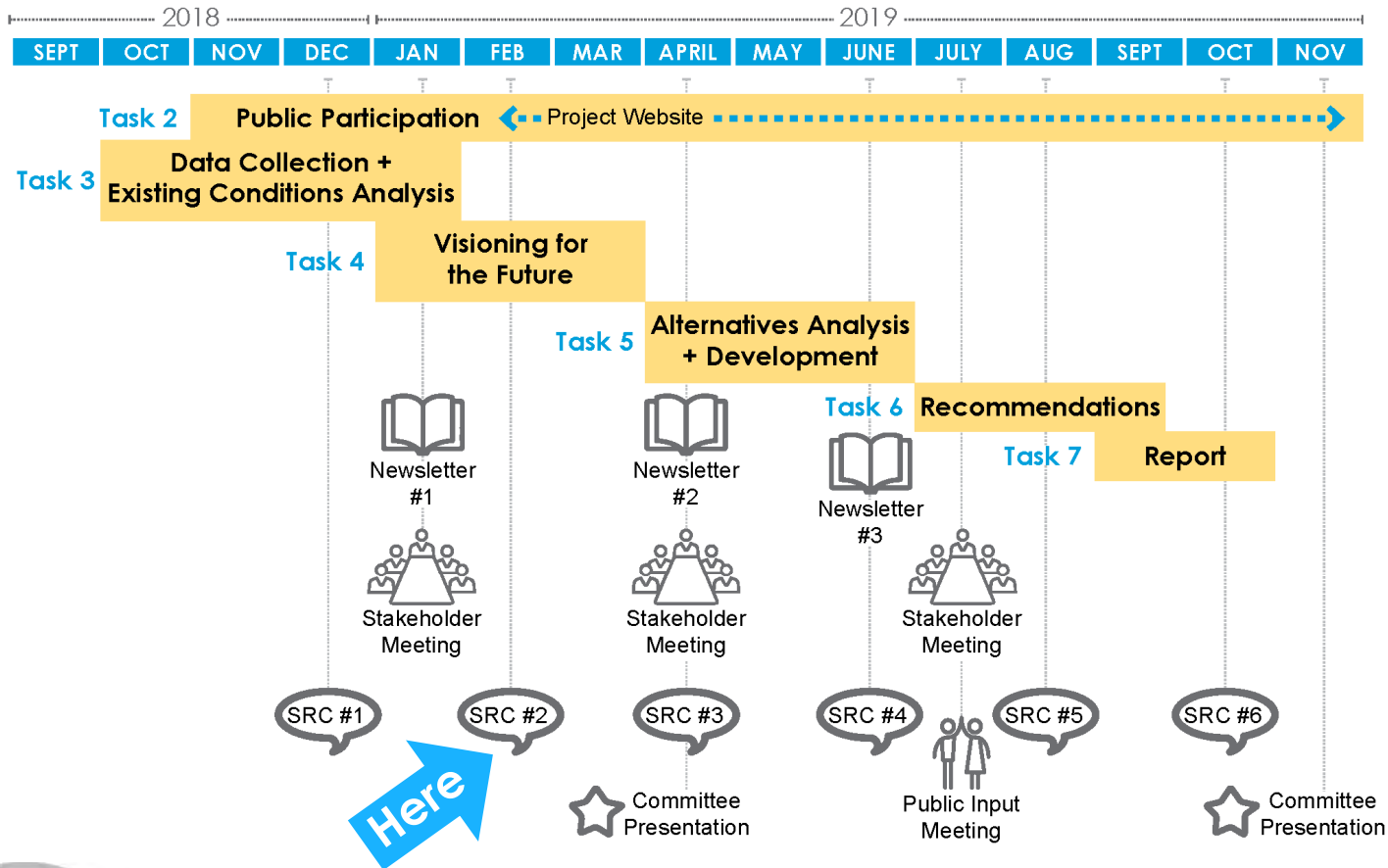




Next Steps

Next Steps

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76th Avenue South Corridor Study

Next Steps

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- Finalize Existing Conditions Report and Post to Project Website. **Comments by Feb 28, 2019!**
- Gain consensus on TDM and FLUs for the corridor
- Hold Stakeholder Meeting #2 – March 2019 – Discuss Visioning
- Prepare for and schedule SRC #3 – early April 2019 – Finalize Visioning and Discuss Alternatives to Develop
- Send out Newsletter #2 – April 2019 (after SRC #3)
- Committee Presentation #1 – April 2019



76th Avenue South Corridor Study

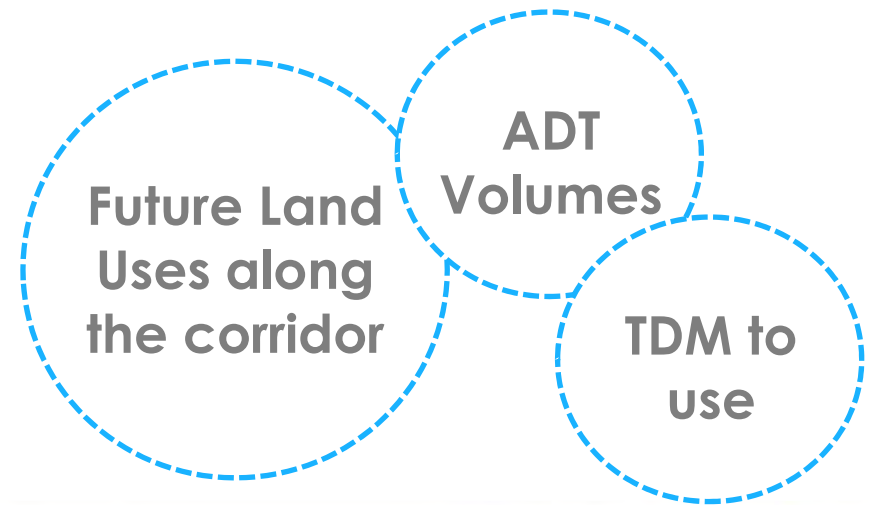
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Recommended Segments of “Like Context” Results



Criteria	Individual Scores									Total Score	Average Score
Future Traffic Volumes	2	3	5	5	5	4	3	2	2	31	3.44
Future Land Uses	5	5	4	4	3	3	4	4	5	37	4.11
Natural Boundaries (Rivers, diversions, drains, etc.)	2	5	3	2	2	4	3	3	4	28	3.11
Major North-South Intersecting Roadways (Existing and Proposed)	3	5	5	3	4	5	5	5	4	39	4.33
Jurisdictional Ownership	1	2	3	1	1	5	3	1	1	18	2.00

We will have an exercise on all segments during SRC #3 pending...



76th Avenue South Corridor Study – SRC #3

Temporary Metro COG Office Location
207 4th Street N Suite A. Fargo, ND 58102

Date: May 10, 2019 from 9:00 to 11:30 am

Meeting Attendees:

1. Peggy Harter – Stantec Consulting
2. Angie Bolstad – Stantec Consulting
3. James Dahlman – City of Horace/Interstate Engineering
4. Jason Benson – Cass County
5. Tom Soucy – Cass County
6. Michael Maddox – Metro COG
7. Cindy Gray – Metro COG
8. Jeremy Gorden – City of Fargo
9. Aaron Nelson – City of Fargo
10. Bob Walton – NDDOT Fargo District
11. Mark Lemer – West Fargo Public Schools
12. Jim Frueh – Fargo Public Schools
13. Brian Reinarts – Land Elements

Meeting Discussion Items:

1. Welcome, Introductions, and Project Updates
 - Everyone went around the room and provided an introduction
 - Peggy went over the meeting agenda, schedule, and gave project updates
 - Held SRC #2 on February 20, 2019
 - Newsletter #2 was sent out including the online survey. The survey was also sent out to all the project stakeholders via direct e-mail (67 responses).
2. What We Know
 - Existing Conditions – Dynamic Cross Section
 - Varying ROW with a lot of opportunity to expand the ROW at this current time.
 - Varying jurisdictional roadway ownership
 - This dynamic cross section can be used to not only show the existing conditions, but also the proposed cross sections and trigger points for different project phasing. We can add



additional information to the proposed dynamic cross sections as well. For example, speed limits, future bike paths etc.

- **Action Item:** Stantec update colors on the dynamic cross sections to be more easily read
- 2019 76th Avenue South & CR 17 Construction Project
 - This project is programmed for construction in 2019 and we understand that our alternatives will need to tie into it.
- Forecast Conditions – Full Build Traffic Volumes & Future Land Use (FLU)
 - Horace is in the process of updating their comprehensive plan. We merged the FLU from the SWMTP for Fargo and the proposed Horace FLU from the update currently underway.
 - This map shows the SWMTP full-build traffic volumes. We have received comments from SRC members that these numbers seem high. There are many unknowns right now such as speed of development, when (not if) an interchange will happen. It should be kept in mind that these numbers represent full-build and not necessarily our build year.
 - Jeremy Gordon noted that these numbers are high, and that Veterans will eventually continue further south. He also mentioned to keep in mind how large or an area this is. It looks small on a map, but it is essentially the same area as 13th Ave S to 52nd Ave S. So, with no interchange planned at 64th Avenue South, the numbers may be reasonable.

3. What We Heard

- Building Block Exercise
 - The land uses were very similar between the groups, the only difference was the level of density. Michael Maddox noted that the density differences were most likely due to running out of time.
- Visioning Survey Results – SRC and Stakeholders/Public Input
 - Peggy discussed the general survey results noting that she has a full copy of all the results if anyone would like to take one. She noted that the survey questions were the same as the one given to the SRC.
 - Mark Lemer asked Aaron Nelson if he sees more of a suburban area or a commercial area along this corridor. Aaron replied noting that currently 52nd Ave S is the furthest south area showing mixed-use. As time keeps going on you will probably see more suburban areas. The city of Fargo wants to see more density, but how they get there is different entirely. The city has an RFP out right now to address their current zoning codes.
 - Cindy Gray added that beyond this FLU map there is additional density built into it that you can't see. Higher jobs and household numbers were built into the mixed use and commercial area types.
 - Michael Maddox said Metro COG is trying to integrate into their Metropolitan Transportation Plan (MTP), shorter distances for the movement of goods. Right now, Horace is on the fringe and residents need to drive to everything, even Walmart is a drive.



- VPB Results – SRC and Stakeholders/Public Input
 - Peggy discussed the visual preference results with the group noting a few takeaways from the results:
 - You could see among all the voting results that people either preferred a more complete street or a beltway type facility and all their subsequent preferences fell in line with that general notion.
 - With such diverse corridor sections, people focused on where their interests lied. For example, residents in a subdivision adjacent to 76th Ave focused on those type of street preferences while developers focused more on preferences related to the interchange and commercial areas.
 - The public really liked planted medians; however, in discussions with Fargo Parks they do not want to maintain planted medians. It was noted that maintenance considerations and public preference are two very different things.
 - Cindy Gray commented that we need to get out ahead of some of these short-sighted visions and learn from the past. For example, a Red River bridge at 40th Avenue South was voted down and has now become a problem with a lack of southern river crossings.
 - Jeremy Gordon noted that we should plan for grade separated pedestrian crossings at the drains. Bob Walton replied indicating that grade separated pedestrian crossings are nice, but hard to keep dry, attract graffiti, and public input has indicated people don't feel safe in them and would rather cross up top.

4. Alternative Development

- Segments of Like Context Discussion
 - Peggy went over the segments of like context map and segments. Draft segments included 1, 2, 3a, 3b, 4, and 5. General discussion regarding the segments and transportation network continued with the group as follows:
 - Jim Frueh asked how these segments will affect the possible Fargo School on the south side of 76th Ave S. Peggy commented that the site is shown on the map as “Public and Institutional”. Jeremy Gordon commented that it is difficult to have schools off main arterial roadways. The school might want to consider buying land a little further south. Peggy Harter noted that if a future school is located at the current owned land, strong consideration should be given to having the access on a side street and not directly on 76th Avenue South.
 - Jeremy Gordon commented that the SW Metro has bad connectivity in general causing issues when a road needs to be shut down for maintenance or construction. He said it isn't terrible to have some redundancy in the transportation network. He added that an interchange at both 64th Ave and 76th Ave isn't a terrible idea.



- Additional discussion occurred regarding the idea of a collector distributor type network. NDDOT's current guidelines is to have an interchange every 2 miles south of 52nd Avenue South as to not degrade the operations of the interstate. However, it was noted that this is a huge area to serve with one interchange. Additionally, a bridge is already programmed to be constructed over I-29 along 64th Avenue South.
 - Peggy Harter noted that at one time 52nd Avenue South was identified as a potential beltway type corridor, but the chance was lost once development started. Then, 76th Ave S was looked at, but we now have schools along the corridor to consider.
 - Michael Maddox responded saying we don't need an interstate style beltway, but we can still promote high traffic circulation along 76th Avenue South. Perhaps 100th Ave is the best place for a future interstate type beltway facility.
 - **Action Item:** Review a collector distributor system as an interstate option between 52nd Avenue South and 76th Avenue South with the potential to expand this down to 100th Avenue South as development occurs.
- “DRAFT” Interim and Design Year Cross-Sections – Based on the Building Blocks Exercise, Future Land Uses, Future Traffic Volumes, and Survey Results – one draft section for each segment of like context was developed.
 - Peggy introduced the draft sections by reiterating that there is still a lot of unknowns regarding the future needs of the corridor, due to this we have created typical section concepts that can be expanded in the future to serve larger capacities if needed. The biggest hurdle we need to overcome is if this corridor will be treated as a parkway or an express way. That answer determines how development will be treated in terms of access management, bikeways, parks, building face direction etc.
 - Below is the discussion as it relates to each segment:
 - Segment 1 (81st Street to Sheyenne Street)
 - Cindy Gray noted that with the Diversion Recreation Plan we have an opportunity for a regional trail system, so it is important to have a good trail system. The trail should be at least 14 feet on one side.
 - It was decided that within Horace, they were acceptable of the 14-foot wide trail on one side of the roadway and a sidewalk on the other side. Once into the Fargo City limits, they wanted to see two 10-foot trails on each side of the roadway.
 - West of 75th Street South a three-lane section isn't needed, consider breaking it up into two segments: 1a) two-lane and 1b) three-lane
Action Item: Stantec break up segment 1 into 1a (81st Street to 75th Street South) and 1b (75th Street South to Sheyenne Street).



- An ATV path should not be considered into this typical section because eventually Horace is going to keep growing and not be that small town where ATVs are allowed to be driven everywhere.
- Pinch point in the ROW around 75th Street South due to drain fields. Breaking that segment into a two-lane section as previously noted would help with this area.
- The section should be continued as an urban section up to the diversion, even in the two-lane typical section.
- Segment 2 (Sheyenne Street to Veteran's Boulevard)
 - ROW width is limited in this section to the north due to existing homes.
 - 14-foot multi use trail on the south side of the roadway and 5-foot sidewalk on the north side of the roadway.
Action Item: Stantec ensure typical sections show the northside of the corridor on the left and the southside on the right.
 - Cindy Gray noted that she would prefer a bigger buffer boulevard between the road and the sidewalk. She commented that with a blank slate we can go wider than typical.
 - The group discussed also breaking this out into two Segments: 2a) Sheyenne Street to east end of school site and 2b) east end of school site to Veterans Boulevard. Although the ultimate roadway sections may look the same, the development around the area may vary.
Action Item: Create a wider boulevard between the edge of the curb and the trails/sidewalks.
 - It was noted that the new roundabout at 76th Avenue South and CR 17/Sheyenne Street, this shifts the centerline alignment to the south a bit with the 2019 construction project.
- Segment 3a (Veteran's Boulevard to 45th Street South)
 - Michael Maddox said he encourages the group to think outside the box. He would like to see a wide median with a park because it is something that has not been done here before. He also discussed wanting heavily landscaped linear parks behind the sidewalks/trails.
 - SRC members noted that a median with a park would likely create sight distance issues.
 - It was noted by the group that the 12-foot lanes could be brought down to 11- foot widths.
 - Jeremy Gordon added that he would start with a 100' ROW on each side and go from there. He also said in the City of Fargo they would prefer to have the lights in the median, 10-foot shared use paths on both sides of the roadway, and wider



center medians (at least 21 feet) to accommodate future turn lanes as they are needed.

Action Item: Stantec update typical sections as noted by Jeremy.

- Segment 3b (45th Street South to 25th Street South)
 - Section 3a should be a transition zone on both sides of the future interchange section.
Action Item: Stantec update segments of like context map to show 3a from Veteran's Boulevard section line to future 38th Street, 3b from future 38th Street to 36th Street SW, and 3c from 36th Street SW to 25th Street South. Per input from Jeremy Gordon, we should also show Veterans Boulevard connecting all the way up to 52nd Avenue South.
 - The section we were showing at the meeting for 3b is what Horace would potentially like to see in their downtown area, east of the school site.
 - Jeremy Gordon noted that if an interchange is built 6 lanes on each ½ mile side of interstate will be needed. He feels 3b should be a utilitarian basic interchange.
 - Cindy Gray felt that the cross-section shown for 3b was more appropriate for the side streets for example, 45th Street or 25th Street, but not for this section of 76th Avenue South.
 - Michael Maddox said we should not interplay with the street here by having the buildings face the road, 3b should be further set-back.
 - Peggy Harter commented that if we do not want to activate with this street then this will be a higher volume, limited access roadway.
 - Peggy Harter pointed out that a diverging diamond makes sense at I-29. She said we could have two interchange options; a diverging diamond and a standard diamond like that at 32nd Avenue South. Jeremy Gordon agreed that a diverging diamond made sense as an interchange option to study.
 - **Action Item:** Stantec update 3b per notes above and add Segment 3c.
- Segment 4 (25th Street S to University Drive - Interim)
 - Peggy Harter explained that a three-lane section in segment 4 can handle the traffic volumes until a bridge over the Red River is constructed. At that time a five-lane section may be warranted. The three-lane section is laid out for minimal removal of existing infrastructure when the two additional outside lanes are added
- Segment 4 (25th Street S to University Drive – Long Term)
 - This is what the roadway/bridge would look like as a five-lane section that would likely be required in the long term with a future Red River Bridge crossing.
- Segment 5 (University Drive South to Red River – w/o Bridge)



- Peggy Harter explained that without the Red River Bridge a two-lane section is warranted. However, this typical is laid out so a 4-lane section can be added with minimal removal of existing facilities once a bridge is built.
- Segment 5 (University Drive South to Red River w/Bridge)
 - Cindy Gray thought the Red River Bridge preferred concept was a curved alignment instead of a straight jog. The alignment of the bridge will determine if additional homes need to be bought out and which funds can be used (FEMA funds do not allow any structure to be placed on the land)
Action Item: Cindy send Stantec the alignment of the most current preferred alignment.
 - Jason Benson noted that University Drive is the line for flooding, even with the diversion. Anything here will need to get built up.
 - Bob Walton said the pedestrian facilities on the bridge should be separated by a jersey barrier or raised sidewalk and be 10 feet wide on each side. Peggy Harter agreed and explained that these typical sections are draft concepts created using an internet website with limited options. Land Elements will create much more graphical representations once we decide on the alternative concepts.
Action Item: Stantec update the sidewalks on the bridge to be 10 feet on both sides.
- The SRC discussed which concepts to move forward with.
- Michael Maddox felt we should move forward with concept 1: large linear parks with J-turns throughout the corridor and concept 2: closer together corridor, especially in the commercial districts
- Jeremy Gordon suggested looking at the 3M campus in Maplewood, MN except the left turns would be J-Turns.
- Cindy Gray noted that she liked having an alternative that minimized signalization whether that would include roundabouts or J-turns, and another one that has the same aesthetic features but at key access points (more traditional).
- Bob Walton said he is concerned about the linear park idea because of the loss in potential tax base and therefore it may not be supported. Also, it can increase special assessments when one side is developed and the other is not.
- Discussion occurred regarding what software could be used to develop concept level alternatives.
Action Item: Stantec set-up a call/e-mail between Michael Maddox, Michael Johnson, and Peggy Harter to discuss using design software for concept drawing.
Action Item: Stantec will updated typical sections with a write up explaining each of them and send out to the SRC members for concurrence to move forward with alternative development.



5. Next Steps

- Peggy Harter discussed project next steps
 - Schedule Round 1 of Committee Presentations – Summary of Existing/Forecast Conditions, Issues, & Alternative Dynamic Cross-Sections to Move Forward
 - Develop Alternative Layouts based on SRC selection of build alternatives and analyze build v. no build alternatives
 - SRC #4 – Concept “Build” alternatives and analysis
 - Newsletter #3
 - Stakeholder Meeting #3 and PIM

The meeting adjourned at 12:15 pm.

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services, Inc.



Peggy Harter PE
Senior Associate
Phone: (701) 566-6020
Peggy.Harter@stantec.com

Attachments: Meeting Sign in Sheet



76th Avenue South Corridor Study – SRC #3

Temporary Metro COG Office Location - 207 4th Street N Suite A. – Fargo, ND

Date: May 10, 2019 at 9:00 a.m.

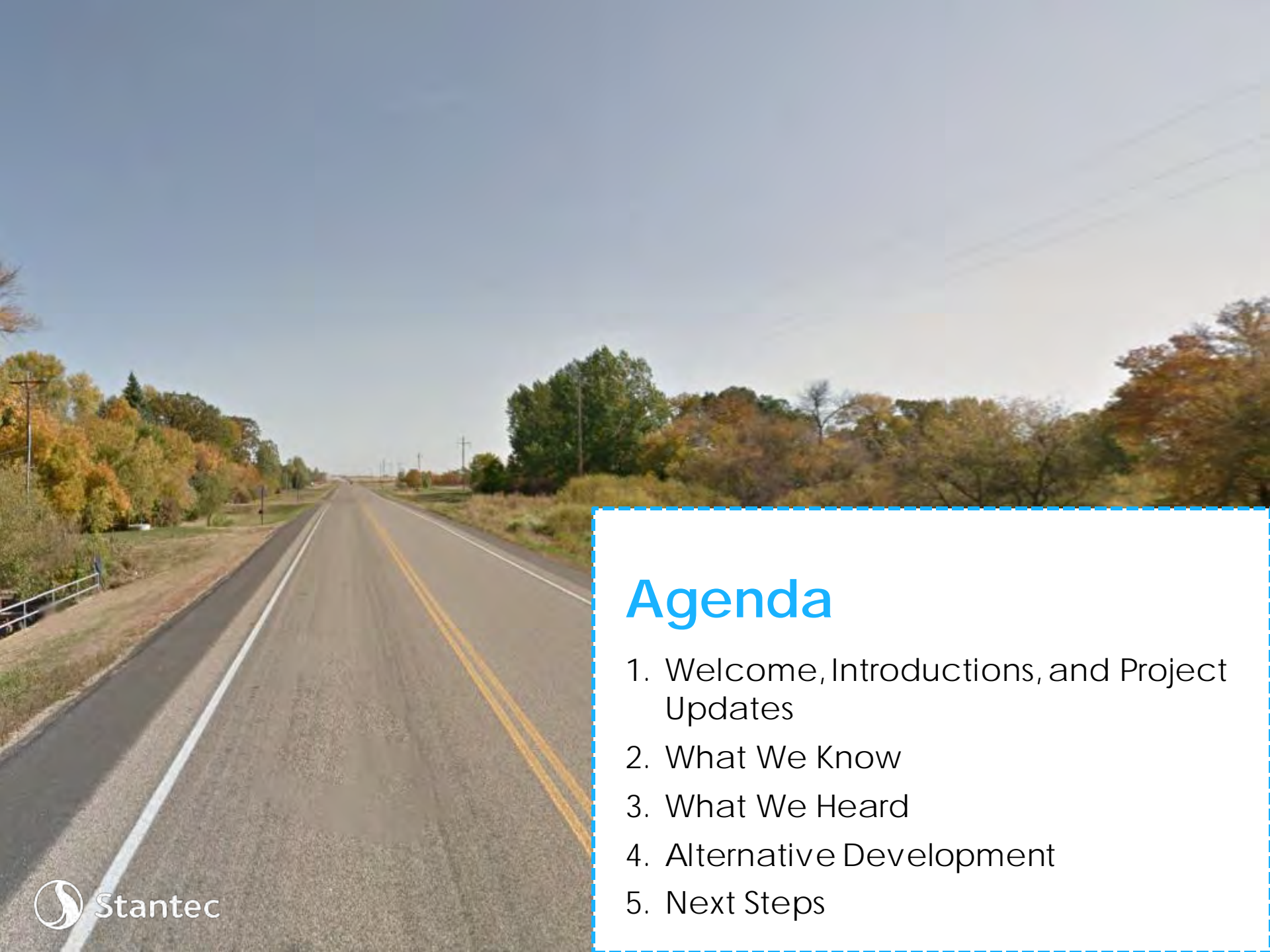
NAME	ORGANIZATION	EMAIL ADDRESS
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Angie Bolstad	Stantec	angela.bolstad@stantec.com
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Michael Maddox	Metro COG	maddox@fmmetrocog.org
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Jim Fruek	Fargo Public School	fruek.j@Fargo.K12.nd.us
Brian Reinarts	Land Elements	brian@landelements.com
Bob Walton	NDDOT-Fargo	bwalton@nd.gov
Jason Benson	Cass Co.	bensonj@casscountynh.gov



SRC Meeting #3

76th Avenue South Corridor Study





Agenda

1. Welcome, Introductions, and Project Updates
2. What We Know
3. What We Heard
4. Alternative Development
5. Next Steps



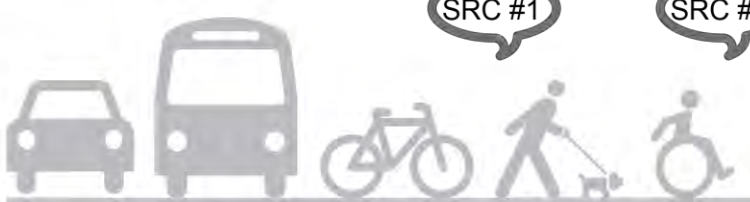
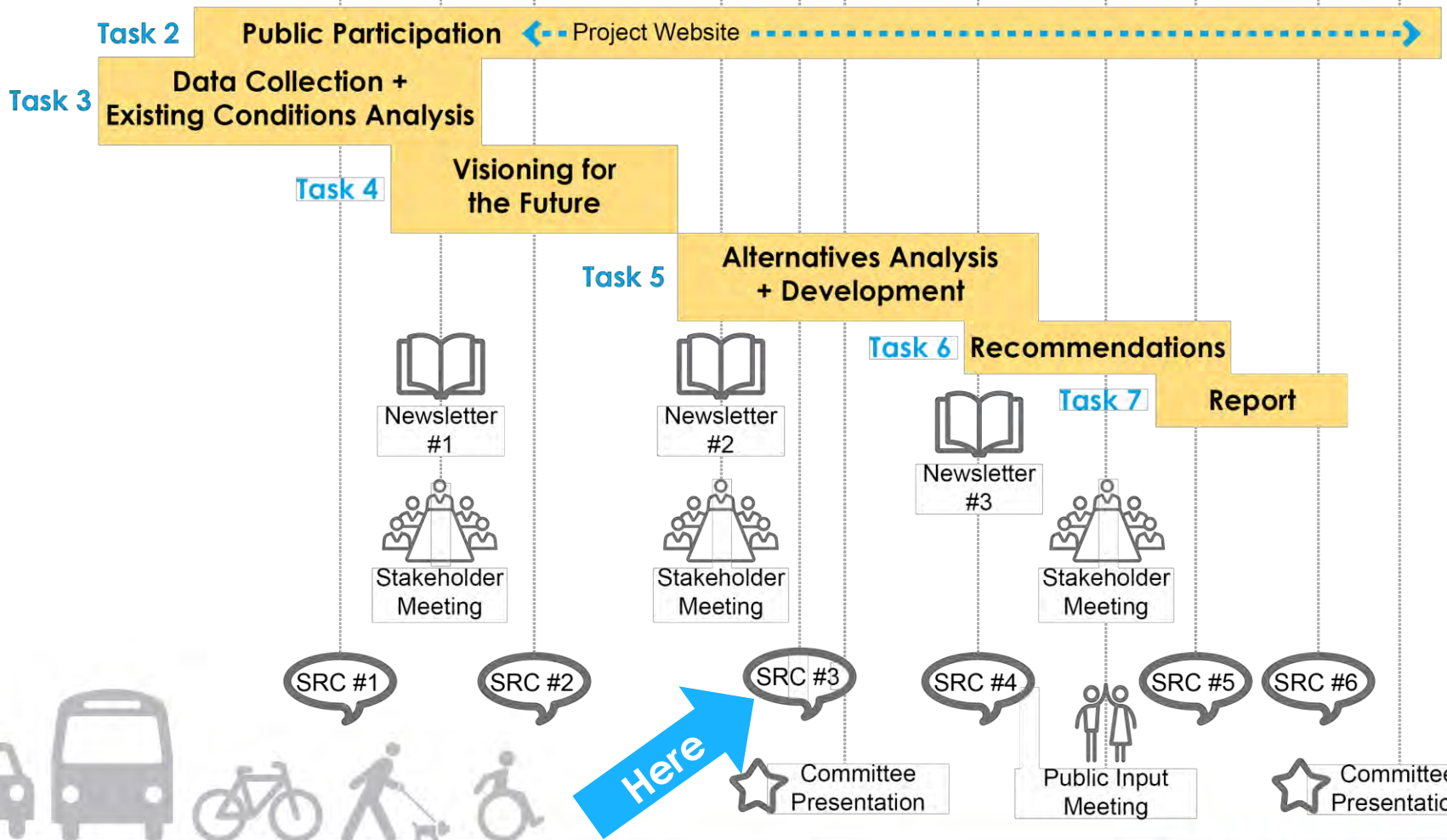
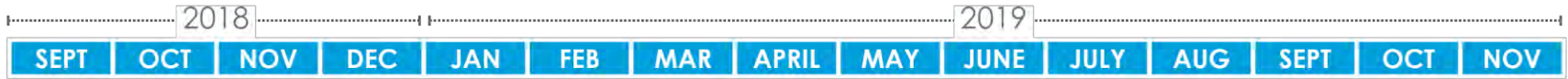
Welcome, Introductions, and Project Updates

Please Introduce Yourself!



Project Schedule

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76th Avenue South Corridor Study

- Held SRC #2 on February 20, 2019
- Sent Newsletter #2 to everyone within a ½ mile buffer of 76th Ave S
- Hosted the online survey and received 67 responses – sent directly to corridor stakeholders



What We Know

Dynamic Cross Section

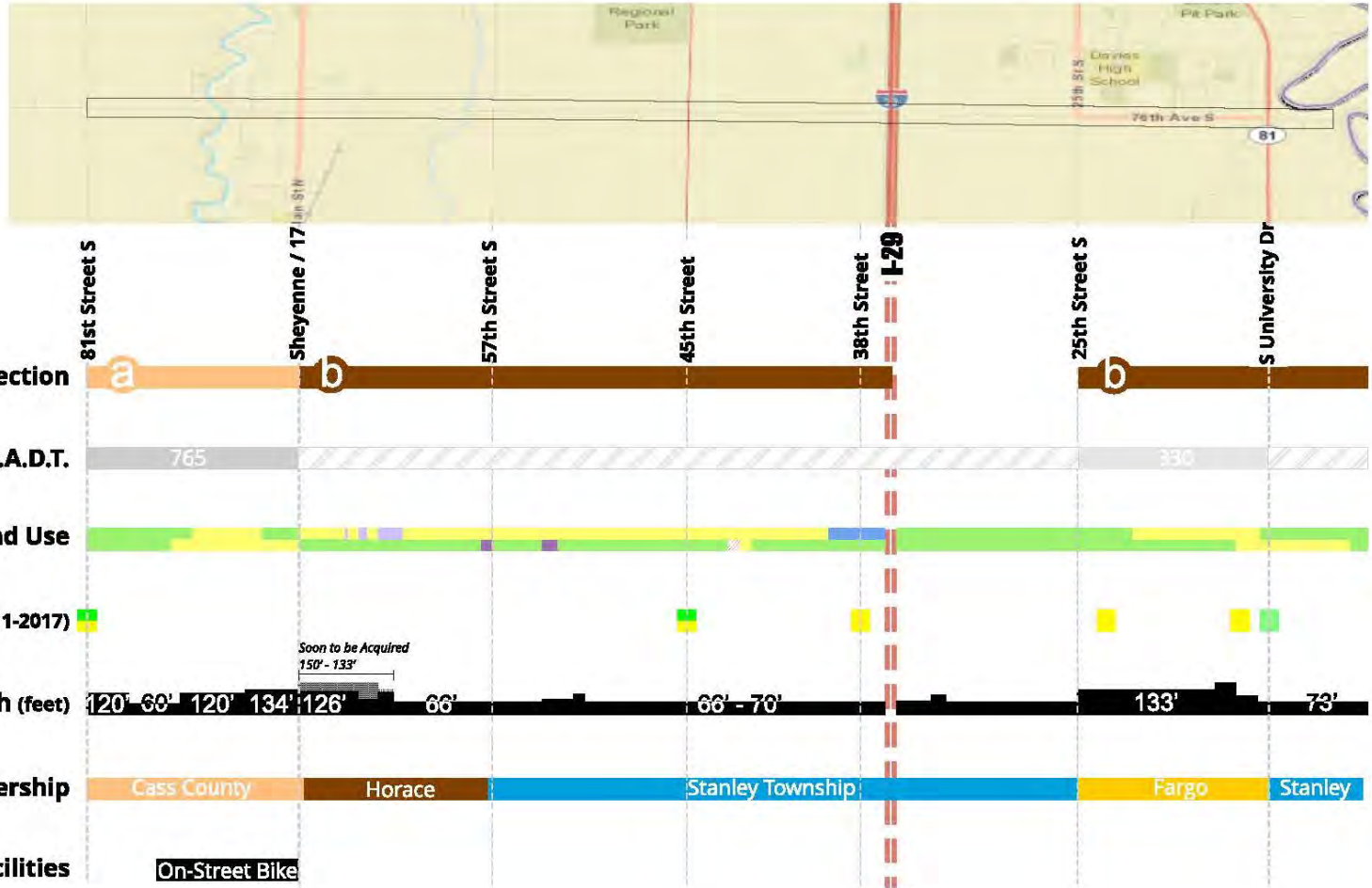
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land use codes

- Park / Open Space
- Low-Density Residential
- Industrial
- Public / Institutional
- Utilities
- Commercial Agriculture

crash severity codes

- Non-Incapacitating Injury
- Property Damage Only



Handout

a



b



Future Project: CR 17 + 76th Ave S

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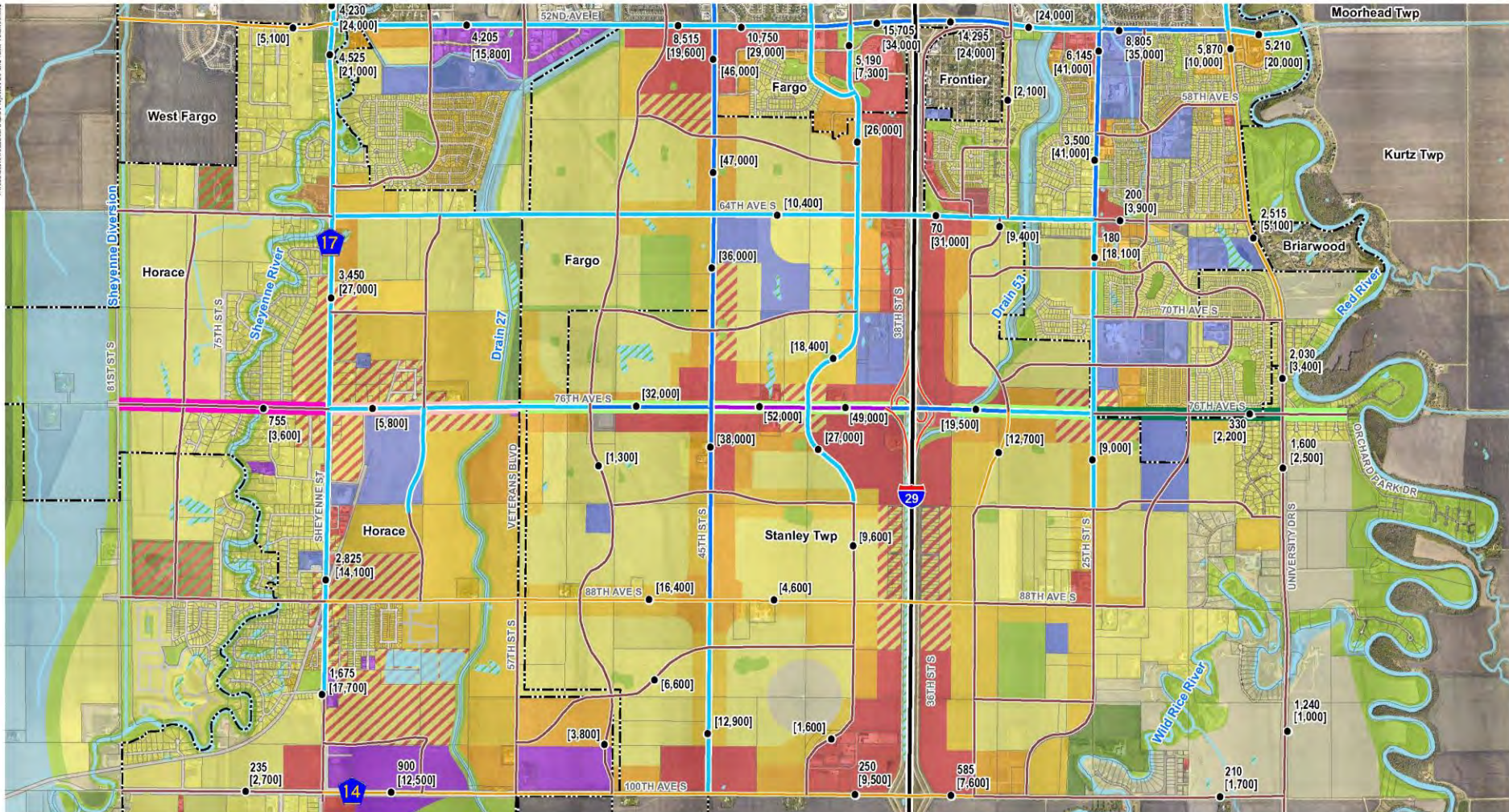


76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

FLU + Full Build Traffic Volumes

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May 6, 2019

Future Land Use and Future Full Build Traffic Volumes

X,XXX Existing Daily Traffic Volume	Planned Future Land Use:	Mixed Use	Park and Open Space	Roadway Jurisdiction: 2040+ Roadway Network:	Eight-Lane Divided Arterial
[X,XXX] Forecasted Daily Traffic Volume	Rural Residential	Commercial	Utility	Cass County	Four-Lane Freeway
--- Municipal Boundaries	Low Density Residential	Industrial	Drain/Diversion	Horace	Proposed Interchange
	Medium Density Residential	Public and Institutional	Open Water	Stanley Twp	
	High Density Residential	Agricultural	Wetland		

What We Heard

Building Blocks Activity

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76th Avenue South Corridor Study

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FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

Building Blocks Activity

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Scenario 1 – Grade Separation Only at I-29 (No Interchange)

Group 1



Group 2



Building Blocks Activity

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Scenario 2 – Interchange at 76th Avenue South and I-29

Group 1



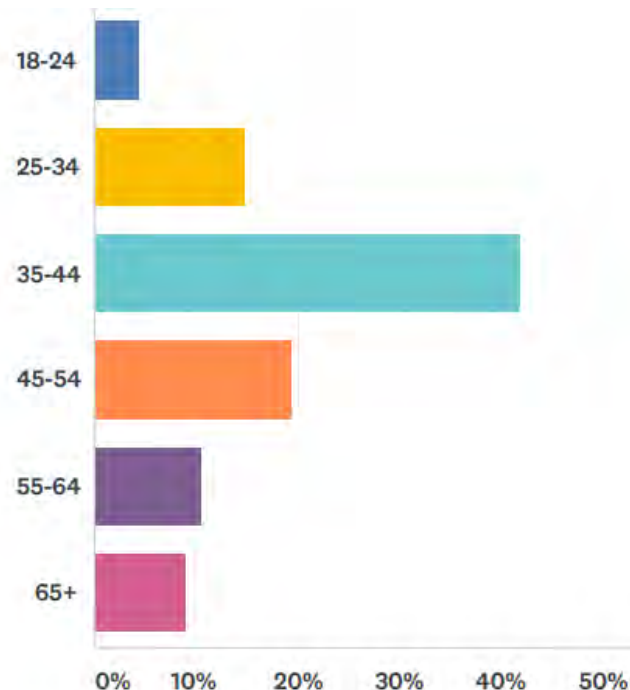
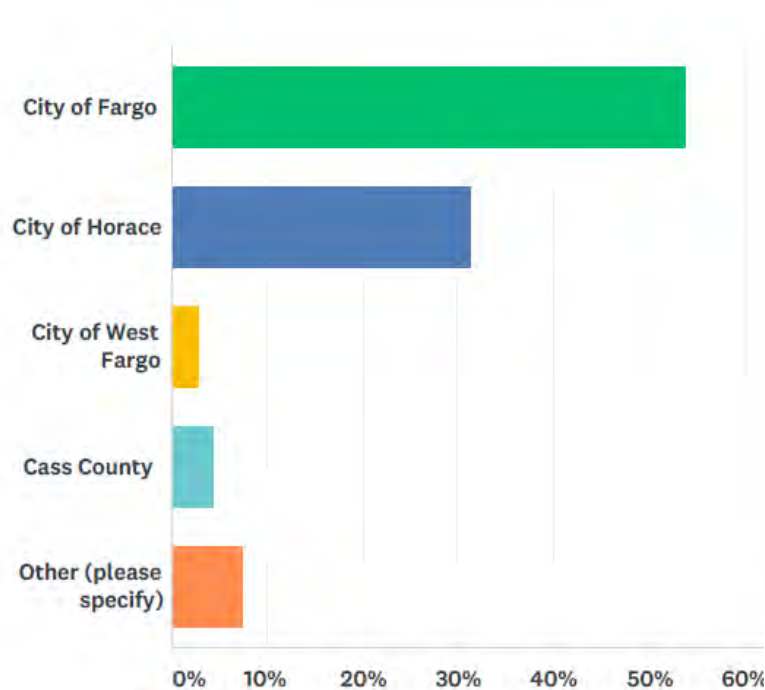
Group 2



Online Survey Summary

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AVE

- 68 total participants (67 online, 1 paper)
- Most from Fargo and Horace
- Good age distribution, with most participants being between ages 35 and 44



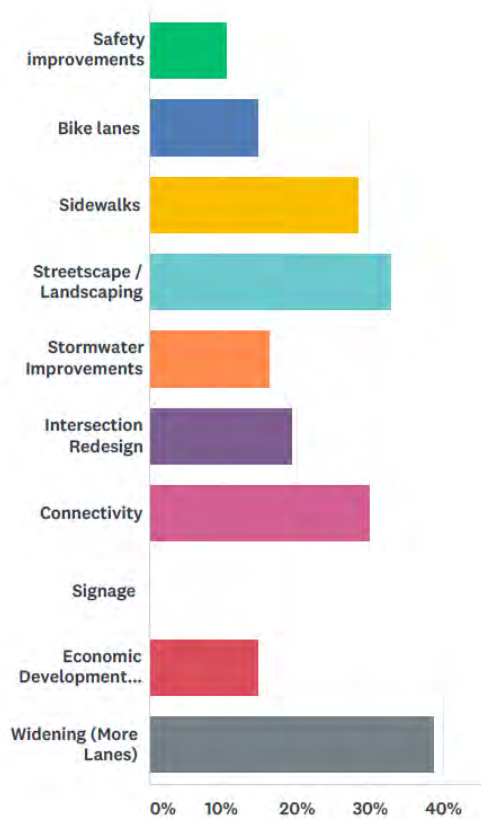
Handout
Online
Survey
Summary



Handout Online Survey Summary

- Significant support for an interchange at I-29 and Red River Diversion
- Approximately ½ of participants believe that 76th should serve as a “beltway” and designs should include access management
- Top Corridor Priorities:
 - Driving (83%)
 - Biking (43%)
 - Walking (41%)





- Biggest Challenges:
 - Congestion (52%)
 - Integrating Pedestrian Facilities (35%)
 - Safe Speeds (31%)
 - Aesthetics (31%)
- Highest Priority Needs:
 - Adding more lanes (39%)
 - Landscaping (33%)
 - Connectivity(30%)



Handout
Online
Survey
Summary



Visual Preference: Bike Amenities

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Take a look at these examples of bicycle facilities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



- Top Urban Options:
 - Striped bike lane
 - Bike rack
- Top Suburban Options:
 - Walking trail
 - Separated Shared Use Path
- Not Appropriate:
 - Side path – immediately adjacent to traffic
 - Bike boulevard

Visual Preference: Transit + Parking

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Take a look at these examples of transit and parking facilities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.

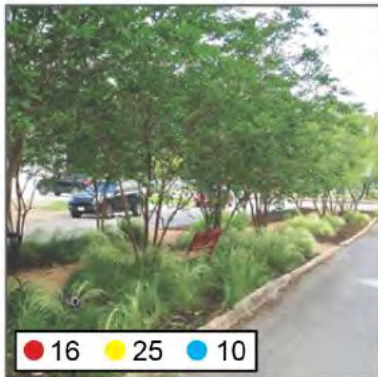
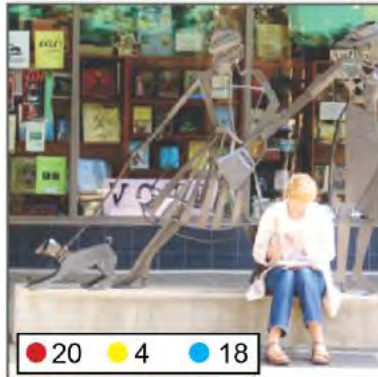


- Top Urban Options:
 - Bus with bike rack
 - Bus station pull off
- Top Suburban Options:
 - Shelter
 - Real-time tracking
- Not Appropriate:
 - Dial-a-ride
 - On-street parking

Visual Preference: Development

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Take a look at these examples of development and streetscape examples across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work

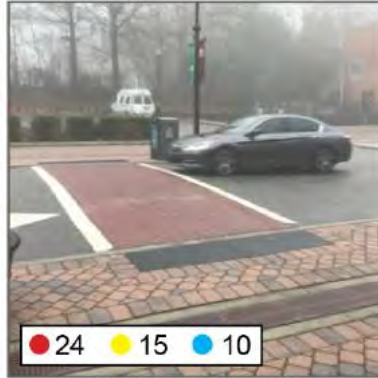
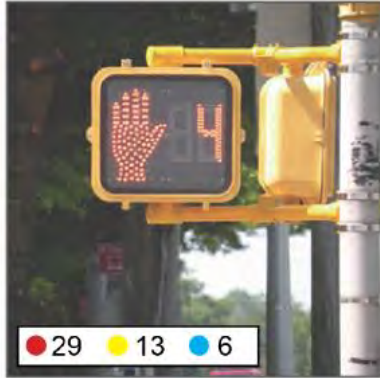


- Top Urban Options:
 - Main street businesses
 - Planted medians
 - Mixed Use - commercial & residential
- Top Suburban Options:
 - Single family homes
 - Planted medians
- Not Appropriate:
 - High-density apartments
 - Benches/public art

Visual Preference: Pedestrian Amenities

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Take a look at these examples of pedestrian amenities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.

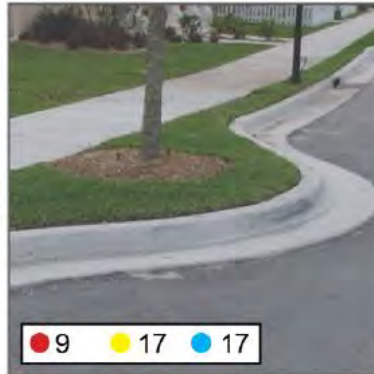


- Top Urban Options:
 - Pedestrian countdown timers
 - Crosswalk with pavers
 - Separated sidewalk
- Top Suburban Options:
 - Separated sidewalk
 - Decorative street lighting
 - Designated/protected crossings
- Not Appropriate:
 - HAWK

Visual Preference: Traffic Calming

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AVE

Take a look at these examples of traffic calming techniques across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



- Top Urban Options:
 - Marked crosswalks with bump-outs
 - Planted boulevards
- Top Suburban Options:
 - Street trees
 - Large roundabouts
- Not Appropriate:
 - Boulevard bump-outs
 - Small roundabouts

Alternative Development

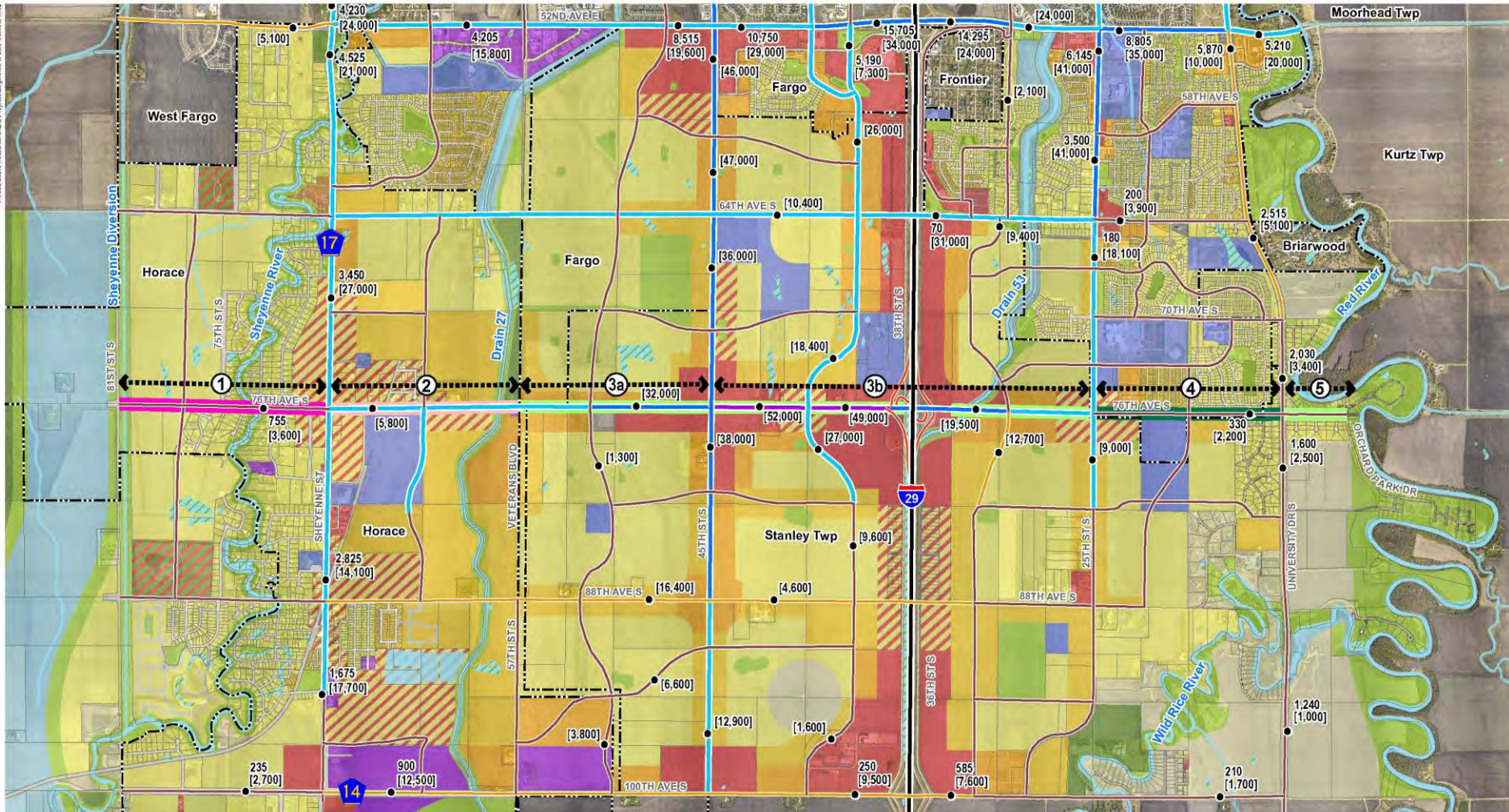
Recommended Results:

Criteria	Individual Scores									Total Score	Average Score
Future Traffic Volumes	2	3	5	5	5	4	3	2	2	31	3.44
Future Land Uses	5	5	4	4	3	3	4	4	5	37	4.11
Natural Boundaries (Rivers, diversions, drains, etc.)	2	5	3	2	2	4	3	3	4	28	3.11
Major North-South Intersecting Roadways (Existing and Proposed)	3	5	5	3	4	5	5	5	4	39	4.33
Jurisdictional Ownership	1	2	3	1	1	5	3	1	1	18	2.00



Segments of Like Context

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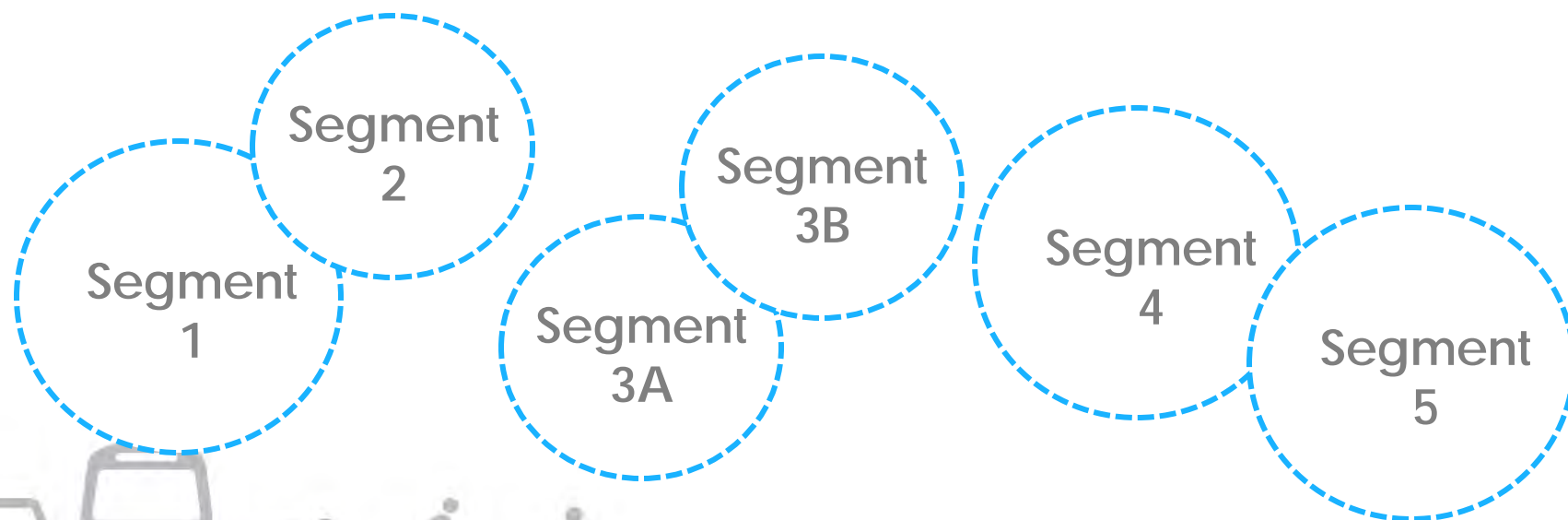


May 6, 2019

Recommended Segments of Like Context

X,XXX Existing Daily Traffic Volume	Planned Future Land Use:	Mixed Use	Park and Open Space	Roadway Jurisdiction: 2040+ Roadway Network:	Eight-Lane Divided Arterial
[X,XXX] Forecasted Daily Traffic Volume	Rural Residential	Commercial	Utility	Cass County	Four-Lane Freeway
●(●) Segment of Like Context	Low Density Residential	Industrial	Drain/Diversion	Fargo	Two-Lane Arterial/Collector
--- Municipal Boundaries	Medium Density Residential	Public and Institutional	Open Water	Horace	Two-Lane Arterial/Collector w Center Left Turn Lane
	High Density Residential	Agricultural	Wetland	Stanley Twp	Four-Lane Divided Arterial
					Six-Lane Divided Arterial
					Proposed Interchange

- Need to determine our build options for each segment
- Project team will move these alternatives forward for additional analysis



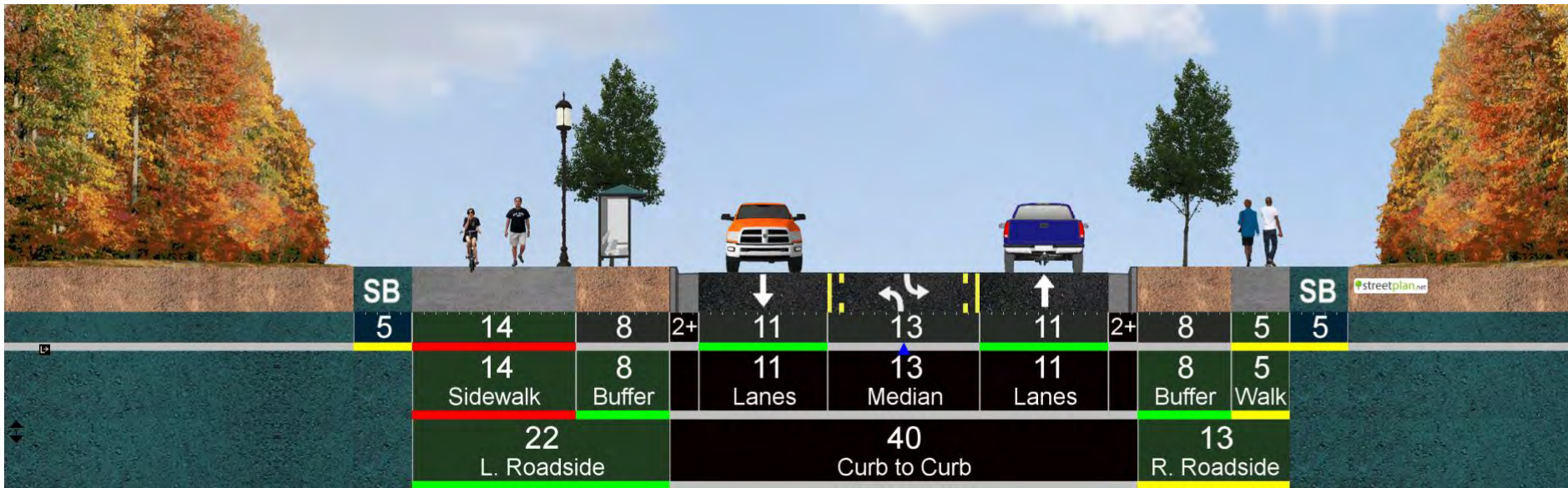
Segment 1 (81st Street to Sheyenne Street)

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Land Use	Access	I-29 Interchange
Single-Family Residential	Major Streets + Limited Driveways	✓
TOTAL R.O.W. = 85'		

- South-side multi-use side path
- Eight-Foot buffer accommodates transit and drainage
- “Pocket” medians may be planted to help manage stormwater, traffic calming, and contribute to residential character
- Roundabout at Sheyenne Street (planned)



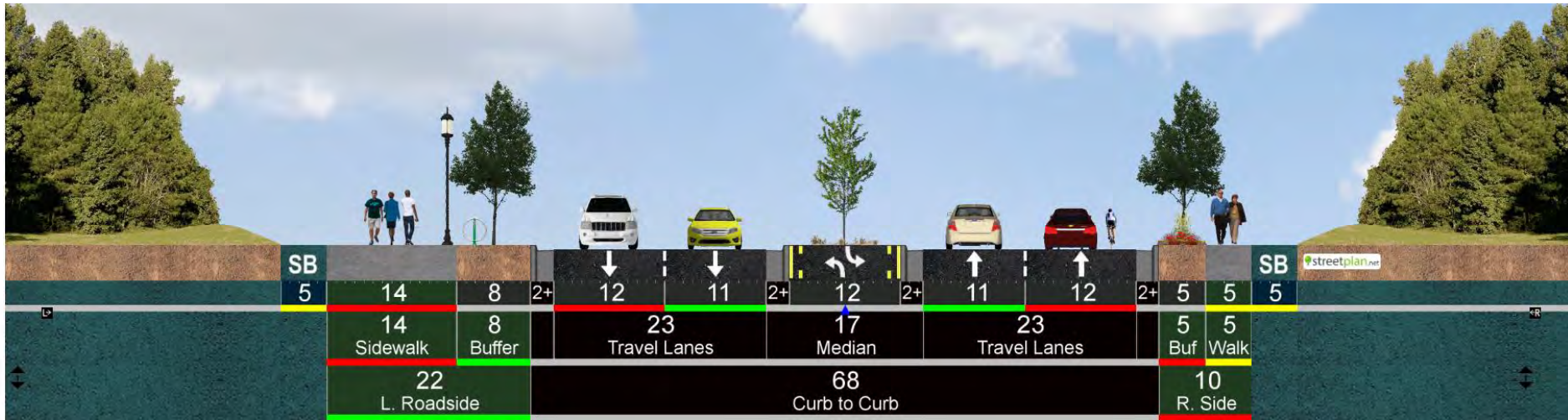
Segment 2 (Sheyenne Street to Veteran's Boulevard)

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Land Use	Access	I-29 Interchange
Low-Medium Residential & Some Institutional	Major Streets + Limited Driveways	✓
TOTAL R.O.W. = 110'		

- Partially determined by existing design for school site
- Accommodates continuous side path on south side of corridor
- Turns in median only at major intersections; driveways limited to right-in/right-out
- Roundabout at Sheyenne Street; High-Quality Pedestrian Crossing at Veteran's Boulevard
- Would transition well into downtown commercial for Horace



76th Avenue South Corridor Study

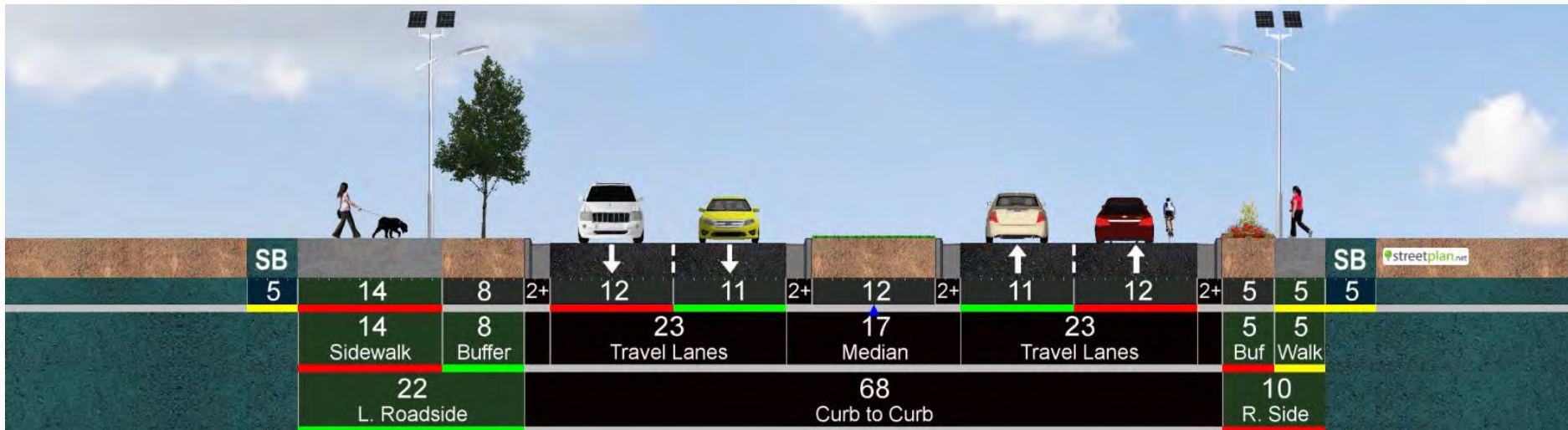
Segment 3a (Veteran's Boulevard to 45th Street South)

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Veteran's 45th Street I-29

Land Use	Access	I-29 Interchange
Low-Medium Residential & Light Commercial	Street Intersections w/Spacing at ¼-Mile	✓
TOTAL R.O.W. = 110'		

- High-Quality pedestrian crossing at Veteran's Boulevard
- Meandering sidepath(s) as part of a linear park
- Developments not accessible from 76th Avenue
- Serves as a transition into the more traditional commercial segment (3b)



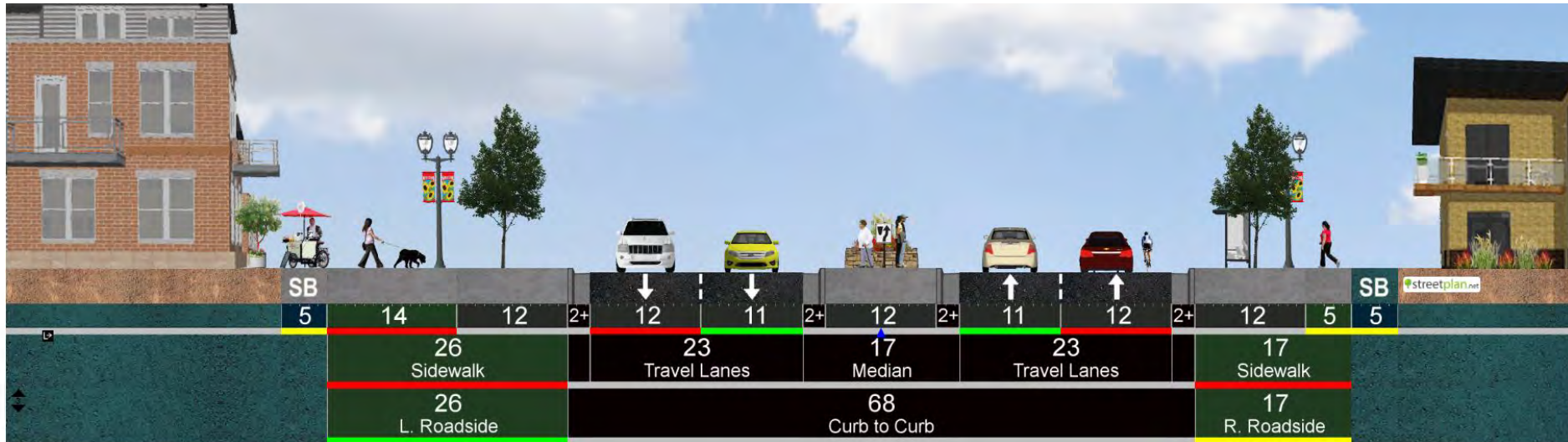
Segment 3b (45th Street South to 25th Street South)

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- High-Quality pedestrian crossings at major cross-streets & Drain 53 for this major activity node
- Four-Lane Road on Six-Lane Right-of-Way (if needed)
- Developments primarily accessible from 76th Avenue and side streets; possibly with on-street parking
- Integration of public art and transit stops

Land Use	Access	I-29 Interchange
High-Density Residential, Civic, and Commercial	Street Intersections w/Spacing ¼ to ½ Mile	✓
TOTAL R.O.W. = 121'		



Segment 4 (25th Street S to University Drive - Interim)

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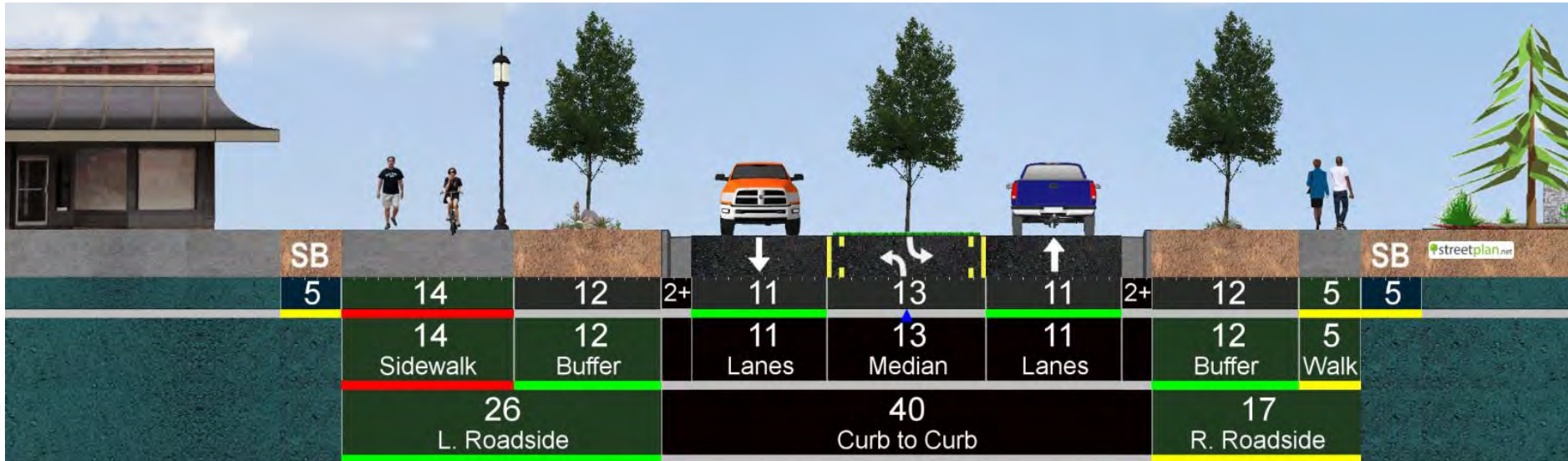
I-29

25th Street

University Drive South

- High-Quality pedestrian crossings at 25th Street and new north-south street (two-lane road on four-lane, divided ROW, if needed)
- Side path stays; buffer for possible future widening
- More single-family driveway access in this segment
- Turns at major cross-streets; otherwise planted median

Land Use	Access	I-29 Interchange
Low-Moderate Residential, & Institutional	Street Intersections & Limited Driveway Access	✓
TOTAL R.O.W. = 93'		



76th Avenue South Corridor Study

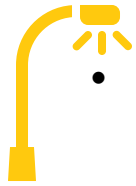
Segment 4 (25th Street S to University Drive – Long Term)

76TH AVE

I-29

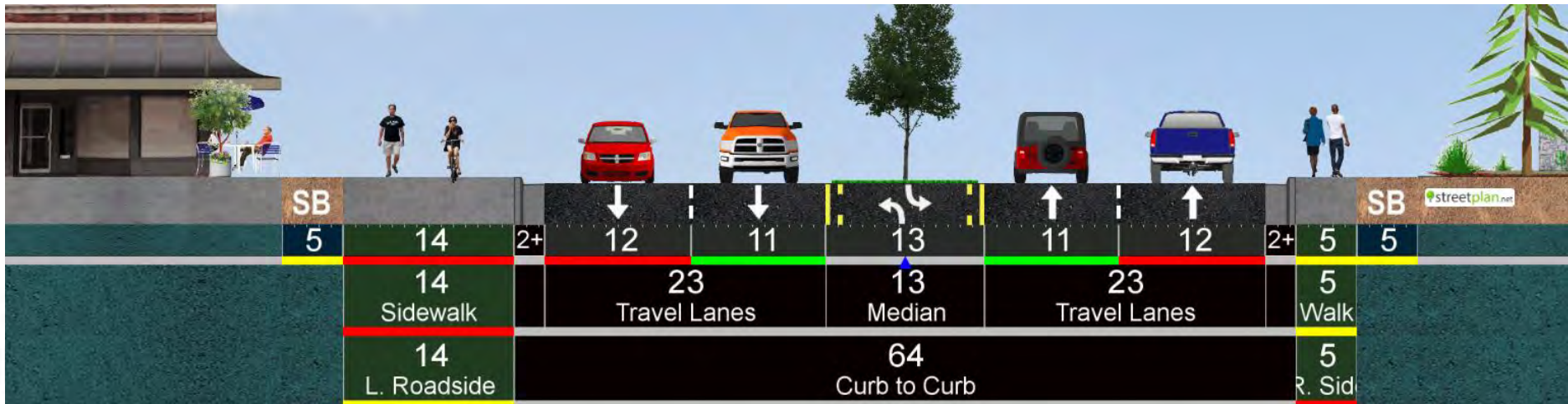
25th Street

University Drive South



- High-Quality pedestrian crossings at 25th Street and new north-south street
- Side path stays; buffer is eliminated
- More single-family driveway access in this segment
- Turns at major cross-street only; otherwise a planted median
- *OPTION: Should Red River be bridged and traffic volumes increase, allow for conversion to four lanes*

Land Use	Access	I-29 Interchange
Low-Moderate Residential, & Institutional	Street Intersections & Limited Driveway Access	✓
TOTAL R.O.W. = 93'		



Segment 5 (University Drive South to Red River – w/o Bridge)

76TH AVE

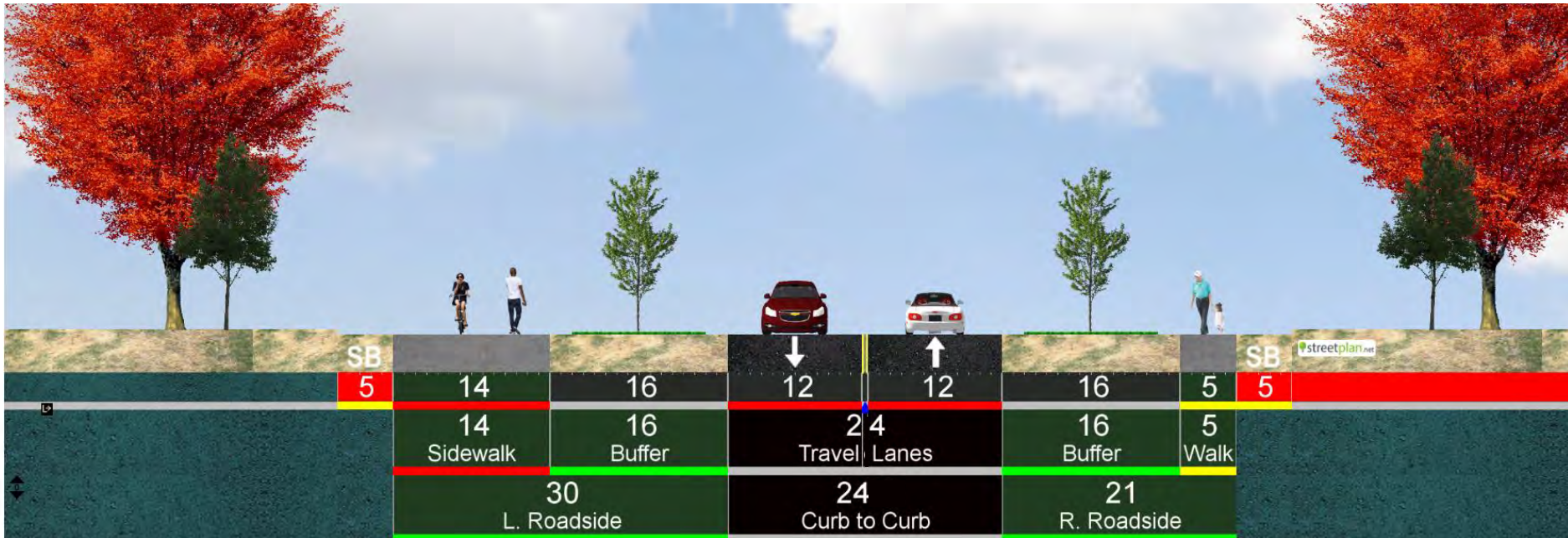
I-29

University Drive South

Red River

- Focusing on 'green street' design and stormwater management
- Ditch shoulders to facilitate stormwater runoff

Land Use	Access	I-29 Interchange
Low-Moderate Residential	Major Intersections & Driveway Access	✓
TOTAL R.O.W. = 85'		



Segment 5 (University Drive South to Red River w/Bridge)

76TH AVE

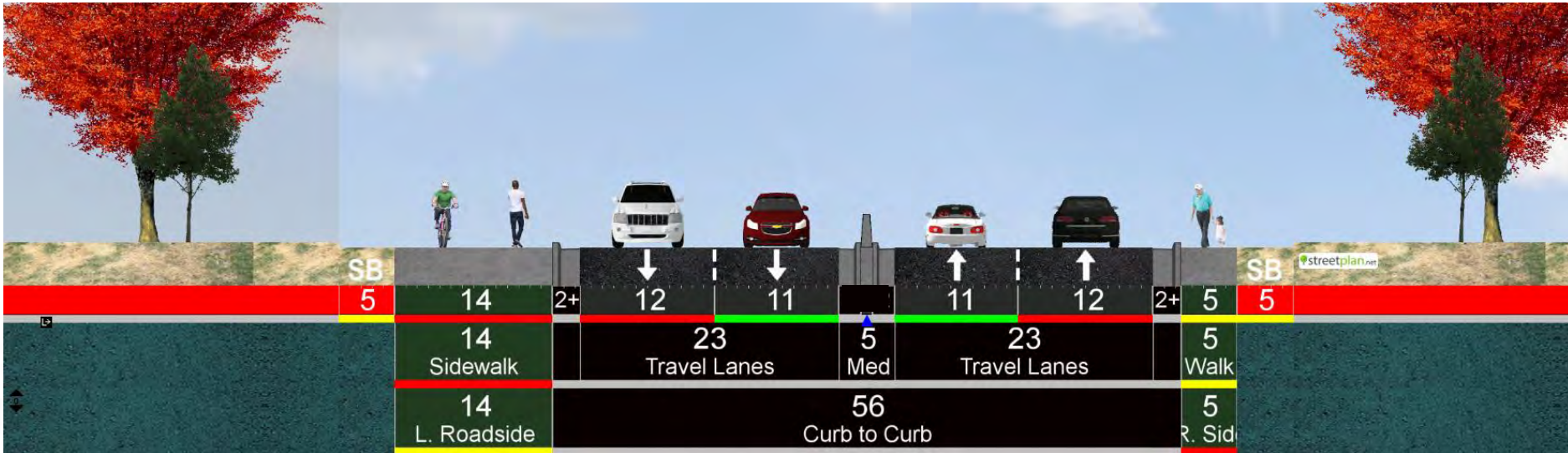
I-29

University Drive South

Red River

- Consider focusing on green street design and stormwater management
- OPTION: Should Red River be bridged and traffic volumes increase, allow for conversion to four lanes*

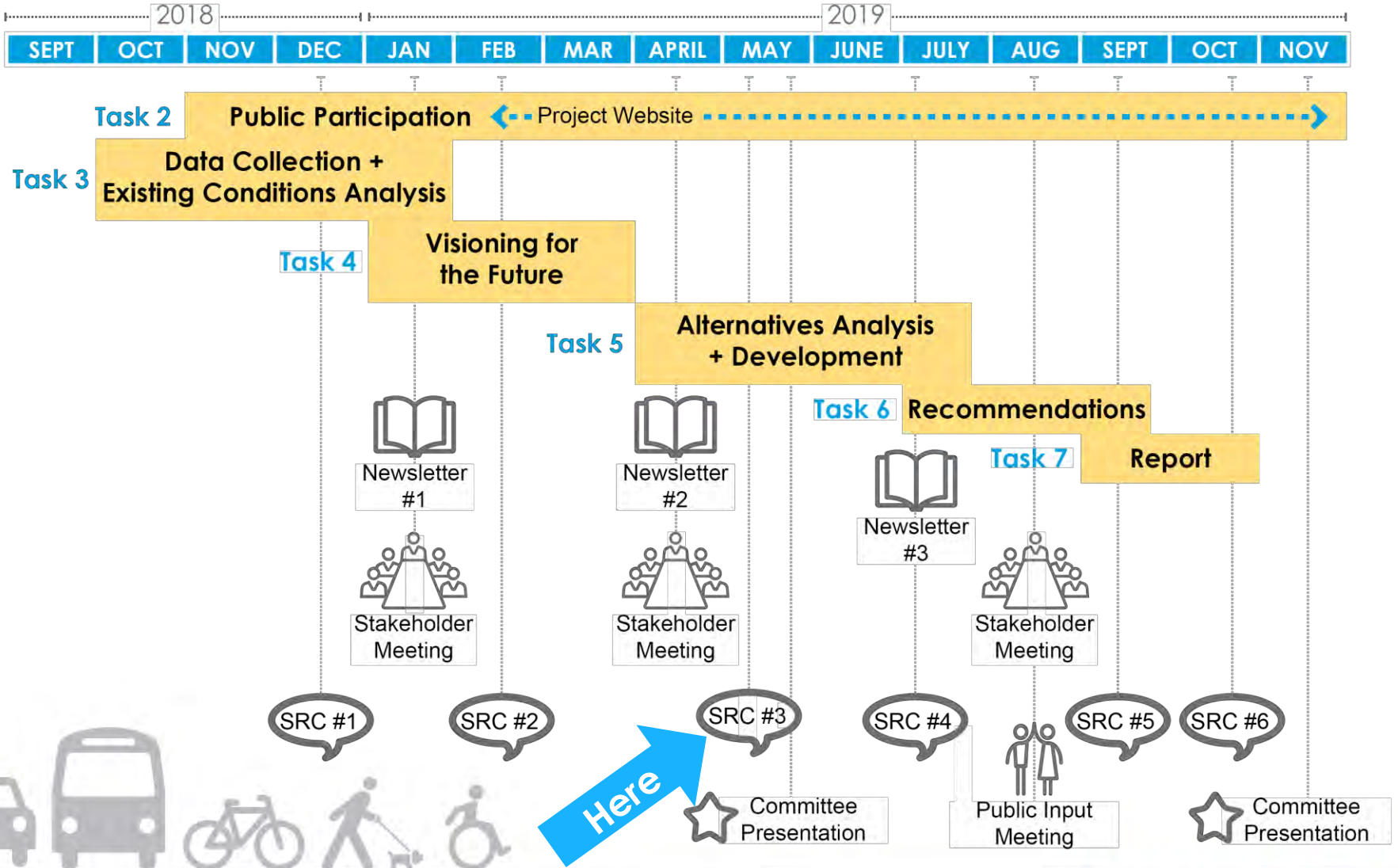
Land Use	Access	I-29 Interchange
Low-Moderate Residential	Major Intersections & Driveway Access	✓
TOTAL R.O.W. = 85'		



Next Steps

Next Steps

76TH AVE



76th Avenue South Corridor Study

- Schedule Round 1 of Committee Presentations – June 2019
- Develop Alternative Layouts + Complete Analysis – June 2019
- Prepare for and schedule SRC #4 – July 2019 – Present Concept “Build” Alternatives + Analysis
- Newsletter #3 – July 2019
- Stakeholder Meeting #3 and PIM – August/September 2019



76th Avenue South Corridor Study – SRC #4

Metro COG, Case Plaza
One 2nd Street N, Fargo, ND

Date: March 11, 2020 from 9:00 to 11:30 am

Meeting Attendees:

- Peggy Harter – Stantec Consulting
- Angie Bolstad – Stantec Consulting via Skype
- Wayne Zacher – NDDOT Local Government via skype
- Mike Rutkowski – Stantec Consulting via Skype
- Cindy Gray – Metro COG
- Aaron Nelson – City of Fargo Planning
- Brian Reinarts – Confluence
- Barrett Voigt – City of Horace Community Development
- Grace Puppe – Cass County Planning
- Kyle Litchy – Cass County Highway Department
- Tom Soucy – Cass County Highway Department
- Brenda Derrig – City of Fargo Engineering
- Jeremy Gorden – City of Fargo Engineering
- Michael Maddox – Metro COG
- Jason Benson – Cass County
- Kristen Sperry – FHWA via Skype

Meeting Discussion Items:

Welcome, Introductions and Project Updates

Peggy Harter asked everyone in the room and those via skype to introduce themselves and their agency. She then reviewed the project schedule noting what has been completed to date. She specified that since the last SRC last meeting, the Stantec team has been working to complete additional

- Travel Demand Modeling (TDM) – Update existing base model for full build and run two alternatives
- Collector-Distributor Research
- Updates to the project visioning

Ms. Harter noted that as part of the TDM and visioning updates we have also been working to keep up with Planning Assumption Changes that have occurred in the area of influence to the 76th Avenue South corridor. Some of the major planning assumption changes include:



- Development & Roadway Network Changes in Horace
- Veterans Blvd Extension from 52nd to 76th
- Sanford Sports Complex
- Interchange at 64th and I-29
- Horace Development is moving at a faster pace

Discussion on Final Study Needs:

Ms. Harter noted that she wanted to remind the SRC of previous discussion regarding the final study needs and then discuss the appropriate level of alternative analysis for the No-Build and Build alternatives for the 76th Avenue South Corridor. In summary, the final study needs to include:

- Future Right of Way for Full Build
- Level of Access Control
- Adjacent collector roadway network
- Needs for motorized and non-motorized vehicles
- Intersection Control Alternatives
- Phased plan to get from today's conditions to Full Buildout

Alternatives Review

Ms. Harter reviewed what the SRC members have already reviewed and agreed upon regarding the two build alternatives per the last SRC meeting:

- Segments of Like Context
- Two Build Alternatives: Alternative 1: Urban Expressway with Free-Flowing Interchange Concept and Alternative 2: Signalized Urban Boulevard with Diverging Diamond Interchange (DDI) Concept
- Proposed Full Build Typical Sections
- Maintain current planning efforts for a future Red River Bridge crossing but do not update the TDM to show a future Red River Bridge crossing. At this time there is no need for it on the Minnesota side of the river. The study will note that the planning for the bridge in terms of preserving ROW will continue but is not anticipated to be needed in the near future.

