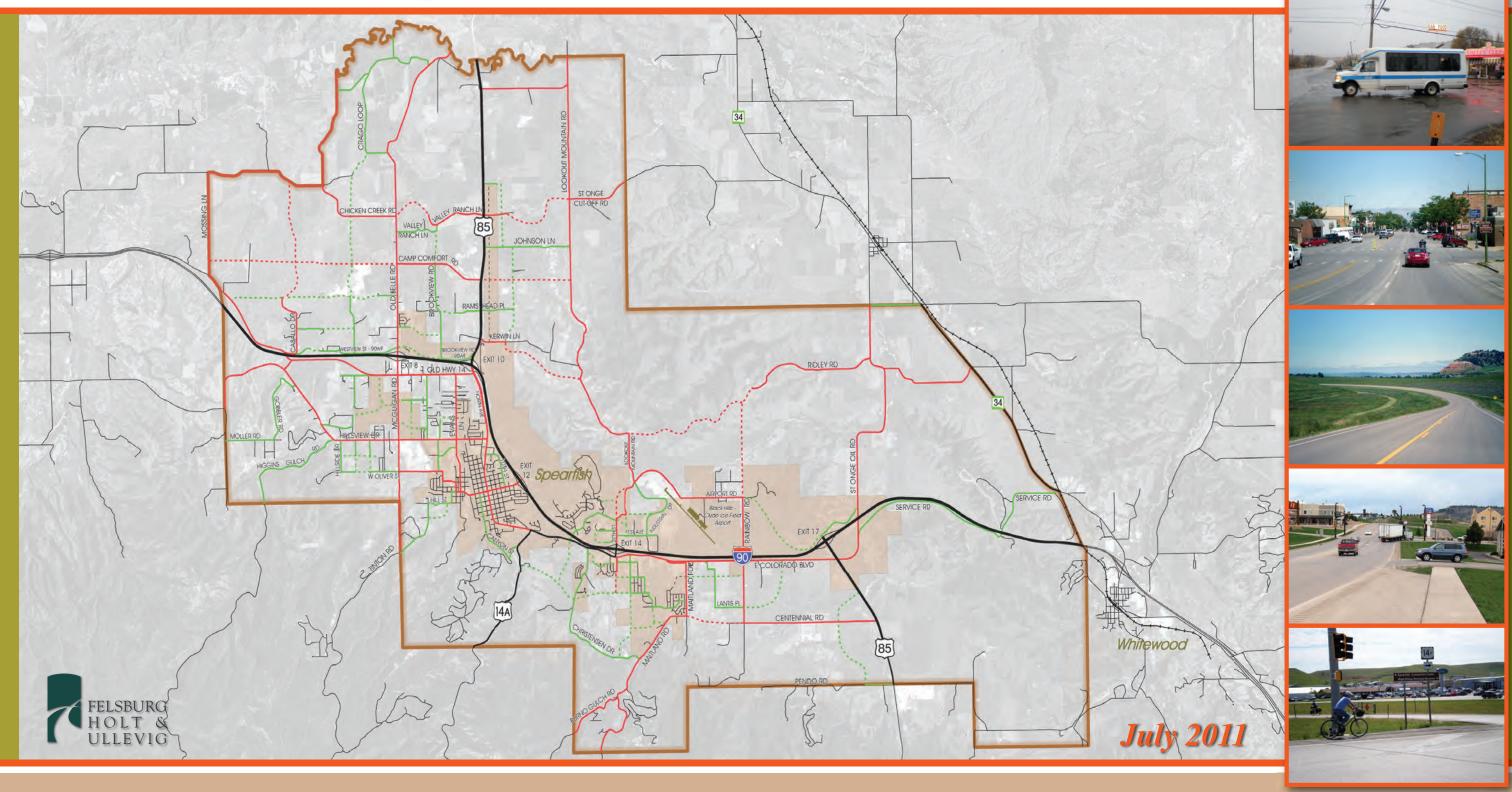
Spearfish Area Master Transportation Plan











SPEARFISH AREA MASTER TRANSPORTATION PLAN

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City of Spearfish

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EXECUTIVE SUMMARY

Introduction

Background

The City of Spearfish is a growing community of approximately 10,500 residents located along the Interstate 90 (I-90) corridor in Lawrence County, South Dakota. Recent Census Bureau data show that Spearfish's population has increased 22 percent from 2000 to 2010, indicating steady growth in residential development. The City has also experienced substantial commercial development in recent years, particularly along the I-90 corridor on the east side of the City. The City expects to see both residential and commercial development continue in the foreseeable future.

The travel needs of the various users of the transportation network increase the importance of providing a balanced network of complete arterial, collector and local streets and pathways that serve drivers, pedestrians, bicyclists, transit riders, and the disabled population. The Spearfish Area Master Transportation Plan, entitled *moveSpearfish*, serves to identify the existing needs to better serve current residents, visitors and students, while serving as a blueprint for the transportation system, providing a clearly defined future for the network. As development occurs in Spearfish, it is important to have a documented plan for the future transportation system that defines the City's expectations of developers, as well as providing a basis for its own long and short term capital projects.

Purpose and Objectives

The Spearfish Area Master Transportation Plan, *moveSpearfish*, was initiated by the South Dakota Department of Transportation (SDDOT), the Federal Highway Administration (FHWA) and the City of Spearfish, South Dakota. The threefold purpose of the project is to:

- 1. Complete a list of transportation issues and needs facing the Spearfish Area
- 2. Develop feasible solutions to address those issues and needs that meet current design standards and/or traffic level of service expectations under both the current and predicted future traffic conditions.
- 3. Create final products for use by the City of Spearfish, Lawrence County and the SDDOT which will provide guidance to implement recommended improvements and anticipate future development plans within the area.

The Study Advisory Team (SAT) designated to oversee the project developed a series of objectives to address in accomplishing the project purpose, as follows:

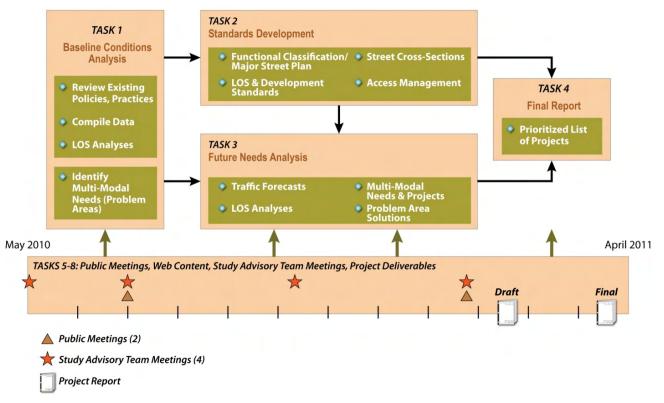
- Address how the transportation system can enhance livability within the Spearfish community, particularly emphasizing travel by transit, bicycle and walking.
- Provide not a road map, but a master street plan that frames the existing system and identifies future improvements.
- Coordinate transportation planning efforts across multiple jurisdictions, including the City of Spearfish, Lawrence County, SDDOT and FHWA.

- Develop a plan that complements the Engineering Standards currently being developed by the City of Spearfish.
- Identify priorities among future transportation improvement projects.

Approach

As illustrated below in **Figure S-1**, the project was organized into eight tasks. The project began with a comprehensive review of baseline conditions to identify current needs throughout the Spearfish transportation system. Task 3 addressed the anticipated influence of growth on the system, identifying projects needed to keep people moving into the future.

Figure S-1. Work Flow Diagram



Task 2, Standards Development, provides a policy framework for the transportation plan and provides the City with a set of tools for addressing future development and roadway improvements. Task 4 provides the completion of this report, including a list of prioritized projects and policy guidelines. The major work tasks 1 through 4 were supported throughout by an extensive Public Involvement Process, including two community surveys (one in-person and the other online) and two public meetings.

Elements of the Transportation Plan

The elements of the plan include:

Inventory of Existing Conditions





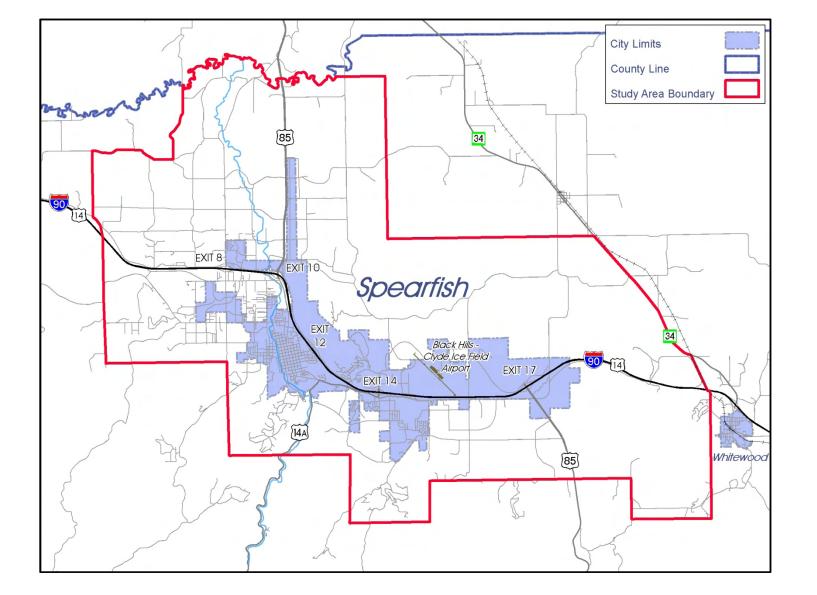


- Forecasted Growth
- ▶ Long Range Transportation Plan
- Plan Implementation
- Street Standards
- Summary and Recommendations

Study Area

The moveSpearfish study area is depicted on Figure S-2.

Figure S-2. Study Area



Inventory of Existing Conditions

In order to understand how transportation is provided to Spearfish residents, the project team conducted an inventory of the existing transportation system.

Traffic Conditions

Roadway Network

The unique topography within Spearfish along with development trends to date have significantly affected existing roadway locations and continuity within the study area. The Plan study area can be readily divided between rural portions (dominated by unpaved roadways and sparse development) and urbanized areas. The majority of the urban development is bounded by I-90 to the north and Maitland Road to the east with the Hills to the south providing a natural buffer to development. More recent development has occurred along Sandstone Hills Drive and 27th Street to the north of I-90 and on the west edges of the community near Exit 8.

The majority of roads within the Master Transportation Plan study area provide two travel lanes (one in each direction). Interstate 90 and US 85 are four lane roadways along with Jackson Boulevard and Colorado Boulevard between Interstate 90 and US Highway 14A.

Traffic Volumes

Daily traffic volumes were gathered from the SDDOT count database of counts conducted between 2005 and 2009. Current traffic volumes along I-90, US Highway 85 north, North Avenue, and portions of Jackson Boulevard, Colorado Boulevard, 27th Street and Main Street exceed 10,000 vehicles per day (vpd). A second tier of roadways carries 5,000 to 10,000 vpd; US 85 south, Hillsview Road, and Canyon Street south of Jackson Boulevard. Other roadways carry less than 5,000 vpd.

Volume-to-Capacity Ratios

One measure that is used to define operational characteristics is volume to capacity ratio (v/c). This ratio compares the existing traffic with the actual design of the roadway. A v/c ratio of 1.0 means that there is roughly an equal balance between the roadway design and the vehicular traffic on it.Based on the existing v/c ratios, the Exit 14 interchange represents the location with the greatest congestion within the study area. 27th Street between Colorado Boulevard and 1st Avenue is operating with a v/c ratio equal to one, suggesting that this roadway segment is at capacity. In addition, a portion of US Highway 14A between Spearfish Canyon Road and 27th Street and Colorado Boulevard between 27th Street and 30th Street is nearing capacity. These findings indicated that with growth in traffic at this interchange, capacity problems will begin to hinder traffic flow along the roadway. The SDDOT has initiated the US 14A Corridor Study to assess current and future traffic conditions along US 14A and at Exit 14. The study, anticipated to be complete by October of 2011, will be developing options for improving traffic conditions at these locations.

Intersection Operations

Ten intersections were identified for study by the Study Advisory Team based on known delay, geometry, congestion problems, and public comment. The goal of the analysis was to determine what, if any, lane geometry or signing changes need to be made at the study intersections in order to provide acceptable levels of service (LOS) during the peak hour.







The ten intersections identified for study are:

Colorado Boulevard / Rainbow Road Colorado Boulevard / Maitland Road Ames Avenue / Jackson Boulevard University Street / Jackson Boulevard St. Joe Street / Hillsview Road

North Avenue / Main Street / Nevada Street Evans Lane / Old Highway 14 Kerwin Lane / US 85 McGuigan Road / Old Highway 14 North Avenue / Yankee Street

The ten selected intersections excluded intersections that are being analyzed by the US 14A Corridor Study to avoid duplication of effort.

Existing operational conditions were analyzed at each of the intersections based on the procedures documented in the <u>Highway Capacity Manual</u>, (Transportation Research Board, Third Edition, 2000). This analysis procedure provides a LOS, which is a quantitative measure based on the average delay per vehicle at a controlled intersection. Levels of service are described by a letter ranging from "A" to "F". LOS A represents minimal delay, while LOS F represents excessive congestion and delay. The ten intersections include some unsignalized (STOP sign) and some signalized intersections. Individual AM and PM peak LOS are provided for individual movements at stop-sign controlled intersections while, an overall intersection LOS is given for signalized intersections.

Many agencies and municipalities publish standards for acceptable intersection LOS during peak hour traffic conditions. For example, the SDDOT accepts intersection operations of LOS D or better during peak hours. The City of Rapid City seeks to provide LOS C or better intersection operations during peak hours. For the purposes of this analysis, LOS C or better is considered acceptable. All of the movements and intersections studied were found to operate at LOS C or better during peak hours. Though current traffic operations are acceptable, a field review identified a number of issues at the study intersections, highlighted as follows:

Ames Avenue / Jackson Boulevard – The skewed alignment of this intersection and difficulty of seeing the signal displays is hazardous.

University Street / Jackson Boulevard – This 3-way STOP sign controlled intersection was included in the evaluation list due to its unorthodox configuration. Operational analyses indicated that traffic moves through the intersection at acceptable levels of delay. However, limited sight distance and vertical roadway curvature in the vicinity of the intersection make this intersection difficult for drivers and pedestrians to safely negotiate.

St. Joe Street / Hillsview Road – Field inspection of the intersection indicated lengthy delays during particular times of day. It was found that an inadequate allocation of green time to intersection movements was causing backups, particularly in the eastbound and westbound directions along Hillsview Road.

North Avenue / Main Street / Nevada Street – This intersection is comprised of several approaches converging at sharp angles, creating multiple vehicular conflict points. Particularly hazardous is the one-way southbound Main Street approach at Nevada Street.

Evans Lane / Old Highway 14 –The intersection is poorly delineated, with the STOP sign posted on an unprotected power pole and no striping on the Evans Lane approach. The adjacent business parking lot is a continuous paved surface with the roadway, causing confusion among motorists and customers.

Traffic Safety

The South Dakota Department of Transportation (SDDOT) presently maintains a Geographic Information Systems (GIS) crash database designed to monitor crash trends. As part of the *moveSpearfish* study, the crash data was compiled for a four year period to identify the most hazardous intersections within the study area. The analysis was conducted for all accidents between 2006 and 2009.

A total of 1,301 traffic accidents occurred in the study area between 2006 and 2009. There were three fatal accidents within the study area during the study period, two of which listed alcohol use as a contributing factor. In addition to these statistics, it is noteworthy that 5 percent of crashes were influenced by alcohol or drugs, 38 percent of crashes involved wildlife, 26 percent of crashes were intersection-related and 36 crashes involved motorcycles. Crashes that happened at night along unlighted roadway segments comprised approximately 37 percent of all collisions.

Issues identified at intersections included high frequency of angle-type collisions, which often occur at busy unsignalized intersections as vehicles seek to complete left turns onto or cross the major street. Intersections in the vicinity of Exit 14 comprised 4 of the top 15 accident intersections. Problems at these locations are currently being addressed as a part of the US 14A Corridor Study being conducted by the SDDOT. In its Roadway Safety Improvement (RSI) Report for the Rapid City region, the SDDOT has also noted a need for improvements at two intersections along state highways. Table S-1 summarizes the top 15 intersections in the study area by accident frequency.

Table S-1. Top Accident Intersections in Study Area

Rank	Intersection	Number of Accidents 2006-2009		
		Total	PDO ¹	INJ^2
1	27 th Street / Colorado Boulevard	20	15	5
2	Jackson Boulevard / Main Street	19	13	6
3	Hillsview Road / St. Joe	13	10	3
4	Colorado Boulevard / US Highway 85	12	5	7
5	North Avenue / East Rushmore Street	12	6	6
6	27 th Street / 1 st Street	12	8	4
7	Main Street / Illinois Street	12	8	4
8	Jackson Boulevard / Canyon Street	11	5	6
9	North Avenue / Ryan Road	11	8	3
10	Exit 14 EB ramps / 27 th Street	11	9	2
11	Old Highway 14 / North Avenue	10	4	6
12	Jackson Boulevard / 5 th Street	10	7	3
13	Main Street / Hudson Street	9	5	4
14	Exit 14 WB ramps / 27 th Street	9	7	2
15	Maitland Road / Colorado Boulevard	9	7	2

PDO = Crashes resulting in Property Damage Only

² INJ = Crashes resulting in Injury or Injuries







Transit

The Spearfish and greater Black Hills area is served by Prairie Hills Transit (PHT), which serves 12 communities within 6 counties in Western South Dakota. Services included request-a-ride connections within the service area and fixed-route services along Interstate 90 (I-90) between the City of Spearfish and Rapid City. A new regional intermodal transit facility was recently constructed in Spearfish at 2015 Tumbleweed Trail. The new facility will provide expanded bus fleet parking, administrative space, a future day care facility, and maintenance/shop space. This new facility will also serve as the Jefferson Line Depot, an intercity bus service. Completion of the facility is likely to increase ridership within the PHT system, and a transit plan will help to guide future expansion.

Non-motorized Facilities

The inventory of non-motorized travel conditions was compiled based on a physical review of current infrastructure. In addition, the public involvement process afforded an opportunity to ask Spearfish residents about the existing non-motorized network and receive input about current conditions. Though often considered together, the needs of bicyclists and pedestrians are distinctive and worthy of individual consideration in *moveSpearfish*. Existing conditions for both are described as follows, beginning with Pedestrian conditions.

Pedestrian Conditions

The majority of roadways within downtown Spearfish provide sidewalks for pedestrian circulation. The location of sidewalks alongside roadways as well as the facility condition are well established and provide adequate continuity throughout the City. At some locations, sidewalks unnecessarily jog and do not provide a straight-line connection between two points. Sidewalk width varies across the City, with some downtown walks reaching approximately 10 feet in width and some neighborhood areas providing sidewalks 2-3 feet wide. The current Spearfish path system accommodates recreational use by pedestrians and visitors.

There were a number of recurring noted pedestrian problems/needs, including:

- A consistent path is needed to connect the High School/Taco Bell/ Safeway/Medical Center
- A path is needed to connect the path along Colorado Blvd to the Walmart area north of I-90 near Exit 14
- Pedestrian facilities are needed along Evans Lane and Hillsview Road
- Clearer pedestrian crossing markings are needed at St. Joe St and Nash St for pedestrians accessing campus
- The intersection of University Street and Jackson Boulevard was specifically mentioned for its unusual stop sign configuration
- An enforced snow shoveling policy for sidewalks around town
- ▶ Exit 14 does not accommodate pedestrians crossing I-90.

Bicycle Conditions

By South Dakota Law, bicyclists traveling on sidewalks must yield right-of-way to pedestrians. It follows that convenient bicycle travel must involve some on-street facilities. However, on-street bicycle facilities within downtown Spearfish are negligible, requiring the cyclist to travel in the general purpose lanes or utilize roadway shoulders or utilize side streets. Wide shoulders are provided along North Avenue/Colorado Boulevard for a majority of the roadway between I-90 and Maitland Road.

An extensive off-street path system exists in Downtown Spearfish which generally follows Spearfish Creek from Custer Street to US 14A. In addition, a path has been built from Spearfish Canyon Road along Colorado Boulevard to the Exit 14 interchange. For bicyclists, there remains some room for improvement since no dedicated right of way or priority markings are provided for cyclists once they leave the path system. Based on comments received from the public, roadways with a need for bicycle facilities include Jackson Boulevard and St. Joe Street. The existing path at Exit 14 ends abruptly and does not provide a means for cyclists to reach the commercial area north of the interchange.

For non-urban portions of the study area, bicycle facilities require significantly more attention since many of the roadways are very narrow with limited shoulders, requiring cyclists to travel in the major travel lanes. Roadways which have significant numbers of residences, and therefore demand for facilities, include Evans Lane, Upper Valley Road, Hillsview Drive, Old Highway 14, and Colorado Boulevard east of Exit 14.

Areas for improvement noted include:

- Many of the responders see improved on-street bicycle accommodations as a necessary tool to make cycling a safer and more convenient mode of transportation.
- Develop a preferred routing plan for the town, to include separated bicycle lanes or sharrows (shared driving and bicycling in the main travel lane) for the designated bicycle routes.
- ▶ Suggestions for preferred bicycle routes include along Main Street, Colorado Blvd, Jackson Blvd, University Street, College Lane, Hillsview Road, and St. Joe Street/Evans Lane.
- ▶ The current at-grade recreational path crossing of Hillsview Road at Spearfish Creek is offset and poses a safety hazard for bicyclists.
- ▶ The existing recreational path needs to be widened in spots where it is less than 8 feet wide.

Air Transportation

Black Hills-Clyde Ice Field Airport is located north east of the Exit 14 interchange and is a public general aviation airport operated by Lawrence County, South Dakota. The airport operates with three runways, one is asphalt and two are grass. The Airport recently lengthened the primary runway to the northwest by approximately 1,870 feet, which required the reconstruction of Airport Road around the new runway to the northwest. This realignment significantly impacted the ability to route traffic through the industrial park, and out the north end of Industrial Drive, effectively creating a functional dead-end in this area. This change has increased traffic demand along 1st Avenue extending east from 27th Street.

Freight Transportation

The majority of freight travel through Spearfish occurs along I-90, which serves cross-country freight patterns. Local freight travel occurs mostly along North Avenue, Main Street and Colorado Boulevard as the majority of industrial and retail development lies along these corridors. Two major in-town generators of freight traffic are the McLaughlin sawmill along Colorado Boulevard near Maitland Road and the Spearfish Forest Products (Neiman Enterprises) operation located along Oliver Street east of McGuigan Road. Some expressed particular concern that the intersections of McGuigan Road with Hillsview Road and Oliver Street be examined to determine whether improvements are needed to more safely accommodate freight vehicles along with passenger cars and non-motorized modes.







List of Current Issues

The public involvement process was designed to collect as much input as possible from the Spearfish community about existing transportation issues within the study area. This process was a valuable tool in identifying what members of the community see as the biggest issues needing attention during the development of this Master Transportation Plan. The complete issue listing is provided in **Appendix C**.

Some frequently mentioned current issues included:

- safety concerns at Jackson Boulevard / University Street
- the need for future east-west corridors throughout the study area
- poor signal timing and coordination between signalized intersections throughout the City
- lack of sidewalk/path along Evans Lane, Hillsview Road, Upper Valley Road, and Old Highway 14
- no safe crossing of North Avenue near the Safeway store
- the need for increased transit service

These issues were considered during the development of *moveSpearfish*, and recommendations were included in the future project listing in Section V where logical improvements could be identified.

Forecasted Growth

Land Use and Traffic Forecasts

The City of Spearfish has experienced steady growth during the last several years, and recent growth is anticipated to continue into the future. As a result of this growth, the City has been proactive about land use planning within the study area. Anticipated future growth area land use has been developed as part of the Sanitary Sewer System Master Plan, completed by the City of Spearfish in the Year 2007. Anticipated development levels were utilized to create a spreadsheet-based traffic forecast model capable of estimating future traffic volumes on roadways throughout the study area. The Year 2035 was chosen as the long range future time horizon, more than 20 years into the future.

The future traffic forecasts were developed considering background traffic growth as well as specific development plans, as defined in Section III.A. It was assumed that all development identified by existing zoning will have occurred by the modeling horizon year, 2035. After completion of the background traffic and new development areas traffic forecasts, the volumes for each link were summed to develop the future daily forecast traffic volumes anticipated in 2035. Significant increases over existing traffic volumes are anticipated, particularly in the vicinity of Exit 14. Traffic through the City of Spearfish along North Avenue and Main Street would reach approximately 20,000 Vehicles Per Day (vpd). Interstate 90 would carry up to 34,500 vpd through the study area.

Volume-to-Capacity Ratios

Based on the future v/c ratios, the Exit 14 interchange represents the location with the greatest congestion within the study area. 27th Street between Colorado Boulevard and 1st Avenue is anticipated to operate with a v/c ratio greater than 1.5, suggesting that this roadway segment will be well above capacity and in need of improvements. These findings indicate that with background growth and future development, capacity problems will cause significant delay surrounding the Exit 14 interchange if no improvements are made. In

addition, a portion of US Highway 14A between Spearfish Canyon and 27th Street and Colorado Boulevard between 27th Street and Maitland Road will be above capacity. Additionally, North Avenue/Colorado Boulevard is expected to experience significant volume increases and will operate with some congestion but will still be within capacity.

Intersection Operations

The ten intersections identified by the SAT were reevaluated to determine if any capacity problems are anticipated to occur with build out of the development areas and the addition of future background traffic. Growth in traffic volumes is expected to cause some congestion problems, with conditions at the Colorado Boulevard / Maitland Road and US 85 / Kerwin Lane intersections deteriorating to LOS F. Delays at the St. Joe Street / Hillsview Road intersection are expected to worsen if the signal timing is not adjusted to better accommodate peak hour travel patterns. Intersection improvements are recommended at the Ames Avenue / Jackson Boulevard, University Street / Jackson Boulevard, North Avenue / Main Street / Nevada Street, and Evans Lane / Old Highway 14 intersections.

Long Range Transportation Plan

Major Street Plan

The centerpiece of the Spearfish Area Master Transportation Plan as it relates to the road network is the development of the Major Street Plan. The Major Street Plan provides a framework for how the road network should be established as development occurs within the study area. The plan labels the functional classification of current roadways and identifies future roadway corridors designed to provide connectivity and access to new developments in rural portions of the study area.

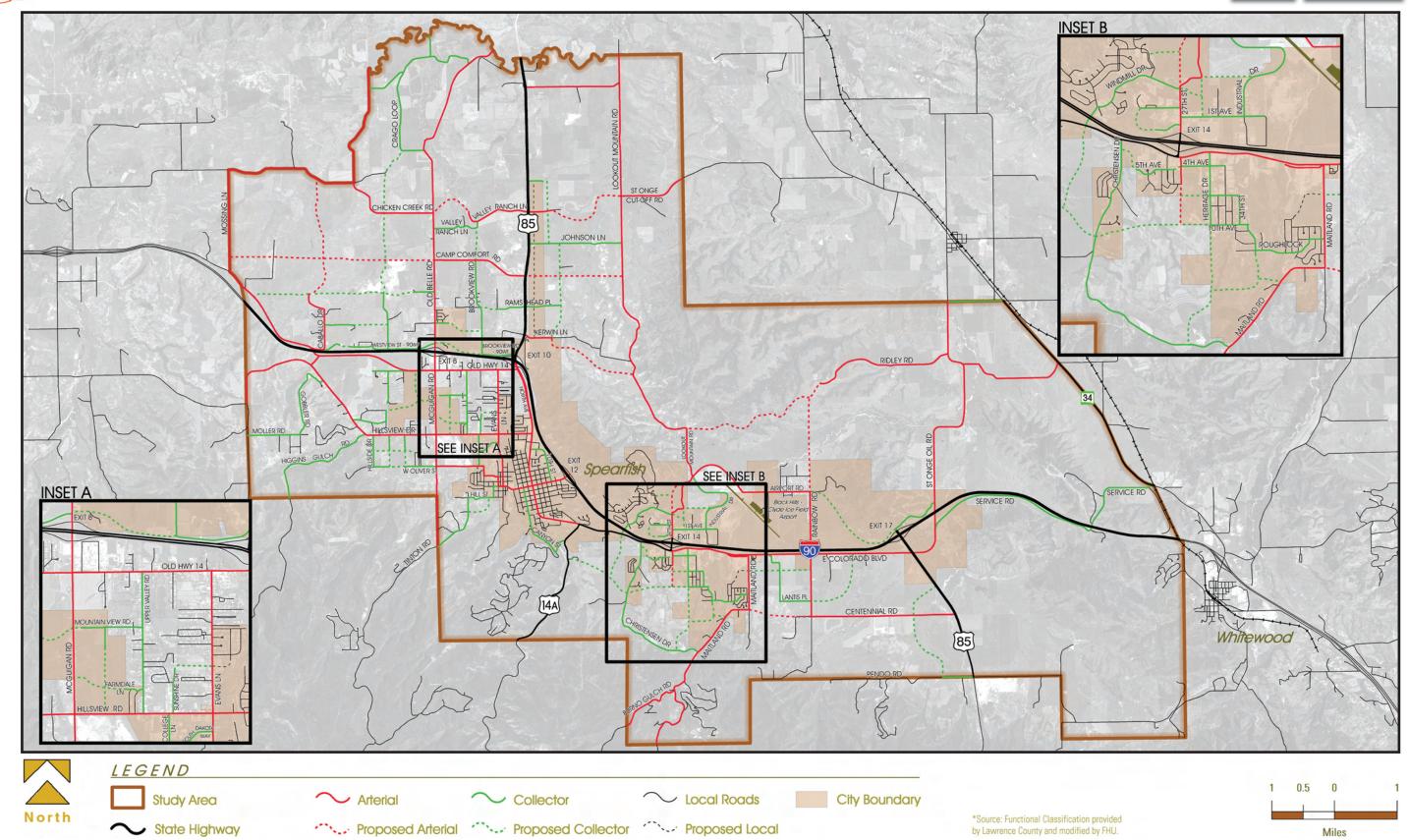
The Major Street Plan is a high-level planning document which details the eventual roadway connections to be built over the next 20-50 years. This document does not suggest that development should and will begin immediately, nor does it detail the exact alignment the roadway connections should follow. Instead, the plan serves as a basic roadway framework, with the eventual goal being to build road segments that provide the continuity envisioned in this plan. It is recognized that as this plan has been developed, existing land uses may conflict with the roadway connections depicted, and it is not the intention of this plan to require immediate action. As development is pursued in these areas, the Major Street Plan should be consulted and appropriate right of way allocations and preservations made to facilitate this vision can be fulfilled.

The Major Street Plan is depicted on Figure S-3.









move SPEARFISH







Functional Classification

A roadway network is comprised of a hierarchy of roads whose functional classification is defined by their usage. In general, streets serve two functions: they provide mobility between destinations and access to property adjacent to the roadway. Roadway classification is determined by the relative degree to which a road serves mobility versus access functions, as well as characteristics such as continuity, trip lengths served, travel speeds, and traffic volumes. Following are descriptions of different roadway types in the *moveSpearfish* study area:

Federal and State Highways

Within the study area, significant connectivity is provided by roadways that are maintained by the federal or state governments. In the study area, these include I-90, US Highway 85, US Highway 14A, and State highway 34.

Arterial Roads

Arterial roadways are City of Spearfish or County maintained mobility roads that carry longer-distance trips for regional, inter-community and major commuting purposes. Arterials have a limited number of at-grade intersections and only provide direct property access when lower classification street access does not exist. Arterials can carry significant traffic volumes at higher speeds for longer distances and are seldom spaced at closer than one-mile intervals.

Collector Roads

Collector roadways are City of Spearfish or County maintained roads that serve a combination of mobility and access functions. They typically distribute traffic between arterial roads and local streets. Collectors provide for moderate trip lengths and travel speeds. Access is provided via moderately spaced at-grade signalized and stop controlled intersections.

Local Roads

The primary function of local roads is to provide access to adjacent land uses. Local streets generally are internal to or serve an access function for a single neighborhood or development. Local roads are limited in length and continuity, and traffic using them should have a close-by origin or destination.

Transit Plan

In coordinating with Prairie Hills Transit (PHT), five items were highlighted for future planning:

- 1. **Park-n-ride Facility** A park-n-Ride facility is currently being designed for the northwest side of I-90 Exit 17. This facility will serve as a casual carpool lot. PHT expressed that the transit agency would also make use of this lot.
- 2. **Fixed-Route Service** Currently, PHT provides demand responsive service in the vicinity of Spearfish and the Black Hills. Transitioning to a fixed-route system, at least partially, has been attempted in the past and remains a goal of PHT.
- 3. **Transit assistance for Disadvantaged Individuals** PHT serves many individuals who do not own a car or are disabled. PHT would like to see such a program provided to enhance services to these individuals.

- Multimodal Connectivity Bicycle racks are in the works for the new PHT facility, and PHT Staff
 indicated a desire to enhance bicycle amenities across the transit system.
- 5. **Day Care** PHT is including a day care facility with its new building to enhance services and potentially increase ridership.

The *moveSpearfish* process has identified a future fixed-route through the City of Spearfish along with potential bus stop locations. Additional evaluation is necessary before stops are finalized. To facilitate the process of locating bus stops, it is recommended that the City of Spearfish incorporate bus stop location and design criteria with the City Infrastructure Standards. A starting point for this may be including a reference to Transit Cooperative Research Program (TCRP) Report No. 19. It is also recommended that Prairie Hills Transit be included as a referring agency in the development review process, to help ensure that new development in the Spearfish area is designed to accommodate future transit needs.

Bicycle and Pedestrian Plan

The Pedestrian and Bicycle Master Plan, shown on **Figure S-4** provides a framework for how the network should be established as funds become available within the study area. Taken as a whole, the existing and future path corridors along with sidewalk and on-street bicycle facilities will provide a consistent and extensive system designed to provide comfortable and convenient alternative mode choices. Plan highlights include:

Recreational Path System – The plan, based in large part on the *City of Spearfish Recreation Path Master Plan* completed in 2005, includes a significant future expansion of the Spearfish recreational path.

On-Street Bicycle Network – The plan includes several priority on-street bicycle connections, as the recreational path system does not fully address the needs of bicycle commuters in Spearfish.

