



Preliminary Engineering Report

Tyler Parkway Extension

HC 173

Prepared for:
City of Bismarck

March 2025

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DOCUMENTS APPENDED BY REFERENCE

Traffic Operations Report
Geotechnical Report
Wetland Delineation Report
Cultural Resources Report
Public Involvement Report



EXECUTIVE SUMMARY

A. Project Description

The proposed project includes new construction of Tyler Parkway between Valley Drive and Cogburn Road and additional improvements for safety and traffic calming along Tyler Parkway from Century Avenue to Ash Coulee Drive. This project will include safety improvements for all modes of transportation as well as improvements to lighting and storm sewer. The project location map is shown in *Figure 1*.

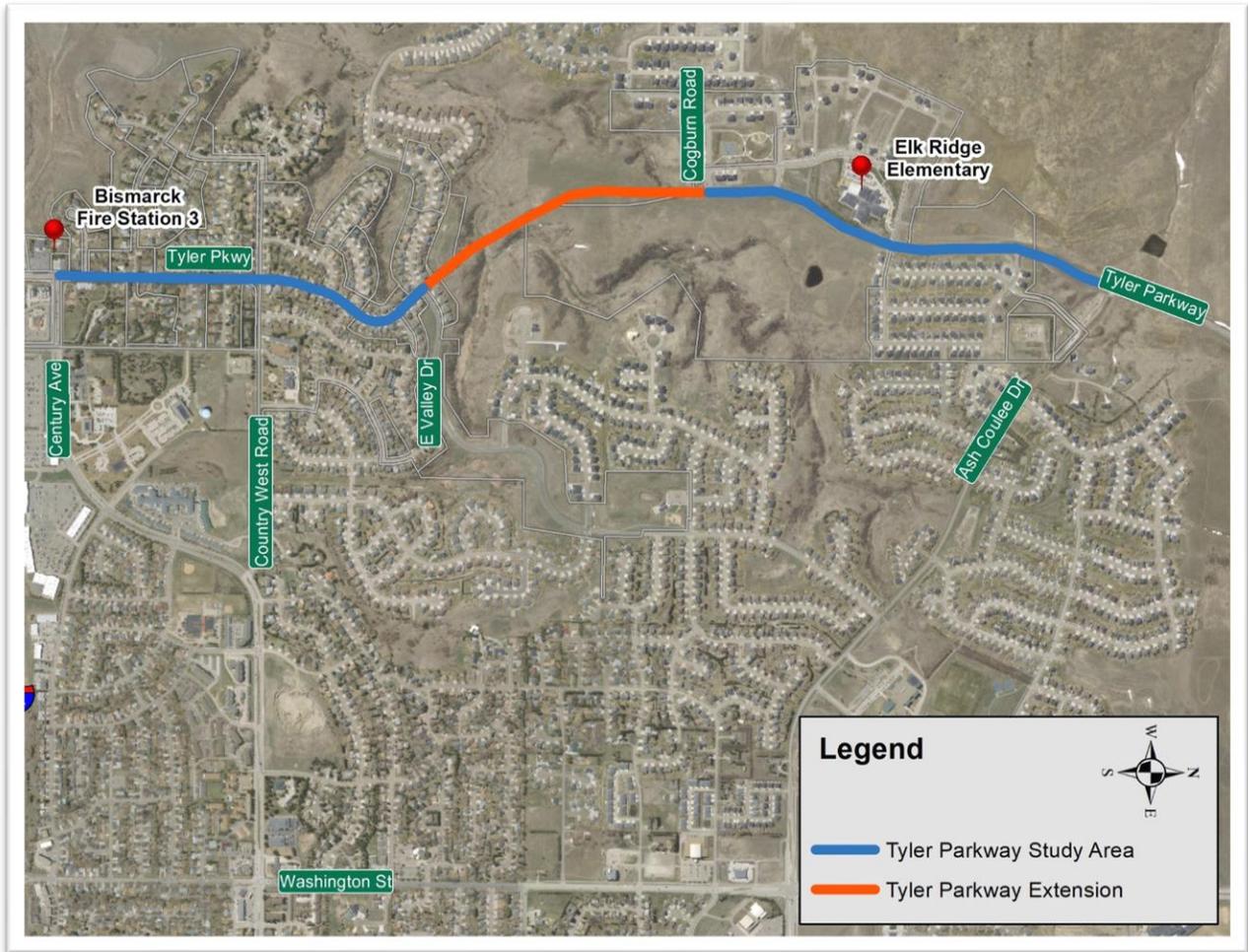


Figure 1: Project Location Map

B. Project Schedule

Project: Tyler Parkway Extension – HC 173

Bid Ready: Fall 2025

Construction: 2026 - 2027



C. Purpose of Project

The purpose of the proposed project is to improve street and trail connectivity in northwest Bismarck by connecting Tyler Parkway between Valley Drive and Coburn Road, as well as improve the safety of all users throughout the corridor from Century Avenue to Ash Coulee Drive.

D. Need for Project

The need for the proposed project is driven by residential growth in northwest Bismarck. Constructing the Tyler Parkway connection would provide area residents with a more direct route for their trip selection. This connection is supported in several planning studies dating back to the 1996 Long Range Transportation Plan and most recently in the 2024 Metropolitan Transportation Plan.

An added benefit of the project would be improving the response time for emergency services in northwest Bismarck. The direct route into and out of the area would improve the Bismarck Police Department’s response time and patrolling opportunity. It would also improve the response time and extend the reach for the Bismarck Fire Department, which would delay the need for a future station in northwest Bismarck.

The current and forecasted annual daily traffic (ADT) are shown in *Table 1*. With the continued residential development, Tyler Parkway and the minor approaches are estimated to operate at an acceptable level of service. For more information, please see the Traffic Operations Report.

Table 1: Traffic Data

		Year	Passengers	Trucks	Totals
Tyler Parkway Century Ave to Country West Rd	Current ADT	2024	5,550	55	5,605
	Opening Day w/o Extension	2027	5,866	59	5,925
	Opening Day with Extension	2027	6,163	62	6,225
	Forecast ADT	2050	9,168	90	9,258
Tyler Parkway Country West Rd to Valley Dr	Current ADT	2024	4,575	45	4,620
	Opening Day w/o Extension	2027	5,188	52	5,240
	Opening Day with Extension	2027	4,891	49	4,940
	Forecast ADT	2050	8,359	80	8,439
Tyler Parkway Valley Drive to Cogburn Rd	Current ADT	2024	0	0	0
	Opening Day w/o Extension	2027	0	0	0
	Opening Day with Extension	2027	2,970	30	3,000
	Forecast ADT	2050	5,597	55	5,652
Tyler Parkway Cogburn Rd to Ash Coulee Dr	Current ADT	2024	3,030	30	3,060
	Opening Day w/o Extension	2027	3,030	30	3,060
	Opening Day with Extension	2027	4,118	42	4,160
	Forecast ADT	2050	7,253	70	7,323



Existing Conditions

The existing roadway section on Tyler Parkway between Century Avenue and Valley Drive is 48' wide between curb faces with 2-12' lanes and a parallel parking lane on each side. There is sidewalk on both sides of the roadway and an existing shared use path on the north side of Valley Drive that terminates at Tyler Parkway. From Century Avenue to Valley Drive, homeowners have direct driveway access onto Tyler Parkway. The speed limit is posted at 25 mph, though the 85th percentile speed was 31 mph near Stetson Drive and 33 mph south of Country West Road.