The following items are new visioning items that have not yet been reviewed by the SRC members:

- Arterial Roadway Street Typology from Metro COG's Parking and Access Requirements Study applied to the 76th Avenue South corridor
- Access Spacing
- Intersection Control Type
- Proposed Collector System Network surrounding 76th Avenue South to support the proposed level of access management for build Alternatives



- Integration of C/D and how it is going to access 76th Avenue South
- Differentiation between the two proposed alternatives

Proposed Street Typology

Ms. Harter reviewed the proposed Street Typology for the various segments of 76th Avenue South for both Build Alternatives.

- Diversion to Sheyenne Street
 - This segment will be designated a Mixed-Use Arterial. This was the proposed designation in the Horace Comp Plan and will have a mix of residential and commercial uses.
- Sheyenne Street to Veterans Blvd
 - This segment will be designated a Commercial Arterial roadway and is primarily driven by current and planned Horace development
- Veterans Boulevard to 25th Street
 - Prior to the meeting, this segment was designated a Regional Arterial for both Alternatives. Discussion at the meeting indicated that this section of 76th Avenue South should vary between the two alternatives. Alternative 1 should be classified as a Regional Arterial and Alternative 2 should be classified as a Commercial Arterial within this segment.
- 25th Street to Red River
 - This section was designated as a Mixed-Use Arterial. Discussion occurred that this designation for Segments 4 and 5 may allow too much future access spacing. Jeremy Gorden noted that the access in these segments is fairly set with development already existing along the corridor. Cindy Gray commented that this corridor has been identified as a Red River bridge location, and it has been considered, in the past, as a possible beltway, and regardless of what you call it, with the connection over the Diversion and future connection over the Red River, this corridor will be one of the most continuous east/west corridors in the metro area. The Urban Expressway designation was discussed, but the City of Fargo Planning Department had issues with calling this an expressway. Discussion took place about this, and the group agreed that free flow characteristics were the goal more so than higher speeds. Regional Arterial would better reflect the continuity than Mixed-Use Arterial, but the group understood the overriding desire for the corridor to be multi-modal. Given the existing development along this segment of the 76th Avenue South corridor is residential and schools, it was decided that the Mixed-Use Arterial designation will be utilized.
- Additional Discussion Regarding Street Typology Designations:
 - The idea was also mentioned to avoid using the parking and access study typologies and instead make our own guidelines for 76th Avenue South specifically.
 - It was decided to continue with the typologies in the parking and access study because they give regional planning guidelines, but it should be made clear that they are guidelines. For example, a regional arterial shows a speed limit of 45 – 50 mph but that doesn't mean the



speeds need to be that high but instead should be the limit. SRC members agreed that free-flow is a more desirable characteristic than "high speed".

Alternative 1 - Regional Arterial with Free-Flowing Interchange Concept

The following discussion occurred regarding Alternative 1:

- Key Alternative 1 Elements:
 - **UPDATE:** After the SRC Meeting – Discussions with Metro COG indicated that we should not be calling this alternative an “Urban Expressway” and will instead denote Alternative 1 as a Regional Arterial. The Regional Arterial designation applies to this corridor between Veterans Boulevard and 25th Street where the Full Build traffic volume projections are the greatest.
 - Preference to Move E-W Traffic in a free-flow type manner, emphasizing flow more so than speed/
 - High Level of Access Control
 - Alternative Intersection Control – Not Signalized
 - Pair with a Free-Flowing Interchange
 - Bike and Ped facilities would require grade separated crossings at 76th Avenue South with multi-use trails adjacent to the roadway. This would include a focus on pedestrian continuity and experience internal to the blocks.
- SRC Discussion Regarding Alternative 1:
 - Dashed lines are not the actual proposed roadway network. It is the density of a roadway network needed based on development previously laid out by the committee.
 - White circles are alternative intersection controls and can be multiple treatments. For example, R-CUT, Michigan Lefts, Roundabouts, etc.
 - Ms. Harter noted that at the beginning of the project when they sat down with developers, they said their ideal roadway with would be right of way and setbacks wider than 32nd Avenue South from 25th Street to the I-29 but not as wide as 52nd Avenue South at this same section.
 - Important to remember that the existing typical sections show a 4-lane divided section with the opportunity to add 6-lanes without impacting bicycle/pedestrian facilities. The 2045 average daily traffic (ADT) vehicle projections do not reach the level of needing a 6-lane section. However, the Full Build TDM shows a need much greater than a 4-lane section near the future 76th Avenue South & I-29 interchange. Due to the uncertainty in the Full Build model, we are identifying a future 4-lane divided roadway with the ability to expand to 6-lanes if needed.
 - Concern was discussed regarding having a fully developed roadway and maintaining a speed limit of over 40 mph. Cindy noted that the idea of this alternative isn't to have a high-speed roadway, but to keep vehicle traffic moving. Once again, we can have lower speeds than shown in the street typologies and utilize our intersection control and access management to keep traffic moving through the corridor.



- Michael Maddox noted that the differences in the alternatives may be how development occurs around them. Alternative 1 would look more like the development recommendations where Alternative 2 may look similar to how development has currently been occurring around other arterial corridors within our area.
- The group did not decide on one intersection treatment type for the corridor. Stantec will develop multiple intersection treatment types along this corridor to show the right of way impacts and for people to visualize how they would look and operate. Options to consider include roundabouts, Michigan left turns and R-Cuts at the major intersections, Right-in/Right-out, and ¾ Access. Jeremy Gorden suggested consideration of a roundabout at 76th Avenue South and Veterans Boulevard. It was also suggested that a hybrid mixture of signalization at the major north/south intersections may be needed with the alternative intersection controls at lower vehicle volume north/south intersections.

Alternative 2 - Commercial Arterial with DDI Concept

- **UPDATE:** After the SRC Meeting – Discussions with Metro COG indicated that we should not be calling this alternative a “Signalized Urban Corridor” and will instead denote Alternative 2 as a Commercial Arterial. The Commercial Arterial designation applies to this corridor between Sheyenne Street and 25th Street where the Full Build traffic volume projections are the greatest.
- Key Alternative 2 Elements:
 - Significant movement of E-W traffic
 - High Level of Access Control (slightly less than Alternative 1)
 - Full access intersections would be signalized or roundabouts
 - Pair with a signalized interchange such as a Diverging Diamond Interchange
 - Bike and Ped crossings would occur at signalized/controlled intersections
- SRC Discussion regarding Alternative 2:
 - Jeremy Gorden noted that he is not a fan of DDI’s but agreed that it could be included as part of this study for Alternative 2.

SRC Discussion for both Alternatives 1 and 2:

- Cindy Gray noted that Metro COG has the role and responsibility of considering our transportation system from a regional perspective, and for a long time now, 76th Avenue S has been looked at as a route that serves a broader area, as the first opportunity south of 52nd Avenue S for a Red River bridge, and even without a bridge, it will be a very continuous corridor, so we consider it as a regional route. However, they understand that the cities have the authority and responsibility for how development occurs which is why Metro COG is looking for the city’s comments now.
- Who is the street going to serve? Mainly vehicles or pedestrians/bicycles as well? If Alternative 1 is chosen, then pedestrian connectivity gets difficult. You will most likely need pedestrian under/over passes. Although complete streets are great, there is a need to have roadways that have a priority (or



emphasis - not an exclusive priority) for vehicles and ensuring that adjacent corridors can focus on the non-vehicular modes. Michael Maddox noted that if a future 6-lane roadway is needed along 76th Avenue South, they are also difficult for pedestrian to cross and aren't very pedestrian friendly either.

- Brenda Derrig noted that the City is looking at extending Drain 53 straight south, rather than curving toward I-29, to make room for additional storm water ponds. This would also reduce impacts to a future interchange at 76th Avenue South & I-29.
- The City of Horace's standpoint is that they do not want to be tied down to constructing all the roundabouts shown on this plan. They are not opposed to the concept but asked for a caveat within the plan indicating that the decision about the intersection treatment can be left open until the time comes to build it. The City is also open to alternative intersection types in lieu of roundabouts and this could be shown as part of Alternative 1.
- Right of way preservation is the most important aspect at this stage in the planning horizon. An RCUT vs a Roundabout will take up varying degrees of ROW. The City of Fargo currently preserves 100 feet of ROW on each side of an arterial roadway (total of 200-feet). The City of Horace is currently preserving a total of 150-feet along 76th Avenue South.
- Mike Rutkowski noted that phasing of this plan is key. In the interim, even for Alternative 1, signalization may be needed and then changed later to an alternative control type. The Cities noted that once a signal is in place, it is difficult to remove.
- Jason Benson noted that Cass County has two projects scheduled for the corridor. 76th Avenue South from where the last project ended along the eastern edge of the future school site up to 45th Street will have a grading project in 2021 and a paving project in 2022.
- Jeremy Gorden noted that where roundabouts are being considered, they should have a 175-foot to 185-foot inside diameter.

Proposed Collector Roadway Network Surrounding 76th Avenue South

Mike Rutkowski noted that the collector street roadway connectivity is the same for both Alternatives 1 and 2 as a high level of internal network connectivity is needed with a highly access managed 76th Avenue South. The SRC reviewed the proposed collector street networks and had the following discussion:

- Additional network connections were identified on the maps for both Alternatives.
- The City of Fargo noted that it will be expensive and difficult to have ½ mile grade separations from I-29 as shown on the maps. Metro COG has advised that we updated the roadway collector system to show a shaded area where the bridge symbols are that denote ROW preservation.

Additional Alternative Comments Received After SRC #4

After SRC #4 was completed, the City of Fargo submitted additional comments on the two alternatives being considered. Metro COG staff responded to the comments. The City of Fargo comments and Metro COG's response to the comments are included below:



City of Fargo Comment #1: City of Fargo staff does not see the need for 76th Avenue S to be an expressway/regional arterial/bypass. Staff is not comfortable that such a concept has been sufficiently explored and accepted at the regional level, and this corridor study is probably not the place for that type of regional decision to be made.

Metro COG Response #1: Metro COG agrees that not going for an expressway or bypass here – where we're departing from the usual, is to look at the potential for more of a free-flow corridor, at normal urban arterial speeds such as 40-45 mph. We threw around a lot of different terminology at the last SRC meeting, but I think in the end, we were all of the same understanding about what we're talking about, regardless of what we call it. The characteristics of the roadway that have been put forward for Alternative 1 are indicative of speeds on current arterial roadways in our region i.e. 45 mph. The difference between the alternatives is how traffic and traffic operations are being handled. The TDM runs for this project indicate that future "full build" volumes are between 40 and 50 thousand cars a day. We know that time frame is beyond our 2045-2050 planning horizon. Alternative 1 is trying to deal with these volumes more efficiently and with less infrastructure by creating a more "free flow" condition. Alternative 2 is more of a hybrid alternative as I will get into on the last bullet point.

The key is going to be how development manifests along the corridor. Stantec is scoped to analyze the difference between how development patterns in each of the alternatives. I have directed Stantec to start that process by creating a rough sketch example of the difference in development pattern in each alternative. The overriding philosophy of Alternative 1 is that commercial development would face away from the roadway towards the interior of the development. Residential development would be sheltered by a wide "park-style" buffer, and more intense residential land uses would be used as a buffer. The development style in Alternative 2 would be different in that the roadway would draw in at commercial nodes, with development facing the roadway. We have not talked about development setbacks or anything of that nature yet. We will work very closely with our project partners to show development patterns that they approve of and can implement.

City of Fargo Comment #2: Following up on conversation at the SRC meeting, while staff agrees with the need for the corridor to handle projected traffic volumes through methods such as medians and access control, staff does not desire for this to be accommodated through excessive traffic speed. In addition to accommodating projected traffic volumes, the City desires for 76th Avenue South to complement the future development and neighborhoods within this area. A proper balance must be maintained between the need to accommodate vehicle flows and the needs of future adjacent residents and businesses. Things like safety and negative impacts to adjacent development need to be factored into the discussion. For example, the Economic Development Policy from the recently adopted 2045 MTP, *Metro Grow*, states: "Transportation is tied to economic development in a variety of ways. Higher volumes and speeds do not consistently equate to



higher levels of investment. Lower speeds and higher levels of walkability equate to greater investment, higher levels of vitality, and improved neighborhood quality of life in many situations.”

Metro COG Response #2: The speeds that have been identified for this facility match those already utilized on arterial roadways the City of Fargo has and is currently developing. Some of the benefits of a more “free flow” condition is that there is less noise generated from starting and stopping. Vehicle acceleration can be loud. Also, drivers have greater satisfaction because they can keep moving without interruption, even if they’re not going faster than usual. One of the things that Alternative 1 is trying to accomplish is maintaining an average speed throughout the corridor closer to the posted speed limit. Metro COG and Stantec are proposing corridor treatments that would protect adjacent residential land uses, such as parkway buffers where berms, walls, plantings, fencing, or a combination of those can be used to shelter these areas. Currently, roadways like 52nd Ave S and 45th Street have little protection from traffic.

Metro GROW puts forward a philosophy of balancing mobility and livability. We totally agree that a balance must be struck, however, we also recognize that corridors like 76th Ave S will likely have a higher functionality with traffic demands that must be accommodated. The study will take into account safety concerns for all modes of transportation. Traffic is naturally going to demand to use this corridor and it comes down to what we prioritize how that traffic impact is mitigated. I assure you that the 76th Ave S Corridor Study will take these things into consideration.

City of Fargo Comment #3: There needs to be a lot more discussion and detail regarding options for bike and ped connectivity east/west at intersections and north/south crossings. We may need to consider unique alternatives (such as mid-block crossings in locations without signalized intersections and where grade-separated crossings are infeasible.)

Metro COG Response #3: If you look to other areas of town outside of the urban core, there are very few examples of arterial roadways that are inviting to bicycles and pedestrians. Arterials such as 13th Ave S, 32nd Ave S, 52nd Ave S, 45th Street, 42nd Street, 25th Street, etc. have been developed in a way that are not inviting to other modes of transportation. We would all like to do better on 76th Avenue S, even if it does need to have a priority of handling arterial-level volumes of traffic. Stantec is currently working on the bike/ped element of the study. This coincides with the development of intersection types. Stantec will be drafting graphical examples of different types of intersection treatments that could be employed and will specifically indicate how bicycles and/or pedestrians are accommodated.

City of Fargo Comment #4: There was some discussion about a hybrid corridor alternative at SRC meeting #4. We would be interested in learning more about that 3rd alternative when available. Based on past experience, a hybrid alternative would probably need to have signalized lights at the arterial intersections.



Metro COG Response #4: There might be some confusion on the scope elements that were talked about at the last SRC meeting. Stantec is scoped to provide two concept visions for the corridor. The first being Alternative 1: “free flow”, and the second being Alternative 2: which is more of a hybrid option with signals at the north/south arterials. There were three TDM scenarios that were amended into the contract. We have already run two scenarios, and Stantec is looking for the SRC to develop a third. Stantec is coming up with some ideas. One idea that Metro COG staff had was to run a “connectivity” scenario where connections across the drains and at mid-mile points along the interstates would be made. This third option is still being developed, and we will ask the SRC to decide on a model run scenario once we can develop some options for them group to react to. I think we are really on the same page with what needs to be done after the last SRC meeting, and I’ll work with Peggy to make sure we’re going in that direction. Thanks for discussing it as a group within your department and following up with these comments. Let me know if you think I’m misinterpreting your input.

Proposed Alternative Analysis:

Peggy Harter reviewed the proposed alternative analysis for the build and no-build alternatives. She noted that given the lack of existing development and extremely low traffic volumes, it will not be accurate enough to conduct detailed intersection analysis. The follow analysis items are being proposed:

- Corridor V/C Ratio for motor vehicles for 2045 and Full Build TDM projected ADT volumes
- Travel time comparison for east-west movements for peak periods
- Right of Way Impacts
- Cost
- Public Feedback
- Accommodations for non-motorized traffic
- Access for adjacent development

The SRC members discussed the following regarding analysis for the no-build and build alternatives:

- Peggy Harter noted that we will apply peak hour factors that are present today to apply to the TDM volume results to determine our peak hour travel times. Jeremy Gorden is going to look for this data to provide to Stantec.
- Aaron Nelson asked to add safety as an analysis criterion. Peggy Harter noted that there is no current crash data, but we can analyze safety for the different intersection types for both vehicles and pedestrians.
- Aaron Nelson also asked if the north/south travel times can be analyzed for the major section mile line intersections. Stantec will look at available information to determine if sufficient data is available to analyze the north/south travel times.



Full Build Travel Demand Model Update

Peggy Harter reviewed maps and a memorandum that were distributed for the TDM updates and analysis that were completed.

Updated Full Build TDM

- The Traffic Analysis Zones (TAZ) stayed the same in the Updated Full Build TDM as they were in the SWMTP 2040+ TDM.
- Updated Full Build TDM changes from the SWMTP 2040+ TDM:
 - 64th Ave S was coded as 3-lanes b/w 25th and Sheyenne St.
 - 76th Ave S was coded as 4-lanes b/w 25th and 45th St.
 - Veterans Boulevard was extended south to connect 52nd to 88th Avenue South as 3-lanes
 - Changed intersection control at CR 17/76th Avenue South to a roundabout
 - SE Data adjusted per meetings with Metro COG & Cities
 - Updated school enrollment projections and new planned schools

Full Build TDM Alternatives 1 & 2 – Select Link Analysis

- Full Build TDM Alternative 1: Interchange at 64th Avenue South
- Full Build TDM Alternative 2: Grade separation at 64th Avenue South with an I-29 Collector-Distributor System between 52nd Avenue South and 76th Avenue South – picking up traffic at 64th Avenue South
- A third alternative is TBD

Ms. Harter presented a summary of changes between the 2045 MTP TDM, Full Build Updated TDM, Full Build Alternative 1 TDM and Full Build Alternative 2 TDM vehicle volume changes along 76th Avenue South as shown in the following table:



SRC Meeting #4 – Meeting Summary

76th Avenue South Segment	2045 Metro Grow TDM	Updated Full Build TDM	Full Build TDM Alternative 1*	Full Build TDM Alternative 2*
81 st St to CR 17	NA	3,500	4,000 (+14%)	3,800 (+9%)
Just east of CR 17	4,700	6,600	6,500 (-2%)	6,550 (-1%)
Just west of Veterans Blvd	NA	31,000	29,100 (-6%)	30,000 (-3%)
Veterans Blvd to 45th St	5,100	27,000	25,200 (-7%)	25,700 (-5%)
45th St to 38th St	NA	48,000	45,500 (-5%)	47,000 (-2%)
38th St to Inter. West Ramps	7,400	46,000	41,400 (-10%)	42,100 (-8%)
Inter. West Ramps to East Ramps	NA	28,000	24,400 (-13%)	25,600 (-9%)
I-29 & 76 th Ave S Inter. SW Ramp	NA	1,200	930 (-23%)	940 (-22%)
I-29 & 76 th Ave S Inter. SE Ramp	NA	1,200	700 (-42%)	700 (-42%)
I-29 & 76 th Ave S Inter. NW Ramp	NA	12,000	12,700 (+6%)	12,500 (+4%)
I-29 & 76 th Ave S Inter. NE Ramp	NA	14,000	15,100 (+8%)	14,300 (+2%)
Inter. East Ramps to 36 th St	NA	19,000	16,900 (-11%)	18,400 (-3%)
36 th St to 25 th St	4,800	10,000	8,900 (-11%)	10,400 (+4%)
25 th St to Univ Drive	5,000	4,900	4,600 (-6%)	4,700 (-4%)

It was discussed that the changes between the Full Build TDMs do not affect the Full Build scenario roadway section needs. However, the project daily traffic volumes in the 2045 Metro Grow TDM show very low volume projections along 76th Avenue South. This verifies the need to preserve right of way for full build and identify a phasing plan as the growth in our study area occurs. The SRC members were to review the TDM Technical Memo and provide comments.



Collector-Distributor (C-D) System Research

Ms. Harter reviewed the C-D System Technical Memorandum that was distributed to the SRC members. She noted the current considerations for a C-D system along I-29 between 52nd and 76th Avenue South that would collect and distribute traffic between 64th Avenue South and I-29. The C-D roadway that the City of Fargo has preliminary designed is for the purposes of designing a 64th Avenue South grade separation that would allow to incorporate this in the future. This type of system would both remove the weave/merge movements off the I-29 Mainline and allow the possibility to maintain current speed limits on the I-29 mainline. Discussion on this C-D system included the following:

- Jeremy Gordon noted that maintaining the speed limit is not important in his view.
- This ultimate decision maker on a C-D system will be up to the NDDOT.

Ms. Harter then reviewed three other types of C-D systems:

- Scenario 1: C-D Roadway Part of the Interstate Serves Major Crossroads & Adjacent Interchange
- Scenario 2: C-D Roadway Part of the Interstate Serves Free Flowing Interchange
- Scenario 3: C-D Roadway Part of the Local Network Serves Interstate, Crossroads and Local Roadway Network

The SRC members were planning to review the C-D Systems Research Memo and provide comments.

Next Steps:

- Review Updated Schedule – Schedule addendum needed at April TTC & PB meeting
- Finalize Visioning and Preliminary Alternative Concepts
- UPDATE: Identify a 3rd Travel Demand Alternative to run for the Full Build. Send out a poll for SRC members to vote as this was not discussed during the SRC meeting.
- Build Alternative Layouts, Cost Estimates and Analysis
- Build Alternatives Modeling (Land Elements – Visualization of Corridor Alternatives)
- Develop Corridor Project Phasing
- Alternatives Descriptions and Analysis Matrix
- Develop Plan for Final Newsletter, Stakeholder Meeting & Public Input Meeting
- SRC #5 – May 2020 to review the above tasks



Action Items:

- Jeremy Gordon to provide peak hour factors
- All members of SRC committee review the alternative layouts and provide any outstanding comments in one week.
- SRC member to review TDM and C-D Technical Memos and provide comments.
- Stantec to develop project schedule addendum for April TTC & PB meeting.

The meeting adjourned at 11:30 am.

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services, Inc.



Peggy Harter PE
Senior Associate
Phone: (701) 566-6020
Peggy.Harter@stantec.com

Attachments: Meeting Sign in Sheet



76th Avenue South Corridor Study – SRC #4

Metro COG Conference Room, Case Plaza – One 2nd Street N, Fargo, ND

Date: March 11, 2020 at 9:00 a.m.

NAME	ORGANIZATION	EMAIL ADDRESS
Peggy Harter	Stantec	peggy-harter@stantec.com
Wayne Zacher	via skype NDDOT-Local Gov't	
Mike Rutkowski	via skype - Stantec	
Angie Bolstad	via skype - Stantec	
Cindy Gray	Metro COG	cgray@fmmetrocog.org
Aaron Nelson	Fargo Planning	anelson@FargoND.gov
Brian Reinarts	Confluence	breinarts@thinkconfluence.com
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Jeremy Gordon	City of Fargo Em	jgorden@fargoND.gov
Michael Maddox	Metro COG	maddox@fmmetrocog.org
Jason Benson	Cass Co.	bensonj@casscountynel.gov
Kristen Sperry	via skype FHWA	



SRC #4 Presentation

76th Avenue South Corridor Study

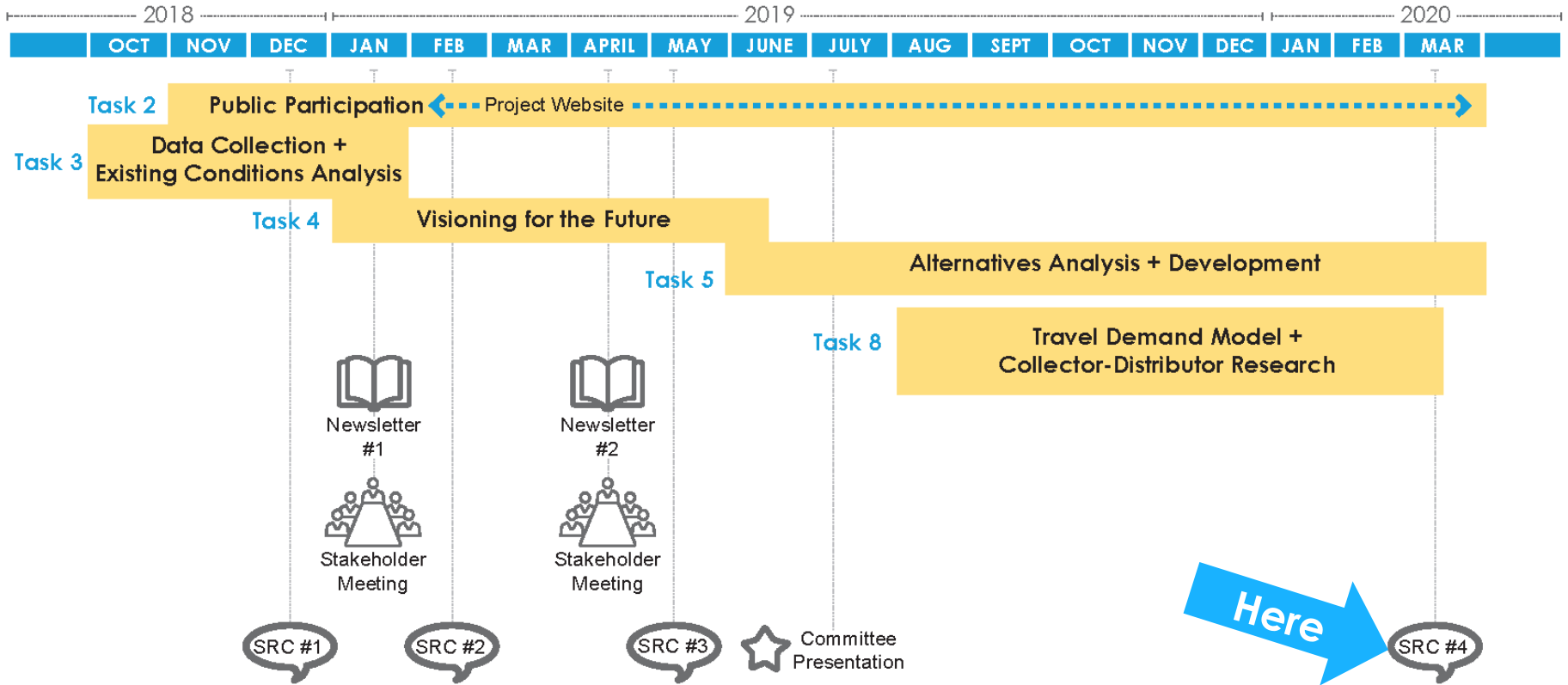
March 11, 2020



Introductions & Project Updates

What Have We Done?

76TH AVE

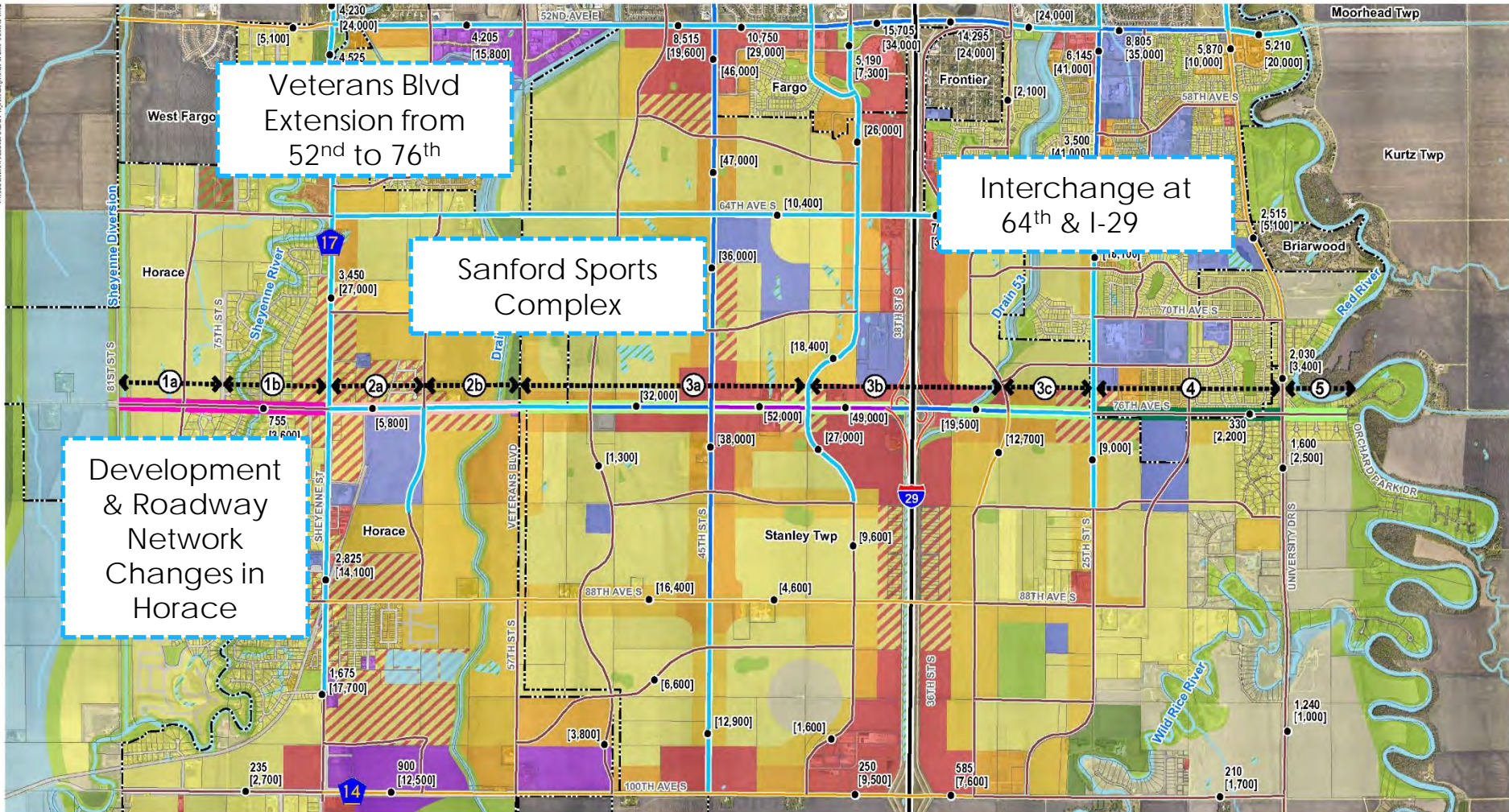


- Keeping up with Planning Assumption Changes
- Alternative Planning Assumptions for two previously identified alternatives
- Full Build TDM Updates
- Full Build TDM Alternatives
- Collector-Distributor (C-D) System Research Memo



Planning Assumption Changes

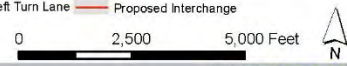
76TH AVE



May 23, 2019

Recommended Segments of Like Context

X,XXX Existing Daily Traffic Volume	Planned Future Land Use:	Mixed Use	Park and Open Space	Roadway Jurisdiction: 2040+ Roadway Network:	Eight-Lane Divided Arterial
[X,XXX] Forecasted Daily Traffic Volume	Rural Residential	Commercial	Utility	Cass County	Four-Lane Freeway
◆(◆) Segment of Like Context	Low Density Residential	Industrial	Drain/Diversion	Horace	Two-Lane Arterial/Collector
[- - -] Municipal Boundaries	Medium Density Residential	Public and Institutional	Open Water	Stanley Twp	Two-Lane Arterial/Collector w Center Left Turn Lane
	High Density Residential	Agricultural	Welland		Four-Lane Divided Arterial
					Six-Lane Divided Arterial
					Proposed Interchange



- Much of the southwest metropolitan area is currently undeveloped.
- We cannot predict what will develop along the corridor.
- Planning assumptions will continue to change.





Final Study Needs

- Future Right of Way for Full Build
- Level of Access Control
- Adjacent collector roadway network
- Needs for motorized and non-motorized vehicles
- Phased plan to get from today's conditions to Full Buildout



Alternative Review

What Have You Reviewed

- Segments of Like Context
- Two Alternative Types
- Proposed Typical Sections

What is New to Review

- Arterial Roadway Street Typologies
- Access Spacing & Intersection Control Type
- Proposed Collector Network to Support





Street Typology Guidelines

- Veterans Blvd to 25th Street
- Serves the largest volumes of forecast traffic

REGIONAL ARTERIAL

Regional Arterial streets are intended to serve large traffic volumes with highly controlled interruptions and function as a secondary alternative and direct connection to the Interstate system. This type of street does not exist currently in the Fargo/West Fargo area and is intended to be used for future planning purposes.

	Land Use Commercial, Industrial, Multi-family			
	Speed Limit 45 - 50 mph			
	Travel Lanes 4 travel lanes			
	Other Divided roadways			
	Parking No on-street parking			
	Pedestrian Crossing Grade-separated or signalized crosswalks			
	Traffic Signal	Unsignalized Full Access	Right-in/Right-out	Driveways
	1/2 mile	None, frontage system	1/4 mile	None










Street Typology Guidelines

- Sheyenne Street to Veterans Blvd
- Connecting Horace to Fargo
- Driven in part by current Horace development

COMMERCIAL ARTERIAL

Commercial Arterial streets act as gateways, connecting people from Fargo, West Fargo, and the wider region to the area's major destinations. Because these streets link everyone to important points of interest, it is critical that pedestrians have safe crossing opportunities. Access is more stringently managed on these types of streets, and on-street parking is generally not appropriate, so that a high volume of cars, trucks, and buses can travel efficiently.

	Land Use: Commercial, Multi-family			
	Speed Limit: 40 - 45 mph			
	Travel lanes: 4-6 travel lanes			
	Other: Landscaped medians			
	Parking: No on-street parking			
	Pedestrian Crossing: Signalized crosswalks only			
	Traffic Signal:	Unsignalized Full Access:	Right-in/Right-out:	Driveways:
	1/4 Mile	None	400 feet	None










Street Typology Guidelines

- Diversion to Sheyenne Street
- 25th Street to University Drive
- Lowest Forecast Volumes along corridor

MIXED USE ARTERIAL

Mixed Use Arterial streets are business corridors where people live, shop, dine, and work. Mixed Use Arterial streets provide cross-town links to employment and commercial centers. These types of streets carry a higher volume of cars while providing access to a walkable street network. On-street parking should be allowed on these types of streets to encourage economic activity, as well as calm traffic and create a pedestrian buffer.

	Land Use Multi-family Residential, Commercial, Industrial				
	Speed Limit 35 mph maximum				
	Travel lanes 3-5 travel lanes				
	Other Landscaped median or center turn lane				
	Parking On-street parking				
	Pedestrian Crossing Signal or median-protected crosswalk				
	Access Spacing	Traffic Signal: 600-800 feet	Unsignalized Full Access: Block-Level (300-400 feet)	Right-in/Right-out: 200 feet	Driveways: 200 feet

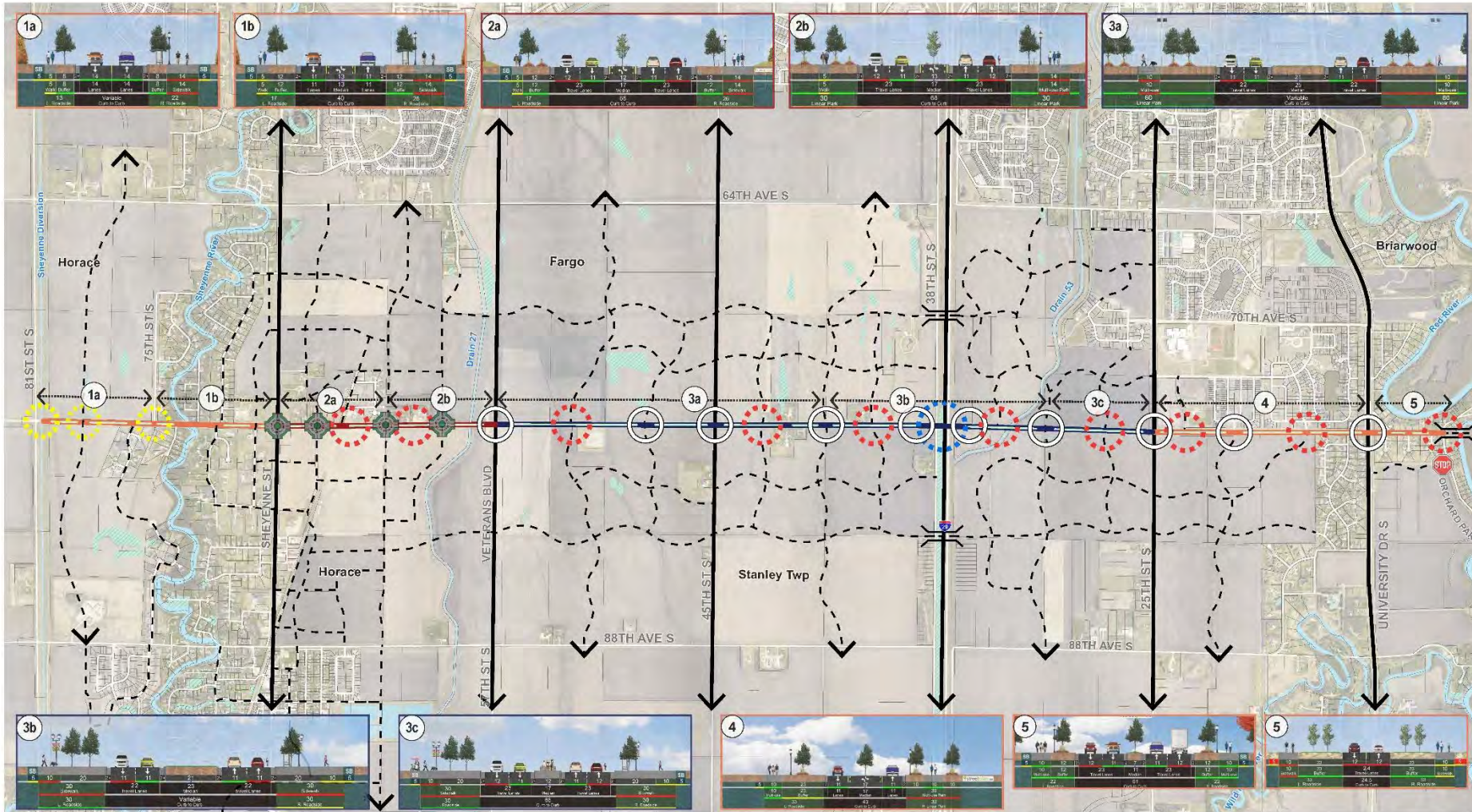


- Preference to Move E-W Traffic
- High Level of Access Control
- Alternative Intersection Control – Not Signalized
- Pair with a Free-Flowing Interchange
- Bike and Ped facilities would require grade separated crossings



Alternative 1 – Urban Expressway

76TH AVE



Future Visioning Assumptions

Alternative 1: Urban Expressway



76th Avenue South Corridor Study

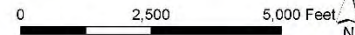
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Alternative Intersection Control Types
- Proposed Collector Streets
- Proposed Median
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)

Spacing Standards

- Signalized Lights: 2000' - 2600' (urban)
1 mile (suburban)
- Driveway Openings: 300' - 450' (suburban)
- Pedestrian Crossings: 700' - 1700' (urban)
1700' - 2600' (suburban)
- *90 sec - 3 minute walk to nearest crossing (urban)

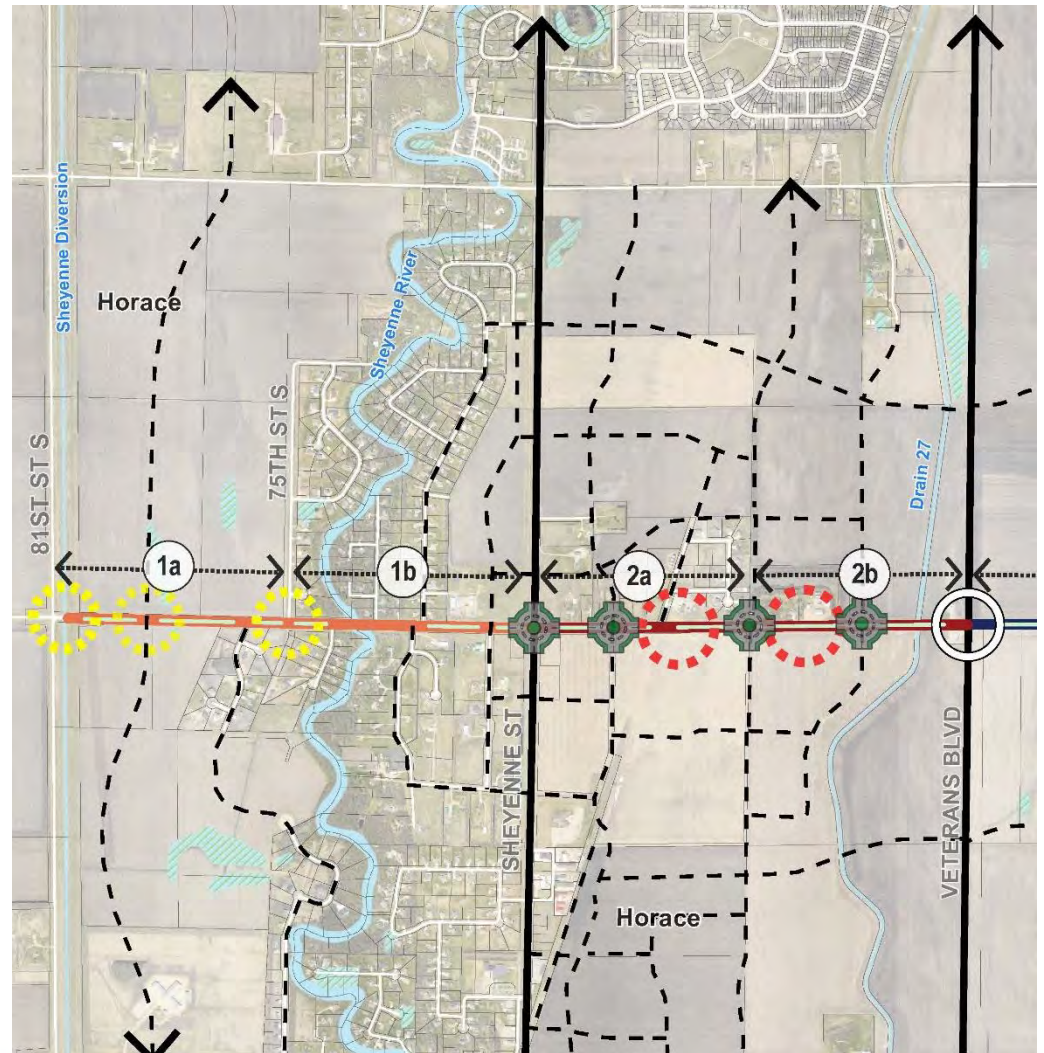
1 in = 1,000 feet



Access & Control

Horace

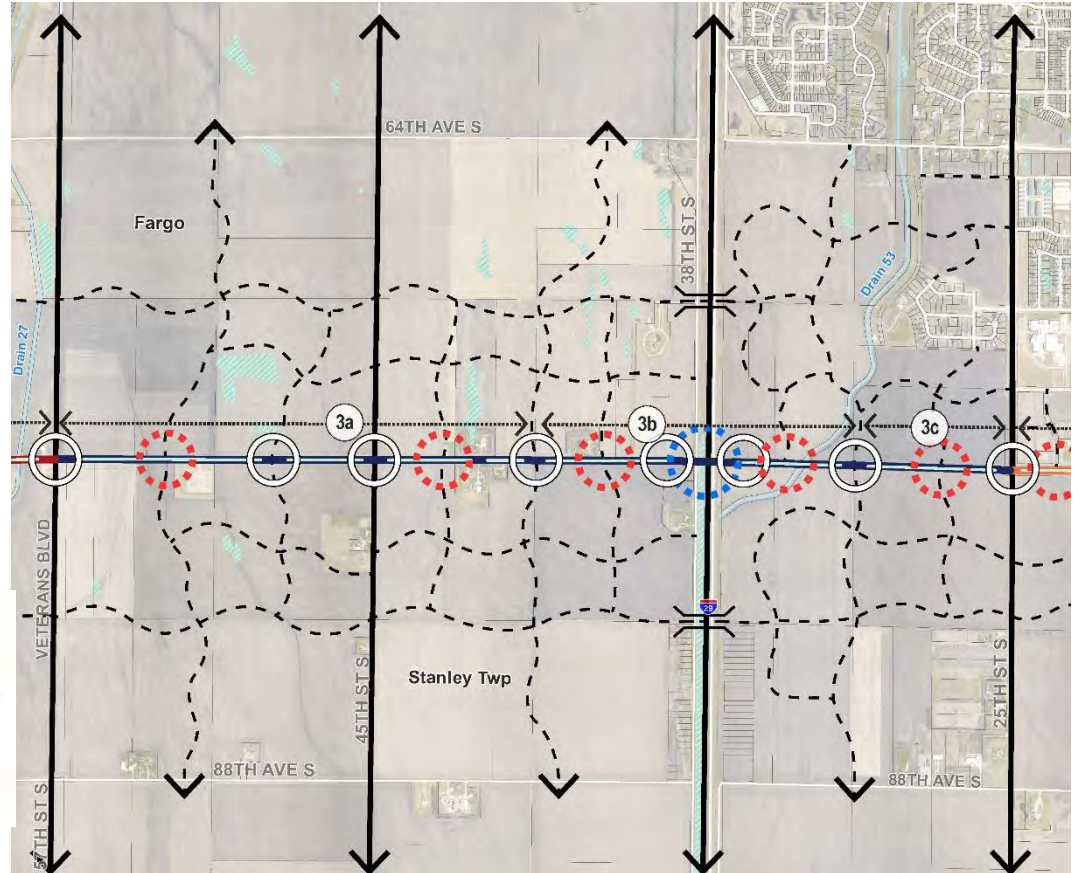
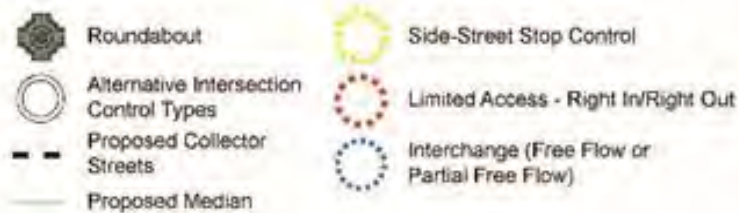
- Roundabouts
- ½ Mile Drain Crossings
- Side Street Stops
- Recent Comp Plan



Access & Control

Veterans to 25th

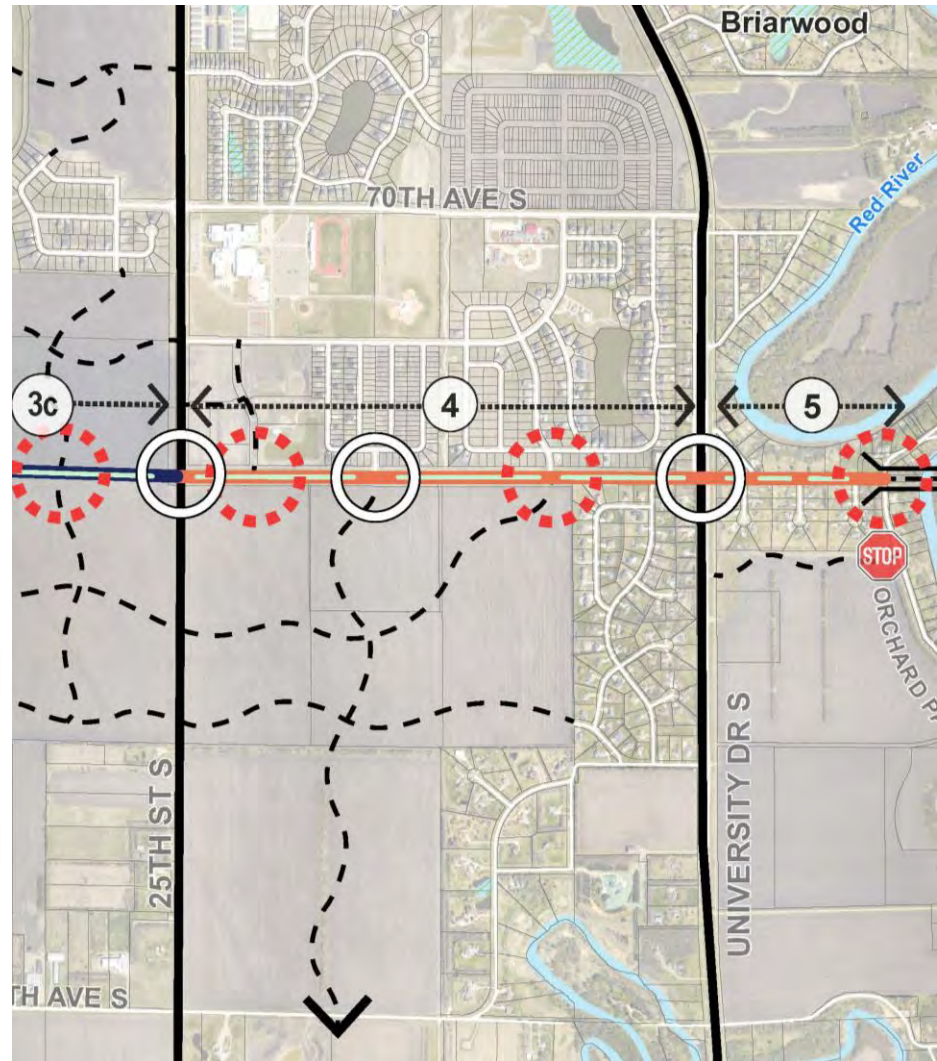
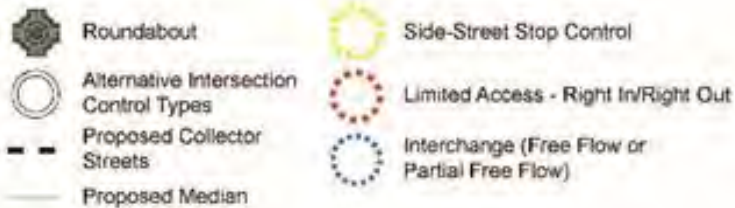
- ½ Mile Interstate Grade Separation
- Right-in/Right-out
- Alternative Intersection Control
- Free Flow Interchange



Access & Control

25th to Red River

- ½ Mile Drain Crossings
- Right-in/Right-out
- Alternative Intersection Control



Alternative Intersection Control: C-D System with Major Intersections Grade Separated

- Free flowing east-west
- High cost
- Handle high volume interesting roadways
- Could implement in Regional Arterial Segments Only



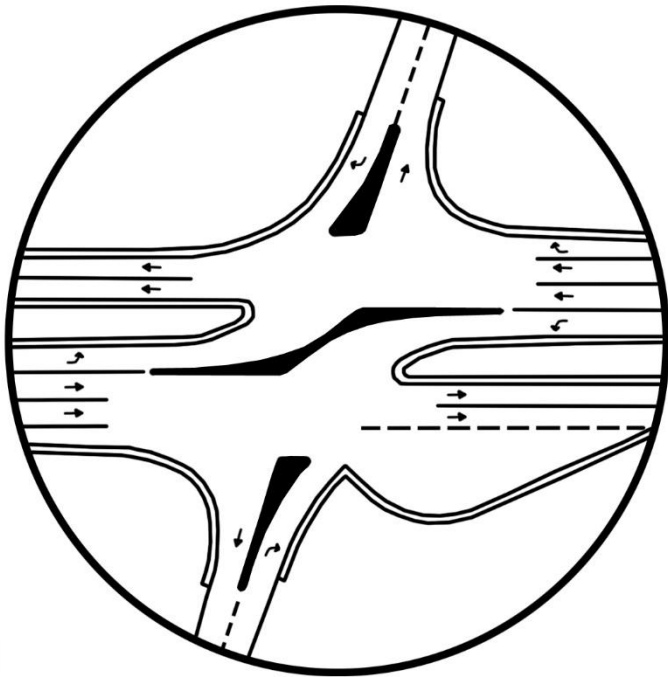
Alternative Intersection Control: R-Cut

When to consider?

- Median-divided highways
- At intersections:
 - With heavy through and /or left-turn traffic volumes on the major street
 - With low through and left-turn traffic volumes on the side street



Alternative Intersection Control: $\frac{3}{4}$ Access and Reverse $\frac{3}{4}$ Access



Alternative Intersection Control: Roundabouts

- Existing Roundabout at CR 17 and Proposed in Horace
- Major intersecting roadways would likely require multi-lane roundabouts
- 2-lane roundabouts likely the largest for public acceptance



Source: FHWA



Free Flowing Interchange: Cloverleaf or Tri-Levels

- High Cost
- Large footprint
- Keeps traffic moving
- Minimize weave/merge issues with C/D system



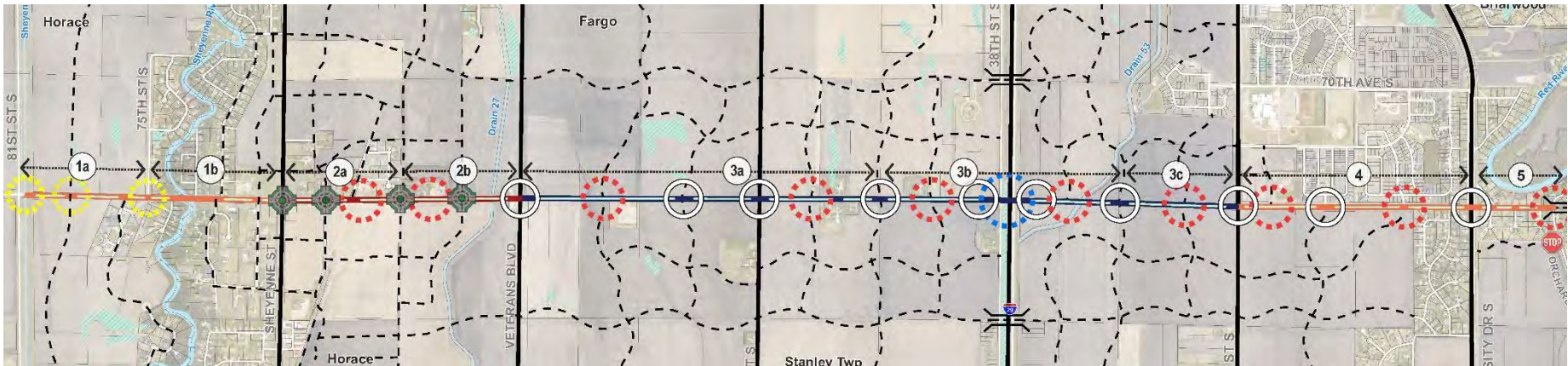
Proposed Collector Network

- High level of access management along 76th Avenue
- Supports assumed density of surrounding network



Proposed Collector Network

- Dashed lines represent proposed collector network
- ½ Mile Drain Crossings & Interstate Grade Separations

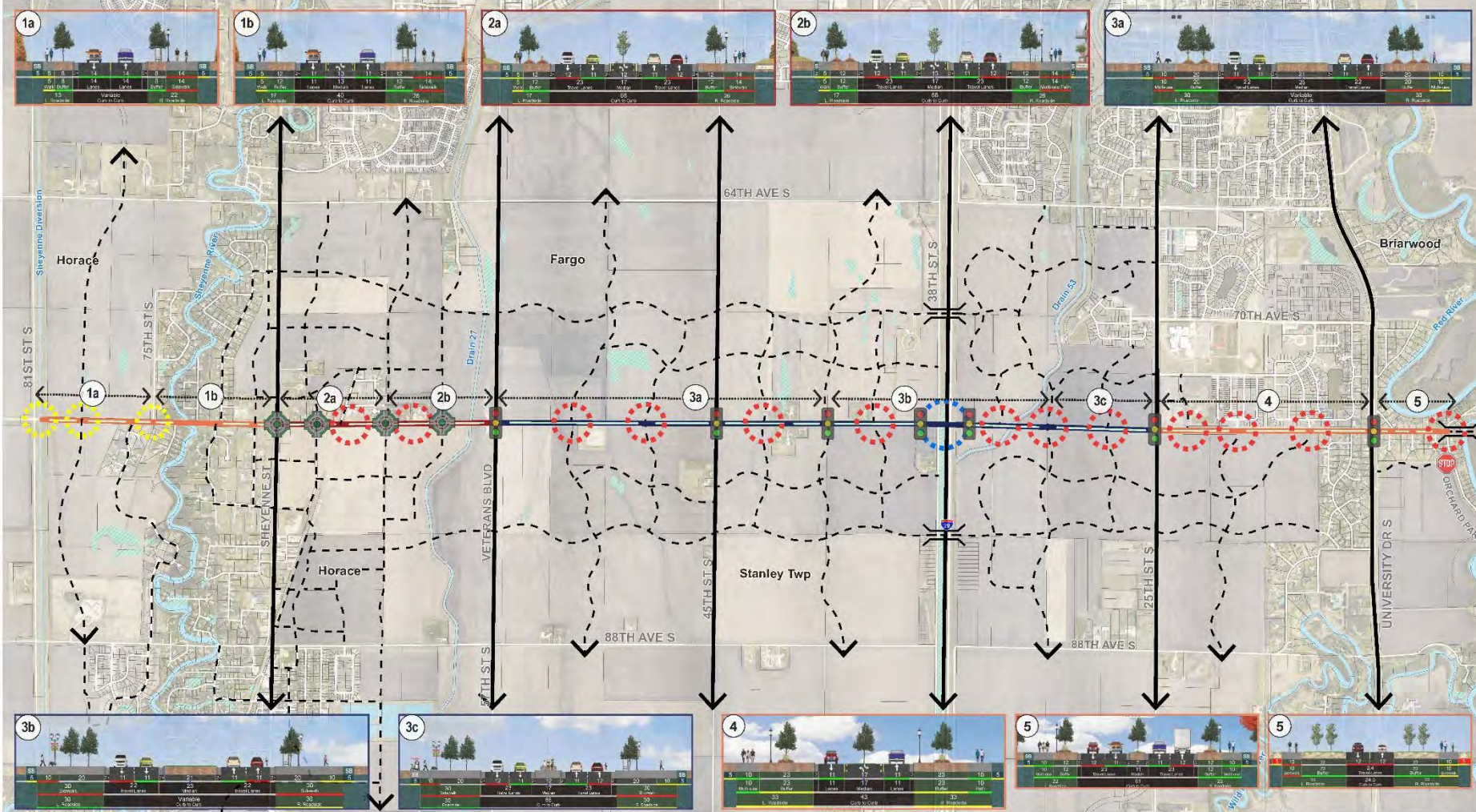


- Significant movement of E-W traffic
- High Level of Access Control (less than Alt 1)
- Full access intersections would be signalized or roundabouts
- Pair with a signalized interchange such as a Diverging Diamond Interchange
- Bike and Ped crossings would occur at signalized/controlled intersections



Alternative 2 – Signalized Urban Blvd

76TH AVE



Future Visioning Assumptions

Alternative 2: Signalized Urban Corridor



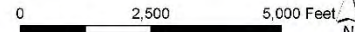
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
- - - Proposed Collector Streets
- Proposed Median
- Side-Street Stop Control
- Limited Access - Right In/Right Out or 3/4 Access
- Interchange

Spacing Standards

- Signalized Lights: 2000' - 2600' (urban)
- 1 mile (suburban)
- Driveway Openings: 300' - 450' (suburban)
- Pedestrian Crossings: 700' - 1700' (urban)
- 1700' - 2600' (suburban)
- *90 sec - 3 minute walk to nearest crossing (urban)

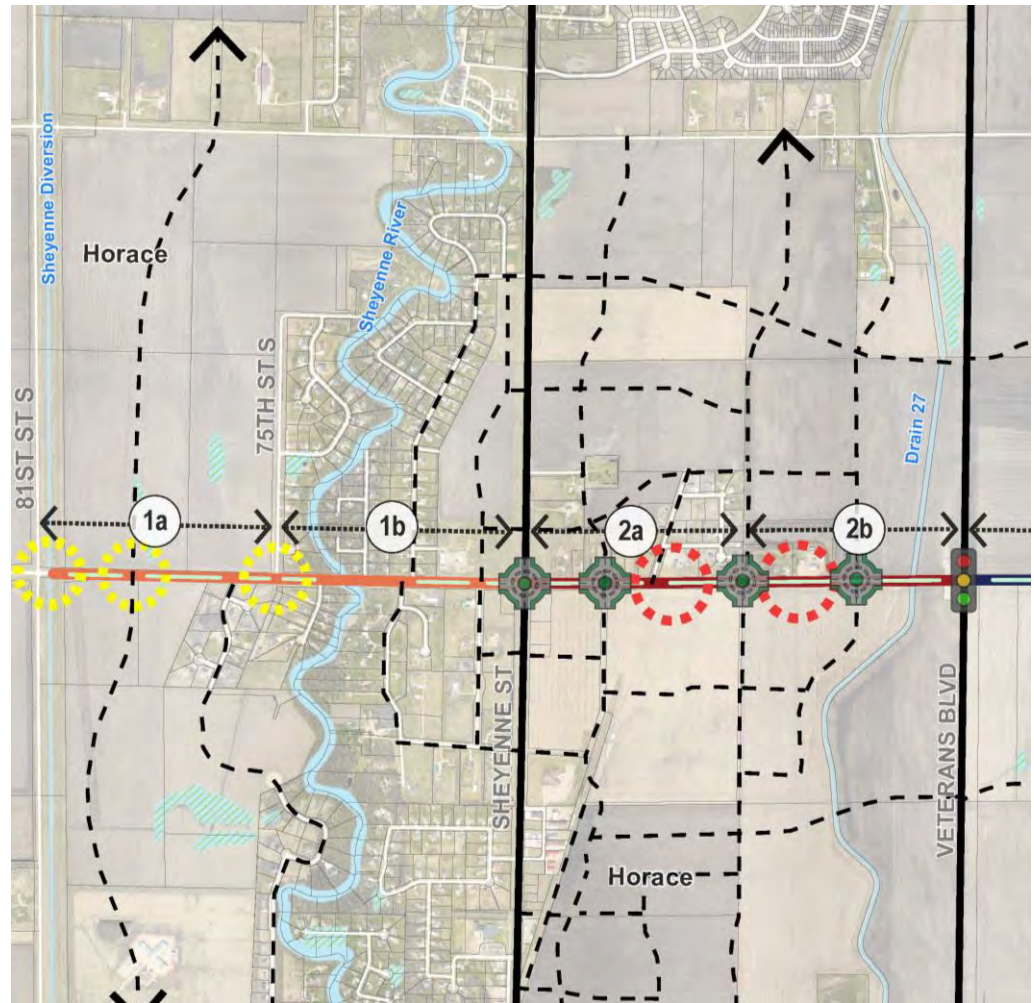
1 in = 1,000 feet



Access & Control

Horace

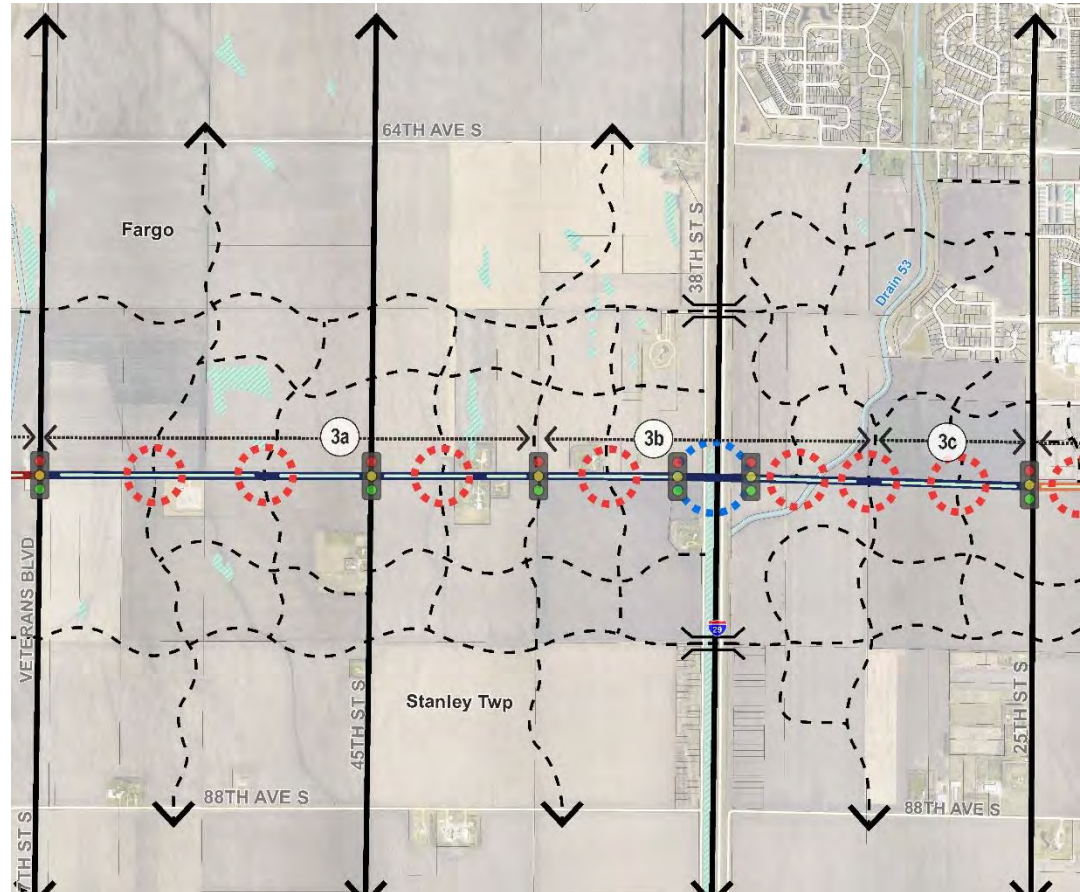
- Roundabouts
- ½ Mile Drain Crossings
- Side Street Stops
- Recent Comp Plan



Access & Control

Veterans to 25th

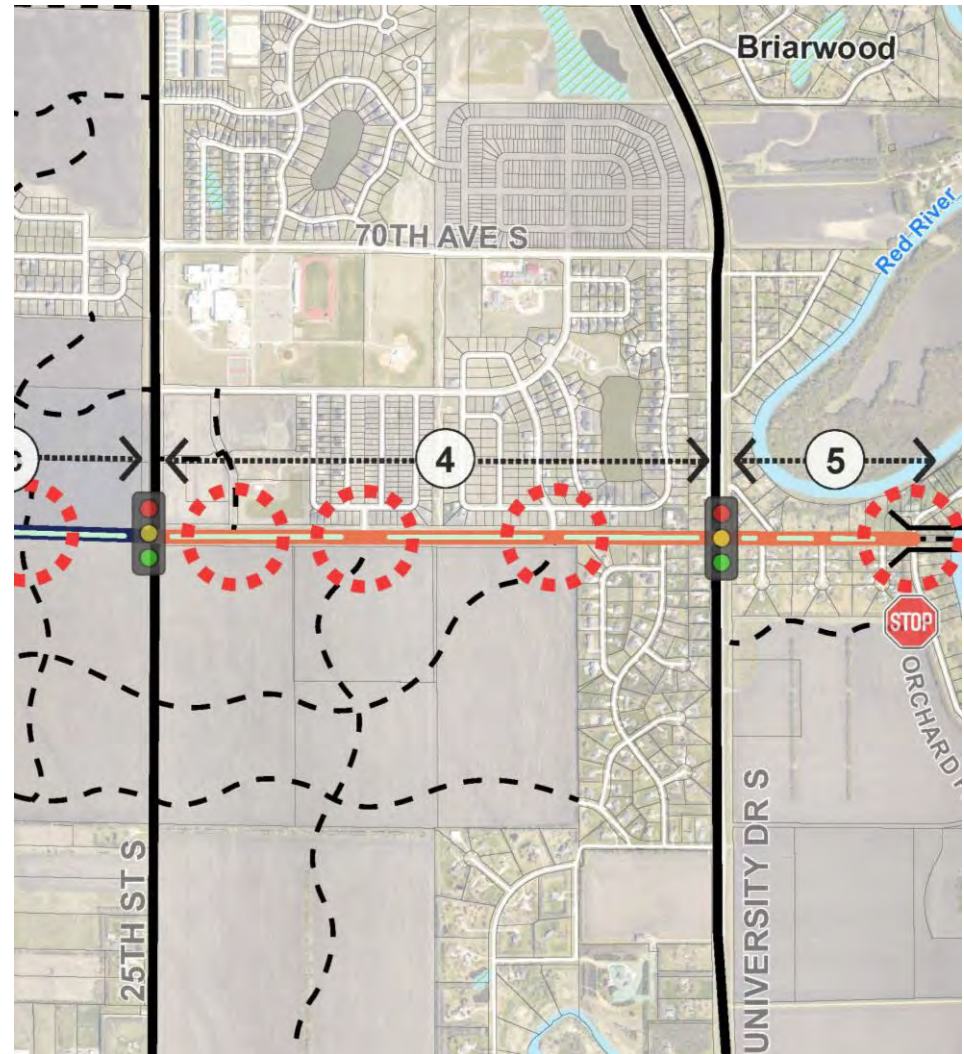
- ½ Mile Interstate Grade Separation
- 4 Full Cycle Traffic Signals
- Limited ¾ or Right-in/Right-out
- DDI Interchange



Access & Control

25th to Red River

- 1 Additional Signal at University Drive
- Limited $\frac{3}{4}$ or Right-in/Right-out



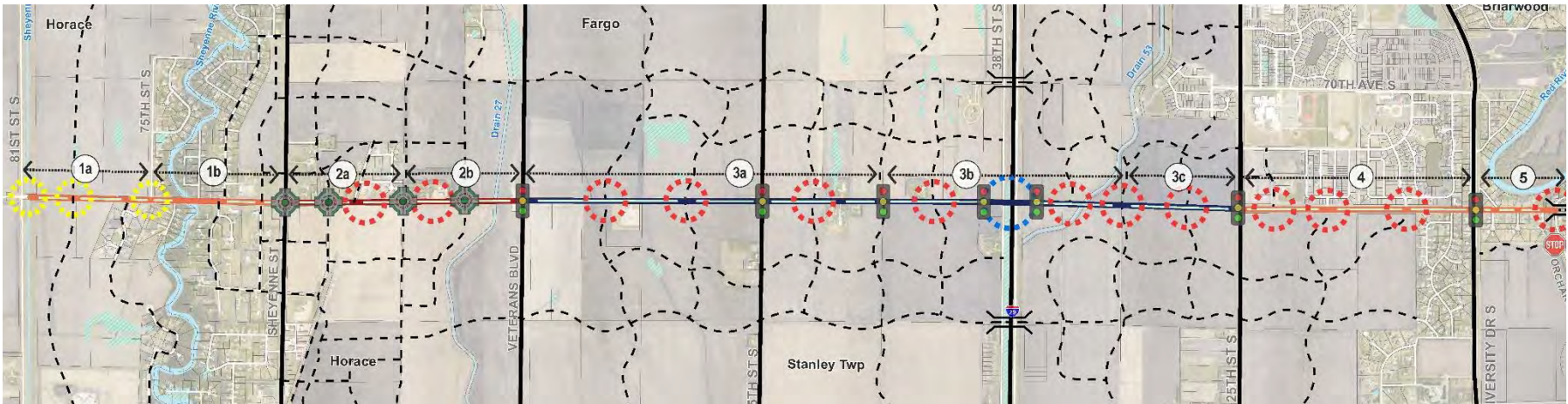
Signalized Interchange: Diverging Diamond Interchange

- Smaller footprint
- 2-Phase Signal to keep traffic moving
- Serve heavy movements to/ from the north



Proposed Collector Network

- Dashed lines represent proposed collector network – doesn't change from Alternative 1 as density is the same
- ½ Mile Drain Crossings & Interstate Grade Separations



Proposed Alternative Analysis

- Corridor V/C Ratio for motor vehicles
- Travel time comparison for east-west movements
- Right of Way Impacts
- Cost
- Public Feedback
- Accommodations for non-motorized traffic
- Access for adjacent development





Travel Demand Model Updates & Alternatives

Started with the SWMTP 2040+ TDM & Applied known Planning Assumption Changes to Develop the Updated Full Build TDM

- 64th Ave S was coded as 3-lanes b/w 25th and Sheyenne St.
- 76th Ave S was coded as 4-lanes b/w 25th and 45th St.
- Veterans Boulevard was extended south to connect 52nd to 88th Avenue South as 3-lanes
- Changed intersection control at CR 17/76th Avenue South to a roundabout
- SE Data adjusted per meetings with Metro COG & Cities
- Updated school enrollment projections and new planned schools



Full Build Alternative 1 – Started with the Updated Full Build TDM and added a 64th Avenue South/I-29 Interchange

Full Build Alternative 2 – Started with the Updated Full Build TDM and added an I-29 C-D Roadway between 52nd and 76th Avenue South and a 64th Avenue South/I-29 C-D Roadway Interchange



