A. 32nd Avenue West Multiuse Trail

Project Description

New 10-foot concrete shared use path (SUP) on the east and new 5-foot concrete sidewalk on the east extend critical existing SUP and sidewalk along 32nd Avenue W. Crosswalks will be added to the 32nd Avenue W. intersections with 37th Street W. and 42nd Street W. to enhance safety, connectivity, and mobility of bicyclists and pedestrians. Connects directly to improvements associated with Project B.

Project Goals

Improve bicycle and pedestrian safety for Williston's most vulnerable multimodal transportation system users through a complete SUP and sidewalk network.

Key Data

CONTEXT
Priority Rank: Tied Ninth (9th);
Func Class: Minor Arterial;
Typology: Urban Mixed Density;
Land Use: Residential, Parks & Open Space, and Agricultural;
Location Description: from approximately 32nd Street W. to 42nd Street

CRASHES FOR ALL MODES 2018-2022
5 crashes, $ 360,500 weighted crash cost
HIN: No
Priority Area: Yes

EQUITY SCORE
4, low-moderate equity impact.
Not a Disadvantaged Census Tract.

TRAFFIC VOLUMES
2,350 - 3,150 AADT

TRIPS MADE BY DRIVING IN BLOCK GROUP
91% of trips are made by driving

TRAFFIC SPEEDS
Posted Speed Limit: 35 mph
Average Free-Flow Speed: 34 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

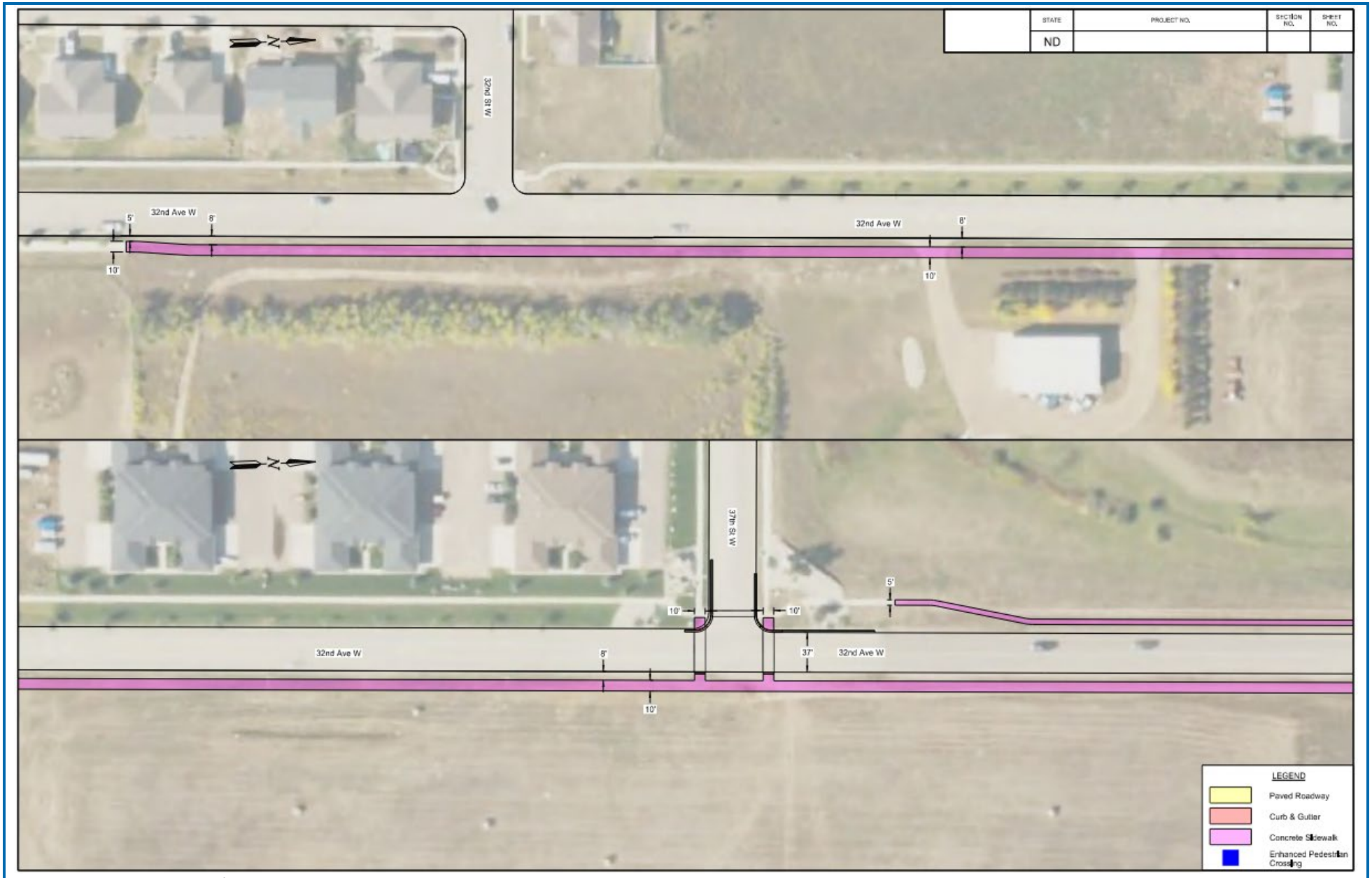
- 32nd Avenue W provides critical mobility to 42nd Street W, which provides direct connection between growing residential areas in western Williston and important commercial and industrial areas to the east. 32nd Avenue W is part of a critical emerging multimodal transportation system connecting people to jobs, essential needs, education, and parks and recreation.
- As development continues around 32nd Ave W, walking and biking will likely increase to the Williston High School located just two blocks to the west.

Potential Infrastructure Treatments

Continuing the 10-foot concrete shared use path on the East side of 32nd Avenue West from just South of 32nd Street West to 42nd Street West and the proposed 10-foot concrete shared use path on the south side (Project B). Additionally, the 5-foot concrete sidewalk on the West side of 32nd Avenue West will be continued from 37th Street West to 42nd Street West. Crosswalks will be added to the 37th Street West and 32nd Avenue West intersection to create safer pedestrian crossing designations. Crosswalks will be added to the intersection of 42nd Street West and 32nd Avenue West as well. These bicycle and pedestrian facilities will help connect Williston's primary growth areas to critical destinations and connect essential multimodal mobility on major emerging growth corridors of the City.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Shared use Path	Permanent stand-alone	Provides dedicated, separated space for walking and biking	$1,400,000	0.60	40%
% Cost in Disadvantaged Census Tract			0%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along 32nd Avenue West

Project concept along 32nd Avenue West

B. 42nd Street West Multiuse Trail

Project Description

New 10-foot concrete shared use path (SUP) on the south and new 5-foot concrete sidewalk on the north extend to critical existing SUP and sidewalk connections at the 42nd Street W. intersection with 16th Avenue W. Crosswalks will be added to the 32nd Avenue W. intersections with 42nd Avenue W. and 16th Avenue W. to enhance safety, connectivity, and mobility of bicyclists and pedestrians. Connects directly to improvements associated with Project A.

Project Goals

Improve bicycle and pedestrian safety for Williston's most vulnerable multimodal transportation system users through a complete SUP and sidewalk network.

Key Data

CONTEXT
Priority Rank: Tied Ninth (9th);
Func Class: Future Minor Arterial;
Typology: Urban Mixed Density;
Land Use: Residential, Parks & Open Space, Agricultural, and Industrial; Location Description: from 32nd Street W. to 16th Street W.

CRASHES FOR ALL MODES 2018-2022
18 crashes, $ 2,066,033 weighted crash cost
HIN: No
Priority Area: Yes

EQUITY SCORE
5, moderate equity impact.
Not a Disadvantaged Census Tract.

TRAFFIC VOLUMES
2,520 – 3,300 AADT

TRIPS MADE BY DRIVING IN BLOCK GROUP
88% of trips are made by driving

TRAFFIC SPEEDS
Posted Speed Limit: 35 mph
Average Free-Flow Speed: 30 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

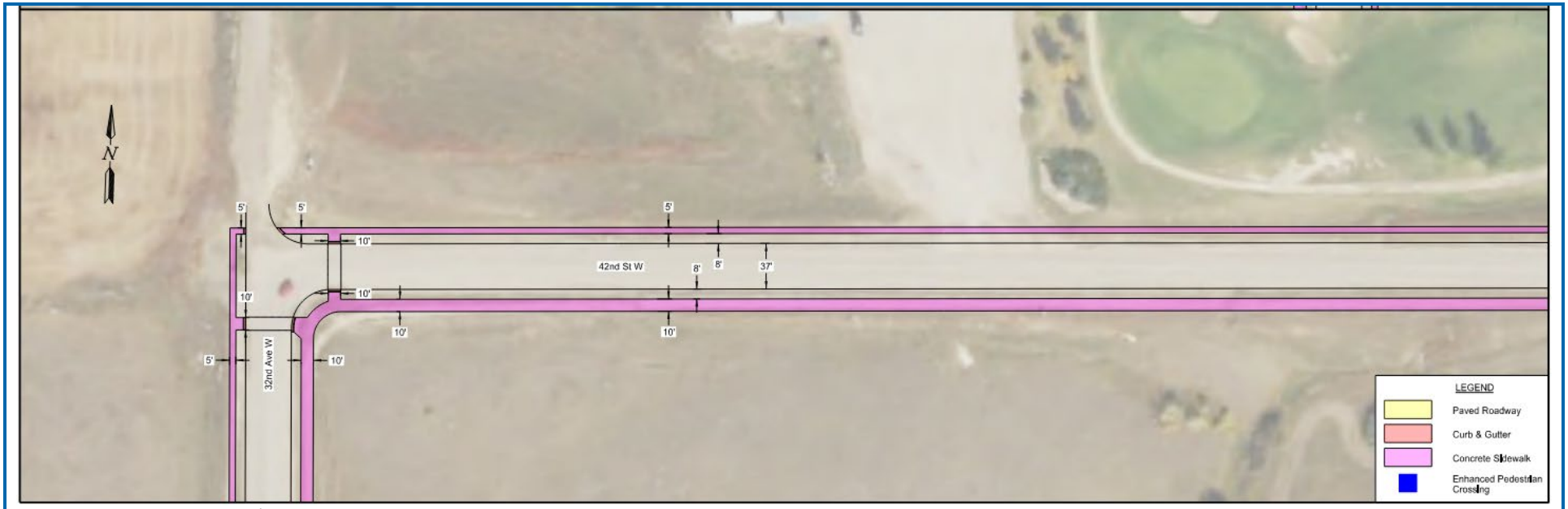
- 42nd Street W provides critical mobility between growing residential areas in north western Williston and important commercial and industrial areas to the east. The City's primary growth area is located on the south side of the corridor 32nd Avenue W is part of a critical emerging multimodal transportation system connecting people to jobs, essential needs, education, and parks and recreation.

