Grant County

Five-Year County Highway and Bridge Improvement Plan

Grant County Transportation Plan Certification

COVER FORM AND CERTIFICATION

Certification: As approved this 1st day of December, 2015.
Grant County Commission

By: _____
Clayton Tucholke
Grant County Commission Chairman

ATTEST:

_____
Karen Layher, County Auditor

County Contact Person: Kerwin Schultz, County Highway Superintendent
Phone Number: (605) 432-5861
Email Address: kerwin.schultz@state.sd.us

For SDDOT Use Only:
Received by SDDOT on _____
Approved by SDDOT on _____

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What is the Five-Year County Highway and Bridge Improvement Plan?

Transportation planning is a cooperative process designed to foster involvement by all users of the system, such as the business community, community groups, the traveling public, freight operators and the general public through a proactive public participation process conducted by the county. The planning process also fosters communication of local governments such as townships, towns and larger cities to jointly discuss transportation needs and coordinate improvements.

The Grant County Five-Year County Highway and Bridge Improvement Plan (Plan) is a short-range planning document that will be developed and updated annually based on needs and identified Grant County transportation policies. The plan will include roadway classifications, roadway and bridge inventory, a five-year list of the projected revenue for highway and bridge improvements, a five-year list of programmed highway and bridge projects based on the projected revenue, and the status of programmed projects from the previous plan.

The Plan is to be used as a tool to assist the county in budgeting, planning and incorporating the needs and concerns of the public.

Development of the Plan

Grant County developed this plan with assistance from the First District Association of Local Governments. Projects identified in the plan Projects were generated from many sources including elected officials, studies, inventory management systems, local knowledge, staff members and other interested individuals and groups.

Once the programmed project list was developed, Township officials and the public were invited to a coordination/public meeting to provide an opportunity for public comment. That meeting was noticed in the _____ news paper and held on _____2015. Based on the results of the Township/public meeting and comments from the County Commission, a final version of the Plan was developed by the First District. This final version was then adopted by the County Commission on December 1, 2015.

What is included in the Plan?

The Plan includes the following information:

1. Maps (See Appendix)

The following maps are included in the Appendix.

- **Functional Class and Bridge Location/Sufficiency Rating Map**

  - Roadway classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads. It becomes necessary then to determine how this travel can be channelized within the network in a logical and efficient manner. Functional classification defines the nature of this channelization process by defining the part that any particular road or street should play in serving the flow of trips through a highway network.

    Examples of classification of roadways are:

    - Arterial – Roadways with higher traffic with a longer uninterrupted distance
    - Collector – Roadways that connect traffic from the local roads to the arterials
    - Local – Roadways that have little or no through movement and typically serve short travel distances

    Design standards are tied to functional classification. Each class has a range of allowable lane widths, shoulder widths, curve radii, etc.

    The Functional Class and Bridge Location/Sufficiency Rating Map shows the functional classification of roadways and bridge structures in Grant County.

- **Surface Type and Average Daily Traffic (ADT) and Bridge Location/Sufficiency Rating Map**

  - The Surface Type and Average Daily Traffic (ADT) and Bridge Location/Sufficiency Rating Map shows the inventory of roads within Grant County by location and surface type (gravel, blotter, asphalt concrete, etc.). It also provides ADT counts at various locations within the county.

- **Five-Year Project Location Map**

  - The Five-year Project Location Map shows the location proposed identified in the five year programmed project list.

2. Lists/Tables (See Appendix)

- **Bridge Inventory List**

  - The Bridge Inventory List shows an inventory of the bridges for which the county is responsible per SDCL 31-14-2. The list identifies the location of the bridge, sufficiency rating, type, length, width, year built, last year improved, whether the bridge is posted for load capacity and the percent below legal load capacity.

- **Project Needs List**

  - To help in programming five years of projects, the County created a list of all the highway and bridge needs in the county. This list includes a project location, project description with an improvement type (reconstruction, maintenance, surfacing, structure replacement or rehabilitation) and a project estimate. Projects contained in the project needs list are organized according to project need based on input from public leaders, staff and the general public. The needs are ranked as high, medium or low priority. The needs list helps to show the public and elected officials the needs in the county.

  - In developing the list of needs, the County considered traffic generators such as schools, grain terminals, large dairies, ethanol plants, etc. and the impacts from the traffic generators. The County also considered safety issues. Examples of safety projects are narrow or non-existent shoulders, pavement markings, blind corners, sharp curves, steep side slopes and poor sight distance. The County also considered system needs such as preservation of existing facilities. Preventive maintenance is typically applied to pavements in good condition having significant remaining service life. As a major component of pavement preservation, preventive maintenance is a strategy of extending the service life by applying cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples of preventive treatments include asphalt crack sealing, chip sealing, slurry or micro-surfacing, thin and ultra-thin asphalt overlays, concrete joint sealing, diamond grinding, dowel-bar retrofit, and isolated, partial and/or full-depth repairs.