North of Cogburn Road, Tyler Parkway is a 32' wide rural section with 2-12' driving lanes and 4' shoulders. There is a shared use path along the west side of Tyler Parkway from Cogburn Road to Ash Coulee Drive. The posted speed is 35 mph, with a school zone speed limit of 20 mph near Elk Ridge Elementary School. The speed limit increases to 45 mph approximately 400' south of Harp Hawk Drive. There is a rectangular rapid flashing beacon installed at the intersection of Prairie Hawk Drive.

Residential development is occurring in northwest Bismarck, which is leading to increased traffic throughout the area, since many users are utilizing other residential roadways, such as Valley Drive or Del Rio Drive to access Tyler Parkway. This connection would alleviate some of the traffic on these side streets by providing the opportunity to stay on Tyler Parkway for their trip. StreetLight Data, which utilizes connected device data such as cell phones and vehicle GPS to determine traffic volumes and travel patterns, was used to determine the number of trips that may utilize Tyler Parkway once the connection is constructed that are currently using other routes. The origin and travel pattern of the trips that originate in northwest Bismarck and eventually have destinations that are south of Century Avenue were evaluated. Based on the data, almost 95% of these trips are already utilizing Tyler Parkway. The trips that are currently not utilizing the Tyler Parkway corridor may redistribute to Tyler Parkway once the connection is complete and cause an increase of an estimated 5% of traffic.

Deficiencies

Deficiencies within the current roadway corridor include a lack of lighting north of Cogburn Road, increased speed, and lack of street and trail connectivity between Valley Drive and Cogburn Road.

E. Description of Alternatives

Alternative A: No Build

The proposed project would not be constructed with Alternative A. The continuation of existing conditions does not address the safety concerns or roadway deficiencies, especially as residential development continues to occur in northwest Bismarck. Alternative A would not meet the project's purpose and need.

Alternative B: Tyler Parkway Extension

Alternative B would construct Tyler Parkway as a two-lane curb and gutter section from Valley Drive to Cogburn Road. A 10' shared use path would be constructed along the west side of the roadway, with a small boulevard through the coulee that would widen out once it was through the area of deep fill. See *Figure 2* for the typical section through the areas of deep fill and *Figure 3* for a typical section in the flatter grades.



Figure 2: Tyler Parkway Deep Fill Typical Section

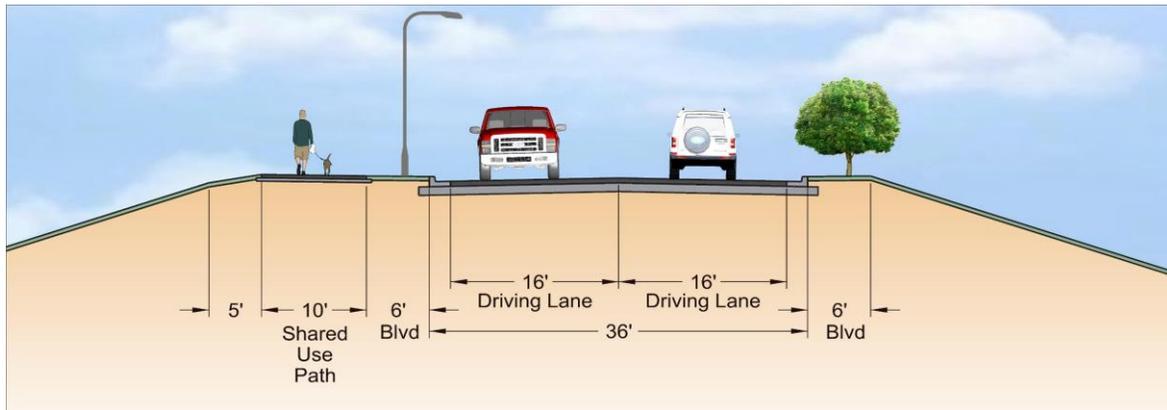
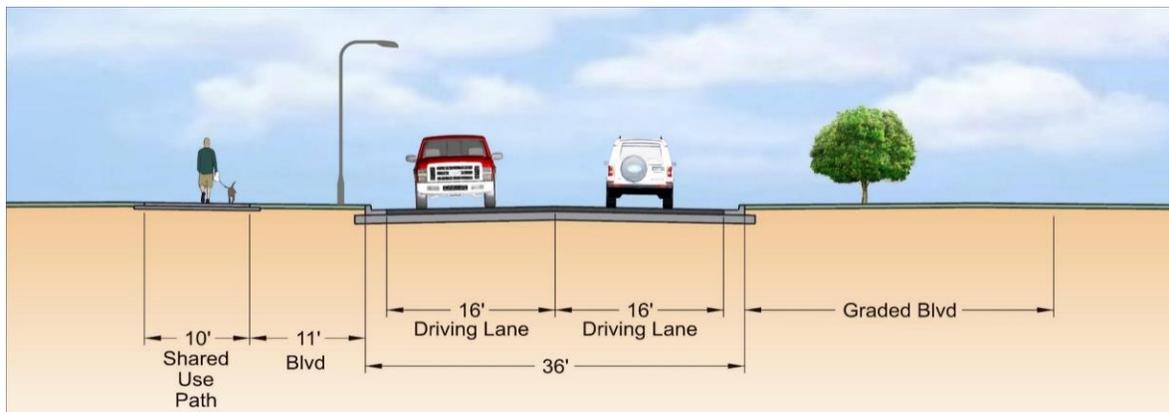