Potential Infrastructure Treatments

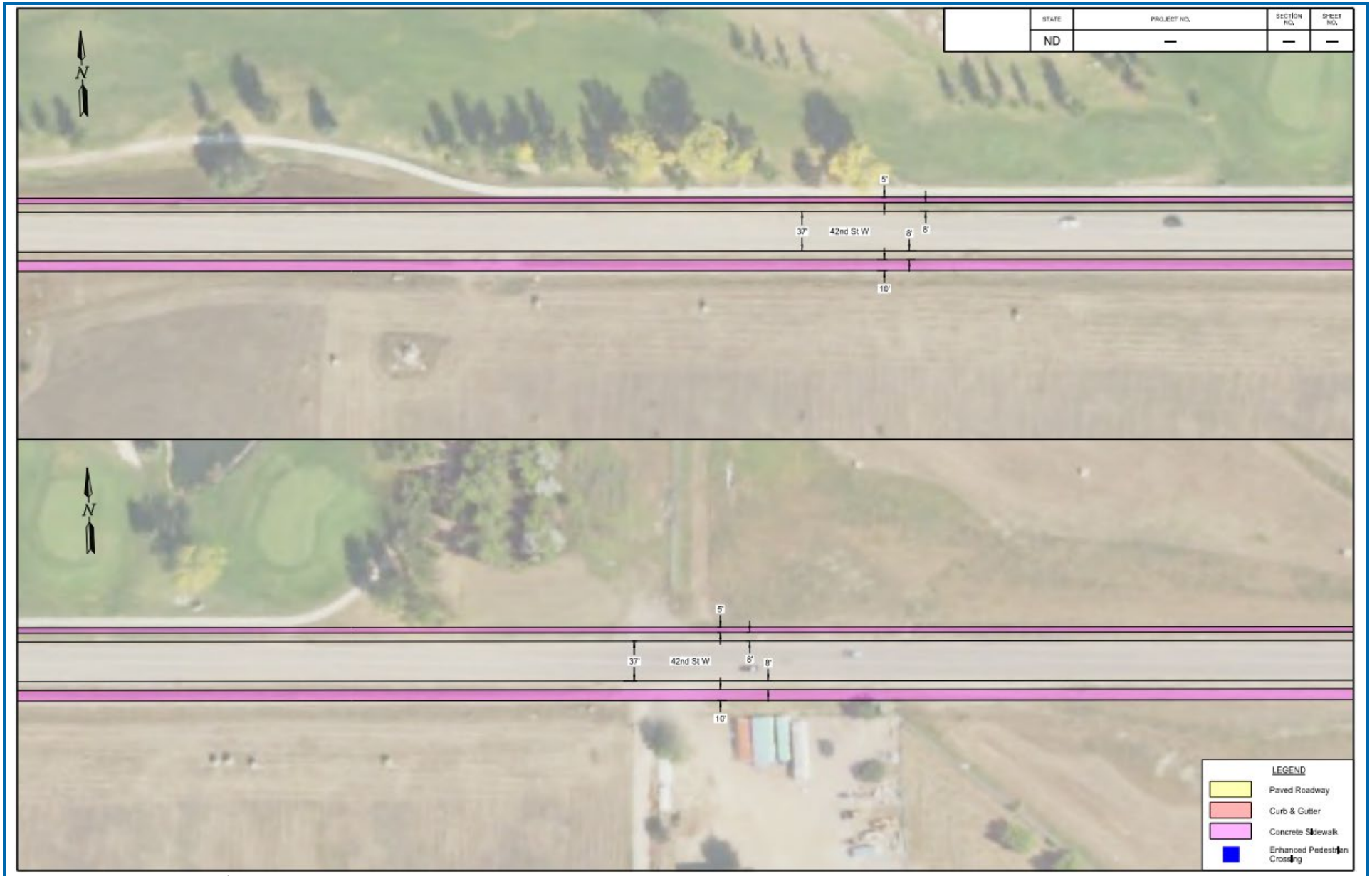
The 42nd Street West 10-foot concrete shared use path on the south side of the road will connect to the proposed 10-foot shared use path proposed on the east side of 32nd Avenue West. The 10-foot shared use path will continue for 1 mile from 32nd Avenue West to 16th Avenue West and will connect to the existing 10-foot shared use path stub-out that is already in place. The 5-foot sidewalk on the North side of 42nd Street West will also start from 32nd Avenue West and connect to 16th Avenue West. The proposed 5-foot sidewalk will run parallel to the current existing golf cart path of the Williston Municipal Golf Course. The Williston Municipal Golf Course is planning to redesign the golf course and move their golf cart path to a different location. Crosswalks will be added to the intersections of 42nd Street West and 16th Avenue West to accommodate safe pedestrian crossing. The 42nd Street West and 16th Avenue West intersection will also have enhanced pedestrian crossing striping to highlight the crosswalks to all modes including drivers. These bicycle and pedestrian facilities will help connect Williston's primary growth areas to critical destinations and connect essential multimodal mobility on major emerging growth corridors of the City.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Shared use path	Permanent stand-alone	Provides dedicated, separated space for walking and biking	$2,800,000	0.60	40%
% Cost in Disadvantaged Census Tract			0%		

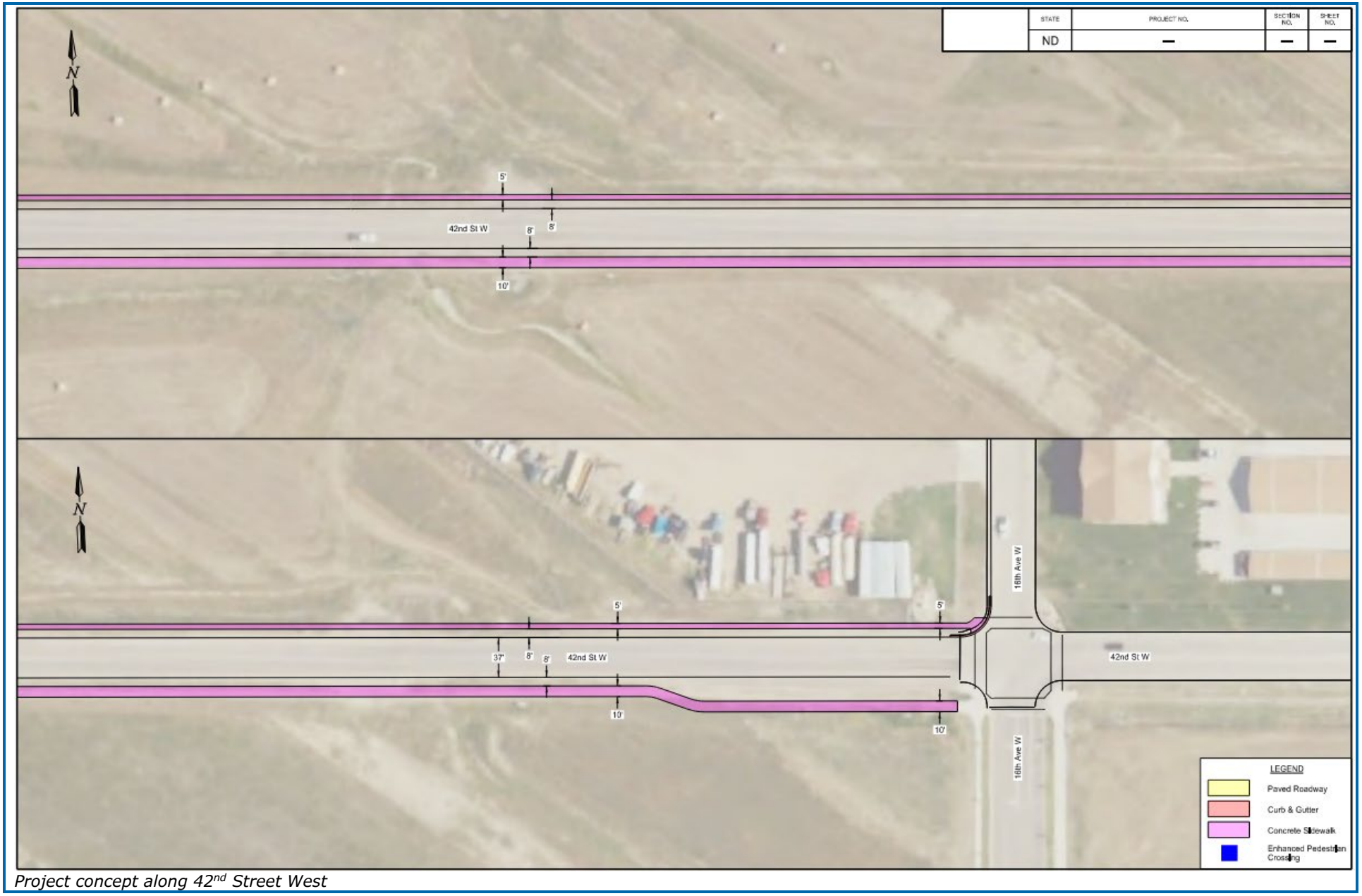
[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along 42nd Street West



Project concept along 42nd Street West



Project concept along 42nd Street West

C. US 2 Frontage Road Access Closures

Project Description

Closes 8 existing access points on US 2 and closes 4 median crossovers to eliminate more than 40 crossing conflict points. Eliminating crossing conflicts will positively impact safety and enhance mobility and operations on US 2, which is identified on the existing HIN.

Project Goals

Target known areas on the HIN to reduce and eliminate severe crashes on Williston's multimodal transportation system.

Key Data

CONTEXT
Priority Rank: Eleventh (11th);
Func Class: Principal Arterial;
Typology: Urban Commercial/Industrial Divided Highway; Land Use: Industrial and Commercial; Location Description: Just north of 53rd Street W to 0.25-miles north of US 2 and 42nd Street intersection.

CRASHES FOR ALL MODES 2018-2022
18 crashes, $ 1,447,400 weighted crash cost
HIN: Yes
Priority Area: Yes

EQUITY SCORE
5, moderate equity impact.
Not a Disadvantaged Census Tract.

TRAFFIC VOLUMES
12,400 AADT
5% Heavy Vehicles

TRIPS MADE BY DRIVING IN BLOCK GROUP
81% of trips are made by driving

TRAFFIC SPEEDS
Posted Speed Limit: 40 mph
Average Free-Flow Speed: 35 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

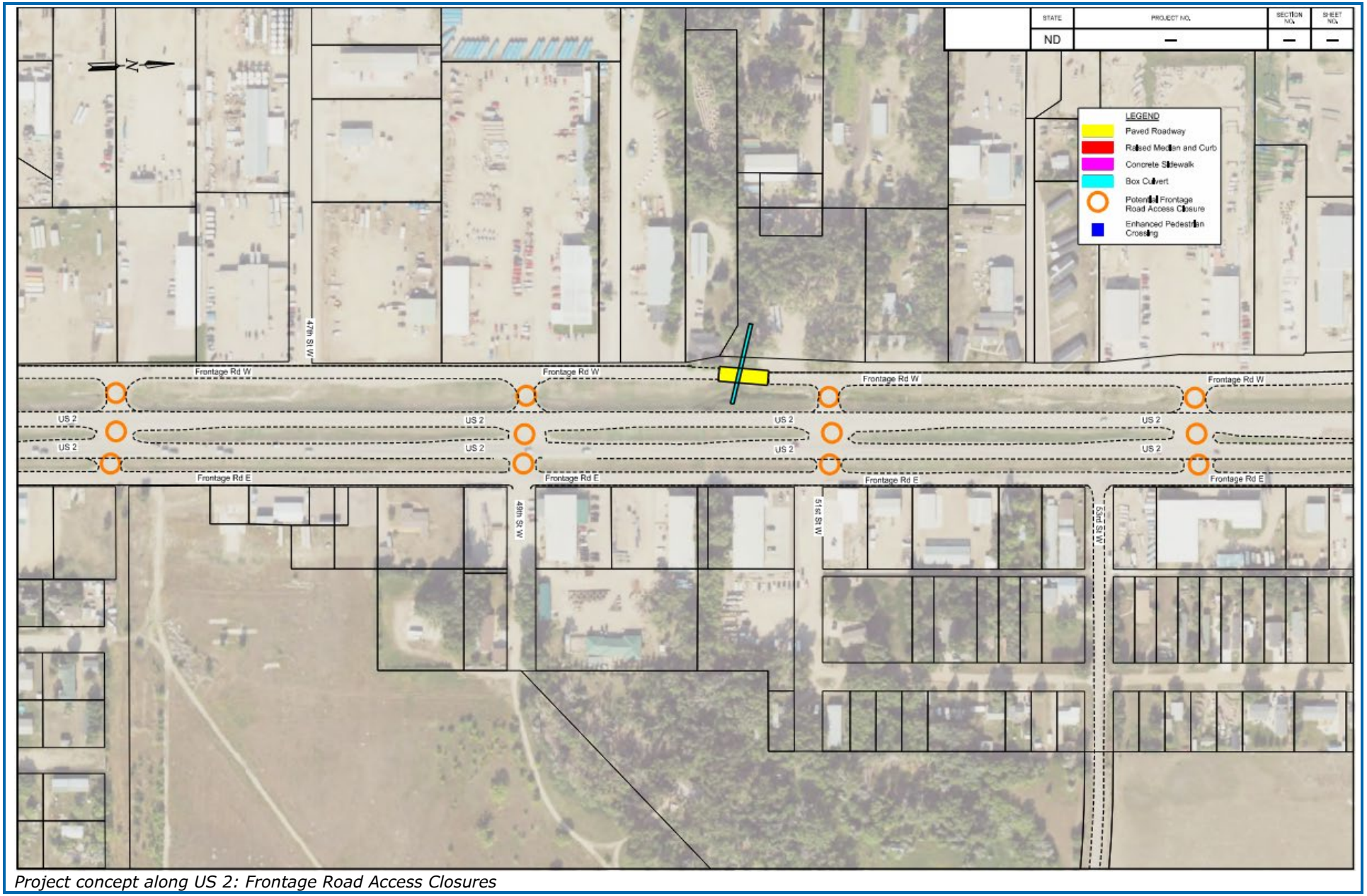
- Access onto US 2 in the project area from frontage roads creates numerous crossing conflict points and confusion for drivers, given the proximity of the frontage roads and divided highway cross section of US 2.