Pedestrian Improvements – Additional pedestrian-specific improvements are not identified on **Figure S-4**, but are included in the Master Plan in the form of improvements to problem intersections. These include:

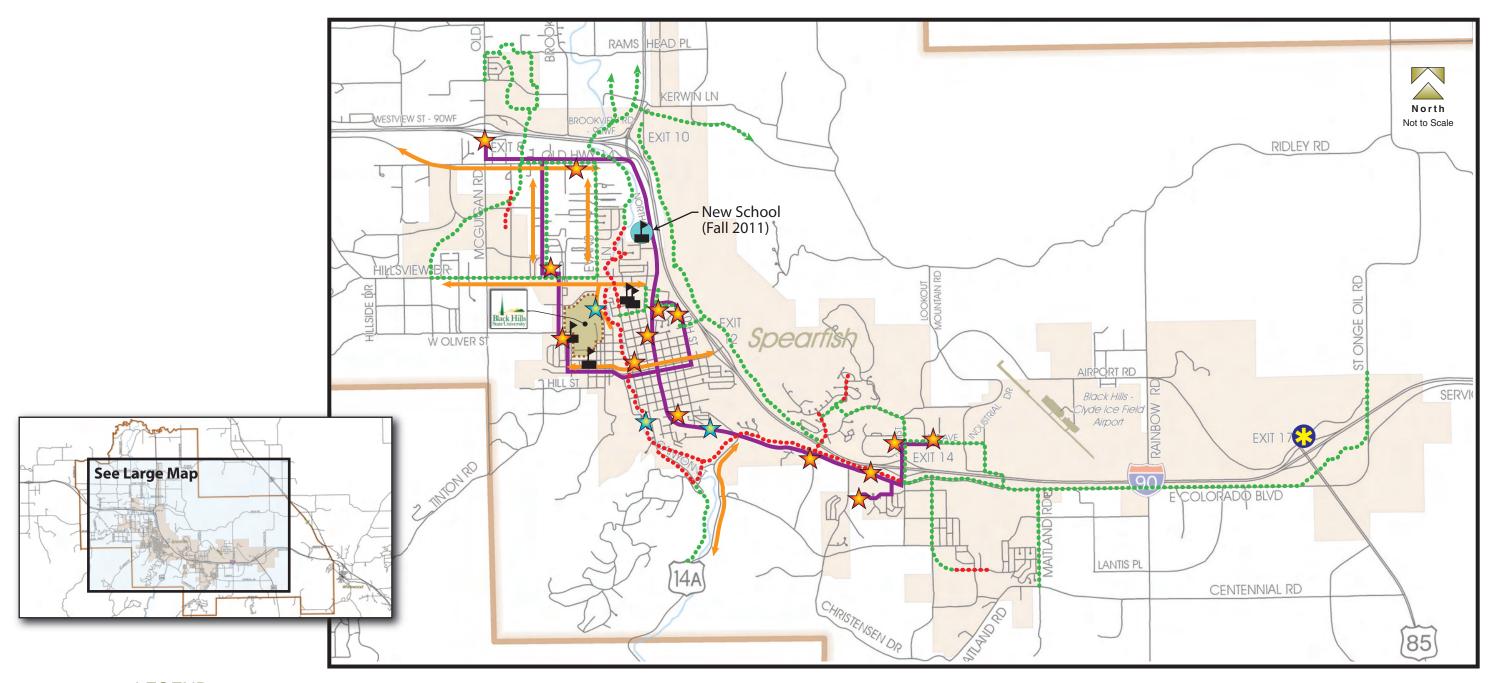
- ▶ Geometric improvements to the Hillsview Road / St. Joe intersection to improve pedestrian corner refuge and crossing,
- Restriping of pedestrian crossing markings at the St. Joe Street / Nash Street intersection, and
- Measures to improve the pedestrian crossing of North Avenue from the High School to the Safeway.

Two key pedestrian issues deserve special consideration due to the number of responses received from the public; the University Street / Jackson Boulevard intersection and the prioritization of walk clearance after snow events.









LEGEND

Current Prairie Hills Transit Commuter Bus Stop (to/from Sturgis and Rapid City)

Future Prairie Hills Transit Bus Stop

Future Transit Park-n-Ride Location

Existing Paths
Future Paths
Future Transit Fixed-Route
Future On-Street Bicycle Facility

Schools
Streams
City Boundary
Study Area







Plan Implementation

Project Implementation

Considering public input, technical analyses, field review and discussion among the SAT culminated in development of a complete project listing. A map of project locations is shown on **Figure S-5**. The project summary map includes all projects described within the project listing. The different project types have been separated in the listing into categories including: arterial roadway, collector roadway, intersection, capacity, path, bicycle/pedestrian, and transit.

Public Versus Growth Driven Project Types

Projects are divided between public (in brown squares) and growth driven (in grey squares) projects. Public projects address deficiencies within the roadway network that either currently exist or will occur with anticipated background growth. Growth driven projects stem from future development. These projects are therefore initiated by future growth and will require financial leading by the developer, to be supplemented where appropriate by a public agency.

Projects by Functional Classification

Each proposed new roadway has been identified with a classification, although the listing does not specify if the built segment should be of urban or rural nature. For this study, the distinction between urban and rural arterial has not been drawn due to the uncertainty within currently rural portions of the study area. As future development occurs, the nature of the new and affected existing roadways will change, and may affect the urban versus rural nature of the corridor. As such, the decision about the roadway should be made at that time by the governing body instead of being prescribed by this plan.

Project Prioritization

Public projects were divided into three priority categories to serve the City's needs in developing its Capital Improvement Program (CIP). Short term projects are those anticipated to be funded and built within the next five years (2010-2015). Projects which have been included in this category are the most vital to the immediate workings of the transportation system. This category includes improvements intended to improve safety particularly for bicycle and pedestrian users of the transportation system. Mid-term projects are those anticipated to be funded and built not immediately but within the next fifteen years (2015-2025). Long term projects are those anticipated to be funded and built in the long term (2025-2035).

Table S-2 provides a listing of prioritized roadway projects and **Table S-3** lists prioritizes public Bicycle and Pedestrian projects.

Project Cost Estimates

In addition to providing the project type, a project cost has been developed for each of the projects in the complete listing. For arterial and collector roadway segments, this cost has been based on the construction of an urban two-lane (one lane in each direction) roadway segment, complete with curbs, gutter, sidewalks and bicycle lanes in each direction. While every roadway segment may not be built to these specifications, this cost procedure provides the most conservative view of construction costs. These cost opinions include only items which are considered construction-related and are based on 2010 unit costs. No right of way costs have been included since these can be highly variable, depending on the current use and zoning of the adjacent property. Much of the needed right of way will be obtained from adjacent future development.

Cost analysis worksheets have been prepared for the basic roadway classifications as part of this project and are included in **Appendix D**.

Street Standards

Completion of *moveSpearfish* included development of information to be included in City of Spearfish roadway design guidelines. Information includes proposed roadway typical sections, Development traffic impact evaluation, and access management guidelines.

Proposed Roadway Cross Sections

Roadway cross-sections would be used as a template for future roadway construction and improvements to existing roadways. For both Arterials and Collectors, there are different cross-sections shown for roads in urban and rural areas. Urban cross-sections for both Arterials and Collectors include curbs, gutters and sidewalks adjacent to the travel lanes, while rural cross-sections have paved shoulders but no curb, gutter or sidewalk. Cross sections are also provided for rural unpaved (gravel) arterial and collector roadways. These are typical cross-sections; however, particular road segment cross-sections may vary depending on specific intersection improvements, topographical and environmental features, or roadside constraints.

The roadway cross sections shown reflect a 'Complete Street' philosophy of designing streets to accommodate all roadway users. Providing detached walks and bicycle lanes are two distinctive aspects of the Complete Street approach, which is intended to help build a road network that is safer, more livable, and welcoming to everyone (www.completestreets.org). While the City of Spearfish has not officially adopted a Complete Streets policy, the typical sections included in *moveSpearfish* are intended to accommodate all users.

Assessment of Development Traffic Impacts

New development in the study area generates vehicle-trips and associated new demands on the roadway system. The impacts of different developments vary from a small number of trips for a single new home to a large number of trips for a major residential subdivision or commercial development. Many municipalities require applicants for major developments to submit a traffic impact study, estimating the number of trips expected to be generated, the expected distribution of those trips onto the surrounding road network, and identifying major road improvements needed to accommodate the traffic.

Jurisdictions typically establish a threshold for the size of development that would trigger the requirement to do a traffic impact study (TIS). The traffic volume thresholds shown in **Table S-4** are recommended in consideration of the need for a traffic impact study:

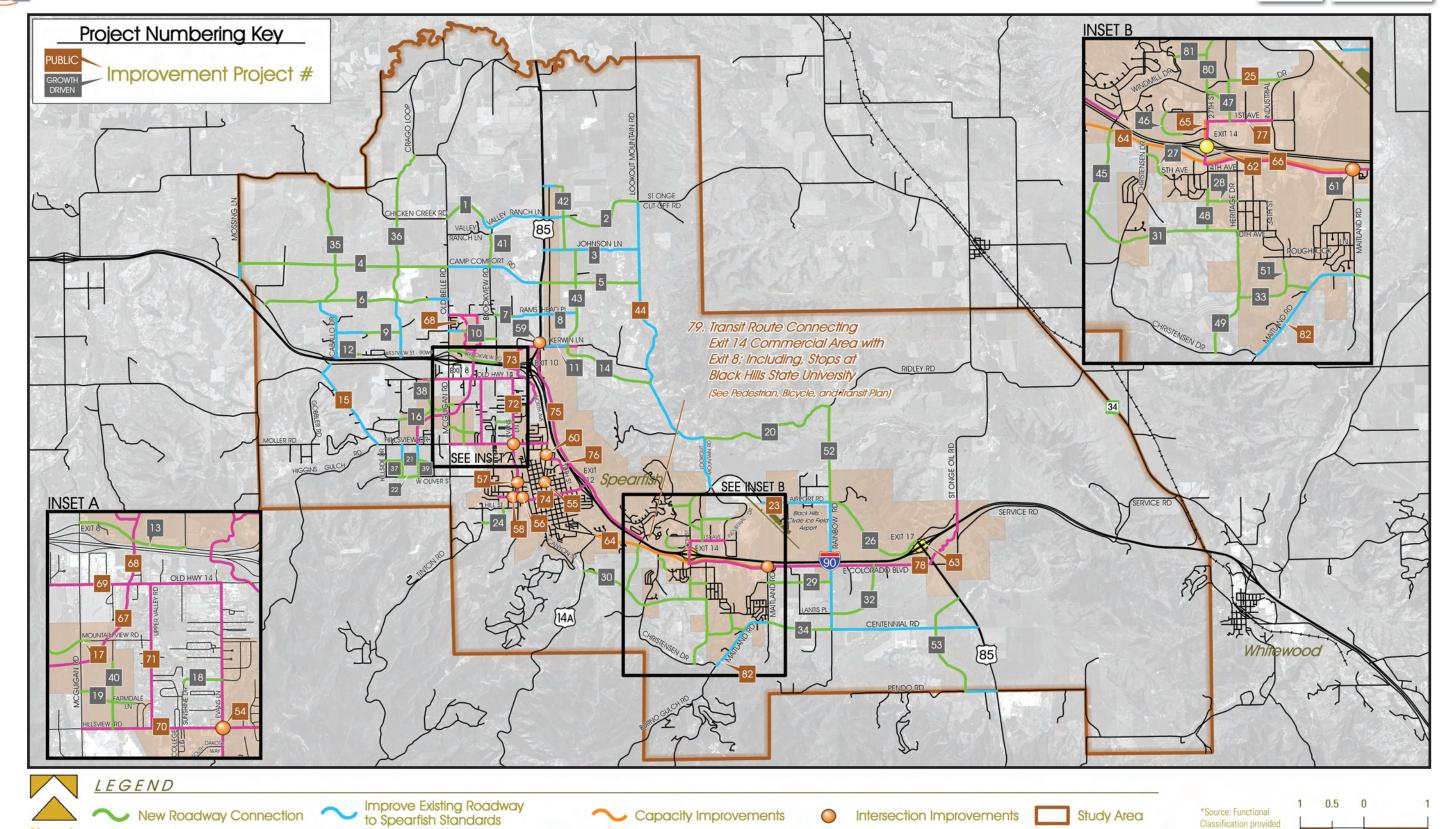
Table S-4. Traffic Impact Study Requirements

Daily Traffic Volume Generated by Proposed Development (Vehicle-trips per day) ¹	Study Requirements
1,000 or more	Traffic Impact Study Required
0-1,000	Traffic Impact Study may be required at the discretion of City of Spearfish / Lawrence County

Daily Traffic Volume generated by development may be calculated based on proposed land uses using Trip Generation, Seventh Edition (Institute of Transportation Engineers, 2004). Using these rates, 1,000 vehicles per day corresponds to approximately 23,000 Square Feet of Shopping Center Retail or approximately 105 single-family detached homes.







Interchange Improvements Roads

Spearfish Area Master Transportation Plan

Bicycle / Pedestrian Improvements

*move*SPEARFISH

Felsburg Holt & Ullevig

by Lawrence County

and modified by FHU.

City Boundary

North







Table S-2. Prioritized Public Roadway Projects

ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
60	Construct Intersection Improvements Connecting the Pedestrian Path from the High School to the Safeway	Intersection	\$34,500	Short Range
57	Restripe the pedestrian crossing markings at St. Joe St and Nash St	Intersection	\$5,000	Short Range
58	Construct Geometric Improvements at the University St and Jackson Blvd Intersection	Intersection	\$15,000	Short Range
54	Construct Geometric Improvements at the Hillsview Rd and St. Joe St/Evans Ln Intersection	Intersection	\$150,000	Short Range
55	Construct Geometric Improvements at the Michigan St and Main St Intersection	Intersection	\$150,000	Short Range
56	Construct Geometric Improvements at the Jackson Boulevard and Ames St Intersection	Intersection	\$150,000	Short Range
72	Reconstruct Evans Lane between Old US 14 and Hillsview Road to meet Spearfish standard arterial section. and Construct On Street Bicycle Facilities along St. Joe St/Evans Ln (Jackson Blvd to Old Hwy 14)	Roadway/Pedestrian/Bicycle	\$2,528,000	Short Range
82	Reconstruct Maitland Road between Christensen Drive and McDermott Road	Arterial Roadway	\$5,028,500	Mid-Range
62	Interchange Improvements at Exit 14 (I-90)	Interchange	N/A	Mid-Range
63	Interchange Improvements at Exit 17 (I-90)	Interchange	N/A	Mid-Range
17	Build New Mountain View Rd Connection (McGuigan Rd to Mountain View Rd)	Collector Roadway	\$338,000	Mid-Range
65	Capacity Improvements Along 27th St (Exit 14 to 1st St)	Capacity	N/A	Mid-Range
25	Build New Collector (27th St to Industrial Dr)	Collector Roadway	\$1,240,000	Mid-Range
23	Improve Airport Rd to Arterial Standard (Lookout Mountain Rd to Existing Pavement)	Arterial Roadway	\$692,000	Long Range
64	Capacity Improvements Along Colorado Blvd (Spearfish Canyon to 27th St)	Capacity	N/A	Long Range
66	Capacity Improvements Along Colorado Blvd (27th St to Maitland Rd)	Capacity	\$937,000	Long Range
44	Pave Lookout Mountain Rd (27th St to St. Onge Cut-Off Rd)	Arterial Roadway	\$21,599,000	Long Range
15	Pave Hillsview Rd (End of Pavement to Old US 14)	Arterial Roadway	\$3,873,000	Long Range







Table S-3. Prioritized Public Bicycle and Pedestrian Projects

ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
72	Reconstruct Evans Lane between Old US 14 and Hillsview Road to meet Spearfish standard arterial section. and Construct On Street Bicycle Facilities along St. Joe St/Evans Lane (Jackson Blvd to Old Hwy 14)	Roadway/Pedestrian/Bicycle	\$2,528,000	Short Range
77	Construct Bicycle and Pedestrian Facilities At the Exit 14 Interchange to Connect to the Walmart	Path	\$347,000	Short Range
74	Construct On Street Bicycle Lanes Along Jackson Blvd (Jonas Blvd to 12th St)	Bicycle	\$4,132,000	Mid-Range
70	Construct Pedestrian Facilities Along Hillsview Rd (Upper Valley Rd to St. Joe St) and Construct On Street Bicycle Facilities along Hillsview Rd (McGuigan Rd to North Ave)	Pedestrian/Bicycle	\$3,479,000	Mid-Range
71	Construct Bicycle and Pedestrian Facilities Along Upper Valley Rd (Hillsview Rd to Old Highway 14)	Pedestrian/Bicycle	\$1,484,000	Mid-Range
69	Construct Bicycle and Pedestrian Facilities Along Old Highway 14 (Diamond Dr to Evans Ln)	Pedestrian/Bicycle	\$2,595,000	Mid-Range
67	Construct Bicycle and Pedestrian Path between Hillsview Rd and Old Highway 14	Path	\$611,000	Long Range
68	Construct Bicycle and Pedestrian Path north from Old Highway 14 North of I-90	Path	\$911,000	Long Range
78	Construct Bicycle and Pedestrian Facilities Along Colorado Blvd (27th St to St. Onge Rd)	Path	\$2,005,000	Long Range
73	Construct Bicycle and Pedestrian Path north from Existing Path North of I-90 and East of US 85	Path	\$883,000	Long Range
75	Construct Bicycle and Pedestrian Path between Kerwin Ln and Sandstone Dr	Path	\$1,430,000	Long Range
76	Construct Bicycle and Pedestrian Facilities Connecting the Path from the High School to the New Path East of I-90	Path	\$232,000	Long Range







Access Management

Currently, vehicular accesses are requested by applicants and access proposals are reviewed by the City of Spearfish. Access is granted or denied on a case-by-case basis. The establishment of access management guidelines is intended to guide the City in determining allowance of access to a particular property, and under what circumstances or restrictions that an access might be allowed. The guidelines are not intended to be a full comprehensive access manual, but rather some principles to determine if access would be allowed and references to determine the need for auxiliary turn lanes.

The access management guidelines need to be sensitive to the environmental nature of the various roadway classifications. Ideally, the policy should be most restrictive along arterial roads since these roadways provide the greatest function of mobility, and it should be the least restrictive on local roads which are intended to provide access to adjacent properties. Further, rural roads tend to have a greater mobility function than those in developed areas for a given roadway classification, and the policy needs to recognize this difference between developing area roads and rural roads.

Developing Areas

Arterial roadways should be the primary target for access control in the developed areas. Access to adjacent properties is far more prevalent where there is significant development. Collector roads and especially local streets should not be subject to strict access control measures since that is their purpose, but maintaining mobility along the arterial roads is best accomplished by restricting access.

Collector streets in developing areas need not have such a strict policy relative to access. However, it is desirable to ensure that access drives onto collectors are not immediately adjacent to each other. A minimum spacing criterion should be incorporated into the policy. Local streets should also have a minimum spacing criteria, unless it can be clearly shown that the access use is extremely rare (no more than once or twice a month).

Rural Areas

Similar to the developing areas, arterial roads should be the primary target to controlling access. However, collector roads and local roads tend to serve more of a mobility function in rural areas than they do in the developing areas. As such, an access management policy should be a bit more restrictive on these classifications within a rural setting. The arterial classification should still be subject to the most restrictive set of rules similarly to the developing area arterial roads.

Access Management Guidelines

The following guidelines should be applied to access requests to the extent possible.

- ▶ Access Permitting It is recommended that access permit applications be required for gaining access to any City roadway. A permit application will also be required when there are changes to the property that increase the traffic volume to the site by 20 percent or more.
- ▶ State and US Highways Along State Highways, SDDOT Access Standards apply. These standards may be found at http://www.sddot.com/pe/roaddesign/docs/rdmanual/rdmch17.pdf. The map showing the classifications within the Spearfish area may be found at www.sddot.com/Operations/docs/access/Spearfish access.pdf.

- Arterial Roads Direct access to abutting land is subordinate to providing service to the through traffic movements. Access will normally not be granted to individual property which has a reasonable alternative means of access to a lower classification of roadway. Consideration of reasonable alternative access will take into consideration the function of the alternative roadway, its purpose, capacity, operation, safety, and means of improving the alternative roadway.
- Collector Roads Direct access onto a collector roadway is reasonably balanced with the roadway's mobility function. One access will be allowed to serve each property provided that it does not create a hazard nor a detriment to the roadway's integrity and is at least 500 feet from another existing or future eminent access or intersection. Access will normally be full movement, unsignalized unless such access creates an operation or safety problem. In such a case, a restriction of movements may be required.
- Local Roads; Developing Areas Intent of local roads within developing areas is to provide direct access to abutting properties. Minimum spacing between access/intersections should be 50 feet; greater or lesser spacing may be required in unique circumstances subject to specific traffic conditions.
- Local Roads; Rural Areas Local roads within rural areas have a dual function of providing adequate access to the abutting properties within an environment that experiences relatively high speeds. One access to adjacent properties will be allowed provided that it does not create a hazard nor a significant detriment to the roadway's mobility function and is at least 500 feet from any other existing or future eminent access or intersection. A second access to individual properties may be allowed pending specific circumstances and appropriate spacing.

Table S-5 summarizes the proposed *moveSpearfish* access spacing standards.

Table S-5. Access Spacing Standards

Functional Classification	Distance between Full Movement Accesses	Distance between limited movement accesses	
State / US Highway	See SDDOT Standards	See SDDOT Standards	
Arterial	1/4 mile (1,320 feet)	660 feet	
Collector	500 feet	250 feet	
Local Road; Developing Area	50 feet	50 feet	
Local Road; Rural Area	500 feet	500 feet	







Recommendations

The intent of this Master Transportation Plan is to ensure that the City of Spearfish has a plan in place to effectively upgrade the transportation plan and a vision for the transportation needs as future development occurs. The Prioritized Public Roadway Project listing includes intersection improvements, roadway improvements, and capacity projects, paving of existing roadways, and completing new roadway links. The Prioritized Pedestrian and Bicycle Project listing includes on-street bike lanes, new sidewalks, and additions to the existing path system. The Public Transportation Project listing recommends that a new transit route be added to the system. The projects discussed in detail in Section V focus on public projects, which will be the responsibility of public agencies and will require coordination between the City, County, and SDDOT. The Master Roadway Plan also details growth driven projects located in undeveloped portions of the study area which will be the responsibility of future development to finance and construct. The following list provides a summary of actions the City of Spearfish should consider taking to ensure that the needed transportation improvements are funded:

- ▶ Begin to plan and budget for completion the six roadway improvements and two pedestrian and bicycle improvements identified for the short term.
- Initiate discussions with Prairie Hills Transit about the possibility of extending service to include the proposed new fixed transit route.
- Require traffic impact studies from all proposed developments so that the requirements for internal roadways and impacts to the surrounding roadway system can be evaluated. Developers should be responsible for improving the arterials and collectors adjacent to their developments to Spearfish's standard cross-sections.
- Consider adopting a snow removal policy for maintaining sidewalks for pedestrians.

Following are the guiding principles, along with strategies for implementing those principles, contained in *moveSpearfish*.

- ▶ The City of Spearfish transportation planning process should complement the City development patterns and principles.
 - The Major Street Plan Map should be used as the official future roadway plan for the City and also for the purposes of identifying required street corridors as the City exercises its platting authority within the 3-mile extra territory in Lawrence County.
 - New accesses/approaches to City roadways should be permitted based on the categories and guidelines included in moveSpearfish.
- New development should occur only where existing transportation facilities are adequate or where necessary improvements will be made as part of the development project.
 - Adequate facilities and service levels for transportation should be clearly defined in the Highway Ordinance.
 - City of Spearfish Ordinances should establish traffic impact requirements to identify the need for improvements created by future development in order to meet adopted level of service standards.

- New development should pay its equitable share for necessary improvements to the City transportation system.
 - City of Spearfish Ordinances should require construction of improvements identified through a traffic impact study.
- City of Spearfish Ordinances should include a traffic improvement fee to support other future improvements to the City or County transportation system made necessary by the impact of the development, including cumulative impacts.
- City of Spearfish Ordinances should establish a mechanism to allow a party who initially funds an improvement to be reimbursed by future developments that also impact that facility.
- ▶ The City of Spearfish should continue the Capital Improvement Program for City transportation facilities.
 - The Capital Improvement Program should identify a methodology for prioritizing projects which emphasizes the importance of maintaining the existing roadway system.
 - The Capital Improvement Plan for roadway maintenance and improvement should consider consistency with the Transportation Plan as an element of project prioritization.
 - The Capital Improvement Program should identify methods to share costs with other governmental entities.







I. INTRODUCTION

A. Background

The City of Spearfish is a growing community of approximately 10,500 residents located along the Interstate 90 (I-90) corridor in Lawrence County, South Dakota. The City was incorporated in 1888. Home to Black Hills State University, the City's proximity to the Black Hills National Forest and Spearfish Canyon make it both an attractive place to live and a desirable tourist destination. Recent Census Bureau data show that Spearfish's population has increased 22 percent from 2000 to 2010, indicating steady growth in residential development. The City has also experienced substantial commercial development in recent years, particularly along the I-90 corridor on the east side of the City. The City expects to see both residential and commercial development continue in the foreseeable future.

Tourism in Spearfish and the surrounding areas like the Black Hills and Sturgis, located 15 miles east along the I-90 corridor, peaks during the summer months when recreational opportunities are the highest. By contrast, the student body population of Black Hills State University accounts for nearly one-quarter of the City's total population during the traditional school year. Tourism places travel demands on the primary corridors that access recreational areas, while students utilize convenient bicycle and pedestrian connections between the College and the downtown amenities. The travel needs of the various users of the transportation network increase the importance of providing a balanced network of complete arterial, collector and local streets and paths that serve drivers, pedestrians, bicyclists, transit riders, and the disabled population.

Growth in the Spearfish area has increased pressure on the transportation network to serve the needs of the community. Roadways designed and built to handle mostly local traffic are carrying more regional traffic bound for new commercial development in the area. Use of the roadway network by bicyclists, pedestrians, transit, and freight users highlights the need for streets that accommodate multimodal needs. The Spearfish Area Master Transportation Plan, entitled *moveSpearfish*, serves to identify the existing needs to better serve current residents, visitors and students, while serving as a blueprint for the transportation system, providing a clearly defined future for the network. As development occurs in Spearfish, it is important to have a documented plan for the future transportation system that clearly defines the City's expectations of developers, as well as providing a basis for its own long and short term capital projects

B. Purpose

The Spearfish Area Master Transportation Plan, *moveSpearfish*, was initiated by the South Dakota Department of Transportation (SDDOT), the Federal Highway Administration (FHWA) and the City of Spearfish, South Dakota. The threefold purpose of the project is to:

- 1. Complete a list of transportation issues and needs facing the Spearfish Area
- 2. Develop feasible solutions to address those issues and needs that meet current design standards and/or traffic LOS expectations under both the current and predicted future traffic conditions.
- 3. Create final products for use by the City of Spearfish, Lawrence County and the SDDOT which will provide guidance to implement recommended improvements and anticipate future development plans within the area.

A Transportation Plan is a useful tool for many reasons. It defines the function (a combination of mobility and access) that roadways within a system should be planned to provide. A transportation plan also provides the design characteristics (cross-section and geometric standards) which roadways should exhibit given their function and it defines the right-of-way which should be preserved to ultimately construct the roadway. Generally, the plan is a tool that provides direction for a roadway improvement program as well as identifying current deficiencies, future needs, and prioritization thereof.

moveSpearfish serves as a basis for the implementation of roadway, bicycle, pedestrian, and transit improvement projects. Not only is it important to identify the future needs of the transportation system, but also to prioritize those needs. As with most communities in South Dakota, it is unrealistic to expect that all of the desired transportation improvements in Spearfish can be funded. A well defined and prioritized set of transportation improvements will help the City in developing Capital Improvement Program (CIP) priorities that most efficiently address the transportation needs of the community.

C. Transportation Objectives

The Study Advisory Team designated to oversee the project developed a series of objectives to address in accomplishing the project purpose, as follows:

- Address how the transportation system can enhance livability within the Spearfish community, particularly emphasizing travel by transit, bicycle and walking.
- Provide not an existing road map, but a master street plan that frames the existing system and identifies future improvements.
- Coordinate transportation planning efforts across multiple jurisdictions, including the City of Spearfish, Lawrence County, SDDOT and FHWA.
- Develop a plan that complements the Engineering Standards currently being developed by the City of Spearfish.
- ▶ Identify priorities among future transportation improvement projects.

D. Approach

As illustrated below, the project was organized into eight tasks. The project began with a comprehensive review of baseline conditions to identify current needs throughout the Spearfish transportation system. Task 3 addressed the anticipated influence of growth on the system, identifying projects needed to keep people moving into the future. Task 2, Standards Development, provides a policy framework for the transportation plan and provides the City with a set of tools for addressing future development and roadway improvements. Task 4 provides the completion of this report, including a list of prioritized projects and policy guidelines.

Project coordination began in May of 2010 with a face-to-face project kickoff meeting to confirm project goals and objectives and identify critical concerns for the project. Three more Study Advisory Team (SAT) meetings were held throughout the project, and several weekly SAT teleconferences led up to the second

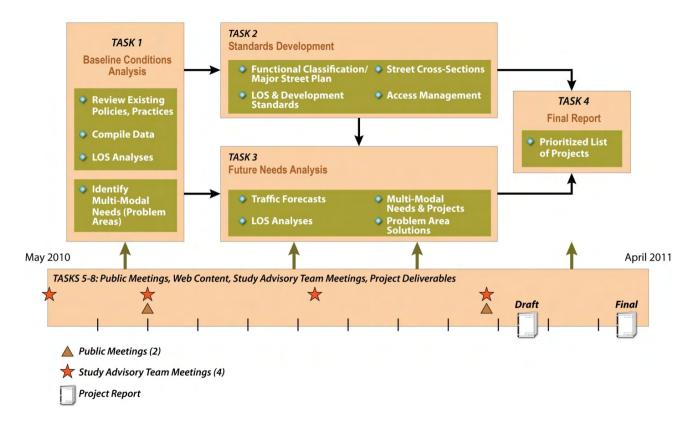






public meeting, which gave attendees an early look at the components of the plan. The first public meeting provided all comers with a forum to express their concerns about the transportation network. Online material was provided to support the public involvement process via the SDDOT project website.

Figure 1. Work Flow Diagram



The major work tasks 1 through 4 were supported throughout by an extensive Public Involvement Process. Major public involvement activities are described as follows:

- Public Input Open House The first open house public meeting was held in July of 2010 in the City Council chambers and provided attendees with an overview of existing transportation conditions, future growth expectations and initial transportation issues. Public input was gathered from individual conversations and comment sheets.
- Wal-Mart storefront Origin-Destination Survey In September of 2010, the project team interviewed visitors to the Spearfish Walmart store located along 1st Street northeast of Exit 14. This store anchors a commercial area that is a major local and regional destination. Visitors were asked questions about their trips to and from Walmart and were given an opportunity to share their comments about transportation in the Spearfish area. Fifty respondents provided information over the course of three days. Results of this survey are provided in Appendix A.
- ▶ Black Hills State University Community Survey This online survey was sent to the BHSU community in March of 2011 to ask questions about pedestrian, bicycle and transit travel. More than

600 students and staff responded and provided useful information. Results are provided in **Appendix B**.

Draft Report Open House – A meeting was held in May of 2011 to present initial findings of the Transportation Planning process. The meeting began with a brief presentation and display boards allowed people an up-close look at the proposed Major Street Plan, Bicycle/Pedestrian/Transit plan and draft project listing and map.

E. Elements of the Transportation Plan

The elements of the plan include:

- Inventory of Existing Conditions
- Forecasted Growth
- Long Range Transportation Plan
- Plan Implementation
- Street Standards
- Summary and Recommendations



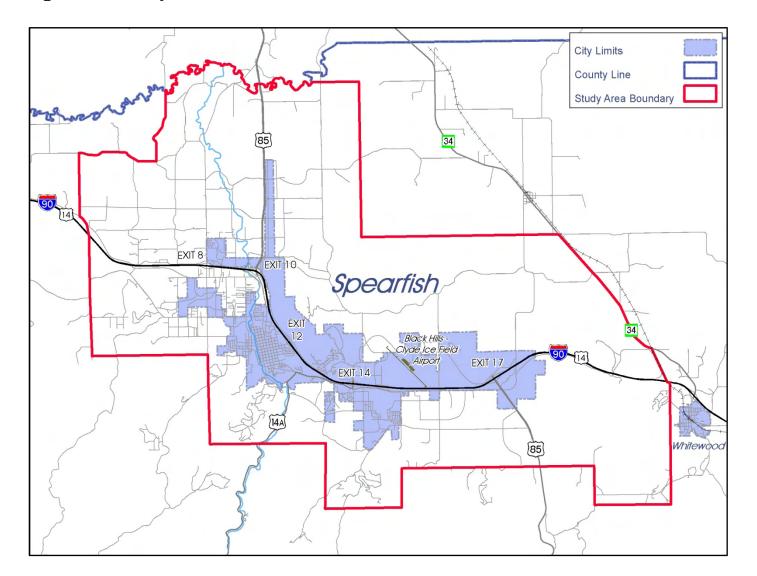




II. INVENTORY OF EXISTING CONDITIONS

In order to understand how transportation is provided to Spearfish residents, the project team conducted an inventory of the existing transportation system along with a public input meeting. This is an important part of the planning process; it becomes the starting point toward identifying areas in need of improvement. Similar to other cities of comparable size, Spearfish's transportation system is centered upon the roadway network, which serves automobile, freight, transit, bicycle and pedestrian movements throughout the study area. Bicycle and pedestrian movement are further enhanced by the growing network of paths and multiuse paths. The *moveSpearfish* study area is depicted on **Figure 2**. The area covers approximately 103 Square Miles and includes all of the City of Spearfish and portions of Lawrence County.

Figure 2. Study Area



The inventory of existing conditions includes the following aspects of Spearfish's transportation system:

- ▶ Traffic conditions, including current traffic volumes, roadway and intersection operations, and traffic accident experience
- Transit conditions, focused on existing operation of the Prairie Hills Transit agency (PHT)
- Air Transportation, providing a brief review of current needs served by the Clyde Ice Field (SPF)
- Freight Transportation, describing key patterns for freight movements through the Study area.

A. Traffic Conditions

Roadway Network

The unique topography within Spearfish along with development trends to date have significantly affected existing roadway locations and continuity within the study area. The *moveSpearfish* study area can be readily divided between rural portions (dominated by unpaved roadways and sparse development) and urbanized areas. The majority of the urban development is bounded by I-90 to the north and Maitland Road to the east with the Hills to the south providing a natural buffer to development. Recent development in the last 7 years has occurred in the Sandstone Hills neighborhood. Green Acres, and near I-90 Exit 8.

The majority of roads within the study area provide two travel lanes (one in each direction). Interstate 90 and US 85 are four lane roadways along with Jackson Boulevard and Colorado Boulevard between Interstate 90 and US Highway 14A.

Interstate 90/US Highway 14 – Interstate 90 (I-90) is a four-lane freeway that extends east-west throughout the Country, and forms the backbone of the Spearfish area roadway network. The posted speed is 75 Miles Per Hour (mph) along I-90 through the *moveSpearfish* area. There are five interchanges that provide Interstate access, exits 8, 10, 12, 14, and 17. US Highway 14 is a coincident route with I-90 through the entire Spearfish area.

US Highway 85 – US Highway 85 (US 85) is a four-lane divided highway that extends south from Exit 17 to Deadwood/Lead, South Dakota and north from Exit 10 to Belle Fourche.

US Highway 14A – US Highway 14A extends south of the City of Spearfish through the Spearfish Canyon Road and parallels I-90 between Spearfish and 27th Street.

Jackson Boulevard – Jackson Boulevard is an arterial connection from I-90 directly to downtown Spearfish.