  - The needs list identifies problems or deficiencies and explores possible solutions.

  - Some of the needs may be short-term, and some may be long-term. The long-term needs may require several projects in order to complete.

- **Project List (Five-year programmed project list based on projected funding)**

  - The Project List is based on projected revenue available. It includes project location, project description with improvement type, funding source(s) and a planning level or engineer's estimate.

- The projects contained in the project list are organized according to programmed year and are based on needs and input from public leaders, staff and the public. The programmed projects will show what projects can be done with the funding available.

- Portions of a project may be unfunded. A portion of the project cost planned for the five years included in the Plan may include grant funding which has been or will be applied for, but not yet approved.

- Bridge Improvement Grants include Preliminary Engineering Grants, Bridge Rehabilitation Grants and Bridge Replacement Grants.

- Equipment is often a large portion of the transportation budget and is considered when evaluating project selections.

- **Projected Revenue Table (Five-year budget projection for highway and bridge program)**

  - The Plan projected revenue table identifies the amount of funds projected to be available for highway and bridge use over the next five years.

  - The table includes non-confirmed but potential revenue sources such as grant funds which may or may not have been applied and for which confirmation has not yet been received.

  - Planned expenditures for each project are summarized into funding categories. The funding categories reflect anticipated revenue sources.

- **Revenue Sources** – This includes the following types of funding categories:

  - **Local Funds**– The taxes levied portion of the revenue estimates includes a variety of funding sources, including wheel tax, property tax, motor vehicle licenses, etc.
  - **Intergovernmental Revenue** – The Intergovernmental sources of revenue includes charges for services for townships and road districts.
  - **State Funds** - These are any revenues from the state for highway purposes including Bridge Improvement Grants (BIG), Exchange for Surface Transportation Program (STP) Funds, Agri-Business Grants, etc.
  - **Federal Funding** - Federal funding is available through various programs included in Federal transportation legislation. SDDOT administers most of these programs. They include Emergency Relief (ER), Federal Emergency Management Agency (FEMA), Surface Transportation Program Funds, Transportation Alternative Program (TAP), Safety funds, County-Wide Signing Projects, etc.
  - **Other** – Miscellaneous funding sources include transfer of general funds, sale of surplus property, and others that do not fit into the categories above.

APPENDIX

Bridge Inventory List

Project Needs List

Revenue Source Table

Functional Class and Bridge Location/Sufficiency Rating Map

Surface Type and Average Daily Traffic (ADT) and Bridge Location/Sufficiency Rating Map

Five-Year Project Location Map

2014 Bridge Inspection Map

Project List (Five-year programmed project list based on projected funding)

Sample of Coordination Letter sent to Township Officials

Affidavit of Publication for Notice of Public Meeting

Public Meeting Attendance List

Comments from Public Meeting

Grant County Resolution of Adoption

Project Needs List

Project Location	Project Description	Total Project Cost in Thousands of $	Prioritization Ranking (Optional)
Various Locations	Annually - 3 Bridge Replacements by County Crew	150	High
Various Locations	Annually - Striping	12	High
Various Locations	Bridge Inspections	7	High
	Purchase New Loader	50	High
	Purchase Motor Graders	1,413	Medium
Various Locations	Annually - Seal Coat 34 Miles	470	High
Various Locations	Annually - Overlay 6 Miles	600	High
County Road 8	Overlay 15 Miles	2,359	High
Various Locations	Annually - Replace 2 Culverts by County Crew	26	High
479th Avenue	STP Bridge Replacement (300-202)	284	High
483rd Avenue	STP Bridge Replacement (340-196)	275	High
482nd Ave/Co Rd 35	STP Bridge Replacement (330-195)	275	High
482nd Ave/Co Rd 35	STP Bridge Replacement (330-196)	275	High
480th Ave/Co Rd 31	STP Bridge Replacement (310-031)	650	High
County Road 35	PE and H&H Study for Bridge 325-222	32	High
County Road 35	Bridge Replacement (325-222)	347	High
County Road 19	PE & H&H Study for Bridge 230-116	32	Medium
County Road 19	Bridge Replacement (230-116)	310	Medium
481st Avenue	PE & H&H Study for Bridge 320-053	32	Medium
481st Avenue	Bridge Replacement (320-053)	350	Medium
Center Road	PE & H&H Study for Bridge 275-121	32	Medium
Center Road	Bridge Replacement (275-121)	343	Medium