Potential Infrastructure Treatments

Will close 8 frontage road access points along US 2 for the northbound and southbound lanes and close 4 median crossovers between 42nd Street West and 58th Street West will eliminate over 40 crossing conflict points along this critical divided highway corridor. The traffic will be routed to enter and exit the frontage roads west and east of US 2, from 42nd Street West and 58th Street West. As part of the frontage road access closures, an 8-foot x 6-foot box culvert will be added (length of 190-feet) to connect the existing gap in the west frontage road at the Chinaman's coulee. This will allow for continuous access to the businesses along the west frontage road to be accessible from both 42nd Street West and 58th Street West, eliminating the dead ends at the coulee.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Frontage Road Access Closure	Permanent Tied to Chinaman's Coulee	Decrease access points, creating less conflict points and better flow of traffic and increased safety	$400,000	0.93	7%
Chinaman's Coulee	Permanent Tied to Frontage Closure	Connects both sides of the Frontage Road, eliminating the need to have access along US 2.	$1,100,000	0.93	7%
Total Estimated Cost			$1,500,000		
% Cost in Disadvantaged Census Tract			0%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along US 2: Frontage Road Access Closures

D. US 2 & 42nd Street West Intersection Improvements

Project Description

The project realigns, as applicable, frontage road intersections away from the US 2 and 42nd Street intersection. Crossing conflict points are reduced and/or diffused to significantly improve safety and enhance mobility and traffic operations through the intersection, which is identified on the existing HIN.

Project Goals

Target known areas on the HIN to reduce and eliminate severe crashes on Williston's multimodal transportation system.

Key Data

CONTEXT
Priority Rank: Eight (8th); Func Class: Principal Arterial (US 2) & Minor Arterial (42nd Street); Typology: Intersection of Urban Commercial/Industrial Divided Highway; Land Use: Industrial and Commercial; Location Description: Intersection of US 2 and 42nd Street W.

CRASHES FOR ALL MODES 2018-2022
84 crashes, $ 18,087,500 weighted crash cost
HIN: Yes
Priority Area: No

EQUITY SCORE
5, moderate equity impact.
Not a Disadvantaged Census Tract.

TRAFFIC VOLUMES
14,100 AADT (US 2)
4,000 – 9,650 AADT (42nd Street)
4% Heavy Vehicles

TRIPS MADE BY DRIVING IN BLOCK GROUP
92% of trips are made by driving

TRAFFIC SPEEDS
Posted Speed Limit: 40 mph
Average Free-Flow Speed: 35 mph (US 2) 29 mph (42nd Street)
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

- Proximity of frontage roads to intersection creates numerous crossing conflict points in a confined area and confusion for drivers, given the proximity of the frontage roads and divided highway cross section of US 2. The confusion and crossing conflict proximity lead to miscalculations by drivers of gaps and or stopping distances.

Potential Infrastructure Treatments

There are 2 alternatives for the 42nd Street West intersection improvements.

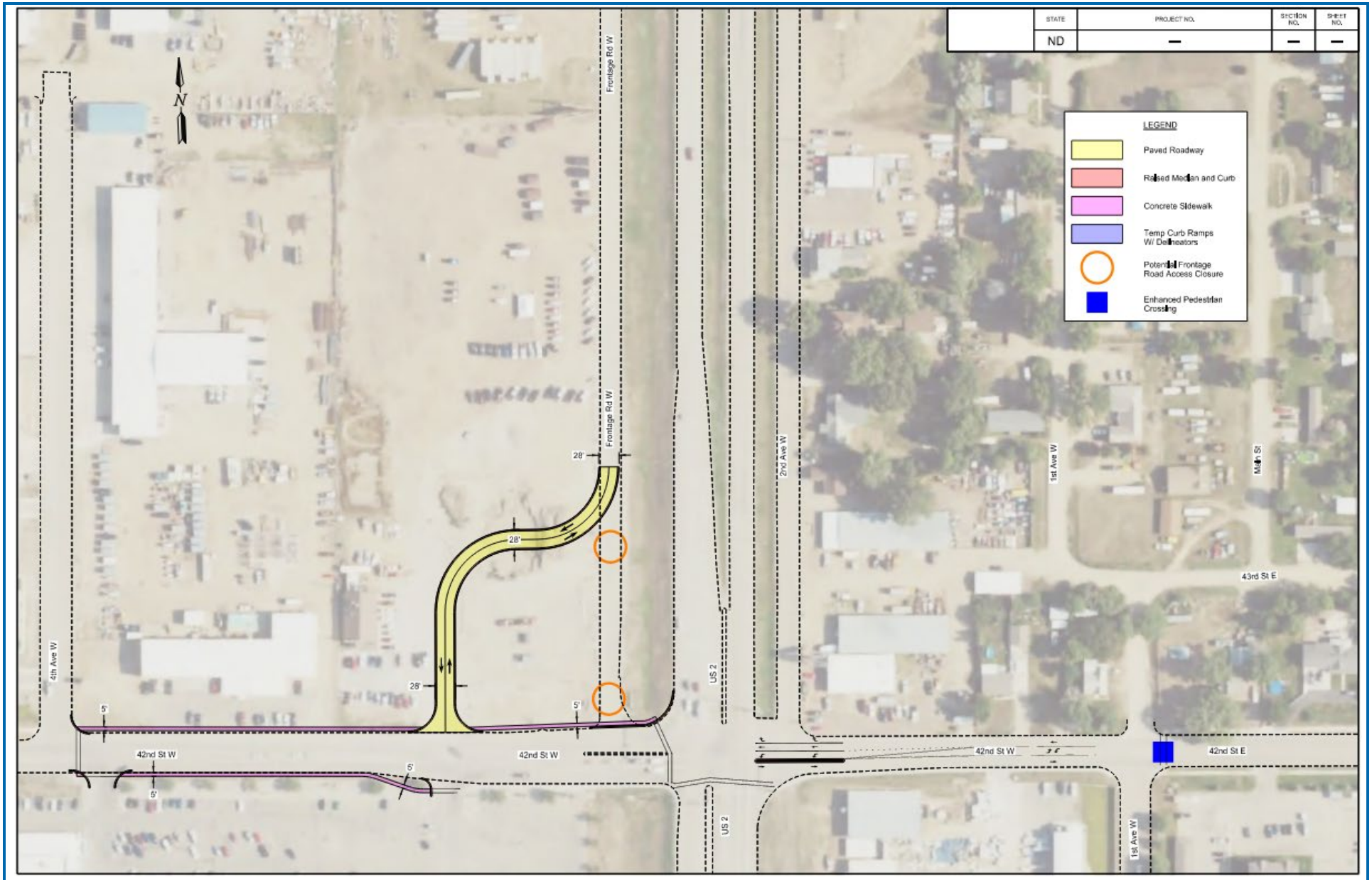
Alternative 1: Figure 1 below shows the realignment of the west frontage road access along 42nd Street West to align with the east Walmart access point. This realignment is needed to improve traffic operations at the west frontage road; the current access proximity to the intersection of US 2 and 42nd Street West poses significant operational and safety challenges. 5-foot concrete sidewalks will be added to the north and south side of 42nd Street West to accommodate pedestrian access along the West side of US 2, an essential commercial and industrial area in the City. A median will be added on the east side of US 2 along the 42nd Street West westbound left turn lane and the 42nd Street West eastbound thru lane to prevent left turns onto the east frontage road. The east frontage road is dangerously close to the intersection and creates significant conflict with the westbound traffic, and overall confusion on the east side of the US 2 and 42nd Street West intersection. An enhanced crosswalk will be added on the east side of the 42nd Street East and 1st Avenue West intersection to provide safer pedestrian mobility across 42nd Street. The enhanced pedestrian crossing will give drivers more awareness that a pedestrian is ready to cross the street and so the driver(s) may yield to the pedestrian(s) until they have crossed safely. The enhanced pedestrian crossing location is further east of the US 2 and 42nd Street West intersection as the proposed median, westbound turn lanes, and westbound thru lane are challenging obstacles for a north-south crosswalk at the intersection of US 2.

Alternative 2: Figure 2 below shows the realignment of the west frontage road access along 42nd Street West to align with the east Walmart access point similar to Figure 1. Alternative 2 also includes the realignment of the east frontage road access along 42nd Street West to align with 1st Avenue West. The realigned east frontage road access will improve traffic operations and reduce the density of crossing conflict points at the US 2 and 42nd Street West intersection. 5-foot concrete sidewalks will be added to the north and south side of 42nd Street West to accommodate pedestrian access along the 42nd Street West corridor, an essential commercial and industrial area of the City. Crosswalks will be added to the intersection of US 2 and 42nd Street West to accommodate safer pedestrian crossing designations at this major intersection.

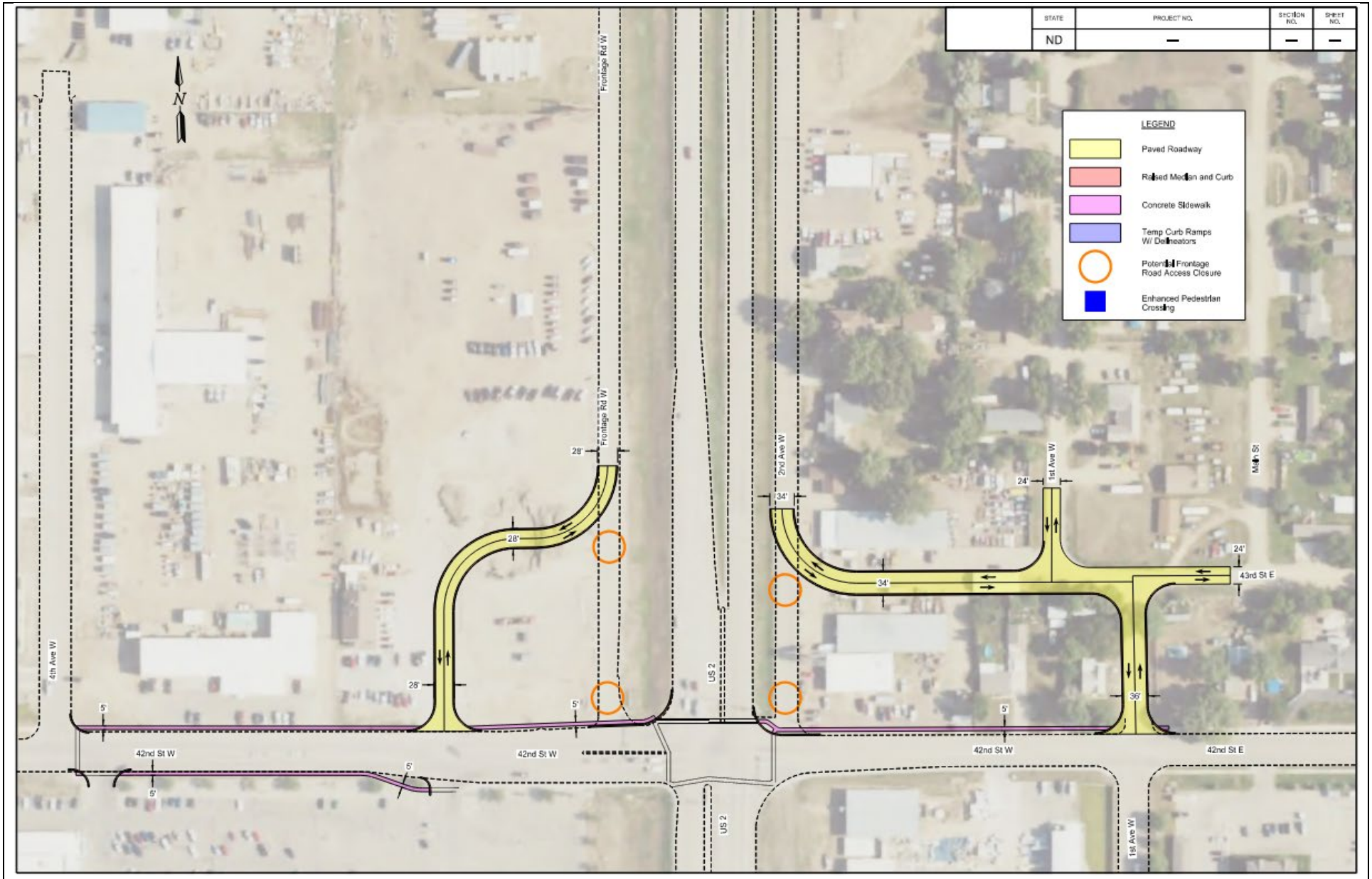
Figure 3 below shows the addition of advanced “BE PREPARED TO STOP” signage with yellow flashing beacons for US 2 northbound traffic. There are existing advanced “BE PREPARED TO STOP” signs with yellow flashing beacons for the US 2 southbound traffic but none for northbound traffic. The advance notice of the traffic signals changing or about to change will help notify US 2 northbound traffic to begin to slow down and prepare to stop as the traffic signal will turn red by the time they get to the intersection. The advance notice will help prevent risky decision-making associated with running red lights, as it will indicate to drivers that it is time to slow down, well in advance of reaching the intersection. The US 2 corridor through this area is currently posted for 40 mph. Accessible pedestrian signal (APS) updates will enhance the existing traffic signal system to provide signal phase information in audio, tactile, and/or vibrotactile formats for the pedestrian which will significantly improve safety for those who rely on APS to safely go about their day-to-day lives.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
APS Update	Permanent tied to both Alternative 1 and 2	Provides updated pedestrian notifications, increases awareness for pedestrians of all abilities when it is safe to cross.	$30,000	N/A	N/A
Advanced Warning System	Permanent tied to Alternative 1	Advanced warning system will alert drivers that the light is turning red, allowing them to slow down in a more timely manner and prevent drivers to run the red light.	$35,000	0.65	35%
Red Light Confirmation	Permanent tied to both Alternative 1 and 2	Officers can enforce red light compliance downstream from traffic signals. This results in safer enforcement as officers do not need to subsequently run through redlines to pull offenders over. Normal signal operations would continue for other traffic users.	$15,000	N/A	N/A
Enhanced Pedestrian Crossing	Permanent tied to Alternative 1	Stops traffic to allow pedestrians to cross when demand is present	$25,000	0.64	36%
Alternative 1: West Frontage Road Realignment	Permanent tied to APS Updates, Advanced Warning System, Red-Light Confirmation, and Enhanced Pedestrian Crossings	Realignment of the West Frontage Road to push access further from US 2 to increase safety.	$2,150,000	0.82	18%
Alternative 2: East Frontage Road Realignment	Permanent tied to APS updates and Red-Light Confirmation	Realignment of the West and East Frontage Road to push access further from US 2 to increase safety.	$6,090,000	0.82	18%
Alternative 1 Total Estimated Cost			$2,255,000		
Alternative 2 Total Estimated Cost			$6,135,000		
% Cost in Disadvantaged Census Tract			0%		

