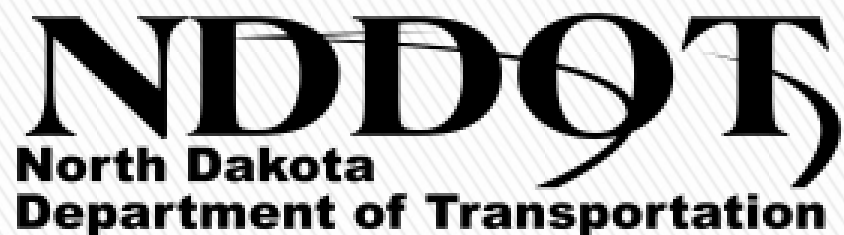




# North Dakota Association of County Engineers

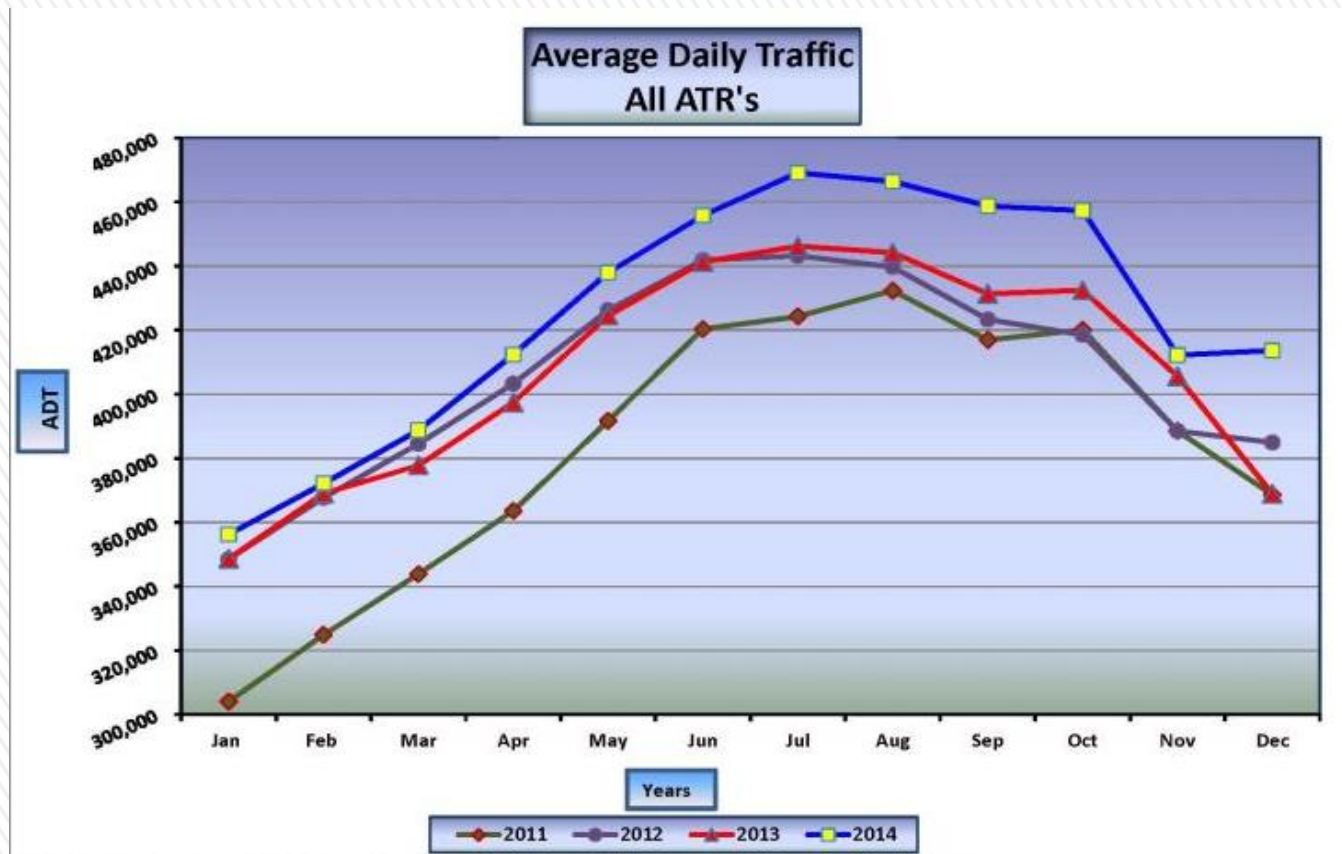
January 22, 2015

Steve Salwei, NDDOT



# Traffic Growth

The number of miles driven on State highways have increased. From 2010-2012 North Dakota saw a 22% increase in traffic statewide and a 53% increase in traffic in western North Dakota. Traffic growth remained at high levels in 2013 and 2014.



# NDDOT Funding for 2013-15 Biennium

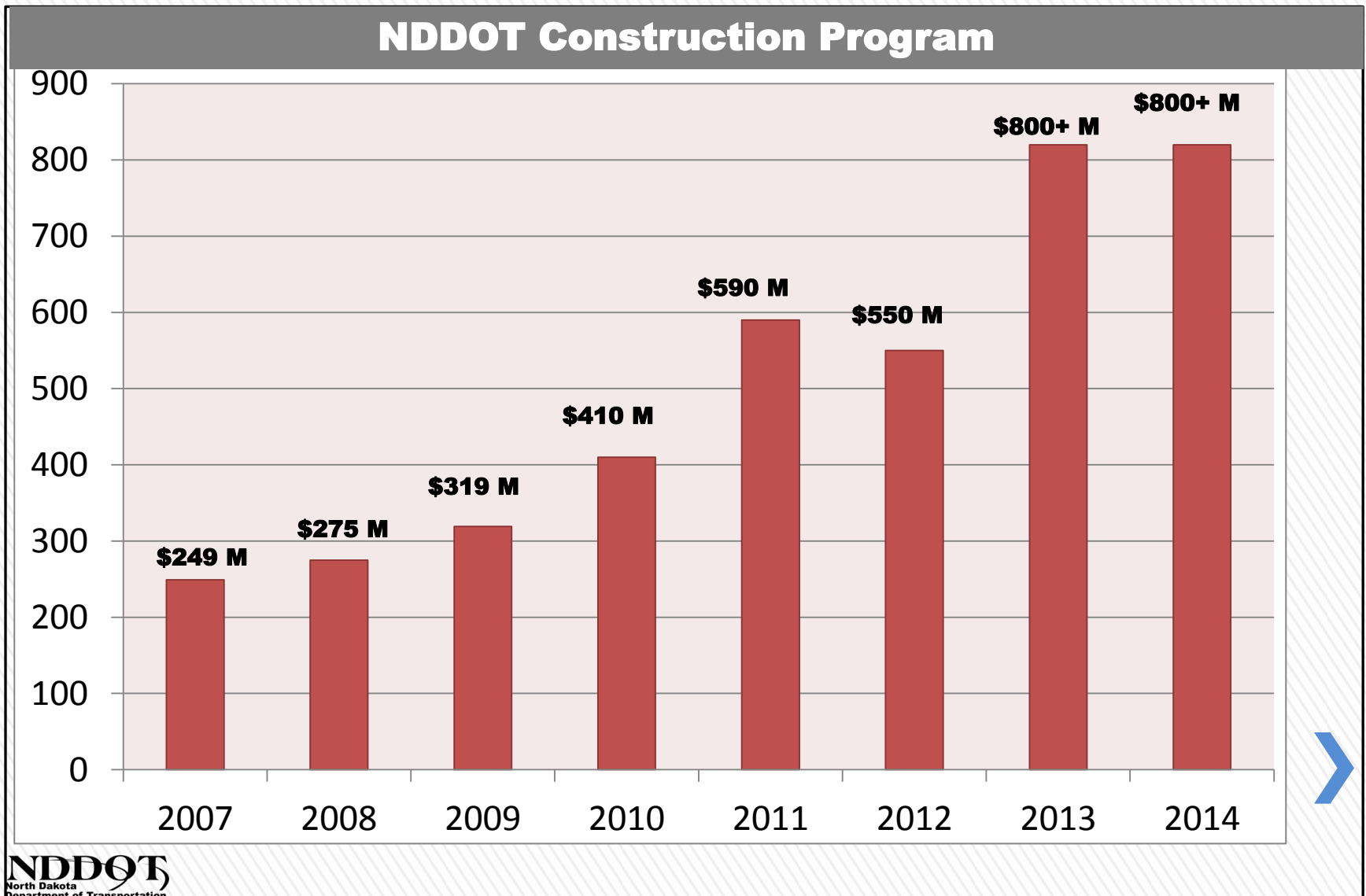
The State Legislature appropriated about \$2.3 billion to rebuild and repair:

- State highways
- City, county and township roads
- Bypass routes
- Other infrastructure upgrades in every region of the state.