Main Street/Colorado Boulevard/North Avenue – These arterials combine to extend north-south through downtown Spearfish and provide a connection east of Spearfish to the Exit 17 area.

Traffic Volumes

The Spearfish area has developed primarily within two key development areas: downtown Spearfish and the Exit 14 commercial area. As a result, travel in the area is dominated by the two main road corridors which connect these two development areas: Interstate 90 and Colorado Boulevard. Within downtown Spearfish, the Black Hills State University campus significantly dominates traffic patterns, not only by representing the start and end point of a significant number of trips, but also by limiting east-west







connectivity through campus. Jackson Boulevard and Hillsview Drive serve as the primary east-west corridors within centralized Spearfish.

Figure 3. illustrates the existing daily traffic volumes, gathered from the SDDOT count database of counts conducted between 2005 and 2009. As shown, current traffic volumes along I-90, US Highway 85 north, North Avenue, and portions of Jackson Boulevard, Colorado Boulevard, 27th Street and Main Street exceed 10,000 vehicles per day (vpd). A second tier of roadways carries 5,000 to 10,000 vpd; US 85 south, Hillsview Road, and Canyon Street south of Jackson Boulevard. Other roadways carry less than 5,000 vpd.

Volume-to-Capacity Ratios

One measure that is used to define operational characteristics is volume to capacity ratio (v/c). This ratio compares the existing traffic with the actual design of the roadway. A v/c ratio of 1.0 means that there is roughly an equal balance between the roadway design and the vehicular traffic on itThis analysis compares the capacity of the street as it is designed and constructed to the volume of traffic it carries. The planning level daily capacity thresholds shown in **Table 1** are the basis for the v/c ratios developed in this transportation plan. These thresholds are the maximum planning level capacities in vehicles-per day (vpd) for various roadway types and travel lanes. Roads with lower functional classification and fewer lanes would be expected to accommodate fewer vehicles per day, while roads with higher functional classifications would accommodate more vehicles.

Table 1 provides maximum planning level capacities in vehicles per day (vpd) for various roadway types and laneages.

Table 1. Planning Level Roadway Capacities

Functional Classification	Number of Lanes	Maximum Capacity
Interstate 90	4-Lane	60,000 vpd
Arterial / Collector	2-Lane	12,000 vpd
Arterial / Collector	4-Lane	24,000 vpd

The v/c ratios calculated on the streets within the planning area with existing count data are depicted graphically on **Figure 4**. The red segments represent roadways that carry traffic volumes in excess of the planning level roadway capacity ($v/c \ge 1.0$). The yellow segments represent roadways that are operating at near capacity conditions (v/c between 0.80 and 1.0).

Based on the existing v/c ratios, the Exit 14 interchange represents the location with the greatest congestion within the study area. 27th Street between Colorado Boulevard and 1st Avenue is operating with a v/c ratio equal to one, suggesting that this roadway segment is at capacity. In addition, a portion of US Highway 14A between Spearfish Canyon Road and 27th Street and Colorado Boulevard between 27th Street and 30th Street is nearing capacity. These findings indicated that with growth in traffic at this interchange, capacity problems will begin to hinder traffic flow along the roadway. The SDDOT has initiated the US 14A Corridor Study to develop options to address these issues.

Intersection Operations

Ten intersections were identified for study by the Study Advisory Team. These intersections were identified based on their known delay, geometry, congestion problems, and public comment. The goal of the analysis

was to determine what, if any, lane geometry or signing changes need to be made at the study intersections in order to provide acceptable levels of service (LOS) during the peak hour. Level of service analyses have been completed for the following selected intersections:

- 1. Colorado Boulevard / Rainbow Road
- Colorado Boulevard / Maitland Road
- 3. Ames Avenue / Jackson Boulevard
- 4. University Street / Jackson Boulevard
- 5. St. Joe Street / Hillsview Road
- 6. North Avenue / Main Street / Nevada Street
- 7. Evans Lane / Old Highway 14
- 8. Kerwin Lane / US 85
- 9. McGuigan Road / Old Highway 14
- North Avenue / Yankee Street

The ten selected intersections excluded intersections that are being analyzed by the US 14A Corridor Study to avoid duplication of effort.

South Dakota Department of Transportation staff conducted peak hour vehicular traffic counts at these intersections December 7-10, 2010. Existing operational conditions were analyzed at each of the intersections based on the procedures documented in the <u>Highway Capacity Manual</u>, (Transportation Research Board, Third Edition, 2000). This analysis procedure provides a LOS, which is a quantitative measure based on the average delay per vehicle at a controlled intersection. Levels of service are described by a letter ranging from "A" to "F". LOS A represents minimal delay, while LOS F represents excessive congestion and delay. The ten intersections include some unsignalized (STOP sign) and some signalized intersections. Individual AM and PM peak LOS are provided for individual movements at stop-sign controlled intersections while, an overall intersection LOS is given for signalized intersections. The existing intersection turning movement volumes are illustrated on **Figure 5**. **Figure 6** provides the results of the LOS analyses of existing conditions.

Many agencies and municipalities publish standards for acceptable intersection LOS during peak hour traffic conditions. For example, the SDDOT accepts intersection operations of LOS D or better during peak hours. The City of Rapid City seeks to provide LOS C or better intersection operations during peak hours. For the purposes of this analysis, LOS C or better is considered acceptable.

Signal timing information was not available to the project team at the time of the study, and the process of gathering this information in the field was cost-prohibitive. Therefore, the operational analyses of signalized intersections are based on estimates of existing signal timing splits.

Operational results are described as follows by intersection:

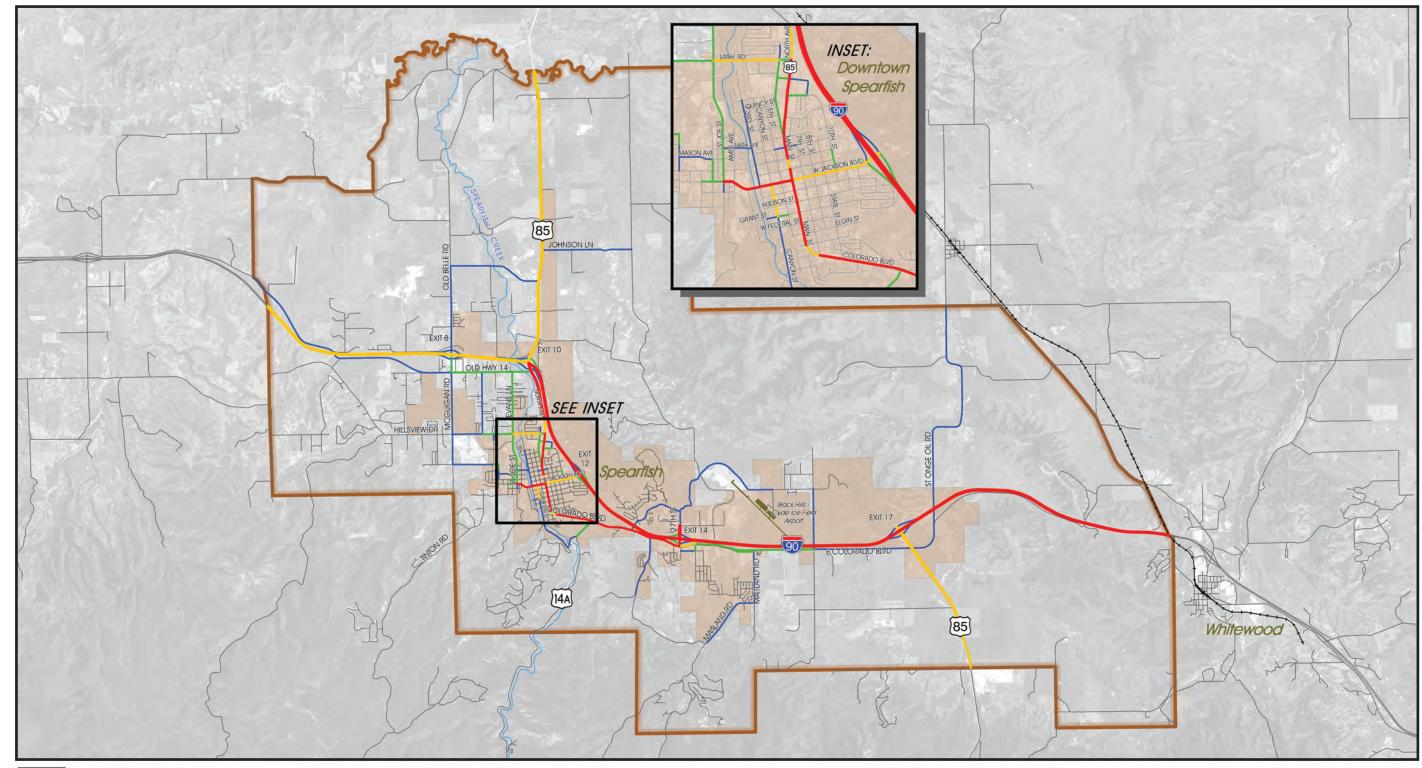
Colorado Boulevard / Rainbow Road – This intersection is located in a less-developed but growing portion of Spearfish and is STOP-sign controlled. The LOS analysis indicated that the left-turn movement from Rainbow Road onto Colorado Boulevard currently operates at LOS A during peak hours.

Colorado Boulevard / Maitland Road – Similar to the Rainbow Road intersection, the STOP-sign controlled critical left turn movement from Maitland Road onto westbound Colorado Boulevard currently operates at LOS B during peak hours.











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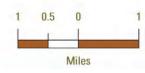
1 - 2,500 vpd



Study Area

City Boundary

*Source: Volume data was collected from the City of Spearfish, South Dakota Department of Transportation, and the Non State Trunk Road Inventory for volumes on highways and for

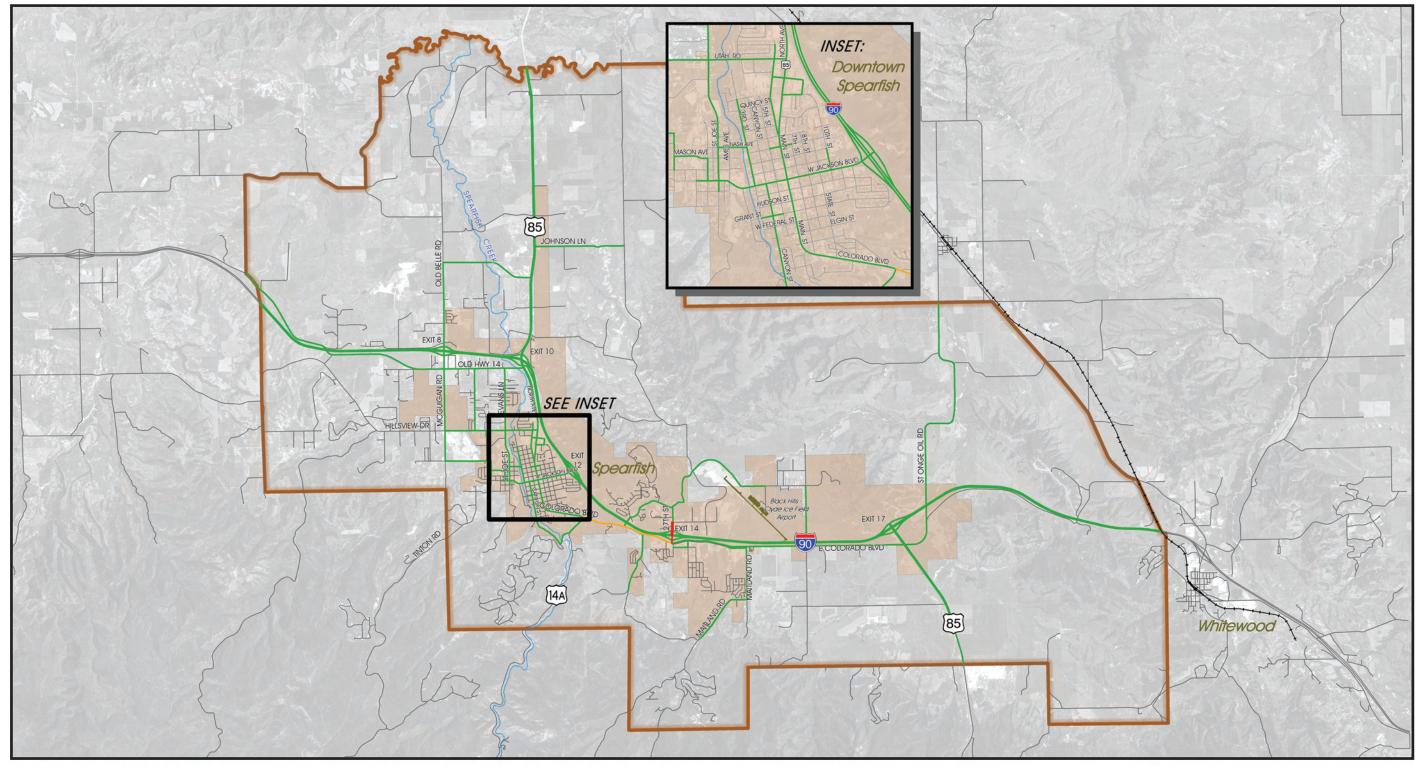


 \sim 2,501 - 5,000 vpd \sim > 10,000 vpd

Existing Volume to Capacity Ratios - Roadway Segments









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Volume to Capacity Ratios



 \sim 0.01 - 0.79 V/C Ratio \sim > 1.00 V/C Ratio

0.80 - 0.99 V/C Ratio



No Data Available

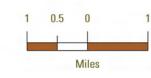
City Boundary



Study Area

*Source: Volume data was collected from the

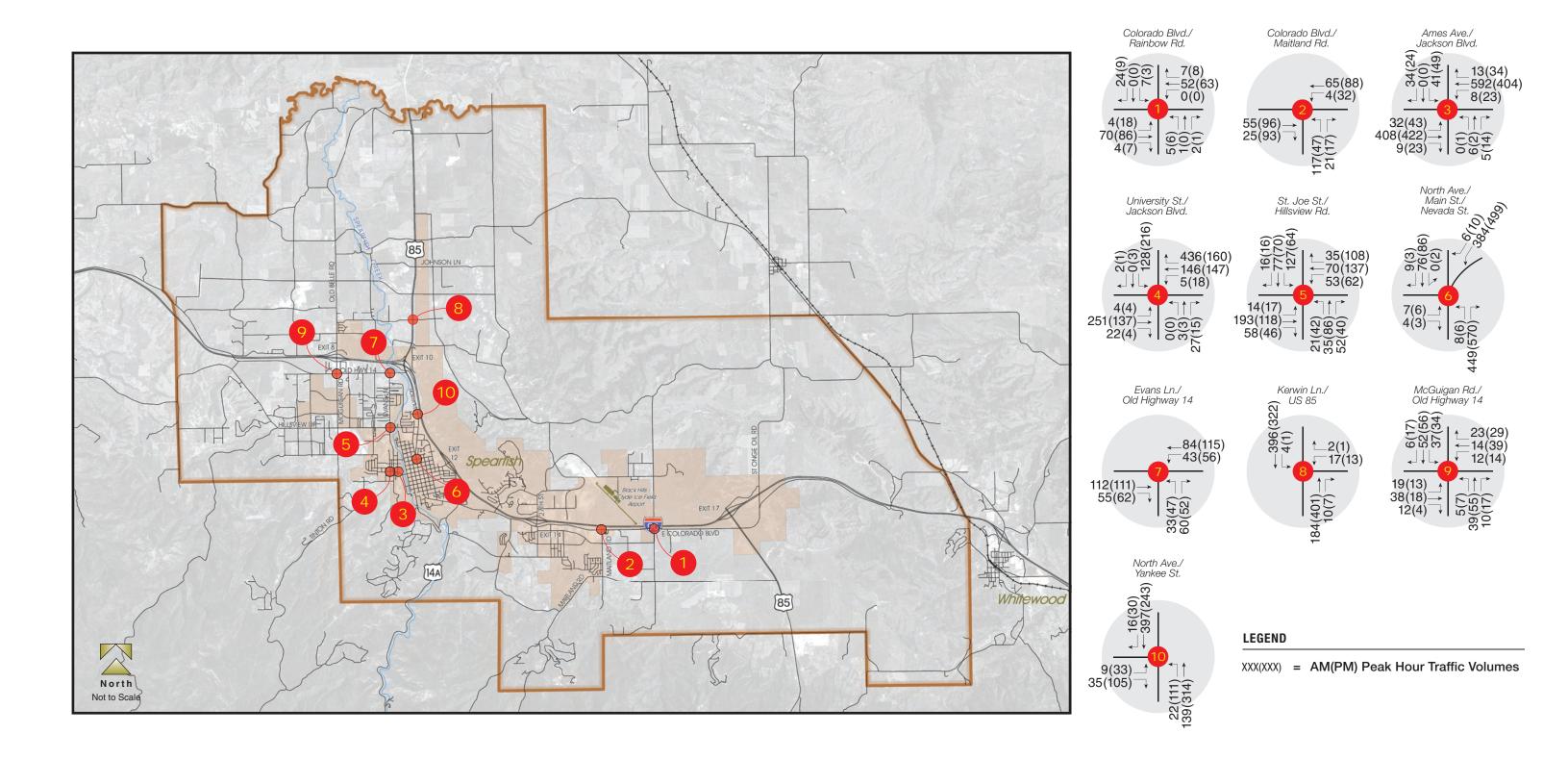
City of Spearfish, South Dakota Department of Transportation, and the Non State Trunk Road Inventory for volumes on highways and for







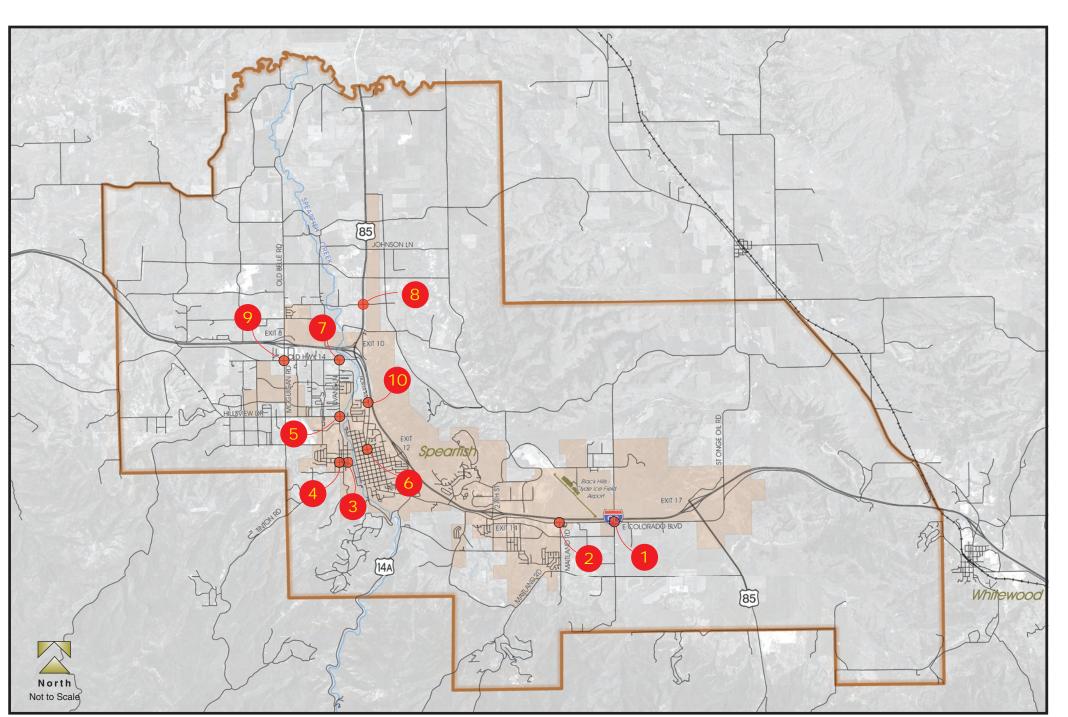




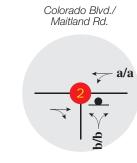


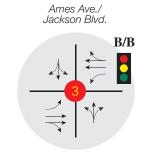


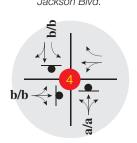




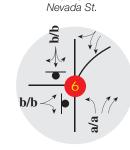


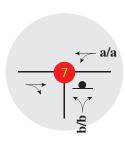




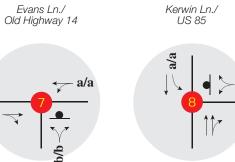








Evans Ln./





North Ave./

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- X/X = Existing AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = Existing AM/PM Peak Hour Unsignalized Intersection Level of Service
- = Stop Sign
 - = Traffic Signal

pearfish Area Master TP, 10-072, 7/20/11







Ames Avenue / Jackson Boulevard – This signalized intersection currently operates at LOS B during peak hours. While this LOS is acceptable, the skewed alignment of this intersection and difficulty of seeing the signal displays is hazardous.

University Street / Jackson Boulevard – This 3-way STOP sign controlled intersection was included in the evaluation list due to its unorthodox configuration. Operational analyses indicated that traffic moves through the intersection at acceptable levels of delay. However, limited sight distance and vertical roadway curvature near the intersection make it difficult for drivers and pedestrians to safely negotiate.

St. Joe Street / Hillsview Road – This signalized intersection currently operates at LOS B during peak hours. However, field inspection of the intersection indicated lengthy delays during particular times of day. It was found that an inadequate allocation of green time to intersection movements was causing backups.

North Avenue / Main Street / Nevada Street – The operational analysis showed current acceptable LOS B peak hour conditions for the critical left turn movements onto North Avenue. This intersection is comprised of several approaches converging at sharp angles, creating multiple vehicular conflict points. Particularly hazardous is the one-way southbound Main Street approach at Nevada Street.

Evans Lane / Old Highway 14 – Movements at this STOP-controlled intersection operate at an acceptable LOS B during peak hours. The intersection, however, is poorly delineated, with the STOP sign posted on an unprotected power pole and no striping on the Evans Lane approach. The nearby driveway areas of the convenience market and the travel lanes are a continuous paved surface and often result in confusion and near-collisions between roadway users and market customers.

Kerwin Lane / US 85 – The Kerwin Lane approach to US 85 is controlled by a STOP sign, and traffic entering US 85 operates at LOS C or better during peak hours. High travel speeds along the divided US 85 make entering from Kerwin difficult, but operations are currently acceptable.

McGuigan Road / Old Highway 14 – All approaches to this all-way STOP controlled intersection operate at LOS A during peak hours.

North Avenue / Yankee Street – Controlled movements at this STOP controlled intersection operate at LOS B during peak hours.

Traffic Safety

The South Dakota Department of Transportation (SDDOT) presently maintains a Geographic Information Systems (GIS) crash database designed to monitor crash trends. As part of the Master Transportation Plan, the crash data was compiled for a three year period to identify the most hazardous intersections within the study area. The analysis was conducted for all accidents between 2006 and 2009.

A total of 1,301 traffic accidents were reported in the study area between 2006 and 2009. There were three fatal accidents within the study area during the study period, two of which listed alcohol use as a contributing factor. In addition to these statistics, it is noteworthy that 5 percent of crashes were influenced by alcohol or drugs, 38 percent of crashes involved wildlife, 26 percent of crashes were intersection-related and 36 crashes involved motorcycles. Crashes that happened at night along unlighted roadway segments comprised approximately 37 percent of all collisions.

Figure 7 focuses on the top fifteen accident intersections within the study area in terms of accident frequency while also identifying in red any location where a fatal accident occurred. **Table 2** lists the intersections and the number of collisions at each, providing additional commentary regarding specific issues. Issues identified at intersections included high frequency of angle-type collisions, which often occur at busy unsignalized intersections as vehicles seek to complete left turns onto or cross the major street. Intersections in the vicinity of Exit 14 comprised 4 of the top 15 accident intersections. Problems at these locations are currently being addressed as a part of the US 14A Corridor Study being conducted by the SDDOT. The SDDOT has also noted a need for improvements at two intersections along state highways.

Table 2. Top Accident Intersections in Study Area

Rank	Number of Accidents Intersection 2006-2009		9	Comments	
		Total	PDO	INJ	
1	27 th Street / Colorado Boulevard	20	15	5	Mostly angle crashes. Closely spaced accesses and intersections exacerbate safety problems
2	Jackson / Main St.	19	13	6	No clear accident pattern
3	Hillsview Rd. / St. Joe	13	10	3	No clear accident pattern
4	Colorado Boulevard / US Highway 85	12	5	7	High severity, no clear pattern. SDDOT recommended that the location be monitored as the pace of surrounding development quickens. ¹
5	North Avenue / East Rushmore Street	12	6	6	No clear accident pattern
6	27 th Street / 1 st Street	12	8	4	No clear accident pattern
7	Main Street / Illinois Street	12	8	4	7 angle accidents suggest difficulty entering/crossing major street
8	Jackson / Canyon St.	11	5	6	No clear accident pattern
9	North Avenue / Ryan Road	11	8	3	8 angle accidents, due mostly to failure to yield. Difficult for traffic to cross North Avenue
10	Exit 14 EB ramps / 27 th Street	11	9	2	6 rear-end accidents typical of signalized intersections
11	Old Highway 14 / North Avenue	10	4	6	8 angle crashes, very difficult large intersection to traverse for minor street traffic
12	Jackson Boulevard / 5 th Street	10	7	3	1 pedestrian accident
13	Main St. / Hudson St.	9	5	4	1 pedestrian accident
14	Exit 14 WB ramps / 27 th Street	9	7	2	6 rear-end accidents typical of signalized intersections
15	Maitland Road / Colorado Boulevard	9	7	2	5 angle crashes suggest difficult entry to major street (Colorado Boulevard). SDDOT review recommended trimming small trees to improve entering sight distance. ¹

Roadway Safety Improvement (RSI) Report, Rapid City Region (SDDOT, April 2007)

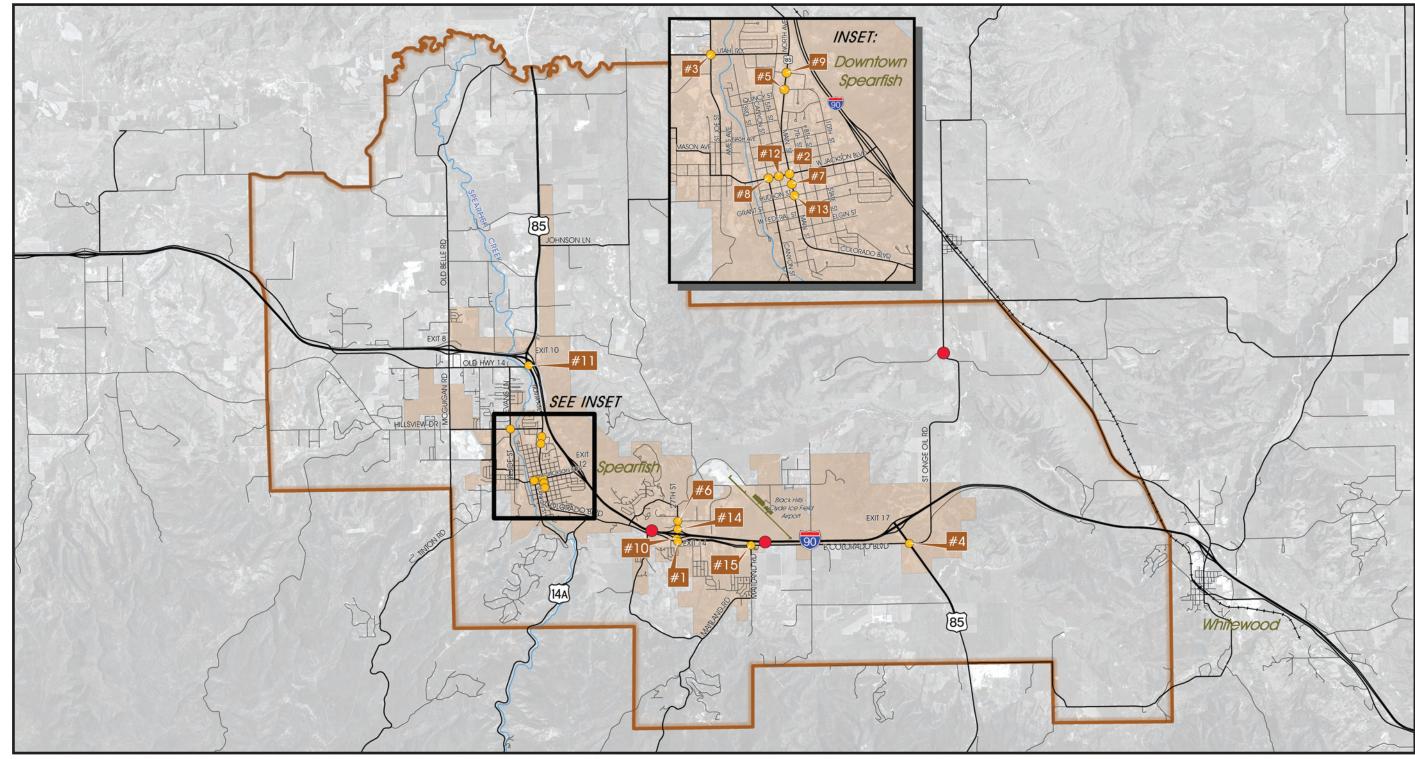
² PDO = Crashes resulting in Property Damage Only

INJ = Crashes resulting in Injury or Injuries











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Fatal Crash Locations

Study Area Top 15 Crash Intersections
 City Boundary

*Source: Accident data was collected from the South Dakota Department of









B. Transit

The Spearfish area is served by Prairie Hills Transit (PHT), a non-profit transit agency that started in 1989 as Spearfish Senior Transportation. Prairie Hills Transit now serves 12 communities within 6 counties in Western South Dakota. Communities served include Spearfish, Rapid City, Sturgis, Lead/Deadwood, Belle Fourche and Whitewood. Services included request-a-ride connections within the service area and fixed-route services along Interstate 90 (I-90) between the City of Spearfish and Rapid City. In addition to providing demand-responsive service throughout 6 counties, PHT is providing or exploring job vanpools for Gillette, WY and other service into Wyoming, routes connecting Spearfish-Sturgis-Deadwood, serving the Good Shepherd free Clinic, providing a volunteer vanpool for those in need, and working with the American Cancer Society to provide limousine service for cancer patients.

A new regional intermodal transit facility is located in Spearfish at 2015 Tumbleweed Path. The recently constructed facility provides expanded fleet parking, administrative space, a future day care facility, and maintenance/shop space. This new facility will also serve as the Jefferson Line Depot, an intercity bus service. Completion of the facility is likely to increase ridership within the PHT system, and a transit plan will help to guide future expansion.

C. Non-motorized Facilities

The inventory of non-motorized travel conditions was compiled based on a physical review of current infrastructure. In addition, the public involvement process afforded an opportunity to ask Spearfish residents about the existing non-motorized network and receive input about current conditions. Comments were gathered at the two project open houses and an online survey was sent to the Staff and students at Black Hills State University (BHSU). The survey was circulated in the Spring of 2011 to the University community, which includes 4,750 students and approximately 350 Staff. The survey was created to solicit reaction about transportation options and focus specifically on the availability and quality of pedestrian and bicycle facilities available for commuting to the University Campus. A total of 634 responses were received for a response rate of approximately 12 percent. Among the 634 respondents, 27 percent identified themselves as faculty or staff while the remaining 73 percent identified as students. Overall, the high response rate suggests the results are representative of the campus community, but may be overrepresentative of faculty and staff due to this group's relatively high response rate.

Figure 8 illustrates the existing non-motorized travel network in the study area. Though often considered together, the needs of bicyclists and pedestrians are distinctive and worthy of individual consideration in *moveSpearfish*. The existing condition for both is described as follows, beginning with Pedestrian conditions.

Pedestrian Conditions

The majority of roadways within downtown Spearfish provide sidewalks for pedestrian circulation. The location of sidewalks alongside roadways as well as the facility condition are well established and provide adequate continuity throughout the City. At some locations, sidewalks unnecessarily jog and do not provide a straight-line connection between two points. Sidewalk width varies across the City, with some downtown walks reaching approximately 10 feet in width and some neighborhood areas providing sidewalks 2-3 feet wide. The current Spearfish path system accommodates recreational use by pedestrians.

Approximately 20 percent of respondents to the BHSU survey walk to campus, 85 percent of which own a car in Spearfish. A significant portion (90 percent) of those walking to campus reported living in the main portion of town close to the University. Many of these also reported using alternate travel modes for trips around town. Based on pedestrian responses, it can be concluded that pedestrian and bicycle facilities around the campus are sufficient to adequately accommodate users. However, there were a number of recurring noted problems/needs, including:

- ▶ A consistent path is needed to connect the High School/Taco Bell/ Safeway/Medical Center
- A path is needed to connect the path along Colorado Blvd to the Walmart area north of I-90 near Exit 14
- Pedestrian facilities are needed along Evans Lane and Hillsview Road
- Clearer pedestrian crossing markings are needed at St. Joe St and Nash St for pedestrians accessing campus
- ▶ The intersection of University Street and Jackson Boulevard was specifically mentioned for its unusual stop sign configuration
- ▶ An enforced snow shoveling policy for sidewalks around town
- ▶ Exit 14 does not accommodate pedestrians crossing I-90.

The extensive Spearfish path system (shown on **Figure 8**) provides for recreational pedestrian use along Spearfish Creek and east of downtown to the Exit 14 area.

Bicycle Conditions

By South Dakota Law, bicyclists traveling on sidewalks must yield right-of-way to pedestrians. It follows that convenient bicycle travel must involve some on-street facilities. However, on-street bicycle facilities within downtown Spearfish are negligible, requiring the cyclist to travel in the general purpose lanes or utilize roadway shoulders or utilize side streets. Wide shoulders are provided along North Avenue/Colorado Boulevard for a majority of the roadway between I-90 and Maitland Road.