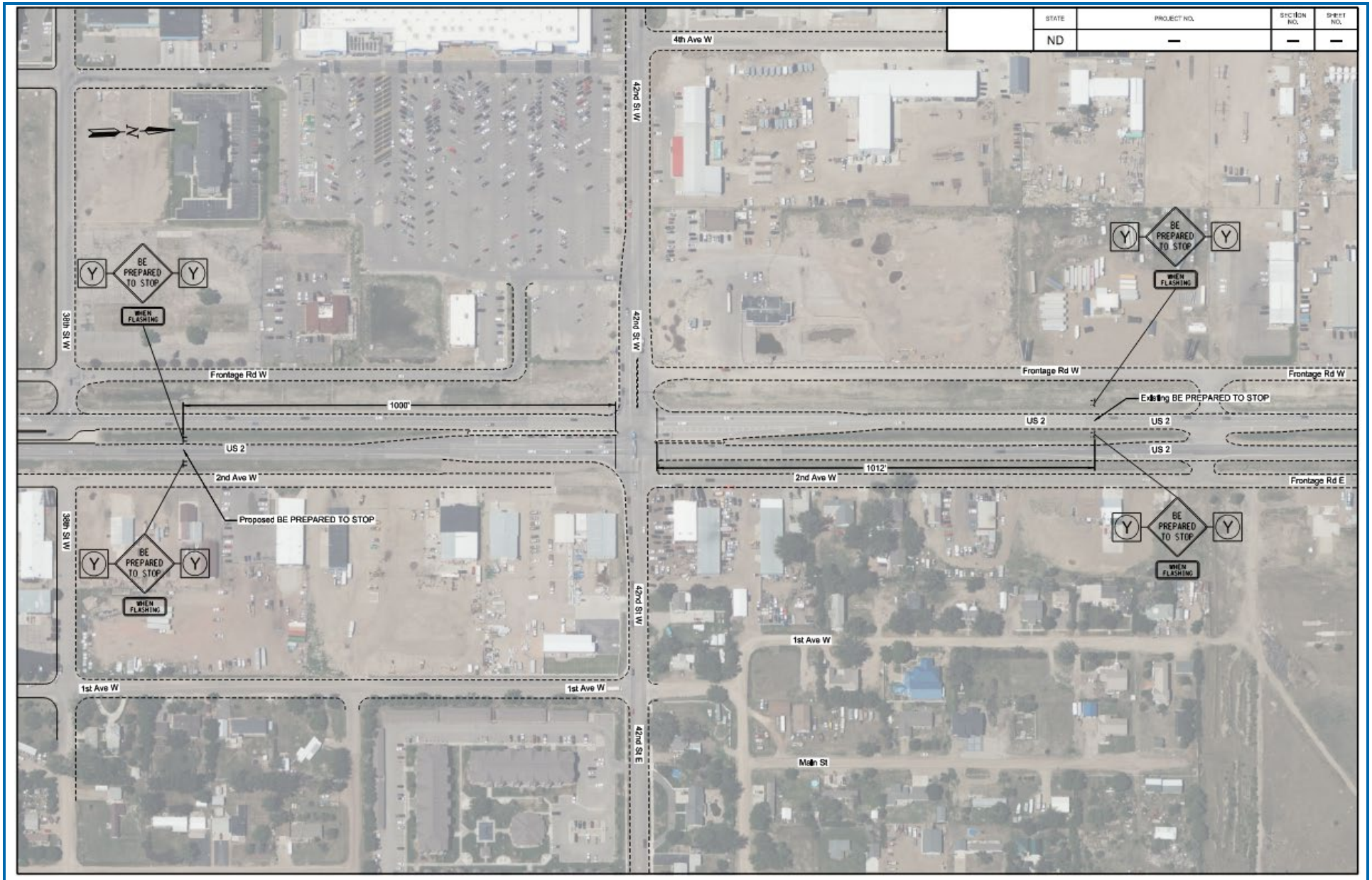
[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Alternative 1 Project concept along 42nd Street West: Intersection Improvements Figure 1



Alternative 2 Project concept along 42nd Street West: Intersection Improvements Figure 2



Alternative 1 and Alternative 2 Project concept along 42nd Street West: Intersection Improvements Figure 3

E. 18th Street West Curb Extensions Pedestrian Crossings

Project Description

New curb extensions will be added to the 18th Street W. intersections with 6th Avenue W. and 4th Avenue W. including an enhanced pedestrian crossing at 4th Avenue W. Improvements are focused on increasing the visibility of pedestrians, increasing visibility of crosswalks, and reducing crossing distances for pedestrians traveling across 18th Street W.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through safer, more visible pedestrian crossing locations.

Key Data

CONTEXT
Priority Rank: Second (2nd); Func Class: Major Collector; Typology: Urban Traditional Complete Street; Land Use: Residential and Parks & Open Space; Location Description: from 6th Avenue W to 4th Avenue W.

EQUITY SCORE
7, high equity impact.
Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
85% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
17 crashes, $ 1,497,000 weighted crash cost
HIN: Yes
Priority Area: Yes

TRAFFIC VOLUMES
3,700 – 3,950 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 25 mph
Average Free-Flow Speed: 24 mph
(Source: Replica)*

Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.

Community Engagement

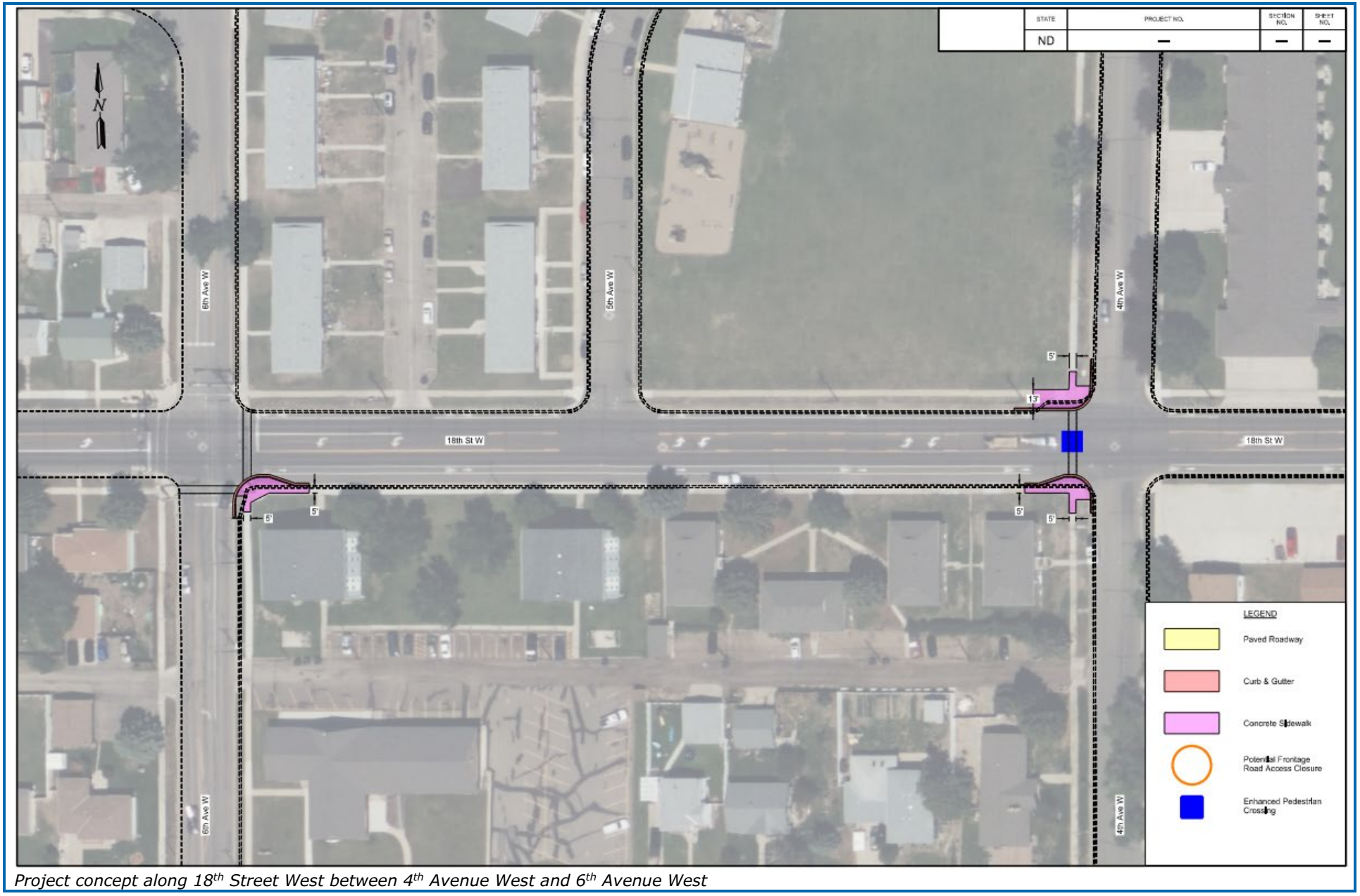
- Prevalence of speeding and people not stopping for students getting off of the school bus.

Potential Infrastructure Treatments

Adding curb extensions to the existing pedestrian crossings along 18th Street West between 6th Avenue West and 4th Avenue West. The curb extensions will help increase the overall visibility of pedestrians to drivers before entering or crossing the street, increase visibility of the crosswalks, and reduce the crossing distance for the pedestrians. An enhanced pedestrian crossing will be installed on the west side of 4th Avenue West to accommodate pedestrians crossing 18th Street as this corridor can have heavy traffic at certain times of day. The enhanced pedestrian crossing will give drivers more awareness that a pedestrian is ready to cross the street so that the driver may safely yield to the pedestrian until they have crossed 18th Street West. Accessible pedestrian signal (APS) updates will enhance the existing traffic signal system to provide signal phase information in audio, tactile, and/or vibrotactile formats for the pedestrian which will significantly improve safety for those who rely on APS to safely go about their day-to-day lives.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Enhanced Pedestrian Crossing	Permanent tied to Curb Extensions	Stops traffic to allow pedestrians to cross when demand is present	$25,000	0.64	36%
APS Update	Permanent tied to Curb Extensions	Provides updated pedestrian notifications, increases awareness for pedestrians of all abilities when it is safe to cross.	$30,000	N/A	N/A
Curb Extensions	Permanent tied to Enhanced Pedestrian Crossings	Provides additional space for pedestrians to wait to safely cross, decreases roadway width for crossings and pushes the waiting space out into the roadway making it easier to see oncoming vehicles	$135,000	0.63	37%
Total Estimated Cost			$190,000		
% Cost in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along 18th Street West between 4th Avenue West and 6th Avenue West

F. Central Campus Curb Extensions Pedestrian Crossings

Project Description

New curb extensions will be added to the 18th Street W. intersections with 6th Avenue W. and 4th Avenue W. including an enhanced pedestrian crossing at 4th Avenue W. Improvements are focused on increasing the visibility of pedestrians, increasing visibility of crosswalks, and reducing crossing distances for pedestrians traveling across 18th Street W.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through safer, more visible pedestrian crossing locations.

