



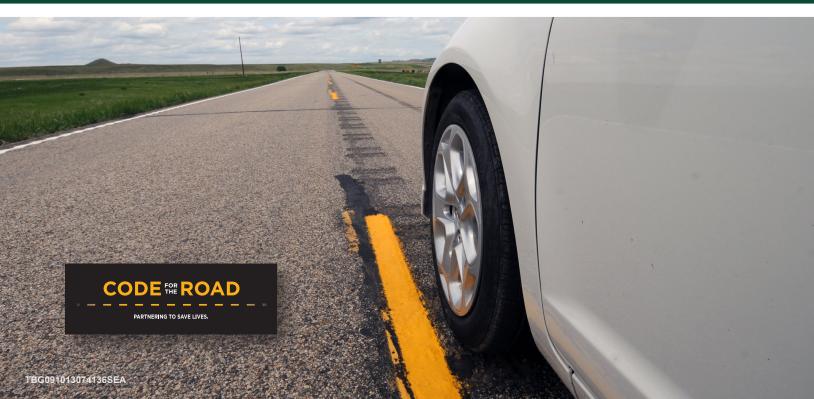






October 2013

North Dakota **Local Road Safety Program**



North Dakota Local Road Safety Program

Prepared by

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SRF Consulting Group, Inc.

On behalf of

North Dakota Department of Transportation

Grant Levi, P.E., Director

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23 USC 409 NDDOT Reserves All Objections

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Acronyms and Abbreviations

4Es education, enforcement, engineering, and emergency medical services

AASHTO American Association of State Highway and Transportation Officials

ADT average daily traffic

CMC county major collector

CMF crash modification factor

CRS Crash Reporting System (North Dakota Department of Transportation)

DUI driving under the influence

EMS emergency medical services

ERA edge risk assessment

FHWA Federal Highway Administration

GDL graduated drivers license

GHSA Governors Highway Safety Association

HSIP Highway Safety Improvement Program

LEAD Listen, Educate, Ask, Discuss

LRSP Local Road Safety Program

MUTCD Manual on Uniform Traffic Control Devices

NCHRP National Cooperative Highway Research Program

NDDOT North Dakota Department of Transportation

NHTSA National Highway Traffic Safety Administration

Plan LRSP Safety Plan

PSA public service announcement

SHSP Strategic Highway Safety Plan

TSO Traffic Safety Office

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North Dakota Local Road Safety Program

Executive Summary

This Local Road Safety Program (LRSP) was prepared for Ward County and the City of Minot. The LRSP was prepared as part of North Dakota's statewide highway safety planning process. The contents are the result of a data-driven process, with a goal to reduce severe crashes (defined as those crashes resulting in at least one fatality or incapacitating injury) by documenting at-risk locations, identifying effective low-cost safety improvement strategies, and better positioning the county and city to compete for available safety funds. The LRSP includes a description of the connection to safety planning efforts at the national, state (through North Dakota's Strategic Highway Safety Plan and the Highway Safety Improvement Program), and regional levels.

This LRSP was commissioned by the North Dakota Department of Transportation (NDDOT) to provide a tool to assist counties in submitting proactive low-cost systematic safety projects for NDDOT to fund as part of the Highway Safety Improvement Program (HSIP). The LRSP is not intended to be a complete safety plan for the Ward County and the City of Minot, because there may be other safety improvement strategies that are considered high-cost or low-cost that are also effective, but cannot be systematically applied across a county or local road system. While this LRSP addresses many of the safety concerns for at-risk locations within the county, other high-priority projects may be identified after this safety planning effort is complete.

Specifically, this LRSP includes the following:

- Description of the safety emphasis areas.
- Identification of a short list of high-priority, low-cost Safety Strategies.
- Documentation of at-risk locations along the county/local road systems that are
 considered candidates for safety investment. At-risk locations include roadway
 segments, horizontal curves, and intersections with multiple severe crashes or with
 roadway geometry and traffic characteristics similar to other locations in North Dakota
 where severe crashes have occurred.
- Development of almost \$3 million of suggested safety projects across the County, including the completed forms suitable for submittal to NDDOT for their consideration for HSIP funding. These projects represent the application of high-priority safety strategies at the at-risk locations.
- Discussion of behavioral crash statistics, potential safety strategies, and current statewide resources available for implementation of behavioral safety strategies.

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TABLE E-1
Ward County and City of Minot Total Project Costs

Rural Projects	Intersections	Segments	Curves	Total
Ward County	\$2,122,800	\$366,070	\$109,276	\$2,598,146
Urban Projects	Segments	Right Angle Intersections	Pedestrian and Bicyclist Intersections	Total
Minot	\$92,140	\$114,000	\$190,000	\$396,140
	\$2,994,286			

The information in this LRSP is consistent with best practices in safety planning as presented in guidance prepared by the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the National Cooperative Highway Research Program (NCHRP). This information is provided in an effort to reduce the number of severe crashes on the county/local road systems. It is understood that the final decision to implement any of the suggested projects resides with the respective county or city officials.

It should also be noted that the rankings of county/local roadway facilities are based on a comparison with documented risk factors. There is no expectation or requirement that the Ward County or the City of Minot pursue safety projects in the exact ranking order. The ranking suggests a general priority, and it is understood that actual project development decisions will be made by county or city staff based on consideration of economic, social, and political issues, as well as in coordination with other projects already in each agency's Capital Improvement Program.

It should also be noted that some of the at-risk locations and suggested safety projects involve the intersection of a county roadway and a state route. It is acknowledged that the county does not have the authority to implement projects on the state's right-of-way. The county is encouraged to coordinate with the NDDOT to pursue a partnership that identifies a path toward implementation. This LRSP (1) does **not** set requirements or mandates; (2) is **not** a standard; and (3) is neither intended to be nor does it establish a legal standard of care.

To help reduce the potential exposure to claims of negligence associated with motor vehicle crashes on the county/local road system, the following key point should be considered:

• Federal law (23 USC Section 409) established that information generated as part of the statewide safety planning process is considered privileged and unavailable to the public. The privileged status includes crash data where value/detail has been added by analysts during the safety planning process (for example, computation of crash rates, disaggregation of crashes by type or severity, and documentation of contributing factors), the lists of at-risk locations, and information supporting the development and evaluation of potential safety projects. The federal law and the privileged status of the safety information was upheld by the U.S. Supreme Court in the case of Pierce County (Washington) v. Guillen (see Appendix I). North Dakota interprets Section 409 to mean that basic crash data is available

to the public on request, but that it cannot be used in legal proceedings associated with claims of negligence.

Regarding the expected life of this LRSP, the shelf life of this document is limited (as with any transportation plan). This is because the distribution of crashes can change over time, just as roadway and traffic conditions change, contributing to the occurrence of crashes. As a result, Ward County and the City of Minot are encouraged to consider periodically updating this LRSP.

The county and the City of Minot are encouraged to apply for these projects through the NDDOT's HSIP process. The anticipated annual HSIP process is shown in Table ES-2.

TABLE ES-2HSIP Solicitation Schedule

Month	Task Description
October/November	Solicitation for HSIP is sent out to all counties, districts, MPOs, cities, and tribes. The counties, districts, MPOs, cities, and tribes will have about 6 weeks to respond .
January through March	NDDOT reviews the requests and conducts additional studies if required.
Following Fall	HSIP approval notices are sent after program concurrence from FHWA. Funding for an approved project will be provided as funding is available.

North Dakota Local Road Safety Program

1.0 Introduction

1.1 Background

To fulfill a commitment in the 2013 North Dakota Strategic Highway Safety Plan (SHSP), the North Dakota Department of Transportation (NDDOT) began the Local Road Safety Program (LRSP). The purpose of the LRSP is to better engage local roadway agencies in the statewide safety planning process. The NDDOT's commitment is based on two pieces of information:

- Based on 2007-to-2011 crash records, the SHSP identified that 56 percent of severe crashes in North Dakota occurred on roads operated by local agencies.
- The NDDOT had historically focused federal safety funds on interstates, U.S. highways, and state highways, even though approximately half of severe crashes occurred on those facilities.

The NDDOT set out to increase the level of participation of local agencies in safety planning and the amount of safety funds directed toward projects on local systems. To do this, the NDDOT first partnered with local agencies (including all 53 counties and 12 major cities in the state) to prepare safety plans for every region of North Dakota.

Representatives from the NDDOT, Ward County, and the City of Minot prepared this LRSP Safety Plan (Plan) as Phase 1 of a comprehensive effort to reduce the number of fatal and incapacitating injury crashes (referred collectively as severe crashes) that The Strategic Highway Safety Plan (SHSP) development process was key in helping us identify the importance of local roads to achieve our long-term safety goals. This data-driven process helped us to transition to a systemic identification of crash types on all roads in addition to our traditional crash location (or hot spot) approach on the state system. As a result, the NDDOT has partnered with local stakeholder to prepare road safety plans that will identify potential safety projects consistent with the SHSP.

— Grant Levi, P.E., Director
 North Dakota Department of Transportation

occur on North Dakota's local road system in Ward County. The area covered by the Plan includes a portion of NDDOT District 4 – Minot (Figure 1-1). Additionally, Burleigh, Cavalier, Nelson, Pembina, Ramsey, and Walsh counties and the cities of Bismarck and Devils Lake participated in Phase 1 of the study, but are presented in a separate report.

The purpose of this LRSP is to identify and implement specific safety strategies at specific locations and to link these projects directly with the contributing factors associated with the majority of severe crashes on the local roads. These safety projects are intended to be comprehensive by addressing both infrastructure- and driver-behavior-related crashes by including proactive projects developed through a system-wide risk assessment process. These projects are intended to complement reactive projects developed through a site analysis approach focused on high-crash locations.

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The traffic safety priorities identified in this Plan are the result of a data-driven analysis of nearly 88,450 crashes (including 2,231 severe crashes) on all roads in North Dakota. Of these crashes, 9,170 total crashes and 209 severe crashes occurred in Ward County over the 5-year period from 2008 to 2012.

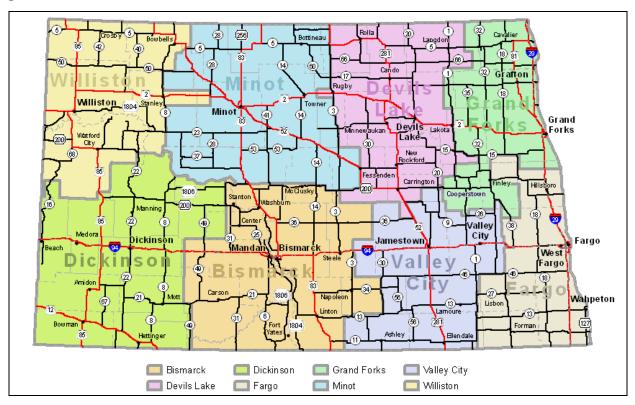


FIGURE 1-1 North Dakota Department of Transportation's Eight Districts

1.2 Traffic Safety – A National Perspective

According to the National Highway Traffic Safety Administration (NHTSA), 32,310 people were killed in traffic crashes in 2011 – an average of 89 people killed every day – and an additional 2.2 million people were injured. The number of fatalities nationally decreased significantly and steadily in the 1970s and 1980s. This trend was interrupted beginning in the early 1990s and continuing through the early 2000s as traffic fatalities began to increase. However, since 2005, traffic fatalities have decreased dramatically to the lowest number of fatalities in recent history – 32,310 fatalities in 2011.

Like the national trend, the North Dakota traffic fatality rate also decreased in the 1970s and 1980s. Likewise, North Dakota's traffic fatalities slowly increased through the 1990s and began to decrease in 2005. However, unlike the national trend, North Dakota's traffic fatality rate has increased since 2008. The 2013 North Dakota Strategic Highway Safety Plan recognizes the following issues likely account for much of the increase:

• Shifts in the age of the driving population.

- Steady increase in the number of vehicle miles traveled in North Dakota, which is counter to the flat or decreasing national trend in travel.
- Other states have a longer history using a systemic investment approach to focus on locations with risk factors for severe crashes.
- The growing challenges of providing emergency medical response and quick access to advanced health care in rural areas.

1.2.1 AASHTO's Strategic Highway Safety Plan and Safety Emphasis Areas

In the late 1990s, the American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA) supported a comprehensive and data-driven approach to reduce the number of traffic-related fatalities. Both AASHTO and FHWA concluded that up to that point, states' efforts had not been effective in lowering the number of severe crashes because: (1) efforts were not focused on severe crashes nor the primary factors resulting in severe crashes, and (2) safety project selection was not part of a data-driven process that implemented effective strategies at locations most at risk for a severe crash.

AASHTO and FHWA recommended a safety program development process that included 22 categories (or safety emphasis areas) in the areas of drivers, special users, vehicles, highways, emergency services, and management. The objective of this first step is to help agencies consider the 4Es – education, enforcement, engineering, and emergency medical services (EMS) – when identifying safety priorities for their roads. In addition, selecting safety emphasis areas focuses agencies on safety strategies linked to the problem.

In 2007, AASHTO set a goal to reduce the number of traffic fatalities by 1,000 each year for the next 20 years, which is an integral first step in a national *Toward Zero Death* safety vision. FHWA has determined that this goal will be reached only by partnering with individual states. This partnering will lead to more successful project implementation and will result in programs that target the factors contributing to the greatest number of fatal and severe crashes.

1.3 North Dakota's Statewide Safety Planning Efforts

As shown in Figure 1-2, through 2004, North Dakota had a fatality rate (1.34 fatalities per hundred million vehicle miles traveled [HMVMT] in 2004) that was less than the national average (1.44 fatalities per HMVMT). However, in recent years, the North Dakota fatality rate (1.61 fatalities per HMVMT in 2011) has risen to above the national average (1.10 fatalities per HMVMT) and the overall number of traffic fatalities has crept upward (see Figure 1-2). In 2011, there were 148 fatalities on North Dakota roads, which is the most traffic fatalities reported in the state since 1982.

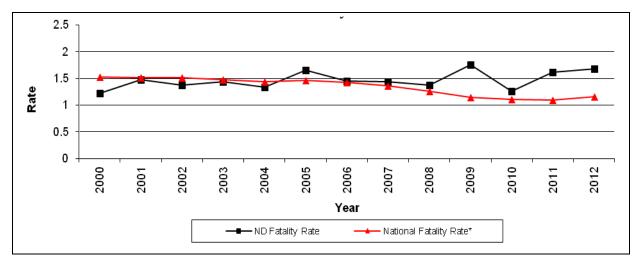


FIGURE 1-2
Fatality Rate – National and North Dakota (2000 to 2012)

In 2013, the NDDOT updated the state's SHSP. Based on severe crashes (Table 1-1), the 2013 SHSP identified the following emphasis areas, as well as priority strategies in each area:

- Young drivers (under age 21)
- Excessive speed or aggressive driving
- Alcohol-related
- Unbelted vehicle occupants
- Lane departure
- Intersections

North Dakota also adopted a long-term vision of zero fatalities on its roadways. Achieving this vision will require many years and dramatic shifts in the safety culture for North Dakota residents. An aggressive intermediate goal was set to reduce the 3-year average of traffic fatalities to 100 or fewer by 2020.

TABLE 1-1North Dakota Fatal and Incapacitating Injury Crashes by AASHTO Safety Emphasis Area

			ewide oads)
	Safety Emphasis Area	Percent	Number
	Involving Driver under Age 21	22%	501
	Involving drivers over the age of 64	13%	280
Drivers	Excessive Speed or Aggressive Driving	26%	576
Drivers	Alcohol-Related	30%	667
	Distracted, asleep, or fatigued drivers	9%	206
	Unbelted Vehicle Occupants	48%	1,067
Special Users	Pedestrians crashes	5%	117
Special Users	Bicycle crashes	2%	46

TABLE 1-1

North Dakota Fatal and Incapacitating Injury Crashes by AASHTO Safety Emphasis Area

		Statewide (All Roads)	
	Safety Emphasis Area	Percent	Number
Vehicles	Motorcycles crashes	12%	265
venicles	Heavy vehicle crashes	15%	342
	Train-vehicle collisions	1%	13
Highways	Lane-Departure Including both lane-departure (898 severe crashes) and head-on/ sideswipe-opposing crashes (150 severe crashes)	47%	1,048
	Intersections	23%	513
	Work zone crashes	2%	36
Total Severe (Fatal and Incapacitating Injury) Crashes			231

Notes:

Information is from North Dakota crash data records, 2008 to 2012; which is an update to the information in the 2013 ND SHSP, which used 2007 to 2011 crash records.

Numbers in this table do not add up to the statewide crash numbers because one crash may be categorized into multiple emphasis areas. For example, one crash may involve a young driver at an intersection and, therefore, be included in both of these emphasis areas.

1.4 Local Road Safety Program Overview

North Dakota's local road system encompasses more than 97,500 miles of roadway out of approximately 106,000 miles statewide. Although, historically, more than 50 percent of severe crashes in North Dakota occur on local roads, the density of these crashes was very low (approximately 0.002 severe crash per mile per year). As a result, local agencies were unable to identify high-crash locations to nominate for funding through the Highway Safety Improvement Program (HSIP). Therefore, using stand-in data for the severe crashes, safety projects were identified using a systemic process to evaluate at-risk locations. The use of the systemic process was necessary due to the low crash density. Based on revised FHWA policy, the NDDOT expanded the HSIP to include projects identified through the systemic analysis of local roads.

The focus areas of the systemic risk assessment are rural, paved county and tribal highways and urban arterials and collectors in North Dakota's larger cities (cities with a population greater than 5,000). Paved, rural county highways were selected based on an analysis of statewide crash data that indicated that approximately 61 percent of severe local road crashes occurred on rural county roads. Of these crashes, approximately half occurred on paved roads, which accounted for less than 10 percent of county roads (approximately 6,200 miles). Further analysis indicated that on these rural highways, the most at-risk elements included roadway segments (60 percent of severe crashes), horizontal curves (32 percent of severe crashes), and intersections (32 percent of severe crashes).

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¹ Does not include all paved roads outside municipal limits, but focuses on routes that serve regional travel. For example, a loop road that is paved and yet only provides access to a residential neighborhood was considered to be a local road given the type of traffic served by the facility.

Major cities were selected as a focus because the 12 cities in this category account for approximately 90 percent of the severe local road crashes within city boundaries. Furthermore, arterials and collectors accounted for 40 percent of the severe crashes. In addition, because these 12 cities are responsible for operation and maintenance of U.S. highway and state highway routes within the municipal limits (not including fully access managed facilities, such as the interstate), the U.S. and state highways were included in the review.

Figure 1-3 shows the approach used to develop this Plan for Ward County. Beginning with the crash analysis and concluding with this LRSP Plan report, the process is a culmination of NDDOT and concerned local agencies working together for nearly half a year.

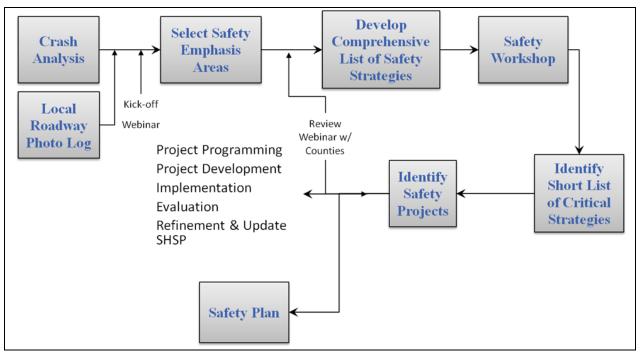


FIGURE 1-3 Local Road Safety Program Safety Plan Approach

2.0 Safety Emphasis Areas and Crash Overview

The first step in the process to prepare Safety Plans for Ward County was to conduct a crash analysis overview statewide for North Dakota and then for the county as a whole.

2.1 Ward County Crash Overview

2.1.1 North Dakota Crash Mapping

Crash data was taken from NDDOT's Crash Reporting System (CRS) and placed into ArcGIS for data exportation based on specific locations relative to local roads. The most recent five-year period of crash data (from 2008 to 2012) was analyzed and used to determine risk factors specific to the county's local roads. Consistent with NDDOT's SHSP, the analysis focused on severe (fatal and incapacitating injury) crashes.

2.1.2 Facilities Analyzed

The crash analysis was broken into three main facility types: road segments, curves, and intersections.

- Paved rural local road segments were analyzed and local county major collector (CMC) gravel roads were analyzed for multiple crash locations. Other local gravel roads were removed from the analysis because of the relatively low percentage of severe crashes and due to the lack of infrastructure-based strategies that can be applied to this roadway type.
- Local rural road intersections with state highways or other local roads were included in the analysis. Local non-CMC gravel roads intersecting with other local roads were removed from the analysis due to the very low number of crashes at these intersections.
- Horizontal curves on paved rural local roads were included in analysis.
- Urban segments and intersections were analyzed in the City of Minot. Urban roadway types analyzed within the city limits included:
 - State routes
 - Urban principal arterials
 - Urban minor arterials
 - Urban collector roads
- All other local road segments and intersections, including gravel roads, were reviewed for locations with multiple severe crashes or "hot spots."

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2.1.3 Crash Data Sets

Crash data for the five years from 2008 to 2012 was used for countywide crash analysis. In safety analysis, it is recommended that more than one year of data be studied to reduce the possibility of examining an unusual year. It is also important to include as many years as necessary to produce a data set that will provide statistically reliable results but not too long so that changed conditions are a concern (for example, reconstructed roads, addition of STOP signs and changed speed limits). Ward County did not have enough crashes to be statistically reliable; therefore, decisions were based on the crashes for all Phase I counties combined (Figure 2-1), statewide data (Figure 2-2), or national research.

The Ward County data set includes 6,194 crashes on local roads; of these, 123 were fatal or serious injury crashes. Disaggregating the severe crashes by road type (paved, gravel, or local), area (urban versus rural) and then by crash type category (intersection versus segment crashes) results in the distribution shown in Table 2-1, Figure 2-1, and Figure 2-2.

TABLE 2-1
Crash Distribution (2008 to 2012)

Crash Distribution (2008 to 2012)	Wand	Ota (assista	
Location	Ward (Percent/Number)	Statewide (Percent/Number)	
Rural Roads	40%	61%	
ruiai ruaus	(49 crashes)	(740 crashes)	
Paved Rural Roads	59%	52%	
raveu Kulai Kuaus	(29 crashes)	(387 crashes)	
Local Gravel CMC Roads	8%	9%	
Local Graver Civic Roads	(4 crashes)	(68 crashes)	
David Rural Road Sagments	45%	60%	
Paved Rural Road Segments	(13 crashes)	(226 crashes)	
Single Vehicle, Lane departure Crashes on Paved Rural Road	77%	76%	
Segments	(10 crashes)	(171 crashes)	
Paved Rural Road Intersections	38%	32%	
T avea rana rada mersecuons	(11 crashes)	(120 crashes)	

This review shows that, on the local system, severe lane departure crashes on paved roads and angle crashes at Thru-STOP intersections are overrepresented. Based on statewide traffic safety data, severe lane departure crashes along curves are also overrepresented.

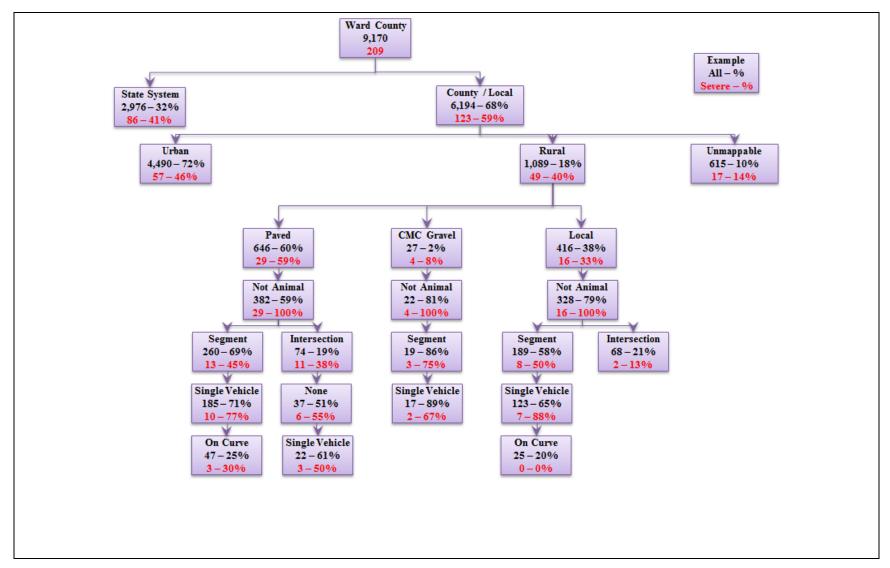


FIGURE 2-1
Ward County Crash Data Overview – Rural and Urban Local Road Systems (2008 to 2012)

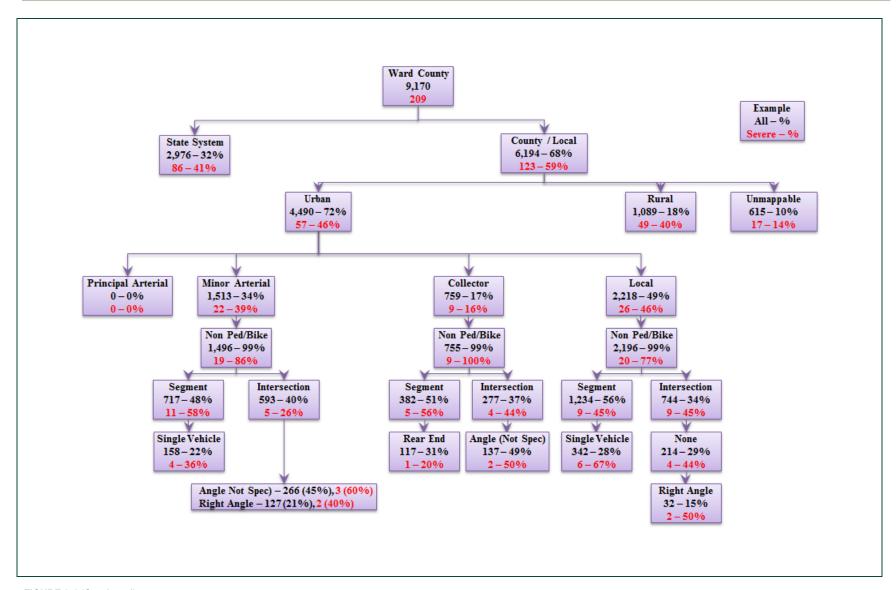


FIGURE 2-1 (Continued)

Ward County Crash Data Overview - Rural and Urban Local Road Systems (2008 to 2012)

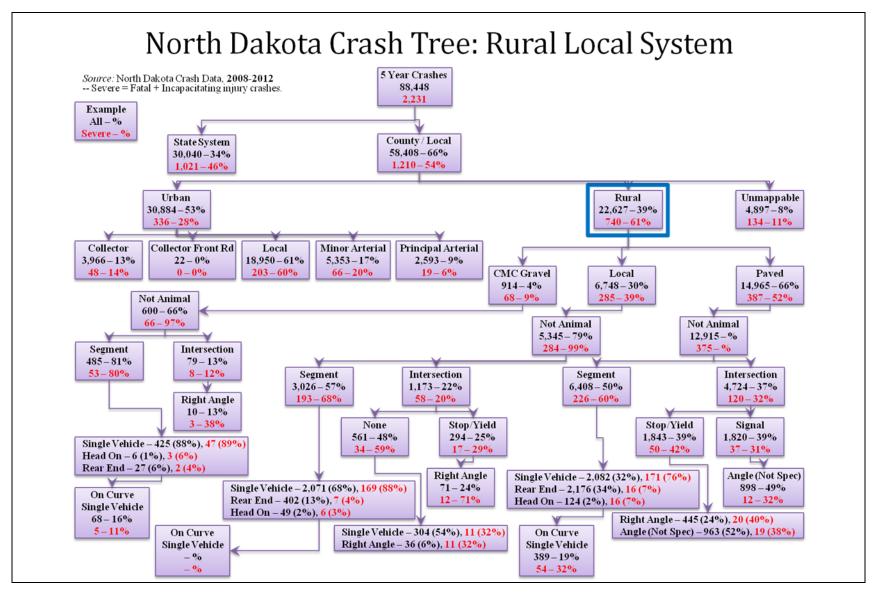


FIGURE 2-2
North Dakota Crash Data Overview – Rural and Urban Local Road Systems (2008 to 2012)

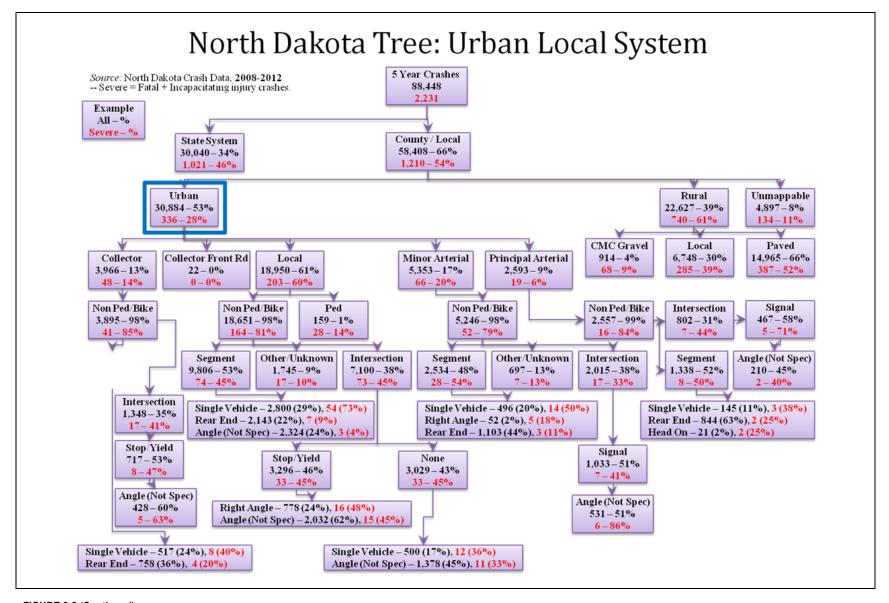


FIGURE 2-2 (Continued)

North Dakota Crash Data Overview – Rural and Urban Local Road Systems (2008 to 2012)

2.2 Ward County Safety Emphasis Areas

The total number of severe crashes (those crashes resulting in a fatality or incapacitating injury) in each county over the five-year period from 2008 to 2012 was so few that the crash data is analyzed at regional, statewide, and national levels for various risk factors.

Section 1.2 described the development of AASHTO's emphasis areas, and how this process was applied to the State of North Dakota to identify statewide safety emphasis areas (Table 1-1). An identical process was followed for Ward County, resulting in the distribution of severe crashes among AASHTO's 22 emphasis areas (Table 2-2). The emphasis areas for the county are consistent with the state's emphasis areas. This process revealed where crashes were overrepresented based on a comparison to statewide averages or where a large enough number of crashes represented an opportunity to substantially reduce crashes. As a result, the following safety emphasis areas were identified as priorities for safety investments:

- Driver Behavior Young drivers, aggressive drivers, alcohol-related, and unbelted vehicle occupants
- Highways Lane departure and intersection crashes

TABLE 2-2
Ward County Severe Crashes by Safety Emphasis Areas (2008 to 2012)

	2008 to 2012 Severe Crashes					
Statewide	Ward		State		Local System	
(% or Total)	%	#	%	aus #	%	#
2,231	20)9	5	1	7.	4
22%	30%	63	27%	23	33%	40
13%	16%	33	16%	14	15%	19
26%	25%	52	20%	17	28%	35
30%	22%	47	22%	19	23%	28
9%	4%	9	7%	6	2%	3
48%	39%	82	35%	30	42%	52
5%	7%	15	8%	7	7%	8
2%	2%	5	1%	1	3%	4
12%	15%	31	9%	8	19%	23
15%	10%	20	13%	11	7%	9
1%	2%	5	0%	0	4%	5
47%	30%	62	33%	28	28%	34
7%	4%	8	6%	5	2%	3
40%	26%	54	27%	23	25%	31
23%	28%	58	20%	17	33%	41
2%	1%	2	2%	2	0%	0
1%	0%	1	1%	1	0%	0
17%	16%	33	20%	17	13%	16
	(% of Total) 2,231 22% 13% 26% 30% 9% 48% 5% 2% 12% 15% 1% 47% 7% 40% 23% 2% 1%	Statewide (% of Total) Was Council (% of Total) 2,231 20 22% 30% 13% 16% 26% 25% 30% 22% 9% 4% 48% 39% 5% 7% 2% 2% 12% 15% 15% 10% 1% 2% 47% 30% 7% 4% 40% 26% 23% 28% 2% 1% 1% 0%	Statewide (% of Total) Ward County 2,231 209 22% 30% 63 13% 16% 33 26% 25% 52 30% 22% 47 9% 4% 9 48% 39% 82 5% 7% 15 2% 5 12% 15% 31 15% 31 15% 31 15% 10% 20 1% 2% 5 47% 30% 62 7% 4% 8 40% 26% 54 23% 28% 58 2% 1% 2 1% 0% 1	Statewide (% of Total) Ward County Statewide Rose Total) 2,231 209 5 22% 30% 63 27% 13% 16% 33 16% 26% 25% 52 20% 30% 22% 47 22% 9% 4% 9 7% 48% 39% 82 35% 5% 7% 15 8% 2% 5 1% 12% 15% 31 9% 15% 31 9% 9% 47% 30% 62 33% 47% 30% 62 33% 7% 4% 8 6% 40% 26% 54 27% 23% 28% 58 20% 1% 2 2% 1 1% 0% 1 1%	Statewide (% of Total) Ward County State Roads 2,231 209 51 22% 30% 63 27% 23 13% 16% 33 16% 14 26% 25% 52 20% 17 30% 22% 47 22% 19 9% 4% 9 7% 6 48% 39% 82 35% 30 5% 7% 15 8% 7 2% 5 1% 1 12% 15% 31 9% 8 15% 10% 20 13% 11 1% 2% 5 0% 0 47% 30% 62 33% 28 7% 4% 8 6% 5 40% 26% 54 27% 23 23% 28% 58 20% 17 2% 1% <t< td=""><td>Statewide (% of Total) State Roads State Roads Sys 2,231 209 51 7 22% 30% 63 27% 23 33% 13% 16% 33 16% 14 15% 26% 25% 52 20% 17 28% 30% 22% 47 22% 19 23% 9% 4% 9 7% 6 2% 48% 39% 82 35% 30 42% 5% 7% 15 8% 7 7% 2% 2% 5 1% 1 3% 12% 15% 31 9% 8 19% 15% 10% 20 13% 11 7% 47% 30% 62 33% 28 28% 47% 4% 8 6% 5 2% 40% 26% 54</td></t<>	Statewide (% of Total) State Roads State Roads Sys 2,231 209 51 7 22% 30% 63 27% 23 33% 13% 16% 33 16% 14 15% 26% 25% 52 20% 17 28% 30% 22% 47 22% 19 23% 9% 4% 9 7% 6 2% 48% 39% 82 35% 30 42% 5% 7% 15 8% 7 7% 2% 2% 5 1% 1 3% 12% 15% 31 9% 8 19% 15% 10% 20 13% 11 7% 47% 30% 62 33% 28 28% 47% 4% 8 6% 5 2% 40% 26% 54

Note:

Severe crashes are those crashes that result in at least one fatality or incapacitating injury.

Strategies to reduce crashes depend on whether a safety emphasis area is infrastructure-based or driver-behavior-based. Infrastructure-based emphasis areas refer to characteristics of the location (for example, roadway segment, curve, intersection) where crashes occurred. Driver-behavior-based emphasis areas refer to motorist characteristics or actions that contribute to crashes. Because driver behavior is tied to laws made at the national and state levels, roadway agencies generally have less ability to address driver-behavior-based emphasis areas. The most effective approach for road authorities to addressing driver-behavior-based emphasis areas is to focus on public education and law enforcement through cooperation and collaboration with other county departments, agencies, and schools. Generally, more opportunities exist for county and city road authorities to address infrastructure-based emphasis areas, because many of the associated strategies can be implemented as separate roadway improvement projects, or along with other planned improvements. Specific infrastructure- and driver-behavior-based strategies presented to the participants of the safety workshop held for Ward County are provided in Section 3.2.

2.3 Ward County Crash Risk Factors

The objective of the analytical process is to identify candidates for safety investment based on two criteria: high-crash locations and at-risk locations. A more detailed crash analysis was performed for each priority crash type to identify (1) locations where these priority crash types occur at a rate of one or more severe crashes per year, and (2) basic roadway and traffic characteristics of locations with severe crashes. These characteristics are not considered to be the cause of crashes, but instead are used to determine the risk that a future severe crash would occur at a particular location. Information from historic crashes was used to evaluate the remainder of the county's local road system and prioritize locations for safety investment based on similar characteristics.

Three urban areas were studied as a part of Phase I in the LRSP in addition to the nine region counties: Bismarck, Minot, and Devils Lake. Minot is the subject of the urban portion of this Plan, but for analysis purposes, the data were combined for all of Phase I urban areas.

2.3.1 Rural Segments – Crashes on Paved Roads

Of the more than 97,500 miles of local road system in North Dakota, only 7 percent of the roads are paved. However, 52 percent of crashes occured on paved roads. Therefore, the focus of the LRSP is on rural paved road segments.

There are 270 miles of rural paved roads in Ward County. From 2008 to 2012, 4 severe crashes were reported on these roads. The predominant crash type on these roads was lane departure (involving a single vehicle, Figure 2-3). The following five risk factors were identified for rural lane departure crashes on paved roads in the county:

1. **Average Daily Traffic (ADT) -** Of the rural paved roads, 58 percent have an ADT between 150 and 500 vehicles per day. However, 77 percent of the severe lane departure crashes occurred within this ADT range (Figure 2-4). Therefore, any segment with an ADT between 150 and 500 vehicles per day received a star¹.

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¹ When a risk factor is present, the segment, curve or intersection is given a star. The more risk factors present (that is, more stars) indicates greater potential for a severe crash to occur.

2. **Access Density -** Nationally, research has shown that an access density of eight or more access points per mile (including field entrances, commercial entrances, roadway access, etc.) increased the likelihood of a severe crash occurring. Minnesota's review of severe crashes on their rural county roads, shown in Exhibit 2-3, confirms this relationship with the severe crash density rising as the access density rises. Any segment with an access density greater than or equal to eight access points per mile received a star.

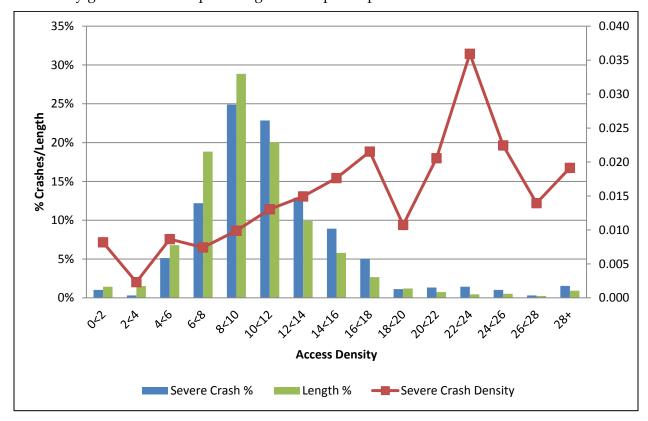


FIGURE 2-3
Severe Crashes by Access Density on Minnesota Rural County Roads (Source: Minnesota Department of Transportation County Road Safety Plans, Crash Data from 2005 – 2010)

- 3. **Lane departure Density –** The average lane departure density for the county was 0.03 crash per mile per year. Due to limited number of crashes in each county, any roadway segment where the lane departure density was greater than the average for the county received a star.
- 4. **Critical Radius Curve Density -** Nationally, lane departure crashes frequently occur within curves. Curves with radii between 500 and 1,200 feet [i.e., critical radius curves] have a higher severe crash rate than other curve radii and segments with a more curves in this range are considered to have greater risk. The risk factor is determined by the number of critical radius curves divided by the length of the segment. The county's average critical curve radius density for these types of curves along roadway segments was 0.035 curve per mile. Any segment with a curve critical radius density greater than or equal to 0.035 received a star.
- 5. **Edge Risk Assessment (ERA) –** A rating system was developed to categorize the risk level of vehicles leaving the travel lane. Roads with a usable shoulder and reasonable clear zone

received a rating of 1. Roads with little or no usable shoulder but with a reasonable clear zone received a rating of 2, as did roads with a usable shoulder but with fixed objects in the clear zone. Roads with no usable shoulder and fixed objects in the clear zone received a rating of 3. Examples of these edge risks are shown in Figure 2-6. Roads were evaluated via photos taken in the summer of 2013 to determine the rating. Roads with a rating of 2 or 3 received a star.

Detailed segment analysis and results for the county is provided in Chapter 4. A prioritization process for each roadway segment was put into place using the five risk factors by giving stars to each risk factor present. The highest-priority roadway segments received the most stars. In cases where roadway segments received the same number of stars, the ERA and ADT were used to break the tie.

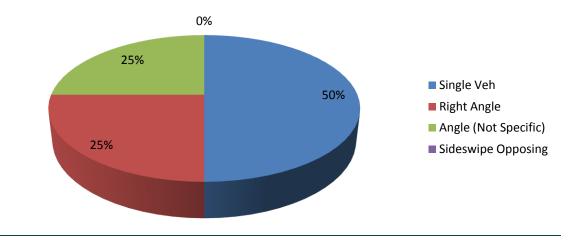


FIGURE 2-4
Ward County Severe Crash Types on Rural Paved Roads (2008 to 2012)

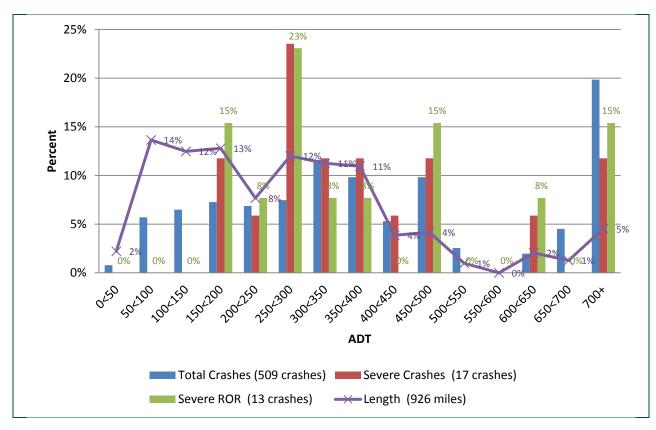


FIGURE 2-5
Ward County and Northeast Region Counties Rural Roadway Segment Average Daily Traffic (ADT) Crash Data (2008 to 2012)



1 – Usable Shoulder, Reasonable Clear Zone



2 – No Usable Shoulder, Reasonable Clear Zone



2 – Usable Shoulder, Roadside with Fixed Obstacles



3 – No Usable Shoulder, Roadside with Fixed Obstacles

FIGURE 2-6Sample Edge Risk Assessment Ratings and Descriptions

2.3.2 Rural Curves – Crashes on Paved Roads in Curves

Detailed crash analysis included horizontal curves on rural paved local roads. Research indicates horizontal curves with certain characteristics contribute to the overall frequency of lane departure crashes. The 270 miles of rural paved roads in the county contain 110 curves totaling almost 29 miles in length (11 percent of the road system mileage).

With only three severe crashes along curves reported from 2008 to 2012, too few crashes occurred on these curves to serve as a reliable indicator of the relative degree of risk. However, statewide data show the importance of safety improvements on curves to reduce severe crashes since 32 percent of severe lane departure crashes occur along curves. As a result, the LRSP team used characteristics of curves in the county where crashes had previously occurred as well as available information from similar analysis across the nation and statewide data. Results from Cost-Benefit Analysis of In-Vehicle Technologies and Infrastructure Changes to Avoid Crashes Along Curves and Shoulders (compiled by the University of Minnesota and CH2M HILL in June 2009) were also used in curve analysis and prioritization.

Based on a review of these sources, the following five risk factors were identified for crashes within curves in the county:

1. **Curve Radius -** Ward County and all counties in Phase I did not have enough severe curve crashes to provide insight into North Dakota's characteristics (Figure 2-7). National data shows that curves with mid-range radii had higher crash densities. An upper limit of 1,200 feet was used for at-risk curves, because 1,200 feet is a 60-mile-per-hour design speed based on AASHTO's *A Policy on Geometric Design of Highways and Streets* (commonly referred to as the "Green Book;" 6th edition, 2011). A lower limit of 500 feet was used to represent the severe lane departure crashes that were reported in the county from 2008 to 2012. Any curve with a radius between 500 and 1,200 feet received a star.

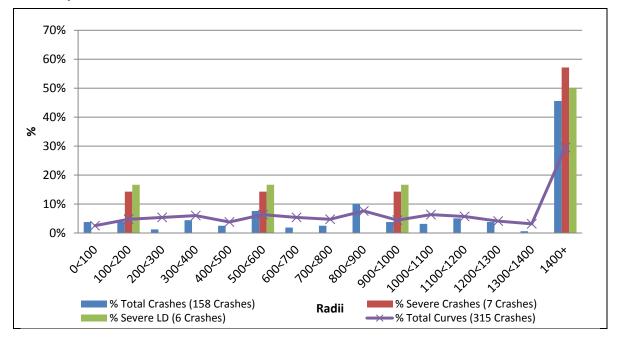


FIGURE 2-7
Phase I Curve Crashes by Radii – 500 to 1,200 feet (2008 to 2012)

2. Average Daily Traffic (ADT) - Traffic volumes over 350 vehicles per day present a risk factor in the Ward County and represent a higher risk for crashes (Figure 2-8). One-hundred percent of severe lane departure crashes occurred in curves with this ADT, while only 38 percent of curves are represented in this range. Therefore, curves with an ADT over 350 vehicles per day received a star.

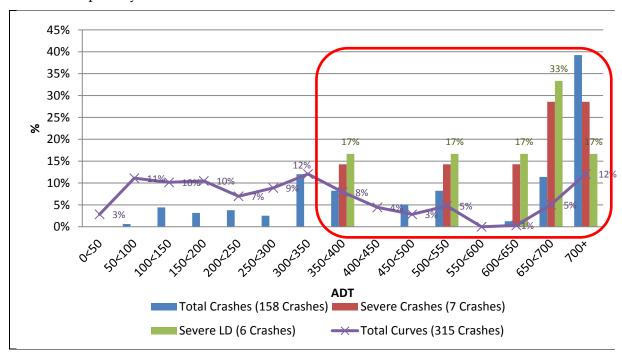


FIGURE 2-8
Phase I Curve Crashes by Average Daily Traffic (ADT) – Greater than 350 Vehicles per Day (2008 to 2012)

- 3. **Intersection on the Curve –** In Ward County, the presence of an intersection within a curve increased the risk for a severe crash (Figure 2-9). Curves with at least one intersection within the curve received a star.
- 4. **Visual Trap -** A visual trap exists when the crest of a vertical curve is located before a horizontal curve or where a minor road, tree line, or line of utility poles continues on a tangent to the curve, thereby creating the illusion that the road continues straight ahead (Figure 2-10). The presence of a visual trap increased the risk of crashes in Ward County (Figure 2-9) and, therefore, received a star.
- 5. **Severe Crashes –** If a severe crash occurred on a curve between 2008 and 2012, the curve received a star.

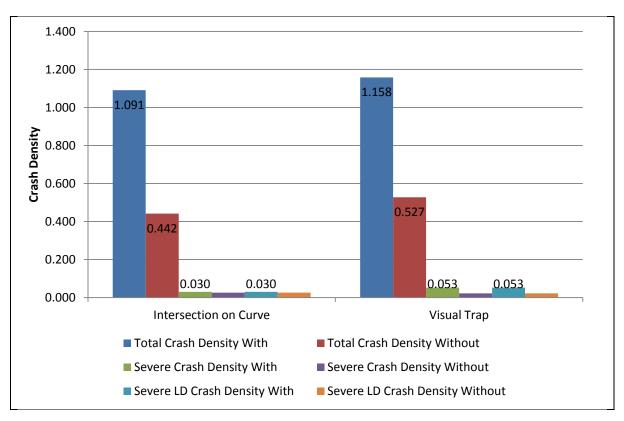


FIGURE 2-9
Rural Curve Risk Factors for Ward County



FIGURE 2-10
Example of a Visual Trap – Minor Road Intersects Roadway on a Curve

Based on total and severe lane departure crashes in the county, curves with intersections and visual traps have a higher crash density (are more at risk) than those without such features. These risk factors have also been observed nationally.

Detailed curve analysis and results for the county is provided in Chapter 4. The five risk factors were used to prioritize curves in the county, with the highest-priority curves receiving the most stars. Curves were reviewed for proximity to high-priority curves and existing conditions as well.

Curves were screened for compliance with the *Manual on Uniform Traffic Control Devices* (MUTCD; 2009) requirement regarding traffic signs at horizontal curves. Under this requirement, a curve must have an advance horizontal alignment warning sign if the daily traffic is greater than 1,000 vehicles per day and if speed differentials (between the speed limit and the advisory speed) meet certain thresholds. A horizontal alignment sign and advisory speed plaque are recommended when the speed differential is 5 mph, and they are required if the speed differential is 10 mph or greater. Curve radius was used to estimate whether individual curves meet the speed differential requirements for advance warning signs and advisory speed plaques. The estimated advisory speeds (assuming a 55-mph speed limit, 6-percent superelevation, and a friction factor consistent with the AASHTO Green Book) based on the curve radius are as follows:

- 900 to 1,100 feet 50 mph
- 700 to 900 feet 45 mph
- 500 to 700 feet 40 mph
- 300 to 500 feet 35 mph
- Under 300 feet 30 mph or slower

For this analysis, no suggested advisory speed is provided for curves with a radius under 300 feet; these curves should be investigated further by the County to determine the appropriate advisory speed. Additionally, it is recommended that the County complete its own ball-bank indicator assessment of all curves to determine whether the curves on their road system meet the MUTCD requirement and to verify suggested advisory speeds.

If a curve was not selected as a project candidate through the LRSP risk assessment process (although the curve has an ADT greater than 1,000 vehicles per day and a radius under 1,100 feet), the curve was flagged for the County to determine the need for additional signs based on MUTCD guidance.

2.3.3 Rural Intersections – Crashes at Thru-STOP Intersections

On Ward County's rural local roads, a severe crash is most common at Thru-STOP intersections,² where 100 percent of severe intersection crashes (6 crashes) occurred from 2008 to 2012. Severe right-angle and angle crashes are the most common types of crashes at these intersections (Figure 2-12). While there are few crashes in the county, statewide crash data supports these crash types as the most common at rural Thru-STOP locations.

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² Those intersections where traffic on the more heavily used road may proceed through the intersection without stopping, while traffic on the less-used crossroad must stop at the STOP sign before proceding through the intersection.

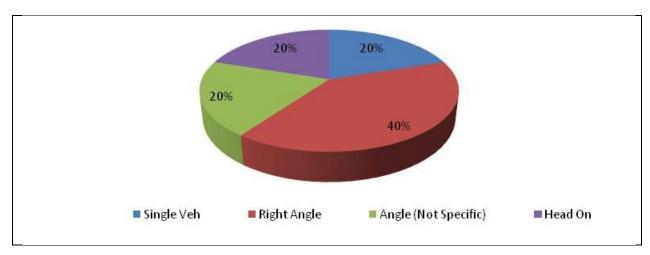


FIGURE 2-12
Ward County Rural Thru-STOP Intersections Severe Crash Types (2008 to 2012)

In Ward County, 63 rural intersections with 58 Thru-STOP locations were reviewed. The average severe crash density at rural Thru-STOP locations is 0.003 severe crash per intersection per year. This low density supports assessing an intersection risk based on the characteristics of the locations where severe crashes occurred. The following seven rural Thru-STOP risk factors were identified for severe right-angle crashes in the county:

1. **ADT Cross Product -** 100 percent of the severe right angle crashes at rural Thru-STOP intersections occurred at intersections with an ADT Cross Product³ of major and minor entering vehicles greater than 100,000 (Figure 2-13). An intersection was considered to have a higher risk of severe right angle crashes if the ADT Cross Product was greater than 100,000. These intersections received a star.

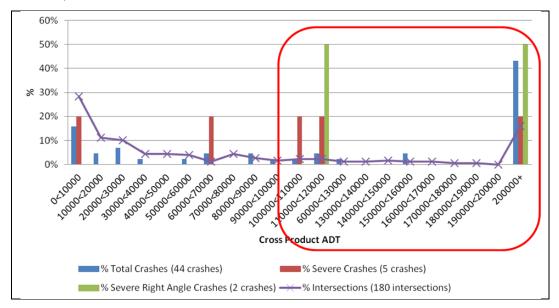


FIGURE 2-13
Phase I Rural Intersection ADT Cross Product (2008 to 2012)

³ The ADT Cross Product is the major-street entering volume multiplied by the minor-street entering volume.

2. **Skew -** As the intersection skew (the angle at which one road intersects another) increases, the crash risk also increases (Figure 2-14). At a 20-degree skew, the crash risk compared to that of a 90-degree intersection is increased by approximately 10 percent. While the county's severe right-angle crash data set was too small to determine if skew plays a role in crashes, it has been proven nationally that the greater the skew, the greater the likelihood for a crash (Figure 2-15). Intersections with a skew greater than 20 degrees received a star.

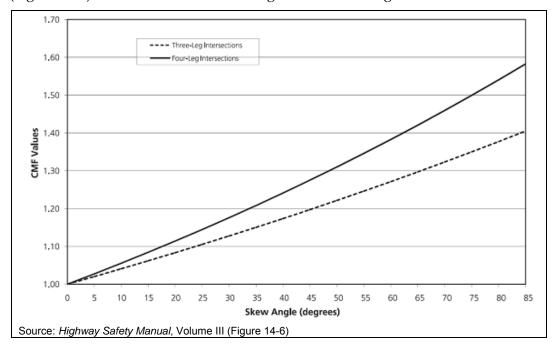


FIGURE 2-14 Intersection Skew Risk

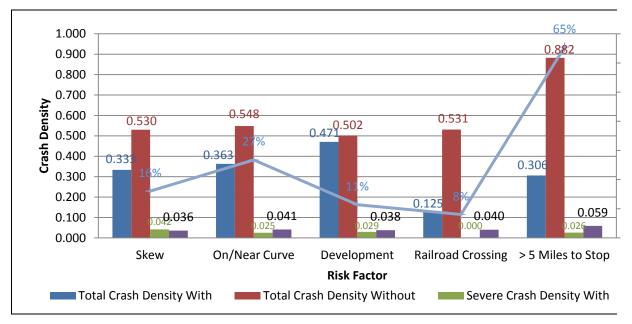


FIGURE 2-15
Rural Intersection Risk Factors for the Phase I Counties (2008 to 2012)

- 3. **On or Near a Curve –**Research has shown that intersections located on or near a horizontal curve are subject to a higher level of risk. In this analysis, intersections located on or near a horizontal curve received a star.
- 4. **Development Present -** Research has shown that intersections with commercial development in one or more quadrants have a higher level of risk, possibly due to vehicles entering or exiting the development. Private residences or farms were not included as development. Ward County intersections with development present had more severe crash rates (Figure 2-15) and therefore received a star.
- 5. Railroad Crossing Intersections on or near a railroad crossing are subject to increased risk because drivers must navigate the railroad tracks while approaching the intersection. National data were used for this risk factor due to the small number of severe crashes in the county. An intersection with a railroad crossing on one of the approaches received a star.
- 6. **Previous STOP More than 5 Miles Before the Intersection -** When traveling longer distances without encountering a STOP sign, drivers lose attention, and research has shown those intersections to be at higher risk (Figure 2-15). National data were used to confirm this risk factor. Intersections without a STOP sign within 5 miles received a star.
- 7. **Total Crashes –** If an intersection had any type of crash from 2008 to 2012, the intersection received a star.

Ward County had 108 total rural intersection crashes from 2008 to 2012,and only 6 of those crashes are severe. Due to the small number of severe crashes, some of the data and risk factors may be misleading based on the county data alone. National data were frequently used to confirm intersection risk factors .

Detailed intersection analysis and results for the county is provided in Chapter 4. Due to the large number of intersections, each intersection was prioritized using the seven risk factors by giving stars to each risk factor present. The highest-priority intersections received the most stars. In cases where intersections received the same number of stars, crash costs were used to break the tie and determine priority.

2.3.4 Urban Roadway Segments - Cities with Populations Greater than 5,000 (Minot)

Approximately 95 miles of urban local roads were reviewed, where 4,490 total and 57 severe crashes occurred from 2008 to 2012. Nationally, research has shown that rear-end and head-on crashes are most common on urban local roads.

Although a variety of data was collected for each local segment, only the following four risk factors were identified for Minot:

1. **Average Daily Traffic (ADT) –** Both rear-end and head-on crashes were overrepresented in road corridors with ADT volumes greater than 4,500 vehicles per day (Figure 2-16). (Note: This ADT volume includes data from Bismarck and Devils Lake.) Corridors with an ADT greater than 4,500 vehicles per day received a star.

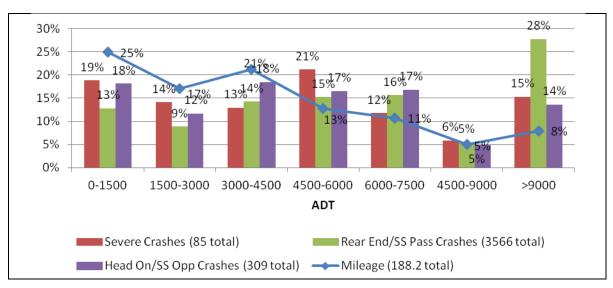


FIGURE 2-16
Phase I Urban Segment Average Daily Traffic (ADT) (2008 to 2012)

2. **Access Density -** Rear-end and head-on crashes are overrepresented in Minot along corridors with access densities greater than or equal to 30 access points per mile (Figure 2-17), and therefore received a star.

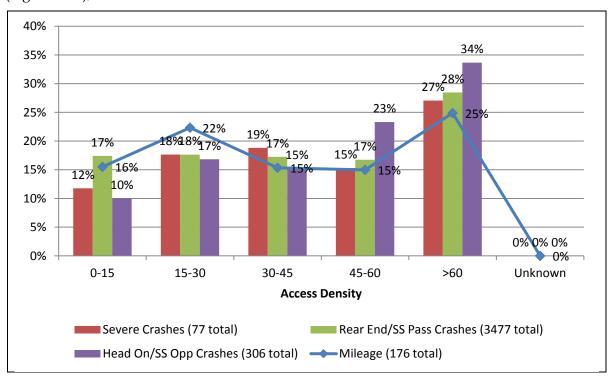


FIGURE 2-17
Phase I Urban Roadway Segment Access Density (2008 to 2012)

3. **Road Geometry –** Crashes are overrepresented per corridor mile on roadways with three or more lanes (Figure 2-18), and were given a star.

4. **Speed Limit -**Severe rear-end and head-on crashes were overrepresented in low-speed corridors (40 mph or less) (Figure 2-19), and therefore received a star.

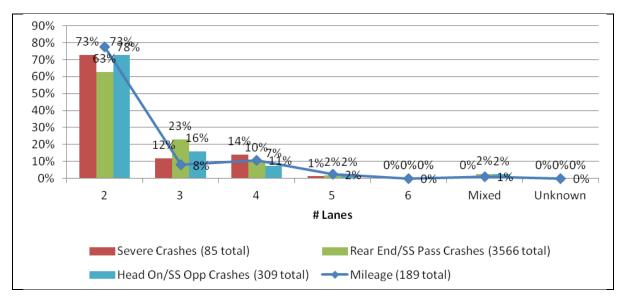


FIGURE 2-18
Phase I Urban Road Geometry (2008 to 2012)

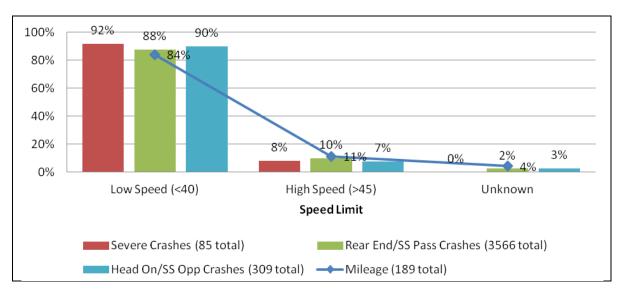


FIGURE 2-19
Phase I Urban Roadway Segment Crashes by Speed (2008 to 2012)

Detailed urban segment analysis and results for Minot are provided in Chapter 4. The four risk factors were used to prioritize roadway segments, with the highest priority segments receiving the most stars. High-priority roadway segments were also reviewed from a corridor perspective so that suggested safety improvement projects create a consistent corridor throughout the urban area.

2.3.5 Urban Intersections – Right-Angle Crashes, Cities with Populations Greater than 5,000 (Minot)

In Minot, 104 intersections including 32 signalized intersections were analyzed. Of the over 1,600 total crashes, only 32 severe crashes occurred at the Minot urban intersections analyzed. These data support assessing an intersection's risk based on the characteristics of locations with severe crashes. A variety of information was collected on each intersection and from that, four risk factors for right angle crashes were chosen:

1. **Traffic Control Device** – Severe crashes are overrepresented at signalized intersections versus other intersection control types in urban areas (Figure 2-20). Therefore, signalized intersections received a star.

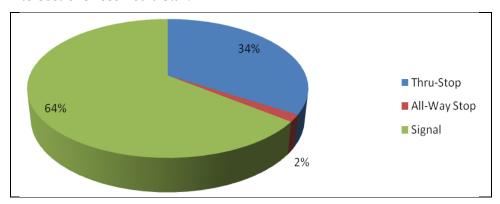


FIGURE 2-20
Phase I Urban Severe Crashes by Intersection Traffic Control Device (2008 to 2012)

2. **Entering ADT** – Higher volumes of vehicles entering intersections was considered a risk factor. Approximately 40% of righ angle crashes at signalized intersections in Minot occurred at intersections with an entering vehicles ADT between 10,000 and 15,000 vehicles per day (Figure 2-21). Therefore, any intersection with an entering vehicles ADT between 10,000 and 15,000 vehicles per day received a star.

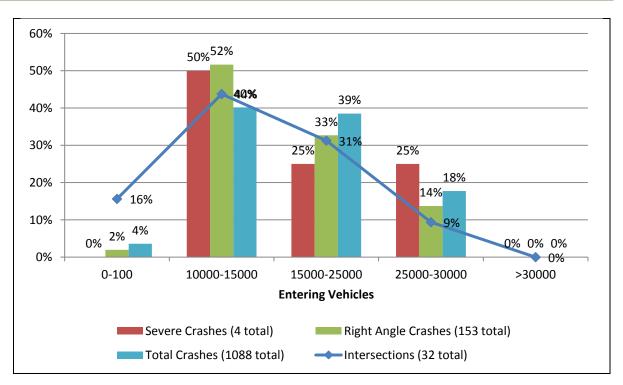


FIGURE 2-21
Minot Urban Crashes by Intersection Entering Vehicles Average Daily Traffic (ADT)

- 3. **Road Geometry** Severe and right-angle crashes were overrepresented on divided roadways with signalized intersections (Figure 2-22). Therefore, intersections on divided roadways received a star.
- 4. **Severe Crashes –** Any intersection where one or more severe crashes had occurred received a star.

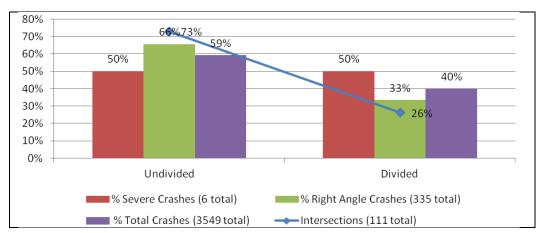


FIGURE 2-22
Phase I Urban Crashes by Intersection Configuration

Detailed urban intersection right angle analysis and results for Minot is in Chapter 4. The four risk factors previously listed were used to help prioritize intersections with the highest priority intersections receiving the most stars. Right angle crash intersections were reviewed as urban

corridors to create a consistent corridor throughout the urban area and to discourage implementing strategies at just one or two high priority intersections along a corridor if the remaining intersections have the same characteristics.

2.3.6 Urban Intersections – Pedestrian/Bicycle Crashes, Cities with Populations Greater than 5,000 (Minot)

Similar analysis was completed for pedestrian and bicycle crashes at intersections. Only 13 severe pedestrian and bicycle crashes occurred at Minot intersections from 2008 to 2012, therefore the data has been combined with all of the Phase I urban intersection analysis. Four risk factors were identified based on the analysis:

1. **Traffic Control Device -** Severe pedestrian and bicycle crashes are overrepresented at signalized intersections versus other intersection control types in urban areas (Figure 2-23). Therefore, signalized intersections received a star.

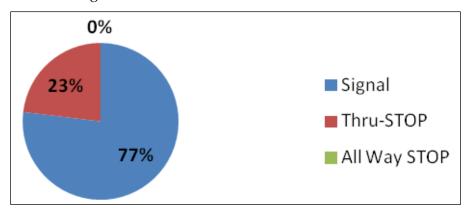


FIGURE 2-23
Phase I Urban Pedestrian/Bike Crashes by Intersection Traffic Control Devices

- 2. **Entering Vehicles ADT –** A high volume of vehicles entering an intersection was considered a risk factor. Over 70% of the severe pedestrian and bicycle crashes occurred at intersections with an entering vehicles ADT greater than 15,000 vehicles per day. Therefore, any intersection with an entering vehicles ADT greater than 15,000 vehicles per day or greater received a star.
- 3. **Pedestrian Generator –** Intersections with adjacent land uses likely to generate pedestrian traffic (such as a bar or gas station) had a higher pedestrian and bicycle crash risk than other intersections (Figure 2-24). Therefore, an intersection with a pedestrian generator present received a star.
- 4. **Pedestrian and Bicycle Crashes –** Any intersections that had any bicycle or pedestrian crash from 2008 to 2012 received a star.

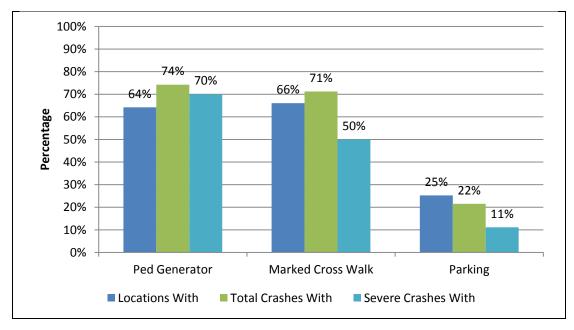


FIGURE 2-24
Phase I Pedestrian and Bicycle Crashes at Urban Signalized Intersection with a Pedestrian Generator

Detailed urban intersection pedestrian and bicycle analysis and results for Minot are provided in Chapter 4. The four risk factors were used to prioritize intersections with the highest-priority intersections receiving the most stars. Pedestrian and bicycle crash intersections were reviewed as urban corridors to create a consistent corridor throughout the urban area.