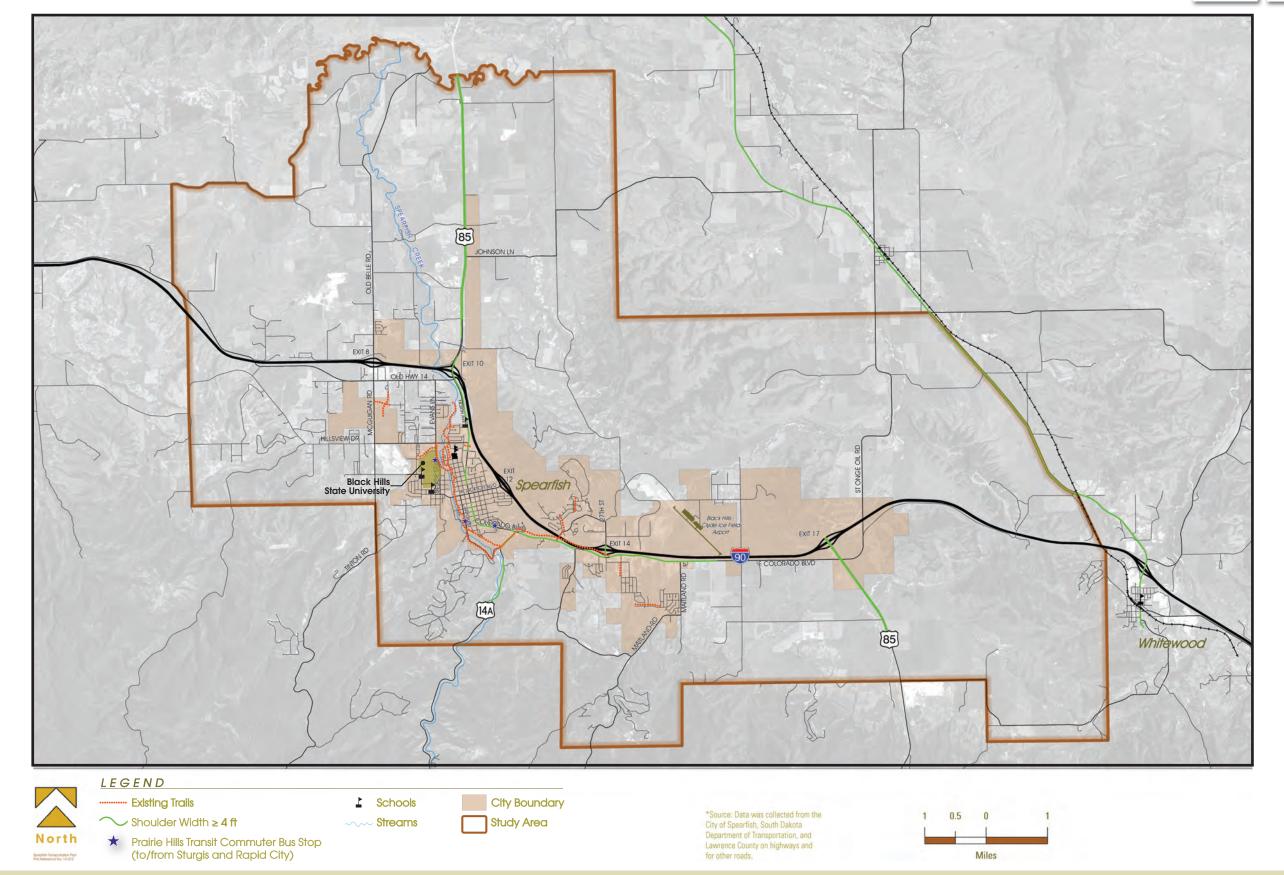
The second category of facilities is paths. An extensive path system exists in Downtown Spearfish which follows Spearfish Creek from Custer Street to US 14A. In addition, a path has been built from US 14A along Colorado Boulevard to the Exit 14 interchange. For bicyclists, there remains some room for improvement since no dedicated right of way or priority markings are provided for cyclists once they leave the path system. Roadways with a need for bicycle facilities include Jackson Boulevard and St. Joe Street. In addition, the existing path at Exit 14 ends abruptly and does not provide a means for cyclists to reach the commercial area north of the interchange. This condition is being addressed in the US 14A Corridor Study.

For non-urban portions of the study area, the bicycle facilities require significantly more attention since many of the roadways are very narrow with limited shoulders, requiring cyclists to travel in the major travel lanes. Roadways which have significant numbers of residences, and therefore demand for facilities, include Evans Lane, Upper Valley Road, Hillsview Drive, Old Highway 14, and Colorado Boulevard east of Exit 14.

Existing Pedestrian, Bicycle, and Transit Network













Overall, approximately 5 percent of the faculty and staff who replied to the online survey reported cycling as their primary method for commuting to campus. Of these respondents, 86 percent of respondents reported keeping a car in Spearfish, suggesting that many of those who cycle to campus choose to use this mode for campus commuting based on preference or convenience. When asked about home location, 68 percent of cyclists report living in the main portion of town close to the University while 32 percent cycle farther to campus. In addition, these same respondents were asked how they typically travel around town (i.e., to shop, restaurants, etc) and 58 percent responded that they use another mode besides a car to get around town (including walking, bicycling, and taking the bus).

When respondents were asked about how easy it is to get around Spearfish by bicycle; 43 percent reported it being very easy or easy to commute around town while 53 percent reported difficult or very difficult (5 percent reported neutral). The lower convenience rating by bicyclists is further developed in the comment responses received from bicyclists. Areas for improvement noted include:

- Many of the responders see improved on-street bicycle accommodations as a necessary tool to make cycling a safer and more convenient mode of transportation.
- Suggestions focus primarily on the development of a preferred routing plan for the town, to include separated bicycle lanes or sharrows (shared driving and bicycling in the main travel lane) for the designated bicycle routes.
- Suggestions for preferred bicycle routes include along Main Street, Colorado Blvd, Jackson Blvd, University Street, College Lane, Hillsview Road, and St. Joe Street/Evans Lane.
- ▶ The current at-grade recreational path crossing of Hillsview Road at Spearfish Creek is offset and poses a safety hazard for bicyclists.
- The existing recreational path needs to be widened in spots where it is less than 8 feet wide.

As a result of the facilities inventory, specific recommendations for non-motorized improvements are provided in Chapter V.

D. Air Transportation

Black Hills-Clyde Ice Field Airport is located north east of the Exit 14 interchange and is a public general aviation airport operated by Lawrence County, South Dakota. The main entrance for visitors is from the north along Airport Road, which can be accessed via 27th Street or Rainbow Road. The airport operates with three runways, one is asphalt and two are grass. The Airport recently lengthened the primary runway to the northwest by approximately 1,870 feet, which required the reconstruction of Airport Road around the new runway. to the northwest. This realignment significantly impacted the ability to route traffic through the industrial park, and out the north end of Industrial Drive, effectively creating a functional dead-end in this area. This change has increased traffic demand along 1st Avenue extending east from 27th Street.

During the Public Involvement Process, a number of individuals asked that consideration be given to a new Interstate interchange along I-90 between Exit 14 and Exit 17, near the airport. It is highly unlikely that a new interchange would be allowed to be constructed here due to Federal minimum interchange spacing requirements and the airport's location. Meeting the minimum spacing requirements creates a conflict with the airport's runway location. The recent runway extension was completed in part to increase the distance between airplane activity and I-90. This consideration reflects the importance of separating air traffic from public roadways.

E. Freight Transportation

The majority of freight travel through Spearfish occurs along I-90, which, as an Interstate roadway, serves cross-country freight patterns. Local freight travel occurs mostly along North Avenue, Main Street and Colorado Boulevard as the majority of industrial and retail development lies along these corridors. Two major in-town generators of freight traffic are the McLaughlin sawmill along Colorado Boulevard near Maitland Road and at the Spearfish Forest Products (Neiman Enterprises) operation located along Oliver Street east of McGuigan Road. Several attendees at the first public meeting mentioned the importance of these operations and the need to make certain that area roadways can adequately and safely accommodate this traffic. People expressed particular concern that the intersections of McGuigan Road with Hillsview Road and Oliver Street be examined to determine whether improvements are needed to more safely accommodate freight vehicles along with passenger cars and non-motorized modes.

F. List of Current Issues

The public involvement process was designed to collect as much input as possible from the Spearfish community about existing transportation issues within the study area. This process was a valuable tool in identifying what members of the community see as the biggest issues needing attention during the development of this Master Transportation Plan. The complete issue listing is provided in **Appendix C**.

Several locations and potential improvements were identified by members of the public during the meeting process. The most significant and most frequently mentioned project was the need for improvements at the Exit 14 interchange. Recommendations included evaluation of turning radii, turn lane lengths, the alignment of 27th Street through the interchange, and accesses adjacent to the interchange. This interchange is being evaluated in detail in the ongoing US 14A Corridor Study.

Other frequently mentioned current issues included:

- safety concerns at Jackson Boulevard / University Street
- the need for future east-west corridors throughout the study area
- poor signal timing and coordination between signalized intersections throughout the City
- lack of sidewalk/path along Evans Lane, Hillsview Road, Upper Valley Road, and Old Highway 14
- no safe crossing of North Avenue near the Safeway store
- the need for increased transit service

These issues were considered during the development of *moveSpearfish*, and recommendations were included in the future project listing in Section V where logical improvements could be identified.







III. FORECASTED GROWTH

A. Land Use

The City of Spearfish has experienced steady growth during the last several years, and recent growth is anticipated to continue into the future. As a result of this growth, the City has been proactive about land use planning within the study area. Anticipated future growth area land use has been developed as part of the Sanitary Sewer System Master Plan, completed by the City of Spearfish in the Year 2007. A water system master plan is underway as of the writing of this transportation plan. This anticipated development levels were utilized to create a spreadsheet-based traffic forecast model capable of estimating future traffic volumes on roadways throughout the study area. The Year 2035 was chosen as the long range future time horizon, more than 20 years into the future.

Future land use expectations center on twelve key development areas, consisting of a mixture of residential, commercial, retail/office, hotel, and hospital facilities. The majority of new development is anticipated to be located east and south of present downtown Spearfish and is expected to total 3,480 residential units, 2,780,000 square feet of commercial space, 300 hotel rooms, and a regional hospital. **Table 3** provides the anticipated land use for each zone identified on **Figure 9**.

Table 3. Future Growth Area Land Use

Crowth		Decidential	Employment			
Growth Area	Area Name	Residential Units	Commercial/Light Industrial (sf)	Retail/Office (sf)	Hotel rooms	Regional Hospital
1	Spearfish Prairie	300	200,000			
2	Higgins Creek	400	200,000			
3	McGuigan Ranch	250		150,000		
4	Countryside Estates	90				
5	Foothills Addition	400				
6	Miller Addition	40		400,000		
7	Spearfish Indust. Park		870,000			
8	Dodds Subdivision		440,000			
9	Heritage Addition		400,000			
10	Voorhees Addition	400				
11	Exit 17 Vicinity	600		120,000	300	1
12	Centennial Valley	1,000				
Total		3,480	2,110,000	670,000	300	1

B. Future Traffic Volumes

The future traffic forecasts were developed considering background traffic growth as well as specific development plans, as defined in Section III.A. It was assumed that all development identified by existing zoning will have occurred by the modeling horizon year, 2035. This assumption is unlikely to be fulfilled, but at this point it is difficult to anticipate which developments and to what degree will be complete, and therefore this analysis provides a conservative analysis of traffic growth throughout the roadway network.

In order to accurately reflect background traffic growth, growth factors were developed for different roadway types in the study area. The generalized growth factors were varied based on location, with a nominal growth rate assigned to local roads (particularly in downtown Spearfish) which are not expected to experience significant growth, and more substantial growth rates assigned to state highways and I-90. It is reasonable to expect that the state highways and interstate system will experience more significant growth as a result of increased regional through traffic using these corridors in the future. The state highway and interstate system growth rates were determined based on growth rates developed by the SDDOT. The resulting annual growth rates have been summarized in **Table 4**.

Table 4. Study Area Growth Rates

Roadway Type	Annual Growth Rate	Year 2035 Growth Factor
Downtown Local/Collector	1.0 %	1.30
I-90	1.8 %	1.60
US 14A	1.1 %	1.33
US 85 s/o I-90	1.0 %	1.30
US 85 n/o I-90	1.2 %	1.37

Based on the twelve development areas identified in the Sewer System Master Plan, trip generation from these land uses was used to generate daily vehicle-trips from each zone. A gravity-type, spreadsheet based travel demand model was developed to assist the assignment of the new trips to the existing road network system and help determine where, if any, problems may arise from the new development areas. The trip generation rates were taken from the Institute of Transportation Engineers publication *Trip Generation*, 8th Edition. During distribution of the trips generated by the new development, the trips were exchanged between the new developments, downtown Spearfish, the Exit 14 commercial area, and eight external entry and exit points (i.e., I-90 west, US 85 north, SH 14A). By considering the likely start and end points for trips generated by the new development, the model was useful in determining the relationship between each zone, and also the potential routing drivers would use between each development area.

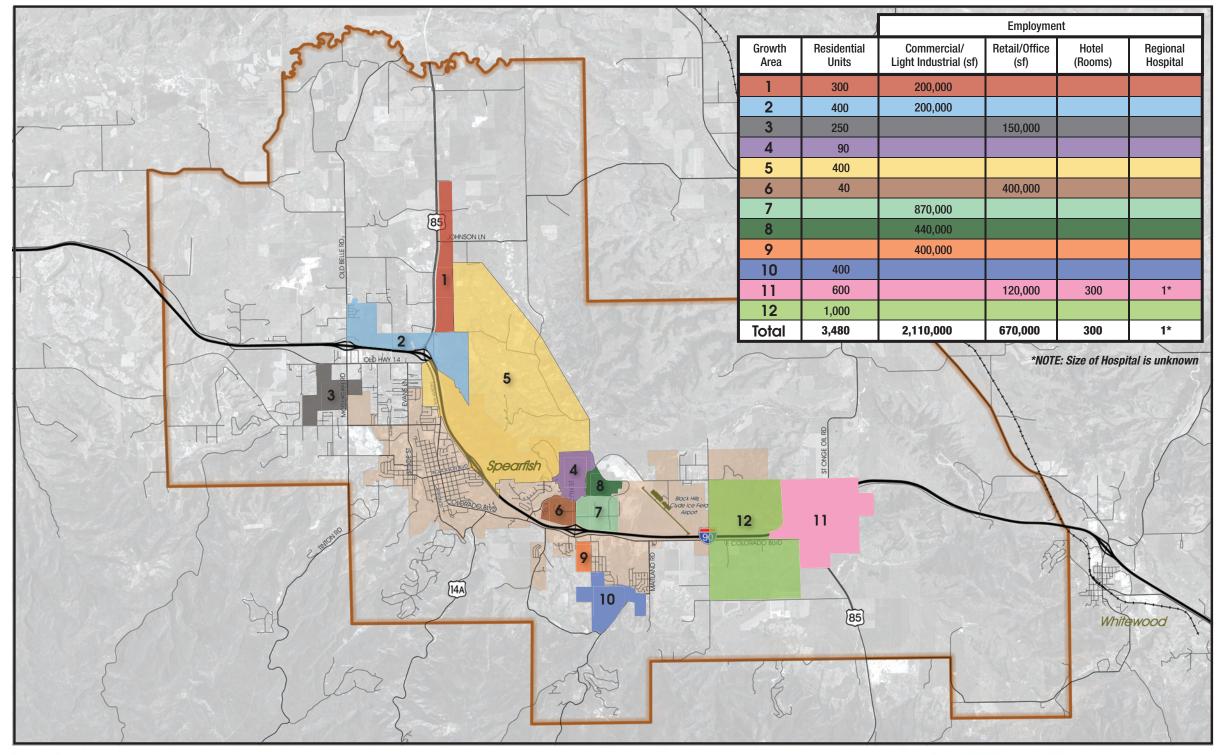
After completion of the background traffic and new development areas traffic forecasts, the volumes for each link were summed to develop the future daily forecast traffic volumes anticipated in 2035. The resulting forecast traffic volumes have been provided on **Figure 10**. As shown, significant increases over existing traffic volumes are anticipated, particularly in the vicinity of Exit 14. Traffic through the City of Spearfish along North Avenue and Main Street would reach approximately 20,000 vpd. Interstate 90 is forecasted to carry up to 34,500 vpd through the study area.



Future Growth Areas









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Study Area

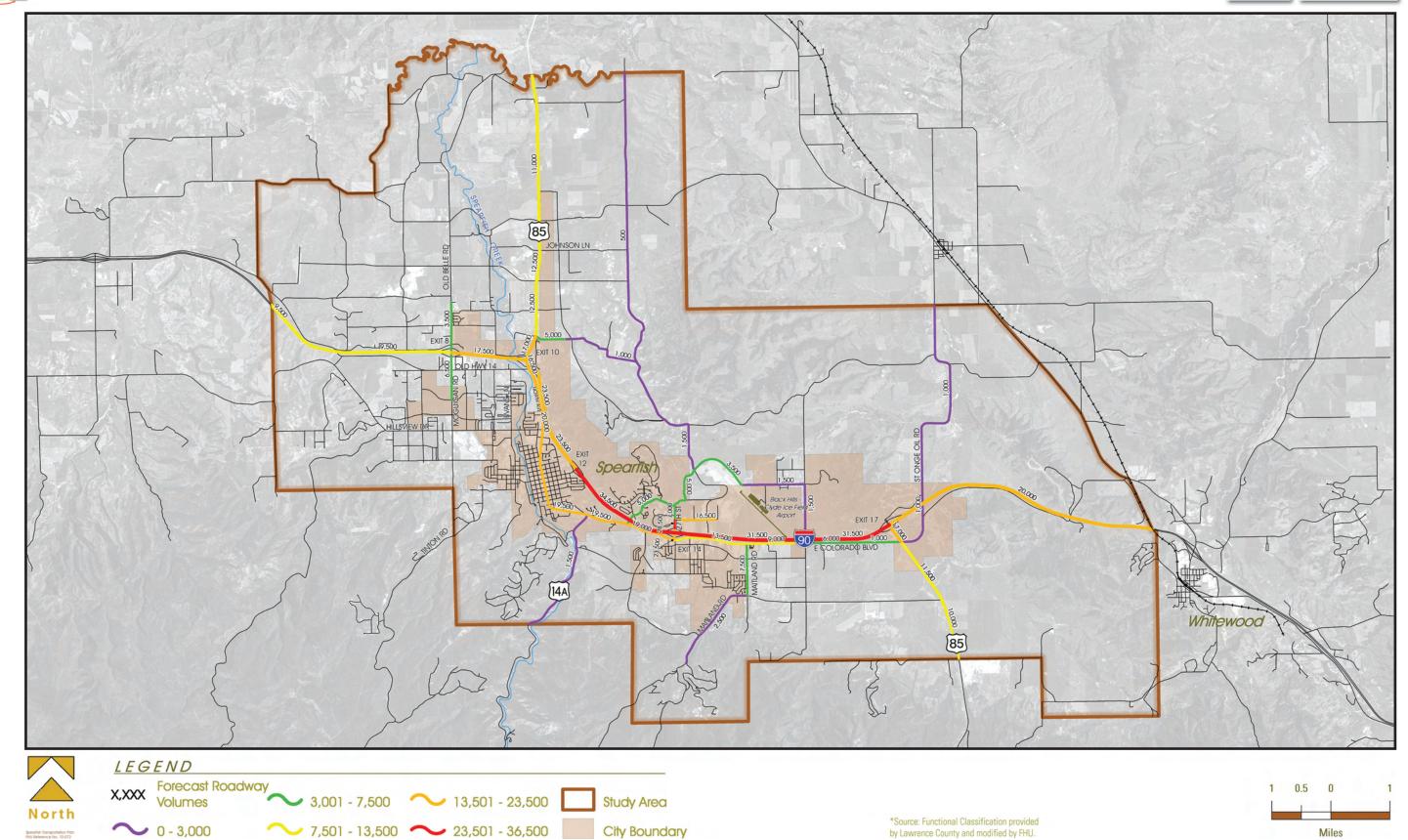
*Source: Volume data was collected from the City of Spearfish, South Dakota Department of Transportation, and the Non State Trunk Road Inventory for volumes on highways and for other roads.



Long-Term Future (Year 2035) Traffic Volumes













C. Volume-to-Capacity Ratios

Based on the capacity values discussed in Section III.A.i., the v/c ratios calculated on the streets within the planning area with future forecast volumes are depicted graphically on **Figure 11**. The red segments represent roadways that carry traffic volumes in excess of the planning level roadway capacity (v/c \geq 1.0). The yellow segments represent roadways that are operating at near capacity conditions (v/c between 0.80 and 1.0).

Based on future v/c ratios, the Exit 14 interchange represents the location with the greatest congestion within the study area. 27th Street between Colorado Boulevard and 1st Avenue is anticipated to operate with a v/c ratio greater than 1.5, suggesting that this roadway segment will be well above capacity and in need of improvements. These congested locations are being studied in detail in the US 14A Corridor Study, which will include recommendations to improve conditions at Exit 14 and along the US 14A corridor if no improvements are made. In addition, a portion of US Highway 14A between Spearfish Canyon Road and 27th Street and Colorado Boulevard between 27th Street and Maitland Road will be above capacity.

Additionally, North Avenue/Colorado Boulevard is expected to experience significant volume increases and will operate with some congestion but will still be within capacity. These findings indicate that with background growth and future development, capacity problems will cause significant delay surrounding the Exit 14 interchange.

As a result of the future roadway capacity deficiencies identified in this section, specific recommendations for capacity improvements are forthcoming in Chapter V.

D. Intersection Operations

The ten intersections identified by the SAT were reevaluated to determine if any capacity problems are anticipated to occur with build out of the development areas and the addition of future background traffic. **Figure 12** provides the results of the level of service analysis for future conditions.

Year 2035 Operational results are described as follows by intersection:

Colorado Boulevard / Rainbow Road – This intersection is located in a less-developed but growing portion of Spearfish and is STOP-sign controlled. Currently operating at LOS B or better, the LOS analysis indicated that the left-turn movement from Rainbow Road onto Colorado Boulevard would operate at LOS C or better during peak hours by the Year 2035. This is considered an acceptable peak hour result.

Colorado Boulevard / Maitland Road – This intersection currently operates at LOS B and would deteriorate to an unacceptable LOS F by the Year 2035. It is anticipated that improvements to this intersection will not be necessary until the associated developments begin to build. Additionally, it is currently uncertain if this intersection will actually be the main development access. Improvements are recommended, but the extent of the necessary improvements is uncertain. Potential intersection improvements could include signalization, addition of separate turn lanes, and/or acceleration lanes.

Ames Avenue / Jackson Boulevard – This signalized intersection currently operates at LOS B during peak hours and would continue to operate at LOS B through the Year 2035. The current signal configuration, however, would remain of concern into the future. A reconstruction of the current signal is recommended.

University Street / Jackson Boulevard – As is currently the case, this 3-way STOP controlled intersection's unorthodox configuration would cause traffic safety problems. Improvements are recommended and further study is necessary to identify the appropriate future configuration.

St. Joe Street / Hillsview Road – Though future LOS analyses indicate LOS B conditions, current unacceptable delays are likely to worsen over time. Installation of vehicle detection is recommended to improve the allocation of green times.

North Avenue / Main Street / Nevada Street - Current acceptable LOS B peak hour conditions would deteriorate to LOS C for the critical left turn movements onto North Avenue. Increasing traffic levels increase the potential for accidents at this location with multiple conflict points. Future consideration could be given to redirecting or restricting movements along the southbound Main Street approach, the most problematic intersection approach.

Evans Lane / Old Highway 14 – Movements at this STOP-controlled intersection would continue to operate at an acceptable LOS B during peak hours. The intersection, however, is poorly delineated, with the STOP sign posted on an unprotected power pole and no striping on the Evans Lane approach. Additional signing and striping, and corner curbs are recommended to be installed as a part of improvements to Evans Lane.

Kerwin Lane / US 85 – This intersection currently operates at LOS C and would deteriorate to an unacceptable LOS F by the Year 2035. It is anticipated that improvements to this intersection will not be necessary until the associated developments begin to build. Additionally, it is currently uncertain if this intersection will actually be the main development access. Improvements are recommended, but the extent of the necessary improvements is uncertain. Potential intersection improvements could include signalization, addition of separate turn lanes, and/or acceleration lanes.

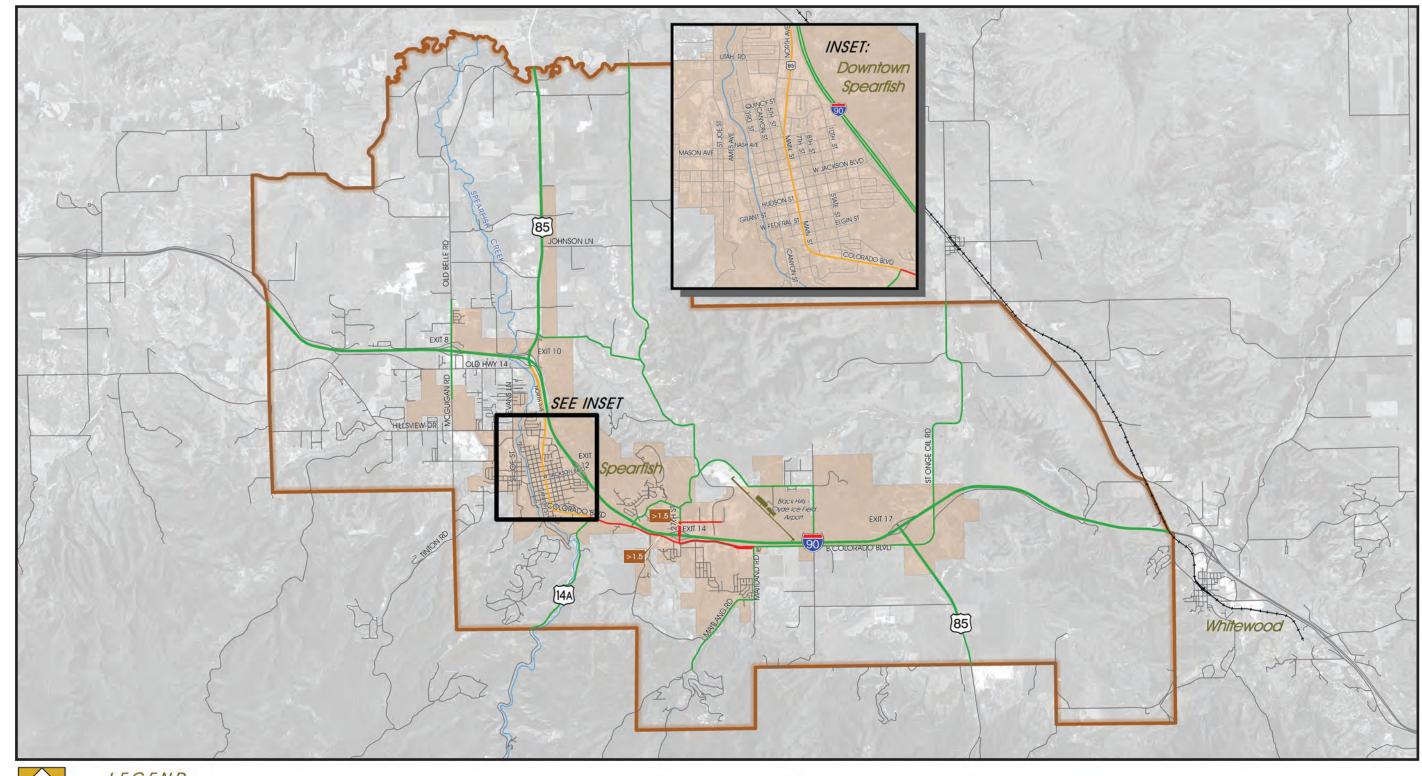
McGuigan Road / Old Highway 14 – All approaches to this all-way STOP controlled intersection currently operate at LOS A during peak hours and would continue to operate at LOS A through the Year 2035.

North Avenue / Yankee Street – Controlled movements at this STOP controlled intersection currently operate at LOS B during peak hours. Future operations would reach LOS C, remaining acceptable.

Long-Term Future (Year 2035) Volume to Capacity Ratios - Roadway Segments













Volume to Capacity Ratios



0.80 - 0.99 V/C Ratio



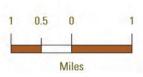
No Data Available

City Boundary



Study Area

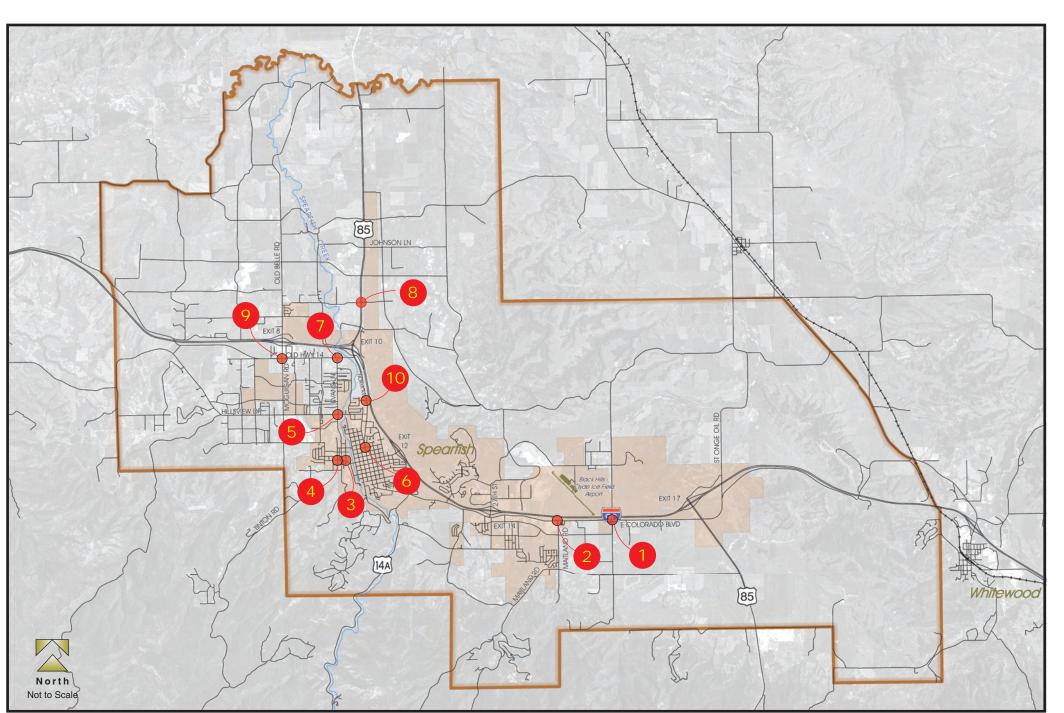
*Source: Volume data was collected from the City of Spearfish, South Dakota Department of Transportation, and the Non State Trunk Road Inventory for volumes on highways and for

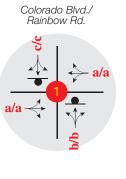


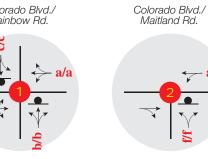


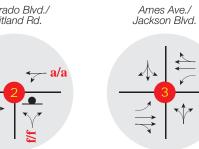


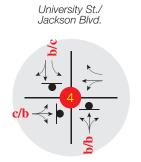




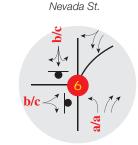






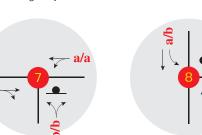


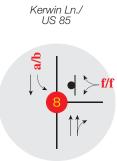


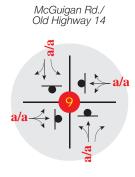


North Ave./ Main St./

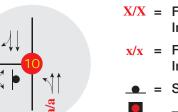








North Ave./



LEGEND

- X/X = Future AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = Future AM/PM Peak Hour Unsignalized Intersection Level of Service
- = Stop Sign
- = Traffic Signal

pearfish Area Master TP, 10-072, 7/20/11







IV. LONG RANGE TRANSPORTATION PLAN

A. Major Street Plan

The centerpiece of the Spearfish Area Master Transportation Plan as it relates to the road network is the development of the Major Street Plan. The Major Street Plan provides a framework for how the road network should be established as development occurs within the study area. The plan labels the functional classification of current roadways and identifies future roadway corridors designed to provide connectivity and access to new developments in rural portions of the study area.

The Major Street Plan is a high-level planning document which details the eventual roadway connections to be built over the next 20-50 years. This document does not suggest that development should and will begin immediately, nor does it detail the exact alignment the roadway connections should follow. Instead, the plan serves as a basic roadway framework, with the eventual goal being of constructing roadway segments that provide the continuity envisioned in this plan. It is recognized that as this plan has been developed, existing land uses may conflict with the roadway connections depicted, and it is not the intention of this plan to require immediate action. Instead, the Major Street Plan recognizes that over time, development patterns within the study area will evolve and certain areas will be more desirable for development. As development is pursued in these areas, the Major Street Plan should be consulted and appropriate right of way allocations and preservations made to facilitate this vision can be fulfilled.

The Major Street Plan is provided as **Figure 13**. This plan distinguishes existing roadways (solid line) from proposed roadways (dashed line) in addition to identifying the roadway as State Highway, arterial, collector, and local roads.

Functional Classification

A roadway network is comprised of a hierarchy of roads whose functional classification is defined by their usage. In general, streets serve two functions: they provide mobility between destination and access to property adjacent to the roadway. Roadway classification is determined by the relative degree to which a road serves mobility versus access functions, as well as characteristics such as continuity, trip lengths served, travel speeds, and traffic volumes. Following are descriptions of different roadway types in the Master Transportation Plan study area:

State Highways

Within the study area, significant connectivity is provided by roadways that are maintained by the state government:

- Interstate 90 (I-90)/US Highway 14 is the study area's only Freeway, defined by high speeds and access provided by widely spaced, grade-separated interchanges. I-90 passes through the center of the study area as part of the east-west interstate route connecting across South Dakota and the northern United States. US Highway 14 is a coincident route with I-90 through the entire Spearfish area.
- ▶ U. S. Highway 85 (US 85) is one of the study area's state highways, and the highway can be divided into two distinct sections: north and south. The north segment connects I-90 and North Avenue with northwest South Dakota, including Belle Fourche, which lies due north of Spearfish.

The south segment connects I-90 and Colorado Boulevard with southwest South Dakota, including Deadwood and Lead, which lie due south of Spearfish.

- ▶ U.S. Highway 14A (US 14A) is one of the study area's state highways, the highway serves as a scenic route through Spearfish Canyon and connects the Canyon to I-90 at Exit 14.
- State Highway 34 lies along the northeast edge of the study area, connecting Whitewood with St. Onge near the study area.

Arterial Roads

Arterial roadways are City of Spearfish or Lawrence County maintained mobility roads that carry longer-distance trips for regional, inter-community and major commuting purposes. Arterials have a limited number of at-grade intersections and only provide direct property access when lower classification street access does not exist. Arterials can carry significant traffic volumes at higher speeds for longer distances and are seldom spaced at closer than one-mile intervals.

Arterial roads in the more developed areas in and around Spearfish are classified as urban arterials. Urban arterials have or are planned to have curbs, gutters, and sidewalks on each side. Arterial roads in less developed parts of the study area are classified as rural arterials. Rural arterials have shoulders on the edges rather than urban curb, gutter and sidewalk treatments.

For this study, the distinction between urban and rural Arterial has not been definitively drawn due to the uncertainty of ultimate development patterns within currently rural portions of the study area. As future development occurs, the nature of the newly established corridors will change the surrounding roadway network, and may change the urban or rural nature of the corridor. As such, the decision about the roadway should be made at that time by the governing body, instead of being prescribed by this plan.