Figure 3: Tyler Parkway Flatter Grade Typical Section

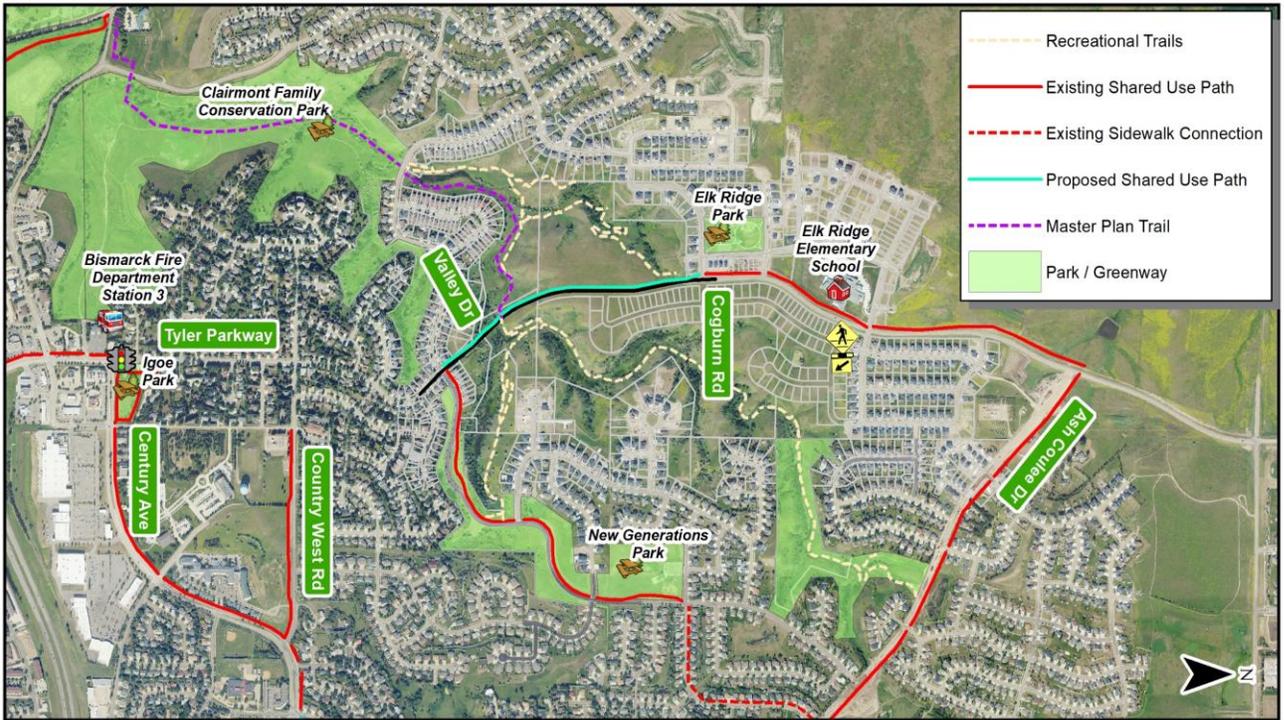


As part of this build alternative, LED lighting would be installed along Tyler Parkway from Valley Drive to Ash Coulee Drive to illuminate the roadway improving safety and visibility. Landscaping and storm sewer improvements would also be installed as part of this project. An 84" storm drain pipe would be installed under the roadway at the crossing of Tyler Coulee per the recommendations of the Tyler Coulee Stormwater Master Plan. The future Bismarck Parks and Recreation master plan path would be graded to the west down into the coulee. *Figure 4* shows the existing and proposed pedestrian facilities.

Due to the topography of the coulee, there is a large elevation difference between where Tyler Parkway currently terminates at Valley Drive and the bottom of the coulee. The profile of the roadway would be designed with an 8% grade through the coulee to achieve a balance between the operational characteristics of an urban roadway and minimizing the height of the embankment. Please refer to *Figure 5* which illustrates the proposed roadway profile. A bridge alternative was considered but was not carried forward due to the higher cost and long-term maintenance challenges.



Figure 4: Pedestrian Facilities



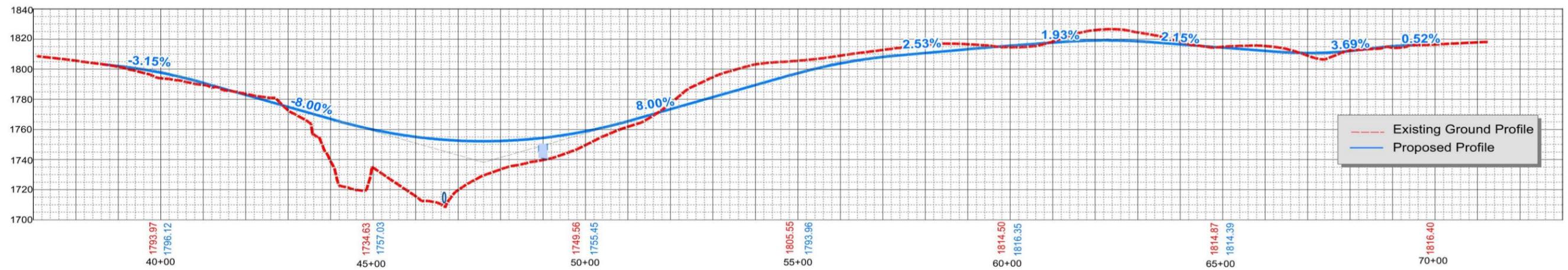
Pedestrian Underpass Option

The pedestrian underpass option is being considered to maintain connectivity of the single-track recreational trail system that is being utilized throughout the Tyler Coulee. The Bismarck Parks and Recreation District has a trail master plan that shows a future paved shared use path extending through Tyler Coulee that ties into the Tyler Parkway shared use path at the Tyler Coulee crossing and extends west through the Clairmont Family Conservation Park to connected to the paved paths along River Road. There are currently no plans for a paved shared-use path within the coulee east of Tyler Parkway.

The pedestrian underpass option would provide a grade separated crossing for the recreational trail users to cross under Tyler Parkway. There is additional cost and maintenance associated with installing an underpass and trail users may not be comfortable utilizing it due to its length. However, the underpass would provide a safety benefit for trail users without needing to cross Tyler Parkway. *Figure 5* below shows the location for the pedestrian underpass option as well as the path connectivity.



Figure 5: Extension Area Plan and Profile



Traffic Calming Options

Options were developed between Century Avenue and Valley Drive to address traffic speeds along Tyler Parkway. Throughout the public involvement process traffic speeds, increasing traffic, noise, and safety were commonly identified as the main concerns of the area residents. Therefore, a series of traffic calming solutions were studied to determine which combination would best apply to this corridor. Traffic calming is commonly defined as physical features that are installed to reduce traffic speeds or volumes. The goal of traffic calming is to change the physical characteristic of the roadway, creating a narrowing or sense of enclosure to influence drivers' behavior to reduce speed.

Figure 6: Example Traffic Calming Options



Option 1: Century Avenue to Country West Road

Option 1A: No Improvements

Option 1A would maintain the existing layout of Tyler Parkway between Century Avenue and Country West Road, with 2-16' driving lanes and parallel parking lanes on each side of the street. Driveway access and on-street parking would remain the same. This option would not provide any additional traffic calming from existing conditions. See *Figure 7* for the Option 1A plan view and typical section.

Option 1B: 3 lane section with Raised Median between Montego Drive and Santa Gertrudis Loop

Option 1B would re-stripe the existing corridor to have a narrow 10' two left turn lane, 2-11' driving lanes, and narrower parallel parking lanes. A raised median would be installed between Montego Drive and Santa Gertrudis Loop to provide some additional traffic calming benefits. On street parking would be removed adjacent to the raised median, but otherwise existing driveway access and on street parking would remain the same. No modifications to the existing curb line are proposed. See *Figure 8* for the Option 1B plan layout and typical sections.