2.4 Ward County Risk Summary

Table 2-3 summarizes the risk factors, ranges, and sources used in the county's systemic analysis.

TABLE 2-3
Ward County Risk Summary

			Ward County
Risk Factors	Minimum	Maximum	Source
Rural Segments			
ADT Range	700	Unlimited	Ward County
Lane Departure Density	0.05	Unlimited	Average Ward County
Access Density	8	Unlimited	Ward County
Curve Critical Radius Density	0.3	Unlimited	Average Ward County
ERA	2	3	Ward County
Rural Curves			
Radius	500	1200	Northeast Region, Burleigh County, Ward County
ADT Range	350	Unlimited	Northeast Region, Burleigh County, Ward County
Intersection on Curve	Pres	sent	National
Visual Trap	Pres	sent	National
Severe Crashes	1	Unlimited	Ward County

TABLE 2-3
Ward County Risk St

Ward County Risk Summary					
			Ward County		
Risk Factors	Minimum	Maximum	Source		
Rural Intersections					
ADT Cross Product	100000	Unlimited	Northeast Region, Burleigh County, Ward County		
Skew	Pres	sent	National		
On/Near Curve	Pres	sent	National		
Development	Pres	sent	National		
Railroad Crossing	Pres	sent	National		
Previous STOP >5 Miles	Pres	sent	National		
Total Crashes	1	Unlimited	Ward County		
Urban Segments					
ADT	4500	Unlimited	Northeast Region, Burleigh County, Ward County		
Road Geometry	Multi-	Lane	Northeast Region, Burleigh County, Ward County		
Access Density	30	Unlimited	Northeast Region, Burleigh County, Ward County		
Corridor Speeds	Lo	W	Northeast Region, Burleigh County, Ward County		
Urban Right Angle Crash Corrid	lors				
Entering ADT	10000	15000	City of Minot		
Traffic Control	Sig	nal	Northeast Region, Burleigh County, Ward County		
Road Geometry	Divi	ded	Northeast Region, Burleigh County, Ward County		
Severe Crashes	1	Unlimited	City of Minot		
Urban Ped/Bike Crash Corridors	S				
Traffic Control	Sig	nal	Northeast Region, Burleigh County, Ward County		
Entering ADT	15,000	Unlimited	Northeast Region, Burleigh County, Ward County		
Pedestrian Generator	Υe	es	Northeast Region, Burleigh County, Ward County		
Pedestrian/Bicycle Crashes	1	Unlimited	Northeast Region, Burleigh County, Ward County		



3.0 Priority Safety Strategies

3.1 Background

A variety of strategies are available to address each safety emphasis area. The implementation of high priority strategies will assist state and local agencies in reducing traffic-related fatalities and serious injuries. The primary sources of these strategies are the National Cooperative Highway Research Program (NCHRP) *Report 500* series and the National Highway Traffic Safety Administration's (NHTSA's) *Countermeasures That Work*. Each guide includes a description of the problem, strategies, and model implementation processes. In addition, to assist practitioners in assessing the safety strategies, the guides document the expected effectiveness of each strategy by assigning them to one of the following categories:

- **Proven:** These strategies have been used in multiple locations with multiple studies, and have been demonstrated to be effective.
- **Tried:** These strategies have been implemented in many locations; however, no rigorous evaluations have been completed to determine their effectiveness.
- **Experimental:** These strategies represent ideas that are considered to be effective; however, the ideas have not been widely implemented or evaluated.

3.2 Initial/Comprehensive List of Potential Strategies

NCHRP safety strategies were the basis for identifying safety strategies for the LRSP. For the LRSP process, NDDOT team members sought to identify viable safety strategies for the top safety emphasis areas (see Tables 3-1 through 3-9). The LRSP team reviewed the full range of safety strategies, and did an initial screening based on cost and effectiveness. For example, the NCHRP report lists over 70 potential strategies to address intersection safety. The screening conducted by the LRSP team narrowed the list of strategies for all safety emphasis areas down to strategies considered to be the most applicable in North Dakota.

Behavioral strategies include information on the expected impact of the strategy based on current practice and results. Strategies with high impact have been shown to have influence on driver behavior.

Each infrastructure strategy includes information on the relative cost to implement or operate, along with the typical timeframe for implementation. Relative costs were separated into three categories:

- Low = less than \$10,000 (per mile or location)
- Medium = between \$10,000 and \$100,000 (per mile or location)
- High = more than \$100,000 per mile or location

The typical timeframe to implement the strategy was also separated into three categories:

- Short = less than 1 year to implement
- Medium = between 1 and 2 years to implement
- Long = more than 2 years to implement

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TABLE 3-1 Impaired Driving Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
A – Eliminate Drinking and Driving	A1 – Require responsible beverage service policies for alcohol servers and retailers	Proven	Advocate for responsible alcohol server and retailer training	Medium
	A2 – Employ screening and brief interventions regarding impaired driving risks	Tried	Enforcement or health care provider conducts brief intervention with crash victim after an alcohol-related crash (traumatic event) on risks and consequences of drinking and driving. Develop fact sheets and materials to be used. North Dakota Impaired Driver Safety Facts: http://www.ugpti.org/rtssc/briefs/downloads/2012 Impaired.pdf	Medium
	A3 – Support community programs for alternative transportation	Tried	Employ "Safe Cab" initiatives via partnership among beer distributors, bar owners, and county/city community programs. Conduct public outreach on accessible safe-ride alternatives.	Medium
	A4 – Promote sobriety initiatives for driving-under-the-influence (DUI) offenders	Proven	Promote 24/7 and ignition interlock programs through educating local judicial and legal counsel members, probation officers, and counseling and treatment providers, as well as the general public.	Medium
B – Enforce DUI Laws	B1 – Conduct regular high- visibility DUI enforcement saturations	Proven	A saturation is a multi-agency, multi-squad car enforcement effort. Agencies work in collaboration to provide high-visibility enforcement for high-risk roadways. High visibility enforcement includes multiple jurisdictions and/or multiple squads that are out at the same time patrolling in brightly colored vests, using signage about the enforcement and engaging the media for public outreach about the enforcement effort.	High
	B2 – Conduct enforcement, education and awareness campaign of the targeted enforcement of zero tolerance laws for drivers under age 21	Tried	Publicizing is best done through community events for the local media and a public education campaign in the community about the high visibility enforcement effort.	Low
	B3 – Expand use of DUI sobriety checkpoints	Proven	Local law enforcement to expand the use of multi-jurisdictional sobriety checkpoints that include public outreach/media campaigns about the checkpoints.	High
	B4 – Monitor convicted DUI offenders closely	Proven	Monitor judicial sentencing of local DUI courts or intensive supervision programs	High

TABLE 3-2 Seat Belt Use Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
A – Enforce seat belt use laws	A1 – Conduct highly publicized enforcement campaigns to maximize restraint use. Specifically, nighttime belt enforcement saturation.	Publicizing is best done through community events for the local media and a public education campaign in the community about the enforcement. Methods for nighttime enforcement include having multi-agency and multiple squad cars in well-lit areas where slow-moving vehicles are passing and conducting seat belt observations for a limited time.		High
	A2 – Pursue local ordinances for primary enforcement of seat belt laws.	Proven	Under tribal and/or local ordinance, pursue primary seat belt enforcement for occupants in all seating positions. White Earth Tribal Council passes primary seat belt law. http://staging.dl-online.com/content/white-earth-council-passes-seat-belt-law	High
B – Maximize use of occupant restraints by all vehicle occupants	occupant restraints by all vehicle occupants to 1) offer education programs to employees, programs to employees.		Utilize materials and policy statements designed for employers by Network of Employers for Traffic Safety. For example, seat belt use employer polices and resources: http://www.mnsafetycouncil.org/nets/EducationMaterials.cfm	Medium
	B2 – Brief intervention regarding unbelted risks	Tried	Enforcement or health care provider conducts brief intervention with crash victim after an unbelted crash (traumatic event) on unbelted risks and consequences. Develop fact sheets and materials to be used. North Dakota Seat Belt Fact Sheet: http://www.ugpti.org/rtssc/briefs/downloads/2012 SeatBelts.pdf	Medium

TABLE 3-3 Motorcycle Safety Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
A – Reduce the number of motorcycle crashes due to rider impairment	A1 – Publicize and conduct a high-visibility enforcement of all laws pertaining to motorcycle riding.	Proven	Publicizing is best done through community events for the local media and a public education campaign in the community about the enforcement. High-visibility enforcement is when multiple jurisdictions and/or multiple squads are out at the same time patrolling in brightly colored vests, signage, and media outreach about the enforcement. Methods for nighttime enforcement include having multi-agency and multiple squad cars in well lit areas where slow-moving riders are passing.	High
	A2 – Support law enforcement to identify specific motorcycle rider impairment behaviors that have been shown to contribute to crashes.	Proven	Provide enforcement with motorcycle rider DUI detection resources. National Highway Traffic Safety Administration (NHTSA) Motorcycle rider DUI Detection Guide: http://www.nhtsa.gov/people/injury/pedbimot/motorcycle/610DWIMotorcyWeb/pages/	Medium
B – Reduce the number of motorcycle crashes due to unlicensed or untrained motorcycle riders	B1 – Ensure that licensing and rider training programs adequately teach and measure skills and behaviors required for crash avoidance.	Tried	Host local motorcycle safety training courses to provide greater access to riders.	Medium
	B2 – Identify and remove barriers to obtaining a motorcycle endorsement.	Tried	Host local motorcycle skills testing programs to enhance rider safety and prepare and encourage riders to obtain motorcycle endorsement.	Medium
C – Increase visibility of riders	C1 – Increase the awareness of the benefit of high-visibility clothing and rider conspicuity.	Experimental	Publicizing is best done through the local media and a public education campaign in the community.	Low
D – Reduce the severity of motorcycle crashes	D1 – Increase the use of FMVSS 218-compliant helmets.	Proven	Conduct local public outreach on the benefits of motorcycle helmet use.	Low

TABLE 3-4 Speed and Aggressive Driving Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
A – Deter aggressive driving in specific populations, including	A1 – Review crash data	Proven	Analyze crash data to define high-risk speed locations for enhanced enforcement and public outreach efforts.	High
those with a history of such behavior, and at specific locations	A2 – Conduct high-visibility targeted enforcement of speeding and aggressive driving	Proven	Agencies work in collaboration to provide high-visibility enforcement for high-risk roadways. High-visibility enforcement includes multiple jurisdictions and/or multiple squads that are out at the same time patrolling in brightly colored vests, using signage about the enforcement, and engaging the media for public outreach about the enforcement effort.	High
	A3 – Pursue local ordinances to utilize automated enforcement in high-risk areas.	Proven	Under local ordinance, pursue the use of automated enforcement (speed and red-light running cameras) in high-risk highway work zones and school crossing zones. Ohio Law Enforcement Liaison Coordinator for example local ordinances using automated enforcement: http://ohiohighwaysafetyoffice.ohio.gov/doc/2013LELMap.pdf	High
B – Maximize driver compliance and awareness B1—Brief intervention regarding speed		Tried	Enforcement or health care provider conducts brief intervention with crash victim after crash due to excessive speed (traumatic event) on speed-related risks and consequences. Develop fact sheets and materials to be used. ND Speed Fact Sheet: http://www.ugpti.org/rtssc/briefs/	Medium
	B2 – Increase driver awareness of speed using speed reader boards or driver feedback signs	Proven	Speed reader boards provide feedback to drivers on their actual speed. Some flash warnings when speeds reach a pre-set limit. Most effective in slowing traffic on residential streets, near school zones, and around playgrounds.	Medium

TABLE 3-5Young Driver Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
A – Publicize, enforce, and adjudicate laws pertaining to young drivers	A1 – Publicize and conduct a high-visibility enforcement graduated drivers license (GDL) restrictions; cell and texting laws; underage drinking and driving; and seatbelt laws	Proven	Publicizing is best done through community events for the local media and a public education campaign in the community about the applicable laws, parental involvement and the enforcement. High-visibility enforcement is when multiple jurisdictions and/or multiple squads are out at the same time patrolling in areas frequented by teen drivers, with brightly colored vests, signage, and media outreach about the enforcement.	High
B – Actively engage parents in managing teen driving skill development	B1 – Encourage driver education providers (local schools and private providers) to require parent education component	Tried	Local driver education providers including local schools and private providers require 2-hour parent education program to educate parents about teen driving risks, Graduated driving license (GDL) provisions and their protections, parental role in supervising teen driving skill development, encourage selection of safer vehicles for teen driver, and to facilitate Parent/Teen Driving Agreements. Teendriversource: Research Put into Action for PowerPoint presentations, parent/teen activities and other tools to be adopted for driver education providers. www.teendriversource.org Teen Driving Parents/Alive at 25 for 1-hour parent, 4-hour teen driving program including comprehensive publication, Teen Driver; A Family Guide to Teen Safe Driving: https://www.nsc.org/products_training/Products/MotorVehicleSafety/Pages/TeenDriving.aspx	Medium
	B2 – Promote use of invehicle teen safety technology	Experimental	To help reduce and eliminate teen driving distractions and high-risk driving maneuvers (excessive speed, hard acceleration, deceleration, and swerves) promote the use of in-vehicle monitoring devices for parental monitoring and coaching.	High
	B3 – Develop safe teen driving outreach materials for parents	Tried	Encourage driver education, local insurance, and public health organizations to provide parents of teen drivers with brochures, guides, and web resources to help parents understand risks, GDL provisions, their role, and how to develop a Parent/Teen Driving Agreement, and online driving logs. Parents are the Key for free downloadable resources (can be customized): www.cdcgov/ParentsAreTheKey/ Teen Driving Parents/Alive at 25 for the comprehensive guide: Teen Driver; A Family Guide to Teen Safe Driving: http://www.nsc.org/products training/Products/MotorVehicleSafety/Pages/TeenDriving.aspx	Medium

TABLE 3-5Young Driver Strategies (Behavior Strategies)

Objectives	Strategies	Effectiveness	Programs and Tactics	Impact
	B4 – Provide information on insurance provider parent-teen safe driving programs	Tried	Inform parents of local insurance programs providing policy discounts for parents and their teen enrolling in parent-teen safe driving programs.	Medium
C – Educate Young Drivers	C1 – Brief interventions regarding driving risks and consequences	Tried	When teen driver receives a moving violation or is involved in a crash, enforcement or health care provider conducts brief intervention with crash victim after crash (traumatic event) on driving risks and consequences.	Medium

TABLE 3-6Speeding Strategies (Infrastructure Strategies)

Objectives	Strategies	Cost to Implement and Operate ¹	Effectiveness	Timeframe for Implementation ²
A – Set appropriate speed limits	A1 – Install speed signage using variable message signs in school zones	Low	Tried	Medium
B – Communicate appropriate speeds	B1 – Implement active speed warning signs, including dynamic message boards at rural to urban transitions	Low	Tried	Medium
through use of traffic control devices	B2 – Use in-pavement measures to communicate the need to reduce speeds	Moderate	Tried	Short
C – Ensure that roadway design and traffic control elements support appropriate and safe speeds	C1 – Effect safe speed transitions through design elements and on approaches to lower-speed areas	High	Tried	Long

Source: NCHRP Report 500 Series, 2004

 $^{^{1}}$ Cost: Low = <\$100,000 per intersection; Moderate = \$100,000 to \$500,000 per intersection; High = >\$500,000 per intersection

² Implementation: Short = <1 year; Medium = 1 to 2 years; Long = >2 years

TABLE 3-7Lane Departure Strategies (Infrastructure Strategies)

Objectives	Strategies	Cost to Implement and Operate ¹	Effectiveness	Timeframe for Implementation ²
A – Keep vehicles from encroaching on the	A1 – Install shoulder rumble strips	Low	Proven	Short
roadside	A2 – Install enhanced pavement markings, edge line rumble strips, modified shoulder rumble strips, 6-inch edge line, or embedded wetreflective pavement markings on sections with narrow or no paved shoulders	Low	Experimental / Tried	Short
	A3 – Provide enhanced shoulders, lighting, delineation (for example, Chevrons), or pavement markings for sharp horizontal curves	Low	Tried / Proven	Short
	A4 – Provide skid-resistance pavement surfaces	Moderate	Proven	Medium
	A5 – Apply shoulder treatments * Eliminate shoulder drop-offs from paved road to unpaved shoulder * Safety edge * Widen and/or pave shoulders	Moderate	Experimental / Proven	Medium
B – Minimize the likelihood of crashing	B1 – Design safer slopes and ditches to prevent rollovers	Moderate to High	Proven	Medium
into an object or overturning if the vehicle travels off the shoulder	B2 – Remove/relocate objects in hazardous locations	Moderate to High	Proven	Medium
C – Reduce the severity of the crash	C1 – Improve design and application of barrier and attenuation systems	Moderate to High	Tried	Medium
D - Keep vehicles from	D1 – Install centerline rumble strips for two-lane roads	Low	Tried	Short
encroaching into opposite lane	D2 – Reallocate total two-lane roadway width (lane and shoulder) to include a "buffer median"	Low	Tried	Medium
E – Minimize the likelihood of crashing	E1 – Use alternating passing lanes or four-lane sections at key locations (Swedish "2+1")	Moderate to High	Tried	Medium
into an oncoming vehicle	E2 – Install cable median barriers for medians on multilane roads	Moderate	Tried	Medium

Source: NCHRP Report 500 Series, 2003

 $^{^{1}}$ Cost: Low = <10,000 per mile; Moderate = 10,000 to 100,000 per mile; High = 100,000 per mile

² Implementation: Short = <1 year; Medium = 1 to 2 years; Long = >2 years

TABLE 3-8 Signalized Intersection Strategies (Infrastructure Strategies)

Objectives	Strategies	Cost to Implement and Operate ¹	Effectiveness	Timeframe for Implementation ²
A – Reduce frequency	A1 – Optimize signal operation (phasing/timing, etc.)	Low	Tried / Proven	Short
and severity of intersection conflicts	A2 – Optimize clearance intervals	Low	Proven	Short
through traffic control and operational improvements	A3 – Employ signal coordination along a corridor or route	Low	Proven	Medium
improvements	A4 – Employ emergency vehicle preemption	Moderate	Proven	Medium
	A5 – Provide countdown timers, advanced walk phase, and other low-cost pedestrian/bicycle facility improvements	Low	Tried / Proven	Short
B – Reduce frequency and severity of intersection conflicts through geometric improvements	B1 – Provide/improve left-turn channelization	Moderate	Proven	Long
C – Improve pedestrian safety with signal	C1 – Install countdown timers	Low	Tried	Short
improvements	C2 – Re-time signals to provide a leading pedestrian interval (advanced walk)	Low	Tried	Short
D – Improve driver awareness of intersections and signal control	D2 – Improve visibility of signals (overhead indications, 12-inch lenses, background shields, LEDs) and signs (mast arm mounted street names) and signs (mast arm mounted street names) at intersections	Low	Tried	Short
E – Improve driver compliance with traffic control devices	E1 – Supplement conventional enforcement of red-light running with confirmation lights; include a public information campaign to increase awareness and compliance	Low	Tried	Short
F – Improve access management near signalized intersections	F1 – Restrict access to properties using driveway closures or turn restrictions	Low	Tried	Short
signalized intersections	F2 – Restrict cross-median access near intersections	Low	Tried	Short
G – Improve safety through other infrastructure treatments	G1 – Restrict or eliminate parking on intersection approaches	Low	Proven	Short

¹ Cost: Low = <\$100,000 per intersection; Moderate = \$100,000 to \$500,000 per intersection; High = >\$500,000 per intersection

² Implementation: Short = <1 year; Medium = 1 to 2 years; Long = >2 years

Source: NCHRP *Report 500* Series, 2004)

TABLE 3-9Unsignalized Intersection Strategies (Infrastructure Strategies)

Objectives	Strategies	Cost to Implement and Operate ¹	Effectiveness	Timeframe for Implementation ²
A – Improve management of	A1 – Implement driveway closure/relocations	Moderate	Tried	Medium
access near unsignalized intersections	A2 – Implement driveway turn restrictions	Low	Tried	Short
B – Reduce the frequency and severity of intersection conflicts through geometric design improvements	B1 – Provide left-turn lanes at intersections	Moderate	Proven	Medium
	B2 Provide offset left-turn lanes at intersections	Moderate to High	Tried	Medium
	B3 – Provide offset right-turn lanes at intersections	Moderate to High	Tried	Medium
	B4 – Restrict or eliminate turning maneuvers by providing channelization or closing median openings	Low	Tried	Short
	B5 – Realign intersection approaches to reduce or eliminate intersection skew	High	Proven	Medium
	B6 – Improve pedestrian and bicycle facilities to reduce conflicts between motorists and nonmotorists	Moderate	Varies	Medium
	B7 – Use indirect left-turn treatments to minimize conflicts at divided highway intersections	Moderate	Tried	Medium
C – Improve sight distance at unsignalized intersections	C1 – Clear sight triangle on approaches and in medians by clearing grub, eliminating parking, etc.	Low	Tried	Short
D – Improve driver awareness of intersections as	D1 – Improve visibility of intersections by providing enhanced signing, delineation or pavement markings/messages (stop bar, larger regulatory signs, LED stop signs, etc.)	Low	Tried	Short
viewed from the intersection approach	D2 – Improve visibility of intersections by providing appropriate street lighting	Low to Moderate	Proven	Medium

TABLE 3-9

Unsignalized Intersection Strategies (Infrastructure Strategies)

Objectives	Strategies	Cost to Implement and Operate ¹	Effectiveness	Timeframe for Implementation ²
	D3 – Install larger regulatory and warning signs at intersections, including the use of dynamic warning signs at appropriate intersections	Low	Tried	Short
	D4 – Call attention to the intersection by installing rumble strips or splitter islands on intersection approaches	Low to Moderate	Tried	Medium
E – Appropriate intersection traffic control to minimize crash frequency and severity	E1 – Construct roundabouts at appropriate locations	High	Proven	Long
F – Reduce operating speeds on specific intersection approaches	F1 – Install dynamic speed feedback signs	Low	Proven	Short

Notes:

Source: NCHRP Report 500 Series, 2003

¹ Cost: Low = <\$50,000 per intersection; Moderate = \$50,000 to \$500,000 per intersection; High = >\$500,000 per intersection

² Implementation: Short = <1 year; Medium = 1 to 2 years; Long = >2 years

3.3 Safety Strategies Workshop

A Safety Planning Workshop was held with Ward County in the City of Minot on June 5, 2013. Two additional workshops were held in Burleigh County and Devils Lake (northeast region) as part of the LRSP Phase I analysis. The primary focus of the safety workshop was to discuss and prioritize the safety strategies.

The basic workshop structure included introductions and an overview of the current NDDOT safety program. This was followed by local speakers:

- Dana Larsen, Ward County Engineer
- Sheriff Steve Kukowski, Ward County Sheriff

These speakers shared information on local safety initiatives and programs. The morning was concluded with a review of the latest crash data on the local roadway system. In the afternoon, the workshop participants separated into groups to discuss potential safety strategies and begin the process of prioritizing the strategies. The groups included one that reviewed and discussed driver-behavior strategies and another for roadway infrastructure strategies. The final agenda item was a voting exercise where each participant voted for their preferred strategies to focus efforts on in the future local roadway program in their regions.

Workshop participants included county and city representatives, county commissioners, enforcement representatives, and NDDOT staff in order to include a variety of backgrounds and experiences to enable valuable interaction and discussions during the workshop.

3.4 Prioritizing Safety Strategies

Through the group (infrastructure and driver behavior) discussion and voting exercise, the top safety strategies for Ward County are:

- Behavioral strategies
 - Conduct regular high-visibility driving-under-the-influence (DUI) enforcement saturations
 - Conduct high-visibility targeted enforcement of speeding and aggressive driving
 - Conduct high-visibility targeted enforcement to maximize seat belt use
 - Encourage driver education providers to require parent education component
- Infrastructure strategies
 - Rumble strips and enhance edge line (modified shoulder rumbles strip, 6-inch edge line)
 - Design safer slopes and ditches to prevent rollovers if a vehicle leaves the roadway
 - Intersection lighting
 - Provide enhanced shoulders, delineation, or pavement markings for sharp horizontal curves

Safety projects that are developed as part of this LRSP are considered eligible for funding through the state's Highway Safety Improvement Program (HSIP). The managers of this program have identified implementation cost and effectiveness as priorities in their evaluation process of selecting projects for funding. Low-cost projects allow the limited funding to support a wider deployment and the use of proven effective strategies provides the highest level of confidence that a given project will result in an overall crash reduction.

The ability of the selected strategies to reduce crashes is based on information in FHWA's CMF [Crash Modification Factors] Clearinghouse. Table 3-10 provides a summary of the crash reduction factors that were found in the CMF Clearinghouse for safety strategies considered and/or suggested for Ward County, along with an estimated unit cost for each strategy. Most factors reported are based on research that was assigned with higher-quality ratings.

TABLE 3-10Proposed Strategies, Crash Reduction Factors, and Typical Installation Costs

Strategy	Crash Reduction Factor ^a	Typical Installation Costs
Impaired Driving	<u>'</u>	
Conduct regular high-visibility DUI enforcement saturations	3%	Up to \$50 per hour of officer overtime
Speed and Aggressive Driving		
Conduct high-visibility targeted enforcement of speeding and aggressive driving	3%	Up to \$50 per hour of officer overtime
Seat Belt Use		
Conduct highly publicized enforcement campaigns to maximize restraint use. Specifically, night time belt enforcement saturation	3%	Up to \$50 per hour of officer overtime
Young Drivers		
Publicize and conduct a high visibility enforcement of graduated drivers license (GDL) restrictions, cell and texting laws, underage drinking and driving and seat belt laws	3%	Depends on duration
Encourage driver education providers to require parent education component	2%	\$1,500 per school district
Brief interventions by health care providers following a crash regarding driving risks and consequences	N/A	Low to Moderate
Rural Segments		
4-inch latex edge line		\$400 per mile
6-inch latex edge line	10% to 45% all rural serious crashes	\$650 per mile
Shoulder or edge line rumble strip	20% run off road crashes	\$3,000 per mile [shoulder] \$3,500 per mile [edge]
Ground in wet-reflective markings		\$8,500 per mile
Centerline rumble strip	40% head-on/sideswipe- crashes	\$3,000 per mile
6-inch centerline		\$650 per mile
Rural Curves		
Chevrons	20% to 30%	\$3,300 per curve
Arrow board only		\$500 per curve
Advance warning sign and advisory speed plaque		\$800 per curve

TABLE 3-10Proposed Strategies, Crash Reduction Factors, and Typical Installation Costs

Strategy	Crash Reduction Factor ^a	Typical Installation Costs
2-foot paved shoulder and shoulder rumble strips	20% to 30% run-off-the- road crashes	\$37,000 per mile + \$3,000 per mile
Rural Intersections		
Roundabout	20% to 50% all crashes/ 60% to 90% right-angle crashes	\$1,000,000 per intersection
Directional median (RCI or J-Turn)	17% all crashes/ 100% angle crashes	\$750,000 per intersection
Mainline dynamic warning sign	50% all crashes/ 75% severe right-angle crashes	\$50,000 per intersection
Close median		\$25,000 per intersection
Intersection lighting	25% to 40% nighttime crashes	\$6,000 per street light
Upgrade signs and pavement markings	40% upgrade of all signs and pavement marking/ 15% for STOP AHEAD pavement marking	\$1,850 per approach ^b
Clear sight triangle	37% serious injury crashes	\$2,450 per intersection d
Urban		
Conversions (three-lane/five-lane)	30% to 50%	\$17,000 per mile [3-lane] \$22,000 per mile [5-lane] + \$25,000 per signalized intersection for updates (for example, loop and signal head placement)
Access management	5% to 31%	\$300,000 per mile ^e
Signal – confirmation lights	25% to 84% reduction in violations	\$1,000 per two approaches
Pedestrian/bicycle – advanced walk	Up to 60% pedestrian/ vehicle crashes	\$0 per intersection
Pedestrian/bicycle – countdown timers	25% vehicle/pedestrian crashes	\$10,000 per intersection
Pedestrian/bicycle – curb extensions	Increase in vehicles yielding to pedestrians	\$15,000 per corner
Pedestrian/bicycle – median refuge island	46% in vehicle/pedestrian crashes	\$10,000 per approach

N/A = not applicable

^a Crash reduction factors based on review of CMF Clearinghouse and other published research

^b Includes \$350 per STOP sign, \$350 per junction sign assembly, \$450 per STOP AHEAD sign, \$450 per STOP AHEAD pavement marking message, and \$250 per stop bar

^c Reduction based on increasing sight distance triangle

^d Inclusive of sigh upgrades identified and materials and labor for clearing of sight triangle.

^e For management of unsignalized intersection movements within a corridor that has a divided median. Typical project may include minor street diverters, signed turn restrictions, and median closings.

4.0 Ward County Infrastructure Safety Projects

4.1 Ward County Proactive Project Decision Process

The primary objectives of the LRSP effort are to identify low-cost, safety-related infrastructure projects focused on each county's documented safety emphasis areas and target crash types. These emphasis areas account for the greatest number of severe crashes occurring on the local road system. Mitigating the factors that contribute to these crashes will assist each county in reducing severe crashes on the local road system.

Projects were developed that include identifying a specific improvement at a specific location based on risk factors described in Chapter 2 and the high-priority safety strategies described in Chapter 3. Improvement strategies are consistent with NDDOT's SHSP with a focus on proven effectiveness at reducing the target type of crash and low cost. Proven effective strategies give safety program managers the highest level of confidence that the deployment will result in a reduction of crashes. Low-cost strategies allow improvements to be widely deployed across a system to address the low density of crashes and are less expensive than complete reconstruction of high-risk locations. Project development and mitigation focused on the following improvements:

Rural

- Lane-departure crashes along roadway segments and in curves
- Intersection-related crashes

Urban

- Rear-end and head-on crashes in segments
- Angle crashes and pedestrian and bicycle crashes at intersections

For consistency across the northeast region, project decision trees were created so that locations with similar characteristics across the region received the same suggested mitigation treatment. Projects were chosen based on the identification of at-risk locations and the availability of proven strategies for crash reduction. This resulted in a systemic focus on rural paved segments, horizontal paved curves, and rural intersections. In cities with populations over 5,000, the focus was on arterial and collector roadway segments and intersections along these segments. Projects were originally suggested based on the technical analysis and then were revised in accordance with input by the local agencies and NDDOT.

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High-priority rural roadway segment projects focused on addressing the most common type of severe segment related crash – a single-vehicle, lane-departure crash – by implementing road edge improvements to alert drivers when they are drifting too far to the edge of the road (Figure 4-1).

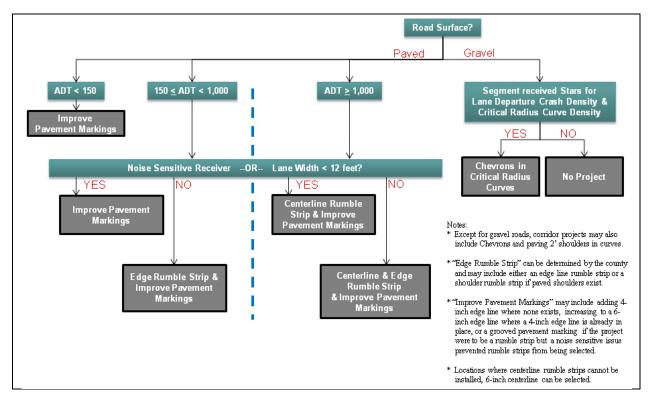


FIGURE 4-1 High-Priority Rural Roadway Segment Project Decision Tree

High-priority rural curve projects focused on enhancing the curve delineation to improve driver's ability to successfully navigate the curves (Figure 4-2). As shown in the figure, there are three ways in which a curve is eligible for a safety improvement project.

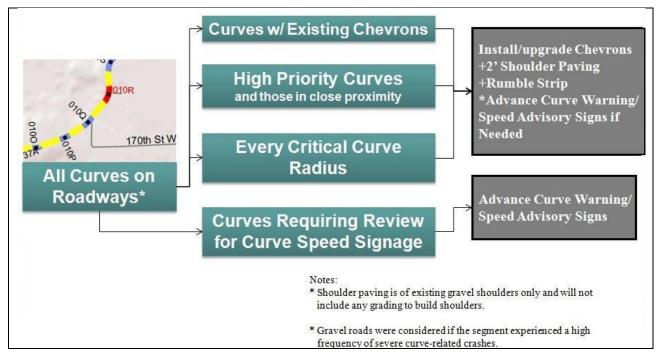


FIGURE 4-2 High-Priority Rural Curve Project Decision Tree

High-priority rural intersection projects (Figure 4-3) focused on addressing the most common type of severe intersection crash – a right-angle collision – by making the intersection more visible to drivers and by reducing the number of intersection conflicts. Examples of suggested projects are shown in Figure 4-4.

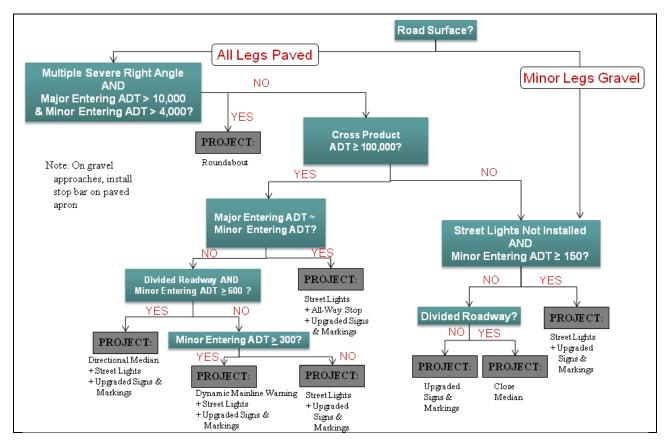


FIGURE 4-3
High-Priority Rural Intersection Project Decision Tree

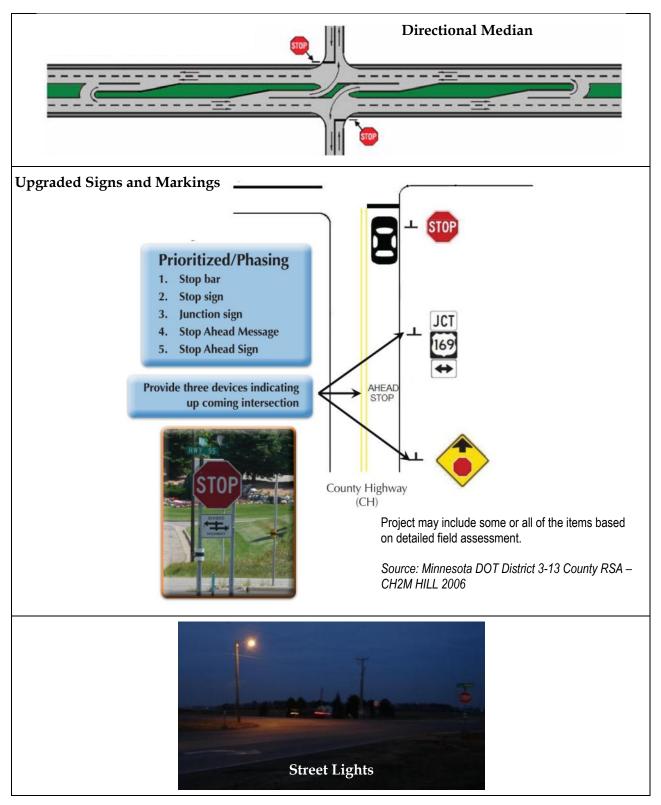


FIGURE 4-4 Intersection Safety Strategies Considered for Deployment

High-priority urban roadway segment projects focused on reducing rear-end and head-on crashes by creating buffer space in the middle of the roadway by converting to a three-lane or five-lane roadway and by better managing access along divided arterials (Figure 4-5).

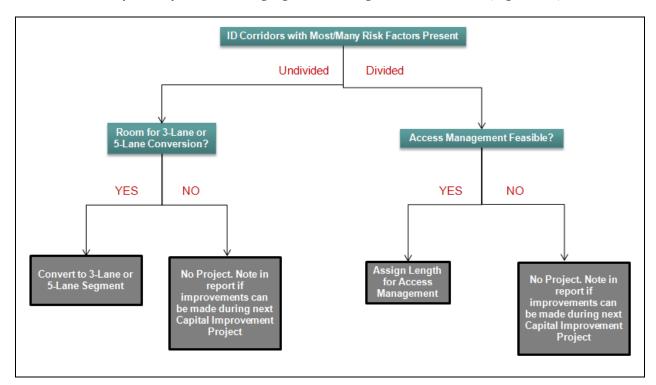


FIGURE 4-5
High-Priority Urban Roadway Segment (Turning) Project Decision Process

High-priority urban right-angle intersection projects focused on reducing right-angle crashes by reducing red-light running and access management to reduce the number of conflict points along a corridor, particularly at signalized intersections (Figure 4-6).

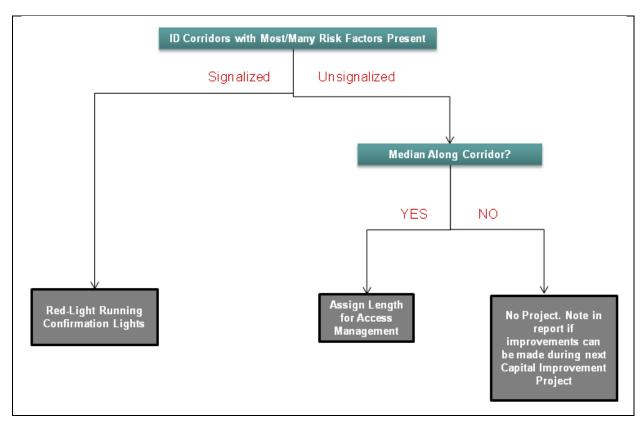


FIGURE 4-6 High-Priority Urban Right-Angle Intersection (Signalized) Project Decision Process

High-priority urban pedestrian and bicycle intersection projects focused on reducing pedestrian and bicycle crashes by providing with shorter crossing distances or median refuge islands, as well as advanced walk intervals and countdown timers at signalized intersections (Figure 4-7).

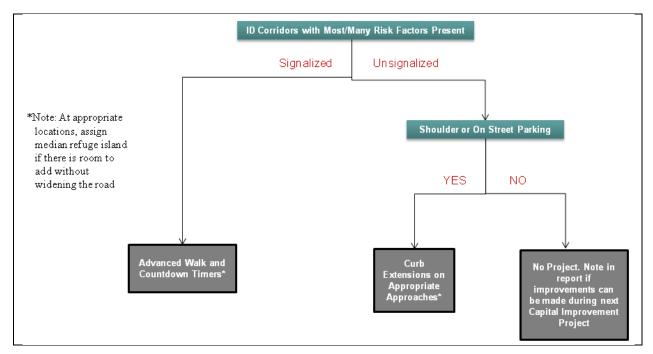


FIGURE 4-7
High-Priority Urban Pedestrian and Bicyclist Intersection Project Decision Process

Project forms were completed for each high-priority intersection, curve, and roadway segment, including a description of the location, brief crash history, ranking factors, a picture from the LRSP process of the location (if needed), and the identified safety strategy. These forms were formatted so they could be submitted directly through the HSIP process, but may require supplemental information for the evaluation and scoring process.

The suggested low-cost safety projects for the counties and the City of Minot are described in the following sections. The costs assigned to each project are planning level estimates and do not include right-of-way or some other supplemental costs such as signal revisions or replacement for three-lane conversion projects. Because of funding limitations, all potential projects would not be completed in 1 year. The actual schedule for implementing individual projects will necessitate securing funding from the state's HSIP. The safety planning process followed for Ward County is consistent with the North Dakota SHSP. In addition, several of the high-priority safety strategies are among those recommended for the state road system in the state's Strategic Plan.

It is not expected or required that each county pursue safety projects in the suggested ranking order. The ranking suggests general priorities, given that actual project development decisions will be made by each county staff based on economic, social, and political issues and in coordination with other pavement and reconstruction projects that are part of the county's Capital Improvement Program.

Many project details are still undetermined, including general project termini. Each county will determine specific project details (such as termini and exceptions) as decisions regarding implementation of specific projects are made. These decisions may require that the county coordinate with various municipal departments, the public, and other county transportation departments.

The total cost of projects suggested for Ward County and the City of Minot is \$2,994,286. A cost breakout by project type is provided in Table 4-1.

TABLE 4-1Total Project Costs

Rural Projects	Intersections	Segments	Curves	Total
Ward County	\$2,122,800	\$366,070	\$109,276	\$2,598,146
Urban Projects	Segments	Right Angle Intersections	Pedestrian and Bicyclist Intersections	Total
City of Minot	\$92,140	\$114,000	\$190,000	\$396,140
			TOTAL	\$2,994,286

Ward County

The total project cost suggested for Ward County is \$2,598,146. The project cost breakout for intersection, roadway segment, and curve projects are listed in Table 4-2. High-priority locations that received a project are shown in Figure 4-8 and Tables 4-3 through 4-5. These locations are described in further detail in Appendix A along with priority rankings and suggested project sheets.

TABLE 4-2
Ward County Project Costs

Project Type	Cost		
Intersections	\$	2,122,800	
Roadway Segments	\$	366,070	
Curves	\$	109,276	
Total	\$	2,598,146	

TABLE 4-3Ward County – Rural Intersection Projects

Train C	Journy – Kurai intersection i	10,000		Mainline			Review	
			Directio	Dynamic	Install		Signs &	
Inter		Risk	nal	Warning	Street	Signs &	Clearing/	Project
ID	Description	Ranking	Median	Sign	Lights	Markings	Grubbing	Cost (\$)
	436th Ave NW (Ward 2)							
1.01	& 6th St NW/415th Ave NW (Ward 1)	****			.,	.,	.,	#0.050
1.01	590th St NW (Ward 2) &	***	-	-	Х	Х	Х	\$9,950
2.01	436th Ave NW (Ward 2)	***	_	_	_	×	×	\$5,700
	US Highway 52 & 422nd							, , , , ,
	Ave NW/6th St NE							
2.02	(Ward 2)	****	-	Х	Installed	Х	Х	\$54,300
	US Highway 52 & 394th							
5.02	St NW (Ward 5)	***	-	-	Х	Х	Х	\$10,300
	US Highway 52/2nd Ave & Power St/Main St							
5.03	(Ward 5)	****	_	_	Installed	×	×	\$4,300
0.00	ND State Highway 28 &	~ ~ ~ ~ ~			motanea	^	^	Ψ4,000
	198th Ave							
	NW/Washington Ave W							
6.02	(Ward 6)	***	-	-	Installed	х	х	\$3,150
	US Highway 52 & 198th							
8.01	St NW (Ward 8)	****	-	-	Installed	Х	Х	\$5,700
8.03	US Highway 83 & 128th Ave NW/NE (Ward 8)	****	v	_		v	v	\$760,750
0.03	338th St SW (Ward 9) &	* * * *	Х		Х	Х	Х	\$700,750
	ND Highway 23/247th							
9.02	Ave SW	****	-	х	x	x	x	\$61,450
	US Highway 2 & 72nd St							
10.01	NW (Ward 10)	***	-	X	Installed	х	х	\$53,500
	Co Rd 15 W (Ward 15)							
10.00	& 46th Ave NW (Ward				la stalla -			60.500
10.02	10) US Highway 83 & 46th	***	-	-	Installed	Х	Х	\$3,500
10.03	Ave NW (Ward 10)	****	_	X	x	x	x	\$60,300
10.00	US Highway 52 & 184th	2222	_	^	<u> </u>	^	^	Ψ00,000
11.01	St NW (Ward 11)	****	-	x	х	x	x	\$59,600
	US Highway 83/S							
	Broadway St & 54th Ave							
14.04	SW/SE (Ward 14)	***	-	Х	Х	Х	Х	\$62,150

TABLE 4-3 Ward County – Rural Intersection Projects

	Transmitter 500tion 1			Mainline			Review	
			Directio	Dynamic	Install		Signs &	
Inter		Risk	nal	Warning	Street	Signs &	Clearing/	Project
ID	Description	Ranking	Median	Sign	Lights	Markings	Grubbing	Cost (\$)
	US Hwy 52 & 37th Ave							
14.07	SE (Ward 14)	***	-	X	Х	Х	Х	\$61,450
	US Hwy 52 & 79th Ave							
16.02	SE (Ward 16)	***	-	-	Х	Х	Х	\$12,150
	US Hwy 2 & 54th							
	St/62nd St NW (Ward							
17.01	17)	***	Х	-	Installed	Х	Х	\$753,850
	139th St SE (Ward 23) &							
23.01	ND Hwy 23	***	-	-	х	Х	Х	\$9,850
	142nd St SW (Ward							
	501) & 359th Ave							
	SW/ND Hwy 53 (Ward							
24.02	24)	***	-	-	-	Х	Х	\$5,700
	142nd St SW (Ward							
501.0	501) & 247th Ave							
1	SW/ND Hwy 23	***	-	-	-	Х	Х	\$6,150
504.0	US Hwy 52 & Co Rd 19							
1 304.0	S (Ward 504)	***	_	x	x	х	×	\$59,500
-	(vvaid 304)	^^^	-	^				ψ59,500
504.0	US Hwy 52 & Co Rd 19							
2	S (Ward 504)	***	-	Х	Х	х	Х	\$59,500
		TOTALS	2	9	12	22	22	\$2,122,800

TABLE 4-4Ward County – Rural Segment Projects

Corrid or ID	Local Street Name	Start	End	Shoulder Rumble Strip	Edge Line Rumble Strip	6" Edge Lines	Center Line Rumble	Project Cost (\$)
1.01	534th St	State Route 50	436th Ave	0.0	8.8	0.0	0.0	\$30,800
2.02	436th Ave	590th ST	Ward 11	5.8	0.0	0.0	0.0	\$17,400
5.03	Main St	US Hwy 52	Ward 7	0.0	0.0	1.8	0.0	\$1,170
8.01	128th Ave	US Hwy 52	US Hwy 83	12.9	0.0	0.0	0.0	\$38,700
9.03	310th St	Ward 20	Ward 14	15.5	0.0	0.0	0.0	\$46,500
10.02	19th Ave	Granly St	US Hwy 2	7.6	0.0	0.0	0.0	\$22,800
12.03	4th Ave	55th St	US Hwy 2	4.1	0.0	0.0	4.1	\$24,600
14.02	54th Ave	Ward 9	62nd St	0.0	17.8	0.0	0.0	\$62,300
14.04	54th Ave	US Hwy 83	1 mile east of 13th St	0.0	2.1	0.0	0.0	\$7,350
15.02	57th St	US Hwy 83	Ward 17	0.0	2.2	0.0	2.2	\$14,300
15.03	County Road 15 W	Ward 17	Ward 10	0.0	2.8	0.0	2.8	\$18,200
15.04	County Road 15 W	Ward 10	1 mile South of 86th St	0.0	2.2	0.0	0.0	\$7,700
17.02	54th St	US Hwy 2	Ward 15	0.0	1.3	0.0	1.3	\$8,450
23.04	153rd St	US Hwy 2	66th St	0.0	9.1	0.0	0.0	\$31,850
24.02	359th Ave	142nd St	US Hwy 83	0.0	9.7	0.0	0.0	\$33,950
			TOTALS	45.9	56.0	1.8	10.4	\$ 366,070

TABLE 4-5 Ward County – Rural Curve Projects

Corrid or ID	Local Street Name	Start	End	No. of Curves	Project Co	ost (\$)
1.01	534th St	State Route 50	436th Ave	4	\$ 5,	,265
2.02	436th Ave	590th ST	Ward 11	2	\$ 4,	,209
5.03	Main St	US Hwy 52	Ward 7	6	\$ 25,	,727
6.03	198th Ave	State Route 28	Reneville 6	1	\$ 3,	,755
8.01	128th Ave	US Hwy 52	US Hwy 83	1	\$ 6,	,373
9.03	310th St	Ward 20	Ward 14	4	\$ 1,	,818
10.01	184th St	Ward 9	Granly St	4	\$ 1,	,364
10.02	19th Ave	Granly St	US Hwy 2	4	\$ 17,	,745
10.03	60 th St	Ward 15	US Hwy 83	3	\$ 1,	,364
12.03	4th Ave	55th St	US Hwy 2	2	\$ 9,	,109
14.04	54th Ave	US Hwy 83	1 mile east of 13th St	5	\$ 8,	,873
14.06	37th St	Ward 14A	72nd Ave	1	\$ 4,	,555
15.04	County Road 15 W	Ward 10	1 mile South of 86th St	4	\$ 5,	,118
17.01	62nd St	Ward 14	US Hwy 2	3	\$ 5,	,464
17.02	54th St	US Hwy 2	Ward 15	6	\$ 2,	,727
23.02	21st Ave	State Route 23	US Hwy 53	1	\$ 4,	,555
501.03	142nd St	State Route 22	Ward 22	1	\$ 1,	,255
			TOTALS	52	\$ 109,	,276

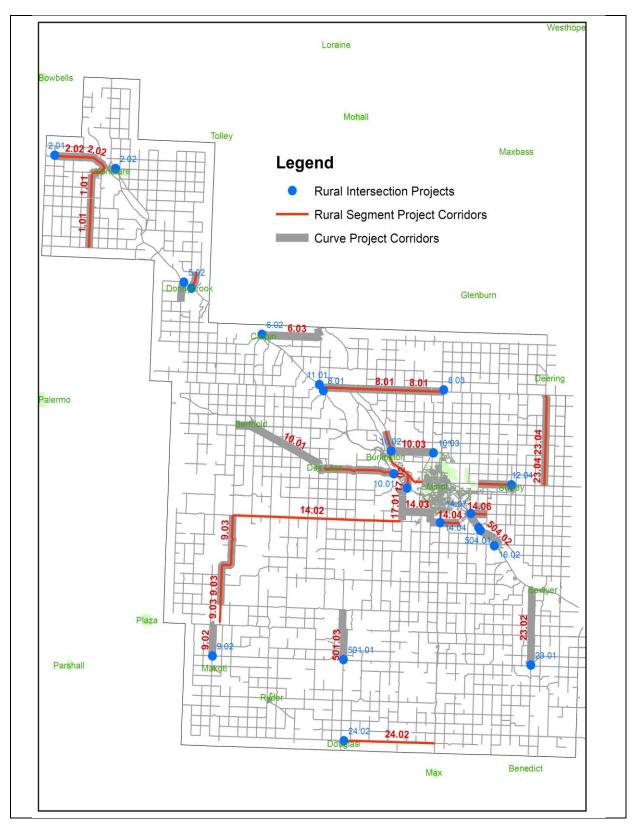


FIGURE 4-8 High-Priority Rural Locations

City of Minot

The total project cost suggested for the City of Minot is \$396,140. The project cost breakout for roadway segment, right-angle intersection, and pedestrian/bicyclist intersection projects are listed in Table 4-6. High-priority locations that received a project are shown in Figure 4-9 and Tables 4-7 through 4-9. These locations are described in further detail in Appendix A along with priority rankings and suggested project sheets.

TABLE 4-6 City of Minot Project Costs

Project Type	Cost
Roadway Segments	\$92,140
Right-Angle Intersections	\$114,000
Pedestrian and Bicyclist Intersections	\$190,000
Total	\$396,140

TABLE 4-7
City of Minot – Urban Segment Projects

Corridor ID	Local Street Name	Risk Ranking	2-Lane to 3-Lane Conv (miles)	Project Cost (\$)
802.02	16th St SW	***	1.7	\$ 28,917
808.01	16th Ave	***	2.0	\$ 34,000
809.01	11th Ave SE	***	0.75	\$ 12,750
811.02	3rd St NE / Airport Rd	***	1.0	\$ 16,473
		TOTALS	5.5	\$ 92,140

TABLE 4-8City of Minot – Right Angle Intersections

Corridor ID	Local Street Name	Confirmati on Lights	Access Management	Project Cost (\$)
83.01	Broadway St (20th Ave to Central)	5	Yes	\$ 105,000
83.02	Broadway St (4th Ave to 30th Ave)	4		\$ 4,000
802.01	16th Street (22nd to Hwy 2)	5		\$ 5,000
	TOTALS	14	1	\$ 114,000

TABLE 4-9City of Minot – Urban Pedestrian and Bicycle Projects

Corridor ID	Local Street Name	Advanced Walk	Countdown Timers	Curb Extensions	Project Cost (\$)
83.01	US 83 (20th Ave to Central Ave)	4	4	2	\$ 70,000
83.02	US 83 (4th Ave to 30th Ave NW)	4	4		\$ 40,000
802.02	16th Street (2nd Ave to 21st Ave NW)	2	2	4	\$ 80,000
		11	11	6	\$ 190,000

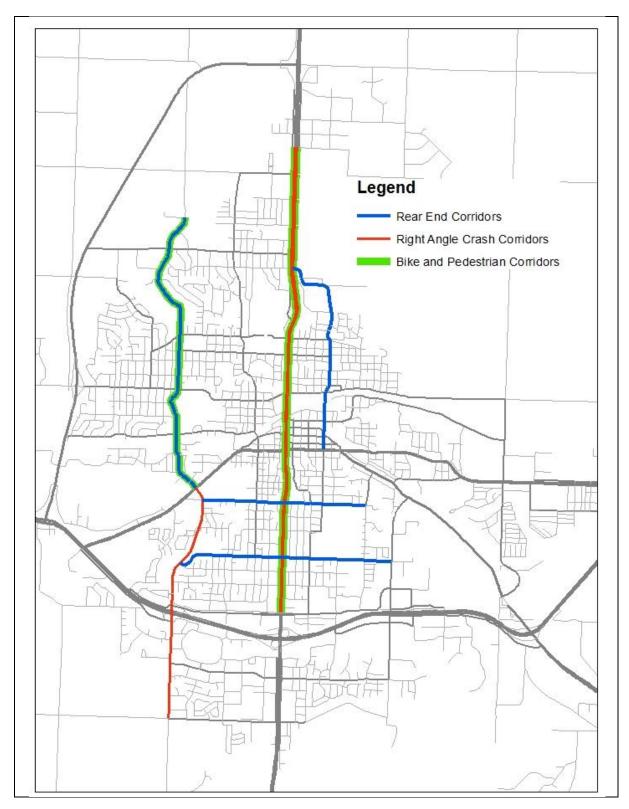


FIGURE 4-9 High-Priority Urban Corridor

23 USC 409 NDDOT Reserves All Objections

Ward County

Ward County Rural Intersection Projects

Intersection ID	Risk Ranking	Risk Ranking	Directional Median	Close Median	Mainline Dynamic Warning Sign	Install Street Lights	Signs & Markings	Review Signs & Clearing/G rubbing	Project Cost (\$)
1.01	436th Ave NW (Ward 2) & 6th St NW/415th Ave NW (Ward 1)	****	-		-	Х	Х	х	\$9,950
2.01	590th St NW (Ward 2) & 436th Ave NW (Ward 2)	***	-		-		Х	x	\$5,700
2.02	US Highway 52 & 422nd Ave NW/6th St NE (Ward 2)	****	-		х	Х	Х	x	\$54,300
5.02	US Highway 52 & 394th St NW (Ward 5)	***	-		-	Х	Х	x	\$10,300
5.03	US Highway 52/2nd Ave & Power St/Main St (Ward 5)	****	-		-	ï	х	x	\$4,300
6.02	ND State Highway 28 & 198th Ave NW/Washington Ave W (Ward 6)	***	-		-	-	Х	x	\$3,150
8.01	US Highway 52 & 198th St NW (Ward 8)	****	-		-	-	Х	x	\$5,700
8.03	US Highway 83 & 128th Ave NW/NE (Ward 8)	****	х		-	Х	Х	x	\$760,750
9.02	338th St SW (Ward 9) & ND Highway 23/247th Ave SW	****	-		Х	Х	Х	x	\$61,450
10.01	US Highway 2 & 72nd St NW (Ward 10)	***	-		Х	Х	Х	x	\$53,500
10.02	Co Rd 15 W (ward 15) & 46th Ave NW (Ward 10)	***	-		-	-	Х	x	\$3,500
10.03	US Highway 83 & 46th Ave NW (Ward 10)	****	-		Х	Х	Х	x	\$60,300
11.01	US Highway 52 & 184th St NW (Ward 11)	****	-		Х	Х	Х	x	\$59,600
14.04	US Highway 83/S Broadway St & 54th Ave SW/SE (Ward 14)	***	-		Х	Х	Х	x	\$62,150
14.07	US Hwy 52 & 37th Ave SE (Ward 14)	***	-		Х	Х	Х	x	\$61,450
16.02	US Hwy 52 & 79th Ave SE (Ward 16)	***	-		-	Х	Х	x	\$12,150
17.01	US Hwy 2 & 54th St/62nd St NW (Ward 17)	***	x		-	х	х	x	\$753,850
23.01	139th St SE (Ward 23) & ND Hwy 23	***	-		-	Х	Х	x	\$9,850
24.02	142nd St SW (Ward 501) & 359th Ave SW/ND Hwy 53 (Ward 24)	***	-		-	-	Х	x	\$5,700
501.01	142nd St SW (Ward 501) & 247th Ave SW/ND Hwy 23	***	-		-	-	Х	x	\$6,150
504.01	US Hwy 52 & Co Rd 19 S (Ward 504)	***	-		Х	Х	Х	x	\$59,500
504.02	US Hwy 52 & Co Rd 19 S (Ward 504)	***	-		Х	Х	Х	x	\$59,500
	_		2	0	9	15	22	22	\$2,122,800

Detailed Intersection Information

Ward County Intersection List		Div/Undiv						On if gravel						
						Major Surface	e Minor Surface	Minor Leg Approach						
Int # Sys Num Intersection Description	Config	Config(2) Major 1 Major 2 Minor 1 Minor :		•		Type	Type	Apron Type	Notes	803	Traffic Control Device	Street Lights	Flashers	Previous STOP (>5mi)
1.01 Ward 1 436th Ave NW (Ward 2) & 6th St NW/415th Ave NW (Ward 1) 2.01 Ward 2 590th St NW (Ward 2) & 436th Ave NW (Ward 2)	X	Undivided 440 805 360 Undivided 170 300 120 160		Yes No	Yes No	Paved Paved	Paved Paved/Gravel	Paved Paved/Gravel		375	thru-STOP thru-STOP	No No	No No	No Yes
2.02 Ward 2 US Highway 52 & 422nd Ave NW/6th St NE (Ward 2)	T	Undivided 975 3,375 1,655 685		No Yes	No	Paved	Paved	Paved		3.345	thru-STOP	Yes	No	Yes
2.03 Ward 2 436th St NW (Ward 3) & 422nd Ave NW (Ward 2)	X	Undivided 300 260 70 25		No No	No	Paved	Gravel	Gravel		328	Yield	No	No	Yes
3.01 Ward 3 436th St NW (Ward 3) & 366th Ave NW (Ward 4)	Х	Undivided 50 55 25 29	Count No	No No	No	Gravel	Gravel	Gravel		80	Unknown	Unknown	Unknown	
4.01 Ward 4 US Highway 52 & 366th Ave NW (Ward 4)	Т	Undivided 2,340 1,425 50	Count Yes '	Yes No	No	Paved	Gravel	Gravel		1,908	thru-STOP	No	No	No
5.01 Ward 5 394th St NW (Ward 5) & 184th Ave NW (Ward 6)	Χ	Undivided 55 29 50 29		No No	No	Gravel	Gravel	Gravel		82	Unknown	Unknown	Unknown	
5.02 Ward 5 US Highway 52 & 394th St NW (Ward 5)		Undivided 1,450 2,545 180		Yes No	No	Paved	Paved	Paved		2,088	thru-STOP	No	No	Yes
5.03 Ward 5 US Highway 52/2nd Ave & Power St/Main St (Ward 5) 5.04 Ward 5 55 1/2th St NW (Ward 5) & 282nd Ave NW (Ward 7)	T	Undivided 2,545 1,125 300 Undivided 170 70 230		Yes Yes No No	No No	Paved Gravel	Paved Paved	Paved Paved		1,985 235	thru-STOP Yield	Yes No	No No	Yes
6.01 Ward 6 ND State Highway 28 & 184th Ave NW/Garfield Ave W (Ward 6)	X	Undivided 610 850 60 200		Yes No	No	Paved	Paved	Paved		860	thru-STOP	Yes	No	No
6.02 Ward 6 ND State Highway 28 & 198th Ave NW/Washington Ave W (Ward 6)	T	Undivided 745 610 180		Yes No	Yes	Paved	Paved	Paved		768	thru-STOP	Yes	No	No
6.03 Ward 6 184th St NW (Ward) & 198th Ave NW (Ward 6)	Т	Undivided 250 60 200	Count No	Yes No	No	Paved	Paved	Paved		255	Yield	No	No	Yes
8.01 Ward 8 US Highway 52 & 198th St NW (Ward 8)	Х	Undivided 1,900 2,000 50 180	Count No	Yes Yes	Yes	Paved	Paved/Gravel	Paved/Gravel		2,065	thru-STOP	Yes	No	Yes
8.02 Ward 8 Co Rd 15 W (Ward 15) & 128th Ave NW (Ward 8)	T	Undivided 85 75 70	Count Yes	No No	No	Paved	Gravel	Gravel		115	Yield	No	No	Yes
8.03 Ward 8 US Highway 83 & 128th Ave NW/NE (Ward 8)	X	Div/Undiv 5,695 5,500 305 965		Yes Yes	No	Paved	Paved	Paved		6,233	thru-STOP	No	Overhead	Yes
8.04 Ward 8 27th St NE (Ward 19) & 128th Ave NE (Ward 8)	T	Undivided 965 625 450		No No	No	Paved	Paved	Paved		1,020	thru-STOP	No	No	No
8.05 Ward 8 153rd St NE (Ward 23) & 128th Ave NE (Ward 8) 9.01 Ward 9 338th St SW (Ward 9) & 303rd Ave SW (Ward 22)	X	Undivided 320 110 240 29 Undivided 300 190 120 29		Yes No No	No No	Paved Paved	Paved/Gravel Paved/Gravel	Paved/Gravel Paved/Gravel		350 320	Yield thru-STOP/Yield	No No	No No	Yes No
9.01 Ward 9 330th St SW (Ward 9) & 305h Ave SW (Ward 22) 9.02 Ward 9 338th St SW (Ward 9) & ND Highway 23/247th Ave SW	X	Undivided 3,330 2,720 675 490		No Yes	No	Paved	Paved/Graver	Paved/Graver		3,608	thru-STOP/ field	No	No	Yes
9.03 Ward 9 338th St SW (Ward 9) & 205th Ave SW (Ward 20)	TT	Undivided 675 80 80		No No	No	Paved	Paved/Gravel	Paved	Gravel approach w 50' paved	418	Yield	No	No	Yes
9.04 Ward 9 325th St SW (Ward 9) & 177th Ave SW (Ward 20)	T	Undivided 60 130 40		No No	No	Paved	Paved	Paved	Gravel 500' away from approach	115	Yield	No	No	Yes
9.05 Ward 9 310th St SW (Ward 9) & 54th Ave SW (Ward 14)	X	Undivided 65 110 70 0		No No	No	Paved	Paved	Paved	All approaches are paved, disagrees with Ward_Seg	123	thru-STOP	No	No	Yes
9.06 Ward 9 310th St NW (Ward 9) & 72nd Ave NW (Ward 10)	Х	Undivided 315 30 55 230	Count No	No No	No	Paved	Paved/Gravel	Paved	200' of paved approach for gravel approach	315	thru-STOP	No	No	No
9.07 Ward 9 US Highway 2/86th Ave NW & 310th St NW (Ward 9)	Х	Div/Undiv 2,870 4,140 240 190	Count No	No No	No	Paved	Paved/Gravel	Paved	50' of paved approach for gravel approach	3,720	thru-STOP	No	No	No
10.01 Ward 10 US Highway 2 & 72nd St NW (Ward 10)	T	Div/Undiv 5,865 7,065 915 230		Yes No	Yes	Paved	Paved/Gravel	Paved	20' of paved approach for gravel approach	7,038	thru-STOP	Yes	No	No
10.02 Ward 10 Co Rd 15 W (ward 15) & 46th Ave NW (Ward 10)	T	Undivided 650 400 520		Yes No	No	Paved	Paved	Paved		785	thru-STOP	Yes	No	No
10.03 Ward 10 US Highway 83 & 46th Ave NW (Ward 10)	T	Undivided 6,380 6,630 615		Yes No	No	Paved	Paved	Paved Paved		6,813	thru-STOP	No V	No	No No
10.04 Ward 10 US Highway 83/N Broadway & 46th Ave NE (Ward 10) 10.05 Ward 10 27th St NE (Ward 19) & 46th Ave NE (Ward 10)	X	Div/Undiv 5,895 4,995 6,630 1,775 Undivided 1,095 2,800 1,810 160		No No	No Yes	Paved Paved	Paved Paved/Gravel	Paved	20' of paved approach for gravel approach	9,648 2,933	Signal thru-STOP	Yes No	No No	No No
10.06 Ward 10 55th St NE (Ward 10) & 46th Ave NE (Ward 10)	×	Undivided 170 190 29 29		No No	No	Paved	Unknown	Unknown	Marked as gravel, but is paved	209	Unknown	Unknown	Unknown	No
11.01 Ward 11 US Highway 52 & 184th St NW (Ward 11)	T	Undivided 1,950 1,900 3,330		Yes No	Yes	Paved	Paved	Paved	markou do grafor, bacto parou	3.590	thru-STOP	No	No	No
12.01 Ward 12 62nd St NW (Ward 17) & 22nd St SW (Ward 12)	Т	Undivided 260 550 120	Count Yes	Yes No	No	Paved	Paved	Paved		465	Yield	No	No	No
12.02 Ward 12 27th St NE (Ward 19) & 4th Ave NE (Ward 12)	Х	Undivided 6,295 2,350 4,465 3,265	Count No	No No	No	Paved	Paved	Paved		8,188	All-way STOP	No	No	No
12.03 Ward 12 55th St NE (Ward 12) & 4th Ave NE (Ward 12)	Χ	Undivided 3,115 1,500 2,400 115	Count No	No No	No	Paved	Paved/Gravel	Paved/Gravel		3,565	thru-STOP	No	No	No
12.04 Ward 12 Pleasant Ave N/104th St NE (Ward 12) & 2nd St NW (Ward 12)	Х	Undivided 1,290 529 900 529		No Yes	Yes	Paved	Paved	Paved		1,624	thru-STOP	Yes	No	No
12.05 Ward 12 US Highway 2 & 104th St SE (Ward 12)	X	Div/Undiv 2,535 3,680 1,290 290		Yes No	No	Paved	Paved/Gravel	Paved	20' of paved approach for gravel approach	3,898	thru-STOP thru-STOP/Yield	Yes	No	No
12.06 Ward 12 55th St SE (Ward 12) & 37th Ave SE (Ward 14) 12.07 Ward 12 55th St SE (Ward 12) & US Highway 2	X	Undivided 350 529 395 29 Div/Undiv 5,310 4,240 1,610 210		No No	No No	Paved Paved	Paved/Gravel Paved	Paved Paved	20' of paved approach for gravel approach	652 5,685	thru-STOP/Yield	No No	No No	No No
14.01 Ward 14 62nd St SW (Ward 14) & 54th Ave SW (Ward 14)		Undivided 380 775 29		Yes No	No	Paved	Paved	Paved		592	Yield	No	No	No
14.02 Ward 14 62nd St SW (Ward 17) & 37th Ave SW (Ward 14)	X	Undivided 240 775 850 29		No No	No	Paved	Paved/Gravel	Paved/Gravel		947	Yield	No	No	No
14.03 Ward 14 16th St SW (Ward 14) & 37th Ave SW (Ward 14)	Х	Undivided 2,370 7,385 8,825 570	Count No	No Yes	No	Paved	Paved	Paved		9,575	Signal	Yes	No	No
14.04 Ward 14 US Highway 83/S Broadway St & 54th Ave SW/SE (Ward 14)	Х	Div/Undiv 4,575 5,030 270 795	Count No	No Yes	No	Paved	Paved	Paved		5,335	thru-STOP	No	No	No
14.05 Ward 14 38th St SE (Ward 14) & 37th Ave SE (Ward 14)	T	Undivided 300 550 29	Count No	No No	No	Paved	Paved	Paved		440	thru-STOP	Yes	No	No
14.06 Ward 14 Co Hwy 19 S (Ward 504) & 72nd St SE (Ward 14)	T	Undivided 1,050 675 180		Yes No	No	Paved	Paved	Paved		953	thru-STOP	No	No	No
14.07 Ward 14 US Hwy 52 & 37th Ave SE (Ward 14)	X	Div/Undiv 4,180 2,650 180 500	Count 100	No No	No	Paved	Paved	Paved	201 - f d f	3,755	thru-STOP	No	No	No No
14.08 Ward 14 72nd St SE (Ward 14) & 37th Ave SE (Ward 14) 14.09 Ward 14 72nd St SE (Ward 14) & 11th Ave SE	X	Undivided 350 170 29 29 Undivided 1005 170 29 29		No No	No No	Paved Paved	Gravel Paved	Paved Paved	20' of paved approach for gravel approaches	289 617	Unknown Unknown	Unknown	Unknown	No No
15.02 Ward 15 Co Rd 15 W/4th Ave NW (Ward 15) & 54th St NW (Ward 17)	T	Undivided 240 250 170		Yes No	No	Paved	Paved	Paved		330	thru-STOP	Yes	No	No
16.01 Ward 16 US Hwy 83 & 93rd Ave SW (Ward 16)	X	Div/Undiv 2,550 2,550 95 110		No No	No	Paved	Gravel	Paved		2,653	thru-STOP	No	No	Yes
16.02 Ward 16 US Hwy 52 & 79th Ave SE (Ward 16)	X	Undivided 5,295 4,000 30 140		Yes No	No	Paved	Paved/Gravel	Paved	20' of paved approach for gravel approach	4,733	thru-STOP	No	No	Yes
16.03 Ward 16 Co Rd 19 S (Ward 504) & 79th Ave SE (Ward 16)	Х	Undivided 250 170 140 280	Count Yes	No No	No	Paved	Paved	Paved		420	thru-STOP	No	No	No
17.01 Ward 17 US Hwy 2 & 54th St/62nd St NW (Ward 17)	Х	Div/Undiv 6,195 6,905 825 1,620		Yes No	No	Paved	Paved	Paved		7,773	thru-STOP	Yes	No	Yes
20.01 Ward 20 254th St SW (Ward 500) & 177th Ave SW (Ward 20)	Х	Undivided 210 130 40 40		No No	No	Gravel	Gravel	Gravel		210	Unknown	Unknown	Unknown	
20.02 Ward 20 142nd St SW (Ward 501) & 177th Ave SW (Ward 20)	X	Undivided 50 250 85 29		Yes No	No	Paved	Paved/Gravel	Paved	20' of paved approach for gravel approach	207	thru-STOP	No	No	Yes
20.03 Ward 20 US Hwy 83 & 177th Ave SW (Ward 20)	X	Div/Undiv 4,190 3,780 355 180		No Yes	No	Paved	Paved	Paved		4,253	thru-STOP	No	No	No
22.01 Ward 22 254th St SW/ND Hwy 28 (Ward 500) & 303rd Ave SW (Ward 22) 22.03 Ward 22 142nd St SW (Ward 501) & 303rd Ave SW (Ward 22)	X	Undivided 300 255 240 130 Undivided 70 35 65 10		No No	No No	Paved Gravel	Paved Gravel	Paved Gravel		463 90	thru-STOP Unknown	No Unknown	No Unknown	No
22.04 Ward 22 US Hwy 83 & 303rd Ave SW (Ward 22)	T	Div/Undiv 1,800 3,065 40		Yes No	No	Paved	Gravel	Paved	20' of paved approach for gravel approach	2,453	thru-STOP	No	No	Yes
23.01 Ward 23 139th St SE (Ward 23) & ND Hwy 23	X	Undivided 250 420 270 200		Yes No	No	Paved	Paved	Paved		570	thru-STOP	No	No	Yes
23.02 Ward 23 US Hwy 52 & 139th St SE (Ward 23)	Т	Undivided 3,350 4,885 385		No No	No	Paved	Paved	Paved		4,310	thru-STOP	No	No	No
23.03 Ward 23 153rd St SE (Ward 23) & 79th Ave SE (Ward 16)	Х	Undivided 110 70 60 85	Count No	No No	No	Gravel	Gravel	Gravel		163	Unknown	Unknown	Unknown	
23.04 Ward 23 US Hwy 2/Burdick Expy E & 153rd St NE (Ward 23)	Х	Div/Undiv 2,200 1,900 705 115		No No	No	Paved	Paved/Gravel	Paved	200' of paved approach for gravel approach	2,460	thru-STOP	No	No	Yes
24.01 Ward 24 254th St SW/ND Hwy 28 & 359th Ave SW/ND Hwy 53 (Ward 24)	X	Undivided 285 200 29 155		No No	No	Paved	Paved/Gravel	Paved	20' of paved approach for gravel approach	335	thru-STOP	No	No	Yes
24.02 Ward 24 142nd St SW (Ward 501) & 359th Ave SW/ND Hwy 53 (Ward 24)	X	Undivided 160 0 40 0		Yes No	No	Paved	Paved/Gravel	Paved/Gravel		100	thru-STOP	No	No	Yes
24.03 Ward 24 US Hwy 83 & 359th Ave SW/SE (Ward 24) 500.01 Ward 500 254th St SW/ND Hwy 28 (Ward 500) & 247th Ave SW/ND Hwy 23	X	Div/Undiv 1,700 1,850 290 180 Undivided 2,670 2,490 40 300		No No	No No	Paved Paved	Paved/Gravel Paved/Gravel	Paved/Gravel Paved	20' of paved approach for gravel approach	2,010 2,750	thru-STOP thru-STOP	No No	No No	Yes Yes
501.01 Ward 500 254th St SW/ND Hwy 28 (Ward 500) & 247th Ave SW/ND Hwy 23	X	Undivided 2,870 2,490 40 300 Undivided 1,195 1,235 85 70		Yes No	No	Paved	Paved/Gravel	Paved	100' of paved approach for gravel approach	1,293	thru-STOP	No No	No	Yes
501.01 Ward 501 14210 St SW (Ward 501) & 24701 AVE SW/ND HWy 25 502.01 Ward 502 US Hwy 83 & 135th Ave SW/SE (Ward 502)	X	Div/Undiv 2,600 4,035 100 110		No No	No	Paved	Gravel	Paved	100' of paved approach for gravel approaches	3,423	thru-STOP	No	No	Yes
502.02 Ward 502 US Hwy 52 & 135th Ave SE (Ward 502)	T	Undivided 5,340 3,350 185		No No	No	Paved	Gravel	Paved	100' of paved approach for gravel approach	4,438	thru-STOP	No	No	No
504.01 Ward 504 US Hwy 52 & Co Rd 19 S (Ward 504)	Т	Div/Undiv 3,040 5,295 400		Yes No	No	Paved	Paved	Paved		4,368	thru-STOP	No	No	No
504.02 Ward 504 US Hwy 52 & Co Rd 19 S (Ward 504)	Т	Div/Undiv 2,300 2,975 300	Count No '	Yes Yes	No	Paved	Paved	Paved		2,788	thru-STOP	No	No	No
		-												