Forecast Daily Volume TDM Comparison



Forecast Daily Volume TDM Comparison

- Minimal daily volume reductions between Full Build Alternatives

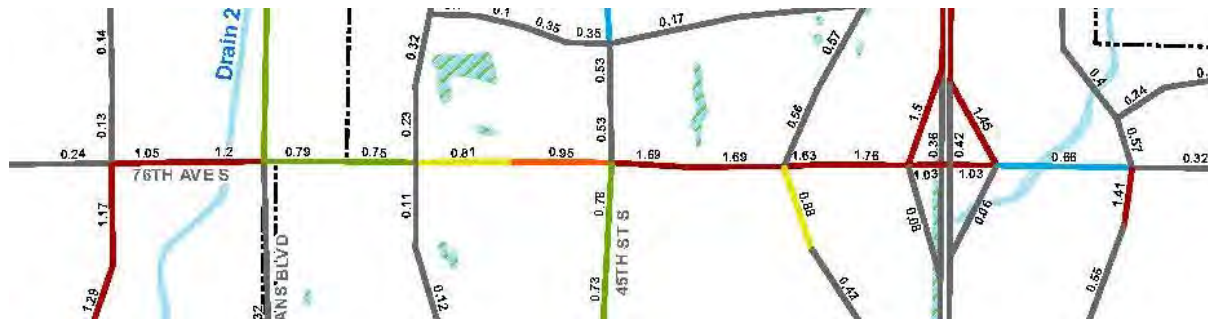
76th Avenue South Segment	2045 Metro Grow TDM	Updated Full Build TDM	Full Build TDM Alternative 1*	Full Build TDM Alternative 2*
81 st St to CR 17	NA	3,500	4,000 (+14%)	3,800 (+9%)
Just east of CR 17	4,700	6,600	6,500 (-2%)	6,550 (-1%)
Just west of Veterans Blvd	NA	31,000	29,100 (-6%)	30,000 (-3%)
Veterans Blvd to 45th St	5,100	27,000	25,200 (-7%)	25,700 (-5%)
45th St to 38th St	NA	48,000	45,500 (-5%)	47,000 (-2%)
38th St to Inter. West Ramps	7,400	46,000	41,400 (-10%)	42,100 (-8%)
Inter. West Ramps to East Ramps	NA	28,000	24,400 (-13%)	25,600 (-9%)
I-29 & 76 th Ave S Inter. SW Ramp	NA	1,200	930 (-23%)	940 (-22%)
I-29 & 76 th Ave S Inter. SE Ramp	NA	1,200	700 (-42%)	700 (-42%)
I-29 & 76 th Ave S Inter. NW Ramp	NA	12,000	12,700 (+6%)	12,500 (+4%)
I-29 & 76 th Ave S Inter. NE Ramp	NA	14,000	15,100 (+8%)	14,300 (+2%)
Inter. East Ramps to 36 th St	NA	19,000	16,900 (-11%)	18,400 (-3%)
36 th St to 25 th St	4,800	10,000	8,900 (-11%)	10,400 (+4%)
25 th St to Univ Drive	5,000	4,900	4,600 (-6%)	4,700 (-4%)



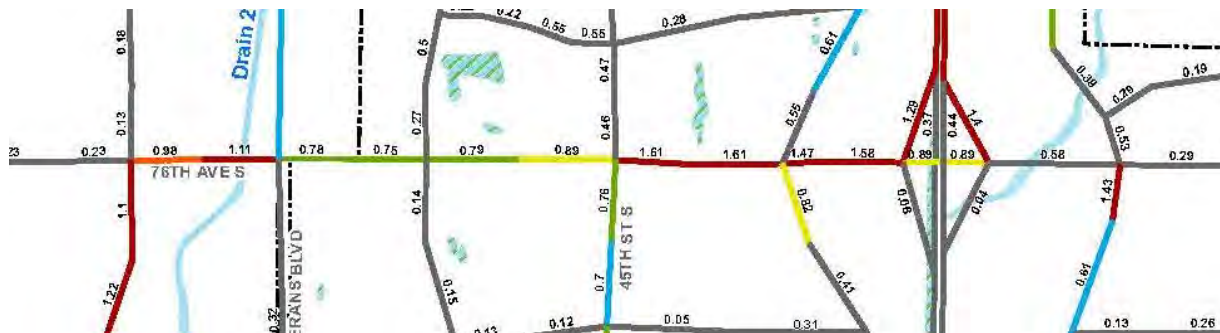
TDM Alternative Results: V/C & LOS

76TH AVE

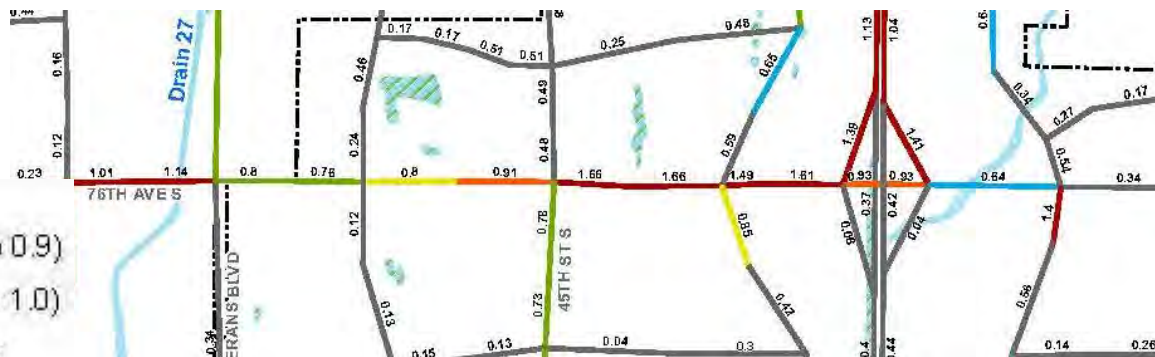
Full Build



Alternative 1



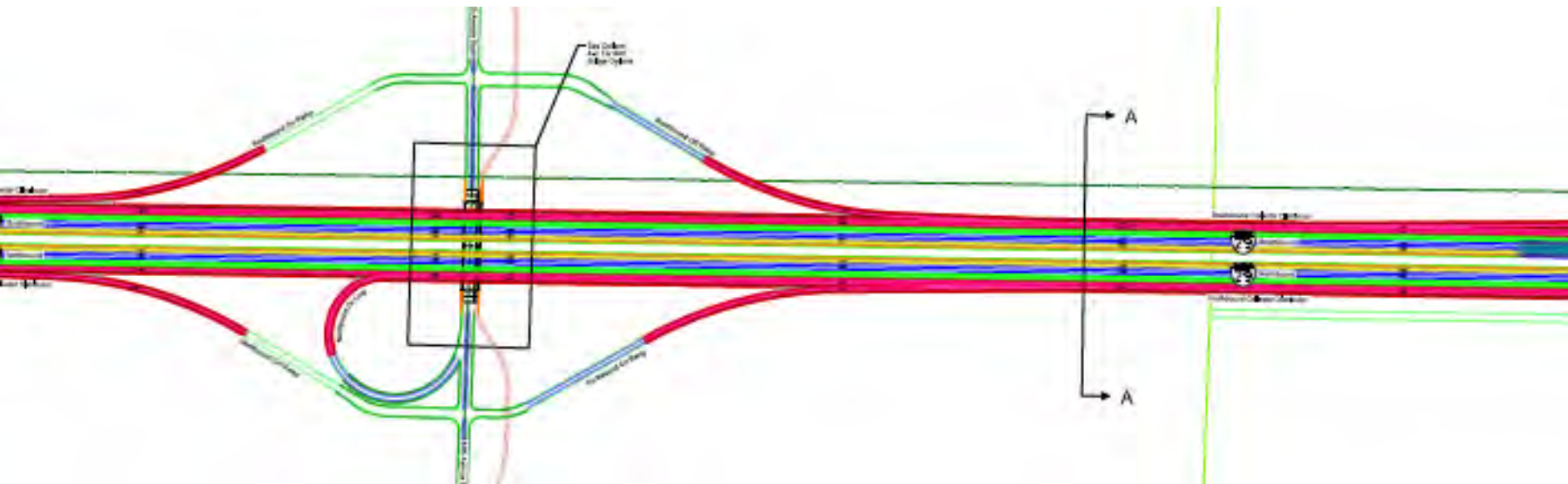
Alternative 2



- LOS A (0 to 0.6)
- LOS B (0.6 to 0.7)
- LOS C (0.7 to 0.8)
- LOS D (0.8 to 0.9)
- LOS E (0.9 to 1.0)
- LOS F (> 1.0)

Collector-Distributor Research

- Considerations for a C-D along I-29
 - Collect & Distribute traffic between 64th Avenue South & I-29
 - Removes the weave/merge movements off the I-29 Mainline
 - Maintain current speed limits on the I-29 mainline



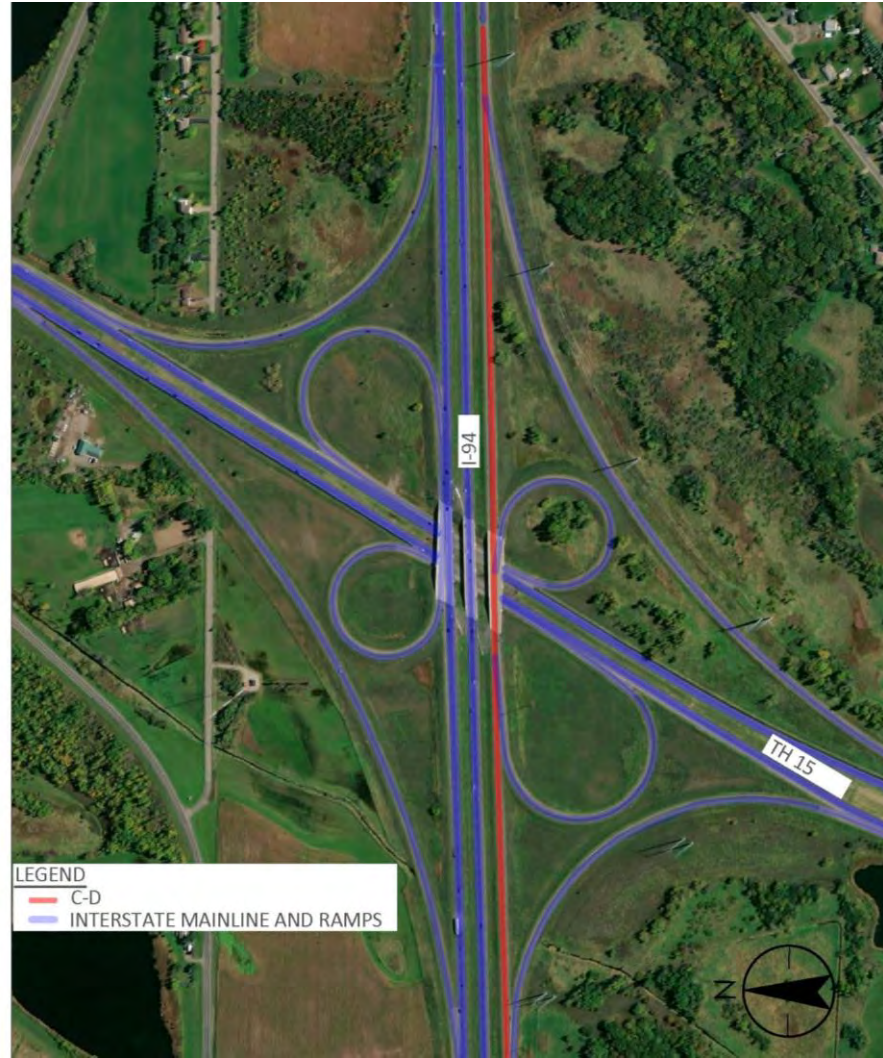
Scenario 1: C-D Roadway Part of the Interstate Serves Major Crossroads & Adjacent Interchange

- Minneapolis, MN
- Functions like preliminary design along I-29



Scenario 2: C-D Roadway Part of the Interstate Serves Free Flowing Interchange

- St. Cloud, MN
- Removes weave/merge from cloverleaf interchange off EB I-94 mainline
- Could be considered if 76th Avenue is a Free-Flowing Interchange



Scenario 3: C-D Roadway Part of the Local Network Serves Interstate, Crossroads and Local Roadway Network

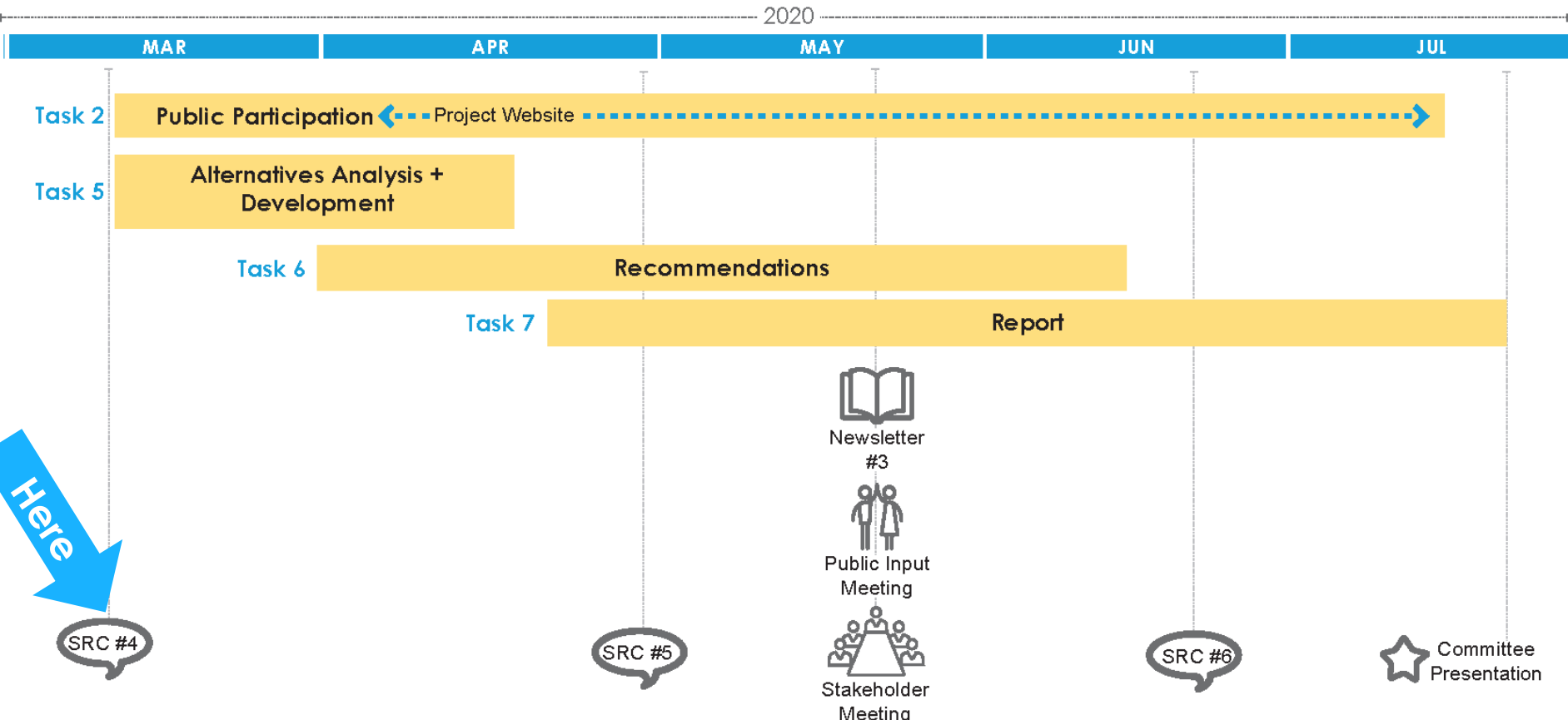
- Minneapolis, MN
- C/D Roadways are one-way pairs
- Could serve freeway or major arterial roadway



Next Steps

Next Steps

76TH AVE



- Finalize Visioning and Preliminary Alternative Concepts – Today's Meeting
- Build Alternative Layouts, Cost Estimates and Analysis
- Build Alternatives Modeling (Land Elements – Visualization of Corridor Alternatives)
- Phased Needs for the Corridor
- Alternatives Descriptions and Analysis Matrix
- SRC #5 – Late April/Early May 2020



76th Avenue South Corridor Study – SRC #5 (Part 1 of 2)

Virtual Meeting via Microsoft Teams

Date July 21, 2020 at 3:00 p.m.

Attendees: Peggy Harter (Stantec), Mike Rutkowski (Stantec), Angie Bolstad (Stantec), Brian Reinarts (Confluence), Aaron Nelson (City of Fargo), Jeremy Gorden (City of Fargo), Barrett Voigt (City of Horace), Michael Maddox (Metro COG), Cindy Gray (Metro COG), Grace Puppe (Cass County), Kyle Litchy (Cass County), Kristen Sperry (FHWA), Wayne Zacher (NDDOT)

Next Meeting: SRC #5 (Part 2 of 2): Wednesday, July 29 at 2pm-4pm

Item:	Action:
<p>Welcome and Project Updates</p> <ul style="list-style-type: none"> Peggy Harter will be leaving Stantec on Thursday, July 23. The project manager for this project is changing over to Mike Rutkowski who has been working on the project from the start. 	
<p>Confluence Visualizations</p> <ul style="list-style-type: none"> Brian Reinarts from Confluence went over the anticipated graphics for 76th Ave S. Graphic Content will include: <ol style="list-style-type: none"> Lane Configuration Pedestrian Movement Adjacent Development Intersections <ol style="list-style-type: none"> Visualizations will be shown at the following locations only: 76th Ave & CR17, 76th Ave & 45th Street, 76th Ave & 25th Street Minimal Streetscape <p>Note: since SRC #5 Part 1 Metro COG, Stantec, and Confluence have had additional conversations regarding the 360 graphics. Three graphics will be made: two at 45th Street S (alt 1 & 2) and one at 25th Street S (alt 1). These graphics will show the adjacent development in a conceptual nature and will give an idea of orientation, density, type, and pedestrian interaction from 76th Ave S.</p> Received acceptance from the SRC on the proposed graphics. Peggy noted that the graphics will rely heavily on the layouts we are discussing later. It will be important to finalize those and get acceptance because changes later will affect these graphics. 	



<ul style="list-style-type: none"> Barrett Voigt noted that the City of Horace adopted their Future Land Use Plan which has density information. He is going to send it to Stantec. Kyle Litchy noted that he feels the 81st Street intersection will be busier after the Sheyenne Diversion is built. 	<p>Barrett – Send the City of Horace Future Land Use Plan (complete).</p>
<p>Final Preferred Access Plan (PAP) Graphics</p> <ul style="list-style-type: none"> Peggy Harter discussed the Preferred Access Plans and the changes that occurred since the last SRC meeting. <ul style="list-style-type: none"> Alternative 1 (Regional Arterial): The segments of the roadway from 81st Street to CR 17 will be designated as a Multi-Use Arterial, from CR 17 to Veterans Boulevard as a Commercial Arterial, from Veterans Boulevard to 25th Street as a Regional Arterial and from 25th Street to the Red River as a Multi-Use Arterial. The regional arterial alternative is structured with free-flowing type intersections favoring the east-west traffic movement. The street typologies are defined in Metro COG’s 2018 Parking & Access Study and will provide guidance on items related to access, speed, roadway lane and median configurations, parking, pedestrian movements, and adjacent development. Alternative 2 (Commercial Arterial): The segments of the roadway from 81st Street to CR 17 will be designated as a Multi-Use Arterial, from CR 17 to 25th Street as a Commercial Arterial and from 25th Street to the Red River as a Multi-Use Arterial. The commercial arterial alternative has more signalized intersections. The surrounding collector road network for both alternatives was developed to support vehicular movement due to the high level of access control along the corridor. This reflects supporting the proposed high density of development as identified in the Southwest Metropolitan Area plan travel demand model, and the building blocks exercise completed by this SRC. These roadways are conceptual and are not set in stone. <ul style="list-style-type: none"> Cindy Gray noted that she would like us to show the east/west road a quarter mile north and a quarter mile south of 76th Ave S as extending to Veterans Blvd. 	<p>Stantec – Update PAP Graphics to extend those two roadways to Veterans Blvd.</p>
<p>Pedestrian Walksheds – North-South Crossings of 76th Avenue South</p> <ul style="list-style-type: none"> Peggy Harter showed the PAP graphics with quarter mile circles drawn. Each quarter mile (radius) circle represents a typical 5-minute walk for a pedestrian in either direction. Alternative 1 (Regional Arterial): Well covered except for the far west side. <ul style="list-style-type: none"> Barrett Voigt noted that the City of Horace would be interested in exploring an RRFB on the west end. He noted that there as been a lot of recent discussion regarding student crossing with the new West Fargo School site. Alternative 2 (Commercial Arterial): Same concern on the west side in addition to a gap in pedestrian crossings between Veterans Blvd and 45th Street. 	<p>Stantec – Update PAP Graphics for both alternatives to show a RRFB on Memory Lane and 76th Avenue South.</p> <p>Stantec – Update Alternative 2 PAP Graphic to include a grade separated</p>



<ul style="list-style-type: none"> o Add in a mid-mile grade separated pedestrian crossing between Veterans Blvd and 45th Street. • Jeremy Gorden confirmed keeping the HAWK on the east side of the project within Section 4. 	<p>pedestrian crossing between Veterans Blvd and 45th Street.</p>
<p>Concept Corridor Layouts</p> <ul style="list-style-type: none"> • Peggy Harter went over the concept layouts for each alternative. The following was discussed: <ul style="list-style-type: none"> o The roundabout at CR 17 has two lanes in the SE corner. Kyle Litchy sent Angie Bolstad the CADD linework. o Wayne Zacher asked if we could get in trouble for determining alternatives since this was not a NEPA document. <ul style="list-style-type: none"> ▪ Peggy noted that we got confirmation from Michael Johnson (NDDOT) to create these concepts. It will be noted in the report that these layouts are for conceptual purposes only and is meant to show how the alignment may impact parcels and ROW preservation as well as access management. o Alternative 1 – Currently a Diverging Diamond Interchange (DDI) is being shown, but other interchange types will be superimposed on the layout to show the physical footprint and potential ROW impacts. <ul style="list-style-type: none"> ▪ Mike Rutkowski noted that even though this is a free flow type concept a DDI will work in this location for a long time. The cost difference between a DDI and free flow type interchange is huge and has a much smaller footprint. He agrees with exploring the other interchange types but cautioned against removing the DDI as an option when a detailed interstate interchange study is warranted. o Wayne Zacher asked if the 64th Avenue interchange will work with these concepts. Peggy discussed the Collector-Distributor System and Full Build TDM update technical memos that Stantec completed. She noted that the addition of an interchange at 64th Avenue South reduced some of the projected daily traffic volumes on 76th Avenue South but they were still very high and an interchange at 76th Avenue South is still likely needed. However, Metro COG will be completing an Interstate Operational Analysis in the future which will go more into depth to determine the feasibility and potential need for an I-29 C-D if interchanges were both constructed at 64th Avenue South and 76th Avenue South. Interstate Access Change Reports would be needed to install an interchange at either location with final approval from FHWA. o Michael Maddox asked about the 3rd Scenario for the update to the Full Build TDM. Peggy noted it is complete and it will be sent out to the SRC. We are going to replace “Alternatives” with “Scenarios” within the TDM report so that they don’t get confused with the 76th Avenue South corridor Alternatives. o Alternative 2 – add the pedestrian underpasses by the two drain locations 	<p>Stantec – Update the CR 17 roundabout on both layouts with updated CADD files that were provided by Cass County.</p> <p>Stantec – Distribute Final TDM memo to the SRC.</p> <p>Stantec – Update Alternative 2 layout to include pedestrian underpasses by the drains and between Veterans Boulevard and 45th Street.</p> <p>Stantec – Add note to layouts regarding the University Drive frontage road. It will likely either</p>



<ul style="list-style-type: none"> ○ Jeremy Gorden mentioned that Fargo intends to purchase the houses along the University Drive gravel frontage road. The houses are in the flood plain. The first white house in the NW corner of 76th Avenue S and University is already gone. <ul style="list-style-type: none"> ▪ Add a note to the layouts saying that the gravel frontage road will dead end into a cul-de-sac or tie into University Drive. 	<p>have a culdesac or tie into University Drive to the north.</p>
<p>Development Graphics</p> <ul style="list-style-type: none"> • Peggy Harter gave a high-level description of the development graphics and what information they are showing. She focused on the strong internal roadway network and how development faces between the alternatives. She noted that the development graphics differ between Alternative 1 (Regional Arterial) and Alternative 2 (Commercial Arterial). The guidance behind how the adjacent development interacts with the 76th Avenue South corridor for the two types of roadways came from Metro COG’s 2018 Parking & Access Requirements Study. The level of collector and local roadway network to support the development is key in both alternatives to support traffic movements with the high level of access management on 76th Avenue South. 	
<p>Final Round of Public Input</p> <ul style="list-style-type: none"> • Newsletter #3 – will include alternative information and public input meeting notification and needs to be mailed out ½ mile either side of the corridor ahead of the public input meeting. • Public Input Meeting Format <ul style="list-style-type: none"> ○ Plan for a Zoom meeting on August 11th or 12th over the noon hour. Consider Zoom or Mentimeter polling real time during the presentation. ○ Metro COG will verify the public comment period needed after the public meeting. • Stakeholder Meeting by invite only. This will also be held using Zoom and can be whichever day the Public Input meeting is not. Meeting date to tentatively schedule this meeting will be August 11, 2020 over the lunch hour. 	<p>Stantec – Schedule and prepare for upcoming stakeholder and public meetings and develop newsletters to send out to public and e-mail for stakeholders.</p> <p>Metro COG – verify timeline for public comment period afterward.</p>
<p>Next Steps</p> <ul style="list-style-type: none"> • SRC #5 – Part 2 to Discuss the Alternative Analysis and interchange concepts for Alternative 1 on July 29, 2020. Additional information regarding the local adoption process will also be discussed at this meeting. • Public and Stakeholder Input Meetings August 11 or 12, 2020 • SRC #6 – Draft Report and Public Input Summary for Review August 31, 2020 <ul style="list-style-type: none"> ○ Cindy asked if there is a need to go to the local jurisdictions before we go to the TCC and policy board. It was determined that in SRC Part 2 we should talk about the local adoption process. • TTC & Policy Board Presentation for Final Adoption September 10 & 17, 2020 • Study Completion September 30, 2020 	<p>Stantec – Include discussion of the local adoption process in the agenda for SRC #5 Part 2.</p>



SRC #5 Part 1 Presentation

76th Avenue South Corridor Study

July 21, 2020



- Introduction & Project Updates
- Alternative 1 & 2 Review
 - Visualization Graphics (Confluence)
 - Preferred Access Plan Updates
 - Pedestrian Walksheds
 - Conceptual Layouts Layouts
 - Development Concepts
- Public Outreach
- Next Steps



Introductions & Project Updates



Alternatives Review – Visualization Graphics



GRAPHIC CONTENT:

1. Show Lane Configuration
2. Show Pedestrian Movement
3. Show proposed adjacent development to 76th
 1. This will be shown as 'white' boxes to demonstrate building layout and height.
 2. We will use proposed land use zoning.
4. Show Intersections
5. Show minimal streetscape.
6. Deliverables:
 1. 3 Renderings showing initial build.
 2. 3 Renderings showing full build.
 3. 3-360 fly-thru.
7. Locations:
 1. 76th Ave & County Road 17
 2. 76th Ave & 45th
 3. 76th Ave & 25th



76th Avenue South Graphics

76TH AVE



76th Avenue South Corridor Study

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76th Avenue South Graphics

76TH AVE



76th Avenue South Corridor Study

76th Avenue South Graphics

76TH AVE



GRAPHIC EXAMPLE WITH MORE DETAIL-THIS STYLE OF GRAPHIC COULD BE UTILIZED FOR ONE INTERSECTION



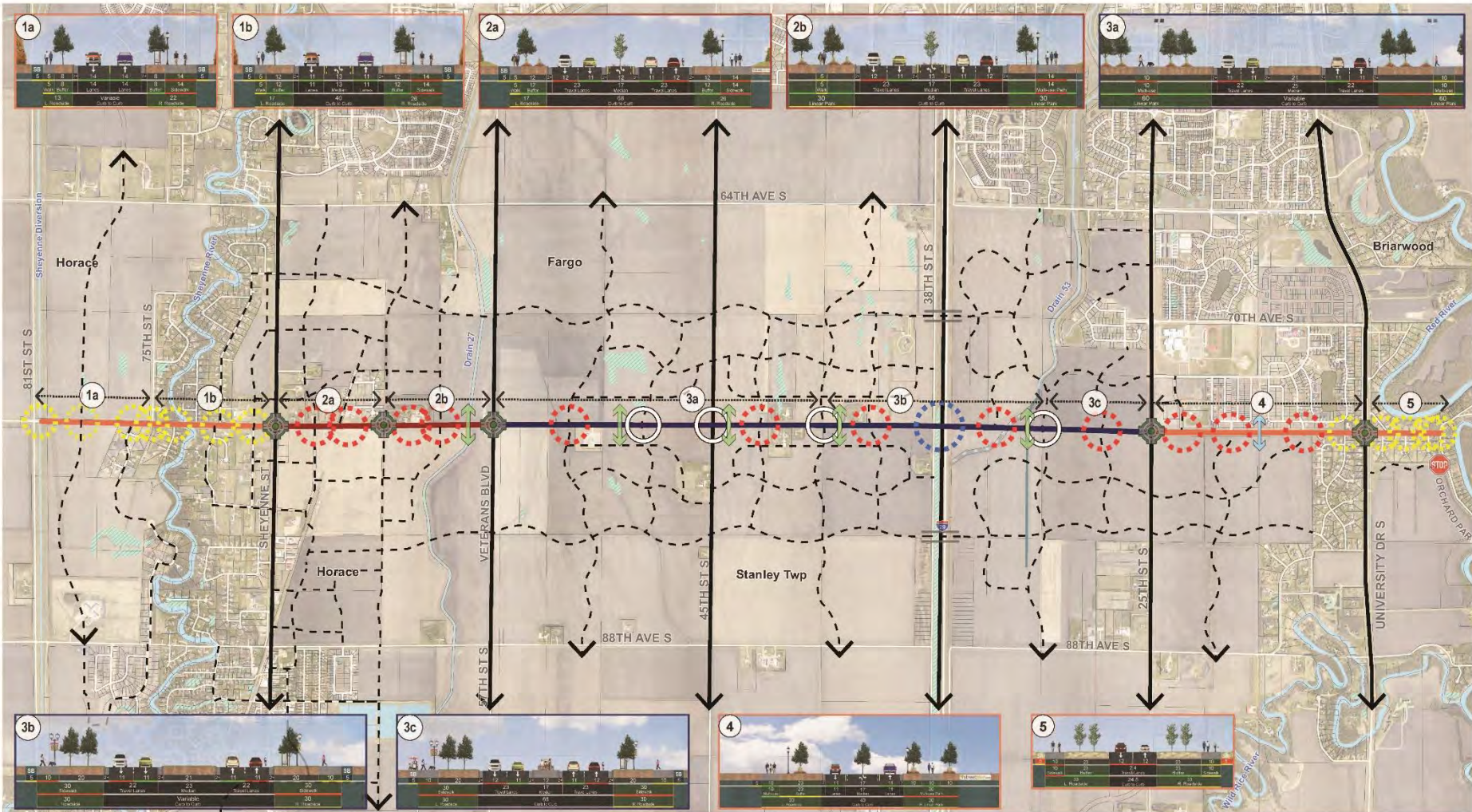
76th Avenue South Corridor Study



Alternatives Review – Updated Preferred Access Plan

Alt 1 Regional Concept Vision

76TH AVE



Future Visioning Assumptions

Alternative 1: Regional Arterial



76th Avenue South Corridor Study

Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- R-Cut Intersection
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing

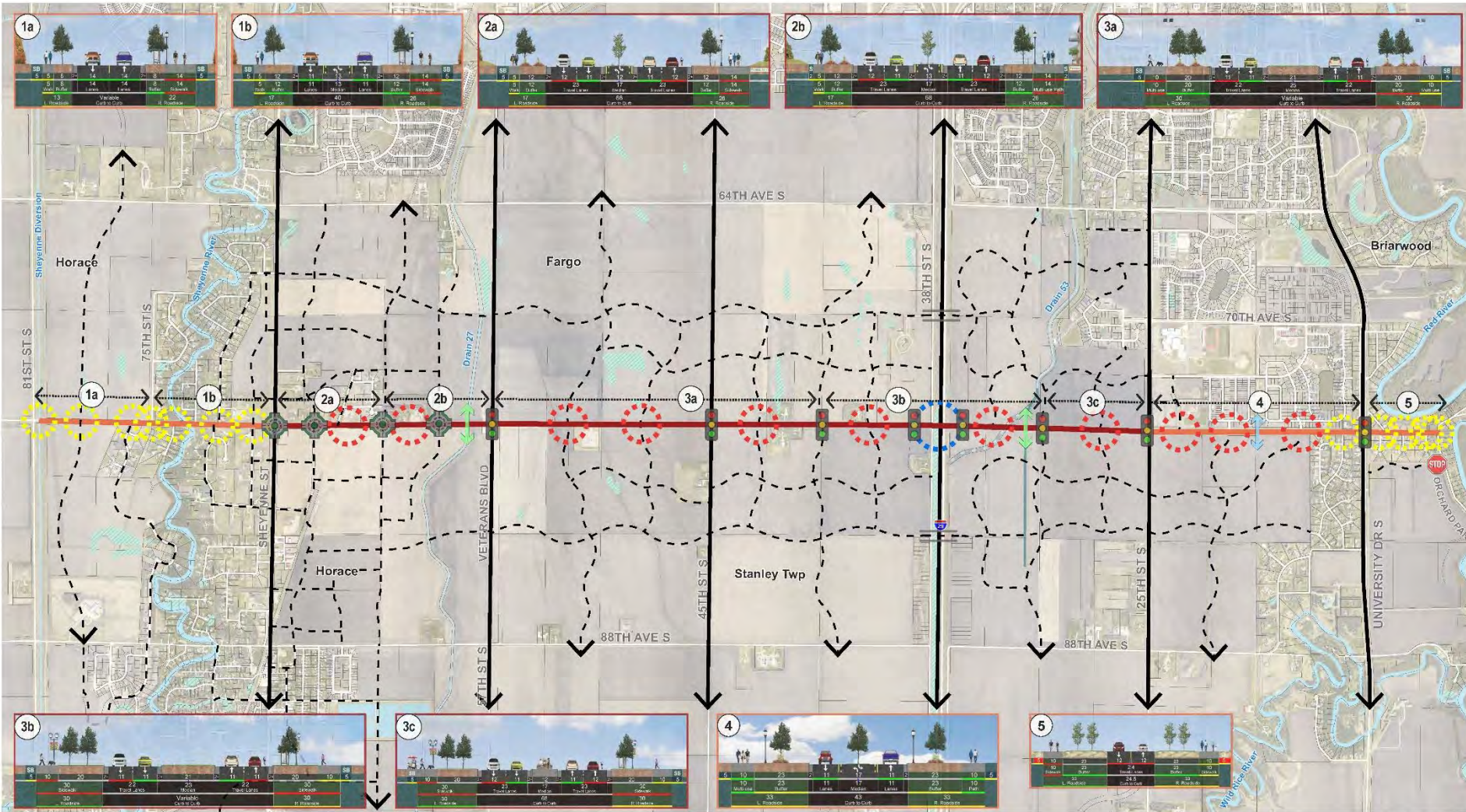
1 in = 1,000 feet



METROCOG

Alt 2 Commercial Concept Vision

76TH AVE



1 in = 1,000 feet

Future Visioning Assumptions

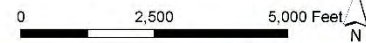
Alternative 2: Commercial Arterial



76th Avenue South Corridor Study

Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
- - - Proposed Collector Streets
- = Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out or 3/4 Access
- Interchange
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing







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Street Typology Guidelines

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REGIONAL ARTERIAL

Regional Arterial streets are intended to serve large traffic volumes with highly controlled interruptions and function as a secondary alternative and direct connection to the Interstate system. This type of street does not exist currently in the Fargo/West Fargo area and is intended to be used for future planning purposes.

	Land Use Commercial, Industrial, Multi-family			
	Speed Limit 45 - 50 mph			
	Travel lanes 4 travel lanes			
	Other Divided roadways			
	Parking No on-street parking			
	Pedestrian Crossing Grade-separated or signalized crosswalks			
	Traffic Signal:	Unsignalized Full Access:	Right-in/Right-out:	Driveways:
	1/2 mile	None, frontage system	1/4 mile	None

COMMERCIAL ARTERIAL

Commercial Arterial streets act as gateways, connecting people from Fargo, West Fargo, and the wider region to the area's major destinations. Because these streets link everyone to important points of interest, it is critical that pedestrians have safe crossing opportunities. Access is more stringently managed on these types of streets, and on-street parking is generally not appropriate, so that a high volume of cars, trucks, and buses can travel efficiently.







	Land Use Commercial, Multi-family			
	Speed Limit 40 - 45 mph			
	Travel lanes 4-6 travel lanes			
	Other Landscaped medians			
	Parking No on-street parking			
	Pedestrian Crossing Signalized crosswalks only			
	Traffic Signal:	Unsignalized Full Access:	Right-in/Right-out:	Driveways:
	1/4 Mile	None	400 feet	None

Street Typology Guidelines

76TH
AVE

MIXED USE ARTERIAL

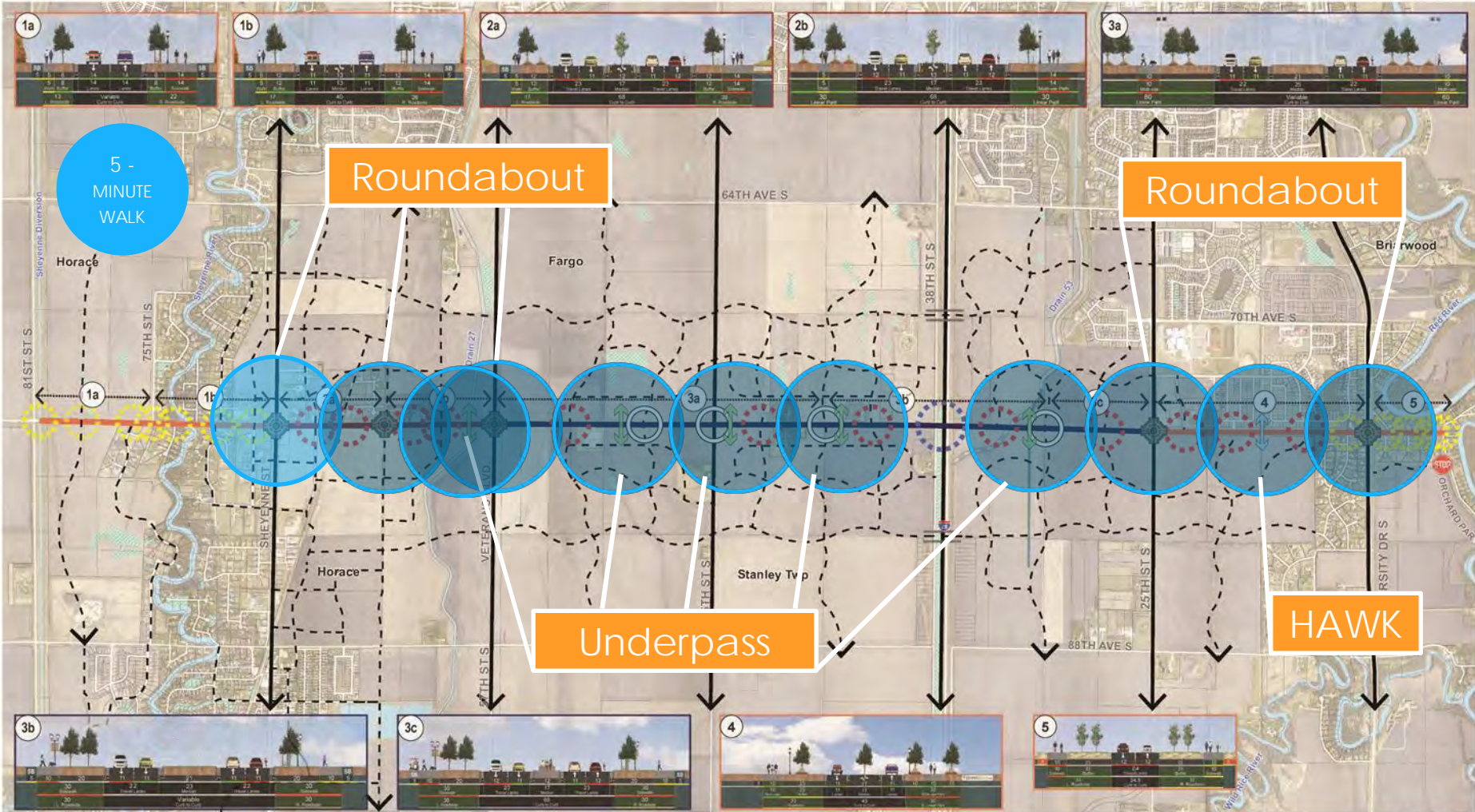
Mixed Use Arterial streets are business corridors where people live, shop, dine, and work. Mixed Use Arterial streets provide cross-town links to employment and commercial centers. These types of streets carry a higher volume of cars while providing access to a walkable street network. On-street parking should be allowed on these types of streets to encourage economic activity, as well as calm traffic and create a pedestrian buffer.

	Land Use Multi-family Residential, Commercial, Industrial			
	Speed Limit 35 mph maximum			
	Travel lanes 3-5 travel lanes			
	Other Landscaped median or center turn lane			
	Parking On-street parking			
	Pedestrian Crossing Signal or median-protected crosswalk			
	Traffic Signal:	Unsignalized Full Access:	Right-in/Right-out:	Driveways:
	600-800 feet	Block-Level (300-400 feet)	200 feet	200 feet

Alternatives Review – Pedestrian Walksheds

Alt 1 Pedestrian Walksheds

76TH AVE



Future Visioning Assumptions

Alternative 1: Regional Arterial

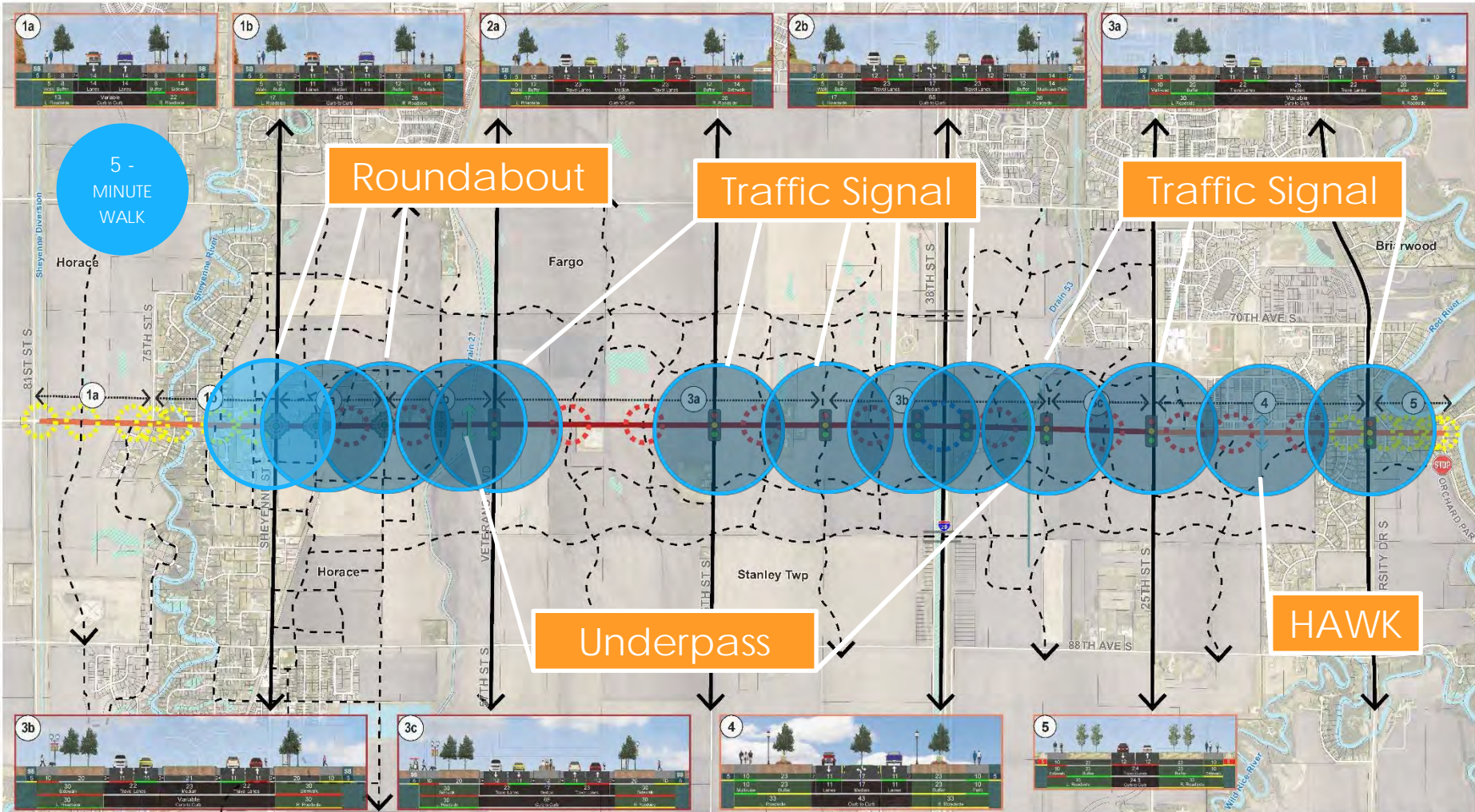
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- R-Cut Intersection
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing

1 in = 1,000 feet

Alt 2 Pedestrian Walksheds

76TH AVE



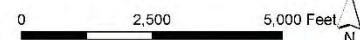
Future Visioning Assumptions Alternative 2: Commercial Arterial



Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out or 3/4 Access
- Interchange
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing

1 in = 1,000 feet



Alternative Review – Alternative 1 Corridor Layout

Alternative 1 – Regional Arterial

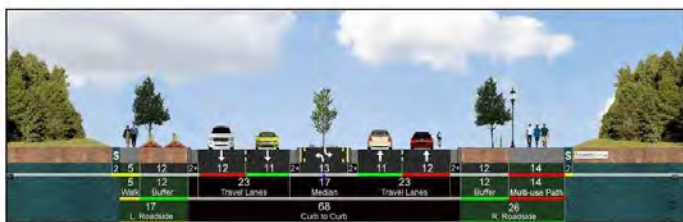
76TH AVE



SECTION 1A



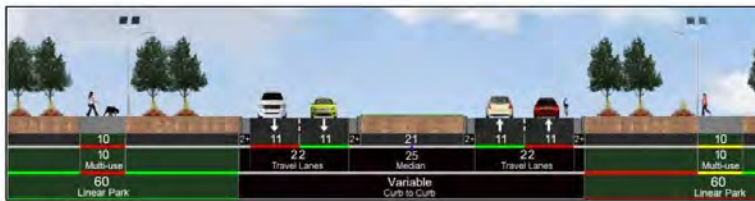
SECTION 1B



SECTION 2A



SECTION 2B



SECTION 3A



SECTION 3B

See Corridor Layout PDF for Alternative 1

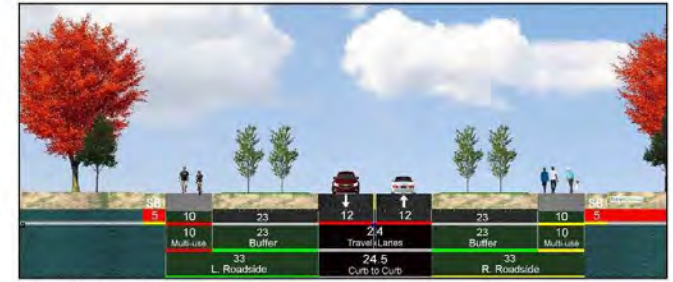


Alternative 1 – Regional Arterial

76TH AVE



SECTION 3C



SECTION 5 - WITHOUT BRIDGE



SECTION 4

See Corridor Layout PDF for Alternative 1



Alternative Review – Alternative 2 Corridor Layout

Alternative 2 – Commercial Arterial

76TH AVE



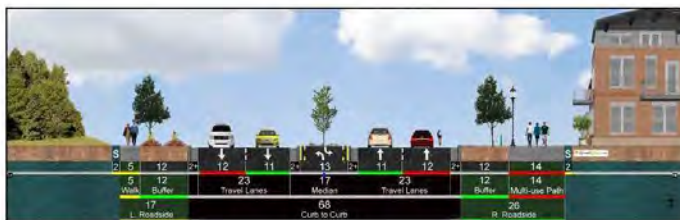
SECTION 1A



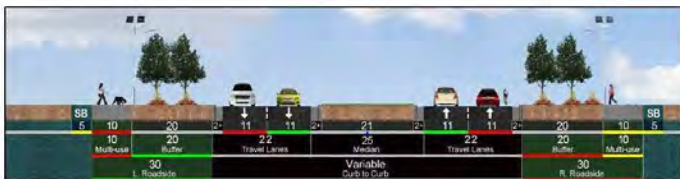
SECTION 1B



SECTION 2A



SECTION 2B



SECTION 3A



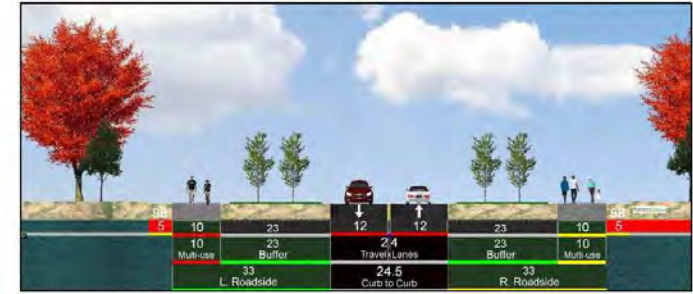
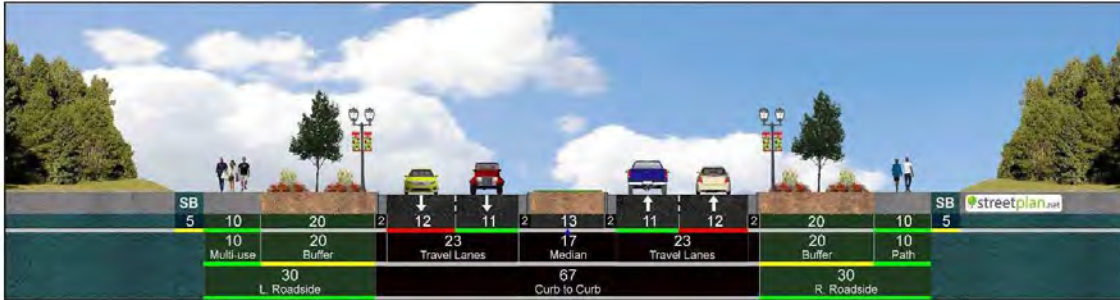
SECTION 3B

See Corridor Layout PDF for Alternative 2



Alternative 2 – Commercial Arterial

76TH AVE



See Corridor Layout PDF for Alternative 2





Alternative Review – Development Concepts

Commercial Prototype

The framework presented here on this 1/4-mile by 1/4-mile tracts uses regular block sizes to set a walkable grid pattern with sidewalks and plentiful on-street parking to reduce the need for large surface parking lots. Shared parking fields are made feasible by slow traffic speeds and safe pedestrian crossing points. Building fronts are generally oriented toward the street. This development illustration is bordered by a Regional Arterial, which allows only stringent right-in/right-out vehicular access, so neighborhood connections are maintained with sidewalks and grade-separated pedestrian crossings.

Access points managed along the arterial streets while still allowing for a connected, walkable grid

Grade-separated pedestrian crossings needed along Regional Arterial to connect neighborhoods

Shared surface parking lots increase the efficiency of the parking pool and encourages walking

Parking

Off-street parking



2.85

On + off-street parking



3.83



Mixed Use Prototype

The framework presented here on this 1/8-mile by 1/8-mile tracts assumes typical blocks at the intersection of a Commercial Arterial and Mixed Use Arterial. The commercial and residential uses are connected with sidewalks to encourage walking trips. Plentiful on-street parking is provided along the Mixed Use Arterial street, as well as the Residential Neighborhood streets, to slow traffic and create a buffer for pedestrians. Building fronts are generally oriented toward the street with parking in the rear.

Retail, office, and mixed use buildings are oriented towards the arterial streets and residential buildings are oriented toward the Residential Neighborhood streets. Underground or 1st floor residential parking is assumed.

On-street parking on the Mixed Use Arterial street supports businesses, reduces the off-street parking footprint, and calms traffic

Sidewalks and crosswalks encourage walkability between blocks.

Parking

Off-street parking



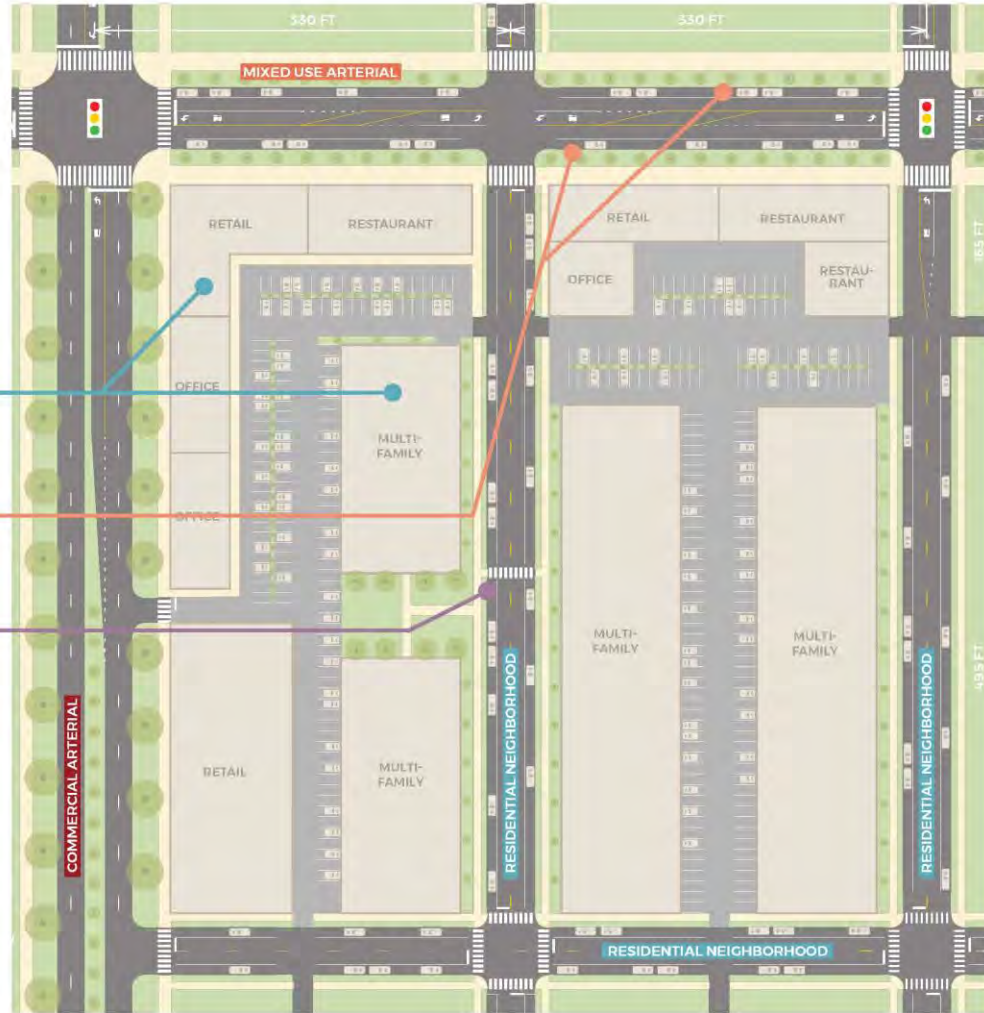
1.54

On + off-street parking



1.74

*Assumes for approximately 350 residential units between multi-family structures and on top of retail office spaces



Building Blocks Activity

76TH
AVE

Scenario 2 – Interchange at 76th Avenue South and I-29

Group 1



Group 2



Alternative 1 – Development

76TH AVE



76th Avenue South Corridor Study

Alternative 2 – Development

76TH AVE



76th Avenue South Corridor Study



Public Outreach Plan

- Newsletter #3 – will include alternative information and public input meeting notification
- Stakeholder Meeting by invite only (Virtual Format)
- Public Input Meeting Format/Date Options
 - Consider Dates of August 11th, 12th or 13th
 - Zoom or TEAM interface meeting with a formal live presentation and can be recorded for playback on the project website.
 - 3D Vista or Storyboard – virtual workshop in a room. Set up as stations virtually. Sign in, take a survey, go to a station to find out about alternatives, watch a video, review analysis tradeoffs, etc.



Next Steps

- SRC #5 Part 2 – July 29, 2020
- Public and Stakeholder Input Meetings August 11, 12 or 13, 2020
- Draft Report and Public Input Summary for SRC #6 Review August 28, 2020
- TTC & Policy Board Presentation for Final Adoption September 10 & 17, 2020
- Study Completion September 30, 2020



Proposed Alternative Analysis

- Corridor V/C Ratio for motor vehicles
- Travel time comparison
- Right of Way Needs
- Cost
- Public Feedback - TBD
- Accommodations for bikes/peds
- Access for adjacent development



76th Avenue South Corridor Study – SRC #5 (Part 2 of 2)

Virtual Meeting via Microsoft Teams

Date July 29, 2020 at 2:00 p.m.

Attendees: Mike Rutkowski (Stantec), Angie Bolstad (Stantec), Matt Peach (Stantec), Brian Reinarts (Confluence), Aaron Nelson (City of Fargo), Barrett Voigt (City of Horace), Michael Maddox (Metro COG), Cindy Gray (Metro COG), Grace Puppe (Cass County), Kyle Litchy (Cass County), Kristen Sperry (FHWA), Wayne Zacher (NDDOT), Tom Soucy (Cass County), Bob Walton (NDDOT Fargo Office)

Next Meeting: SRC #6: Tuesday, September 1st, Time TBD

Item:	Action:
Welcome	
<p>SRC #5 Part 1 Recap</p> <ul style="list-style-type: none"> • Angie Bolstad provided a recap of the items discussed at the SRC #5 Part 1 of 2 meeting on July 21st. These items included: <ul style="list-style-type: none"> ○ Alternative 1 and Alternative 2 Visualizations and Layouts ○ Pedestrian Walksheds – North South Crossings ○ Concept Corridor Layouts ○ Development Graphics ○ Final Round of Public Engagement <ul style="list-style-type: none"> ▪ Stakeholder meeting will be August 11th at 12pm (Zoom) ▪ Public Input Meeting will be August 12th at 12pm (Zoom) 	
<p>Review Alternative Comparisons for Alternative 1 (Regional Arterial) and Alternative 2 (Commercial Arterial)</p> <ul style="list-style-type: none"> • The group recapped the two alternatives and laid out what was the same and what was different between the two. • Matt Peach, a traffic engineer with Stantec, walked the group through how he calculated travel time. The five steps he used were: <ul style="list-style-type: none"> ○ Calculate free-flow travel time ○ Break the corridor into segments and traffic control types ○ Calculate traffic volumes from forecast per segment ○ Calculate delay for each segment type 	



- Add E-W delay to free-flow travel time
- Travel time was ~15.5 minutes for Alternative 1 and ~18 minutes for Alternative 2
 - The speed limits used to calculate travel time were the same between alternatives. This allowed for an “apples to apples” comparison but could be played around with if wanted. Speed limits:
 - Segments 1a & 1b = 30 mph
 - Segments 2a, 2b, 3a, 3b, & 3c = 45 mph
 - Segments 4 & 5 = 30 mph
 - Cass County noted that he sees the west end being more like 45 mph; however, the City of Horace noted that there is a lot of new residential developments and prefers the slower speed limits.
 - Mike Rutkowski noted that a difference between the alternatives is that you shave off travel time for Alternative 1, but it is at a compromise for the side streets delay.
 - Michael Maddox asked how these speed limits correlate with the access management guidance.
 - Angie Bolstad noted that the Mixed-Use Arterial is 35 mph maximum, Commercial Arterial is 40-45 mph, and the Regional Arterial is 45-50 mph meaning the speed limits above fall into the guidance from the Street Typologies.
- Mike Rutkowski discussed the three different I-29 Interchange concepts being considered. He provided estimated costs, ROW impacts, and pros vs cons for each. The interchange concepts include:
 - Diverging Diamond Interchange (DDI)
 - Action Item: Stantec find the construction cost for the DDI in Moorhead, MN.
 - Cloverleaf with Collector-Distributor
 - Cindy Gray asked how we addressed pedestrians in the cloverleaf and free flow interchange concepts. Mike said we will add these to the pros and cons list.
 - This option is one of the most difficult for pedestrians due to the weave merge movements. Pedestrians will need multiple structures to cross.
 - Alternative Free flow
 - This option is easier for pedestrians than the cloverleaf if you keep pedestrians on the south side.
- Alternative comparison for the roadway was looked at in terms of estimated construction costs, right of way impacts, travel time, and pedestrian’s ability to cross.

Stantec – find the construction costs for the DDI in Moorhead, MN

Stantec – add pedestrian pros and cons to the cloverleaf with C-D and alternative free flow lists.



SRC #5 (Part 2 of 2) – Meeting Summary

<ul style="list-style-type: none"> ○ It was confirmed that this study does not intend to choose a preferred alternative. The purpose of the study is to have a vision in place as development continues. ○ An interchange at 76th Ave S will now most likely not be for awhile with the new potential for an interchange at 64th Ave S. The NDDOT is concerned about mainline speeds on I-29 which is why Metro COG has had discussions regarding a collector-distributor system. 	
<p>Phasing Plan</p> <ul style="list-style-type: none"> ● Stantec showed the phasing plan graphic which was done in the same manner as the existing dynamic cross section graphic at the beginning of the study. Mike Rutkowski noted that these have a lot of information and encouraged Cindy and Michael to take a close look at these. <ul style="list-style-type: none"> ○ It will be important between phases 1 and 2 to facilitate access to and from Horace. This development will happen quickly. ○ The phasing plan is not based on specific years because no one knows what year future traffic volumes will be reached. 	<p>Metro COG – review phasing plan. Mike sent a spreadsheet and graphics</p>
<p>Local Jurisdiction Adoption Process</p> <ul style="list-style-type: none"> ● Michael Maddox noted that Metro COG will work with the local jurisdictions for their adoption process and complete the necessary presentations. 	
<p>Next Steps</p> <ul style="list-style-type: none"> ● Newsletter #3 will be mailed the week of August 3rd ● Stakeholder Meeting on August 11th ● Public Input Meeting August 12th ● Draft Report and Public Input Summary for Review August 31, 2020 ● SRC #6 anticipated to be September 1st ● TTC & Policy Board Presentation for Final Adoption September 10 & 17, 2020 ● Study Completion September 30, 2020 	





SRC #5 Part 2 Presentation

76th Avenue South Corridor Study

July 29, 2020

Agenda

- Introductions
- SRC #5 Part 1 Recap
- Alternative 1 & 2 Comparison
- Local Jurisdiction Adoption Process
- Next Steps





Welcome Back!



SRC #5 Part 1 Recap

Confluence Visualizations

76TH AVE



1. Locations:

1. 76th Ave & County Road 17
2. 76th Ave & 45th Street
3. 76th Ave & 25th Street

2. Deliverables:

1. 3 Renderings showing initial build.
2. 3 Renderings showing full build.
3. 3-360 fly-thru.

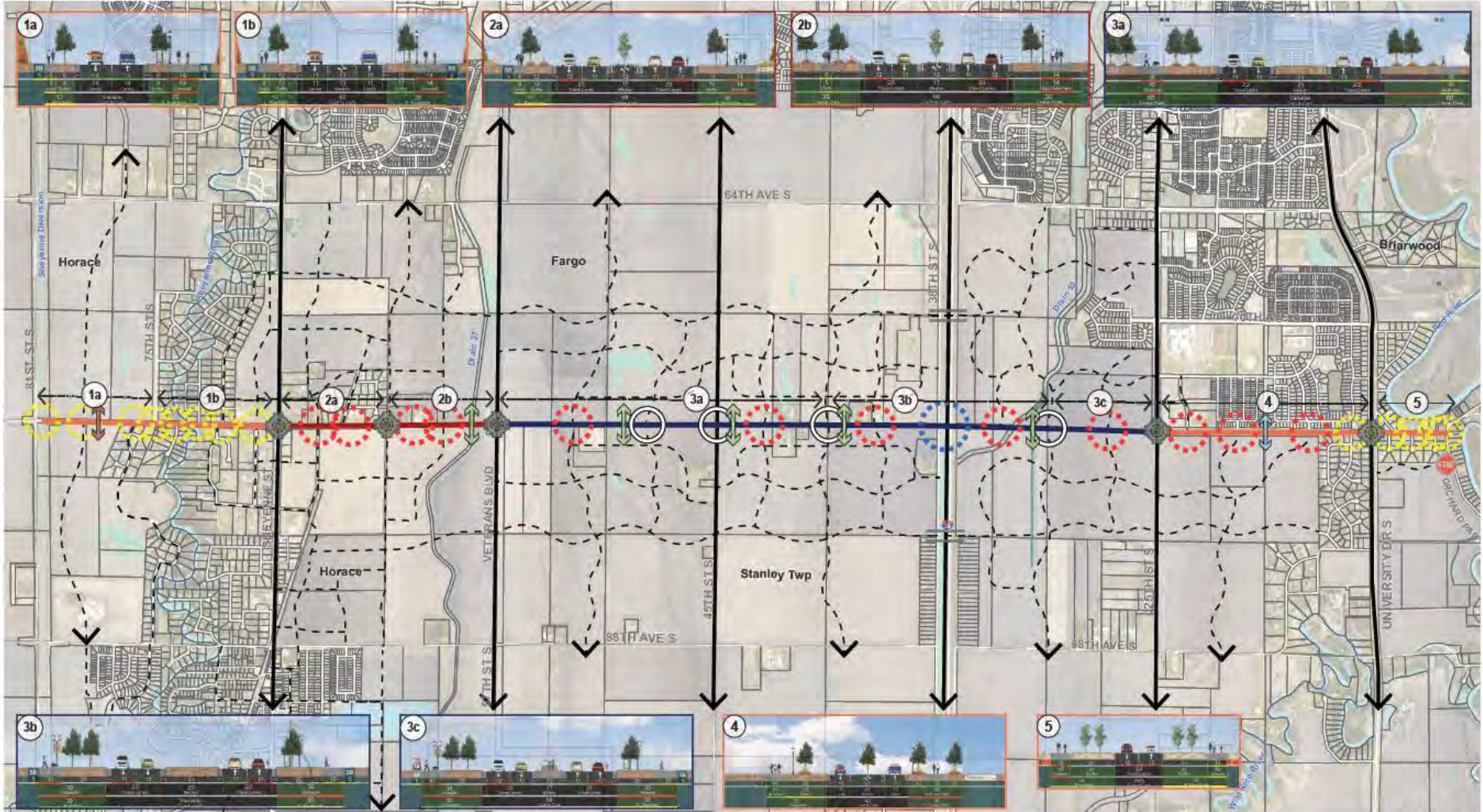


76th Avenue South Corridor Study

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Preferred Access Plan (PAP) – Alt 1

76TH AVE



1 in = 1,000 feet

Future Visioning Assumptions Alternative 1: Regional Arterial



76th Avenue South Corridor Study

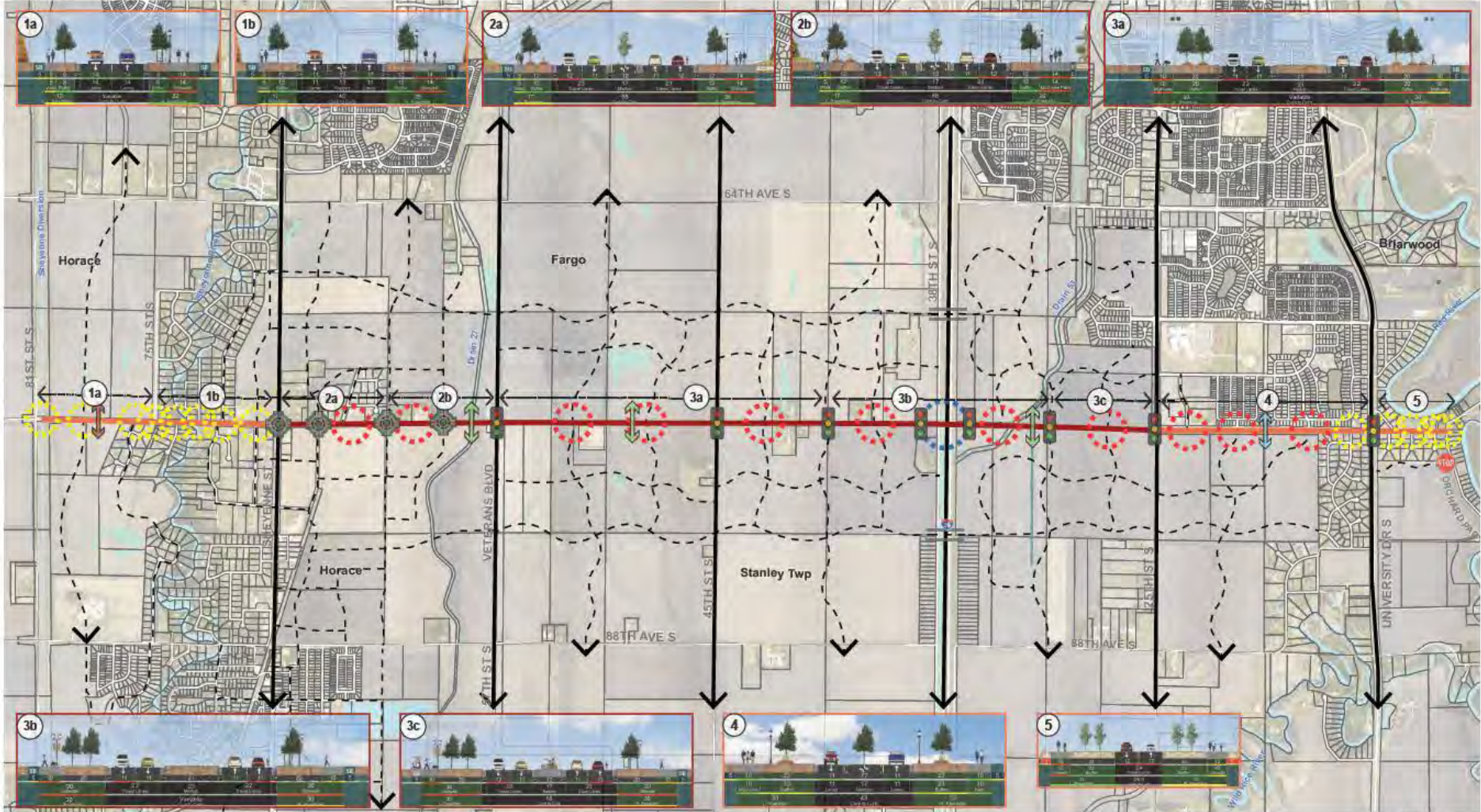
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- R-Cut Intersection
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing



Preferred Access Plan (PAP) – Alt 2

76TH AVE



1 in = 1,000 feet

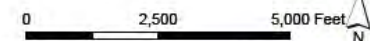
Future Visioning Assumptions Alternative 2: Commercial Arterial



76th Avenue South Corridor Study

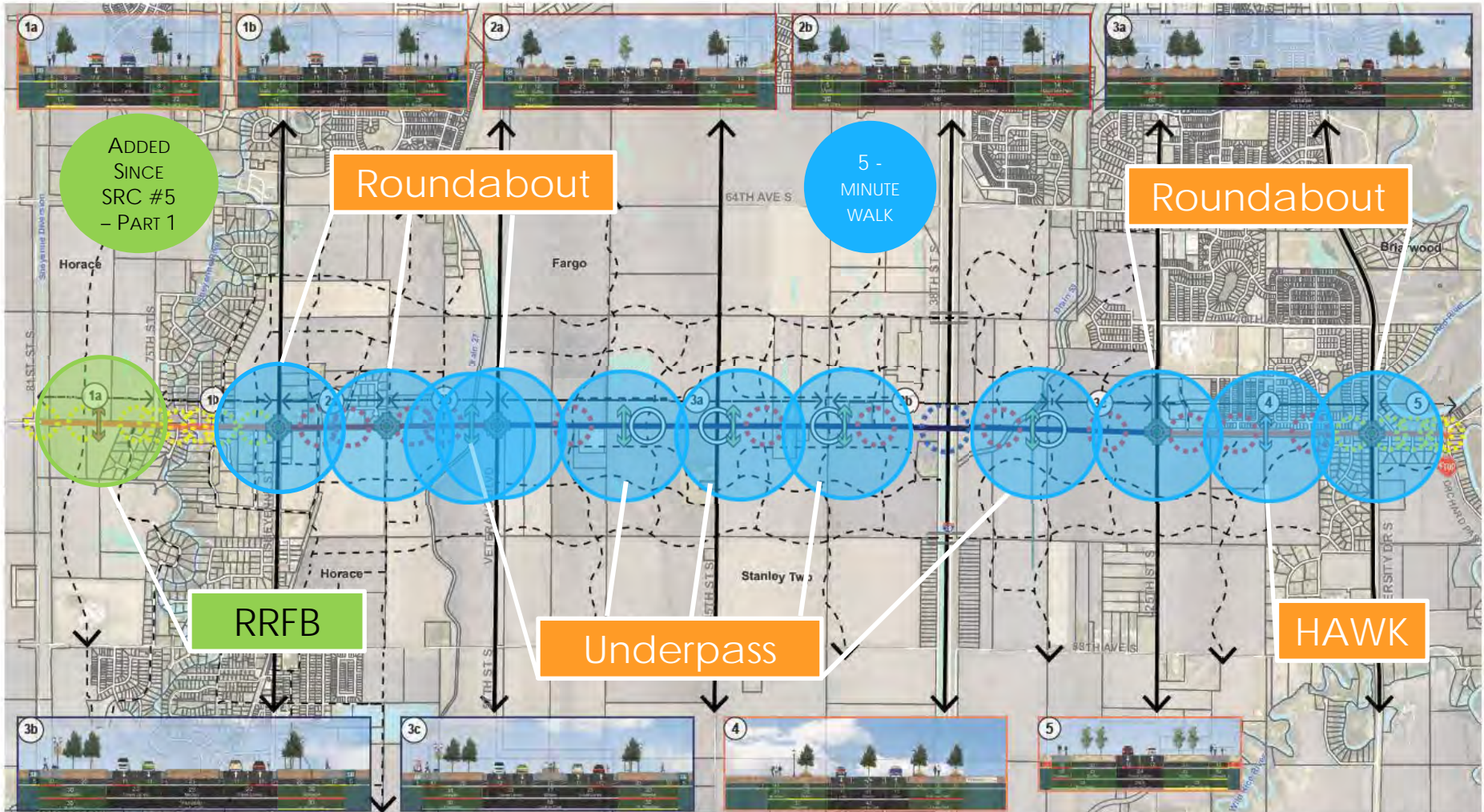
Legend

- Regional Arterial
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- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
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Alt 1 Pedestrian Walksheds

76TH AVE



Future Visioning Assumptions Alternative 1: Regional Arterial



76th Avenue South Corridor Study

Legend

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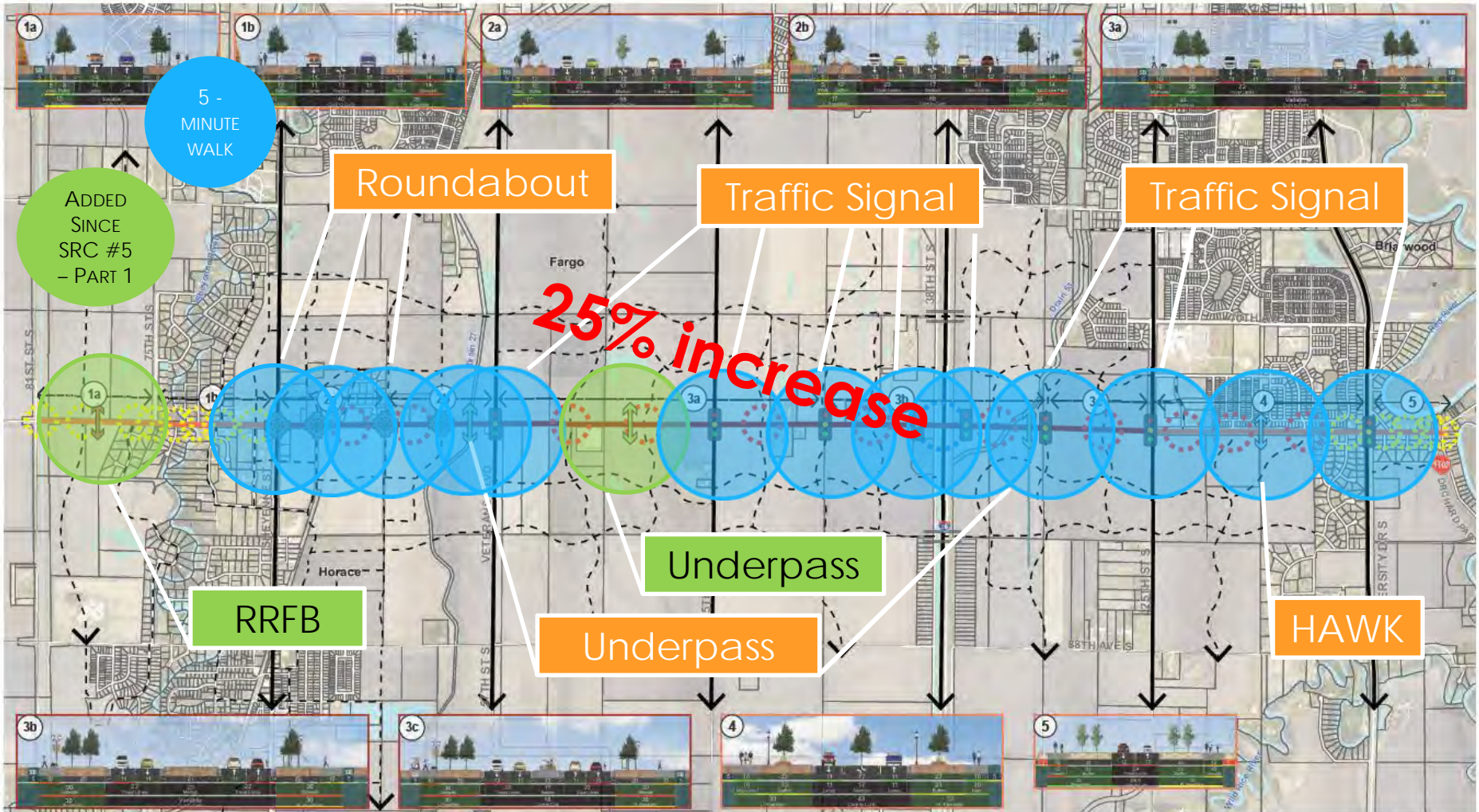
1 in = 1,000 feet

0 2,500 5,000 Feet



Alt 2 Pedestrian Walksheds

76TH AVE



Future Visioning Assumptions Alternative 2: Commercial Arterial



76th Avenue South Corridor Study

Legend

- Regional Arterial
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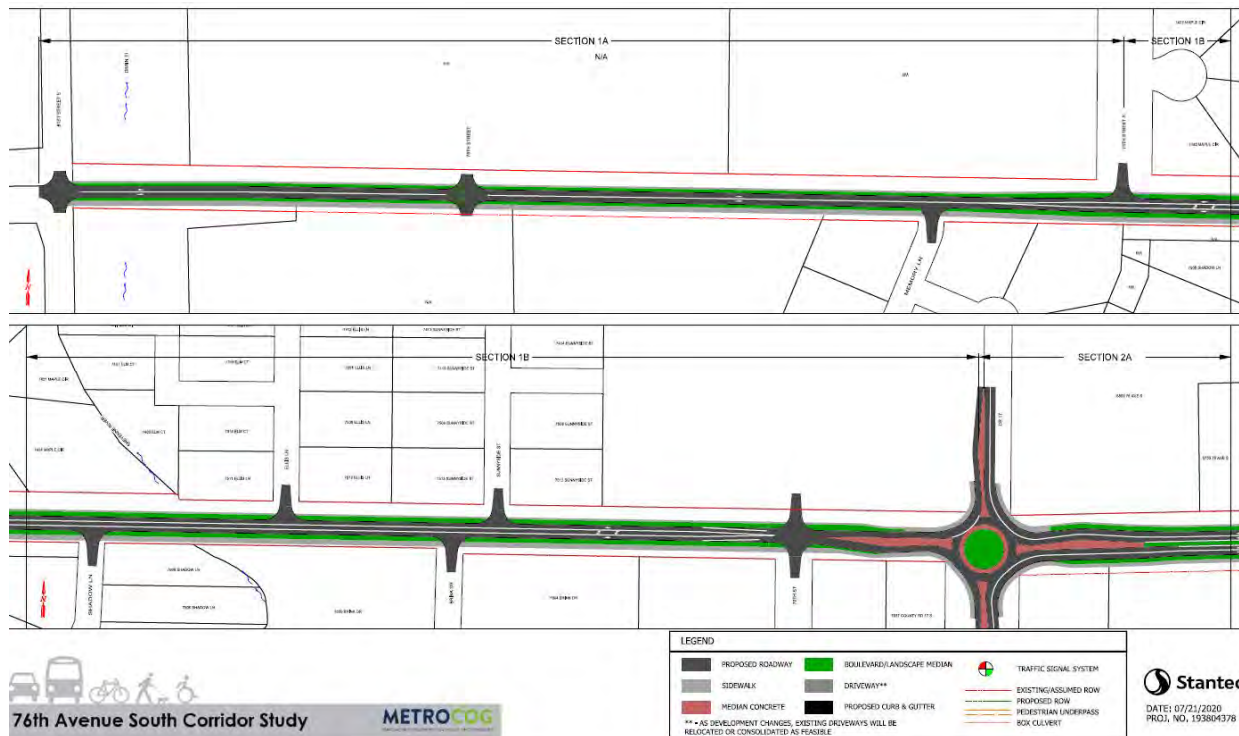
1 in = 1,000 feet

0 2,500 5,000 Feet



Alternative 1 Layout

76TH AVE



- Updated CR 17 Roundabout linework
- Added a note about the University Drive Frontage Road

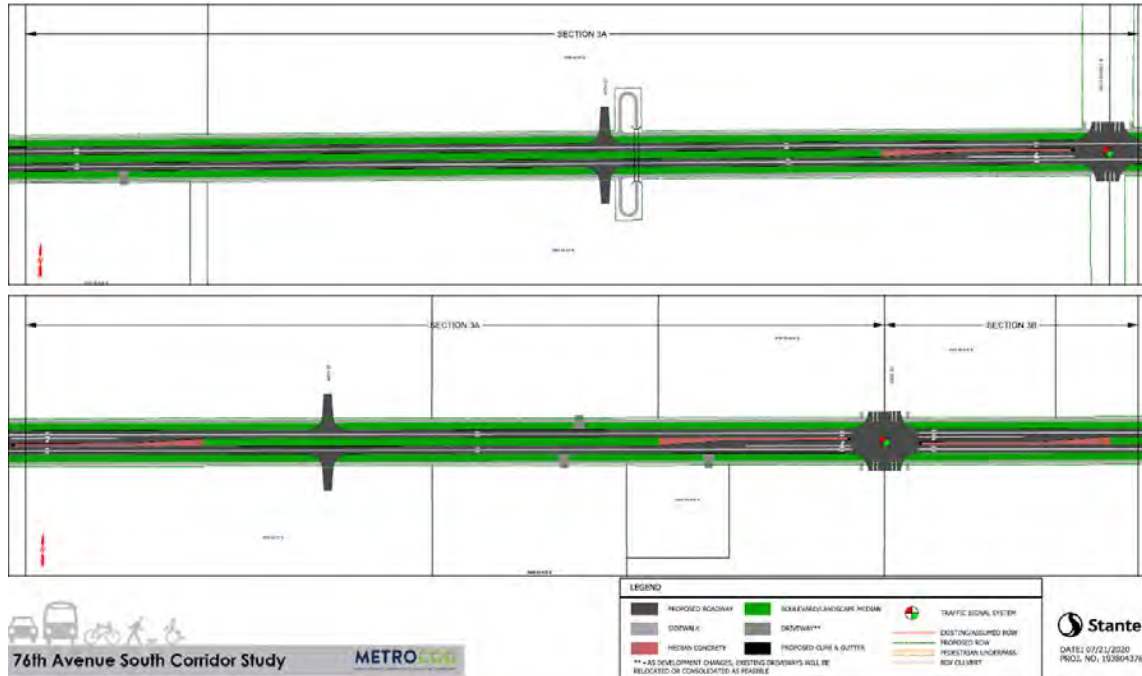


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Alternative 2 Layout

76TH AVE



- Updated CR 17 Roundabout linework
- Pedestrian Underpass between Veterans Blvd and 45th Street
- Pedestrian Underpass at Drain 53
- Added a note about the University Drive Frontage Road



76th Avenue South Corridor Study

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Alternative 1 – Development

76TH AVE

- LAND USE
- C Commercial
 - MU Mixed Use
 - HD High Density
 - MD Medium Density
 - LD Low Density
 - Park
- STREETS
- Arterial
 - Collector
 - Local
 - Private
 - Parking
 - Trail



76th Avenue South Corridor Study

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Alternative 2 – Development

76TH AVE

- LAND USE
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 - Trail
 - Traffic Signal



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Alternative Analysis and Comparison

Alternative Comparison

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Alternative 1 – Regional Arterial

Purpose: To move high volumes of east/west traffic with limited interruptions utilizing alternative intersection treatments.