Collector Roads

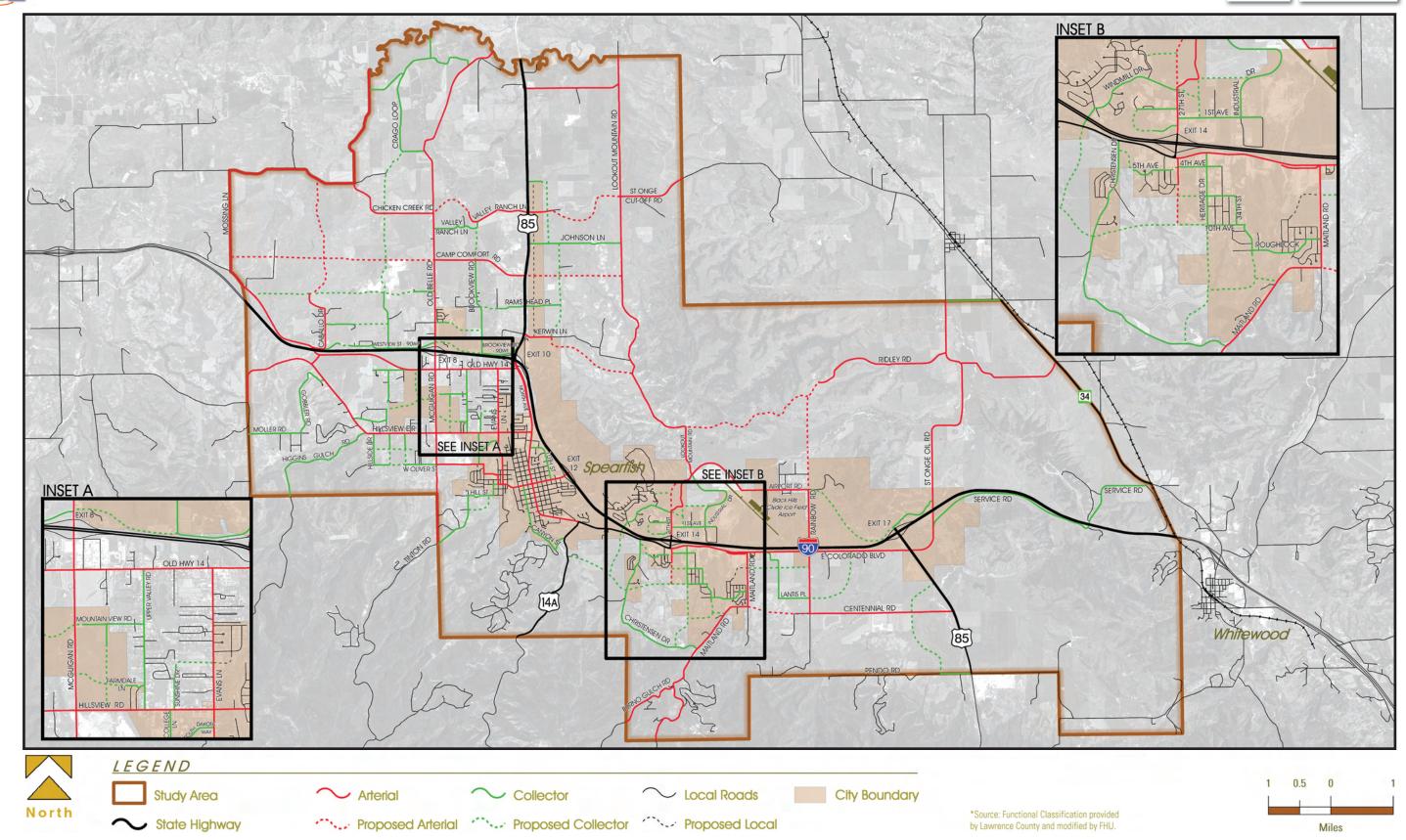
Collector roadways are City of Spearfish or Lawrence County maintained roads that serve a combination of mobility and access functions. They typically distribute traffic between arterial roads and local streets. Collectors provide for moderate trip lengths and travel speeds. Access is provided via moderately spaced at-grade signalized and stop controlled intersections.

Local Roads

The primary function of local roads is to provide access to adjacent land uses. Local streets generally are internal to or serve an access function for a single neighborhood or development. Local roads are limited in length and continuity, and traffic using them should have a close-by origin or destination.







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B. Transit Plan

A conference call was held on December 22, 2010 to discuss needs, priorities and future plans for the Prairie Hills Transit Agency (PHT) in Spearfish. The call included City of Spearfish and PHT Staff, and consultant Staff responsible for developing the City's Master Transportation Plan through the South Dakota Department of Transportation (SDDOT). Five items were highlighted in the conference call and are summarized as follows:

- 1. **Park-n-ride Facility** A park-n-Ride facility is currently being designed for the northwest side of I-90 Exit 17. This facility will serve as a casual carpool lot. PHT expressed that the transit agency would also make use of this lot, and provision should be made to allow larger transit vehicles to access and navigate the space.
- 2. **Fixed-Route Service** Currently, PHT provides demand responsive service in the vicinity of Spearfish and the Black Hills. Transitioning to a fixed-route system, at least partially, has been attempted in the past. Transit service in the Black Hills State University area was implemented, but ridership numbers did not reach a sustainable level. PHT remains interested in providing fixed-route service.
- 3. **Transit assistance for Disadvantaged Individuals** PHT serves many individuals who do not own a car or are disabled. There are government incentives that help people in need with food or other living expenses, but there is no such program supporting transit use. PHT would like to see such a program move forward. Research is needed to determine whether such programs are in use elsewhere and evaluate how effective such a program could be in Spearfish.
- 4. **Multimodal Connectivity** Bicycle racks are in the works for the new PHT facility, and Barb Cline added that new neighborhoods should be conducive to bicycle access. PHT vehicles do not currently include bicycle storage.
- Day Care PHT is including a day care facility with its new building to enhance services and potentially increase ridership.

Figure 14 depicts a recommended fixed-route service through the City of Spearfish. The starred locations are current and anticipated bus stop locations. The route would connect major origins and destinations in the City, including the Exit 14 commercial area, downtown, the new PHT Intermodal facility, and the Black Hills State University (BHSU) campus. The transit route is depicted as a purple line and could be implemented in phases to accommodate demand as the population increases.

The Transit plan includes conceptual stop locations, and additional evaluation is necessary before stop locations are finalized. The Transit Cooperative Research Program (TCRP) published report No. 19 in 1996, and it remains a useful reference for bus stop location questions. The document may be found at www.gulliver.trb.org/publications/tcrp/tcrp rpt 19-b.pdf

In addition, many transit agencies throughout the U.S. have developed guidelines for locating bus stops. A particularly helpful set of guidelines was published in 2006 by the Omnitrans transit agency in San Bernadino, California. These guidelines may be found at http://www.omnitrans.org/about/BusStopGuidelines_10-04-06.pdf. Selected information from these guidelines related to locating bus stops is provided as follows:

- PHT Staff should identify an appropriate physical location for the stop. If appropriate, several alternative locations should be considered before a final selection is made. The selection process should be initiated by PHT Staff, and should include City Staff and other affected agencies.
- 2. The location should provide acceptable access for pedestrians. Sidewalks and paths leading to the stop should be continuous and separate from vehicular travel lanes.
- 3. Pathways and sidewalks leading to the location should meet minimum ADA (Americans with Disabilities Act) standards. Standards may be found at www.access-board.gov/adaag/html/adaag.htm
- 4. Relative to intersections, the location may be either mid-block, nearside or farside. Each location type as advantages and disadvantages. A helpful evaluation of advantages and disadvantages of each is provided at http://www.omnitrans.org/about/BusStopGuidelines_10-04-06.pdf.
- 5. Effects on adjacent property owners.
- 6. Adequate curb space for waiting passengers
- 7. Keep a minimum spacing from other bus stops, so as to maximize the efficiency of bus travel time along the fixed route.
- 8. Proximity to major trip generators

Several of these factors have been considered to identify the preliminary bus stop locations shown on **Figure 14**. However, additional collaborative effort and design detail will be necessary before bus stop locations are finalized. To facilitate this process, it is recommended that the City of Spearfish incorporate bus stop location and design criteria with the City Infrastructure Standards. A starting point for this may be including a reference to Transit Cooperative Research Program Report No. 19. It is also recommended that Prairie Hills Transit be included as a referring agency in the development review process, to help ensure that new development in the Spearfish area is designed to accommodate future transit needs.

C. Pedestrian & Bicycle Master Plan

The Pedestrian and Bicycle Master Plan provides a framework for how the network should be established as funds become available within the study area. The Plan builds upon the existing system by offering improvements to the existing bicycle and pedestrian network where existing deficiencies are known. Additionally, the plan identifies new pedestrian and bicycle corridors designed to provide connectivity and access to new portions of the study area.

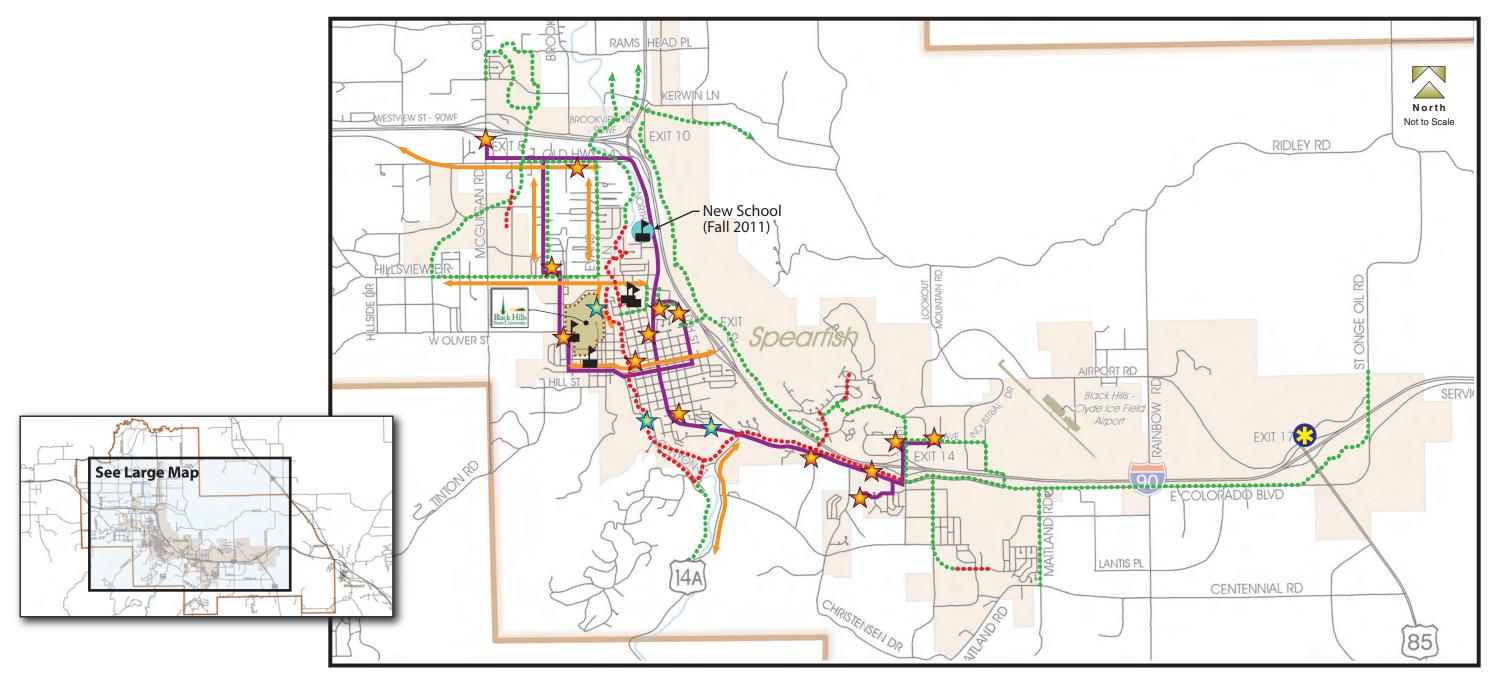
The Pedestrian, Bicycle, and Transit Master Plan is provided as **Figure 14**. This plan distinguishes existing paths (red dashed line) from future paths (green dashed line) in addition to identifying the roadways where future on-street bicycle facilities are recommended. Taken as a whole, the existing and future path corridors along with sidewalk and on-street bicycle facilities will provide a consistent and extensive system designed to provide comfortable and convenient alternative mode choices.

Recreational Path System – The plan, based in large part on the *City of Spearfish Recreation Path Master Plan* completed in 2005, includes a significant future expansion of the Spearfish recreational path. It shows new connections east to Exit 17 and an extension paralleling I-90's north side between Exit 14 and Exit 10. Several new crossings of I-90 are anticipated, including east of Exit 14, north of Exit 12 and two between Exits 8 and 10. The recreational path would also parallel existing roadways: Evans Lane, Old Highway 14 and Hillsview Road. It is recommended that new subdivisions accommodate connections to the path system, as shown in the new development area located north of Exit 8.









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Current Prairie Hills Transit Commuter Bus Stop (to/from Sturgis and Rapid City)

Future Prairie Hills Transit Bus Stop

Future Transit Park-n-Ride Location

Existing Paths Future Paths Future Transit Fixed-Route Future On-Street Bicycle Facility Schools Streams City Boundary Study Area







On-Street Bicycle Network – The plan includes several priority on-street bicycle connections, as the recreational path system does not fully address the needs of bicycle commuters in Spearfish. The on-street enhancements are intended to provide specific accommodations for bicycles in the form of sharrows or bicycle lanes. Corridors for on-street enhancements include Jackson Boulevard, Evans Lane, Upper Valley Road, Hillsview Road, and a portion of Spearfish Canyon Road. Since completion of the Plan shown on Figure 14, Mason Street and College Lane have also been suggested as a suitable bicycle route for commuters to the BHSU campus.

Pedestrian Improvements – Additional pedestrian-specific improvements are not identified on **Figure 14**, but are included in the Master Plan in the form of improvements to problem intersections. These include:

- Geometric improvements to the Hillsview Road / St. Joe intersection to improve pedestrian corner refuge and crossing,
- Restriping of pedestrian crossing markings at the St. Joe Street / Nash Street intersection, and
- Measures to improve the pedestrian crossing of North Avenue from the High School to the Safeway.

Two key pedestrian issues deserve special consideration due to the number of responses received from the public; the University Street / Jackson Boulevard intersection and the prioritization of walk clearance during winter storm events.

University Street/Jackson Boulevard

This intersection utilizes an unusual stop sign configuration, especially for visitors to Spearfish unfamiliar with the road network but wishing to visit Black Hills State University. The intersection is currently controlled with stop signs on the north, west, and south legs; the east leg is unsignalized and does not yield at the intersection. The key movements at this intersection are the westbound right and southbound left, which provide the connection between downtown Spearfish and Black Hills State University. Many respondents to the survey noted this intersection for improvements due to the confusing signing, but concern from pedestrians was additionally high since the intersection experiences a lot of pedestrian and bicycle activity. The City should review the signing at the intersection to provide conditions where drivers, pedestrians, and bicyclists can all feel safe. It is recommended that changes be made to this intersection to provide either a two way stop, a four way stop, or a signal at this intersection. Due to the steep hill in the westbound direction, it may be undesirable to stop sign control this movement since winter weather conditions may make it difficult to start again after stopping at the intersection. For this case, consider removing the eastbound stop sign and adding clear pedestrian markings and/ or a raised turn island to provide all users a typical two-way stop controlled intersection layout with clear information about the priority movements at the intersection

Snow Shoveling

Due to Spearfish's location in a snowy winter climate, a significant number of respondents who report walking to campus mentioned icy walkways as a primary concern. In order to provide safe pedestrian facilities within Spearfish, it is recommended that the City adopt a snow shoveling policy for sidewalks. The new policy would provide a grace period for clearing walkways (i.e., sidewalks must be cleared 24 hours after the last snowflake falls). This policy does not necessarily need to require shoveling for all locations in town, and could in fact identify priority corridors in town so that the major paths are maintained. The City council and citizenry should participate in an open dialogue to determine what type of policy is needed,

what the shoveling requirements should be, and what the penalties will be for residents found out of compliance.







V. PLAN IMPLEMENTATION

The breadth of the Master Transportation Plan has been consolidated into a complete project listing. The goal for this listing was to compile improvements recommended during the public input process, projects identified in the Master Roadway Plan, and projects identified in the Pedestrian & Bicycle Master Plan and Transit Plan.

In order to develop a project listing which provides the entire study area with the best future operations, while accounting for funding limitations, comments received during the public input process have been reviewed to determine what remedies would provide the greatest benefit. Typically, the projects included in the listing were identified by several members of the community and all projects were vetted by the Consultant Team and Study Advisory Team to ensure the recommendations are consistent with the goal for this Master Transportation Plan.

A map of project locations is shown on **Figure 15**. The complete project listing has been provided as **Table 5**.

The project improvement plan figure includes all projects described within the project listing. The different project types have been separated in the listing into categories including: arterial roadway, collector roadway, intersection, capacity, path, bicycle/pedestrian, and transit.

Public Versus Growth Driven

In order to help distinguish the projects in the listing and to figure out which projects should be included in a priority listing, the project listing has been divided between public (in brown) and growth driven (in grey) projects. Projects listed as public represent deficiencies within the roadway network that either currently exist or will occur with anticipated background growth. These projects require complete funding from a public entity or group of entities: the City of Spearfish, Lawrence County, or SDDOT. Projects described as growth driven stem from future development. This future development can either be included in one of the twelve developments areas identified during the Spearfish Comprehensive Plan or refer to currently rural land which does not currently have developments plans, but for which plans may occur in the future. These projects are therefore initiated by future growth and will require financial leading by the developer, to be supplemented where appropriate by a public agency.

Arterial versus Collector Roadway

The general categorization of arterial and collector roadways has been developed to ensure a built out road network that will serve the needs of all residents. Many of the projects identified in the plan occur in presently rural portions of the study plan. Each proposed new roadway has been identified with a classification, although the listing does not specify if the built segment should be of urban or rural nature. For this study, the distinction between urban and rural arterial has not been drawn due to the uncertainty of ultimate development patterns within currently rural portions of the study area. As future development occurs, the nature of the new and affected existing roadways will change, and may affect the urban versus rural nature of the corridor. As such, the decision about the roadway should be done at that time, instead of being prescribed by this plan.

Project Prioritization

The following sections discuss the public roadway, bicycle and pedestrian, and public transit projects identified in the project listing. Each category has been separated due to the use of different funding mechanisms and budgets for the project classification. By identifying the public projects, even greater attention was given to these projects with the goal of creating a prioritized funding list for each category.

Short term projects are those anticipated to be funded and built within the next five years (2011-2015). Projects which have been included in this category are the most vital to the immediate workings of the transportation system. This category includes improvements intended to improve safety particularly for bicycle and pedestrian users of the transportation system. Mid-term projects are those anticipated to be funded and built not immediately but within the next fifteen years (2015-2025). Long term projects are those anticipated to be funded and built in the long term (beyond 2025).

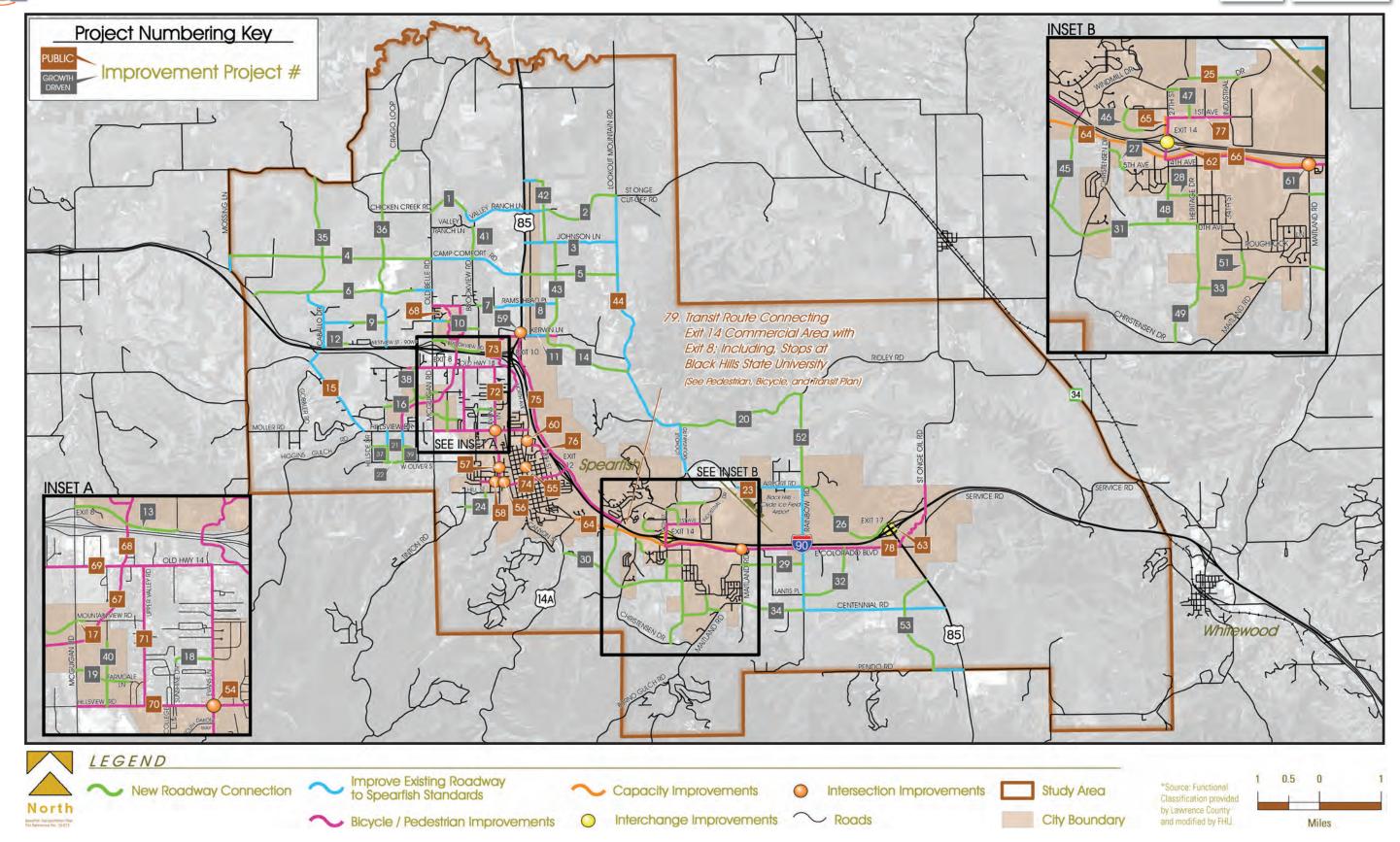
Project Cost

In addition to providing the project type, a project cost has been developed for each of the projects in the complete listing. For arterial and collector roadway segments, this cost has been based on the construction of an urban two-lane (one lane in each direction) roadway segment, complete with curbs, gutter, sidewalks and bicycle lanes in each direction. While every roadway segment may not be built to these specifications, this cost procedure provides the most conservative view of construction costs. These cost opinions include only items which are considered construction-related and are based on 2010 unit costs. No right of way costs have been included since these can be highly variable, depending on the current use and zoning of the adjacent property. Much of the needed right of way will be obtained from adjacent future development.

Cost analysis worksheets have been prepared for the basic roadway classifications as part of this project and are included in **Appendix D**.







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Table 5. Complete Project Listing

ID	Improvement	Project Type	Length (miles)	Respo	nsibility	Planning Level Cost Estimate
1	Build New Chicken Creek Rd Connection (Old Belle Rd to Valley Ranch Ln) and Pave Valley Ranch Ln (New Arterial to US 85)	Arterial Roadway	1.83	Developer	Growth Driven	\$7,674,000
2	Build New Valley Ranch Rd Extension (New Collector to Lookout Mountain Rd) and Pave Valley Ranch Ln (US 85 to New Collector)	Arterial Roadway	1.76	Developer	Growth Driven	\$7,381,000
3	Pave Johnson Ln (US 85 to Lookout Mountain Rd)	Collector Roadway	1.50	Developer	Growth Driven	\$4,227,000
4	Build New Camp Comfort Rd Extension (Mossing Ln to Old Belle Rd), Pave Mossing Ln (Old Highway 14 to New Arterial), and Pave Camp Comfort Rd (Old Belle Rd to US 85)	Arterial Roadway	5.03	Developer	Growth Driven	\$21,113,000
5	Build New Camp Comfort Rd Extension (US 85 to Lookout Mountain Rd)	Arterial Roadway	1.56	Developer	Growth Driven	\$6,543,000
6	Build New Collector (Old Highway 14 to Existing Local) and Pave Existing Local (New Collector to Old Belle Rd)	Collector Roadway	2.92	Developer	Growth Driven	\$8,226,000
7	Build New Rams Head PI Connection (Brookview Rd to Rams Head PI) and Pave Rams Head PI (New Collector to US 85)	Collector Roadway	0.72	Developer	Growth Driven	\$2,033,000
8	Pave Rams Head PI (US 85 to New Collector)	Collector Roadway	0.58	Developer	Growth Driven	\$1,634,000
9	Build New Collector (Existing Local to Crago Loop Connection) and Pave Existing Local (Caballo Dr to New Collector)	Collector Roadway	1.01	Developer	Growth Driven	\$2,848,000
10	Build Vista Hills PI Connection (Existing Local to Brookview Rd) and Pave Vista Hills PI (Old Belle Rd to New Collector)	Collector Roadway	0.79	Developer	Growth Driven	\$2,232,000
11	Pave Kerwin Rd (US 85 to New Arterial)	Arterial Roadway	0.47	Developer	Growth Driven	\$1,971,000
12	Build Westview Dr Connection (Existing Local to Westview Loop) and Pave Westview Dr (Caballo Dr to New Collector)	Collector Roadway	0.44	Developer	Growth Driven	\$1,253,000
13	Build New Westview Dr Connection (Old Belle Rd to Brookview Rd)	Collector Roadway	0.80	Developer	Growth Driven	\$2,246,000
14	Build New Arterial (Kerwin Ln to Lookout Mountain Rd)	Arterial Roadway	1.54	Developer	Growth Driven	\$6,459,000
15	Pave Hillsview Rd (End of Pavement to Old US 14)	Arterial Roadway	1.61	County	Public	\$3,873,000
16	Build New Meadow Ln Extension (Meadow Ln to McGuigan Rd)	Collector Roadway	0.92	Developer	Growth Driven	\$2,593,000
17	Build New Mountain View Rd Connection (McGuigan Rd to Mountain View Rd)	Collector Roadway	0.12	City	Public	\$338,000
18	Build New Sunshine Dr Extension (Sunshine Dr to Evans Ln)	Collector Roadway	0.29	Developer	Growth Driven	\$817,000
19	Build New Farmdale Ln Extension (McGuigan Rd to Farmdale Ln)	Collector Roadway	0.40	Developer	Growth Driven	\$1,127,000
20	Build New Arterial (Lookout Mountain Rd to Ridley Rd)	Arterial Roadway	2.26	Developer	Growth Driven	\$9,478,000
21	Build New Collector (Hillsview Dr to Mineral PI)	Collector Roadway	0.67	Developer	Growth Driven	\$1,888,000
22	Build New Oliver St Connection (Hillside Dr to Oliver St)	Collector Roadway	0.31	Developer	Growth Driven	\$874,000
23	Improve Airport Rd to Arterial Standard (Lookout Mountain Rd to Existing Pavement)	Arterial Roadway	1.06	City/County	Public	\$692,000
24	Build New Collector (Tinton Rd to Hill St)	Collector Roadway	0.50	Developer	Growth Driven	\$1,409,000
25	Build New Collector (27th St to Industrial Dr)	Collector Roadway	0.44	City	Public	\$1,240,000
26	Build New Airport Rd Extension (Rainbow Rd to Exit 17)	Collector Roadway	1.81	Developer	Growth Driven	\$5,101,000
27	Build New 5th Ave Connection (Christensen Dr to 5th Ave)	Collector Roadway	0.25	Developer	Growth Driven	\$705,000
28	Build New 7th Ave Extension (27th St Extension to Heritage Dr)	Collector Roadway	0.25	Developer	Growth Driven	\$705,000







ID	Improvement	Project Type	Length (miles)	Respon	sibility	Planning Level Cost Estimate
29	Build New Collector (Maitland Dr to Rainbow Rd)	Collector Roadway	1.00	Developer	Growth Driven	\$2,818,000
30	Build New Collector (SH 14A to Christensen Dr)	Collector Roadway	1.13	Developer	Growth Driven	\$3,184,000
31	Build New Collector (Christensen Dr to Heritage Dr)	Collector Roadway	0.99	Developer	Growth Driven	\$2,790,000
32	Build New Lantis PI Extension (Rainbow Rd to Colorado Blvd) and Pave Rainbow Rd (Centennial Rd to Colorado Blvd)	Collector Roadway	2.22	Developer	Growth Driven	\$6,256,000
33	Build New Collector (Heritage Dr Extension to Maitland Rd)	Collector Roadway	0.65	Developer	Growth Driven	\$1,832,000
34	Build New Centennial Rd Extension (Maitland Rd to Rainbow Rd) and Pave Centennial Rd (Rainbow Rd to US 85)	Arterial Roadway	3.30	Developer	Growth Driven	\$13,840,000
35	Build Caballo Dr Extension (Caballo Dr to Chicken Creek Rd) and Pave Caballo Dr (Westview St to New Arterial)	Arterial Roadway	3.04	Developer	Growth Driven	\$12,740,000
36	Build New Creekside Loop Connection (Existing Local to Creekside Loop) and Pave Existing Local (Westview St to New Collector)	Collector Roadway	3.35	Developer	Growth Driven	\$9,454,000
37	Build New Sarah Ave Extension (New Oliver St Extension to Sarah Ave) and Pave Sarah Ave (New Collector to Hillsview Rd)	Collector Roadway	0.50	Developer	Growth Driven	\$1,409,000
38	Build New Collector (Old Highway 14 to New Meadow Ln Extension)	Collector Roadway	0.43	Developer	Growth Driven	\$1,212,000
39	Build New Scott Ave Extension (Oliver St to Scott Ave) and Pave Scott Ave (New Collector to Hillsview Rd)	Collector Roadway	0.50	Developer	Growth Driven	\$1,409,000
40	Build New Collector (Hillsview Dr to Mt View Rd/Tumbleweed Trail)	Collector Roadway	0.47	Developer	Growth Driven	\$1,324,000
41	Build New Brookview Rd Connection (Camp Comfort Rd to Valley Ranch Ln)	Collector Roadway	0.52	Developer	Growth Driven	\$1,465,000
42	Build New Collector (Kellem Ln to Johnson Ln) and Pave Kellem Ln (US 85 to New Collector)	Collector Roadway	1.09	Developer	Growth Driven	\$3,072,000
43	Build New Collector (Kerwin Ln to Johnson Ln)	Collector Roadway	1.56	Developer	Growth Driven	\$4,396,000
44	Pave Lookout Mountain Rd (27th St to St. Onge Cut-Off Rd)	Arterial Roadway	5.15	City/County	Public	\$21,599,000
45	Build New Sandstone Hills Dr Extension (New Collector to Colorado Blvd)	Collector Roadway	0.74	Developer	Growth Driven	\$2,085,000
46	Build New Collector (Local to Paramount Dr)	Collector Roadway	0.42	Developer	Growth Driven	\$1,184,000
47	Build New Collector (27th St to 1st Ave)	Collector Roadway	0.38	Developer	Growth Driven	\$1,071,000
48	Build New 27th St Extension (New Collector to 27th St), from 10 th Avenue	Arterial Roadway	0.34	Developer	Growth Driven	\$1,426,000
49	Build New Heritage Dr Extension (Christensen Dr to 10th Ave)	Collector Roadway	1.11	Developer	Growth Driven	\$3,128,000
51	Build New 35th St Extension (New Collector, Roughlock Lane to Heritage Drive)	Collector Roadway	0.21	Developer	Growth Driven	\$592,000
52	Build New Rainbow Rd Extension (Airport Rd to New Arterial) and Pave Rainbow Rd (Colorado Blvd to Airport Rd)	Arterial Roadway	2.50	Developer	Growth Driven	\$10,485,000
53	Build New Collector (Pendo Rd to US 85) and Pave Pendo Rd (New Collector to US 85)	Collector Roadway	2.33	Developer	Growth Driven	\$6,566,000
54	Construct Geometric Improvements at the Hillsview Rd and St. Joe St/Evans Ln Intersection	Intersection	na	City/County	Public	\$150,000
55	Construct Geometric Improvements at the Michigan St and Main St Intersection	Intersection	na	City	Public	\$150,000
56	Construct Geometric Improvements at the Jackson Boulevard and Ames St Intersection	Intersection	na	City	Public	\$150,000
57	Restripe the pedestrian crossing markings at St. Joe St and Nash St	Intersection	na	City	Public	\$5,000
58	Construct Geometric Improvements at the University St and Jackson Blvd Intersection	Intersection	na	City	Public	\$15,000
59	Construct Intersection Improvements at the US 85 and Kerwin Ln Intersection - Improvements to be determined based on future Traffic Impact Study	Intersection	na	Developer/SDDOT	Growth Driven	N/A







ID	Improvement	Project Type	Length (miles)	Responsibility		Planning Level Cost Estimate
60	Construct Intersection Improvements Connecting the Pedestrian Path from the High School to the Safeway	Intersection	na	City	Public	N/A
61	Construct Intersection Improvements at the Colorado Blvd and Maitland Dr Intersection - Improvements to be determined based on future Traffic Impact Study	Intersection	na	Developer	Growth Driven	N/A
62	Interchange Improvements at Exit 14 (I-90)	Interchange	na	City/SDDOT	Public	N/A
63	Interchange Improvements at Exit 17 (I-90)	Interchange	na	City/SDDOT	Public	N/A
64	Capacity Improvements Along Colorado Blvd (Spearfish Canyon to 27th St)	Capacity	1.54	Developer/SDDOT*	Public / Growth Driven	N/A
65	Capacity Improvements Along 27th St (Exit 14 to 1st St)	Capacity	0.14	City	Public	N/A
66	Capacity Improvements Along Colorado Blvd (27th St to Maitland Rd)	Capacity	1.25	City	Public	\$937,000
67	Construct Bicycle and Pedestrian Path between Hillsview Rd and Old Highway 14	Path	1.55	City/County	Public	\$611,000
68	Construct Bicycle and Pedestrian Path north from Old Highway 14 North of I-90	Path	2.31	City/County	Public	\$911,000
69	Construct Bicycle and Pedestrian Facilities Along Old Highway 14 (Diamond Dr to Evans Ln)	Pedestrian/Bicycle	1.40	City/County	Public	\$2,595,000
70	Construct Pedestrian Facilities Along Hillsview Rd (Upper Valley Rd to St. Joe St) and Construct On Street Bicycle Facilities along Hillsview Rd (McGuigan Rd to North Ave)	Pedestrian/Bicycle	1.53	City/County	Public	\$3,479,000
71	Construct Bicycle and Pedestrian Facilities Along Upper Valley Rd (Hillsview Rd to Old Highway 14)	Pedestrian/Bicycle	1.03	County	Public	\$1,484,000
72	Reconstruct Evans Lane between Old US 14 and Hillsview Road to meet Spearfish standard arterial section. and Construct On Street Bicycle Facilities along St. Joe St/Evans Ln (Jackson Blvd to Old Highway 14)	Roadway/Pedestrian/ Bicycle	1.87	City/County	Public	\$2,523,000
73	Construct Bicycle and Pedestrian Path north from Existing Path North of I-90 and East of US 85	Path	2.24	City/Developer	Growth Driven	\$883,000
74	Construct On Street Bicycle Lanes Along Jackson Blvd (Jonas Blvd to 12th St)	Bicycle	1.43	City	Public	\$4,132,000
75	Construct Bicycle and Pedestrian Path between Kerwin Ln and Sandstone Dr	Path	3.63	City	Public	\$1,430.000
76	Construct Bicycle and Pedestrian Facilities Connecting the Path from the High School to the New Path East of I-90	Path	0.59	City	Public	\$232,000
77	Construct Bicycle and Pedestrian Facilities At the Exit 14 Interchange to Connect to the Walmart	Path	0.88	City/SDDOT	Public	\$347,000
78	Construct Bicycle and Pedestrian Facilities Along Colorado Blvd (27th St to St. Onge Rd)	Path	5.09	City/Developer	Public	\$2,005,000
79	Develop a Transit Route Connecting Exit 14 Commercial Area with Exit 8; Including, Stops at Black Hills State University	Transit	n/a	Prairie Hills Transit	Public	N/A
80	Realign 27 th Street to provide direct connection to Lookout Mountain Road	Arterial Roadway	0.63	Developer	Growth Driven	\$2,642,220
81	Construct connection from Woodland Drive to 27 th Street connection built with project #80	Collector Roadway	0.27	Developer	Growth Driven	\$760,860
82	Reconstruct Maitland Road between Christensen Drive and McDermott Road	Arterial Roadway	1.13	City/County	Public	\$5,028,500

^{*}If, there is a proposed revision to the north end of US Highway 85 at Exit 17 by adjacent property developers, the design shall conform to all SDDOT standards and specifications, and the SDDOT shall be the sole approving body in this regard.