# Delivered biggest construction program in North Dakota's history



# Two of the largest construction programs in state history



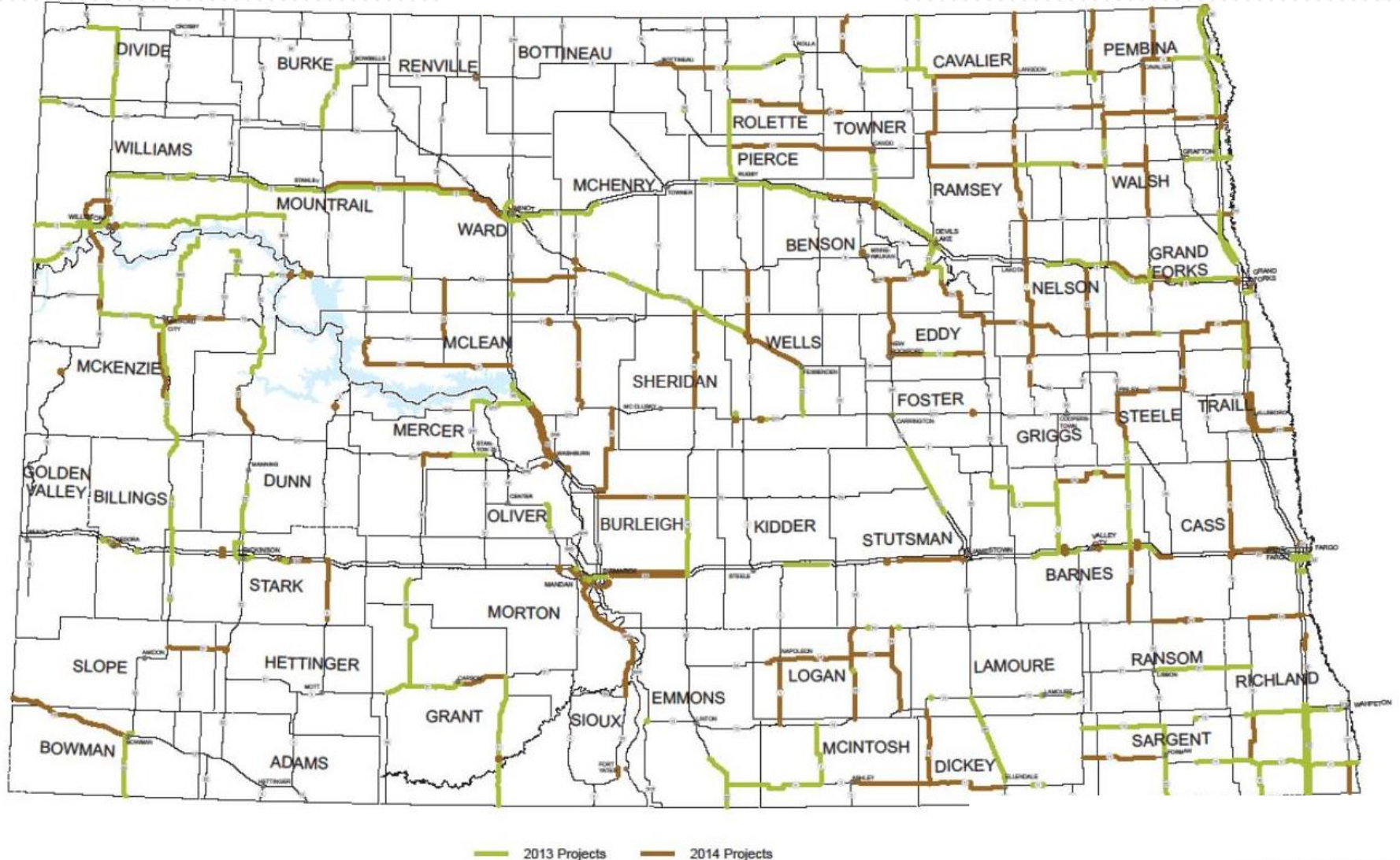
# State Funding (One-Time \$\$\$)

*NDDOT Funding for 2013 – 2015 BIENNIUM (SB 2012, SB 2176, HB 1358)*

<b>Funding</b>	<b>West Region (\$ Millions)</b>	<b>Central and East Regions (\$ Millions)</b>	<b>Total (\$ Millions)</b>
State Funds for State Highways - SB 2012/SB 2176	\$1,161.6 M	---	\$1,161.6 M
Federal Funds for STIP (2013 -2014) - SB 2012 (Includes state and local match)	\$148.8 M	\$450.0 M	\$598.8 M
Federal ER Carryover (from 2011-2013 biennium) – SB 2012 (Includes match)	\$31.1 M	\$77.0 M	\$108.1 M
State Funds Non-Oil Producing counties, cities and townships - SB 2176		\$100.0 M	\$100.0 M
State Funds Non-Oil Producing Counties - HB 1358		\$120.0 M	\$120.0 M
State Funds Oil Producing Counties - HB 1358	\$160.0 M	---	\$160.0 M
State Funds Oil Impact Township Roads - HB 1358	\$8.8 M	---	\$8.8 M
<b>Total 2013- 2015 Biennium</b>	<b>\$1,510.3 M</b>	<b>\$747.0 M</b>	<b>\$2,257.3 M</b>