Key Data

CONTEXT
Priority Rank: First (1st); Func Class: Major Collector and Local (W Highland Drive); Typology: Urban Traditional; Land Use: Residential and Public Institutional; Location Description: streets around Central Campus (Williston Middle and Bakken Elementary Schools)

EQUITY SCORE
7, high equity impact.
Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
85% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
11 crashes, $ 268,400 weighted crash cost
HIN: No
Priority Area: Yes

TRAFFIC VOLUMES
300 – 1,250 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 25 mph / 20 mph school zone
Average Free-Flow Speed: N/A
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

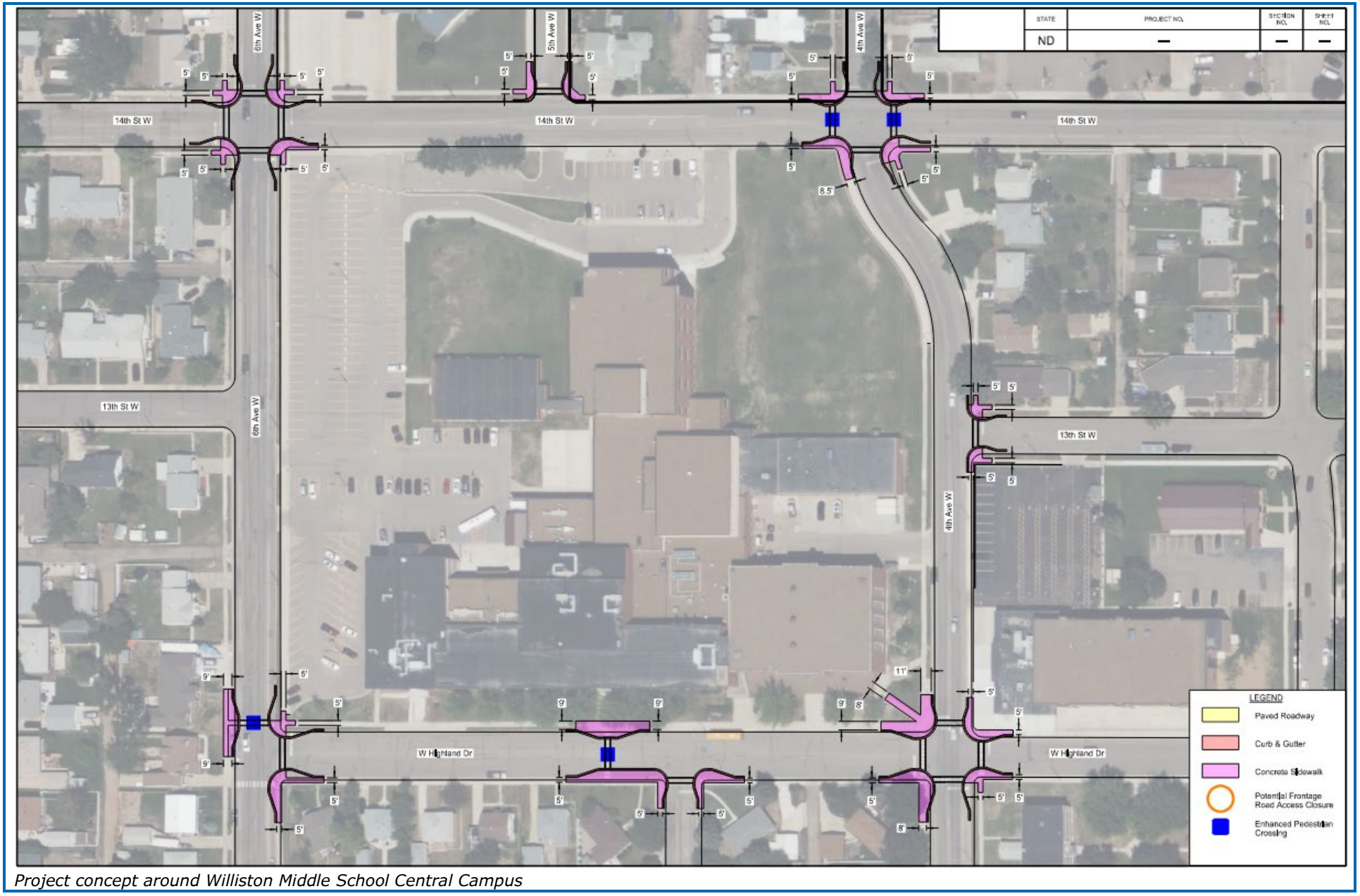
- School drop off and pickup concerns.
- One of the top transportation safety concerns from the public was at the Central Campus and other School locations in Williston.
- Concerns with students crossing roadways during drop off and pick up times, congestion surrounding Central Campus reduces visibility, creates frustration and poor decision-making for users.
- Anecdotal evidence of bicyclist being struck by vehicle at intersection of 14th Street W and 6th Avenue W.

Potential Infrastructure Treatments

Installing curb extensions at 7 critical intersections around the Williston Middle School and Bakken Elementary School, also known as Central Campus. The curb extensions will help increase the overall visibility of pedestrians to drivers before entering or crossing the street, increase visibility of the crosswalks, and reduce the crossing distance for the pedestrians. There is significant mixing of pedestrian and vehicular traffic in the vicinity surrounding the school and it is critical to address the safety of each crosswalk surrounding the school campus. Four enhanced pedestrian crossings will be added at crosswalk locations that do not have a "4-WAY STOP". The enhanced pedestrian crossings will give drivers more awareness that a pedestrian is ready to cross the street so that the driver may safely yield to the pedestrian until they have crossed the street.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Enhanced Pedestrian Crossing	Permanent tied to Curb Extensions	Stops traffic to allow pedestrians to cross when demand is present	$100,000	0.64	36%
Curb Extensions	Permanent tied to Enhanced Pedestrian Crossings	Provides additional space for pedestrians to wait to safely cross, decreases roadway width for crossings and pushes the waiting space out into the roadway making it easier to see oncoming vehicles	$930,000	0.63	37%
Total Estimated Cost			$1,030,000		
% Cost in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept around Williston Middle School Central Campus

G. 11th Street West Curb Extensions Pedestrian Crossings

Project Description

New curb extensions will be added to the 11th Street W. intersections with 15th Avenue W., 14th Avenue W., and Davidson Drive including an enhanced pedestrian crossing at Davidson Drive. Improvements are focused on increasing the visibility of pedestrians, increasing visibility of crosswalks, and reducing crossing distances for pedestrians traveling across 11th Street W.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through safer, more visible pedestrian crossing locations.

Key Data

CONTEXT
Priority Rank: Third (3rd); Func Class: Minor Arterial; Typology: Urban Traditional; Land Use: Residential and Parks & Open Space; Location Description: from 15th Avenue W to Davidson Drive.

EQUITY SCORE
7, high equity impact.
Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
73% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
10 crashes, $ 1,690,800 weighted crash cost
HIN: Yes
Priority Area: Yes

TRAFFIC VOLUMES
4,050 – 4,200 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 30 mph
Average Free-Flow Speed: 26 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

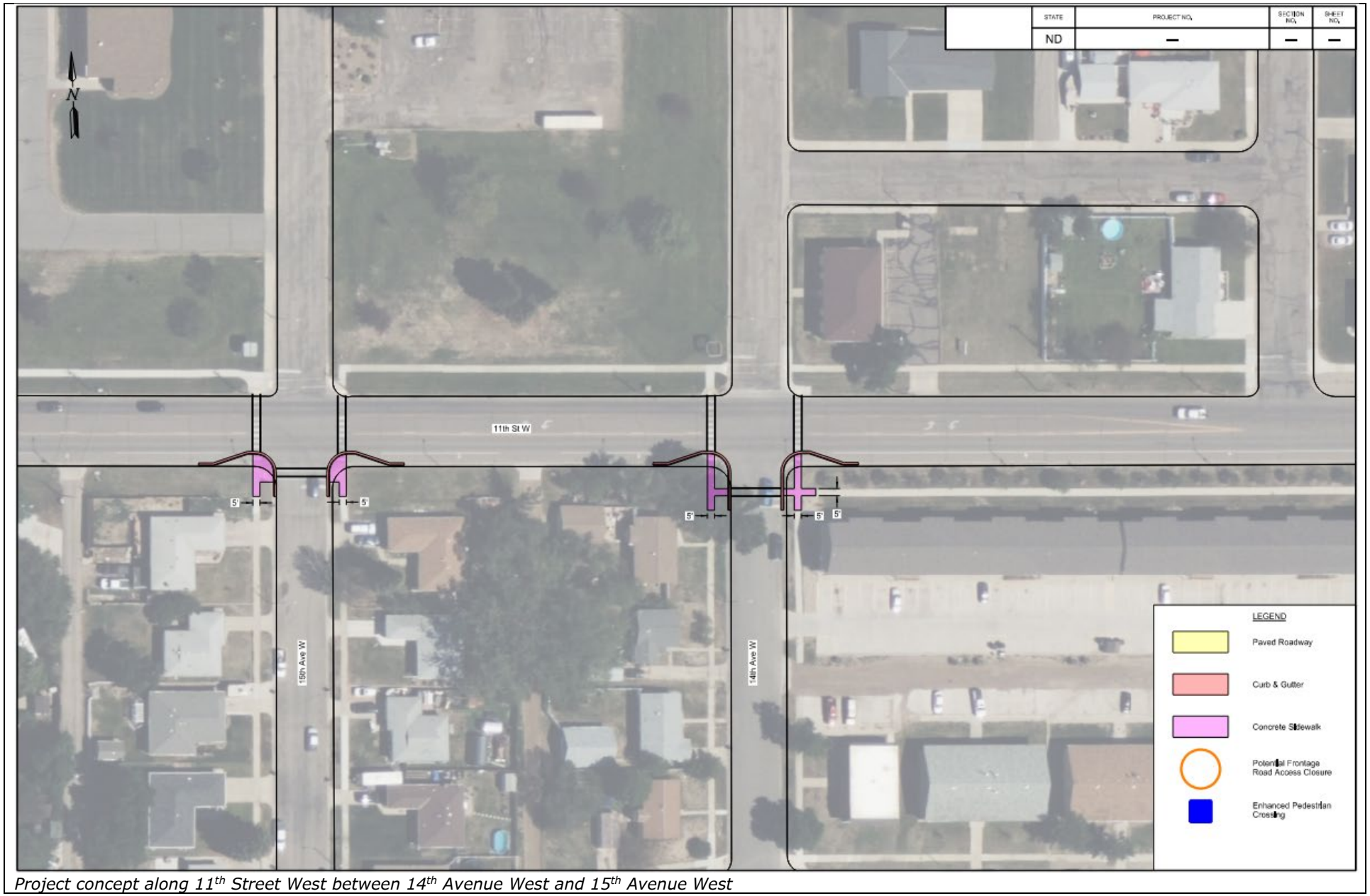
- 11th Street W was mentioned numerous time as a critical route providing mobility through Williston.
- People also mentioned that certain locations feel very unsafe and most often referred to high pedestrian traffic and need for simple safety improvements.