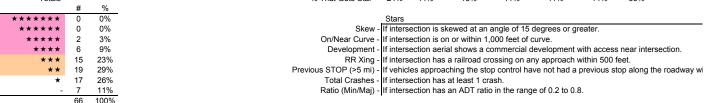
Ward County Intersection List

		Years o	f Total	Severe		Severi	ty		Sideswipe	Angle (Opposite			 Severe Crashes Angle (Same 		Head	Sideswipe	Rear-to-	Rear-to-	Light Conditions - Se Dawn/ Dark v		Road Condi	ition - Sev ONLY Snow/
Int#	Sys Num Intersection Description	Data	Crashes		K	А В	C PE	O Rear	End Passing	Direction)	Veh	Angle	Direction)	Specific)	On	Opposing	Rear	Side	Day Dusk Streetli		n Dry Wet	
1.01	Ward 1 436th Ave NW (Ward 2) & 6th St NW/415th Ave NW (Ward 1)	5	0	0	-		-	-				-			-	-	-	-			-	
2.01	Ward 2 590th St NW (Ward 2) & 436th Ave NW (Ward 2)	6	0	0	-		-	-				-			-	-	-	-				
2.02	Ward 2 US Highway 52 & 422nd Ave NW/6th St NE (Ward 2)	7	0	0	-		-	-				-		-	-	-	-	-			-	
2.03	Ward 2 436th St NW (Ward 3) & 422nd Ave NW (Ward 2)	8	0	0	-		-	-				-			-	-	-	-				
3.01	Ward 3 436th St NW (Ward 3) & 366th Ave NW (Ward 4)	9	1	0	-			1				-			-	-	-	-				
	Ward 4 US Highway 52 & 366th Ave NW (Ward 4)	10	0	0			-	-				-			-	-	-	-				
	Ward 5 394th St NW (Ward 5) & 184th Ave NW (Ward 6)	11	0	0			-	-	-							-	-				1	
	Ward 5 US Highway 52 & 394th St NW (Ward 5)	12	0	0				-							-	•	-				+	
	Ward 5 US Highway 52/2nd Ave & Power St/Main St (Ward 5)	13	0	0				-							-	-					+	
	Ward 5 55 1/2th St NW (Ward 5) & 282nd Ave NW (Ward 7)	14 15	0	0				-							-	-	-				+	<u> </u>
	Ward 6 ND State Highway 28 & 184th Ave NW/Garfield Ave W (Ward 6) Ward 6 ND State Highway 28 & 198th Ave NW/Washington Ave W (Ward		0	0				-														
	Ward 6 184th St NW (Ward) & 198th Ave NW (Ward 6)	17	0	0					-												+	
	Ward 8 US Highway 52 & 198th St NW (Ward 8)	18	0	0				-								_						
	Ward 8 Co Rd 15 W (Ward 15) & 128th Ave NW (Ward 8)	19	0	0				-							-	-	-	-				
8.03	Ward 8 US Highway 83 & 128th Ave NW/NE (Ward 8)	20	0	0	-		-	-				-			-	-	-	-				
8.04	Ward 8 27th St NE (Ward 19) & 128th Ave NE (Ward 8)	21	0	0	-		-	-				-			-	-	-	-			-	
8.05	Ward 8 153rd St NE (Ward 23) & 128th Ave NE (Ward 8)	22	0	0	-		-	-				-			-	-	-	-			-	
9.01	Ward 9 338th St SW (Ward 9) & 303rd Ave SW (Ward 22)	23	0	0	-		-	-				-			-	-	-	-				
9.02	Ward 9 338th St SW (Ward 9) & ND Highway 23/247th Ave SW	24	1	0	-		-	1	-			-		-		-	-	-			-	
	Ward 9 338th St SW (Ward 9) & 205th Ave SW (Ward 20)	25	0	0				-	-					-	-	-	-	-				
	Ward 9 325th St SW (Ward 9) & 177th Ave SW (Ward 20)	26	0	0				-	-							-	-					
	Ward 9 310th St SW (Ward 9) & 54th Ave SW (Ward 14)	27	0	0				-							-	-	-					
	Ward 9 310th St NW (Ward 9) & 72nd Ave NW (Ward 10)	28	0	0				-							-	-	-				+	
	Ward 9 US Highway 2/86th Ave NW & 310th St NW (Ward 9)	29 30	0	0				-							-	-	-				+	
	Ward 10 US Highway 2 & 72nd St NW (Ward 10) Ward 10 Co Rd 15 W (ward 15) & 46th Ave NW (Ward 10)	31	0	0				-													+	
	Ward 10 US Highway 83 & 46th Ave NW (Ward 10)	32	2	0		- 1		1							-						+	
	Ward 10 US Highway 83/N Broadway & 46th Ave NE (Ward 10)	33	11	1		1 -	. 2	8			1 -	-				_		-		1 -	_	1 -
	Ward 10 27th St NE (Ward 19) & 46th Ave NE (Ward 10)	34	0	0				-				-			-	-	-	-				
10.06	Ward 10 55th St NE (Ward 10) & 46th Ave NE (Ward 10)	35	0	0	-		-	-				-			-	-	-	-				
11.01	Ward 11 US Highway 52 & 184th St NW (Ward 11)	36	1	0	-		-	1				-			-	-	-	-			-	
12.01	Ward 12 62nd St NW (Ward 17) & 22nd St SW (Ward 12)	37	0	0	-		-	-				-			-	-	-	-				
12.02	Ward 12 27th St NE (Ward 19) & 4th Ave NE (Ward 12)	38	0	0	-		-	-				-			-	-	-	-			-	
	Ward 12 55th St NE (Ward 12) & 4th Ave NE (Ward 12)	39	0	0	-		-	-				-			-	-	-	-				
	Ward 12 Pleasant Ave N/104th St NE (Ward 12) & 2nd St NW (Ward 12)	40	0	0				-	-						-	-	-				-	
	Ward 12 US Highway 2 & 104th St SE (Ward 12)	41	0	0				-							-	-	-					
	Ward 12 55th St SE (Ward 12) & 37th Ave SE (Ward 14) Ward 12 55th St SE (Ward 12) & US Highway 2	42 43	0	0			-	-				-				-	-				+	
	Ward 14 62nd St SW (Ward 14) & 54th Ave SW (Ward 14)	44	0	0																	-	
	Ward 14 62nd St SW (Ward 17) & 37th Ave SW (Ward 14)	45	0	0	_			-				-			_			-				
	Ward 14 16th St SW (Ward 14) & 37th Ave SW (Ward 14)	46	0	0	-			-				-			-	-	-	-				
14.04	Ward 14 US Highway 83/S Broadway St & 54th Ave SW/SE (Ward 14)	47	1	0	-		-	1				-			-	-	-	-			-	
14.05	Ward 14 38th St SE (Ward 14) & 37th Ave SE (Ward 14)	48	2	0	-		-	2				-			-	-	-	-				
14.06	Ward 14 Co Hwy 19 S (Ward 504) & 72nd St SE (Ward 14)	49	0	0	-		-	-				-			-	-	-	-			-	
	Ward 14 US Hwy 52 & 37th Ave SE (Ward 14)	50	2	0	-		-	2				-			-	-	-	-				
	Ward 14 72nd St SE (Ward 14) & 37th Ave SE (Ward 14)	51	0	0				-	-						-	-	-				+	
	Ward 14 72nd St SE (Ward 14) & 11th Ave SE	52	0	0				-				-	-		-		-	-			-	
	Ward 15 Co Rd 15 W/4th Ave NW (Ward 15) & 54th St NW (Ward 17)	54					-	-						• •	-	•	-	-			-	
	Ward 16 US Hwy 83 & 93rd Ave SW (Ward 16) Ward 16 US Hwy 52 & 79th Ave SE (Ward 16)	55 56	0	0				-								-	-				-	<u> </u>
	Ward 16 OS RWy 52 & 79th Ave SE (Ward 16) Ward 16 Co Rd 19 S (Ward 504) & 79th Ave SE (Ward 16)	57	0	0		-		-													1	
	Ward 17 US Hwy 2 & 54th St/62nd St NW (Ward 17)	58	0	0				-				-			-	-	-				-	
	Ward 20 254th St SW (Ward 500) & 177th Ave SW (Ward 20)	59	0	0				-				-				-	-	-			1	
20.02	Ward 20 142nd St SW (Ward 501) & 177th Ave SW (Ward 20)	60	0	0	-		-	-				-			-	-	-	-			-	
20.03	Ward 20 US Hwy 83 & 177th Ave SW (Ward 20)	61	0	0	-		-	-				-			-	-	-	-				
22.01	Ward 22 254th St SW/ND Hwy 28 (Ward 500) & 303rd Ave SW (Ward 22)	62	0	0	-		-	-				-			-			-			-	
	Ward 22 142nd St SW (Ward 501) & 303rd Ave SW (Ward 22)	63	0	0	-		-	-				-			-	-	-	-				
	Ward 22 US Hwy 83 & 303rd Ave SW (Ward 22)	64	0	0			-	-				-			-	-	-	-				
	Ward 23 139th St SE (Ward 23) & ND Hwy 23	65	0	0				-	-			-			-	-	-	-			+	
	Ward 23 US Hwy 52 & 139th St SE (Ward 23)	66	0	0			-	-							-		-					
	Ward 23 153rd St SE (Ward 23) & 79th Ave SE (Ward 16)	67 68	0	0				-	-			-			-	-	-				-	<u> </u>
	Ward 23 US Hwy 2/Burdick Expy E & 153rd St NE (Ward 23) Ward 24 254th St SW/ND Hwy 28 & 359th Ave SW/ND Hwy 53 (Ward 24)	68	0	0				1				-			-		-				+	<u> </u>
	Ward 24 142nd St SW/ND Hwy 28 & 359th Ave SW/ND Hwy 53 (Ward 24)	70	0	0				-							-	-	-				-	
	Ward 24 US Hwy 83 & 359th Ave SW/SE (Ward 24)	71	0	0		-		-	- :													
	Ward 500 254th St SW/ND Hwy 28 (Ward 500) & 247th Ave SW/ND Hwy 23		0	0				-	-							-					+	
	Ward 501 142nd St SW (Ward 501) & 247th Ave SW/ND Hwy 23	73	0	0			-	-							-	-	-					
	Ward 502 US Hwy 83 & 135th Ave SW/SE (Ward 502)	74	0	0			-	-							-	-	-	-	,			
	Ward 502 US Hwy 52 & 135th Ave SE (Ward 502)	75	2	0				2				-				-	-	-				
504.01	Ward 504 US Hwy 52 & Co Rd 19 S (Ward 504)	76	3	0	-	- 1	-	2				-			-	-	-	-				
504.02	Ward 504 US Hwy 52 & Co Rd 19 S (Ward 504)	77	0	0				-								-	-					
			26		0	1 2	2 2	0	0	4	0	0	0	0	0	0	0	0	0 0 1	0 0	0 1	0 0

Ward County Rural Intersection Listing

Int#	Sys			Skew	On/Near Curve	Development	RR Xing	ADT	Previous STOP (>5mi)		ADT Cross Product >100,000		ish Cost
1.01 2.01	Ward Ward	2	436th Ave NW (Ward 2) & 6th St NW/415th Ave NW (Ward 1) 590th St NW (Ward 2) & 436th Ave NW (Ward 2)	Yes	Yes Yes	No No	Yes	803 375	No Yes	0	Yes No	\$	-
2.01	Ward	2	US Highway 52 & 422nd Ave NW/6th St NE (Ward 2)	Yes	No	Yes	No	3345	Yes	0	Yes	\$	
2.03	Ward	2	436th St NW (Ward 3) & 422nd Ave NW (Ward 2)	No	No	No	No	328	Yes	0	No	\$	-
4.01	Ward	4	US Highway 52 & 366th Ave NW (Ward 4)	Yes	Yes	No	No	1908	No	0	No	\$	-
5.02	Ward	5	US Highway 52 & 394th St NW (Ward 5)	No	Yes	No	No	2088	Yes	0	Yes	\$	-
5.03 6.01	Ward Ward	5 6	US Highway 52/2nd Ave & Power St/Main St (Ward 5) ND State Highway 28 & 184th Ave NW/Garfield Ave W (Ward	Yes	Yes Yes	Yes No	No No	1985 860	Yes No	0	Yes No	\$	-
6.02	Ward	6	ND State Highway 28 & 198th Ave NW/Washington Ave W (Wald		Yes	No	Yes	768	No	0	No	\$	-
6.03	Ward	6	184th St NW (Ward) & 198th Ave NW (Ward 6)	No	Yes	No	No	255	Yes	0	No	\$	-
8.01	Ward	8	US Highway 52 & 198th St NW (Ward 8)	No	Yes	Yes	Yes	2065	Yes	0	Yes	\$	-
8.02	Ward	8	Co Rd 15 W (Ward 15) & 128th Ave NW (Ward 8)	Yes	No	No	No	115	Yes	0	No	\$	-
8.03 8.04	Ward Ward	8	US Highway 83 & 128th Ave NW/NE (Ward 8) 27th St NE (Ward 19) & 128th Ave NE (Ward 8)	No	Yes	Yes	No	6233 1020	Yes	0	Yes	\$	-
8.05	Ward	8	153rd St NE (Ward 23) & 128th Ave NE (Ward 8)	No No	No Yes	No No	No No	350	No Yes	0	Yes No	\$ \$	-
9.01	Ward	9	338th St SW (Ward 9) & 303rd Ave SW (Ward 2)	No	No	No	No	320	No	0	No	\$	-
9.02	Ward	9	338th St SW (Ward 9) & ND Highway 23/247th Ave SW	No	No	Yes	No	3608	Yes	1	Yes	\$	12,000
9.03	Ward	9	338th St SW (Ward 9) & 205th Ave SW (Ward 20)	No	No	No	No	418	Yes	0	No	\$	-
9.04	Ward	9	325th St SW (Ward 9) & 177th Ave SW (Ward 20)	No	No	No	No	115	Yes	0	No	\$	-
9.05 9.06	Ward Ward	9	310th St SW (Ward 9) & 54th Ave SW (Ward 14) 310th St NW (Ward 9) & 72nd Ave NW (Ward 10)	No No	No No	No No	No No	123 315	Yes No	0	No No	\$	-
9.07	Ward	9	US Highway 2/86th Ave NW & 310th St NW (Ward 9)	No	No	No	No	3720	No	0	Yes	\$	-
10.01	Ward	10	US Highway 2 & 72nd St NW (Ward 10)	No	Yes	No	Yes	7038	No	0	Yes	\$	-
10.02	Ward	10	Co Rd 15 W (ward 15) & 46th Ave NW (Ward 10)	Yes	Yes	No	No	785	No	0	Yes	\$	-
10.03	Ward	10	US Highway 83 & 46th Ave NW (Ward 10)	Yes	Yes	No	No	6813	No	2	Yes	\$	148,000
10.04 10.05	Ward Ward	10	US Highway 83/N Broadway & 46th Ave NE (Ward 10)	No No	No No	No No	No Yes	9648 2933	No No	11 0	Yes Yes	\$	690,000
10.05	Ward	10	27th St NE (Ward 19) & 46th Ave NE (Ward 10) 55th St NE (Ward 10) & 46th Ave NE (Ward 10)	No	No	No	No	2933	No	0	No	\$	-
11.01	Ward	11	US Highway 52 & 184th St NW (Ward 11)	No	Yes	No	Yes	3590	No	1	Yes	\$	12,000
12.01	Ward	12	62nd St NW (Ward 17) & 22nd St SW (Ward 12)	Yes	Yes	No	No	465	No	0	No	\$	-
12.02	Ward	12	27th St NE (Ward 19) & 4th Ave NE (Ward 12)	No	No	No	No	8188	No	0	Yes	\$	-
12.03	Ward	12	55th St NE (Ward 12) & 4th Ave NE (Ward 12)	No	No	No	No	3565	No	0	Yes	\$	-
12.04 12.05	Ward Ward	12 12	Pleasant Ave N/104th St NE (Ward 12) & 2nd St NW (Ward 12 US Highway 2 & 104th St SE (Ward 12)	No No	No Yes	Yes No	Yes No	1624 3898	No No	0	Yes Yes	\$	-
12.05	Ward	12	55th St SE (Ward 12) & 37th Ave SE (Ward 14)	No	No	No	No	652	No	0	No	<u>φ</u> \$	-
12.07	Ward	12	55th St SE (Ward 12) & US Highway 2	No	No	No	No	5685	No	0	Yes	\$	-
14.01	Ward	14	62nd St SW (Ward 14) & 54th Ave SW (Ward 14)	No	Yes	No	No	592	No	0	No	\$	-
14.02	Ward	14	62nd St SW (Ward 17) & 37th Ave SW (Ward 14)	No	No	No	No	947	No	0	Yes	\$	-
14.03	Ward	14	16th St SW (Ward 14) & 37th Ave SW (Ward 14)	No	No	Yes	No	9575	No	0	Yes	\$	-
14.04 14.05	Ward Ward	14 14	US Highway 83/S Broadway St & 54th Ave SW/SE (Ward 14) 38th St SE (Ward 14) & 37th Ave SE (Ward 14)	No No	No No	Yes No	No No	5335 440	No No	2	Yes No	\$	12,000 24,000
14.06	Ward	14	Co Hwy 19 S (Ward 504) & 72nd St SE (Ward 14)	No	Yes	No	No	953	No	0	No	\$	-
14.07	Ward	14	US Hwy 52 & 37th Ave SE (Ward 14)	Yes	No	No	No	3755	No	2	Yes	\$	24,000
14.08	Ward	14	72nd St SE (Ward 14) & 37th Ave SE (Ward 14)	No	No	No	No	289	No	0	No	\$	-
14.09	Ward	14	72nd St SE (Ward 14) & 11th Ave SE	No	No	No	No	617	No	0	No	\$	-
15.02 16.01	Ward Ward	15 16	Co Rd 15 W/4th Ave NW (Ward 15) & 54th St NW (Ward 17) US Hwy 83 & 93rd Ave SW (Ward 16)	No No	Yes No	No No	No No	330 2653	No Yes	0	No Yes	\$	-
16.01	Ward	16	US Hwy 52 & 79th Ave SE (Ward 16)	No	Yes	No	No	4733	Yes	0	Yes	\$	-
16.03	Ward	16	Co Rd 19 S (Ward 504) & 79th Ave SE (Ward 16)	Yes	No	No	No	420	No	0	No	\$	-
17.01	Ward	17	US Hwy 2 & 54th St/62nd St NW (Ward 17)	No	Yes	No	No	7773	Yes	0	Yes	\$	-
20.02	Ward	20	142nd St SW (Ward 501) & 177th Ave SW (Ward 20)	No	Yes	No	No	207	Yes	0	No	\$	-
20.03	Ward	20	US Hwy 83 & 177th Ave SW (Ward 20)	No	No	Yes	No	4253	No	0	Yes	\$	-
22.01 22.04	Ward Ward	22 22	254th St SW/ND Hwy 28 (Ward 500) & 303rd Ave SW (Ward 2 US Hwy 83 & 303rd Ave SW (Ward 22)	No	No Yes	No No	No No	463 2453	No Yes	0	No No	\$	
23.01	Ward	23	139th St SE (Ward 23) & ND Hwy 23	Yes	Yes	No	No	570	Yes	0	No	\$	-
23.02	Ward	23	US Hwy 52 & 139th St SE (Ward 23)	No	No	No	No	4310	No	0	Yes	\$	-
23.04	Ward	23	US Hwy 2/Burdick Expy E & 153rd St NE (Ward 23)	No	No	No	No	2460	Yes	0	Yes	\$	-
24.01	Ward	24	254th St SW/ND Hwy 28 & 359th Ave SW/ND Hwy 53 (Ward 2		No	No	No	335	Yes	0	No	\$	-
24.02 24.03	Ward Ward	24 24	142nd St SW (Ward 501) & 359th Ave SW/ND Hwy 53 (Ward US Hwy 83 & 359th Ave SW/SE (Ward 24)	Yes No	Yes No	No No	No No	100 2010	Yes Yes	0	No Yes	\$	-
500.01	Ward	500	254th St SW/ND Hwy 28 (Ward 500) & 247th Ave SW/ND Hw	No	No	No	No	2750	Yes	0	Yes	\$	
501.01	Ward	501	142nd St SW (Ward 501) & 247th Ave SW/ND Hwy 23	Yes	Yes	No	No	1293	Yes	0	No	\$	-
502.01	Ward	502	US Hwy 83 & 135th Ave SW/SE (Ward 502)	No	No	No	No	3423	Yes	0	Yes	\$	
502.02	Ward	502	US Hwy 52 & 135th Ave SE (Ward 502)	No	No	No	No	4438	No	2	Yes	\$	24,000
504.01	Ward	504	US Hwy 52 & Co Rd 19 S (Ward 504)	No	Yes	No	No	4368	No	3	Yes	\$	160,000
504.02	Ward	504	US Hwy 52 & Co Rd 19 S (Ward 504)	No	Yes	Yes	No	2788	No	0	Yes	\$	-

1		Sys	#	Intersection Description	Skew	Curve	Development	RR Xing	Previous STOP (>5mi)	Crashes	Product >100,000	Priori
		Ward	5	US Highway 52/2nd Ave & Power St/Main St (Ward 5)	*	*	*		*		*	***
2		Ward	8	US Highway 52 & 198th St NW (Ward 8)		*	*	*	*		*	***
3	10.03	Ward	10 9	US Highway 83 & 46th Ave NW (Ward 10) 338th St SW (Ward 9) & ND Highway 23/247th Ave SW	*	*	*		*	*	*	**
5	11.01		11	US Highway 52 & 184th St NW (Ward 11)		*		*		*	*	**
6			1	436th Ave NW (Ward 2) & 6th St NW/415th Ave NW (Ward 1)	*	*		*			*	**
7	2.02	Ward	2	US Highway 52 & 422nd Ave NW/6th St NE (Ward 2)	*		*		*		*	**
8		Ward	8	US Highway 83 & 128th Ave NW/NE (Ward 8)		*	*		*		*	**
9	504.01			US Hwy 52 & Co Rd 19 S (Ward 504)		*				*	*	*
10	14.07		14	US Hwy 52 & 37th Ave SE (Ward 14)	*					*	*	*
11	14.04	Ward	14 2	US Highway 83/S Broadway St & 54th Ave SW/SE (Ward 14) 590th St NW (Ward 2) & 436th Ave NW (Ward 2)	*	*	*		*	*	*	*
13		Ward	5	US Highway 52 & 394th St NW (Ward 5)		*			*		*	*
14		Ward	6	ND State Highway 28 & 198th Ave NW/Washington Ave W (Ward 6)	*	*		*				*
15	10.01	Ward	10	US Highway 2 & 72nd St NW (Ward 10)		*		*			*	*
16	10.02		10	Co Rd 15 W (ward 15) & 46th Ave NW (Ward 10)	*	*					*	*
17	12.04		12	Pleasant Ave N/104th St NE (Ward 12) & 2nd St NW (Ward 12)			*	*			*	*
18	16.02			US Hwy 52 & 79th Ave SE (Ward 16)		*			*		*	*
19	17.01		17	US Hwy 2 & 54th St/62nd St NW (Ward 17)	*	*			*		*	*
20	23.01		23	139th St SE (Ward 23) & ND Hwy 23 142nd St SW (Ward 501) & 359th Ave SW/ND Hwy 53 (Ward 24)	*	*			*			*
22			501	142nd St SW (Ward 501) & 359th Ave SW/ND Hwy 53 (Ward 24)	*	*			*			*
23	504.02		504			*	*				*	*
24	10.04		10	, ,						*	*	
25	502.02	Ward	502	US Hwy 52 & 135th Ave SE (Ward 502)						*	*	
26			4	US Highway 52 & 366th Ave NW (Ward 4)	*	*						
27		Ward	6	ND State Highway 28 & 184th Ave NW/Garfield Ave W (Ward 6)	*	*						
28		Ward	6	184th St NW (Ward) & 198th Ave NW (Ward 6)		*			*			
29		Ward	8	Co Rd 15 W (Ward 15) & 128th Ave NW (Ward 8) 153rd St NE (Ward 23) & 128th Ave NE (Ward 8)	*	*			*			-
30 31	10.05	Ward	8 10	27th St NE (Ward 19) & 46th Ave NE (Ward 10)		*		*	*		*	—
32	12.01		12	62nd St NW (Ward 17) & 22nd St SW (Ward 12)	*	*					^	
33	12.05		12	US Highway 2 & 104th St SE (Ward 12)		*					*	
34	14.03		14	16th St SW (Ward 14) & 37th Ave SW (Ward 14)			*				*	
35	16.01	Ward	16	US Hwy 83 & 93rd Ave SW (Ward 16)					*		*	
36	20.02		20	142nd St SW (Ward 501) & 177th Ave SW (Ward 20)		*			*			
37	20.03		20	US Hwy 83 & 177th Ave SW (Ward 20)			*				*	
38 39	22.04 23.04		22	US Hwy 83 & 303rd Ave SW (Ward 22) US Hwy 2/Burdick Expy E & 153rd St NE (Ward 23)		*			*		*	
40			24	US Hwy 83 & 359th Ave SW/SE (Ward 24)					*		*	
41	500.01			254th St SW/ND Hwy 28 (Ward 500) & 247th Ave SW/ND Hwy 23					*		*	
42	502.01		502						*		*	
43	14.05	Ward	14	38th St SE (Ward 14) & 37th Ave SE (Ward 14)						*		1
44		Ward	2	436th St NW (Ward 3) & 422nd Ave NW (Ward 2)					*			
45		Ward	8	27th St NE (Ward 19) & 128th Ave NE (Ward 8)							*	l
46		Ward	9	338th St SW (Ward 9) & 205th Ave SW (Ward 20)					*			!
47 48		Ward	9	325th St SW (Ward 9) & 177th Ave SW (Ward 20)					*			
46 49		Ward Ward	9	310th St SW (Ward 9) & 54th Ave SW (Ward 14) US Highway 2/86th Ave NW & 310th St NW (Ward 9)					*		*	
50	12.02			27th St NE (Ward 19) & 4th Ave NE (Ward 12)							*	
51	12.03		12								*	
52	12.07			55th St SE (Ward 12) & US Highway 2							*	
53	14.01		14		-	*			-			
54	14.02		14	62nd St SW (Ward 17) & 37th Ave SW (Ward 14)							*	
55 56	14.06		14	Co Hwy 19 S (Ward 504) & 72nd St SE (Ward 14) Co Rd 15 W/4th Ave NW (Ward 15) & 54th St NW (Ward 17)		*						-
56 57	15.02 16.03		15 16	Co Rd 15 W/4th Ave NW (Ward 15) & 54th St NW (Ward 17) Co Rd 19 S (Ward 504) & 79th Ave SE (Ward 16)	*	*						
58	23.02		23	US Hwy 52 & 139th St SE (Ward 23)	^						*	
59	24.01		24	254th St SW/ND Hwy 28 & 359th Ave SW/ND Hwy 53 (Ward 24)					*			
60		Ward	9	338th St SW (Ward 9) & 303rd Ave SW (Ward 22)								
61	9.06	Ward	9	310th St NW (Ward 9) & 72nd Ave NW (Ward 10)								
62	10.06		10	55th St NE (Ward 10) & 46th Ave NE (Ward 10)	-				-			
63	12.06		12	55th St SE (Ward 12) & 37th Ave SE (Ward 14)								
64 65	14.08		14	72nd St SE (Ward 14) & 37th Ave SE (Ward 14)								-
65 66	14.09 22.01	Ward Ward	14 22	72nd St SE (Ward 14) & 11th Ave SE 254th St SW/ND Hwy 28 (Ward 500) & 303rd Ave SW (Ward 22)								-
	UI	maiu		Total Stars	16	29	10	7	27	9	36	
	Totals			% That Gets Star		44%	15%	11%	41%	14%	55%	
	****	# 0	% 0%	-	Stars							
	A A A A	U	0%	Skev					degrees or gre			



HIGHWAY SAFETY IM			M (HSIP) PROJE	CT APPLIC	CATION			
North Dakota Department of 3 SFN 59959 (06-2011)	Fransport	ation Programming						
0114 09909 (00-2011)		US Hig	hway 52 & 198t	h St NW ((Ward 8)			
Agency Name:	Ward Co			•	DOT Distric	t: 4		
Contact Name:		=				r: 701-838-281	10	
Email Address:	dana.lar	sen@wardnd.com						
Please attach a location map(s).		_	urther describe your proje	ct.				
Location Description								
						mphasis Area (che nol Impaired Drivir		
Configuration:	Χ	Traffic Control Device:	thru-STOP			•	straints for all Occupa	ınts
Configuration (2):						er/Older Driver Sa	afety	
Urban/Rural: County:		Flashers: Major ADT:			Curb Aggress	-	Departure Crashes	
Entering ADT:		Minor ADT:			•		Capabilities to Increa	ase Survivability
				<u></u>	Improve Inters	section Safety		
Describe Current Safety I	ssues &	Systemic Ranking	Review					
North Dakota TBD, 2008 - 2012								
Crashes	Total 0	Angle 0	K+A 0.00	_	1	1 3 1		
Rate (per MVM)	0.0	0.0	0.0					
				_				
	Value	Critical	Risk Ranking		100			
Skew	No	Yes	<u> </u>	_	a ute			5
On/Near Curve	Yes	Yes	*					2
Development	Yes	Yes	*					
Near RR Crossing Distance from previous STOP	Yes Yes	Yes Yes	* *					100
Volume Cross Product	Yes	≥ 100,000	*				2	
Total Crashes	0	>0	****	_		A servered		
Describe Proposed Safet	y Improv	rements						
	D i - ti			11-24-	01	Notos		
	Descriptior toundabou		per intersection	Units 0	\$0.00	Notes -		
	nal Mediar		per intersection	0	\$0.00			
Mainline Dynamic Wa		. ,	per intersection	0	\$0.00			
Installing S	ose Mediar treet Lights		per intersection per street light	0 Installed	\$0.00 \$0.00			
_	Stop Sigr		per sign	2	\$700.00			
Upgrade Ju	•		per sign	2	\$700.00			
Upgrade Stop A Upgrade Stop Ahe	•		per sign per marking	2 1	\$900.00 \$450.00			
	le Stop Ba		per marking	2	\$500.00			
Review Sign	s and CST	\$2,450	per intersection	11	\$2,450.00	<u>—</u>		
Signs and Markings and Street L	iaht projec	t costs varv by the numb	er of minor legs associate	ed with the inters	\$5,700.00 section.			
Project Cost Estimate (at					Year of Con	struction		
Foo	leral Funds	\$5,130						
Local Match (10% of Total p		. ,						
Total Pro	ject Cost		_					
NDDOT Control Office On	.h.							
NDDOT Central Office On Project Accepted?	Yes	No	Reference Number			ID Number		
Notes						l		
							Page: 1	
						Inter	rsection ID: 8.01	_
							Date: 8/13/201	.1

LUCLUMAY CAFETY IN	IDDOVE	MENT DROOP	M (HOID) DDO II	TOT ABBUT	OATION			
HIGHWAY SAFETY IN North Dakota Department of SFN 59959 (06-2011)			IM (HSIP) PROJE	ECT APPLI	CATION			
	3	38th St SW (V	Vard 9) & ND F	lighway 2	23/247th A	ve SW		
Agency Name:		•	,	-	DOT District			
Contact Name:		-		Teleph	none Number	: 701-838-28	310	
		sen@wardnd.com		•				
Please attach a location map(s).		_	urther describe your proj	iect.				
Location Description			<u>, , , , , , , , , , , , , , , , , , , </u>					
				T	SHSP Er	nnhasis Area (c	heck all that apply)	
						ol Impaired Driv		
Configuration:	Χ	Traffic Control Device:	: thru-STOP		Increase the U	Jse of Safety Re	estraints for all Occupants	
Configuration (2):		Street Lights:				er/Older Driver S	Safety	
Urban/Rural:		Flashers			Curb Aggress		Dt Ot	
County: Entering ADT:		Major ADT: Minor ADT:			•		ne Departure Crashes al Capabilities to Increase	Curvivahility
Entening ADT.	3000	MINOLAD I	. 503		Improve Inters		ai Capabilities to increase	Survivability
						,		
Describe Current Safety	Issues &	Systemic Ranking	Review					
North Dakota TBD, 2008 - 2012								
	Total	Angle	K+A				100	
Crashes		0	0.00					
Rate (per MVM)	0.2	0.0	0.0		100			
	Value	Critical	Risk Ranking		CONTRACTOR OF	11 4		
Skew		Yes	·			SECTION S	A PROPERTY OF THE PERSON NAMED IN	
On/Near Curve	No	Yes			-		The second of the second	
Development	Yes	Yes	*		-			
Near RR Crossing		Yes						
Distance from previous STOP		Yes	*					
Volume Cross Product Total Crashes		≥ 100,000 >0	* *					
Total Grasiles			***				THE RESERVE	J
Describe Proposed Safet	y Improve	ements						
	Description	Unit Cost		Units	Cost	Notes - Oil Co	ounty Project (Junction Sig	n/Rumbles -
	Roundabout		per intersection	0	\$0.00	Sheet 51-84)		
	onal Median		per intersection	0	\$0.00			
Mainline Dynamic W	arning Sign ose Median		per intersection per intersection	1 0	\$50,000.00			
	Street Lights		per street light	1	\$0.00 \$6,000.00			
_	e Stop Sign		per sign	2	\$700.00			
Upgrade Ju	nction Sign	\$350	per sign	0	\$0.00			
Upgrade Stop			per sign	2	\$900.00			
Upgrade Stop Ahe		·	per marking	2	\$900.00			
Review Sign	de Stop Bar	·	per marking per intersection	2 1	\$500.00 \$2,450.00			
review eigi	15 4114 001	Ψ2,400	per intersection		\$61,450.00	_		
Signs and Markings and Street L	ight project	costs vary by the numb	er of minor legs associa	ted with the inte				
Project Cost Estimate (at	tach deta	iled copy)		Proposed	I Year of Con	struction		
_								
	deral Funds	\$55,305						
Local Match (10% of Total pro	pject Cost	\$6,145 \$61,450	_					
Total i ic	Ject Cost	ΨΟ1,-30						
NDDOT Central Office Or	ılv							
Project Accepted?	Yes	No	Reference Number	T		ID Number		
Notes			•	•		•	•	
							Page: 2	
						Inte	ersection ID: 9.02	
							Date: 8/13/2013	

HIGHWAY SAFETY IMI	PROVEME	NT PROGRA	M (HSIP) PROJEC	CT APPLIC	CATION		
North Dakota Department of T SFN 59959 (06-2011)			(11011) 1 110020				
		_	way 52 & 184th	•			
Agency Name: \	·	-			DOT District		
Contact Name: I				Telepn	one Number	: 701-838-281	10
Email Address: of Please attach a location map(s). N			urthar describe your projec	.+			
Location Description	Tou may use us	ullional sheets to it	Illier describe your project	ι.			
					SHSP En	nohasis Area (ch	neck all that apply)
			!		Reduce Alcoh	ol Impaired Drivir	ng
Configuration:		offic Control Device:				•	straints for all Occupants
Configuration (2): Urban/Rural: F		Street Lights: Flashers:			Curb Aggressi	er/Older Driver Sa ive Driving	alety
County: \		Major ADT:			Improvements	to Address Lane	e Departure Crashes
Entering ADT: 3	3590	Minor ADT:	1925		Enhancing Em Improve Inters		I Capabilities to Increase Survivability
					IIIIbiose iliera	ection salety	
Describe Current Safety Is	ssues & Sys	temic Ranking	Review				
North Dakota TBD, 2008 - 2012							
j.	Total	Anala	ν _Λ				
Crashes	1 otai	Angle 0	0.00	=		9	
Rate (per MVM)	0.2	0.0	0.0	=			100
						1100	
							and the second
	Value	Critical	Risk Ranking	_	13		
Skew	No	Yes			1		
On/Near Curve	Yes	Yes Yes	*		THE THE	and M	
Development Near RR Crossing	No Yes	Yes Yes	*		110	A STATE WAY	
Distance from previous STOP	No	Yes	**		W. J		
Volume Cross Product	Yes	≥ 100,000	*		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A STATE OF THE PARTY OF THE PAR	
Total Crashes	1	>0	****	-	W. P. 1947	THE STATE OF THE S	
- " 10-6-6	•						
Describe Proposed Safety	/ Improveme	nts					
r	Secription	Unit Coot		Unite	Cost	Notes - Oil Cou	unty Project (Junction Sign/STOP -
	Description oundabout	Unit Cost \$1,000,000	per intersection	Units 0	\$0.00	Sheet 51-20)	antly Project (Juniculon Sign/STO) -
Direction	nal Median	\$750,000	per intersection	0	\$0.00		
Mainline Dynamic Wa		. ,	per intersection	1 0	\$50,000.00		
Installing Str	se Median reet Lights		per intersection per street light	1	\$0.00 \$6,000.00		
Upgrade	Stop Sign		per sign	0	\$0.00		
Upgrade Jun			per sign	0	\$0.00		
Upgrade Stop Al Upgrade Stop Ahea			per sign per marking	1 1	\$450.00 \$450.00		
	e Stop Bar		per marking	1	\$250.00		
Review Signs	s and CST	\$2,450	per intersection	1	\$2,450.00	_	
Signs and Markings and Street Lig	ght project cost	s vary by the numb	er of minor legs associated	d with the inter	\$59,600.00 rsection.		
Project Cost Estimate (atta					Year of Con	struction	
Fade	eral Funds	#F2.640					
Local Match (10% of Total pro		\$53,640 \$5,960	l				
Total Proj		\$59,600					
NDDOTO 1 LOSS O							
NDDOT Central Office Onl Project Accepted?	Yes N	lo.	Reference Number			ID Number	
Notes	TesN	<u>J</u>	1.0101.01100.1101111001			1.2	
							Page: 3
						Inter	rsection ID: 11.01
1							Date: 8/13/2013

HIGHWAY SAFETY IM			M (HSIP) PROJE	ECT APPLIC	CATION			
North Dakota Department of 3 SFN 59959 (06-2011)	ransport	ation Programming						
3FN 39939 (00-2011)		US Highway 5	2/2nd Avo & D	owor St/M	ain St /M	Jard 5)		
Agency Name:		•	ZIZIIU AVE Q I		DOT Distric	•		
Contact Name:		=				ı. 4 r: 701-838-28	10	
		rsen@wardnd.com		relepin	one Number	1. 701-030-20	10	
Please attach a location map(s).		_	urther describe vour proi	iect.				
Location Description			, ,					
					SHSP E	mphasis Area (ch	neck all that apply)	
	_					nol Impaired Drivi	•	
Configuration: Configuration (2):		Traffic Control Device Street Lights				Use of Safety Re er/Older Driver S	straints for all Occupar	nts
Urban/Rural:		Flashers			Curb Aggress		aloty	
County:		Major ADT	: 1835		•		e Departure Crashes	
Entering ADT:	1985	Minor ADT	: 300		•	nergency Medica section Safety	al Capabilities to Increa	se Survivability
					improve inter	section Salety		
Describe Current Safety I	ssues &	Systemic Ranking	Review					
North Dakota TBD, 2008 - 2012								
Crashes	Total 0	Angle 0	K+A 0.00	<u>—</u>		A STATE OF	19 July 19	-
Rate (per MVM)	0.0	0.0	0.00				1	
							a Carry	
						10 V		35
	Value	Critical	Risk Ranking			777	The second second	
Skew	No	Yes	rtiok rtanking		Au Hu	1920	A STATE OF THE STA	
On/Near Curve	Yes	Yes	*		TERLEY!	digital by	A CONTRACTOR OF THE PARTY OF TH	
Development	Yes	Yes	*			ALC: N		-3
Near RR Crossing Distance from previous STOP	No Yes	Yes Yes			-	A Charles	The same of the sa	
Volume Cross Product		≥ 100,000					100	8
Total Crashes	0	>0		<u> </u>				X
			***					_
Describe Proposed Safet	y Impro	vements						
•								
1	Description	n Unit Cost		Units	Cost	Notes -		
	Roundabou		per intersection	0	\$0.00			
Directio Mainline Dynamic Wa	nal Mediar		per intersection per intersection	0 0	\$0.00 \$0.00			
•	ose Mediar		per intersection	Ö	\$0.00			
Installing S	-		per street light	Installed	\$0.00			
Upgrade Upgrade Ju	Stop Sign	·	per sign per sign	1 1	\$350.00 \$350.00			
Upgrade Stop A	•		per sign	1	\$450.00			
Upgrade Stop Ahe	•	•	per marking	1	\$450.00			
Upgrad Review Sign	le Stop Ba is and CST		per marking per intersection	1 1	\$250.00 \$2,450.00			
3			·	-	\$4,300.00	_		
Signs and Markings and Street L			er of minor legs associa			4 4*		
Project Cost Estimate (at	tacn det	анеа сору)		Proposea	Year of Con	istruction		
Fed	leral Funds	s \$3,870						
Local Match (10% of Total p	-		_					
Total Pro	ject Cos	t \$4,300						
NDDOT Central Office On	lv							
	Yes	No	Reference Number	Т		ID Number		
Notes								
							Page: 4	
						Inte	ersection ID: 5.03 Date: 8/13/2013	,
							Date 8/13/2013	,

HIGHWAY SAFETY IM North Dakota Department of T SFN 59959 (06-2011)			M (HSIP) PROJE	CT APPLIC	CATION		
31 14 39939 (00-2011)	436th A	ve NW (W	ard 2) & 6th St	NW/415t	h Ave NW	(Ward 1)	
Agency Name: \			21 d 2 j d 0 0 1 1 0 0		DOT District		
Contact Name: I	_					 [.] : 701-838-281	10
Email Address:		wardnd.com					-
Please attach a location map(s).			urther describe your proje	ect.			
Location Description							
Configuration: ⁻ Configuration (2): Urban/Rural: f County: \ Entering ADT: 8	Undivided Rural Ward 803	fic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	: No : No : 623 : 360		Reduce Alcoholincrease the U Younger Drive Curb Aggressi Improvements	ool Impaired Drivir Use of Safety Reser/Older Driver Sa ive Driving s to Address Lane nergency Medical	straints for all Occupants
Describe Current Safety Is North Dakota TBD, 2008 - 2012	ssues & Syste	emic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A				The second second
Crashes	0	0	0.00	_			
Rate (per MVM)	0.0	0.0	0.0	_	2		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
					1 1 2	O Miller	Charles of the second
					A STATE OF THE STA	1 11h	
Skew	Value Yes	Critical Yes	Risk Ranking ★	_		1	
On/Near Curve	Yes	Yes	 ★				
Development	No	Yes					
Near RR Crossing	Yes	Yes	*		1		See I William
Distance from previous STOP Volume Cross Product	No Yes	Yes ≥ 100,000	*		100		S. 1
Total Crashes	0	>0					

Describe Proposed Safety	/ Improvemer	nts					
	•						
	Description	Unit Cost		Units	Cost	_	unty Project (Junction Sign/Rumble -
	oundabout nal Median		per intersection per intersection	0 0	\$0.00 \$0.00	Sheet 51-6)	
Mainline Dynamic Wa			per intersection per intersection	0	\$0.00 \$0.00		
Clos	se Median	\$25,000	per intersection	0	\$0.00		
Installing Str	treet Lights Stop Sign		per street light per sign	1	\$6,000.00 \$350.00		
Upgrade Jun			per sign	0	\$0.00		
Upgrade Stop A	Ahead Sign		per sign	1	\$450.00		
Upgrade Stop Ahea			per marking	1	\$450.00		
Review Signs	e Stop Bar s and CST		per marking per intersection	1	\$250.00 \$2,450.00		
			·		\$9,950.00	_	
Signs and Markings and Street Lig Project Cost Estimate (att			er of minor legs associate		rsection. Year of Con :	struction	
Project Cost Estimate (att	acri detalled (<i>зору)</i>		Proposed	rear or com	Struction	
	eral Funds	\$8,955					
Local Match (10% of Total p <u>r</u> Total Proj	•	\$995 \$9,950	-				
Total Flog	ject cost	ψ3,330					
NDDOT Central Office Onl	ly						
	Yes No		Reference Number			ID Number	
Notes							
							Page: 5
						Inter	rsection ID: 1.01
1							Date: 8/13/2013

HIGHWAY SAFETY IN	/IPRO\/I	EMENT PROCE	M (HSID) DDO I	ECT ADDI I	CATION		
North Dakota Department of SFN 59959 (06-2011)			IW (HSIP) PROSE	ECI APPLI	CATION		
,		US Highway &	52 & 422nd Av	e NW/6th	St NE (Wa	ard 2)	
Agency Name:	Ward C	•			DOT District	•	
Contact Name:		-				: 701-838-2810)
		rsen@wardnd.com					
Please attach a location map(s).		_	urther describe your proi	iect.			
Location Description							
•					SHSP Fr	nphasis Area (che	ck all that apply)
						iol Impaired Driving	
Configuration:	: T	Traffic Control Device:	thru-STOP				raints for all Occupants
Configuration (2):						er/Older Driver Saf	ety
Urban/Rural:		Flashers			Curb Aggress	-	Davisti va Casabas
County: Entering ADT:		Major ADT: Minor ADT:			•		Departure Crashes Capabilities to Increase Survivability
Lineling AD1.	. 3343	WIIIOI AD I	1170		Improve Inters	• .	Sapabilities to increase Survivability
					•		
Describe Current Safety		Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A		The same of the		
Crashes		0	0.00		All the second	-	
Rate (per MVM)	0.0	0.0	0.0		The same of	48 -3	
					66 30		
	Value	Critical	Risk Ranking		100	A works	DESCRIPTION TO
Skew	Yes	Yes	*		100	10 C	THE REAL PROPERTY.
On/Near Curve	e No	Yes				1	Charles Charles
Development	t Yes	Yes	*		- BA		PROPERTY OF
Near RR Crossing		Yes				1/0	
Distance from previous STOP Volume Cross Product		Yes ≥ 100,000	*		-ALLE	100	CONTRACTOR OF
Total Crashes		≥ 100,000 >0	^			120.00	
		•	****		STATE OF THE PARTY OF		
Describe Proposed Safet	ty Improv	vements					
	Description			Units	Cost	Notes -	
	Roundabou	. , ,	per intersection	0	\$0.00		
Mainline Dynamic W	onal Mediar Jarning Sigr		per intersection per intersection	0 1	\$0.00 \$50,000.00		
	lose Mediar		per intersection	0	\$0.00		
	Street Lights	\$6,000	per street light	Installed	\$0.00		
. 0	le Stop Sigr		per sign	1	\$350.00		
Upgrade Ju	•		per sign	1	\$350.00		
Upgrade Stop Upgrade Stop Ahe			per sign per marking	1 1	\$450.00 \$450.00		
	de Stop Ba		per marking	1	\$250.00		
Review Sign			per intersection	1	\$2,450.00		
					\$54,300.00 		
Signs and Markings and Street I			er of minor legs associa			aturation	
Project Cost Estimate (at	ttacn det	анеа сору)		Proposea	Year of Con	Struction	
Fe	deral Funds	s \$48,870					
Local Match (10% of Total p	oroject cost		_				
Total Pro	oject Cos	t \$54,300	_				
NDDOT Central Office Or			T= 4	<u> </u>		lie i i	
Project Accepted?	Yes	No	Reference Number			ID Number	
Notes							
							Page: 6
						Inters	ection ID: 2.02
							Date: 8/13/2013

HIGHWAY SAFETY IM North Dakota Department of T SFN 59959 (06-2011)			AM (HSIP) PROJI	ECT APPLI	CATION		
,		US Highw	ay 83 & 128th	Ave NW/I	NE (Ward	8)	
Agency Name:	Ward Co	•	,		DOT District:	,	
Contact Name:		-		Teleph	none Number	701-838-28	10
Email Address:	dana.lars	en@wardnd.com		•			
Please attach a location map(s).		_	urther describe your pro	ject.			
Location Description							
					SHSP Em	nphasis Area (ch	neck all that apply)
						ol Impaired Drivi	•
Configuration:		Traffic Control Device:				•	straints for all Occupants
Configuration (2): Urban/Rural:		Street Lights	: No : Overhead		Curb Aggressi	r/Older Driver S	arety
County:		Major ADT					e Departure Crashes
Entering ADT:		Minor ADT			•		al Capabilities to Increase Survivability
				✓	Improve Inters	ection Safety	
Describe Current Safety I	SSUAS &	Systemic Panking	Paview				
North Dakota TBD, 2008 - 2012	334C3 G (Systemic Ranking	NCVICW				
	Total	Angle	K+A			S. A. SHI	
Crashes	0	0	0.00		医医疗的人的		0 /4
Rate (per MVM)	0.0	0.0	0.0		EULIUS	1	
					Francisco		O O
					Summer :		~ ~
	Value	Critical	Risk Ranking		Summing	. Ala	
Skew	No	Yes				Tioles MI	The same of the sa
On/Near Curve	Yes	Yes	*			2 2 2	
Development		Yes	*		三 三		
Near RR Crossing Distance from previous STOP	No Yes	Yes Yes	+				
Volume Cross Product		≥ 100,000	`		Parameter .	SANDOME -	
Total Crashes	0	>0			Note: No.	- AMERICAN SERVICE SER	

Describe Proposed Safet	y Improve	ements					
	Description	Unit Cost		Units	Cost	_	deration should be given for large
	Roundabout		per intersection	0	\$0.00		e movers) in the design of median. If
	nal Median		per intersection	1	\$750,000.00		dian is not feasible, mainline dynamic is may be considered as an alternate
Mainline Dynamic Wa	ose Median		per intersection per intersection	0	\$0.00 \$0.00		ement. Oil County Project (Junction
Installing Si			per street light	1	\$6,000.00		/STOP - Sheet 51-24)
	e Stop Sign	\$350	per sign	0	\$0.00		
Upgrade Ju			per sign	0	\$0.00		
Upgrade Stop A Upgrade Stop Ahe	•		per sign per marking	2 2	\$900.00 \$900.00		
	de Stop Bar	·	per marking	2	\$500.00		
Review Sign	s and CST	\$2,450	per intersection	1	\$2,450.00	_	
Ciana and Maulines and Chast	:				\$760,750.00		
Signs and Markings and Street L Project Cost Estimate (at			er of minor legs associa		Year of Cons	struction	
Troject Cost Estimate (att	lacii detai	пец сору)		Порозец	rear or cons	Struction	
	deral Funds	\$684,675					
Local Match (10% of Total p		\$76,075	_				
l otal Pro	ject Cost	\$760,750					
NDDOT Central Office On	ılv			_			
Project Accepted?	Yes	No	Reference Number			ID Number	
Notes			•	•		•	•
							Page: 7
						Inte	rage. 7
							Date: 11/11/2013

HIGHWAY SAFETY IN North Dakota Department of			.M (HSIP) PROJE	CT APPLIC	CATION	
SFN 59959 (06-2011) Agency Name: Contact Name:		у	way 83 & 46th	ND	DOT District	
Email Address:		· -		Тоюри	one mambe	701 000 2010
Please attach a location map(s).			urther describe your proje	ect.		
Location Description						
Configuration: Configuration (2): Urban/Rural: County: Entering ADT:	: Undivided : Rural : Ward	affic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	No No 6505		Reduce Alcoh Increase the U Younger Drive Curb Aggress Improvements Enhancing En	mphasis Area (check all that apply) nol Impaired Driving Use of Safety Restraints for all Occupants er/Older Driver Safety sive Driving s to Address Lane Departure Crashes mergency Medical Capabilities to Increase Survivabili section Safety
Describe Current Safety	Issues & Sys	temic Ranking	Review			
North Dakota TBD, 2008 - 2012						
	Total	Angle	K+A			A THURSDAY OF THE STREET
Crashes	3	0	0.00		NO BELLEVIOR	A COP STATE OF THE PARTY OF THE
Rate (per MVM)	0.2	0.0	0.0		1	
	Value	Critical	Risk Ranking		7	
Skew		Yes			ja .	
On/Near Curve Development		Yes Yes	*		20	
Near RR Crossing		Yes				
Distance from previous STOP		Yes				
Volume Cross Product Total Crashes		≥ 100,000 >0	* *			
			***	_	10000	
Describe Proposed Safet	tv Improveme	ents				
	7 1					
	Description	Unit Cost		Units	Cost	Notes -
	Roundabout onal Median		per intersection per intersection	0 0	\$0.00 \$0.00	
Mainline Dynamic W			per intersection	1	\$50,000.00	
	lose Median Street Lights		per intersection per street light	0 1	\$0.00 \$6,000.00	
	le Stop Sign		per sign	1	\$350.00	
Upgrade Ju	unction Sign	\$350	per sign	1	\$350.00	
Upgrade Stop Upgrade Stop Ahe			per sign per marking	1 1	\$450.00 \$450.00	
Upgra	de Stop Bar		per marking	1	\$250.00	
Review Sign	ns and CST	\$2,450	per intersection	1	\$2,450.00 \$60,300.00	<u> </u>
Signs and Markings and Street I	Light project cost	ts vary by the numb	er of minor legs associate	ed with the inters		
Project Cost Estimate (at	ttach detailed	d сору)		Proposed	Year of Con	struction
Fe	deral Funds	\$54,270				
Local Match (10% of Total p		\$6,030	_			
Total Pro	oject Cost	\$60,300				
NDDOT Central Office Or	nlv					
Project Accepted?	Yes N	lo	Reference Number			ID Number
Notes						
						David 0
						Page: 8 Intersection ID: 10.03
						Date: 8/13/2013

HIGHWAY SAFETY IN	/IPROV	EMENT PROGRA	M (HSIP) PROJEC	CT APPLI	CATION		
North Dakota Department of SFN 59959 (06-2011)	Transport	tation Programming					
			Broadway St &				
Agency Name:	Ward C	ounty		ND	DOT District	t: 4	
Contact Name:	Dana L	arsen		Teleph	none Number	:: 701-838-28 1	10
Email Address:	dana.la	rsen@wardnd.com					
Please attach a location map(s).		_	urther describe your projec	t.			
Location Description							
					SHSP Er	nphasis Area (ch	eck all that apply)
					Reduce Alcoh	ol Impaired Drivir	ng
Configuration:		Traffic Control Device	: thru-STOP				straints for all Occupants
Configuration (2):		Street Lights			•	er/Older Driver Sa	afety
Urban/Rural:		Flashers			Curb Aggress	-	Daniel and Organia
County:		Major ADT			•		Departure Crashes
Entering ADT:	5555	Minor ADT	. 555		Improve Inters		Capabilities to Increase Survivability
					improvo intore	occion caloty	
Describe Current Safety	Issues &	Systemic Ranking	Review	•			
North Dakota TBD, 2008 - 2012		<u> </u>					
	Total	Angle	K+A	_	* · · ·		
Crashes		0	0.00	_	THE REAL PROPERTY.	THE REAL PROPERTY.	The state of the s
Rate (per MVM)	0.1	0.0	0.0	=	-	VITE SEED OF SE	
					4.5	THE RESIDENCE	
	Value	Critical	Risk Ranking				
Skew		Yes	rtiok rtanking	_	DECCENTINISTER	4 620	CON TRANSPORT VALUE
On/Near Curve		Yes				7 3 4 1	1
Development	Yes	Yes	*		Contract !	1	
Near RR Crossing		Yes			100 A		
Distance from previous STOP	No	Yes			-		LAST LAST
Volume Cross Product		≥ 100,000	*			and the second	
Total Crashes	1	>0	<u>*</u> ***	=		· (1)	
			* * *				
Describe Proposed Safet	tv Impro	vements					
•	,						
	Descriptio	n Unit Cost		Units	Cost	Notes -	
	Roundabou		per intersection	0	\$0.00		
	onal Media		per intersection	0	\$0.00		
Mainline Dynamic W	arning Sig	n \$50,000	per intersection	1	\$50,000.00		
	ose Media		per intersection	0	\$0.00		
Installing S	•		per street light	1	\$6,000.00		
Upgrade Ju	e Stop Sig		per sign per sign	2 2	\$700.00 \$700.00		
Upgrade Stop			per sign	2	\$900.00		
Upgrade Stop Ahe			per marking	2	\$900.00		
. •	de Stop Ba	•	per marking	2	\$500.00		
Review Sign	ns and CS	T \$2,450	per intersection	1	\$2,450.00		
Ciana and Markings and Chroat I	inht nain	-44			\$62,150.00		
Signs and Markings and Street I Project Cost Estimate (at	<u> </u>		er of minor legs associated		Year of Con	struction	
Froject Cost Estimate (at	lacii uei	апец сору)		Froposeu	real of Coll	Suucuon	
Fed	deral Fund	ls \$55,935					
Local Match (10% of Total p	roject cos	t) \$6,215	_				
Total Pro	oject Cos	st \$62,150					
NDDOT Central Office Or			In a N	T		lin ki	
Project Accepted? Notes	Yes	No	Reference Number			ID Number	
Notes							
							Page: 9
						Inter	rsection ID: 14.04
							Date: 8/13/2013

HIGHWAY SAFETY IM			.M (HSIP) PROJE	CT APPLI	CATION		
North Dakota Department of T SFN 59959 (06-2011)	ransportation F	rogramming					
,		US Hv	wy 52 & Co Rd	19 S (Wa	rd 504)		
Agency Name:	Ward County		•		DOT District	: 4	
Contact Name:				Teleph	none Number	: 701-838-281	0
Email Address:	_						
Please attach a location map(s). Location Description	You may use add	ditional sheets to fu	urther describe your proje	ect.			
Location Description					SUSD En	nnhasis Aroa (ab	ook all that apply)
						npnasis Area (cne ol Impaired Drivin	eck all that apply)
Configuration:		fic Control Device:				•	traints for all Occupants
Configuration (2): Urban/Rural:		Street Lights: Flashers:			Younger Drive Curb Aggressi	er/Older Driver Sa ive Driving	afety
County:		Major ADT:					Departure Crashes
Entering ADT:	4368	Minor ADT:	400		•	• ,	Capabilities to Increase Survivability
				✓	Improve Inters	ection Safety	
Describe Current Safety Is	ssues & Syst	emic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Anglo	V±Λ				
Crashes	Total 3	Angle 0	K+A 0.00	_			
Rate (per MVM)	0.4	0.0	0.0		March 1		
							-
	Value	Critical	Risk Ranking		2X 0		
Skew	No	Yes				M	Constant of
On/Near Curve	Yes	Yes	*		£		The Park
Development Near RR Crossing	No No	Yes Yes					
Distance from previous STOP	No	Yes			4	3 2011	
Volume Cross Product	Yes	≥ 100,000	*			+	
Total Crashes	3	>0	* ***				
Describe Proposed Safety	/ Improvemer	nts					
_						N. 1 0".0	. D : (OTOD/O) . Al
	Description oundabout	Unit Cost \$1,000,000	per intersection	Units 0	Cost \$0.00	Notes - Oil Cou Sheet 51-62)	ınty Project (STOP/Stop Ahead -
	nal Median		per intersection	Ö	\$0.00	0.1001 0 1 02)	
Mainline Dynamic Wa			per intersection	1	\$50,000.00		
Clo Installing St			per intersection per street light	0 1	\$0.00 \$6,000.00		
_	Stop Sign		per sign	0	\$0.00		
Upgrade Jur	•		per sign	1	\$350.00		
Upgrade Stop A Upgrade Stop Ahea			per sign per marking	0	\$0.00 \$450.00		
	e Stop Bar		per marking	1	\$450.00 \$250.00		
Review Signs			per intersection	1	\$2,450.00	<u></u>	
Signs and Markings and Street Li	ight project costs	vary by the numb	er of minor legs associat	ed with the inte	\$59,500.00		
Project Cost Estimate (att			er or minor legs associati		Year of Con	struction	
,							
Fed Local Match (10% of Total pr	eral Funds	\$53,550 \$5,950					
Total Pro	•	\$59,500	-				
	-						
NDDOT Central Office On			Defense a Number	1		IID Niverban	
Project Accepted? Notes	Yes No	1	Reference Number			ID Number	
110100							
							Dogo: 10
						Inter	Page: 10 rsection ID: 504.01
						iiitei	Date: 8/13/2013