Figure 7: Option 1A – No Improvements

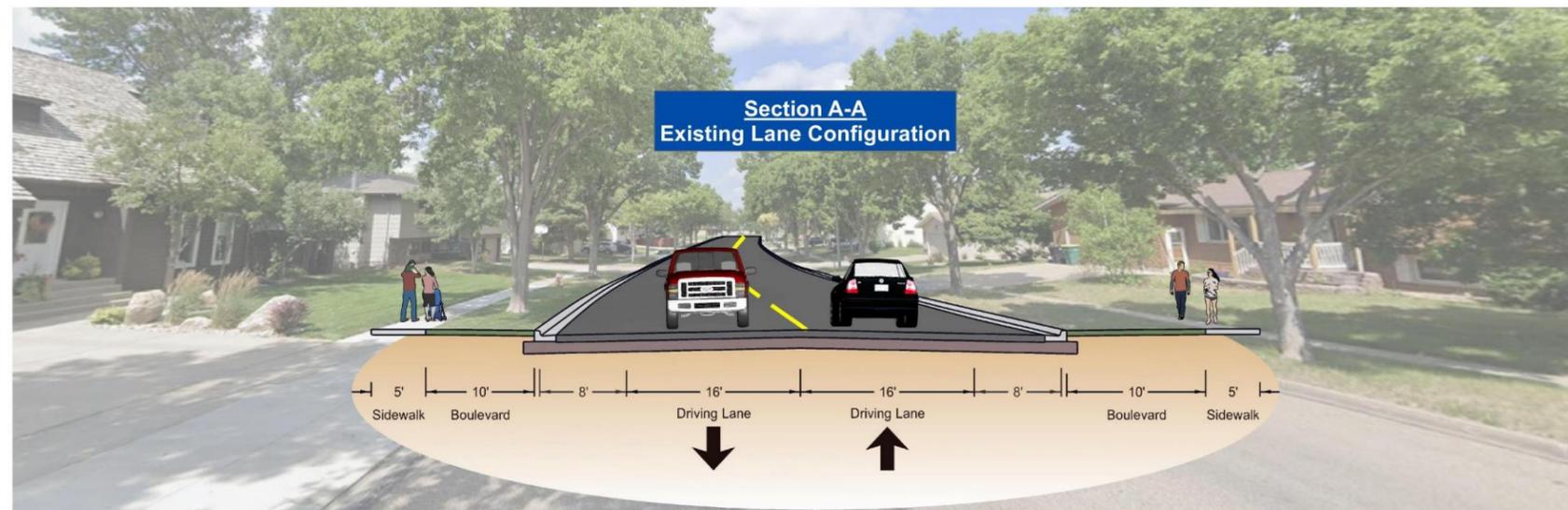
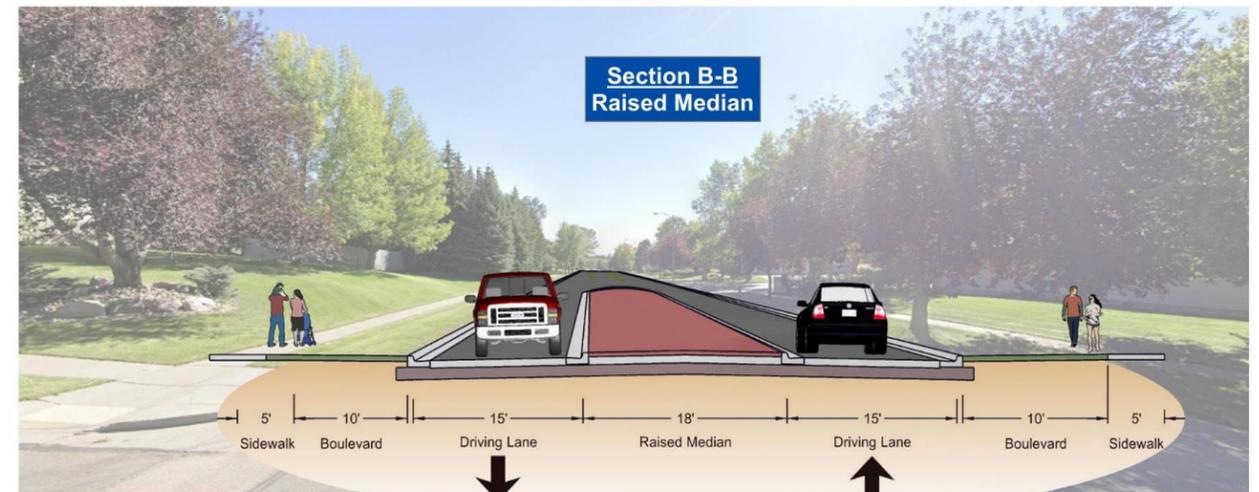
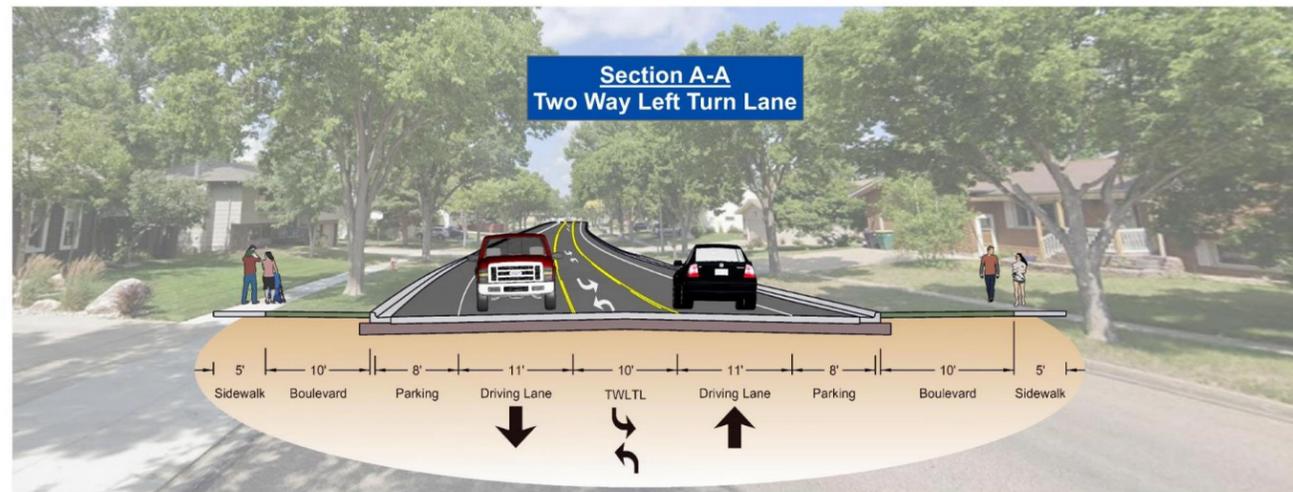


Figure 8: Option 1B – 3-Lane Section



Option 2: Country West Road to Valley Drive

Option 2A: No Improvements

Option 2A would maintain the existing layout of Tyler Parkway between Country West Road and Valley Drive, with 2-16' driving lanes and parallel parking lanes on each side of the street. Driveway access and on-street parking would remain the same. This option would not provide any additional traffic calming from existing conditions. See *Figure 9* for the Option 2A plan view and typical section. For Option 2A, any of the three independent intersection options at Country West Road and Valley Drive (Option 3 and 4) would be compatible.