Potential Infrastructure Treatments

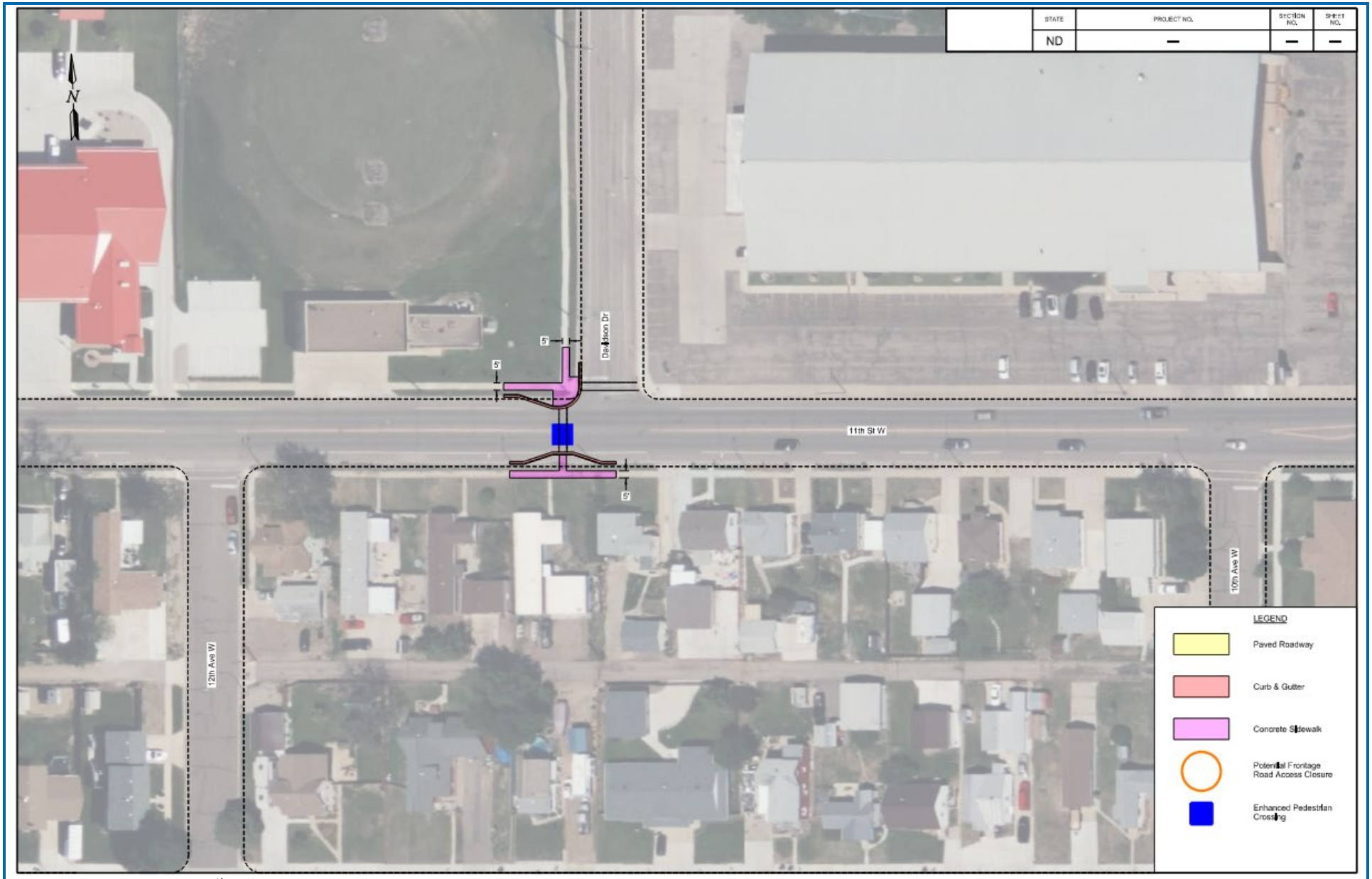
Installing curb extensions along 11th Street West at the intersections of 15th Avenue West, 14th Avenue West, and Davidson Drive will help increase the overall visibility of pedestrians to drivers before entering or crossing the street, increase visibility of the crosswalks, and reduce the crossing distance for the pedestrians. An enhanced pedestrian crossing will be added on the west side of the Davidson Drive intersection to cross 11th Street West. The enhanced pedestrian crossing will give drivers more awareness that a pedestrian is ready to cross the street so that the driver may safely yield to the pedestrian until they have crossed 11th Street West.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Enhanced Pedestrian Crossing	Permanent tied to Curb Extensions	Stops traffic to allow pedestrians to cross when demand is present	$25,000	0.64	36%
Curb Extensions	Permanent tied to Enhanced Pedestrian Crossings	Provides additional space for pedestrians to wait to safely cross, decrease roadway width for crossings and push the waiting space out into the roadway making it easier to see oncoming vehicles	$175,000	0.63	37%
Total Estimated Cost			$200,000		
% Cost in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along 11th Street West between 14th Avenue West and 15th Avenue West



Project concept along 11th Street West and Davidson Drive

H. Main Street – 6th Street East to 9th Street East Curb Extensions Pedestrian Crossings

Project Description

New curb extensions will be added to the Main Street intersections with 6th Street E., 7th Street E., 8th Street E., and 9th Street E. Improvements are focused on increasing the visibility of pedestrians, increasing visibility of crosswalks, and reducing crossing distances for pedestrians traveling across Main Street.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through safer, more visible pedestrian crossing locations.

Key Data

CONTEXT
Priority Rank: Fifth (5th); Func Class: Principal Arterial; Typology: Urban Downtown; Land Use: Residential and Commercial; Location Description: from 6th Street to 9th Street.

EQUITY SCORE
5, moderate equity impact.
Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
53% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
20 crashes, $ 1,512,000 weighted crash cost
HIN: Yes
Priority Area: Yes

TRAFFIC VOLUMES
1,850 – 1,950 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 25 mph
Average Free-Flow Speed: 20 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

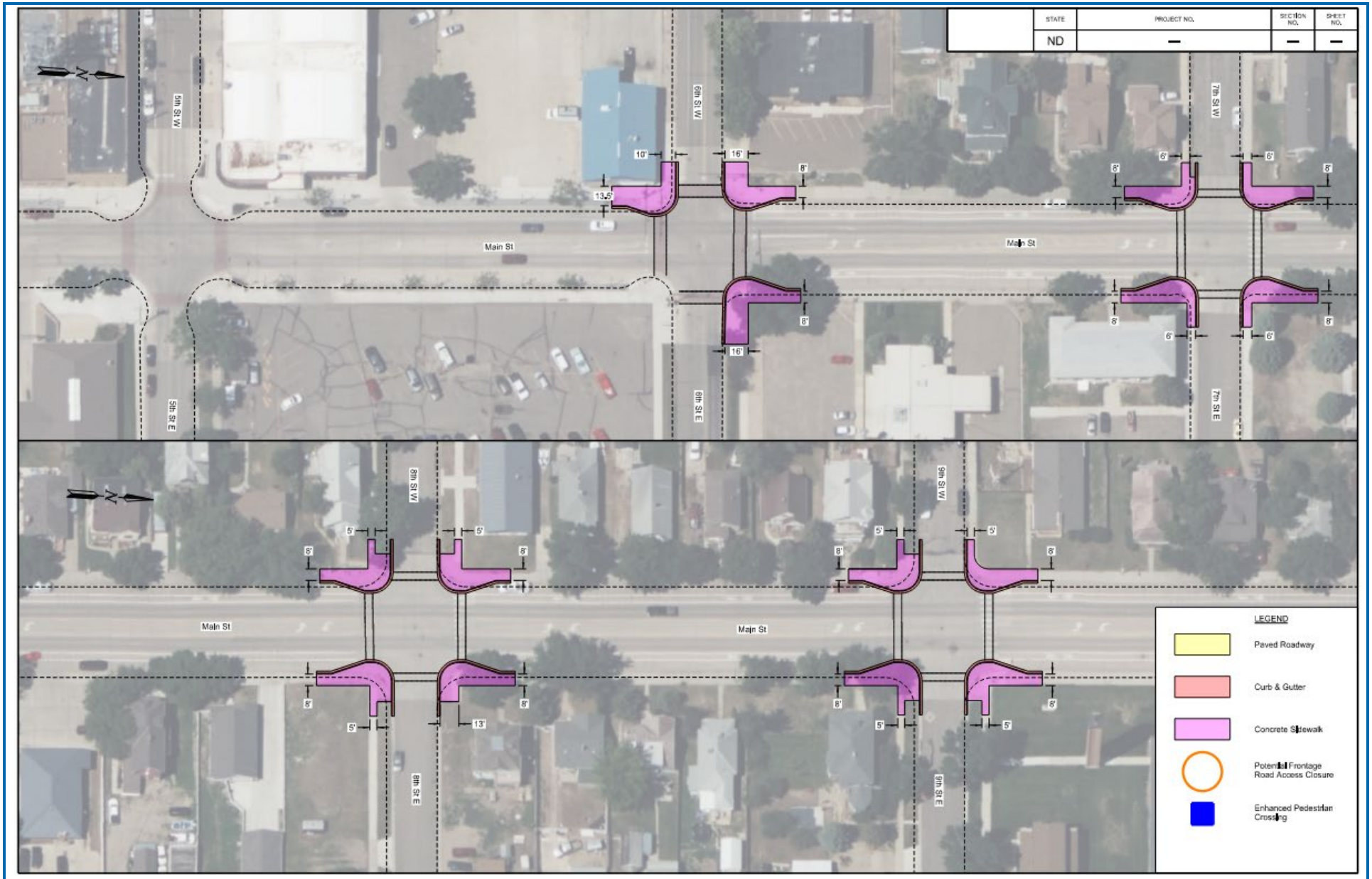
- A lot of pedestrian activity and pedestrian/vehicle interactions as part of Williston's traditional central business corridor and district.

Potential Infrastructure Treatments

Installing curb extensions along Main Street between 6th Street and 9th Street will help increase the overall visibility of pedestrians to drivers before entering or crossing the street, increase visibility of the crosswalks, and reduce the crossing distance for the pedestrians.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Curb Extensions	Permanent stand-alone	Provides additional space for pedestrians to wait to safely cross, decreases roadway width for crossings and pushes the waiting space out into the roadway making it easier to see oncoming vehicles	$760,000	0.63	37%
% Cost in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along Main Street between 6th Street and 9th Street

I. Main Street – 6th Street East to Front Street East Enhanced Crosswalks

Project Description

New curb extensions will be added to the Main Street intersections with 6th Street E., 7th Street E., 8th Street E., and 9th Street E. Improvements are focused on increasing the visibility of pedestrians, increasing visibility of crosswalks, and reducing crossing distances for pedestrians traveling across Main Street.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through safer, more visible pedestrian crossing locations.

Key Data

CONTEXT
Priority Rank: Fifth (5th); Func Class: Principal Arterial; Typology: Urban Downtown; Land Use: Commercial Mixed Use; Location Description: from 6th Street to Front Street.

EQUITY SCORE
6, moderate-high equity impact. Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
42% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
69 crashes, $ 1,458,200 weighted crash cost
HIN: Yes
Priority Area: Yes

TRAFFIC VOLUMES
1,050 – 1,850 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 25 mph
Average Free-Flow Speed: 20 mph
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

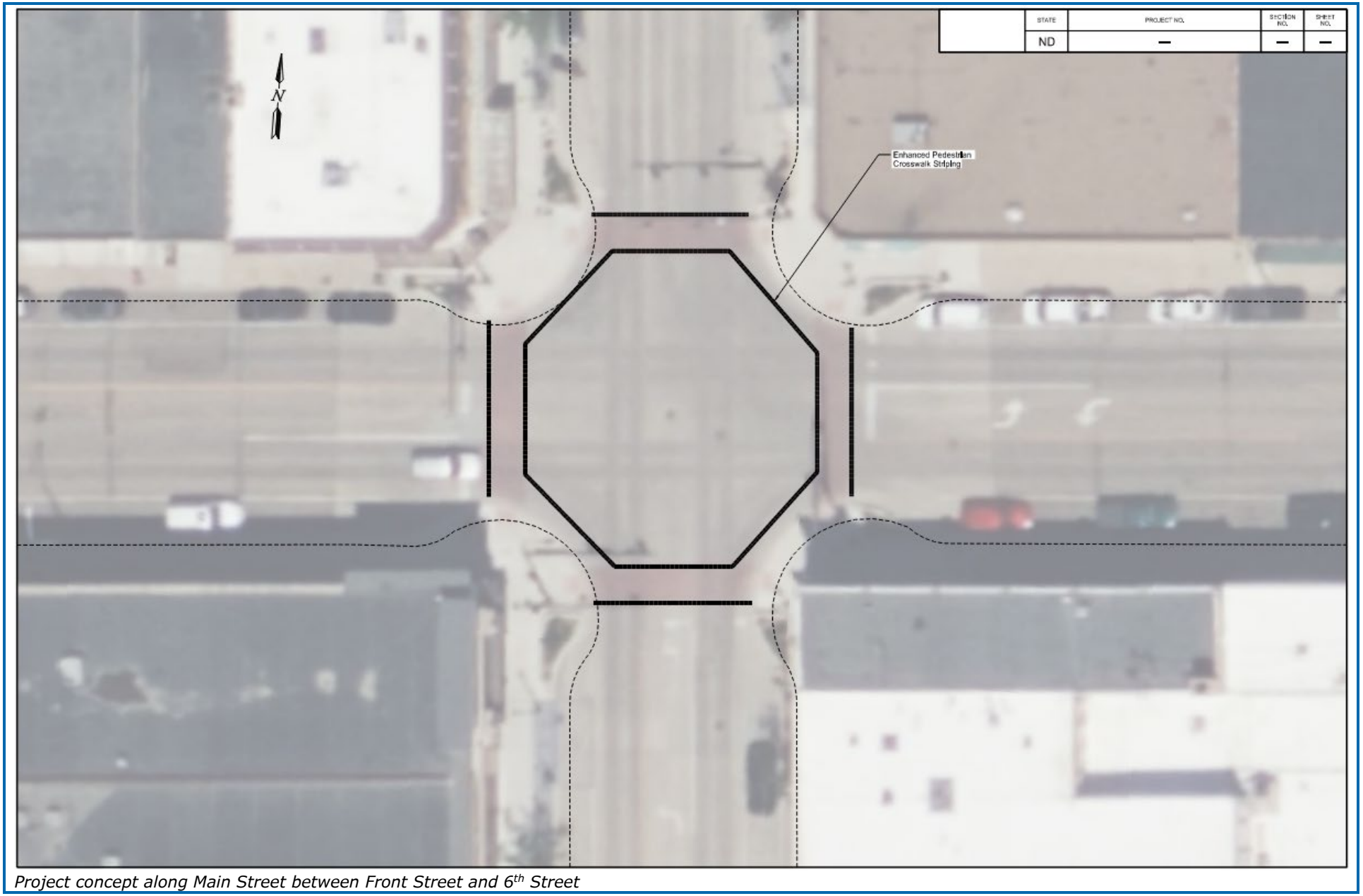
- A lot of pedestrian activity and pedestrian/vehicle interactions as part of Williston's traditional central business corridor and district.
- Sightlines challenged at intersections and by parked vehicles.