HIGHWAY SAFETY IN	/IPROVE	EMENT PROGRA	M (HSIP) PROJE	CT APPLI	CATION		
North Dakota Department of SFN 59959 (06-2011)							
Agency Name:	Ward Co		wy 52 & 37th A	•	ard 14) DOT District	· 1	
Contact Name:		-				- :: 701-838-2810	0
		sen@wardnd.com					
Please attach a location map(s).		_	urther describe your proj	ect.			
Location Description							
Configuration: Configuration (2): Urban/Rural: County: Entering ADT:	Divided Rural Ward 3755	Traffic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	No No 3415 340		Reduce Alcoh Increase the L Younger Drive Curb Aggressi Improvements	er/Older Driver Saf ive Driving s to Address Lane nergency Medical (g raints for all Occupants
Describe Current Safety		Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A		CHANGE TO SERVICE THE PROPERTY OF THE PROPERTY		
Crashes		O Aligie	0.00		1 1		
Rate (per MVM)	0.3	0.0	0.0				
							CONTRACTOR OF THE PARTY OF THE
					The state of the s		
01	Value	Critical	Risk Ranking				医皮管管
Skew On/Near Curve		Yes Yes	*		STREET,	- 11	No.
Development		Yes				A STATE OF THE PARTY OF THE PAR	
Near RR Crossing	, No	Yes					
Distance from previous STOP		Yes					
Volume Cross Product Total Crashes		≥ 100,000 >0	*				
	<u> </u>		***				
Describe Proposed Safe	ty Improv	romonts					
Describe Froposeu Salei	ty iiiipi ov	ements					
	Description	unit Cost		Units	Cost	Notes -	
F	Roundabout		per intersection	0	\$0.00		
	onal Median		per intersection	0	\$0.00		
Mainline Dynamic W	/arning Sign lose Median		per intersection per intersection	1 0	\$50,000.00 \$0.00		
	Street Lights	\$6,000	per street light	1	\$6,000.00		
. 0	le Stop Sign		per sign	2	\$700.00		
Upgrade Ju Upgrade Stop	Inction Sign		per sign per sign	0 2	\$0.00 \$900.00		
Upgrade Stop Ahe			per marking	2	\$900.00		
. 0	de Stop Bar	· ·	per marking	2	\$500.00		
Review Sign	ns and CST	\$2,450	per intersection	1	\$2,450.00 \$61,450.00		
Signs and Markings and Street I	Light project	t costs vary by the numb	er of minor legs associat	ted with the inte			
Project Cost Estimate (at	ttach deta	ailed copy)		Proposed	Year of Con	struction	
Го	deral Funds	ΦΕΕ 20Ε					
Local Match (10% of Total p		. ,					
	oject Cost		_				
NDDOT Central Office Or Project Accepted?		П.,	Reference Number	1		ID Number	
Notes	Yes	L No	received rumber			ID ITALIIDEI	
							Page: 11
						Inters	section ID: 14.07
							Date: 8/13/2013

HIGHWAY SAFETY IN	/IPROVE	EMENT PROGRA	M (HSIP) PRO IE	СТ ДРРІ І	CATION		
North Dakota Department of			im (HOIF) PROJE	.VI APPLI	CATION		
SFN 59959 (06-2011)		590th St NV	V (Ward 2) & 4	36th Ave	NW (War	d 2)	
Agency Name:	Ward Co		(((((((((((((((((((DOT Distric	-	
Contact Name:		=				r: 701-838-28	10
Email Address:	dana.lar	sen@wardnd.com					
Please attach a location map(s)		_	urther describe your proje	ect.			
Location Description							
					SHSP E	mphasis Area (ch	neck all that apply)
Configuration	. ∨	Troffic Control Davison	they CTOD			nol Impaired Drivi	ng straints for all Occupants
Configuration: Configuration (2):		Traffic Control Device: Street Lights:				er/Older Driver S	•
Urban/Rural:		Flashers			Curb Aggress		
County:		Major ADT:			•		e Departure Crashes
Entering ADT:	: 375	Minor ADT:	140		•	nergency Medica section Safety	Il Capabilities to Increase Survivability
Describe Current Safety		Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A		100 May 12		CONTRACT NO. 10
Crashes		0	0.00				
Rate (per MVM)	0.0	0.0	0.0	_			
						4	The state of the s
							人 100 李拉 200
	Value	Critical	Risk Ranking				The second
Skew		Yes	*				The same of the sa
On/Near Curve		Yes	*				10/1/2
Development		Yes					
Near RR Crossing Distance from previous STOP		Yes Yes	*			· /	41
Volume Cross Product		≥ 100,000					
Total Crashes	0	>0					

Describe Proposed Safe	ty Improv	vements					
	Description			Units	Cost		unty Project (Junction Sign - Sheet
	Roundabou [.] onal Mediar	. ,,	per intersection per intersection	0 0	\$0.00 \$0.00	51-2)	
Mainline Dynamic W			per intersection	0	\$0.00		
Cl	lose Mediar	n \$25,000	per intersection	0	\$0.00		
_	Street Lights		per street light	0	\$0.00		
	le Stop Sigr unction Sigr		per sign per sign	2 2	\$700.00 \$700.00		
Upgrade Stop	•		per sign	2	\$900.00		
Upgrade Stop Ahe			per marking	1	\$450.00		
	de Stop Bar	· · · · · · · · · · · · · · · · · · ·	per marking	2	\$500.00		
Review Sig	ns and CST	\$2,450	per intersection	1	\$2,450.00 \$5,700.00	<u> </u>	
Signs and Markings and Street	Light projec	t costs vary by the numb	er of minor legs associat	ed with the inte			
Project Cost Estimate (at		• •			Year of Con	struction	
Eo	deral Funds	\$5,130					
Local Match (10% of Total p		. ,					
	oject Cost		-				
NDDOTO (LOW O							
NDDOT Central Office Of Project Accepted?	_		Reference Number	T		ID Number	Τ
Notes	Yes	No	reference rumber			ID Number	
							Page: 12
						Into	Page: 12 ersection ID: 2.01
						iiic	Date: 8/13/2013

HIGHWAY SAFETY IM	PROVEM	ENT PROGRA	M (HSIP) PROJE	CT APPLI	CATION		
North Dakota Department of T SFN 59959 (06-2011)			(11011) 1 1100				
		US High	nway 52 & 394	th St NW	(Ward 5)		
Agency Name:	Ward Coun	ıty	_	ND	DOT Distric	t: 4	
Contact Name:	Dana Larse	∍n		Teleph	one Numbe	r: 701-838-28 [,]	10
Email Address:							
Please attach a location map(s).	You may use a	additional sheets to for	urther describe your proje	ect.			
Location Description							
Configuration: Configuration (2): Urban/Rural: County: Entering ADT:	Undivided Rural Ward 2088	raffic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	No No 1998 180		Reduce Alcoh Increase the I Younger Drive Curb Aggress Improvements Enhancing Er	nol Impaired Drivi Use of Safety Reser/Older Driver Sive Driving s to Address Land	straints for all Occupants
Describe Current Safety Is North Dakota TBD, 2008 - 2012	ssues & Sy	stemic Ranking	Review				
NORTH DAKOTA TBD, 2008 - 2012							
	Total	Angle	K+A		CONTRACTOR OF THE PARTY OF THE		
Crashes	0	0	0.00		The state of the s		
Rate (per MVM)	0.0	0.0	0.0		A STATE		
							STATE OF THE STATE
	Value	Critical	Risk Ranking		6		
Skew	No	Yes	-		NO.		1
On/Near Curve	Yes	Yes	*			40	
Development	No	Yes					
Near RR Crossing Distance from previous STOP	No Yes	Yes Yes	+			A STATE OF THE STA	water the second
Volume Cross Product	Yes	≥ 100,000	*			Ken .	Carlo Age
Total Crashes	0	>0					Mer Marian

Describe Proposed Safety	/ Improvem	nents					
Γ	Description	Unit Cost		Units	Cost	Notes - Oil Co	unty Project (Junction Sign/Stop
	oundabout		per intersection	0	\$0.00	Ahead Sign - S	Sheet 51-8)
	nal Median	. ,	per intersection	0	\$0.00		
Mainline Dynamic Wa	iriirig Sigri ise Median		per intersection per intersection	0	\$0.00 \$0.00		
Installing St			per street light	1	\$6,000.00		
	Stop Sign	·	per sign	1	\$350.00		
Upgrade Jur Upgrade Stop A			per sign	1	\$350.00		
Upgrade Stop Ahea			per sign per marking	1	\$450.00 \$450.00		
	e Stop Bar		per marking	1	\$250.00		
Review Signs	s and CST	\$2,450	per intersection	1	\$2,450.00		
Signs and Markings and Street Li	aht project co	sts vary by the numb	er of minor legs associat	ed with the inter	\$10,300.00		
Project Cost Estimate (att			or or minor rege decedia.		Year of Con	struction	
•							
Fed Local Match (10% of Total pr	eral Funds	\$9,270 \$1,030					
Total Pro		\$10,300	-				
		,					
NDDOT Central Office On			In ()			lin i	
Project Accepted? Notes	Yes	No	Reference Number			ID Number	
Notes							
						-	Page: 13
						Inte	rsection ID: 5.02
							Date: 8/13/2013

HIGHWAY SAFETY IN	/IPROV	EMENT PROGRA	M (HSIP) PROJE	CT APPLI	CATION		
North Dakota Department of SFN 59959 (06-2011)			(11011 <i>)</i> 1 ⁻ 1103E	.VI AITLI	CATION		
` ,	ND Sta	ate Highway 28	& 198th Ave N	W/Washi	ington Av	e W (Ward	6)
Agency Name:		•			DOT District	•	-,
Contact Name:						r: 701-838-281	0
		rsen@wardnd.com		. 0.0 p			
Please attach a location map(s)		_	urther describe your proje	ect.			
Location Description			, , ,				
					SHSP Er	mphasis Area (che	eck all that apply)
					Reduce Alcoh	nol Impaired Drivin	g
Configuration:	: T	Traffic Control Device:	thru-STOP		Increase the l	Jse of Safety Rest	traints for all Occupants
Configuration (2):						er/Older Driver Sa	fety
Urban/Rural:		Flashers:			Curb Aggress	-	Departure Crackee
County: Entering ADT:		Major ADT: Minor ADT:			•		Departure Crashes Capabilities to Increase Survivability
Littering AD1.	. 700	WIIIOI ADT.	100		•	section Safety	Capabilities to increase our vivability
					•	,	
Describe Current Safety		Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A			(A)	111.8
Crashes		0	0.00			1 201	White Control
Rate (per MVM)	0.0	0.0	0.0				proper Carlotte
					200	15	S. T. S.
							一
	Value	Critical	Risk Ranking				The state of the s
Skew	Yes	Yes	*		a		- FE
On/Near Curve	Yes	Yes	*		The second second	10/10	1000
Development	t No	Yes			1		
Near RR Crossing		Yes	*		The state of		1
Distance from previous STOP Volume Cross Product		Yes ≥ 100,000					*
Total Crashes		≥ 100,000 >0			1		Big Billion
			***			THE REAL PROPERTY AND ADDRESS OF THE PARTY AND	
Describe Proposed Safe	ty Impro	vements					
	Descriptio	n Unit Cost		Units	Cost		nty Project (Junction Sign/Stop
	Roundabou	. , ,	per intersection	0	\$0.00	Ahead Sign/ ST	OP - Sheet 51-13)
	onal Media		per intersection	0	\$0.00		
Mainline Dynamic W	raming Sig lose Media		per intersection per intersection	0	\$0.00 \$0.00		
Installing S			per street light	Installed	\$0.00		
_	le Stop Sig		per sign	0	\$0.00		
Upgrade Jւ	•		per sign	0	\$0.00		
Upgrade Stop			per sign	0	\$0.00		
Upgrade Stop Ahe	ead Markin de Stop Ba		per marking per marking	1 1	\$450.00 \$250.00		
Review Sig		· ·	per intersection	1	\$2,450.00		
		· ,	•		\$3,150.00	_	
Signs and Markings and Street	<u> </u>		er of minor legs associat				
Project Cost Estimate (at	ttach det	tailed copy)		Proposed	Year of Con	struction	
	deral Fund	¢2.025					
Local Match (10% of Total p							
-	oject Cos	•	=				
	-,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
NDDOT Central Office Or	nly						
Project Accepted?	Yes	No	Reference Number			ID Number	
Notes	_						
							Page: 14
						Intere	Page: 14 section ID: 6.02
						inters	Date: 8/13/2013

HIGHWAY SAFETY IM			M (HSIP) PROJE	ECT APPLI	CATION		
North Dakota Department of T SFN 59959 (06-2011)	ransportat	tion Programming					
,		US Hig	hway 2 & 72nc	St NW (\	Ward 10)		
Agency Name:	Ward Co	_	•		DOT District	:: 4	
Contact Name:				Teleph	one Number	: 701-838-281	10
		en@wardnd.com					
Please attach a location map(s). Location Description	You may us	e additional sheets to f	urther describe your proj	ect.			
Location Description				1	CHCD E	mahasia Araa (ah	calcall that apply)
						ol Impaired Drivi	eck all that apply) ng
Configuration:		Traffic Control Device:				•	straints for all Occupants
Configuration (2): Urban/Rural:		Street Lights: Flashers:			Younger Drive Curb Aggress	er/Older Driver Sa ive Driving	afety
County:		Major ADT:					e Departure Crashes
Entering ADT:	7038	Minor ADT:	573		•	• ,	I Capabilities to Increase Survivability
				✓	Improve Inters	section Safety	
Describe Current Safety I	ssues & S	Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A				AND THE RESIDENCE OF THE PARTY.
Crashes	0	0	0.00		The same of		
Rate (per MVM)	0.0	0.0	0.0	_	Carried States		
Clean	Value	Critical	Risk Ranking				
Skew On/Near Curve	No Yes	Yes Yes	+				
Development	No	Yes	^			100	
Near RR Crossing	Yes	Yes	*		1		
Distance from previous STOP	No	Yes					04.5
Volume Cross Product Total Crashes	Yes 0	≥ 100,000 >0	*				

Describe Proposed Safety	y Improve	ements					
	Description	Unit Cost		Units	Cost		unty Project (Junction Sign/Stop
	loundabout nal Median		per intersection	0 0	\$0.00 \$0.00	Ahead Sign - S	Sheet 51-41)
Mainline Dynamic Wa			per intersection per intersection	1	\$50,000.00		
Clo	se Median	\$25,000	per intersection	0	\$0.00		
Installing St	treet Lights Stop Sign		per street light per sign	Installed 1	\$0.00		
Upgrade Jui			per sign	0	\$350.00 \$0.00		
Upgrade Stop A			per sign	0	\$0.00		
Upgrade Stop Ahea	ad Marking le Stop Bar		per marking per marking	1	\$450.00 \$250.00		
Review Sign			per intersection	1	\$2,450.00		
0: 111 1: 101 11					\$53,500.00	_	
Signs and Markings and Street L Project Cost Estimate (att	• • • • • • • • • • • • • • • • • • • 		er of minor legs associat		rsection. Year of Con	struction	
,		neu oopy)		Поросси	rear or con	ou douron	
Fed Local Match (10% of Total p	leral Funds	\$48,150 \$5,350					
Total Pro		\$53,500	-				
NDDOT Central Office On Project Accepted?			Reference Number			ID Number	
Notes	Yes	No	reference (variable)			ID Number	<u> </u>
							Page: 15
						Inte	rsection ID: 10.01
							Date: 8/13/2013

HIGHWAY SAFETY IN	//PROVE	EMENT PROGRA	M (HSIP) PROJE	CT APPLI	CATION			
North Dakota Department of SFN 59959 (06-2011)		ation Programming						
		Co Rd 15 W	/ (ward 15) & 4	6th Ave N	₩ (Ward	10)		
Agency Name:	Ward Co	ounty		ND	DOT District	t: 4		
Contact Name:	Dana La	ırsen		Teleph	none Numbei	r: 701-838-28	10	
Email Address:	dana.lar	rsen@wardnd.com						
Please attach a location map(s)	. You may ι	use additional sheets to f	urther describe your proj	ect.				
Location Description								
					SHSP Er	mphasis Area (ch	eck all that app	ly)
					Reduce Alcoh	nol Impaired Drivi	ng	
Configuration:	T	Traffic Control Device:	thru-STOP			Jse of Safety Re		ccupants
Configuration (2):		_				er/Older Driver S	afety	
Urban/Rural:		Flashers			Curb Aggress	-	o Donarturo Cro	achoo
County: Entering ADT:		Major ADT: Minor ADT:			•	s to Address Lan	•	Increase Survivability
Littering AD1.	100	MINOLADI.	320		•	section Safety	i Capabilities to	increase Survivability
Describe Current Safety	Issues &	Systemic Ranking	Review					
North Dakota TBD, 2008 - 2012								
	Total	Angle	K+A		1	5 1		ST. CO.
Crashes		0	0.00	<u></u>	100			
Rate (per MVM)	0.0	0.0	0.0					
							311	
						-1/	X	
	Value	Critical	Risk Ranking		State of the same			A STATE OF THE STA
Skew		Yes	<u></u> ★		fire the			To the second
On/Near Curve	Yes	Yes	*			TIVE	T T	
Development	. No	Yes				1//	1	
Near RR Crossing		Yes				YV	18	
Distance from previous STOP		Yes						12/10
Volume Cross Product		≥ 100,000	*		交叉者的			
Total Crashes	0	>0	***	<u> </u>				No. Alexander

Describe Proposed Safe	tv Improv	/ements						
	,							
	Description	Linit Cost		Linita	Cost	Notes - Oil Co	unty Project / lu	nction Sign/Stop
	Description Roundabou		per intersection	Units 0	\$0.00	Ahead Sign - S		iliction Sign/Stop
	onal Mediar	. , ,	per intersection	0	\$0.00	7.1.000 O.g.	3.1.001.01.00,	
Mainline Dynamic W			per intersection	0	\$0.00			
	ose Mediar	\$25,000	per intersection	0	\$0.00			
_	Street Lights		per street light	Installed	\$0.00			
. 0	e Stop Sigr		per sign	1	\$350.00			
Upgrade Stop	unction Sigr		per sign per sign	0 0	\$0.00 \$0.00			
Upgrade Stop Ahe			per marking	1	\$450.00			
	de Stop Ba		per marking	1	\$250.00			
Review Sig	ns and CST	\$2,450	per intersection	1	\$2,450.00			
0					\$3,500.00			
Signs and Markings and Street	<u> </u>		er of minor legs associat			244424		
Project Cost Estimate (a	itach det	апеа сору)		Proposea	Year of Con	ISTRUCTION		
Fe	deral Funds	\$3,150						
Local Match (10% of Total p		. ,						
Total Pro	oject Cost	t \$3,500	_					
NDDOT Central Office Or	nly							
Project Accepted?	Yes	No	Reference Number			ID Number		
Notes								
							Dere: 40	
						الملما	Page: 16	02
						inte	rsection ID: 10. Date: 8/1	

North Dakota Department of SFN 59959 (06-2011)	Transporta	tion Programming					
0111 00000 (00 2011)		US H	wy 52 & 79th A	ve SE (W	ard 16)		
Agency Name:	Ward Co			•	DOT Distric	t: 4	
Contact Name:	Dana La	rsen		Teleph	one Numbe	r: 701-838-2810	
Email Address:	dana.lar	sen@wardnd.com		_			
Please attach a location map(s).	You may u	se additional sheets to f	urther describe your proje	ect.			
Location Description							
						mphasis Area (check all that	apply)
	.,	T (0	0700			hol Impaired Driving	
Configuration: Configuration (2):		Traffic Control Device: Street Lights:				Use of Safety Restraints for a er/Older Driver Safety	all Occupants
Urban/Rural:		Flashers:			Curb Aggress		
County:		Major ADT:				s to Address Lane Departure	Crashes
Entering ADT:	4733	Minor ADT:	85			mergency Medical Capabilitie	s to Increase Survivability
				✓	Improve Inter	section Safety	
Describe Current Safety	lssues &	Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012		Cyclemic Rumang	11011011				
	Total	Angle	K+A		A		
Crashes		0	0.00				
Rate (per MVM)	0.0	0.0	0.0	_			(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
							医多种 1
	Value	Critical	Risk Ranking				
Skew		Yes					
On/Near Curve		Yes	*				
Development		Yes					
Near RR Crossing Distance from previous STOP		Yes Yes	_				
Volume Cross Product		≥ 100,000	*				
Total Crashes		>0			1000		

Describe Proposed Safet	ty Improv	omonts					
Describe i roposed Gares	y mipiov	Cilicino					
	Description	Unit Cost		Units	Cost	Notes -	
F	Roundabout		per intersection	0	\$0.00		
Direction	onal Median		per intersection	0	\$0.00		
Mainline Dynamic W			per intersection	0	\$0.00		
	ose Median Street Lights		per intersection per street light	0 1	\$0.00 \$6,000.00		
_	e Stop Sign		per sign	2	\$700.00		
	inction Sign		per sign	2	\$700.00		
Upgrade Stop		· ·	per sign	2	\$900.00		
Upgrade Stop Ahe	ead Marking de Stop Bar	· ·	per marking per marking	2 2	\$900.00 \$500.00		
Review Sign	•	· ·	per intersection	1	\$2,450.00		
<u> </u>			·		\$12,150.00)	
Signs and Markings and Street I			er of minor legs associat				
Project Cost Estimate (at	tach deta	iled copy)		Proposed	Year of Con	nstruction	
Fed	deral Funds	\$10,935					
Local Match (10% of Total p		,					
Total Pro	ject Cost	\$12,150	_				
NDDOTO : : 0.00							
NDDOT Central Office Or Project Accepted?			Reference Number			ID Number	
Notes	Yes	No	reference (variber			ID Number	
						Page: Intersection ID:	
							8/13/2013

HIGHWAY SAFETY IM			.M (HSIP) PROJE	CT APPLIC	CATION		
North Dakota Department of T SFN 59959 (06-2011)	ransportation	1 Programming					
,		US Hwy	2 & 54th St/62r	nd St NW	(Ward 17))	
Agency Name:	Ward Coun	_			DOT District:		
Contact Name:				Teleph	one Number:	701-838-28	10
Email Address:		_					
Please attach a location map(s). Location Description	You may use a	idditional sheets to fu	arther describe your proje	ect.			
Location Description				Τ	SHSD Em	unhacie Area (ch	eck all that apply)
						ol Impaired Drivi	
Configuration:		raffic Control Device:				•	straints for all Occupants
Configuration (2): Urban/Rural:		Street Lights: Flashers:			Curb Aggressive	r/Older Driver Sa ve Driving	arety
County:		Major ADT:					e Departure Crashes
Entering ADT:	7773	Minor ADT:	1223		•	• ,	I Capabilities to Increase Survivability
				✓	Improve Inters	ection Safety	
Describe Current Safety I	ssues & Sy:	stemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
	Total	Angle	K+A				
Crashes	0	0	0.00	_			
Rate (per MVM)	0.0	0.0	0.0	_			
							1
							free.
01	Value	Critical	Risk Ranking	<u></u>			
Skew On/Near Curve	No Yes	Yes Yes	+		- 7		
Development	No	Yes	^		7 - 1		
Near RR Crossing	No	Yes					
Distance from previous STOP Volume Cross Product	Yes Yes	Yes ≥ 100,000	*		11		
Total Crashes	0	≥ 100,000 >0	*				
			***		Western Edit Consu		
Describe Proposed Safety	y Improvem	ents					
,							
]	Description	Unit Cost		Units	Cost	_	deration should be given for large
	Roundabout	. , ,	per intersection	0 1	\$0.00	`	e movers) in the design of median. If dian is not feasible, mainline dynamic
Mainline Dynamic Wa	nal Median arning Sign		per intersection per intersection	0	\$750,000.00 \$0.00		s may be considered as an alternate
Clo	ose Median	\$25,000	per intersection	0	\$0.00		ement. Oil County Project (Junction
Installing St	treet Lights e Stop Sign		per street light per sign	Installed 0	\$0.00 \$0.00	Sign/Stop Ahe	ad/STOP - Sheet 51-46)
Upgrade Jui			per sign	0	\$0.00		
Upgrade Stop A			per sign	0	\$0.00		
Upgrade Stop Ahea	ad Marking le Stop Bar		per marking per marking	2 2	\$900.00 \$500.00		
Review Sign	•		per intersection	1	\$2,450.00	_	
Signs and Markings and Street I	ight project oor	eta vary by the numb	or of minor logo accorda	ad with the inter	\$753,850.00		
Signs and Markings and Street L Project Cost Estimate (att			er or minor legs associati		Year of Cons	struction	
,		1 2 /					
	leral Funds	\$678,465 \$75,385					
Local Match (10% of Total po Total Pro	•	\$753,850	-				
	-						
NDDOT Central Office On			Deference Number	<u> </u>		ID Number	
Project Accepted? Notes	Yes	No	Reference Number			ID Number	
							Page: 18
						Inte	rsection ID: 17.01
							Date: 11/11/2013

HIGHWAY SAFETY IN North Dakota Department of SFN 59959 (06-2011)			M (HSIP) PROJE	CT APPLI	CATION	
Agency Name: Contact Name: Email Address:	Dana Lars	inty sen en@wardnd.com	St SE (Ward 2	ND Teleph	DOT Distric	t: 4 r: 701-838-2810
Please attach a location map(s). Location Description	You may use	additional sheets to for	urther describe your proje	ect.		
Configuration: Configuration (2): Urban/Rural: County: Entering ADT:	Undivided Rural Ward	Traffic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	No No 335		Reduce Alcoh Increase the I Younger Drive Curb Aggress Improvements Enhancing Er	mphasis Area (check all that apply) nol Impaired Driving Use of Safety Restraints for all Occupants er/Older Driver Safety sive Driving s to Address Lane Departure Crashes mergency Medical Capabilities to Increase Survivability section Safety
Describe Current Safety	Issues & S	vstemic Ranking	Review			
North Dakota TBD, 2008 - 2012		ystemic Nanking	Neview			
Crashes Rate (per MVM)		Angle 0 0.0	K+A 0.00 0.0	- -		
Skew		Critical Yes	Risk Ranking ★	_		
On/Near Curve Development Near RR Crossing	No	Yes Yes Yes	*			
Distance from previous STOP Volume Cross Product Total Crashes	Yes No	Yes ≥ 100,000 >0	*			

Describe Proposed Safe	ty Improve	ments				
	December	Linit Coot		l laita	Coot	Notes - Oil County Project (Junction
F	Description Roundabout	Unit Cost \$1,000,000	per intersection	Units 0	\$0.00	Sign/STOP/Stop Ahead Sign - Sheet 51-100)
Direction Mainline Dynamic W	onal Median		per intersection per intersection	0	\$0.00 \$0.00	
CI	ose Median	\$25,000	per intersection	0	\$0.00	
_	Street Lights e Stop Sign		per street light per sign	1 0	\$6,000.00 \$0.00	
Upgrade Ju	inction Sign		per sign	0	\$0.00	
Upgrade Stop Upgrade Stop Ahe			per sign per marking	0 2	\$0.00 \$900.00	
Upgra	de Stop Bar	\$250	per marking	2	\$500.00	
Review Sign	ns and CST	\$2,450	per intersection	1	\$2,450.00 \$9,850.00	_
Signs and Markings and Street I			er of minor legs associat		section.	
Project Cost Estimate (at	ttach detail	led copy)		Proposed	Year of Con	nstruction
Local Match (10% of Total p	deral Funds project cost) oject Cost	\$8,865 \$985 \$9,850	-			
NDDOT Central Office Or	nlv	·				
Project Accepted?	Yes	No	Reference Number	T		ID Number
Notes						Page: 19
						Intersection ID: 23.01 Date: 8/13/2013

UICUWAY SAEETY IMI	DDOVE	MENT DROCDA	M (HSID) BBO II	ECT ADDLI	CATION			
HIGHWAY SAFETY IMF North Dakota Department of Tr SFN 59959 (06-2011)			M (HSIP) PROJE	=CI APPLI	JATION			
	142nd	St SW (Ward	1 501) & 359th	Ave SW/N	ID Hwy 5	3 (Ward 24	4)	
Agency Name: V	Ward Co ı	unty	-	ND	DOT District	t: 4	•	
Contact Name: D	Dana Lar	sen		Teleph	one Number	r: 701-838-28 ²	10	
		en@wardnd.com						
Please attach a location map(s). Y	ou may use	e additional sheets to fu	urther describe your proj	ject.				
Location Description								
Configuration: X Configuration (2): U Urban/Rural: R County: V Entering ADT: 1	Undivided Rural Ward 100	Traffic Control Device: Street Lights: Flashers: Major ADT: Minor ADT:	: No : No : 80 : 20		Reduce Alcoh Increase the L Younger Drive Curb Aggress Improvements Enhancing En	nol Impaired Drivi Use of Safety Res er/Older Driver Sa sive Driving s to Address Land	estraints for all Occu	es
Describe Current Safety Is	sues & S	Systemic Ranking	Review					
North Dakota TBD, 2008 - 2012								
İ	T-4-1	A I	17 · A					
Crashes	Total 0	Angle 0	0.00					No.
Rate (per MVM)	0.0	0.0	0.00				and the	
W ,							10	0 9
					- E 5/4			The same
İ	Value	Critical	Dick Banking		Sec.		/	
Skew	Value Yes	Critical Yes	Risk Ranking ★					
On/Near Curve	Yes	Yes	*			1	and the same of th	
Development	No	Yes				/		No. of London
Near RR Crossing	No	Yes						
Distance from previous STOP	Yes	Yes	*			The state of		. 9
Volume Cross Product Total Crashes	No 0	≥ 100,000 >0				The Second		
Total Gradiles			***	_	A Company		B. Carlotte	
Describe Proposed Safety	Improve	ments						
İ								
	Description	Unit Cost	intersection	Units	Cost	Notes -		
	oundabout nal Median		per intersection per intersection	0	\$0.00 \$0.00			
Mainline Dynamic War		. ,	per intersection	0	\$0.00			
Clos	se Median	\$25,000	per intersection	0	\$0.00			
Installing Str	_		per street light	0	\$0.00			
Upgrade S Upgrade Jund	Stop Sign	·	per sign per sign	2 2	\$700.00 \$700.00			
Upgrade Stop Af			per sign	2	\$900.00			
Upgrade Stop Ahead			per marking	1	\$450.00			
Upgrade Review Signs	e Stop Bar		per marking	2	\$500.00			
Review Signs	and CST	\$2,450	per intersection	1	\$2,450.00 \$5,700.00	_		
Signs and Markings and Street Lig	ght project o	costs vary by the numb	er of minor legs associa	ted with the inter				
Project Cost Estimate (atta					Year of Con	struction		
F. 1-		*= 100						
Fede Local Match (10% of Total pro	eral Funds	\$5,130 \$570						
Total Proje		\$5,700	-					
	00. 000.	+• ,. • •						
NDDOT Central Office Only	y							
Project Accepted?	Yes	No	Reference Number			ID Number		
Notes								
							Page: 20	
						Inte	ersection ID: 24.02	
							Date: 8/13/20	013

HIGHWAY SAFETY IN North Dakota Department of SFN 59959 (06-2011)			M (HSIP) PROJ	ECT APPLI	CATION		
Agency Name: Contact Name: Email Address:	Dana La dana.lar	rsen sen@wardnd.com		ND Teleph	DOT Distric	-	
Please attach a location map(s).	. You may u	ise additional sheets to f	urther describe your pro	ject.			
Location Description				T	01100.5		
Configuration: Configuration (2): Urban/Rural: County: Entering ADT:	: Undivided : Rural : Ward : 1293	Flashers Major ADT: Minor ADT:	No No 1215 78		Reduce Alcol Increase the Younger Driv Curb Aggress Improvement Enhancing E	Emphasis Area (check all that apply) hol Impaired Driving Use of Safety Restraints for all Occupants ver/Older Driver Safety sive Driving ts to Address Lane Departure Crashes imergency Medical Capabilities to Increase Surv rsection Safety	⁄ivability
Describe Current Safety		Systemic Ranking	Review				
North Dakota TBD, 2008 - 2012							
Crashes Rate (per MVM)		Angle 0 0.0	K+A 0.00 0.0	_			
	Malara	0.25	Diele Decelie				
Skew	Value V Yes	Critical Yes	Risk Ranking ★				
On/Near Curve	Yes	Yes	*				
Development		Yes				0 0	
Near RR Crossing Distance from previous STOP		Yes Yes	*				
Volume Cross Product		≥ 100,000			1		
Total Crashes	s 0	>0	***				
Describe Proposed Safet	ty Improv	vements					
	Description	n Unit Cost		Units	Cost	Notes -	
ſ	Roundabout		per intersection	0	\$0.00		
Direction Mainline Dynamic W	onal Median		per intersection per intersection	0	\$0.00 \$0.00		
	lose Median		per intersection	0	\$0.00		
g .	Street Lights		per street light	0	\$0.00		
Upgrad Upgrade Ju	le Stop Sign		per sign per sign	2 2	\$700.00 \$700.00		
Upgrade Stop	Ahead Sign	\$450	per sign	2	\$900.00		
Upgrade Stop Ahe	ead Marking de Stop Bai		per marking per marking	2 2	\$900.00 \$500.00		
Review Sign			per intersection	1	\$2,450.00		
Signs and Markings and Street I	Light projec	t costs yary by the numb	or of minor logs associa	atad with the inte	\$6,150.00		
Signs and Markings and Street I Project Cost Estimate (at			er or millior legs associa		Year of Cor	nstruction	
		1 2 /					
Fe Local Match (10% of Total p	deral Funds	. ,					
	oject Cost		_				
NDDOTO / LOSS O	•						
NDDOT Central Office Of Project Accepted?	Yes	□ No	Reference Number			ID Number	
Notes	1 163			I			
						Page: 21	
						Intersection ID: 501.01 Date: 8/13/2013	

HIGHWAY SAFETY IN	/IPROVE	EMENT PROGRA	M (HSIP) PROJE	CT APPLI	CATION			
North Dakota Department of SFN 59959 (06-2011)			()	· · · · ·				
3FN 39939 (00-2011)		US H	vy 52 & Co Rd	19 S (Wa	ard 504)			
Agency Name:	Ward Co		., o <u> </u>	-	DOT District	:: 4		
Contact Name:		-				: 701-838-2810	0	
		sen@wardnd.com						
Please attach a location map(s).		_	urther describe your proje	ect.				
Location Description								
-					SHSP En	nphasis Area (che	ck all that apply)	
					Reduce Alcoh	ol Impaired Driving	9	
Configuration:		Traffic Control Device:				•	raints for all Occupants	
Configuration (2):		Street Lights: Flashers:			Curb Aggressi	er/Older Driver Saf	ety	
Urban/Rural: County:		Major ADT:				-	Departure Crashes	
Entering ADT:		Minor ADT:			•		Capabilities to Increase	Survivability
· ·				V	Improve Inters	section Safety		•
Describe Current Safety	logues 9	Systemia Banking	Paviou					
Describe Current Safety North Dakota TBD, 2008 - 2012		Systemic Ranking	Review					
,								
	Total	Angle	K+A					
Crashes		0	0.00					
Rate (per MVM)	0.0	0.0	0.0	<u>—</u>		EN B PAR		
						1 11 11		
	Value	Critical	Risk Ranking			7 # 1	201	
Skew		Yes					District Control	
On/Near Curve		Yes	*					
Development		Yes	*		2	Sign State of the last of the		
Near RR Crossing Distance from previous STOP		Yes Yes						
Volume Cross Product		res ≥ 100,000	*					
Total Crashes		>0		<u></u>				

Describe Proposed Safet	tv Improv	/ements						
•	,							
	Description	n Unit Cost		Units	Cost	Notes - Oil Cour	nty Project (Junction Sign	n/Stop
F	Roundabout	t \$1,000,000	per intersection	0	\$0.00	Ahead Sign - Sh	neet 51-66)	•
	onal Median		per intersection	0	\$0.00			
Mainline Dynamic W	/arning Sign lose Median		per intersection per intersection	1 0	\$50,000.00 \$0.00			
	Street Lights	\$6,000	per street light	1	\$6,000.00			
_	le Stop Sign		per sign	1	\$350.00			
. 0	unction Sign		per sign	0	\$0.00			
Upgrade Stop Upgrade Stop Ahe			per sign	0	\$0.00			
	de Stop Bai		per marking per marking	1 1	\$450.00 \$250.00			
Review Sign	•		per intersection	1	\$2,450.00			
					\$59,500.00	_		
Signs and Markings and Street I	<u> </u>		er of minor legs associat			24*****		
Project Cost Estimate (at	ttach deta	апеа сору)		Proposed	Year of Con	Struction		
Fe	deral Funds	\$53,550						
Local Match (10% of Total p			_					
Total Pro	oject Cost	t \$59,500						
NDDOT Central Office Or	nlv							
Project Accepted?	Yes	No	Reference Number			ID Number		
Notes				II.				
							Dage: 00	
						Intoro	Page: 22 section ID: 504.02	
						inters	Date: 8/13/2013	

Ward County Rural Segment Projects

orridor ID	Local Street Name	Start	End	Length	Risk Ranking	4" Edge Line	Shoulder Rumble Strip	Edge Line Rumble Strip	6" Edge Lines	Center Line Ru	Project Cost (\$)
1.01	534th St	State Route 50	436th Ave		****	0.0	0.0	8.8	8.8	0.0	\$30,800
2.02	436th Ave	590th ST	Ward 11		****	0.0	5.8	0.0	5.8	0.0	\$17,400
5.03	Main St	US Hwy 52	Ward 7		***	0.0	0.0	0.0	1.8	0.0	\$1,170
8.01	128th Ave	US Hwy 52	US Hwy 83		***	0.0	12.9	0.0	12.9	0.0	\$38,700
9.03	310th St	Ward 20	Ward 14		***	0.0	11.5	0.0	11.5	0.0	\$44,700
10.02	19th Ave	Granly St	US Hwy 2		****	0.0	7.6	0.0	7.6	0.0	\$22,800
12.03	4th Ave	55th St	US Hwy 2		****	0.0	4.1	0.0	4.1	4.1	\$24,600
14.02	54th Ave	Ward 9	62nd St		***	0.0	0.0	17.8	17.8	0.0	\$62,300
14.04	54th Ave	US Hwy 83	1 mile east of 13th St		***	0.0	0.0	2.1	2.1	0.0	\$7,350
15.02	57th St	US Hwy 83	Ward 17		****	0.0	0.0	2.2	2.2	2.2	\$14,300
15.03	County Road 15 W	Ward 17	Ward 10		***	0.0	0.0	2.8	2.8	2.8	\$18,200
15.04	County Road 15 W	Ward 10	1 mile South of 86th St		****	0.0	0.0	2.2	2.2	0.0	\$7,700
17.02	54th St	US Hwy 2	Ward 15		***	0.0	0.0	1.3	1.3	1.3	\$8,450
23.04	153rd St	US Hwy 2	66th St		****	0.0	0.0	9.1	9.1	0.0	\$31,850
24.02	359th Ave	142nd St	US Hwy 83		***	0.0	0.0	9.7	9.7	0.0	\$33,950

Detailed Corridor Information

Ward (County Corrid	dors						≥ 45 MPH OR ≤ 40 MPH									Ad	ccess	
Corridor	Route	#	Local Name	Start	End	Road Type	Facility	Ana Speed Limit lyst Not	Length	Edge Risk Assesment	ERA 2	Lane Width	Paved Shoulder Width	r Gravel Shoulder Width	Curb & Gutter?	Shoulder Type	Total	Access/ Mile	Weighted ADT
1.01	Ward 1	1	534th St	Intersection with state route 50	Intersection with 436th Ave	Rural Paved	2-Lane	High	8.84	1		12	0	0	0	None	72	8.1	309
2.01 2.02	Ward 2 Ward 2	2	436th Ave 436th Ave	Intersection with 72nd Ave Intersection with 590th ST	Intersection with 450thAve Intersection with Ward 11	Rural Paved Rural Paved	2-Lane 2-Lane	High High	1.98 5.79	1		12 12	0	0	0	None Paved	14 34	7.1 5.9	145 395
2.02	Ward 2	2	6th St	Intersection with Ward 1	Intersection with US Hwy 52	Rural Paved	2-Lane	Low	1.08	2	Drop offs & objects	12	0	4	0	Gravel	51	47.2	1230
2.04	Ward 2	2	422nd Ave	Intersection with US Hwy 52	Intersection with Ward 3	Rural Paved	2-Lane	High	4.49	1	.,	12	2	0	0	Paved	39	8.7	430
2.05	Ward 2	2	422nd Ave	Intersection with Ward 3	Intersection with 52nd Ave	Rural Paved	2-Lane	High	4.97	1		12	2	0	0	Paved	31	6.2	230
3.01 3.02	Ward 3 Ward 3	3	436th St 436th St	Intersection with Ward 4 Intersection with Ward 2	Intersection with Ward 2 Intersection with 90th St	Rural CMC Gravel Rural CMC Gravel			4.01 1.99							None None	0	0.0 0.0	25 70
4.01	Ward 4	4	366th Ave	Intersection with US Hwy 52	Intersection with 52nd Ave	Rural CMC Gravel			5.07							None	0	0.0	50
5.01	Ward 5	5	394th St	Intersection with Ward 6	Intersection with 240th Ave	Rural CMC Gravel			4.00							None	0	0.0	62
5.02	Ward 5	5	394th St	Intersection with 240th Ave	Intersection with US Hwy 52	Rural Paved	2-Lane	High	1.95	2	drop offs	12	2	0	0	Paved	7	3.6	115
5.03 6.01	Ward 5 Ward 6	5 6	Main St 184th Ave	Intersection with US Hwy 52 Intersection with Ward 5	Intersection with Ward 7 1 mile to city of carpio	Rural Paved Rural CMC Gravel	2-Lane	High	1.76 7.25	2	water, drop offs	12	2	0	0	Paved None	20 0	11.4 0.0	80 55
6.02	Ward 6	6	184th Ave	1 mile to city of carpio	Intersection with state route 28	Rural Paved	2-Lane	High	1.77	1		12	2	0	0	Paved	9	5.1	60
6.03	Ward 6	6	198th Ave	Intersection with state route 28	Intersection with Reneville 6	Rural Paved	2-Lane	Low	7.06	2	water, drop offs	12	0	0	0	None	43	6.1	218
7.01	Ward 7	7	282nd Ave	Intersection with Ward 5	Intersection with 52nd Ave	Rural CMC Gravel	0.1	11:-1-	0.49	0		40	0	0	•	None	0	0.0	230
8.01 8.02	Ward 8 Ward 8	8 8	128th Ave 128th Ave	Intersection with US Hwy 52 Intersection with US Hwy 83	Intersection with US Hwy 83 Intersection with Ward 23	Rural Paved Rural Paved	2-Lane 2-Lane	High High	12.88 10.87	1	water, drop offs	12 12	2	0	0	Paved Paved	68 54	5.3 5.0	174 617
9.01	Ward 9	9	338 St	Intersection with 373rd Ave	Intersection with state route 23	Rural Paved	2-Lane	High	8.00	1		12	0	0	0	None	50	6.2	288
9.02	Ward 9	9	338 St	Intersection with state route 23	Intersection with Ward 20	Rural Paved	2-Lane	High	3.35	1		12	2	0	0	Paved	20	6.0	675
9.03	Ward 9	9		Intersection with Ward 20	Intersection with Ward 14	Rural Paved	2-Lane	High	11.55	1		12	2	0	0	Paved	51	4.4	157
9.04 10.01	Ward 9 Ward 10	9 10	310th St 184th St	Intersection with Ward 14 Intersection with Ward 9	Intersection with US Hwy 2 Intersection with Granly St	Rural Paved Rural Paved	2-Lane 2-Lane	High High	10.00 10.74	1		12 12	4	0	0	Paved Paved	71 56	7.1 5.2	121 263
10.01	Ward 10		19th Ave	Intersection with Ward 9 Intersection with Granly St	Intersection with US Hwy 2	Rural Paved	2-Lane	High	7.60	1		12	2	0	0	Paved	75	9.9	671
10.03	Ward 10		60 th St	Intersection with Ward 15	Intersection with US Hwy 83	Rural Paved	2-Lane	High	4.82	1		12	8	0	0	Paved	29	6.0	457
10.04	Ward 10A	10/	A 46th Ave	Intersection with US Hwy 83	Intersection with Ward 19	Rural Paved	2-Lane	High	1.98	1		12	12	0	0	Paved	22	11.1	1793
10.05	No designation	11	46th Ave	Intersection with Ward 19	Intersection with Ward 12	Rural CMC Gravel Rural Paved	2-Lane	High	2.00 4.89	4		12	0	0	0	None	0 26	0.0 5.3	170 1680
11.01 12.01	Ward 11 Ward 12		184th St 22nd St	Intersection with US Hwy 52 1 mile west of Ward 17	Intersection with Ward 6 Intersection with Ward 17	Rural Paved	2-Lane	Low	0.91	2	drop offs	12	4	0	0	None Paved	23	25.4	260
12.02	Ward 12		4th Ave	Intersection with Ward 19	Intersection with 55th St	Rural Paved	2-Lane	High	2.01	1	a.op oo	12	Ö	2	Ö	Gravel	16	8.0	3190
12.03	Ward 12		4th Ave	Intersection with 55th St	Intersection with US Hwy 2	Rural Paved	2-Lane	High	4.09	1		12	2	0	0	Paved	58	14.2	1204
12.04	Ward 12A		55th St	Intersection with Ward 14	Intersection with US Hwy 2	Rural Paved	2-Lane	Low	2.24 0.76	1 2	no choulder	12 12	0	0	1	None	41 24	18.3 31.8	881 2400
12.05 12.06	Ward 12A No designation	12	55th St 55th St	Intersection with US Hwy 2 Intersection with 4th Ave	Intersection with 4th Ave Intersection with 46th Ave	Rural Paved Rural CMC Gravel	2-Lane	Low	3.03	2	no shoulder	12	U	U	U	None None	0	0.0	115
14.01	Ward 14	14	54th Ave	Intersection with 408thSt	Intersection with Ward 9	Rural CMC Gravel			6.03							None	0	0.0	65
14.02	Ward 14		54th Ave	Intersection with Ward 9	Intersection with 62nd St	Rural Paved	2-Lane	High	17.84	1		12	2	0	0	Paved	77	4.3	210
14.03	Ward 14		37th Ave	Intersection with 54th Ave	Intersection with US Hwy 83	Rural Paved Rural Paved	2-Lane	Low	5.77 2.13	1		12 12	2	0	0	Paved	55 35	9.5 16.4	1010 548
14.04 14.05	Ward 14 Ward 14A		54th Ave 38th St	Intersection with US Hwy 83 1 mile east of 13th St	1 mile east of 13th St Intersection with 37th Ave	Rural Paved	2-Lane 2-Lane	High Low	1.27	1		12	2	0	0	Composite Paved	33	25.9	300
14.06	Ward 14		37th St	Intersection with Ward 14A	Intersection with 72nd AVe Ave	Rural Paved	2-Lane	Low	2.19	2	small clear zone	12	2	0	Ö	Paved	43	19.6	408
14.07	Ward 14	14	72nd Ave	Intersection with 37th St	Intersection with 11th Ave	Rural Paved	2-Lane	Low	2.01	2	flooding	12	2	0	0	Paved	49	24.3	0
15.02	Ward 15		57th St	Intersection with US Hwy 83	Intersection with Ward 17	Rural Paved	2-Lane	High	2.23 2.76	1	amall alaar zana	12 12	2	2	0	Composite	24 33	10.8 12.0	4010
15.03 15.04	Ward 15 Ward 15	15 15	County Road 15 W County Road 15 W	Intersection with Ward 17 Intersection with Ward 10	Intersection with Ward 10 1 mile South of 86th St	Rural Paved Rural Paved	2-Lane 2-Lane	High High	2.16	1	small clear zone	12	2	0	0	Paved Paved	33	15.3	2510 520
15.05	Ward 15 Ward 15	15		1 mile South of 86th St	Intersection with Ward 8	Rural CMC Gravel	L Lune	riigii	5.49				-	Ŭ	Ü	None	0	0.0	70
16.01	Ward 16	16		Intersection with US Hwy 83	Intersection with US Hwy 52	Rural CMC Gravel			6.79							None	0	0.0	70
16.02	Ward 16	16		Intersection with US Hwy 52	Intersection with 97th St	Rural Paved	2-Lane	Low	1.10	2	flooding	12	2	0	0	Paved	0	0.0	210
16.03 17.01	Ward 16 Ward 17	16 17	79th Ave 62nd St	Intersection with 97th St Intersection with Ward 14	Intersection with 20th Ave Intersection with US Hwy 2	Rural CMC Gravel Rural Paved	2-Lane	Low	6.10 3.10	1		12	4	0	Ω	None Paved	0 24	0.0 7.8	138 315
17.01	Ward 17	17	54th St	Intersection with US Hwy 2	Intersection with Ward 15	Rural Paved	2-Lane	High	1.28	1		12	4	0	0	Paved	18	14.0	1575
19.01	Ward 19	19	27th St	Intersection with Ward 12	Intersection with Ward 8	Rural Paved	2-Lane	High	9.09	1		12	2	0	0	Paved	50	5.5	1279
20.01	Ward 20		205th Ave	Intersection with 380th St	Intersection with Ward 12	Rural CMC Gravel			2.30							None	0	0.0	80
20.02 20.03	Ward 20 Ward 20		117th Ave 117th Ave	Intersection with Ward 12 Intersection with 142nd St	Intersection with 142nd St Intersection with US Hwy 83	Rural CMC Gravel Rural Paved	2-Lane	High	12.82 10.03	1		12	2	0	0	None Paved	0 45	0.0 4.5	43 302
22.01	Ward 22		303rd Ave	Intersection with Ward 9	Intersection with Corona St	Rural Paved	2-Lane	High	6.36	1		12	2	0	0	Paved	48	7.5	163
22.02	Ward 22	22	303rd Ave	Intersection with Corona St	Intersection with 142nd St	Rural CMC Gravel		÷	7.58							None	0	0.0	65
22.03	Ward 22		303rd Ave	Intersection with 142nd St	Intersection with US Hwy 83	Rural CMC Gravel	01	LI;~L	10.25	4		40	2	0	^	None	0	0.0	35
23.01 23.02	Ward 23 Ward 23		21st Ave 21st Ave	Intersection with 373rd Ave Intersection with state route 23	Intersection with state route 23 Intersection with US Hwy 53	Rural Paved Rural Paved	2-Lane 2-Lane	High High	9.30 7.67	1 1		12 12	2 2	0	0	Paved Paved	46 31	4.9 4.0	141 362
23.02	Ward 23		153rd St	Quarter mile north of Dakota Ave	Intersection with US Hwy 33	Rural Paved	2-Lail6	Rural CMC Gravel, r	10.53	1		14	~	U	U	None	0	0.0	101
23.04	Ward 23	23	153rd St	Intersection with US Hwy 2	Intersection with 66th St	Rural Paved	2-Lane	High	9.09	1		12	2	0	0	Paved	63	6.9	310
24.01	Ward 24		359th Ave	Intersection with state route 28	Intersection with 142nd St	Rural Paved	2-Lane	High	8.27	1	n - "	12	2	0	0	Paved	47	5.7	178
24.02 500.01	Ward 24	24	359th Ave	Intersection with 142nd St	Intersection with US Hwy 83	Rural Paved Rural CMC Gravel	2-Lane	High	9.70 5.23	2	flooding	12	2	0	0	Paved None	61 0	6.3 0.0	283 40
500.01	No designation No designation		254th St Main St	Intersection with State route 23 Intersection with 373rd Ave	Intersection with Ward 20 Intersection with Ward 24	Rural CMC Gravel			1.06							None	0	0.0	61
501.02	No designation		142nd St	Intersection with Ward 24	Intersection with State route 22	Rural CMC Gravel			8.45							None	0	0.0	54
501.03	No designation	NA	142nd St	Intersection with State route 22	Intersection with Ward 22	Rural Paved	2-Lane	High	5.06	2	small clear zone	12	2	0	0	Paved	21	4.1	85
502.01 504.01	No designation		135th Ave	Intersection with US Hwy 83	Intersection with US Hwy 52	Rural CMC Gravel Rural Paved	2-Lane	Low	8.83 0.77	1		12	2	0	0	None Payed	0 ο	0.0 11.7	148 170
504.01 504.02	No designation No designation		Conty Road 19 S Conty Road 19 S	Intersection with US Hwy 52 Intersection with Ward 16	Intersection with Ward 16 Intersection with US Hwy 52	Rural Paved Rural Paved	2-Lane 2-Lane	Low Low	2.51	1		12	2	0	0	Paved Paved	30	12.0	325
504.03	No designation		Conty Road 19 S	Intersection with US Hwy 52	Intersection with Ward 14	Rural Paved	2-Lane	Low	1.77	1		12	2	0	0	Paved	64	36.2	488

Detailed Corridor Information

Ward C	rd County Corridors								Intersection		Severity					Dia	agram - SEVERE	Only			
Corridor	Route	# L	Local Name	Start	End	Years of Data AADT	Total Crashes	Severe Crashes	Crashes	K A	В	C PDO	Rear Sideswip End Passing			Right Angle Angle (Same Dir)	Angle (Not Specific)	Head On	Sideswipe Opposing	Rear-to-Rear	Rear-to- Side
1.01	Ward 1		534th St	Intersection with state route 50	Intersection with 436th Ave	5 309 5 145	4	-	-	-	- 2	- 2	-				-	-		-	
2.01 2.02	Ward 2 Ward 2		136th Ave 136th Ave	Intersection with 72nd Ave Intersection with 590th ST	Intersection with 450thAve Intersection with Ward 11	5 395	2	-	-	-	- 1	- 1	-				-	-		-	
2.03	Ward 2	_	6th St	Intersection with Ward 1	Intersection with US Hwy 52	5 1,230	-	-	-	-			-				-	-		-	
2.04 2.05	Ward 2		122nd Ave 122nd Ave	Intersection with US Hwy 52	Intersection with Ward 3	5 430 5 230	1	-	-	-		- 1	-		-		-	-		-	
3.01	Ward 2 Ward 3		136th St	Intersection with Ward 3 Intersection with Ward 4	Intersection with 52nd Ave Intersection with Ward 2	5 25	-	-	-	-			-				-	-		-	
3.02	Ward 3		136th St	Intersection with Ward 2	Intersection with 90th St	5 70	-	-	-	-			-		-		-	-		-	
4.01	Ward 4		366th Ave	Intersection with US Hwy 52	Intersection with 52nd Ave	5 50 5 62	-	-	-	-			-				-	-		-	
5.01 5.02	Ward 5 Ward 5		394th St 394th St	Intersection with Ward 6 Intersection with 240th Ave	Intersection with 240th Ave Intersection with US Hwy 52	5 62	-	-	-	-			-				-	-		- -	
5.03	Ward 5		Main St	Intersection with US Hwy 52	Intersection with Ward 7	5 80	-	-	-	-			-				-	-			
6.01	Ward 6		184th Ave	Intersection with Ward 5	1 mile to city of carpio	5 55	1	-	-	-		- 1	-		-		-	-		-	
6.02 6.03	Ward 6 Ward 6		184th Ave 198th Ave	1 mile to city of carpio Intersection with state route 28	Intersection with state route 28 Intersection with Reneville 6	5 60 5 218	-	-	-	-			-				-	-		-	
7.01	Ward 7		282nd Ave	Intersection with Ward 5	Intersection with 52nd Ave	5 230	-	-	-	_			-		_		-	_		_	
8.01	Ward 8		128th Ave	Intersection with US Hwy 52	Intersection with US Hwy 83	5 174	4	-	-	-		- 4	-		-		-	-		-	
8.02	Ward 8		128th Ave	Intersection with US Hwy 83	Intersection with Ward 23	5 617 5 288	5	- 1	-	- 1		- 5	_		-	-	-	-		-	
9.01 9.02	Ward 9 Ward 9		338 St 338 St	Intersection with 373rd Ave Intersection with state route 23	Intersection with state route 23 Intersection with Ward 20	5 288 5 675	2	1 -	-	-		- 2	_				1 -	-		- -	
9.03	Ward 9		310th St	Intersection with Ward 20	Intersection with Ward 14	5 157	5	1	-		1 -	- 4	-		- 1		-	-		-	
9.04	Ward 9		310th St	Intersection with Ward 14	Intersection with US Hwy 2	5 121	3	-	-	-		- 3	-				-	-		-	
10.01 10.02	Ward 10 Ward 10		184th St 19th Ave	Intersection with Ward 9 Intersection with Granly St	Intersection with Granly St Intersection with US Hwy 2	5 263 5 671	10	-	1	-	 - 1	- 1 - 19	l -		. <u>-</u>		-	-		<u> </u>	
10.02	Ward 10		60 th St	Intersection with Ward 15	Intersection with US Hwy 83	5 457	5	-	-	_	- 1	- 4	-		_		-	_		_	
10.04	Ward 10A		16th Ave	Intersection with US Hwy 83	Intersection with Ward 19	5 1,793	3	-	-	-	- 2	- 1	-				-	-		-	
10.05	No designation		16th Ave	Intersection with Ward 19	Intersection with Ward 12	5 170	3	-	-	-			-		-		-	-		-	
11.01 12.01	Ward 11 Ward 12		184th St 22nd St	Intersection with US Hwy 52 1 mile west of Ward 17	Intersection with Ward 6 Intersection with Ward 17	5 1,680 5 260	3	-	-	-		- 3	-				-	-	· ·	-	
12.01	Ward 12		1th Ave	Intersection with Ward 19	Intersection with 55th St	5 3,190	11	-	-	-		- 11	-				-	-			
12.03	Ward 12		1th Ave	Intersection with 55th St	Intersection with US Hwy 2	5 1,204	5	-	-	-		- 5	-				-	-		-	
12.04 12.05	Ward 12A Ward 12A		55th St 55th St	Intersection with Ward 14	Intersection with US Hwy 2	5 881 5 2,400	2	-	-	-	- 1	- 1	-		-		-	-		-	
12.05	lo designation		55th St	Intersection with US Hwy 2 Intersection with 4th Ave	Intersection with 4th Ave Intersection with 46th Ave	5 115	1	-	_	-		- 1	-				-	_		_	
14.01	Ward 14	14 5	54th Ave	Intersection with 408thSt	Intersection with Ward 9	5 65	-	-	-	-			-				-	-		-	
14.02	Ward 14		54th Ave	Intersection with Ward 9	Intersection with 62nd St	5 210	14	-	1	-	- 3	- 11	-				-	-		-	
14.03 14.04	Ward 14 Ward 14		37th Ave 54th Ave	Intersection with 54th Ave Intersection with US Hwy 83	Intersection with US Hwy 83 1 mile east of 13th St	5 1,010 5 548	8 4	1	1 -	- '	1 1	- 6	-				-	-	• 1	! -	
14.05	Ward 14A		38th St	1 mile east of 13th St	Intersection with 37th Ave	5 300	2	-	-	-		- 2	-				-	-			
14.06	Ward 14		37th St	Intersection with Ward 14A	Intersection with 72nd AVe Ave	5 408	1	-	-	-		- 1	-		-		-	-		-	
14.07 15.02	Ward 14 Ward 15		72nd Ave 57th St	Intersection with 37th St	Intersection with 11th Ave Intersection with Ward 17	5 0 5 4.010	2 19	-	1	-	 2	1 1	-		-		-	-		-	
15.02	Ward 15		County Road 15 W	Intersection with US Hwy 83 Intersection with Ward 17	Intersection with Ward 17	5 2,510	12	-	-	-	- 2	- 10	-				-	_		-	
15.04	Ward 15		County Road 15 W	Intersection with Ward 10	1 mile South of 86th St	5 520	5	-	-	-		- 5	-				-	-		-	
15.05	Ward 15		County Road 15 W	1 mile South of 86th St	Intersection with Ward 8	5 70	-	-	-	-			-				-	-		-	
16.01 16.02	Ward 16 Ward 16		963rd Ave 79th Ave	Intersection with US Hwy 83 Intersection with US Hwy 52	Intersection with US Hwy 52 Intersection with 97th St	5 70 5 210	2	-	-	-	 - 1	 - 1	-				-	-	· 	-	
16.03	Ward 16	-	79th Ave	Intersection with 97th St	Intersection with 20th Ave	5 138	2	-	-	-	- 1	- 1	-				-	-		_	
17.01	Ward 17		S2nd St	Intersection with Ward 14	Intersection with US Hwy 2	5 315	3	-	-	-		- 3	-		-		-	-		-	
17.02 19.01	Ward 17 Ward 19	17 5 19 2	54th St 27th St	Intersection with US Hwy 2 Intersection with Ward 12	Intersection with Ward 15 Intersection with Ward 8	5 1,575 5 1,279	1 14	- 1	1	- 1	- 1 	1 12	l -				-	_		-	
20.01	Ward 20		205th Ave	Intersection with 380th St	Intersection with Ward 12	5 1,279	'-	-		-			-				-	-		-	
20.02	Ward 20	20 1	117th Ave	Intersection with Ward 12	Intersection with 142nd St	5 43	1	-	-	-		- 1	-		-		-	-		-	
20.03	Ward 20		117th Ave	Intersection with 142nd St Intersection with Ward 9	Intersection with US Hwy 83	5 302 5 163	3	-	-	-		- 3	l :			-	-	-		- -	
22.01 22.02	Ward 22 Ward 22		303rd Ave 303rd Ave	Intersection with ward 9 Intersection with Corona St	Intersection with Corona St Intersection with 142nd St	5 65		-	-	-		- 2	-				-	-			
22.03	Ward 22	22 3	303rd Ave	Intersection with 142nd St	Intersection with US Hwy 83	5 35	3	-	-	-		- 3	-				-	-		-	
23.01	Ward 23		21st Ave	Intersection with 373rd Ave	Intersection with state route 23	5 141		-	-	-			-		-		-	-		-	
23.02 23.03	Ward 23 Ward 23		21st Ave 153rd St	Intersection with state route 23 Quarter mile north of Dakota Ave	Intersection with US Hwy 53 Intersection with US Hwy 2	5 362 5 101	1 1	-	-	-		- 1 - 1	-				-	-	•	- -	
23.04	Ward 23		153rd St	Intersection with US Hwy 2	Intersection with 66th St	5 310	12	1	2	1	- 1	- 10	-			1 -	-	-			
24.01	Ward 24	24 3	359th Ave	Intersection with state route 28	Intersection with 142nd St	5 178	1	-	-	-	- 1		-		-		-	-		-	
24.02	Ward 24		359th Ave	Intersection with 142nd St	Intersection with US Hwy 83	5 283 5 40	4	-	1	-	- 1	- 3	-		-		-	-		<u> </u>	
500.01 501.01	No designation No designation		254th St Vain St	Intersection with State route 23 Intersection with 373rd Ave	Intersection with Ward 20 Intersection with Ward 24	5 40 5 61		-	-	-] -				-	-		- -	
501.02	No designation		142nd St	Intersection with Ward 24	Intersection with State route 22	5 54	1	-	-	-		- 1	-				-	-		_	
501.03	No designation		142nd St	Intersection with State route 22	Intersection with Ward 22	5 85		-	-	-			-		-		-	-		-	
502.01	No designation		135th Ave	Intersection with US Hwy 83	Intersection with US Hwy 52	5 148 5 170	1	-	-	-		- 1	l -		-		-	-		-	
504.01 504.02	No designation No designation		Conty Road 19 S Conty Road 19 S	Intersection with US Hwy 52 Intersection with Ward 16	Intersection with Ward 16 Intersection with US Hwy 52	5 170 5 325		-	-	-							-	-			
504.03	No designation		Conty Road 19 S	Intersection with US Hwy 52	Intersection with Ward 14	5 488	1	-	-		<u>-</u> -	<u>-</u> 1	<u>-</u>	<u>- </u> -	<u> </u>	<u> </u>		<u> </u>	<u>. </u>	_	