Option 2B: 3 lane section

Option 2B would re-stripe the existing corridor to have a narrow 10' two left turn lane, 2-11' driving lanes, and narrower parallel parking lanes. A pedestrian refuge island would be installed on the north approach of Canyon Drive to provide some additional traffic calming benefits. On street parking would be removed adjacent to the raised median, but otherwise existing driveway access and on street parking would remain the same. See *Figure 10* for the Option 2B plan layout and typical sections. For Option 2B, any of the three independent intersection options at Country West Road and Valley Drive (Option 3 and 4) would be compatible.

Option 2C - Raised Median

Option 2C would construct a raised median down the center of Tyler Parkway. This would provide the greatest and most consistent traffic calming benefit of the three options. With this option, driveway access would be restricted to right in/right out only and on street parking would be removed. See *Figure 11* for the Option 2C plan layout and typical sections. For Option 2C, only Option 3C and Option 4C would be compatible with this option.



Figure 9: Option 2A – No Improvements



Figure 10: Option 2B – 3-Lane Section

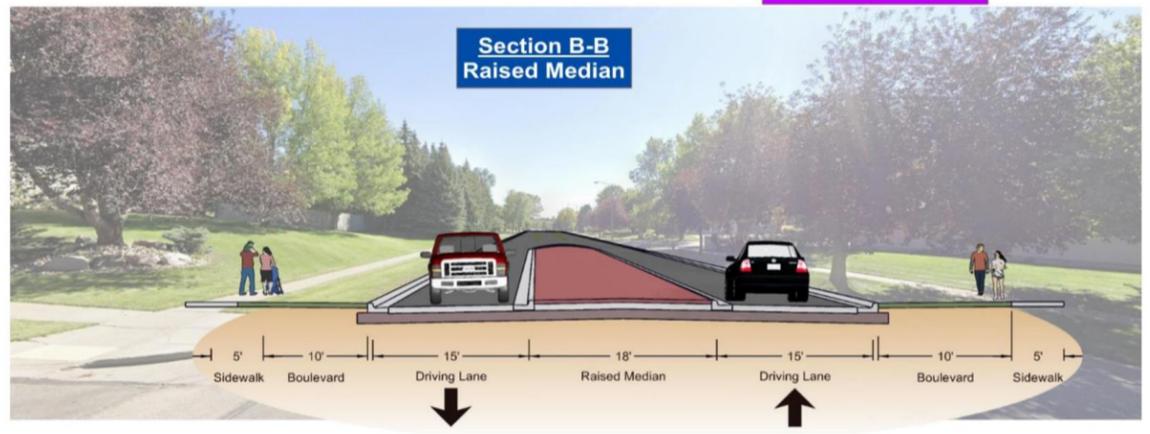
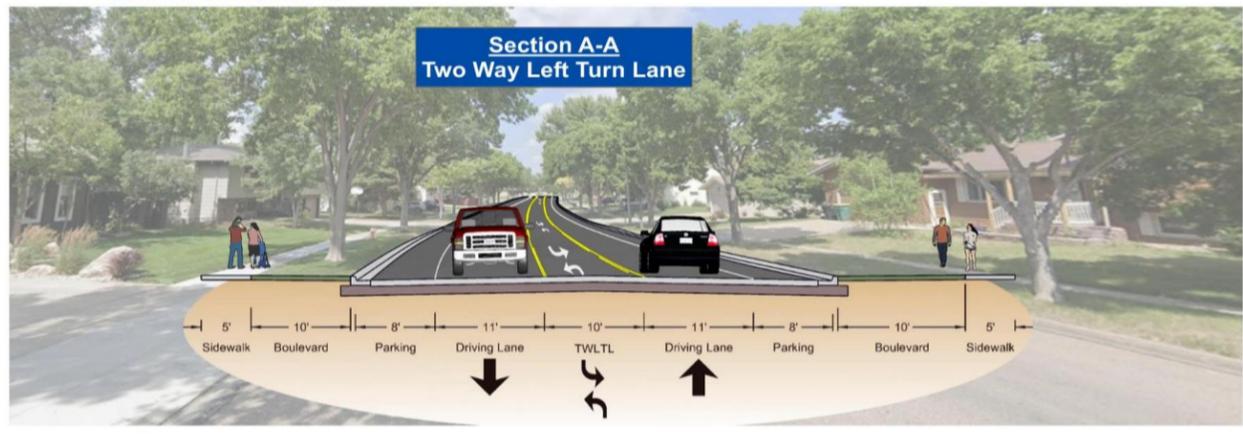
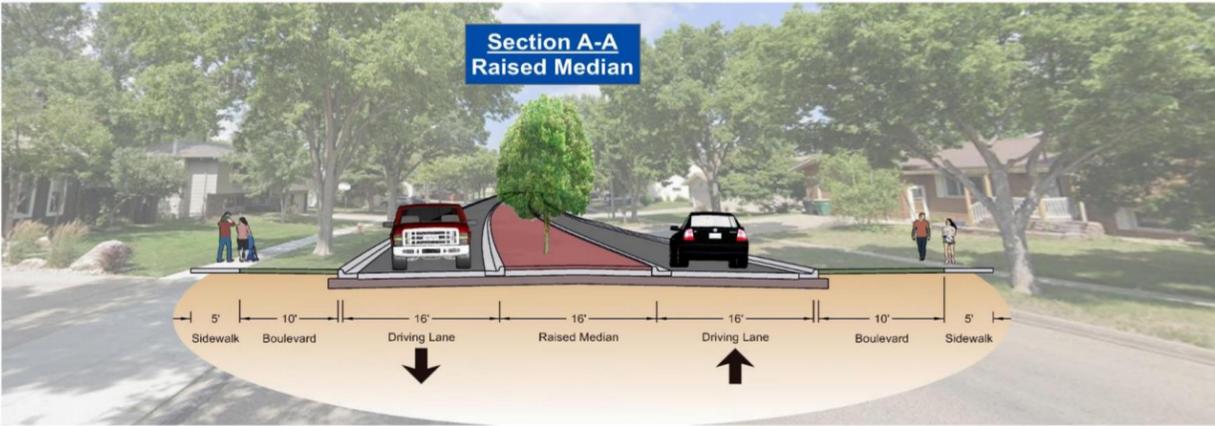


Figure 11: Option2C – Raised Median



Option 3: Country West Road Intersection Options

Option 3A - No Improvements

Option 3A would leave the existing two way stop control on Country West Road and the existing pavement marking layouts. There would be no additional traffic calming benefit or pedestrian safety enhancements with this option. See *Figure 12* for the plan view layout of Option 3A. This option is compatible with Option 2A and 2B but would not be compatible with 2C.