*Approximately \$581 Million = Federal Funds*

# Accomplishments 2013 -14 Projects



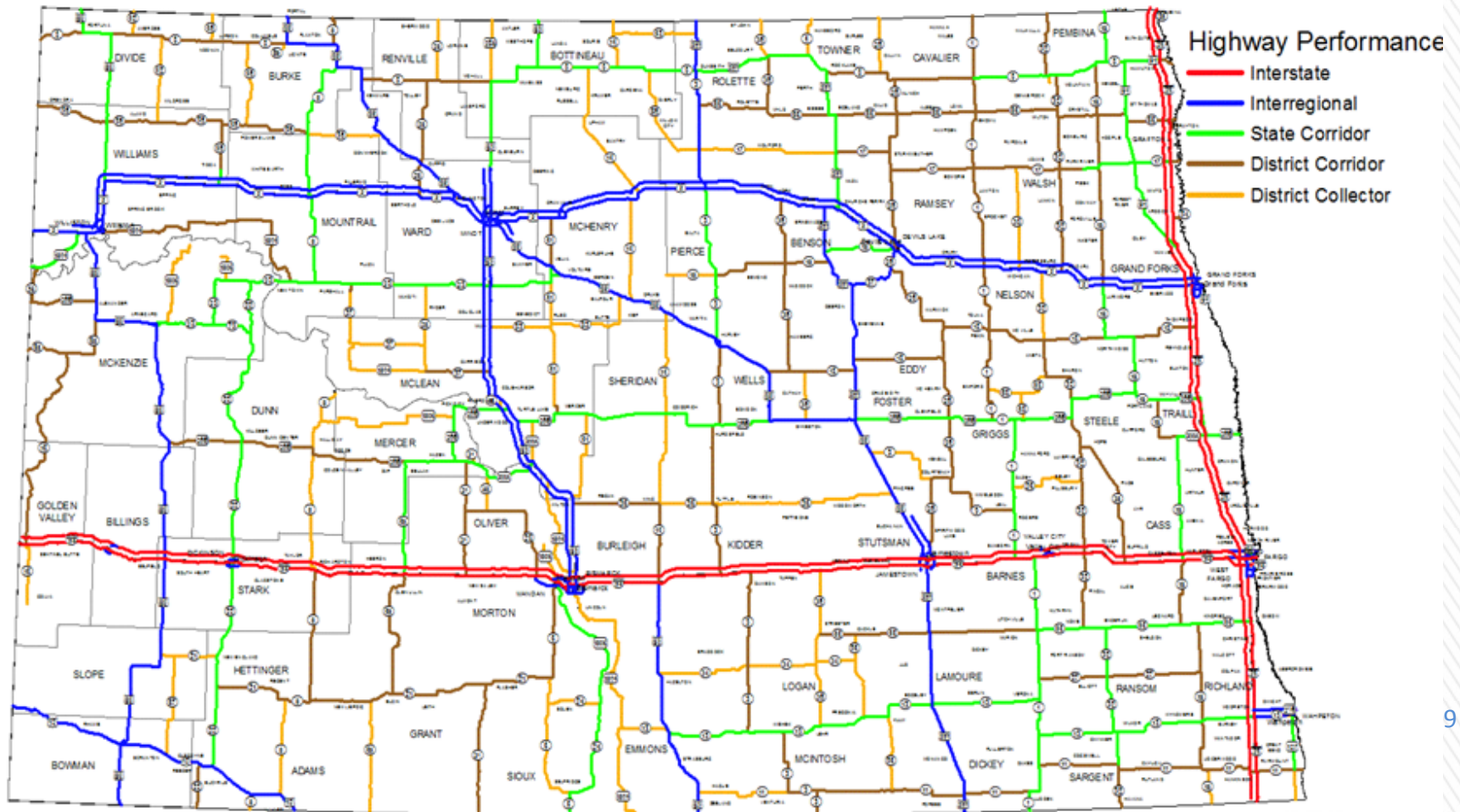
# Accomplishments

## Some of the projects completed this biennium:

- Watford City US 85 Southwest Bypass
- Watford City ND 23 Southeast Bypass
- Alexander Bypass
- New Town Truck Reliever Route
- US 85 Four Lane - Phase 1 & 2 from Watford City to County Road 16 north of Alexander
- Dickinson Interim Bypass
- US 2 between Berthold and Surrey
- I-29 from Buxton to south of ND Highway 15
- Washington Street in Grand Forks
- 25<sup>th</sup> Street reconstruction in Fargo
- ND 21 widening/paving Elgin to Junction ND 31
- Bismarck Divide Avenue construction
- US 83 paving from Washburn to Underwood
- I-94 paving from Bismarck to Sterling
- ND 200 widening /paving from ND 1806 to US 83
- Bridge replacement on ND 26 at Sibley
- US 281 paving from Ellendale to Edgeley
- Valley City Frontage Road construction from 7<sup>th</sup> Street to I-94 Business Loop
- I-94 eastbound paving near Valley City
- US 281 paving from Churchs Ferry to Cando
- US 2 westbound paving Devils Lake to Churchs Ferry
- Cando City section rehabilitation
- Bridge replacement north of New Rockford
- Devils Lake 5<sup>th</sup> Avenue paving
- ND 20 paving & culvert rehab Starkweather to Clyde
- ND 17 paving & culvert rehab Starkweather to Edmore
- Grand Forks 32<sup>nd</sup> Avenue rehabilitation
- Grand Forks Columbia Road reconstruction
- Grand Forks Gateway Drive rehabilitation
- US 2 eastbound from Niagara to near Larimore
- I-29 southbound paving from Drayton to Canada
- US 2 westbound paving from Niagara to near Arvilla
- ND 15 paving from near Northwood to Thompson
- ND 27 paving from Lisbon to junction ND 18
- ND 13 paving from Gwinner to junction ND 1
- Wyndmere rehabilitation
- West Fargo 13<sup>th</sup> Avenue Lighting
- I-94 rehabilitation in Fargo
- ND 46 widening and paving from west of Enderlin to near Sheldon
- ND 46 widening/ paving from near Leonard to I-29



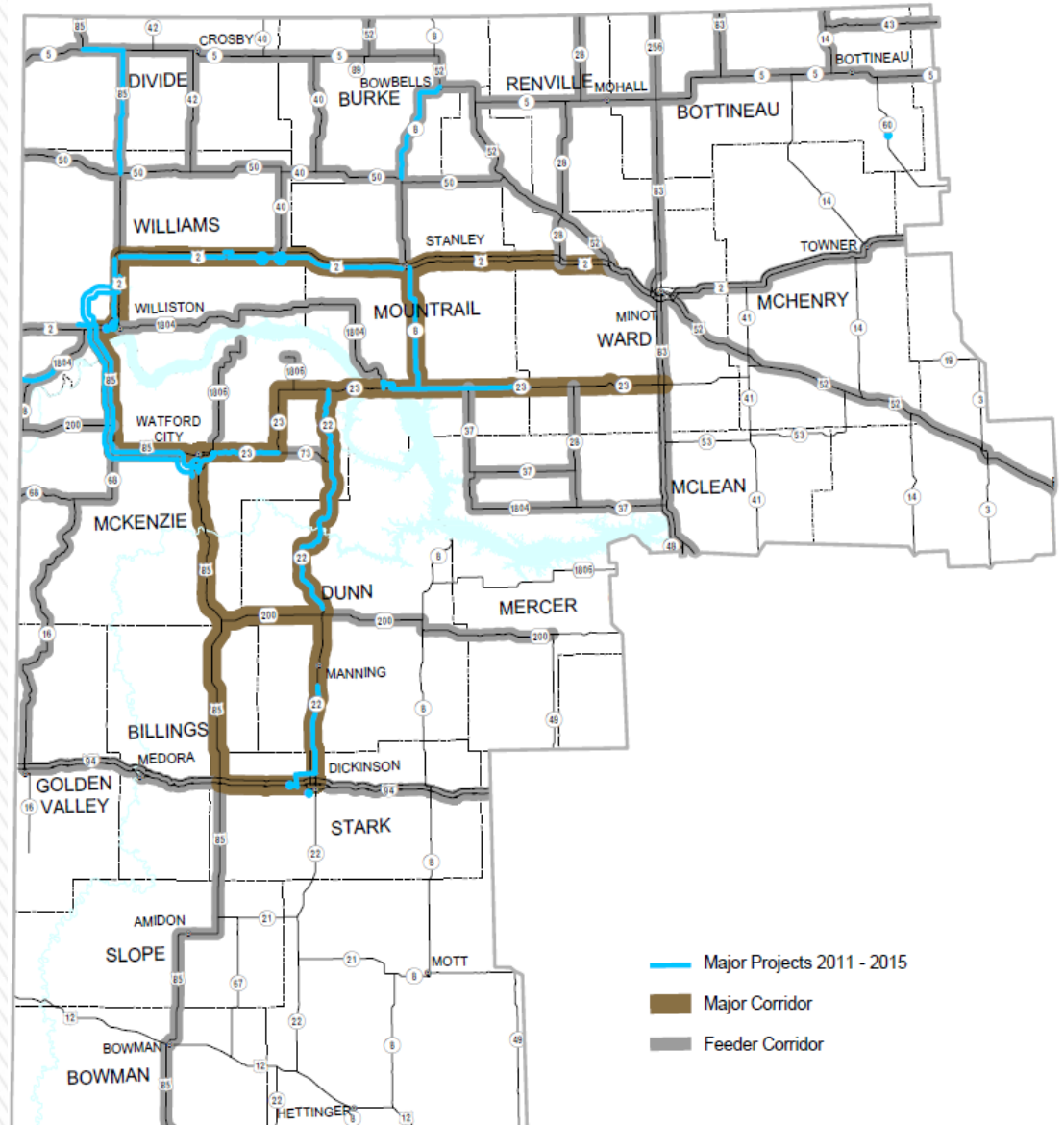
# State Highway Performance Classification System (HPCS)



# Energy Corridors

Western ND Highway  
Energy Corridors

Major projects  
completed or bid



# County Road Expenditures

Over 78% of projects completed with this funding increased local road load carrying capacity to 105,500 pounds.

## \$280 Million HB 1358 County State Aid Road Program

Allocation	Total Available	Total Requested	Remaining	% Remaining
Oil Producing	\$160,000,000	\$151,802,724	\$8,197,276	5.1%
Non-Oil Producing	\$120,000,000*	\$96,122,984	\$23,877,016	19.9%
Total	\$280,000,000	\$247,925,707	\$32,074,293	11.5%

\* Funds were not available until February 2014.