Detailed Corridor Information

The composition will be composed and the Composed of the Composed and th	Ward C	County Corrid	ors					Light Co	onditions - SE	VERE	Only	Ro	ad Cond	dition - SEV	ERE Only	Road C	haracte	eristics
201 Word 2 2 Alth Ave Intersection will \$400 Mer	Corridor	Route	#	Local Name	Start	End	Day	Dawn/ Dusk	Dark with Streetlights	Dark		Dry	Wet		Other	Straight		Other
2.00							-	-	-	-	-	-	-	-	-	-	-	-
20.9 Word 2 2 47704 Am Intersection with US lawy 92 1 Intersection with US lawy 93 1 Intersection with Ward 2 Intersection with US lawy 93 Intersection with Ward 2 Intersection with Ward 2 Intersection with US lawy 93 In							-	-	-	-	-	-	-	-	-	-	-	-
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1.00						•	_	_	_	_	_	_	_	_	-	_	_	
1.00					•		-	-	-	-	-	-	-	_	-	-	-	
4 Ward 4 4 Jidith Ave	3.01	Ward 3	3	436th St		Intersection with Ward 2	-	-	-	-	-	-	-	-	-	-	-	
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Section Sect							-	-	-	-	-	-	-	-	-	-	-	-
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50.03					•		_	_	-	_	_	_	_	_	_	_	_	
5.03 Visid 5 6 1989 Ave							-	_	-	-	-	-	-	_	-	-	-	
8.01 Vata B	6.03	Ward 6	6	198th Ave			-	-	-	-	-	-	-	-	-	-	-	
8.02 Ward 8	7.01	Ward 7		282nd Ave	Intersection with Ward 5	Intersection with 52nd Ave	-	-	-	-	-	-	-	-	-	-	-	
9.01 Ward 9 338 St Intersection with 1973 of Ave Intersection with 1974 of 20 1 1 1 1 1 1 1 1 1					•		-	-	-	-	-	-	-	-	-	-	-	
9.02 Ward 9 9 338 II Internection with Valued 20					•		- 1	-	-	-	-		-	-	-	-	-	-
9.01 Ward 9 9 310h St Intersection with Ward 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			-				1	-	-	-	-	1	-	-	-	1	-	-
9.9.4 Ward 9 9 310th St Intersection with Ward 14 10.01 MBM In Intersection with Ward 9 1 10.01 Ward 10 10.01 MBM Intersection with Ward 9 1 10.02 Ward 10 10.01 MBM Intersection with Granty St Intersection with Use 14 12 10.04 Ward 10 10.00 MBM Intersection with Ward 19 10.05 No designation 4 MBM Intersection with Ward 19 10.05 No designation 10 10 MBM Intersection with Ward 19 10.05 No designation 10 10 MBM Intersection with Ward 19 10.05 No designation 10 MBM Intersection with Ward 19 10.05								-	-	1			-	1	-	_	1	-
10.01 Ward 10								_	_		_	_	_		_	_		
10.02 Ward 10						•	_	_	-	_	-	_	_	_	-	_	_	
10.03 Ward 10						•	-	_	-	-	-	-	-	_	_	-	-	
10.05 No designation			10		•	•	-	-	-	-	-	-	-	-	-	-	-	
11-01 Ward 12 12 22nd SI	10.04	Ward 10A	10A	46th Ave	Intersection with US Hwy 83	Intersection with Ward 19	-	-	-	-	-	-	-	-	-	-	-	
12.01 Ward 12 12 22nd St	10.05	•					-	-	-	-	-	-	-	-	-	-	-	
12.02 Ward 12 12 4th Ave					· · · · · · · · · · · · · · · · · · ·		-	-	-	-	-	-	-	-	-	-	-	-
12.03 Ward 12A 12 dm Ave Intersection with S5th St Intersection with US Hwy 2							-	-	-	-	-	-	-	-	-	-	-	-
12.04 Ward 12A 12 56th St Intersection with Ward 14 12.05 Shift St Intersection with US Hwy 2 Intersection with 46th Ave							-	-	-	-	-	-	-	-	-	-	-	-
12.06 No designation						•	_	-	-	-	-	_	_	-	-	_	-	
12.06 No designation S5h St Intersection with 40h Ave						•	_	_	_	_	_	_	_	_	_	_	_	
14.02 Ward 14					· · · · · · · · · · · · · · · · · · ·		-	-	-	-	-	-	-	-	-	-	-	
14 0.3 Ward 14 14 37th Ave	14.01	Ward 14	14	54th Ave	Intersection with 408thSt	Intersection with Ward 9	-	-	-	-	-	-	-	-	-	-	-	
14 14 14 15 14 15 15 16 16 16 17 16 17 17 18 18 18 18 18 18	14.02				Intersection with Ward 9	Intersection with 62nd St	-	-	-	-	-	-	-	-	-	-	-	
14 05 Ward 14A 14 38th St 1 mile east of 13th St Intersection with Ward 14A 14 37th St Intersection with Ward 14A 14 37th St Intersection with Ward 14A 14 37th St Intersection with Ward 14A 15 15 57th St Intersection with 37th St Intersection with 13th St Intersection with 13th St Intersection with 13th St Intersection with 13th St Intersection with Ward 17 15 15 15 15 15 15 15						•	1	-	-	-	-	1	-	-	-	1	-	
14.06 Ward 14 14 37th St					•		-	-	-	-	-	-	-	-	-	-	-	-
14.07 Ward 14 14 72md Ave							_	-	-	-	-	_	-	-	-	_	-	-
15 15 15 15 15 15 15 15							_	-	-	-	-	_	_	-	-	_	-	
15.03 Ward 15 15 County Road 15 W Intersection with Ward 10 1 mile South of 86th St 1 mile South of 86th St 1 mile South of 86th St Intersection with Ward 16 16 963rd Ave Intersection with US Hwy 52 Intersection with Ward 16 16 79th Ave Intersection with US Hwy 52 Intersection with 97th St 1 mile South of 86th St Intersection with 97th St 1 mile South of 86th St Intersection with 97th St 1 mile South of 86th St Intersection with 97th St 1 mile South of 86th St Intersection with 97th St 1 mile South of 86th St Intersection with 97th St 1 mile South of 86th							_	_	_	_	_	_	_	_	_	_	_	
15.04 Ward 15 15 County Road 15 W Intersection with Ward 10 1 mile South of 88th St					•		-	-	-	-	-	-	-	_	_	-	-	
16.01 Ward 16			15				-	-	-	-	-	-	-	-	-	-	-	
16,02	15.05	Ward 15	15	County Road 15 W	1 mile South of 86th St	Intersection with Ward 8	-	-	-	-	-	-	-	-	-	-	-	
16.03 Ward 16 16 79th Ave	16.01	Ward 16		963rd Ave	Intersection with US Hwy 83	Intersection with US Hwy 52	-	-	-	-	-	-	-	-	-	-	-	
17.01 Ward 17 17 62nd St Intersection with Ward 14 Intersection with US Hwy 2 Intersection with US Hwy 2 Intersection with Ward 15 1 1 1 1 1 1 1 1 1							-	-	-	-	-	-	-	-	-	-	-	-
11.02 Ward 17 17 54th St Intersection with US Hwy 2 Intersection with Ward 15 19.01 Ward 19 19 27th St Intersection with Ward 12 Intersection with Ward 8 1 1							l -	-	-	-	-	l -	-	-	-	_	-	-
19.01 Ward 19 19 27th St Intersection with Ward 12 Intersection with Ward 8 -						•]	-	-	-	-	_	-	-	-		-	-
20.01 Ward 20 20 205th Ave Intersection with 380th St Intersection with Ward 12 Intersection with Ward 12 Intersection with Ward 12 Intersection with 142nd St Intersection with 124nd								-	1	_	_	1	-	-	-	1	_	
20.02 Ward 20 20 117th Ave Intersection with Ward 12 Intersection with 142nd St 117th Ave Intersection with 142nd St Intersection with US Hwy 83							_	-	-	_	-		-	_	-] :	_	
20.03 Ward 20 20 117th Ave Intersection with 142nd St Intersection with US Hwy 83							-	-	-	-	-	-	-	-	-	-	-	
22.01 Ward 22 22 303rd Ave Intersection with Ward 9 Intersection with Corona St 22.02 Ward 22 22 303rd Ave Intersection with Corona St Intersection with 142nd St 1.							-	-	-	-	-	-	-	-	-	-	-	
22.03 Ward 22 22 303rd Ave Intersection with 142nd St Intersection with US Hwy 83		Ward 22					-	-	-	-	-	-	-	-	-	-	-	
23.01 Ward 23 23 21st Ave Intersection with 373rd Ave Intersection with state route 23 Intersection with US Hwy 53							-	-	-	-	-	-	-	-	-	-	-	
23.02 Ward 23 23 21st Ave Intersection with state route 23 Intersection with US Hwy 53						•	-	-	-	-	-	-	-	-	-	-	-	-
23.03 Ward 23 23 153rd St Quarter mile north of Dakota Ave Intersection with US Hwy 2 Intersection with 66th St 1							-	-	-	-	-	-	-	-	-	-	-	-
23.04 Ward 23 23 153rd St Intersection with US Hwy 2 Intersection with 66th St 1 1 1 1 24.01 Ward 24 24 359th Ave Intersection with state route 28 Intersection with 142nd St						•]	-	-	-	-	_	-	-	-		-	-
24.01 Ward 24 24 359th Ave Intersection with state route 28 Intersection with 142nd St							1	-	-	_	-] -	1	-	-	1	-	
24.02 Ward 24 24 359th Ave Intersection with 142nd St Intersection with US Hwy 83							-	_	-	_	_	-	-	-	_] :	-	
500.01 No designation							-	-	-	-	-	-	-	-	-	-	-	
501.01 No designation Main St Intersection with 373rd Ave Intersection with Ward 24 - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>							-	-	-	-	-	-	-	-	-	-	-	
501.03 No designation NA 142nd St Intersection with State route 22 Intersection with Ward 22 -	501.01				Intersection with 373rd Ave		-	-	-	-	-	-	-	-	-	-	-	
502.01 No designation 135th Ave Intersection with US Hwy 83 Intersection with US Hwy 52		•					-	-	-	-	-	-	-	-	-	-	-	
504.01 No designation Conty Road 19 S Intersection with US Hwy 52 Intersection with Ward 16			NA				-	-	-	-	-	-	-	-	-	-	-	
504.02 No designation Conty Road 19 S Intersection with Ward 16 Intersection with US Hwy 52		•			•		l -	-	-	-	-	l -	-	-	-	-	-	-
]	-	-	-	-	I -	-	-	-		-	-
504.03 No designation Conty Road 19 S Intersection with US Hwy 52 Intersection with Ward 14		•		Conty Road 19 S	Intersection with Ward 16 Intersection with US Hwy 52	Intersection with US Hwy 52 Intersection with Ward 14	_	-	-	-	-] -	-	-	-]	-	

Ward County

Rural Segment Listing

*High Priority Segments Project Sheet Page Number

Project Sheet Page*	Corridor	Route	#	Start	End	Length (miles)	Lane Departure Crashes	ADT	Lane Departure Density	Access Density	Curves w/ Critical Radius / Mile	Edge Risk Assesment
2	1.01	Ward 1	1	State Route 50	436th Ave	8.8	2	309	0.05	8.1	0.45	1
	2.01	Ward 2	2	72nd Ave	450thAve	2.0	0	145	0.00	7.1	1.01	1
12	2.02	Ward 2	2	590th ST	Ward 1	5.8	1	395	0.03	5.9	1.21	1
	2.04	Ward 2	2	US Hwy 52	Ward 3	4.5	0	430	0.00	8.7	0.22	1
	2.05	Ward 2	2	Ward 3	52nd Ave	5.0	0	230	0.00	6.2	0.00	1
	5.02	Ward 5	5	240th Ave	US Hwy 52	2.0	0	115	0.00	3.6	1.54	2
5	5.03	Ward 5	5	US Hwy 52	Ward 7	1.8	0	80	0.00	11.4	3.42	2
	6.02	Ward 6	6	1 mile to city of carpio	State Route 28	1.8	0	60	0.00	5.1	3.40	1
4	8.01	Ward 8	8	US Hwy 52	US Hwy 83	12.9	0	174	0.00	5.3	0.39	2
	8.02	Ward 8	8	US Hwy 83	Ward 23	10.9	2	617	0.04	5.0	0.00	1
	9.01	Ward 9	9	373rd Ave	State Route 23	8.0	0	288	0.00	6.2	0.00	1
15	9.03	Ward 9	9	State Route 23	Ward 14	15.5	3	328	0.04	4.6	0.45	1
	9.04	Ward 9	9	Ward 14	US Hwy 2	10.0	1	121	0.02	7.1	0.00	1
	10.01	Ward 10	10	Ward 9	Granly St	10.7	1	263	0.02	5.2	1.02	1
9	10.02	Ward 10	10	Granly St	US Hwy 2	7.6	7	671	0.18	9.9	1.32	1
	10.03	Ward 10	10	Ward 15	US Hwy 83	4.8	2	457	0.08	6.0	0.42	1
	10.04	Ward 10A	10A	US Hwy 83	Ward 19	2.0	1	1,793	0.10	11.1	0.00	1
	11.01		11	US Hwy 52	Ward 6	4.9	0	1,680	0.00	5.3	0.20	1
	12.02	Ward 12	12	Ward 19	55th St	2.0	1	3,190	0.10	8.0	0.00	1
8	12.03		12	55th St	US Hwy 2	4.1	3	1,204	0.15	14.2	0.49	1
14	14.02		14	Ward 9	62nd St	17.8	6	210	0.07	4.3	0.06	1
10	14.04		14	US Hwy 83	1 mile east of 13th St	2.1	1	548	0.09	16.4	2.35	1
6	15.02		15	US Hwy 83	Ward 17	2.2	8	4,010	0.72	10.8	0.45	1
1	15.03		15	Ward 17	Ward 10	2.8	2	2,510	0.14	12.0	1.45	2
11	15.04		15	Ward 10	1 mile South of 86th St	2.2	2	520	0.19	15.3	3.25	1
7	17.02		17	US Hwy 2	Ward 15	1.3	11	1,575	0.16	14.0	4.67	11
	19.01		19	Ward 12	Ward 8	9.1	8	1,279	0.18	5.5	0.00	1
	20.03		20	142nd St	US Hwy 83	10.0	1	302	0.02	4.5	0.30	1
	22.01		22	Ward 9	Corona St	6.4	1	163	0.03	7.5	0.00	1
	23.01		23	373rd Ave	State Route 23	9.3	0	141	0.00	4.9	0.65	1
	23.02		23	State Route 23	US Hwy 53	7.7	1	362	0.03	4.0	0.65	1
13	23.04		23	US Hwy 2	66th St	9.1	4	310	0.09	6.9	0.22	1
	24.01		24	State Route 28	142nd St	8.3	1	178	0.02	5.7	0.24	1
3	24.02		24	142nd St	US Hwy 83	9.7	1	283	0.02	6.3	0.21	2
	501.03 l	lo designation	NA	State Route 22	Ward 22	5.1	0	85	0.00	4.1	0.40	2

Edge Risk Legend

3 -- Risky' - NEITHER shoulder or good clear zone

2 -- Either a shoulder OR good clear zone

1 -- BOTH shoulder and a good clear zone

Critical ADT Range - Lane Departure
Min 150

Min 150 Max 400

		Lane	Critical Radius
	Access	Departure	Curves
Total	3758	61	69
Total Mileage	228.2	228.2	228.2
Years		5	
Average Density (Total/Mile)	16.5	0.05	0.30

Ward County Rural Segment Prioritization - Lane Departure Priority

														Hebie	akers
#	Corridor	Route	#	Start	End	Length	ADT	ADT Range	Lane Departure Density	Access Density	Curve Critical Radius Density	Edge Risk	Totals	Edge Risk	ADT
1	15.03	Ward 15	15	Ward 17	Ward 10	2.8	2,510		*	*	*	*	****	2	2,510
2	1.01	Ward 1	1	State Route 50	436th Ave	8.8	309	*	*	*	*		****	1	309
3	24.02	Ward 24	24	142nd St	US Hwy 83	9.7	283	*			*	*	***	2	283
4	8.01	Ward 8	8	US Hwy 52	US Hwy 83	12.9	174	*			*	*	***	2	174
5	5.03	Ward 5	5	US Hwy 52	Ward 7	1.8	80			*	*	*	***	2	80
6	15.02	Ward 15	15	US Hwy 83	Ward 17	2.2	4,010		*	*	*		***	1	4,010
7	17.02	Ward 17	17	US Hwy 2	Ward 15	1.3	1,575		*	*	*		***	1	1,575
8	12.03	Ward 12	12	55th St	US Hwy 2	4.1	1,204		*	*	*		***	1	1,204
9	10.02	Ward 10	10	Granly St	US Hwy 2	7.6	671		*	*	*		***	1	671
10	14.04	Ward 14	14	US Hwy 83	1 mile east of 13th St	2.1	548		*	*	*		***	1	548
11	15.04	Ward 15	15	Ward 10	1 mile South of 86th St	2.2	520		*	*	*		***	1	520
12	2.02	Ward 2	2	590th ST	Ward 1	5.8	395	*	*		*		***	1	395
13	9.03	Ward 9	9	State Route 23	Ward 14	15.5	328	*	*		*		***	1	328
14	23.04	Ward 23	23	US Hwy 2	66th St	9.1	310	*	*		*		***	1	310
15	14.02	Ward 14	14	Ward 9	62nd St	17.8	210	*	*		*		***	1	210
16	5.02	Ward 5	5	240th Ave	US Hwy 52	2.0	115				*	*	**	2	115
17	501.03 N	o designation	NA	State Route 22	Ward 22	5.1	85				*	*	**	2	85
18	10.04	Ward 10A	10A	US Hwy 83	Ward 19	2.0	1,793		*	*			**	1	1,793
19	10.03	Ward 10	10	Ward 15	US Hwy 83	4.8	457		*		*		**	1	457
20	2.04	Ward 2	2	US Hwy 52	Ward 3	4.5	430			*	*		**	1	430
21	23.02	Ward 23	23	State Route 23	US Hwy 53	7.7	362	*			*		**	1	362
22	20.03	Ward 20	20	142nd St	US Hwy 83	10.0	302	*			*		**	1	302
23	10.01	Ward 10	10	Ward 9	Granly St	10.7	263	*			*		**	1	263
24	24.01	Ward 24	24	State Route 28	142nd St	8.3	178	*			*		**	1	178
25	12.02	Ward 12	12	Ward 19	55th St	2.0	3,190		*				*	1	3,190
26	11.01	Ward 11	11	US Hwy 52	Ward 6	4.9	1,680				*		*	1	1,680
27	19.01	Ward 19	19	Ward 12	Ward 8	9.1	1,279		*				*	1	1,279
28	8.02	Ward 8	8	US Hwy 83	Ward 23	10.9	617		*				*	1	617
29	9.01	Ward 9	9	373rd Ave	State Route 23	8.0	288	*					*	1	288
30	2.05	Ward 2	2	Ward 3	52nd Ave	5.0	230	*					*	1	230
31	22.01	Ward 22	22	Ward 9	Corona St	6.4	163	*					*	1	163
32	2.01	Ward 2	2	72nd Ave	450thAve	2.0	145				*		*	1	145
33	23.01	Ward 23	23	373rd Ave	State Route 23	9.3	141				*		*	1	141
34	6.02	Ward 6	6	1 mile to city of carpio	State Route 28	1.8	60				*		*	1	60
35	9.04	Ward 9	9	Ward 14	US Hwy 2	10.0	121						**	1	121

Total Stars	14	17	11	27	6
% That Gets Star	40%	49%	31%	77%	17%

	#	%	Mileage	%
****	0	0%	0.0	0%
****	2	6%	11.6	5%
***	13	37%	92.1	40%
**	9	26%	55.1	24%
*	10	29%	59.4	26%
	1	3%	10.0	4%
	35	100%	228.2	100%

ADT Range
Lane Departure Density
Access Density
Curve Critical Radius Density
Edge Risk Assessment
Stars

ADT Range
Lane Departure Density
If segment has an ADT in the range of most at risk ADT based on ATP totals. (> 150)

Access Density
If segment has access density than the county average (0.05).

Curve Critical Radius Density
Edge Risk Assessment
Edge risk of 2 or 3, based on assessment of roadway edge and clear zone.

LUQUIWAY CAFETY II	ADDOVEMENT DDGG	ODAM (LIQID)	DDA IEAT	ADDI	IO A TION					
HIGHWAY SAFETY IN			PROJECI	APPL	ICATION					
North Dakota Department of SFN 59959 (06-2011)	ransportation Programmin	ig								
Ward 15 (County Road 15 W) from Ward 17 to Ward 10										
Agency Name:	Agency Name: Ward County ND DOT District: 4									
Contact Name:			elephone N	Number: 701-838-2810						
Email Address:	dana.larsen@wardnd.c	om								
Please attach a location map(s)	. You may use additional sheet	ts to further describe	your project.							
Location Description						ICD Emphasi	a Araa (ahaak a	II that apply)		
Start:	Ward 17	Lane Width	: 12'			ohol Impaired	s Area (check a Driving	ш шагарру)		
	Ward 10	Speed Limit: High					y Restraints for	all Occupants		
Facility Type: ADT:		Shoulder Width: 6' Shoulder Type: Paved			-	iver/Older Driving	ver Safety			
	Rural Paved	Length (miles): 2.8					Lane Departur	re Crashes		
County Road:		Rumble Installed: No						ies to Increase Survivab	oility	
Local Name:	County Road 15 W				Improve Int	ersection Safe	ety			
Describe Current Safety		king Review								
North Dakota Crashes, 2008 - 2	2012				200	-				
					57th St South	irsii		CH2MHILL		
Crashes	Total 12	Road Dept 2	K+A 1		5000					
Density (per mile per year)	0.86	0.14	0.07							
Rate (per MVM)	0.94	0.16	0.08		100			Section 2		
					200		All the same	to continue		
	Value	Critical	Road		***************************************	The same of the sa	-	· Allerance		
ADT Range RD Density		150≤ADT≤400 0.032								
Access Density	0.145 12.0	8.0	*		WGS-84					
Curve Critical Radius Density	1.449	0.035	*		N 48.2564433 W 101.385156	7°		SRF		
Edge Risk	2	2 or 3	***							
Describe Proposed Safe	ty Improvements									
	Description	Туре	Cost per mi		Cost	Notes -				
	4" Edge Lines 6" Edge Lines	Proactive Proactive	\$400 \$650	0.0 0.0	\$0 \$0					
	Shoulder Rumble Strip	Proactive	\$3,000	0.0	\$0					
	Edge Line Rumble Strip	Proactive	\$3,500	2.8	\$9,800					
Groun	nd In Wet-Reflective Markings Center Line Rumble Strip	Proactive Proactive	\$8,500 \$3,000	0.0 2.8	\$0 \$8,400					
	6" Center Line	Proactive	\$650	0.0	\$0	_				
Project Cost Estimate (a	ttach detailed conv			Dronos	od Voor o	f Construc	tion			
Troject Cost Estimate (a	ttacii detalled copy)			Пороз	eu rear o	i Constituti				
	Federal Funds	\$16,380								
Local Mat	ch (10% of Total project cost)	\$1,820	_							
	Total Project Cost	\$18,200								
NDDOT Central Office O	nly									
Project Accepted?	☐ Yes ☐ No	Reference Number				ID Number				
Notes										
							Page:	1		
						S	Segment ID:	15.03		
							Date:	8/13/2013		

HIGHWAY SAFETY II			PROJEC1	APPL	ICATION			
North Dakota Department of	Transportation Programming	g						
SFN 59959 (06-2011)	Ward 1 (53	34th St) fron	n Stata	Pouto	50 to /	126th Ava		
	•	54tii 3t) iioii				HOULII AVE		
Agency Name:	Ward County	ND DOT District: 4						
Contact Name:	Dana Larsen	Telephone N			701-838-2	2810		
Email Address:	dana.larsen@wardnd.co	om						
Please attach a location map(s)	Vou may use additional shoot	s to further describe	your project					
Location Description	. Tou may use additional sheet	s to further describe	your project.					
					Sh	HSP Emphasis Area (check all that a	pply)
	State Route 50	Lane Width				ohol Impaired Driving	-:t- f!! O	
Facility Type:		436th Ave Speed Limit: 2-Lane Shoulder Width:				e Use of Safety Restra iver/Older Driver Safe		cupants
ADT:		Shoulder Type			-	ssive Driving	•,	
	Rural Paved	Length (miles): 8.8		V		nts to Address Lane D		
County Road: Local Name:		Rumble Installed	: NO			Emergency Medical C ersection Safety	apabilities to in	crease Survivability
Describe Current Safety North Dakota Crashes, 2008 - 2		king Review						
North Dakota Grasnes, 2006 - 2	2012				Ward	RIM@0066JF	@	CH2MHILL
	T-2-1	Deed Door	1/ 4		534th St East			
Crashes	Total 4	Road Dept 2	K+A 0	-				
Density (per mile per year)		0.05	0.00		Ser each			Sec. 1
Rate (per MVM)	0.81	0.40	0.00	-		A CONTRACTOR		
					No 122. 340	+ +		
						di la constituit de	(B)	and the latest and th
ADT Range	Value 309	Critical 150≤ADT≤400	Road ★	-			7	
RD Density		0.032	*					Sing.
Access Density		8.0	*		WGS-84 N 48 6411850°			
Curve Critical Radius Density Edge Risk		0.035 2 or 3	*		W 102.1251317	7°		SRF
	·		****	-				
Describe Proposed Safe	tu Improvomente							
Describe Froposed Sale	ty improvements							
	Description 4" Edge Lines	Type Proactive	Cost per mi \$400	Mileage 0.0	Cost \$0	_Notes -		
	6" Edge Lines	Proactive	\$650	0.0	\$0			
	Shoulder Rumble Strip	Proactive	\$3,000	0.0	\$0			
Grour	Edge Line Rumble Strip and In Wet-Reflective Markings	Proactive Proactive	\$3,500 \$8,500	8.8 0.0	\$30,800 \$0			
G. 64.	Center Line Rumble Strip	Proactive	\$3,000	0.0	\$0			
	6" Center Line	Proactive	\$650	0.0	\$0	_		
Project Cost Estimate (a	ttach detailed copy)			Propos	ed Year of	f Construction		
•	17,							
	Federal Funds	\$27,720						
Local Mat	tch (10% of Total project cost)	\$3,080	_					
	Total Project Cost	\$30,800						
NDDOT Central Office O								
Project Accepted? Notes	☐ Yes ☐ No	Reference Number				ID Number		
140163								
							ige:	2
						Segment Da	ID: ate:	1.01 8/13/2013

		N			0.4=101						
HIGHWAY SAFETY IN			PROJECT	APPL	CATION						
North Dakota Department of SFN 59959 (06-2011)	Transportation Programmin	9									
<u> </u>	Ward 24	(359th Ave)	from 14	2nd S	t to US	Hwv 83					
A NI	Ward 24 (359th Ave) from 142nd St to US Hwy 83 Agency Name: Ward County ND DOT District: 4										
Agency Name:	_										
Contact Name:	Dana Larsen	Т	elephone N	Number: 701-838-2810							
Email Address:	dana.larsen@wardnd.co	om									
Please attach a location map(s)	You may use additional sheet	s to further describe	vour project								
Location Description	. Tournay add additional officer	o to further decembe	your project.								
<u>, </u>					SI	HSP Emphasis	s Area (check all	that apply)			
	142nd St	Lane Width: 12'				ohol Impaired	Driving by Restraints for a	all Occupants			
Facility Type:	US Hwy 83 2-I ane	Speed Limit: High Shoulder Width: 2'				iver/Older Driv		ali Occupants			
ADT:		Shoulder Type: Paved			Curb Aggre	ssive Driving	-				
	Rural Paved	Length (miles): 9.7					Lane Departure		tia		
County Road: Local Name:		Rumble Installed	: INO			ersection Safe		es to Increase Survivabi	IIIy		
					p						
Describe Current Safety		king Review									
North Dakota Crashes, 2008 - 2	012				Ward		Wed730.JPG	CH2MHILL			
					369th Ave	POI					
Overher	Total	Road Dept	K+A		4						
Crashes Density (per mile per year)	4 0.08	1 0.02	0 0.00								
Rate (per MVM)	0.80	0.20	0.00		+						
						+ + .		+			
					1075						
	Value	Critical	Road					The same of the			
ADT Range	283	150≤ADT≤400	*					100			
RD Density Access Density	0.021 6.3	0.032 8.0			WCC 94		THE R. P. LEWIS CO., LANSING, MICH.				
Curve Critical Radius Density	0.206	0.035	*		N 47.8627433 W 101.365711	7°-		SRE			
Edge Risk	2	2 or 3	*								

Describe Proposed Safe	ty Improvements										
	Description	Type	Cost per mi	Mileage	Cost	Notes -					
	4" Edge Lines	Proactive	\$400	0.0	\$0	_110100					
	6" Edge Lines	Proactive	\$650	0.0	\$0						
	Shoulder Rumble Strip Edge Line Rumble Strip	Proactive Proactive	\$3,000 \$3,500	0.0 9.7	\$0 \$33,950						
Groun	id In Wet-Reflective Markings	Proactive	\$8,500	0.0	\$0						
	Center Line Rumble Strip	Proactive	\$3,000	0.0	\$0						
	6" Center Line	Proactive	\$650	0.0	\$0	_					
Project Cost Estimate (a	ttach detailed copy)			Propos	ed Year o	f Construc	tion				
				-							
	Federal Funds	\$30,555									
Local Mat	ch (10% of Total project cost)	\$3,395	_								
	Total Project Cost	\$33,950									
NDDOT Central Office Of	nly										
Project Accepted?	☐ Yes ☐ No	Reference Number				ID Number					
Notes											
							Page:	3			
						S	Page: Segment ID:	3 24.02			
							Date:	8/13/2013			

HIGHWAY SAFETY II			PROJEC	T APPLI	CATION			
North Dakota Department of SFN 59959 (06-2011)	Transportation Programming	9						
, ,	Ward 8 (1	28th Ave) fi	rom US	Hwy 5	2 to US	Hwy 83		
Agency Name:		•		District:		-		
Contact Name:	•	7	Telephone I	Number	701-838-2	810		
	dana.larsen@wardnd.co		olopilollo i					
	_							
Location Description	. You may use additional sheets	s to further describe	your project.					
Location Description					SH	ISP Emphasis Area	(check all that	apply)
	US Hwy 52 US Hwy 83	Lane Width				ohol Impaired Driving Use of Safety Rest		oouponto
Facility Type:		Speed Limit Shoulder Width				ver/Older Driver Saf		ccupants
ADT:	174	Shoulder Type			Curb Aggres		D	ala a
Road Type: County Road:	Rural Paved Ward 8	Length (miles) Rumble Installed				ts to Address Lane Emergency Medical		snes Increase Survivability
Local Name:						rsection Safety	·	•
Describe Current Safety	Issues & Systemic Rank	ina Review						
North Dakota Crashes, 2008 - 2								
					Word 1280h Ave	RIMG0170.	JPG	CH2MHILL
Qualitat	Total	Road Dept	K+A	_	Edist			
Crashes Density (per mile per year)	4 0.06	0 0.00	0 0.00		*			
Rate (per MVM)	0.98	0.00	0.00	_	1			
					1			,
						+ ++		
ADT Range	Value 174	Critical 150≤ADT≤400	Road	-	- Andrews	de not to grating		- A 10 10 10 10 10 10 10 10 10 10 10 10 10
RD Density		0.032	^					
Access Density Curve Critical Radius Density	5.3 0.388	8.0 0.035	+		WGS-84 N 48.3718683°			SCDE.
Edge Risk		2 or 3	÷	_	W 101.3645933			SRF

Describe Proposed Safe	ty Improvements							
	Description	Type	Cost per mi	Mileage	Cost	Notes -		
	4" Edge Lines 6" Edge Lines	Proactive Proactive	\$400 \$650	0.0 0.0	\$0 \$0			
	Shoulder Rumble Strip	Proactive	\$3,000	12.9	\$38,700			
0	Edge Line Rumble Strip	Proactive	\$3,500	0.0	\$0			
Grour	nd In Wet-Reflective Markings Center Line Rumble Strip	Proactive Proactive	\$8,500 \$3,000	0.0 0.0	\$0 \$0			
	6" Center Line	Proactive	\$650	0.0	\$0			
Project Cost Estimate (a	ttach detailed copy)			Propose	ed Year of	Construction		
Local Mat	Federal Funds ch (10% of Total project cost)	\$34,830 \$3,870						
Local Mai		\$3,870	_					
	Total Project Cost	\$38,700						
NDDOT Central Office O	nlv							
Project Accepted?		Reference Number				ID Number		
Notes	1		<u>, </u>		<u> </u>	<u> </u>		
							Page:	4
						Segmer [nt ID: Date:	8.01 8/13/2013

LUCLIWAY CAFETY IM	DDOVEMENT DDOO	DAM (LICID)	DDO IDOT	ADDLI	OATION				
HIGHWAY SAFETY IM North Dakota Department of T SFN 59959 (06-2011)			PROJECT	APPLI	CATION				
	Ward 5	(Main St) 1	from US	Hwy 5	2 to V	ard 7			
Agency Name: V	Vard County		ND DOT I	District:	4				
Contact Name: D	Dana Larsen	1	Telephone N	lumber:	701-838-	2810			
Email Address: d	lana.larsen@wardnd.co	m							
Please attach a location map(s).			vour project						
Location Description	Tod may doo additional oncote	to fattion docoribe	your project.						
End: N Facility Type: 2 ADT: 8 Road Type: R County Road: W Local Name: M	-Lane 0 Rural Paved Vard 5 Main St	Lane Width Speed Limi Shoulder Width Shoulder Type Length (miles) Rumble Installed	t: High n: 2' e: Paved): 1.8		Reduce Ald Increase th Younger Dr Curb Aggre Improveme Enhancing	HSP Emphasis A cohol Impaired Dri e Use of Safety F river/Older Driver essive Driving nts to Address La Emergency Media ersection Safety	ving lestraints for al Safety ane Departure	l Occupants	
Describe Current Safety Is North Dakota Crashes, 2008 - 20		ing Review							
Crashes Density (per mile per year)	Total 0 0.00	Road Dept 0 0.00	K+A 0 0.00		Ward Main St South	RiMGO	10 6.JP G	CH2MHILL	
Rate (per MVM)	0.00	0.00	0.00						
ADT Range	Value 80	Critical 150≤ADT≤400	Road		Maria Maria			Maria Maria	
RD Density	0.000	0.032							
Access Density Curve Critical Radius Density Edge Risk	11.4 3.418 2	8.0 0.035 2 or 3	* * * *		WGS-84 N 48.5220150 W 101.876746	77°		SRE	
Describe Proposed Safety	/ Improvements								
_	Description 4" Edge Lines	Type Proactive	Cost per mi \$400	Mileage 0.0	Cost \$0	_Notes -			
	6" Edge Lines Shoulder Rumble Strip	Proactive Proactive	\$650 \$3,000	1.8 0.0	\$1,170 \$0				
	Edge Line Rumble Strip	Proactive	\$3,500	0.0	\$0				
Ground	In Wet-Reflective Markings Center Line Rumble Strip 6" Center Line	Proactive Proactive Proactive	\$8,500 \$3,000 \$650	0.0 0.0 0.0	\$0 \$0 \$0				
_			·		•				
Project Cost Estimate (att	ach detailed copy)			Propos	ed Year o	f Constructio	n		
Local Match	Federal Funds 1 (10% of Total project cost)	\$1,053 \$117							
	Total Project Cost	\$1,170	_						
NDDOT Central Office On	lv								
	i —	Reference Number				ID Number			
Notes									
						Seg	Page: ment ID: Date:	5 5.03 8/13/2013	

HIGHWAY SAFETY IN	MPROVEMENT PROG	RAM (HSIP)	PROJECT	APPL	ICATION		
North Dakota Department of SFN 59959 (06-2011)	Transportation Programming	9					
	Ward 1	5 (57th St) f	rom US	Hwy 8	33 to W	/ard 17	
Agency Name:	Ward County		ND DOT	District:	4		
Contact Name:	Dana Larsen	Т	Telephone N	lumber:	701-838-2	2810	
Email Address:	dana.larsen@wardnd.co	om					
Please attach a location map(s)	. You may use additional sheets	s to further describe	your project.				
Location Description	•						
End: Facility Type: ADT: Road Type: County Road: Local Name:	4010 Rural Paved Ward 15 57th St	Lane Width Speed Limit Shoulder Width Shoulder Type Length (miles) Rumble Installed	t: High n: 4' e: Composite): 2.2		Reduce Alc Increase the Younger Dr Curb Aggre Improveme Enhancing	HSP Emphasis Area (check sohol Impaired Driving e Use of Safety Restraints for iver/Older Driver Safety sessive Driving nts to Address Lane Departt Emergency Medical Capabil ersection Safety	or all Occupants
Describe Current Safety North Dakota Crashes, 2008 - 2	-	ing Review					
Crashes Density (per mile per year) Rate (per MVM)	Total 19 1.73 1.18	Road Dept 8 0.73 0.50	K+A 0 0.00 0.00		Wend 4th Ava East	RIMOSIOS., PO.	CHOMMHILL
ADT D	Value	Critical	Road			MAIN SINGER	
ADT Range RD Density	4,010 0.719	150≤ADT≤400 0.032	*				
Access Density	10.8 0.449	8.0 0.035	*		WGS-84 N 48.2438000		
Curve Critical Radius Density Edge Risk	1	2 or 3	*		W 101.362578	3°	SRF

Describe Proposed Safe	ty Improvements						
Groun	Description 4" Edge Lines 6" Edge Lines Shoulder Rumble Strip Edge Line Rumble Strip Id In Wet-Reflective Markings Center Line Rumble Strip 6" Center Line	Type Proactive Proactive Proactive Proactive Proactive Proactive Proactive Proactive	Cost per mi \$400 \$650 \$3,000 \$3,500 \$8,500 \$3,000 \$650	Mileage 0.0 0.0 0.0 2.2 0.0 2.2 0.0	Cost \$0 \$0 \$0 \$7,700 \$0 \$6,600 \$0	_Notes -	
Project Cost Estimate (a	ttach detailed copy)			Propos	ed Year o	f Construction	
Local Mat	Federal Funds ch (10% of Total project cost) Total Project Cost	\$12,870 \$1,430 \$14,300	_	·			
NDDOT Central Office Of	nlv						
Project Accepted?	A A	Reference Number	T			ID Number	
Notes						1	
						Page:	6
						Segment ID: Date:	15.02 8/13/2013

LUGUNAY OAFETY II	ADDOVEMENT DDG	2D 444 (HOID)	DDA IEAT		IO A TION				
HIGHWAY SAFETY IN			PROJECI	APPL	ICATION	1			
North Dakota Department of SFN 59959 (06-2011)	Transportation Programmir	ng							
0114 00000 (00 2011)	Ward ⁻	17 (54th St) 1	from US	Hwv	2 to W	ard 15			
A NI		17 (0 1111 01)		-		u.u .o			
Agency Name:	-		ND DOT						
Contact Name:	Dana Larsen	Т	elephone N	lumber:	701-838-	2810			
Email Address:	dana.larsen@wardnd.c	om							
Please attach a location map(s)	You may use additional sheet	ts to further describe	vour project						
Location Description	. Tou may use additional sinee	is to further describe	your project.						
					S	HSP Emphasi	s Area (check	all that apply)	
	US Hwy 2	Lane Width				cohol Impaired			
End: Facility Type:	Ward 15	Speed Limit Shoulder Width	•			ie Use of Safei river/Older Dri		or all Occupants	
ADT:		Shoulder Type			-	essive Driving	ver Galety		
	Rural Paved	Length (miles)			Improveme	nts to Address	s Lane Departu		
County Road:		Rumble Installed	: No					ities to Increase S	Survivability
Local Name:	54th St				Improve Int	tersection Safe	ety		
Describe Current Safety	Issues & Systemic Ran	king Review							
North Dakota Crashes, 2008 - 2									
					Ward 54th St	RI	MG0405.JPG	CH2MHILL	
	Total	Road Dept	K+A		North				
Crashes	1	1	0						
Density (per mile per year)	0.15	0.15	0.00						
Rate (per MVM)	0.27	0.27	0.00		20.00			5	
					THE PERSON AND	LANGER VE	The Market	No. of State of	
						A SECTION	Total Control		ı
	Value	Critical	Road		A sin vest wife	OVER THE CONTRACTOR		52.32	ı
ADT Range RD Density		150≤ADT≤400 0.032			ASSESSMENT OF THE PARTY OF THE				1
Access Density	14.0	8.0	÷		WGS-84				1
Curve Critical Radius Density	4.674	0.035	*		N 48.2435333 W 101.371903	p ■ 6 °		SRI	
Edge Risk	1	2 or 3	***						_
			* * *						
Describe Proposed Safe	ty Improvements								
	Description	Type	Cost per mi	Mileage	Cost	Notes -			
	4" Edge Lines	Proactive	\$400	0.0	\$0				
	6" Edge Lines	Proactive	\$650	0.0	\$0				
	Shoulder Rumble Strip	Proactive	\$3,000	0.0	\$0				
Groun	Edge Line Rumble Strip and In Wet-Reflective Markings	Proactive Proactive	\$3,500 \$8,500	1.3 0.0	\$4,550 \$0				
a.ou	Center Line Rumble Strip	Proactive	\$3,000	1.3	\$3,900				
	6" Center Line	Proactive	\$650	0.0	\$0	_			
Project Cost Estimate (a	ttach detailed conv			Dronos	ad Vaar	of Construc	tion		
r roject cost Estimate (a	ttacii detalled copy)			TTOPOS	eu rear c	i Constituc	lion		
	Federal Funds	\$7,605							
Local Mat	ch (10% of Total project cost)	\$845							
	Total Project Cost	\$8,450	<u> </u>						
	rotair rojout out	φο, 100							
NDDOT Control Office O									
NDDOT Central Office Of Project Accepted?	I	Reference Number	T			ID Number	1		
Notes	<u> </u>	neierence Number				ID Nullibel			
							Page:	7	
						5	Segment ID:	17.0	
							Date:	8/13/2	013

HIGHWAY SAFETY IN	MPROVEMENT PROG	RAM (HSIP)	PROJECT	APPLI	CATION	I		
North Dakota Department of SFN 59959 (06-2011)	Transportation Programming							
	Ward 1	2 (4th Ave)	from 55	oth St	to US I	Hwy 2		
Agency Name:	Ward County		ND DOT	District:	4			
Contact Name:	Dana Larsen	Т	Telephone N	lumber:	701-838-2	2810		
Email Address:	dana.larsen@wardnd.co	om						
Please attach a location map(s).	You may use additional sheets	s to further describe	your project.					
Location Description	·							
End: Facility Type: ADT: Road Type: County Road: Local Name:	1204 Rural Paved Ward 12 4th Ave	Lane Width Speed Limit Shoulder Width Shoulder Type Length (miles) Rumble Installed	t: High n: 2' e: Paved): 4.1		Reduce Alc Increase the Younger Dr Curb Aggre Improvement Enhancing I	HSP Emphasis Area (chechold Impaired Driving e Use of Safety Restrain viver/Older Driver Safety Sesive Driving ents to Address Lane De Emergency Medical Capersection Safety	nts for all Occi	upants
Describe Current Safety North Dakota Crashes, 2008 - 2		ing Review						
Crashes Density (per mile per year)	Total 5 0.24	Road Dept 2 0.10	K+A 0 0.00		Ward 4th Ave West	Nicosa Jo		CHEZMANIL
Rate (per MVM)	0.56 Value	0.22 Critical	0.00 Road					
ADT Range	1,204	150≤ADT≤400	rioda				Total Control	
RD Density Access Density	0.147 14.2	0.032 8.0	*		W/26-94			TOTAL STREET
Curve Critical Radius Density	0.489	0.035	*		N 48.2401988° W 101.146370	•		SRF
Edge Risk	1	2 or 3	***					
D " D 10 ()								
Describe Proposed Safet	y improvements							
		_						
-	Description 4" Edge Lines	Type Proactive	Cost per mi \$400	0.0	Cost \$0	_Notes -		
	6" Edge Lines	Proactive	\$650	0.0	\$0			
	Shoulder Rumble Strip Edge Line Rumble Strip	Proactive Proactive	\$3,000 \$3,500	4.1 0.0	\$12,300 \$0			
Groun	d In Wet-Reflective Markings	Proactive	\$8,500	0.0	\$0 \$0			
	Center Line Rumble Strip 6" Center Line	Proactive Proactive	\$3,000 \$650	4.1 0.0	\$12,300 \$0			
-		TTOACTIVE	ψοσο		·	_		
Project Cost Estimate (at	tach detailed copy)			Propose	ed Year o	f Construction		
Local Mato	Federal Funds ch (10% of Total project cost)	\$22,140 \$2,460						
	Total Project Cost	\$24,600						
NDDOT Central Office Or	nly							
Project Accepted?		Reference Number				ID Number		
Notes								
						Pag Segment II Dat	D:	8 12.03 8/13/2013

IIIOIIIIII OA EETV II	IDDOVEMENT DDOG	SDAM (HOID)		ABBLI	O A TION				
HIGHWAY SAFETY IN			PROJECI	APPLI	CATION				
North Dakota Department of SFN 59959 (06-2011)	Transportation Programmin	g							
<u> </u>	Ward 10	(19th Ave)	from Gr	anly S	t to US	Hwv 2			
A N		(Iotii Avo)		-		,			
Agency Name:	Ward County		ND DOT I		-				
Contact Name:	Dana Larsen	Т	elephone N	lumber:	701-838-2	2810			
Email Address:	dana.larsen@wardnd.co	om							
Please attach a location map(s).	Vou may use additional sheet	e to further describe	vour project						
Location Description	Tou may use additional sheet	s to further describe	your project.						
P					SH	HSP Emphasis	s Area (check a	ll that apply)	
	Granly St	Lane Width				ohol Impaired			
End: Facility Type:	US Hwy 2	Speed Limit Shoulder Width				e Use of Safet iver/Older Driv	ty Restraints for	all Occupants	
ADT:		Shoulder Type			-	ssive Driving	ver datety		
Road Type:		Length (miles)	: 7.6				Lane Departure		
County Road: Local Name:		Rumble Installed	: No			=mergency Me ersection Safe		es to Increase Surviva	ability
Local Name.	13til Ave				improve inte	ersection date	sty		
Describe Current Safety		king Review							
North Dakota Crashes, 2008 - 2	012				Wheel	EMI.		CH2MHILL	
					19th Ave	RU.	MODEL NO.	CPENTILL	
0	Total	Road Dept	K+A						
Crashes Density (per mile per year)	19 0.50	6 0.16	0 0.00		4				
Rate (per MVM)	2.04	0.64	0.00			2000			
						-		unit libraries de com	
	Value	Critical	Road			-			
ADT Range	671	150≤ADT≤400							
RD Density	0.184	0.032	*		Imag or				
Access Density Curve Critical Radius Density	9.9 1.316	8.0 0.035	*		N 48.2534583°			CDE	
Edge Risk	1	2 or 3			101.499590				

Describe Proposed Safet	ty Improvements								
•									
	Description	Type	Cost per mi	Miloggo	Cost	Notes -			
=	4" Edge Lines	Proactive	\$400	0.0	Cost \$0	Notes -			
	6" Edge Lines	Proactive	\$650	0.0	\$0				
	Shoulder Rumble Strip	Proactive	\$3,000	7.6	\$22,800				
Groun	Edge Line Rumble Strip d In Wet-Reflective Markings	Proactive Proactive	\$3,500 \$8,500	0.0 0.0	\$0 \$0				
	Center Line Rumble Strip	Proactive	\$3,000	0.0	\$0				
-	6" Center Line	Proactive	\$650	0.0	\$0	_			
Project Cost Estimate (at	tach detailed copy)			Propose	ed Year or	f Construc	tion		
•	17,								
	Federal Funds	\$20,520							
Local Mate	ch (10% of Total project cost)	\$2,280	_						
	Total Project Cost	\$22,800							
NDDOT Central Office Or	nly								
r rojout riocoptou.	☐ Yes ☐ No	Reference Number				ID Number			
Notes									
							D		
						.9	Page: Segment ID:	9 10.02	
							Date:	8/13/2013	

HIGHWAY SAFETY IN	MPROVEMENT PROC	RAM (HSIP) I	PROJECT	APPL	ICATION	1			
North Dakota Department of SFN 59959 (06-2011)									
	Ward 14 (54th	Ave) from \	JS Hwy	83 to	1 mile e	east of 1	3th St		
Agency Name:	Ward County		ND DOT	District:	4				
Contact Name:	Dana Larsen	T	elephone N	lumber:	701-838-	2810			
Email Address:	dana.larsen@wardnd.co	om							
Please attach a location map(s)	You may use additional sheet	s to further describe	vour project						
Location Description	. Tournay doo additional officer	o to farther december	your project.						
0	110.11 00		4.01			•	is Area (check a	ll that apply)	
	US Hwy 83 1 mile east of 13th St	Lane Width Speed Limit				cohol Impaired e Use of Safe	i Driving ty Restraints for	all Occupants	
Facility Type:		Shoulder Width				river/Older Dri	ver Safety		
ADT: Road Type:	548 Rural Paved	Shoulder Type: Length (miles)				essive Driving ents to Addres	s Lane Departur	e Crashes	
County Road:	Ward 14	Rumble Installed			Enhancing	Emergency M	ledical Capabiliti	es to Increase S	urvivability
Local Name:	54th Ave				improve in	tersection Safe	ety		
Describe Current Safety	-	king Review							
North Dakota Crashes, 2008 - 2	2012				Ward	R	Wedsaupe	@ CH2MHILL	ı
	Talal	Deed Deed	14. A		64th Ave West		ALC: NO.		
Crashes	Total 4	Road Dept 1	K+A 0		Marie Marie	一类态度			
Density (per mile per year)	0.38	0.10	0.00			State Hillers			
Rate (per MVM)	1.91	0.48	0.00			- VAI			
							#		
	Value	Critical	Road						
ADT Range	548	150≤ADT≤400				V. A.		Total Line	
RD Density Access Density	0.094 16.4	0.032 8.0	*		WGS-84	The latest			
Curve Critical Radius Density	2.347	0.035	*		N 48.1822833 W 101.27344	9 1 7 °		SRF	
Edge Risk	1	2 or 3	***						
D									
Describe Proposed Safe	ty improvements								
	5	-		5.4"					
	Description 4" Edge Lines	Type Proactive	Cost per mi \$400	0.0	Cost \$0	_Notes -			
	6" Edge Lines	Proactive	\$650	0.0	\$0				
	Shoulder Rumble Strip Edge Line Rumble Strip	Proactive Proactive	\$3,000 \$3,500	0.0 2.1	\$0 \$7,350				
Grour	nd In Wet-Reflective Markings	Proactive	\$8,500	0.0	\$0				
	Center Line Rumble Strip 6" Center Line	Proactive Proactive	\$3,000 \$650	0.0 0.0	\$0 \$0				
D: 10 15 !! 1 (
Project Cost Estimate (a	ttach detailed copy)			Propos	ed Year o	of Construc	tion		
	Federal Funds	\$6,615							
Local Mat	ch (10% of Total project cost)	\$735	_						
	Total Project Cost	\$7,350							
NDDOT Central Office O	f f		1			l			
Project Accepted? Notes	Lifes Lino	Reference Number				ID Number			
							Page:	10	
						5	Segment ID:	14.04	
							Date:	8/13/20	лз

HIGHWAY SAFETY IN	MPROVEMENT PROC	GRAM (HSIP) I	PROJECT	APPL	ICATION	ı			
North Dakota Department of SFN 59959 (06-2011)									
,	Vard 15 (County F	Road 15 W) fi	rom Wa	rd 10 1	to 1 mi	le South	of 86th S	it	
Agency Name:	Ward County		ND DOT	District:	4				
Contact Name:	Dana Larsen	T	elephone N	lumber:	701-838-	2810			
Email Address:	dana.larsen@wardnd.c	om							
Please attach a location map(s).	You may use additional sheet	s to further describe	your project						
Location Description	Tournay doc additional chico		year projecti						
Ctorte	Word 10	Lana Width	. 10'			HSP Emphasicohol Impaired	s Area (check a	II that apply)	
	Ward 10 1 mile South of 86th St	Lane Width Speed Limit					y Restraints for	all Occupants	
Facility Type:		Shoulder Width				river/Older Drivessive Driving	er Safety		
ADT: Road Type:		Shoulder Type: Length (miles)					Lane Departur	e Crashes	
County Road:		Rumble Installed	: No		Enhancing		edical Capabiliti	ies to Increase Su	urvivability
Local Name.	County Road 15 W]	improve in	lersection sale	ty.		
Describe Current Safety		king Review							
North Dakota Crashes, 2008 - 2	012				Ward	Ri	MG0440.JPG	CH2MHILL	
	Total	Road Dept	Ι ζ , Λ		46th Ave North				
Crashes	5	2 2	K+A 0						
Density (per mile per year) Rate (per MVM)	0.45 2.39	0.18 0.96	0.00 0.00		-				
riate (per wivivi)	2.00	0.00	0.00						
					Stanie .	Marketon .	A STATE OF	5	
	Value	Critical	Road		Carlot Con	1			
ADT Range RD Density	520 0.186	150≤ADT≤400 0.032	*				1	The state of the s	
Access Density	15.3	8.0	*		WGS-84				
Curve Critical Radius Density Edge Risk	3.249 1	0.035 2 or 3	*		W 101.42411	33°		SRF	
Luge Hisk	ı	2 01 0	***						
Describe Proposed Safet	ty Improvements								
Describe i reposea care	y improvements								
	Description	Type	Cost per mi	Mileage	Cost	Notes -			
-	4" Edge Lines	Proactive	\$400	0.0	\$0	_110100			
	6" Edge Lines Shoulder Rumble Strip	Proactive Proactive	\$650 \$3,000	0.0 0.0	\$0 \$0				
	Edge Line Rumble Strip	Proactive	\$3,500	2.2	\$7,700				
Groun	d In Wet-Reflective Markings Center Line Rumble Strip	Proactive Proactive	\$8,500 \$3,000	0.0 0.0	\$0 \$0				
_	6" Center Line	Proactive	\$650	0.0	\$0 \$0	_			
Project Cost Estimate (at	ttach detailed conv)			Propos	ed Vear	of Construc	tion		
Troject Goot Estimate (at	adon detaned copy)			ropos	ca rear c	i construo			
	Federal Funds	\$6,930							
Local Mate	ch (10% of Total project cost)	\$770	_						
	Total Project Cost	\$7,700							
115565 6 1 1 2 11 2									
NDDOT Central Office Or Project Accepted?	<u> </u>	Reference Number	Τ			ID Number	T		
Notes		reference (variber	1			ID Number			
							Page:	11	
						S	Segment ID: Date:	15.04 8/13/20	

HIGHWAY SAFETY IN			PROJEC1	T APPLI	CATION			
North Dakota Department of SFN 59959 (06-2011)	Transportation Programming	g						
3114 33333 (00-2011)	Ward 2	(436th Ave)	from 5	90th S	T to W	ard 1		
Agency Name:		(100111110)	ND DOT					
•	-	-	_			2010		
Contact Name:			elephone N	number:	/01-030-2	2010		
Email Address:	dana.larsen@wardnd.co	om						
Please attach a location map(s)	. You may use additional sheets	s to further describe	your project.					
Location Description				ı	CL	JCD Emphasia /	Area (check all tha	at apply)
Start:	590th ST	Lane Width	: 12'			ohol Impaired D		агарріу)
End:	Ward 1	Speed Limit	:: High		Increase the	Use of Safety I	Restraints for all C	Occupants
Facility Type:		Shoulder Width			-	iver/Older Drive	⁻ Safety	
ADT: Boad Type:	Rural Paved	Shoulder Type Length (miles)				ssive Driving nts to Address L	ane Departure Cr	ashes
County Road:	Ward 2	Rumble Installed			Enhancing E	Emergency Med		Increase Survivability
Local Name:	436th Ave				Improve Inte	ersection Safety		
Describe Current Safety	Issues & Systemic Rank	ing Review		ļ				
North Dakota Crashes, 2008 - 2	2012							
					Ward 436th Ave	RIMG	1048.JPG	CH2MHILL
	Total	Road Dept	K+A	_	Ecos			
Crashes Density (per mile per year)	2 0.07	1 0.03	0 0.00					
Rate (per MVM)	0.48	0.24	0.00	_	ACTION NAMED OF	the state of the s	The law of the law of	
				-			Call Control Control	
					- NATA	1		
	Value	Critical	Road					
ADT Range	395	150≤ADT≤400	*	-			111	
RD Density Access Density	0.035 5.9	0.032 8.0	*		Wee.al		Line No.	
Curve Critical Radius Density	1.208	0.035	*		N 48.6868183° W 102.1128367	70	10 - CH 10 -	SPE
Edge Risk	1	2 or 3		_	102.112000			

Describe Proposed Safe	ty Improvements							
	Description	Туре	Cost per mi	Mileage	Cost	Notes -		
	4" Edge Lines	Proactive	\$400	0.0	\$0	=		
	6" Edge Lines Shoulder Rumble Strip	Proactive Proactive	\$650 \$3,000	0.0 5.8	\$0 \$17,400			
	Edge Line Rumble Strip	Proactive	\$3,500	0.0	\$0			
Grour	nd In Wet-Reflective Markings	Proactive	\$8,500	0.0	\$0			
	Center Line Rumble Strip 6" Center Line	Proactive Proactive	\$3,000 \$650	0.0 0.0	\$0 \$0			
		110001110	Ψοσο		•	_		
Project Cost Estimate (a	ttach detailed copy)			Propose	ed Year of	f Construction	on	
	Federal Funds	\$15,660						
Local Mat	ch (10% of Total project cost)	\$1,740						
	Total Project Cost	\$17,400	_					
	,	, ,						
NDDOT Central Office O	nlv							
Project Accepted?		Reference Number				ID Number		
Notes								
							Page:	12
						Seç	gment ID:	2.02
							Date:	8/13/2013

LICUWAY CAFETY IM	DDOVEMENT DDOC	DAM (HCID)	DDO IECT	ADDI	CATION				
HIGHWAY SAFETY IM North Dakota Department of 7 SFN 59959 (06-2011)		` ,	PROJECI	APPL	ICATION	l			
	Ward 2	3 (153rd St)	from U	S Hwy	/ 2 to 6	6th St			
Agency Name: \	Ward County		ND DOT I	District:	4				
Contact Name: I	Dana Larsen	Т	elephone N	lumber:	701-838-2	2810			
Email Address: o	dana.larsen@wardnd.co	om							
Please attach a location map(s).	You may use additional sheets	s to further describe	vour project.						
Location Description			your projection						
End: (Facility Type: 2 ADT: 3 Road Type: F County Road: V Local Name: 1	310 Rural Paved Vard 23 53rd St	Lane Width Speed Limit Shoulder Width Shoulder Type Length (miles) Rumble Installed	: High : 2' : Paved : 9.1		Reduce Alc Increase the Younger Dr Curb Aggre Improvement Enhancing I	ohol Impaired e Use of Safe iver/Older Dri ssive Driving nts to Addres	ty Restraints for ever Safety s Lane Depart ledical Capabil	or all Occupant	
Describe Current Safety I North Dakota Crashes, 2008 - 20		ing Review							
Crashes	Total 12	Road Dept 4	K+A 1		Ward 153rd St North	R	IMG0185JPG	CH2IV	S-OLL.
Density (per mile per year) Rate (per MVM)	0.26 2.33	0.09 0.78	0.02 0.19			1			
	Value	Critical	Road			-	- Labelia		
ADT Range	310	150≤ADT≤400	*			and the same of th		-	
RD Density Access Density	0.088 6.9	0.032 8.0	*		WGS-84				No.
Curve Critical Radius Density	0.220 1	0.035 2 or 3	*		N 48.3277633° W 101.057640	0°			RF
Edge Risk	ı .	2013	***						
Describe Proposed Safety	v Improvomente								
Describe Froposed Salety	y improvements								
_	Description 4" Edge Lines 6" Edge Lines Shoulder Rumble Strip	Type Proactive Proactive Proactive	Cost per mi \$400 \$650 \$3,000	Mileage 0.0 0.0 0.0	Cost \$0 \$0 \$0	_Notes -			
	Edge Line Rumble Strip	Proactive	\$3,500	9.1	\$31,850				
Ground	In Wet-Reflective Markings Center Line Rumble Strip	Proactive Proactive	\$8,500 \$3,000	0.0 0.0	\$0 \$0				
_	6" Center Line	Proactive	\$650	0.0	\$0	_			
Project Cost Estimate (att	tach detailed copy)			Propos	ed Year o	f Construc	tion		
	177								
Local Matc	Federal Funds h (10% of Total project cost)	\$28,665 \$3,185	_						
	Total Project Cost	\$31,850							
NDDOT Central Office On									
Project Accepted? Notes	☐ Yes ☐ No F	Reference Number				ID Number			
							Page:		13
							Segment ID: Date:		3.04 3/2013

LUCLIMAN CAFETY II	ADDOVEMENT DD	DODAM (HOID)	DDO IEO	T 4 D D L	OATION				
HIGHWAY SAFETY II North Dakota Department of			PROJEC	TAPPLI	ICATION	l			
SFN 59959 (06-2011)	Transportation Programm	illig							
	War	d 14 (54th Av	e) from	Ward 9	9 to 62	nd St			
Agency Name:	Ward County		ND DOT	District:	4				
Contact Name:	Dana Larsen	1	elephone	Number:	701-838-	2810			
Email Address:	dana.larsen@wardnd	.com							
Please attach a location map(s)	. You may use additional she	eets to further describe	your project.						
Location Description	·								
Start	Ward 9	Lane Width	v: 10'			HSP Emphasis ohol Impaired I	Area (check all	that apply)	
End:	62nd St	Speed Limit	t: High		Increase th	e Use of Safety	Restraints for a	all Occupants	
Facility Type: ADT:		Shoulder Width Shoulder Type				iver/Older Drivessive Driving	er Safety		
Road Type:	Rural Paved	Length (miles)		✓	Improveme	nts to Address	Lane Departure		
County Road: Local Name:		Rumble Installed	l: Yes			Emergency Me ersection Safet		s to Increase Survivabil	ity
					improvo int	oroccion caro	,		
Describe Current Safety North Dakota Crashes, 2008 - 2		nking Review							
Nottii Dakota Orasiies, 2000 - 2	1012				Ward	RIM	G0580.JPG	CH2MHILL	
	Total	Road Dept	K+A		62nd St West				
Crashes	14	6	0	_					
Density (per mile per year) Rate (per MVM)	0.16 2.05	0.07 0.88	0.00 0.00						
, ,				_	+				
					- au Ain	1	and the same		
	Value	Critical	Road	_				The state of the s	
ADT Range RD Density		150≤ADT≤400 0.032	* *					and the same of th	
Access Density	4.3	8.0	4		WGS-84 N 48.1819950			THE	
Curve Critical Radius Density Edge Risk		0.035 2 or 3	*		W 101.487386	70		SRF	
			***	_					
Describe Proposed Safe	ty Improvements								
	Descriptio		Cost per m	i Mileage	Cost	Notes -			
	4" Edge Line 6" Edge Line		\$400 \$650	0.0 0.0	\$0 \$0				
	Shoulder Rumble Stri		\$3,000	0.0	\$0				
Grour	Edge Line Rumble Stri nd In Wet-Reflective Marking		\$3,500 \$8,500	17.8 0.0	\$62,300 \$0				
G. Ga.	Center Line Rumble Stri	p Proactive	\$3,000	0.0	\$0				
	6" Center Lin	e Proactive	\$650	0.0	\$0	_			
Project Cost Estimate (a	ttach detailed copy)			Propos	ed Year o	f Construct	ion		
	Federal Fund	ls \$56,070							
Local Mat	ch (10% of Total project cos								
	Total Project Cos	st \$62,300	_						
NDDOT Central Office O	nly								
Project Accepted? Notes	☐ Yes ☐ No	Reference Number				ID Number			
notes									
							Page:	14	
						Se	egment ID:	14.02	
							Date:	8/13/2013	

HIGHWAY SAFETY IN	MPROVEMENT PROG	RAM (HSIP) F	PROJECT	APPL	ICATION		
North Dakota Department of	Transportation Programming	9					
SFN 59959 (06-2011)							
	Ward 9 (310th	St/338th St	i) from S	State F	Route 23 to	o Ward 14	
Agency Name:	Ward County		ND DOT I	Diatriat.	4		
•	-						
Contact Name:	Dana Larsen	Te	elephone N	lumber:	701-838-2810		
Email Address:	dana.larsen@wardnd.co	m					
5 1							
Please attach a location map(s)	. You may use additional sheets	s to further describe	your project.				
Location Description							
Stort	State Route 23	Lane Width:	10'			Emphasis Area (check	all that apply)
	Ward 14	Speed Limit:			Reduce Alcohol I	Impaired Driving e of Safety Restraints fo	or all Occupants
Facility Type:	2-Lane	Shoulder Width:	~			Older Driver Safety	n an Occupants
ADT:	328	Shoulder Type:	Paved		Curb Aggressive		
Road Type:	Rural Paved	Length (miles):	15.5	V		Address Lane Departi	
County Road:		Rumble Installed:	No				ities to Increase Survivability
Local Name:	310th St/338th St				Improve Intersec	tion Safety	
Describe Current Safety	Issues & Systemic Rank	ing Review					
North Dakota Crashes, 2008 - 2							
					Ward	RIMO0882.JPG	CH2MHILL
	Tatal	Dood Dont	IZ . A		South		
Crashes	Total 7	Road Dept 2	K+A 0				
Density (per mile per year)	0.09	0.03	0.00				
Rate (per MVM)	0.79	0.22	0.00		3 2 3		
					+		
	Value	Critical	Road			TITLE	
ADT Range	Value 328	Critical 150≤ADT≤400	*				9
RD Density	0.040	0.032	*		No. of the last of		
Access Density	4.8	8.0			WGS-84		
Curve Critical Radius Density	0.470	0.035	*		W 101.7927067°	and the second	SRF
Edge Risk	1	2 or 3	***				
			~ ~ ~				
Describe Proposed Safe	tv Improvements						
	-,						
	Description	Туре	Cost per mi		Cost Note	es -	
	4" Edge Lines 6" Edge Lines	Proactive Proactive	\$400 \$650	0.0 0.0	\$0 \$0		
	Shoulder Rumble Strip	Proactive	\$3,000	15.5	\$46,500		
	Edge Line Rumble Strip	Proactive	\$3,500	0.0	\$0		
Grour	nd In Wet-Reflective Markings	Proactive	\$8,500	0.0	\$0		
	Center Line Rumble Strip	Proactive	\$3,000	0.0	\$0		
	6" Center Line	Proactive	\$650	0.0	\$0		
Project Cost Estimate (a	ttach detailed conv)			Propos	ed Year of Co	nstruction	
110,000,000, 200, 20,,,,,,,,,,,,,,,,,,,,	maon actance copy,		I	Порос	04 1041 01 00		
	Federal Funds	\$40,230					
Local Mat	ch (10% of Total project cost)	\$4,470					
			-				
	Total Project Cost	\$46,500					
NDDOT Central Office Of	nly						
Project Accepted?	☐ Yes ☐ No F	Reference Number			ID N	Number	
Notes							
						Page:	15
						Segment ID:	9.03
						Date:	11/13/2013

Ward County Rural Curve Projects

Corridor	Local Street Name	Start	End	# of Curves	Cost
1.01	534th St	State Route 50	436th Ave	1	\$ 5,265
2.02	436th Ave	590th ST	Ward 11	1	\$ 4,209
5.03	Main St	US Hwy 52	Ward 7	6	\$ 25,727
6.03	198th Ave	State Route 28	Reneville 6	1	\$ 3,755
8.01	128th Ave	US Hwy 52	US Hwy 83	1	\$ 6,373
9.03	310th St	Ward 20	Ward 14	0	\$ 1,818
10.01	184th St	Ward 9	Granly St	0	\$ 1,364
10.02	19th Ave	Granly St	US Hwy 2	4	\$ 17,745
10.03	60 th St	Ward 15	US Hwy 83	0	\$ 1,364
12.03	4th Ave	55th St	US Hwy 2	2	\$ 9,109
14.04	54th Ave	US Hwy 83	1 mile east of 13th St	5	\$ 8,873
14.06	37th St	Ward 14A	72nd AVe Ave	1	\$ 4,555
15.04	County Road 15 W	Ward 10	1 mile South of 86th St	1	\$ 5,118
17.01	62nd St	Ward 14	US Hwy 2	1	\$ 5,464
17.02	54th St	US Hwy 2	Ward 15	0	\$ 2,727
23.02	21st Ave	State Route 23	US Hwy 53	1	\$ 4,555
501.03	142nd St	State Route 22	Ward 22	1	\$ 1,255