Figure 12: Option 3A – No Improvements



Option 3B: Raised Median

Option 3B would install raised medians on the north and south approaches of Tyler Parkway. Two way stop control would remain on Country West Road. These median islands would provide a pedestrian refuge for crossing pedestrians and some traffic calming benefits near the intersection. On street parking would be removed adjacent to the raised medians. See *Figure 13* for the plan view layout of Option 3B. This option is compatible with Option 2A and 2B but is not compatible with Option 2C.

Figure 13: Option 3B – Raised Median



Option 3C: Mini/Compact Roundabout

Option 3C would install a mini/compact roundabout at the intersection. This would provide a pedestrian refuge for crossing pedestrians and the greatest traffic calming benefit near the intersection. The mini/compact roundabout also provides some operational benefits over the two way stop control. On street parking would be removed throughout the roundabout. Access would be maintained to the homeowners within the splitter islands by installing mountable curb through the length of the driveway. See *Figure 14* for the plan view layout of Option 3C. This option is compatible with Option 2A and 2B and would be required for Option 2C.



Figure 14: Option 3C – Mini/Compact Roundabout

Option 4: Valley Drive Intersection Options

Option 4A: No Improvements

Option 4A would leave the existing two way stop control on Valley Drive and the existing pavement marking layouts. There would be no additional traffic calming benefit or pedestrian safety enhancements with this option. See *Figure 15* for the plan view layout of Option 4A. This option is compatible with Option 2A and 2B but would not be compatible with 2C.



Figure 15: Option 4A – No Improvements



Option 4B: Raised Median

Option 4B would install raised medians on the north and south approaches of Tyler Parkway. Two way stop control would remain on Valley Drive. These median islands would provide a pedestrian refuge for crossing pedestrians and some traffic calming benefits near the intersection. On street parking would be removed adjacent to the raised medians. See *Figure 16* for the plan view layout of Option 4B. This option is compatible with Option 2A and 2B but is not compatible with Option 2C.

Figure 16: Option 4B – Raised Median



Option 4C: Mini/Compact Roundabout

Option 4C would install a mini/compact roundabout at the intersection. This would provide a pedestrian refuge for crossing pedestrians and the greatest traffic calming benefit near the intersection. The mini/compact roundabout also provides some operational benefits over the two way stop control. On street parking would be removed throughout the roundabout. Access would be maintained to the homeowners within the splitter islands by installing mountable curb through the length of the driveway. See *Figure 17* for the plan view layout of Option 4C. This option is compatible with Option 2A and 2B and would be required for Option 2C.

Figure 17: Option 4C – Mini/Compact Roundabout



Utilities

Utility coordination is ongoing and will continue through the design and construction phases. Utility impacts will be avoided where possible and protected during construction. In locations where utility impacts cannot be avoided, the utility relocation will be coordinated with the utility owners. The Tyler Parkway extension crosses a Sonoco Energy Transfer pipeline (formerly Nustar). Sonoco Energy Transfer will pothole the pipeline crossing to determine the actual depth, once the frost is out of the ground. Since the pipeline is within their easement, they are going to decide if any work is needed on their pipeline to accommodate the road crossing, though no impacts are currently anticipated based on the design. Coordination with roadway design and underground utilities will be ongoing to protect the pipeline during construction.



There is no city watermain or sanitary sewer planned to be constructed parallel along Tyler Parkway. Crossings may be incorporated within the right of way to limit disturbances to Tyler Parkway in the future and have been included in the project costs.

Work Zone Traffic Control

Limited, if any, traffic impact would be anticipated during the construction of the extension. If traffic calming options are selected on Tyler Parkway, two-way traffic would be able to be maintained during the majority of construction, with some periods where flagging may be needed depending on which traffic calming and intersection options are selected. The Cogburn Road intersection may be closed for limited durations of time when construction is occurring at the north end. Traffic could detour along Ivory Lane to Frisco Way.

Summary of Engineering Issues

Geotechnical – Clay Soils

Shannon & Wilson conducted a geotechnical subsurface exploration program and completed a geotechnical analysis for the proposed Tyler Parkway extension. Their exploration and geotechnical data indicated the soils throughout the coulee are comprised of clay that overlies claystone and sandstone bedrock of the weakly lithified Cannonball Formation. These are considered weak foundation soils, especially with the large amounts of fill that will be needed with the project, leading to several geotechnical challenges such as slope stability, high settlement, and erosion. The self-weight of the embankment itself will also contribute to settlement concerns.

The first area of consideration was to address the weak foundation soils that are located within the bottom of Tyler Coulee. It was important to address the settlement potential of these soils, due to the large earth embankment being built across the coulee and stabilization of the large storm drain pipe. With no treatment of the foundation soils, settlements within the foundational soils were estimated upwards of 28". Options were analyzed to stabilize the foundation soils, and the design team recommended ground improvement with aggregate columns. Aggregate columns improve ground conditions by stiffening the subsurface through partial replacement and some densification of the existing foundation soils.

The second area of consideration was to address the settlement of the self-weight of the embankment itself. It was estimated the embankment could settle between 10" and 20" inches. Approximately 30% of the anticipated settlement would occur within the first year after placement, with the rest of the settlement continuing to occur gradually over the next 30 years. Placing the embankment with strict processing and compaction requirements and allowing it to settle for a year, would allow some of the settlement to occur prior to paving the roadway. Alternative construction methods and geotechnical solutions were studied to reduce settlement of the embankment and ultimately were not pursued any further as part of the project. These methods could accelerate the opening of the roadway and reduce settlement, but were cost prohibitive as they would have added millions of dollars to the project cost.



Traffic Speeds

One of the key issues identified during the traffic operations study is the traffic speeds along the corridor, especially south of Valley Drive. 85th percentile speeds were 31 mph near Stetson Drive and 33 mph south of Country West Road. Traffic calming options discussed above may promote greater adherence to the posted speed limit and improve the safety of the corridor.

Summary of Environmental Issues

Wetlands

An aquatic resource delineation was completed in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)*. Wetland boundaries within the study area were determined by completing United States Army Corp of Engineers (USACE) Wetland Determination Data Forms for paired test hole points and observing vegetation and hydrology in the area. One wetland of 3.01 acres was delineated within the study area. Five other water resources totaling 0.12 acres were also delineated within the study area. Approximately 0.84 acres of impacts would be anticipated from the roadway embankment and grading the shared use path to the west. These impacts are planned to be mitigated through an offsite Ducks Unlimited wetland bank.

Cultural Resources

A Class III Cultural Resource inventory was completed and submitted to the State Historic Preservation Office (SHPO). SHPO concurred with the determination of no significant sites affected by this project.