As of December 31, 2014

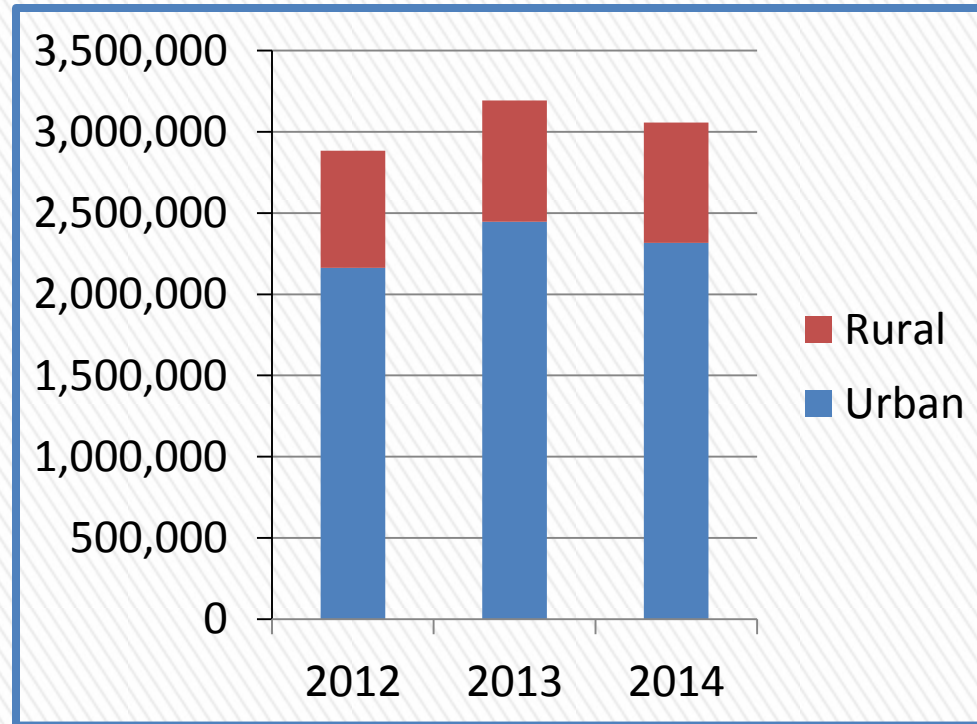
# Accomplishments

## Transit Services

- Thirty-four transit service providers received federal funding and state continued appropriation funds.
- \$550,000 additional resources per year was provided this biennium.

### Transit Ridership

\*Based on state fiscal year  
(July through June)



# Accomplishments

## Planning Activities

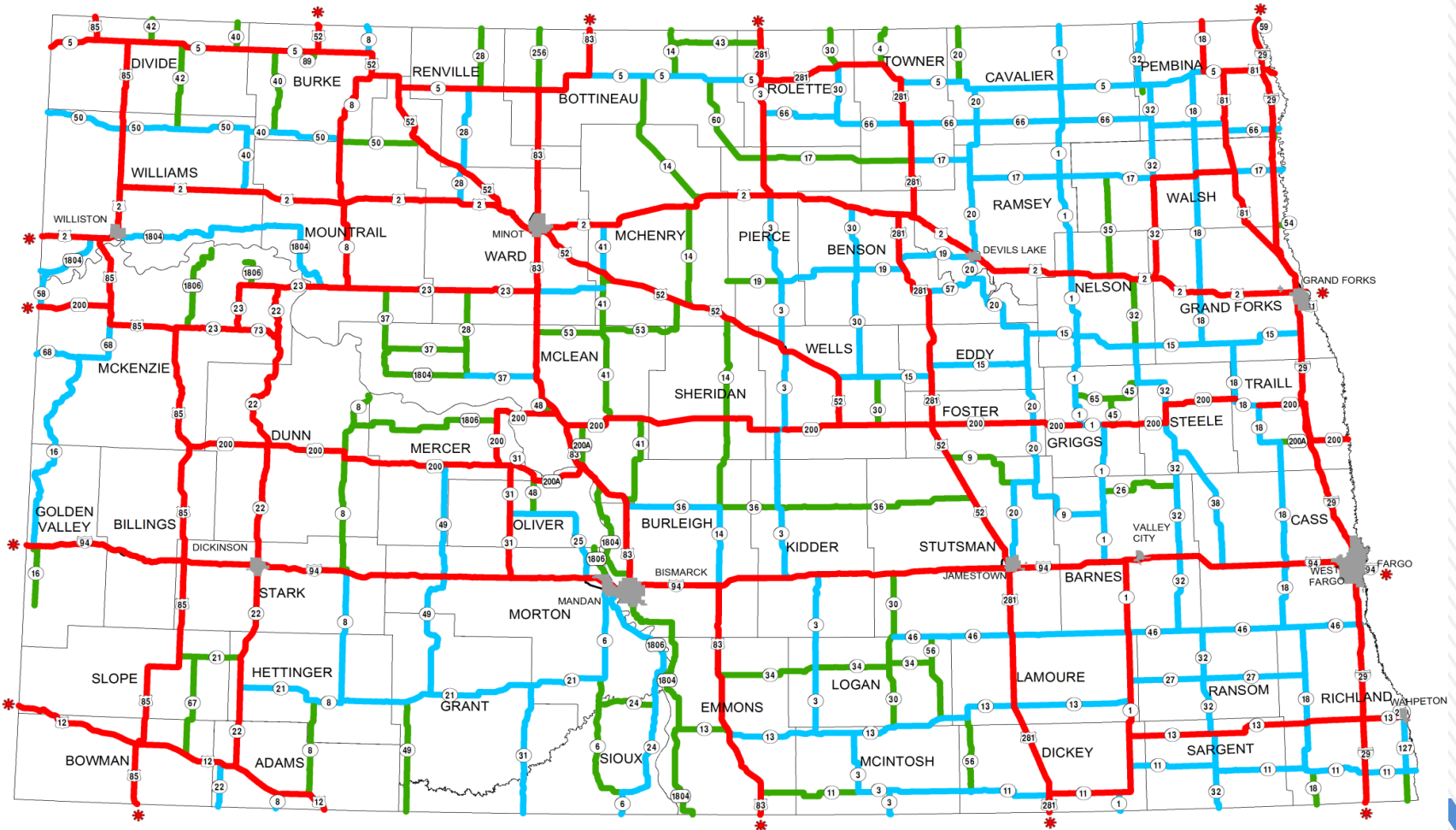
- Freight Plan
- Working with counties in Western ND

# North Dakota Freight Plan

## *Transportation Infrastructure System*

Freight Mode	<u>Level One</u> Critical Rural Freight Corridors International/Interstate	<u>Level Two</u> Regional/Intrastate	<u>Level Three</u> Local
Roads	Interstate & Interregional Highways Congressional Designated High Priority Corridors STRAHNET National Truck Network Energy/Agricultural Access Corridors High Truck Volume Segments Principal Arterials	State Corridors District Corridors County Major Collectors City Principal Arterials	District Collectors Other County, City, Township and Tribal Roads
Air	Commercial Airports Air Force Bases	General Aviation Airports	Public Use Airports Private Airports
Rail	Class 1 Mainlines STRACNET	Class 1, Regional Railroad branchlines <u>capable</u> of carrying 286K cars	Class 1, Regional Railroad branchlines <u>capable</u> of carrying 268K cars
Pipeline	Interstate Pipelines	Gathering Pipelines	Distribution Pipelines