Potential Infrastructure Treatments

Adding enhanced crosswalk striping at each intersection along Main Street from Front Street to 6th Street highlight the crosswalks to all modes including drivers. The enhanced crosswalk striping will outline the existing red concrete that is being used to designate the crosswalk area on Main Street to ensure visibility and awareness of each crosswalk location. Accessible pedestrian signal (APS) updates will enhance the existing traffic signal system to provide signal phase information in audio, tactile, and/or vibrotactile formats for the pedestrian which will significantly improve safety for those who rely on APS to safely go about their day-to-day lives.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
APS Update	Permanent tied to Enhanced Crosswalk Striping	Provides updated pedestrian notifications, increases awareness for pedestrians of all abilities when it is safe to cross.	$150,000	N/A	N/A
Enhanced Crosswalk Striping	Permanent tied to APS Updates	Enhanced striping will provide a more visual warning to drivers that there is a designated crosswalk and that they must yield to pedestrians	$150,000	0.60	40%
Total Estimated Cost			$300,000		
% Cost in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along Main Street between Front Street and 6th Street

J. Red Light Confirmation Lights

Project Description

Red light confirmation lights will be added to all 30 existing signal-controlled intersections. The confirmation lights will be retrofitted onto existing traffic signal infrastructure.

Project Goals

Assist with enforcement of traffic laws to reduce reckless driving and foster a safer driving culture.

Key Data

CONTEXT
Priority Rank: Fourth (4th); Func Class: Varies; Typology: Varies; Land Use: Varies; Location Description: City-wide all signalized intersections.

EQUITY SCORE
Varies
62% Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
42% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
N/A
HIN: 47% within HIN
Priority Area: 62% within priority areas

TRAFFIC VOLUMES
Varies

TRAFFIC SPEEDS
Posted Speed Limit: varies
Average Free-Flow Speed: varies
(Source: Replica)*

**Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.*

Community Engagement

- There is community feedback that further enforcement of traffic laws and enforcement of reckless driving may be beneficial to transportation safety in Williston and creating more of a culture around safe driving.

Potential Infrastructure Treatments

Red light confirmation lights are small blue lights attached (typically on the signal bar) to traffic signals that light up anytime the light on the signal they are attached to is red. Different than the red light associated with the signal, the blue confirmation light is visible from all legs of the intersection, including opposite legs and from a distance. The red light confirmation lights allow law enforcement to clearly observe vehicles that may run a red light from further away or from any leg of the intersection. There is a $15,000 per intersection estimated retrofit cost associated with installation of red light confirmation lights.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Red Light Confirmation	Permanent Stand Alone	Officers can enforce red light compliance downstream from traffic signals. This results in safer enforcement as officers do not need to subsequently run through redlines to pull offenders over. Normal signal operations would continue for other traffic users.	$450,000	N/A	N/A
% Cost in Disadvantaged Census Tract			62%		
% on HIN			47%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.

Confirmation Light Retrofit onto a Traffic Signal
(Source: City of Bismarck)

K. 26th Street West Temporary Road Diet Curb Extensions Pedestrian Crossings

Project Description

Long-term pilot or demonstration project will remove striping and restripe 26th Street W. as a three-lane cross section, with two thru-lanes and one continuous left-turn lane. Temporary curb extensions will be added with flexible high-visible delineators at 29th Avenue W, 27th Avenue W, 24th Avenue W, and 13th Avenue W. Enhanced bicycle and pedestrian crossings will be added to the 26th Street W. intersections with 18th Avenue W. and 12th Avenue W. The pilot or demonstration project will show people how traffic operations and safety enhancements will function, prior to a future permanent project.

Project Goals

Target known areas on the HIN to reduce and eliminate severe crashes on Williston's multimodal transportation system, and improve bicycle and pedestrian safety for Williston's most vulnerable multimodal transportation system users through a complete SUP and sidewalk network.

Key Data

CONTEXT
Priority Rank: Pilot/Demonstration projects were not prioritized; Func Class: Minor Arterial; Typology: Urban Mixed Density; Land Use: Residential, Commercial, and Parks & Open Space; Location Description: from 32nd Avenue W to 9th Avenue W.

CRASHES FOR ALL MODES 2018-2022
14 crashes, $ 405,500 weighted crash cost
HIN: Yes
Priority Area: Yes

EQUITY SCORE
5, moderate equity impact.
Not a Disadvantaged Census Tract.

TRAFFIC VOLUMES
3,010 –3,575 AADT

TRIPS MADE BY DRIVING IN BLOCK GROUP
90% of trips are made by driving

TRAFFIC SPEEDS
Posted Speed Limit: 30 mph
Average Free-Flow Speed: 33 mph
(Source: Replica)*

Replica Average Free-Flow Speed is defined as the 66th percentile speed during off-peak hours meaning that 44 percent of vehicles are traveling above this speed during non-busy times.

Community Engagement

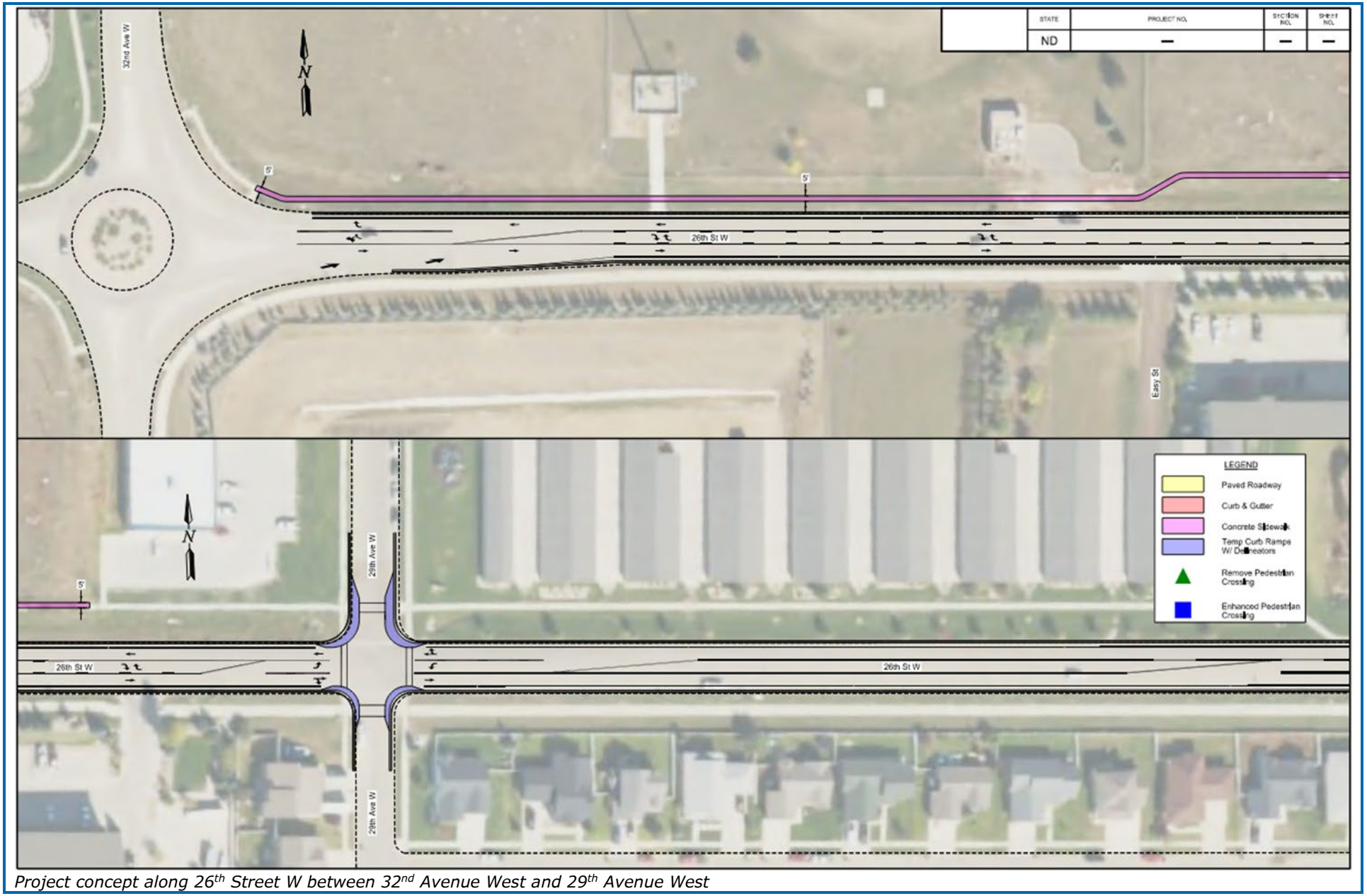
- A lot of comments were received about this project area including concerns about safety, traffic operations at intersections, speeding, and gaps in the sidewalk network throughout.

Potential Infrastructure Treatments

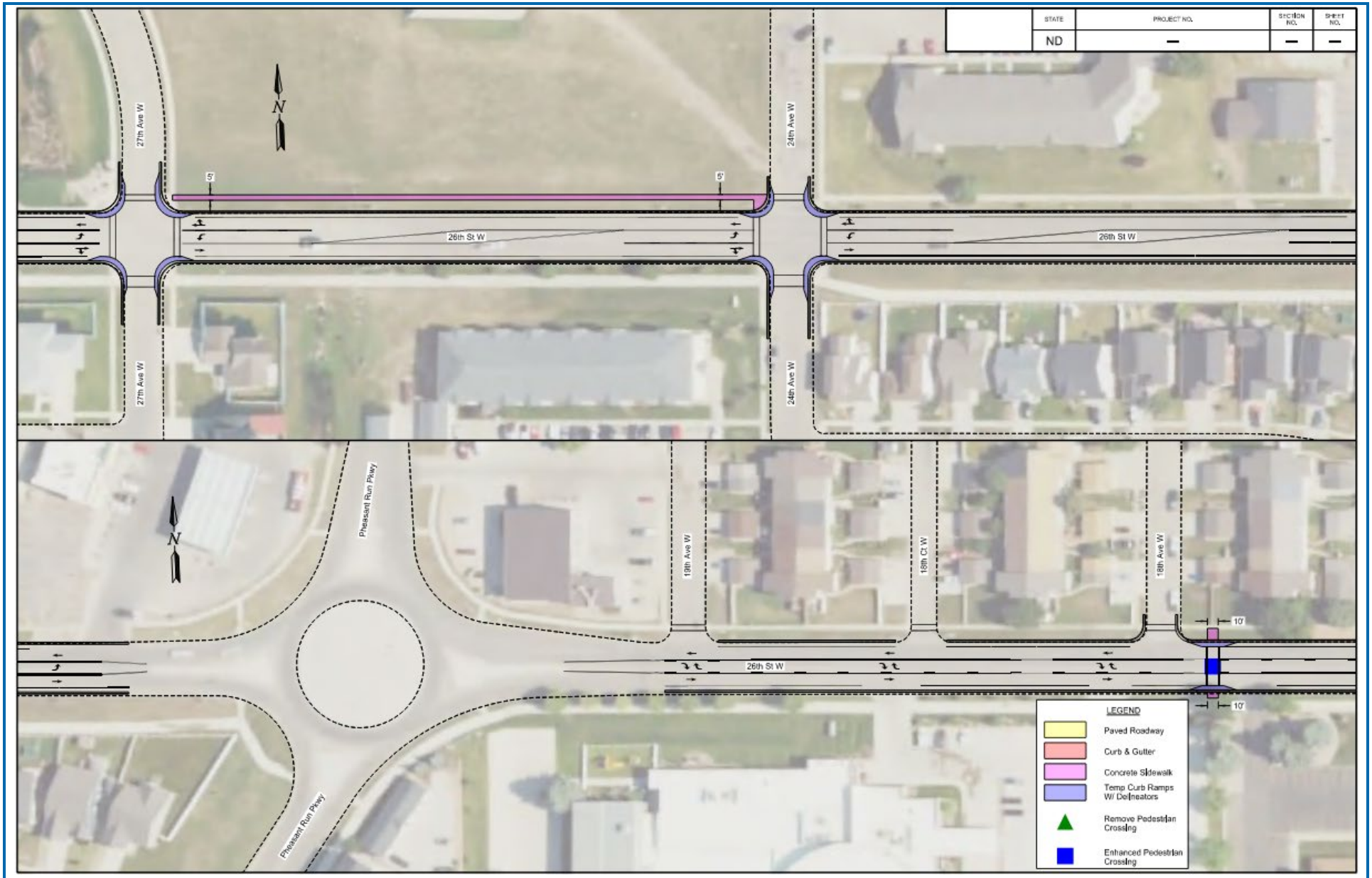
Implementing a pilot or demonstration road diet on 26th Street West by removing existing striping and restriping the pavement from the existing 4-lane road to a 3-lane road from 32nd Avenue West to 12th Avenue West. Will also include temporary curb extensions to be added along the corridor. The road diet will consist of 2 thru lanes and a center left turn lane which will improve traffic operations through the corridor as left-turning vehicles will no longer block thru traffic. The temporary curb extensions will consist of high durability paint for pavement and adding flexible delineators along the perimeter of the temporary curb extensions to further delineate the area to pedestrians and traffic. Through this corridor, new 5-foot concrete sidewalk and 10-foot concrete shared use path will be added between existing gaps to provide a continuous multimodal system for bicyclists and pedestrians. An enhanced pedestrian crossing will be added to the east of the intersection of 18th Avenue West and 26th Street West. Another enhanced pedestrian crossing will be added to the existing shared use path crossing east of 12th Avenue West. The enhanced pedestrian crossing will give drivers more awareness that a pedestrian is ready to cross the street so that the driver may safely yield to the pedestrian until they have crossed the street. The new enhanced pedestrian crossings and temporary curb extensions will consolidate 6 existing pedestrian crossings, which will be removed along the north side of 26th Street West between 15th Avenue West and 12th Avenue West.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Enhanced Pedestrian Crossing	Permanent tied to Temp Road Diet & Curb Extensions	Stops traffic to allow pedestrians to cross when demand is present	$50,000	0.64	36%
Temp Road Diet & Curb Extensions	Permanent tied to Enhanced Pedestrian Crossing	Temp Road Diet will help decrease traffic speeds providing a safer environment for pedestrians and vehicles. The temporary curb extensions will provide additional space for pedestrians to wait to safely cross, decrease roadway width for crossings and push the waiting space out into the roadway making it easier to see oncoming vehicles. In addition, the sidewalk gaps have been filled in.	$550,000	0.53	47%
Total Estimated Cost			$600,000		
% Cost in Disadvantaged Census Tracts			0%		