Noise

Throughout the public involvement process, concerns were raised about the noise that may occur with the construction of the extension. Based on the traffic volumes and the road remaining a 2-lane section, it is unlikely that any considerable noise impacts would occur along the project corridor. The homeowners may experience a slight increase in noise and more constant noise levels with increasing traffic, but it wouldn't be at a level where noise abatement would be considered. Noise abatement (noise walls) also would not be practical within this type of corridor. Doubling the number of noise sources (for example, doubling the traffic from 5,000 ADT to 10,000 ADT) would increase the hourly equivalent sound level of approximately 3 dBA (Source: Techniques for Reviewing Noise Analyses and Associated Noise Reports, FHWA-HEP-18-067, Section 1.3). Installing traffic calming measures or reducing the speed that vehicles are traveling through the corridor would reduce the noise impacts to adjacent properties. For example, if the typical travel speed was reduced by 5 mph (ex. 33 mph to 28 mph) through traffic calming measures, the noise impacts would be reduced by approximately 3dBA (TNM 3.2 Technical Manual, Figure 27). FHWA guidance considers 3 dBA to be a barely perceptible amount and the NDDOT Noise Policy considers 15 dBA as a substantial noise increase where noise abatement would be analyzed.

The FHWA's Traffic Noise Screening Tool, which is a high-level tool for noise analysts to identify where more detailed noise analysis may be needed, was utilized to run the existing and future conditions in the coulee and along the existing Tyler Parkway section south of Valley Drive to determine if additional noise analysis may be needed. The results for both regions, even when using the most conservative settings, came back as "No Detailed Analysis Needed."



Right of Way

The City of Bismarck recently agreed to purchase the Clairmont property for use in the Tyler Parkway project, proposed storm water detention project, and a future gravity sewer line. Though this cost is included in the project costs below, this acquisition is occurring separate from the project and would be completed prior to the construction of the Tyler Parkway connection. The Elk Ridge 3rd Addition was recently platted and dedicated the east half of the right of way for Tyler Parkway. The west 40' of right of way would need to still be acquired (approximately 67,251 SF). Borrow material if sourced from adjacent property to Tyler Parkway would result in additional temporary construction easements. A 20' grading easement may be needed at the property in the southwest quadrant of Cogburn Road to regrade the landscaping to fit an urban section. If any grading is required for the traffic calming options, the work would be able to occur within the existing right of way.

Project Costs

The project is intended to be funded by the City of Bismarck's half-cent sales tax dollars for arterial road construction and reconstruction as approved by voters in 2018. See *Table 2* for the cost of each alternative and option. The build alternatives would range from \$15.1 million if only Alternative B is selected with no additional improvements (Option 1A, 2A, 3A, and 4A) to \$17.3 million if Alternative B is selected with the pedestrian underpass and Options 1B, 2C, 3C, and 4C.



Table 2: Summary of Estimated Total Costs

	Alternative A - No Improvements	Alternative B - Tyler Parkway Extension	Pedestrian Underpass Option
Roadway Construction Costs	\$ -	\$ 11,000,000	\$ 175,000
Preliminary Engineering	\$ -	\$ 550,000	\$ 8,750
Design Engineering	\$ -	\$ 550,000	\$ 8,750
Construction Engineering	\$ -	\$ 1,100,000	\$ 17,500
Right of Way/Temporary Easements	\$ -	\$ 412,000	\$ -
Wetland Mitigation	\$ -	\$ 70,000	\$ -
Utility Relocation	\$ -	\$ 1,400,000	\$ -
BASE PROJECT COST	\$ -	\$ 15,082,000	\$ 210,000

	Century Ave to Country West Rd		Country West Rd to Valley Dr		
	Option 1A - No Improvements	Option 1B - 3 Lane Section	Option 2A - No Improvements	Option 2B - 3 Lane Section	Option 2C - Raised Median
Roadway Construction Costs	\$ -	\$ 85,000	\$ -	\$ 75,000	\$ 1,100,000
Preliminary Engineering	\$ -	\$ 4,250	\$ -	\$ 3,750	\$ 55,000
Design Engineering	\$ -	\$ 4,250	\$ -	\$ 3,750	\$ 55,000
Construction Engineering	\$ -	\$ 8,500	\$ -	\$ 7,500	\$ 110,000
OPTION COST	\$ -	\$ 102,000	\$ -	\$ 90,000	\$ 1,320,000

	Country West Rd Intersection			Valley Dr Intersection		
	Option 3A - No Improvements	Option 3B - Raised Medians	Option 3C - Mini/Compact Roundabout	Option 4A - No Improvements	Option 4B - Raised Medians	Option 4C - Mini/Compact Roundabout
Roadway Construction Costs	\$ -	\$ 75,000	\$ 250,000	\$ -	\$ 100,000	\$ 240,000
Preliminary Engineering	\$ -	\$ 3,750	\$ 12,500	\$ -	\$ 5,000	\$ 12,000
Design Engineering	\$ -	\$ 3,750	\$ 12,500	\$ -	\$ 5,000	\$ 12,000
Construction Engineering	\$ -	\$ 7,500	\$ 25,000	\$ -	\$ 10,000	\$ 24,000
INTERSECTION OPTION COST	\$ -	\$ 90,000	\$ 300,000	\$ -	\$ 120,000	\$ 288,000

Lowest Build Project Cost (B+1A+2A+3A+4A)	\$ 15,082,000.00
Highest Build Project Cost (B+Underpass+1B+2C+3C+4C)	\$ 17,302,000.00



Comparison of Alternatives

The advantages and disadvantages of the alternatives are shown in *Table 3* and the traffic calming options are shown in *Table 4*.

Table 3: Comparison of Alternatives

Alternative/Option	Advantages	Disadvantages
Alternative A: No Build	<ul style="list-style-type: none"> -Lowest initial cost -No direct impacts to environment or landowners 	<ul style="list-style-type: none"> -Does not meet the purpose and need of the project -Increased traffic from residential development will continue to occur on Tyler Parkway and impact other sidestreets as well without additional safety measures.
Alternative B: Tyler Parkway Extension	<ul style="list-style-type: none"> -Provides a more direct link for emergency services to northwest Bismarck and improves response time -Improve street and trail connectivity in northwest Bismarck for commuters and recreaters -Redistributes commuting traffic from other residential roads to remain on Tyler Parkway -Lighting would be installed to Ash Coulee Drive, which would improve nighttime visibility and safety for both roadway and path users 	<ul style="list-style-type: none"> -Higher cost -Environmental impacts in Tyler Coulee
Pedestrian Underpass Option	<ul style="list-style-type: none"> -Less grade for the path connection -Trail users would be able to use recreation trails on the east side of Tyler Parkway without crossing the roadway 	<ul style="list-style-type: none"> -Higher cost -Additional maintenance



Table 4: Comparison of Alternatives (Traffic Calming Options)