# Draft Map of State Strategic Freight System for Highways



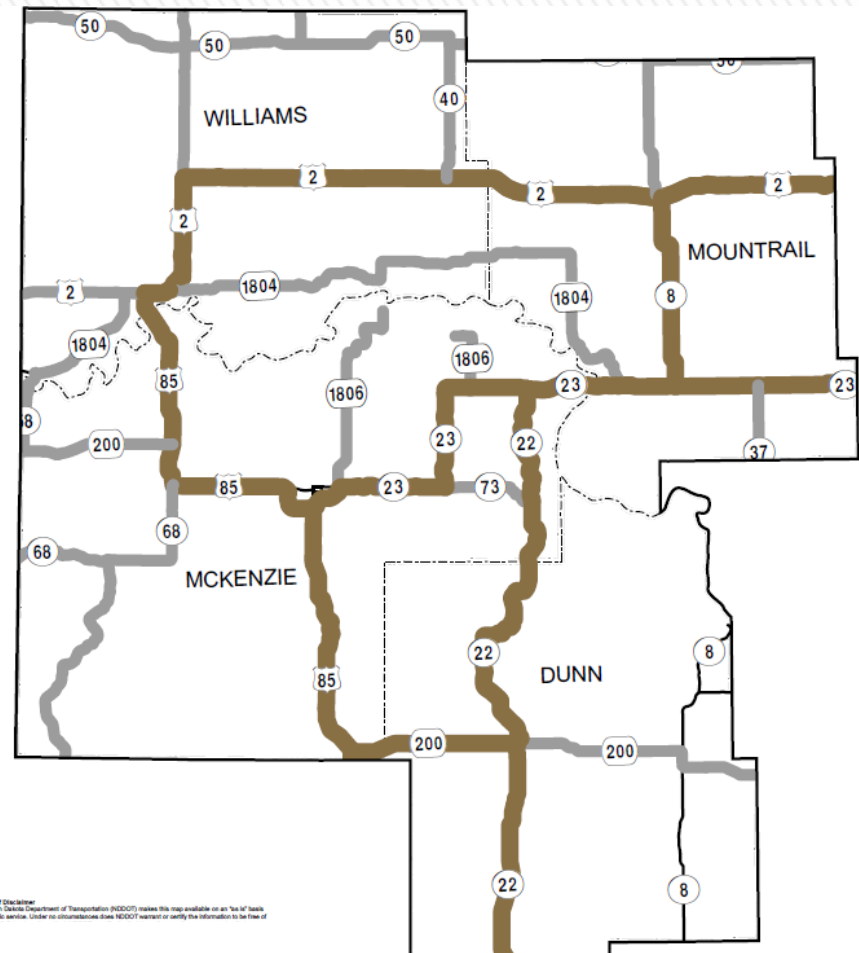
Strategic Highway Level — LEVEL 1 — LEVEL 2 — LEVEL 3

\* GATEWAY TO THE STATE

■ URBAN AREA

# County System

We are working with the four largest oil producing counties to establish a system of integrated energy corridors.



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with no warranty. Under no circumstances does NDDOT warrant or verify the information to be true or  
accurate.



# County, Township and Tribal Needs Study

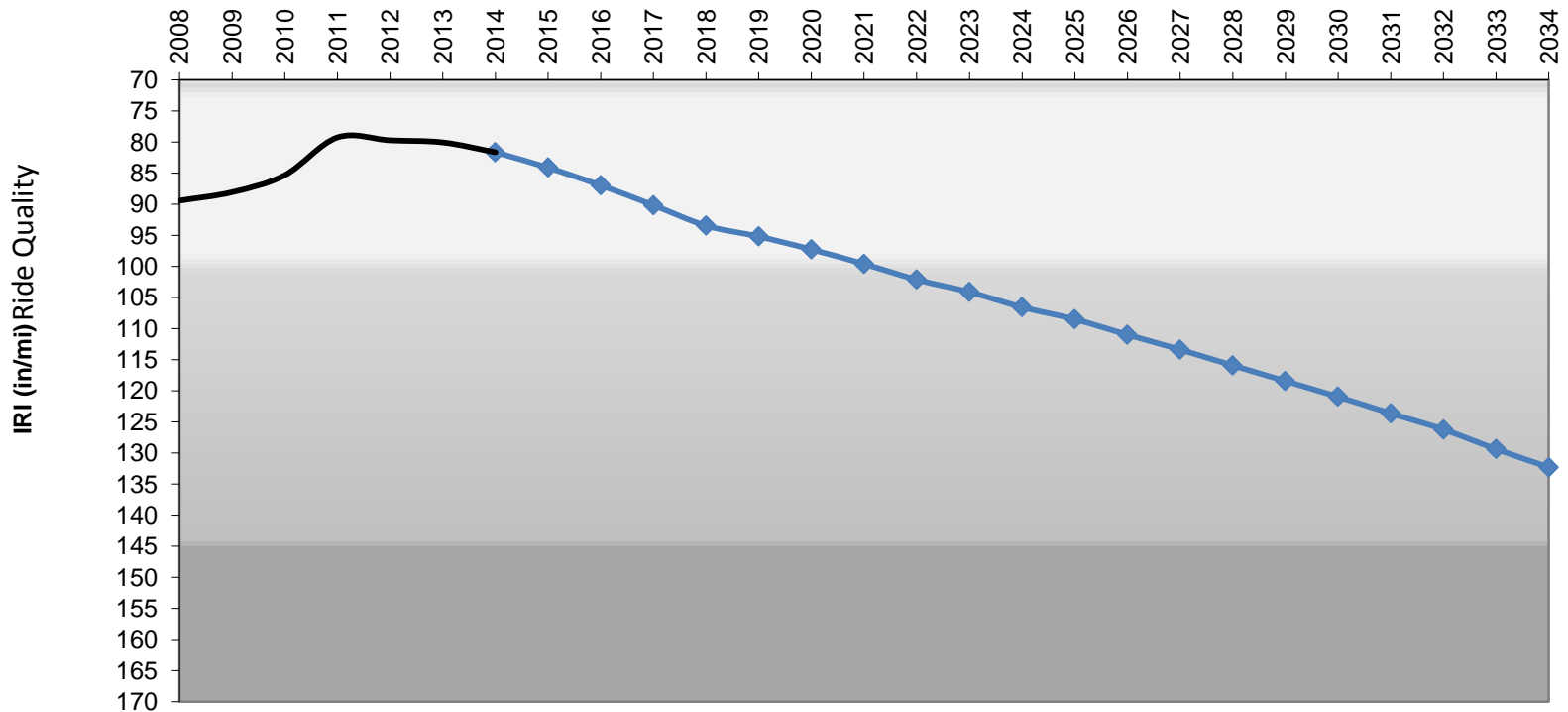
- The needs are based on the following objectives:
  - Paved Roads – Maintain the existing levels of service for the projected increased traffic associated with agriculture, energy, and manufacturing. (This will involve reconstruction and widening of some roadways)
  - Gravel Roads – Maintain and preserve the existing condition taking into consideration changing traffic patterns.
  - Bridges – Replace all bridges that are functionally obsolete on the county major collector system in the next 20 years.

# UGPTI Study for County, Township and Tribal Infrastructure Needs

Period	Unpaved (in millions)	Paved (in millions)	Bridges (in millions)	Final Total (in millions)
2015-16	\$633	\$453	\$86	\$1,172
2017-18	\$574	\$366	\$86	\$1,026
2019-20	\$573	\$322	\$86	\$981
2021-22	\$571	\$297	\$86	\$954
2023-24	\$567	\$143	\$86	\$796

# Pavement Management

## Projected Average Network Ride Quality Federal Funding Only



# Traffic Modeling, Transportation Needs Studies and Surveys

In addition to the County, Township and Tribal Transportation studies requested by the Legislature, the DOT worked with Upper Great Plains Transportation Institute on a traffic modeling program, several needs studies and surveys which include:

- State Needs
- Transit Needs
- Short Line Railroad Needs
- City Surveys



# State Needs Study

The State Needs Study identified resources necessary to take state highways up to HPCS guidelines. These guidelines allow continued seasonal load restrictions.

<b>UGPTI State Highway &amp; Bridge Needs</b>	
<b>Time Frame</b>	<b>Cost in Millions</b>
2015-2016	\$3,543
2017-2018	\$1,878
2019-2020	\$750
2021-2022	\$604
2023-2024	\$650

# Transit Needs Study

- » The needs are based on the following objectives:
  - > Operational and capital costs to maintain existing transit service levels.
  - > Costs associated with providing an increase in service trips per week to meet national averages for transit systems serving similar geographical regions.

<b>Public Transit Needs Summary</b>		
Biennium	2015-2017	2017-2019
Transit Funding Program	UGPTI Needs	UGPTI Needs
Total	\$44,271,900	\$39,576,663



# Short Line Railroad Needs Study

- The needs are based on the following objective:
  - + Capital infusion costs to build up a 1,210 mile rail system that would allow railroads to increase the load capacity.

## Track Rehabilitation Needs\*

	Minimum Rail Standard	Rehabilitation Mileage	Net Cost (Millions)
Option 1	90 lbs/yd	730	\$386
Option 2	100 lbs/yd	896	\$471

*\*Any improvements proposed in the study will upgrade the rail to 115 lbs/yds.*

According to information provided to UGPTI during a recent study of regional rail infrastructure, the current program funding level, terms and short-line balance sheets will support roughly four miles of rail rehabilitation, annually, on an approximately 1,210-mile system.