(Alternative 2 – Commercial Arterial)

Purpose: To move high volumes of east/west traffic utilizing mostly traditional signalized intersections.



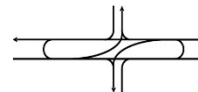
15 Side Street Stop Sign **(15)**



5 Roundabouts **(4)**



11 Right in/Right Out **(10)**



4 R-Cuts **(0)**



0 Signalized Intersections* **(6)**



1 RRFB **(1)**

5 Pedestrian Underpass **(3)**

1 HAWK **(1)**



*The 45th Street R-Cut will need a signal with full build traffic volumes and a DDI interchange at I-29 will require signalization

Alternative Comparison

76TH
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What is the same?



- ✓ Roadway laneage
- ✓ Ability to widen once traffic volumes reach full build
- ✓ Collector street connectivity
- ✓ Strong access management (limited driveway cuts)
- ✓ Pedestrian linkages across Drain 27 and Drain 53
- ✓ Pedestrian crossings at the western and eastern project limits
- ✓ Ideal route for transit thoroughfare

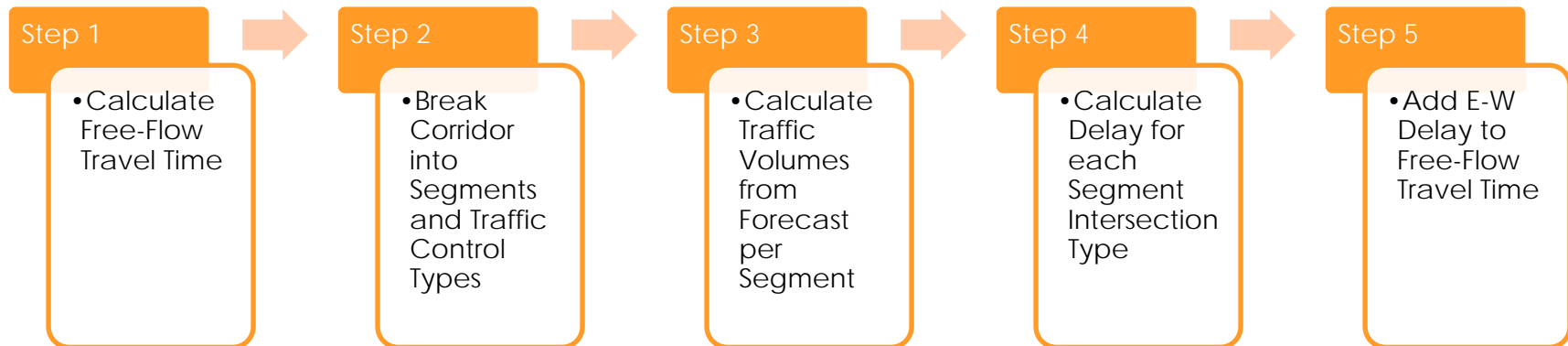
What is different?



- ✓ Intersection treatments
- ✓ Roadway operating capacity
- ✓ Side street delay
- ✓ Development orientation
- ✓ Building setback standards
- ✓ Linear Parks (pedestrian walkway)

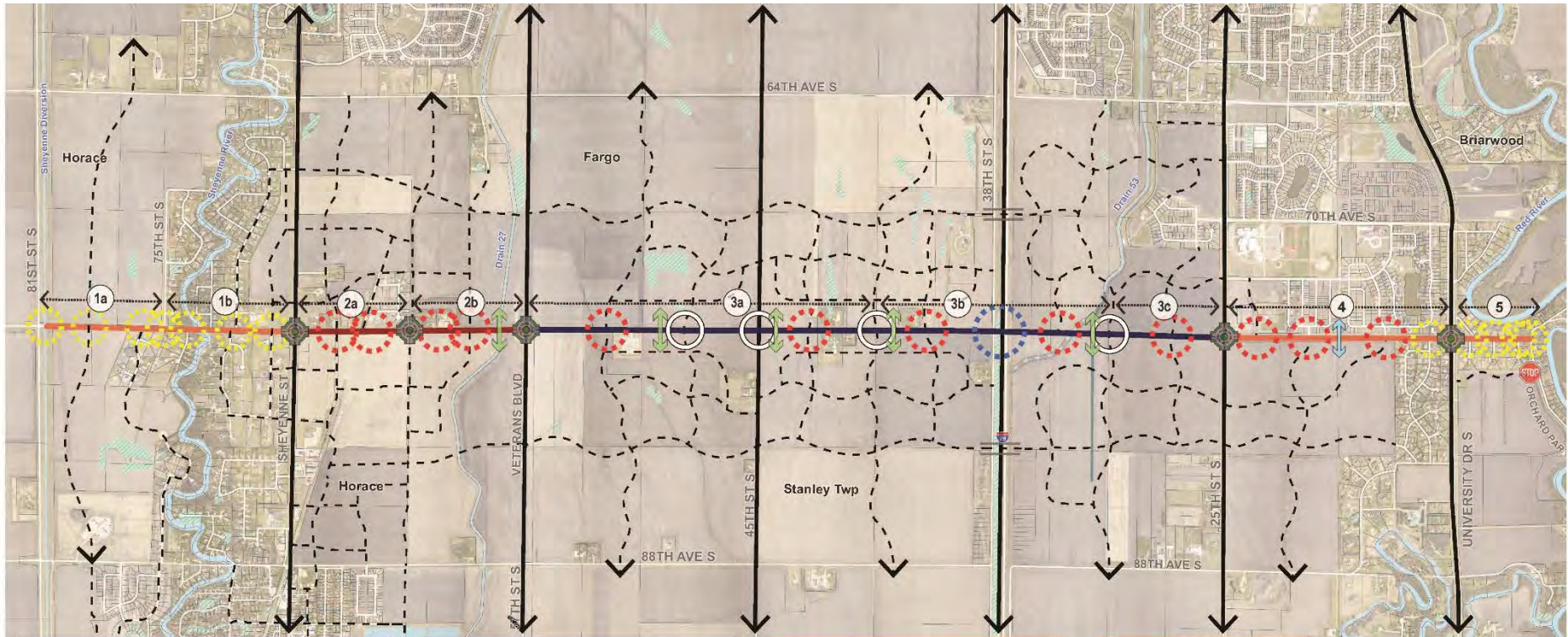


Methodology



Travel Time

76TH AVE



10 11 12 13 14 15 16 17 18 19 20

Alt. 1



Alt. 2



■ Travel Time (minutes)

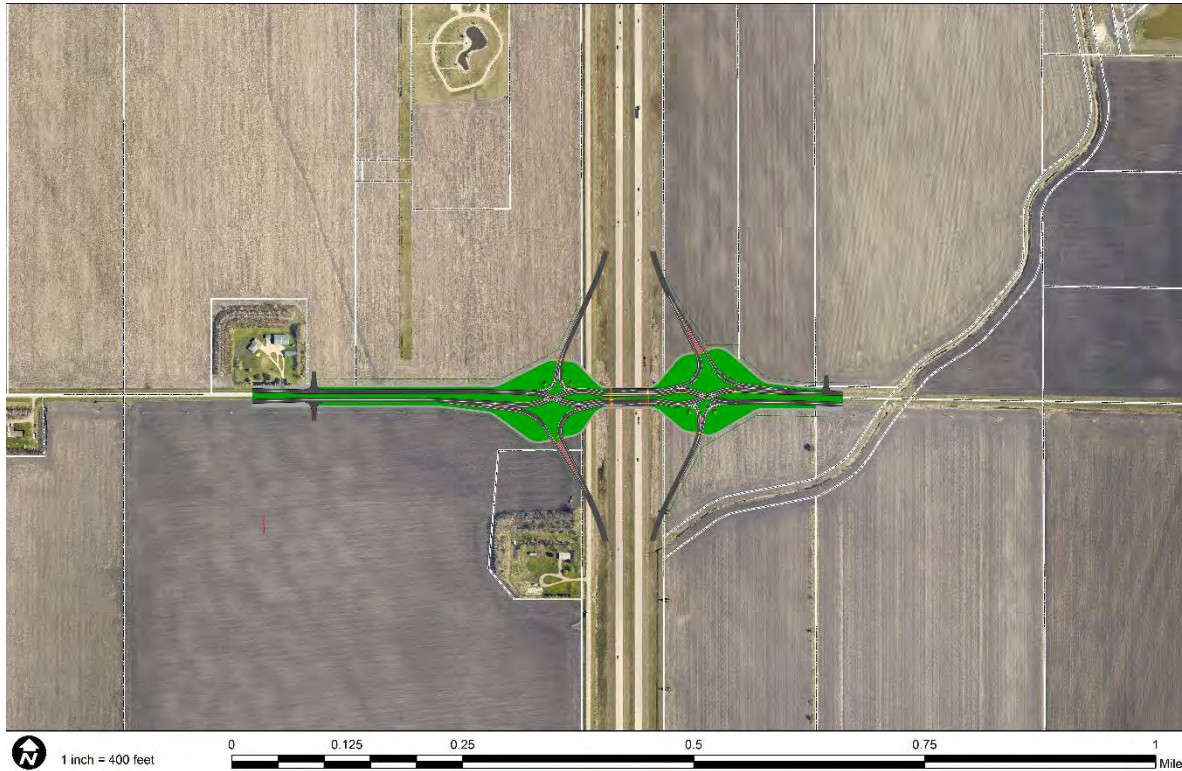


76th Avenue South Corridor Study

Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: DDI



Cost:

\$10 – \$18 mill

ROW Impacts:

20 – 25 acres

Post Meeting Action
Item

Moorhead DDI Cost
Sellin Brothers Bid =
\$14.5 mill



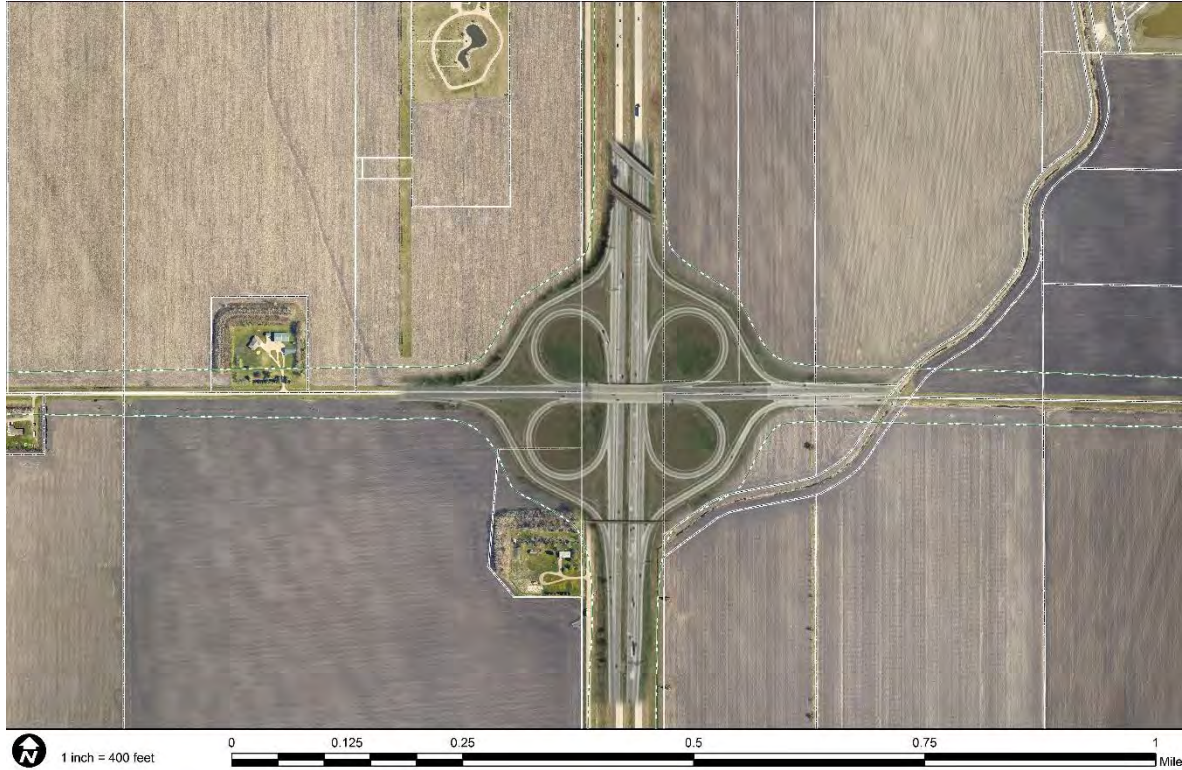
76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: Cloverleaf with Collector-Distributor



Cost:

\$25 – 28 mill

ROW Impacts:

40 – 50 acres



76th Avenue South Corridor Study

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Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: Alternative Free-Flow



Cost:

\$35 - \$40 mill

ROW Impacts:

65 - 80 acres



76th Avenue South Corridor Study

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DDI – Pros vs Cons List



- **Two-phase signals** with short cycle lengths
- Reduced horizontal curvature
- Increases the capacity of turning movements to and from the ramps
- **Reduces the number of conflict points**
- Increases the capacity of an existing overpass or underpass, by removing the need for turn lanes
- **Smaller footprint** compared to other interchange types
- Minimizes bridge footprint



- **Driver Familiarity**
- Limits free-flowing traffic along 76th Ave S
- **Pedestrian crossing challenging** (access requires at least four crosswalks)



Cloverleaf with Collector Distributor – Pros vs Cons List



- **Continuous flow** (no stops/no signals)
- Requires only one bridge for operation
- **CD minimizes weave**



- **Multiple weaving patterns** create safety concerns and conflict points
- Large physical footprint increasing ROW impacts and environmental concerns
- Requires wide bridge(s)

Post Meeting Action Item
Con - Pedestrian crossing is challenging with multiple vehicular weave merge segments. This will most likely require a separated pedestrian bridge



Alternative Free Flow – Pros vs Cons List



- **Continuous flow** (no stops/no signals)
- Can accommodate higher speeds
- Can be designed to accommodate the **highest traffic demand** (north)



- **Expensive to build** with multiple structures needed
- Large footprint increasing **ROW impacts** and environmental concerns
- Requires CD for adjacent loops

Post Meeting Action Item
Con - Pedestrian crossing is challenging and will require pedestrian over/underpasses to maintain vehicular free flow



Alternative Comparison - Roadway

76TH AVE

Alternative Option	Construction Cost*	Right of Way Impacts** (Acres along corridor)	Travel Time (min)	Pedestrian Walksheds
Alternative 1 (Regional Arterial)	\$68,000,000	60	16	25% Increase from Alt 1 to Alt 2
Alternative 2 (Commercial Arterial)	\$66,000,000	34	18	
Difference	\$2,000,000	26	2	N/A

* ROW costs not included

** Right if Way (ROW) Impacts do not include the interchange concepts



76th Avenue South Corridor Study

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Alternative Comparison - Roadway

76TH AVE

Corridor Alternative 1 (Regional Arterial) – Pros Vs Cons List



- **Limited vehicular travel delay** for east/west movements
- Fewer at grade pedestrian crossings will cause minimal travel delay
- Proposed alternative intersection types can have **added vehicular safety benefits** compared to a signalized intersection



- **Increased travel delay for side streets**
- Higher construction costs (pedestrian tunnels, U-turns, etc.)
- **Fewer pedestrian crossings**
- Requires additional ROW dedication



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Alternative Comparison - Roadway

76TH AVE

Corridor Alternative 2 – Pros Vs Cons List



- Non-motorized traffic has **more opportunities to cross the road** (at signals)
- Requires less ROW dedication
- Allows for a **progression-controlled signal system**
- Lower construction costs



- Signalized intersections will create **longer travel delays**
- Signalized intersections have more conflict points than alternative intersection types





Phasing Plan

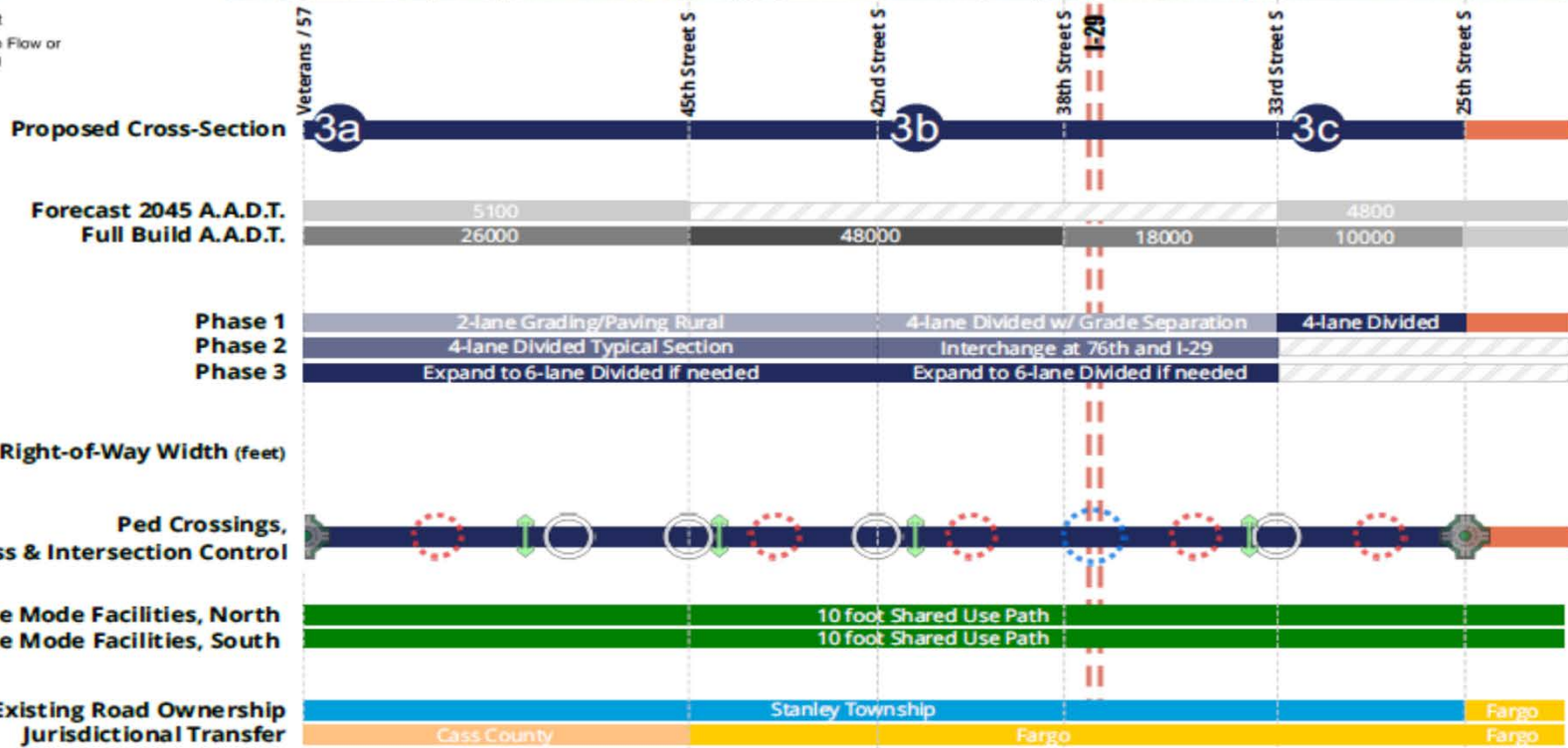
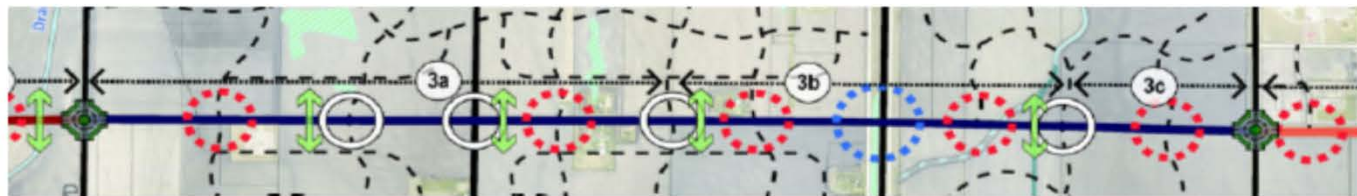
Phasing Plan - example

76TH AVE

76th avenue / phasing plan for alt 1 / segment 3

Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Roundabout
- R-Cut Intersec
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing

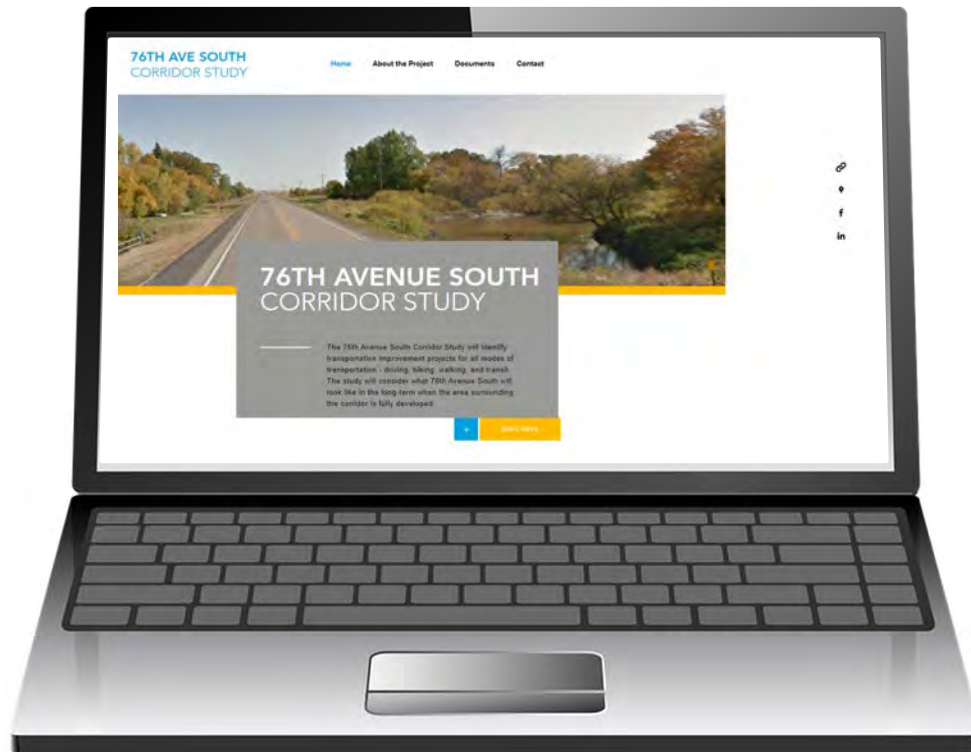




Next Steps

Public Engagement

76TH AVE



Stakeholder Meeting

August 11th at 12pm via Zoom

Public Input Meeting

August 12th at 12pm via Zoom

Virtual Presentation with Q&A

Newsletter #3

Will be mailed to individuals with a ½ mile each way of 76th Ave S



76th Avenue South Corridor Study

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Next Steps

76TH
AVE

- Newsletter #3 mailed week of August 3rd
- Stakeholder Input Meeting August 11th at 12pm
- Public Input Meeting August 12th at 12pm
- **Draft Report** and Public Input Summary for Review August 31st
- **SRC #6** anticipated to be September 1st
- **TTC & Policy Board** Presentation for Final Adoption September 10th & 17th
- **Study Completion** September 30th



76th Avenue South Corridor Study

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Stakeholder #1 – Meeting Summary

76th Avenue South Corridor Study – Stakeholder #1 Meetings

Location: Stantec Office Conference Room – 2632 47th Street South, Suite 103, Fargo ND

Stakeholder Attendee	Representing	Date/Time	Additional Meeting Attendees
Don Dabbert	Dabbert Custom Homes	01/21/2019 at 9:00 a.m.	Peggy Harter, Joel Paulsen and Michael Maddox
Jon Youness	Eagle Ridge Development	1/22/2019 at 8:00 a.m.	Peggy Harter and Joel Paulsen
Brian Hoffart	Minnkota Power	1/22/2019 at 9:00 a.m.	Peggy Harter and Joel Paulsen
Todd Ellig	Stanley Township	1/22/2019 at 10:00 a.m.	Peggy Harter and Joel Paulsen
Mary Scherling	Cass County Commission & Fargo Planning Commission	1/22/2019 at 11:00 a.m.	Peggy Harter and Joel Paulsen
Bob Reichel	Holy Cross Cemetery	1/22/2019 at 1:00 p.m.	John Herlick, Lowell Siebels, Larry Boulger, Peggy Harter and Joel Paulsen
Randy Cramer	NAI North Central & Tom McInnes Property	1/23/2019 at 11:00 a.m.	Kyle Berg, Peggy Harter and Joel Paulsen
Shara Fischer	Fargo Planning Commission	1/28/2019 at 10:00 a.m.	Peggy Harter and Joel Paulsen
Dave Leker	Fargo Park District	1/28/2019 at 2:00 p.m.	Dave Bietz, Peggy Harter and Joel Paulsen
Duan Breitling	Cass County Commissioner & Metro COG Policy Board	1/28/2019 at 3:00 p.m.	Peggy Harter and Joel Paulsen
Kory Peterson	City of Horace Mayor	2/6/2019 at 11:30 a.m.	Michael Maddox, Peggy Harter and Carron Day

Meeting Summaries:

Peggy Harter kicked off each of the stakeholder meetings reviewing the project newsletter to assist the project stakeholders in understanding why this study is being conducted, to review the project schedule and to discuss expectations from the 76th Avenue South Corridor Study. Joel Paulsen then asked each stakeholder about their properties and interests along the corridor. Peggy finished each meeting with a discussion of the stakeholder's expectations, concerns, or needs for the 76th Avenue



South corridor study. The following topics and corresponding discussion occurred during the meetings:

Future Development Along/Near the 76th Avenue South Corridor

- Developer concern for City of Horace considering a downtown along 76th Avenue South near the east end of their jurisdiction. Feels the downtown opportunities are better suited along the CR 17 corridor. This would be a good location for a gateway to the City but not a downtown.
- Current development properties north of 76th Avenue South between Drain 53 and University Drive will likely see 400 (between Drain 53 and 25th Street) and 450 (between 25th Street and University Drive) new rooftops within the next three years.
- Developer sees the area along 76th Avenue South as more of a residential corridor and less commercial with higher densities for single and multi-family homes than we have seen in the past.
- 100-acre sports complex somewhere north of 76th Avenue South and west of I-29. Property not currently identified.
- The City of Horace has already been approached by developers with preliminary plats/plans for development both north and south of 76th Avenue South within the City of Horace. Part of the City's concern is looking at future access approvals as these development plats come forward.
- The City of Horace is considering their future downtown along the south side of 76th Avenue South, just east of the future middle and high school site.

Right of Way and Access

- Developer feels that the right of way around 52nd Avenue South is too much but the right of way around 32nd Avenue South is not enough. Perhaps something less than 52nd Avenue South and greater than 32nd Avenue South would be appropriate for 76th Avenue South corridor.
- Multiple developers expressed that the feel access has been too limited on arterial roadways and has a negative impact on commercial properties. This should be considered to loosen the access requirements for this corridor to ensure it isn't negatively impacting commercial businesses.
- Developers have specific concerns for access to properties located at the 76th Avenue South and CR 17 intersection. Would like to develop this property sooner than later, but unsure



what access will be allowed/approved. Wondering if temporary access would be allowed in the interim until surrounding properties develop.

- The City of Horace is looking to this study to provide recommended access spacing.
- The City of Fargo is looking to this study to provide recommendations for right of way needs and access spacing as development proposals come in along the corridor.

Utilities

- Minnkota Power has three substations along the corridor as follows:
 - Frontier Substation (Major substation – most eastern one) – this substation feed both east and west. As it goes east it runs north on University Drive.
 - Horace Substation – located in the SW quadrant of 76th Avenue South and CR 17
 - Stanley Substation – located in the SW quadrant of 76th Avenue South & Veterans Blvd/57th Street
- The footprint for Minnkota's easement is 80-feet wide, 40-feet either side of the line. He thinks the line is currently 100-feet off the roadway centerline within Minnkota's easement.
- Minnkota has done all their current expansion along the project corridor but will meet with his planning department to verify. They are currently looking at their next substation along 100th Avenue South.
- The City of Horace is currently connected into the City of Fargo's sanitary sewer line connected via Deer Creek for approximately 1,200 homes. In the future, the plan is for an additional sanitary sewer line to extend down 45th Street and over to Horace to pick up more of the sanitary sewer. Timeframe on getting rid of City of Horace lagoons – drain them in approximately 3 years and then it will take approximately an additional 7 years to have them fully dried out. So total timeline approximately 10 years until the lagoons are dried out and the property can be sold and redeveloped.

County Drains 27 & 53

- Developer asked if bridges would be needed over County Drain 57 and 23 or if they would be served by box culverts. Stantec responded that this has not yet been determined and will be identified as part of the study.
- Drain 53 is currently engineered down to 64th Avenue South but not south of 64th Avenue South. Property owners between Drain 53 and I-29 are looking at developing or platting out their property and if that is brought to the board, they would start looking into it. There is discussion in straightening out Drain 53 to cross 64th Avenue South perpendicular. The big



issue is whether the F-M Diversion is in place as the needs for the drain vary differently with and without the diversion in place.

- Discussion regarding keeping Drain 53 outside of the a potential 76th Avenue South Interchange footprint. Future interchange footprints should be coordinated with the SE Cass Water Resources District to discuss how they would affect the drain.
- Current structures for Drain 53 include a 77x122 Arch under 76th Avenue South and 3-36" RCPs through the interstate at I-29. Currently proposing to drop the inverts at 76th Avenue South by approximately 3-feet.
- The group discussed that there are options to change the alignment of Drain 53 as it continues south and crosses 76th Avenue South.
- Drain 27 under 76th Avenue South is proposed to be replaced by the Cass County Highway Department. This may be being driven by a structure deficiency. The County already has proposed sizes, inverts and lengths. Stantec will follow up with Cass County on the proposed sizes and types of structures that were proposed to determine what roadway section the lengths would fit under and whether the hydraulic assumptions are with or without the diversion in place.
- Drain 27 is currently improved further south down to approximately CR 14. This will need to be verified, but it is improved south of 76th Avenue South.
- The water resources district has been contacted by a developer regarding the parcel south of 76th Avenue South that is split by Drain 27. The developer questioned the amount of right of way surrounding Drain 27. The board responded that the typical is 175-feet on either side of the centerline of the drain. Without the diversion in place, they would need levees on either side of the drain and with it in place they may not need the levees.

Future Interchange at 76th Avenue South and I-29

- Most stakeholders questioned the timing of the future interchange. Stantec staff responded that it needs to be approved through a justification process by the FHWA before an interchange could ever be constructed. Existing conditions include a gravel township roadway west of I-29 and a field east of I-29, so existing conditions would not justify a new interchange at this location. Stantec staff also noted that although it is identified in several planning documents, it is currently not programmed and will not be programmed until it can be approved by the justification. Although identified in several studies, it is not a guarantee.
- Multiple developers expressed that they feel an interchange at 76th Avenue South & I-29 is a top priority. The project partners should start planning for an interchange now to stay ahead of the need.



- One developer noted that without an interchange at 76th Avenue South and I-29, development around Horace will go closer to 100th Avenue South.
- Developer commented that the 52nd Avenue South interchange has too large of a footprint. It is a very nice interchange, but the footprint is too large. A future interchange at 76th Avenue South should consider a smaller footprint. Perhaps consider a diverging diamond interchange.
- The Holy Cross Cemetery has been in past discussions with NDDOT and the City of Fargo. The current access to the cemetery is on the north side of the property in anticipation of future improvements/needs along 76th Avenue South. The cemetery provided a plat that shows a potential future I-29 and 76th Avenue South footprint. The entire cemetery is platted with plots, but they have not been selling any of the plots in the area of the future interchange footprint. Once the City of Fargo eventually moves 38th Street South (the west I-29 frontage road) further west, the cemetery will need to gain access to the west as their access on the north side of the property currently connects east into the existing 38th Street South alignment. The cemetery is planning to plant trees as buffers along the edge of their property as a visual/noise buffer from I-29 and 76th Avenue South.
- City gets a lot of questions on the timing of a future interchange or crossing at I-29 and 76th Avenue South.

Jurisdictional Ownership/Transfers

- Developer asked if the area between Drain 27 and Veterans Blvd/57th Street would remain within the City of Horace jurisdiction and if so, who would be paying for Drain 27 crossing infrastructure both on 76th Avenue South and within the developments.
- Discussion with Cass County representatives regarding the option for the jurisdictional transfer of CR 6 to continue east and cross CR 17 at 76th Avenue South and to connect into 45th Street continuing north up to 52nd Avenue South and how this would tie the corridor into the City of Fargo's proposed improvements on 45th Street between 52nd Avenue and 64th Avenue South. CR 6 will no longer go along 52nd Avenue South with the jurisdictional transfer back to the Cities of Fargo and West Fargo after improvements are made to 52nd Avenue South. The biggest challenge with the County taking on the new roadways would be the cost, but it is something to further explore.
- Multiple stakeholders would like to see Cass County take jurisdiction over 76th Avenue South east of CR 17 to connect into 45th Street and continue north to 52nd Avenue South.
- Stakeholders asked if West Fargo is included in this study as a CR 6 connection along 76th Avenue South and north on 45th Street could alleviate some of the traffic volumes currently on



Sheyenne Street. A new interchange at I-29 and 76th Avenue South would also alleviate traffic on Sheyenne Street. Stantec responded that West Fargo is on our SRC, but they are not a jurisdictional roadway owner of 76th Avenue South. Although these connections may alleviate traffic volumes on Sheyenne Street or CR 17, West Fargo is not a roadway authority for 76th Avenue South.

- City of Horace has concerns for only getting in and out of Horace via CR 17/Sheyenne Street north to 52nd Avenue South/I-94 or south to CR 14/100th Avenue South. Horace wants to know when Fargo or Cass County might consider extending Veterans Boulevard or 45th Street south of 52nd Avenue South to 76th Avenue South. Stantec noted that the best chance for a connection would be down 45th Street between 52nd and 76th Avenue South with a Cass County jurisdictional transfer. Stantec noted that it is not determined at this time if Cass County is going to take on a jurisdictional transfer of 76th Avenue South east of CR 17 and north on 45th Street up to 64th or 52nd Avenue South as their new CR 6 alignment. However, if they were to do this, Horace may still need to cost participate in improvements along 76th Avenue South within their jurisdiction.

Maintenance

- Stanley Township's primary responsibility is maintenance for the township roadways. If Fargo builds 64th Avenue South west to 45th Street and 45th Street south to 64th Avenue South, this will likely increase traffic south on the township roadways and may increase the need for maintenance. The county supplies maintenance funds and their funding may need to be increased if this occurs.
- Stanley Township has issues with snow removal maintenance at roundabouts so prefers no roundabouts where the township is maintaining the roadway.
- A green divided median looks very nice, but the Fargo Park District does not want to take on the maintenance of a green median.

Bicycle and Pedestrian Facilities

- Look at shared use path connections both along the corridor and consider the north/south connections as well along the major roadways and drains.

Additional stakeholders identified that were contacted to meet for a stakeholder meeting but either declined or did not respond include the following:

- Andy Westby – Goldmark
- Rob Thomas – Consolidated Communications



Stakeholder #1 – Meeting Summary

76TH
AVE

- Kevin Christianson – Property Resources Group
- John Korselman – Horace City Council
- Tony Grindberg – Fargo City Commissioner/Planning Commission Liaison
- Ace Brandt (Brandt Holdings)

The foregoing is a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services, Inc.



Peggy Harter PE

Senior Associate

Phone: (701) 566-6020

Peggy.Harter@stantec.com

Attachments: Meeting Sign in Sheet & Meeting Handouts (Property Owner Map and Newsletter #1)



76th Avenue South Corridor Study

METROCOG
FARGO-WOODHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

76th Avenue South Corridor Study – Stakeholder #1 Meetings

Metro COG Conference Room – Case Plaza – One 2nd Street North, Suite 232, Fargo, ND 58102

Date January 21, 2019 through January 28, 2019

NAME/ORGANIZATION	EMAIL ADDRESS	DATE/TIME
Don Dabbert- Dabbert Custom Homes		1/21/19 - 9:30 AM
Jon Youness- Eagle Ridge	jyouness@eagle ridge companies.com	1/22/19 - 8:00 AM
Brian Hoffart- Minnesota Pub	bhoffart@minnkota.com	1-22-19 9:00 AM
Todd Z. Ellig	ESETTER@PRODIGY.NET	1-22-19 10 AM
Mary Scherling	scheringm@asscountynod.gov	1-22-19 11 AM
John A. Herlick	johnerlick@gmail.com	1-22-19 1:00 PM
Randy N. Reindel	RNREILHE@CENTURY4	1-22-19 1:00 PM
Lowell Siebels	Lowell.Siebels55@gmail.com	1-22-19
Larry Boulgen	lboulgen@gmail.com	1-22-19 1:30
Mike Gatz- SE Cass	mogatz@morrisarsineerengine.com	1-23-19 - 8:00
Dave Jacobson SE Cas	bigdata549@hotmail.com	1-23-19 8:00
Kyle Berg	Kyle@gopro-mark.com	701-261-8189
Randy Cramer	rcramer@rainorthcentral.com	701-306-5419
Shara Fischer	sharamfischer@gmail.com	1-28-19 10:00 AM
Dave Leker	dleker@fargoparks.com	1/28/19 2:00 PM
Dave Bieta	dbieta@fargoparks.com	1/28/19 2:00 PM
Duane R. Breitting	dbreitting@chustadlaw.com	1-28 3:00
Kay Peters	kpeters@cityofhorace.com	2/6/19 11:35 AM



From: [Harter, Peggy](#)
To: [Bob Reichel](#); [Bolstad, Angela](#); [Brian Hoffart](#); [Dan Jacobson](#); [Dave Leker \(dleker@fargoparks.com\)](#); [Don Dabbert](#); [Duane Breitling](#); [Harter, Peggy](#); [John Koerselman](#); [Jon Youness](#); [Kevin Christianson](#); [Kory Peterson](#); [Mary Scherling](#); [Michael Maddox](#); [Randy Cramer](#); [Shara Fischer](#); [Todd Ellig](#); [Tony Grindberg](#)
Subject: 76th Avenue South Corridor Study Visioning Survey - Stakeholder Meeting #2
Date: Monday, April 08, 2019 10:35:53 AM
Attachments: [76thAve Stakeholder#1 MeetingSummary.pdf](#)
[Newsletter#2 FINAL Small.pdf](#)

Dear 76th Ave South Stakeholders,

I would like to thank those who were able to schedule and attend a meeting with us in January and February, they were invaluable to our understanding of the corridor. Attached is the final meeting summary for your records.

In lieu of an in-person meeting for Stakeholder Meeting #2, we are asking that you take an online visioning survey for the corridor. We have worked with the client and feel your input on this survey will provide instrumental information pertaining to the overall vision of 76th Ave South. A link to the survey is provided below. Note, a facility preference survey is included as part of the general visioning survey. Newsletter #2, attached, can be used as a guide for potential future facilities. Please complete the survey no later than April 22, 2019.

This survey will also be made available to the public in the following ways: Newsletter #2 is being mailed out ½ mile north and south of the entire corridor, via the project website (www.76thavestudy.com), Metro COG's website, and Metro COG's Facebook page. Please feel free to pass this survey along to others too. We would like to have as many respondents as possible!

76th Ave South Visioning Survey Link:
<https://www.surveymonkey.com/r/2TRYW5S>

Let me know if you have any additional questions or comments.

Thank you,

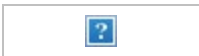
Peggy Harter PE
Senior Associate

Direct: 701 566-6020

Mobile: 701 371-4167

Peggy.Harter@stantec.com

Stantec



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Stakeholder Meeting

76th Avenue South Corridor Study

August 11, 2020

Agenda

- Introductions
- Why this Study?
- Schedule
- Engagement/ Vision
- Analysis & Framework
- Alternatives
- Instant Polling





Why this Study?

Welcome and Introductions

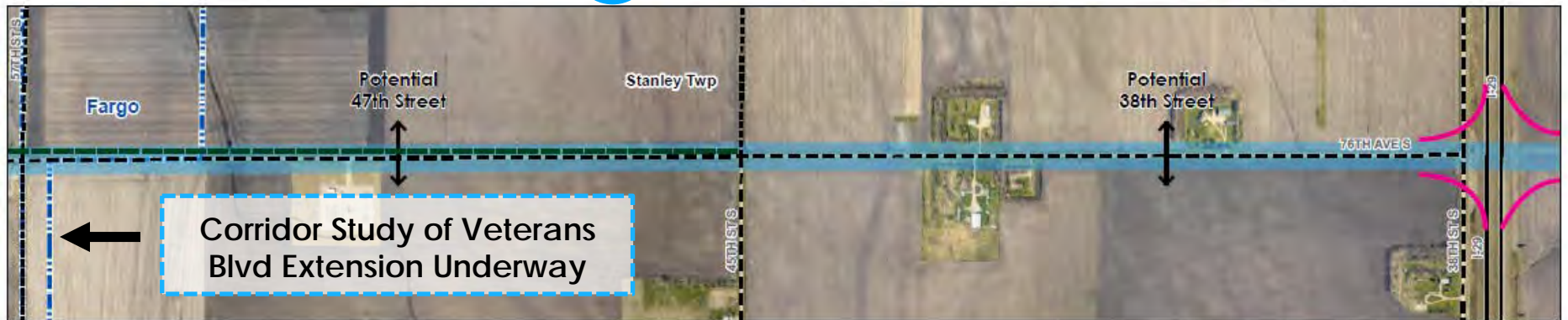
76TH
AVE

Please Introduce Yourself!



76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS



Updates Since Map Completion in January 2019

800 1,600 Feet

	Paved Road		Study Corridor (1-mile section line road)		Programmed Improvements: 4-Lane divided concrete pavement project in 2019 (Cass County Comp Plan)		Future Roundabout
	Gravel Road		Municipal Boundaries		Future Bike Path (previous study)		Potential Interchange (previous study)
	Field Road		Bridge structures (may need to be widened with road widening)		Potential 76th Realignment for Red River Bridge (previous study)		
	Existing On-Street Bikeway		Future road connection (previous study)				
	Existing Shared Use Path						



Schedule

Project Schedule

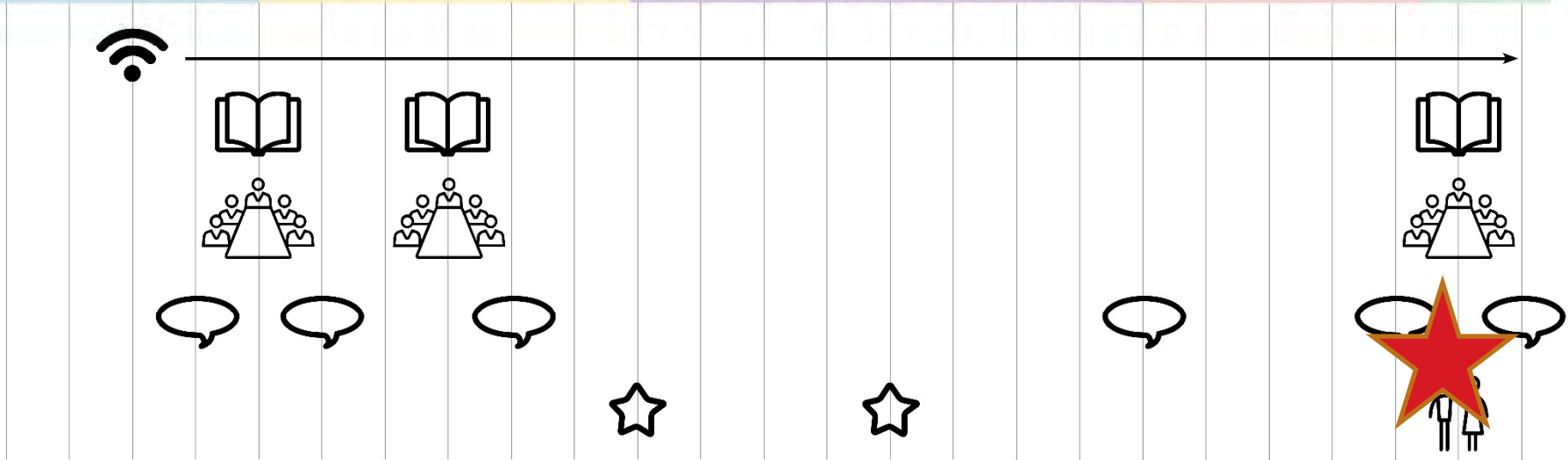
76TH AVE

2018

2019

2020

Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept

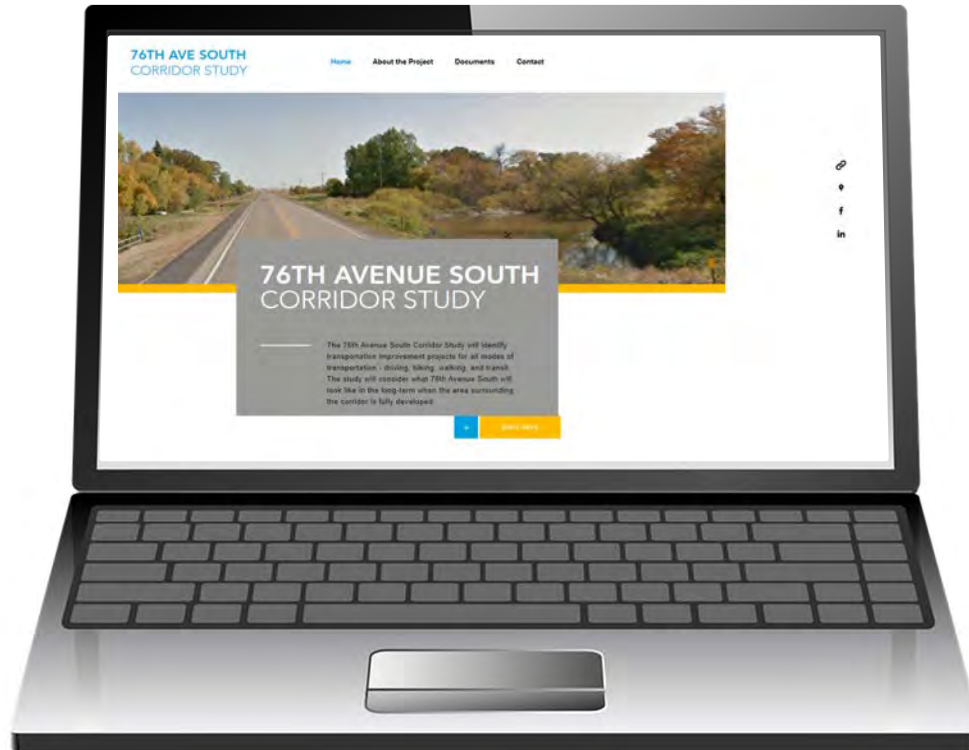


Schedule was extended to complete additional travel demand analysis

76th Avenue South Corridor Study



Engagement



Engagement Events to date:

- ✓ 6 SRC Meetings (Steering Committee)
- ✓ 3 Stakeholder Meetings
- ✓ 1 Public Input Meeting
- ✓ 3 Newsletters
- ✓ Visual Preference Survey
- ✓ Question Survey

68 survey participants

August 2020 events:

Stakeholder Meeting #3

August 11th at 12pm via Zoom

Public Input Meeting

August 12th at 12pm via Zoom

Virtual Presentation with Q&A

Newsletters #3

Will be mailed to individuals with a ½ mile each way of 76th Ave S



Main Takeaways from SRC Meetings

76TH
AVE



- Full-build traffic volumes are a long ways away and no one knows what year they will come to fruition.
- We have the opportunity to **provide a Vision** and a direction for a roadway that hasn't been built out yet
- **Multi-modal transportation** must be accommodated for
- The surrounding **collector road network** for both alternatives supports a high level of **access management** along 76th Ave S



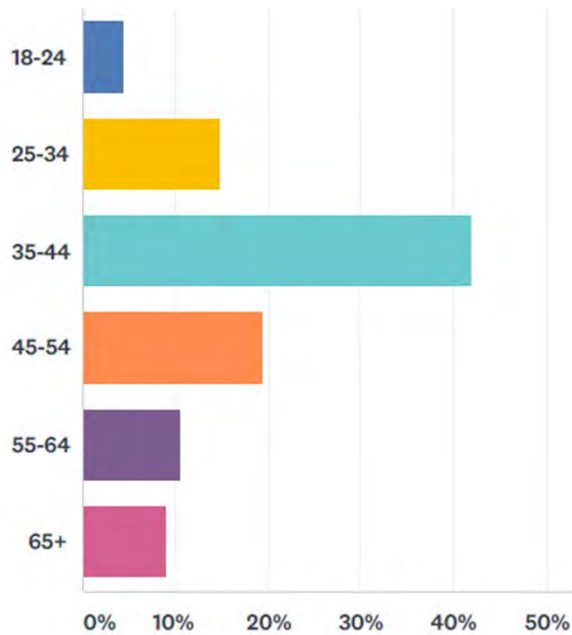
76th Avenue South Corridor Study

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Survey Responses

76TH AVE

- 68 total participants (67 online, 1 paper)
- Most from Fargo and Horace
- Good age distribution, with most participants being between ages 35 and 44



Where do survey respondents live?



What are the biggest challenges with 76th Avenue South?



Most respondents agree or strongly agree that an interchange at 1-29 and 76th Avenue South will be warranted and supported in the future.



What are the top three missing development types?



What modes should be prioritized along the 76th Avenue South Corridor?



Building Blocks Exercise

76TH
AVE

Planning Themes

- Mixed use opportunities
- Density drives walkability
- Higher density near I-29 interchange
- Building orientation
- More single family in eastern and western terminus
- Supported by collector street network



76th Avenue South Corridor Study

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Visual Preference Survey Responses

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Bike Amenities



Preferred Urban Options



Preferred Suburban Options



Transit and Parking Amenities



Preferred Urban Options



Preferred Suburban Options



Pedestrian Amenities



Preferred Urban Options



Preferred Suburban Options



Traffic Calming



Preferred Urban Options



Preferred Suburban Options



Development and Streetscape



Preferred Urban Options



Preferred Suburban Options

What We Heard

76TH
AVE

Bike Amenities

- Urban Options: striped bike lane, bike rack (**protected**)
- Suburban Options: **walking trail**, gravel trail

Transit and Parking

- Urban Options: bus with bike rack, bus station pull off
- Suburban Options: **bus stop with shelter, real-time tracking**

Development and Streetscape

- Urban Options: **main street businesses**, planted medians
- Suburban Options: single family homes, planted medians

Pedestrian Amenities

- Urban Options: crosswalk with pavers, **ADA ramps**
- Suburban Options: decorative **street lighting**, pedestrian HAWK crossing

Traffic Calming

- Urban Options: marked crosswalks with bumpouts, **planted boulevards**
- Suburban Options: street trees, large roundabouts





Analysis & Framework

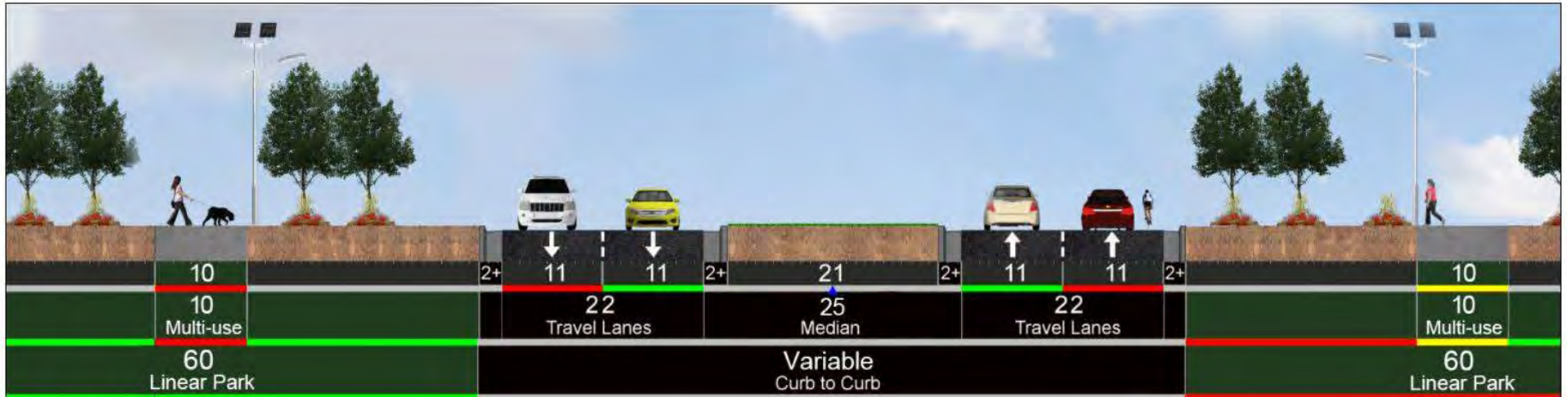
Alternative 1 – Development

76TH AVE

- LAND USE
- C Commercial
 - MU Mixed Use
 - HD High Density
 - MD Medium Density
 - LD Low Density



ROW:
120' – 200'



SECTION 3A



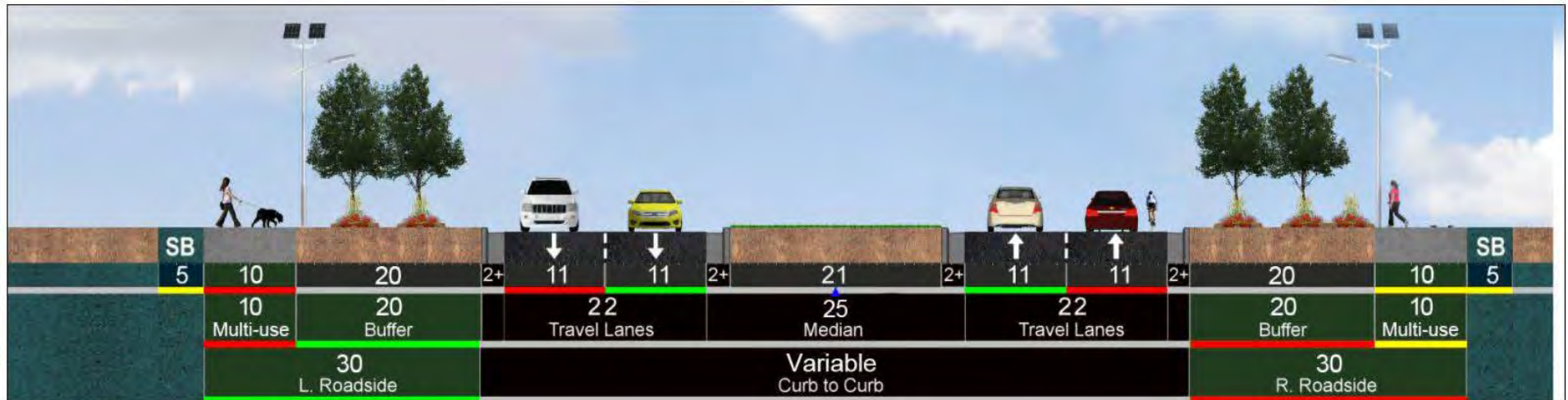
Alternative 2 – Development

76TH AVE

- LAND USE
- C Commercial
 - MU Mixed Use
 - HD High Density
 - MD Medium Density
 - LD Low Density



ROW:
120' – 150'

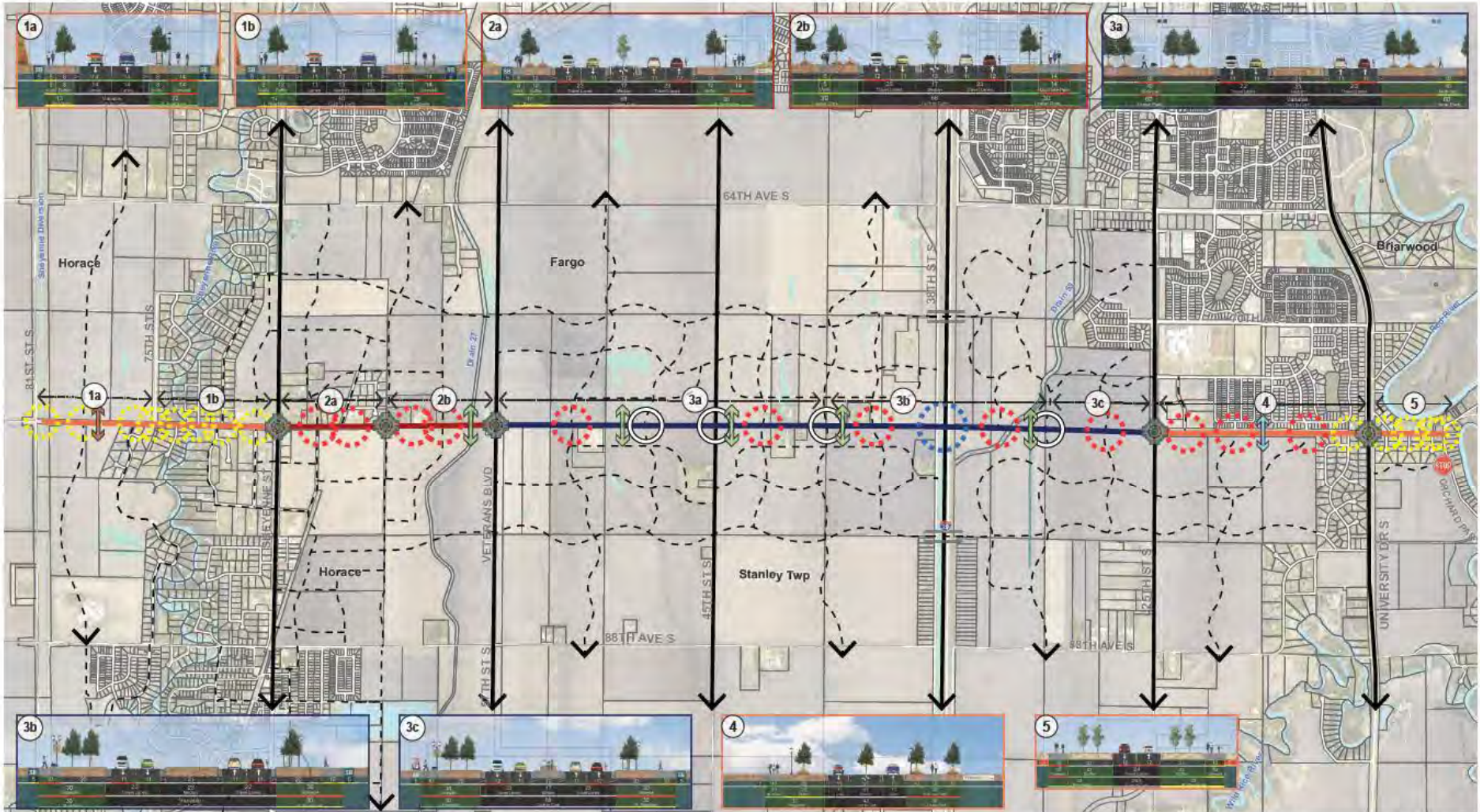


SECTION 3A



Preferred Access Plan (PAP) – Alt 1

76TH AVE



1 in = 1,000 feet

Future Visioning Assumptions Alternative 1: Regional Arterial



76th Avenue South Corridor Study

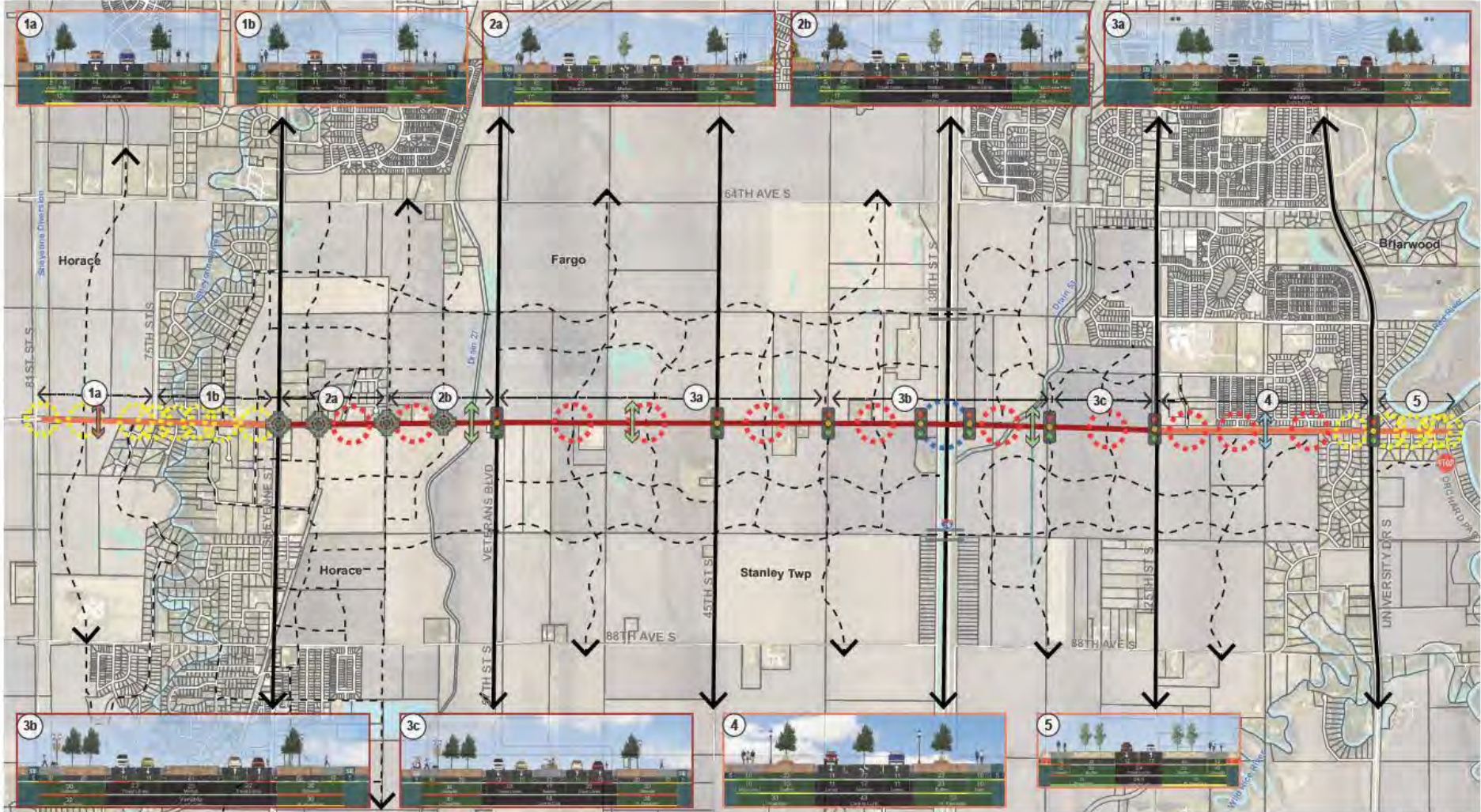
Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- R-Cut Intersection
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out
- Interchange (Free Flow or Partial Free Flow)
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing



Preferred Access Plan (PAP) – Alt 2

76TH AVE



1 in = 1,000 feet

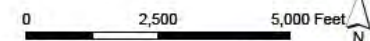
Future Visioning Assumptions Alternative 2: Commercial Arterial



76th Avenue South Corridor Study

Legend

- Regional Arterial
- Commercial Arterial
- Mixed Use Arterial
- Existing/Future North/South Arterial Roadways
- Roundabout
- Signalized Light
- Proposed Collector Streets
- Right-of-way Preservation
- Side-Street Stop Control
- Limited Access - Right In/Right Out or 3/4 Access
- Interchange
- Pedestrian Grade Separated Crossing
- H.A.W.K. Signal Pedestrian Crossing
- R.R.F.B. Signal Pedestrian Crossing



Intersection Graphics

76TH AVE

76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 45TH STREET
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 25TH STREET
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND COUNTY ROAD 17
ALTERNATE 1



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 45TH STREET
ALTERNATE 2



76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND 25TH STREET
ALTERNATE 2

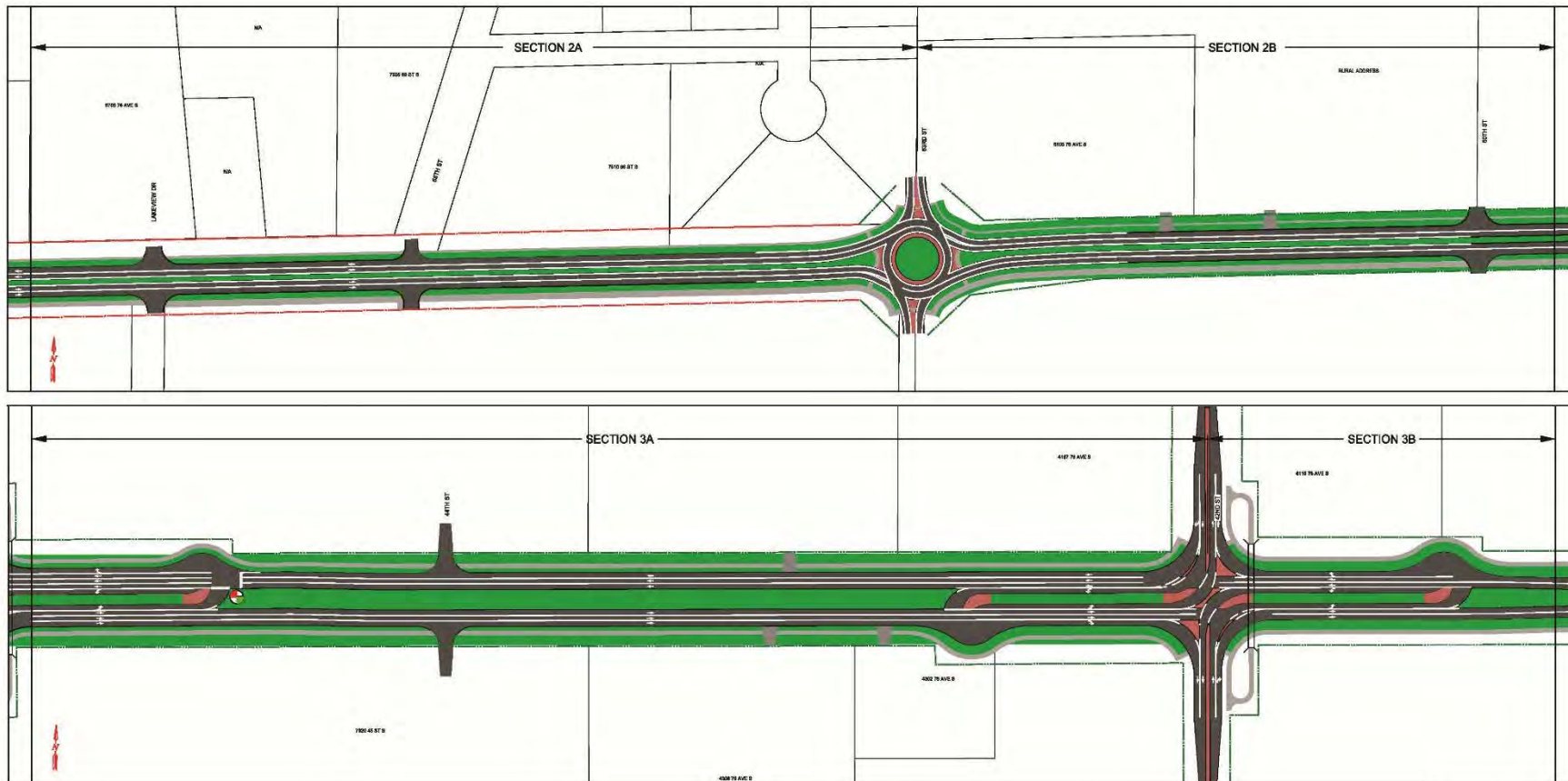


76TH AVENUE CORRIDOR
INTERSECTION OF 76TH AVENUE AND COUNTY ROAD 17
ALTERNATE 2



Alternative 1 Layout

76TH AVE

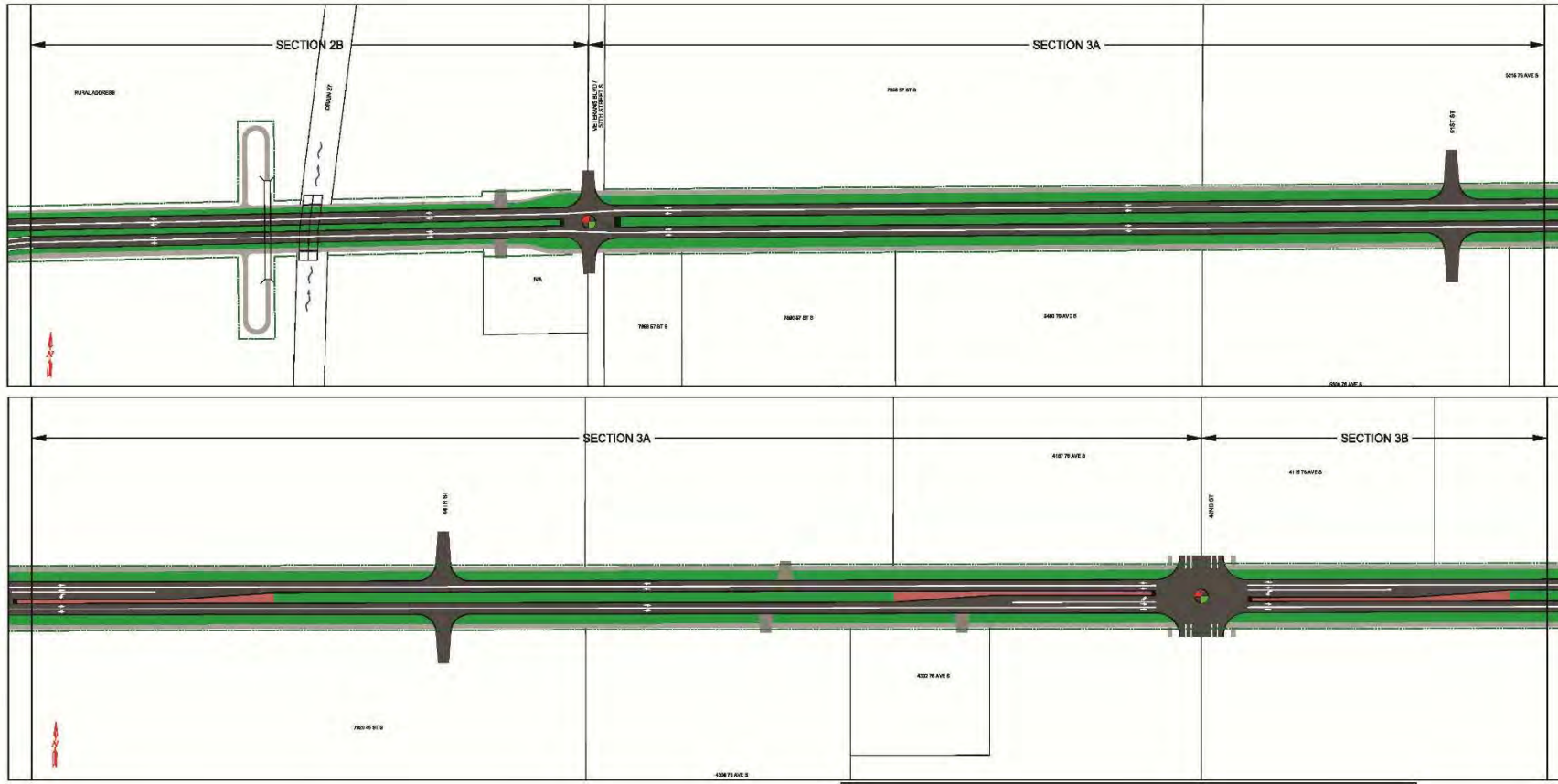


76th Avenue South Corridor Study

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FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

Alternative 2 Layout

76TH AVE



- Full concept designs located on website:



76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS



Alternative Analysis & Comparison

Alternative Comparison

76TH AVE

Alternative 1 – Regional Arterial

Purpose: To move high volumes of east/west traffic with limited interruptions utilizing alternative intersection treatments.

(Alternative 2 – Commercial Arterial)

Purpose: To move high volumes of east/west traffic utilizing mostly traditional signalized intersections.