Public Roadway Projects

Sixteen projects have been identified as publicly funded roadway projects. **Table 6** provides the prioritization of these projects along with estimated cost for each project. In addition to the general description of each project, below is a description of each project along with a discussion of the project details including anticipated benefits. The most urgent project needs are categorized as Short Range projects 0-5 years into the future, Mid-range projects are moderate priorities intended for implementation 5-15 years into the future, and Long Range projects are 15+ years away.

Short Range Projects

- 60. Currently, the path connecting the High School to the Safeway leads along the south side of the Taco Bell, to North Avenue and then travels approximately 300 feet south to the signal at Rushmore Street providing the connection. With current conditions, there is concern about potential jaywalking that this route has created due to a resistance to travel south to cross at the signal. This project identifies the installation of fencing to discourage inappropriate crossings of North Avenue. The fencing would be installed along the roadway, and provide as a barrier to channel pedestrians and bicyclists to the intersection at Rushmore Street.
- 57. There is an existing crosswalk at the intersection of St. Joe Street and Nash Street for pedestrians and bicyclists wishing to travel east-west across St. Joe Street. The existing cross walk markings are worn and community input has identified the restriping of the crosswalk to provide a clear notice to drivers.
- 58. The intersection of Jackson Boulevard and University Street is currently a four-leg, three-way stop controlled intersection. The northbound, eastbound, and southbound movements are stop controlled, with free movement allowed for the westbound movement. In addition, the westbound leg meets the intersection at a steep grade with limited sight distance for stopped drivers at the intersection. The key movements at this intersection are the westbound right and southbound left, which provide the connection between downtown Spearfish and Black Hills State University. In order to clarify which directions have priority at the intersection and also to provide a more predictable intersection for bicyclists and pedestrians, it is recommended that this intersection be converted to a two way stop by removing the stop sign on the west leg. In addition to this signing change, this project includes channelization of the westbound left turn lane, with the addition of a median to guide drivers through the intersection. This new median would also provide pedestrians a refuge for north south travel across the east leg of the intersection. These improvements would give stopped drivers waiting at the intersection greater certainty about westbound drivers intended movement and facilitate southbound left turns from the University campus.
- 54. The intersection of Hillsview Road and St. Joe Street/Evans Lane is currently a pre-timed signalized intersection with significant directional patterns during the morning and peak periods resulting from traffic generated within the 2-3 mile area. These heavy eastbound morning and westbound evening travel patterns, coupled with the variable north-south vehicle movements have resulted in significant delay at the intersection for certain movements. In order to remedy these problems, it is recommended that signalization and geometric improvements be constructed at this intersection. The cost analysis has considered the addition of actuated controls for the signal, this type of improvement allows the signal controller to adjust green time for movements where significant volumes warrant. In addition, this project includes the maintenance of appropriate pedestrian walk signals at the intersection, to be augmented by geometric improvements on the corners where appropriate and feasible. The addition of more accessible pedestrian crossings and enhanced curb radii will provide pedestrian users of the intersection with greater safety crossing the intersection.

- 55. The intersection of Michigan Street and Main Street is currently a pre-timed signalized intersection. Public comment has identified this intersection for improvement to the signal timing strategy based on delays experienced at the intersection due to the pre-timed configuration. The cost analysis has considered the addition of actuated controls for the signal, this type of improvement allows the signal controller to adjust green time for movements where significant volumes warrant.
- 56. The intersection of Jackson Boulevard and Ames Street is currently a pre-timed signalized intersection. Public comment has identified this intersection for improvement to the signal timing strategy based on delays experienced at the intersection due to the pre-timed configuration. The cost analysis has considered the addition of actuated controls for the signal, this type of improvement allows the signal controller to adjust green time for movements where significant volumes warrant. In addition to this improvement, it is recommended that the signal for the westbound direction be moved to a new mast arm to be installed on the northwest corner to provide better visibility of the signal head for drivers stopped at the intersection.
- 72. The most significant roadway and bicycle/pedestrian need, as identified by many in the public input process, is to provide a complete street along St. Joe Street / Evans Lane between Jackson Boulevard and Old Highway 14. This project includes the reconstruction of Evans Lane to Spearfish Arterial Standards and construction of consistent sidewalk facilities for pedestrians and on-street bike lanes for bicyclists the entire length of this segment. Due to the proximity to the University, sidewalk facilities already exist along St. Joe Street between Jackson Boulevard and Hillsview Road, but facilities are needed for the portion farther north. Bicycle lanes are recommended for the entire length of the segment. In addition to adding the facilities, this project includes tie in of the facilities to the new geometry at the intersection of St. Joe Street / Evans Lane and Hillsview Road.

Mid-range Projects

- 82. The surface of Maitland Road between Christensen Drive and McDermott Road is currently in disrepair. Project #82 would reconstruct Maitland Road to meet City Standards for an arterial roadway.
- 62. The interchange improvements at Exit 14 on Interstate 90 have been listed in the publicly funded project listing due to the project's significance on travel within the study area. Improvements to this interchange are currently under development by the concurrent US 14A Corridor Study.
- 63. The interchange improvements at Exit 17 on Interstate 90 have been listed in the publicly funded project listing due to the projects significance on travel within the study area. Improvements to this interchange have not been identified to date, but due to the locations junction of the Interstate with US Highway 85, efforts to determine improvements at this intersection are anticipated to be led by SDDOT.
- 17. The connection of Mountain View Road to the west to intersect McGuigan Road has been identified as a mid-range project during this study. This connection would provide needed east-west connectivity for local traffic in the adjacent area. During public comment, concerns were raised about City annexation of the adjacent subdivision and the dissolution of the associated road district. These issues will need to be remedied at the time of the construction of this project.
- 65. Along with improvements to the Exit 14 interchange and continued traffic volume growth due to new developments, it is anticipated that capacity improvements will be necessary in the mid-range planning horizon. At this time, it is uncertain how the new interchange will tie into the existing road network, so a future planning level cost estimate has not been provided for this capacity improvement project.
- 25. With further development of the Exit 14 commercial area, a new connection between 27th Street and Industrial Drive has been planned to provide access to the city road network. This project is anticipated as a public improvement project due to the several developments likely in the adjacent area, and the lack of a single developer is anticipated to cause the need for this roadway connection.







 Table 6.
 Prioritized Public Roadway Projects

ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
60	Construct Intersection Improvements Connecting the Pedestrian Path from the High School to the Safeway	Intersection	\$34,500	Short Range
57	Restripe the pedestrian crossing markings at St. Joe St and Nash St	Intersection	\$5,000	Short Range
58	Construct Geometric Improvements at the University St and Jackson Blvd Intersection	Intersection	\$15,000	Short Range
54	Construct Geometric Improvements at the Hillsview Rd and St. Joe St/Evans Ln Intersection	Intersection	\$150,000	Short Range
55	Construct Geometric Improvements at the Michigan St and Main St Intersection	Intersection	\$150,000	Short Range
56	Construct Geometric Improvements at the Jackson Boulevard and Ames St Intersection	Intersection	\$150,000	Short Range
72	Reconstruct Evans Lane between Old US 14 and Hillsview Road to meet Spearfish standard arterial section. and Construct On Street Bicycle Facilities along St. Joe St/Evans Ln (Jackson Blvd to Old Hwy 14)	Roadway/Pedestrian/Bicycle	\$2,528,000	Short Range
82	Reconstruct Maitland Road between Christensen Drive and McDermott Road	Arterial Roadway	\$5,028,500	Mid-Range
62	Interchange Improvements at Exit 14 (I-90)	Interchange	N/A	Mid-Range
63	Interchange Improvements at Exit 17 (I-90)	Interchange	N/A	Mid-Range
17	Build New Mountain View Rd Connection (McGuigan Rd to Mountain View Rd)	Collector Roadway	\$338,000	Mid-Range
65	Capacity Improvements Along 27th St (Exit 14 to 1st St)	Capacity	N/A	Mid-Range
25	Build New Collector (27th St to Industrial Dr)	Collector Roadway	\$1,240,000	Mid-Range
23	Improve Airport Rd to Arterial Standard (Lookout Mountain Rd to Existing Pavement)	Arterial Roadway	\$692,000	Long Range
64	Capacity Improvements Along Colorado Blvd (Spearfish Canyon to 27th St)	Capacity	N/A	Long Range
66	Capacity Improvements Along Colorado Blvd (27th St to Maitland Rd)	Capacity	\$937,000	Long Range
44	Pave Lookout Mountain Rd (27th St to St. Onge Cut-Off Rd)	Arterial Roadway	\$21,599,000	Long Range
15	Pave Hillsview Rd (End of Pavement to Old US 14)	Arterial Roadway	\$3,873,000	Long Range







Long Range Projects

- 23. Airport Road serves as a key east-west arterial roadway north of I-90. This connection serves limited vehicle volumes currently, but as future development occurs, particularly surrounding the Exit 14 commercial area and Rainbow Road it is anticipated that this connection will provided needed connectivity for the study area. It is planned that this project will improve the roadway to arterial standards.
- 64/66. Along with improvements to the Exit 14 interchange and continued traffic volume growth due to new developments, it is anticipated that capacity improvements will be necessary in the long range planning horizon. At this time, it is uncertain how the new interchange will tie into existing Colorado Boulevard west of Exit 14 and where access to adjacent development will be necessary. Therefore, a future planning level cost estimate has not been provided for this capacity improvement project. While it is recognized that this project will likely be spurred by future developments, the projects distance from the actual future developments, coupled with the likelihood that several future developments will require the project, this project has been listed as public since the State will likely be responsible for managing the project.
- 44. As future development occurs north of Interstate 90, Lookout Mountain Road will continue as the most significant north-south roadway in the region. As a result, this project identifies the portion of Lookout Mountain Road from 27th Street to St. Onge Cut-Off Road for paving to arterial standards. This project will likely require reconsideration of the connection to 27th Street since trip makers will likely use the road to reach the Exit 14 commercial area from the north.
- 15. As future development occurs west of Downtown Spearfish, Hillsview Road will continue as the most significant east-west roadway in the region. As a result, this project identifies the portion of Hillsview Road from the end of pavement to Old US 14 for paving to arterial standards.

Public Bicycle and Pedestrian Projects

Twelve projects have been identified as publicly funded bicycle and pedestrian projects. **Table 7** provides the prioritization of these projects along with estimated cost for each project. In addition to the general description of each project, below is a description of each project along with a discussion of the project details including anticipated benefits.

Short Range Projects

- 72. The most significant roadway and bicycle/pedestrian need, as identified by many in the public input process, is to provide a complete street along St. Joe Street / Evans Lane between Jackson Boulevard and Old Highway 14. This project includes the reconstruction of Evans Lane to Spearfish Arterial Standards and construction of consistent sidewalk facilities for pedestrians and on-street bike lanes for bicyclists the entire length of this segment. Due to the proximity to the University, sidewalk facilities already exist along St. Joe Street between Jackson Boulevard and Hillsview Road, but facilities are needed for the portion farther north. Bicycle lanes are recommended for the entire length of the segment. In addition to adding the facilities, this project includes tie in of the facilities to the new geometry at the intersection of St. Joe Street / Evans Lane and Hillsview Road.
- 77. The other project identified by many in the public input process is to extend the path (which currently ends at Colorado Boulevard and 27th Street) across the interstate and to the Walmart. This project constructs the portion of the path from Exit 14 to the Walmart while relying on the concurrent US 14A Corridor Study to provide the access over the interstate.

Mid-range Projects

- 74. In order to establish a comprehensive on-road bicycle system, this project provides bicycle lanes along Jackson Boulevard from Interstate 90 west to 12th Street. The addition of these travel lanes requires the moving of the curb and gutter on one side of the street to expand the roadway width and provide the appropriate space for the recommended bicycle facility.
- 70. This project is designed to provide pedestrian and bicycle facilities along Hillsview Road between McGuigan Rd and North Avenue. Due to the proximity to the High School, sidewalk facilities already exit along Hillsview Road between St. Joe Street and North Avenue, but facilities are needed for the portion further west. Bicycle lanes are recommended for the entire length of the segment. In addition to adding the facilities, this project includes tie in of the facilities to the new geometry at the intersection of St. Joe Street / Evans Lane and Hillsview Road.
- 71. This project identifies the construction of pedestrian and bicycle facilities along Upper Valley Road between Hillsview Road and Old Highway 14. These new facilities will provide safe means for users to reach the greater pedestrian and bicycle network from residential areas along Upper Valley Road.
- 69. This project identifies the construction of pedestrian and bicycle facilities along Old Highway 14 between Diamond Drive and Evans Lane. These new facilities will provide safe means for users to reach the greater pedestrian and bicycle network from residential areas along Old Highway 14.

Long Range Projects

- This project extends the path network between Hillsview Road and Old Highway 14 in the western portion of the study area. The new path provides a connection for rural portions west of Downtown Spearfish to reach the greater path system.
- 68. This project extends the path from Project 67 north of I-90. This new path will provide greater connectivity as areas north of I-90 develop.
- 78. This project extends the existing path along Colorado Boulevard past the Exit 14 interchange to St. Onge Road. This new path will provide greater connectivity as areas around Exit 17 develop, while also providing facilities for those from St. Onge.
- 73. This project extends the existing path which follows Spearfish Creek through downtown. This new path will provide greater connectivity as areas north and east of I-90 develop.
- 75. This project provides a new facility on the east side of Interstate 90 from Kerwin Lane to Sandstone Drive. This new path will provide connectivity with Project 73 while also providing means for alternative modes of transportation to connect to Exit 14 as areas east of I-90 develop.
- 76. This project provides a new route to connect the High School with the new Project 75 path east of Interstate 90. This new path will provide a path to connect the High School and Downtown Spearfish with the new development east of I-90.







Table 7. Prioritized Public Bicycle and Pedestrian Projects

ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
72	Reconstruct Evans Lane between Old US 14 and Hillsview Road to meet Spearfish standard arterial section. and Construct On Street Bicycle Facilities along St. Joe St/Evans Lane (Jackson Blvd to Old Hwy 14)	Roadway/Pedestrian/Bicycle	\$2,528,000	Short Range
77	Construct Bicycle and Pedestrian Facilities At the Exit 14 Interchange to Connect to the Walmart	Path	\$347,000	Short Range
74	Construct On Street Bicycle Lanes Along Jackson Blvd (Jonas Blvd to 12th St)	Bicycle	\$4,132,000	Mid-Range
70	Construct Pedestrian Facilities Along Hillsview Rd (Upper Valley Rd to St. Joe St) and Construct On Street Bicycle Facilities along Hillsview Rd (McGuigan Rd to North Ave)	Pedestrian/Bicycle	\$3,479,000	Mid-Range
71	Construct Bicycle and Pedestrian Facilities Along Upper Valley Rd (Hillsview Rd to Old Highway 14)	Pedestrian/Bicycle	\$1,484,000	Mid-Range
69	Construct Bicycle and Pedestrian Facilities Along Old Highway 14 (Diamond Dr to Evans Ln)	Pedestrian/Bicycle	\$2,595,000	Mid-Range
67	Construct Bicycle and Pedestrian Path between Hillsview Rd and Old Highway 14	Path	\$611,000	Long Range
68	Construct Bicycle and Pedestrian Path north from Old Highway 14 North of I-90	Path	\$911,000	Long Range
78	Construct Bicycle and Pedestrian Facilities Along Colorado Blvd (27th St to St. Onge Rd)	Path	\$2,005,000	Long Range
73	Construct Bicycle and Pedestrian Path north from Existing Path North of I-90 and East of US 85	Path	\$883,000	Long Range
75	Construct Bicycle and Pedestrian Path between Kerwin Ln and Sandstone Dr	Path	\$1,430,000	Long Range
76	Construct Bicycle and Pedestrian Facilities Connecting the Path from the High School to the New Path East of I-90	Path	\$232,000	Long Range







Public Transit Projects

During the development of the Master Transportation Plan, existing and future development areas became the focus of providing the necessary roadway, pedestrian, and bicycle facilities throughout the study area. A final and key travel mode was also considered with the same connectivity goals in mind. **Figure 14** includes the illustration of a potential transit route developed for this plan. In addition to considering the route that should be developed, potential transit stops were also identified. This new transit line would be operated by Prairie Hills Transit and would likely be edited to capture major destinations known by the operator.

The primary goal for the route was to develop a loop route that can be used to connect the Exit 14 commercial area with Downtown Spearfish, the Black Hills State University Campus and Exit 8. Along the way, the route would stop at other major commercial and residential developments as depicted. A final key stop included in this plan is to include the new Prairie Hills Transit facility located along McGuigan Road.

Phasing and cost analysis for this line are dependent on funding available and input from Prairie Hills Transit, this Master Transportation Plan's goal was only to point out the inclusion of a route within the long range plan.

Public Planning Projects

In addition to projects included in the Project Improvement Plan, public comment has identified a need to target the signalized intersections throughout town with a signal timing planning study. This study would focus on all of the signalized intersections in town in order to develop appropriate signal timings and scheduling to provide the most fluent system.

In order to accomplish the proposed plan, peak hour traffic counts would need to be taken at all of the intersections within Town. These counts would help determine appropriate signal timing based on traffic patterns experienced during the day. Then, signal coordination would be pursued to ensure the intersections take into account one another's actions and operate efficiently. The study would identify needed signalization infrastructure improvements, including items such as vehicle detection, pedestrian push buttons, countdown pedestrian signal heads, etc.







VI. STREET STANDARDS

A. Proposed Roadway Cross Sections

Figures 16 and **17**, respectively, depict typical cross-sections for Arterial and Collector roadways. These cross-sections would be used as a template for future roadway construction and improvements to existing roadways. For both Arterials and Collectors there are different cross-sections shown for roads in urban and rural areas. Urban cross-sections, for both Arterial and Collectors, include curbs, gutters and sidewalks adjacent to the travel lanes, while rural cross-sections have paved shoulders but no curb, gutter or sidewalk. Cross sections are also provided for rural unpaved (gravel) arterial and collector roadways. These are typical cross-sections; however, particular road segment cross-sections may vary depending on specific intersection improvements, topographical and environmental features, or roadside constraints.

The Major Street Plan does not identify which facilities are 'Urban' or 'Rural.' This is done to provide the City with flexibility to implement either section where judged appropriate. Generally, Urban sections should be sought within City limits, though constraints may prevent construction of curb & gutter and associated drainage infrastructure.

The roadway cross sections shown reflect a 'Complete Street' philosophy of designing streets to accommodate all roadway users. Providing detached walks and bicycle lanes are two distinctive aspects of the Complete Street approach, which is intended to help build a road network that is safer, more livable, and welcoming to everyone (www.completestreets.org). While the City of Spearfish has not officially adopted a Complete Streets policy, the typical sections included in *moveSpearfish* are intended to accommodate all users.

B. Assessment of Development Traffic Impacts

New development in the study area generates vehicle-trips and associated new demands on the roadway system. The impacts of different developments vary from a small number of trips for a single new home to a large number of trips for a major residential subdivision or commercial development. Many municipalities require applicants for major developments to submit a traffic impact study, estimating the number of trips expected to be generated, the expected distribution of those trips onto the surrounding road network, and identifying major road improvements needed to accommodate the traffic.

Jurisdictions typically establish a threshold for the size of development that would trigger the requirement to do a traffic impact study (TIS). The traffic volume thresholds shown in **Table 8** are recommended in consideration of the need for a traffic impact study:

Table 8. Traffic Impact Study Requirements

Daily Traffic Volume Generated by Proposed Development (Vehicle-trips per day) ¹	Study Requirements
1,000 or more	Traffic Impact Study Required
0-1,000	Traffic Impact Study may be required at the discretion of City of Spearfish / Lawrence County

Daily Traffic Volume generated by development may be calculated based on proposed land uses using Trip Generation, Seventh Edition (Institute of Transportation Engineers, 2004). Using these rates, 1,000 vehicles per day corresponds to approximately 23,000 Square Feet of Shopping Center Retail or approximately 105 single-family detached homes.

C. Access Managment Guidelines

Currently, vehicular accesses are requested by applicants and access proposals are reviewed by the City of Spearfish. Access is granted or denied on a case-by-case basis. The establishment of access management guidelines is intended to guide the City in determining allowance of access to a particular property, and under what circumstances or restrictions that an access might be allowed. The guidelines are not intended to be a full comprehensive access manual, but rather some principles to determine if access would be allowed and references to determine the need for auxiliary turn lanes. It is recognized that City Staff would look at each access on a case-by-case basis to determine any need for acceleration/deceleration lanes.

The City is currently updating its Engineering Street Design Guidelines, which include standards for property access configuration and spacing. The draft standards state that, "The design and location of access approaches onto streets is directly related to the specific use of the approach and the functional classification of the street the approach is fronting." *moveSpearfish* provides additional detail to supplement the Engineering Standards, identifying appropriate access spacing along roadways of each functional classification and providing guidance regarding access permitting.

General Access Principles

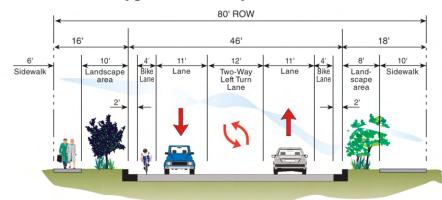
The access management guidelines need to be sensitive to the environmental nature of the various roadway classifications. Ideally, the policy should be most restrictive along arterial roads since these roadways provide the greatest function of mobility, and it should be the least restrictive on local roads which are intended to provide access to adjacent properties. Further, rural roads tend to have a greater mobility function than those in developed areas for a given roadway classification, and the policy needs to recognize this difference between developing area roads and rural roads.



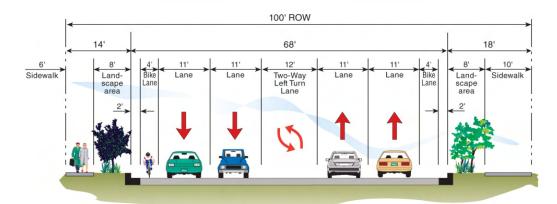




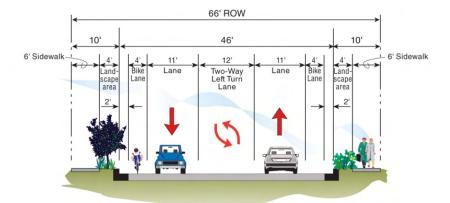
Figure 16. Urban Typical Roadway Cross-Sections



Two Lane Arterial

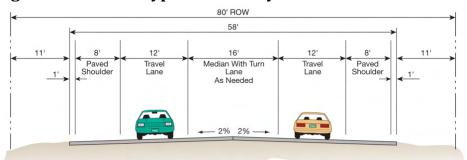


Four Lane Arterial

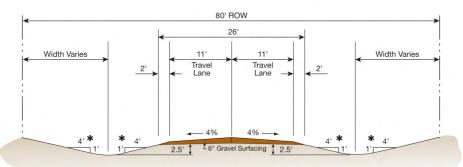


Collector

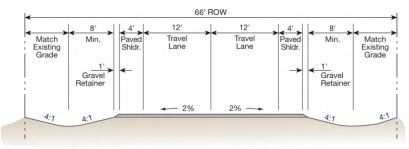
Figure 17. Rural Typical Roadway Cross-Sections



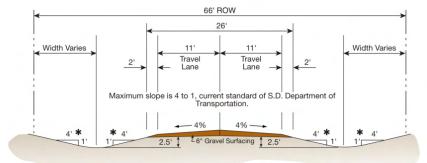
Rural Arterial (Paved)



Rural Arterial (Gravel)*



Rural Collector (Paved)**



Rural Collector (Gravel)*

^{*} Maximum slope is 4 to 1, current standard of S.D. Department of Transportation

Right-of-way may be increased to accommodate lanes (i.e. ATV/bik







The access guidelines should be recognized as the desired intent for the final disposition of a particular access consideration. There will be exceptions in which the letter of the access guidelines is not possible or is impractical. Such conditions will need to be evaluated on a case-by-case basis, and the City should attempt to apply these guidelines to the extent possible. Engineering judgment should be applied for any access request that significantly deviates from established guidelines.

Developing Areas

Arterial roadways should be the primary target for access control in the developed areas. Access to adjacent properties is far more prevalent where there is significant development. Collector roads and especially local streets should not be subject to strict access control measures since that is their purpose, but maintaining mobility along the arterial roads is best accomplished by restricting access. Where private access to an arterial roadway needs to be provided, it should be located (to the extent possible) at points one quarter-mile from section-line (or adjacent) intersections provided that this location is adequate relative to grade and sight distance. In the event that a particular property does not have an alternative means of access or if the property frontage does not encompass the one-quarter mile point, an access will be provided, but serious consideration should be given to restricting left turn movements and other mitigation methods. Also, accesses granted to an arterial street should be accompanied with provisions for cross-access or a shared access with neighboring properties (either at the time access is granted or planned in the future), as appropriate.

Collector streets in developing areas need not have such a strict policy relative to access. However, it is desirable to ensure that access drives onto collectors are not immediately adjacent to each other. A minimum spacing criterion should be incorporated into the policy. Local streets should also have a minimum spacing criteria, unless it can be clearly shown that the access use is extremely rare (no more than once or twice a month).

Rural Areas

Similar to the developing areas, arterial roads should be the primary target to controlling access. However, collector roads and local roads tend to serve more of a mobility function in rural areas than they do in the developing areas. As such, an access management policy should be a bit more restrictive on these classifications within a rural setting. The arterial classification should still be subject to the most restrictive set of rules similarly to the developing area arterial roads.

To address potential access restrictions for rural collectors and locals, it is suggested to base driveway/intersection spacing information on sight-distance requirements. If two successive accesses are no closer than the distance of a driver's safe stopping sight distance, then the driver traveling the main road need only monitor one access at a time. Being required to monitor more than one access at a time adds to the complexity of the driving task, and should be avoided. As such, spacing of access along rural collectors and locals should be based on the design speed and stopping distance of these roadways within rural areas. The spacing need not be strictly enforced for those rarely used accesses as previously mentioned. Roadway grade and entering sight distance should be a consideration when locating a driveway access.

The access management guidelines are intended to preserve the integrity of those roadways which are to provide a mobility function. The most restrictive criteria are applied to the arterial roadways. However, the

local roads within the rural areas also provide some mobility and are subject to stricter access controls than their developing area counterparts. As such, separate access guidelines for local roads have been developed for developing areas and rural areas.

Access Management Standards

The following standards should be applied to access requests to the extent possible.

- ▶ Access Permitting It is recommended that access permit applications be required for gaining access to any City roadway. A permit application will also be required when there are changes to the property that increase the traffic volume to the site by 20 percent or more.
- State and US Highways Along State Highways, SDDOT Access Standards apply. These standards may be found at http://www.sddot.com/pe/roaddesign/docs/rdmanual/rdmch17.pdf. The map showing the classifications within the Spearfish area may be found at www.sddot.com/Operations/docs/access/Spearfish access.pdf.
- Arterial Roads Direct access to abutting land is subordinate to providing service to the through traffic movements. Access will normally not be granted to individual property which has a reasonable alternative means of access to a lower classification of roadway. Consideration of reasonable alternative access will take into consideration the function of the alternative roadway, its purpose, capacity, operation, safety, and means of improving the alternative roadway.

Ideally, accesses should be limited to only arterial and collector cross-streets. Intersections with the potential for eventual signalization should be spaced at one-quarter-mile intervals based on section lines, where feasible and subject to the roadway's grade and to the driver's entering sight distance. Allowed accesses or intersections spaced at intervals other than one-quarter mile will be restricted to right-in/right out only unless an engineering study clearly demonstrates that there are benefits to allowing additional movements and that the access location would not be a significant detriment to the integrity of the arterial roadway.

A full movement access, with the potential for signalization, may be allowed at a location which does not meet the preferred one-quarter mile spacing provided that an engineering study shows that quarter-mile spacing is not practical and that good signal progression (at least 35 percent) can be achieved. The location of any access should maintain a minimum spacing of 500 feet with any other access or intersection subject to allowance for proper vehicular turn lane storage requirements.

All necessary means shall be pursued to ensure that any access granted to an arterial roadway serves as many properties as possible; this may require the stipulation of cross access through the subject property to serve neighboring properties. Additional access will not be provided to parcels along the arterial which are subdivided or are under a common ownership. Single family homes will not be allowed to front onto an arterial.

Collector Roads - Direct access onto a collector roadway is reasonably balanced with the roadway's mobility function. A minimum of one access will be allowed to serve each property provided that it does not create a hazard nor a detriment to the roadway's integrity and is at least 500 feet from another existing or future eminent access or intersection. Access will normally be full movement, unsignalized unless such access creates an operation or safety problem. In such a case, a restriction of movements may be required. A second access to individual properties may be







granted if this access is not detrimental to existing or future access serving the adjacent property or to the operation of an existing or planned cross-street intersection.

Any access or cross-street intersection which has the potential for signalization will need to be located to ensure adequate (30 percent) progression, if appropriate. An engineering study will be required to show proper signal progression. Any access with the potential for signalization should be located so as to serve as many properties as possible with the potential stipulation of cross access to the adjacent properties.

- Local Roads; Developing Areas Intent of local roads within developing areas is to provide direct access to abutting properties. Minimum spacing between access/intersections should be 50 feet; greater or lesser spacing may be required in unique circumstances subject to specific traffic conditions.
- ▶ Local Roads; Rural Areas Local roads within rural areas have a dual function of providing adequate access to the abutting properties within an environment that experiences relatively high speeds. One access to adjacent properties will be allowed provided that it does not create a hazard nor a significant detriment to the roadway's mobility function and is at least 500 feet from any other existing or future eminent access or intersection. A second access to individual properties may be allowed pending specific circumstances and appropriate spacing.

It is recognized that some access drives will be used very little such as those serving agricultural purposes or oil and gas purposes. If the access is to experience very little use (no more than twice a month), the policy stated above may be waived barring any other unusual circumstances.

 Table 9.
 Access Spacing Standards

Functional Classification	Distance between Full Movement Accesses	Distance between limited movement accesses
State / US Highway See SDDOT Standards		See SDDOT Standards
Arterial	1/4 mile (1,320 feet)	660 feet
Collector	500 feet	250 feet
Local Road; Developing Area	50 feet	50 feet
Local Road; Rural Area	500 feet	500 feet







VII. SUMMARY AND RECOMMENDATIONS

The intent of this Master Transportation Plan is to ensure that the City of Spearfish has a plan in place to effectively upgrade the transportation plan and a vision for the transportation needs as future development occurs. The prioritized public roadway project listing includes intersection improvements, roadway improvements, and capacity projects, paving of existing roadways, and completing new roadway links. The Prioritized pedestrian and bicycle project listing includes on-street bike lanes, new sidewalks, and additions to the existing path system. The Public Transportation Project listing recommends that a new transit route be added to the system. The projects discussed in detail in Section V focus on public projects, which will be the responsibility of public agencies and will require coordination between the City, County, and SDDOT. The Major Street Plan and project listing also detail growth driven projects located in undeveloped portions of the study area which will be the responsibility of future development to finance and construct. The following list provides a summary of actions the City of Spearfish should consider taking to ensure that the needed transportation improvements are funded:

- Begin to plan and budget for completion of the six roadway improvements and two pedestrian and bicycle improvements identified for the short term.
- Initiate discussions with Prairie Hills Transit about the possibility of extending service to include the proposed new fixed transit route.
- Require traffic impact studies from all proposed developments so that the requirements for internal roadways and impacts to the surrounding roadway system can be evaluated. Developers should be responsible for improving the arterials and collectors adjacent to their developments to Spearfish's standard cross-sections.
- Consider adopting a snow removal policy for maintaining sidewalks for pedestrians.

Following are the guiding principles, along with strategies for implementing those principles, contained in *moveSpearfish*.

- ▶ The City of Spearfish transportation planning process should complement the City development patterns and principles.
 - The Major Street Plan Map should be used as the official future roadway plan for the City, and also for the purposes of identifying required street corridors the City exercises its platting authority within the 3-mile extra-territory in Lawrence County.
 - New accesses/approaches to City roadways should be permitted based on the categories and guidelines included in *moveSpearfish*.
- New development should occur only where existing transportation facilities are adequate or where necessary improvements will be made as part of the development project.
 - Adequate facilities and service levels for transportation should be clearly defined in the Highway Ordinance.
 - City of Spearfish Ordinances should establish traffic impact requirements to identify the need for improvements created by future development in order to meet adopted level of service standards.

- Development should pay its equitable share for necessary improvements to the City transportation system.
 - City of Spearfish Ordinances should require construction of improvements identified through a traffic impact study.
- City of Spearfish Ordinances should include a traffic improvement fee to support other future improvements to the City and County transportation system made necessary by the impact of the development, including cumulative impacts.
- City of Spearfish Ordinances should establish a mechanism to allow a party who initially funds an improvement to be reimbursed by future developments that also impact that facility.
- ▶ The City of Spearfish should continue the Capital Improvement Program for City transportation facilities.
 - The Capital Improvement Program should identify a methodology for prioritizing projects which emphasizes the importance of maintaining the existing roadway system.
 - The Capital Improvement Plan for roadway maintenance and improvement should consider consistency with the Transportation Plan as an element of project prioritization.
 - The Capital Improvement Program should identify methods to share costs with other governmental entities.