# City Surveys

» Surveyed all cities.

	Annual Maintenance	Annual Non-maintenance	Annual Total	Biennium Total
All Cities	\$96.24 M	\$186.5 M	\$282.74 M	\$565.48 M





# Agricultural Growth

**1950 = 17.1 Billion Pounds\***

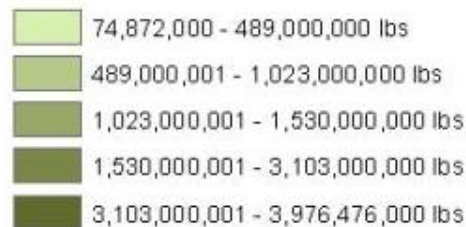
**2010 = 89.4 Billion Pounds\***

**422% Increase**

**2013 = 81.8 Billion Pounds\***

**378% Increase**

Legend



*\* Approximate numbers*

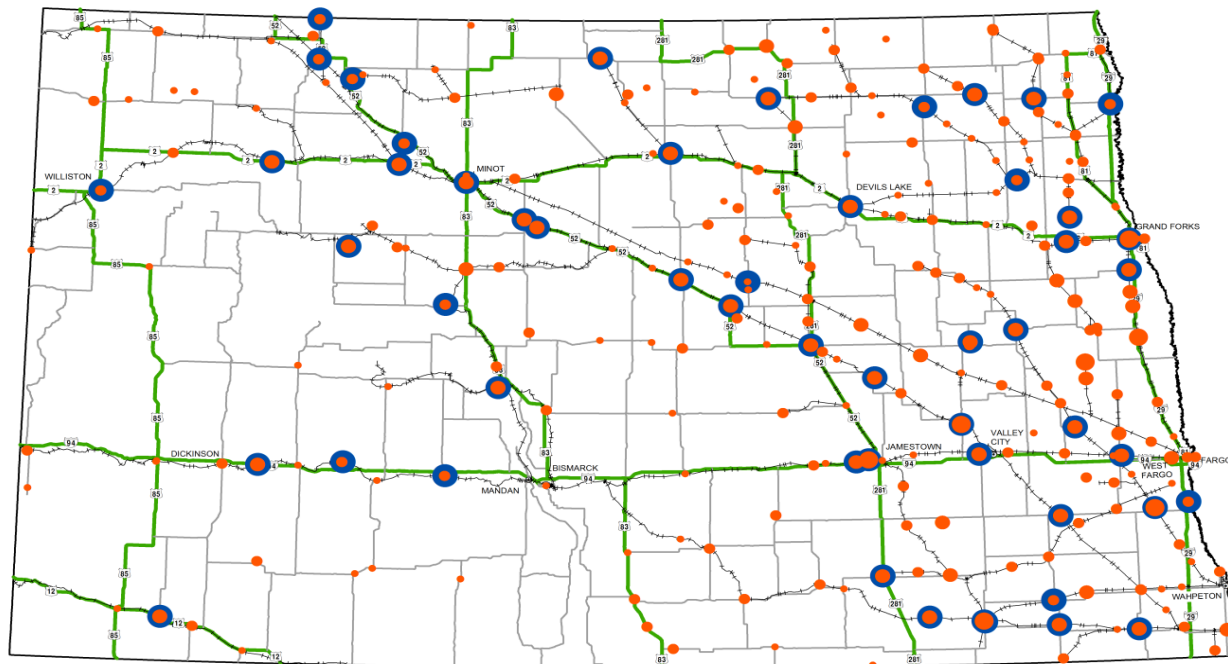
# Agriculture Industry

In 1950, the state had 1,025 grain elevators with a total licensed storage capacity of 60,791,000 bushels. By 2013, the number of elevators had dropped to 394 but licensed storage capacity had increased to 418,775,265 bushels; up nearly a 680%.

Of the 394 licensed elevators in 2013, 52 are considered shuttle facilities capable of loading 75 to 110 car unit grain trains. It takes approximately 475 truckloads of grain to fill a 110 car unit.

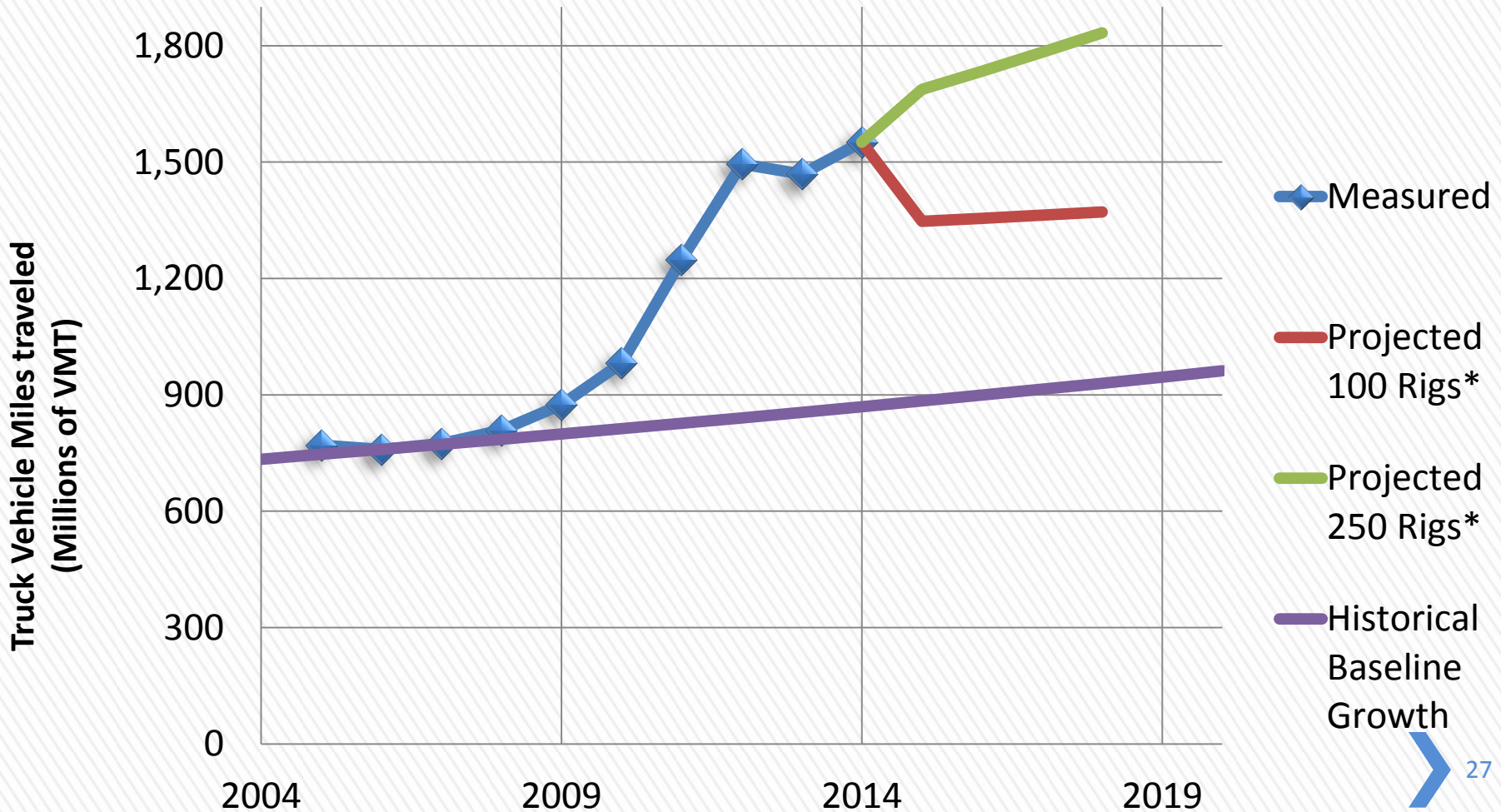
Also since 1980, 1,751 miles of rail line in North Dakota has been abandoned.