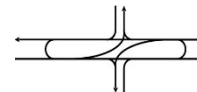
15 Side Street Stop Sign **(15)**



5 Roundabouts **(4)**



11 Right in/Right Out **(10)**



4 R-Cuts **(0)**



0 Signalized Intersections* **(6)**



1 RRFB **(1)**

5 Pedestrian Underpass **(3)**

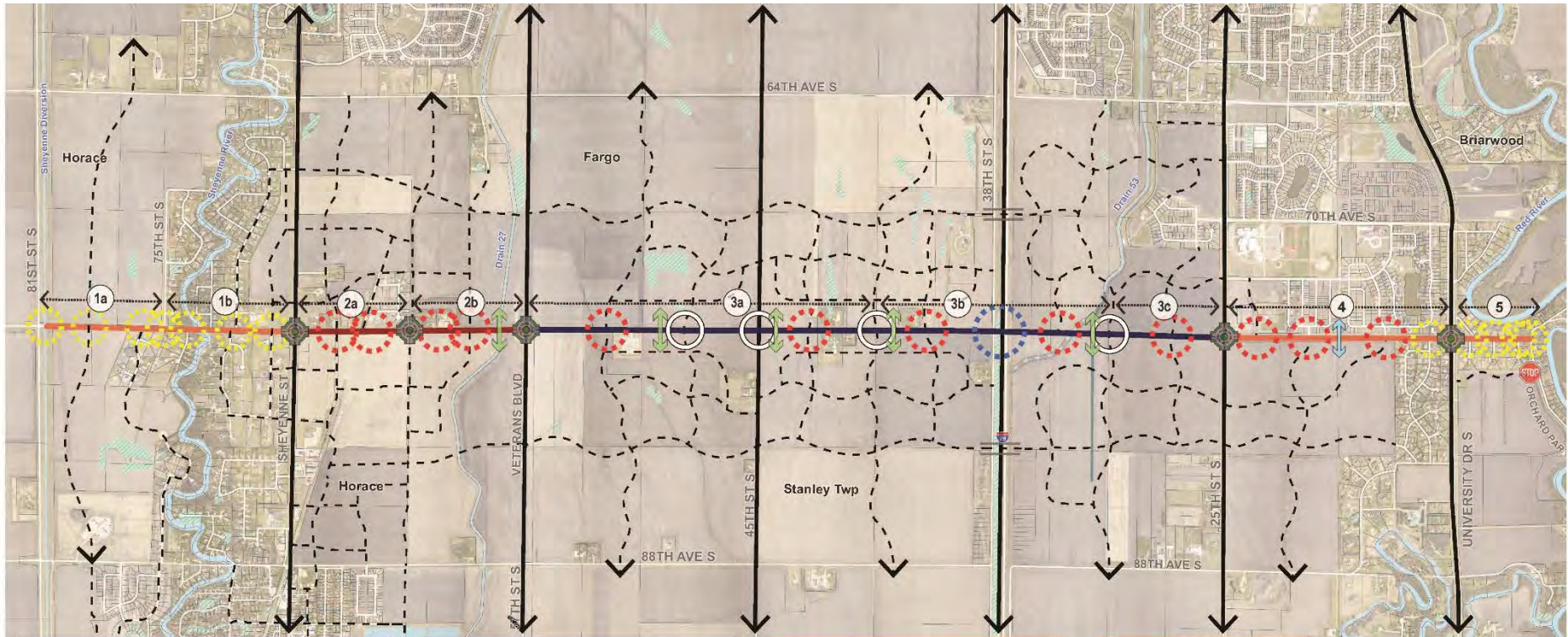
1 HAWK **(1)**



*The 45th Street R-Cut will need a signal with full build traffic volumes and a DDI interchange at I-29 will require signalization

Travel Time

76TH AVE



10 11 12 13 14 15 16 17 18 19 20

Alt. 1



Alt. 2



■ Travel Time (minutes)

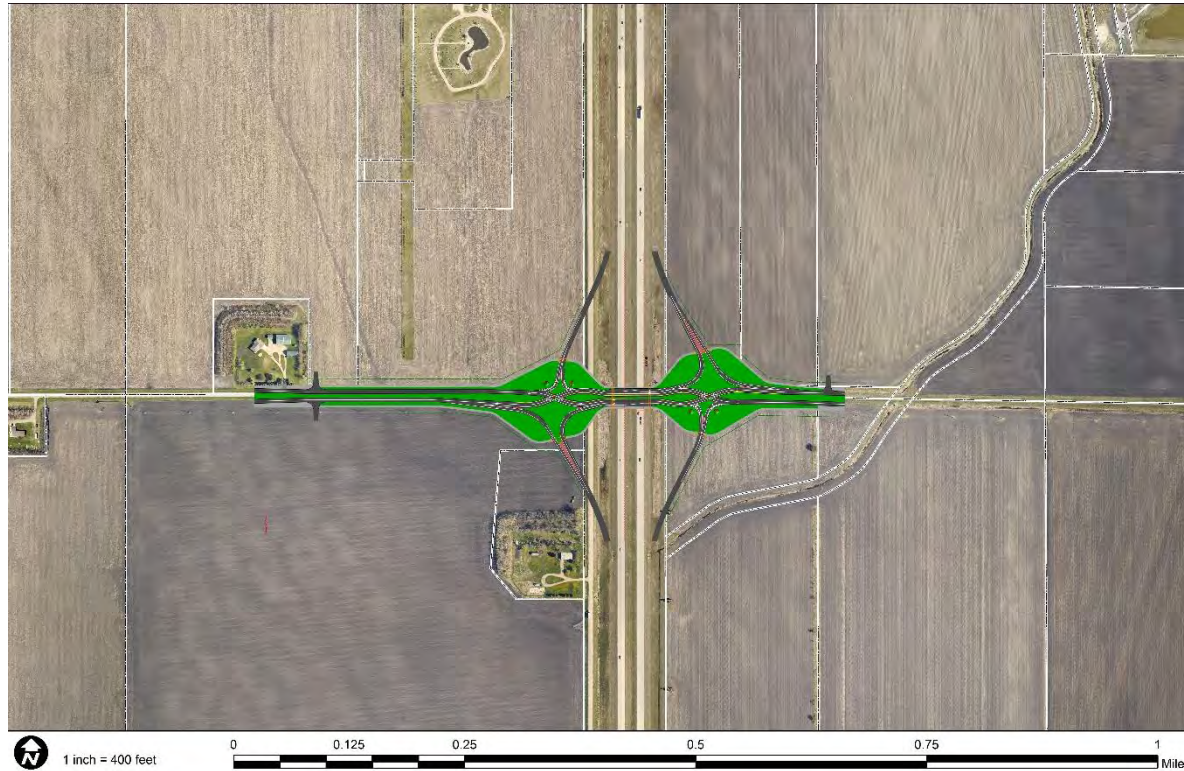


76th Avenue South Corridor Study

Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: DDI



Cost:

\$12 – \$16 mill

ROW Impacts:

20 – 25 acres



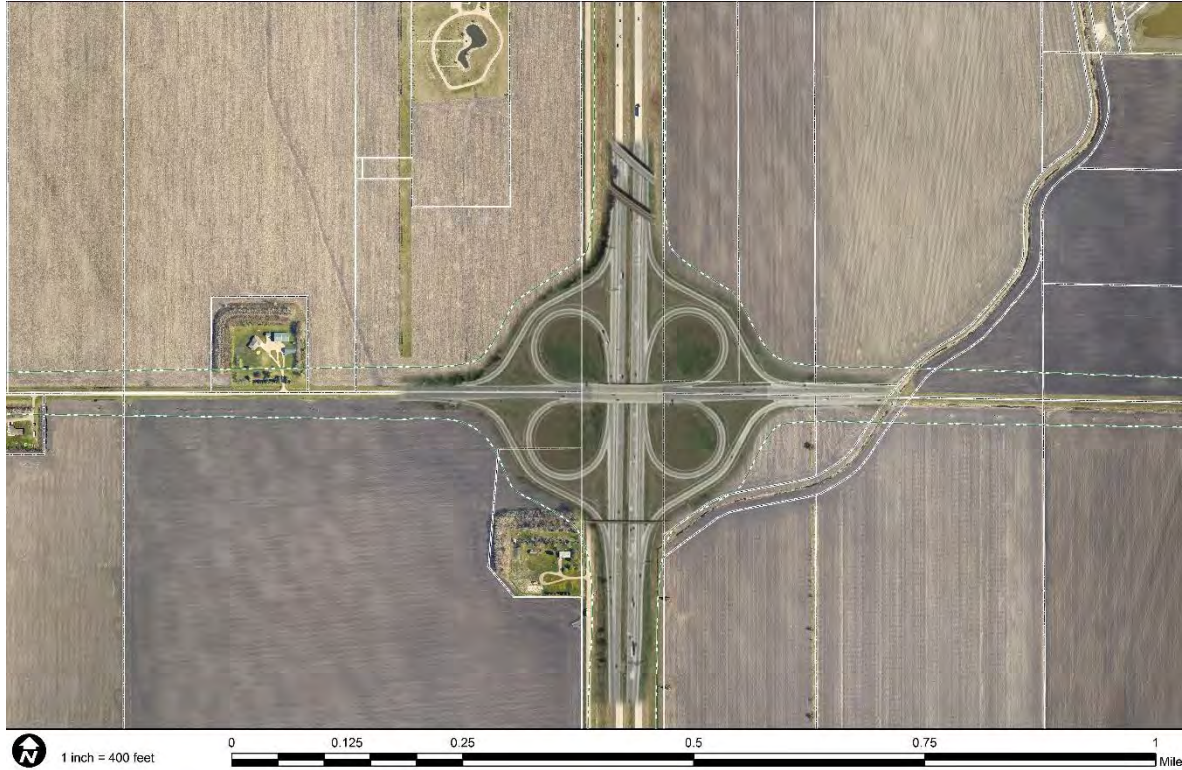
76th Avenue South Corridor Study

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Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: Cloverleaf with Collector-Distributor



Cost:

\$25 – 28 mill

ROW Impacts:

40 – 50 acres



76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS

Alternative Comparison – I29 Interchange

76TH AVE

Interchange Type: Alternative Free-Flow



Cost:

\$35 - \$40 mill

ROW Impacts:

65 - 80 acres



76th Avenue South Corridor Study

METROCOG
FARGO-MOORHEAD METROPOLITAN COUNCIL OF GOVERNMENTS



Instant Polling

Polling

76TH
AVE

Q1. Which of the two alternatives would you prefer?

- A. Alt 1 (Regional Arterial) –
Where traffic is given priority on 76th Ave S and the buildings are further off the corridor and oriented away from the roadway.
- B. Alt 2 (commercial Arterial) –
Where traffic is stops at signalized intersections and pedestrians have more opportunities to cross at-grade. Buildings are closer to the corridor.
- C. Other



76th Avenue South Corridor Study

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Polling

76TH
AVE

Q2. Pick all that apply - which of these intersection treatments would work best along the corridor?

- A. Signalized
- B. Roundabouts
- C. R-Cut
- D. Stop Sign Control
- E. Right-in/Right-Out (Median)
- F. Other



76th Avenue South Corridor Study

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Polling

76TH
AVE

Q3. Along 76th Ave S (in the future) what is the best way to get pedestrian and bicyclists across the street?

- A. Signals
- B. Underpasses
- C. Pedestrian Refuge (Flashers or HAWK)
- D. Other



Polling

76TH
AVE

Q4. How important is it to have future development oriented towards 76th Ave S versus away from 76th Ave S?

- A. Very important
- B. Somewhat important
- C. Neutral
- D. Unimportant





76th Avenue South Corridor Study

Peggy Harter
 Stantec
 2632 47th Street South, Suite 103
 Fargo, ND 58104

NEWSLETTER #1

76TH AVE

ABOUT THE PROJECT

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) along with their project partners (the City of Fargo, City of Horace, Cass County and the North Dakota Department of Transportation) are conducting a corridor study along 76th Avenue South from the Sheyenne Diversion (west project limit) to the Red River of the North (east project limit). The purpose of the 76th Avenue South Corridor Study is to analyze both short term and long term transportation system needs. In order to analyze long term transportation needs for the 76th Avenue South corridor, the study will include a review of future growth assumptions for population, households and jobs within the study area out to the year 2045. The study will also include a visioning process to determine what the vision of the corridor will look like to serve all needed modes of transportation – both motorized vehicles and non-motorized bicycles and pedestrians. Since 76th Avenue South is currently owned by multiple agencies within the project limits (Cass County, City of Horace, Stanley Township, and the City of Fargo), much coordination is needed between these agencies to ensure that the vision is continuous along the corridor as it is developed to serve the transportation needs. There are numerous opportunities for the public to learn more about the 76th Avenue South Corridor Study and provide input throughout the study before the project is complete in November 2019. Please see the project contact information below to check out our study website and subscribe to the project list serve for regular study updates.

WHY THIS STUDY

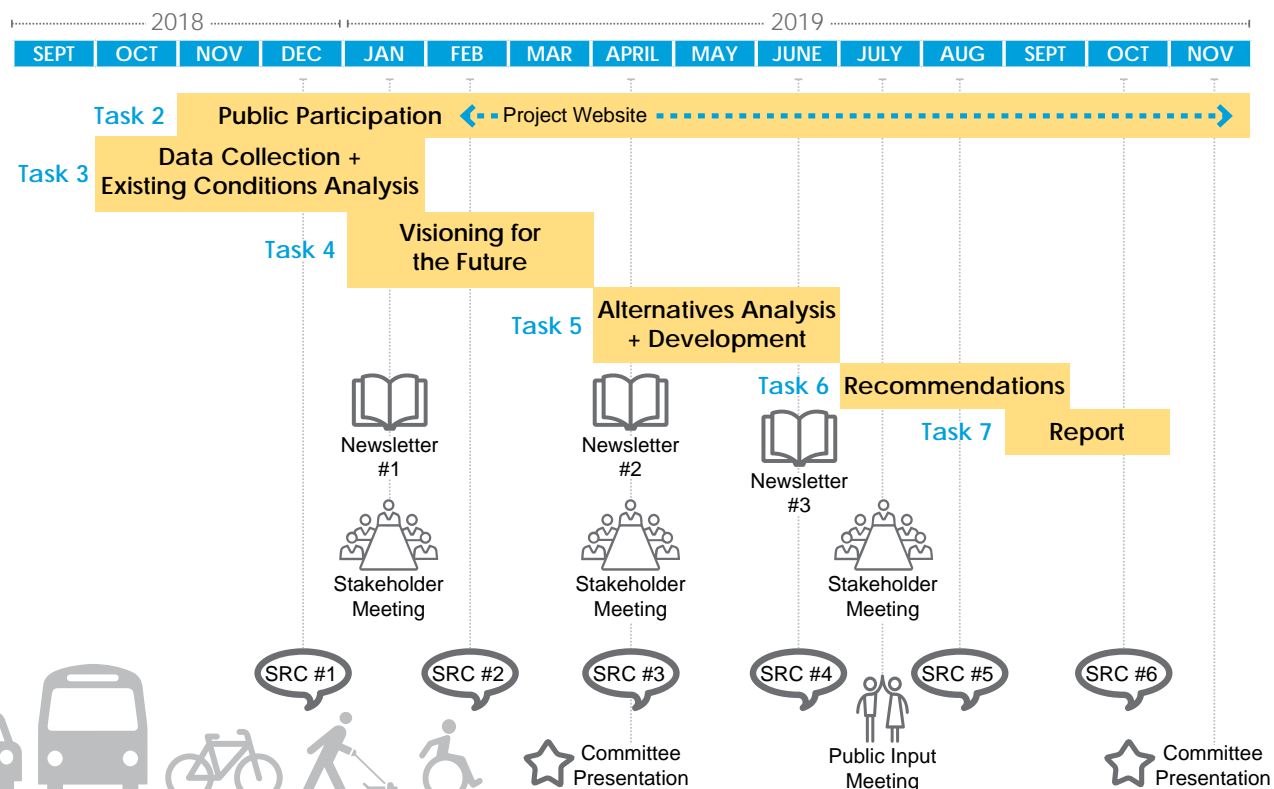
The 76th Avenue South corridor is located on a one mile section line. Historically, one mile section line roadways become arterial roadways to serve as major transportation corridors as growth occurs around them. The southwest metropolitan area that surrounds this corridor has seen increased growth and development over the past years and is anticipated to see much more growth out to our planning horizon year 2045. Some of the influential growth factors within the study area include the existing Davies High School (just north of the corridor), the approved new West Fargo Middle School and High School site (to be located in the southeast quadrant of 76th Avenue South and CR 17 intersection), the City of Horace being provided sanitary sewer service from the City of Fargo, and continued development pressure in the southwest metropolitan area as plans continue for a future diversion for the Red River. This study is also needed to evaluate potential future opportunities from previous studies within the project area such as a 76th Avenue South crossing of the future Red River Diversion, alternative routes to serve the City of Horace into the greater metropolitan area, an interchange at 76th Avenue South and I-29, and a Red River crossing at 76th Avenue South. This corridor study is needed now to evaluate the short-term and long-term needs of the 76th Avenue South corridor to accommodate future growth, to ensure coordination between the multiple agencies, to review information from previous studies, and to plan for and preserve the corridor's needs. We invite you to review the map on the inside of this newsletter for more details.



76th Avenue South Corridor Study



PROJECT SCHEDULE



76th Avenue South Corridor Study



CONTACT INFORMATION

Are you interested in learning more about the project or connecting with our team?

Check out the website to learn more, give comments and subscribe to the project listserve.

www.76thavestudy.com

Send comments to the team:

Peggy Harter
 Stantec Project Manager

2632 47th Street South, Suite 103
 Fargo, ND 58104

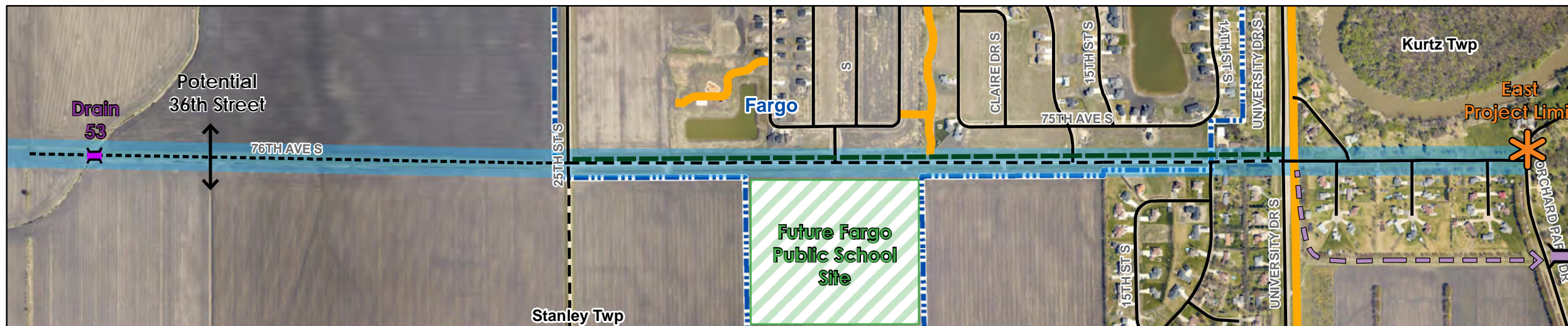
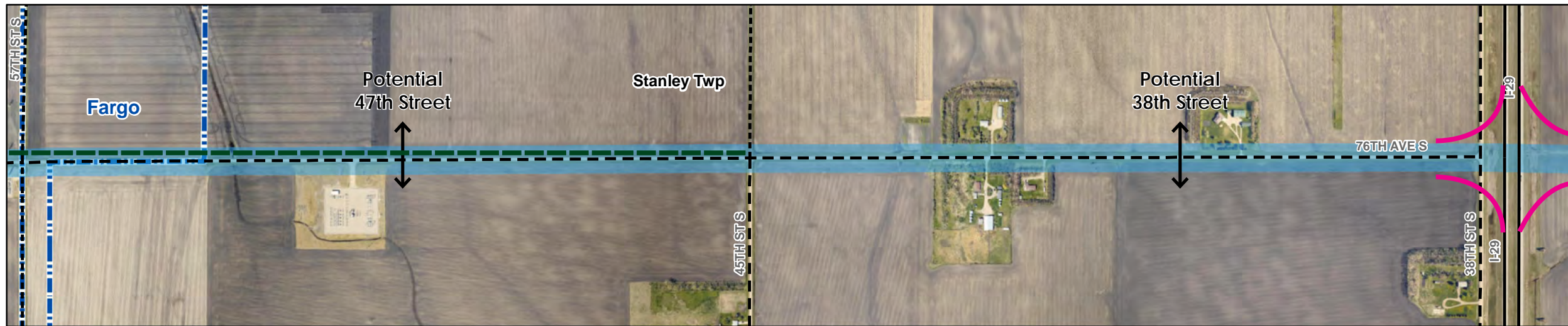
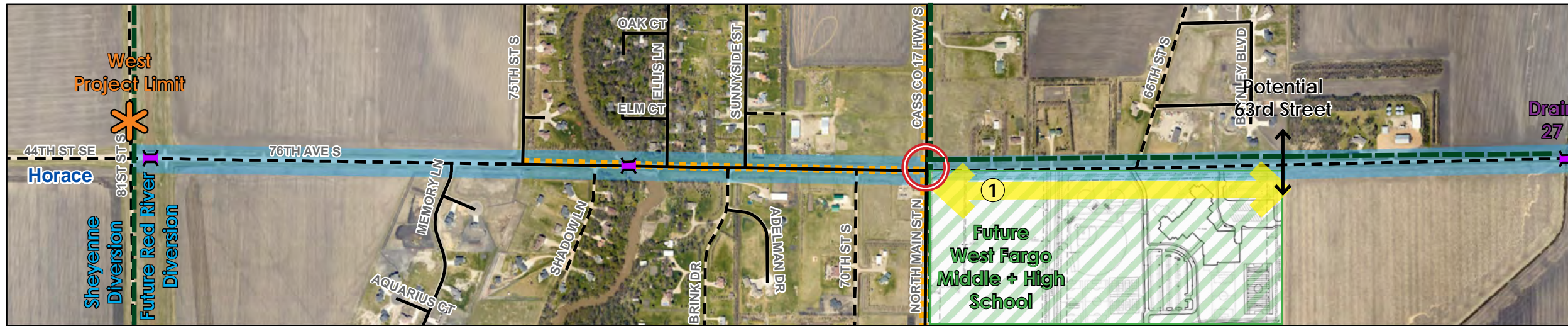
701-566-6020

peggy.harter@stantec.com



76th Avenue South Corridor Study





Why This Study



- Paved Road
- Gravel Road
- Field Road
- Existing On-Street Bikeway
- Existing Shared Use Path
- Study Corridor (1-mile section line road)
- Municipal Boundaries
- Bridge structures (may need to be widened with road widening)
- Future road connection (previous study)
- Programmed Improvements: 4-Lane divided concrete pavement project in 2019 (Cass County Comp Plan)
- Future Bike Path (previous study)
- Potential 76th Realignment for Red River Bridge (previous study)
- Future Roundabout
- Potential Interchange (previous study)

76th Avenue South Corridor Study

PAST PLANS AND STUDIES

There have been numerous past plans and studies in the region that have included portions of the 76th Avenue corridor. This study uses that work as a spring-board for future planning. Those studies are listed below and key findings are illustrated on the map.

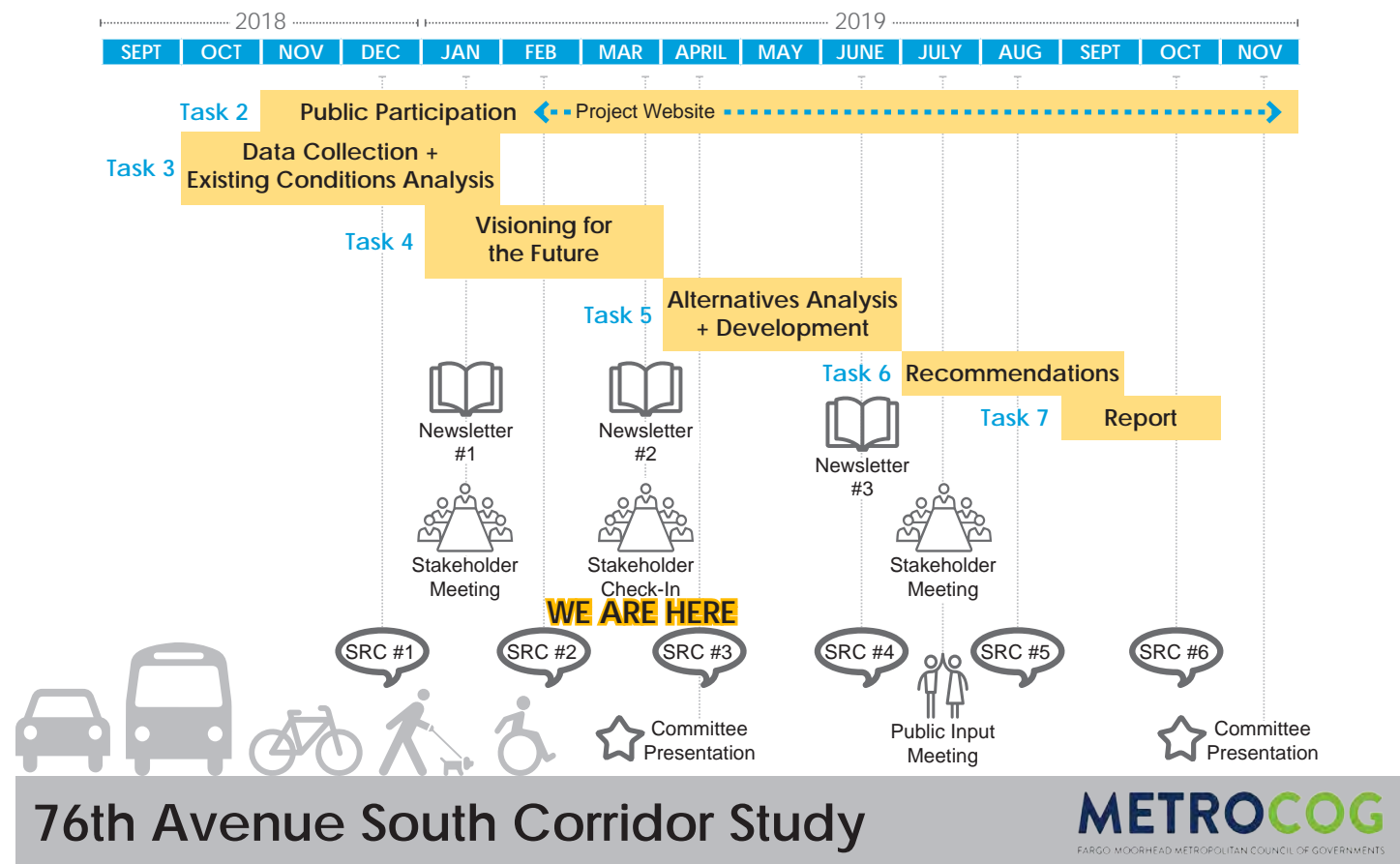
Key Studies

- Sheyenne Street and 76th Avenue South Intersection Study (November 2018)
- Future West Fargo School Site (November 2018)
- Fargo/West Fargo Parking & Access Requirements Study (October 2018)
- 2019-2022 Draft Transportation Improvement Program (September 2018)
- Traffic Impact Study for New West Fargo Schools (September 2018)
- 2019-2023 Cass County Comprehensive Highway Plan (September 2018)
- Cass County Comprehensive and Transportation Plan (July 2018)
- FM Alternative Route & Traffic Incident Management Guidebook (December 2017)
- Fargo-Moorhead Regional Freight Plan (September 2017)
- 2016-2020 Transit Development Plan (December 2016)
- Southwest Metropolitan Transportation Plan (SWMTP) (May 2016)
- Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan (2016)
- Metro 2040: Long Range Transportation Plan (July 2014)
- South Diversion Master Transportation Plan (October 2013)
- Go 2030 Fargo Comprehensive Plan (May 2012)
- Traffic Operations Incident Management Strategy (TOIMS) (March 2011)
- 2028 Horace Comprehensive Plan (Sept. 2007)
- 2007 Fargo Growth Plan (2007)
- Red River Bridge Corridor and Geotechnical Studies (2003)

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PROJECT SCHEDULE



76th Avenue South Corridor Study



NEWSLETTER #2

76TH AVE

ABOUT THE PROJECT

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) along with their project partners (the City of Fargo, City of Horace, Cass County and the North Dakota Department of Transportation) are conducting a corridor study along 76th Avenue South from the Sheyenne Diversion (west project limit) to the Red River of the North (east project limit).

FACILITY PREFERENCE SURVEY

The project team has developed a facility preference survey to understand what types of amenities are most important to include along 76th Avenue South and desired future land uses. These facilities include bicycle and pedestrian facilities, safe crossings, parking and transit stations. The survey also addresses the development styles that could happen along the corridor. View the different potential facilities inside this newsletter and use it as a guide as you complete the online survey.

COMPLETE THE SURVEY

We want to hear from you!

How do you imagine the corridor in 20 to 30 years? The project team has developed a short 5 minute survey to understand your ideas for the future of 76th Avenue South. Your feedback will help to identify roadway designs and development styles to prioritize along the corridor.



Scan this QR code or use the link below to access the survey.

<http://tinyurl.com/76thAveS>

Responses will be accepted until April 15, 2019. Paper copies of the survey are available upon request to Peggy Harter, Stantec Project Manager.



76th Avenue South Corridor Study



UPDATES FROM THE STUDY REVIEW COMMITTEE (SRC)

The SRC met for the second time on February 20, 2019 to discuss project updates, make comments on the existing conditions report, review the stakeholder meeting summary, and participate in visioning exercises for the future 76th Avenue South Corridor.

WEBSITE UPDATES

The project website is a great place to stay up-to-date with the 76th Avenue South Corridor Study. Check out the website now to view:

- Existing Conditions Report
- Meeting summaries from SRC Meeting #1, SRC Meeting #2, and Stakeholder Meeting #1
- A link to the online survey and full facility preference images

CONTACT INFORMATION

Are you interested in learning more about the project or connecting with our team?

Check out the website to learn more, give comments and subscribe to the project listserve to receive study updates.

www.76thavestudy.com

Send comments to the team:

Peggy Harter
 Stantec Project Manager

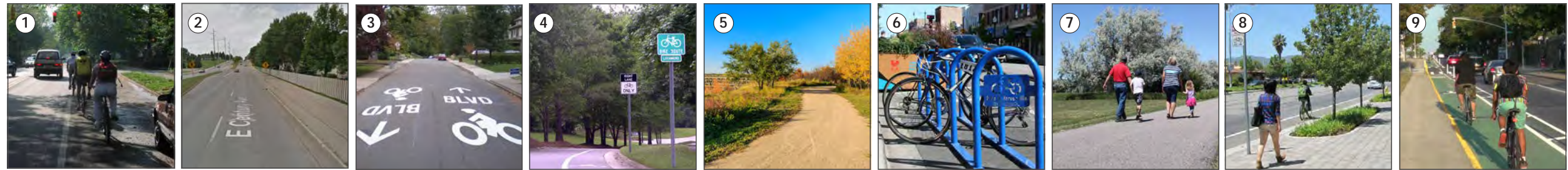
2632 47th Street South, Suite 103
 Fargo, ND 58104

701-566-6020

peggy.harter@stantec.com

BICYCLE AMENITIES

Take a look at these examples of bicycle facilities from across the US. Which ones excite you?



TRANSIT & PARKING

Take a look at these examples of transit and parking amenities from across the US. Which ones excite you?



DEVELOPMENT & STREETScape

Take a look at these examples of development and streetscape styles from across the US. Which ones excite you?



PEDESTRIAN AMENITIES

Take a look at these examples of pedestrian facilities from across the US. Which ones excite you?



STREET DESIGN

Take a look at these examples of street design from across the US. Which ones excite you?



Mike Rutkowski
 Stantec Consulting
 2632 47th St S Suite 103
 Fargo, North Dakota
 58104

About the Project

The Fargo-Moorhead Metropolitan Council of Governments (Metro COG) along with their project partners (the City of Fargo, City of Horace, Cass County and the North Dakota Department of Transportation) are conducting a corridor study along 76th Avenue South from the Sheyenne Diversion (west project limit) to the Red River of the North (east project limit).

The purpose of this study is to look at future growth and development to determine multimodal mobility needs along the 76th Avenue corridor.

Updates from the Study Review Committee

The Study Review Committee ("SRC") has met three times since the last newsletter was sent in April 2019. Since then, additional analysis and research has been completed to understand how various land use planning scenarios will affect 76th Avenue South in the future.

The SRC has conducted a visual preference survey, future roadway conditions and assumptions (including forecasted vehicle volumes), and two design alternatives (regional arterial and commercial arterial).

Project Website

The project website is a great place to stay up-to date with the 76th Avenue South Corridor Study. If you are unable to attend the virtual open house, a recorded presentation will be available to view on the website.

A comment period will be open following the open house through August 21st. Comments can be submitted via the project website, email, phone or mail.

For further questions or comments, contact:

Michael Maddox, MetroCOG
 Direct: 701 532-5104
 maddox@fmmetrocog.org

Mike Rutkowski, Stantec
 Direct: 919 277-3106
 Mike.Rutkowski@stantec.com

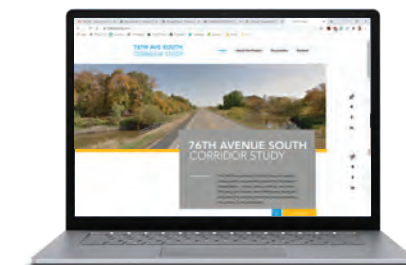
Two Alternative Concepts

The project team has developed two roadway concept alternatives. Both alternatives are described inside this newsletter and will be discussed at the upcoming virtual open house (see below).

In general the alternatives are as follows:

- (1) To prioritize east/west traffic with limited interruptions utilizing alternative intersection treatments. Or,
- (2) To prioritize traffic and multimodal connectivity east/west utilizing mostly traditional signalized intersections.

Virtual Open House



Join us for an online **live presentation and discussion**

Join us for a presentation followed by a question and answer session on the 76th Avenue South Corridor Study. The project team will provide project updates and discuss concept alternatives.

Date: Wednesday, August 12

Time: 12:00pm

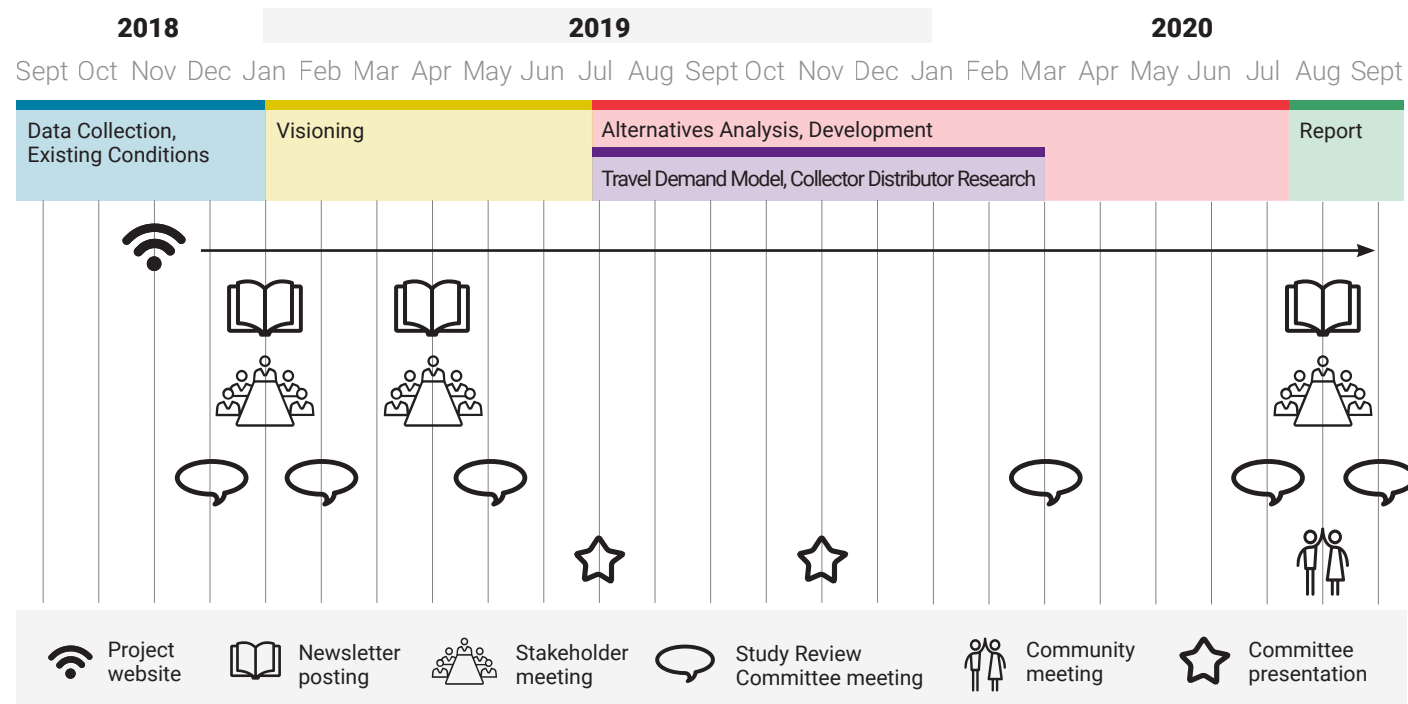
Location: visit the project website for a link to the virtual open house:

The presentation will be uploaded to the website afterwards and comments will be received August 12 - August 21.

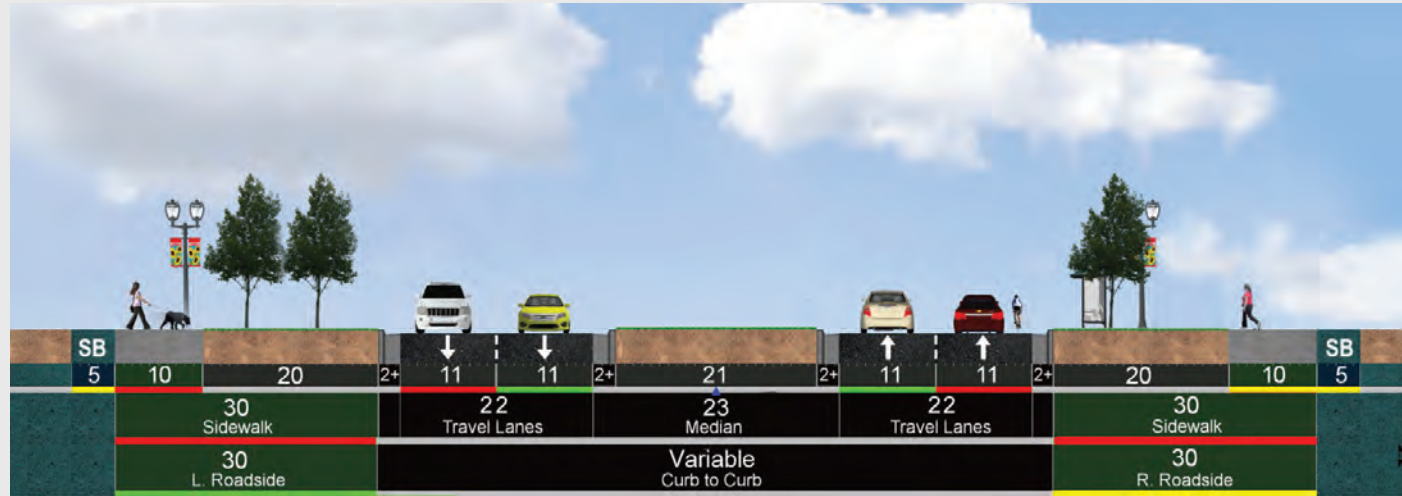
www.76thAveStudy.com



Project Schedule



see opposite side for project schedule

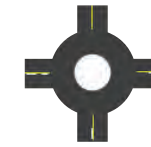


Proposed Cross Section

The proposed cross section of 76th Ave will vary depending on the segment along the corridor. Some segments (east and west termini) will be 3 lanes. Other segment may be 4 or 6 lane divided depending on growth, development and timing. See below for potential design features in the cross sections.

The cross section shown is between 38th and 36th St.

Did you know...



Signalized intersection to roundabout conversions have resulted in a:

78%

reduction in severe crashes

FHWA Highway Safety Manual

Design Alternative #1: Regional Arterial

The purpose of this alternative is to prioritize east/west traffic with limited Interruptions utilizing alternative intersection treatments. This alternative would use a combination of these intersection types:

Restricted Crossing U-Turn ("R-CUT")

Potential option for the intersections of 76th Avenue with these streets:

- 48th Street South
- 45th Street South
- 42nd Street South
- 33rd Street South



Alternative #1: Pros

- Limited vehicular travel delay for east/west movements
- Grade separated pedestrian crossings will facilitate north/south pedestrian movement
- Proposed alternative intersection types can have added vehicular safety benefits compared to a signalized intersection
- Moderate decrease in vehicle delay on 76th Ave due to limited access at intersections (R-Cuts)

Alternative #1: Cons

- Increased travel delay for side streets
- Higher construction costs (pedestrian tunnels, U-turns, etc.)
- Fewer pedestrian crossings
- Requires additional right of way dedication
- Limits access to adjacent development

Roundabout

Potential option for the intersections of 76th Avenue with these streets:

- Sheyenne Street
- 63rd Street South
- Veterans Blvd
- 25th Street South
- University Drive



Design Alternative #2: Commercial Arterial

The purpose of this alternative is to prioritize traffic and multimodal connectivity east/west utilizing mostly traditional signalized intersections. Using a combination of these intersection types:

Traditional Signalized Intersections

Potential option for the intersections of 76th Avenue with these streets:

- Veterans Blvd
- 45th Street South
- 42nd Street South
- 33rd Street South
- 25th Street South
- University Drive



Roundabout

Potential option for the intersections of 76th Avenue with these streets:

- Sheyenne Street
- Lakeview Drive
- 63rd Street South
- 60th Street South



Alternative #2: Pros

- Non-motorized traffic has more opportunities to cross the road (at signals)
- Requires less right of way dedication
- Allows for a progression-controlled signal system
- Lower construction costs
- Allows direct access to adjacent development

Alternative #2: Cons

- Signalized intersections will create longer travel delays
- Signalized intersections have more conflict points than alternative intersection types
- Moderate increase in vehicle delay on 76th Ave due to full access at intersections

76th Avenue South Corridor Study – Online Survey

Online Survey Overview

In March and April 2019, the project team hosted an online survey to determine the roadway and development preferences for stakeholders along the 76th Avenue South Corridor. The online survey was hosted through Survey Monkey and was also offered as a paper version upon request.

Respondent Demographics

A total of 68 people completed the survey: 67 online and 1 paper survey. Demographics of participants are listed below.

- Most respondents live in the City of Fargo (53.7%) and the City of Horace (31.3%) others live in West Fargo, Cass County, and Moorhead.
- Over 40% of respondents were between the ages of 35 and 44. Nearly 90% of residents were between the ages of 25 and 64.

General Questions

First, respondents were asked a series of general questions about the future of the 76th Avenue South Corridor. These questions mirrored the keypad voting questions administered to the study review committee.

- 88% of respondents either agree or strongly agree that an I-29 interchange at 76th Avenue South will be warranted and supported in the future.
- 81% of respondents either agree or strongly agree that the Red River Diversion should be planned as happening within the next 10 years.
- 57% of respondents agree or strongly agree that 76th Ave South should serve as a beltway type facility to serve large traffic volumes with highly controlled accesses to connect into MN.
- 83% of respondents believe that driving should be prioritized, 43% believe and that biking should be prioritized, and 41% believe walking should be prioritized.
- Nearly half of respondents support access management (48%).
- 46% of respondents believe that development along the corridor is currently “okay”. 21% believe development is “good” or “excellent”.

Existing Challenges and Future Needs

Survey respondents also were asked to identify some of the challenges along the corridor and future needs to improve development and transportation. The results of those questions are summarized below.



- The biggest challenges with 76th Avenue south are Dealing with Congestion (52%) and Integrating Pedestrian Facilities (35%). Maintaining safe speeds and aesthetics were tied for 3rd most important (31%).
- The highest priority needs along the corridor were Widening/Adding More Lanes (39%), Streetscape/Landscaping (33%), and Connectivity (30%). However, half of participants' prioritize change depending on the segment of the corridor.
- The top three missing development types are: Active Parks, Greenways, and Playgrounds (69%), Low Density Residential (57%), and Commercial (40%).

Visual Preference Survey

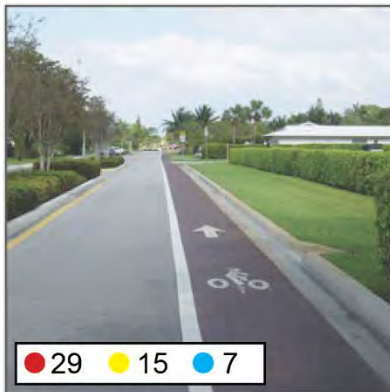
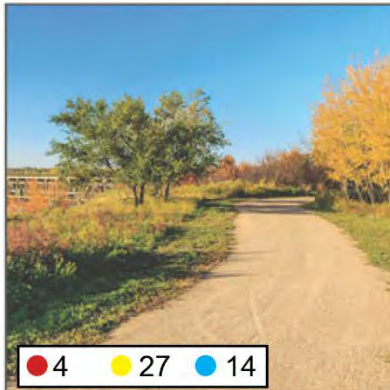
The survey also included a visual preference survey to identify preferred roadway amenities and streetscape designs. Participants were asked to review a series of images and then identify which images would be appropriate for urban areas of the corridor, which are appropriate for suburban/residential areas, and which are not appropriate anywhere along the corridor. The following pages summarize the findings for each of these questions:

- **Bike Amenities**
 - Top Urban Options: striped bike lane, bike rack
 - Top Suburban Options: walking trail, gravel trail
 - Not Appropriate at All: side path, bike boulevard
- **Transit and Parking**
 - Top Urban Options: bus with bike rack, bus station pull off
 - Top Suburban Options: bus stop with shelter, real-time tracking
 - Not Appropriate at All: dial-a-ride, on-street parking
- **Development and Streetscape**
 - Top Urban Options: main street businesses, planted medians
 - Top Suburban Options: single family homes, planted medians
 - Not Appropriate at All: high density apartments, benches/public art
- **Pedestrian Amenities**
 - Top Urban Options: crosswalk with pavers, ADA ramps
 - Top Suburban Options: decorative street lighting, pedestrian HAWK crossing
 - Not Appropriate at All: crosswalk at light, crosswalk with pavers
- **Traffic Calming**
 - Top Urban Options: marked crosswalks with bumpouts, planted boulevards
 - Top Suburban Options: street trees, large roundabouts
 - Not Appropriate at All: boulevard bump outs, small roundabouts



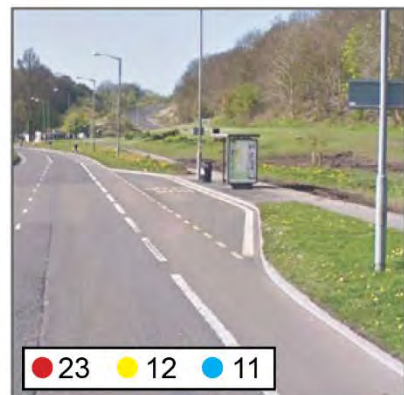
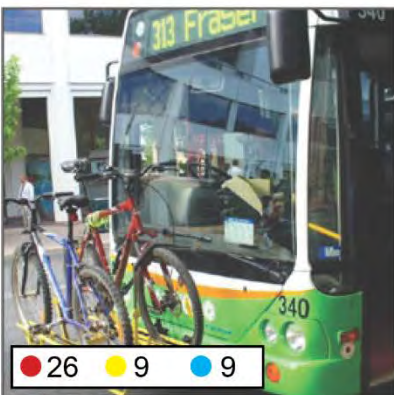
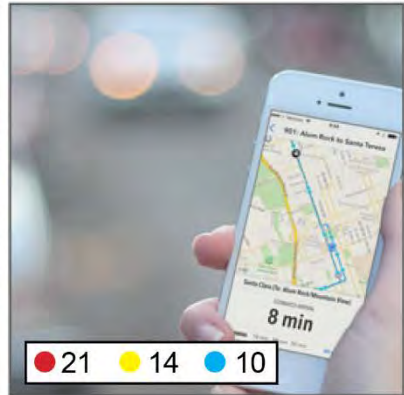
Bike Amenities

Take a look at these examples of bicycle facilities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



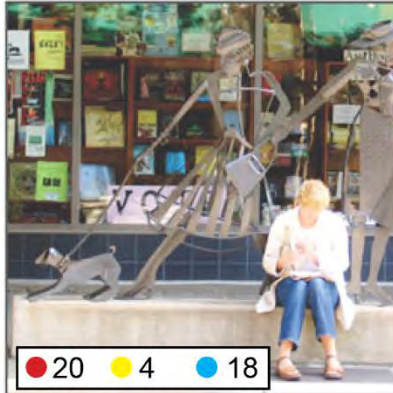
Transit and Parking

Take a look at these examples of transit and parking facilities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



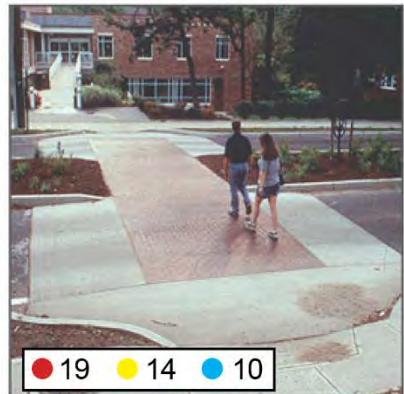
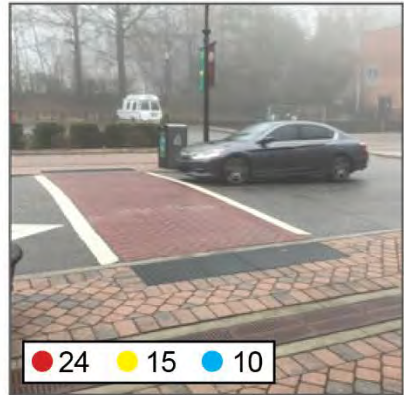
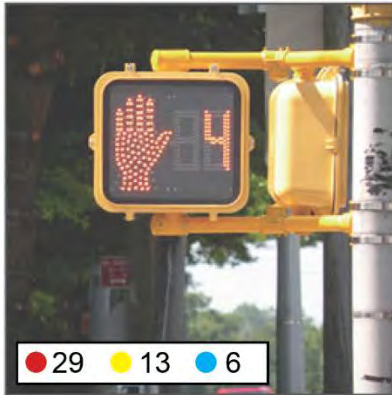
Development and Streetscape

Take a look at these examples of development and streetscape examples across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



Pedestrian Amenities

Take a look at these examples of pedestrian amenities across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



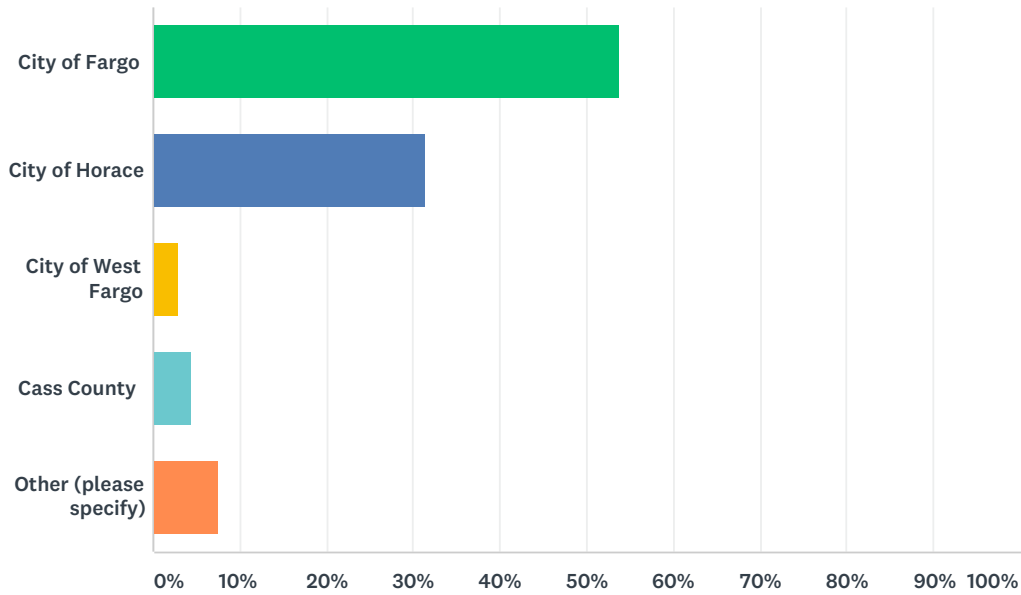
Traffic Calming

Take a look at these examples of traffic calming techniques across the U.S. Which ones excite you? Place a dot for what element you feel would work. Use ● Dots for Urban/Commercial areas, ● Dots for Suburban/Residential/Rural Areas, & ● Dots if something absolutely would not work.



Q1 Where do you live

Answered: 67 Skipped: 1

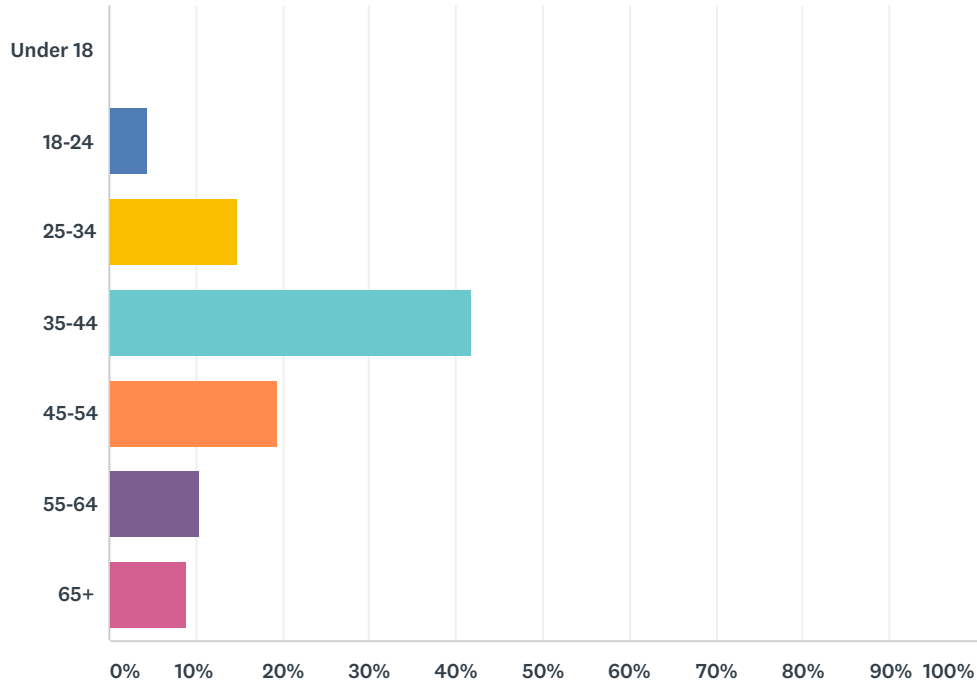


ANSWER CHOICES	RESPONSES
City of Fargo	53.73% 36
City of Horace	31.34% 21
City of West Fargo	2.99% 2
Cass County	4.48% 3
Other (please specify)	7.46% 5
TOTAL	67

#	OTHER (PLEASE SPECIFY)	DATE
1	77th Ave/15th St	4/13/2019 2:08 PM
2	Aquarius Drive	4/9/2019 6:11 PM
3	Moorhead	3/27/2019 1:33 PM
4	Moorhead	3/27/2019 8:42 AM
5	forest river	3/26/2019 6:43 PM

Q2 What is your age?

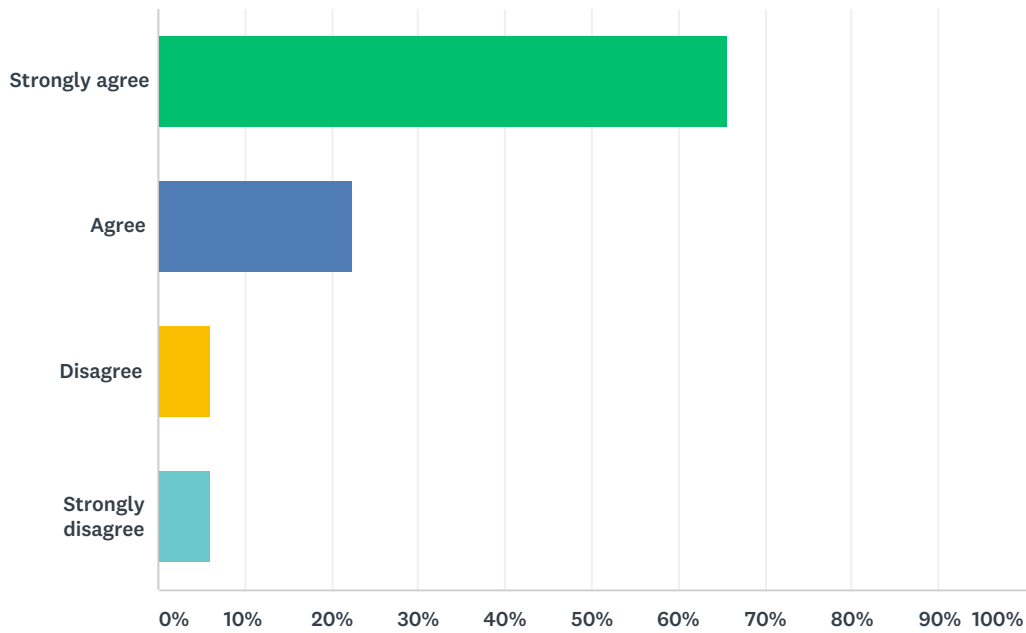
Answered: 67 Skipped: 1



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-24	4.48%	3
25-34	14.93%	10
35-44	41.79%	28
45-54	19.40%	13
55-64	10.45%	7
65+	8.96%	6
TOTAL		67

Q3 I foresee an I-29 interchange at 76th Ave South as being warranted and supported in the future.

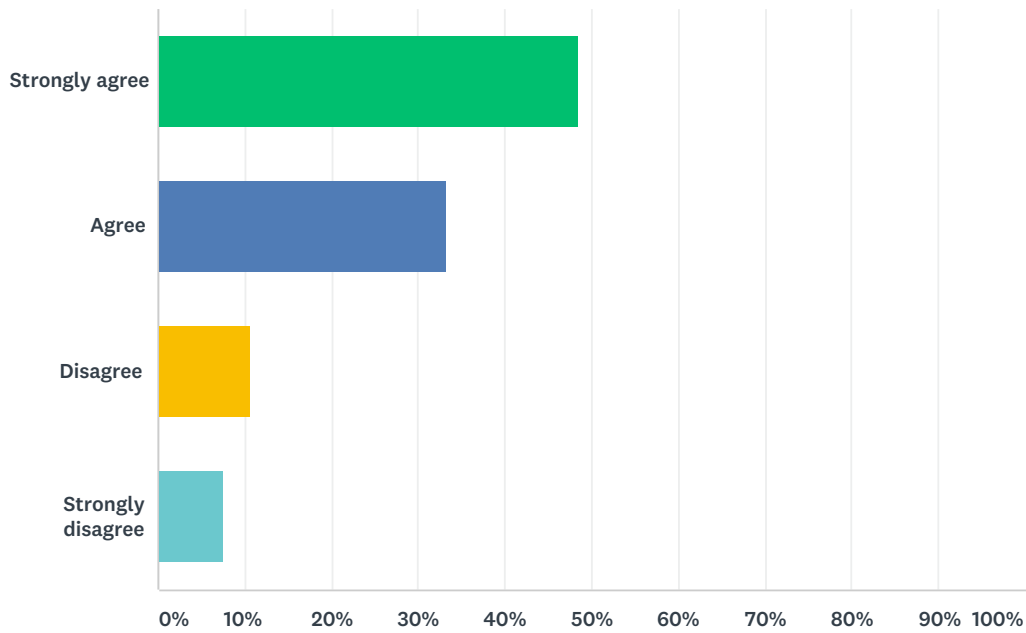
Answered: 67 Skipped: 1



ANSWER CHOICES	RESPONSES	
Strongly agree	65.67%	44
Agree	22.39%	15
Disagree	5.97%	4
Strongly disagree	5.97%	4
TOTAL		67

Q4 The Red River Diversion should be planned as happening within the next 10 years.

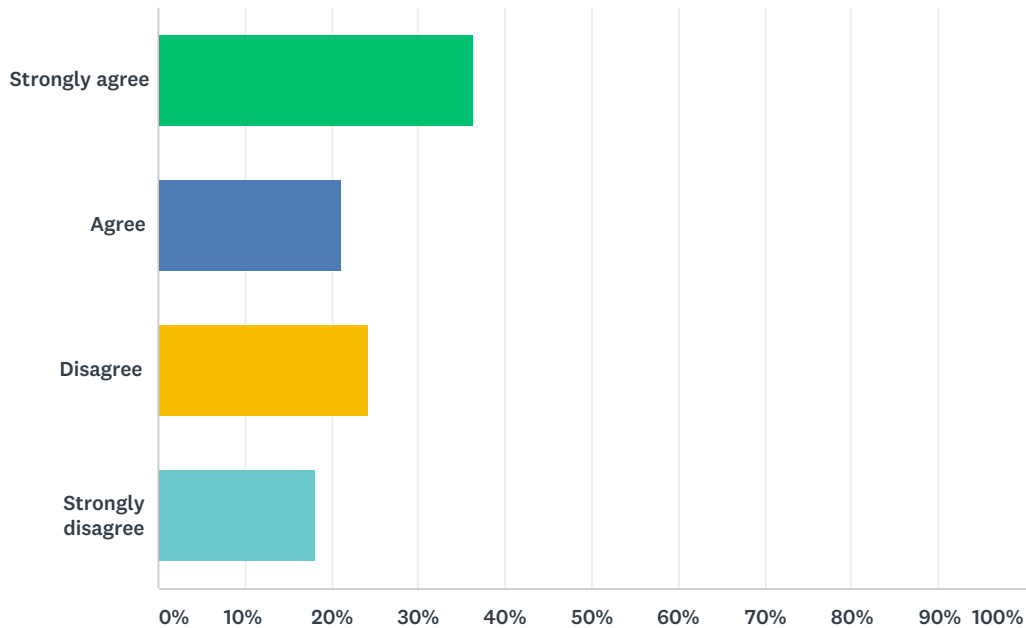
Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES	
Strongly agree	48.48%	32
Agree	33.33%	22
Disagree	10.61%	7
Strongly disagree	7.58%	5
TOTAL		66

Q5 I believe 76th Ave South should serve as a beltway type facility to serve large traffic volumes with highly controlled accesses that would connect into Minnesota.

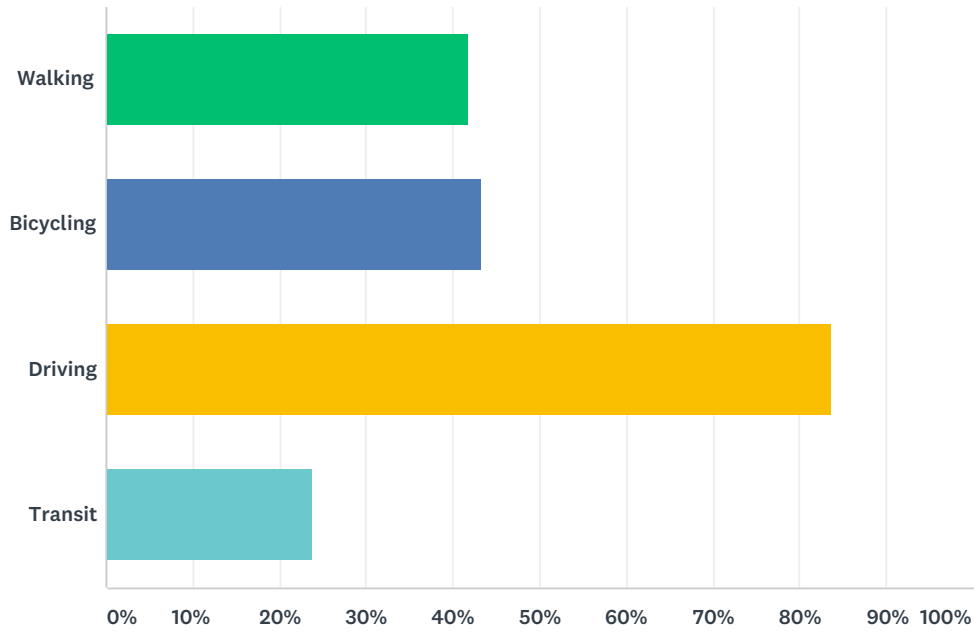
Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES	
Strongly agree	36.36%	24
Agree	21.21%	14
Disagree	24.24%	16
Strongly disagree	18.18%	12
TOTAL		66

Q6 Which modes are most important to improve for 76th Ave South? (pick two)

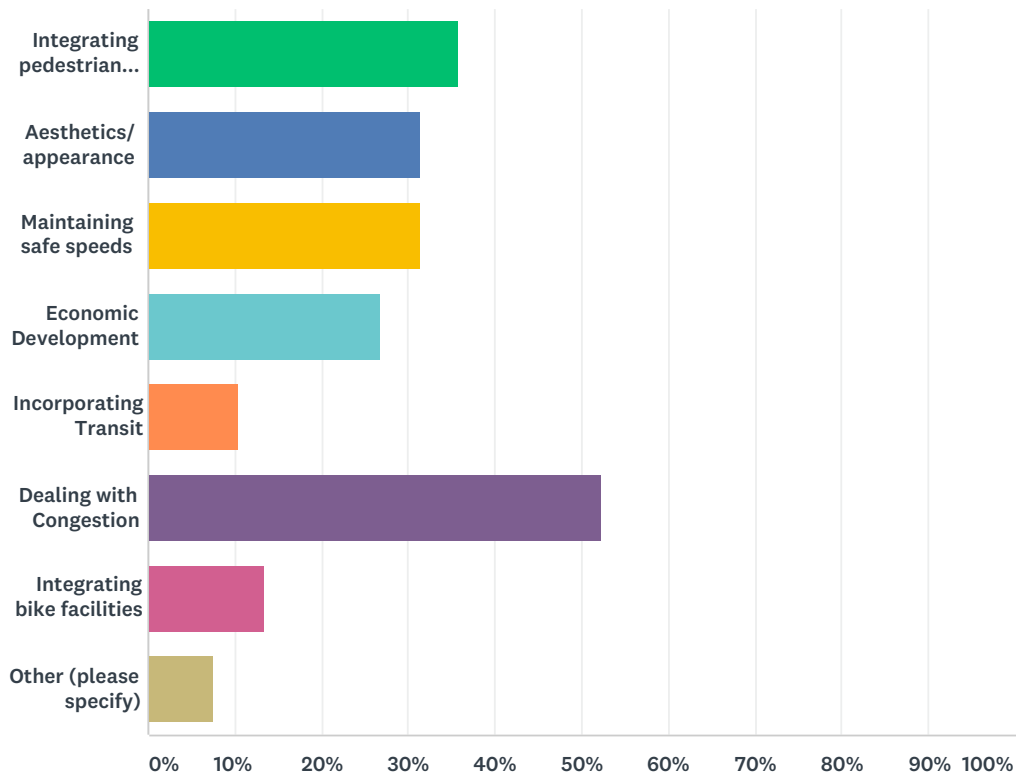
Answered: 67 Skipped: 1



ANSWER CHOICES	RESPONSES	
Walking	41.79%	28
Bicycling	43.28%	29
Driving	83.58%	56
Transit	23.88%	16
Total Respondents: 67		

Q7 What is the biggest challenge with 76th Ave South as we look to redesign it? (pick two)

Answered: 67 Skipped: 1

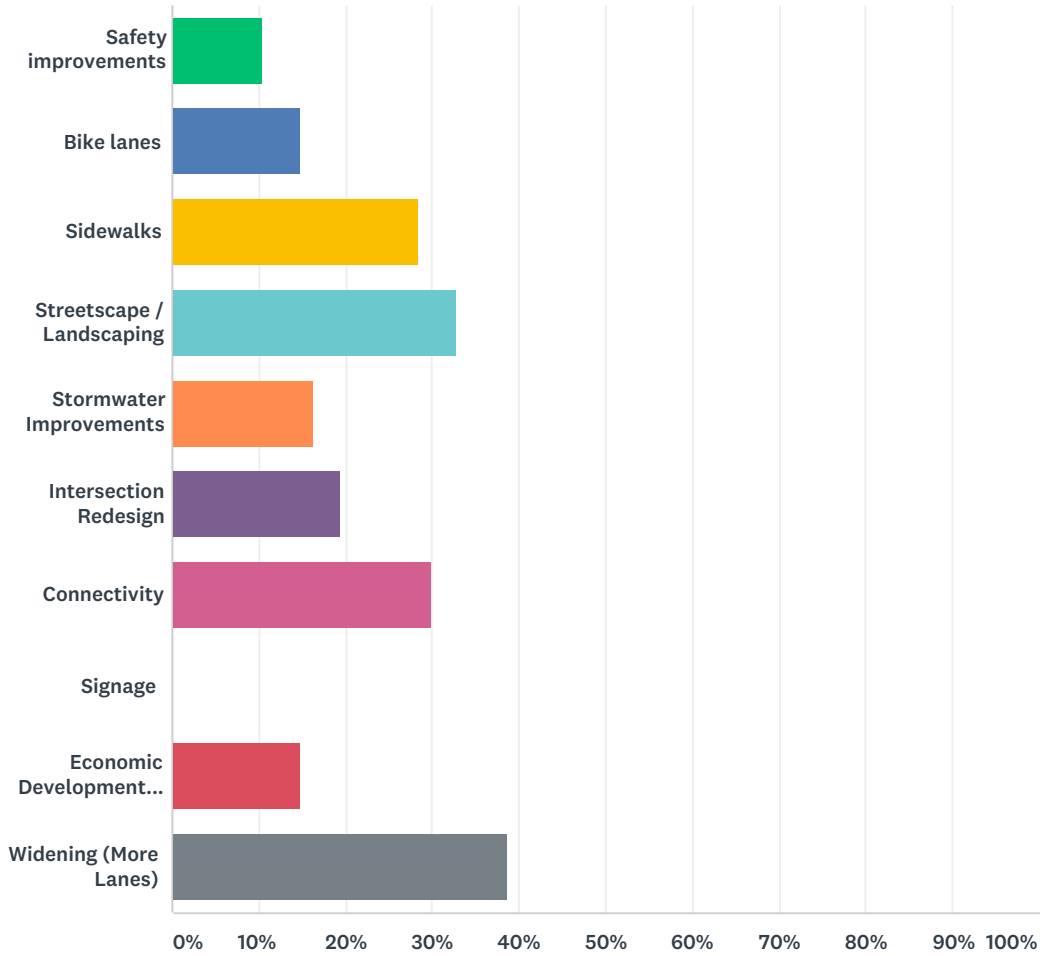


ANSWER CHOICES	RESPONSES
Integrating pedestrian facilities (sidewalks, ped countdowns, lighting, etc.)	35.82% 24
Aesthetics/ appearance	31.34% 21
Maintaining safe speeds	31.34% 21
Economic Development	26.87% 18
Incorporating Transit	10.45% 7
Dealing with Congestion	52.24% 35
Integrating bike facilities	13.43% 9
Other (please specify)	7.46% 5
Total Respondents: 67	

#	OTHER (PLEASE SPECIFY)	DATE
1	Dealing with the exsiting land owners which have land locked 76th Ave	4/13/2019 2:08 PM
2	Do not develop it. Leave it alone.	4/9/2019 4:01 PM
3	Homes along 76th devalued.	4/9/2019 2:51 PM
4	Improving and maintaining positive drainage and working within the right of way. Cost splitting information is vital to answering questions as well.	4/4/2019 9:48 AM

Q8 What is the highest priority need along 76th Ave South? (pick two)

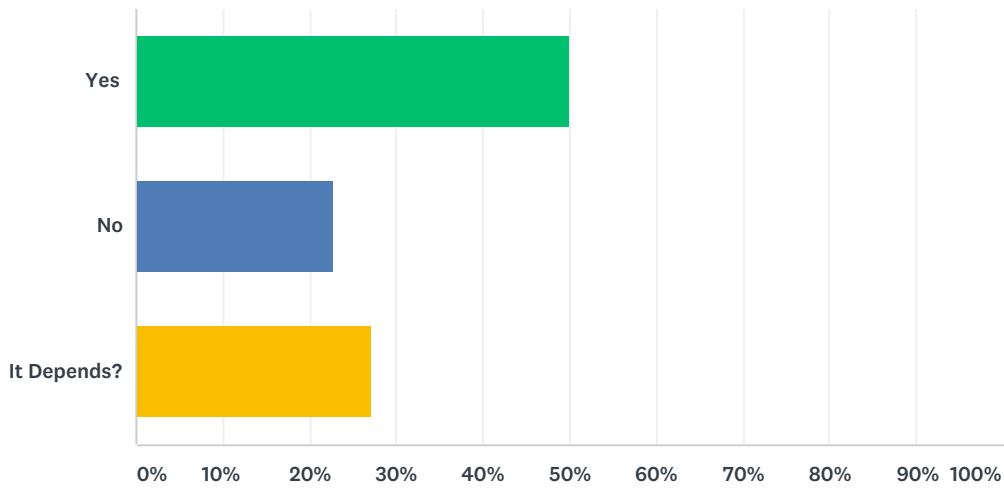
Answered: 67 Skipped: 1



ANSWER CHOICES	RESPONSES	
Safety improvements	10.45%	7
Bike lanes	14.93%	10
Sidewalks	28.36%	19
Streetscape / Landscaping	32.84%	22
Stormwater Improvements	16.42%	11
Intersection Redesign	19.40%	13
Connectivity	29.85%	20
Signage	0.00%	0
Economic Development Opportunities	14.93%	10
Widening (More Lanes)	38.81%	26
Total Respondents: 67		

Q9 Do your priorities change depending on the segment of the 76th Avenue South corridor?

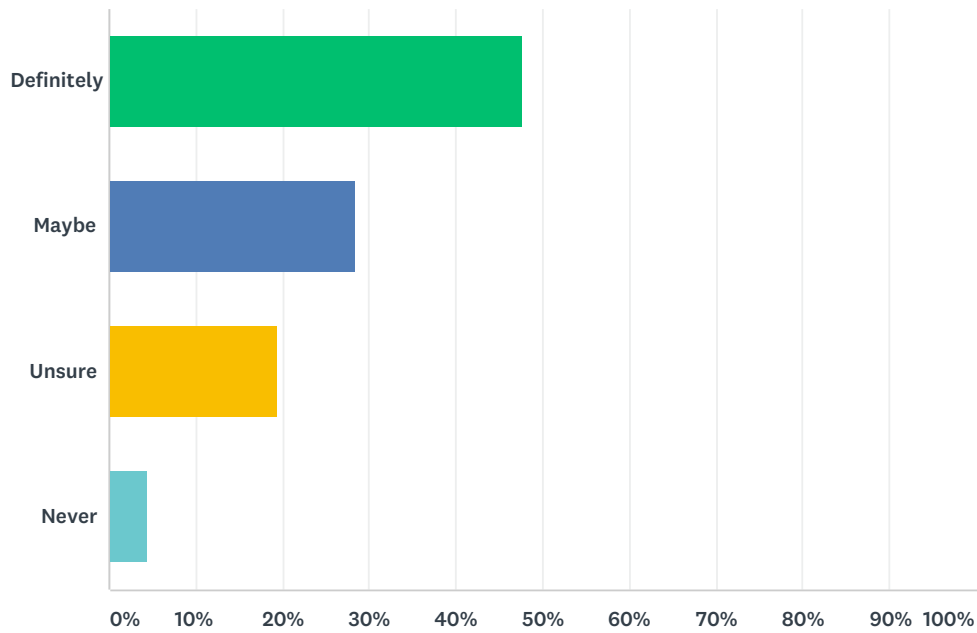
Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES
Yes	50.00% 33
No	22.73% 15
It Depends?	27.27% 18
TOTAL	66

Q10 Do you support limiting the number of access points such as other roadways and driveways along 76th Avenue South corridor?

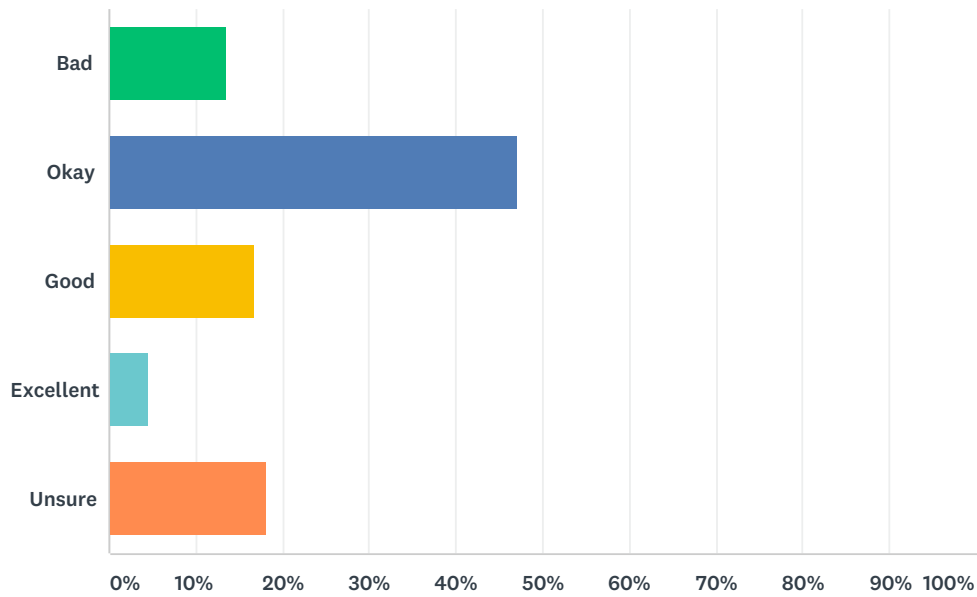
Answered: 67 Skipped: 1



ANSWER CHOICES	RESPONSES	
Definitely	47.76%	32
Maybe	28.36%	19
Unsure	19.40%	13
Never	4.48%	3
TOTAL		67

Q11 How do you rate the quality (in terms of design and appearance) of existing development along the corridor?