FIVE-YEAR PROGRAMMED PROJECT LISTING

Map Reference Number	Project Location	Project Description	Year	Local Funding	Federal Funding	State Funding	Unfunded	Anticipated Grant	Total Funding	Total Project Cost
1	479th Avenue	Bridge Replacement #300-202	2016	57	227				284	284
2	482nd Avenue/ County Road 35	STP Bridge Replacement #330-195	2016	55	220				275	275
3	482nd Avenue/ County Road 35	STP Bridge Replacement #330-196	2016	55	220				275	275
4	483rd Avenue	Bridge Replacement #340-196	2016	55	220				275	275
5	County Road 35	PE and H&H Study Completed	2016					32	32	32
6	County Road 8	Overlay 15 Miles of Co Rd 8	2016	1,408	779	172			2,359	2,359
	Various Locations	County Forces Replace 3 Bridges	2016	150					150	150
	Various Locations	Striping	2016	12					12	12
	Various Locations	Bridge Inspections	2016	7					7	7
	Various Locations	Seal Coat 34 Miles	2016	470					470	470
	Various Locations	Overlay 6 Miles	2016	600					600	600
	Various Locations	Replace 2 Culverts	2016	26					26	26
		Purchase New Loader	2016	50					50	50

Map Reference Number	Project Location	Project Description	Year							Total Project Cost
				Local Funding	Federal Funding	State Funding	Unfunded	Anticipated Grant	Total Funding	
	480th Avenue/ County Road 31	STP Bridge Replacement #310-031	2017	130	520				650	650
	County Road 19	PE and H&H Study Completed	2017					32	32	32
	County Road 35	Bridge Replacement #325-222	2017					347	347	347
	Various Locations	County Forces Replace 3 Bridges	2017	150					150	150
	Various Locations	Striping	2017	12					12	12
	Various Locations	Seal Coat 34 Miles	2017	470					470	470
	Various Locations	Overlay 6 Miles	2017	600					600	600
	Various Locations	Replace 2 Culverts	2017	26					26	26
		Purchase Motor Grader	2017	320					320	320
		Purchase Motor Grader	2017	320					320	320
7	481st Avenue	PE and H&H Study Completed	2018					32	32	32
8	County Road 19	Bridge Replacement 230-116	2018					310	310	310
	Various Locations	County Forces Replace 3 Bridges	2018	150					150	150

Map Reference Number	Project Location	Project Description	Year	Local Funding	Federal Funding	State Funding	Unfunded	Anticipated Grant	Total Funding	Total Project Cost
	Various Locations	Striping	2018	12					12	12
	Various Locations	Bridge Inspections	2018	7					7	7
	Various Locations	Seal Coat 34 Miles	2018	470					470	470
	Various Locations	Overlay 6 Miles	2018	600					600	600
	Various Locations	Replace 2 Culverts	2018	26					26	26
		Purchase Motor Grader	2018	341					341	341
9	481st Avenue	Bridge Replacement 320-053	2019					350	350	350
	Center Road	PE and H&H Study Completed	2019					32	32	32
	Various Locations	County Forces Replace 3 Bridges	2019	150					150	150
	Various Locations	Striping	2019	12					12	12
	Various Locations	Seal Coat 34 Miles	2019	480					480	480
	Various Locations	Overlay 6 Miles	2019	600					600	600
	Various Locations	Replace 2 Culverts	2019	26					26	26
		Purchase Motor Grader	2019	364					364	364
10	Center Road	Bridge Replacement 275-121	2020					343	343	343
	Various Locations	County Forces Replace 3 Bridges	2020	150					150	150

Map Reference Number	Project Location	Project Description	Year							Total Project Cost
				Local Funding	Federal Funding	State Funding	Unfunded	Anticipated Grant	Total Funding	
	Various Locations	Striping	2020	12					12	12
	Various Locations	Bridge Inspections	2020	7					7	7
	Various Locations	Seal Coat 34 Miles	2020	480					480	480
	Various Locations	Overlay 6 Miles	2020	600					600	600
	Various Locations	Replace 2 Culverts	2020	26					26	26
		Purchase Motor Grader	2020	388					388	388

Revenue Sources

Account Description	2016	2017	2018	2019	2020
Local Funds (in Thousands of $)					
Operating Transfers Needed From General Funds	1,420	1,667	1,595	1,496	1,642
Motor Vehicles Licenses and Prorate	1,344	1,385	1,425	1,466	1,509
Wheel Tax	263	263	263	263	263
Intergovernmental Funds (in Thousands of $)					
Other	64	135	145	160	160
State Funds (in Thousands of $)					
BIG-Prelim Engineering (PE) (Planning to Apply For)	32	32	32	32	32
BIG-Prelim Engineering (PE) (Awarded by DOT)					
BIG-Preservation (Planning to Apply For)					
BIG-Preservation (Awarded by DOT)					
BIG-Construction (Planning to Apply For)		347	310	350	343
BIG-Construction (Awarded by DOT)					
Annual STP Payout Funds	178	178	178	121	121
Federal Funds (in Thousands of $)					
TAP ER/FEMA					
Other (STP, Bridge, Signing, Hazard Elimination					
Total (in Thousands of $)					