## 2014 Licensed Grain Facilities



- Elevator < 500,000 BU
- Elevator 500,000 - 1,500,000 BU
- Elevator 1,500,001 - 4,500,000 BU
- Elevator > 4,500,001 BU
- Shuttle Facility

# Truck Traffic Vehicle Miles

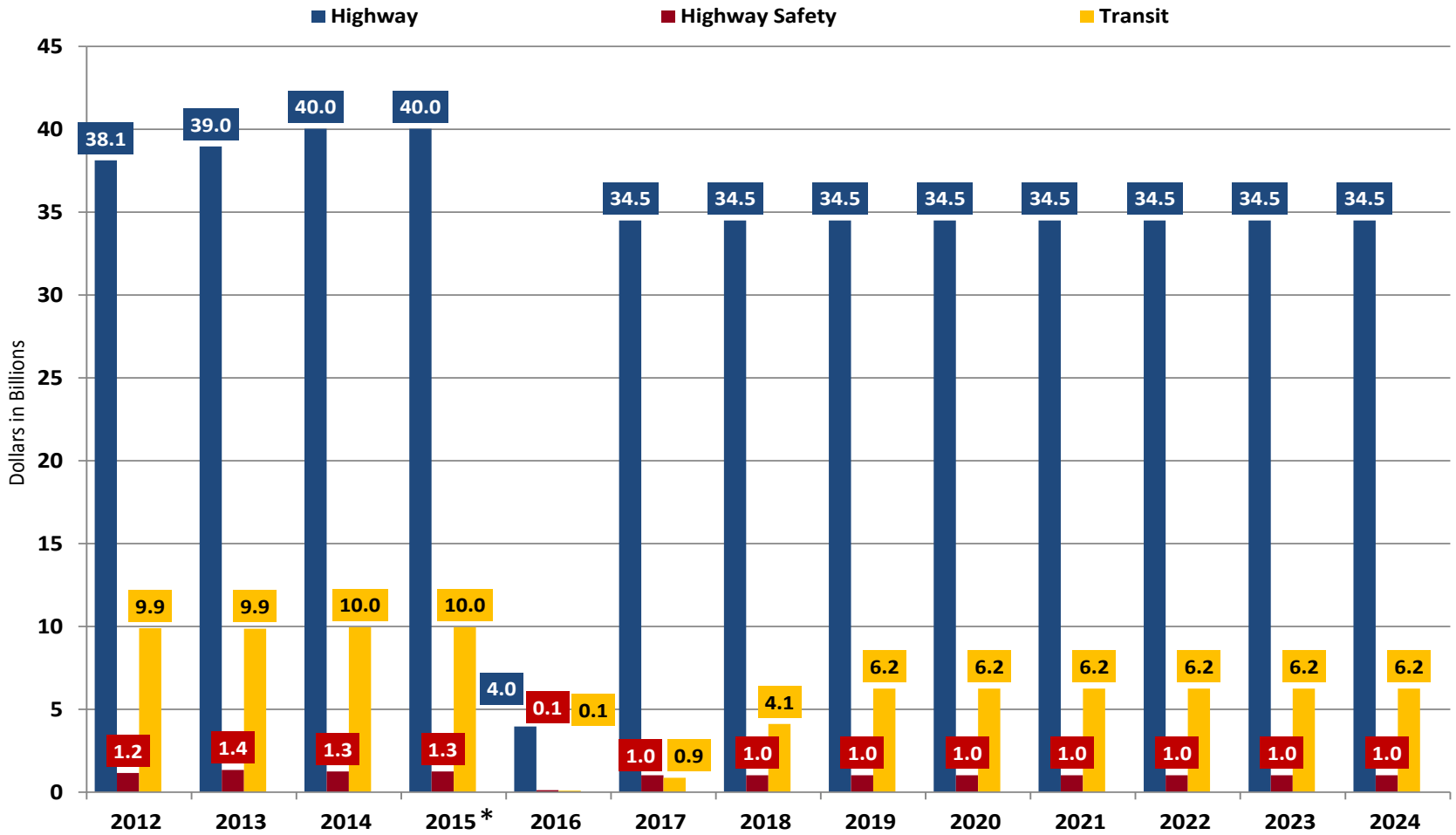


# Federal Funding Update

- NDDOT's Executive Budget recommendation assumes approximately \$616.5 million in federal funding will be received.
- Congress recently passed legislation that appropriated funding for the 2015 federal fiscal year. Unfortunately, the current transportation funding program MAP-21 was extended to only May 31, 2015. This is a short-term extension of the program and as a result 2015 funding is still uncertain.

# Federal Funding

## ESTIMATED FEDERAL HIGHWAY TRUST FUND OBLIGATIONS



\* Assumes Congress will fully fund MAP21 proposed expenditures in 2015.

**If no new revenues are found, federal highway obligations will fall by almost 100% in FY 2016.**

# 2015-17 Road and Bridge Funding

FUNDING 2015-2017 BIENNIUM	WEST REGION (\$ Millions)	CENTRAL & EAST REGIONS (\$ Millions)	TOTAL (\$ Millions)
Enhanced State Highway Investments (Rural, city and state highways) <sup>(1)</sup>	TOTAL \$1,354.0	TOTAL \$0.0	TOTAL \$1,354.0
STIP (2015 - 2016) <sup>(2) (3) (4) (5) (6)</sup> (Federal funds with state and local matches)	State \$46.6	State \$449.6	State \$496.1
	Urban \$21.5	Urban \$87.4	Urban \$108.9
	County \$45.4	County \$29.1	County \$74.4
	TOTAL \$113.4	TOTAL \$566.0	TOTAL \$679.4
Emergency Relief (ER) <sup>(2)</sup>	State \$22.8	State \$2.7	State \$25.5
	Urban \$0.0	Urban \$0.0	Urban \$0.0
	County \$0.0	County \$7.2	County \$7.2
	TOTAL \$22.8	TOTAL \$9.8	TOTAL \$32.7
State Funds Non-Oil Producing Counties, Cities, & Townships <sup>(7)</sup>	\$0.0	\$100.0	\$100.0
<b>TOTAL 2015 - 2017 BIENNIUM</b>	<b>\$1,490.2</b>	<b>\$675.8</b>	<b>\$2,166.1</b>

(1) Total costs (Construction, Engineering, ROW & Utilities)

(2) Construction & CE costs only on roadway projects

(3) Includes Rural, Urban, County, Bridge, Safety, TAP, ROM, & PEP

(4) County includes ROM; Urban & County include TAP

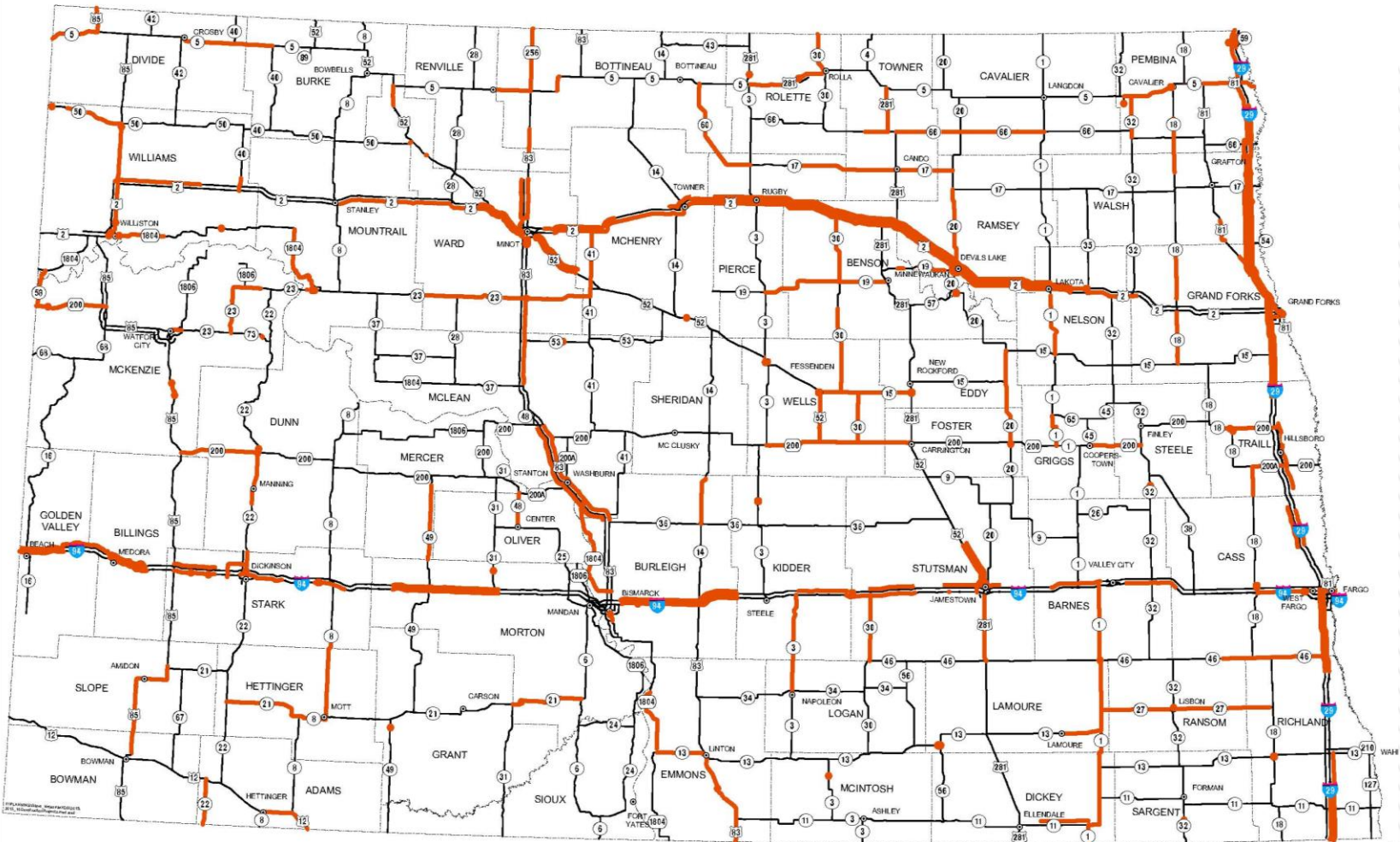
(5) No state funds included (H, PM, MDF)