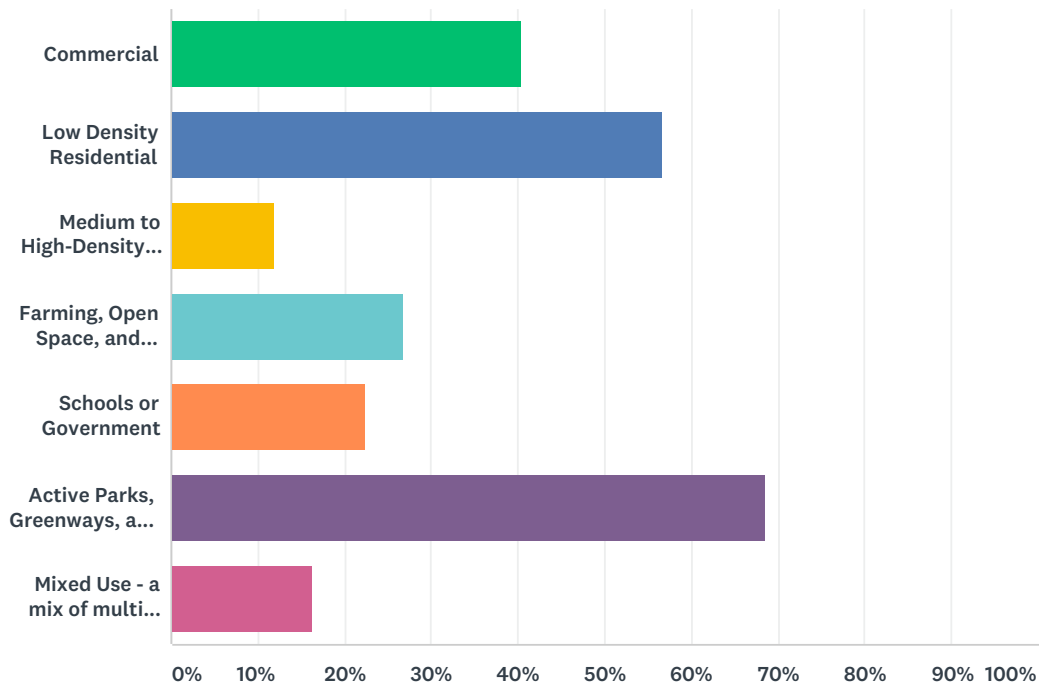
Answered: 66 Skipped: 2



ANSWER CHOICES	RESPONSES	
Bad	13.64%	9
Okay	46.97%	31
Good	16.67%	11
Excellent	4.55%	3
Unsure	18.18%	12
TOTAL		66

Q12 What type of development is missing along 76th Avenue South? (pick three)

Answered: 67 Skipped: 1



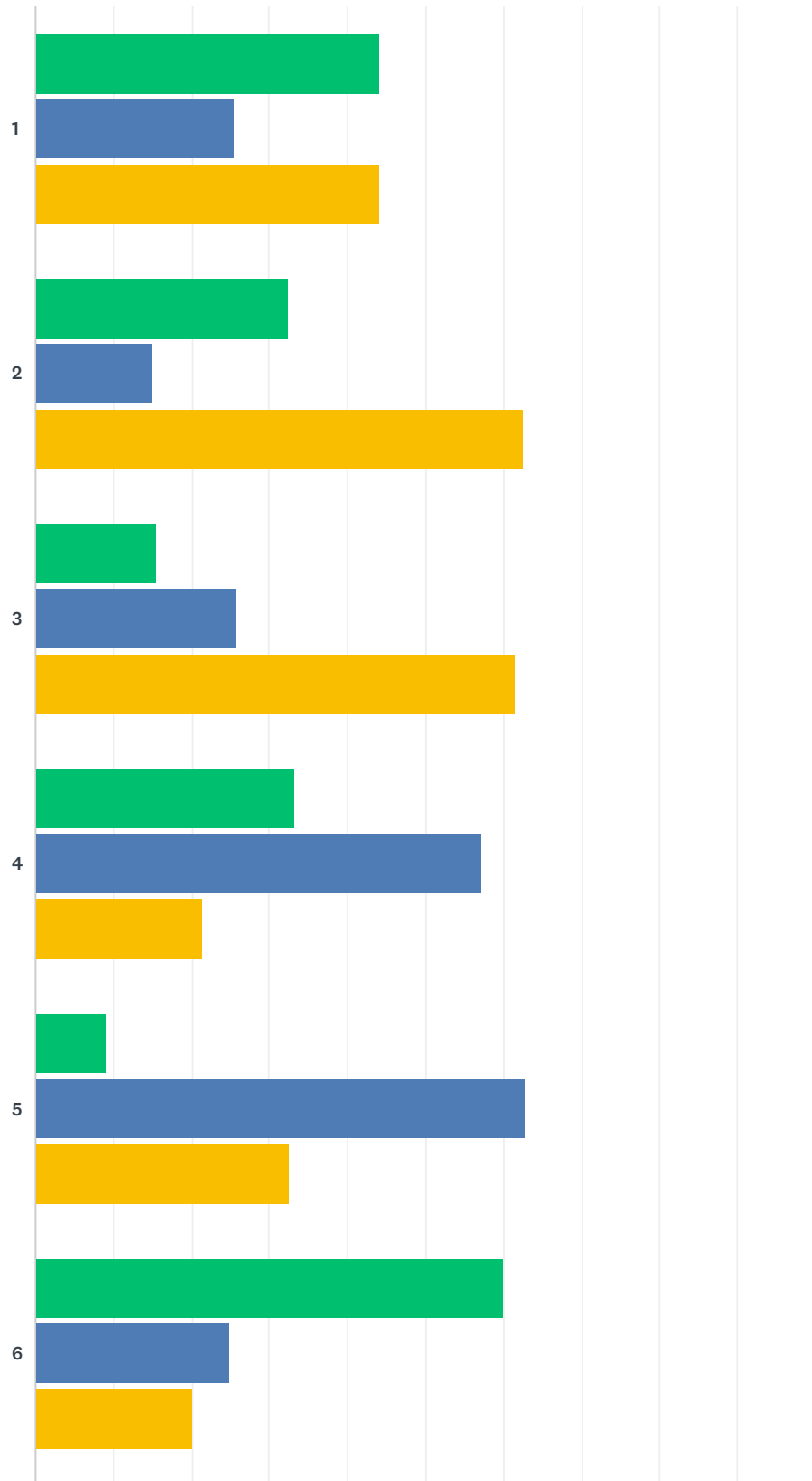
ANSWER CHOICES	RESPONSES
Commercial	40.30% 27
Low Density Residential	56.72% 38
Medium to High-Density Residential	11.94% 8
Farming, Open Space, and Passive Parks	26.87% 18
Schools or Government	22.39% 15
Active Parks, Greenways, and Playgrounds	68.66% 46
Mixed Use - a mix of multiple uses as shown above. If you choose mixed use, which uses do you think should be combined?	16.42% 11
Total Respondents: 67	

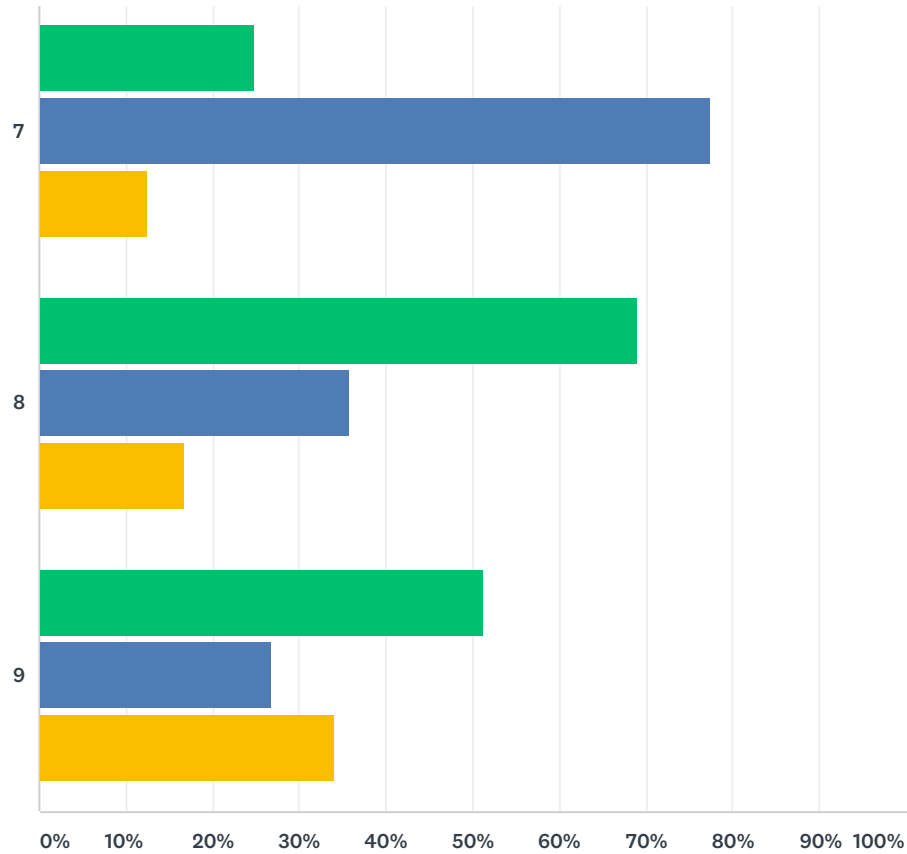
#	MIXED USE - A MIX OF MULTIPLE USES AS SHOWN ABOVE. IF YOU CHOOSE MIXED USE, WHICH USES DO YOU THINK SHOULD BE COMBINED?	DATE
1	commercial and schools	4/18/2019 7:51 PM
2	A	4/14/2019 5:42 AM
3	Commercial and Residential	4/12/2019 11:15 AM
4	Active parks/greenways, commercial	4/12/2019 6:49 AM
5	Parks and open spaces	4/12/2019 6:38 AM
6	Want to stay residential	4/10/2019 7:54 PM

7	Residential and commercial	4/9/2019 8:17 PM
8	Commercial/Residential mixes in compact forms	4/8/2019 10:02 AM
9	Parks in connection with local restaurants instead of other commercial businesses	4/4/2019 1:21 PM
10	Football and baseball fields	4/4/2019 11:40 AM
11	Everything	3/27/2019 8:02 AM

Q13 Where would you like to see these different bike amenities along 76th Avenue South?

Answered: 47 Skipped: 21



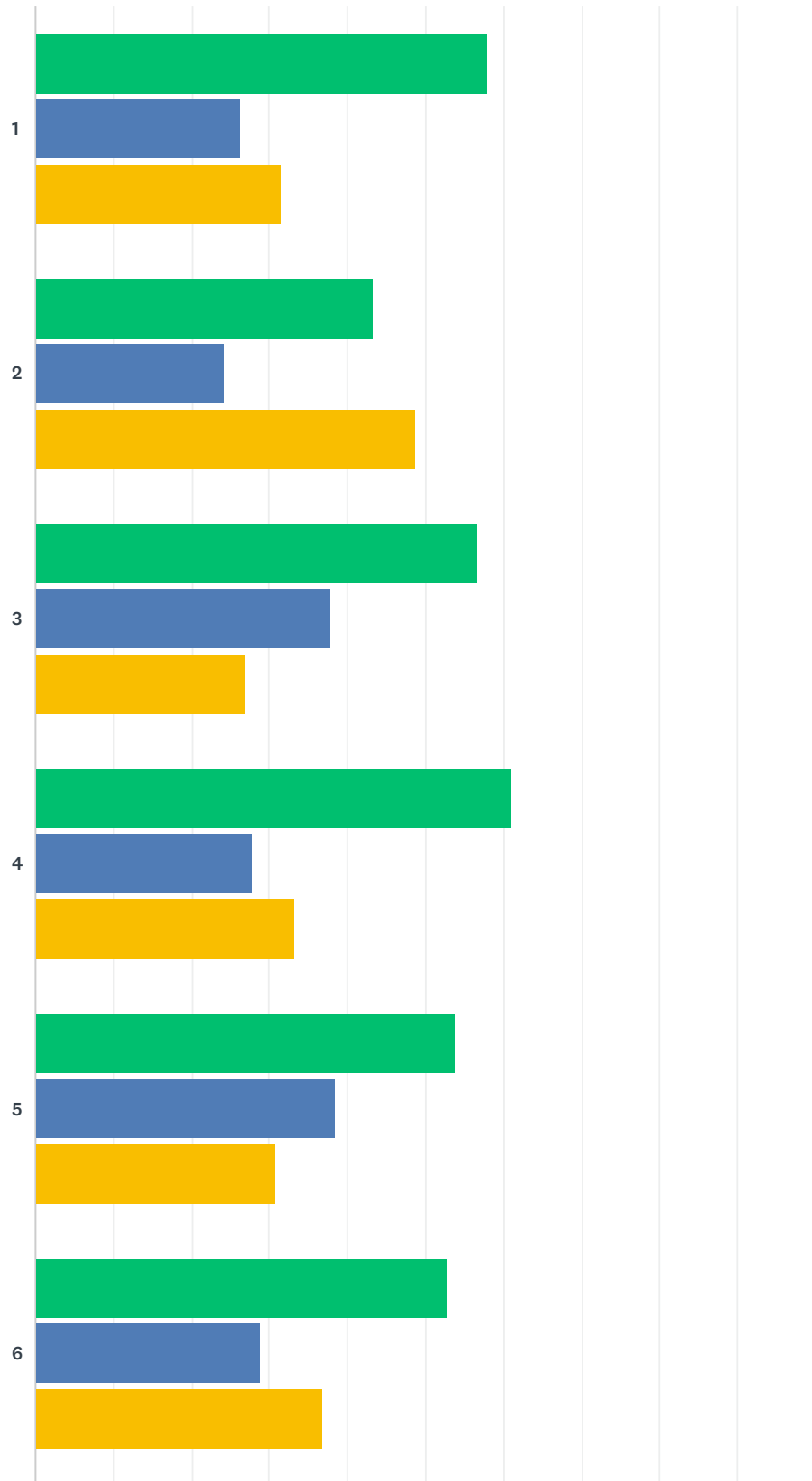


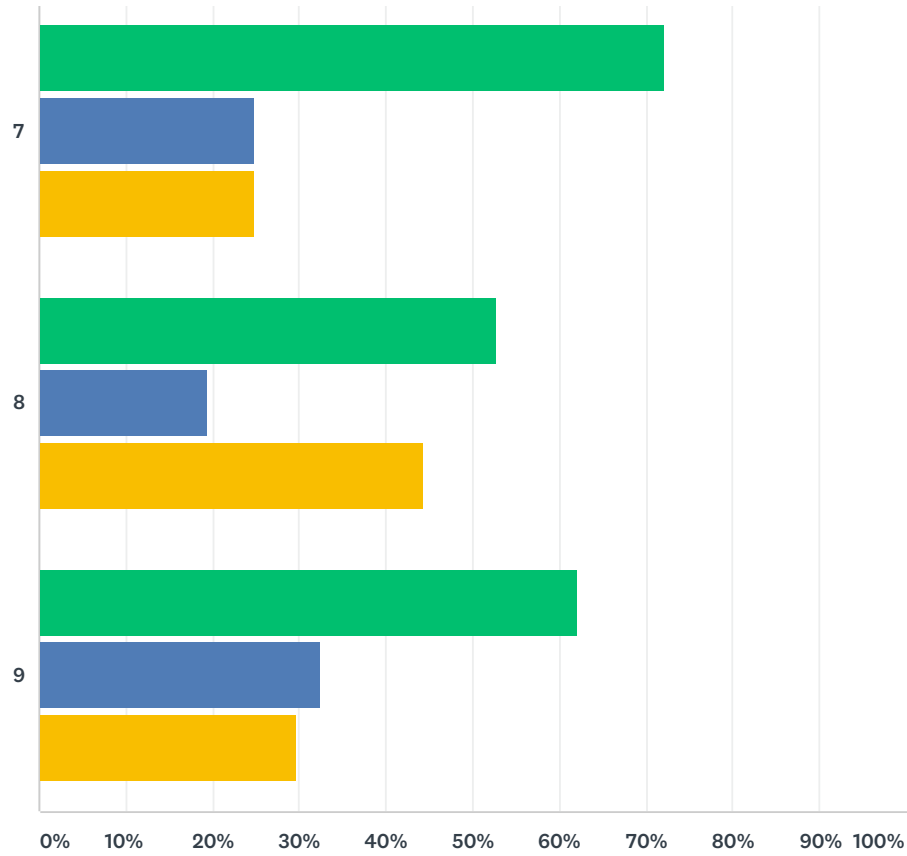
■ Urban and Commercial Areas
 ■ Suburban, Residential and Rural Areas
■ This would not work on 76th Ave S

	URBAN AND COMMERCIAL AREAS	SUBURBAN, RESIDENTIAL AND RURAL AREAS	THIS WOULD NOT WORK ON 76TH AVE S	TOTAL RESPONDENTS
1	44.19% 19	25.58% 11	44.19% 19	43
2	32.50% 13	15.00% 6	62.50% 25	40
3	15.38% 6	25.64% 10	61.54% 24	39
4	33.33% 14	57.14% 24	21.43% 9	42
5	9.30% 4	62.79% 27	32.56% 14	43
6	60.00% 24	25.00% 10	20.00% 8	40
7	25.00% 10	77.50% 31	12.50% 5	40
8	69.05% 29	35.71% 15	16.67% 7	42
9	51.22% 21	26.83% 11	34.15% 14	41

Q14 Where would you like to see these different transit and parking amenities along 76th Avenue South?

Answered: 40 Skipped: 28



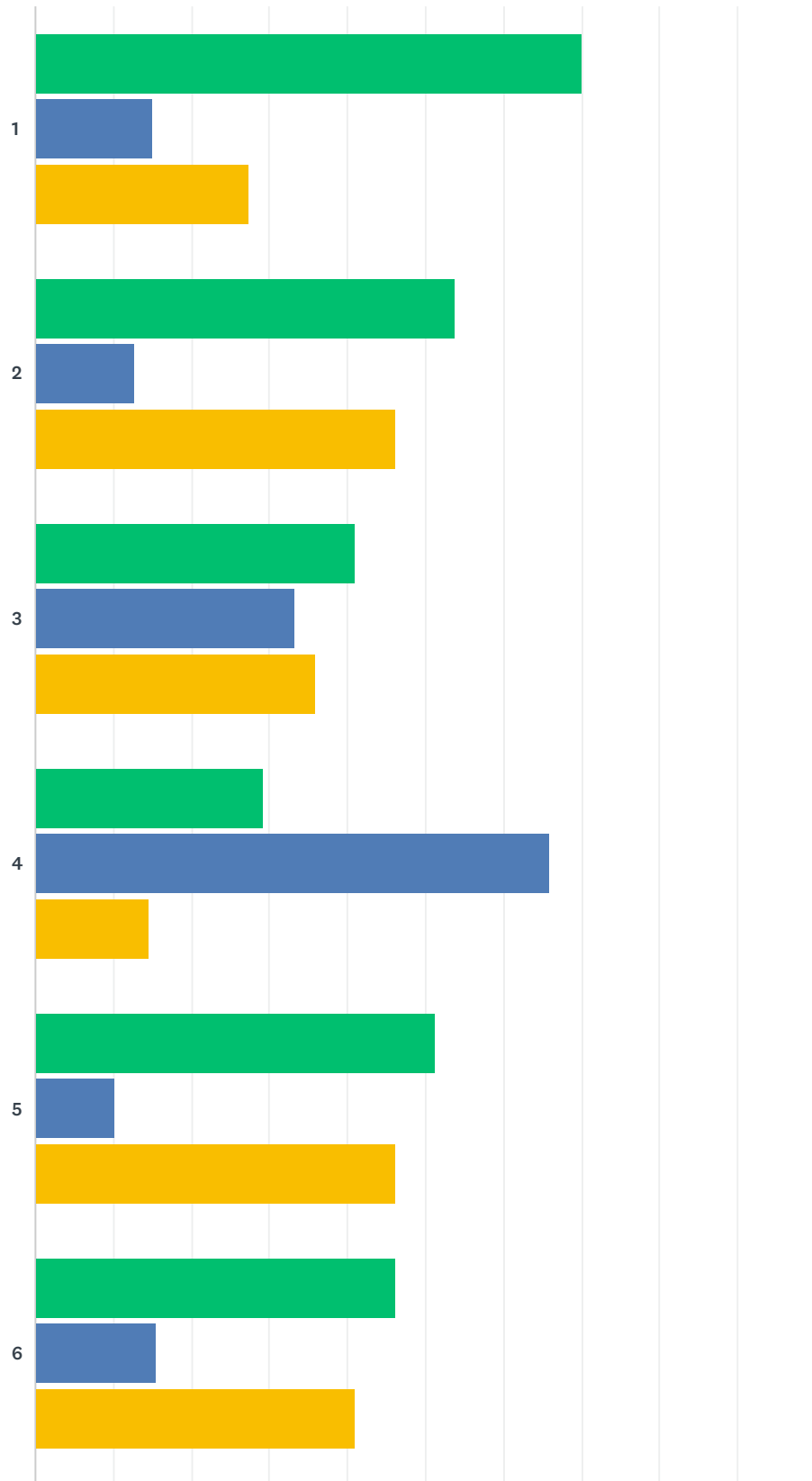


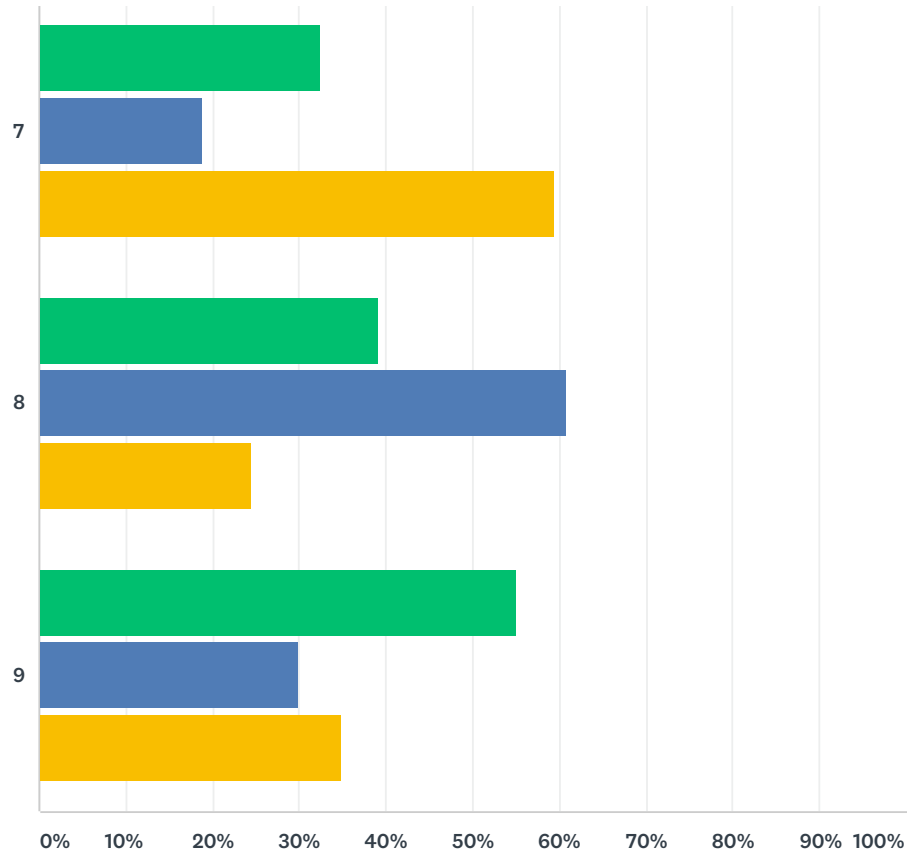
■ Urban and Commercial Areas
 ■ Suburban, Residential and Rural Areas
■ This would not work on 76th Ave S

	URBAN AND COMMERCIAL AREAS	SUBURBAN, RESIDENTIAL AND RURAL AREAS	THIS WOULD NOT WORK ON 76TH AVE S	TOTAL RESPONDENTS
1	57.89% 22	26.32% 10	31.58% 12	38
2	43.24% 16	24.32% 9	48.65% 18	37
3	56.76% 21	37.84% 14	27.03% 10	37
4	61.11% 22	27.78% 10	33.33% 12	36
5	53.85% 21	38.46% 15	30.77% 12	39
6	52.63% 20	28.95% 11	36.84% 14	38
7	72.22% 26	25.00% 9	25.00% 9	36
8	52.78% 19	19.44% 7	44.44% 16	36
9	62.16% 23	32.43% 12	29.73% 11	37

Q15 Where would you like to see these different development and streetscape styles along 76th Avenue South?

Answered: 43 Skipped: 25



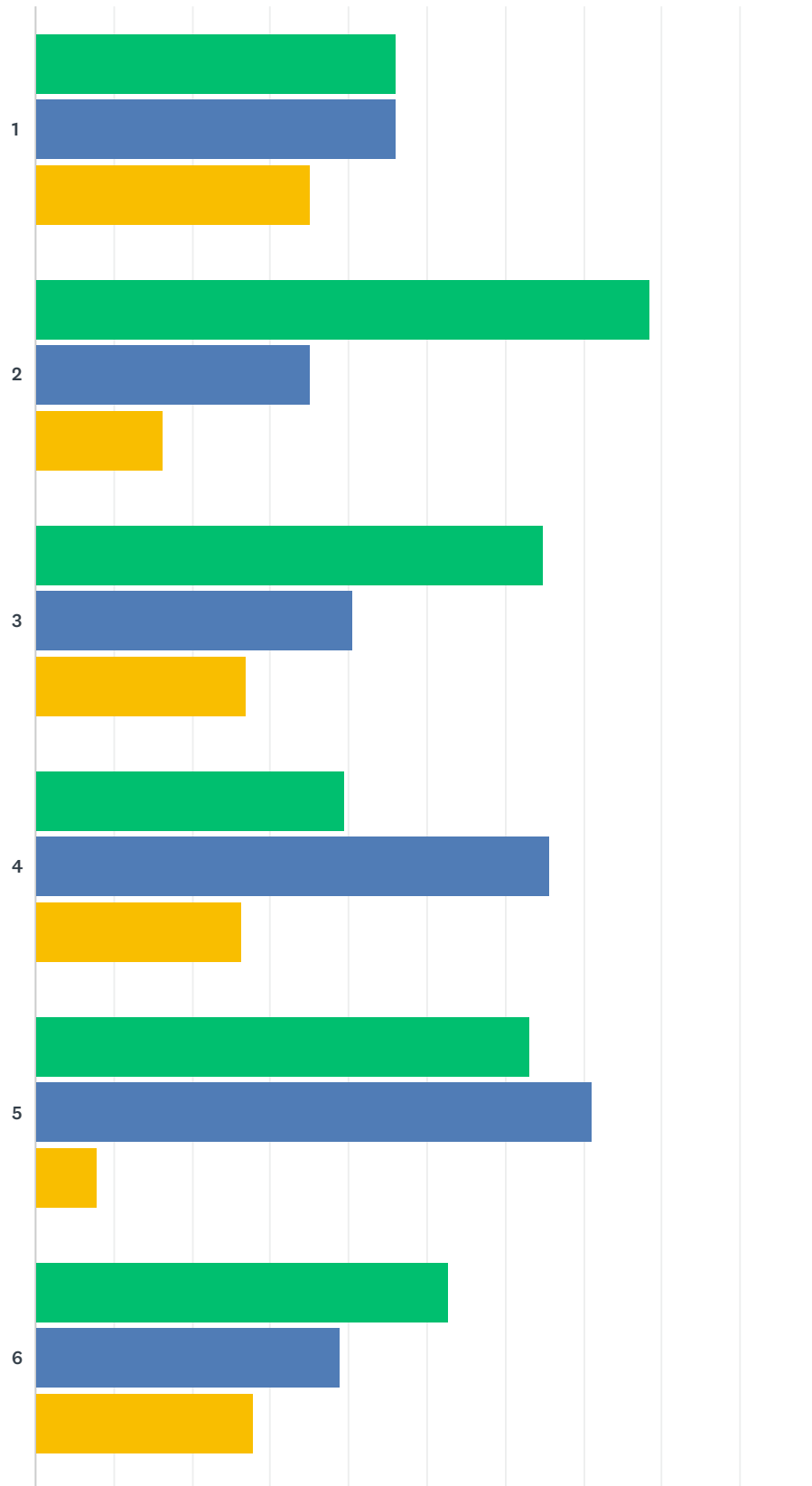


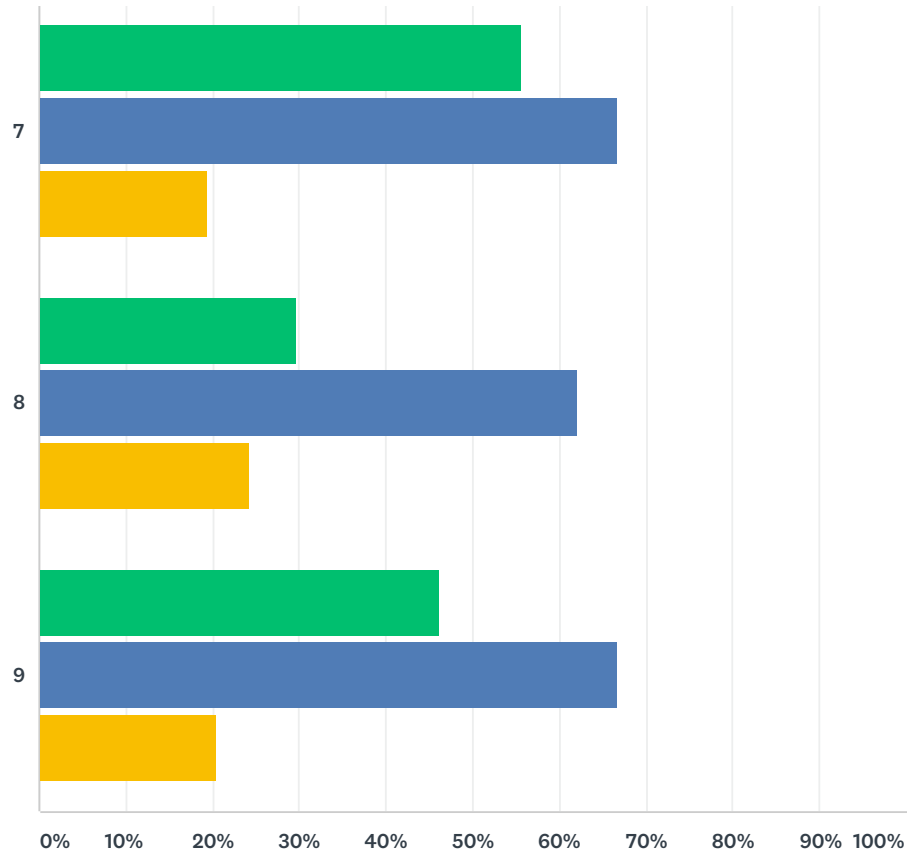
■ Urban and Commercial Areas
 ■ Suburban, Residential and Rural Areas
■ This would not work on 76th Ave S

	URBAN AND COMMERCIAL AREAS	SUBURBAN, RESIDENTIAL AND RURAL AREAS	THIS WOULD NOT WORK ON 76TH AVE S	TOTAL RESPONDENTS
1	70.00% 28	15.00% 6	27.50% 11	40
2	53.85% 21	12.82% 5	46.15% 18	39
3	41.03% 16	33.33% 13	35.90% 14	39
4	29.27% 12	65.85% 27	14.63% 6	41
5	51.28% 20	10.26% 4	46.15% 18	39
6	46.15% 18	15.38% 6	41.03% 16	39
7	32.43% 12	18.92% 7	59.46% 22	37
8	39.02% 16	60.98% 25	24.39% 10	41
9	55.00% 22	30.00% 12	35.00% 14	40

Q16 Where would you like to see these different pedestrian amenities along 76th Avenue South?

Answered: 41 Skipped: 27



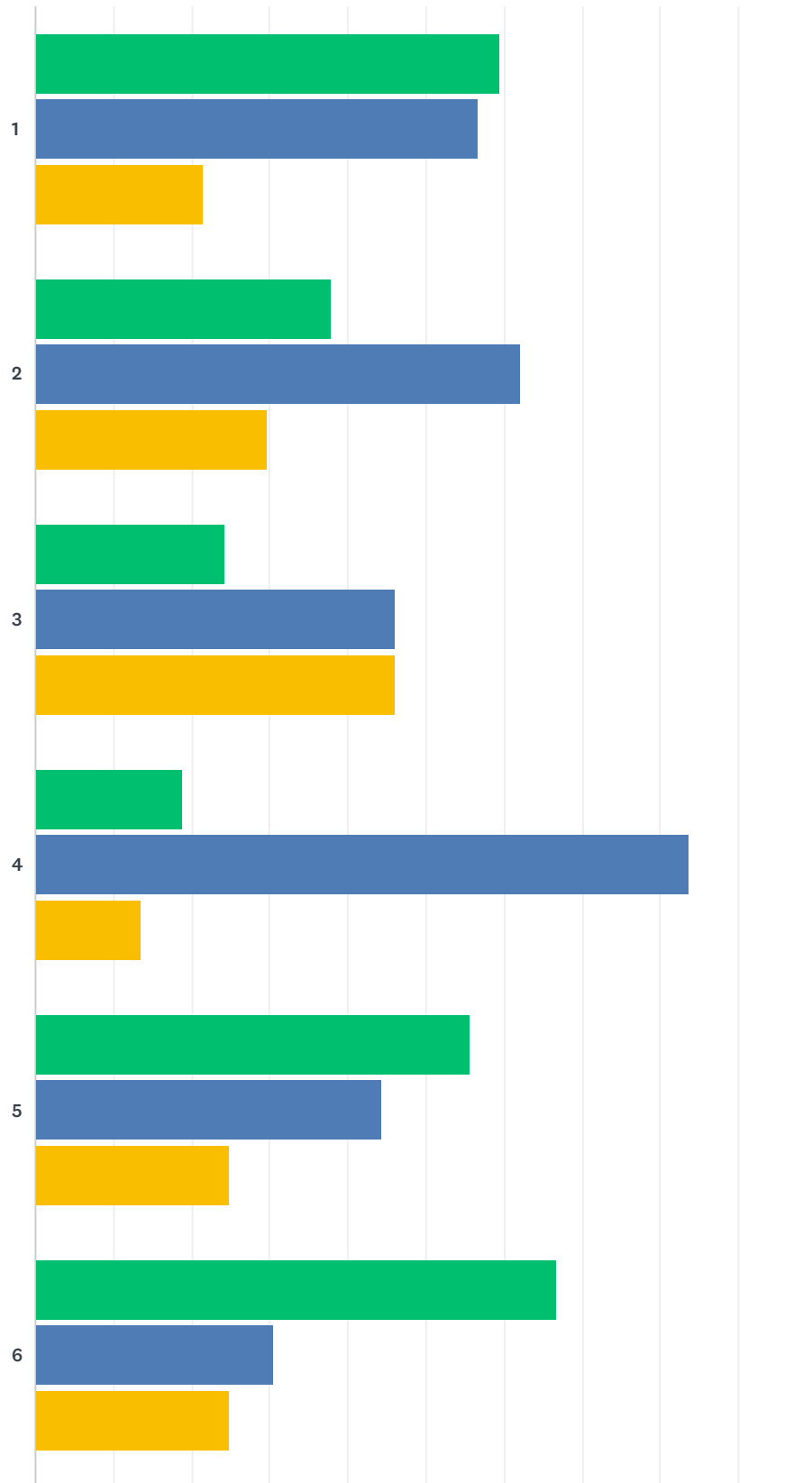


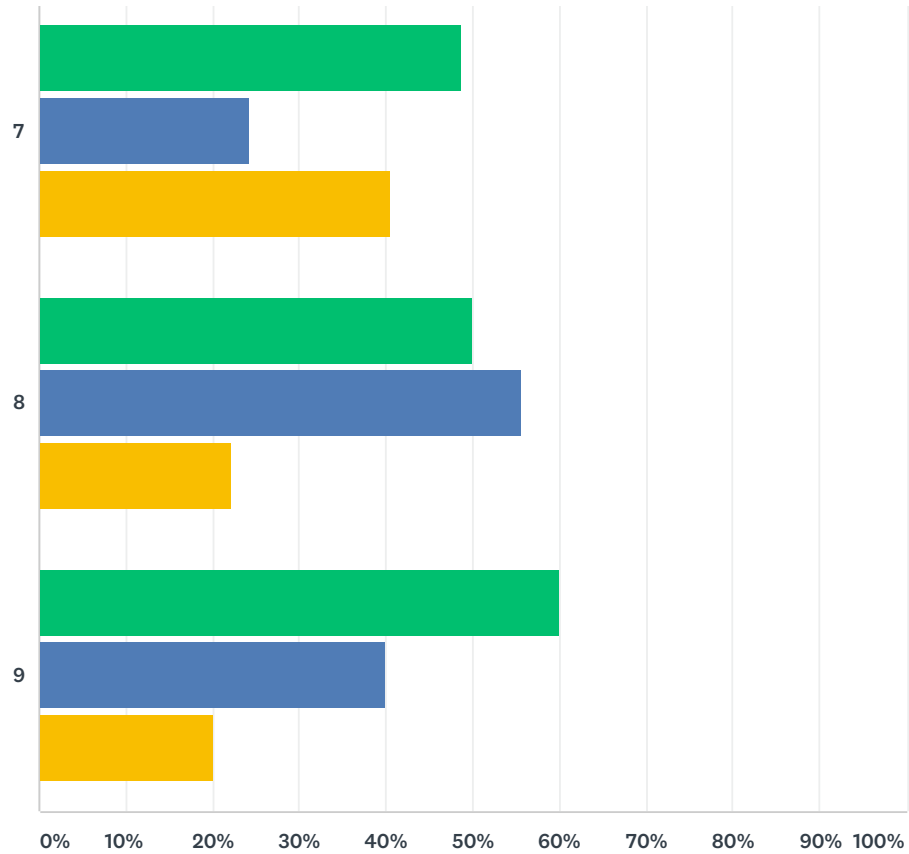
■ Urban and Commercial Areas
 ■ Suburban, Residential and Rural Areas
■ This would not work on 76th Ave S

	URBAN AND COMMERCIAL AREAS	SUBURBAN, RESIDENTIAL AND RURAL AREAS	THIS WOULD NOT WORK ON 76TH AVE S	TOTAL RESPONDENTS
1	45.95% 17	45.95% 17	35.14% 13	37
2	78.38% 29	35.14% 13	16.22% 6	37
3	64.86% 24	40.54% 15	27.03% 10	37
4	39.47% 15	65.79% 25	26.32% 10	38
5	63.16% 24	71.05% 27	7.89% 3	38
6	52.78% 19	38.89% 14	27.78% 10	36
7	55.56% 20	66.67% 24	19.44% 7	36
8	29.73% 11	62.16% 23	24.32% 9	37
9	46.15% 18	66.67% 26	20.51% 8	39

Q17 Where would you like to see these different street design elements along 76th Avenue South?

Answered: 41 Skipped: 27





■ Urban and Commercial Areas
 ■ Suburban, Residential and Rural Areas
■ This would not work on 76th Ave S

	URBAN AND COMMERCIAL AREAS	SUBURBAN, RESIDENTIAL AND RURAL AREAS	THIS WOULD NOT WORK ON 76TH AVE S	TOTAL RESPONDENTS
1	59.46% 22	56.76% 21	21.62% 8	37
2	37.84% 14	62.16% 23	29.73% 11	37
3	24.32% 9	45.95% 17	45.95% 17	37
4	18.92% 7	83.78% 31	13.51% 5	37
5	55.56% 20	44.44% 16	25.00% 9	36
6	66.67% 24	30.56% 11	25.00% 9	36
7	48.65% 18	24.32% 9	40.54% 15	37
8	50.00% 18	55.56% 20	22.22% 8	36
9	60.00% 21	40.00% 14	20.00% 7	35

APPENDIX

B

**SUMMARY OF
RELEVANT
STUDIES**

RELEVANT STUDIES

A major component to understanding a corridor is to review previous plans. These plans lay the groundwork for transportation planning within the study area and provide invaluable input on the general mindsets surrounding the future vision. Related plans to 76th Avenue South are summarized below. Documents are listed in reverse chronological order, with the most recently completed listed first.

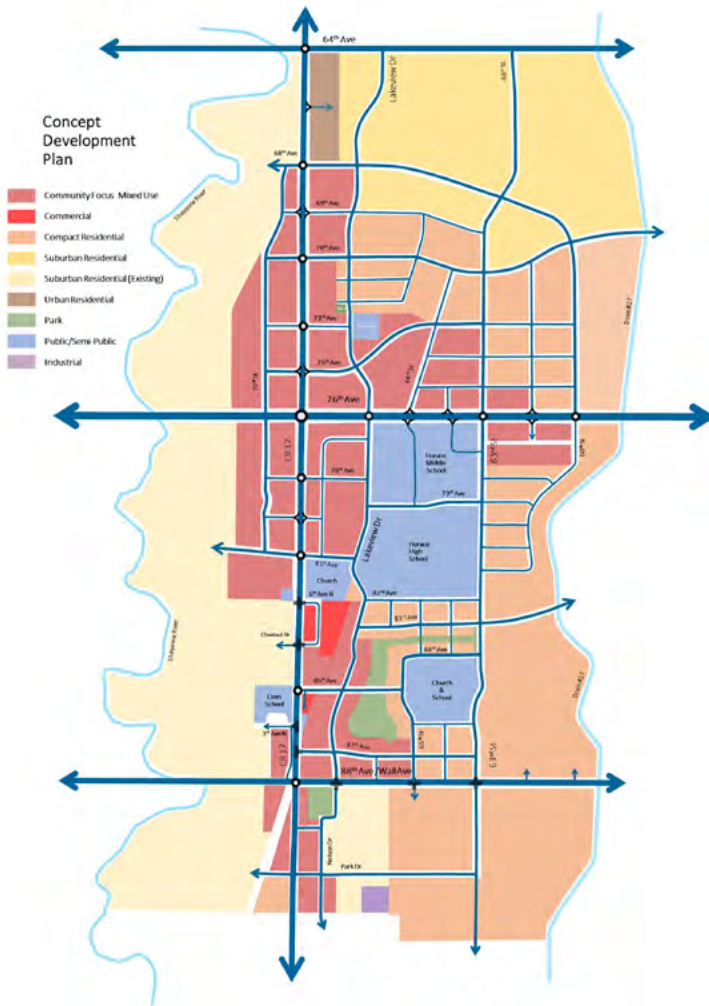
2045 Horace Comprehensive Plan (May 2020)

The 2045 Horace Comprehensive Plan is the primary land use policy document guiding the zoning, transportation, infrastructure and land use related decisions for the City of Horace. The Plan anticipates significant change in Horace including a projected population of between 10,000-14,000 by 2045, groundbreaking on two new schools, the Fargo-Moorhead Diversion project and the planned I-29 interchange at 76th Avenue South. The Plan also references this 76th Avenue Corridor Study and the forthcoming recommendations.

A Small Area Plan was conducted for the area surrounding the 76th Avenue South/County Road (CR) 17 intersection. This Small Area Plan guides the area immediately surrounding the CR 17/76th Avenue South as Community Focused Mixed Use, the developed area west to 81st Street South as Suburban development, and the area to the east as Compact Residential development, reserving the school sites for Public-Semi Public uses. The Concept Development Plan for the CR 17/76th Avenue South area is shown in Figure 1. New development will also be dictated by the ability to provide water and sewer connections for new uses. The City currently relies on the City of Fargo for sanitary sewer treatment. The Plan discusses increasing the conveyance of wastewater to the City of Fargo as the most economical solution to increasing wastewater capacity. The City may also choose to rely on the City of Fargo for municipal water supply, as they are nearing their capacity to supply water. Utilizing a connection with the City of Fargo water system would be the most economical solution. The Fargo-Moorhead Diversion also has significant impact on the development in Horace, bringing most areas out of the 100-year floodplain, while at the same time, limiting the development potential west of 81st Street South.



Figure 1 - Concept Development Plan for the City of Horace



Source: 2045 Horace Comprehensive Plan

Sheyenne Street and 76th Avenue South Intersection Study (November 2018)

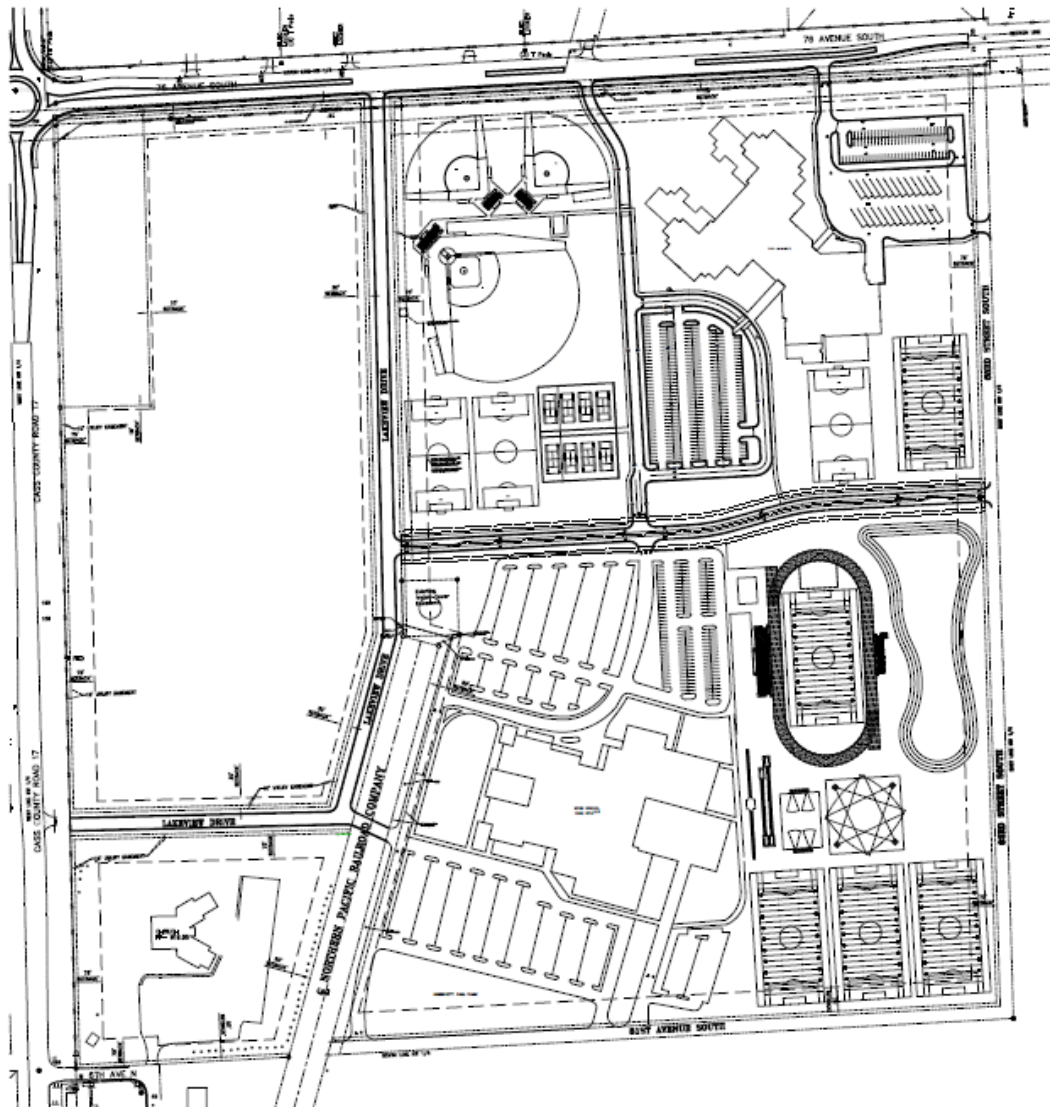
A traffic impact study was completed to identify traffic operations and safety impacts from the proposed West Fargo Middle School and High School on the intersections immediately adjacent to the school site. The study noted that the intersection of County Road 17 (CR 17) and 76th Avenue South is anticipated to become a roundabout in the future.

Even with the construction of this roundabout, delays are still expected at the intersections of 76th Avenue South and Lakeview Drive, 76th Avenue South and West Middle School Access, and CR 17 and Lakeview Drive once maximum enrollment has been achieved. However, these delays are expected to be confined to the peak 15 minutes before and after school. The study recommended a further evaluation of a second roundabout at CR17 and Lakeview Drive. This roundabout would provide corridor continuity with the planned CR17 and 76th Avenue South roundabout and provide additional traffic capacity for those entering and existing the school site.

Future West Fargo School Site (November 2018)

In September 2018 a bond referendum was passed to build a new high school and middle school on the south side of the West Fargo district, within the city limits of Horace. The new school site will be located at the SE corner of County Road 17 and 76th Avenue South and will be fed by the attendance area that encompasses the areas south of 40th Ave S on the west side of the Sheyenne River and south of 52nd Ave S on the east side of the Sheyenne River. Initially, the middle school will hold 900 students and can be expanded in the future to 1,200 students. The high school will be built to accommodate 1,000 students and can be expanded to 1,550 students if the need arises. Figure 2 shows the most current layout of the proposed new West Fargo Middle and High School site.

Figure 2 – Current Layout (November 2018 – Not Yet Approved) of the Proposed New West Fargo Middle and High School Site



Source: West Fargo School District

Fargo/West Fargo Parking & Access Requirements Study (October 2018)

This study lists four main goals which are to 1) develop guidelines that encourage safe traffic flow, as well as a comfortable walking and biking experience, 2) develop access and roadway guidelines that complement land use form, as opposed to just functional classifications, 3) reduce the need to build excess off-street parking, and 4) enable sustainable development patterns. This study does not include specifics to 76th Avenue South in its current condition. However, it will be used as a reference document as the planning process differentiates 76th Avenue South into varying segments of like context and identifies the future vision of the corridor segments.

2019-2022 Draft Transportation Improvement Program (September 2018)

The Transportation Improvement Program (TIP) lists surface improvements scheduled for implementation in the Fargo-Moorhead region during the next four fiscal years, where a fiscal year starts on October 1st and ends on September 31st. This document is developed in cooperation with the Minnesota Department of Transportation (MnDOT), the North Dakota Department of Transportation (NDDOT), Metro Area Transit (MATBUS) of Fargo-Moorhead, local municipal and county jurisdictions, and other organizations and agencies eligible for project sponsorship. The draft TIP for 2019 – 2022 does not show any existing planned projects directly on the 76th Avenue South Corridor. However, it does include a grade separation of Interstate 29 (I-29) at 64th Avenue South to be constructed in 2020. 64th Avenue South is the mile section line future arterial roadway located directly to the north of 76th Avenue South. This project will have a major influence on trip patterns within the 76th Avenue South corridor study area.

Traffic Impact Study for New West Fargo Schools (September 2018)

A new West Fargo High School and Middle School complex is proposed on the south side of 76th Avenue South, east of CR 17. This traffic impact study was completed to identify the impacts of the proposed school site on the traffic operations and safety for the intersections of CR 17 at 64th Avenue South and CR 17 at 76th Avenue South. Analysis consisted of three scenarios; no-build (existing), initial school opening in 2020 (1, 800 students), and school at maximum capacity (2,750 students).

The study showed if no intersection improvements were made, and the school was at maximum capacity, the intersection of 76th Avenue South & CR 17 would operate at a LOS F for both school start and release times. Only minor delays were anticipated at the 64th Avenue South & CR 17 intersection; and were therefore not analyzed for further mitigation strategies. Further mitigation strategies for 76th Avenue South & CR 17 included adding a traffic signal with turning lanes or a single lane roundabout. Ultimately, the City of Horace and Cass County have determined that they will construct a single-lane roundabout at this intersection with free right turn movements serving traffic to and from the east.

2019-2023 Cass County Comprehensive Highway Plan (September 2018)

The Cass County Comprehensive Highway Plan identifies system principals and standards, evaluates the existing transportation system, identifies future system needs, develops a maintenance plan, identifies funding sources, and outlines implementation strategies for the operation and maintenance of the Cass County roadway network. The plan also provides a framework for long range highway and bridge planning decisions. The 5 Year Capital Improvement Plan for 2019-2023 lists the following projects on 76th Avenue South which would need to include:

- County Road 17 to 63rd Street – 4-lane divided concrete grading & surfacing to be completed in 2019
- Roundabout at County Road 17 & 76th Avenue South Intersection

Cass County Comprehensive and Transportation Plan (July 2018)

The 2018 Comprehensive Plan is a broad vision and guide for the future of Cass County by providing guiding principles, strategies, objectives, and policies that address land use, growth management, and community development. This plan acknowledges the importance of intergovernmental coordination for 76th Avenue South due to its proposed future classification as a major arterial roadway.

Development potential along 76th Avenue South includes a new West Fargo High School/Middle School complex south of 76th Avenue South and east of County Road 17 and an interchange with I-29. In order to address projected development and proactively respond to the multijurisdictional nature of the road, Cass County has decided to take over jurisdictional ownership of 76th Avenue South as County Road 6 (CR 6). Improvements to the corridor have been programmed in the Cass County Capital Improvements Program for 2019 and 2021. After the urbanization of 76th Avenue South is completed, the county proposes to turnback portions to the City of Fargo and City of Horace.

FM Alternative Route & Traffic Incident Management Guidebook (December 2017)

The FM Alternative Route & Traffic Incident Management Guidebook is a document which was created to assist officials and emergency responders in the event of an emergency, where the diversion of traffic is necessary. The guidebook discusses general objectives and emergency response routes to help funnel large volumes of traffic, including trucks, to various areas dependent on the incident or event location. No routes or specifics to the 76th Avenue South corridor are referenced in this document.

Fargo-Moorhead Regional Freight Plan (September 2017)

The Fargo-Moorhead Regional Freight Plan (FMRFP) was developed to gain a better understanding of the transportation service needs of industrial and retail sectors in the local Fargo-Moorhead economy. The need for an interstate beltway or by-pass to keep trucks from passing through the urban core was discussed as part of recommended corridors for preservation. The Regional Freight Plan notes that related studies including the Traffic Operations Incident Management Study (TOIMS), LRTP, and SWMTP all identify in a varying level of degree that 76th Avenue South is an important corridor to preserve. The SWMTP takes this one step further, identifying 76th Avenue South as a four-lane southern bypass route with six-lanes between 45th Street and I-29.

2016-2020 Transit Development Plan (December 2016)

Metro Area Transit (MATBUS) provides fixed-route and demand-response transit service to the cities of Fargo, West Fargo, Moorhead, and Dilworth. There are currently no existing transit services along 76th Avenue South or any proposed improvements noted in the 2016-2020 Transit Development Plan.

Southwest Metropolitan Transportation Plan (SWMTP) (May 2016)

The Southwest Metropolitan Transportation Plan (SWMTP) was developed to address the steady growth of the area south of 52nd Avenue South and between 81st Street South and the Red River. This plan fully encompasses the 76th Avenue South study limits and will be a heavily referenced document during the planning process. Analysis completed as part of the SWMTP included a tiered growth approach for the best fit scenario for the years 2020, 2030, 2040, and 2040+, and a sensitivity analysis for four network alternative scenarios. Three of the four scenarios involved 76th Avenue South and are as follows; 76th Avenue South Beltway between I-94 and Cass County Road 15 (2040), 76th Avenue South – Grade Separation Only at I-29 (2030), and 76th Avenue South – No connection across I-29 (2030).

Based on the results of the various model analysis, the SWMTP identified projects needed to accommodate future growth assumptions. The projects identified, specific to 76th Avenue South are shown below in Table 1.

The opportunity to expand on or improve the existing multimodal facilities in the area was also examined in the SWMTP. These improvements include identification of a transit corridor along 76th Avenue South between 45th Street and 25th Street and two trail connections from 81st Street S to 45th Street and from 25th Street to University Drive.

Table 1 – SWMTP Identified Improvement Projects on 76th Avenue South

Year of Identified Improvement	Roadway Segment or Intersection	Identified Improvement
2020		
2020	CR 17 to I-29	Upgrade existing rural gravel 2-lane to a paved 2-lane
2020	25th Street S to University Dr	Upgrade existing rural 2-lane to an urban 2-lane
2030		
2030	48th Street S to I-29	Expand existing 2-lane to a divided 4-lane
2030	I-29 to 31st Street S	Construct interchange and divided 4-lane roadway
2030	31st Street S to 25th Street S	Construct 3-lane roadway
2030	76th Ave S & 48th Street S	Install Traffic Signal*
2030	76th Ave S & 45th Street S	Install Traffic Signal*
2030	76th Ave S & 38th Street S	Install Traffic Signal*
2030	76th Ave S & 31st Street S	Install Traffic Signal*
2030	76th Ave S & 25th Street S	Install Traffic Signal*
2040		
2040	CR 17 to 48th Street	Construct 3-lane roadway
2040	38th Street S to I-29	Expand 4-lane to a divided 6-lane and add loops to NW and SE quadrants of interchange
2040	76th Ave S & CR 17	Install Traffic Signal*
After 2040		
2040+	CR17 to 48th Street S	Expand 3-lane to a divided 4-lane
2040+	48th Street S to 45th Street S	Expand 4-lane to 6-lane
2040+	45th Street S to 38th Street S	Expand 4-lane to 8-lane
2040+	38th Street S to I-29	Expand 6-lane to 8-lane
2040+	I-29 to 31st Street S	Expand 4-lane to 6-lane
2040+	31st Street S to 25th Street S	Expand 3-lane to a divided 4-lane

Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan (2016)

The Bicycle and Pedestrian Plan is a sub-element of Metro COG’s LRTP and is thus updated every five years and has a twenty-year planning horizon. The plan’s purpose is to review existing issues and needs as they relate to bicycle and pedestrian facilities with a transportation component. Based on the area’s needs, Metro COG develops goals, objectives, and recommendations to enhance safety and connectivity in the current bicycle and pedestrian network.

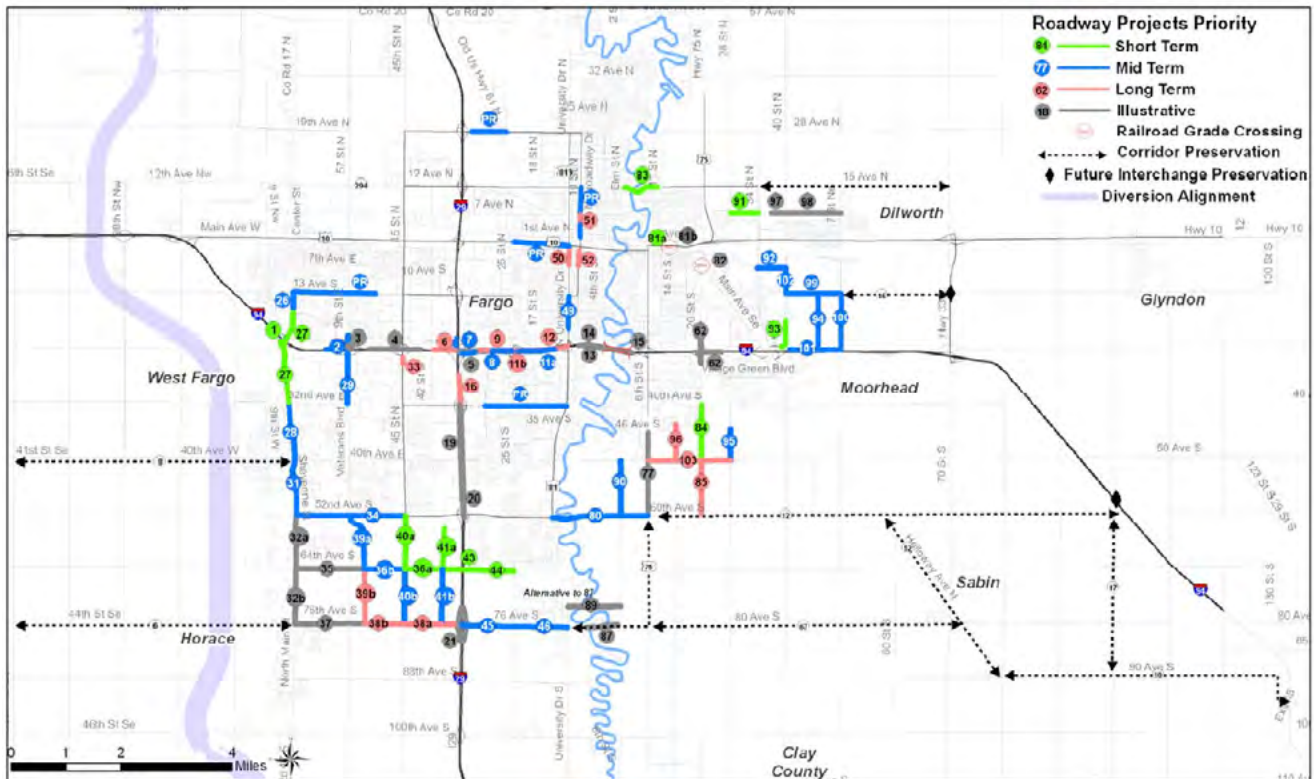
Through the public participation process various bicycle and pedestrian network improvements were identified. These improvements were categorized as either short-range or long-range projects within their corresponding jurisdiction. In the plan, Cass County has a proposed long-range project for construction of a shared use path along 76th Avenue South from CR 17 to 45th Street.

Metro 2040: Long Range Transportation Plan (July 2014)

Metro 2040 was completed in 2014 and is the long-range transportation plan (LRTP) for the Fargo-Moorhead metropolitan area. This plan guides how the region will grow and spend transportation dollars over the next twenty-five years. The LRTP identifies a non-fiscally constrained visioning plan and fiscally constrained projects for short-term, mid-term, and long-term completion. The projects along 76th Avenue South are listed below and shown in Figure 3. The projects are shown within their planning horizon years (short-, mid- and long-term). Illustrative projects indicate that funding is not available at this time but were identified in the travel demand model as needed to mitigate congestion between the years 2031 and 2040.

- Short-Term (2015-2020) - None
- Midterm (2021-2030)
 - #45 - New 4-lane arterial roadway from 38th Street SW to 25th Street South
 - #46 - New 4-lane arterial roadway from 25th Street South to County Road 81
- Long-Term (2031-2040)
 - #38a - New 4-lane arterial roadway from 45th Street South to 38th Street SW
 - #38b - New 4-lane arterial roadway from 45th Street South to Veterans Blvd Extension
- Illustrative
 - #37 - New 4-lane arterial roadway from County Road 17 to Veterans Blvd Extension
 - #21 - New interchange at I-29 and 76th Avenue South
 - #87 - Construct a new 2-lane bridge

Figure 3 – LRTP Fiscally Constrained Projects



Source: Metro 2040

South Diversion Master Transportation Plan (October 2013)

To reduce flood risk for the metropolitan area, the US Army Corps of Engineers (USACE) conducted a 2011 study which identified a 30-mile diversion alignment extending around Horace, Fargo, and West Fargo. The new river channel would begin at Cass County Highway 17 just south of Horace and terminate north of the confluence of the Red River and Sheyenne River near the City of Georgetown, Minnesota. In addition, an embankment would be constructed between the Diversion Inlet and the Red River and continue into Minnesota until it reaches high ground.

The Diversion Authority officially submitted “Plan B” as a revised footprint to the original preferred alternative following expressed concerns from the Minnesota DNR and others impacted by the diversion. As of late December 2018, the Minnesota DNR approved the permit for the FM Flood Diversion project, allowing the Diversion Authority to review the permit conditions and begin the next steps of project implementation. The 76th Avenue South roadway is proposed to have a major bridge structure crossing of the future Red River Diversion.

Go 2030 Fargo Comprehensive Plan (May 2012)

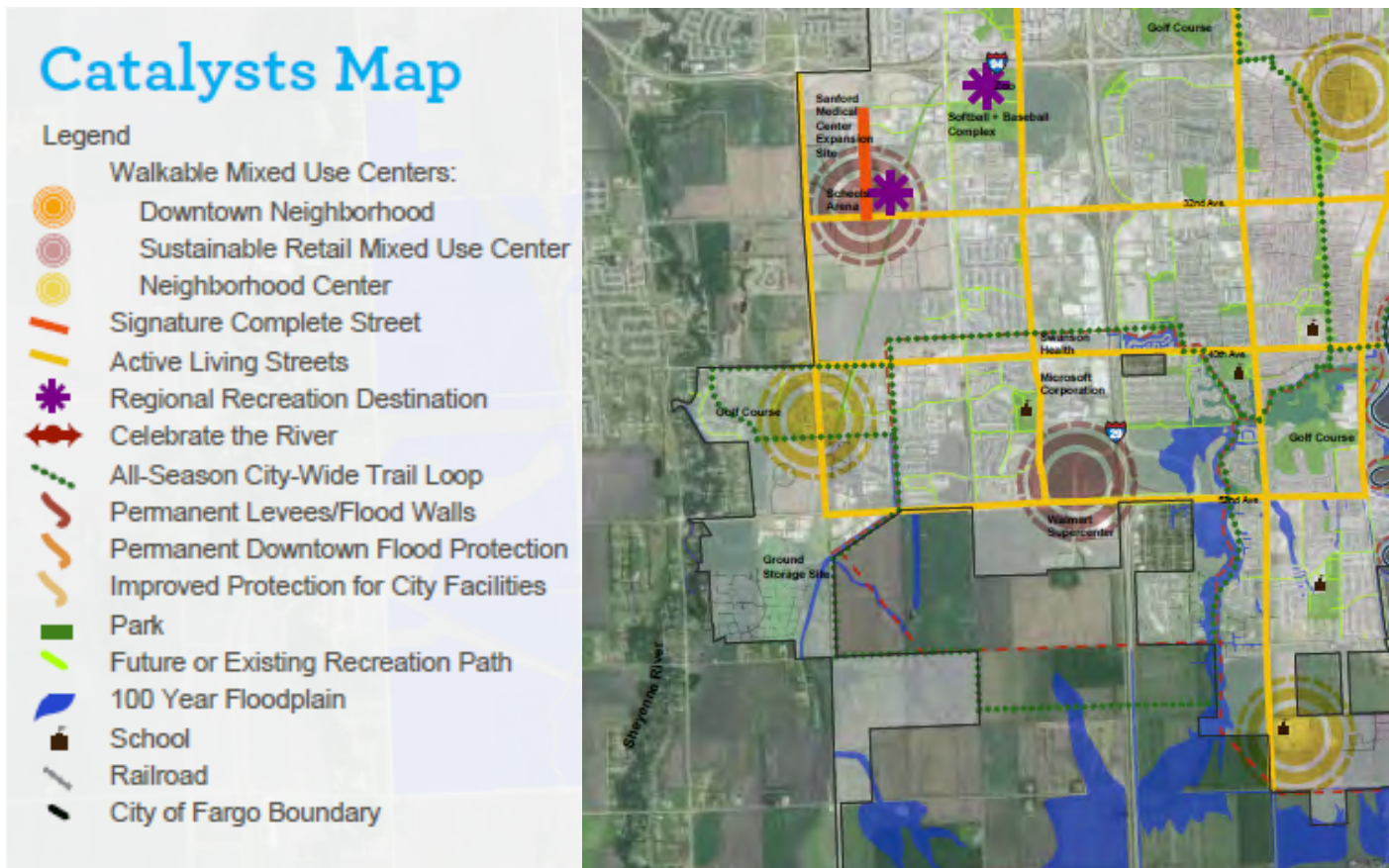
Adopted in 2012, Go2030 is the comprehensive plan for the City of Fargo. It represents the foundation for city policies related to growth and development. In the process of creating Go2030, city planners brought together residents, business owners, and policy makers to reach a consensus on a future vision of Fargo. This vision led to the development of guiding principles, key initiatives and catalysts, recommendations, and implementation steps. Transportation was listed as one of the nine guiding principles in the plan. Along with transportation, the guiding principles of water and environment, arts and culture, health, economy, neighborhoods, infill, and new development, and education, will also be considered in the vision of 76th Avenue South. Within these categories, thirty-nine key initiatives were developed and ranked by priority. Below is a list of guiding principles, key initiatives, and where applicable, a ranking within the top twenty list of priority key initiatives. The guiding principles and key initiatives listed below, will have a varying level of significance in the context of the 76th Avenue South corridor study.

- Transportation
 - Bicycle/Pedestrian Infrastructure (Ranking = 4)
 - Complete Streets (Ranking = 18)
 - Transportation Linkages Across the Red River
 - Intelligent Transportation System
- Water & Environment
 - Tree Canopy (Ranking = 11)
 - Green storm water infrastructure
 - Air Quality
- Arts & Culture
 - Public art (Ranking = 3)
- Health
 - City-wide trail loop (Ranking = 6)

- Economy
 - Amenities & Beautification as an Economic Development Tool (#14)
 - Promote Connections and Infill within Strip Commercial Developments
- Neighborhoods, Infill, and New Development
 - Promote Infill (Ranking = 2)
 - Design Standards (Ranking = 5)
 - Quality New Development (Ranking = 9)
 - Housing for workforce and low-income residents
- Education
 - Safe Routes to School

Go 2030 defines a catalyst as an idea that has the potential to accelerate development and enhance quality of life. The only catalyst close to 76th Avenue South, shown in Figure 4, is a neighborhood center located just north of 76th Avenue South, and east of 25th Street at Davis High School. Neighborhood Centers are less dense and more residential in nature. These areas should incorporate neighborhood services such as schools, parks, and walkability enhancements.

Figure 4 – South Fargo Recreation Trail and Catalysts Map



Source: Go2030

Traffic Operations Incident Management Strategy (TOIMS) (March 2011)

The Traffic Operations Incident Management Study (TOIMS) was created to assist in the movement of people and goods in the event of an incident or emergency. This study identified a network of emergency alternate routes; low-cost roadway improvements; operational strategies and improvements; policies and protocols to enhance the existing emergency roadway network within the Fargo-Moorhead area. Important to 76th Avenue South, the TOIMS recommends adding the entire corridor to the list of Regionally Significant Transportation Infrastructure (RSTI) Corridors.

In addition to 76th Avenue South being identified as a RSTI corridor, it was also identified as being a long-term beltway option. The purpose of a beltway route is to provide a reliable, high speed bypass around the Fargo-Moorhead urban core that can be used for the movement of freight, for inter-regional travel wishing to avoid the urban area, as a reliever route to congested Interstates or arterials, or as an alternate route/evacuation route during incidents or emergency situations. Several key issues were identified with using 76th Avenue South as a beltway alignment. These issues include its overall proximity to a fast-growing urban area and its proximity to the City of Horace which creates access issues. Key identified improvements needed along 76th Avenue South to make it a beltway corridor are identified in the TOIMS as follows:

- Paving CR 6/76th Avenue South from CR 15 to 25th Street South, except for a segment in Horace from the Sheyenne River to CR 17.
- Constructing a new interchange at I-29/76 Avenue South
- Constructing a new four-lane Red River bridge at 76th Avenue South/80th Avenue South to accommodate a future four-lane section.
- Paving Clay County 67/80th Avenue South from the Red River to Sabin
- Constructing a new roadway alignment to bypass Sabin

South Red River Bridge Corridor Preservation (2009)

During an update to the Long Range Transportation Plan (LRTP) in 2009 local jurisdictions readdressed the topic of a future Red River Bridge crossing along either 70th or 76th Avenue South. Figure 5 shows the location and limits of these two alternatives as they were currently understood in 2009.

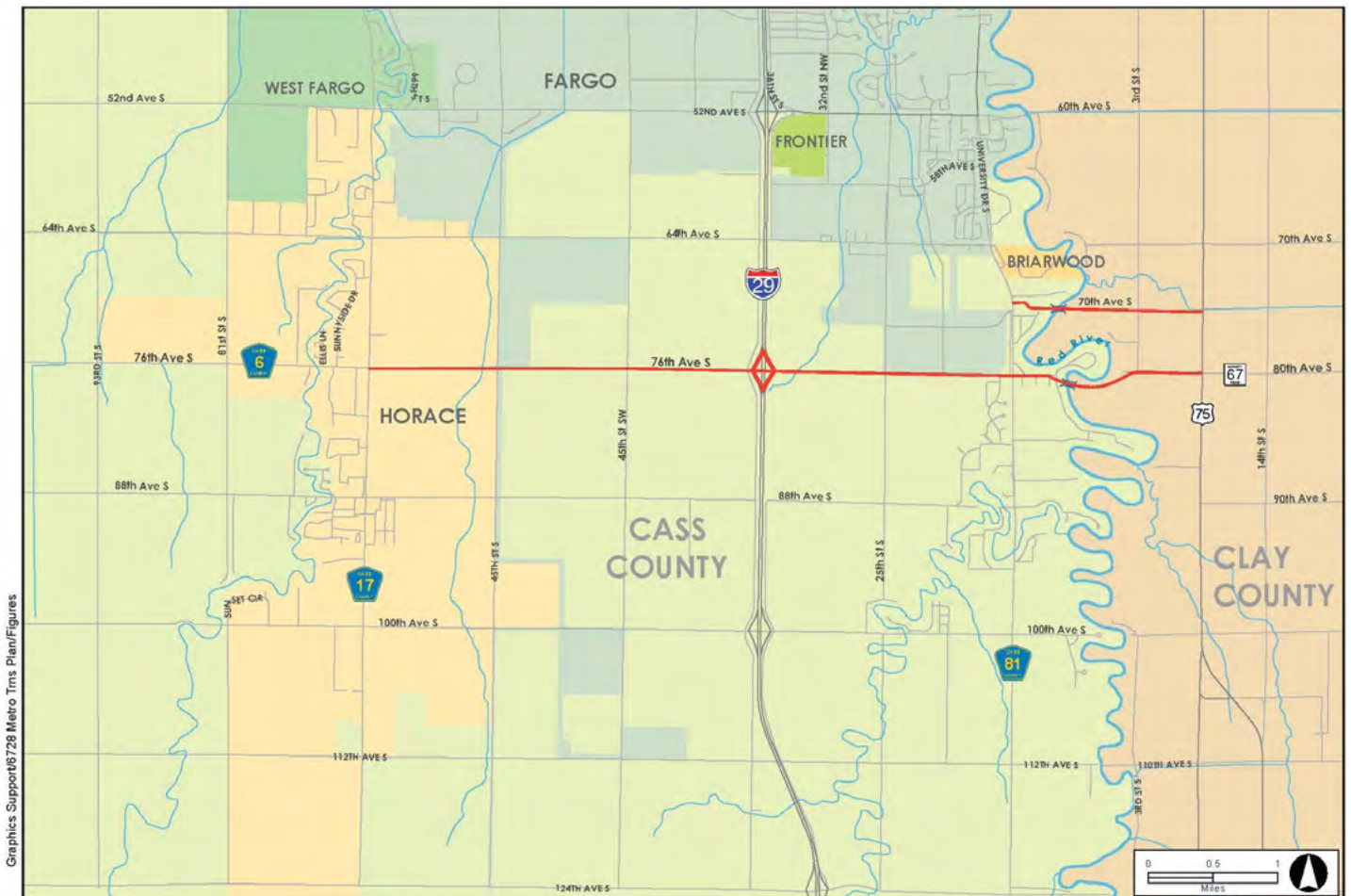
The topic of a future Red River Bridge crossing was not new and came after the following preceding studies:

- Phase I – Red River Bridge Corridor Study, March 1999
- Red River Corridor Study, Phase II – Supplemental Report, May 2001
- Preliminary Geotechnical Study, South Side Red River Bridge and Corridor Study (Final Phase 3), October 2003
- Corridor Alignment and Bridge Alternatives Evaluation, South Side Red River Bridge and Corridor Study (Final Phase 4), October 2003

A memorandum summarizing input from local governments, the Minnesota Department of Transportation (MnDOT), and the North Dakota Department of Transportation (NDDOT) with respect to right-of-way preservation and the way the LRTP should address preservation of a bridge and roadway corridor was included as an appendix in the 2009 LRTP.

This memorandum stated a general agreement between agencies that the 76th Avenue South corridor is optimal due to its broad regional continuity. However, at the time of the LRTP update it was not critical to decide on a preferred alternative between 70th or 76th Avenue South, so both corridors would be preserved until the time came where a decision needed to be made. In terms of this study, future traffic projections do not indicate that a Red River Bridge will be needed in the growth year of 2045. However, consensus among stakeholders continues to be that a future Red River Bridge will be a vital connection in the long-term future and should be planned for.

Figure 5 – 70th and 76th Ave S Red River Bridge Corridor Preservation Alternatives



Corridor Preservation Alternates, South Bridge
 Fargo-Moorhead Metropolitan Long Range Transportation Plan
 Fargo - Moorhead Metropolitan Council of Governments

Figure 1

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073009

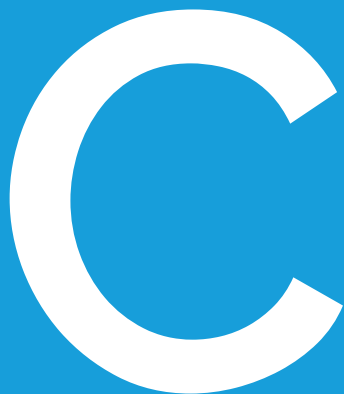
Source: SRF

2007 Fargo Growth Plan (2007)

The 2007 Growth Plan is a growth management plan that builds upon previous efforts to establish a comprehensive land use plan, which guides development of the City of Fargo's urban fringe and southern extraterritorial area (ETA). By state statute, Fargo exercises influence over an ETA that extends up to four miles beyond city limits. All the county land within the study area falls within the City of Fargo's ETA.

The 2007 Growth Plan designates two tiers for land development, with the purpose of restricting the leap-frog development which requires costly extension of city infrastructure. The plan states that growth over the first 20-year period (through approximately 2025) should occur in Tier 1, and that development in Tier 2 should be limited during that time. 76th Avenue South is entirely in Tier 1, meaning development is encouraged, where appropriate, such as next to existing development where adequate infrastructure is already in place. This tiered system became the basis of the geographical growth areas defined in the Southwest Metropolitan Transportation Plan (SWMTP) which was heavily referenced for this study.

APPENDIX



TRAVEL DEMAND MODEL MEMORANDUM

FULL BUILD TRAVEL DEMAND MODEL (TDM) UPDATES & SCENARIOS REVIEW FOR THE 76TH AVENUE SOUTH CORRIDOR STUDY

Background

In 2019, Metro COG approved an amendment to the 76th Avenue South Corridor Study for the addition of Travel Demand Modelling (TDM) as part of the scope of work. The purpose of the addition of the scope of work was to review how known planning assumption changes and potential network scenarios would affect the forecast Full Build daily traffic volume needs along the 76th Avenue South corridor and major intersecting roadways. The additional TDM work is summarized below:

- Review changes to Full Build Forecast Daily Traffic Volumes with known planning assumption changes that have occurred since the previous Full Build TDM (known as the 2040+ model from the Southwest Metropolitan Transportation Plan (SWMTP)) was completed. We are calling this the updated model the “Southwest Metropolitan Area Updated Full Build TDM.” The planning assumption changes are further described within this technical memorandum along with network assumptions and changes from the previous Full Build Model.
- Full Build TDM Scenario 1 – Use the SWM Area Updated Full Build TDM and add an interchange at I-29 and 64th Avenue South.
- Full Build TDM Scenario 2 – Use the SWM Area Updated Full Build TDM and add a collector/distributor system along I-29 between 52nd Avenue South and 76th Avenue South. This C/D system would pick up/drop off traffic at 64th Avenue South without a full access interchange at 64th Avenue South.
- Full Build TDM Scenario 3 – Use the Full Build TDM Scenario 2 model and add ½ mile drain crossings of Drain 27 (both ½ mile north and south of 76th Avenue South) and expand 64th Avenue South to 5 lanes west of I-29.