APPENDIX A SUMMARY OF STOREFRONT ORIGIN-DESTINATION SURVEY



Spearfish Area Master Transportation Plan





September 30, 2010

MEMORANDUM

To: Steve Gramm

From: Lyle DeVries

Re: Spearfish Area MTP O/D Survey FHU Reference No. 10-072-01

Introduction

As you are aware, we completed an Origin/Destination survey of visitors to the Spearfish Walmart store. The survey was held on Thursday, September 9 through Saturday, September 11 and covered 8 hour time periods on each day. The methodology used for the survey was personal interviews of volunteers willing to share information about their trip to Walmart and the upcoming departure trip. Traffic counts were conducted at the Walmart entrances to travel total vehicle-trips.

Over the three-day period, 50 individuals were interviewed for a total of 100 vehicle-trips. Traffic counts indicated approximately 9,000 – 11,000 vehicles per day (vpd) coming and going from Walmart. Respondents were given an opportunity to enter a drawing for a \$50 Walmart gift card. Three winners were selected following the survey.

This memo serves as a summary of the survey questions and answers. A conclusion is offered to highlight key findings and recommendations.

Survey Questions and Answers

The survey questions are attached. Individuals were asked where they live, where they were coming from that day, where they would be going from Walmart, and which roads they would use for the trips. They were also asked to express any concerns they have about the Spearfish area transportation system. The questions are listed as follows with a brief summary of the responses received. The attached **Tables 1, 2** and **3** and **Figures 1** and **2** provide supporting detail.

1. Where do you reside?

Most interviewees live in the downtown/BHSU area of Spearfish, with areas within Spearfish south of Exit 14 a distant second. Lead/Deadwood, Sturgis, and Belle Fourche were the most frequent locations outside of the study area. Whitewood, Newell and Nisland each had 2 responding residents.



Spearfish Area Master Transportation Plan





2. Where did you come from today, and what roads did you use?

Eighty percent of the interviewees indicated they were coming to the store from their residence. Most reached Walmart via Interstate 90 (I-90), using Exit 14 to reach the store. Colorado Boulevard was the next most frequent roadway used. Approximately 1/3rd of the people coming from the Downtown/BHSU area used Colorado Boulevard to reach Walmart, with the majority using I-90.

Of the three people who came to Walmart from Belle Fourche, 1 utilized Colorado Boulevard from US Highway 85 to reach the store.

3. Where will you go from here, and what roads will you use?

Most people were bound for home after leaving Walmart, and most planned to use the same route leaving as they used coming to the store. Two residents of the Downtown/BHSU area indicated that while they had taken I-90 to reach Walmart, they would be leaving via the Sandstone underpass (avoiding Exit 14). Two others responded that they had taken Colorado Boulevard but would be leaving via I-90.

4. Where do you see transportation problems in the area?

Responses were as follows:

- There is a need for a parallel connection to I-90 north from 27th Street that would lead to US 85
- There are traffic signal problems at the 27th Street off ramp. The signal skips the eastbound off-ramp green time.
- The yield signs at Exit 10 are confusing
- Driver likes to avoid 10th/Jackson intersection, signal is needed there
- Access-a-ride from Rolling Hills is needed
- Need signal at Colorado/14A intersection
- Concern about Exit 14
- Widen Colorado between Exits 14 and 17
- Pave Foothills Drive to 27th Street
- 27th Avenue needs to be widened to 4 lanes across I-90
- Traffic signals over Exit 14 are poorly timed
- Consider relocating Walmart access farther east for better access
- 14A and Colorado needs attention, particularly during the rally
- Unhappy with new Exit 17 connection north being so close to interchange
- Windmill Road near Sandstone is rough
- Pave 27th Avenue where it is gravel to connect 27th to airport



Spearfish Area Master Transportation Plan





Conclusion

A number of conclusions may be drawn from the results of the survey. These include:

- Traffic conditions at Exit 14 can have an effect on driver routing choices. Multiple people made decisions to avoid Exit 14.
- Approximately 6 percent of visitors to Walmart come from Belle Fourche.
- I-90 is the route of preference for the majority of Walmart visitors
- Colorado Boulevard carries a significant amount of Walmart traffic, mostly drivers coming to and from the downtown Spearfish area or development due south of Exit 14. Nearly ½ of trips made to Walmart from downtown use Colorado Boulevard.
- The survey underlines the importance of improving Exit 14 and Colorado Boulevard between US Highway 14A and east of 27th Street.
- The survey results do not make a strong case for the need for a north connection to US 85. However, a larger sample size could reveal a greater need. In view of this potential, it is recommended that a future connection north to US 85 be documented in the Spearfish Area Master Transportation Plan.



1. Where do you reside? a. Spearfish

d. Sturgis

e. Wyoming f. Other

ii. Rural Spearfish

iii. Other (describe)

Deadwood/Lead

b. Belle Fourche

Sturgis e. Wyoming

Other

b. Belle Fourche

c. Deadwood/Lead

Spearfish Area Master Transportation Plan

2. Where did you come from to Walmart today? Did you drive on any of the

a Interstate 90





Walmart Origin/Destination Survey Questions:

i. What cross-streets?

following roads? Please circle all that apply:

b. c. d. e. f.	Belle Fourche Deadwood/Lead Sturgis Wyoming Other	f.	Highway 14 (North edge of Spearfish near Guadalajara's Mexican Restaurant) Spearfish City Streets 1. Jackson 2. Main Street/North Ave. 3. Windmill Drive 4. List others
2		aay	when you leave Walmart? Will you drive on any of
3.	the following roads? Plant	-	circle all that apply:

d. Lookout Mountain Road (Gravel road from Belle

e. Highway 14 (North edge of Spearfish near Guadalajara's Mexican Restaurant)

OPTIONAL: Where do you see transportation problems in this area?

Fourche to Spearfish)

Spearfish City Streets

2. Main Street/North Ave. Windmill Drive

1. Jackson

4. List others

3.



Spearfish Area Master Transportation Plan





Table 1. All Survey Responses

Date	Day	Time	Where do you reside?	Where did you come from?	What roads did you use?	Where will you go?	What roads will you use?
		Noon-1pm	north of I-90 Exit 17	home	I-90	home	I-90
		Noon-1pm	Vermont St. (Spearfish)	Industrial due east	1st	Industrial due east	1st
			Grant/8th				
		Noon-1pm		home	bike path to sandstone Colorado Blvd	home	bike path to sandstone
	Thursday		Rolling Hills?	downtown		Kmart	Colorado Blvd
	Thursday	· · · ·	Belle Fourche	home	1-90	home	I-90
	Thursday		Harvard and St. Joe (Spearfish)	home	I-90	home	I-90
	Thursday	<u> </u>	Evans Additions (Spearfish)	home	Colorado Blvd	downtown	1-90
	Thursday	· · · · ·	Jackson/Main	Home/14A	Highway 14 and I-90	downtown	I-90
	Thursday	<u> </u>	Airport Rd	Super 8	Colorado Blvd	Super 8	Colorado Blvd
	Thursday	· · · · · · · · · · · · · · · · · · ·	Downtown	High School	1-90	High School	1-90
	Thursday		Downtown	High School	Colorado Blvd	High School	I-90
	Thursday		Belle Fourche	Deadwood	85/I-90	home	I-90/85
	Thursday		Sturgis	home	I-90	home	I-90
	Thursday	· · · · ·	Maitland Road	Maitland Road	Colorado Blvd	Maitland Road	Colorado Blvd
9/10/2010	•	10am-11am		Premier/Industrial	Industrial	Home	1-90
9/10/2010		10am-11am		home	1-90	home	1-90
9/10/2010	Friday	10am-11am	Yale by BHSU	home	Jackson to I-90	home	1-90
9/10/2010	Friday	11am-Noon	Nisland	home	85/I-90	home	I-90/85
9/10/2010	Friday	11am-Noon	Nisland	home	85/I-90	Wyoming	I-90
9/10/2010	Friday	11am-Noon	Whitewood	home	I-90	home	I-90
9/10/2010	Friday	Noon-1pm	Jackson/10th	home	I-90	home	I-90
9/10/2010	Friday	Noon-1pm	7th/Elgin	home	Colorado Blvd	home	Sandstone
9/10/2010	Friday	1pm-2pm	Newell	home	85/I-90	home	I-90/85
9/10/2010	Friday	2pm-3pm	Wyoming	Rapid City	I-90	Wyoming	I-90
9/10/2010	Friday	3pm-4pm	Lead	Lead	85/I-90	Lead	I-90/85
9/10/2010	Friday	3pm-4pm	Exit 8	Exit 8	I-90	Exit 8	I-90
9/10/2010	Friday	3pm-4pm	Newell	Newell	85/I-90	Newell	I-90/85
9/10/2010	Friday	4pm-5pm	Rural Spearfish	home	Colorado Blvd	home	Colorado/85
9/10/2010	Friday	4pm-5pm	St. Onge/ Mitchell Lane	home	I-90	home	I-90
9/10/2010	Friday	4pm-5pm	Meade County	Sturgis	I-90	Sturgis	I-90
9/11/2010	Saturday	10am-11am	S. St. Joe	home	Colorado Blvd	home	Sandstone
9/11/2010	Saturday	10am-11am	Deadwood	home	85/Colorado	home	I-90
9/11/2010			Green Acres (SE corner at 27th)	home	Colorado Blvd	home	Colorado
9/11/2010			Belle Fourche	home	85/Colorado	home	I-90/85
9/11/2010	_	10am-11am	White	home	I-90	home	I-90
9/11/2010		Noon-1pm	Grant/Jackson/Main	home	I-90 Exit 14	Windmill Drive	27th St
9/11/2010	_	Noon-1pm	Spearfish Mtn Lane & Roughlock	home	Colorado	Home	Colorado
9/11/2010		Noon-1pm	10th St	home	Colorado	home	Colorado
	Saturday		Deadwood	home	85/I-90	home	I-90/85
9/11/2010			Whitewood	home	1-90	home	I-90
9/11/2010		1pm-2pm	Hulett, WY	home	24-34-85-Colorado	home	I-90 to Wyoming
	Saturday		Jackson/St. Joe		Colorado		Colorado
9/11/2010			33rd/11th	home	Colorado	home	Colorado
9/11/2010		· · · · · · · · · · · · · · · · · · ·			85/I-90		I-90/85
			Lead Jackson/Grant	home Rapid City	I-90	Lead	I-90/85
9/11/2010				+ · · · · ·		home	
9/11/2010			Rural Spearfish	home	Airport I-90	home	Airport
9/11/2010			Sturgis	home		home	I-90
	Saturday		Campground	home	Colorado	home	Colorado
9/11/2010	_		Sandstone	Deadwood	1-90	home	27th St
9/11/2010	Saturday	5pm-6pm	Hospital Area	home	Colorado	home	Colorado



Spearfish Area Master Transportation Plan





Table 2. Summary of Results

Residence Areas	Residents	Home-based trips	Non home- based trips	# of trips using I-90	# of trips using Colorado	# trips through Sandstone	# trips using other roadways
Exit 17	1	2	0	2	0	0	0
Airport/Industrial	1	0	2	0	2	0	0
East Rural Spearfish	1	2	0	0	0	0	2
West Rural Spearfish	1	2	0	0	2	0	0
Belle Fourche	3	5	1	5	1	0	0
Downtown/University	18	27	9	16	12	5	3
Exit 14 South	6	7	5	1	11	0	0
Exit 8	1	2	0	2	0	0	0
Lead/Deadwood	4	8	0	7	1	0	0
Newell	2	4	0	4	0	0	0
Nisland	2	3	1	4	0	0	0
Sandstone	1	1	1	1	0	1	0
St. Onge	1	2	0	2	0	0	0
Sturgis	3	6	0	6	0	0	0
White	1	2	0	2	0	0	0
Whitewood	2	4	0	4	0	0	0
Wyoming	2	3	1	3	1	0	0
Total	50	80	20	59	30	6	5

Table 3. Survey Information

# of peo		Wa	lmart Vehicle-T	rips	Peak Hour Traffic		
Survey Dates:	surveyed	IN	OUT	TOTAL	Time-of-day	# of trips	
Thursday, September 9	14	4,600	4,400	9,000	5pm - 6pm	813	
Friday, September 10	16	5,400	5,200	10,600	4pm - 5pm	1035	
Saturday, September 11	20	4,900	4,800	9,700	2pm - 3pm	899	

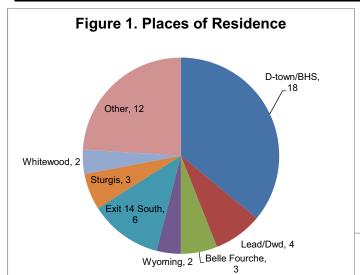
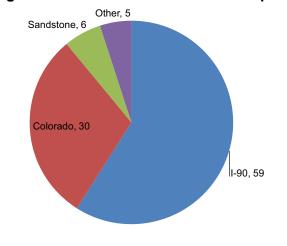


Figure 2. Routes Used for Walmart Trips



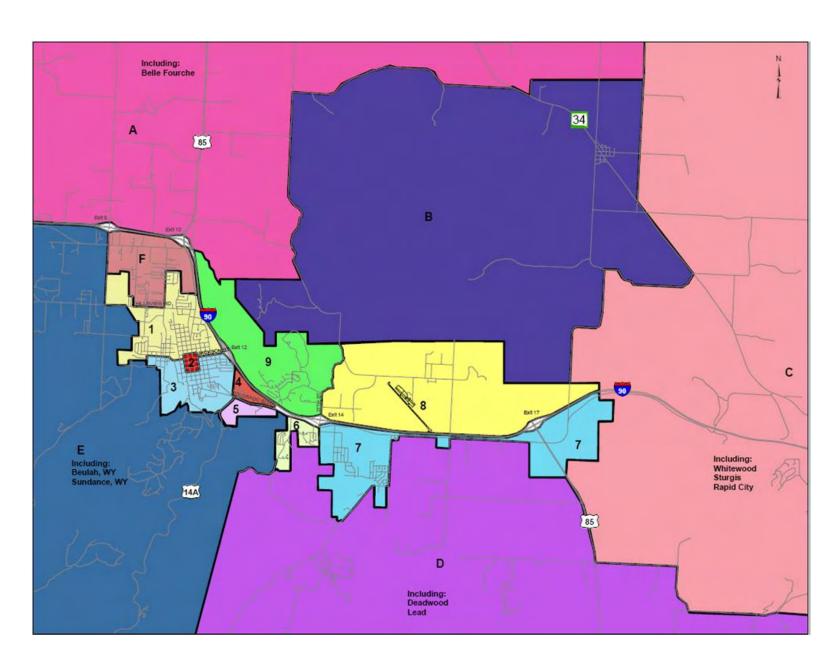






APPENDIX B SUMMARY OF BLACK HILLS STATE UNIVERSITY ONLINE SURVEY

Spearfish Area Master Transportation Plan - BHSU Student and Staff 1. Basic Information 1. Are you a member of the BHSU faculty/staff or are you a BHSU student? Faculty/Staff Student 2. If you are a student, where do you live? On campus Off campus 3. If you are a BHSU student living in Spearfish, do you keep a car with you in Spearfish? O Yes O No 4. Where do you live? (see attached zone map) Zone A O Zone B O Zone C Zone E O Zone F O Zone 1 O Zone 2 O Zone 3 O Zone 4 O Zone 5 O Zone 6 O Zone 7 Zone 8 O Zone 9 Other (please specify)



Spearfish Area Master Transportation Plan - BHSU Student and Staff 2. Travel Patterns 5. When traveling to the commercial area surrounding I-90 Exit 14 (27th Street/Walmart area), what route do you typically take? 1-90 to Exit 14 Colorado Boulevard to 27th Street Other (please specify) 6. What mode do you use to travel to and from the BHSU campus? Bicycle O Drive Bus Other (please specify) 7. What streets do you take to reach the campus? Jackson/St. Joe from the east Jackson/Jonas from the east Homestake/Oliver from the west College Lane from the north Hillsview/St. Joe from the north/east Other (please specify) 8. How do you typically travel around town (to shop, restaurants, etc.)? ○ Walk Bicycle O Drive Bus Other (please specify)

		between BHSU and your
ometown/other destination Drive alone	is outside of Spearfish	1 (
carpool		
Bus		
Other (please specify)		
). When walking or biking i	n Spearfish, do you pı	refer traveling:
On street (e.g. cycling on the shoulder	of a street)	
Off street (e.g. trails and/or sidewalks)		
No preference		
. How easy is it to get aro	und Spearfish by bicyເ	cle or walking?
Very easy-there is a good network of b	ke/ped facilities	
Somewhat easy		
Neutral		
Somewhat difficult		
Very difficult-few safe and convenient	bike/ped facilities	

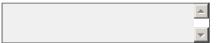
Spearfish Area Master Transportation Plan - BHSU Student and Staff 3. Transportation Improvements

12. Are there specific areas where you would like to see improved bicycle/pedestrian facilities (on-street bike lanes, paths, etc.) in Spearfish? If so, please describe.

13. Are there specific streets or intersections where you would like to see improved travel conditions for cars and trucks? If so, please describe.

A

14. Does Spearfish need any new roadway or bicycle/pedestrian connections? If so, please describe.



Spearfish Area Master Transportation Plan - BHSU Student and Staff Survey



1. Are you a member of the BHSU	faculty/staff or are you a BHSU student?	
	Response Percent	Response Count
Faculty/Staff	27.2%	172
Student	72.8%	460
	answered question	632
	skipped question	2

2. If you are a student, where do y	ou live?		
		Response Percent	Response Count
On campus		20.0%	93
Off campus		80.0%	371
		answered question	464
		skipped question	170

3. If you are a BHSU student living in Spearfish, do you keep a car with you in Spearfish?		
	Response Percent	Response Count
Yes	87.3%	331
No	12.7%	48
	answered question	379
	skipped question	255

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4. Where do you live? (see attache	ed zone map)	
	Response Percent	Response Count
Zone A	8.9%	54
Zone B	0.8%	5
Zone C	17.4%	106
Zone E	3.9%	24
Zone F	5.9%	36
Zone 1	23.8%	145
Zone 2	5.6%	34
Zone 3	12.5%	76
Zone 4	2.0%	12
Zone 5	0.3%	2
Zone 6	2.0%	12
Zone 7	3.8%	23
Zone 8	3.4%	21
Zone 9	4.3%	26
Other (please specify)	5.4%	33
	answered question	609
	skipped question	25

5. When traveling to the commerce typically take?	cial area surrounding I-90 Exit 14 (27th Street/Walmart area), what rout	te do you
	Response Percent	Response Count
I-90 to Exit 14	62.1%	370
Colorado Boulevard to 27th Street	32.0%	191
Other (please specify)	5.9%	35
	answered question	590
	skipped question	38

6. What mode do you use to travel to and from the BHSU campus?		
	Response Percent	Response Count
Walk	18.9%	113
Bicycle	3.2%	19
Drive	75.7%	452
Bus	0.3%	2
Other (please specify)	1.8%	11
	answered question	597
	skipped question	37

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7. What streets do you take to rea	ch the campus?	
	Response Percent	Response Count
Jackson/St. Joe from the east	32.3%	189
Jackson/Jonas from the east	27.6%	162
Homestake/Oliver from the west	3.9%	23
College Lane from the north	11.3%	66
Hillsview/St. Joe from the north/east	6.3%	37
Other (please specify)	18.6%	109
	answered question	586
	skipped question	48

8. How do you typically travel aro	und town (to shop, restaurants, etc.)?	
	Response Percent	Response Count
Walk	5.9%	35
Bicycle	3.2%	19
Drive	88.6%	528
Bus	0.7%	4
Other (please specify)	1.7%	10
	answered question	596
	skipped question	38

9. If you are a student, how do you typically travel between BHSU and your hometown/other destinations outside of Spearfish?		
	Response Percent	Response Count
Drive alone	78.1%	342
carpool	17.8%	78
Bus	0.0%	0
Other (please specify)	4.1%	18
	answered question	438
	skipped question	196

0. When walking or biking in Sp	earfish, do you prefer traveling:	
	Response Percent	Response Count
On street (e.g. cycling on the shoulder of a street)	11.8%	69
Off street (e.g. trails and/or sidewalks)	70.0%	408
No preference	18.2%	106
	answered question	583
	skipped question	51

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11. How easy is it to get around S	pearfish by bicycle or walking?	
	Response Percent	Response Count
Very easy-there is a good network of bike/ped facilities	19.9%	116
Somewhat easy	38.0%	221
Neutral	28.2%	164
Somewhat difficult	10.5%	61
Very difficult-few safe and convenient bike/ped facilities	3.4%	20
	answered question	582
	skipped question	52

12. Are there specific areas where you would like to see improved bicycle/pedestrian facilities (on-street bike lanes, paths, etc.) in Spearfish? If so, please describe.	
	Response Count
	226
answered question	226
skipped question	408

13. Are there specific streets or intersections where you would like to see improved travel conditions for cars and trucks? If so, please describe.	
	Response Count
	252
answered question	252
skipped question	382

14. Does Spearfish need any new roadway or bicycle/pedestrian connections? If so, please describe.	
	Response Count
	157
answered question	157
skipped question	477

Zone D Jan 22, 2011 12:15 AM Zone D Jan 22, 2011 12:42 AM D Gillette, Wy Jan 22, 2011 1:53 AM Zone D Jan 22, 2011 2:04 AM B Rapid City Jan 22, 2011 3:48 AM B zone d - lead Jan 22, 2011 3:58 AM B Zone D (Deadwood) Jan 22, 2011 4:30 PM B Box Elder Jan 22, 2011 4:30 PM B Zone D Jan 22, 2011 6:43 PM B Zone D Jan 23, 2011 1:54 AM B Rapid City, SD Jan 23, 2011 4:30 AM B Custer, SD Jan 23, 2011 4:30 AM Custer, SD Jan 23, 2011 7:07 PM B BHSU Campus Jan 23, 2011 9:32 PM B rapid city Jan 23, 2011 9:32 PM B rapid city Jan 24, 2011 1:24 AM W Wall, SD; commute to Rapid City/Spearfish Jan 24, 2011 2:03 AM B Zone D for Lead/Deadwood (not listed above) Jan 24, 2011 5:01 PM B Zone D Jan 24, 2011 9:37 PM B Zone D Jan 25, 2011 3:38 AM B Zone D Jan 25, 2011 3:52 AM	4. W	4. Where do you live? (see attached zone map)		
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zone D - live in Lead Jan 21, 2011 7:49 PM zone D Jan 21, 2011 8:38 PM zone Dits not even on here I live in jonas apartments Jan 21, 2011 9:18 PM Custer Jan 21, 2011 9:43 PM Hill City Jan 22, 2011 11:38 PM Zone D Jan 22, 2011 12:15 AM Jone D Jan 22, 2011 12:04 AM Jone D Jan 22, 2011 2:04 AM Zone D Jan 22, 2011 2:04 AM Zone D Jan 22, 2011 3:48 AM Zone D Jan 22, 2011 3:48 AM Zone D (Deadwood) Jan 22, 2011 3:58 AM Zone D (Deadwood) Jan 22, 2011 4:30 PM D (Deadwood) Jan 22, 2011 6:43 PM D (Deadwood) Jan 22, 2011 6:43 PM D (Deadwood) Jan 23, 2011 1:54 AM D (Deadwood) Jan 23, 2011 1:54 AM D (Deadwood) Jan 23, 2011 1:54 AM D (Deadwood) Jan 23, 2011 1:24 AM D (Deadwood) Jan 23, 2011 1:24 AM D (Deadwood) Jan 24, 2011 1:24 AM D (Deadwood) Jan 24, 2011 1:24 AM D (Deadwood) Jan 24, 2011 5:01 PM D (Deadwood) Jan 24, 2011 5:01 PM Jan	1	Zone D (Mountain Plains Subdivision)	Jan 21, 2011 7:34 PM	
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D Lincoln, NE Jan 25, 2011 4:26 AM	28	Zone D	Jan 25, 2011 3:38 AM	
	29	Zone D	Jan 25, 2011 3:52 AM	
Lead Deadwood area Jan 26, 2011 7:07 PM	30	Lincoln, NE	Jan 25, 2011 4:26 AM	
	31	Lead Deadwood area	Jan 26, 2011 7:07 PM	

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4. Where do you live? (see attached zone map)

Other (please specify)

32	Wenona Cook Dorms	Jan 26, 2011 8:18 PM
33	Eagle Butte	Jan 27, 2011 9:56 PM

1. When traveling to the commercial area surrounding I-90 Exit 14 (27th

	Other (please specify)	
1	Michigan, Nash birdge and St. Joe	Jan 21, 2011 7:27 PM
2	Bike path next to Colorado Blvd	Jan 21, 2011 7:29 PM
3	Heritage Drive, Colorado	Jan 21, 2011 7:35 PM
4	Either I-90 or Main Street.	Jan 21, 2011 7:47 PM
5	Colorado Blvrd then through the Sandstone subdivision as to circumvent the street light gauntlet.	Jan 21, 2011 7:50 PM
6	Canyon street (when open through the campground), otherwise Colorado Blvd.	Jan 21, 2011 8:16 PM
7	I don't travel in Spearfish	Jan 21, 2011 8:41 PM
8	I take the exit Jackson or exit 12	Jan 21, 2011 8:58 PM
9	I-85 from Belle Fourche to Spearfish	Jan 21, 2011 9:02 PM
10	I've never been to Walmart, and never will.	Jan 21, 2011 9:15 PM
11	Exit 10	Jan 21, 2011 9:22 PM
12	I alternate routes depending on where I need to stop.	Jan 21, 2011 9:34 PM
13	Distoance Learning	Jan 21, 2011 11:49 PM
14	A/P road to Lookout backroads	Jan 21, 2011 11:54 PM
15	exit 12	Jan 22, 2011 3:18 PM
16	I-90 to Exit 10	Jan 22, 2011 9:25 PM
17	I tend to go either way depending on what else I am doing that day.	Jan 22, 2011 11:58 PM
18	I-90 to Exit 12	Jan 23, 2011 7:07 AM
19	Once I get into Spearfish from Belle Fourche I don't get on the interstate, I go straight then turn right by Burger King and then usually turn left at the next stop light and go to the young center.	Jan 23, 2011 6:40 PM
20	Jackson St	Jan 24, 2011 12:58 AM
21	I-90 to Exit 10	Jan 24, 2011 2:24 AM
22	Combination of the two options.	Jan 24, 2011 3:28 PM
23	I-90 to Exit 12	Jan 24, 2011 8:01 PM
24	Depends on my time frame which I use.	Jan 25, 2011 4:55 AM
25	both	Jan 26, 2011 6:09 AM
26	Sandstone - Windmill	Jan 26, 2011 10:41 AM
27	Windmill Drive	Jan 26, 2011 5:39 PM
28	Travel Evans Lane from access road to interstate, to the school	Jan 26, 2011 6:35 PM
29	I usually use Exit 12	Jan 26, 2011 8:06 PM
30	Lookout Mtn Rd. to 27th St.	Jan 27, 2011 6:10 PM
31	Depends on the snow situation. But mostly Colorado Blvd.	Jan 27, 2011 10:56 PM
32	random	Jan 28, 2011 5:02 PM

1. When traveling to the commercial area surrounding I-90 Exit 14 (27th

Other (please specify)

33	both equally	Jan 28, 2011 10:12 PM
34	If coming from home (Belle Fourche) I take I-90, if going from work, I take Colorado Boulevard	Jan 31, 2011 8:47 PM
35	Main street through town	Feb 3, 2011 2:36 AM

2. What mode do you use to travel to and from the BHSU campus?

	Other (please specify)	
1	Either I get a ride from someone or walk	Jan 21, 2011 7:26 PM
2	Drive 2/3's of the time; walk 1/3 of the time	Jan 21, 2011 8:06 PM
3	walk or bike	Jan 21, 2011 9:14 PM
4	Walk, Bicycle, and Drive depening on the weather	Jan 21, 2011 9:18 PM
5	Drive, and Bike when weather permits	Jan 22, 2011 1:33 AM
6	walk in winter, bike other seasons	Jan 22, 2011 2:41 PM
7	Walk/bicycle in spring/summer/fallbut drive in winterA public bus would be nice	Jan 24, 2011 12:41 AM
8	Walk in the Winter and Bike when no snow	Jan 25, 2011 3:16 AM
9	Drive in the winter, bike in the summer	Jan 26, 2011 12:22 AM
10	Depending on the weather, I walk or drive.	Jan 26, 2011 6:35 PM
11	I drive from Rapid, but boy would it be great if there was a bus!	Jan 26, 2011 8:06 PM

3. What streets do you take to reach the campus?

	Other (allege and all)	
	Other (please specify)	
1	mcGuigan	Jan 21, 2011 7:27 PM
2	Spearfish bike path	Jan 21, 2011 7:29 PM
3	main street then jackson	Jan 21, 2011 7:29 PM
4	Jackson/University	Jan 21, 2011 7:33 PM
5	Nash Street Walkup and Nash Street Bridge	Jan 21, 2011 7:34 PM
6	Jackson/University	Jan 21, 2011 7:35 PM
7	west oliver street	Jan 21, 2011 7:35 PM
8	Canyon/Jackson/University	Jan 21, 2011 7:36 PM
9	I90, jackson, jonas from east	Jan 21, 2011 7:37 PM
10	Jackson/E. Colorado	Jan 21, 2011 7:41 PM
11	Jackson/Jonas from the west	Jan 21, 2011 7:41 PM
12	Jackson / University	Jan 21, 2011 7:41 PM
13	I live on campus	Jan 21, 2011 7:41 PM
14	Harvard St.	Jan 21, 2011 7:41 PM
15	University St.	Jan 21, 2011 7:42 PM

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3. What streets do you take to reach the campus?

	Other (please specify)		
16	Spartan Dr to Woodburn Ave to campus	Jan 21, 2011 7:43 PM	
17	Hwy 85, service road, Valley to Young Center	Jan 21, 2011 8:04 PM	
18	I-90 exit 8 to Oliver from the west	Jan 21, 2011 8:06 PM	
19	Hillsview/McGuigan/Oliver from the west	Jan 21, 2011 8:22 PM	
20	Maddison Lane to Tinton Road, to Hills street, to University ave	Jan 21, 2011 8:29 PM	
21	Hillsview/College from the NW	Jan 21, 2011 8:30 PM	
22	Jackson to University	Jan 21, 2011 8:38 PM	
23	Woodburn Ave.	Jan 21, 2011 8:38 PM	
24	Harvard from the south	Jan 21, 2011 8:39 PM	
25	E. St. Joe	Jan 21, 2011 8:41 PM	
26	I live on Hillsview so it is a short walk through the college apartments and past the Young center	Jan 21, 2011 8:46 PM	
27	N 5th St/Spearfish Canyon Rd./ W Jackson Blvd.	Jan 21, 2011 8:54 PM	
28	university from the south	Jan 21, 2011 9:14 PM	
29	Jonas, King	Jan 21, 2011 9:20 PM	
30	Service road to stop light, right	Jan 21, 2011 9:22 PM	
31	Jackson to Harvard and then cut through the alley by the elementary school	Jan 21, 2011 9:34 PM	
32	Harvard, Cut through West Elementary Alley, and cross street to campus	Jan 21, 2011 10:07 PM	
33	I'm taking a course online and at the RB in Rapid.	Jan 21, 2011 10:13 PM	
34	Main/Jackson from the east	Jan 21, 2011 10:27 PM	
35	Evans	Jan 21, 2011 10:32 PM	
36	St. Joe Walking east up to St. Joe Steps	Jan 21, 2011 10:42 PM	
37	Jackson/Jonas from the west	Jan 21, 2011 10:56 PM	
38	Jonas and Mason	Jan 21, 2011 11:15 PM	
39	Whatever the main street is from Exit 12 off of I-90. I am unsure of street names.	Jan 21, 2011 11:40 PM	
40	Grant/Meier/Jackson	Jan 21, 2011 11:47 PM	
41	Evans Ln	Jan 21, 2011 11:48 PM	
42	McGuigan to Oliver from the North	Jan 22, 2011 12:31 AM	
43	Hwy 14 / McGuigan / West Oliver	Jan 22, 2011 12:35 AM	
44	University Street	Jan 22, 2011 12:49 AM	
45	Nash from East	Jan 22, 2011 1:44 AM	
46	Harvard/Alley between Harvard and Universtity from the south	Jan 22, 2011 3:24 AM	
47	Harvard/Alley between Harvard and Universtity from the south	Jan 22, 2011 3:35 AM	
48	We live on W King across from the Baseball field next to the Elementary School so we just cross the road, walk b/t the bball field and the elem school, across to campus	Jan 22, 2011 6:46 AM	
49	Take 2nd exit and turn at Burger King	Jan 22, 2011 7:28 AM	
50	E. North St. to St. Joseph	Jan 22, 2011 10:03 AM	
51	cross jackson at university	Jan 22, 2011 2:41 PM	
52	Jackson to University St	Jan 22, 2011 2:46 PM	
53	exit 12 to campus road	Jan 22, 2011 3:18 PM	
54	Lane (Lower Valley Rd)/St. Joe from North	Jan 22, 2011 4:26 PM	
55	College Ln/South Dakota Way	Jan 22, 2011 9:06 PM	

3. What streets do you take to reach the campus?

	11.1	
56 	University	Jan 22, 2011 11:40 PM
57	Varies	Jan 23, 2011 12:31 AM
58	Michigan/ Nash	Jan 23, 2011 1:09 AM
59	Nash St./St.Joe from the south	Jan 23, 2011 3:14 AM
60	hwy85 to second light, take a right, down to university st, over two jackson, up .5 block to the st leading to jonas parking area. (I don't know the steet names)	Jan 23, 2011 5:37 AM
61	E. Michigan/?/Jackson	Jan 23, 2011 4:48 PM
52	Evans Lane.St Joe.	Jan 23, 2011 8:55 PM
63	University St.	Jan 23, 2011 9:10 PM
64	I live behind the park across the street from the BH stadium so I just walk across the park and onto campus.	Jan 23, 2011 9:34 PM
65	Evans Lane	Jan 23, 2011 9:49 PM
66	King and Jonas	Jan 23, 2011 10:51 PM
67	Evans Lane from North	Jan 24, 2011 2:30 AM
68	Nash to the staircase at the intersection of Nash and St.Joe	Jan 24, 2011 4:38 AM
69	E colorado Blvd. to Grant to Jackson	Jan 24, 2011 8:02 AM
70	McGuigan/Oliver from the North	Jan 24, 2011 3:22 PM
71	Michgian, Nash	Jan 24, 2011 3:40 PM
72	US 14/Evans LN/South Dakota Way	Jan 24, 2011 3:42 PM
73	Evans Lane/ St. Joe	Jan 24, 2011 3:56 PM
74	From I-90 McGuigan Road to Oliver	Jan 24, 2011 4:07 PM
75	Jackson/St. Joe and from the high school/middle school on Hillsview	Jan 24, 2011 4:08 PM
76	Hillsview/College from northwest	Jan 24, 2011 4:37 PM
77	3rd Street to Nash Street bridge to St. Joe	Jan 24, 2011 4:50 PM
78	Hillsview/St. Joe from the north/west	Jan 24, 2011 7:01 PM
79	Jackson/St. Joe and also high/middle school to Hillsview to St. Joe	Jan 24, 2011 7:04 PM
80	Harvard Street to alley by West Elementary	Jan 24, 2011 7:22 PM
31	Evans Lane to YC Parking Lot	Jan 24, 2011 7:32 PM
32	Birch St., N. 5th St., W. Dakota St., Spearfish Canyon Rd., W. Jackson St.	Jan 24, 2011 8:03 PM
33	Harvard/Jackson/University	Jan 24, 2011 8:05 PM
84	Jackson and University from the east	Jan 24, 2011 9:27 PM
85	Live on campus so don't travel on city streets; just on the campus sidewalks	Jan 25, 2011 1:25 AM
86	I just walk out the door of my Dorm.	Jan 25, 2011 1:39 AM
87	University	Jan 25, 2011 3:16 AM
88	Jackson/University Drive	Jan 25, 2011 2:26 PM
89	bike path	Jan 25, 2011 2:45 PM
90	w jackson blvd and university ave	Jan 25, 2011 9:08 PM
91	I live right by campus so I walk	Jan 25, 2011 10:03 PM
92	Jackson/University Street	Jan 26, 2011 3:33 AM
93	Jackson/University	Jan 26, 2011 10:41 AM
94	None	Jan 26, 2011 3:09 PM