(6) Dollars amounts from Schedules A, B & C with the % breakout per Regions based on the 2015-2018 Final STIP

(7) Includes \$52 M for Counties, \$28 M for Cities, & \$20 M for Townships

# Proposed Construction 2015-2017

» Aggressive construction program planned.



# Major Projects in Central and Eastern areas for 2015-17 Biennium

- Devils Lake Railroad Underpass
  - I-94 Concrete Overlay (Valley City Area)
  - Bismarck North Washington Street
  - West Fargo Main
  - I-29 (Fargo Area)
  - Grand Forks Kennedy Bridge
  - Pembina Border Crossing
  - Fargo 12<sup>th</sup> Avenue North
  - Grand Forks Columbia Road
  - I-94 Paving from Sterling to County Line
  - ND 3 widening and paving from junction ND 34 to Dawson
  - ND 49 widening and paving from Glen Ullin to County Line
- US 52 paving from Jamestown to Buchanan
  - ND 20 paving and widening from Jamestown to Junction ND 9
  - US 52 from west junction ND 200 to Carrington
  - US 2 paving from Devils Lake to Crary
  - US 281 paving from Cando north to the west junction of ND 66
  - Grand Forks Sorlie Bridge Project
  - US 2 reconstruction and CPR from Lakota to Michigan
  - Grand Forks Demers Avenue rehabilitation
  - I-29 Reconstruction Argusville to Hunter
  - ND 46 paving east junction ND 18 to I-29
  - ND 27 paving from junction ND 1 to Lisbon



# Proposed Expenditures in Western North Dakota

## \$1.354 Billion for Enhanced State Highway Investments

Restore Pavement Infrastructure	\$	332,538,246
Bypass Construction Work	\$	192,269,229
Rebuilding Roads within Communities	\$	363,891,601
Enhanced Load Carrying and Roadway Capacity (includes Environmental for US 85 from I-94 to Watford City)	\$	465,416,482
		<hr/>
Total	\$	1,354,115,558

# SB 2126 Early Funding

**\$450 million – State Highways in Western North Dakota**

**\$100 million – Non-oil producing counties**

- \$52 million – Counties
- \$28 million – Cities
- \$20 million – Townships

**\$300 million – To cities in 10 largest oil producing counties**

- \$75 million – Williston
- \$50 million – Dickinson
- \$50 million – Watford City
- \$50 million – Minot
- \$75 million – Remaining cities

# SB 2103 Early Funding

\$0 – State Highways

\$300 million – Oil producing counties

\$140 million – Oil impacted cities

\$8.75 million – Oil impacted townships

\$140.8 million – Non-oil counties

\$19.2 million – Non-oil townships

\$21.25 million – Cities above 50 (excluding hub cities)

\$215 million – Hub cities

# Transit Funding

The Executive Budget includes appropriations for Transit Services:

- \$15.3 Million Federal Funding
- \$9.3 Million State Funding (Continued Appropriation)



# Special Road Fund

**Executive Budget Proposal includes \$5 million to be used on roads leading to recreational areas.**

- Special Road Fund (SRF) program is to help finance highway projects identified by city, county or other state agencies that provide access to and within recreational, tourist and historical areas.
- The maximum award per project is \$250,000.
- Depending upon the proposed project's location, the application must be sponsored by either a county, a city with a population more than 5,000 or a state agency.

# Short Line Railroad Program

NDDOT administers a Short Line Rail Loan Program.

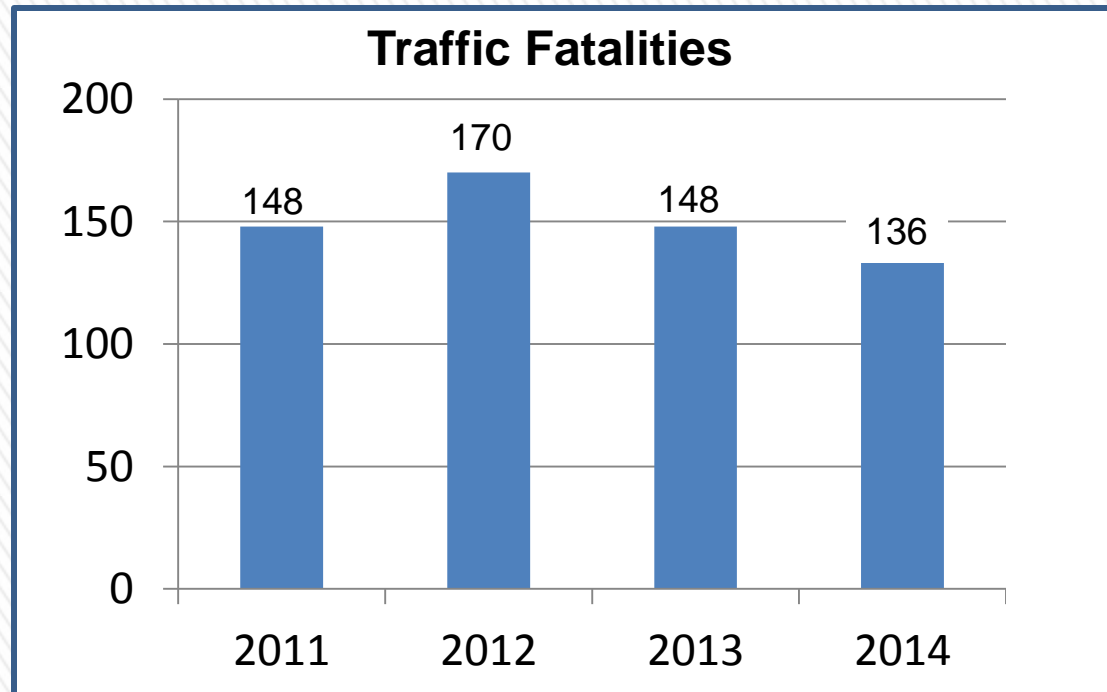
The Executive Budget includes \$10 million in the State Industrial Commission's Budget Bill HB 1014 for a Short Line Rail Loan Program to be administered by the Bank of North Dakota.

# Project Requests

- NDDOT receives many requests throughout the year that we are unable to fund. Examples of some requested projects include:
  - + Interchanges
  - + Railroad overpasses
  - + Load restriction changes
  - + Passing lanes
  - + Four-lane roadways

# Safety

- Number of traffic related deaths in state declined from 148 in 2013 to 136 in 2014.
- Primary contributing factors to fatal crashes:
  - ✓ Alcohol,
  - ✓ Not using seatbelts,
  - ✓ Speed





# Questions?

**THANK**

**YOU**