26 \$ 109,276

Ward County Curves

vvaru Coul						Ins	ide			Outs	ide							Crashe	s					Risk Facto	ors		
Curve Count ID	Corridor	Segment	Start	End	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter	Shoulder Type	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter	Shoulder Type	Curve Advisory Sign	Speed Advisory Sign	Chevrons	Total	Total Severe	к	A	в с	PDO	Radius (ft)	Severe Crash	ADT	Intersection on Curve	Visual Trap	Risk Ranking
1 001A	1.01	Ward 1	Intersection with state route 50	Intersection with 436th Ave	0	0	0	None	0	0	0	None	Yes	Yes	No	-	-	-	-	-		850	No	309	Yes	Yes	****
2 001B 3 001C	1.01 1.01	Ward 1 Ward 1	Intersection with state route 50 Intersection with state route 50	Intersection with 436th Ave Intersection with 436th Ave	0	0	0	None None	0	0	0	None None	Yes Yes	No No	No No	_	-	-	-	-		1000 1700	No No	309 309	No No	No No	**
4 001D	1.01	Ward 1	Intersection with state route 50	Intersection with 436th Ave	0	0	0	None	0	0	0	None	Yes	No	No	1	-	_	_	1		770	No	309	No	No	**
5 002A	2.01	Ward 2	Intersection with 72nd Ave	Intersection with 450thAve	0	0	0	None	0	0	0	None	No	No	No	-	-	-	-	-		2900	No	145	Yes	No	*
6 002B	2.01	Ward 2	Intersection with 72nd Ave	Intersection with 450thAve	0	0	0	None	0	0	0	None	No	No	No	-	-	-	-	-		1300	No	145	No	No	1 .
7 002C 8 002D	2.02 2.02	Ward 2 Ward 2	Intersection with 590th ST Intersection with 590th ST	Intersection with Ward 11 Intersection with Ward 11	2	0	0	Paved Paved	2	0	0	Paved Paved	No Yes	No No	No No	1	-	-	-	-	- 1	1500 2800	No No	395 395	No Yes	No No	*
9 002E	2.02	Ward 2	Intersection with 590th ST	Intersection with Ward 11	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1600	No	395	No	No	_ ★
10 002F	2.02	Ward 2	Intersection with 590th ST	Intersection with Ward 11	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	1	_	-	-	-	- 1	1900	No	395	No	No	*
11 002G	2.02	Ward 2	Intersection with 590th ST	Intersection with Ward 11	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	-	-	-	-	-		1500	No	395	No	No	*
12 002H	2.02	Ward 2	Intersection with 590th ST	Intersection with Ward 11	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	-	-	-	-	-		760	No	395	No	No	**
13 002I 14 002J	2.02	Ward 2 Ward 2	Intersection with 590th ST Intersection with Ward 1	Intersection with Ward 11 Intersection with US Hwy 52	0	<u>0</u> 4	0	Paved Gravel	2	<u>0</u> 4	0	Paved Gravel	Yes No	Yes No	No No	2				-		800 1400	No No	395 1230	Yes Yes	Yes No	****
15 002K	2.03	Ward 2	Intersection with US Hwy 52	Intersection with Ward 3	2	0	0	Paved	2	0	0	Paved	No	No	No						<u> </u>	320	No		No	No	*
16 005A	5.02	Ward 5	Intersection with 240th Ave	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved	Yes	No	Yes	-	-	-	-	-		1300	No	115	No	No	
17 005B	5.02	Ward 5	Intersection with 240th Ave	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1150	No	115	Yes	No	**
18 005C	5.02	Ward 5	Intersection with 240th Ave	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1600	No	115	No	No	<u> </u>
19 005D 20 005E	5.03 5.03	Ward 5 Ward 5	Intersection with US Hwy 52 Intersection with US Hwy 52	Intersection with Ward 7 Intersection with Ward 7	2	0	0	Paved Paved	2	0	0	Paved Paved	No Yes	No No	No No	-	-	-	-	-		700 450	No No	80 80	Yes No	No No	**
21 005E	5.03	Ward 5	Intersection with US Hwy 52	Intersection with Ward 7	2	0	0	Paved	2	0	0	Paved	Yes	No	No	_	-	-	-	-		1200	No	80	No	No No	*
22 005G	5.03	Ward 5	Intersection with US Hwy 52	Intersection with Ward 7	2	Ö	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1000	No	80	No	No	*
23 005H	5.03	Ward 5	Intersection with US Hwy 52	Intersection with Ward 7	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1700	No	80	No	No	1
24 0051	5.03	Ward 5	Intersection with US Hwy 52	Intersection with Ward 7	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1000	No	80	No	No	*
25 006A 26 006B	6.02 6.02	Ward 6 Ward 6	1 mile to city of carpio 1 mile to city of carpio	Intersection with state route 28 Intersection with state route 28	2	0	0	Paved Paved	2	0	0	Paved Paved	Yes	No No	No No	-	-	-	-	-		1100 1120	No No	60 60	No No	No No	*
27 006C	6.02	Ward 6	1 mile to city of carpio	Intersection with state route 28	2	0	0	Paved	2	0	0	Paved	Yes Yes	No	No	_	-	-	-	-		790	No	60	No	No	÷
28 006D	6.02	Ward 6	1 mile to city of carpio	Intersection with state route 28	2	0	0	Paved	2	0	0	Paved	Yes	No	No	_	_	_	_	_		1050	No	60	No	No	*
29 006E	6.02	Ward 6	1 mile to city of carpio	Intersection with state route 28	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		2200	No	60	No	No	1
30 006F	6.02	Ward 6	1 mile to city of carpio	Intersection with state route 28	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		850	No	60	No	No	*
31 006G 32 006H	6.03 6.03	Ward 6 Ward 6	Intersection with state route 28 Intersection with state route 28	Intersection with Reneville 6 Intersection with Reneville 6	0	0	0	None None	0	0	0	None None	No No	No No	No No	-	-	-	-	-		1120 870	No No	218 218	Yes No	Yes No	***
33 0061	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	_	-	-	-	-		1050	No	218	No	No No	1 ÷
34 006J	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	Ö	Ö	0	None	0	Ö	Ö	None	Yes	No	No	-	-	-	-	-		1200	No	218	No	No	*
35 006K	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	-	-	-	-	-		2700	No	218	Yes	No	*
36 006L	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	1	-	-	-	-	- 1	1500	No	218	Yes	No	*
37 006M 38 006N	6.03 6.03	Ward 6 Ward 6	Intersection with state route 28 Intersection with state route 28	Intersection with Reneville 6 Intersection with Reneville 6	0	0	0	None None	0	0	0	None None	Yes Yes	No Yes	No No	-	-	-	-	-		1350 140	No No	218 218	No No	No No	1
39 006O	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	_	-	_	-	-		700	No	218	No	Yes	**
40 006P	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	1	-	-	-	-	- 1	1250	No	218	No	No	1
41 006Q	6.03	Ward 6	Intersection with state route 28	Intersection with Reneville 6	0	0	0	None	0	0	0	None	Yes	No	No	-	-	-	-	-		1000	No	218	Yes	No	**
42 008A	8.01	Ward 8	Intersection with US Hwy 52	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved	No	No	No	-	-	-	-	-		670	No	174	Yes	No	**
43 008B 44 008C	8.01 8.01	Ward 8 Ward 8	Intersection with US Hwy 52 Intersection with US Hwy 52	Intersection with US Hwy 83 Intersection with US Hwy 83	2	0	0	Paved Paved	2	0	0	Paved Paved	No Yes	No No	No No	_	-	-	-	-		500 1000	No No	174 174	Yes Yes	No No	**
45 008D	8.01	Ward 8	Intersection with US Hwy 52	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved	Yes	No	No	_	_	_	_	_		250	No	174	Yes	Yes	**
46 008E	8.01	Ward 8	Intersection with US Hwy 52	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1900	No	174	No	No	
47 009A	9.02	Ward 9	Intersection with state route 23	Intersection with Ward 20	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	-	-	-	-	-		840	No	675	Yes	Yes	***
48 009B 49 009C	9.03 9.03	Ward 9	Intersection with Ward 20	Intersection with Ward 14 Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved Paved				-	-	-	-	-		850 1100	No No	157 157	Yes No	Yes No	***
50 009D	9.03	Ward 9 Ward 9	Intersection with Ward 20 Intersection with Ward 20	Intersection with Ward 14	2	0	0	Paved Paved	2	0	0	Paved				1 -	-	-	-	-	- !	1200	No	157	Yes	Yes	***
51 009E	9.03	Ward 9	Intersection with Ward 20	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved				_	_	-	-	-		1400	No	157	No	No	
52 009F	9.03	Ward 9	Intersection with Ward 20	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1060	No	157	No	No	*
53 009G	9.03	Ward 9	Intersection with Ward 20	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved				2	-	-	-	-	1 1	1120	No	157	No	No	*
54 010A 55 010B	10.01 10.01	Ward 10 Ward 10	Intersection with Ward 9 Intersection with Ward 9	Intersection with Granly St Intersection with Granly St	4	0	0	Paved Paved	4 4	0	0	Paved Paved	Yes Yes	No No	No No	2	-	-	-	-	- 2	380 900	No No	263 263	No No	Yes No	**
56 010C	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	Yes	No	No	_	-	-	-	-	- 2	1000	No	263	No	No	**
57 010D	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	Ö	0	Paved	4	0	0	Paved	Yes	No	No	1	1	-	1	-		950	Yes	263	No	No	***
58 010E	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	Yes	No	No	-	-	-	-	-		1200	No	263	No	No	**
59 010F	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	Yes	No	No No	1	-	-	-	-	- 1	730	No	263	No	No	**
60 010G 61 010H	10.01 10.01	Ward 10 Ward 10	Intersection with Ward 9 Intersection with Ward 9	Intersection with Granly St Intersection with Granly St	4	0	0	Paved Paved	4 4	0	0	Paved Paved	Yes Yes	No No	No No	1 1	-	-	-	-	- 1 -	750 1100	No No	263 263	Yes No	Yes Yes	****
62 0101	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	Yes	No	No	_	-	-	_	_		570	No	263	Yes	No	***
63 010J	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	Yes	No	No	-	-	-	-	-		690	No	263	No	No	**
64 010K	10.01	Ward 10	Intersection with Ward 9	Intersection with Granly St	4	0	0	Paved	4	0	0	Paved	No	No	No	-	-	-	-	-		1600	No	263	No	No	*
65 010L 66 010M	10.02	Ward 10 Ward 10	Intersection with Granly St Intersection with Granly St	Intersection with US Hwy 2 Intersection with US Hwy 2	2 2	0	0	Paved Paved	2 2	0	0	Paved Paved	Yes	No No	Yes Yes	-	-	-	-	-		600 550	No No	671 671	No Yes	No Yes	***
67 010N	10.02 10.02	Ward 10	Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes No	No No	res No	1	-	-	-	-	 - 1	1500	No No	671	No	No	A A A
68 0100	10.02	Ward 10	Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes	No	No		-	-	-	-		1800	No	671	No	No	1
69 010P	10.02	Ward 10	Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		1700	No	671	No	No	1
70 010Q	10.02	Ward 10	Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes	No	No	-	-	-	-	-		3400	No	671	Yes	No	*
71 010R 72 010S	10.02 10.02	Ward 10 Ward 10	Intersection with Granly St Intersection with Granly St	Intersection with US Hwy 2 Intersection with US Hwy 2	2 2	0	0	Paved Paved	2	0	0	Paved Paved	Yes Yes	No No	No No	- 1	-	-	-	-		2400 3000	No No	671 671	No Yes	No No	
72 0103 73 010T	10.02	Ward 10	Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes	No	No	3	-	-	-	_	- 3	1300	No	671	No	No	1 ^
74 010U	10.02		Intersection with Granly St	Intersection with US Hwy 2	2	0	0	Paved	2	0	0	Paved	Yes	No	No	2			-		2	1450	No	671	Yes	No	*

Ward County Curves

Waru Cour	ity Cui roc	•				Insi	de			Outs	side							Crashe	es					Risk Facto	ors		
Curve ID Count	Corridor	Segment	Start	End	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter	Shoulder Type	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter		Curve Advisory Sign	Speed Advisory Sign	Chevrons	Total	Total Severe	K		в с	PDO	Radius (ft)	Severe Crash	ADT	Intersection on Curve	Visual Trap	Risk Ranking
75 010V	10.03	Ward 10	Intersection with Ward 15	Intersection with US Hwy 83	8	0	0	Paved	8	0	0	Paved	Yes	Yes	No	1 2	-	-	- 1	-	- 1	820	No	457	No	Yes	***
76 010W 77 010X	10.03 10.03	Ward 10 Ward 10	Intersection with Ward 15 Intersection with Ward 15	Intersection with US Hwy 83 Intersection with US Hwy 83	8	0 0	0	Paved Paved	8	0	0	Paved Paved	No No	No No	Yes Yes	1	1	1	-	-	- 1	850 320	Yes Yes	457 457	No No	No No	*** **
78 011A	11.01	Ward 11	Intersection with US Hwy 52	Intersection with Ward 6	0	0	0	None	0	0	0	None	No	No	No	-	-	-	-	=		220	No	1680	Yes	No	*
79 011B 80 012A	11.01 12.01	Ward 11 Ward 12	Intersection with US Hwy 52 1 mile west of Ward 17	Intersection with Ward 6 Intersection with Ward 17	4	0	0	None Paved	0 4	0	0	None Paved	Yes Yes	No Yes	No No	2		-	-	-	- <u>2</u>	1300 440	No No	1680 260	No No	No No	*
81 012B	12.01	Ward 12	1 mile west of Ward 17	Intersection with Ward 17	4	0	Ö	Paved	4	Ö	0	Paved	Yes	No	No	5	-	-	-		1 4	2000	No	260	No	No	*
82 012C 83 012D	12.03 12.03	Ward 12 Ward 12	Intersection with 55th St Intersection with 55th St	Intersection with US Hwy 2 Intersection with US Hwy 2	2	0	0	Paved Paved	2	0	0	Paved Paved	No No	No No	No No	1 3	-	-	-	-	- 1	70 170	No No	1204 1204	Yes No	Yes No	**
84 014A	14.02	Ward 14	Intersection with Ward 9	Intersection with 62nd St	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	1	-			-	- 3 - 1	820	No	210	No	Yes	**
85 014B	14.03	Ward 14	Intersection with 54th Ave	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved	Yes	Yes	No	1	-	-	-	-	- 1	840	No	1010	Yes	Yes	***
86 014C 87 014D	14.03 14.03	Ward 14 Ward 14	Intersection with 54th Ave Intersection with 54th Ave	Intersection with US Hwy 83 Intersection with US Hwy 83	2 2	0	0	Paved Paved	2	0	0	Paved Paved	No No	No No	No No	-	-	-	-	-		1000 330	No No	1010 1010	Yes No	No No	**
88 014E	14.03	Ward 14	Intersection with 54th Ave	Intersection with US Hwy 83	2	0	Ö	Paved	2	Ö	0	Paved	No	No	No	2	-	-	-	-	- 2	620	No	1010	No	No	*
89 014F 90 014G	14.04 14.04	Ward 14 Ward 14	Intersection with US Hwy 83 Intersection with US Hwy 83	1 mile east of 13th St 1 mile east of 13th St	1	1		Composite Composite	1	1	0	Composite Composite	Yes Yes	No No	Yes No	1	-	-	-	-	- 1	180 300	No No	548 548	No No	Yes No	**
91 014H	14.04	Ward 14	Intersection with US Hwy 83	1 mile east of 13th St	1	1	0	Composite	1	1	0	Composite	Yes	Yes	No	2	-	-	-	-	- 2	1400	No	548	No	No	*
92 0141	14.04	Ward 14	Intersection with US Hwy 83	1 mile east of 13th St	1	1		Composite	1	1	0	Composite	Yes	Yes	No	3	-	-	-	2	- 1	1200	No	548	No	No	**
93 014J 94 014K	14.04 14.05	Ward 14 Ward 14A	Intersection with US Hwy 83 1 mile east of 13th St	1 mile east of 13th St Intersection with 37th Ave	2	0	0	Composite Paved	2	0	0	Composite Paved	Yes Yes	Yes Yes	Yes No	- 1	-	-	-	-	 - 1	330 420	No No	548 300	No No	No No	*
95 014L	14.05	Ward 14A	1 mile east of 13th St	Intersection with 37th Ave	2	0	Ö	Paved	2	0	0	Paved	No	No	No	1	-	-	-	-	- 1	1000	No	300	No	No	**
96 014M	14.05	Ward 14A	1 mile east of 13th St	Intersection with 37th Ave Intersection with 37th Ave	2 2	0	0	Paved	2	0	0	Paved	Yes	No		2	1	-	1	1		600	Yes	300 300	No	No No	***
97 014N 98 014O	14.05 14.06	Ward 14A	1 mile east of 13th St Intersection with Ward 14A	Intersection with 72nd AVe Ave	2	0	0	Paved Paved	2	0	0	Paved Paved	Yes	No		-				-		1800 150	No No	408	No Yes	No No	**
99 014P	14.06	Ward 14	Intersection with Ward 14A	Intersection with 72nd AVe Ave	2	0	0	Paved	2	0	0	Paved				1	-	-	-	-	- 1	480	No	408	Yes	No	**
100 014Q 101 014R	14.06 14.06	Ward 14 Ward 14	Intersection with Ward 14A Intersection with Ward 14A	Intersection with 72nd AVe Ave Intersection with 72nd AVe Ave	2	0	0	Paved Paved	2	0	0	Paved Paved				2	-	-	-	-	- 2	920 550	No No	408 408	No No	No No	**
102 014S	14.06	Ward 14	Intersection with Ward 14A	Intersection with 72nd AVe Ave	2	0	0	Paved	2	0	0	Paved				1	-	-	-	-	- - 1	600	No	408	No	No	**
103 015A	15.04	Ward 15	Intersection with Ward 10	1 mile South of 86th St	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		3400	No	520	No	No	*
104 015B 105 015C	15.04 15.04	Ward 15 Ward 15	Intersection with Ward 10 Intersection with Ward 10	1 mile South of 86th St 1 mile South of 86th St	2	0	0	Paved Paved	2	0	0	Paved Paved				-	-	-	-	-		2300 2300	No No	520 520	No No	No No	*
106 015D	15.04	Ward 15	Intersection with Ward 10	1 mile South of 86th St	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		3000	No	520	No	No	*
107 015E	15.04	Ward 15	Intersection with Ward 10	1 mile South of 86th St	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1650	No	520	No	No	*
108 015F 109 015G	15.04 15.04	Ward 15 Ward 15	Intersection with Ward 10 Intersection with Ward 10	1 mile South of 86th St 1 mile South of 86th St	2	0	0	Paved Paved	2	0	0	Paved Paved				-	-	-	-	-		800 900	No No	520 520	Yes Yes	Yes Yes	****
110 015H	15.03	Ward 15	Intersection with Ward 17	Intersection with Ward 10	6	0	0	Paved	6	0	0	Paved				-	-	-	-	-		2000	No	2510	Yes	No	*
111 015I 112 015J	15.03 15.03	Ward 15 Ward 15	Intersection with Ward 17 Intersection with Ward 17	Intersection with Ward 10 Intersection with Ward 10	6 6	0	0	Paved Paved	6	0 0	0	Paved Paved				-	-	-	-	-		2100 3000	No No	2510 2510	No Yes	No No	
112 0153 113 015K	15.03	Ward 15	Intersection with Ward 17	Intersection with Ward 10	6	0	0	Paved	6	0	0	Paved				4	-	-	-	-	- 4	15000	No	2510	Yes	No	*
114 015L	15.02	Ward 15	Intersection with US Hwy 83	Intersection with Ward 17	2	2	0	Composite	2	2	0	Composite				-	-	-	-	-		1650	No		Yes	Yes	**
115 016A 116 017A	16.02 17.01	Ward 16 Ward 17	Intersection with US Hwy 52 Intersection with Ward 14	Intersection with 97th St Intersection with US Hwy 2	4	0	0	Paved Paved	4	0	0	Paved Paved				2	-	-		1 -	- 1	160 1000	No No	210 315	Yes No	No No	**
117 017B	17.01	Ward 17	Intersection with Ward 14	Intersection with US Hwy 2	4	0	0	Paved	4	0	0	Paved				6	-	-	-	1	- 5	1150	No	315	No	No	**
118 017C	17.01 17.01	Ward 17 Ward 17	Intersection with Ward 14 Intersection with Ward 14	Intersection with US Hwy 2	4	0	0	Paved	4	0 0	0	Paved				- 7	-	-	-	-		530 200	No No	315 315	No Yes	No	**
119 017D 120 017E	17.01	Ward 17	Intersection with Ward 14	Intersection with US Hwy 2 Intersection with US Hwy 2	4	0	0	Paved Paved	4	0	0	Paved Paved				11	2	-	2	-	- 9	810	Yes	315	Yes	Yes No	***
121 017F	17.01	Ward 17	Intersection with Ward 14	Intersection with US Hwy 2	4	0	0	Paved	4	0	0	Paved				15	-	-	-	1	1 13	60	No	315	Yes	Yes	***
122 017G 123 017H	17.01 17.01	Ward 17 Ward 17	Intersection with Ward 14 Intersection with Ward 14	Intersection with US Hwy 2 Intersection with US Hwy 2	4	0	0	Paved Paved	4	0	0	Paved Paved				1	-	-	-	-	- 1 1 -	600 230	No No	315 315	No Yes	No No	**
124 0171	17.01	Ward 17	Intersection with Ward 14	Intersection with US Hwy 2	4	0	0	Paved	4	0	0	Paved				1	-	-	-	-	- 1	50	No	315	Yes	No	**
125 017J	17.02	Ward 17	Intersection with US Hwy 2	Intersection with Ward 15	4	0	0	Paved	4	0	0	Paved				2	-	-	-	-	- 2	800	No	1575	No	No	*
126 017K 127 017L	17.02 17.02	Ward 17 Ward 17	Intersection with US Hwy 2 Intersection with US Hwy 2	Intersection with Ward 15 Intersection with Ward 15	4	0	0	Paved Paved	4	0	0	Paved Paved				1 -	-	-	-	-	- 1	550 800	No No	1575 1575	No No	No No	*
128 017M	17.02	Ward 17	Intersection with US Hwy 2	Intersection with Ward 15	4	0	0	Paved	4	0	0	Paved				-	-	-	-	-		450	No	1575	No	No	
129 017N 130 017O	17.02 17.02	Ward 17 Ward 17	Intersection with US Hwy 2 Intersection with US Hwy 2	Intersection with Ward 15 Intersection with Ward 15	4	0	0	Paved Paved	4	0 0	0	Paved Paved				-	-	-	-	-		420 380	No No	1575 1575	Yes Yes	No No	*
131 020A	20.03	Ward 20	Intersection with 142nd St	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved				1			-	-	- 1	1800	No	302	No	No	*
132 020B	20.03	Ward 20	Intersection with 142nd St	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1500	No	302	No	No	*
133 020C 134 023A	20.03	Ward 20 Ward 23	Intersection with 142nd St Intersection with US Hwy 2	Intersection with US Hwy 83 Intersection with 66th St	2	0	0	Paved Paved	2	0	0	Paved Paved				-	-		-	-		2000 1600	No No	302 310	No No	No No	*
135 023B	23.04	Ward 23	Intersection with US Hwy 2	Intersection with 66th St	2	0	0	Paved	2	0	0	Paved								-	<u>- </u>	1200	No	310	No	No	**
136 023C	23.02	Ward 23	Intersection with state route 23	Intersection with US Hwy 53	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		3000	No	362	No	No No	*
137 023D 138 023E	23.02 23.02	Ward 23 Ward 23	Intersection with state route 23 Intersection with state route 23	Intersection with US Hwy 53 Intersection with US Hwy 53	2 2	0	0	Paved Paved	2	0 0	0	Paved Paved					-	-	-	-		3200 2500	No No	362 362	No Yes	No No	* **
139 023F	23.02	Ward 23	Intersection with state route 23	Intersection with US Hwy 53	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1600	No	362	No	No	*
140 023G 141 023H	23.02 23.02	Ward 23 Ward 23	Intersection with state route 23 Intersection with state route 23	Intersection with US Hwy 53 Intersection with US Hwy 53	2 2	0	0 n	Paved Paved	2	0	0	Paved Paved				- 1	-	-	-	-	1	1300 420	No No	362 362	No Yes	Yes No	** **
142 0231	23.02	Ward 23	Intersection with 373rd Ave	Intersection with state route 23	2	0	0	Paved	2	0	0	Paved				1	-	-	-	1		1600	No	141	No	Yes	*
143 023J	23.01	Ward 23	Intersection with 373rd Ave	Intersection with state route 23	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1400	No	141	No	No	
144 023K 145 023L	23.01 23.01	Ward 23 Ward 23	Intersection with 373rd Ave Intersection with 373rd Ave	Intersection with state route 23 Intersection with state route 23	2 2	0 0	U 0	Paved Paved	2	0 0	0 0	Paved Paved					-	-	-	-		1900 2500	No No	141 141	No No	No No	
146 023M	23.01	Ward 23	Intersection with 373rd Ave	Intersection with state route 23	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		1500	No	141	Yes	No	*
147 023N	23.01	Ward 23	Intersection with 373rd Ave	Intersection with state route 23	2	0	0	Paved	2	0	0	Paved				-	-	-	-	-		3500	No	141	No	No	<u> </u>

Ward County Curves

						Inside				Out	side						Cras	hes					Risk Fact	ors		
Curve ID	Corridor	Segment	Start	End	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter	Shoulder Type	Paved Shoulder Width	Gravel Shoulder Width	Curb & Gutter	Shoulder Type	Curve Advisory Sign	Speed Advisory Chevrons Sign	Total	Total Severe	к	A	В	C PDO	Radius (ft)	Severe Crash	ADT	Intersection on Curve	Visual Trap	Risk Ranking
148 024A	24.01	Ward 24	Intersection with state route 28	Intersection with 142nd St	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 4000	No	178	Yes	No	*
149 024B	24.01	Ward 24	Intersection with state route 28	Intersection with 142nd St	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 5000	No	178	Yes	No	*
150 024C	24.02	Ward 24	Intersection with 142nd St	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 4000	No	283	No	No	*
151 024D	24.02	Ward 24	Intersection with 142nd St	Intersection with US Hwy 83	2	0	0	Paved	2	0	0	Paved			1	-			-	-	1 3000	No	283	Yes	No	**
152 501A	501.03	No designation	Intersection with State route 22	Intersection with Ward 22	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 860	No	85	Yes	No	**
153 501B	501.03	No designation	Intersection with State route 22	Intersection with Ward 22	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 760	No	85	Yes	Yes	***
154 501C	501.01		Intersection with 373rd Ave	Intersection with Ward 24	0	0	0	None	0	0	0	None			2	-		-	-	-	2 530	No	61	Yes	No	**
155 504A	504.03		Intersection with US Hwy 52	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 2200	No	488	Yes	No	**
156 504B	504.03		Intersection with US Hwy 52	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 1000	No	488	No	No	**
157 504C	504.03	No designation	Intersection with US Hwy 52	Intersection with Ward 14	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 85	No	488	Yes	No	**
158 504D	504.02		Intersection with Ward 16	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 85	No	325	Yes	No	**
159 504E	504.02	No designation	Intersection with Ward 16	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved			1	-			1	-	- 930	No	325	No	No	**
160 504F	504.02		Intersection with Ward 16	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 1900	No	325	No	No	*
161 504G	504.02		Intersection with Ward 16	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 1500	No	325	Yes	No	**
162 504H	504.02	No designation	Intersection with Ward 16	Intersection with US Hwy 52	2	0	0	Paved	2	0	0	Paved			-	-			-	-	- 330	No	325	Yes	No	**
-			_	_										_	119	6	1	5	11	4 9	8 69		79			27

	Total		Chevroned	(% of Stars)
Stars	#	%	#	%
****	0	0%	0	0%
****	6	4%	0	0%
***	15	9%	2	13%
**	51	31%	2	4%
*	65	40%	2	3%
	25	15%	1	4%
	162	100%	7	4%

**CHEVRON ANALYSIS NOT COMPLETE

Critical
Ranges Max
Radius 1,200
ADT 650

Crash Data: 2008-2012 7/26/2013 3/3

HIGHWAY SA	FET	V IMPRO	VEMENT	PROGRAM	I (HSID)	DRO IE	T ADDI I	CATION					
North Dakota Depa SFN 59959 (06-2011	artmei				i (i iSiF)	FROJE	JI AFFLI	CATION					
·		Cont Emai	act Name: I Address:	Ward Count Dana Larser dana.larsen	y า @wardnd	.com		te Route		th Ave ND DOT District ephone Number)	
Please attach a loca Location Descri					ther describ	e your proje	ect.						
Start: State End: 436t Facility Type: 2-Lar ADT: 309 Road Type: Rura County Road: Ward	e Rout h Ave ne l Pave	re 50		L S Shou Shou Len	Lane Width: Speed Limit: Ulder Width: bulder Type: ogth (miles): le Installed:	High 0' None 8.8				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dri Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints or Driver Safety iving Idress Lane Depa ncy Medical Capal	for all Occupant	
Describe Currer			& System	ic Ranking R									
North Dakota Crashe Curve ID K 001A 0	A 0	Radius (ft)	ADT 309	Intersection on Curve Yes	Visual Trap Yes	Risk Ranking	Oil County Project YES	Project Suggested Yes	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project Inside/Outside	Advance Horizontal Alignment Warning Sign 0	Advisory Speed Plaque
001B 0 001C 0 001D 0	0 0 0	1000 1700 770	309 309 309	No No No	No No No	** * **	YES No YES	Yes Yes Yes	- Chevron -		Inside/Outside Inside/Outside Inside/Outside	0 - 0	0 - 0
*Curve numbering no Ranking Criteria	1		Inters	Severe Crashes Radius ADT section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are se - 3 or more ★ - x in Proximit	elected for proje s ty or Existing Ch	ct if:				
Describe Propo	sed S	Safety Impr	ovements										
		Advan	ce Warning S	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 1 0 0 .7 miles .0 miles	Total cost \$3,300 \$0 \$0 \$1,965 \$0 \$5,265	-		
Project Cost Es	timat	e (attach d	etailed co	py)					Proposed Yo	ear of Construct	ion		
			Local Matc	h (10% of Total p	deral Funds project cost) pject Cost	\$527							
NDDOT Central	Offic												
Project Accepted? Notes		Yes	No		Reference	e Number				ID Number	1		
												Page: Segment ID: Date:	

HICHWAY 6	A C C T	V IMPRO	/EMENT	DDCCDAM	(HSIB) I	DDO IEC	T ADDI I	CATION					
HIGHWAY SA North Dakota Dep SFN 59959 (06-20-	partme				i (HSIP) i	PROJEC	I APPLI	CATION					
		-	-	C Ward Count Dana Larser	у	n Ward	d 2 from	590th ST		11 ND DOT District ephone Number)	
Diogga attach a los	ation m			dana.larsen	_		nt						
Please attach a loc Location Desc					ner describe	your projec	Jl.						
Start: 59(End: Wa Facility Type: 2-L: ADT: 395 Road Type: Rur County Road: Wa	0th ST ard 11 ane 5 ral Pave			L S Shot Shot Len	Lane Width: Speed Limit: ulder Width: oulder Type: ngth (miles): le Installed:	High 2' Paved 5.8				SHSP Empha: Reduce Alcohol Imp Increase the Use of Younger Driver/Old Curb Aggressive Dr Improvements to Ac Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving ddress Lane Depar ncy Medical Capab	for all Occupant	
Describe Curre			& System	ic Ranking R									
North Dakota Crasi Curve ID K		08 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
002C 0	0	1500	395	No	No	*	No	-	-	-	-	-	-
002D 0 002E 0		2800 1600	395 395	Yes No	No No	** *	No No	-	-	-	-	-	-
002F 0	0	1900	395	No	No	*	No	-	-	-	-	-	-
002G 0 002H 0		1500 760	395 395	No No	No No	* **	No YES	- Yes	-	-	Inside/Outside	- 0	- 0
0021 0		800	395	Yes	Yes	****	YES	Yes	Chevron		Inside/Outside	0	0
*Curve numbering Ranking Criter	ria		Inters	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are so - 3 or more ★ - x in Proximi	elected for proje rs ty or Existing Ch	ct if:				
Describe Prop	osed S	Safety Impr	ovements										
		Advar	nce Warning S	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 1 0 0 .3 miles .0 miles	Total cost \$3,300 \$0 \$0 \$909 \$0 \$4,209	-		
Project Cost E.	stimat	e (attach d	etailed cop	oy)					Proposed Y	ear of Construct	tion		
			Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$421							
NDDOT Centra		e Only							<u> </u>				
Project Accepted? Notes		Yes	No		Reference	Number				ID Number			
												Page: Segment ID: Date:	

HIGHWAY SAF	:FT\	/ IMPRO	VEMENT	PROGRAM	(HSIP)	PROJE(T APPLI	CATION					
North Dakota Depai SFN 59959 (06-2011)	rtmer				(11011)	ROOL) All EN	OATION					
		_	-	Cu Ward Count Dana Larser	у	n Ward	l 5 from	US Hwy		d 7 ND DOT District ephone Number		1	
D		Ema	il Address:	dana.larsen	@wardnd				161	ephone Number	. 701-030-2010	,	
Please attach a location Location Descrip					her describe	your proje	ct.						
Start: US H End: Ward Facility Type: 2-Lane ADT: 80 Road Type: Rural I County Road: Ward	wy 52 7 e Paved			L S Sho Sho Len	Lane Width: Speed Limit: ulder Width: pulder Type: gth (miles): ole Installed:	High 2' Paved 1.8				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving Idress Lane Depa ncy Medical Capal	for all Occupant	
Describe Current North Dakota Crashes			& System	ic Ranking R		veare							
Curve ID K	s, 200 A	8 - 2012 Radius (ft)	ADT	Intersection on Curve	Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
005D 0 005E 0	0	700 450	80 80	Yes No	No No	**	No No	Yes Yes	Chevron Chevron	-	Inside/Outside Inside/Outside	x x	45 35
005F 0	0	1200	80	No	No	*	No	Yes	Chevron		Inside/Outside	-	-
005G 0 005H 0	0	1000 1700	80 80	No No	No No	*	No No	Yes Yes	Chevron Chevron	-	Inside/Outside Inside/Outside	X -	50 -
0051 0	0	1000	80	No	No	*	No	Yes	Chevron	-	Inside/Outside	X	50
*Curve numbering not Ranking Criteria			Inters	Severe Crashes Radius ADT section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are s - 3 or more ★ - x in Proximi	elected for projects	ct if:				
					Description	Туре	Unit Cost		Quantity	Total cost	_		
		Adva	nce Warning S	Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive	\$500 \$800 \$3,000	per curve per curve per curve per mile per mile	6 0 4 .9 miles .0 miles	\$19,800 \$0 \$3,200 \$2,727 \$0	_		
Project Cost Esti	imate	e (attach d	letailed co	py)					Proposed Y	\$25,727 ear of Construct	ion		
			Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$2,573							
NDDOT Central C	Offic									lie	ı		
Project Accepted? Notes		Yes	∐ No		Reference	e Number	<u> </u>			ID Number			
												Page: Segment ID: Date:	

HIGHWAY	/ SA	FET'	Y IMPROV	/EMENT	PROGRAM	(HSIP) I	PROJEC	T APPLIC	CATION					
	a Depa	artmer	nt of Transpo			(,								
			•	•	Curve Ward Count Dana Larser	у	ard 6 fr	om Sta	te Route 2		eville 6 ND DOT District: ephone Number:		0	
Please attach	a locat	tion m			dana.larsen nal sheets to furt			nt .						
			(Corridor			ner describe	your projec	Ji.						
	: 218 : Rural	eville 6 ne I Pave	i		Show Show Ler	Lane Width: Speed Limit: ulder Width: oulder Type: ogth (miles): ole Installed:	Low 0' None 7.1				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dri Improvements to Ad Enhancing Emergen Improve Intersection	Safety Restraints or Driver Safety ving dress Lane Depa cy Medical Capal	for all Occupant	
				& System	ic Ranking R									
North Dakota (Curve ID	Crashe K	es, 200 A	08 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
006G	0	0	1120	218	Yes	Yes	***	No	Yes	Chevron	Inside/Outside	Inside/Outside	-	-
006H 006I	0	0	870 1050	218 218	No No	No No	* *	YES YES	-	-	-	-	-	-
006J	0	0	1200	218	No	No	*	YES	-	-	-	-	-	-
006K	0	0	2700	218	Yes	No	*	No	-	-	-	-	-	-
006L 006M	0	0	1500 1350	218 218	Yes No	No No	*	YES YES	-	-	-	-	-	-
006N	0	0	140	218	No	No		YES	-	-	-	-	-	-
0060	0	0	700	218	No	Yes	**	YES	-	-	-	-	-	-
006P 006Q	0 0	0 0	1250 1000	218 218	No Yes	N o No	**	YES YES	-	-	-	-	-	-
*Curve numbe Ranking Ci	_		secutive, as so	•	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are se - 3 or more ★ - x in Proximit	elected for projects s ty or Existing Ch					
Describe P	ropo	sed S	Safety Impro	ovements										
			Advand	ce Warning S	Sign/Speed Advi: Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 1 0 0 2 miles .0 miles	Total cost \$3,300 \$0 \$0 \$455 \$0 \$3,755	-		
Project Co:	st Es	timat	e (attach de	etailed cop	oy)					Proposed Y	ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$376							
NDDOT Ce	ntral	Offic	e Onlv											
Project Accept			Yes	No		Reference	Number				ID Number			
Notes														
													Page: Segment ID: Date:	

пспму	V Q A	CET	V IMPPO	/EMENT	PROGRAM	(HSID)	DDO IE	T ADDI I	CATION					
	a Depa	artmer	nt of Transpo			(H3IF)	FROJEC	JI AFFLIC	SATION					
			Cont Email	act Name: Address:	Ward Count Dana Larser dana.larsen	y า @wardnd	.com		S Hwy 52		vy 83 ND DOT District ephone Number)	
			ap(s). You ma (Corridor		nal sheets to furt	her describe	your proje	ct.						
Star End Facility Type	t: US I d: US I e: 2-Lai f: 174 e: Rura	Hwy 52 Hwy 83 ne I Paved	2	Contamin	Short Short Ler	Lane Width: Speed Limit: ulder Width: bulder Type: ngth (miles): ble Installed:	High 2' Paved 12.9				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving Idress Lane Depar ncy Medical Capab	for all Occupant	
Describe (& System	ic Ranking R		Vears							
Curve ID	K	Α	Radius (ft)	ADT	Intersection on Curve	Visual Trap	Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
008A 008B 008C 008D 008E	0 0 0 0	0 0 0 0	670 500 1000 250 1900	174 174 174 174 174	Yes Yes Yes Yes No	No No No Yes No	** ** **	No YES YES YES YES	Yes Yes Yes Yes Yes	Chevron	- - - -	Inside/Outside Inside/Outside Inside/Outside Inside/Outside Inside/Outside	0 0 0 0	40 40 50 Inspect Curve
Ranking C	riteria	1		Inters	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are se - 3 or more ★ - x in Proximit	elected for projers ty or Existing Ch					
Describe F	Propo	sed S	Safety Impr	ovements										
			Advan	ce Warning S	Sign/Speed Advi Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 1 0 1 .8 miles .0 miles	Total cost \$3,300 \$0 \$800 \$2,273 \$0 \$6,373	-		
Project Co	st Es	timat	e (attach d	etailed co _l	by)					Proposed Yo	ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$637	-						
NDDOT Ce		Offic		_										
Project Accep Notes	oted?		Yes	No		Reference	Number				ID Number			
													Page: Segment ID: Date:	

HIGHWA	ΥSΔ	FFT	Y IMPRO	/FMFNT	PROGRAM	(HSIP)	PROJEC	T APPLIC	CATION					
	a Dep	artme	nt of Transpo			(I.IOII)	TROOLS	71 Al I Els	JAHON					
			Cont	act Name:	Curv Ward Count Dana Larser dana.larser	y 1		from St	ate Route		rd 14 ND DOT District ephone Number)	
					nal sheets to furt	her describe	e your projec	ot.						
Location I	Descr	iption	(Corridor	Containin	g Curves)						SHSP Emphas	sis Area (check all	that apply)	
End Facility Type	T: 328 e: Rura	d 14 ne al Pave			Show Show Len	Lane Width: Speed Limit: ulder Width: oulder Type: ngth (miles): ble Installed:	High 2' Paved 14.9				Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dri Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints or Driver Safety ving dress Lane Depa cy Medical Capal	rture Crashes	
				& System	ic Ranking R	eview								
North Dakota Curve ID	ı Crash K	es, 200 A	08 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
009A	0	0	840	328	Yes	Yes	****	YES	Yes	-	-	Inside/Outside	0	45
009B 009C	0	0	850 1100	328 328	Yes No	Yes No	****	YES YES	Yes Yes	-	-	Inside/Outside Inside/Outside	0 0	45
009D	0	0	1200	328	Yes	Yes	****	YES	Yes	-	-	Inside/Outside	-	-
009E	0	0	1400	328	No	No	*	YES	-	-	-	-	-	-
009F 009G	0	0	1060 1120	328 328	No No	No No	** **	YES YES	-	-	-	-	-	-
Ranking C	Criteri	a	secutive, as so	Inters	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are se - 3 or more ★ - x in Proximit	elected for projects support Existing Ch					
Describe i	ΤΟΡΟ	iseu c	salety IIIIpi	<u>Overnents</u>										
			Advan	ce Warning (Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 0 0 0 0 .6 miles .0 miles	Total cost \$0 \$0 \$0 \$1,818 \$0 \$1,818	-		
Project Co	st Es	timat	te (attach d	etailed co _l	oy)					Proposed Y	ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$182							
NDDOT C		Offic		_										
Project Acce Notes	pted?		Yes	No		Reference	e Number				ID Number			
													Page: Segment ID: Date:	

North Dakota	Depa	artmer			PROGRAM gramming	(HSIP) I	PROJEC	CT APPLIC	ATION					
SFN 59959 (06			Agen Conta	cy Name:	Cı Ward Count Dana Larser	y 1		l 10 from	Ward 9 t	-	St ND DOT District: ephone Number:		0	
Please attach	a locat	ion ma			dana.larsen nal sheets to furt	_		ot.						
Location D											0.105 5			
	263 Rural	nly St ne Paved	d		Show Show Len	Lane Width: Speed Limit: ulder Width: ulder Type: ugth (miles): le Installed:	High 4' Paved 10.7				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dri Improvements to Ad Enhancing Emergen Improve Intersection	Safety Restraints or Driver Safety ving dress Lane Depa cy Medical Capal	for all Occupant	
				& System	ic Ranking R									
North Dakota (Curve ID	Crashe K	es, 200 A	8 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
010A	0	0	380	263	No	Yes	**	No	0	-	-	-	-	-
010B 010C	0	0 0	900 1000	263 263	No No	No No	** **	No No	-	-	-	-	-	-
010D	0	0	950	263	No	No	**	No	-	-	-	-	-	-
010E	0	0	1200	263	No	No	**	No	-	-	-	-	-	-
010F 010G	0	0 0	730 750	263 263	No Yes	No Yes	**	No YES	- Yes	-	-	Inside/Outside	0	45
010G	0	0	1100	263	No	Yes	***	YES	Yes	-	-	Inside/Outside	0	-
0101	0	0	570	263	Yes	No	***	YES	Yes	-	-	Inside/Outside	0	40
010J 010K	0	0	690 1600	263 263	No No	No No	** *	YES No	-	-	-	-	-	-
*Curve numbe Ranking Cr	_		ecutive, as so	•	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are seld - 3 or more ★s - x in Proximity	ected for project	if: vron column				
Describe P	ropo	sed S	afety Impro	ovements										
			_		Arrow Sign/Speed Advis Shoulder R Shou	Description Chevrons Board Only sory Plaque umble Strip	Proactive Proactive Proactive		er curve er curve er mile er mile	Quantity 0 0 0 .5 miles .0 miles	Total cost \$0 \$0 \$0 \$1,364 \$0 \$1,364	-		
Project Cos	st Es	timate	e (attach de	tailed cop	oy)					Proposed Y	ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) pject Cost	\$136							
NDDOT Cei		Offic		1		D-f	. Nicona'				IID Alcordo			
Project Accept Notes	ed?		Yes	No No		Reference	e Number				ID Number			
													Page: Segment ID: Date:	

HIGHWAY	/ SA	FET	/ IMPRO\	/EMENT	PROGRAM	(HSIP)	PROJEC	CT APPLI	CATION					
North Dakota SFN 59959 (00	Depa	artmer												
			Conta	act Name:	Cur Ward County Dana Larser dana.larser(y 1		10 from	Granly S		wy 2 ND DOT District: ephone Number:)	
			p(s). You may	y use addition	nal sheets to furt	_		ct.						
Location D	escri	ption	(Corridor (Containing	g Curves)					T T	SHSP Emphas	sis Area (check all	that apply)	
	: 671 : Rural	Hwy 2 ne Pave	i		Shou Shou Len	Lane Width: Speed Limit: ulder Width: oulder Type: igth (miles): le Installed:	High 2' Paved 7.6				Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dri Improvements to Ad Enhancing Emerger Improve Intersection	aired Driving Safety Restraints or Driver Safety ving dress Lane Depa cy Medical Capal	for all Occupants	
				& System	ic Ranking R	eview								
North Dakota (Curve ID	Crashe K	es, 200 A	8 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
010L	0	0	600	671	No	No	*	YES	Yes	-	-	Inside/Outside	0	40
010M 010N	0	0	550 1500	671 671	Yes No	Yes No	***	YES YES	Yes Yes	-	-	Inside/Outside Inside/Outside	0	40
0100	0	0	1800	671	No	No		No	Yes	Chevron	-	Inside/Outside	-	-
010P	0 1	1 0	1700	671 671	No	No	* **	YES	Yes	Chauran	-	Inside/Outside Inside/Outside	-	-
010Q 010R	0	0	3400 2400	671 671	Yes No	No No	**	No No	Yes Yes	Chevron Chevron	-	Inside/Outside	-	-
010S	0	0	3000	671	Yes	No	*	No	Yes	Chevron	-	Inside/Outside	-	-
010T 010U	0	0	1300 1450	671 671	No Yes	No No	*	YES YES	Yes Yes	-	-	Inside/Outside Inside/Outside	-	-
*Curve numbe <i>Ranking Cr</i>			ecutive, as so	(Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are s - 3 or more - x in Proxim	selected for proje ★s ity or Existing Ch					
Describe P	ropo	sed S	afety Impro	ovements										
			- Advan	ce Warning S	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800 \$3,000	per curve per curve per curve per mile per mile	Quantity 4 0 0 1.5 miles .0 miles	Total cost \$13,200 \$0 \$0 \$4,545 \$0 \$17,745	-		
Project Cos	st Es	timat	e (attach de	etailed cop	oy)					Proposed Y	ear of Construct	ion		
				Local Matcl	n (10% of Total p	deral Funds project cost) oject Cost	\$1,775							
NDDOT Ce	ntral	Offic	e Only											
Project Accept Notes	ted?		Yes	No		Reference	e Number				ID Number			
													Page: Segment ID: Date:	

					PROGRAM	I (HSIP)	PROJEC	T APPLI	CATION					
North Dakota SFN 59959 (0			nt of Transp	ortation Prog										
			Con	tact Name:	Cur Ward Count Dana Larser dana.larser	ry n		10 from	Ward 15		y 83 ND DOT District ephone Number		D	
				ay use additio	nal sheets to furt	ther describe	your proje	ct.						
Start End Facility Type	: Ward : US F : 2-Lar : 457 : Rural	d 15 Hwy 83 ne Paved		Containing	Sho Sho Ler	Lane Width: Speed Limit: ulder Width: bulder Type: ngth (miles): ble Installed:	High 8' Paved 4.8				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ac Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving Idress Lane Depar ncy Medical Capab	for all Occupant	
Describe C				s & System	ic Ranking R		years							
Curve ID	K	Α	Radius (ft)		Intersection on Curve	Visual Trap	Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
010V 010W 010X	0 0 0	0 0 0	820 850 320	457 457 457	No No No	Yes No No	*** ** *	YES YES YES	Yes Yes Yes	- - -	- - -	Inside/Outside Inside/Outside Inside/Outside	0 0 0	45 45 35
Ranking C	riteria	ı			Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are s - 3 or more ≠ - x in Proxim	elected for proje					
Describe P	торо	seu s	агету іпір	rovements						2 44				
			Adva	nce Warning S	Sign/Speed Advi Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800 \$3,000	per curve per curve per curve per mile per mile	Quantity 0 0 0 0 .5 miles	Total cost \$0 \$0 \$0 \$1,364 \$0 \$1,364	_		
Project Co	st Es	timate	e (attach d	detailed cop	by)					Proposed Yo	ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$136							
NDDOT Ce		Office												
Project Accep Notes	ited?		Yes	□ No		Reference	e Number				ID Number	<u> </u>		
													Page: Segment ID: Date:	

012C 0 0 70 1204 Yes Yes ** No Yes Chevron - Inside/Outside x Inspect Curve	•							n Ward	i 12 from	55th St	to US Hwy				
Personal Address: data larsen@wardnot.com Personal Research resigned Year very see additional steets in butter describe year project. Indeed Section				-	-		-								
Court Cour											Tele	ephone Number	: 701-838-2810)	
Series S	Please attach	a locatio	on map(s						ct.						
Static - 56th St.) pj							
End US Hely 2 Speed Limits High Speed Limits High Speed Limits Speed Limi	Start	- 55th S	St				ane Width:	12'						that apply)	
Rask Type Rival Paved County Road Word 12 Remainle Installed: No Remainle In	End	: US Hv	vy 2			S	Speed Limit:	High				Increase the Use of	Safety Restraints	for all Occupant	s
Courty Road Ward 12 Furnishe Installed. No Enhancing Emergency Media Capabilises to Increase Survivability Improve Intersection Safety Sesses & Systemic Ranking Review Systemic Ranking Revie			•												
Describe Current Safety Issues & Systemic Ranking Review Systemic Project Systemic Ranking Review Systemic Ranking	Road Type	: Rural F				Len	igth (miles):	4.1				Improvements to Ac	ldress Lane Depar		
Describe Current Safety Issues & Systemic Ranking Review Systemic Project Systemic Ranking Review Systemic Ranking	County Road	: Ward 1	12			Rumb	le Installed:	No						oilities to Increas	e Survivability
Symmatric Symm	D 11 0	N	0-6-6		0.0	'- D/-						•			
Curve numbering rot consecutive, as some curves may have been removed from further analysis because a large radius, located on a gravel road, etc Curve numbering rot consecutive, as some curves may have been removed from further analysis because a large radius, located on a gravel road, etc Ranking Criteria					& System	ic Ranking R		years							
Intersection Visual Trap Ramb ADT on Curve Trap Rambing Project Project Project Project Visual Trap Vi											Sign		Chauldar		
Curve numbering not consecutive, as some curves may have been removed from further analysis because a large radius, located on a gravel road, etc. Ranking Criteria Curve Chevron						Intersection		Risk	Oil County	Project		Shoulder Paving			
Curve numbering not consecutive, as some curves may have been removed from further analysis because a large radius, located on a gravel road, etc **Ranking Criteria Curves are selected for project it: Severe Cashes												Project -			
Criteria Severe Crashes O								~ ~				-			
Criteria Severe Crashes O	I														
Describle Proposed Safety Improvements Description Type Unit Cost Quantity Total cost			consecu	utive, as so	me curves n	nay nave been re	emovea from	i turtner and				1 1 1			
Describle Proposed Safety Improvements						Severe Crashes Radius	> 0 500 to 1200		Curves are se - 3 or more ★s - x in Proximity	lected for projes	ect if:				
Description Type Unit Cost Quantity Total cost						Severe Crashes Radius ADT	> 0 500 to 1200 250 to 650		Curves are se - 3 or more ★s - x in Proximity	lected for projes	ect if:				
Advance Warning Sign/Speed Advisory Plaque Proactive Stop per curve \$3,300 per curve \$500 per curve \$1,600 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$			_			Severe Crashes Radius ADT ection on Curve	> 0 500 to 1200 250 to 650 Yes		Curves are se - 3 or more ★s - x in Proximity	lected for projes	ect if:				
Advance Warning Sign/Speed Advisory Plaque Proactive \$500 per curve 2 \$1,600 Shoulder Rumble Strip Proactive \$30,000 per mile 3 miles \$909 Shoulder Paving Proactive \$37,000 per mile 0.0 miles \$0.0 miles \$9,109 Project Cost Estimate (attach detailed copy) Federal Funds \$8,198 Local Match (10% of Total project cost) \$911 Total Project Cost \$9,109 NDDOT Central Office Only Project Accepted?	Describe P	Propose	ed Saf	ety Impro	Inters	Severe Crashes Radius ADT ection on Curve Visual Trap	> 0 500 to 1200 250 to 650 Yes		Curves are se - 3 or more ★s - x in Proximity	lected for projes of or Existing Cl	ect if:				
Advance Warning Sign/Speed Advisory Plaque Proactive Shoulder Rumble Strip Proactive Shoulder Paving Paving	Describe P	Propose	ed Saf	ety Impro	Inters	Severe Crashes Radius ADT ection on Curve Visual Trap	> 0 500 to 1200 250 to 650 Yes Yes	_	Curves are se - 3 or more *s - x in Proximity - x in High Pric	lected for projes of or Existing Cl	ect if: hevron column • Critical Radius c	olumn			
Shoulder Paving Proactive \$37,000 per mile 0.0 miles \$0 \$9,109 Project Cost Estimate (attach detailed copy) Federal Funds \$8,198 Local Match (10% of Total project cost) \$911 Total Project Cost \$9,109 NDDOT Central Office Only Project Accepted?	Describe P	Propose	ed Saf	ety Impro	Inters	Severe Crashes Radius ADT ection on Curve Visual Trap	> 0 500 to 1200 250 to 650 Yes Yes Description	Type Proactive	Curves are see - 3 or more *s - x in Proximity - x in High Pric	ected for project or Existing Clarity Segment	ect if: hevron column + Critical Radius co	Total cost \$6,600	_		
Segment ID: 12.03	Describe F	Propose	ed Saf	-	Inters	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis	> 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque	Type Proactive Proactive Proactive	Curves are set - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 p \$500 p \$800 p	elected for projection of Existing Clarity Segment -	ect if: hevron column + Critical Radius or Quantity 2 0 2	Total cost \$6,600 \$0 \$1,600	_		
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HIGHWAY : North Dakota E					PROGRAM gramming	I (HSIP) I	PROJEC	CT APPLIC	CATION					
SFN 59959 (06-2			Age Cont	ncy Name:		y n		n US H	wy 83 to 1		of 13th St ND DOT District ephone Number		0	
			(s). You ma	y use additio	nal sheets to furt			ct.						
Location Des	scrip	tion (Corridor	Containing	g Curves)					T	SHSP Emphas	sis Area (check al	I that apply)	
Start: 1 End: 1 Facility Type: 2 ADT: 5 Road Type: F County Road: V	I mile 6 2-Lane 548 Rural F	east of	f 13th St		Show Show Show Len	Lane Width: Speed Limit: ulder Width: bulder Type: ngth (miles): ble Installed:	High 2' Composite 2.1				Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ad Enhancing Emerger Improve Intersection	paired Driving Safety Restraints er Driver Safety iving Idress Lane Depa ncy Medical Capal	for all Occupant	
Describe Cu	rrent	Safe	ty Issues	& System	ic Ranking R	Review								
	K		Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
014F 014G 014H 014I	0 0 0	1 0 0 0	180 300 1400 1200	548 548 548 548	No No No No	Yes No No No	*** * *	YES YES No No	Yes Yes Yes Yes	- - Chevron Chevron	: :	Inside/Outside Inside/Outside Inside/Outside Inside/Outside	0 0 - -	Inspect Curve 35 -
*Curve numberir Ranking Crit	-	conse	cutive, as s		Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are s - 3 or more ★ - x in Proximi	elected for proje rs ty or Existing Ch					
Describe Pro	nnec	nd S2	foty Imp	ovomonte										
<u> Describe i la</u>	<i>,</i>	<u>, u oa</u>			Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive Proactive	\$500 \$800 \$3,000	per curve per curve per mile per mile	Quantity 2 0 0 8 miles .0 miles	Total cost \$6,600 \$0 \$0 \$2,273 \$0 \$8,873	-		
Project Cost	Estir	nate	(attach d	etailed cop	oy)					Proposed Y	ear of Construct	ion		
		-		Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$887							
NDDOT Cent										•				
Project Accepted Notes	d?		Yes	No		Reference	e Number				ID Number			
													Page: Segment ID: Date:	

HIGHWAY S	SAFF	TV I	MPRO\	/FMFNT	PROGRAM	(HSIP)	PROJEC	T APPLI	CATION					
North Dakota Do SFN 59959 (06-2	epartm					i (i ioii) i	I KOJE) All Li	OATION					
			Conta Email	act Name: Address:	Ward Count Dana Larser dana.larsen	y n @wardnd	.com		/ard 14A t		Ve Ave ND DOT District ephone Number		0	
Please attach a lo						ther describe	your proje	ct.						
Start: W End: 7 Facility Type: 2- ADT: 40 Road Type: Ri County Road: W	Vard 14 '2nd AV -Lane 08 ural Pa	A e Ave			Sho Sho Ler	Lane Width: Speed Limit: ulder Width: bulder Type: ngth (miles): ble Installed:	Low 2' Paved 2.2				SHSP Empha Reduce Alcohol Imp Increase the Use of Younger Driver/Old Curb Aggressive Dr Improvements to Ad Enhancing Emergei Improve Intersection	Safety Restraints er Driver Safety riving ddress Lane Depa ncy Medical Capa	for all Occupant	
Describe Curi				& System	ic Ranking R									
North Dakota Cra Curve ID I	ishes, 2 K A		2012 adius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
	0 0 0 0		150 480	408 408	Yes Yes	No No	**	No No	- Yes	Chevron	<u>.</u>	Inside/Outside	- X	35
	0 0		920	408	No	No	**	YES	-	-	-	-	- -	-
	0 0		550 600	408 408	No No	No No	** **	YES YES	-	-	-	-	-	-
*Curve numbering Ranking Crite	eria	_		Inters	Severe Crashes Radius	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are s - 3 or more v - x in Proxim	selected for proje ♦s ity or Existing Ch	ct if:				
			-			Description		Unit Cost		Quantity	Total cost	_		
			Advan	ce Warning S	Sign/Speed Advi Shoulder R	Board Only	Proactive Proactive	\$500 \$800 \$3,000	per curve per curve per curve per mile per mile	1 0 1 .2 miles .0 miles	\$3,300 \$0 \$800 \$455 <u>\$0</u> \$4,555	_		
Project Cost I	Estim	ate (a	attach de	etailed cop	oy)					Proposed Y	ear of Construct	tion		
		_		Local Matc	h (10% of Total p	deral Funds project cost) oject Cost	\$455							
NDDOT Centr										•		_		
Project Accepted Notes	?	<u> </u>	Yes	No		Reference	e Number				ID Number			
													Page: Segment ID: Date:	

Co	ency Name										
Co Em Please attach a location map(s). You	•	Curves o									
Please attach a location map(s). You		: Ward County : Dana Larsen : dana.larsen	y 1		m Ward	10 to 1 m		of 86th St ND DOT District ephone Number)	
Location Description (Corrid	may use addition	onal sheets to furti			ct.						
	or Containin	g Curves)					T	SHSD Empha	sis Area (check al	that apply)	
Start: Ward 10 End: 1 mile South of 86th S Facility Type: 2-Lane ADT: 520 Road Type: Rural Paved County Road: Ward 15	t	S Shou Sho Len	Lane Width: Speed Limit: ulder Width: oulder Type: ogth (miles): le Installed:	High 2' Paved 2.2				Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ac Enhancing Emerger Improve Intersection	paired Driving Safety Restraints er Driver Safety iving Idress Lane Depa ncy Medical Capal	for all Occupant	
Describe Current Safety Issu	es & Systen	nic Ranking R	eview								
North Dakota Crashes, 2008 - 2012		Intersection	Visual	years	Oil County	Project	Sign Improvement	Shoulder Paving	Shoulder Rumble Strip	Advance Horizontal Alignment	Advisory
Curve ID K A Radius (015A 0 0 3400	t) ADT 520	on Curve No	Trap No	Ranking ★	Project No	Suggested Yes	Project Chevron	Project -	Project Inside/Outside	Warning Sign	Speed Plaque -
015B 0 0 2300	520	No	No	*	No	-	-	-	-	-	-
015C 0 0 2300 015D 0 0 3000	520 520	No No	No No	* *	No No	-	-	-	-	-	-
015D 0 0 3000 015E 0 0 1650	520	No No	No	*	YES	Yes	-	-	Inside/Outside		-
015F 0 0 800	520	Yes	Yes	****	YES	Yes	-	-	Inside/Outside	0	45
015G 0 0 900	520	Yes	Yes	****	YES	Yes	-	-	Inside/Outside	0	50
*Curve numbering not consecutive, a Ranking Criteria		Severe Crashes	emoved from Criteria > 0 500 to 1200		Curves are se - 3 or more ★ - x in Proximit	elected for proje s y or Existing Ch	ct if:				
Describe Drawers of Cafety In		section on Curve Visual Trap	250 to 650 Yes Yes		- x in High Pri	ority Segment +	Critical Radius o	column			
Describe Proposed Safety Im	provements)									
Ad	rance Warning	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive	\$500		Quantity 1 0 0 .6 miles .0 miles	Total cost \$3,300 \$0 \$0 \$1,818 \$0	_		
Project Cost Estimate (attach	detailed co	(va					Proposed Y	\$5,118 Tear of Construct	tion		
	Local Mate	ch (10% of Total p		\$512							
		I otal Pro	oject Cost	\$5,118							
NDDOT Central Office Only											
Project Accepted?	No		Reference	e Number				ID Number			
										Page: Segment ID: Date:	

Course Septemble Course	LUCLINAVAN	/ C A		/ IMPDO	/ENACNIT	DDOODAM	(HOID)	DDO 150	T ADDI I	CATION					
Contact Name: Dana Laran Contact Name: Dana	North Dakota	a Depa	artmer				i (HSIP) i	PROJEC	JI APPLIC	CATION					
Page						Cu	rves or	n Ward	17 from	Ward 14		•			
Page at size of the control marginal functions are addressed as an alternative describe per protect.				_	-		-								
Place Description Cornistor Co								com			iei	epnone Number	: 701-838-281	,	
Sign Ward 14 Sign Sign Ward 17 Sign S	Please attach	a loca	tion ma				_		ot.						
State Wast 14	Location D	escri	ption	(Corridor	Containing	g Curves)					T	SUSD Empha	nio Aron (ohook al	that apply)	
Facility Type: 24 arms						ı	Lane Width:	12'						патарріу)	
A017: 315	-		,											for all Occupant	S
Courte Courter Safety Sesses & Systemic Ranking Review Systemic Castres, 2008 - 2012	ADT	: 315				Sho	oulder Type:	Paved				Curb Aggressive Dr	iving		
Describe Current Safety Issues & Systemic Ranking Review				d			• , ,								e Survivability
North Dakola Cristhes, 2008 - 2012 5 years															,
North Dakola Cristhes, 2008 - 2012 5 years	Describe C	urrer	nt Saf	etv Issues	& System	ic Ranking R	eview								
Curve ID K A Radius (ft) ADT Intersection Visual Risk Coli County Project Signature Shoulder Pawing Shoulder Pawing Paw	North Dakota	Crashe	es, 200	08 - 2012	-	J		years							
Curve numbering not consecutive. as some curves may have been removed from further analysis because a large radius, located on a gravel road. etc.											Sign		Shoulder		
017A	Curvo ID	V	٨	Podius (ft)	ADT				,			•		-	
017C						_					-				-
Order Orde											-	-	-	-	-
017F	017D	0	0	200	315	Yes	Yes	***	YES		-	-			
017G 0 0 600 315 No No ★★ No											Chevron				
Curve numbering not consecutive, as some curves may have been removed from further analysis because a large radius, located on a gravel road, etc Ranking Criteria						No					-	-	-		
Criteria Severe Crashes Severe Cra										-	-	-	-		-
Describle Proposed Safety Improvements				secutive, as so	Ş	Severe Crashes Radius ADT ection on Curve	Criteria > 0 500 to 1200 250 to 650 Yes	n further and	Curves are se - 3 or more ★ - x in Proximit	elected for projects ty or Existing Ch	ct if:				
Description Type Unit Cost Quantity Total cost						Visuai Trap	Yes								
Chevrons Proactive \$3,300 per curve 1 \$3,300	Describe P	Propo.	sed S	Safety Impr	ovements										
Advance Warning Sign/Speed Advisory Plaque Proactive \$500 per curve 1										per curve			_		
Shoulder Rumble Strip Shoulder Paving Proactive Shoulder Paving Proactive Shoulder Paving Proactive Shoulder Paving Proactive Shoulder Paving Proactive Shoulder Paving Proactive Shoulder Paving Shoulder							Board Only	Proactive	\$500	per curve	0	\$0			
Shoulder Paving Proactive \$37,000 per mile 0.0 miles \$0 \$5,464 Project Cost Estimate (attach detailed copy) Federal Funds \$4,917 Local Match (10% of Total project cost) \$546 Total Project Cost \$5,464 NDDOT Central Office Only Project Accepted?				Advan	ce Warning S										
Project Cost Estimate (attach detailed copy) Federal Funds \$4,917 Local Match (10% of Total project cost) \$546 Total Project Cost \$5,464 NDDOT Central Office Only Project Accepted?				,								\$0	_		
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NDDOT Central Office Only Project Accepted?					Local Matcl										
Project Accepted?						Total Pro	oject Cost	\$5,464							
Project Accepted?	NDDOT Ce	ntral	Offic	e Onlv											
Page: 15 Segment ID: 17.01	Project Accep				No		Reference	Number				ID Number			
Segment ID: 17.01	Notes														
														Segment ID:	17.01