Option 1 - West Century Ave to Country West Rd		
Option 1A: No Improvements	-Lowest initial cost -No direct impacts to environment or landowners	-Would not address speed concerns in the corridor
Option 1B: 3-Lane Section with a raised median between Montego Dr and Santa Gertrudis Lp	-Reduced lane width and median may provide traffic calming benefit -No impacts to landowner driveway access	-Higher cost -Would remove on street parking between Montego Drive and Santa Gertrudis Loop
Option 2 - Country West Rd to Valley Dr		
Option 2A: No Improvements	-Lowest initial cost -No direct impacts to environment or landowners	-Would not address speed concerns in the corridor -Pedestrians safety and visibility is not improved for crossing.
Option 2B: 3-lane section with a raised median/pedestrian crossing at Canyon Dr	-Reduced lane width and median may provide a traffic calming benefit -No impacts to landowner driveway access -Provides a pedestrian refuge at Canyon Dr	-Increased cost -Removes on street parking adjacent to the raised median
Option 2C: Raised Median	-Greatest traffic calming benefit -Reduces vehicular conflict points, which improves safety -Provides a pedestrian refuge at Canyon Drive	-Highest cost -Removes on street parking -Homeowner driveway access would be restricted to right in/right out, which may increase commute time for Tyler Parkway homeowners by up to 1.5 minutes
Option 3 - Country West Road Intersection Options		
Option 3A: No improvements	-Lowest initial cost -No direct impacts to environment or landowners	-Would not address speed concerns -Pedestrians safety and visibility is not improved for crossing.
Option 3B: Raised Median	-Provides traffic calming near the intersection -No impacts to landowner driveway access -Provides a pedestrian refuge island at the intersection for increased pedestrian safety and visibility	-Increased cost -Removes on street parking adjacent to the raised median
Option 3C: Mini Roundabout	-Greatest traffic calming near the intersection -Provides a pedestrian refuge island at the intersection for increased pedestrian safety and visibility -Improved intersection operations as traffic continues to increase	-Highest cost -Removes on street parking adjacent to the splitter islands -Driveways located within the splitter islands would have mountable curb to cross to access their driveway
Option 4 - Valley Drive Intersection Options		
Option 4A: No improvements	-Lowest initial cost -No direct impacts to environment or landowners	-Would not address speed concerns -Pedestrians safety and visibility is not improved for crossing.
Option 4B: Raised Median	-Provides a traffic calming near the intersection -No impacts to landowner driveway access -Provides a pedestrian refuge island at the intersection for increased pedestrian safety and visibility	-Increased cost -Removes on street parking adjacent to the raised median
Option 4C: Mini Roundabout	-Greatest traffic calming near the intersection -Provides a pedestrian refuge island at the intersection for increased pedestrian safety and visibility -Improved intersection operations as traffic continues to increase	-Highest cost -Removes on street parking adjacent to the splitter islands -Driveways located within the splitter islands would have mountable curb to cross to access their driveway



F. Public Concerns/Need for Public Input

Due to the broad range of views and concerns along this corridor, an enhanced public involvement process was incorporated throughout the preliminary engineering phase. As part of the initial phase of public involvement, a survey was conducted to receive the initial comments and concerns of the community. Approximately 700 mailers were sent to area residents which contained direct links to the survey and the City posted about the project on their social media pages with a link to the project website. There were 312 responses to the survey through December 31, 2024.

A homeowner stakeholder meeting was held on January 23, 2025. Twenty individuals were invited to the meeting who had responded in the survey they were interested in being part of the stakeholder meeting. A cross section of viewpoints were selected with priority given to the homeowners along Tyler Parkway, Tyler Coulee, and any of the homeowners that had reached out during project development. The purpose of the homeowner stakeholder meeting was to discuss some of the preliminary findings from the survey, traffic, geotechnical, and other engineering reports and discuss alternatives. Comments and feedback from this meeting were used to shape the alternatives that were presented at the public input meeting.

A public input meeting was held on March 3rd, 2025, at Elk Ridge Elementary School. A press release was distributed, legal ad was printed in the newspaper on February 15th, and the meeting was promoted on social media. The meeting materials and prerecorded presentation were also hosted on the city website. The meeting was held with an open house format where participants were able to talk to the project team individually. A formal presentation was given and an informational handout was also available. A total of 131 people attended the meeting and 47 comments were received during the two-week comment period via email, letter or comment cards.

During the public input meeting several people commented in opposition to the project. Those living along Tyler Parkway were primarily concerned about the traffic speeds, increase in traffic, the decrease in property values, and the characteristics of the roadway changing. Those living along the coulee were primarily concerned about noise impacts, environmental impacts, and impacts to their viewshed. People who responded in favor to the project primarily commented on the direct route having improved connectivity in northwest Bismarck.

Following the public input meeting, the survey results were approximately half in favor of the project and half in opposition. The written comments submitted were more in opposition to the project with approximately 60% against the project and 40% for the project.

Please refer to the Public Involvement Report for the summary of the survey results and the written comments that were received and minutes from the homeowner stakeholder meeting and the public input meeting.



G. City Decisions

1. Do you concur with the project concepts as proposed?

Yes

No

2. Which alternative should proceed with the project?

Alternative A: No Build

Alternative B: Extend Tyler Parkway from Valley Drive to Cogburn Road consisting of a 36' wide two-lane street section, shared-use path, lighting, storm sewer system, and earthen embankment and lighting from Cogburn Road to Ash Coulee Drive at a cost of \$15.1 million.

If Alternative B is selected, should an underpass crossing be provided for trail users in the coulee at a cost of \$210,000.

Yes

No

3. Option 1: Which traffic calming plan should be implemented between Century Avenue and Country West Road?

Option 1A: Maintain current roadway configuration (No improvements, \$0)

Option 1B: Pavement marking for a 3-lane section with a raised median between Montego Drive and Santa Gertrudis Loop. On street parking would remain with this option except near the raised median (\$102,000).

4. Option 2: Which traffic calming plan should be implemented between Country West Road and Valley Drive?

Option 2A: Maintain current roadway configuration (No improvements, \$0)

Option 2B: Pavement marking for a 3-lane section with raised median/pedestrian crossing at Canyon Drive. On street parking would remain with this option except near the raised median (\$90,000).

Option 2C: Two-lane roadway with a raised landscaped median. On street parking would be removed with this option (\$1.3 million).



5. Option 3: What intersection improvement should be implements at Country West Road?

_____ **Option 3A:** Maintain current intersection layout (No improvements, \$0)

_____ **Option 3B:** Raised Median (\$90,000)

X **Option 3C:** Mini Roundabout (Required if Option 2C is selected, \$300,000)

6. Option 4: What intersection improvement should be implements at Valley Drive?

_____ **Option 4A:** Maintain current intersection layout (No improvements, \$0)

_____ **Option 4B:** Raised Median (\$120,000)

X **Option 4C:** Mini Roundabout (Required if Option 2C is selected, \$288,000)

Amendments / Comments for Project:

Gabe Schell

 Gabe Schell, PE
 City of Bismarck Engineer

4/8/25

 Date