Southwest Metropolitan Area Full Build TDM – Updated Planning Assumptions

Stantec utilized Metro COG’s Full Build TDM from the SWMTP and applied updated planning assumptions to the network and the socioeconomic growth data based on known changes since the completion of the 2016 SWMTP. Stantec held a meeting with Metro COG, City of Fargo and City of Horace staff in October 2019, to review the data in the Full Build TDM to discuss and confirm updates to apply to the Full Build SWMTP TDM. The following sections denote the changes made to the updated Full Build TDM.

Network Changes for the Updated Full Build TDM

- 64th Avenue South was coded as 3-lanes (one lane in each direction and left turns at the intersecting streets) between 25th Street and Sheyenne Street.
- 76th Avenue south was coded as 4-lanes (two lanes in each direction) between 25th Street and 45th Street.
- Veterans Boulevard was extended to be shown as a continuous connection between 52nd Avenue South down to 88th Avenue South as a 3-lane roadway (one lane in each direction and left turns at the intersection streets).



- Changed the intersection control at the intersection of CR 17 and 76th Avenue South to a roundabout.

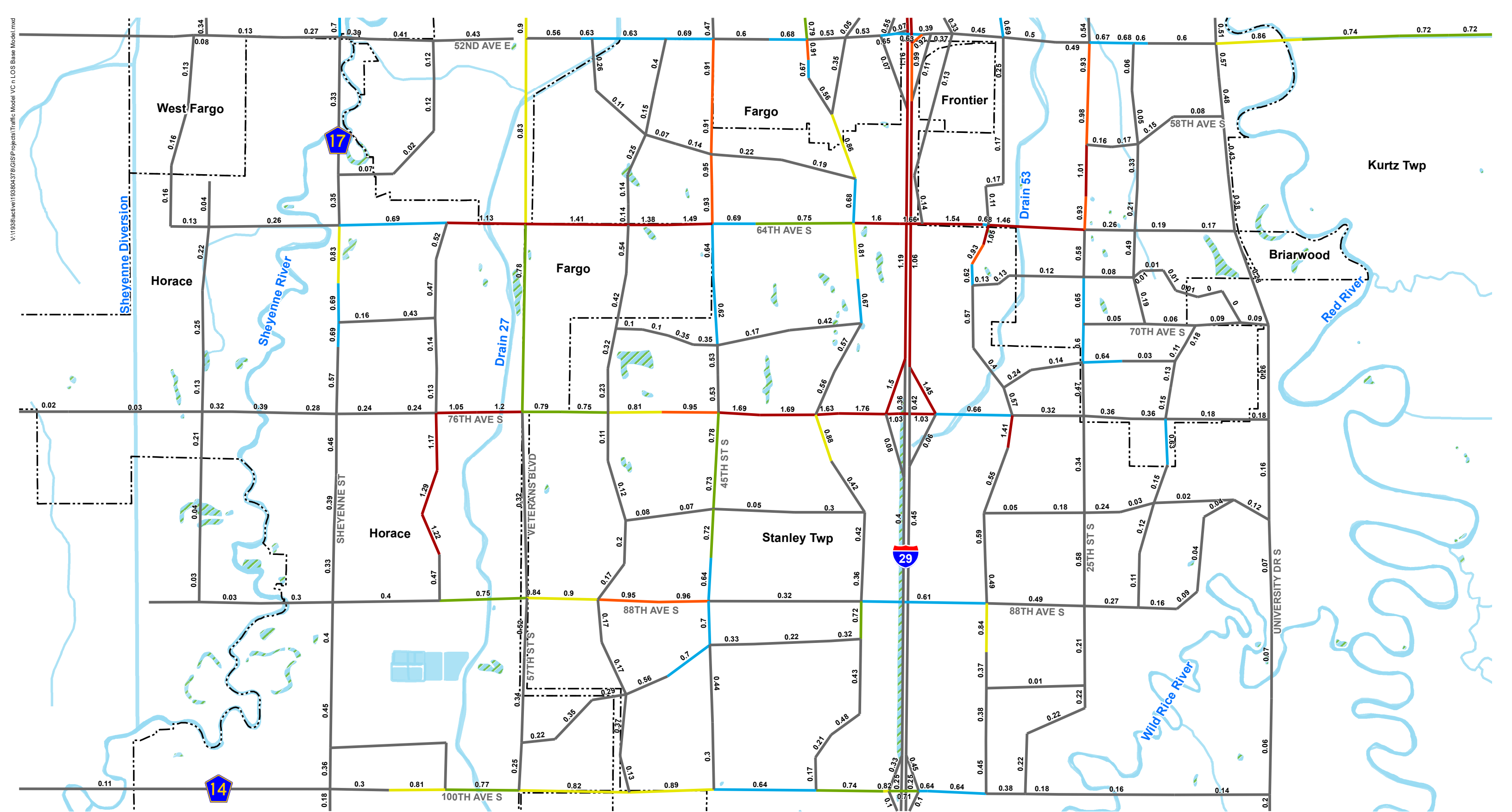
Socioeconomic (SE) Data Changes for the Updated Full Build TDM

Changes made to the SE data only moved the projected growth of population, households and jobs between Traffic Analysis Zones (TAZs). The total population, household and jobs did not change for the overall model and did not change between jurisdictions. A full spreadsheet showing the updated SE data changes may be made available upon request. The following summarizes where SE data changes occurred between TAZs.

- It had been previously discussed to update the Horace growth projections to the high growth scenario. After reviewing the Full Build TDM from the SWMTP, it was determined that for the Full Build scenario the high growth scenario was utilized.
- TAZ 589 in Horace is going to see quite a bit of growth compared to what is currently shown in the 2040+ TDM. The employment numbers should be greatly increased. Take employment out of TAZs 588 and 366 and move to TAZ 589. Most of this employment will be office with some commercial.
- TAZ 432 in Fargo will mostly be a large storm water pond to serve multiple developments. Move the 44 jobs from TAZ 432 to TAZ 625. This will also greatly reduce the number of HH's in this TAZ. Move 200 of the 375 HH's to the surrounding TAZs.
- TAZ 626 is going to be a major sporting complex. About 1/3 of this TAZ will be the sports complex and will likely be more of a special generator. About 1/3 of the households and jobs in this TAZ should be spread out between the surrounding TAZs.
- TAZ 472 is no longer going to be a regional park. It will be a Sanford Sports Complex and a storm water pond. Employment was increased to TAZ 472 from surrounding TAZs.
- The City of Fargo anticipates some employment along 45th Street, 76th Avenue S, and (to a lesser extent) 64th Avenue South and Veterans Boulevard in Fargo. Some of the employment being pulled out of TAZ 366, TAZ 432, and TAZ 626 was applied to the TAZ's directly adjacent to these corridors that previously had zero employment within them.
- The elementary school in TAZ 496 was moved to TAZ 500.
- A new Middle School was added in Fargo to TAZ 587 (adjacent to Davies HS).
- Fargo and West Fargo School Districts were contacted, projected enrollment numbers were updated for all existing and planned schools located within the SWM Planning area.

Once the Full Build TDM was updated, a review of the Volume to Capacity (V/C) ratio was reviewed to determine if the roadways within the network would be able to accommodate Full Build projected growth and resultant daily traffic volumes. The results of the V/C analysis and the resultant Level of Service (LOS) is shown in Figure 1. All maps developed for the Updated Full Build TDM are included in Appendix A. A spreadsheet documenting the Socioeconomic Data changes is also included in Appendix A.





March 9, 2020

SWM Area Full Build Net Work, Volume to Capacity Ratio and Level of Service - Base Model



- LOS A (0 to 0.6)
- LOS B (0.6 to 0.7)
- LOS C (0.7 to 0.8)
- LOS D (0.8 to 0.9)
- LOS E (0.9 to 1.0)
- LOS F (> 1.0)
- - - Municipal boundaries



Southwest Metropolitan Area Full Build TDM – Scenario 1

The SWM Area Full Build TDM Scenario 1 is built off the SWM Area Updated Full Build TDM with the addition of an interchange at I-29 and 64th Avenue South that connects directly onto I-29. The interchange at I-29 and 64th Avenue South was modelled as a full diamond interchange with a loop in the southeast quadrant.

The V/C ratio was reviewed to determine if the roadways within the network would be able to accommodate Full Build projected growth and resultant daily traffic volumes for Scenario 1 with the addition of an interchange at I-29 and 64th Avenue South. The results of the V/C analysis and the resultant Level of Service (LOS) is shown in Figure 2.

Southwest Metropolitan Area Full Build TDM – Scenario 2

The SWM Area Full Build TDM Scenario 2 is built off the SWM Area Updated Full Build TDM with the addition of an interchange at I-29 and 64th Avenue South that connects into a collector-distributor roadway adjacent to I-29. The modelled collector distributor roadway was classified as an interstate principal arterial with a posted speed of 55 mph. The collector-distributor roadway included two northbound lanes and two southbound lanes and connects between a future interchange at 76th Avenue South and the existing interchange at 52nd Avenue South. Once again, the interchange at I-29 and 64th Avenue South was modelled as a full diamond interchange with a loop in the southeast quadrant.

The V/C ratio was reviewed to determine if the roadways within the network would be able to accommodate Full Build projected growth and resultant daily traffic volumes for Scenario 2 with the addition of an I-29 C-D roadway and an interchange 64th Avenue South with the C-D roadway system. The results of the V/C analysis and the resultant Level of Service (LOS) is shown in Figure 3.

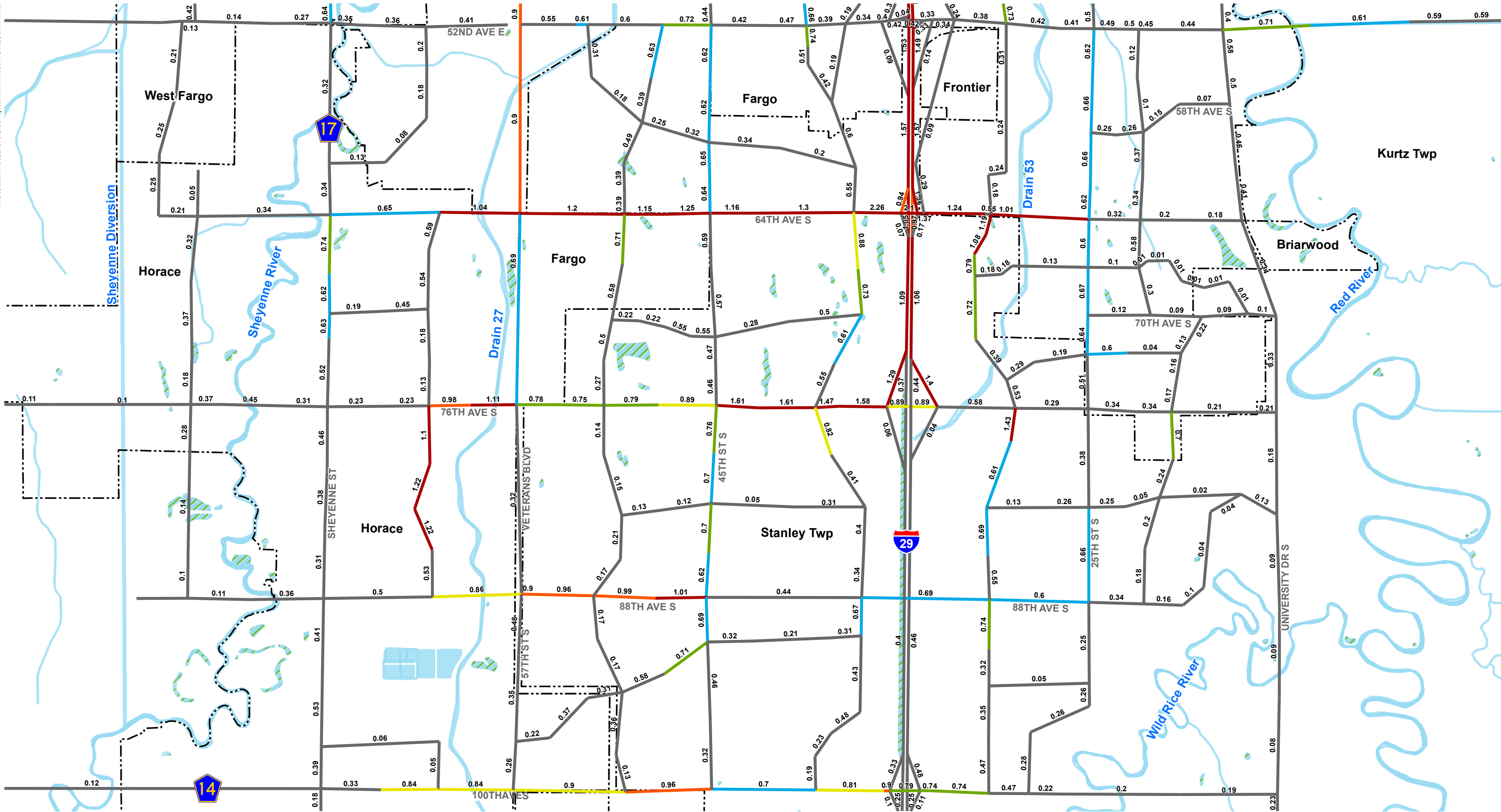
Southwest Metropolitan Area Full Build TDM – Scenario 3

The SWM Area Full Build TDM Scenario 3 is built off the SWM Area Full Build TDM Scenario 2 with the addition ½ mile drain crossings of Drain 27 (both ½ mile north and south of 76th Avenue South) and expanding 64th Avenue South from 3 lanes to 5 lanes west of I-29.

The V/C ratio was reviewed to determine if the roadways within the network would be able to accommodate Full Build projected growth and resultant daily traffic volumes for Scenario 3. The results of the V/C analysis and the resultant Level of Service (LOS) is shown in Figure 4.



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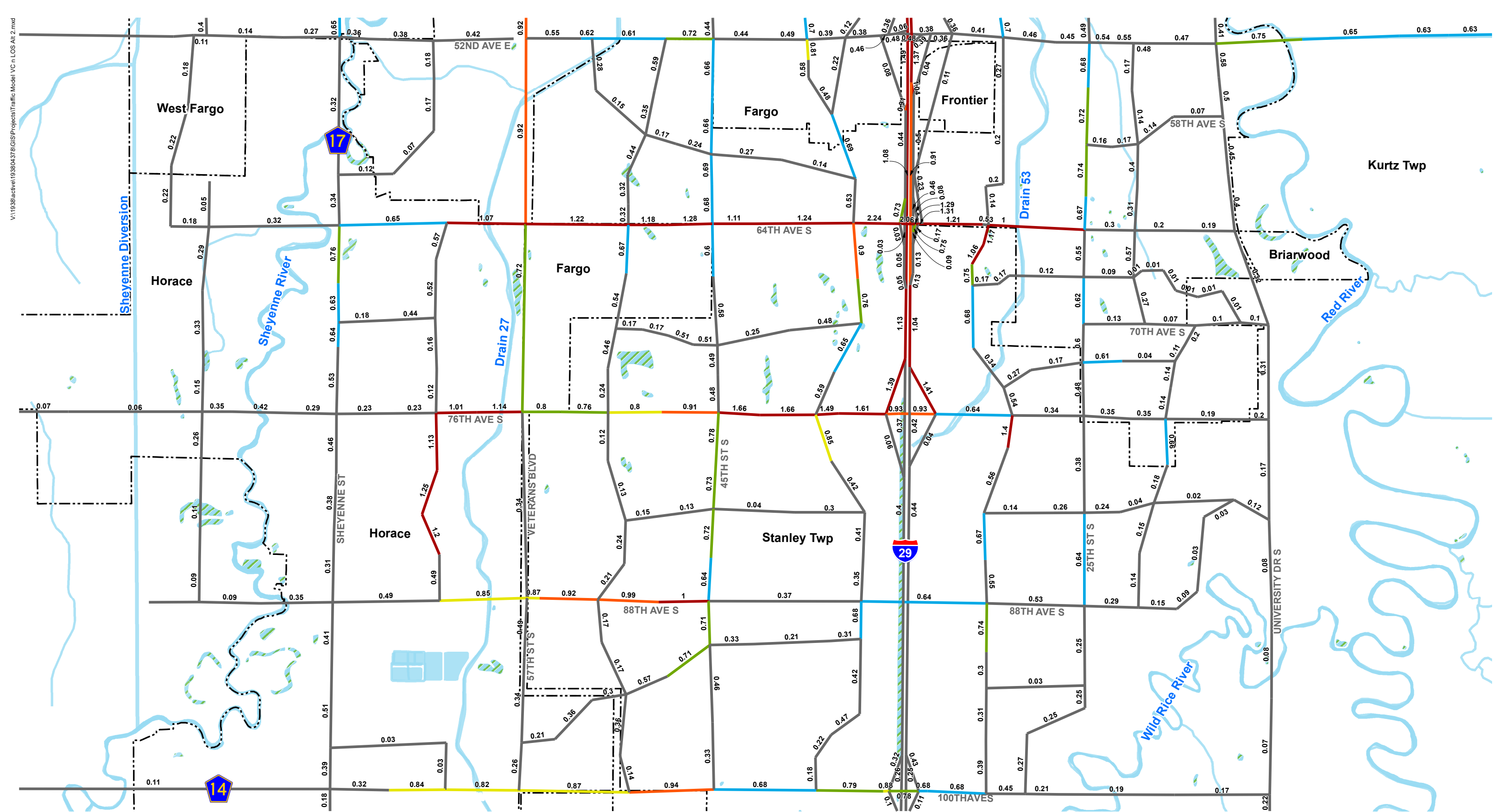
March 9, 2020

SWM Area Full Build Net Work, Volume to Capacity Ratio and Level of Service - Scenario 1



- LOS A (0 to 0.6)
- LOS B (0.6 to 0.7)
- LOS C (0.7 to 0.8)
- LOS D (0.8 to 0.9)
- LOS E (0.9 to 1.0)
- LOS F (> 1.0)
- - - Municipal boundaries





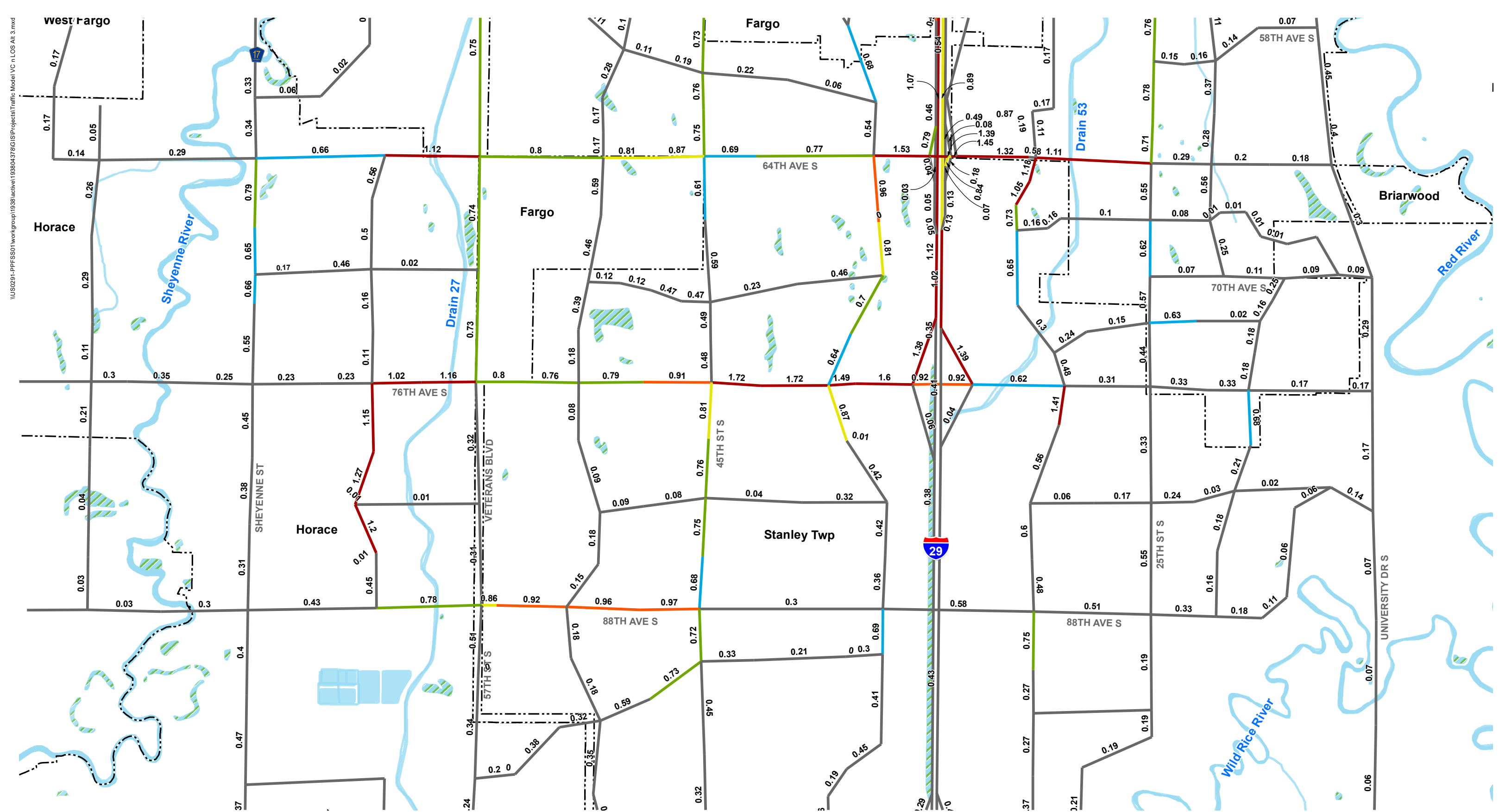
March 9, 2020

SWM Area Full Build Net Work, Volume to Capacity Ratio and Level of Service - Scenario 2



- LOS A (0 to 0.6)
- LOS B (0.6 to 0.7)
- LOS C (0.7 to 0.8)
- LOS D (0.8 to 0.9)
- LOS E (0.9 to 1.0)
- LOS F (> 1.0)
- - - Municipal boundaries



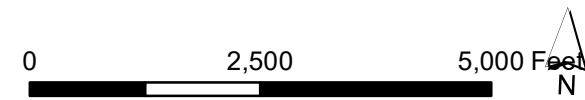


SWM Area Full Build Net Work, Volume to Capacity Ratio and Level of Service - Scenario 3

March 9, 2020



- TOTAL_VC
- LOS A (0 to 0.6)
- LOS B (0.6 to 0.7)
- LOS C (0.7 to 0.8)
- LOS D (0.8 to 0.9)
- LOS E (0.9 to 1.0)
- LOS F (> 1.0)
- Municipal boundaries



Travel Demand Model Forecast Daily Volume Results Comparison for All Scenarios

The forecast daily traffic volumes for the entire SWM planning area for the following travel demand models: Metro Grow 2045 TDM, Full Build Updated Base TDM, Full Build TDM Scenario 1, Full Build TDM Scenario 2 and Full Build Scenario 3 are shown in Figures 5 and 6. Results for the various modeling analyses have been summarized for the segments along 76th Avenue South in Table 1.

Table 1: Forecast Traffic Volume Comparisons Between TDM Scenarios along 76th Avenue South

76th Avenue South Segment	2045 Metro Grow TDM	Updated Full Build TDM	Full Build TDM Scenario 1*	Full Build TDM Scenario 2*	Full Build TDM Scenario 3*
81 st St to CR 17	NA	3,500	4,000 (+14%)	3,800 (+9%)	3,200 (-9%)
Just east of CR 17	4,700	6,600	6,500 (-2%)	6,550 (-1%)	6,500 (-2%)
Just west of Veterans Blvd	NA	31,000	29,100 (-6%)	30,000 (-3%)	31,000 (0%)
Veterans Blvd to 45th St	5,100	27,000	25,200 (-7%)	25,700 (-5%)	26,000 (-4%)
45th St to 38th St	NA	48,000	45,500 (-5%)	47,000 (-2%)	48,000 (0%)
38th St to Inter. West Ramps	7,400	46,000	41,400 (-10%)	42,100 (-8%)	42,000 (-9%)
Inter. West Ramps to East Ramps	NA	28,000	24,400 (-13%)	25,600 (-9%)	25,000 (-11%)
I-29 & 76 th Ave S Inter. SW Ramp	NA	1,200	930 (-23%)	940 (-22%)	940 (-22%)
I-29 & 76 th Ave S Inter. SE Ramp	NA	1,200	700 (-42%)	700 (-42%)	730 (-39%)
I-29 & 76 th Ave S Inter. NW Ramp	NA	28,000	24,300 (-13%)	26,100 (-7%)	26,000 (-7%)
I-29 & 76 th Ave S Inter. NE Ramp	NA	22,000	21,000 (-5%)	21,100 (-4%)	21,000 (-5%)
Inter. East Ramps to 36 th St	NA	19,000	16,900 (-11%)	18,400 (-3%)	18,000 (-5%)
36 th St to 25 th St	4,800	10,000	8,900 (-11%)	10,400 (+4%)	9,600 (-4%)
25 th St to Univ Drive	5,000	4,900	4,600 (-6%)	4,700 (-4%)	4,500 (-8%)

*Note: Full Build TDM Scenarios 1, 2, and 3 show the daily traffic volume followed by the % change in traffic volumes from the Updated Full Build TDM.

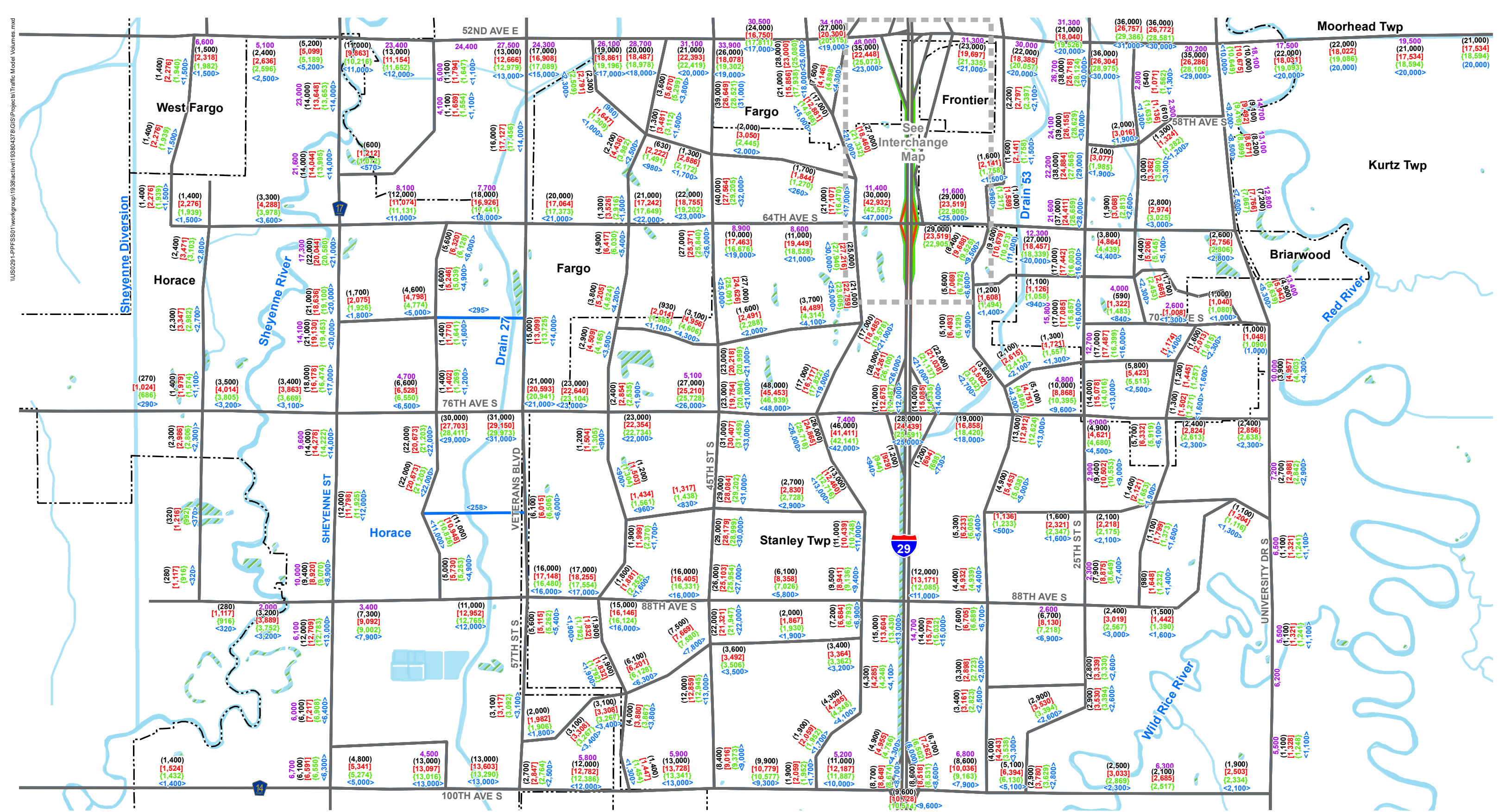


There is a major difference between the 2045 MTP forecast daily volumes and the Full Build forecast daily volumes. A lot of development will need to occur before we see the Full Build forecast volumes. The important thing to consider is the % change between the Updated Full Build model with Full Build Model Scenarios 1, 2, and 3. This will assist us in determine the impact that Scenarios 1 and 2 have on the overall modelled roadway network and specifically along 76th Avenue South.

A review of all modelled scenarios highlights the following when doing a select link comparison between the TDM Scenarios:

- For the Updated Full Build, Full Build Scenarios 1, 2 and 3 – V/C Ratios are over 1.0 with a LOS F along 76th Avenue South between 45th Street and I-29 and on the I-29/76th Avenue South Interchange north ramps as well as along portions of I-29 north of 76th Avenue South.
- The addition of an interchange at I-29/64th Avenue South or an interchange at an I-29 C-D Roadway/64th Avenue South slightly reduces the daily traffic volumes along 76th Avenue South, but not enough to affect the roadway capacity needs and resultant failing LOS.
- The greatest % daily traffic volume reductions for Scenarios 1, 2, and 3 are on the I-29/76th Avenue South interchange south ramps. These ramps had extremely low traffic volumes to begin with and don't have a capacity or LOS impact.
- The modelled network for the Updated Full Build, Full Build Scenario 1, Full Build Scenario 2, and Full Build Scenario 3 would handle the capacity projections along 76th Avenue South that were identified in the Metro Grow 2045 TDM.
- Full Build Scenarios 1, 2 and 3 have the greatest increase in traffic volumes along 64th Avenue South. The increased daily traffic volumes worsen the LOS along most of the corridor in Scenarios 1 and 2. Minor volume reductions with these scenarios are seen spread throughout the major north/south and east/west roadway networks including 52nd Avenue South, 76th Avenue South, Sheyenne Street, 45th Street, 25th Street and many of the collector roadways within the network.
- Scenario 3 includes the expansion of 64th Avenue South from a 3-lane to 5-lane roadway which reduces V/C ratios and projected capacity issues significantly along the corridor.
- Scenario 2 improves the LOS operations on I-29 from a LOS F to a LOS E where the C-D roadway serves traffic. Scenario 2 significantly improves the I-29/64th Avenue South interchange ramps from a LOS E to a LOS C.





March 9, 2020

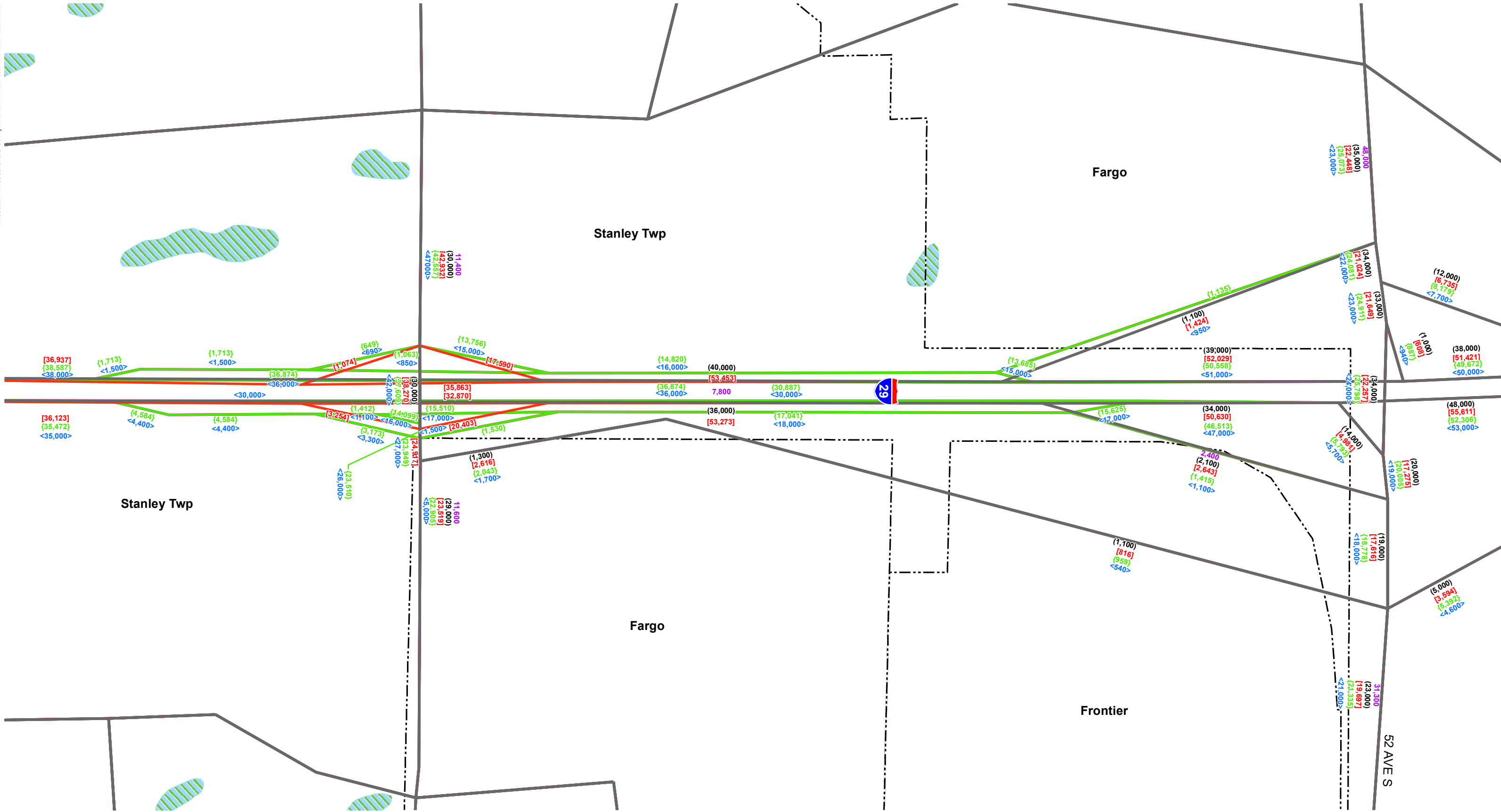
Forecasted Daily Traffic Volumes for the SWM Area



76th Avenue South Corridor Study

- X,XXX MTP Forecasted 2045 Daily Traffic Volume
- (X,XXX) Forecasted Daily Traffic Volume - Full Build Network Base Model
- [X,XXX] Forecasted Daily Traffic Volume - Full Build Network Scenario 1
- {X,XXX} Forecasted Daily Traffic Volume - Full Build Network Scenario 2
- <X,XXX> Forecasted Daily Traffic Volume - Full Build Network Scenario 3
- Municipal Boundaries





March 9, 2020

Forecasted Daily Traffic Volumes for the SWM Area - 64th and 52nd Ave Interchanges

- X,XXX MTP Forecasted 2045 Daily Traffic Volume
- (X,XXX) Forecasted Daily Traffic Volume - Full Build Network Base Model
- [X,XXX] Forecasted Daily Traffic Volume - Full Build Network Scenario 1
- {X,XXX} Forecasted Daily Traffic Volume - Full Build Network Scenario 2
- <X,XXX> Forecasted Daily Traffic Volume - Full Build Network Scenario 3
- - - Municipal Boundaries



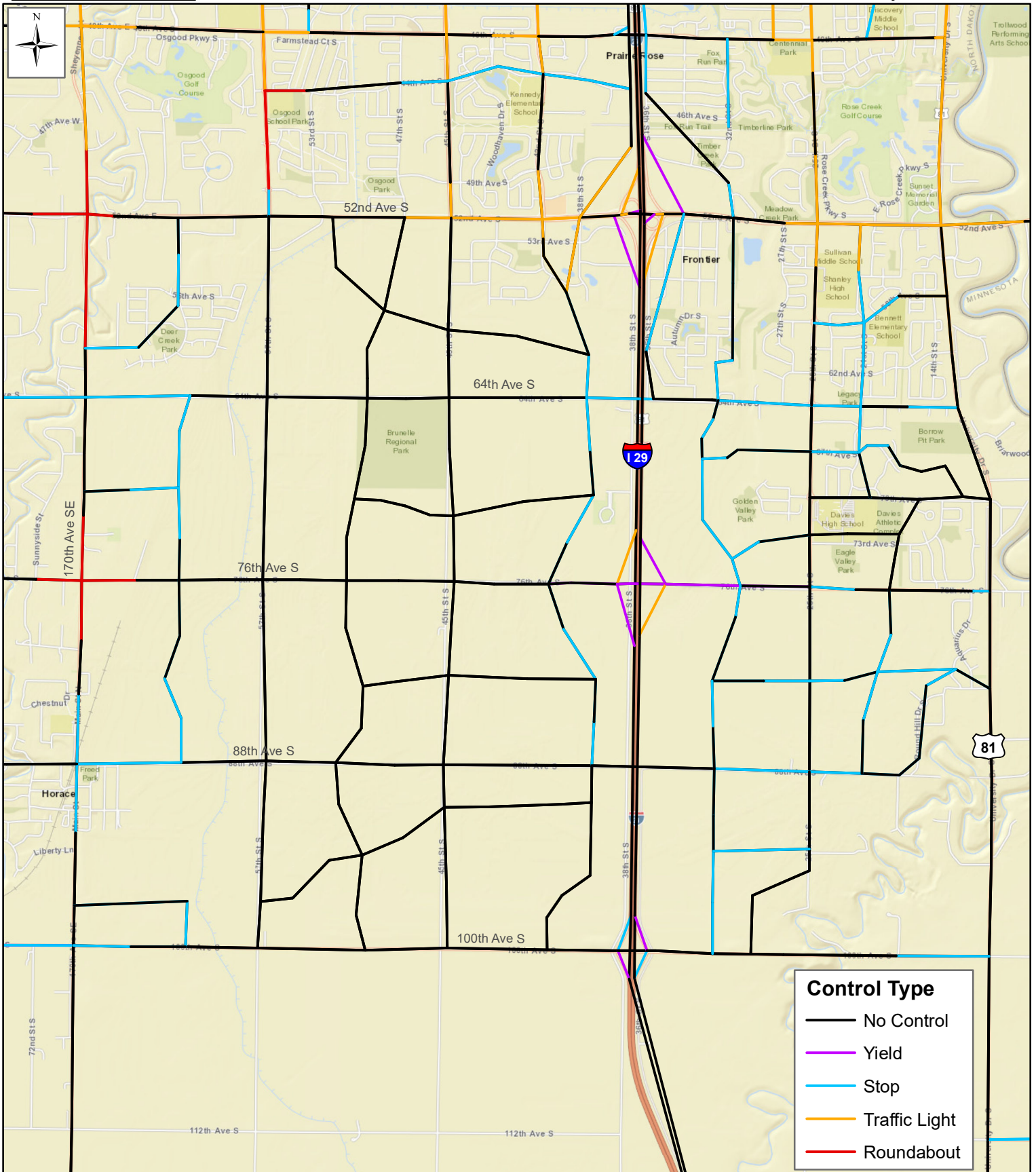
Appendix A – Full Build Transportation Network Maps and SE Data Updates



SWM Area Full Build Network (Interesection Control Type)

Scale:
0 0.25 0.5 1 Miles

Date: 3/4/2020
By: Stantec

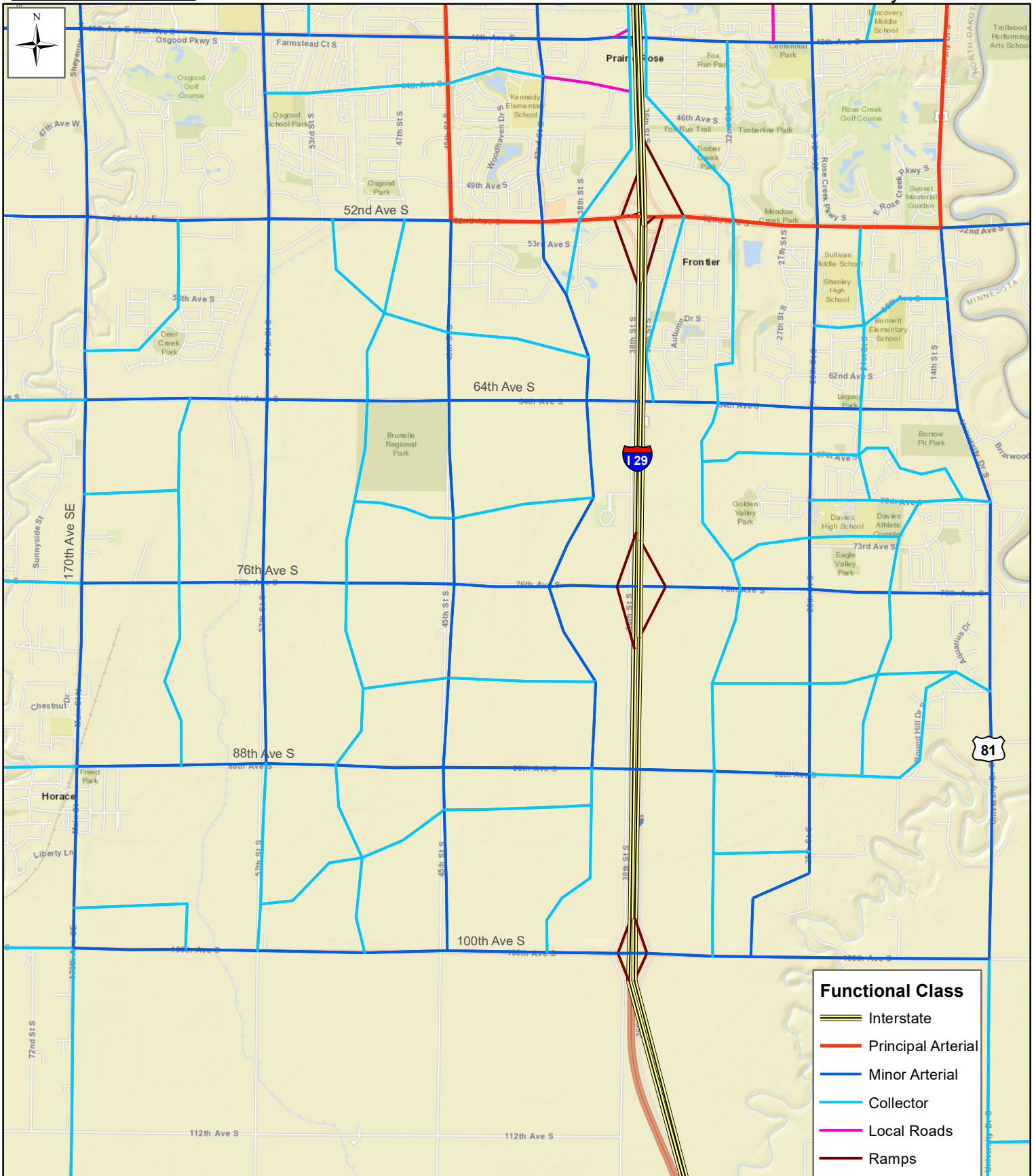


Source: Loaded_Final.NET from the FM TDM (Fargo-Moorhead model)

SWM Area Full Build Network

Scale: 0 0.25 0.5 1 Miles

Date: 3/4/2020
By: Stantec

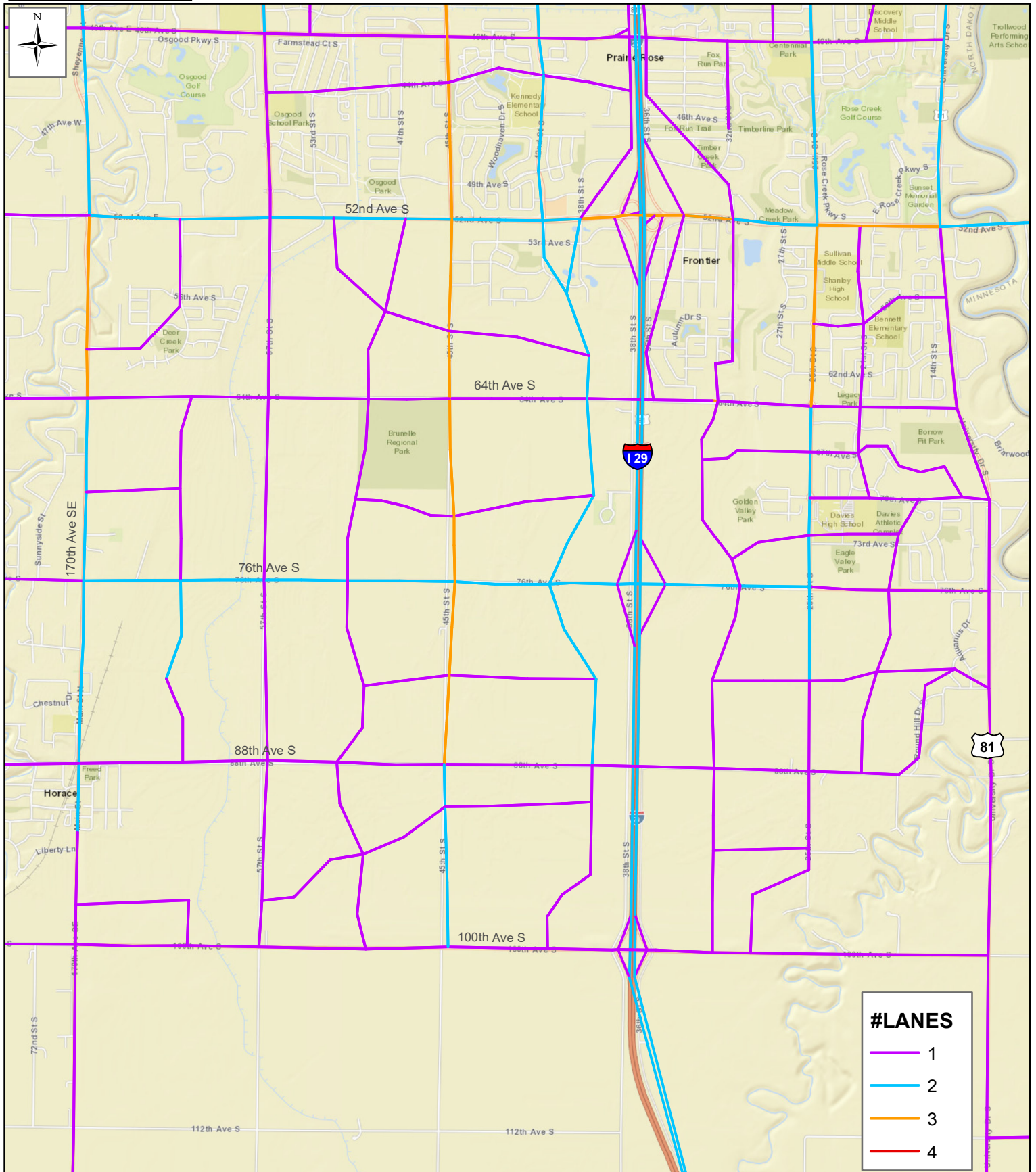


Source: Loaded_Final.NET from the FM TDM (Fargo-Moorhead model)

SWM Area Full Build Network (Number of Lanes)

Scale: 0 0.25 0.5 1 Miles

Date: 3/4/2020
By: Stantec

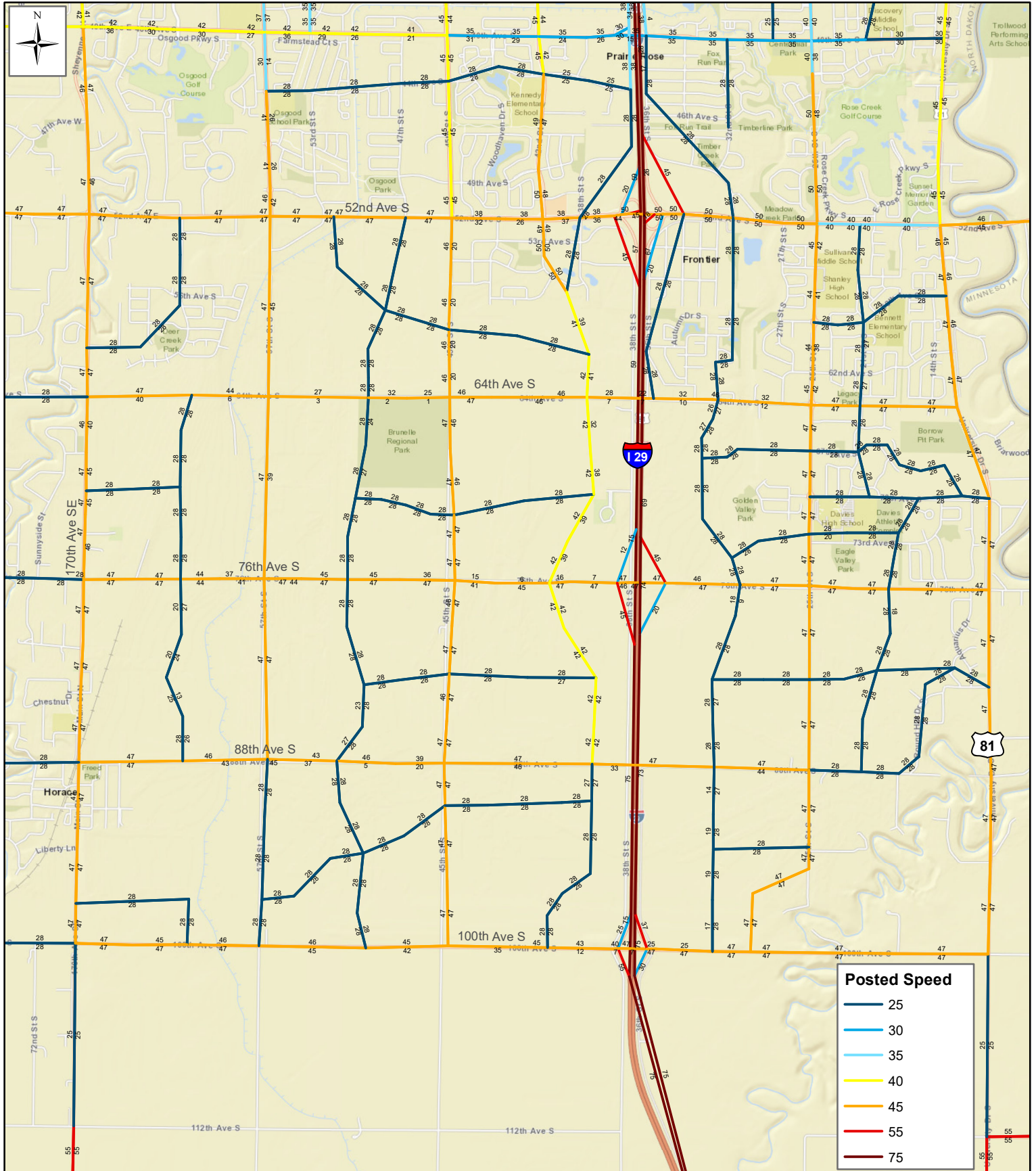


Source: Loaded_Final.NET from the FM TDM (Fargo-Moorhead model)

SWM Area Full Build Network (Posted Speed and Peak Speed in mph)

Scale: 0 0.25 0.5 1 Miles

Date: 3/4/2020
By: Stantec



Source: Loaded_Final.NET from the FM TDM (Fargo-Moorhead model)

Traffic Analysis Zone Socioeconomic Data Updates from the SWMTP Full Build TDM to the Updated Full Build TDM for the 76th Avenue South Corridor Study

ZONE#	2040+ SWMTP HH	UPDATED HH FOR 76TH STUDY	CHANGE IN HH	2040+ SWMTP POP.	UPDATED POPULATION FOR 76TH STUDY	CHANGE IN POP.	2040+ SWMTP RETAIL JOBS	UPDATED RETAIL JOBS FOR 76TH STUDY	CHANGE IN RETAIL JOBS	2040+ SWMTP SERVICE JOBS	UPDATED SERVICE JOBS FOR 76TH STUDY	CHANGE IN SERVICE JOBS	2040+ SWMTP OTHER JOBS	UPDATED OTHER JOBS FOR 76TH STUDY	CHANGE IN OTHER JOBS	2040+ SWMTP TOTAL JOBS	UPDATED TOTAL JOBS FOR 76TH STUDY	CHANGE IN TOTAL JOBS	2040+ SWMTP ELEM ENROL	2040+ SWMTP MS ENROL	2040+ SWMTP HS ENROL
432	375	175	(200)	893	418	(475)	4	-	(4)	23	-	(23)	16	-	(16)	43	-	(43)	-	-	-
468	235	235	-	559	559	-	-	-	-	1	1	-	12	12	-	13	13	-	-	-	-
469	419	419	-	997	997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
470	309	309	-	735	735	-	-	-	-	45	45	-	-	-	-	45	45	-	576	-	-
471	287	287	-	683	683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
472	357	778	421	850	1,853	1,003	-	4	4	-	23	23	-	16	16	-	43	43	-	-	-
473	579	579	-	1,377	1,377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
474	855	855	-	2,035	2,035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
475	502	502	-	1,195	1,195	-	131	131	-	227	227	-	99	99	-	457	457	-	-	-	-
476	566	566	-	1,347	1,347	-	-	-	-	34	-	(34)	-	-	-	34	-	(34)	-	-	-
477	560	560	-	1,333	1,333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
478	435	435	-	1,035	1,035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
479	520	520	-	1,555	1,555	-	73	73	-	63	63	-	-	-	-	136	136	-	-	-	-
482	204	626	422	486	1,489	1,003	7	7	-	36	36	-	453	453	-	496	496	-	-	-	-
483	973	1,091	118	2,316	2,597	281	44	44	-	224	224	-	162	162	-	430	430	-	-	-	-
484	410	410	-	977	977	-	234	234	-	293	293	-	101	101	-	628	628	-	-	-	-
485	141	141	-	337	337	-	689	689	-	597	597	-	5	5	-	1,291	1,291	-	-	-	-
486	739	739	-	1,759	1,759	-	195	195	-	375	375	-	177	177	-	747	747	-	-	-	-
487	824	824	-	1,962	1,962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
488	489	489	-	1,164	1,164	-	20	20	-	101	101	-	74	74	-	195	195	-	-	-	-
489	500	500	-	1,189	1,189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
490	505	505	-	1,201	1,201	-	116	116	-	201	201	-	89	89	-	406	406	-	-	-	-
491	136	136	-	324	324	-	522	522	-	382	382	-	95	95	-	999	999	-	-	-	-
492	845	845	-	2,011	2,011	-	198	198	-	169	169	-	-	-	-	367	367	-	-	-	-
493	743	743	-	1,767	1,767	-	48	48	-	41	41	-	-	-	-	89	89	-	-	-	-
494	492	492	-	1,172	1,172	-	80	80	-	225	225	-	137	137	-	442	442	-	-	-	-
495	410	410	-	977	977	-	16	16	-	82	82	-	59	59	-	157	157	-	-	-	-
496	339	339	-	807	807	-	-	-	-	34	-	(34)	-	-	-	34	-	(34)	-	-	-
497	429	429	-	1,021	1,021	-	29	29	-	147	147	-	107	107	-	283	283	-	-	-	-
498	385	385	-	916	916	-	47	47	-	249	249	-	176	176	-	472	472	-	-	-	-
499	317	317	-	753	753	-	1	1	-	12	12	-	3	3	-	16	16	-	-	-	-
500	546	546	-	1,300	1,300	-	48	48	-	41	75	34	-	-	-	89	123	34	500	-	-
501	366	366	-	872	872	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502	71	71	-	168	168	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503	39	39	-	93	93	-	14	14	-	1	1	-	-	-	-	15	15	-	-	-	-
515	4	4	0	9	9	0	4	4	-	29	29	-	87	87	-	120	120	-	-	-	-
516	242	362	120	576	861	285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
587	32	32	-	76	76	-	-	-	-	167	167	-	-	-	-	167	167	-	-	800	1,400
588	436	436	-	1,304	1,304	-	83	30	(53)	355	100	(255)	247	247	-	685	377	(308)	-	-	-
589	833	833	-	2,491	2,491	-	-	273	273	-	469	469	2	2	-	2	744	742	300	-	-
593	349	349	-	1,044	1,044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
594	247	247	-	739	739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
595	425	425	-	1,271	1,271	-	-	-	-	-	-	-	3	3	-	3	3	-	-	-	-
596	109	109	-	326	326	-	-	-	-	28	28	-	5	5	-	33	33	-	-	-	-
597	434	434	-	1,298	1,298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
598	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
599	63	63	-	188	188	-	-	-	-	6	6	-	7	7	-	13	13	-	-	-	-
625	316	396	80	752	942	190	71	71	-	119	119	-	86	86	-	276	276	-	-	-	-

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ZONE#	2040+ SWMTP HH	UPDATED HH FOR 76TH STUDY	CHANGE IN HH	2040+ SWMTP POP.	UPDATED POPULATION FOR 76TH STUDY	CHANGE IN POP.	2040+ SWMTP RETAIL JOBS	UPDATED RETAIL JOBS FOR 76TH STUDY	CHANGE IN RETAIL JOBS	2040+ SWMTP SERVICE JOBS	UPDATED SERVICE JOBS FOR 76TH STUDY	CHANGE IN SERVICE JOBS	2040+ SWMTP OTHER JOBS	UPDATED OTHER JOBS FOR 76TH STUDY	CHANGE IN OTHER JOBS	2040+ SWMTP TOTAL JOBS	UPDATED TOTAL JOBS FOR 76TH STUDY	CHANGE IN TOTAL JOBS	2040+ SWMTP ELEM ENROL	2040+ SWMTP MS ENROL	2040+ SWMTP HS ENROL
626	1,061	100	(961)	2,525	238	(2,287)	60	60	-	307	307	-	223	223	-	590	590	-	-	-	-
627	229	229	-	545	545	-	49	49	-	253	253	-	184	184	-	486	486	-	-	-	-
628	240	240	-	571	571	-	3	3	-	15	15	-	11	11	-	29	29	-	-	-	-
629	152	152	-	362	362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	35,533	35,533	0	89,018	89,018	0	5,705	5,705	-	9,443	9,443	-	4,209	4,209	-	19,357	19,357	-	2,616	2,219	3,294

APPENDIX

D

**COLLECTOR-
DISTRIBUTOR
RESEARCH
MEMORANDUM**

COLLECTOR-DISTRIBUTOR (C-D) ROADWAY RESEARCH (I-29 FROM 52ND AVENUE SOUTH TO 76TH AVENUE SOUTH)

Background

The City of Fargo (Fargo) and the North Dakota Department of Transportation (NDDOT) have recently discussed future programming to build an interchange at Interstate 29 (I-29) and 64th Avenue South. Past planning efforts had assumed a 2-mile interchange spacing south of 32nd Avenue South along I-29. The purpose for the 2-mile interchange spacing south of 32nd Avenue South was to reduce weave/merge movements on I-29 and to maintain the posted speed limit of 75 mph. Building an interchange at 64th Avenue South would change the assumptions of past planning efforts with only 1-mile spacing between the existing interchange at I-29/52nd Avenue South and 64th Avenue South and also between 64th Avenue South and a future planned interchange at I-29/76th Avenue South. NDDOT and Fargo have been discussing the potential of utilizing a Collector-Distributor (C-D) roadway between the I-29/52nd Avenue South Interchange and a future I-29/76th Avenue South interchange that would allow vehicles to enter/exit I-29 at 64th Avenue South while maintaining the 2-mile spacing of weave/merge movements onto I-29.

As part of the 76th Avenue South Corridor Study, Metro COG has tasked Stantec with developing a memorandum that includes research of C-D roadway systems to better understand and educate the public on their purpose and functionality and the various types of C-D systems. Stantec is also completing Travel Demand Model alternatives that will identify forecast daily traffic volume changes along 76th Avenue South without an interchange or C-D system at 64th Avenue South (per previous planning assumptions), with an interchange at 64th Avenue South and with a C-D system serving traffic at 64th Avenue South to enter and exit I-29.

Description of C-D Roadways

C-D roadways are a supplemental facility that collect and distribute traffic between freeway mainlines and major crossroads, local parallel or frontage roads, or interchanges with closely spaced weave/merge movements (such as a cloverleaf interchange). Their primary purpose is to collect and distribute the traffic from the freeway to any one of these other facilities while moving the weave and merge movements away from the high-speed traffic on the freeway mainlines. Instead, the C-D roadway is the location where the weaving/merging occurs.

Typical Design Standards of C-D Roadways

C-D roads may be one or two lanes, depending on the traffic volumes and weaving conditions. Lane balance should be maintained at the exit and entrance points of the C-D road. The design speed of Interstate C-D roads should desirably be the same as the mainline. 15 mph should be the maximum difference between the design speed of the mainline and the C-D roadway. The separation between the C-D road and the mainline should be as wide as practicable, and not less than the distance required to provide the proper shoulder widths and a barrier. The pavement type of the C-D road should typically be the same as that of the mainline.



Advantages of C-D Roadways

C-D roadways increase traffic flow and speed on freeways and their entrance and exit ramps. Several advantages include:

- Removing weaving from the mainline.
- Providing adequate decision sight distance for all exiting traffic.
- Providing one high-speed exit from the mainline for all exiting traffic.
- Simplifying signing and decision-making.
- Satisfying driver expectancy by placing exits in advance of the structure
- Act as a storage area for existing traffic waiting at cross street intersection and freeway-to-freeway interchange ramps
- Help maintain mainline freeway speed limits

Implementation Issues

The primary design constraint for building a C-D roadway is often the need for right-of-way to construct the wider road, especially near larger interchanges. C-D facilities require extra road space, as well as extra shoulders and buffer space. They also increase the cost of projects due to the added roadway and bridge lengths of the intersecting arterials. Whenever additional travel lanes are constructed close to development, a noise analysis needs to be conducted to determine if noise mitigation measures are needed. Noise mitigation measures, such as sound walls, can add an additional need for right-of-way impacts and a further increase to construction costs.

Scenarios of C-D Roadways

As previously noted, C-D roadways are a supplemental facility that collects and distributes traffic between freeway mainlines and major crossroads, local parallel or frontage roads, or interchanges with closely spaced weave/merge movements (such as a cloverleaf interchange). When a C-D roadway intersects with a major crossroad, it is typically served by an at-grade intersection with appropriate intersection control. When a C-D roadway simply connects freeway mainlines it is typically a free-flowing movement on the freeway. The three scenarios in which a C-D roadway can be utilized are discussed below.

Scenario 1: C-D Roadway as Part of the Interstate System Serving Major Crossroads and Adjacent Interchanges

This scenario of a C-D roadway is part of the Interstate or Freeway system. These C-D facilities can allow a single freeway exit ramp to distribute vehicles to two or more crossing arterials or collect vehicles from several crossing arterials, so that they can enter the freeway at a single entrance ramp. These C-D roads may be provided within a single interchange, through two adjacent interchanges, or continuously through several interchanges of a freeway segment. They are typically warranted when traffic volumes are so high that, without them, the interchange or interstate cannot operate at an acceptable LOS.

The image below is I-394 in Minneapolis, MN. The C-D roadway collects and distributes traffic between I-394 and the major arterial crossroad Xenia Avenue. It also collects and distributes the traffic between I-394 and the adjacent I-394 and Hwy 100 cloverleaf interchange. In both cases, the C-D roadway serves to separate the major weave/merge movements off the I-394 mainline that would otherwise occur due to the closely spaced interchanges and the cloverleaf interchange loop ramps.

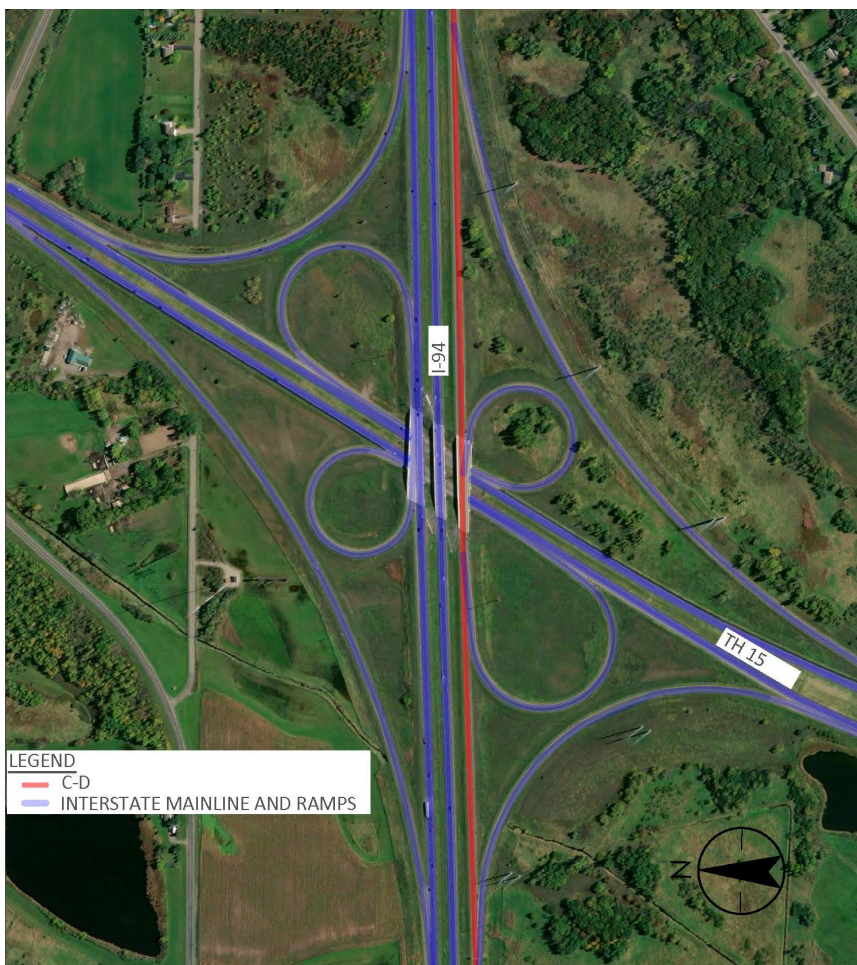




Scenario 2: C-D Roadway as Part of the Interstate System Serving a Cloverleaf Interchange

This scenario of a C-D roadway is part of the Interstate or Freeway system. C-D roads are particularly advantageous when constructed to eliminate weaving at a cloverleaf interchange or an interchange with loops in adjacent quadrants. The C-D roads collect and distribute the traffic exiting and entering the cloverleaf interchange so that the weave/merge movements are occurring on the C-D road instead of on the mainline freeway. Transferring the weaving movements from mainline to the C-D roads also helps maintain the speed limit on interstate. This scenario is different than the others because it only services one cloverleaf interchange instead of multiple crossroads, but still removes the weave/merge movements between the loop ramps from freeway mainline.

The image below is the cloverleaf interchange at I-94 & MN 15 in St. Cloud, MN. It is a great example of a C-D roadway that serves a single interchange. It collects and distributes traffic between I-94 and the south loop ramps of the interchange onto the C-D roadway to remove the weave/merge for these heavier traffic movements off the I-94 mainline.



Scenario 3: C-D Roadway as Part of the Local Roadway Network Serving Major Crossroads and Local Roadway Network

This scenario of a C-D roadway is part of the local roadway network and runs parallel to an interstate or freeway system. This C-D roadway collects and distributes traffic between the parallel local roadway to/from the interstate mainline, major crossroads, and the local roadway system. The parallel C-D roadways are one-ways in the same direction as the direction of the freeway or interstate that they are collecting and distributing the traffic to and from.

The image below is along I-94 in Minneapolis, MN. The parallel local C-D roadways are St. Anthony Avenue and Concordia Avenue. You can see how these one-way C-D roadways collect and distribute traffic to/from I-94, major arterial crossroads, and the local roadway network immediately adjacent to them. This example also shows how the C-D road provides direct access to heavy traffic generators such as Allianz Field and act as one-way pairs providing an efficient way to move traffic without accessing mainline interstate.



Preliminary Design for a C-D Roadway along I-29 between 52nd and 76th Avenue South

Fargo has been working with a consulting firm to complete the preliminary design of a C-D roadway from 52nd Avenue South to 76th Avenue South. The preliminary design shows two northbound collector distributor lanes and two southbound collector distributor lanes. This preliminary design operates as a C-D roadway that is part of the Interstate System serving both major crossroads (64th Avenue South) and adjacent interchanges – like Scenario 1 described above.

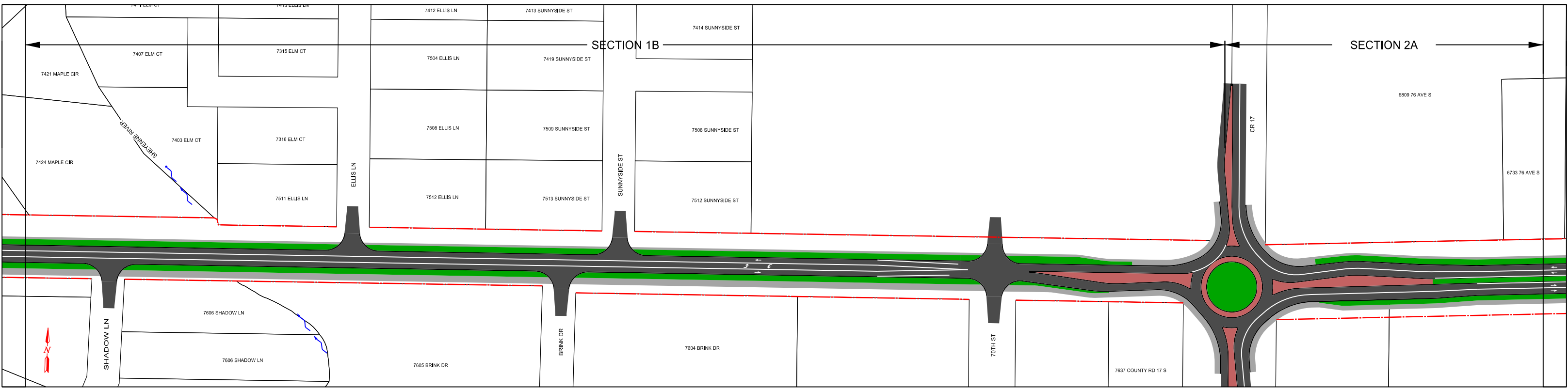
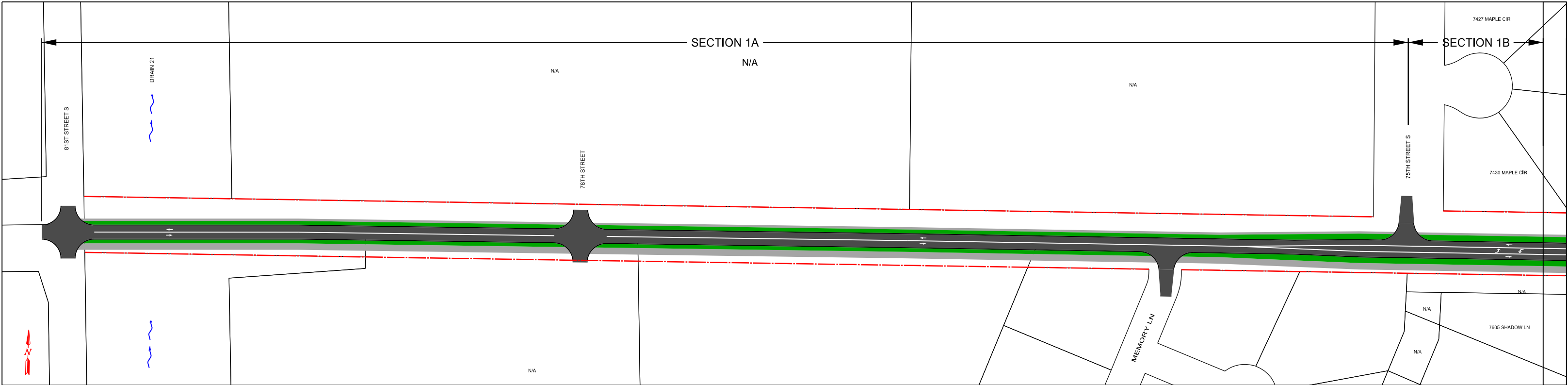
In review of the preliminary design, the C-D roadway would allow full access between 64th Avenue South and I-29 but would maintain the 2-mile access spacing onto the I-29 mainline. The preliminary design has been prepared to determine the necessary bridge span that would be needed for a 2020 programmed grade separation of I-29 and 64th Avenue South that would allow for the future addition of the C-D roadway system. The preliminary design indicates that NDDOT has existing right of way to accommodate the addition of the C-D roadway. Impacts to NDDOT's drainage system along I-29 will likely need to be analyzed and engineered if the C-D roadway is implemented. The preliminary design considers two alternatives of the C-D roadway – one alternative with the C-D terminating at 52nd Avenue South and a second alternative that considers the C-D roadway being constructed through 52nd Avenue South. Prior to implementation of a C-D roadway at this location, a determination of the purpose and need for a C-D roadway system and evaluation of various alternatives should be completed to ensure that the needs are being addressed.