HIGHWAY	SA	FET	/ IMPRO\	/EMENT	PROGRAM	(HSIP)	PROJEC	CT APPLIC	CATION					
North Dakota SFN 59959 (06	Depa	ırtmer				(
			Conta Email	act Name: Address:	Ward County Dana Larsen dana.larsen(y n @wardnd	.com		US Hwy		I 15 ND DOT District ephone Number)	
Location De					nal sheets to furti Curves)	her describe	your proje	ct.						
Start: End: Facility Type: ADT: Road Type: County Road:	US F Ward 2-Lan 1575 Rural	lwy 2 d 15 le Paved			L S Shou Sho Len	ane Width: speed Limit: ulder Width: ulder Type: gth (miles): le Installed:	High 4' Paved 1.3				SHSP Emphas Reduce Alcohol Imp Increase the Use of Younger Driver/Olde Curb Aggressive Dr Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving Idress Lane Depar ncy Medical Capab	for all Occupant	
				& System	ic Ranking R									
North Dakota C Curve ID	crashe K	s, 200 A	8 - 2012 Radius (ft)	ADT	Intersection on Curve	5 Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
017J 017K 017L 017M 017N 017O	0 0 0 0 0	0 0 0 0 0	800 550 800 450 420 380	1575 1575 1575 1575 1575 1575	No No No No Yes Yes	No No No No No	* * *	YES YES YES YES YES YES YES	Yes Yes Yes Yes Yes Yes	- - - - -	- - - - -	Inside/Outside Inside/Outside Inside/Outside Inside/Outside Inside/Outside Inside/Outside	0 0 0 0 0	45 40 45 35 35 35
*Curve number Ranking Cri	_		ecutive, as so	ome curves n	nay have been re	emoved from	n further and	alysis because	e a large radius,	located on a grav	vel road, etc			
					Severe Crashes Radius	> 0 500 to 1200 250 to 650 Yes Yes		- 3 or more ★ - x in Proximit	ty or Existing Ch		olumn			
Describe Pr	ороз	sed S	afety Impr	ovements										
			- Advan	ce Warning S	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 0 0 0 0 9 miles	Total cost \$0 \$0 \$0 \$0 \$2,727 \$0	-		
Project Cos	t Est	imate	e (attach de	etailed co	by)					Proposed Y	\$2,727 ear of Construct	ion		
				Local Matc	h (10% of Total p	deral Funds project cost) Dject Cost	\$273							
NDDOT Cert Project Accepte		Office	Only	□No	1	Reference	Number	I			ID Number	1		
Notes	au r		<u> </u>	∟ NO		Relefence	5 INUITIDEL	l			inumbel			
													Page: Segment ID: Date:	

North Dakota SFN 59959 (06			nt of Transpo	ortation Pro										
Places attach	a locat	ion ma	Cont Emai	act Name: I Address:	Ward County Dana Larser dana.larsen	y n @wardnd	.com		ate Route		Hwy 53 ND DOT District ephone Number		0	
Location De					nal sheets to furt	ner describe	your projec	UL.						
	US F 2-Lan 362 Rural	Paved	3		Shou Shou Len	ane Width: Speed Limit: ulder Width: bulder Type: gth (miles): le Installed:	High 2' Paved 7.7				SHSP Empha Reduce Alcohol Imp Increase the Use of Younger Driver/Old Curb Aggressive Dr Improvements to Ad Enhancing Emerger Improve Intersection	Safety Restraints er Driver Safety iving ddress Lane Depa ncy Medical Capal	for all Occupant	
				& System	ic Ranking R									
North Dakota C	K	Α	Radius (ft)	ADT	Intersection on Curve	Visual Trap	years Risk Ranking	Oil County Project	Project Suggested	Sign Improvement Project	Shoulder Paving Project	Shoulder Rumble Strip Project	Advance Horizontal Alignment Warning Sign	Advisory Speed Plaque
023C 023D	0 0	0 0	3000 3200	362 362	No No	No No	* *	No No	-	-	-	-	-	-
023E	0	0	2500	362	Yes	No	**	No	-	-	-	-	-	-
023F 023G	0	0	1600 1300	362 362	No No	No Yes	* **	No YES	-	-	-	-	-	-
023H	0	0	420	362	Yes	No	**	No	Yes	Chevron	-	Inside/Outside	Х	35
Ranking Cr	iteria	ı		Inters	Severe Crashes Radius ADT section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes Yes		Curves are s - 3 or more ★ - x in Proximi	elected for projers ty or Existing Ch					
Describe Pi	ropos	sed S	Safety Impr	<u>rovements</u>										
			Advar	nce Warning	Arrow Sign/Speed Advis Shoulder R	Board Only	Proactive Proactive Proactive	\$500 \$800	per curve per curve per curve per mile per mile	Quantity 1 0 1 .2 miles .0 miles	Total cost \$3,300 \$0 \$800 \$455 \$0 \$4,555	-		
Project Cos	st Est	timate	e (attach d	etailed co	py)					Proposed Y	ear of Construct	tion		
				Local Mato	h (10% of Total p	deral Funds project cost) pject Cost	\$455							
NDDOT Cer Project Accept		Offic	e Only	No		Reference	Number				ID Number			
Notes	ou r		I □ TeS	INO		Keieleilü	Number	1			in indiling!	1		
													Page: Segment ID: Date:	

					Curves o	n No d	esigna	tion from	State R	oute 22 to	Ward 22			
			_	•	Ward Count	-					ND DOT District			
					Dana Larser dana.larsen		.com			1 616	ephone Number	: 701-838-2810)	
			p(s). You ma	y use additio	nal sheets to furt	_		ct.						
Location De	scrip	tion	(Corridor	Containin	g Curves)					T	SHSP Emphas	sis Area (check all	that apply)	
Start:			22			Lane Width:					Reduce Alcohol Imp	paired Driving	,	_
Facility Type:						Speed Limit: ulder Width:					Increase the Use of Younger Driver/Olde	er Driver Safety	for all Occupants	5
ADT: Road Type:		Paved	I			oulder Type: ngth (miles):					Curb Aggressive Dr Improvements to Ad		ture Crashes	
County Road:						ole Installed:					Enhancing Emerger	ncy Medical Capab		e Survivability
											Improve Intersection	1 Salety		
Describe Cu North Dakota C				& System	ic Ranking R		years							
		,					,			Cian		Shoulder	Advance Horizontal	
					Intersection	Visual	Risk	Oil County	Project	Sign Improvement	Shoulder Paving	Rumble Strip	Alignment	Advisory
Curve ID 501A	0 0	A 0	Radius (ft) 860	ADT 85	on Curve Yes	Trap No	Ranking ★★	Project YES	Suggested Yes	Project -	Project -	Project Inside/Outside	Warning Sign x	Speed Plaque 45
501B	0	0	760	85	Yes	Yes	***	YES	Yes	-	-	Inside/Outside	0	45
*Curve numberi Ranking Cri		cons	ecutive, as so	ome curves n	may have been re	emoved from	n further an			located on a grav	el road, etc			
		cons	ecutive, as so			emoved from Criteria > 0	n further and	Curves are se	lected for proje		el road, etc			
		cons	ecutive, as so		Severe Crashes Radius	Criteria > 0 500 to 1200		Curves are se - 3 or more ★s - x in Proximity	lected for projes s y or Existing Cl	ect if:				
		cons	ecutive, as so		Severe Crashes Radius ADT section on Curve	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are se - 3 or more ★s - x in Proximity	lected for projes s y or Existing Cl	ect if:				
		: cons	ecutive, as so		Severe Crashes Radius ADT	Criteria > 0 500 to 1200 250 to 650		Curves are se - 3 or more ★s - x in Proximity	lected for projes s y or Existing Cl	ect if:				
	teria			Inters	Severe Crashes Radius ADT Section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes		Curves are se - 3 or more ★s - x in Proximity	lected for projes s y or Existing Cl	ect if:				
Ranking Cri	teria			Inters	Severe Crashes Radius ADT section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description	Туре	Curves are se - 3 or more *s - x in Proximity - x in High Prio	lected for proje s y or Existing Cl prity Segment	ect if: nevron column Critical Radius of	olumn Total cost			
Ranking Cri	teria			Inters	Severe Crashes Radius ADT section on Curve Visual Trap	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description	Type Proactive	Curves are se - 3 or more *4 - x in Proximity - x in High Prio	lected for projes s y or Existing Cl	ect if: nevron column - Critical Radius co	olumn			
Ranking Cri	teria		afety Impr	Inters ovements	Severe Crashes Radius ADT section on Curve Visual Trap Arrow Sign/Speed Advis	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque	Type Proactive Proactive Proactive	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 p \$500 p \$800 p	lected for projets s y or Existing Cl prity Segment	ect if: nevron column Critical Radius or Quantity 0 0 1	Total cost \$0 \$0 \$80			
Ranking Cri	teria		afety Impr	Inters ovements	Severe Crashes Radius ADT section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only	Type Proactive Proactive Proactive Proactive	Curves are se - 3 or more *s - x in Proximity - x in High Prio	lected for projects sy or Existing Clority Segment -	ect if: nevron column F Critical Radius or Quantity 0 0	Total cost \$0 \$0 \$0 \$80 \$800 \$455 \$0	-		
Ranking Cri	opos	ed S	afety Impr Advan	Inters Overnents ce Warning S	Severe Crashes Radius ADT section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip	Type Proactive Proactive Proactive Proactive	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	lected for projects sy or Existing Clority Segment -	Quantity 0 0 1 2 miles 0 miles	Total cost \$0 \$0 \$0 \$800 \$4455 \$0 \$1,255			
Ranking Cri	opos	ed S	afety Impr Advan	Inters Overnents ce Warning S	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ilder Paving	Type Proactive Proactive Proactive Proactive	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	lected for projects sy or Existing Clority Segment -	Quantity 0 0 1 2 miles 0 miles	Total cost \$0 \$0 \$0 \$80 \$800 \$455 \$0	 tion		
Ranking Cri	opos	ed S	afety Impr Advan	ovements ce Warning S	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ulder Paving	Type Proactive Proactive Proactive Proactive Proactive	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	lected for projects sy or Existing Clority Segment -	Quantity 0 0 1 2 miles 0 miles	Total cost \$0 \$0 \$0 \$800 \$4455 \$0 \$1,255			
Ranking Cri	opos	ed S	afety Impr Advan	ovements ce Warning S	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ulder Paving	Type Proactive Proactive Proactive Proactive \$1,129 \$125	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles 0 miles	Total cost \$0 \$0 \$0 \$800 \$4455 \$0 \$1,255	- tion		
Project Cos	oposo	ed S	Advan	Inters ovements ce Warning s etailed cop	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ilder Paving deral Funds project Cost	Type Proactive Proactive Proactive Proactive \$11,129 \$125 \$1,255	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles .0 miles	Total cost \$0 \$0 \$800 \$455 \$0 \$1,255 ear of Construct	tion		
Project Cos NDDOT Cen Project Accepted	oposo	ed S	Advan	ovements ce Warning S	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip tumble Training deral Funds project cost)	Type Proactive Proactive Proactive Proactive \$11,129 \$125 \$1,255	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles .0 miles	Total cost \$0 \$0 \$0 \$800 \$4455 \$0 \$1,255	 tion		
Project Cos	oposo	ed S	Advan	Inters ovements ce Warning s etailed cop	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ilder Paving deral Funds project Cost	Type Proactive Proactive Proactive Proactive \$11,129 \$125 \$1,255	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles .0 miles	Total cost \$0 \$0 \$800 \$455 \$0 \$1,255 ear of Construct	tion		
Project Cos NDDOT Cen Project Accepted	oposo	ed S	Advan	Inters ovements ce Warning s etailed cop	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ilder Paving deral Funds project Cost	Type Proactive Proactive Proactive Proactive \$11,129 \$125 \$1,255	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles .0 miles	Total cost \$0 \$0 \$800 \$455 \$0 \$1,255 ear of Construct	tion		
Project Cos NDDOT Cen Project Accepted	oposo	ed S	Advan	Inters ovements ce Warning s etailed cop	Severe Crashes Radius ADT Section on Curve Visual Trap Arrow Sign/Speed Advis Shoulder R Shou	Criteria > 0 500 to 1200 250 to 650 Yes Yes Description Chevrons Board Only sory Plaque tumble Strip ilder Paving deral Funds project Cost	Type Proactive Proactive Proactive Proactive \$11,129 \$125 \$1,255	Curves are se - 3 or more *s - x in Proximity - x in High Price Unit Cost \$3,300 g \$500 g \$800 g \$3,000 g	per curve per curve per curve per curve per curve per curve per curve per curve per mile	Quantity 0 0 1 2 miles .0 miles	Total cost \$0 \$0 \$800 \$455 \$0 \$1,255 ear of Construct	tion	Page: Segment ID:	

23 USC 409 NDDOT Reserves All Objections

City of Minot

City of Minot Urban Segment Projects - Rear End/Head On

-					Risk	2-Lane to 3-Lane	Pro	oject Cost	
Corridor ID	Local Street Name	Start	End	Length	Ranking	Conv		(\$)	Notes
802.02	16th St SW	Western Ave SW	24th Ave NW	2.7	****	1.7	\$	28,917	4th Ave to 24th Ave
808.01	16th Ave	16th St SW	13th St SE	2.0	****	2.0	\$	34,000	
809.01	11th Ave SE	16th St SW	Hiawatha St SE	1.5	****	0.75	\$	12,750	Broadway St to Hiawatha St.
811.02	3rd St NE / Airport Rd	E Burdick Expy	N Broadway	1.9	****	1.0	\$	16,473	11th Ave to Hwy 83
	· · · · · · · · · · · · · · · · · · ·			8.1		5.5	\$	92,140	

Detailed Corridor Information

Ward Urban Co	unty Corridors					Volume					Gen	eral							Ped Bil	ке				Access	
Corridor Lo	aal Nama	Start	End	Road Type	City	Weighted	Length	Speed Limit	# Lanca	Lane Width	Median	Paved Shoulder	Gravel Shoulde	Curb & Gutter	Shoulder Type	Transit	Ped	Description	Sidewalk /	Description	Designated Mid	On Street Bike	Primary Land Use	Total	Access/ Mile
Corridor Lo	ai Name	Start	Ena	Road Type	City	ADT	Lengin	Speed Limit	# Lanes	Lane width	iviedian	Width	Width	Curb & Gutter	Shoulder Type	Route	Generator	Description	Bikeway	Description	Block Crossings	Lane	Primary Land Use	Total	Access/ Iville
800.01 371	h Ave SW	16th St SW	S Broadway St	Urban Minor Arterial	Minot	8,742	1.0	40	5	12	-	2	-	Yes	Paved	-	Yes	Shopping	Yes	-	-	-	Commercial	18	18.0
800.02 371	h Ave SE	S Broadway St	2nd St SE	Urban Minor Arterial	Minot	1,630	0.2	25	2	12	-	-	2	-	Gravel	-	-	-	-	-	-	-	Commercial	13	65.0
801.01 31:		16th St SW	S Broadway St	Urban Minor Arterial	Minot	6,309	1.0	35	3	12	-	2	-	Yes	Paved	-	Yes	Shopping	Yes	-	-	-	Commercial	58	58.0
801.02 31:	st Ave SE	S Broadway St	13th St SE	Urban Minor Arterial	Minot	4,175	1.0	25	2	12	-	-	1	-	Gravel	-	-	-	Yes	Bike Path	-	-	Residential	34	34.0
	h St SW	37th Ave SW	Western Ave SW	Urban Minor Arterial	Minot	14,325	2.2	40	4	12	Half	2	-	Yes	Paved	-	Yes	Shopping	Yes	-	-	-	Commercial	35	15.9
	h St SW	Western Ave SW		Urban Minor Arterial	Minot	8,394	2.7	25	4	12	Half	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	140	51.9
	ntage Rd SW	37th Ave SW	28th Ave SW	Urban Collector	Minot	740	0.7	?	2	12	-	-	2	-	Gravel	-	Yes	Food/Gas	-	-	-	-	Commercial	22	31.4
804.01 Fro		41st Ave SW	28th Ave SW	Urban Collector	Minot	845	0.8	30	2	12	-	-	2	Some	Gravel	-	-	-	-	-	-	-	Commercial	23	28.8
805.01 Elk		Sundown Dr	16th St SW	Urban Collector	Minot	2,111	1.1	25	2	12	-	-	3	-	Gravel	-	-	-	-	-	-	-	Commercial	24	21.8
	h Ave SW / Frontage Rd		S Broadway St	Urban Collector / Minor Arterial	Minot	7,725	1.5	40	4	12	Some	2	-	Yes	Paved	-	Yes	Shopping	-	-	-	-	Commercial	42	28.0
	h Ave SE / 18th Ave SE		20th Ave SE	Urban Collector / Minor Arterial	Minot	4,626	1.7	40	5	12	-	2	-	Yes	Paved	-	Yes	Shopping	Yes	-	-	-	Commercial	32	18.8
	h Ave SE	13th St SE	US 52	Urban Collector	Minot	1,000	1.4	?	2	12	-	-	3	-	Gravel	-	Yes	Shopping	-	-	-	-	Commercial	30	21.4
806.04 201		13th St SE	20th St SE	Urban Collector	Minot	390	0.5	?	2	12	-	-	2	-	Gravel	-	-	-	·	-	-	-	Commercial	15	30.0
	t Ave SE / 17th St SE	US 2	US 2	Urban Collector	Minot	480	0.9	25	2	12	-	-	2	-	Gravel	-	-	-	-	-	-	-	Commercial	16	17.8
	h Ave	16th St SW	13th St SE	Urban Collector	Minot	2,903	2.0	25	2	12	-	2	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Residential	116	58.0
	h Ave SE	16th St SW	Hiawatha St SE	Urban Collector / Minor Arterial	Minot	5,425	1.5	25	3	12	-	2	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Residential	75	50.0
810.01 6th		16th Ave SW	W Burdick Expy	Urban Collector / Minor Arterial	Minot	4,350	1.0	25	2	12	-	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	89	89.0
810.02 6th		W Burdick Expy	30th Ave NW	Urban Collector / Minor Arterial	Minot	3,894	2.6	25	2	12	-	4	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	157	60.4
	I St SE / 3rd St SE	20th Ave SE	E Burdick Expy	Urban Collector / Minor Arterial	Minot	4,053	1.6	25	2	12	-	4	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	106	66.3
	St NE / Airport Rd	E Burdick Expy	N Broadway	Urban Minor Arterial	Minot	6,681	1.9	25	2	12	-	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	76	40.0
812.01 13		31st Ave SE	Valley St	Urban Minor Arterial	Minot	5,498	1.7	30	2	12	-	-	2	-	Gravel	-	-	-	-	-	-	-	Residential	37	21.8
813.01 27		Valley St	5th Ave NE	Urban Minor Arterial	Minot	5,920	2.0	35	2	12	-	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	28	14.0
	2 Frontage Rd	16th Ave SE	55th St SE	Urban Collector	Minot	338	1.4	30	2	12	-	-	-	-	Composite	-	-	-	-	-	-	-	Commercial	24	17.1
	2 Frontage Rd	E Burdick Expy	End	Urban Collector	Minot	420	0.8	25	2	12	-	-	2	-	Gravel	-	-	-	-	-	-	-	Commercial	33	41.3
	nd St SE	US 2	E Burdick Expy	Urban Collector	Minot	3,198	0.5	25	2	12	-	-	6	-	Gravel	-	-	-	-	-	-	-	Commercial	24	48.0
	St SW	11th Ave SE	Central Ave E	Urban Collector	Minot	1,851	0.9	?	2	12	-	4	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	47	52.2
	watha St SE	11th Ave SE	Valley St	Urban Collector	Minot	2,870	0.3	25	2	12	-	4		Yes	Paved	-	-	-	-	-	-	-	Residential	20	66.7
	Ave SE	Valley St	E Burdick Expy	Urban Minor Arterial	Minot	4,581	0.6	30	2	12	-	-	6	-	Gravel	-	-	-	-	-	-	-	Residential	24	40.0
	h Ave SE	31st St SE	42nd St SE	Urban Collector	Minot	1,753	0.7	25	2	12	-	-	3	-	Gravel	-	-	-	-	-	-	-	Residential	36	51.4
	st St SE	11th Ave SE	E Burdick Expy	Urban Collector	Minot	2,510	0.2	25	2	12	-	-	4	-	Gravel	-	-	-	-	-	-	-	Commercial	9	45.0
	2 Frontage Rd	31st St SE	55th St SE	Urban Collector	Minot	875	1.7	?	2	12	-	-	3	-	Gravel	-	-	-	-	-	-	-	Commercial	46	27.1
	A Ave SW	30th St SW	6th St NW	Urban Collector / Minor Arterial	Minot	2,555	1.7	25	2	12	-	6	-	Yes	Paved	-	-		Yes	-	-	-	Residential	98	57.6
	Ave SE	S Broadway St	Front St SE	Urban Collector	Minot	1,424	0.5	25	2	12	-	4	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	36	72.0
824.01 2nd		W Burdick Expy		Urban Minor Arterial	Minot	2,848	1.0	25	2	12	-	6	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	55	55.0
	Ave	S Broadway St	3rd St SE	Urban Collector	Minot	1,146	0.4	25	2	12		6	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	25	62.5
	St SE	E Burdick Expy	Central Ave E	Urban Collector	Minot	1,479	0.3	25	2	12	-	12	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	17	56.7
	ntral Ave E / 4th Ave NE	Broadway St	8th St NE	Urban Collector	Minot	3,401	2.2	25	2	12	-	6	-	Yes	Paved	-	Yes	Downtown	Yes	-	-	-	Commercial	39	17.7
827.02 4th		8th St NE	27th St SE	Urban Collector	Minot	1,017	2.2	35	2	12	-	-	2	- V	Gravel	-	-	-	- V	-	-	-	Residential	20	9.1
	Ave NW	2nd Ave NW	N Broadway	Urban Minor Arterial	Minot	7,456	1.9	25	4	12	-	2	-	Yes	Paved	-	Yes	-	Yes	-	-	-	Residential	91	47.9
	Ave NE / 5th Ave NE	N Broadway	27th St NE	Urban Minor Arterial	Minot	4,734	2.0	25	2	12	-	2	-	Yes	Paved	-	-	-	-	-	-	-	Residential	48	24.0
829.01 5th		3rd St NE	4th Ave NW	Urban Minor Arterial	Minot	1,910	0.1	?	2	12	-	6	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	12	120.0
	h St NW / Sunset Blvd	4th Ave NW	19th Ave NW	Urban Collector	Minot	944	1.2	25	2	12	-	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	98	81.7
	versity Ave	16th St NW	N Broadway	Urban Minor Arterial	Minot	4,308	1.4	25	2	12	-	4	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	109	77.9
832.01 111		20th St NW	End in Campus	Urban Collector	Minot	1,855	1.1	25	2	12	-	4	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	62	56.4
832.02 11		Start in Campus		Urban Collector	Minot	1,937	0.6	25	2	12	-	2	-	Yes	Paved	-	-	-	Yes	-	-	-	Residential	28	46.7
833.01 21:		US 83	N Broadway	Urban Minor Arterial	Minot	3,715	1.9	25	2	12	-	4	-	Yes	Paved	-	-		Yes	-	-	-	Residential	73	38.4
834.01 Fro		N Broadway	40th Ave NW	Urban Collector	Minot	1,116	2.1	?	2	12	-	2	-	-	Paved	-	Yes	Gas / Food	-	-	-	-	Commercial	58	27.6
835.01 30		8th St NW	N Broadway	Urban Collector	Minot	1,398	0.5	35	2	12	-	-	8	-	Gravel	-	-	-	-	-	-	-	Residential	15	30.0 26.7
836.01 Fro	птауе ка	34th Ave NE	City Limit	Urban Collector	Minot	500	0.6	7	2	12	-	-	2	-	Gravel		-	-	-	-	-	-	Commercial	16	Z0./

Detailed Corridor Information

ard Urban County Corridors						latara atian		Sever	ity					Diagra	ım - SEVERE (Only				Light	Conditions - S	EVERE Only	Road Co	ndition - SEV	/ERE Only	Road Chara	racteristi
Corridor Local Name	Ctout	Food	Years AADT	. Total	Severe	Intersection Crashes	L A	В	C PI	00	Rear Sideswipe	e Angle	Singe Righ	Angle	Angle (Not	Head On	Sideswipe	Rear-to-Rear	Rear-to-	Day Day	n/ Dark with	Other	Dm. 14/	. Snow/	Othor	Ctraight (On O
Corridor Local Name	Start	End	of Data	Crashes	Crashes	Crasnes	K A	. В	C PI	00	End Passing	(Opp D	ir) Veh Angle	(Same Dir)	Specific)	Head On	Opposing	Rear-to-Rear	Side	Day Dus	k Streetlight	Dark Unknow	n Dry We	Slush	Other	Straight Cu	curve Ot
800.01 37th Ave SW	16th St SW	S Broadway St	5 8,742	20	-	11	-	- 1	-	19				-			-	-	-	-	-					-	-
800.02 37th Ave SE	S Broadway St	2nd St SE	5 1,630	3	-	3	-		-	3				-			-	-	-		-				- 1	-	-
801.01 31st Ave SW	16th St SW	S Broadway St	5 6,309	31	1	12		1 5	-	25				-		1 -	-	-	-	1	-			- 1	-	-	-
801.02 31st Ave SE	S Broadway St	13th St SE	5 4,175	28	-	7	-	- 5	3	20				-			-	-	-		-				- 1	-	-
802.01 16th St SW	37th Ave SW	Western Ave SW	5 14,32	5 125	-	56	-	- 24	10	91				-			-	-	-		-				- 1	-	-
802.02 16th St SW	Western Ave SW	V 24th Ave NW	5 8,394	75	-	31	-	- 3	3	69				-			-	-	-	-	-				-	-	-
803.01 Frontage Rd SW	37th Ave SW	28th Ave SW	5 740	18	-	8	-	- 3	1	14				-			-	-	-	-	-				-	-	-
804.01 Frontage Rd SW	41st Ave SW	28th Ave SW	5 845	10	-	2	-	- 1	-	9				-			-	-	-	-	-				-	-	-
805.01 Elk Dr	Sundown Dr	16th St SW	5 2,111	9	-	3	-	- 1	1	7				-			-	-	-	-	-				-	-	-
306.01 20th Ave SW / Frontage Rd	Elk Drive	S Broadway St	5 7,725	51	-	11	-	- 8	2	41				-			-	-	-	-	-				-	-	-
306.02 20th Ave SE / 18th Ave SE	S Broadway St	20th Ave SE	5 4,626	31	-	21	-	- 6	-	25				-			-	-	-	-	-				-	-	-
06.03 20th Ave SE	13th St SE	US 52	5 1,000	4	-	-	-		-	4				-			-	-	-		-				- 1	-	-
306.04 20th Ave SE	13th St SE	20th St SE	5 390	5	-	-	-	- 1	-	4				-			-	-	-	-	-				-	-	-
07.01 21st Ave SE / 17th St SE	US 2	US 2	5 480	2	-	1	-		-	2				-			-	-	-	-	-				-	-	-
08.01 16th Ave	16th St SW	13th St SE	5 2,903	17	1	1	1	- 2	-	14	1 -			-			-	-	-	-	-	1 -	- 1		-	1	-
09.01 11th Ave SE	16th St SW	Hiawatha St SE	5 5,425	151	-	43	-	- 20	6	125				-			-	-	-	-	-				-	-	-
10.01 6th St SW	16th Ave SW	W Burdick Expy	5 4,350	118	-	50	-	- 21	6	91				-			-	-	-		-				- 1	-	-
10.02 6th St NW	W Burdick Expy	30th Ave NW	5 3,894	84	-	29	-	- 15	3	66				-			-	-	-		-				-	-	-
11.01 2nd St SE / 3rd St SE	20th Ave SE	E Burdick Expy	5 4,053	64	-	29	-	- 9	3	52				-			-	-	-	-	-				-	-	-
11.02 3rd St NE / Airport Rd	E Burdick Expy	N Broadway	5 6,681	60	-	21	-	- 6	1	53				-			-	-	-	-	-				-	-	-
2.01 13th St SE	31st Ave SE	Valley St	5 5,498	19	-	8	-	- 3	-	16				-			-	-	-	-	-				-	-	-
3.01 27th St	Valley St	5th Ave NE	5 5.920	66	2	21	- 2	2 15	1	48	1 -		1	-			-	-	-	1	-	1 -		1 1	- 1	1	-
4.01 US 2 Frontage Rd	16th Ave SE	55th St SE	5 338	19	-	-	-	- 1	1	17				-			-	-	-	-	-				- 1	-	_
14.02 US 2 Frontage Rd	E Burdick Expy	End	5 420	3	-	-	-	- 2	-	1				-			-	-	-	-	_				-	-	
15.01 42nd St SE	US 2	E Burdick Expy	5 3.198	29	-	7	-	- 3	1	25				-			-	-	-	-	-				- 1	-	
16.01 1st St SW	11th Ave SE	Central Ave E	5 1.851	27	-	15	-	- 5	1	21				-			-	-	-	-	_					-	
17.01 Hiawatha St SE	11th Ave SE	Valley St	5 2,870	3	-	1	-		-	3				-			-	-	-	-	-				- 1	-	-
18.01 8th Ave SE	Valley St	E Burdick Expy	5 4,581		-	4	-		1	16				-			-	-	-	-	-					-	
19.01 11th Ave SE	31st St SE	42nd St SE	5 1,753			2	-		-	5				_			-	-	-	-	-					_	
20.01 31st St SE	11th Ave SE	E Burdick Expy	5 2,510		_	1	-	- 1	2	14							_	_	_		-						-
21.01 US 2 Frontage Rd	31st St SE	55th St SE	5 875	46		28		1 7	2	36						1 -	_		_	1						1	-
22.01 2nd Ave SW	30th St SW	6th St NW	5 2,555			26	-	- 9	1	45				_			-	_	-	-					_	-	
23.01 3rd Ave SE	S Broadway St	Front St SE	5 1.424				_	- 1		12				_			_	_		-	_						-
24.01 2nd Ave SW	W Burdick Expy		5 2,848			10		- 4	1	32							_			_			_			_	
25.01 1st Ave	S Broadway St	3rd St SE	5 1.146			52	-		9	91				_				_								_	
26.01 1st St SE	E Burdick Expy	Central Ave E	5 1.479			25	_	- 8	-	54				_			_	_		-						_	_
27.01 Central Ave E / 4th Ave NE		8th St NE	5 3,401			26		1 12	2	65						1 -				1				1 -		1	
27.02 4th Ave NE	8th St NE	27th St SE	5 1.017	-		-				-										-						-	
28.01 4th Ave NW	2nd Ave NW	N Broadway	5 7.456	50	1	12		1 3	-	46	1 -			_				_		1			- 1				
28.02 4th Ave NE / 5th Ave NE	N Broadway	27th St NE	5 4.734			3		- 4	-	7	· ·									-			<u> </u>			_	
29.01 5th Ave NE	3rd St NE	4th Ave NW	5 1,910	_		7		- 4		17				_			_	_		-						-	
30.01 20th St NW / Sunset Blvd	4th Ave NW	19th Ave NW	5 944	15		7	_	- 3	1	11				_			_	_					_				
1.01 University Ave	16th St NW	N Broadway	5 4,308			5		- 5	<u> </u>	28				_			_						_			_	
32.01 11th Ave NW	20th St NW	End in Campus	5 1,855			13		- 6	1	23	-						-									-	
32.02 11th Ave NE	Start in Campus		5 1,937		<u> </u>	-				1	-																
33.01 21st Ave NW	US 83	N Broadway	5 3,715	33	† 	7		- 11	2	20																	
34.01 Frontage Rd	N Broadway	40th Ave NW	5 1.116		†	16		- 4	5	47																	
35.01 30th Ave NW	8th St NW	N Broadway	5 1,398		 	10		- 3	-	4																	
336.01 Frontage Rd	34th Ave NE	City Limit	5 500	75	 	10		- 12	-	63																	÷
1 1011kago 11a	3	0.1, L	- 500	1,851	-	645		6 272	70 1	,502												2 -	- 3			4	

	epartment of Tra	ROVEMENT PR nsportation Programn		PROJEC	CT APPLICA	ATION		
SFN 59959 (06	,							
	16th St	SW from W	estern Ave	SW to	24th Ave	NW Proj	ect	
	Agency Name:	City of Minot		N	D DOT Distric	t: 4		
	Contact Name:	Stephanie Frizzo		Telep	phone Numbe	r: 701-857-4100		
		stephanie.frizzo@mino						
		ou may use additional s	heets to further descri	be your proje	ct.			
Location Des	cription				SHSP Emph	asis Area (check a	ll that annly)	
	Number:	802.02				I Impaired Driving	п пасарру)	
	Corridor:	16th St SW			_	se of Safety Restra	aints for all Occ	upants
		Western Ave SW				Older Driver Safe	ty	
		24th Ave NW			Curb Aggressiv)	
	City/Rural: County:					to Address Lane Dergency Medical C		
	County.	vvaru			Improve Interse		apabilities to II	iorcasc
	ADT:	8394		_	- '	,		
	Lanes:							
	Access Density Speed Limit:							
	Length (miles):							
	Lengur (miles).	2.7						
Describe Cur	rent Safety Iss	ues & Systemic R	anking Review					
	kota Crashes 2008			years				
				14 . A				
		Rear End		K+A 0	-			
		Sideswipe Passing		0				
		Head On		0				
		Sideswipe Opposing		0	_			
				0				
Danawiha Ow	want Cafatri Iaa	······································	antina Daview					
Describe Cui	rent Salety ISS	ues & Systemic R	anking Review					
				Value	Critical	Star Ranking		
			ADT:	8,394	<u>></u> 10,000	*	-	
		Ma	ajor Approach Lanes:	4	<u>≥</u> 4	*		
			Access Density:		15 - 60	*		
	Sever	e Rear End / Sideswipe	Speed Limit: A Head On Crashes:	25 0	<u><</u> 40 > 1	*		
		·	7 Tioud Oil Oldolloo.		<u> </u>	***	-	
Describe Pro	posed Safety I	mprovements						
	Description	Turno	Coat nor mi	Mileoge / #	Coat	Notes 2 lane	an varaian	
	Description 3-Lane Conversion	Type Proactive	Cost per mi \$17,000	Mileage / #	Cost \$28,917	Notes - 3-lane of from 4th Ave to		
	5-Lane Conversion		\$22,000	0.0	\$0	110111 1417 110 10	21417110	
	Signal Revisions	Proactive	\$25,000	0	\$0			
Project Cost	Estimate (attac	ch detailed copy)			Proposed Y	ear of Constru	ıction	
,	,				,			
		Federal Funds	\$26,025					
	Local Match (10)	% of Total project cost) Total Project Cost	\$2,892 \$28,917					
		Total Troject Cost	Ψ20,311					
Project Cost	Estimate (attac	ch detailed copy)						
-	Project Accepted?	☐ Yes ☐ No	Reference Number -		ID Number	·_		
	Notes		- NOIGHOURGE -		ID Number		-	
							Page:	1
							Segment ID:	802.02
								11/11/2013

HIGHWAY SAFETY IMP North Dakota Department of Tra			PROJEC	T APPLICA	ATION		
SFN 59959 (06-2011)							
10	6th Ave from	16th St SV	V to 13t	h St SE	Project		
Agency Name				D DOT Distric	-		
	Stephanie Frizzo		Telep	hone Numbe	r: 701-857-4100		
	stephanie frizzo@mino	otnd.gov	•				
Please attach a location map(s). Yo	ou may use additional s	heets to further descri	be your projed	ct.			
Location Description							
					asis Area (check a	ll that apply)	
Number:					I Impaired Driving	into for all Occupa	nto
	16th Ave 16th St SW				se of Safety Restra Older Driver Safet		ints
	13th St SE			Curb Aggressiv		ıy	
City/Rural:					o Address Lane D	eparture Crashes	
County:				•	ergency Medical Ca	•	ase
				Improve Interse		•	
	2903						
Lanes:							
Access Density							
Speed Limit: Length (miles):							
Lengar (miles).	2						
Describe Current Safety Iss		anking Review					
North Dakota Crashes 2008	3 - 2012	5	years				
			K+A				
	Rear End		0				
	Sideswipe Passing		0				
	Head On		0				
	Sideswipe Opposing		0				
			0				
Describe Current Safety Iss	ues & Systemic R	anking Review					
20001120 Carronic Carety 100	acc a cyclemic ra	ummig Herren					
			Value	Critical	Star Ranking		
		ADT:	2,903	<u>></u> 10,000			
	Mi	ajor Approach Lanes: Access Density:	2 58	≥4 15 60	*		
		Speed Limit:	25	15 - 60 < 40	*		
Seve	re Rear End / Sideswipe		0	<u>-</u> - 1	`		
				<u> </u>	***		
D							
Describe Proposed Safety I	mprovements						
Description	Type	Cost per mi	Mileage / #	Cost	Notes - May nee	ed to restrict	
3-Lane Conversion		\$17,000	2.0	\$34,000	on-street parkin		
5-Lane Conversion	Proactive	\$22,000	0.0	\$0			
Signal Revisions	Proactive	\$25,000	0	\$0			
					_		
Project Cost Estimate (attach	ch detailed copy)			Proposed Y	ear of Constru	ction	
	Federal Funds	\$30,600					
Local Match (10	% of Total project cost)	\$3,400					
	Total Project Cost		•				
Project Cost Estimate (attac							
Project Accepted?	∐ Yes	Reference Number -		ID Number	`-		
Notes							
						Page: Segment ID: 8	2 308.01
						Date: 11	

11th Ave SE from 16th St SW to Hiawatha St SE Project Agency Name: City of Minot Contact Name: Stephanie Fritzzo Sephanie Fritz Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritz Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritz Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritzzo Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie Fritz Sephanie F	North Dakota	Department of Tra	ROVEMENT PROPRIES IN THE PROPR	OGRAM (HSIP) ing	PROJEC	CT APPLICA	ATION		
Agency Name: City of Minot Contact Name: Stephanie Fitzo Email Addross: stephanie Fitzo Email Addross: stephanie Fitzo Email Addross: stephanie fitzo Email Addross: stephanie fitzo Email Addross: stephanie fitzo Please attach a location map(s) / You may use additional sheets to further describe your project. Location Description Number: 809.01 Corridor: 11th Ave SE Surr: 16th St SW Expert Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE Lamps: 3 Access Density 50 Speed Limit: 23 Lamps: 3 Access Density 50 Speed Limit: 25 Lamps: 10th St SW SE Rear End 0 Sideswipe Opposing 0 Beach St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th Set Severe Rear End / Sideswipe / Head On Cris	SFN 59959 (I)6-2011)							
Agency Name: City of Minot Contact Name: Stephanie Fitzo Email Addross: stephanie Fitzo Email Addross: stephanie Fitzo Email Addross: stephanie fitzo Email Addross: stephanie fitzo Email Addross: stephanie fitzo Please attach a location map(s) / You may use additional sheets to further describe your project. Location Description Number: 809.01 Corridor: 11th Ave SE Surr: 16th St SW Expert Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE City (Part) Hawards St SE Lamps: 3 Access Density 50 Speed Limit: 23 Lamps: 3 Access Density 50 Speed Limit: 25 Lamps: 10th St SW SE Rear End 0 Sideswipe Opposing 0 Beach St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th St Set Severe Rear End / Sideswipe / Head On Cristhers: 10th Set Severe Rear End / Sideswipe / Head On Cris		11th <i>A</i>	Ave SE from	16th St SW	to Hiav	watha St	SE Proje	ct	
Contact Name: Stephanie Frizzo Brindroth dov Brail Address: stephanie frizzo Brindroth dov Please attach a location map(s). You may use additional sheets to further describe your project. Location Description Number: 609-01									
Pease attach to eclation map(s), You may use additional sheets to further describe your project.									
Please ettach a location map(s), You may use additional sheets to further describe your project.				tnd.gov					
Number: 809.01 Corridor: 11th Ave SE Start: 16th St SW End: 16th St SW End: Hiswaths St SE Clay/Rural Urban County: Ward C	Please attach				be your proje	ct.			
Reduce Alcohol Impaired Driving Cordinor 11th Ave SE Start. 16th St SW Fort. 16th St SW CrityRurait. Urban Country. Ward Country	Location D	escription							
Conidor. 11th Ave SE Start: 16th St SW End: Hiawatha St SE City/Funcy Urban County: Ward ADT: 5425 Lanes: 3 Access Density: 50 Speed Limit: 25 Langti (miles): 1.5 Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashas 2008 - 2012 Sideswipe Passing 0 Head On 0 Sideswipe Opposing 0 Head On 0 Sideswipe Opposing 0 Head On 0 Sideswipe Poposed Safety Issues & Systemic Ranking Review Describe Current Safety Issues & Systemic Ranking Review Describe Current Safety Issues & Systemic Ranking Review Severe Rear End 0 Major Approach Lanes: 3 2.4 * Access Density: 50 Severe Rear End Sideswipe I Head On Crashes: 0 2.1 * Severe Rear End Sideswipe I Head On Crashes: 0 2.1 * Describe Proposed Safety Improvements Describe Proposed Safety Improvements Description Type Cost per mi Mileage / # Cost Notes - 3 - 4 * Access Density: 50 15 - 60 * Access Density: 50 1								ll that apply)	
Stert: 16th St SW End: Hiswatha St SE City/Rural: Urban Country: Ward ADT: 5426 Lanes: 3 Access Density: 50 Speed Limit: 25 Langth (miles): 1.5 Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years North Dakota Crashes 2008 - 2012 5 years Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 Describe Current Safety Issues & Systemic Ranking Review ADT: 5425 Head On 0 Sideswipe Opposing 0 0 Describe Current Safety Issues & Systemic Ranking Review ADT: 5425 Access Density: 50 Speed Limit: 25 10,000 ACCESS Describe Current Safety Issues & Systemic Ranking Review Describe Proposed Safety Improvements Describe Proposed Safety Improvemen								into for all O	
End: Hlawatha St SE Clip/Funct Urban County: Ward ADT: 5425 Lanes: 3 Access Density: 50 Speed Limit: 25 Longti (miles): 1.5 Poscribe Current Safety Issues & Systemic Ranking Review North Dakoia Crashes 2008 - 2012 Sideswipe Passing 0 Head On 0 Sideswipe Opposing 0 Head On 0 Sideswipe Opposing 0 Head On 0 Sideswipe Opposing 0 Head On 0 Sideswipe Poposed Service Ranking Review Poscribe Current Safety Issues & Systemic Ranking Review Describe Current Safety Issues & Systemic Ranking Review Value									cupants
City/Rural: Urban								ıy	
ADT: 5425 Lanes: 3 Access Density 50 Speed Limit: 25 Length (miles): 1.5 Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 Sideswipe Passing Head On Sideswipe Opposing O Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 Systemic Ranking Review Value Value Value Value Value Critical Star Ranking ADT: 5,425 ≥ 10,000								eparture Crash	nes
ADT: \$425 Lanes: 3 Access Density: 50 Speed Limit: 26 Severe Rear End Sideswipe Severe Rear End Severe Rear End Sideswipe Severe Rear End	County:	Ward			Enhancing Eme	ergency Medical C			
Lanes: 3 Access Density: 50 Speed Limit: 25 Length (miles): 1.5					√	Improve Interse	ction Safety		
Access Density 50 Speed Limit: 25 Speed Limit: 26 Sideswipe Passing 0 Head On 0 Sideswipe Opposing 0 O Sideswipe Opposing 0 O O Sideswipe Opposing O O O O O O O O O									
Speed Limit: 26 Length (miles): 1.5									
Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years		,							
Describe Current Safety Issues & Systemic Ranking Review North Dekota Crashes 2008 - 2012 5 years Rear End 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		•							
North Dakota Crashes 2008 - 2012 5 years		3 (13)							
Rear End	Describe C	urrent Safety Iss	ues & Systemic Ra	nking Review					
Rear End Sideswipe Passing 0 Head On 0 Sideswipe Passing 0 O	North E	Dakota Crashes 2008	- 2012	5	years				
Rear End Sideswipe Passing 0 Head On 0 Sideswipe Passing 0 O					KΤV				
Sideswipe Passing 0 Head On 0			Rear Fnd			=			
Head On Sideswipe Opposing O O									
Sideswipe Opposing									
Describe Current Safety Issues & Systemic Ranking Review Value					0				
Najor Approach Lanes: 3					0				
Value Critical Star Ranking	D'' O		0 O(
ADT: 5,425	Describe C	urrent Salety ISS	ues & Systemic Ra	inking Review					
ADT: 5,425					Value	Critical	Star Ranking		
Access Density: 50 15 - 60 * Speed Limit: 25 ≤ 40 * Severe Rear End / Sideswipe / Head On Crashes: 0 ≥ 1 **** *** *** *** ** ** ** **	-			ADT:				•	
Speed Limit: 25			Ma			<u>≥</u> 4	*		
Severe Rear End / Sideswipe / Head On Crashes: 0				,					
Describe Proposed Safety Improvements Description Type		Cover	o Door End / Cidoowing				*		
Describe Proposed Safety Improvements Description Type Cost per mi Mileage / # Cost Notes - 3-lane conversion	-	Sever	e Real Ellu / Sideswipe	/ Head Off Crashes.	U	<u></u>	****	:	
Description Type Cost per mi Mileage / # Cost Notes - 3-lane conversion 3-Lane Conversion Proactive \$17,000 0.8 \$12,750 from Broadway St to 5-Lane Conversion Proactive \$22,000 0.0 \$0 Hiawatha St Signal Revisions Proactive \$25,000 0 \$0 Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01									
3-Lane Conversion Proactive \$17,000 0.8 \$12,750 from Broadway St to Flame Conversion Proactive \$22,000 0.0 \$0 Hiawatha St Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	Describe P	roposed Safety I	mprovements						
3-Lane Conversion Proactive \$17,000 0.8 \$12,750 from Broadway St to Flame Conversion Proactive \$22,000 0.0 \$0 Hiawatha St Signal Revisions Proactive \$25,000 0 \$0 \$0 Project Cost Estimate (attach detailed copy) Project Cost Estimate (attach detailed copy) Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01			_					_	
5-Lane Conversion Proactive \$22,000 0.0 \$0 Hiawatha St Signal Revisions Proactive \$25,000 0 \$0 Project Cost Estimate (attach detailed copy) Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	-								
Signal Revisions Proactive \$25,000 0 \$0 Project Cost Estimate (attach detailed copy) Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted?								31 10	
Project Cost Estimate (attach detailed copy) Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01							Tilawatila Ot		
Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	-			+,		**	_		
Federal Funds \$11,475 Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	Project Cos	et Estimate (attac	ch detailed conv)			Proposed V	ear of Constru	ection	
Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	r roject cos	st Estimate (attac	in detailed copy)			TTOposeu T	ear or constru	CHOH	
Local Match (10% of Total project cost) \$1,275 Total Project Cost \$12,750 Project Cost Estimate (attach detailed copy) Project Accepted? No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01			Federal Funds	\$11,475					
Project Cost Estimate (attach detailed copy) Project Accepted? Yes No Reference Number - ID Number - Notes Page: 3 Segment ID: 809.01	. <u>-</u>	Local Match (10 ^o		\$1,275					
Project Accepted?			Total Project Cost	\$12,750					
Project Accepted?	Project Co.	et Estimate (attac	ah datailad canul						
Notes Page: 3 Segment ID: 809.01	Froject Cos	•							
	-		☐ tes ☐ NO	Reference Number -		ID Number	· <u>-</u>		
Segment ID: 809.01		Notes							
Segment ID: 809.01									
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Segment ID: 809.01	<u>-</u>								

	a Department of Tra	ROVEMENT PROPROPERTY PROPERTY IN THE PROPERTY		PROJEC	CT APPLICA	ATION		
		Airport Rd fi	om E Burd	-	•	•	Project	
	Agency Name:	=			D DOT Distric			
		Stephanie Frizzo		Telep	phone Number	r: 701-857-4100	1	
5, , ,		stephanie.frizzo@mino						
		ou may use additional sh	neets to further descri	be your proje	Ct.			
Location D	escription				SHSD Empha	asis Area (check a	ll that apply)	
	Number:	811 02				Impaired Driving	ш шасарріу)	
		3rd St NE / Airport Rd				e of Safety Restra	aints for all Occu	ıpants
		E Burdick Expy				Older Driver Safe		
		N Broadway			Curb Aggressiv			
	City/Rural:					o Address Lane D		
	County:	Ward				ergency Medical C	apabilities to Ind	crease
	ADT.	6681		Ľ-	Improve Interse	ction Safety		
	Lanes:							
	Access Density							
	Speed Limit:							
	Length (miles):	1.9						
		ues & Systemic Ra						
North	Dakota Crashes 2008	- 2012	5	years				
				K+A				
		Rear End		0	=			
		Sideswipe Passing		0				
		Head On		0				
		Sideswipe Opposing		0	_			
				0				
Deceribe (Survey Cofety les	una e Cuatamia De	ndina Daview					
Describe C	urrent Salety iss	ues & Systemic Ra	ilikilig Review					
				Value	Critical	Star Ranking		
			ADT:	6,681	≥ 10,000	*	=	
		Ma	jor Approach Lanes:	2	<u>></u> 4	*		
			Access Density:	40	15 - 60	*		
	•	B	Speed Limit:	25	<u><</u> 40	*		
	Sever	e Rear End / Sideswipe	/ Head On Crashes:	0	<u>></u> 1	***	=	
		•				222		
Describe F	Proposed Safety I	mprovements						
2000	ropossu sursty r	inprovonionio						
	Description	Туре	Cost per mi	Mileage / #	Cost	Notes - 3-lane		
	3-Lane Conversion		\$17,000	1.0	\$16,473	from 11th Aven	ue to Hwy 83	
	5-Lane Conversion		\$22,000	0.0	\$0			
	Signal Revisions	Proactive	\$25,000	0	\$0			
						_		
Project Co	st Estimate (attac	ch detailed copy)			Proposed Yo	ear of Constru	ıction	
		Fordered Freedo	#44.000					
	Local Motob (10)	Federal Funds % of Total project cost)	\$14,826 \$1,647					
	Local Match (10	Total Project Cost	\$16,473					
			,					
Project Co	st Estimate (attac	ch detailed copy)						
	Project Accepted?		Reference Number -		ID Number	_		
	Notes		rtorororo rtambor		15 Hambon		=	
							_ Page:	4
							Segment ID:	811.02
								11/11/2013

City of Minot Urban Pedestrian/Bike Project Corridors

-				Curb Ext (# of		
Corridor	Local Roadway	Adv Walk	Countdown	corners)		Cost
83.01	US 83 (20th Ave to Central Ave)	4	4	2	\$	70,000
83.02	US 83 (4th Ave to 30th Ave NW)	4	4		\$	40,000
802.02	16th Street (2nd Ave to 21st Ave NW)	2	2	4	\$	80,000
		0	0	6	¢	190 000

							teria				
ard Coun	itv Urban Inte	ersections - Pedestri	an and Bicycle Risk Analy	/sis	Signal	Greater than 15000	Yes	Greater than 0			
	, •		2.0 , 0.0 1			10000		-	Crashes		
Int #	Segment #	Local Name	Cross Street	City	Traffic Control Device	ADT	Development / Ped Generator	Total	Severe	Major Speed	High Priorit Corridor Candidate
800.01	800.01	37th Ave SW	16th St SW	Minot	Signal	9575	No	0	0	Low	
800.02 800.03	800.01 800.01	37th Ave SW 37th Ave SW	Frontage Rd SW (West) US 83	Minot Minot	Thru-STOP Signal	11630 13038	Yes Yes	0	0	Low	1
800.04	800.02	37th Ave SE	Frontage Rd SW (East)	Minot	Thru-STOP	2285	No	0	0	Low	
801.01	801.01	31st Ave SW	16th St SW	Minot	Thru-STOP	14755	Yes	0	0	Low	
801.02 801.03	801.01 801.01	31st Ave SW 31st Ave SW	Frontage Rd SW (West) US 83	Minot Minot	Thru-STOP Signal	8885 17458	Yes Yes	0	0	Low	1
801.04	801.02	31st Ave SE	Frontage Rd SW (East)	Minot	Thru-STOP	5823	No	0	0	Low	
801.05 802.01	801.02 802.01	31st Ave SE 16th St SW	13th St SE 22nd Ave SW	Minot Minot	Thru-STOP Signal	7795 26905	No No	0	0	Low	4
802.02	802.01	16th St SW	20th Ave SW	Minot	Signal	25565	No	0	0	Low	1
802.03	802.01	16th St SW	16th Ave SW	Minot	Signal	16635	No	0	0	Low	
802.04 802.05	802.01 802.01	16th St SW 16th St SW	11th Ave SW US 2	Minot Minot	Signal Signal	18433 18093	No No	3	2	Low	
802.06	802.01	16th St SW	2nd Ave SW	Minot	Signal	14843	Yes	0	0	Low	
802.07	802.02	16th St NW	4th Ave NW	Minot	Signal	16600	Yes	1	0	Low	
802.08 802.09	802.02	16th St NW	University Ave W 11th Ave NW	Minot	Thru-STOP	7780	No	0	0	Low	YES
802.10	802.02 802.02	16th St NW 16th St NW	21st Ave NW	Minot Minot	Thru-STOP Thru-STOP	4410 4490	No No	1	0	Low	
805.01	805.01	Elk Drive	Evergreen Ave	Minot	Thru-STOP	2713	No	0	0	Low	
806.01	806.01	Evergreen Ave	US 2	Minot	Thru-STOP	10235	No	0	0	High	1
806.02 806.03	806.01 806.02	20th Ave SW 20th Ave SE	US 83 2nd St SE	Minot Minot	Signal Thru-STOP	26983 11145	Yes Yes	0	0	Low	1
806.04	806.02	18th Ave SE	13th St SE	Minot	Thru-STOP	9027	No	0	0	Low	1
806.05	806.02	16th St SE	20th Ave SE	Minot	Thru-STOP	488	No	0	0	Unknown	
806.06 806.07	806.03 806.03	20th Ave SE 20th Ave SE	17th St SE US 52	Minot Minot	Thru-STOP Thru-STOP	1649 4245	Yes No	0	0	Low Unknown	
806.08	806.04	20th Ave SE (North)	13th St SE	Minot	Thru-STOP	7085	Yes	0	0	Low	-
807.01	807.01	6th St SE	US 2	Minot	Thru-STOP	9795	No	0	0	High	
807.02 807.03	807.01 807.01	6th St SE 21st Ave SE	21st Ave SE 13th St SE	Minot Minot	Thru-STOP Thru-STOP	889 6500	No No	0	0	Low Unknown	
807.04	807.01	21st Ave SE	17th St SE	Minot	Thru-STOP	1298	No	0	0	Low	1
807.05	807.01	17th St SE	US 2	Minot	Thru-STOP	7512	No	0	0	High	
808.01	808.01	16th Ave SW	6th St SW	Minot	All Way STOP	7810	No	0	0	Low	-
808.02 808.03	808.01 808.01	16th Ave SW 16th Ave SE	US 83 2nd St SE	Minot Minot	Signal All Way STOP	19040 8745	Yes No	0	0	Low	YES
808.04	808.01	16th Ave Se	13th St SE	Minot	Thru-STOP	7047	No	0	0	Low	
809.01	809.01	11th Ave SW	6th St SW	Minot	Signal	9710	No	0	0	Low	
809.02 809.03	809.01 809.01	11th Ave SW 11th Ave SE	US 83 2nd St SE	Minot Minot	Signal All Way STOP	21573 6153	Yes No	0	0	Low	YES
809.04	809.01	11th Ave SE	3rd St SE	Minot	All Way STOP	7108	No	0	0	Low	120
809.05	809.01	11th Ave SE	Hiawatha St SE	Minot	Thru-STOP	4410	No	0	0	Low	
810.01 810.02	810.01 810.02	6th St SW 6th St SW	US 2 Western Ave SW	Minot Minot	Signal Signal	11208 10555	Yes No	0	0	Low	4
810.03	810.02	6th St SW	2nd Ave SW	Minot	Thru-STOP	9223	No	1	0	Low	
810.04	810.02	6th St NW	3rd Ave NW	Minot	Signal	13693	No	0	0	Low	
810.05 810.06	810.02 810.02	8th St NW 8th St NW	University Ave W 11th Ave NW	Minot Minot	Signal All Way STOP	10045 6503	No No	0	0	Low	
810.07	810.02	8th St NW	21st Ave NW	Minot	All Way STOP	6783	No	0	0	Unknown	
810.08	810.02	8th St NW	30th Ave NW	Minot	Thru-STOP	1742	No	0	0	Low	
811.01 811.02	811.01 811.02	3rd St SE 3rd St SE	4th Ave SE 3rd Ave SE	Minot Minot	Signal Thru-STOP	11770 8153	No No	3 0	0	Low	
811.03	811.02	3rd St SE	2nd Ave SE	Minot	Thru-STOP	8498	No	0	0	Low	
811.04	811.02	3rd St SE	1st Ave SE	Minot	Thru-STOP	7480	No	0	0	Low	
811.05 811.06	811.02 811.02	3rd St SE 3rd St NE	Central Ave E 5th Ave NE	Minot Minot	Signal Thru-STOP	12310 10218	Yes No	0	0	Low	
811.07	811.02	3rd St NE	University Ave E	Minot	Signal	8933	No	0	0	Low	
811.08	811.02	3rd St NE	11th Ave NE	Minot	Thru-STOP	6582	No	0	0	Low	
811.09 812.01	811.02	Airport Rd	US 83 US 2	Minot Minot	Signal	11970 15040	Yes	0	0	Low High	
812.02	812.01 812.01	13th St SE 13th St SE	US 52 (Valley St)	Minot	Signal Thru-STOP	8425	Yes No	0	0	Low	
813.01	813.01	27th St SE	US 52 (Valley St)	Minot	Thru-STOP	10277	No	0	0	High	
813.02	813.01	27th St SE	US 2 (Burdick Expy) 4th Ave NE	Minot	Signal Thru-STOP	11200	Yes	0	0	Low	
813.03 813.04	813.01 813.01	27th St NE 27th St NE	Railway Ave NE	Minot Minot	All Way STOP	7238 8188	No No	0	0	Low	
814.01	814.02	US 2 Frontage Rd	US 2 (Burdick Expy)	Minot	Thru-STOP	3809	No	1	1	Low	
815.01	815.01	42nd St SE	US 2	Minot	Thru-STOP	7525	No	0	0	High	
815.02 815.03	815.01 815.01	42nd St SE 42nd St SE	11th Ave SE US 2 Frontage Rd	Minot Minot	Thru-STOP Thru-STOP	4258 3059	No No	0	0	Low	1
815.04	815.01	42nd St SE	US 2 (Burdick Expy)	Minot	Thru-STOP	4690	No	0	0	Low	1
816.01	816.01	1st St SW	4th Ave SW	Minot	Thru-STOP	9528	Yes	0	0	Low	1
816.02 816.03	816.01 816.01	1st St SW 1st St SW	3rd Ave SW 2nd Ave SW	Minot Minot	Thru-STOP Signal	2865 4313	Yes Yes	0	0	Low	-
816.04	816.01	1st St SW	1st Ave SE	Minot	Thru-STOP	2773	Yes	0	0	Low	1
816.05	816.01	1st St SW	Central Ave W	Minot	Thru-STOP	5007	Yes	0	0	Low	1
817.01	817.01	Hiawatha St	US 52 (Valley St)	Minot	Thru-STOP	7423	No	0	0	Low	4
818.01 818.02	818.01 818.01	8th Ave SE 8th Ave SE	US 52 (Valley St) US 2 (Burdick Expy)	Minot Minot	Thru-STOP Signal	8465 6472	No No	0 2	0	Low	1
819.01	819.01	11th Ave SE	31st St SE	Minot	Thru-STOP	2272	No	0	0	Low	1
820.01	820.01	31st St SE	US 2 (Burdick Expy)	Minot	Thru-STOP	5840	No	0	0	Low	
823.01	823.01 823.01	3rd Ave SW 3rd Ave SE	S Broadway St 1st St SE	Minot Minot	Thru-STOP All Way STOP	12815 3075	Yes Yes	0	0	Low	-
823.02							res	· U	U		

						Cri	teria				
Ward Cou	nty Urban Int	ersections - Pedestr	ian and Bicycle Risk Ana	lysis	Signal	Greater than 15000	Yes	Greater than 0			
								Ped/Bike	Crashes		
Int#	Segment #	Local Name	Cross Street	City	Traffic Control Device	ADT	Development / Ped Generator	Total	Severe	Major Speed	High Priority Corridor Candidate
824.01	824.01	Western Ave SW	4th Ave SW	Minot	Thru-STOP	6065	No	0	0	Low	
824.02	824.01	2nd Ave SW	S Broadway St	Minot	Signal	14908	Yes	0	0	Low	
824.03	824.01	2nd Ave SE	1st St SE	Minot	Thru-STOP	2605	Yes	0	0	Low	
824.05	824.01	Front St SE	4th Ave SE	Minot	Signal	10268	No	1	0	Low	
825.01	825.01	1st Ave SW	S Broadway St	Minot	Thru-STOP	13945	Yes	0	0	Low	
825.02	825.01	1st Ave SE	1st St SE	Minot	Thru-STOP	2315	Yes	0	0	Low	
826.01	826.01	1st St SE	4th Ave SW	Minot	Thru-STOP	8550	Yes	1	1	Low	
826.02	826.01	1st St SE	Central Ave E	Minot	Thru-STOP	4470	Yes	0	0	Low	
827.01	827.01	Central Ave E	S Broadway St	Minot	Signal	13940	Yes	0	0	Low	
828.01	828.01	4th Ave NW	20th St NW	Minot	Thru-STOP	7130	Yes	0	0	Low	YES
828.02	828.01	4th Ave NW	N Broadway St	Minot	Signal	19748	Yes	1	0	Low	ILO
828.03	828.02	4th Ave NW	5th Ave NE	Minot	Thru-STOP	5530	No	0	0	Low	
830.01	830.01	20th St NW	Northwest Ave NW	Minot	Thru-STOP	1638	No	0	0	Low	
831.01	831.01	University Ave W	N Broadway St	Minot	Signal	16680	Yes	3	0	Low	
832.01	832.02	11th Ave NW	N Broadway St	Minot	Signal	13290	Yes	0	0	Low	
833.01	833.01	21st Ave NW	US 83	Minot	Thru-STOP	8300	No	0	0	High]
833.02	833.01	21st Ave NW	Frontage Rd	Minot	Thru-STOP	5000	No	0	0	Low]
833.03	833.01	21st Ave NW	N Broadway St	Minot	Thru-STOP	9708	No	0	0	Low]
834.01	834.01	2nd St NW	N Broadway St	Minot	Thru-STOP	9873	No	0	0	Low]
835.01	835.01	30th Ave NW	Frontage Rd	Minot	Yield	2097	No	0	0	Low]
835.02	835.01	30th Ave NW	US 83	Minot	Thru-STOP	7575	No	0	0	High	

	04557/140	DOVEMENT DDG	00444 (1101	D) DD0	IFOT ADDI	IO A TION					
North Dakota	Department of Tra	ROVEMENT PRO		P) PRO	JECT APPL	ICATION					
SFN 59959 (0	6-2011)		Dadaa		Diamala Intones						
					•	ction Improvem		Control	A.,,, E		
		Intersections	on 2 Bro	adway				Centrai	Ave E		
	Agency Name:	<u>-</u>				DOT District:					
		Stephanie Frizzo	. d		l elep	hone Number:	701-857-41	100			
Please attach a		: stephanie.frizzo@minoti u may use additional shee		rihe vour pr	oiect						
Location De		u may use additional snet	ets to further descr	nbe your pr	ојест.						
20001101120	oon paon						SHSP Empl	nasis Area (chec	k all that apply)	
	Corridor					_	_	hol Impaired Dri	•		
		S Broadway St						Use of Safety R		I Occupants	
	Urban/Rural: County:] Younger Dri]Curb Aggres	ver/Older Driver	Sarety		
	Corridor ADT:							ts to Address La	ne Departure	Crashes	
								mergency Medi			
						✓	Improve Inte	rsection Safety			
Describe Pr	oposed Safety II	mnrovements									
Intersection		_	Taffia Cantani	Enterting	Development /	Total Ped/Bike	Advanced	Countdown	Curb	Median Refuge	Mataa
ID	Street Name	Cross Street	Taffic Control	ADT	Ped Generator		Walk	Timers	Exntensions	Island	Notes
806.02	20th Ave SW	US 83	Signal	26,983	Yes	0	0	0	0	0	-
808.02 809.02	16th Ave SW 11th Ave SW	US 83 US 83	Signal Signal	19,040 21,573	Yes Yes	3 1	1 1	1 1	0 0	0 0	-
823.01	3rd Ave SW	S Broadway St	Thru-STOP	12,815	Yes	0	0	Ö	2	0	_
824.02	2nd Ave SW	S Broadway St	Signal	14,908	Yes	0	1	1	0	0	-
825.01	1st Ave SW	S Broadway St	Thru-STOP	13,945	Yes	0	0	0	0	0	-
827.01	Central Ave E	S Broadway St	Signal	13,940	Yes	0	1	1	0	0	-
Describe Cu	ırrent Safety İssi	ues & Systemic Rar	nkina Review								
Describe of	ment Jurcey 1991	North Dakota Cra		5	years						
_		Ir Traffic Control Device	ntersection Criteria	ļ		Description Advanced Walk		it Cost per intersection	Quanity 4	Total Cost \$0	
		Entering ADT	Signal >15,000		C	ountdown Timers		per intersection	4	\$40,000	
	Develo	opment / Ped Generator	Yes		· ·	Curb Extensions		per corner	2	\$30,000	
_	-	Total Ped/Bike Crashes	>0		Med	ian Refuge Island	\$10,000	per side	0	\$0	
					Notes State I	Pouto				\$70,000	
					Notes State I	Toute					
Proiect Cos	t Estimate (attac	h detailed copy)					Proposeo	Year of Con	struction		
		Federal Funds	\$63,000								
_	Local Match (10	% of Total project cost) Total Project Cost	\$7,000 \$70,000								
		Total Project Cost	\$70,000								
NDDOT Cen	tral Office Only										
	Project Accepted?	Yes No	Reference	ce Number -		ID Number -					
_	Notes									_	
Ī											
Ī											
_										Page:	1
ĺ										Intersection ID:	83.01
										Date:	11/11/2013