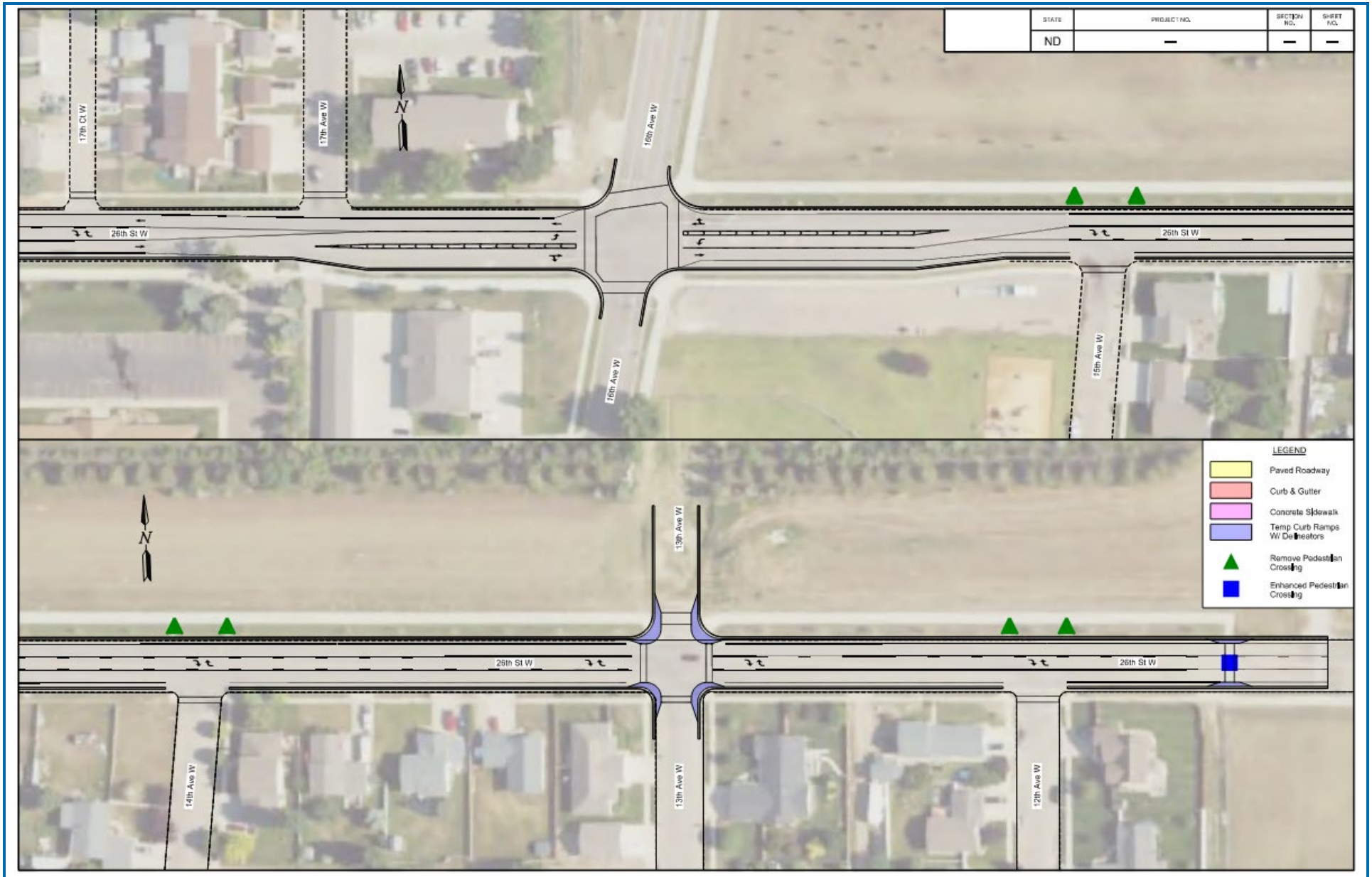
[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.



Project concept along 26th Street W between 32nd Avenue West and 29th Avenue West



Project concept along 26th Street West between 27th Avenue West and 18th Avenue West



Project concept along 26th Street West between 17th Avenue West and 12th Avenue West

L. Traffic Monitoring Trailer

Project Description

Procure a second traffic monitoring trailer for the City to monitor traffic in strategic locations. The Gridsmart GS-2 model or similar model is proposed, which allows the City to set up and count traffic and track movements at specific locations.

Project Goals

The traffic monitoring trailer will help the City monitor traffic patterns, monitor traffic movement, and address how future projects impact behavior on the multimodal transportation system.

Key Data

CONTEXT
Priority Rank: Pilot/Demonstration projects were not prioritized; Func Class: Varies; Typology: Varies; Land Use: Varies; Location Description: City-wide any city street which Williston would like to provide dynamic speed and monitoring.

CRASHES FOR ALL MODES 2018-2022
N/A

EQUITY SCORE
N/A.

TRAFFIC VOLUMES
Varies.

TRIPS MADE BY DRIVING IN BLOCK GROUP
N/A.

TRAFFIC SPEEDS
Posted Speed Limit: Varies
Average Free-Flow Speed: Varies
(Source: Replica)*

**Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 100% indicates a decrease in crashes.*

Community Engagement

N/A

Potential Infrastructure Treatments

The traffic monitoring trailer will be strategically used by the City and law enforcement on corridors of concern or interest within Williston to observe traffic counts and movements. City staff intend to utilize the trailer to monitor traffic at various locations across the City.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Traffic Monitoring Trailer	Temporary deployment on different City streets determined for monitoring	Displays dynamic speed to indicate whether drivers are speeding or not. Can help the City monitor traffic and travel behavior.	$60,000	0.93	7%
% in Disadvantaged Census Tract			N/A		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.

Existing Traffic Monitoring Trailer (Source: City of Williston)

M. ADA Noncompliant Ramps and Sidewalks

Project Description

Replace existing ADA noncompliant infrastructure including curb ramps and sidewalk panels throughout the City.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through ADA compliance.

Key Data

CONTEXT
Priority Rank: Sixth (6th); Func Class: Varies; Typology: Varies; Land Use: Varies; Location Description: City-wide core areas with highest pedestrian activity.

EQUITY SCORE
Varies
61-64% Noncompliant Curb Ramps and 83-100% Noncompliant Sidewalks are in Disadvantaged Census Tracts.

TRIPS MADE BY DRIVING IN BLOCK GROUP
Varies.

CRASHES FOR ALL MODES 2018-2022
N/A
HIN: 3-7% within HIN
Priority Area: 9-14% within priority areas

TRAFFIC VOLUMES
Varies

TRAFFIC SPEEDS
Posted Speed Limit: varies
Average Free-Flow Speed: varies
(Source: Replica)*

**Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 100% indicates a decrease in crashes.*

Community Engagement

- There is community feedback about people with disabilities getting safely to and from critical destinations throughout Williston, and noncompliant ADA facilities challenge accessibility and mobility.

Potential Infrastructure Treatments

Remove ADA noncompliant infrastructure and replace with compliant infrastructure throughout core City neighborhoods including curb ramps and sidewalks which may include sidewalk panels determined to be noncompliant.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Curb Ramps in the High Injury Network (HIN)	Permanent Stand Alone	Having compliant curb ramps in the HIN will help make pedestrians navigate through the corridor more safely. It will provide adequate landings and ramps to more safely cross traffic.	$528,000	N/A	N/A
% in Disadvantaged Census Tracts			61%		
Curb Ramps	Permanent Stand Alone	Having compliant curb ramps will help make pedestrians navigate through the corridor more safely. It will provide adequate landings and ramps to more safely cross traffic.	$7,224,000	N/A	N/A
% in Disadvantaged Census Tracts			64%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Sidewalks in the High Injury Network (HIN)	Permanent Stand Alone	Replacing panels of sidewalk in the HIN that are non-compliant will increase efficiency and mobility of all pedestrians along the corridor. This reduces safety concerns of disabled individuals.	$20,000	N/A	N/A
% in Disadvantaged Census Tracts			100%		
Sidewalks	Permanent Stand Alone	Replacing panels of sidewalks that are non-compliant will increase efficiency and mobility of all pedestrians along the corridor. This reduces safety concerns of disabled individuals.	$606,000	N/A	N/A
% in Disadvantaged Census Tracts			83%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.

N. Sidewalk Gaps South of 11th Street

Project Description

New 5-foot concrete sidewalk to fill existing gaps where no sidewalk currently exists adjacent to the HIN. The project is located on 12th Avenue W., 10th Avenue W., and 9th Avenue W. between 11th Street W. and 10th Street W. Connects directly to improvements associated with Project G.

Project Goals

Improve pedestrian safety for Williston's most vulnerable multimodal transportation system users through a complete sidewalk network.

Key Data

CONTEXT
Priority Rank: Sixth (6th); Func Class: Local; Typology: Traditional Residential; Land Use: Residential; Location Description: from 11th Street W to 10th Street W.

EQUITY SCORE
7, high equity impact.
Disadvantaged Census Tract.

TRIPS MADE BY DRIVING IN BLOCK GROUP
73% of trips are made by driving

CRASHES FOR ALL MODES 2018-2022
2 crashes, $ 10,000 weighted crash cost
HIN: No
Priority Area: Yes

TRAFFIC VOLUMES
10 - 960 AADT

TRAFFIC SPEEDS
Posted Speed Limit: 25 mph
Average Free-Flow Speed: 24 mph
(Source: Replica)*

**Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 100% indicates a decrease in crashes.*

Community Engagement

- The community provided feedback about sidewalk gaps in Williston posing challenges to safety and mobility in various areas across the City.

Potential Infrastructure Treatments

Construct 970 linear-feet new 5-foot concrete sidewalk to fill existing gaps in the sidewalk network adjacent to the HIN.

Infrastructure	Implementation	Benefit	Estimated Cost	CMF[1]	CRF[2]
Sidewalk Gaps	Permanent Stand Alone	Completing sidewalk gaps will increase mobility for pedestrians.	$97,000	0.60	40%
% in Disadvantaged Census Tract			100%		

[1]Crash Modification Factors (CMFs) are used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. A number less than 1 indicates a decrease in crashes.
[2]Crash Reduction Factors (CRFs) are the percentage reduction in crashes expected after implementing a countermeasure.