APPENDIX

E

**ALTERNATIVE 1
AND 2 CONCEPT
LEVEL LAYOUTS**

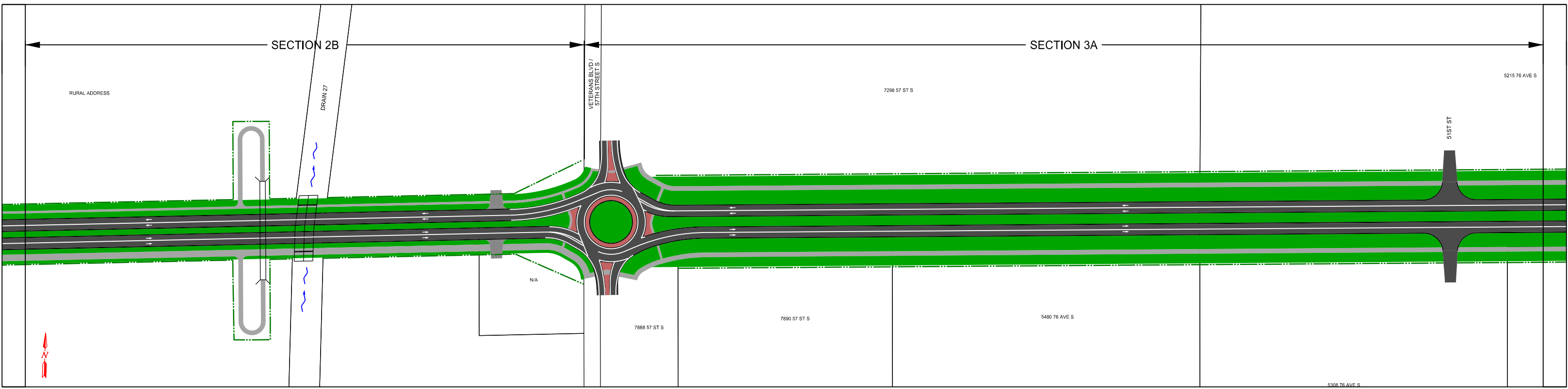
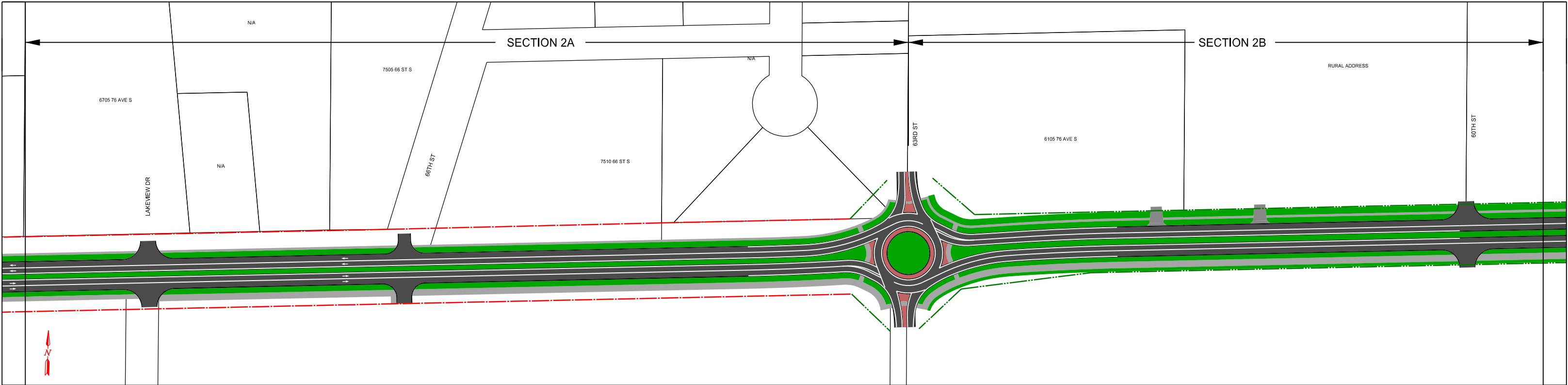


LEGEND

	PROPOSED ROADWAY		BOULEVARD/LANDSCAPE MEDIAN		TRAFFIC SIGNAL SYSTEM
	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE

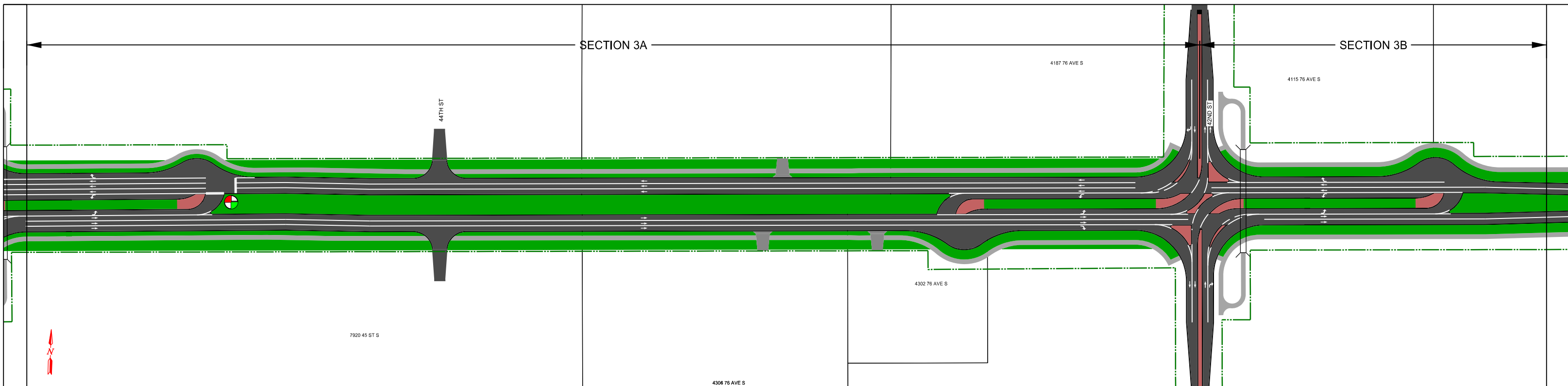
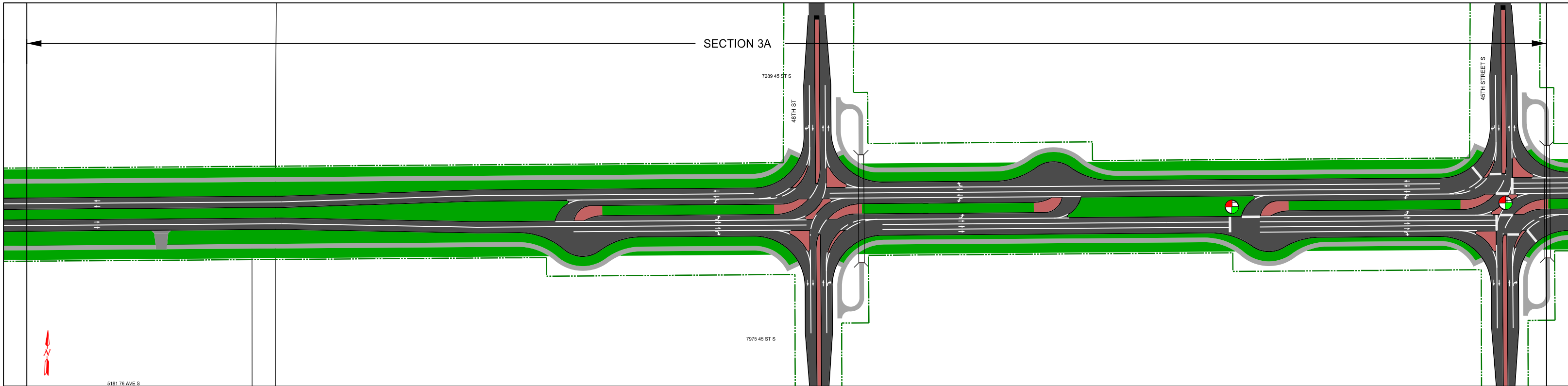















LEGEND

	PROPOSED ROADWAY		BOULEVARD/LANDSCAPE MEDIAN		TRAFFIC SIGNAL SYSTEM
	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE				PEDESTRIAN UNDERPASS	



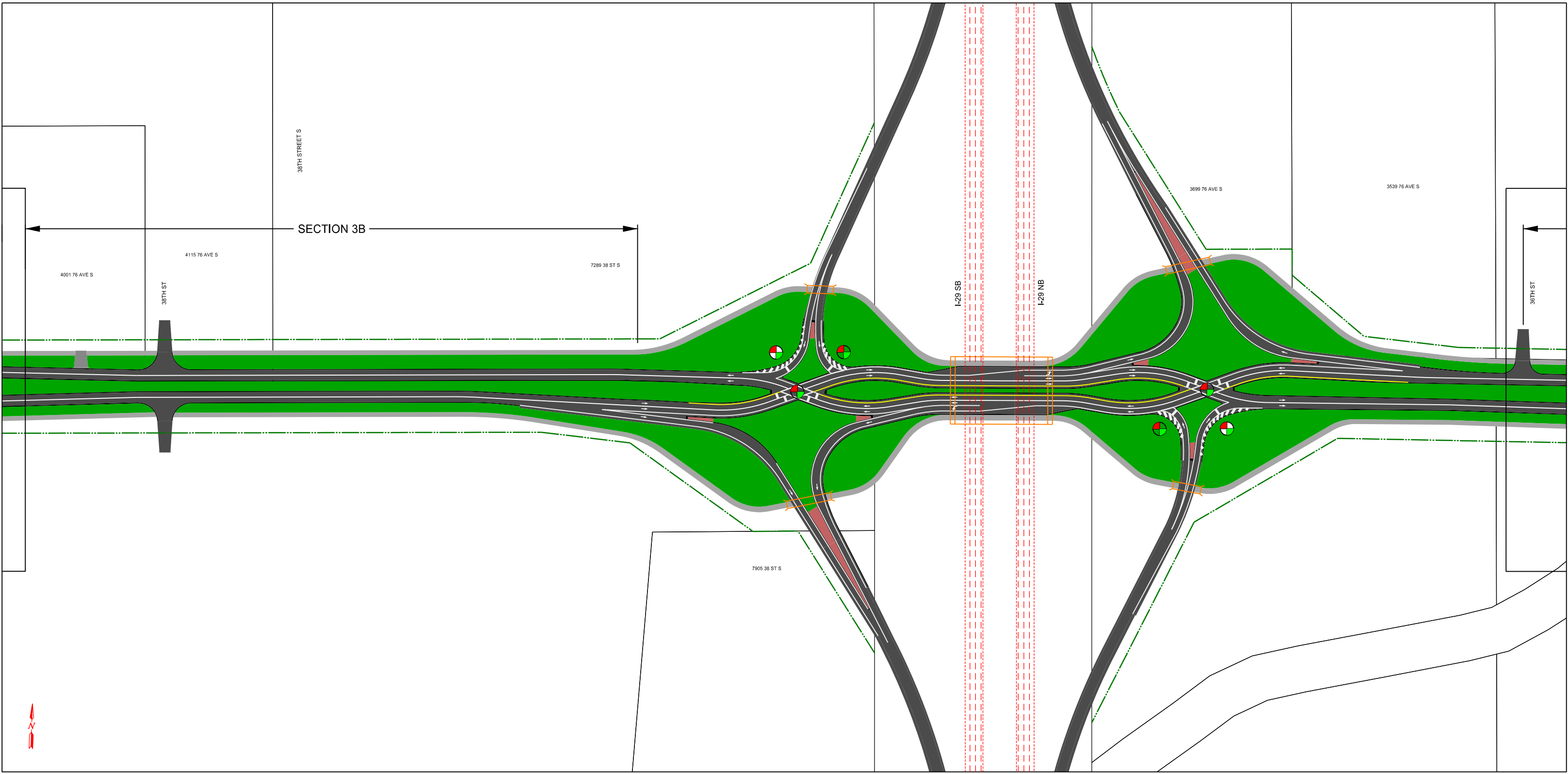


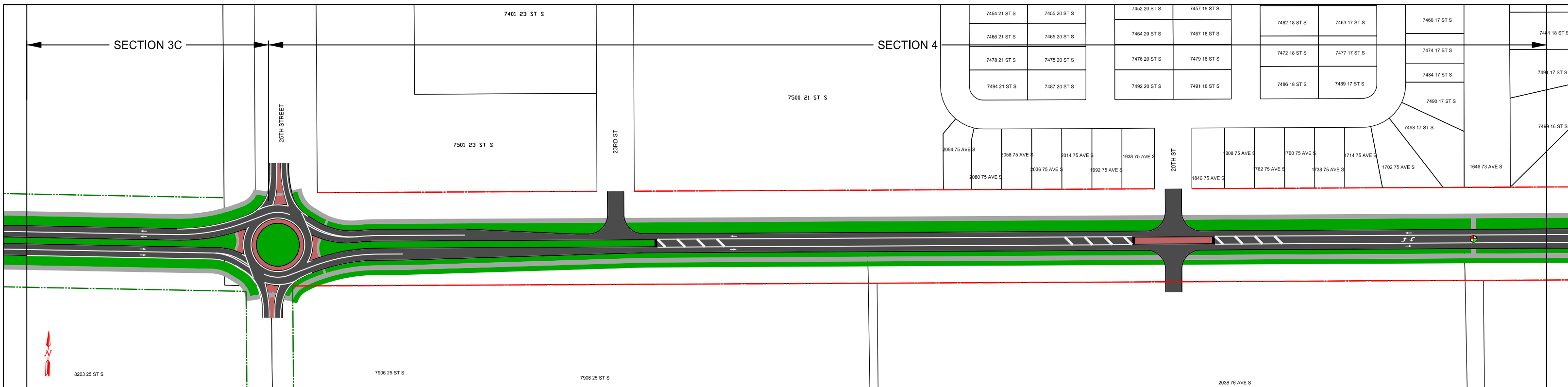
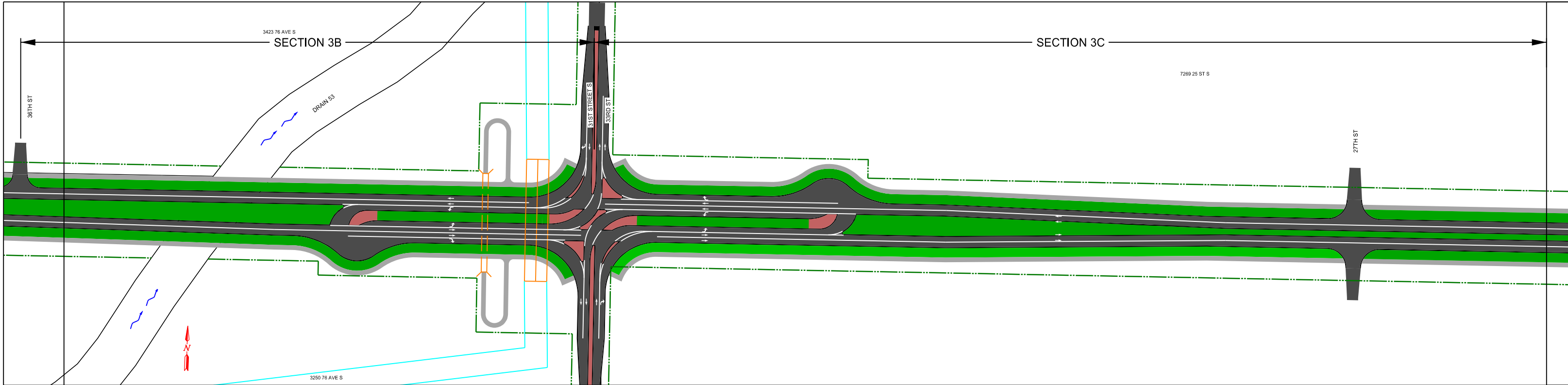
LEGEND

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	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE







LEGEND

	PROPOSED ROADWAY		BOULEVARD/LANDSCAPE MEDIAN		TRAFFIC SIGNAL SYSTEM
	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

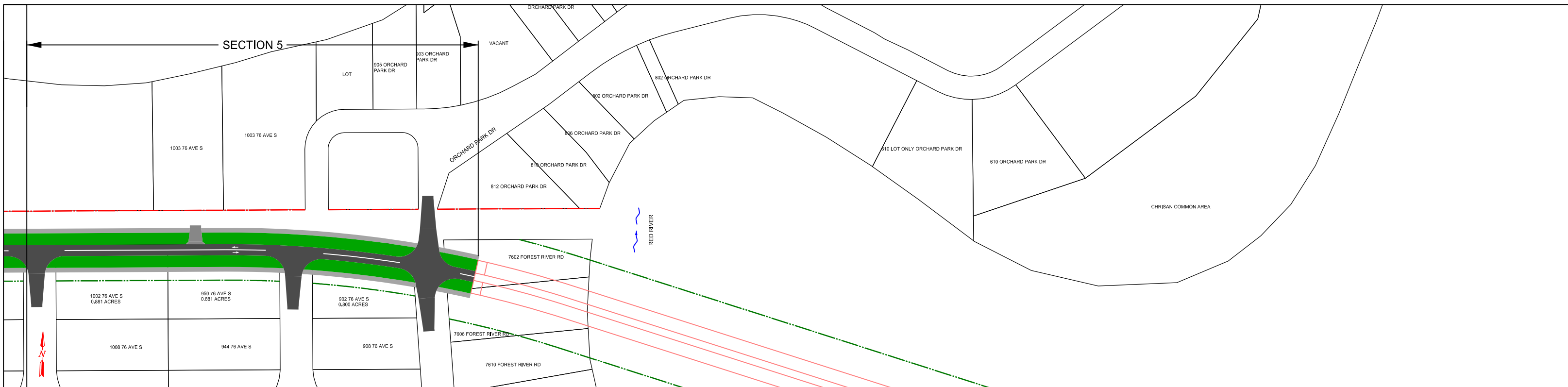
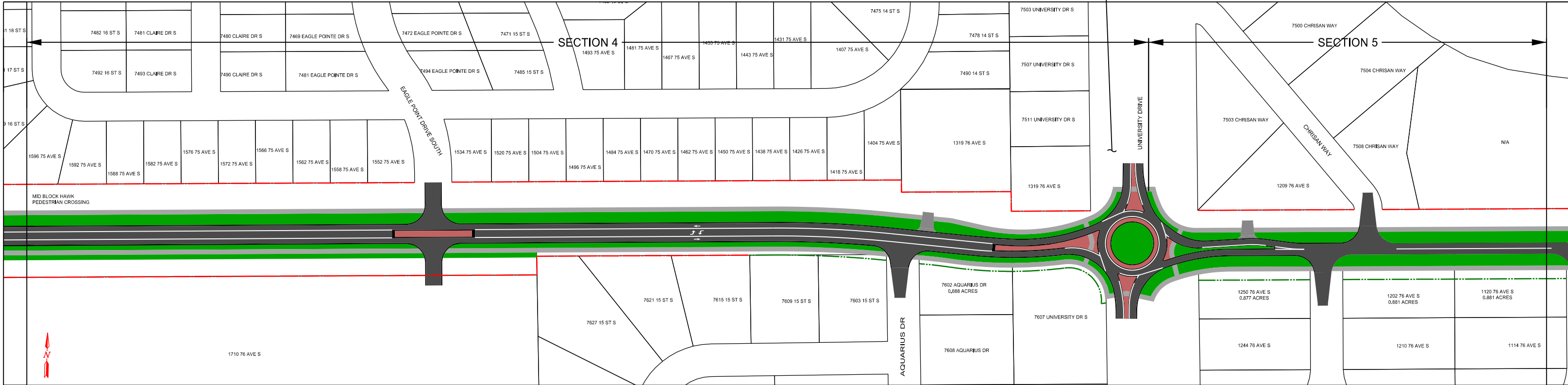
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CONCEPTUAL DESIGN LAYOUT: ALTERNATIVE 1

76TH AVE

FRONTAGE ROAD ACCESS WEST OF UNIVERSITY DRIVE FROM 76TH AVENUE S IS ANTICIPATED TO BE REMOVED. THE FRONTAGE ROAD WILL BE EITHER TURNED INTO A CULDESAC OR TIED INTO UNIVERSITY DR.

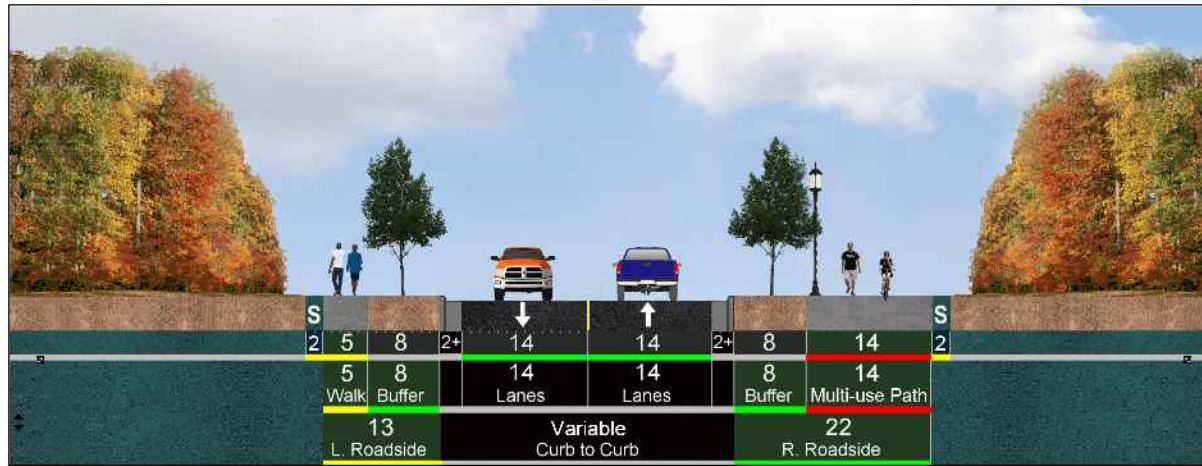


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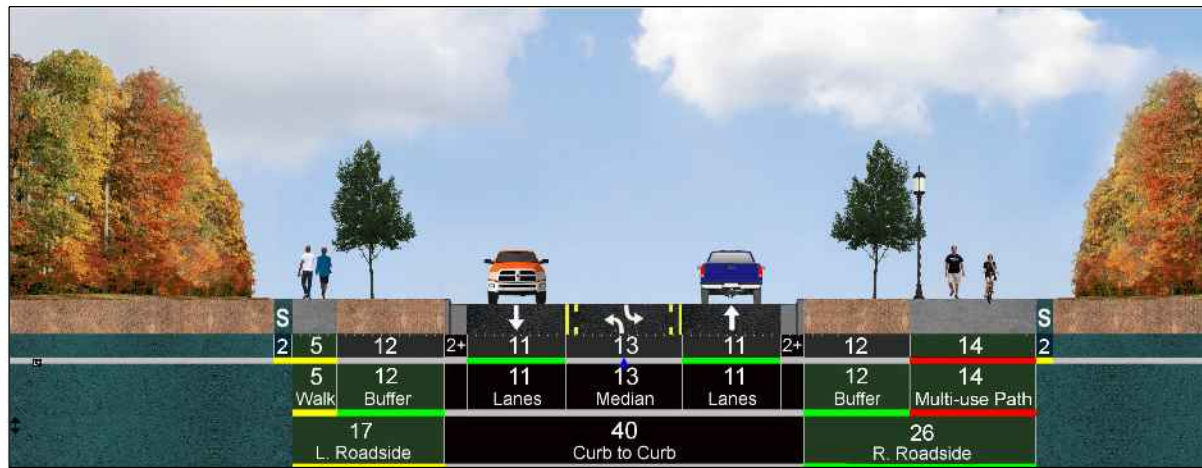
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	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE

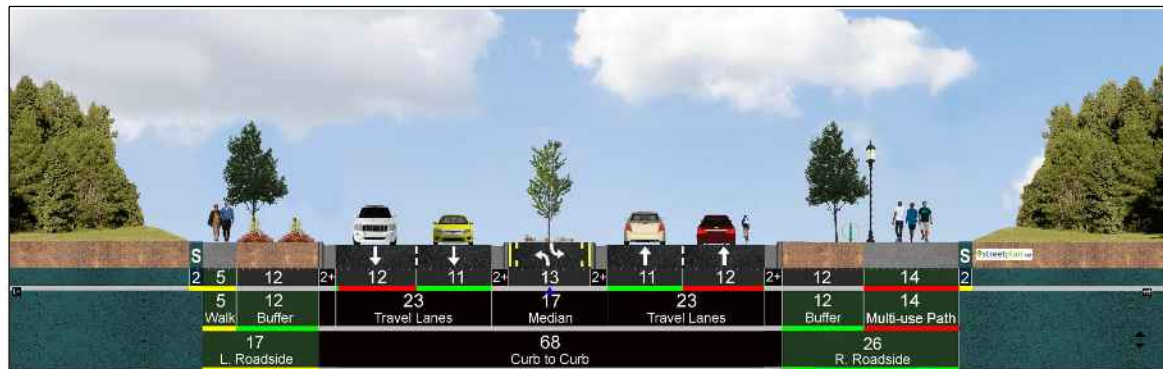




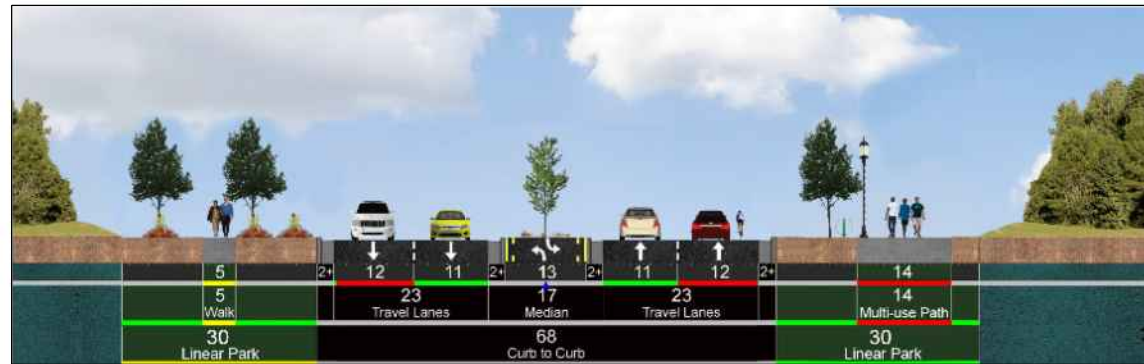
SECTION 1A



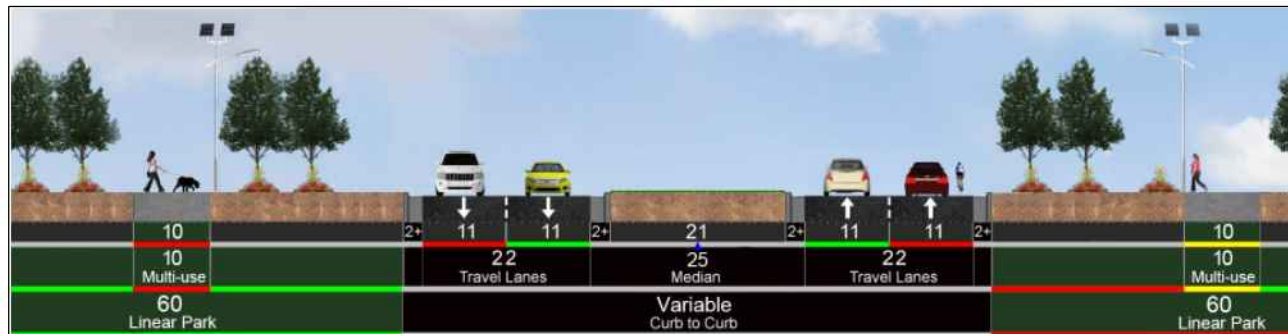
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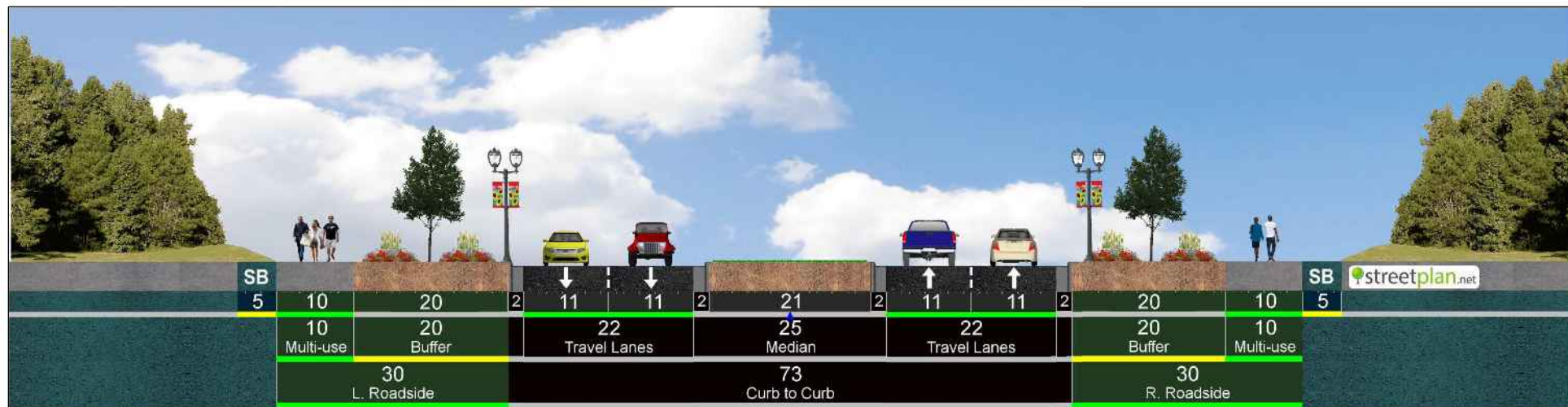
SECTION 2A



SECTION 2B



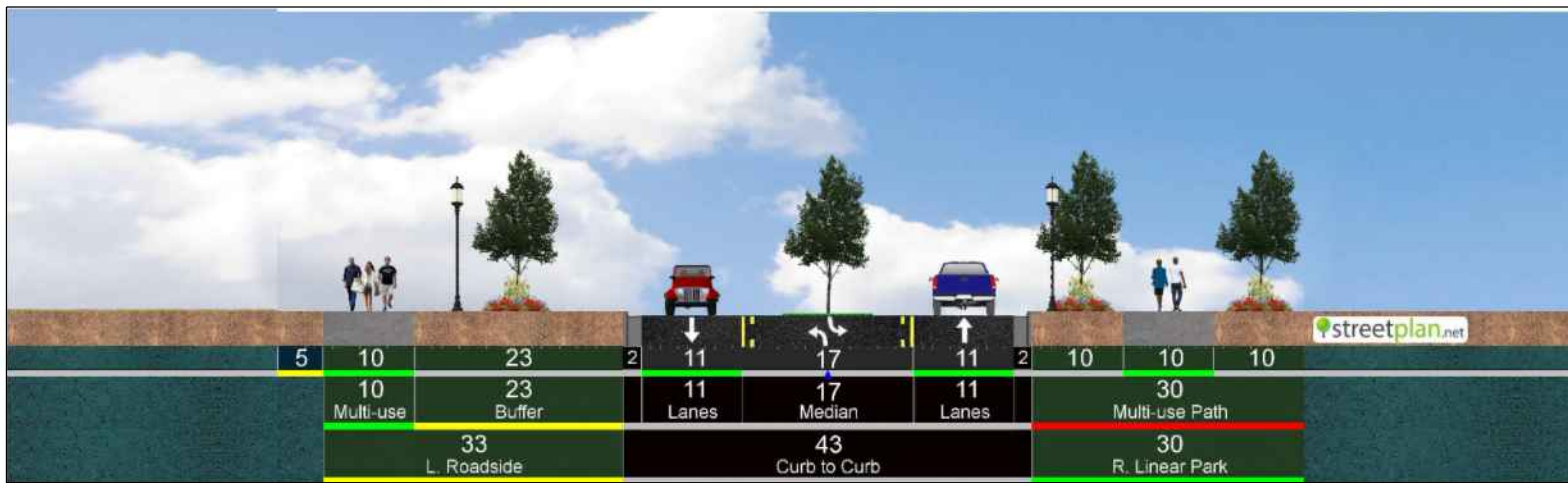
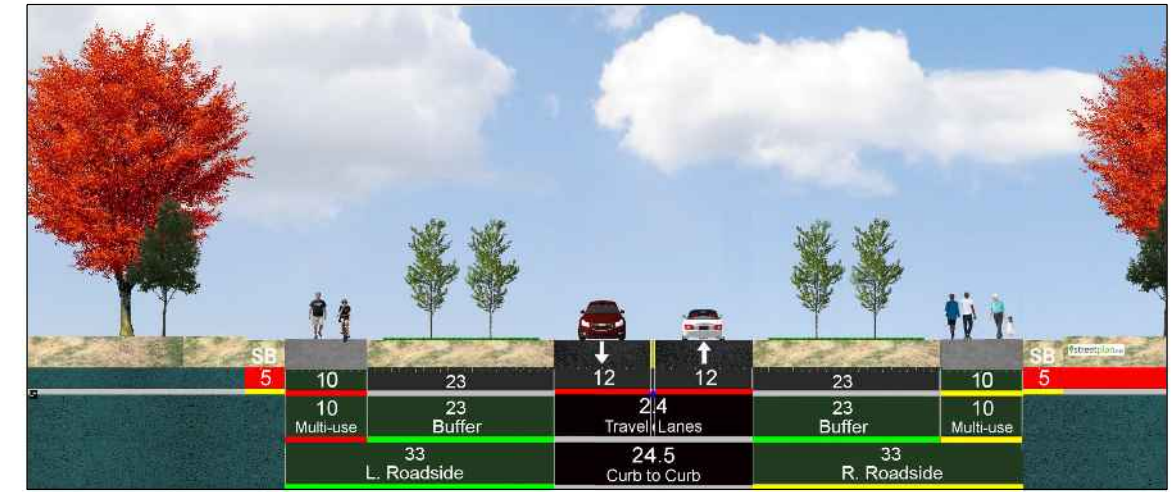
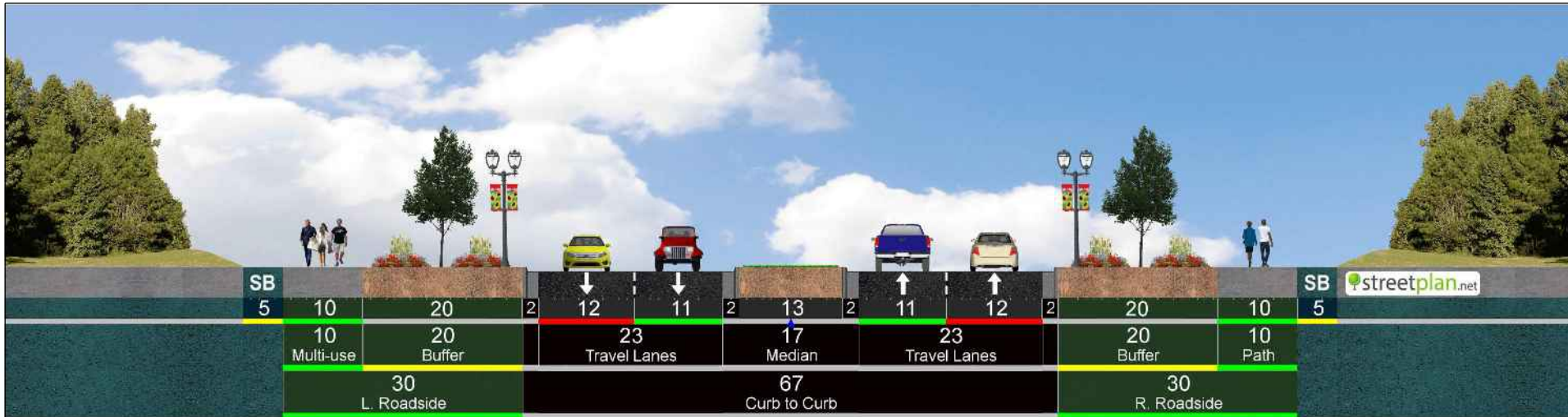
SECTION 3A



SECTION 3B

LEGEND			
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	SIDEWALK		DRIVEWAY**
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			TRAFFIC SIGNAL SYSTEM
			EXISTING/ASSUMED ROW
			PROPOSED ROW
			PEDESTRIAN UNDERPASS
			BOX CULVERT
** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE			



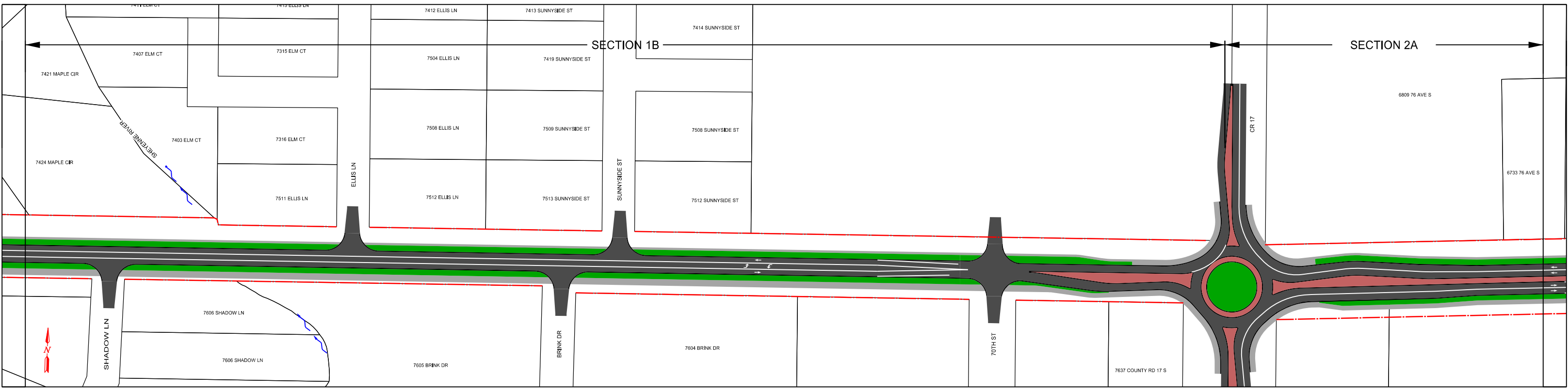
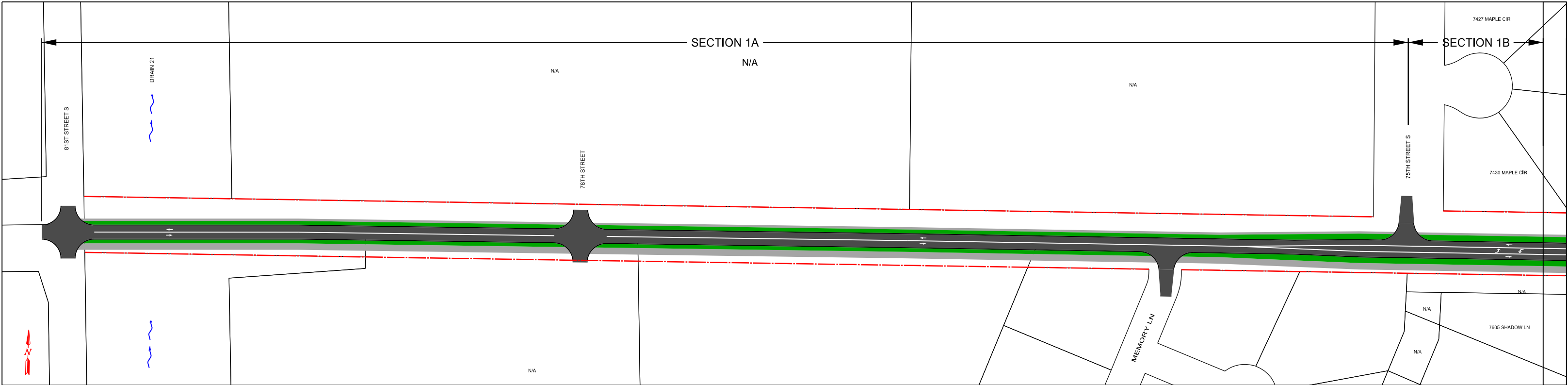


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	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE



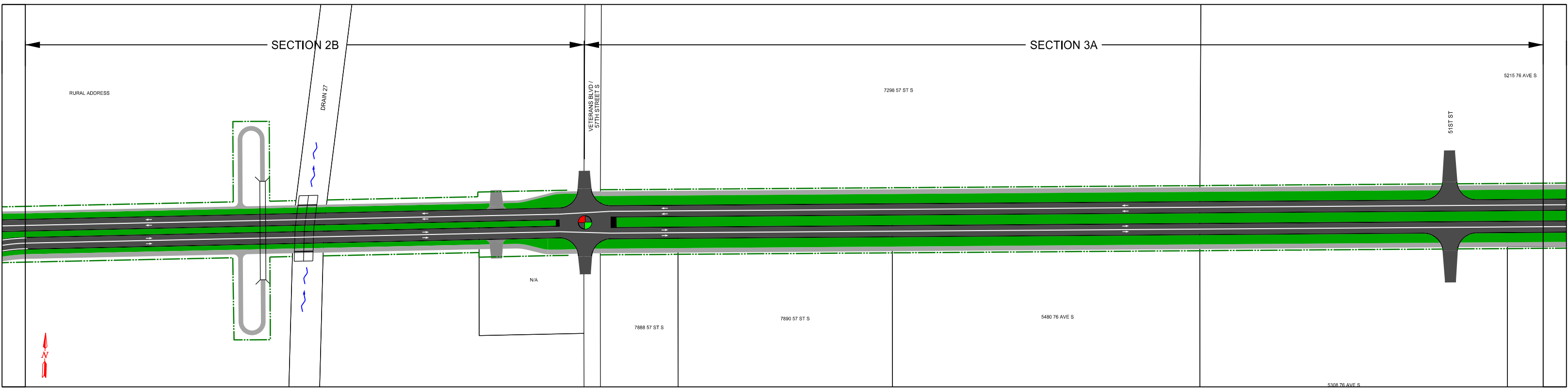
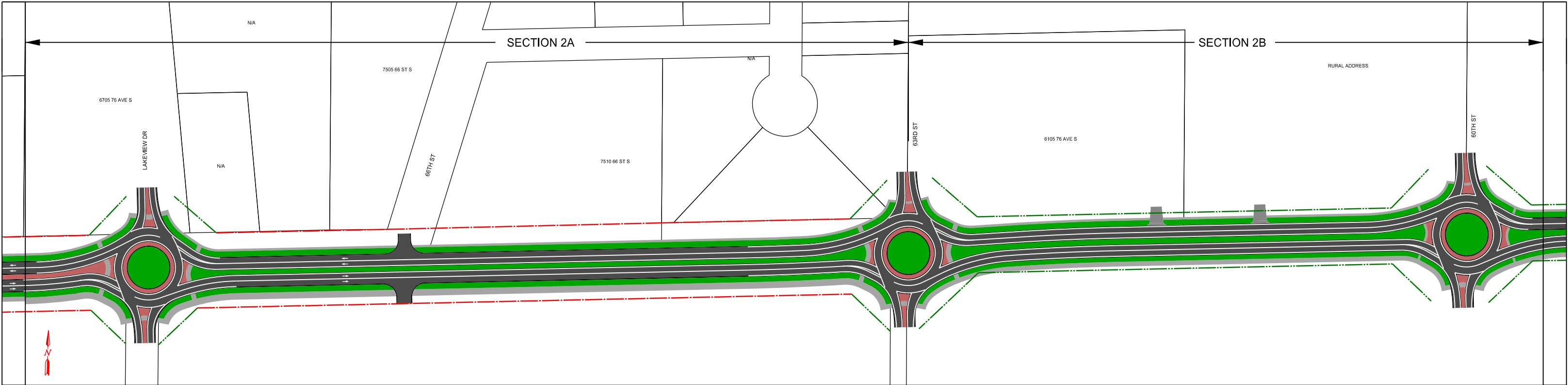


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	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

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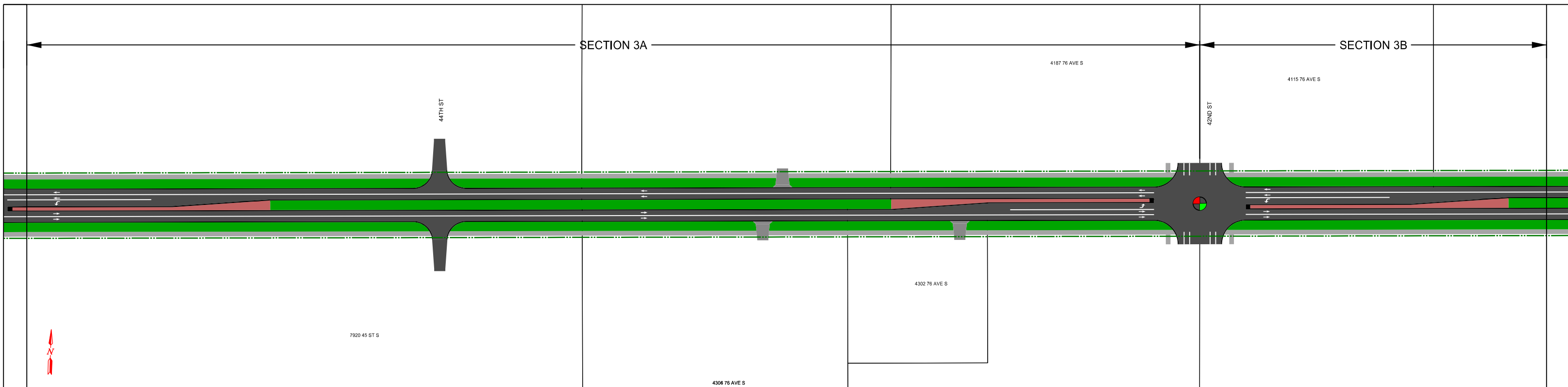
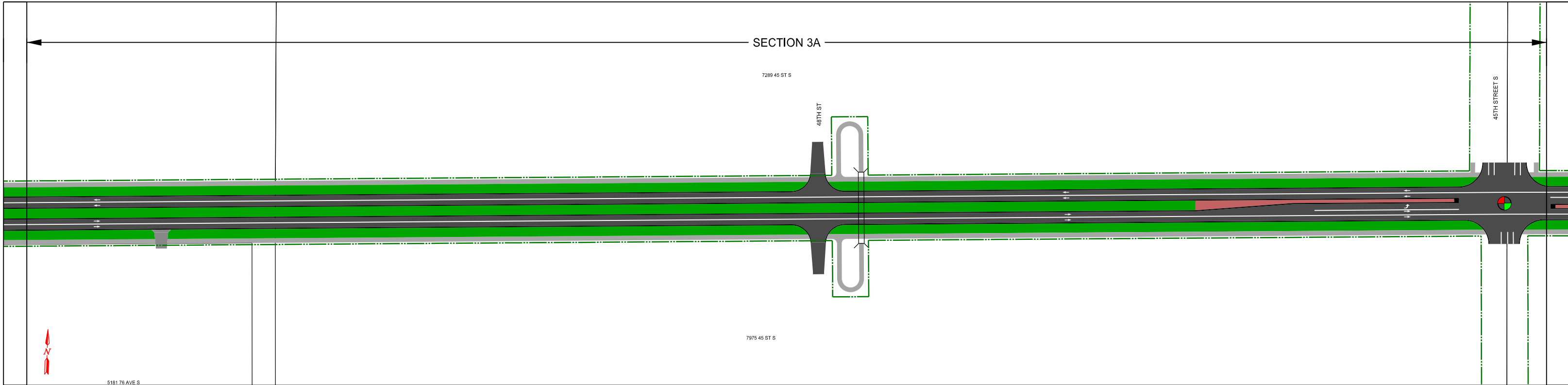


LEGEND

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	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE



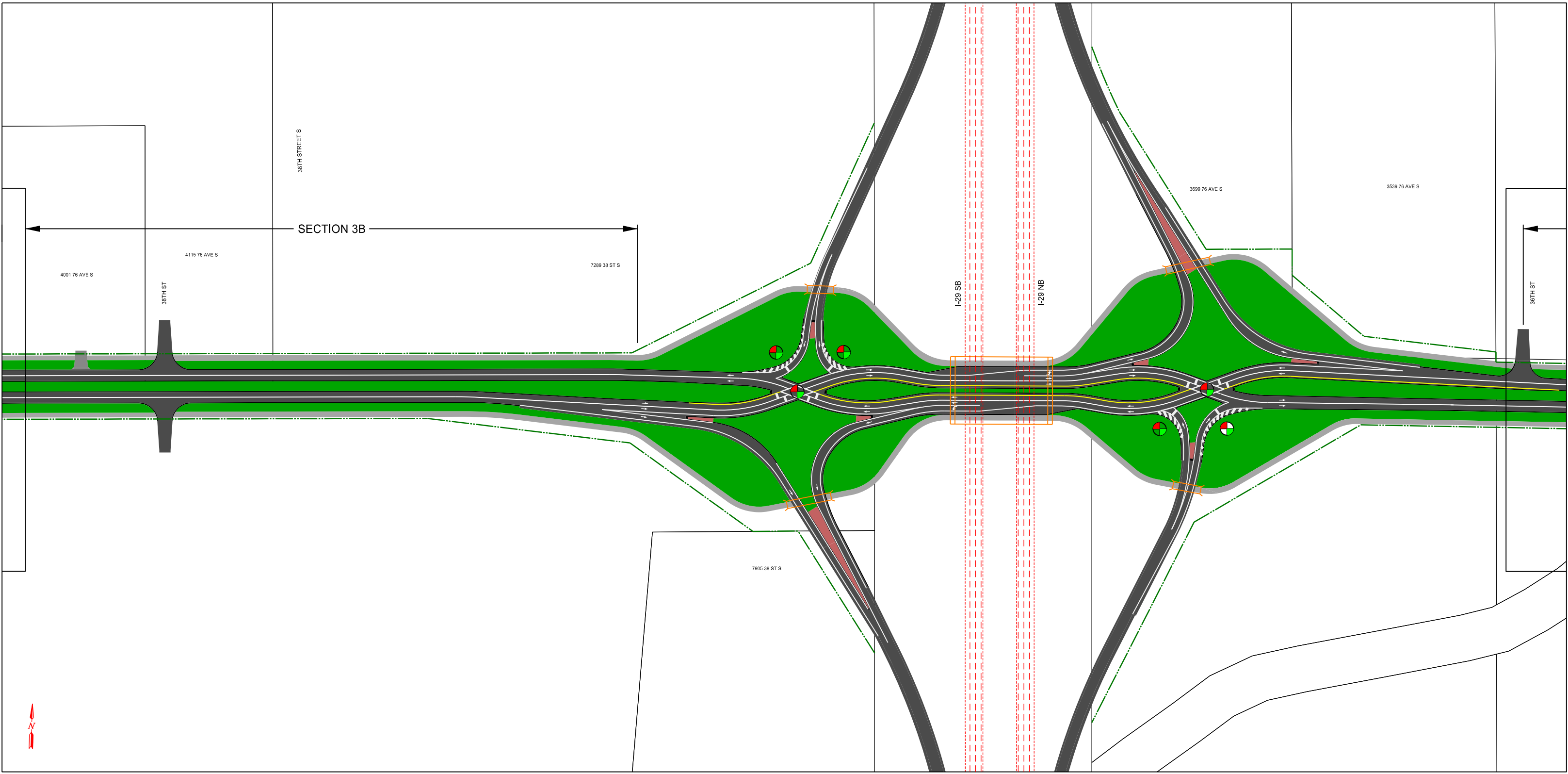


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	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
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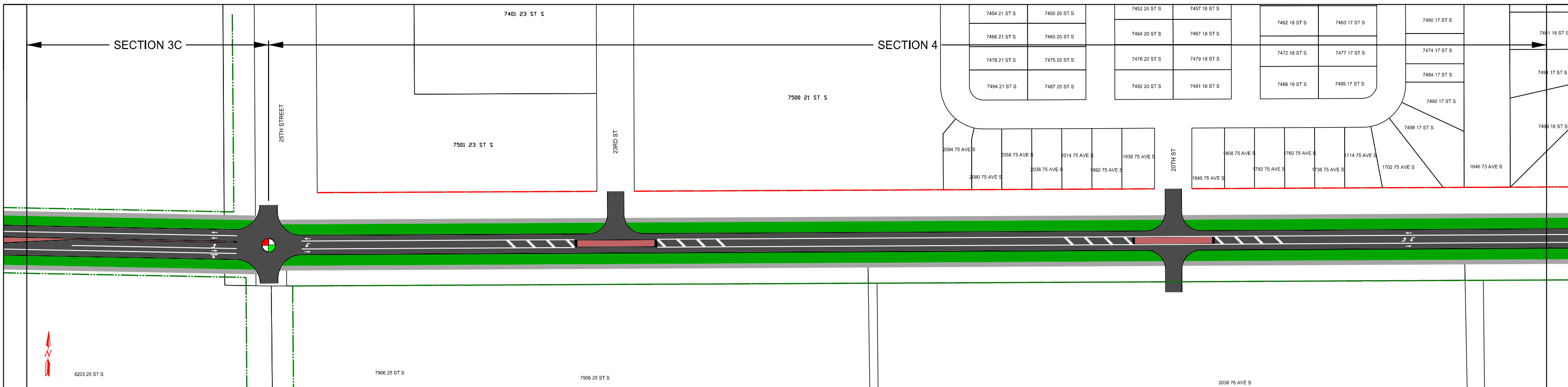
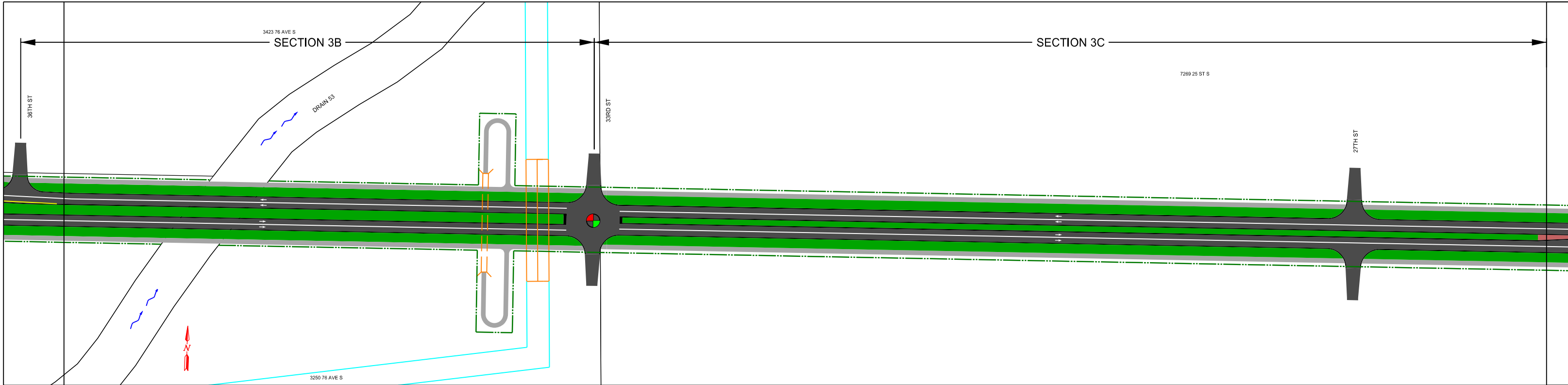




LEGEND

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	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW	
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW	
			** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE			PEDESTRIAN UNDERPASS
						BOX CULVERT





LEGEND

	PROPOSED ROADWAY		BOULEVARD/LANDSCAPE MEDIAN		TRAFFIC SIGNAL SYSTEM
	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
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				BOX CULVERT	

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE

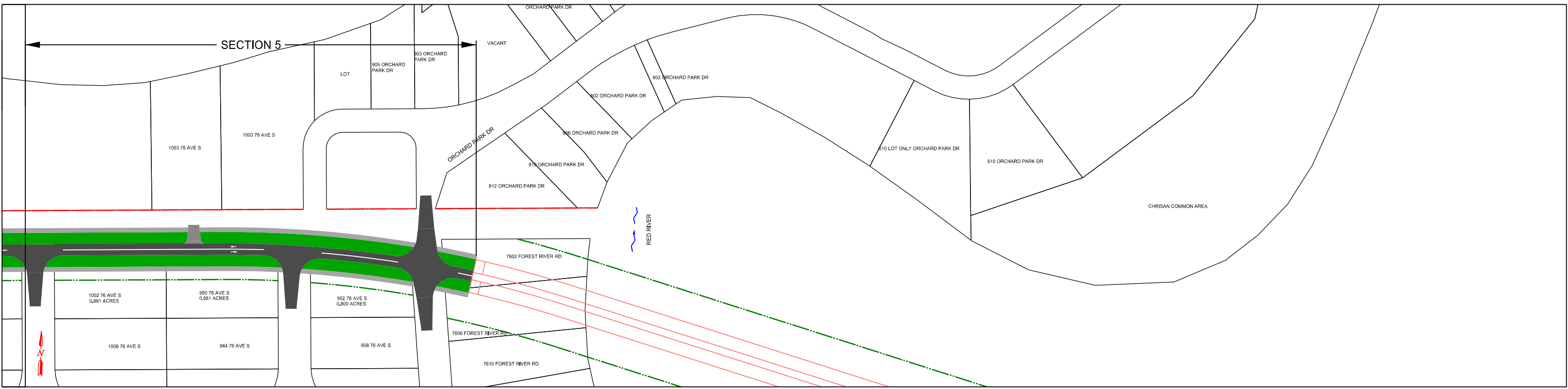
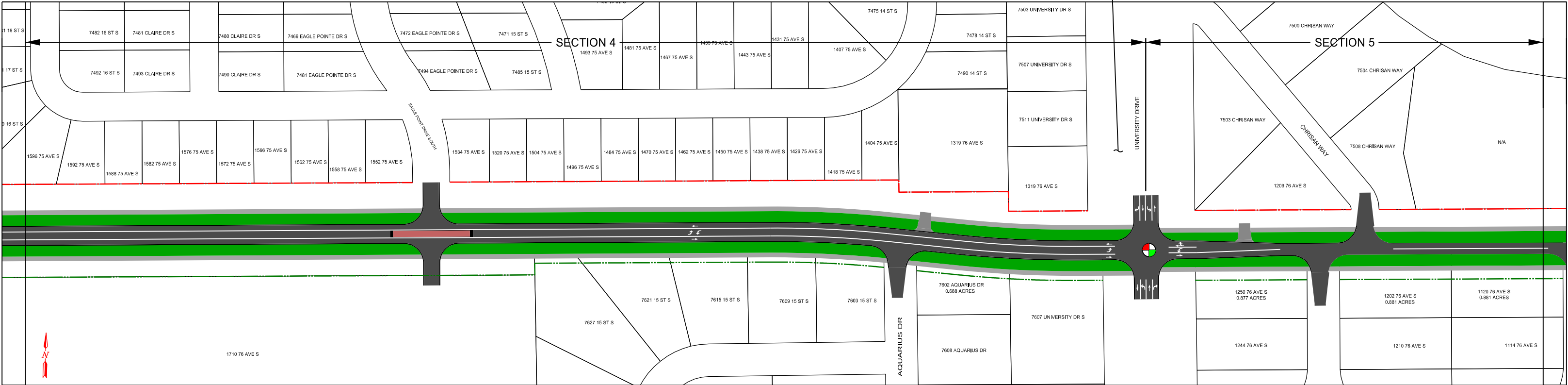
Stantec
 DATE: 07/21/2020
 PROJ. NO. 193804378



CONCEPTUAL DESIGN LAYOUT: ALTERNATIVE 2

76TH AVE

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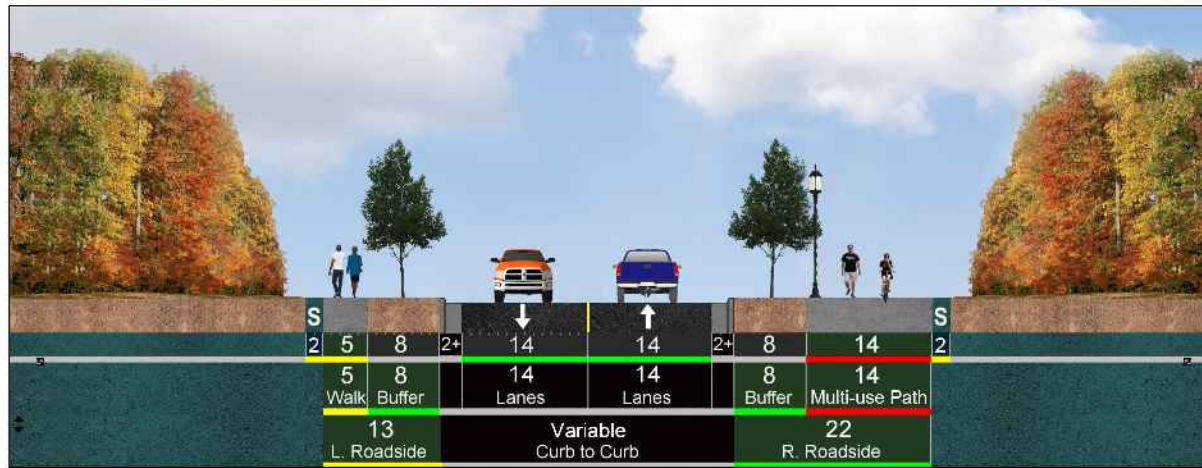


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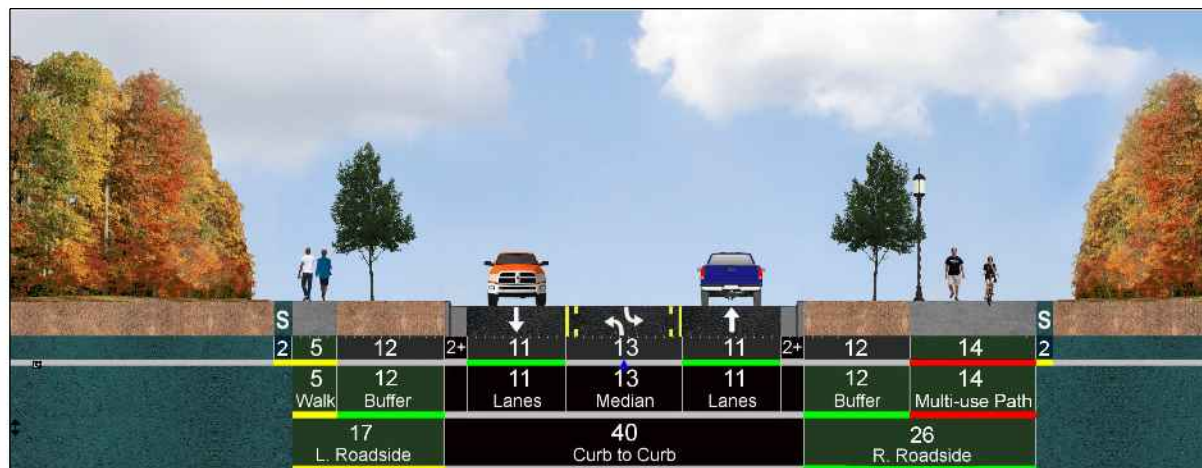
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	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
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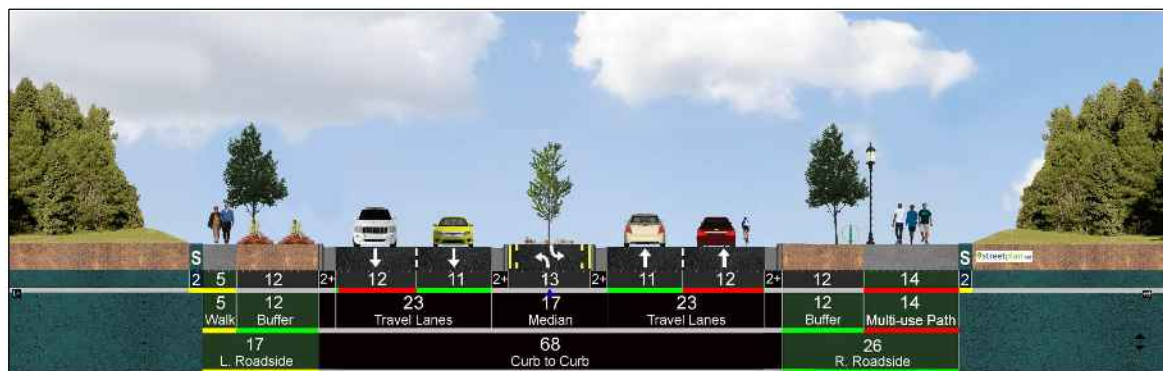




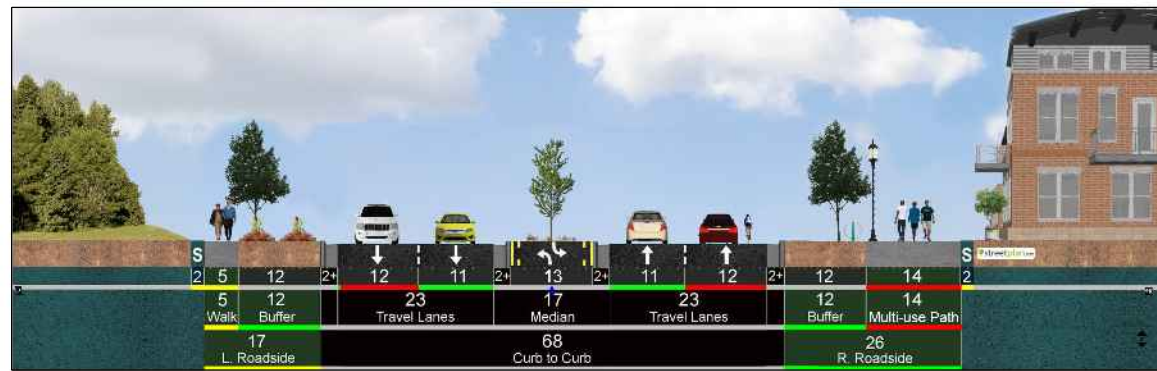
SECTION 1A



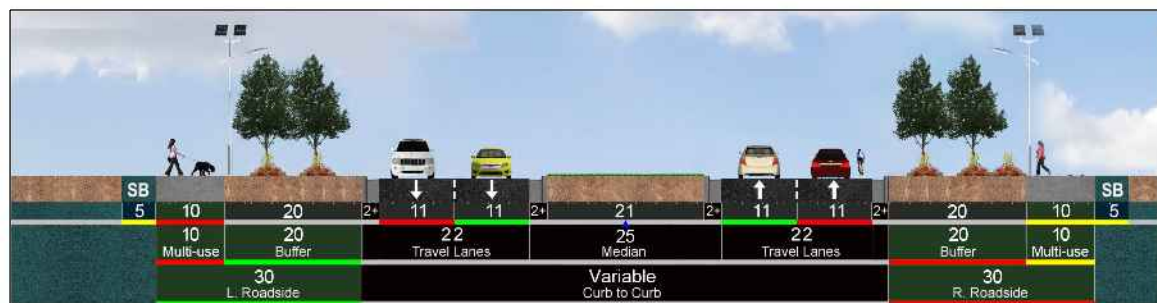
SECTION 1B



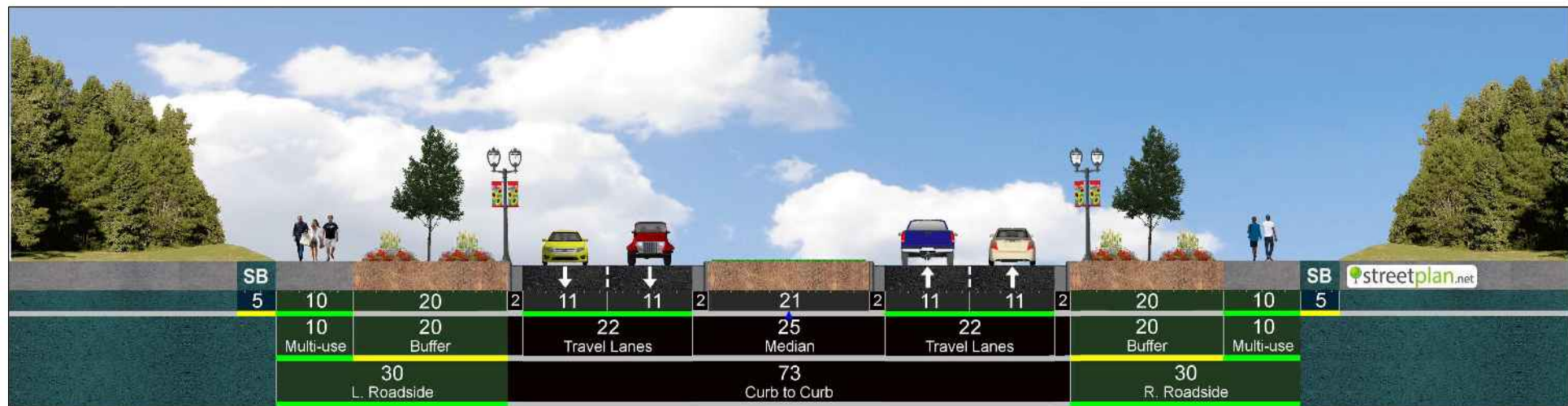
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SECTION 2B



SECTION 3A



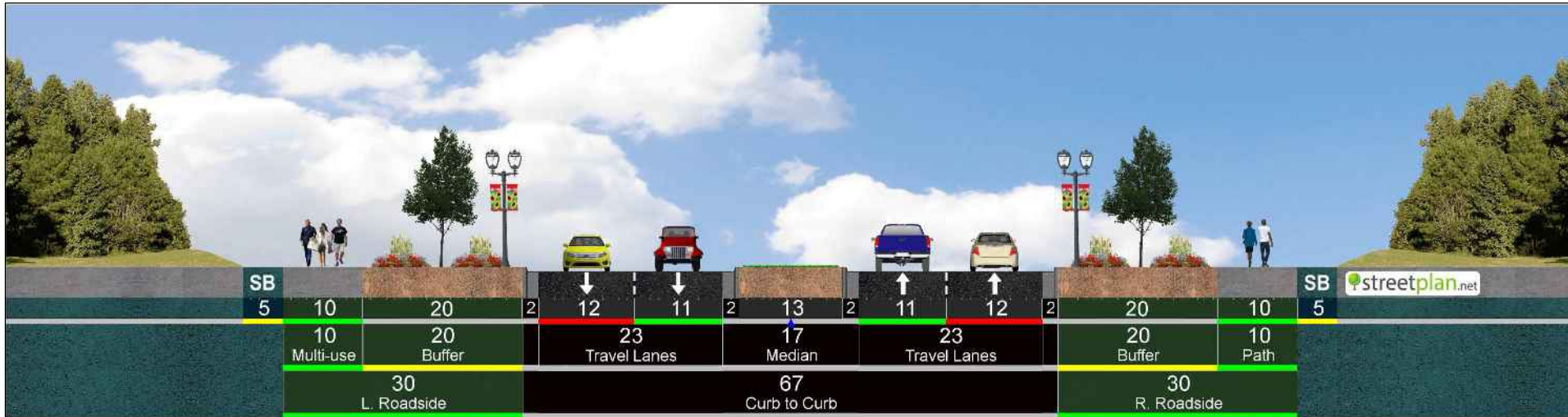
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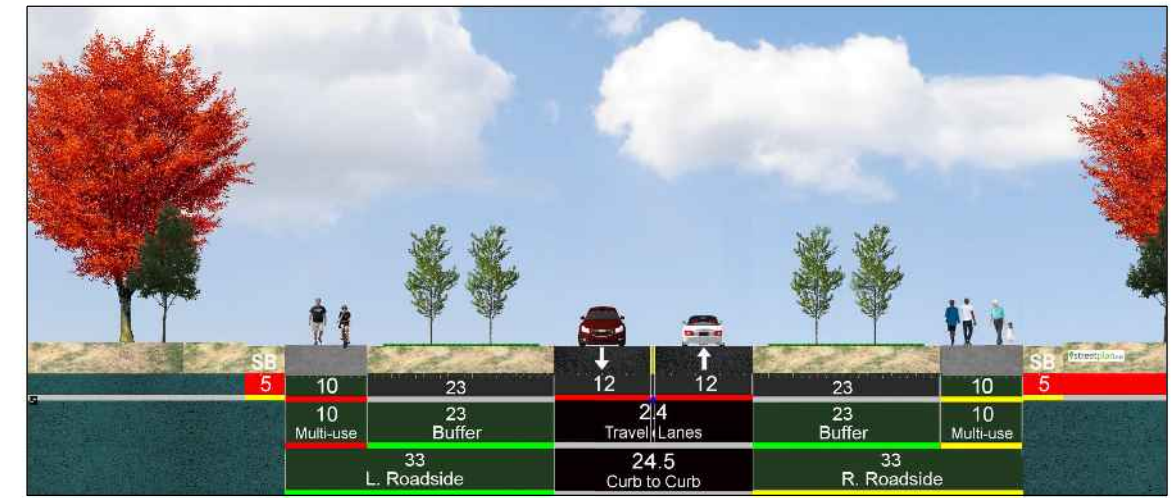
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	SIDEWALK		DRIVEWAY**		EXISTING/ASSUMED ROW
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER		PROPOSED ROW
					PEDESTRIAN UNDERPASS
					BOX CULVERT

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE

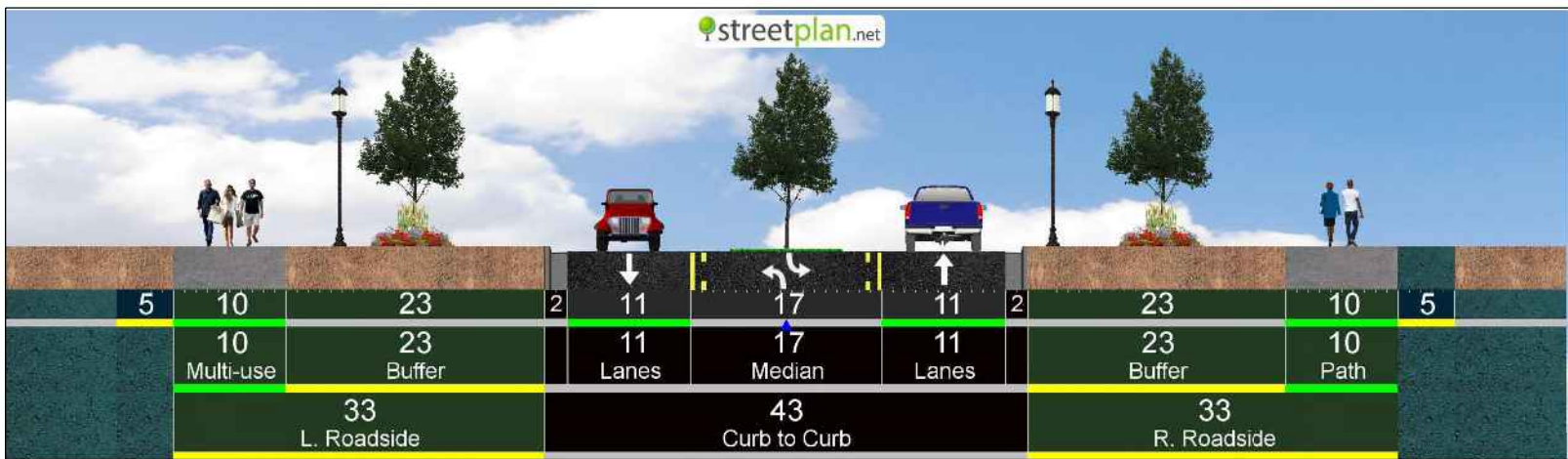




SECTION 3C



SECTION 5 - WITHOUT BRIDGE



SECTION 4

LEGEND			
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	SIDEWALK		DRIVEWAY**
	MEDIAN CONCRETE		PROPOSED CURB & GUTTER
	TRAFFIC SIGNAL SYSTEM		EXISTING/ASSUMED ROW
	PROPOSED ROW		PEDESTRIAN UNDERPASS
	BOX CULVERT		

** - AS DEVELOPMENT CHANGES, EXISTING DRIVEWAYS WILL BE RELOCATED OR CONSOLIDATED AS FEASIBLE



APPENDIX

F

**PRELIMINARY
ENVIRONMENTAL
REVIEW**

ENVIRONMENTAL CONDITIONS Preliminary Environmental Review

Environmental Issue	Preliminary Determination
Airport Coordination	<p>No Airports or Air Strips have been identified within the study area. However, the temporary use of construction equipment within the airport’s Area of Influence may need to be coordinated with the FAA. According to the FAA Notice Criteria Tool, the project is in proximity to a navigation facility and in accordance with 77.9 the FAA recommends submitting a study request to obtain FAA clearance for any proposed roadway projects. FAA form 7460-1, Notice of Proposed Construction or Alteration should be submitted at least 45 days prior to construction to start the airspace study process, although sooner is recommended.</p>
Cultural Resources	<p>No properties within or adjacent to the project are located on the National Historic Register or listed as a State Historic site. A Class I record search should be completed for the study area before corridor improvements move forward. Based on the results of a Class I study, a Class III field survey may be recommended prior to obtaining Section 106 Concurrence. No federal or tribal lands are located within or near the study area.</p>
Noise Impacts	<p>If the resulting projects utilize federal funds through the Federal Highway Administration (FHWA), it is likely that the proposed improvements would fit the description of a Type 1 project as defined in the Title 23 Code of Federal Regulations Part 772.5:</p> <ol style="list-style-type: none"> 1. The construction of a highway on a new location; or, 2. The physical alteration of an existing highway where there is either: <ul style="list-style-type: none"> • Substantial Horizontal Alteration. • Substantial Vertical Alteration. 3. The addition of a through-traffic lane(s). 4. The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or, 5. The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or, 6. Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or, 7. The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza. <p>If proposed roadway improvements on 76th Avenue are determined to be a Type I project under this definition then a noise analysis will be required to determine existing noise levels, determine noise impacts and, if required, determine noise abatements. Abatement measures could include berms, walls or pavement treatments.</p>



Environmental Issue	Preliminary Determination
4(f)/6(f) Properties	<p>Either temporary or permanent impacts to a publicly owned recreational properties could trigger a Section 4(f). Section 4(f) is based on the Department of Transportation Act of 1966 (Pub. L. 89-670, 80 Stat. 931) and prohibits the FHWA or other DOT agencies from using land from publicly owned parks, recreation areas, trails, wildlife and water fowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use. No parks or recreation areas are located adjacent to the study corridor; however, a trail connects to the 76th Avenue ROW between 17th Street S and 75th Avenue S and another trail crosses just east of Business 81.</p> <p>The Land and Water Conservation Fund Act (LAWCON) helps to preserve, develop and provide accessibility to outdoor recreation resources. Any land acquired or developed with LAWCON funds cannot be converted to a use other than its current outdoor recreational use unless replacement land is provided under Section 6(f) of the Land and Water Conservation Act, regardless of funding source (i.e. - local vs. state or federal) for the proposed project. Projects listed in the North Dakota State Comprehensive Outdoor Recreation Plan (SCORP) Land and Water Conservation Fund (LWCF) were reviewed in relation to the project corridor. No 6(f) properties were determined to exist within or near the Study limits.</p>
Wetland Review/ Water Resources	<p>The USFWS Wetland maps show other waters and wetlands along and crossing the corridor. The corridor has several freshwater emergent wetlands (PEM1Cx) within the stormwater ditches that parallel 76th Avenue and several of the crossing roadways. Temporarily flooded freshwater emergent wetlands (PEM1Ad) exist in some of the adjacent farm fields. A Freshwater Forested/Shrub Wetland (PFOA) crosses the corridor on the west side of the Sheyenne River. The Sheyenne River is a perennial riverine system (R2UBH) that travels through North Dakota. Although the segment that crosses the study corridor is not recommended for recreational use/navigation by the North Dakota Parks and Recreation Department (NDPRD), impacts to the river will require coordination with the NDPRD, North Dakota State Water Commission, US Army Corps of Engineers and Cass County. The Rose Coulee Drain is considered a freshwater emergent wetland (PEM1Fx) that crosses the corridor near Horace. Also, near Horace is a small seasonally flooded riverine system (R4SBC). A large emergent wetland system (PEM1Ax) runs parallel to I-94 and crosses the future corridor. At the far east end of the project, the Red River of the North (R2UBH).</p> <p>Lengthening of culverts and filling ditches to widen could result in wetland impacts. A field wetland delineation should be and action report to be submitted to the USACE for a Jurisdictional Determination.</p>

Environmental Issue	Preliminary Determination
Floodplain	<p>The Federal Emergency Management Administration (FEMA) has completed a flood hazard study throughout the corridor. On the far west side of the corridor 100-Year Special Flood Hazard Areas (floodplains) with no base flood elevations determined (Zone A) surround the Horace to West Fargo Channel, which acts as a diversion to the Sheyenne River and the Sheyenne River. The Rose Coulee Drain #27 is a 100-Year Special Flood Hazard Areas (floodplains) with base flood elevations determined (Aone AE). Outside of these areas, the majority of the corridor between 81st Avenue and I-29 is shown as protected from the 100-year flood by a levee system with a less than 1% annual chance of flooding or as 'other areas', which includes areas determined to be outside the 0.2% annual chance of flooding (500-Year Floodplain). From I-29 to the Red River, several areas exist as a 100-Year Special Flood Hazard Areas (floodplains) with base flood elevations determined. On the west side of the Red River, a 100-year Floodway exists that needs to remain free of encroachments. This area extends west approximately 200 feet from the edge of the Red River. If the roadway work impacts any of these noted floodplain areas, base flood elevations will need to be modeled for the Zone A floodplains and coordination will be required with the USACE, Cass County and the North Dakota State Water Commission.</p>
ROW Impacts/Relocations	<p>Temporary and permanent right of way impacts may occur with the proposed improvements. No relocations are anticipated with the project, however if relocations are to occur, they will need to be managed in accordance with state and federal laws and regulations.</p>
Contaminated Properties	<p>Due to the project location and nature of the planned work, there is little potential for encountering contaminated materials.</p>
Farmland	<p>If proposed improvements within the 76th Avenue corridor are federally funded AND will require ROW of any amount, the Farmland Preservation Policy Act (FPPA) must be addressed. According to the USDA websoil survey, the study corridor contains large areas of 'Prime Farmland' and 'Prime Farmland if Drained'. To confirm the location of these farmland types, form NRCS-CPA-106, Farmland Conversion Impact Rating for Corridor Type Projects will need to be completed and submitted to the Natural Resources Conservation Service (NRCS) under the US Department of Agriculture. In response to the submittal of form NRCS-CPA-106, the NRCS will provide a determination on the location of prime and unique farmlands and farmlands of statewide importance and provide a system for determining impacts to these areas. The form will provide an 'assessment score' for each feasible alternative being considered for the project. If the 'assessment score' is 160 points or greater, alternatives to avoid farmland impacts will need to be considered as part of the environmental review. An assessment of agricultural impacts including number of acres acquired, current land use, and severance of operations should be considered in the environmental documentation for the project. The discussion should also include proposed measures to avoid or reduce the impacts that can be implemented into the project.</p>

Environmental Issue	Preliminary Determination
Environmental Justice	<p>Executive Order 12898 applies to projects with federal funding or requiring federal permitting. The intent of EO 12898 is to ensure that agencies take appropriate steps to identify and address any “disproportionately high and adverse” human health or environmental effects on minority and low-income populations that may result from a federally supported action. A study area is usually defined as the project limits with a 1/4 mile buffer, however in a roadway project, the EJ study area is assumed to be the entire surrounding area that could be affected by negative changes to community connectivity. Since this is a corridor study, the project study area already contains the connecting roadways. The Environmental Protection Agency’s (EPA) environmental justice mapping and screening tool (EJSCREEN) was used in conjunction with the Fargo-Moorhead Metropolitan Council of Governments’ 2016 Title VI Annual Report to review the presence of low-income or minority populations within the study corridor. No readily identifiable minority or low-income populations were found. Therefore, it is assumed that the proposed action will not have disproportionately high or adverse human health or environmental effects on any EJ populations. If detours are used during construction, this review should be repeated for the areas potentially affected by the proposed detour to ensure that no EJ impacts are present.</p>
Section 7 – TE Species	<p>Cass County has 4 listed Threatened and Endangered species, as well as eight migratory birds protected/managed by the US Fish and Wildlife Service and protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Species that will require further consideration when the project is underway include the Gray Wolf, Northern Long-Eared Bat, Whooping Crane, and Dakota Skipper. If impacts are anticipated, a Biological Assessment may be required by the USFWS. No refuges or wildlife preserves will be impacted by the project.</p>