Seption Proposed Safety Improvements Contact Name: Stephane Frizza Contact Name: Stephane												
Intersections on N Broadway St from 4th Ave NW to 30th Ave NW Agency Name: City of Mind: Contact Name: Stephanie Frizzo Email Address: desphanie Frizzo Peaze altonie i Record magel. (** one year deditional eleves to further describe your project. **Location Description** **Conder 83.02 **Serett Name: N Broadway St Tourner describe your project. **Location Description** **Conder 83.02 **Serett Name: N Broadway St Tourner describe your project. **Location Description** **Conder 83.02 **Serett Name: N Broadway St Tourner describe your project. **Location Description** **Conder 83.02 **Serett Name: N Broadway St Tourner describe your project. **Location Description** **Describe Proposed Safety Improvements** **Counter Word Conders Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Counter Safety Serett Name: Serett Name: Counter Safety Se	North Dakota	Department of Trai		-	P) PRO	JECT APPL	ICATION					
Intersections on N Broadway St from 4th Ave NW to 30th Ave NW Agency Name: City of Mixot Contact Name: Stophanie Frizzo Emanue accention accenti	SFN 59959 (0	06-2011)		Padas	trian and I	Ricycle Intersec	rtion Improvem	ente				
Agency Name : City of Minot Contact Name : Stephanie Frizzo Friend Fr			Intersections			•	•		30th Av	ω NW		
Contact Name Address: Sephane Engangement Engangem				on it bit	Jaawe	•				CITT		
Email Address: separame fitter/properties Proposed Section Proposed P		. ,	•						00			
Condor 83.02			•	nd.gov								
Corridor 83.02 Siree Name N Broadway St Uban County Ward Corridor ADT. Combin ADT. Combi			u may use additional shee	ets to further descr	ribe your pr	oject.						
Country 1830 Street Name Broadwy 5t Urban/Pulmar Urban Country Ward C	Location De	escription						CUCD Empl	agic Area (choc	ok all that apply	\	
Control Approximate Control Approximate		Corridor	83.02									
Cauthy C			,								I Occupants	
Corridor AO7: -										Safety		
Describe Proposed Safety Improvements										ane Departure (Crashes	
Describe Proposed Safety Improvements Intersection ID Street Name Cross Street Taffic Control Find Find Proposed Taffic Control Find Find Proposed Taffic Control Find Find Proposed Taffic Control Find Find Proposed Taffic Control Find Find Proposed Taffic Control							_			cal Capabilities	to Increase	
Intersection D							∠	Improve Inte	rsection Safety			
Intersection D												
Discriber Control Co		roposed Safety Ir	mprovements				T / I D I/D'					
282.02		Street Name	Cross Street	Taffic Control							•	Notes
832.01		4th Ave NW	N Broadway St	Signal		Yes	1		_			-
834.01 2nd s NW N Broadway St Thru-STOP 9,873 No												-
Signal Signal 11,970 Yes 0 1 1 0 0 -												-
Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2008 - 2012 5 years	811.09	Airport Rd	US 83	Signal	11,970	Yes	0	1	1	0	0	-
Describe Current Safety Issues & Systemic Ranking Review North Dakota Crashes 2009 - 2012 5 years					,							-
North Dakota Crashes 2008 - 2012 5 years	835.02	30th Ave NVV	05 83	Thru-STOP	7,575	NO	U	U	U	U	U	-
North Dakota Crashes 2008 - 2012 5 years												
North Dakota Crashes 2008 - 2012 5 years	Describe Cu	urrent Safety Issi	ues & Systemic Rar	nkina Review								
Traffic Control Device Signal Advanced Walk \$0 per intersection 4 \$0	December of	urrom Guroty 100			5	years						
Traffic Control Device Signal Advanced Walk \$0 per intersection 4 \$0			Ir	stercection Criteria			Description	. IIn	it Cost	Quanity	Total Cost	
Development / Ped Generator Total Ped/Bike Crashes >0 Median Refuge Island \$10,000 per side 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	_											
Total Ped/Bike Crashes Median Refuge Island \$10,000 per side 0 \$0 \$40,000						C						
Notes State Route Project Cost Estimate (attach detailed copy) Federal Funds S36,000 Local Match (10% of Total project cost) Total Project Cost \$40,000 NDDOT Central Office Only Project Accepted? Ves No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02						Medi						
Project Cost Estimate (attach detailed copy) Federal Funds \$36,000 Local Match (10% of Total project cost) \$4,000 Total Project Cost \$40,000 NDDOT Central Office Only Project Accepted? Notes Page: 2 Intersection ID: 83.02	_							Ţ,		-		
Federal Funds \$36,000 Local Match (10% of Total project cost) \$4,000 Total Project Cost \$40,000 **NDDOT Central Office Only Project Accepted?						Notes State F	Route					
Local Match (10% of Total project cost) \$4,000 Total Project Cost \$40,000 NDDOT Central Office Only Project Accepted? Yes No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02	Project Cos	st Estimate (attac	h detailed copy)					Proposed	Year of Con	struction		
Local Match (10% of Total project cost) \$4,000 Total Project Cost \$40,000 NDDOT Central Office Only Project Accepted? Yes No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02			Fodoral Funda	\$36,000				-				
Total Project Cost \$40,000 NDDOT Central Office Only Project Accepted? No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02		Local Match (10										
Project Accepted? ☐ Yes ☐ No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02	_	,										
Project Accepted? ☐ Yes ☐ No Reference Number - ID Number - Notes Page: 2 Intersection ID: 83.02												
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Page: 2 Intersection ID: 83.02	_		resno	Referenc	e Number -	-	ID Number -	•			-	
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SFN 59959 (06-20	Agency Name: contact Name: mail Address: ation map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	Stephanie Frizzo stephanie.frizzo@minot may use additional she 802.02 16th St SW Urban Ward	Pedes on 16th S	St SW	ND Teleph	Stern Av DOT District: none Number:	e SW to 4 701-857-41 SHSP Emph Reduce Alco Increase the Younger Driv Curb Aggres Improvement	asis Area (checked) Impaired Driver Sive Driving as to Address La	ck all that apply) iving Restraints for all Safety		_
Please attach a loca Location Descr	Agency Name: contact Name: mail Address: ation map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	City of Minot Stephanie Frizzo stephanie.frizzo@mino may use additional she 802.02 16th St SW Urban Ward	on 16th S	St SW	from Wes	Stern Av DOT District: none Number:	e SW to 4 701-857-41 SHSP Emph Reduce Alco Increase the Younger Driv Curb Aggres Improvement	asis Area (checked) Impaired Driver Sive Driving as to Address La	ck all that apply) iving Restraints for all Safety		_
Please attach a loca Location Descripe Describe Propo	Agency Name: contact Name: mail Address: ation map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	City of Minot Stephanie Frizzo stephanie.frizzo@mino may use additional she 802.02 16th St SW Urban Ward	tnd.gov		ND Teleph	DOT District: none Number:	SHSP Emph Reduce Alco Increase the Younger Driv Curb Aggres Improvement	asis Area (checked) Impaired Driver Sive Driving as to Address La	ck all that apply) iving Restraints for all Safety		_
Please attach a loca Location Descr	ontact Name: mail Address: stion map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	Stephanie Frizzo stephanie.frizzo@minot may use additional she 802.02 16th St SW Urban Ward		ibe your pr	Teleph	cone Number:	SHSP Emph Reduce Alco Increase the Younger Driv Curb Aggres	asis Area (chec hol Impaired Dr Use of Safety F er/Older Driver sive Driving s to Address La	iving Restraints for all Safety		-
Please attach a loca Location Descr Describe Propo	mail Address: tion map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	stephanie.frizzo@minoi may use additional she 802.02 16th St SW Urban Ward		ibe your pr	-		SHSP Emph Reduce Alco Increase the Younger Driv Curb Aggres	asis Area (chec hol Impaired Dr Use of Safety F er/Older Driver sive Driving s to Address La	iving Restraints for all Safety		
Please attach a loca Location Descri Describe Propo	ntion map(s). You iption Corridor Street Name Urban/Rural: County: Corridor ADT:	may use additional she 802.02 16th St SW Urban Ward		ibe your pr	oject.		Reduce Alco Increase the Younger Driv Curb Aggres	hol Impaired Dr Use of Safety F er/Older Driver sive Driving s to Address La	iving Restraints for all Safety		
Location Description	iption Corridor Street Name Urban/Rural: County: Corridor ADT:	802.02 16th St SW Urban Ward			,		Reduce Alco Increase the Younger Driv Curb Aggres	hol Impaired Dr Use of Safety F er/Older Driver sive Driving s to Address La	iving Restraints for all Safety		
	Street Name Urban/Rural: County: Corridor ADT:	16th St SW Urban Ward					Reduce Alco Increase the Younger Driv Curb Aggres	hol Impaired Dr Use of Safety F er/Older Driver sive Driving s to Address La	iving Restraints for all Safety		
	Street Name Urban/Rural: County: Corridor ADT:	16th St SW Urban Ward					Increase the Younger Driv Curb Aggres	Use of Safety F er/Older Driver sive Driving s to Address La	Restraints for all Safety	Occupants	
	Urban/Rural: County: Corridor ADT:	Urban Ward					Younger Driv Curb Aggres Improvement	er/Older Driver sive Driving s to Address La	Safety	Cooupanto	
	Corridor ADT:						Improvement	s to Address La	ane Denarture C		
		8,394							ne Denarture (
	sed Safety In							mergency Medi	cal Capabilities		
	sed Safety In					<u> </u>		section Safety	oa. oapaoaoo	to morodoo	
	sed Safety In										
		nprovements		Fatartia a	Davidan mark /	Tatal Dad/Dilea	A -l	Carratdaria	O. anh	Madian Dafora	
Intersection S	Street Name	Cross Street	Taffic Control	Enterting ADT	Ped Generator	Total Ped/Bike Crashes	Walk	Countdown Timers	Curb Exntensions	Median Refuge Island	Notes
802.06	16th St SW	2nd Ave SW	Signal	14,843	Yes	0	1	1	0	0	-
	16th St NW 16th St NW	4th Ave NW University Ave W	Signal Thru-STOP	16,600 7,780	Yes No	0	1 0	1 0	0 4	0 0	-
802.08	TOUT SUNW	Offiversity Ave vv	1111u-310F	1,100	INO	U	U	U	4	U	-
Describe Curre	nt Safety Issเ	ies & Systemic Ra									
		North Dakota Cra	ashes 2008 - 2012	5	years						
			ntersection Criteria			Description		t Cost	Quanity	Total Cost	
		Traffic Control Device Entering ADT	Signal			Advanced Walk ountdown Timers		er intersection er intersection	2	\$0 \$20,000	
	Develo	pment / Ped Generator	>15,000 Yes			Curb Extensions			2 4	\$20,000 \$60,000	
	7	Total Ped/Bike Crashes	>0		Media	an Refuge Island	\$10,000 p	er side	0	\$0	
					Notes None					\$80,000	
Dynings Cont Fr	timata (attac	h datailed assui)					Dramanad	Vacuation			
Project Cost Es	timate (attaci	h detailed copy)					Proposea	Year of Con	IStruction		
	L I M - I - I - (40)	Federal Funds	\$72,000								
	Local Match (10	% of Total project cost) Total Project Cost	\$8,000 \$80,000								
NDDOT Central	-										
<u>Pro</u>	ject Accepted? Notes	Yes No	Referenc	e Number -	•	ID Number -				=	
	140103										
_											
	<u> </u>									Page:	3 802.02
										Intersection ID: Date:	11/11/2013

City of Minot Urban Right Angle Crash Project Corridors

		Access Mgmt	Confirmation	
Corridor	Local Street Name	(Lights	Cost
83.01	Broadway St (20th Ave to Central)		5	\$ 5,000
83.02	Broadway St (4th Ave to 30th Ave)		4	\$ 4,000
802.01	16th Street (22nd to Hwy 2)		5	\$ 5,000
		0	14	\$ 14,000

			Criteria 15,000 Greater than							
rd Coun	nty Right Ang	le Crash Corridor Ar	alysis		Signal	25,000	Divided		0	
Int#	Segment #	Local Name	Cross Street	City	Traffic Control Device	ADT	Major Config	Severe Crashes	Severe Right Angle	High Prior Corrido Candida
300.01	800.01	37th Ave SW	16th St SW	Minot	Signal	9575	Undivided	0	0	
300.02 300.03	800.01 800.01	37th Ave SW 37th Ave SW	Frontage Rd SW (West) US 83	Minot Minot	Thru-STOP Signal	11630 13038	Divided Divided	<u>2</u> 1	1	YES
300.04	800.02	37th Ave SE	Frontage Rd SW (East)	Minot	Thru-STOP	2285	Undivided	0	0	
301.01	801.01 801.01	31st Ave SW	16th St SW	Minot	Thru-STOP Thru-STOP	14755	Undivided	0	0	YES
301.02 301.03	801.01	31st Ave SW 31st Ave SW	Frontage Rd SW (West) US 83	Minot Minot	Signal	8885 17458	Divided Divided	0	0	TES
301.04	801.02	31st Ave SE	Frontage Rd SW (East)	Minot	Thru-STOP	5823	Undivided	0	0	
301.05	801.02	31st Ave SE	13th St SE	Minot	Thru-STOP	7795	Undivided	0	0	
302.01 302.02	802.01 802.01	16th St SW 16th St SW	22nd Ave SW 20th Ave SW	Minot Minot	Signal Signal	26905 25565	Divided Divided	0	0	
302.03	802.01	16th St SW	16th Ave SW	Minot	Signal	16635	Undivided	0	0	YES
302.04 302.05	802.01 802.01	16th St SW 16th St SW	11th Ave SW US 2	Minot Minot	Signal Signal	18433 18093	Undivided Divided	2	0	
302.06	802.02	16th St SW	2nd Ave SW	Minot	Signal	14843	Undivided	0	0	
302.07	802.02	16th St NW	4th Ave NW	Minot	Signal	16600	Undivided	0	0	
302.08 302.09	802.02 802.02	16th St NW 16th St NW	University Ave W 11th Ave NW	Minot Minot	Thru-STOP Thru-STOP	7780 4410	Undivided Undivided	0	0	
302.09	802.02	16th St NW	21st Ave NW	Minot	Thru-STOP	4490	Undivided	0	0	
305.01	805.01	Elk Drive	Evergreen Ave	Minot	Thru-STOP	2713	Undivided	0	0	
306.01 306.02	806.01 806.01	Evergreen Ave 20th Ave SW	US 2 US 83	Minot	Thru-STOP Signal	10235 26983	Divided Divided	<u>1</u> 5	0	YES
306.02	806.02	20th Ave SE	2nd St SE	Minot Minot	Thru-STOP	11145	Divided	0	0	
306.04	806.02	18th Ave SE	13th St SE	Minot	Thru-STOP	9027	Undivided	0	0	
306.05 306.06	806.02 806.03	16th St SE 20th Ave SE	20th Ave SE 17th St SE	Minot Minot	Thru-STOP Thru-STOP	488 1649	Undivided Undivided	0	0	
306.07	806.03	20th Ave SE	US 52	Minot	Thru-STOP	4245	Undivided	0	0	
306.08	806.04	20th Ave SE (North)	13th St SE	Minot	Thru-STOP	7085	Divided	2	0	
307.01 307.02	807.01 807.01	6th St SE 6th St SE	US 2 21st Ave SE	Minot Minot	Thru-STOP Thru-STOP	9795 889	Divided Undivided	0	0	
307.02	807.01	21st Ave SE	13th St SE	Minot	Thru-STOP	6500	Undivided	0	0	
307.04	807.01	21st Ave SE	17th St SE	Minot	Thru-STOP	1298	Undivided	0	0	
307.05 308.01	807.01 808.01	17th St SE 16th Ave SW	US 2 6th St SW	Minot Minot	Thru-STOP All Way STOP	7512 7810	Divided Undivided	0	0	
808.02	808.01	16th Ave SW	US 83	Minot	Signal	19040	Undivided	3	0	YES
808.03	808.01	16th Ave SE	2nd St SE	Minot	All Way STOP	8745	Undivided	1	0	TES
308.04 309.01	808.01 809.01	16th Ave Se 11th Ave SW	13th St SE 6th St SW	Minot Minot	Thru-STOP Signal	7047 9710	Undivided Undivided	0	0	
309.02	809.01	11th Ave SW	US 83	Minot	Signal	21573	Undivided	2	0	
309.03	809.01	11th Ave SE	2nd St SE	Minot	All Way STOP	6153	Undivided	0	0	YES
309.04 309.05	809.01 809.01	11th Ave SE 11th Ave SE	3rd St SE Hiawatha St SE	Minot Minot	All Way STOP Thru-STOP	7108 4410	Undivided Undivided	0	0	
310.01	810.01	6th St SW	US 2	Minot	Signal	11208	Undivided	1	0	
310.02 310.03	810.02 810.02	6th St SW	Western Ave SW	Minot	Signal Thru-STOP	10555 9223	Undivided Undivided	0	0	
310.03	810.02	6th St SW 6th St NW	2nd Ave SW 3rd Ave NW	Minot Minot	Signal	13693	Undivided	1	0	
310.05	810.02	8th St NW	University Ave W	Minot	Signal	10045	Undivided	0	0	
310.06 310.07	810.02 810.02	8th St NW 8th St NW	11th Ave NW 21st Ave NW	Minot Minot	All Way STOP All Way STOP	6503 6783	Undivided Undivided	0	0	
310.07	810.02	8th St NW	30th Ave NW	Minot	Thru-STOP	1742	Undivided	0	0	
311.01	811.01	3rd St SE	4th Ave SE	Minot	Signal	11770	Undivided	11	1	
311.02 311.03	811.02 811.02	3rd St SE 3rd St SE	3rd Ave SE 2nd Ave SE	Minot Minot	Thru-STOP Thru-STOP	8153 8498	Undivided Undivided	0	0	
311.04	811.02	3rd St SE	1st Ave SE	Minot	Thru-STOP	7480	Undivided	0	0	
311.05	811.02	3rd St SE	Central Ave E	Minot	Signal	12310	Undivided	0	0	
311.06 311.07	811.02 811.02	3rd St NE 3rd St NE	5th Ave NE University Ave E	Minot Minot	Thru-STOP Signal	10218 8933	Undivided Undivided	0	0	
11.08	811.02	3rd St NE	11th Ave NE	Minot	Thru-STOP	6582	Undivided	0	0	
11.09	811.02	Airport Rd	US 83 US 2	Minot	Signal	11970 15040	Divided	0	0	
312.01 312.02	812.01 812.01	13th St SE 13th St SE	US 52 (Valley St)	Minot Minot	Signal Thru-STOP	8425	Divided Undivided	0	0	YES
313.01	813.01	27th St SE	US 52 (Valley St)	Minot	Thru-STOP	10277	Undivided	1	1	
13.02	813.01	27th St SE	US 2 (Burdick Expy)	Minot	Signal	11200	Undivided	0	0	
313.03 313.04	813.01 813.01	27th St NE 27th St NE	4th Ave NE Railway Ave NE	Minot Minot	Thru-STOP All Way STOP	7238 8188	Undivided Undivided	0	0	
314.01	814.02	US 2 Frontage Rd	US 2 (Burdick Expy)	Minot	Thru-STOP	3809	Undivided	1	0	
15.01	815.01	42nd St SE	US 2 11th Ave SE	Minot	Thru-STOP	7525	Divided Undivided	0	0	
15.02 15.03	815.01 815.01	42nd St SE 42nd St SE	US 2 Frontage Rd	Minot Minot	Thru-STOP Thru-STOP	4258 3059	Undivided	0	0	
15.04	815.01	42nd St SE	US 2 (Burdick Expy)	Minot	Thru-STOP	4690	Divided	0	0	
316.01 316.02	816.01 816.01	1st St SW 1st St SW	4th Ave SW 3rd Ave SW	Minot Minot	Thru-STOP Thru-STOP	9528 2865	Undivided Undivided	0	0	
316.03	816.01	1st St SW	2nd Ave SW	Minot	Signal	4313	Undivided	0	0	
316.04	816.01	1st St SW	1st Ave SE	Minot	Thru-STOP	2773	Undivided	0	0	
316.05 317.01	816.01 817.01	1st St SW Hiawatha St	Central Ave W US 52 (Valley St)	Minot Minot	Thru-STOP Thru-STOP	5007 7423	Undivided Undivided	<u> </u>	0	
318.01	818.01	8th Ave SE	US 52 (Valley St)	Minot	Thru-STOP	8465	Undivided	0	0	
318.02	818.01	8th Ave SE	US 2 (Burdick Expy)	Minot	Signal	6472	Undivided	1	0	
319.01 320.01	819.01 820.01	11th Ave SE 31st St SE	31st St SE US 2 (Burdick Expy)	Minot Minot	Thru-STOP Thru-STOP	2272 5840	Undivided Undivided	0	0	
	823.01	3rd Ave SW	S Broadway St	Minot	Thru-STOP	12815	Undivided	0	0	
323.01	020.0.		o broadway or	wiiiiot				0	•	

Ward Cou	nty Right Anզ	gle Crash Corridor A	nalysis		Signal	15,000 25,000	Divided	Grea	ter than 0	
Int#	Segment #	Local Name	Cross Street	City	Traffic Control Device	ADT	Major Config	Severe Crashes	Severe Right Angle	High Priority Corridor Candidate
824.01	824.01	Western Ave SW	4th Ave SW	Minot	Thru-STOP	6065	Undivided	0	0	
824.02	824.01	2nd Ave SW	S Broadway St	Minot	Signal	14908	Undivided	1	1	
824.03	824.01	2nd Ave SE	1st St SE	Minot	Thru-STOP	2605	Undivided	0	0	
824.05	824.01	Front St SE	4th Ave SE	Minot	Signal	10268	Undivided	0	0	
825.01	825.01	1st Ave SW	S Broadway St	Minot	Thru-STOP	13945	Undivided	0	0	
825.02	825.01	1st Ave SE	1st St SE	Minot	Thru-STOP	2315	Undivided	0	0	
826.01	826.01	1st St SE	4th Ave SW	Minot	Thru-STOP	8550	Undivided	1	0	
826.02	826.01	1st St SE	Central Ave E	Minot	Thru-STOP	4470	Undivided	0	0	
827.01	827.01	Central Ave E	S Broadway St	Minot	Signal	13940	Undivided	2	0	
828.01	828.01	4th Ave NW	20th St NW	Minot	Thru-STOP	7130	Undivided	0	0	YES
828.02	828.01	4th Ave NW	N Broadway St	Minot	Signal	19748	Undivided	2	0	TES
828.03	828.02	4th Ave NW	5th Ave NE	Minot	Thru-STOP	5530	Undivided	0	0	
830.01	830.01	20th St NW	Northwest Ave NW	Minot	Thru-STOP	1638	Undivided	0	0	
831.01	831.01	University Ave W	N Broadway St	Minot	Signal	16680	Undivided	1	1	YES
832.01	832.02	11th Ave NW	N Broadway St	Minot	Signal	13290	Undivided	0	0	
833.01	833.01	21st Ave NW	US 83	Minot	Thru-STOP	8300	Undivided	0	0	
833.02	833.01	21st Ave NW	Frontage Rd	Minot	Thru-STOP	5000	Undivided	0	0	
833.03	833.01	21st Ave NW	N Broadway St	Minot	Thru-STOP	9708	Divided	0	0	
834.01	834.01	2nd St NW	N Broadway St	Minot	Thru-STOP	9873	Divided	1	0	
835.01	835.01	30th Ave NW	Frontage Rd	Minot	Yield	2097	Divided	0	0	
835.02	835.01	30th Ave NW	US 83	Minot	Thru-STOP	7575	Divided	0	0	

LUCLINAVA	V CAFETY MADE	OVEMENT DDO	OD AM /UCI	D) DDO IEO	E A DDL IOA	TION				
		ROVEMENT PRO		P) PROJEC	I APPLICA	TION				
SFN 59959	•	sportation r rogrammin	9							
	,		Right Angle Cr	ashes @ Signal	s Intersection	Improvemen	nts			
	Inte	rsections on	S Broad	way St fro	om 20th	Ave S	W to Cent	ral Ave	E	
	Agency Name:	: City of Minot		-	ND D	OT District:	: 4			
	Contact Name:	: Stephanie Frizzo			Telepho	ne Number:	701-857-4100			
DI		stephanie.frizzo@minot								
	n a location map(s). You Description	u may use additional shee	ets to further des	scribe your project						
Location	rescription					SHSP Emp	hasis Area (check	all that apply)		
	Corridor						phol Impaired Drivi			
	Street Name Urban/Rural:	S Broadway St					Use of Safety Revolution Use of Safety Revolution		Occupants	
	County:					☐rb Aggres		aioty		
	Length	-				<u> </u>	ts to Address Lan	•		
						_	Emergency Medica ersection Safety	ii Capabilities t	o increase	
							·			
Describe F	Proposed Safety In	nprovements								
Intersection		Cross Street	Config	Taffic Control	Enterting ADT	Major	Severe Crashes	Severe RA	Confirmation	Notes
ID noc oo						Config Divided		Crashes	Lights	140103
806.02 808.02	20th Ave SW 16th Ave SW	US 83 US 83	X X	Signal Signal	26,983 19,040	Undivided	4 2	1 0	1 1	-
809.02	11th Ave SW	US 83	X	Signal	21,573	Undivided	1	Ö	1	-
823.01	3rd Ave SW	S Broadway St	Т	Thru-STOP	12,815	Undivided	0	0	0	-
824.02	2nd Ave SW	S Broadway St	X	Signal	14,908	Undivided	1	1	1	-
825.01	1st Ave SW	S Broadway St	X	Thru-STOP	13,945	Undivided	0	0	0	-
827.01	Central Ave E	S Broadway St	Т	Signal	13,940	Undivided	0	0	1	-
Describe (Current Safatu laar	too 9 Systemia Bon	king Daview							
Describe C	Jurrent Safety Issu	ues & Systemic Ran N		shes 2008 - 2012	5	years				
		Intersection Criteria				,				
	Traffic Control Device	•			iption		nit Cost	Quanity	Total Cost	
	Entering ADT	>15,000 <30,000			firmation Lights ed and Divided		per intersection	5	\$5,000	
	Development / Ped	Yes		•	s Management	ふろいい いいい) per mile	0.3	\$100,000	
	Generator Total Ped/Bike Crashe								\$105,000	
	Total Fed/Dike Crashe	, 20		Notes Access	s Management i	for commerci	al access at 20th A	Ave intersection	n and W. Burdick	Expressway
Project Co	ost Estimate (attacl	h detailed copy)				Proposed	I Year of Cons	truction		
-	-	Es de vel Es vela	#04.500			-				
	Local Match (10)	Federal Funds % of Total project cost)	\$94,500 \$10,500							
		Total Project Cost	\$105,000	_						
WDD07.0										
NDDOT CE	entral Office Only	Yes No								
	Project Accepted? Notes	res ino	Re	ference Number -		ID Number -	-		_	
	140163									
									– Page:	1
									Intersection ID:	83.01
									Date:	11/21/2013

	Y SAFETY IMPR			IP) PROJECT	APPLICA	TION				
North Dakot SFN 59959	ta Department of Trans (06-2011)									
	• .			crashes @ Signals		•				
		rsections on	N Broa	idway St fr				Ave NW	/	
	Agency Name:	-			ND D	OT District:	4			
		Stephanie Frizzo			Telepho	ne Number:	701-857-4100			
		stephanie.frizzo@minotr								
	h a location map(s). You	may use additional shee	ts to further de	escribe your project.						
Location I	Description					CHCD E	basis Area (abasis	all that apply		
	Corridor	83.02		-			hasis Area (check hol Impaired Drivii			
		N Broadway St				_	Use of Safety Res	•	Occupants	
	Urban/Rural:	•					ver/Older Driver Sa		•	
	County:					☐rb Aggres				
	Length -	-					ts to Address Lane			
							mergency Medical rsection Safety	Capabilities t	o increase	
						T prove into	rocollon callety			
Describe I	Proposed Safety Im	provements								
Intersection		Cross Street	Config	Taffic Control	Entorting ADT	Major	Severe Crashes	Severe RA	Confirmation	Notes
ID						Config		Crashes	Lights	140163
828.02	4th Ave NW	N Broadway St	X	Signal	19,748	Undivided	2 1	0 1	1 1	-
831.01 832.01	University Ave W 11th Ave NW	N Broadway St N Broadway St	X X	Signal Signal	16,680 13,290	Undivided Undivided	0	0	1	-
834.01	2nd St NW	N Broadway St	T	Thru-STOP	9,873	Divided	1	Ő	0	-
811.09	Airport Rd	US 83	X	Signal	11,970	Divided	0	0	1	-
833.03	21st Ave NW	N Broadway St	T	Thru-STOP	9,708	Divided	0	0	0	-
835.02	30th Ave NW	US 83	Т	Thru-STOP	7,575	Divided	1	0	0	-
Describe (Current Safety Issue	es & Systemic Ranl	kina Reviev	V						
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				Notes None						
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		Federal Funds	\$3,600							
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		Total Project Cost	\$4,000							
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	Contact Name:	Stephanie Frizzo			Telepho	ne Number:	701-857-4100			
		stephanie.frizzo@mino								
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802.03	16th St SW	16th Ave SW	Т	Signal	16,635	Undivided	0	0	1	-
802.04	16th St SW	11th Ave SW	X	Signal	18,433	Undivided	0	0	1	-
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				Notes None						
Project Co	ost Estimate (attach	n detailed copy)				Proposed	l Year of Const	ruction		
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		Federal Funds	\$4,500							
	Local Match (10%	% of Total project cost)	\$500	<u> </u>						
		Total Project Cost	\$5,000							
NDDOT C	entral Office Only									
	Project Accepted?	Yes No	Re	eference Number -		ID Number -	-			
	Notes								_	
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									Intersection ID:	800.01
									Date:	11/11/2013



5.0 Behavioral Safety Strategies

5.1 Purpose of Driver Behavior Safety Strategies

North Dakota's Local Road Safety Program (LRSP) recognizes that driver behavior is a significant factor contributing to a majority of the severe crashes on North Dakota's local roads. Traffic crashes may result from any combination of overlapping crash factors, such as the roadway, the vehicle, and driver behavior. Research supports and experts agree that in most cases driver behavior—risky decisions, driver error, lapses of attention, and driver limitations—is a chief factor contributing to traffic crashes (Lerner et al., 2010). Severe traffic crashes in North Dakota's Ward County can be largely prevented and reduced if motorists were persuaded to engage in key safe driving practices to buckle up, drive at safe speeds, pay attention, and plan ahead to avoid impaired driving. For maximum safety benefit, these measures should be undertaken in addition to adopting infrastructure safety strategies to help ensure the safest and most forgiving roadway possible.

5.2 Overview of Behavioral Crash Data for Ward County

Unbelted Vehicle Occupants: Traffic safety research demonstrates that a motorist's seat belt is the most effective defense in the event of a crash. When lap and shoulder seat belts are used, the risk of fatal injury to front-seat passenger car occupants is reduced by 45 percent and the risk of moderate-to-critical injury is reduced by 50 percent (NHTSA, 2001). Safety benefits are even greater for light-truck occupants, with seat belts reducing fatalities by 60 percent and moderate-to-critical injury by 65 percent (NHTSA, 2009). North Dakota's 2013 statewide seat belt use is 77.7 percent; lower than the nationwide use of 86 percent. Unbelted severe crashes are Ward County's greatest opportunity to strengthen road safety through improving driver behavior. The trend of severe unbelted crashes is increasing statewide. Ward County is below the 48 percent statewide-unbelted severe crashes with 39 percent of the county's severe crashes involving unbelted motorists.

Alcohol-Related Crashes: Nationally, although impaired driving fatalities have decreased since 2007, the percentage of alcohol-impaired fatalities in the U.S. has remained essentially unchanged (NHTSA, 2012a). Similarly, over the last decade, each year nearly half of motor vehicle fatalities statewide in North Dakota continue to be alcohol-related. In Ward County, 22 percent of the county's severe crashes are alcohol-related—lower than the statewide 30 percent. From statewide crash data, nearly half of these preventable severe crashes are on the local road system.

Young Driver-Involved: Young drivers have the highest involvement in fatal crashes of any age group. The fatal crash involvement of drivers age 16 to 20 is nearly twice that of drivers' age 21 and older (NHTSA, 2012b). Key underlying factors to their high crash risk are the developmental and behavioral issues of adolescence coupled with driving inexperience. Young drivers too often immaturely take risks while driving without thinking through the potential consequences of their life-threatening decisions (Keating, 2007). Such high-risk behaviors typically include lack of seat belt use, aggressive driving/speeding, and distractions while driving. Although severe injury crashes involving young drivers have gradually declined statewide, young drivers under the age of 21 continue to be overrepresented in crashes with

67 percent occurring on local roads. In Ward County, 30 percent of severe crashes involve young drivers, which is higher than the 22 percent of statewide severe crashes.

Excessive Speed or Aggressive Driving: Speeding is common and is a tough nut to crack nationally and in North Dakota. Although drivers generally acknowledge that speeding is an unsafe behavior, speeding remains common because the perceived risk of injury is low relative to the perceived benefits of driving fast such as saving time and driving pleasure (Lerner et al., 2010). Consequently, the percentage of speeding-related fatal crashes has remained essentially unchanged over the years and remains a contributing factor in 31 percent of traffic fatalities in the U.S. (NHTSA, 2012c). Speeding and aggressive driving continue to account for approximately 26 percent of all severe crashes in North Dakota with 62 percent of these crashes occurring on the local road system. In Ward County, 25 percent of its severe crashes involve speed or aggressive driving, which is similar to the statewide percentage of 26 percent.

5.3 Importance of Traffic Safety Culture Change

5.3.1 The Influence of Traffic Safety Culture

In adopting North Dakota's long-term vision of zero fatalities, the 2013 North Dakota SHSP establishes a collective goal to reduce the 3-year average of traffic fatalities to 100 or fewer by 2020. To accomplish this interim goal, Ward County, together with its traffic safety partners, seeks to develop and implement its LRSP safety strategies within the broader societal context of motorists' behavior and North Dakota's traffic safety culture. Traffic safety culture can be defined as the implicit shared values, beliefs, and perceptions that shape motorists' behavior.

5.3.2 Social Norms Inhibiting a Strong Traffic Safety Culture

At the core of the nation's and North Dakota's traffic safety challenge is a complacency toward risk-taking by drivers and a tolerance for traffic crashes and the resulting deaths and serious injuries. Contributing factors include a sense of individual driver invulnerability, perceived driving skills and vehicle control, and a sense of anonymity and entitlement on the road. The latest data from the 2012 *Traffic Safety Culture Index Survey* reports that, as in previous years, the safety culture in the United States surrounding distracted driving can best be described as "do as I say, not as I do" — due to the high numbers of people who object to certain behaviors, yet will admit that they, themselves, engage in them (AAA, 2012). Real progress in traffic safety depends largely on addressing and changing this culture of indifference to effectively implement and see results of both SHSP and LRSP safety strategies.

5.3.3 Social Levels Influencing Safety Culture

Efforts to change individual driver and motorist behaviors should be planned and executed from an ecological viewpoint—one that examines the driving public and their interaction with their social environments. Traffic safety culture and its influence operate at different levels within society. Therefore, a broader definition of traffic safety culture includes the values, beliefs, and perceptions of not only the individual driver, but of those shared by the various communities of which the driver is a part (Figure 5-1). The individual driver exists within a system that includes the following levels, each embodying factors that influence driving culture and crash risk (Ward et al., 2010; Dahlberg and Krug, 2002):

• Individual level – Factors such as driver age, driving experience, self-esteem, income, and substance abuse

- Relationship level Factors such as relationships with peers, co-workers, supervisors, and family members
- Community level Factors include the settings or environments in which relationships occur such as school, church, workplaces, and neighborhoods
- Societal level Large-scale factors such as safety, health, economic, and educational policies, as well as government commitments and priorities

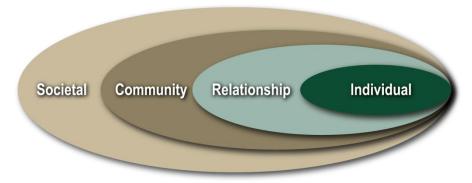


FIGURE 5-1
Social Ecological Perspective of Culture
Source: "Violence – A Global Public Health Problem" by L.L. Dahlberg and E.G. Krug, in World Report on Violence and Health (World Health Organization)

Social norms at each level and within each group point to what behaviors are perceived as important. Norms create conformity to expectations that allows people (that is, drivers) to successfully socialize to the subcultures in which they belong. These norms create a climate in which unsafe driving behavior is either encouraged or discouraged. Perceived social norms condoning high-risk driving behaviors provide the case for drivers to rationalize their own high-risk behaviors. To accomplish the culture change, traffic safety behavioral strategies seek to make safe-driving behaviors the accepted norm across all social ecological levels.

The implication of the social ecological model for LRSP efforts is that the implementation plans of LRSP strategies plans should attempt to:

- Increase perceived social pressure to comply with traffic safety laws and practices, thereby, producing safety behavioral norms (Ward et al., 2010)
- Shift the social acceptance of high-risk behaviors to one of perceived unacceptance by significant others and one's peers.

5.4 Behavioral Safety Strategies

5.4.1 Role of Policy, Education, and Enforcement

Techniques or strategies to change driver behavior essentially fall into one of three categories: 1) *policy change* or laws, local ordinances, regulations, sanctions and penalties; 2) *enforcement* of the laws; and 3) *education* or public information, media, and training. These three categories of behavioral safety strategies work together to have the greatest impact on changing risky driver behavior. The degree of effectiveness of any one strategy on behavioral change depends not only on how effectively the strategy is implemented, but also on how these three categories of policy, enforcement, and education are working together.

For example, a state or local agency that is seeking to increase motorists' seat belt use and decides to use a "buckle up" public information campaign (behavioral change strategy). The effectiveness of the campaign not only depends on the quality of the education or public information campaign (relevance to target group, duration, saturation of the messaging), but also the strength of the law in place (primary vs. secondary seat belt law, all passengers vs. front seat only, higher penalty/fee vs. low penalty/fee) and, most important, the degree of seat belt use enforcement (coverage, intensity, visible by the public).

Consequently, the strength of driver safety policy, enforcement, and education surrounding a behavioral strategy selected greatly impact its effectiveness. Therefore, when selecting and implementing a behavioral strategy, an agency must examine the policy, enforcement, and educational context of the strategy and explore ways to strengthen each, as appropriate, to gain the most from a selected strategy.

Finally, it is critically important that traffic safety enforcement is viewed as a priority within local law enforcement agencies and that agency leaders and administrators advocate for strong local enforcement of traffic laws. It is imperative that agency leaders actively address political and public resistance and provide a pathway to deploy the leading strategy to save lives on North Dakota roadways—effective traffic enforcement coupled with public outreach. By advocating for enforcement, educating local elected officials, and equipping officers to effectively enforce traffic safety laws, North Dakota will reap far greater life-saving outcomes from its local safety initiatives.

5.4.2 Effective Use of Public Information Strategies

Public information (education) strategies are often popular among communities seeking to change risky driving behaviors. Education or public information campaigns can range from brochures and mailings to peer-to-peer safety messaging. Brochures and mailings are a passive approach, while peer-to-peer messaging provides a more effective behavioral change approach. In general, a key challenge in influencing driver behavior is that most drivers know what they are supposed to do to drive safely, yet due to successfully driving with risky patterns with no incidence of crash, drivers underestimate the risk of their choices. For this reason, research supports that education, coupled with enforcement, will have the strongest impact in changing driver behavior (NHTSA, 2013).

Following are key characteristics of impactful public information/education campaigns (Williams, 2007):

- Implemented in support of a high-visibility enforcement program
- Focused messaging for a target group
- Longer-term programs delivering messages of sufficient intensity over time
- Messages communicating new information not previously well known
- Messages that are part of a broader-based, longer-term community program with similar messaging coming from multiple sources
- Using behavior change models including interactive methods teaching skills to resist social pressure (such as role playing, group discussion)

5.4.3 LRSP Phase 1 Priority Strategies

During the LRSP workshop, participants reviewed Ward County's behavioral crash data and discussed behavioral safety strategy alternatives that could be implemented at the local level. Out of the strategy review discussions, participants engaged in a prioritization process with six strategies emerging as the preferred local behavioral safety strategies for the four behavioral critical emphasis areas. Table 5-1 reflects the LRSP Phase 1 results of the strategy prioritization, as well as each strategy's alignment with the North Dakota SHSP (indicated by an "X" if included in the SHSP).

TABLE 5-1North Dakota Phase 1 LRSP Workshop Priority Behavioral Strategies and Relationship with the North Dakota SHSP

North Dakota Phase 1 LRSP Workshop Phonty Benavioral Strategies and Relationship with the North Dakota ShSP										
Phase 1 LRSP Workshop Priority Behavioral Strategies and Their Relationship with the North Dakota SHSP	Northeast Region	Burleigh County (Region 10)	Ward County (Region 14)	ND SHSP						
Impaired Driving										
Conduct regular high-visibility DUI enforcement saturations	Х	Х	Х	Х						
Speeding and Aggressive Driving										
Conduct high-visibility targeted enforcement of speeding and aggressive driving Note: Added speed and aggressive driving enforcement strategies to support priority infrastructure safety strategies include: Provide enhanced enforcement to support local agency implementation of Red-Light-Running confirmation lights for at-risk intersection locations. Provide enhanced enforcement on local, at-risk locations for lane departure.	х	х	х	Х						
Young Drivers										
Publicize and conduct a high-visibility enforcement of GDL restrictions, cell and texting laws, underage drinking and driving, and seatbelt laws			Х	Х						
Encourage driver education providers (local schools and private providers) to require parent education component	Х	X		X						
Conduct brief interventions by health care providers following a crash regarding driving risks and consequences			Х	Х						
Unbelted Occupants										
Conduct highly publicized enforcement campaigns to maximize restraint use.	Х	X	Х	Х						
Note: DUI = driving under the influence GDL = graduated driver's license										

The following subsections provide a more complete description of each priority strategy, suggested steps to launch local agency efforts, recommended implementation resources, and potential future considerations for expanded local agency and community-based support for the SHSP safety strategies. It is important to note that multidisciplinary SHSP implementation teams will be formed to support the implementation of priority strategies for each of the six

SHSP priority emphasis areas including: lane departure, unbelted vehicle occupants, alcohol-related, speed or aggressive drivers, young drivers, and intersections. Therefore, local agencies seeking to leverage local-level safety initiatives described in the following subsections are encouraged to coordinate with and/or engage in the statewide SHSP implementation teams.

5.4.4 Impaired Driving

Ward County Priority Strategy – Conduct regular high-visibility DUI enforcement saturation patrols (includes expanding DUI sobriety checkpoints)

Description: High-visibility DUI enforcement is a high-priority, proven safety strategy to reduce alcohol-impaired severe crashes in North Dakota and across the nation. The most effective way to deter impaired driving is through a highly visible enforcement effort to reinforce the driving public's belief that impaired drivers are at high risk of being arrested, prosecuted, and adjudicated. High-visibility enforcement consists of multiple jurisdictions and/or multiple squads patrolling a segment of roadway at the same time, often using brightly colored vests and signs. Planned enforcement is publicized extensively through community kickoff events involving the local media and public education campaigns about the enforcement. High visibility also includes enforcement agencies reporting to news media the outcome or arrests made during the saturation or checkpoint campaign. In addition to deterring driving after drinking by increasing the perceived risk of arrest, high-visibility enforcement extends the safety impact of the enforcement campaign for a longer period following the campaign.

What are saturation patrols?

Saturation patrols, also known as "dedicated DUI patrols," are stepped-up enforcement involving a greater number of law enforcement officers patrolling a specific area for a set time to identify and arrest impaired drivers. Multiple agencies often combine and concentrate their resources to conduct saturation patrols.

What are sobriety checkpoints?

At sobriety checkpoints, law enforcement officials evaluate drivers for signs of alcohol or drug impairment at certain points on the roadway. Vehicles are stopped in a specific sequence, such as every other vehicle or every fourth, fifth, etc. The frequency of which vehicles are stopped depends on the traffic conditions and the number of enforcement personnel available to staff the checkpoint.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as impaired driving, in the SHSP.
- Assist local law enforcement agencies and Regional DUI Task Forces with identifying locations with high crash involvement for high-visibility enforcement.
- With local law enforcement, attend county board/city council meetings to speak on the importance of reducing impaired driving and the important role of both enforcement and engineering safety strategies.
- Collaborate with highway patrol, local law enforcement, community health officials, and local traffic safety stakeholders to use TSO DUI campaign materials to conduct community outreach on the enforcement campaign.

Implementation Resources:

- For crash data and analysis to focus DUI enforcement efforts, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- To learn about Regional DUI Task Forces and other local traffic safety enforcement activities and enforcement grant opportunities, contact the TSO.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- For statewide impaired driving enforcement mobilizations, the TSO distributes media outreach materials to local enforcement agencies which may include: press releases, talking points, camera-ready artwork and posters, impaired driving fact sheets, handouts for the public at checkpoints, a print public service announcement (PSA), and live-read radio PSAs. (Note: TSO to assemble available information resources.)
- For guidance on planning and publicizing saturation patrols and sobriety checkpoints:

Saturation Patrols & Sobriety Checkpoints: A How-to Guide for Planning and Publicizing Impaired Driving Enforcement Efforts, NHTSA, Report No. DOT HS 809 063, revised October 2002.

http://www.nhtsa.gov/people/injury/alcohol/saturation_patrols/

Low-Staffing Sobriety Checkpoints. NHTSA, Report No. DOT HS 810 590, 2006. http://www.nhtsa.gov/people/injury/enforce/LowStaffing_Checkpoints/

Other impaired-driving safety resources:

National Highway Traffic Safety Administration: http://www.nhtsa.gov/Impaired

Governor's Highway Safety Administration:

http://www.ghsa.org/html/issues/impaireddriving/index.html

Insurance Institute for Highway Safety:

http://www.iihs.org/research/topics/alcohol_drugs.html

Potential future considerations for expanded local agency and community-based support of SHSP impaired-driving safety strategies:

- Engage local safety stakeholders (law enforcement, Mothers Against Drunk Driving [MADD], Students Against Drunk Driving [SADD], North Dakota Safety Council, community health provider, emergency medical service providers) and facilitate coalition development to educate local elected officials on the importance of state agency impaireddriving legislative initiatives resulting from the state's comprehensive assessment of North Dakota impaired-driving laws.
- Conduct community-wide and sustained public information outreach to educate and create cultural awareness of the risks associated with excessive alcohol use.
- Develop and conduct local public outreach on accessible safe-ride alternative transportation services.
- Conduct highly publicized compliance checks and training for local alcohol retailers and merchants to reduce sales to underage persons.

Other high-impact, proven strategies for local agency consideration:

Monitor judicial sentencing of local DUI courts or intensive supervision programs.

5.4.5 Young Drivers

Ward County Priority Strategy – Publicize and conduct high-visibility enforcement of teen driver Graduated Driver's Licensing (GDL) restrictions, no teen cell phone use and texting-while-driving laws, no underage drinking and driving, and seatbelt use laws.

Description: See Section 5.4.4 for a description of high-visibility/highly publicized enforcement campaigns.

To the extent that teen drivers do not comply with the protective restrictions under North Dakota's GDL system and its Zero Tolerance for drinking laws, traffic safety benefits of these laws will be greatly reduced. Compliance with restrictions can be encouraged through stepped-up enforcement efforts such as checkpoints and saturation patrols coupled with publicity to raise awareness for the enforcement.

North Dakota law enforcement agencies (state, county, city and tribal) participate in high-visibility enforcement programs coordinated at the regional level using a data-driven, multi-agency approach. Such inter-agency cooperation deploys a strategic approach to supporting smaller agencies with low officer staffing by increasing enforcement presence for seat belt, impaired driving, and speed enforcement campaigns which include drivers under the age of 20. In addition, underage-drinking enforcement is conducted during peak youth high-risk time periods such as prom and graduation. Underage drinking enforcement also includes retail compliance check programs to monitor the selling of alcohol to minors. Finally, law enforcement agencies conduct overtime high-visibility enforcement of North Dakota's notexting law in areas more prominently impacted by distracted driving-related severe injury crashes.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as young drivers, in the SHSP.
- Assist local law enforcement agencies and regional enforcement teams with identifying locations with high young driver crash involvement for high-visibility enforcement.
- Explore with local law enforcement the use of enforcement checkpoints held near high schools during lunchtime, after school, or after school sporting events and activities to enforce safety belt laws and passenger restrictions.
- With local law enforcement, attend county board/city council meetings to speak about the importance of reducing young driver severe crashes through high visibility enforcement.
- Collaborate with highway patrol, local law enforcement, community health officials, and local traffic safety stakeholders to use TSO traffic safety materials to conduct community outreach on young driver risks together with messaging about upcoming traffic safety enforcement campaigns.
- Work with local businesses to provide rewards and incentives to law enforcement, like discount coupons, to distribute to young drivers who are paying attention to the road (not their phones) and demonstrating safe driving behaviors.

Implementation Resources:

• For information on high-visibility enforcement implementation resources, see *Section 5.4.4* for alcohol enforcement and *Section 5.4.6* unbelted enforcement.

 For age-specific information and resources for parents on how to start and continue the conversation about alcohol use with their children, see the North Dakota's *Parents LEAD* program (Listen, Educate, Ask, Discuss).

http://www.parentslead.org/

• To launch a comprehensive local distracted driving outreach campaign to support law enforcement's high-visibility efforts, see NHTSA's *Districted Driving Campaign Starter Kit: One Text or Call Could Wreck It All.*

http://www.distraction.gov/download/campaign-materials/dd_campaign_starter_kit.pdf

Considerations for future expanded local agency/community support of ND SHSP young driver safety strategies:

 Engage local traffic safety stakeholders (law enforcement, school administrators, driving schools, insurance companies, community health providers, emergency medical service providers) and facilitate coalition development to educate local elected officials on the importance of state agency GDL and teen driver safety policy initiatives.

Other high-impact strategies for local agency consideration:

- Conduct locally facilitated peer-to-peer driver safety outreach campaigns designed for high school students to raise peer awareness of the common risk factors threatening novice drivers.
- Implement cell phone use and safe driving policies for local agency employees and encourage local businesses to do the same.

Ward County Priority Strategy – Conduct brief interventions by health care providers following a crash regarding driving risks and consequences

Description: Following a car crash, brief interventions by trauma care providers capitalize on the "teachable moment" during the treatment of a patient's injuries in which he or she is more motivated to change risky driving behavior. In the context of highway safety, brief interventions most commonly are short, 10- to 15-minute motivational interviews involving an initial screening or a structured set of questions and a brief follow-up discussion that encourage drinking drivers to create a plan of action, from reducing their drinking to seeking substance abuse treatment, based on their willingness to change their drinking behavior. The discussion involves a non-threatening approach that provides feedback in a non-threatening manner. North Dakota's Ward County seeks to expand the application of brief interventions by trauma and health care providers to include high-risk behaviors most often practiced by young drivers such as lack of belt use, speeding/aggressive driving, and distracted driving.

The consequences of traffic crashes involve injury and care issues greatly impacting North Dakota and its local communities; however, organizations dedicated to health care do not always recognize the important role they play in contributing to the reduction of high-risk driving behaviors. The promotion of brief interventions performed by trauma care providers can be an effective strategy to help improve traffic safety at the local level.

Getting Started:

 Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as young drivers, in the SHSP. Collaborate with local health and trauma care providers and community-based traffic safety groups to assist with launching traffic safety brief intervention approach (see implementation resources below).

Implementation Resources:

- For assistance with identifying local community partners and health/trauma care providers, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- For guidance on developing and implementing brief interventions:

Alcohol and Highway Safety: Screening and Brief Intervention for Alcohol Problems as a Community Approach to Improve Traffic Safety, NHTSA, Technology Transfer Series, Report No. DOT HS 811 811, September 2013.

http://www.nhtsa.gov/About+NHTSA/Traffic+Techs

Screening and Brief Intervention Tool Kit for College and University Campuses, NHTSA, Report No. DOT HS 810 751

http://www.nhtsa.gov/links/sid/3672Toolkit/index.htm

5.4.6 Unbelted

Ward County Priority Strategy – Conduct highly publicized enforcement campaigns to maximize restraint use

Description: See Section 5.4.4 for a description of high-visibility/highly publicized enforcement campaigns.

North Dakota law enforcement agencies (state, county, city and tribal) participate in the state's Click It or Ticket mobilization program to boost seat belt use and reduce highway fatalities through stepped up enforcement of unrestrained occupants, The mobilization is supported by national and local paid advertising and earned media campaigns aimed at raising awareness before the enforcement saturation. Click It or Tick It takes place each year in May around the Memorial Day holiday. North Dakota has increased its focus on nighttime seat belt use because fewer motorists buckle up at night.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as unbelted crashes, in the SHSP.
- Assist local law enforcement agencies with identifying locations with high unbelted crash involvement for high-visibility enforcement.
- With local law enforcement, attend county board/city council meetings to speak on the importance of enforcing belt use.
- Collaborate with highway patrol, local law enforcement, community health officials, and local traffic safety stakeholders to use TSO belt use campaign materials to conduct community outreach on the enforcement campaign.

Implementation Resources:

- For crash data and analysis to focus seat belt enforcement efforts, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- To learn about local traffic safety enforcement activities and enforcement grant opportunities, contact the TSO.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- For statewide belt use mobilizations, the TSO distributes media outreach materials to local enforcement agencies which may include: press releases, talking points, camera-ready artwork and posters, belt-use fact sheets, a print public service announcement (PSA), and live-read radio PSAs. (*Note: TSO to assemble available information resources.*)
- For guidance on planning and publicizing belt-use saturation patrols:

NHTSA 2013 national seat belt enforcement *Products for Enforcement Action Kit (PEAK)* to help enforcement rally officers and alert the public to prepare for maximum high-visibility seat belt enforcement during the day and also at night.

http://www.trafficsafetymarketing.gov/CIOT-PEAK

Nighttime Enforcement of Seat Belt Laws: An Evaluation of Three Community Programs, NHTSA, Report No. DOT HS 811 189, August 2009.

Innovative Seat Belt Demonstration Programs in Kentucky, Mississippi, North Dakota, and Wyoming, NHTSA, Report No. DOT HS 811 080, March 2009.

Avoiding "Tween" Tragedies: Demonstration Project to Increase Seat Belt Use Among 8- to 15-year-old Motor Vehicle Occupants, NHTSA, Report No. DOT HS 811 096, June 2012.

For the above and other belt enforcement and information outreach resources: http://www.nhtsa.gov/Driving+Safety/Occupant+Protection

Other seat-belt safety resources:

Governor's Highway Safety Administration: http://www.ghsa.org/html/issues/occprotection/index.html

Insurance Institute for Highway Safety: http://www.iihs.org/iihs/topics/t/safety-belts/topicoverview

Potential future considerations for expanded local agency, tribal and community-based support of SHSP safety strategies:

- Pursue tribal ordinances for primary enforcement of seat belt laws.
- Engage local safety stakeholders (law enforcement, Mothers Against Drunk Driving [MADD], Students Against Drunk Driving [SADD], North Dakota Safety Council, community health provider, emergency medical service providers) and facilitate coalition

- development to educate local elected officials on the importance of state agency primary seat belt legislative initiatives.
- Conduct community-wide and sustained public information outreach to educate and create cultural awareness of the risks associated with unbelted motorists.

5.4.7 Speed and Aggressive Driving

Ward County Priority Strategy – Conduct highly publicized and targeted speed and aggressive driving enforcement campaigns

Description: See Section 5.4.4 for a description of high-visibility/highly publicized enforcement campaigns.

North Dakota law enforcement agencies (state, county, city and tribal) participate in the state's Ticketing Aggressive Cars and Trucks (TACT) program to reduce speed-related fatalities and severe injuries through stepped up enforcement of aggressive cars and trucks primarily in oil-impacted counties. For aggressive driving enforcement, officers focus on drivers who commit a combination of moving traffic violations such speeding, following too closely, running red lights, which endangers other persons or property.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as speeding, in the SHSP.
- Assist local law enforcement agencies with identifying locations with high speed and aggressive driving-related crash involvement for high-visibility enforcement.
- With local law enforcement, attend county board/city council meetings to speak on the importance of enforcing speed and aggressive driving.
- Collaborate with highway patrol, local law enforcement, community health officials, and local traffic safety stakeholders to use TSO speed campaign materials to conduct community outreach on the enforcement campaign.

Implementation Resources:

- For crash data and analysis to focus speed enforcement efforts, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- To learn about local traffic safety enforcement activities and enforcement grant opportunities, contact the TSO.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- For guidance for law enforcement on planning and publicizing local speed saturation
 patrols and successful case examples, see NHTSA's Guidelines for Developing a Municipal Speed
 Enforcement Program at:

http://www.nhtsa.dot.gov/people/injury/enforce/program.htm

• For a summary of successful aggressive driving enforcement programs deployed at the local and state-level across the country, see NHTSA's (2001 b) *Aggressive Driving Enforcement: Strategies for Implementing Best Practices* at:

http://www.nhtsa.gov/people/injury/enforce/aggressdrivers/aggenforce/

• Other speed-related safety resources:

Governor's Highway Safety Administration: http://www.ghsa.org/html/issues/speeding.html

Insurance Institute for Highway Safety: http://www.iihs.org/iihs/topics/t/speed/topicoverview

Potential future considerations for expanded local agency, tribal and community-based support of SHSP safety strategies:

 Engage local safety stakeholders (law enforcement, Mothers Against Drunk Driving [MADD], Students Against Drunk Driving [SADD], North Dakota Safety Council, community health provider, emergency medical service providers) and facilitate coalition development to educate local elected officials on the importance of state agency legislative initiatives to strengthen penalties such as increased fines for right-of-way and speed violations.

Ward County's Priority Strategy – Provide enhanced enforcement to support local agency implementation of Red-Light-Running confirmation lights for at-risk intersection locations.

Description: To reduce the most common type of severe crashes at signalized intersections--right angle crashes — Ward County would like to deploy an innovative safety strategy using a downstream confirmation light system to reduce red-light running. A blue LED light mounted on the back of a traffic light is activated when an offender runs the red light. A single officer stationed across the intersection downstream from the traffic light safely observes and pursues the red light violator (instead of one officer to observe and an additional officer to pursue). To implement, red-light-running confirmation lights requires interdependent collaboration of both engineering and enforcement; even more effective would be added public outreach about the RLR confirmation lights.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as speed and aggressive driving, in the SHSP.
- Work with NDDOT staff regarding specific design features of the system. Contact NDDOT Traffic Operations Section, Shawn Kuntz, 701-328-2673.
- Coordinate with local law enforcement:
 - Ask for their assistance in locating the enforcement lights on traffic signal poles/mast arms (optimum viewing locations)
 - Ask for an agreement regarding minimum levels of enforcement (i.e., one hour per day at any of the equipped locations)

- Provide training to officers after installation demonstrate that the "Blue/Confirmation" Light does come on at the same instant as the red light of the signal.
- Encourage law enforcement to coordinate with the City/County attorney make sure the attorney understands the technology and is willing to prosecute the violators.
- Encourage the City/County attorney to coordinate with the district court judge make sure
 the judge understands the technology and will uphold charges and support the conviction
 of violators.
- Prior to issuing any tickets for violations using the Confirmation Lights, have the traffic signal operations engineer check all of the signals clearance intervals (Yellow + All Red) to make sure they are 100 percent consistent with the agencies adopted guidelines. Have a note confirming compliance signed by the engineer put in the signal controller cabinet. (This will help address the inevitable complaint by those issued tickets that the agency changed the clearance intervals to generate more violators to increase revenue streams.)
- With local law enforcement, attend county board/city council meetings to speak on the community safety benefits of red-light-running confirmation lights.

Implementation Resources:

- For crash data and analysis to focus red-light-running enforcement efforts, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- Safety projects developed as part of the LRSP are eligible for funding through the state's Highway Safety Improvement Program (HSIP) including enhanced enforcement.
- Contact local agencies that have deployed red-light-running confirmation lights:
 - City of Burnsville Public Works, Minnesota Engineering Department
 100 Civic Center Parkway
 Burnsville, MN 55337
 Phone: 952-895-4534
 - Richardson Police Department, Texas140 North Greenville Ave.Richardson, TX 75081

Phone: 972-744-4800

Ward County's Priority Strategy – Provide enhanced enforcement on local, at-risk locations for lane departure.

Description: To reduce lane departure severe crashes on rural paved roads, Ward County will be deploying infrastructure safety improvements (e.g., centerline rumble strips, edge line rumble strips, adding or widening edge lines, high visibility pavement markings) at select atrisk corridors. To maximize the expected safety benefit of the road improvements, integrating increased enforcement presence at targeted at-risk locations and timeframes will reduce risky driver behaviors through strengthening the public's perceived risk of being stopped.

Getting Started:

- Contact the Traffic Safety Office (TSO) to participate in the SHSP process as a stakeholder in the implementation of strategies identified for priority safety emphasis areas, such as lane departure, in the SHSP.
- Work with NDDOT staff regarding specific design features of the system. Contact NDDOT Traffic Operations Section, Shawn Kuntz, 701-328-2673.
- Coordinate with local law enforcement to provide enhanced enforcement at local, at-risk locations for lane departure.
 - Based on crash data, identify timeframes for high crash risk (i.e., Saturday evening hours)
 - Ask for an agreement regarding minimum levels of enforcement (i.e., one hour per day at any of the equipped locations, target contacts per hour, etc.)

Implementation Resources:

- For crash data and analysis to focus lane departure enforcement efforts, contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.
- See Section 5.5, Traffic Safety Office Supporting Resources.
- Safety project developed as part of the LRSP are eligible for funding through the state's Highway Safety Improvement Program (HSIP) including enhanced enforcement.
- See Section 5.4.7 for speed and aggressive driving implementation resources.

5.5 Traffic Safety Office Supporting Resources

Unless otherwise indicated, for technical assistance and supporting resources contact the NDDOT Traffic Safety Office (TSO) at (701) 328-4692.

5.5.1 TSO Grant Program Application Process

The TSO solicits grant applications from eligible state and local agencies and for-profit and non-profit organizations that address North Dakota's problem solution plans or PSPs. PSPs reflect the state's greatest opportunities for behavioral safety improvement. Grant applications are due June 30th of each year and are evaluated based on: (1) response to identified problems, (2) proposed evidenced-based strategy, (3) clear objectives, (4) comprehensive evaluation plans, and (5) cost-effective budgets. Selected projects are included in TSO's Highway Safety Plan and once approved by NHTSA, grant contracts are generally effective October 1 through September 30th.

5.5.2 Technical Assistance

County Outreach Program

The TSO, in cooperation with the North Dakota Association of Counties, offers a county-based Traffic Safety Outreach program to provide advocacy and community mobilization, media support, public outreach, and training to address seat belt use, impaired driving, speeding, and distracted driving at the county level. County participants include law enforcement, transportation engineering, social services, public health, businesses, nonprofit agencies, faith-based agencies, media, and other entities.

5.5.3 Traffic Records/Crash Data

Traffic and Criminal Software or TraCS

The quality of traffic safety problem identification and decision making regarding effective safety strategies and their implementation is based on the quality and timeliness of crash data. Data is collected from officer crash reports at the time of the incident when a crash involves fatalities, injuries, or at least \$1,000 in property damage. NDDOT reviews the crash report and enters the data into a centralized database called the Crash Reporting System or CRS.

To assist law enforcement in providing timely, complete, and accurate crash reports, the NDDOT Traffic Safety Office (TSO) supports the installation of Traffic and Criminal Software or TraCS and provides technical assistance and training to local agency and tribal law enforcement to effectively deploy TraCS for in-the-field incident reporting. Local and tribal enforcement agencies are strongly encouraged to utilize the convenience of TraCS for the electronic submission of crash reports to the NDDOT. Key benefits to participating agencies and tribes are the reduced officer time and effort required for duplicate entry into local and state crash databases, reduced need for data entry resources and administrative support, as well as improving the overall quality and timeliness of the crash report.

Local Agency Crash Data Support

The Upper Great Plains Transportation Institute develops crash data summaries for each law enforcement agency under contract with the TSO for overtime enforcement supporting impaired driving and seat belt enforcement campaigns. The crash data summaries demonstrate the priority crash factors and trends within each local agency's jurisdiction.

Annual Crash Summary

The NDDOT annually publishes the Crash Summary to identify and describe the annual crash data and historical crash trends in North Dakota including the description of factors contributing to the occurrence of traffic crashes and the resulting injuries and fatalities. The Crash Summary is a valuable reference resource for local agencies and their safety partners for problem identification, safety strategy planning, targeted strategy implementation, program evaluation, and media inquiries.

http://www.dot.nd.gov/divisions/safety/docs/crash-summary.pdf

References

- AAA Foundation for Traffic Safety (AAA), 2012. 2012 *Traffic Safety Culture Index*. Washington DC. January.
- Dahlberg, Linda L., and Etienne G. Krug, 2002. "Chapter 1. Violence-a Global Public Health Problem." *World Report on Violence and Health*. Edited by Etienne G. Krug, Linda L. Dahlberg, James A. Mercy, Anthony B. Zwi, and Rafael Lozano. World Health Organization: Geneva, Switzerland.
- Keating, Daniel P., 2007. "Understanding Adolescent Development: Implications for Driving Safety." *Journal of Safety Research*. Vol. 38, Issue 2. Pages 147-157.
- Lerner, Neil, Jeremiah Singer, and James Jenness, 2010. "Safer Drivers." White Papers for: Toward Zero Deaths: A National Strategy on Highway Safety. White Paper No. 3. July 12.
- National Highway Traffic Safety Administration (NHTSA), 2013. *Countermeasures that Work: A Highway Safety Countermeasure Guide for Sate Highway Safety Offices*. 7th Edition. Report No. DOT HS 811 727. Washington DC. April.
- National Highway Traffic Safety Administration (NHTSA), 2013. *Technology Transfer Series, Alcohol and Highway Safety: Screening and Brief Intervention for Alcohol Problems as a Community Approach to Improve Traffic Safety*. Report No. DOT HS 811 811. Washington DC. September.
- National Highway Traffic Safety Administration (NHTSA), 2012. Avoiding "Tween" Tragedies: Demonstration Project to Increase Seat Belt Use Among 8- to 15-year-old Motor Vehicle Occupants, NHTSA, Report No. DOT HS 811 096. Washington DC.
- National Highway Traffic Safety Administration (NHTSA), 2012a. *Traffic Safety Facts* 2010: *A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System.* Report No. DOT HS 811 659. Washington DC.
- National Highway Traffic Safety Administration (NHTSA), 2012b. *Traffic Safety Facts*, 2010 Data: Young Drivers. Report No. DOT HS 811 622. National Center for Statistics and Analysis. Washington DC. May.
- National Highway Traffic Safety Administration (NHTSA), 2012c. *Traffic Safety Facts*, 2010 Data: Speeding. Report No. DOT HS 811 636. National Center for Statistics and Analysis. Washington DC. August.
- National Highway Traffic Safety Administration (NHTSA), 2009. *Traffic Safety Facts*, 2008 Data: Occupant Protection. Report No. DOT HS 811 160. National Center for Statistics and Analysis. Washington DC.
- National Highway Traffic Safety Administration (NHTSA), 2009. *Nighttime Enforcement of Seat Belt Laws: An Evaluation of Three Community Programs*, NHTSA, Report No. DOT HS 811 189. Washington, DC. August.
- National Highway Traffic Safety Administration (NHTSA), 2009. *Innovative Seat Belt Demonstration Programs in Kentucky, Mississippi, North Dakota, and Wyoming*, NHTSA, Report No. DOT HS 811 080, Washington, DC. March.

- National Highway Traffic Safety Administration (NHTSA), 2007. *Screening and Brief Intervention Tool Kit for College and University Campuses*, Report No. DOT HS 810 751. Washington DC. February.
- National Highway Traffic Safety Administration (NHTSA), 2001. *Effectiveness of Occupant Protection Systems and Their Use*. Fifth/Sixth Report to Congress. Report No. DOT HS 809 442. Washington DC. November.
- Ward, Nicholas J., Jeff Linkenback, Sarah N. Keller, and Jay Otto, 2010. "White Paper on Traffic Safety Culture." White Paper No. 2. White Papers for: Toward Zero Deaths: A National Strategy on Highway Safety. Western Transportation Institute, College of Engineering, Montana State University. July 7.
- Williams, Allan F., 2007. *Public Information and Education in the Promotion of Highway Safety*. Research Results Digest 322. National Cooperative Highway Research Program (NCHRP). Washington DC. August.