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3. What streets do you take to reach the campus? Other (please specify) 96 evans lane from the west. And it is a terrible road, and dangerous to walk on. Jan 26, 2011 6:35 PM 97 Jackson/Main St Jan 26, 2011 6:58 PM Jackson/University/Mason/Jonas 98 Jan 26, 2011 9:44 PM 99 Jackson/University Jan 26, 2011 11:07 PM 100 Jackson/University Lane? The one that drives right into the school. Jan 27, 2011 4:11 AM 101 W. Grant/ Meier st./jackson Jan 27, 2011 6:15 PM 102 no idea Jan 27, 2011 9:59 PM 103 colorado to Jackson the on to the Parking "B" Lot Jan 27, 2011 10:56 PM 104 Tinton to Hill ST. accross to University ST. Jan 28, 2011 7:57 PM 105 5th/Jackson/university Jan 28, 2011 10:12 PM 106 Ames Jan 31, 2011 4:51 PM 107 Oliver, Jonas Feb 1, 2011 4:44 PM 108 Harvard St. to King to BHSU Feb 3, 2011 9:22 PM

109

walking

4. How do you typically travel around town (to shop, restaurants, etc.)?			
	Other (please specify)		
1	drive inless i can bicycle	Jan 21, 2011 8:25 PM	
2	bike or car	Jan 21, 2011 9:14 PM	
3	roller blades	Jan 22, 2011 4:20 AM	
4	I walk and drive depending how far I am going, and the weather.	Jan 22, 2011 6:38 AM	
5	bike, but in winter, walk and drive	Jan 22, 2011 2:41 PM	
6	you give this survey in the winter? talk about extenuating circumstances. *drives during the cold winter months*	Jan 24, 2011 1:27 AM	
7	bike and drive	Jan 24, 2011 4:05 PM	
8	walk and drive	Jan 24, 2011 4:41 PM	
9	Drige in the winter, bike in the summer	Jan 26, 2011 12:22 AM	
10	walk when the weather permits from work, otherwise drive	Jan 31, 2011 8:47 PM	

5. If you are a student, how do you typically travel between BHSU and your			
	Other (please specify)		
1	Drive alone OR Carpool.	Jan 21, 2011 7:47 PM	
2	fly	Jan 21, 2011 8:17 PM	
3	airplain	Jan 21, 2011 8:18 PM	
4	I hit the wrong button. I'm not a student, and it won't let me delete.	Jan 21, 2011 8:38 PM	
5	I walk to the School of Mines campus	Jan 21, 2011 8:41 PM	
6	I live in Spearfish	Jan 21, 2011 8:46 PM	

5. If you are a student, how do you typically travel between BHSU and your Other (please specify) 7 i carpool sometimes, but mostly alone Jan 21, 2011 8:58 PM 8 As I've said, I'm in Rapid. Jan 21, 2011 10:13 PM Parent - always with my family Jan 21, 2011 11:47 PM 10 family picks me up Jan 22, 2011 1:40 AM driving to RAP Jan 22, 2011 10:26 AM 12 flight Jan 22, 2011 3:46 PM 13 fly Jan 22, 2011 7:03 PM 14 Drive my car and I take a friend with me Jan 22, 2011 9:25 PM 15 Parents drive Jan 23, 2011 3:14 AM 16 Spearfish is my hometown Jan 24, 2011 1:16 AM 17 this is my hometown Jan 26, 2011 6:58 PM 18 Fly Jan 27, 2011 6:15 PM

	Response Text	
1	From WalMart to the adjacent malls	Jan 21, 2011 7:28 PM
2	more bike trails/paths and lanes	Jan 21, 2011 7:28 PM
3	On street bike lanes would be great!	Jan 21, 2011 7:29 PM
4	By the creek, the bike paths are really great, but there's nothing like them anywhere else in town. I'd like to see a bigger network of those nice, big sidewalks.	Jan 21, 2011 7:29 PM
5	Snow Removal. This city is the worst at snow removal. You'd think of the area we live in, the infrastructure would be better.	Jan 21, 2011 7:30 PM
6	colorado blvd towards main street	Jan 21, 2011 7:30 PM
7	Yes, whoever laid-out the sidewalks in Spearfish hates pedestrians. The sidewalks jog or zig-zag at practically every intersection. It would be nice to be able to walk in a straight line along the sidewalks, otherwise it is conducive to walking in the street.	Jan 21, 2011 7:33 PM
8	Area around downtown Spearfish, especially to the east and around the dog park area and along Jackson BLvd.	Jan 21, 2011 7:34 PM
9	better lighting on the bike path area after dark.	Jan 21, 2011 7:35 PM
10	SIdewalks are not cleared of snow, that is the biggest challenge to walking in town.	Jan 21, 2011 7:36 PM
11	North area of Safeway grocery, Medical Center, etc.	Jan 21, 2011 7:36 PM
12	I wold like to see more official cross walks with the yield to pedestrian signs in the road	Jan 21, 2011 7:36 PM
13	in the canyon	Jan 21, 2011 7:37 PM
14	Every major street should have pedestrian facilities and curb cuts	Jan 21, 2011 7:37 PM
15	I would like a bike lane that goes across the overpass at exit 14	Jan 21, 2011 7:40 PM
16	On Hills View Road	Jan 21, 2011 7:41 PM
17	A bike path that connects BHSU with the Bike Path that follows the creek. If those two were connected I could make it to campus quickier. (When the weather is warmer of course)	Jan 21, 2011 7:44 PM

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Feb 3, 2011 9:55 PM

1. Are there specific areas where you would like to see improved

	Pagnance Tayt	
18	Response Text Evans Ln. there is only a bad bike lane off the road but it is so bad that everyone	Jan 21, 2011 7:44 PM
10	goes on the street which can make it hard to go around them when there are other cars coming.	Jan 21, 2011 7.44 FW
19	All of the area around Exit 14 is horrible for pedestrians. The recently buildt path is a nice start, but the area is obviously only intended for car travel.	Jan 21, 2011 7:44 PM
20	no suggestions	Jan 21, 2011 7:44 PM
21	some of the neighborhoods and things are nearly impossibly to walk/ride on during the winter because there are huge snow drifts and also having curbs that "slope down" to the street would help for bike riders	Jan 21, 2011 7:45 PM
22	Between Spearfish Canyon and the City Campground - better surface, lighting at night, and winter maintenance on new path	Jan 21, 2011 7:45 PM
23	On street bike lanes would be great, considering we have so much biking traffic in Spearfish.	Jan 21, 2011 7:45 PM
24	Some of the sidewalks are narrow. Not a huge deal.	Jan 21, 2011 7:48 PM
25	We need a bike ramp on the Nash Stairs, or on Mason St. a few blocks south. Bike ramps: http://www.flickr.com/photos/luton/2782662998/ http://www.sfbike.org/?transit, see "BART's 16th Street Bike Stair Ramp" This will require widening the Nash stairs or changing the railing configuration and adding a ramp on the South side. Finally, I hope nobody thinks that it's a good idea for bikes to travel north from Exit 14 on the bike path. It is way too narrow and curvy - I normally hit 30 mph going down the road, and it would be suicide to try to transport myself down the hill on	Jan 21, 2011 7:51 PM
26	the bike path. East of BHSU Campus	Jan 21, 2011 7:58 PM
27	Jackson Street from the I 90 to College Lane	Jan 21, 2011 8:00 PM
 28	Some new developemnets have no sidewalks	Jan 21, 2011 8:00 PM
29	Around exit 14- access to the bike path	Jan 21, 2011 8:00 PM
30	West Oliver BHSU to Bike path along Spearfish Creek	Jan 21, 2011 8:01 PM
31	I wish there were more sidewalks in Spearfish	Jan 21, 2011 8:04 PM
32	BHSU to high school, especially at the stop light, too small of an intersection	Jan 21, 2011 8:06 PM
33	idk	Jan 21, 2011 8:08 PM
34	Spearfish needs designated bike lanes that run east/west. The bike trail is good north/south, but getting there can be a challenge.	Jan 21, 2011 8:10 PM
35	Main Street, University, Colorado and Jackson Blvds need bike lanes, as does St Joe-Evans Lane	Jan 21, 2011 8:11 PM
36	Jackson street I think needs to be improved for biking, walking is fine because of the sidewalk, but riding bike is always scary.	Jan 21, 2011 8:13 PM
37	main street	Jan 21, 2011 8:15 PM
38	I think if there is a crosswalk the need to be marked betteresp on st. joe and kids climbing that hill in the winter when it is dark. That or light it better.	Jan 21, 2011 8:16 PM
39	No answer	Jan 21, 2011 8:16 PM
40	Pave the path along Canyon (beyond the campground) and Winterville.	Jan 21, 2011 8:17 PM
41	Jackson Blvd	Jan 21, 2011 8:18 PM

42

No.

1. Are there specific areas where you would like to see improved

Response Text					
43	On-street bike lanes with wider roads and/or better sidewalks that are bike compatible. Most sidewalks now are too narrow, have surprising curbs that are not cut out for bike traffic, or cross dangerous sections.	Jan 21, 2011 8:22 PM			
44	Hillsview Rd needs a shoulder or path for bikes or joggers as they mostly use the road (stopping traffic when cars are in both lanes)	Jan 21, 2011 8:28 PM			
45	On Jackson up to college there is NO shoulder on the road and bikes are not made to be on a side walk so more bike lanes EVERYWHERE!	Jan 21, 2011 8:28 PM			
46	Hillsview and Main Street are dangerous. Cars backing up into the right lane on Main Street can easily injure a bicyclist and the left lane is suicidal. Hillsview is far too narrow for the heavy traffic now on it.	Jan 21, 2011 8:34 PM			
47	Sidewalk on st, joe is ruff and not always easy to get through because of snow.	Jan 21, 2011 8:35 PM			
48	N/A	Jan 21, 2011 8:35 PM			
49	I think that wasting a million dollars on the bike path to no where (out by walmart) is a huge disappointment!	Jan 21, 2011 8:35 PM			
50	There should be a bike path or designated bike route connecting downtown Spearfish to campus and connecting campus to the North Ave. commercial region. I have already proposed a route for such a path to the city.	Jan 21, 2011 8:41 PM			
51	I can't think of any off the top of my head	Jan 21, 2011 8:42 PM			
52	In Rapid City there should be a bike path to the Rushmore building campus	Jan 21, 2011 8:43 PM			
53	creek bike path is great for south/north travel; east west travel across heart of town needs bike designations	Jan 21, 2011 8:44 PM			
54	Lower Valley	Jan 21, 2011 8:46 PM			
55	The city has done a good job developing the bike trails which are especially good a town of this size. I just hope they continue to do so.	Jan 21, 2011 8:48 PM			
56	Evans Lane north of campus. There is only a rough, pot-holed dirt track along the rode, which does not have great visibility of the traffic at times. About been run down by several vehicles either turning on or off of the road. A bike lane or improved track needs to be put on that road.	Jan 21, 2011 8:51 PM			
57	Extend bike path both east and west.	Jan 21, 2011 8:56 PM			
58	Hillsview near the sawmill.	Jan 21, 2011 8:56 PM			
59	W. Jackson Blvd.	Jan 21, 2011 8:57 PM			
60	Evans Lane, Highway 14, Hillsview	Jan 21, 2011 9:02 PM			
61	No.	Jan 21, 2011 9:02 PM			
62	yes, the Eastern part isn't as nice as the area around the parks.	Jan 21, 2011 9:05 PM			
63	Bike lanes on main street (sidewalk is too narrow for pedestrians and bicyclists), improved sidewalks/paths on Colorado Boulevard, Hillsview Rd. needs a walking path!!	Jan 21, 2011 9:07 PM			
64	Better bike paths from downtown to the university	Jan 21, 2011 9:14 PM			
65	Evans Lane needs at least one sidewalk that follows the whole road.	Jan 21, 2011 9:20 PM			
66	better sidewalks on Jackson.	Jan 21, 2011 9:21 PM			
67	Better place to cross over to the bike path from Kmart/Perkins parking lots	Jan 21, 2011 9:28 PM			
68	A sidewalk down the hill on Jackson and by St. Joe St. would be fantastic!	Jan 21, 2011 9:35 PM			
69	Along Hillsview and McGuigan. It is dangerous to get into town from our house with the trucks for the mill and the traffic traveling so fast and now where to get off the road as a biker or walker.	Jan 21, 2011 9:41 PM			
70	Lower Valley Road - it is terrible for bike and/or pedestrian traffic.	Jan 21, 2011 9:42 PM			
71	add a sidewalk on Evans Lane	Jan 21, 2011 9:53 PM			

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Jan 21, 2011 8:19 PM

1. Are there specific areas where you would like to see improved

72

99

Response Text

In the winter time, there is no chance a person could bike anywhere because this
Jan 21, 2011 9:56 PM

town does such a poor job of cleaning off the roads and paths; it would be dangerous to bicycle this time of the year.		
73	The bike path along the river in town seems very broken-up and in the areas	Jan 21, 2011 9:58 PM

The bike path along the river in town seems very broken-up and in the areas where you have to travel around the city streets to get back to the bike path or where the bike path splits it would be great to have better markers or indicators as to where each path would take you. Big maps (viewable from your bike) posted along the bike path would be great for reference.

I'd like to see bike lanes on major thoroughfares - Main Street, St. Joe, etc. I try to Jan 21, 2011 10:04 PM do errands by bicycle and downtown and North Main aren't very bike friendly.

75	NO	Jan 21, 2011 10:07 PM
76	Evans Lane - however, I realize this is county, not city limits.	Jan 21, 2011 10:08 PM
77	Yes, the bicycle/walking path needs to do something about dog owners who let	Jan 21 2011 10:09 PM

Yes, the bicycle/walking path needs to do something about dog owners who let their dogs run loose on the paths. The paths are not safe (dogs try to bite) and the dogs also poop on the paths and many owners don't clean up after them which is a health hazord. Saw one little girl fall off her hot whell bike on the bike path and rolled right into some dog poop.

rolled right into some dog poop.

78 I think Spearfish does a pretty good job of welcoming bikers and/or peds.

79 No

79 Solorado Boulevard- snow removal on trails/sidewalks.

79 Jan 21, 2011 10:14 PM

80 Colorado Boulevard- snow removal on trails/sidewalks.

81 near the college because in some areas there is no sidewalk to walk on
82 Along the creek
83 On-street bike lanes throughout Spearfish (very few exist)

Jan 21, 2011 10:26 PM
Jan 21, 2011 10:29 PM
Jan 21, 2011 10:31 PM

I would like to see the bike trail go straight through, instead of in pieces. More bike Jan 21, 2011 10:34 PM racks. With the snow, it can be dangerous at hillsview/St. Joe intersection (not wide enough; people slipping into you)

85 I would like to see sidewalk on Hillsview on the other side of College Lane. Jan 21, 2011 10:38 PM
86 Hillsview Road Jan 21, 2011 10:39 PM
87 Along Evans Lane from Hillsview to Highway 14 Jan 21, 2011 10:43 PM
88 The lower valley road really needs trail improvements. From the lights by the Jan 21, 2011 10:45 PM

campus apartments down to the gas station north.

89 None Jan 21, 2011 11:08 PM

90 Jackson is often a problems especially during winter when many people do not Jan 21, 2011 11:17 PM

remove snow from sidewalks.

91 no Jan 21, 2011 11:32 PM

92 A bike/walking path all along the Creek. Jan 21, 2011 11:37 PM

93 none that I can think of.

94 Jackson Blvd. sidewalks rarely are shoveled.

95 Jan 21, 2011 11:52 PM

96 Jan 21, 2011 11:53 PM

PLEASE we absolutely need better facilities for St. Joe from Jackson past the university to the 'T' at Valley corner!!!!! Lots of runners, walkers, bikers and the streets are a death waiting to happen

I occasionally bike in from Belle Fourche. There does not seem to be a very bike Jan 22, 2011 12:42 AM friendly street running N/S (North/Main, Evans/St Joe, Upper Valley) until you get all the way over to McGuigan.

97 Since this is a college town, keep the sidewalks cleared better in snow/ice conditions.

98 The bike path could be clearer marked.

Jan 22, 2011 12:49 AM

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Jan 22, 2011 12:52 AM

1. Are there specific areas where you would like to see improved

	Response Text	
100	I thank that it would be fantastic to see bicycle lanes and sharrows on commuting routs.	Jan 22, 2011 1:25 AM
101	East-West corridor near Jackson would be good. Some sort of perimeter loop	Jan 22, 2011 1:31 AM
102	St. Joe around Taco Johns in that general area. The sidewalks feel kind of small, and sometimes I feel like cars are wizzing right next to me	Jan 22, 2011 1:34 AM
103	No	Jan 22, 2011 1:35 AM
104	It would be very convenient and a lot safer to have a bike path that goes all the way to Wal-mart.	Jan 22, 2011 3:33 AM
105	It would be very convenient to have the path that goes through town to reach all the way to walmart in a more precise way.	Jan 22, 2011 3:38 AM
106	Sidewalk and there needs to be better snow removal!	Jan 22, 2011 3:59 AM
107	The sidewalks on Jackson need a lot of work! They need safty stops at the cross walks as to help slow anyone on wheels	Jan 22, 2011 4:22 AM
108	Yes, out by where I live there are no sidewalks and it's a relatively new area.	Jan 22, 2011 4:33 AM
109	Neighborhoods. As a caretaker of people in wheel chairs it is nearly impossible to get from one area of town to another in this way. I grew up in Denver and all sidewalks connect, here they do not and it is extremely frustrating.	Jan 22, 2011 4:39 AM
110	Too and from Campus (dangerous crossing from University St to Jackson)	Jan 22, 2011 4:45 AM
111	not that I am aware	Jan 22, 2011 6:46 AM
112	No	Jan 22, 2011 8:08 AM
113	none.	Jan 22, 2011 8:58 AM
114	Not particularly. The problems I've seen are pedestrians and cyclists not following the sidewalks and crosswalks. The only thing I could see about adding would be more pedestrian crosswalks other than at intersections.	Jan 22, 2011 12:36 PM
115	The intersection of university st. and jackson blvd is dangerous to walkers, bikers and drivers. Signals for pedestrians and bicycles need to be installed. An elementry school is just a block away and the university, two blocks. Another very bad intersection is where university st. meets the BHSU. That corner is terrible. Pedestrians that cross the university/jackson intersection safetly on their way to BHSU are on the west side of university street, which is a blind corner when it hits BHSU. Cutting over from university st. to the alley is not an option in winter because it is usually flooded where it runs into BHSU. BHSU should move the track to SW corner of campus where the big parking lot is, and convert the football field into parking. The main access to campus should be from St. Joe., not Jackson and University where there are children and students. The sidewalk next to shoot the bull and Travel Inn in the winter is dangerous becuase it is icy and often not cleared. Easier access from downtown would be to construct a trail over the Passion play parking lot.	
116	Bus will be better way to get around	Jan 22, 2011 3:47 PM
117	baseball/soccer fields on hwy 14 to Evans Lane to connect to bike paths	Jan 22, 2011 4:28 PM
118	An actual sidewalk on Lower Valley, a lot of bicyclists travel on that road because it is so developed, but it is very dangerous because there is nothing but a skinny, jagged, dirt path on the side of the road, so many bicyclists and pedestrians travel on the street.	Jan 22, 2011 4:53 PM
119	no	Jan 22, 2011 4:54 PM
120	I think this area is too small for the Spearfish to create on street bike lanes and such. The funding is too small for such and investment.	Jan 22, 2011 6:21 PM
121	No, I only walk to school. I do not ride my bike very often.	Jan 22, 2011 6:40 PM
122	The sidewalks on W. Jackson are too narrow and have too many hidden driveways to be safe for bikes, so the street needs bike lanes.	Jan 22, 2011 7:04 PM

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1	Are there s	pecific areas	where you	ı would like	to see improved
		podilio di cas	WIICIC YOU	a Would like	to see illiproved

	Response Text	
123	Unsure	Jan 22, 2011 8:09 PM
124	Improved snow removal on paths and sidewalks would be great.	Jan 22, 2011 8:53 PM
125	It would be nice to see a bike lane on St. Joeseph St. There are always people biking or walking on the shoulder, which is almsot non existent, and it is not safe at all.	Jan 22, 2011 9:01 PM
126	South side of Jackson Blvd and north-east side of St. Joe.	Jan 22, 2011 9:09 PM
127	East of Exit 14 both sides of the freeway.	Jan 22, 2011 9:20 PM
128	none	Jan 22, 2011 9:27 PM
129	NA	Jan 22, 2011 10:16 PM
130	Jackson blvd needs more vegetation. It all ends west of the Jackson and Main intersection.	Jan 22, 2011 11:43 PM
131	Not at the moment.	Jan 23, 2011 12:39 AM
132	Yes, Evans lane need improvements for trails for the bicycles currently there is not an actual sidewalk, just a narrow dirt trail that has tree branches and bushes in the way.	Jan 23, 2011 12:56 AM
133	I like the bike path. It could be longer with more hills.	Jan 23, 2011 1:50 AM
134	St. Joe	Jan 23, 2011 3:19 AM
135	not that i know of	Jan 23, 2011 5:17 AM
136	No	Jan 23, 2011 6:45 AM
137	Downtown more cross walks at lights are needed at lights for crossing jackson	Jan 23, 2011 7:07 AM
138	All along Jackson Blvd and Main St These should have appropriate bicycle lanes.	Jan 23, 2011 2:23 PM
139	Main roads	Jan 23, 2011 4:12 PM
140	In and around the Main Street areas and possibly a seperate bike path since many sidewalks on the BHSU campus get very busy. A trail up Spearfish Canyon would also be ideal and much safer for biking enthusiasts.	Jan 23, 2011 7:29 PM
141	More crosswalks around campus and all over town. More sidewalks where there are none. Better sidewalks on Jackson. There needs to be a stoplight at the University and Jackson intersection.	Jan 23, 2011 7:33 PM
142	Evans Lane	Jan 23, 2011 8:58 PM
143	down town	Jan 23, 2011 9:10 PM
144	All are above average.	Jan 23, 2011 9:31 PM
145	Evans Lane. There is no sidewalk and the dirt path is inaccessible during the winter and it is super muddy during all other times so it is hard to use and I usually have to walk ten minutes out of my way to go another way or walk on the street.	Jan 23, 2011 9:50 PM
146	Lower Valley Area along the road. Bike path/lane up jackson to campus	Jan 23, 2011 10:48 PM
147	Many areas need painted crosswalks. There need to be a walk light to cross North Main (east to west and west to east) at Burger King. I have requested painted crosswalks from the campus SW to Harmony Heights.	Jan 23, 2011 10:57 PM
148	Jackson Blvd. during the winter, sidewalks do not get cleaned off and are difficult to travel on	Jan 23, 2011 11:13 PM
149	The sidewalks and bike paths during the winter are horrendous. You have a hard time walking on them during the winter. In the fall they were fine, but after it has snowed and such, the sidewalk is a walking death trap with all the ice and snow.	Jan 23, 2011 11:50 PM
150	Bike Lanes down town and to Mt Shadows Via Colorado Blv.	Jan 24, 2011 12:02 AM
151	no	Jan 24, 2011 12:42 AM
152	I would like the bike path to continue farther.	Jan 24, 2011 12:59 AM

1. Are there specific areas where you would like to see improved

Response Text	
I have lived in spearfish my whole life, and it is easy to get around, except for upper and lower vally road.	Jan 24, 2011 1:17 AM
Yes, how about some lights on the existing lane for a start. All major roads, ie. Colorado, Main, St. Joe, Evans, etc should have a bike lane.	Jan 24, 2011 2:33 AM
Near Walmart	Jan 24, 2011 3:00 AM
The stairs from Nash up to the campus are sometimes tough to cross because the crosswalk is not clearly marked & during the winter snow is piled up in the crosswalk.	Jan 24, 2011 3:12 AM
N/A	Jan 24, 2011 4:38 AM
Near campus, leading to downtown.	Jan 24, 2011 4:39 AM
NO	Jan 24, 2011 4:42 AM
St. Joe. The sidewalk ends and it can be dangerous.	Jan 24, 2011 6:15 AM
In the downtown area through main, also area by safeway any where by jackson and main	Jan 24, 2011 8:06 AM
Hillsview from Upper Valley to North Street	Jan 24, 2011 3:30 PM
na	Jan 24, 2011 3:34 PM
No specific areas, just an overall better system for getting around town, right now the good path bassically follows the creek. There is more to Spearfish than the creek.	Jan 24, 2011 3:42 PM
Extend a bike/pedestrian path to Walmart?	Jan 24, 2011 3:49 PM
Along Evans Lane before you get to St. Joe	Jan 24, 2011 3:56 PM
just to have the sidewalks cleaned after snowfall. it is hard to ride through 6 inches of snow that the plow throws up on it.	Jan 24, 2011 4:09 PM
end of the walking path in front of the VERY BUSY intersection at 27th.	Jan 24, 2011 4:34 PM
Upper Valley, Evans Lane, Highway 14, North Ave, Main Street Colorado, Jackson	Jan 24, 2011 4:42 PM
Not for me, but BHSU students need a safer way to bike along Jackson to downtown. Shooting that hill on Jackson is quite a gauntlet.	Jan 24, 2011 4:45 PM
Signs are needed for people who aren't familiar with the route between Brady Park and the City Park (the bike path appears to end at the south end of Brady Park)	Jan 24, 2011 4:52 PM
none	Jan 24, 2011 5:57 PM
A walking/ running/ bike path along Spearfish Canyon would be really nice.	Jan 24, 2011 6:07 PM
I think there could be an improvement by widening sidewalks to include a bike lane. I have seen this effectively done in other countries.	Jan 24, 2011 7:17 PM
A traffic lane specifically for bicyclists would be awesome! Better snow removal on sidewalks would be nice too.	Jan 24, 2011 7:24 PM
Sidewalks on Evans Lane, Upper Valley	Jan 24, 2011 8:06 PM
I would like to have bicycle lanes in the streets.	Jan 24, 2011 9:01 PM
Evans Lane! It really is a mess for biking, Walking, running etc This is a main road that leads to the campus - it should be better than it is.	Jan 24, 2011 9:19 PM
I have a large breed dog so i walk at least twice a day and at least a mile each time. I would greatly appreciate strict rules for people about shoveling. My dog and i are constantly slipping and sliding and i would not like to see either of us injured. Where i am from people have twenty four hours to shovel. It gets very frustrating for me to constantly hike through the snow on the sidewalk. I live right behind Luders Grocery Store and walk by the dog park and up to Colorado Blvd and the surrounding area. By the way we LOVE the dog park!	Jan 24, 2011 10:46 PM
	upper and lower vally road. Yes, how about some lights on the existing lane for a start. All major roads, ie. Colorado, Main, St. Joe, Evans, etc should have a bike lane. Near Walmart The stairs from Nash up to the campus are sometimes tough to cross because the crosswalk is not clearly marked & during the winter snow is piled up in the crosswalk. N/A Near campus, leading to downtown. NO St. Joe. The sidewalk ends and it can be dangerous. In the downtown area through main, also area by safeway any where by jackson and main Hillsview from Upper Valley to North Street na No specific areas, just an overall better system for getting around town, right now the good path bassically follows the creek. There is more to Spearfish than the creek. Extend a bike/pedestrian path to Walmart? Along Evans Lane before you get to St. Joe just to have the sidewalks cleaned after snowfall. it is hard to ride through 6 inches of snow that the plow throws up on it. end of the walking path in front of the VERY BUSY intersection at 27th. Upper Valley, Evans Lane, Highway 14, North Ave, Main Street Colorado, Jackson Not for me, but BHSU students need a safer way to bike along Jackson to downtown. Shooting that hill on Jackson is quite a gauntlet. Signs are needed for people who aren't familiar with the route between Brady Park and the City Park (the bike path appears to end at the south end of Brady Park) none A walking/ running/ bike path along Spearfish Canyon would be really nice. I think there could be an improvement by widening sidewalks to include a bike lane. I have seen this effectively done in other countries. A traffic lane specifically for bicyclists would be awesome! Better snow removal on sidewalks would be nice too. Sidewalks on Evans Lane, Upper Valley I would like to have bicycle lanes in the streets. Evans Lane! It really is a mess for biking, Walking, running etc This is a main road that leads to the campus - it should be better than it is. I have a large breed dog so i walk at least twice a day and at least a m

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1. Are there specific areas where you would like to see improved

	Response Text	
180	On street bike lanes, Clearly marked cross walks with possible yield to pedistrian	Jan 24, 2011 10:46 PM
	signs.	
181	If a bike path/lane was more structured - leading from other such paths (from parks etc) that already exist - leading to the college, I would probably get more exercise in my day by walking to BHSU	Jan 25, 2011 12:04 AM
182	no	Jan 25, 2011 1:40 AM
183	The main roads need some work in my opinion. The park and canyon are nice to bike but if you are going through town it's hard to tell where you should be on a bike.	Jan 25, 2011 2:38 AM
184	Main Street; Colorado Boulevard	Jan 25, 2011 2:54 AM
185	It can be really hard to ride/walk on the sidewalk when hedges are over grown, which force people on the road. Especially Jackson. Improve snow removal on the sidewalks in winter for pedestrians.	Jan 25, 2011 3:34 AM
186	Bike lanes	Jan 25, 2011 4:00 AM
187	Look out mountain trail and have a lookout at the top. Just a deck would do nicley.	Jan 25, 2011 5:06 AM
188	Maitland Road	Jan 25, 2011 5:56 AM
189	not that i'm aware of.	Jan 25, 2011 7:46 AM
190	I like the bike paths and trails in spearfish but every city can use more.	Jan 25, 2011 2:29 PM
191	Bike path extended to exit 8 and past exit 14	Jan 25, 2011 2:46 PM
192	no	Jan 25, 2011 6:17 PM
193	Evans Lane on the west side of Hillsview could use sidewalks.	Jan 25, 2011 6:40 PM
194	none that i can think of.	Jan 25, 2011 6:52 PM
195	Around the campus area and on the main streets (Main St, North St, Jackson Blvd)	Jan 25, 2011 7:32 PM
196	I believe there should be bike lanes down St. Joe, Jackson and Main St./Colorodo.	Jan 26, 2011 12:27 AM
197	Crossing the streeet at the intersection of Jackson and University	Jan 26, 2011 12:58 AM
198	no	Jan 26, 2011 2:32 AM
199	evans lane	Jan 26, 2011 3:34 AM
200	Evans Lane could really use a sidewalk. Also, there should be a crosswalk with signals at the intersection of 27th Street and 1st Ave to better facilitate walking/biking to Wal Mart.	Jan 26, 2011 5:20 PM
201	on street bike lanes and paths in areas without any	Jan 26, 2011 5:57 PM
202	I ride my bike and run on the streets during the summer and there isn't much room to share the road. I would like to see some bike lanes or wider streets throughout town.	Jan 26, 2011 6:05 PM
203	Evans Lane, as of now there is nothing for either bikers or pedestrians.	Jan 26, 2011 6:36 PM
204	More single track dirt trails on city, state and federal lands. this could turn into a huge tourism industry and it is already well on its way. Look at how it affects cities like Winter Park CO and Moab UT. The value of mountain bikers alone has to be in the millions of dollars in those small communities. Spearfish = Singletrack City. Also more back country skiing lines could be cleared in order to fight beadle problems that could open up a whole other industry for Spearfish. Currently you can only backcountry ski when there is a lot of snow which does not always happen. But if we cleanded out some of the brush, trees and downed timber on Crow, Spearfish Mt., Spearfish Canyon, Vanocker Canyon, ect. this industry could bloom as well.	Jan 26, 2011 6:52 PM
205	bike path should go across 27th St from Colorado Blvd to 1st Ave and all the way to Walmart and it should extend all the way down Evans Lane.	Jan 26, 2011 7:04 PM
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1. Are there specific areas where you would like to see improved

The there specific areas where you would like to see improved				
	Response Text			
206	Jackson especially, but most of the town would benefit from a good network of paths to, around, through campus and the major areas of town including things like the hatchery.	Jan 26, 2011 8:12 PM		
207	Yes more sidewalks on the roads that don't have any.	Jan 26, 2011 8:23 PM		
208	On street bike paths would be great - particularly connecting all the schools Jackson, Main, 10th street - all too busy to send kids on bikes.	Jan 26, 2011 10:02 PM		
209	There should be another park north of town near Spearfish Creek! We need another park, the one we have now is to small!	Jan 27, 2011 12:01 AM		
210	Parking at the College.	Jan 27, 2011 12:18 AM		
211	middle school/high school/hospital area and then continue to new elementary school	Jan 27, 2011 5:08 AM		
212	On the hill on jackson going to university street, riding a bike up or down that hill with moderate traffic is a little scary	Jan 27, 2011 6:19 PM		
213	dna	Jan 27, 2011 10:00 PM		
214	Haven't had a chance to really check them out, but in everything in life there is always some little type of improvement that could be done	Jan 27, 2011 11:03 PM		
215	I believe on-street bike lanes would be a great idea. It could also encourage people to bike more often, thus help the city be viewed as more "green." I know BHSU has been trying to become more green, and their participation of making the city (and campus) more bicycle friendly would surely make a great positive impact.	Jan 28, 2011 2:40 PM		
216	evans lane, college lane, upper valley	Jan 28, 2011 5:03 PM		
217	There needs to be work done for the people that bike everywhere. I feel this way because I drive everywhere and the bicycles are a constant driving hazard, they are careless and dangerous. Numerous times I have had to stop during a turn while blocking other lanes in order for a cycleist to cross. They do not use the indended crossing sections rather try to beat the traffic.	Jan 28, 2011 8:02 PM		
218	No	Jan 28, 2011 10:14 PM		
219	On street bike lanes would make a huge difference i think. Jackson Blvd. and Main St. would be the best to have these since these are the two busiest streets. Also, there needs to be a better way for bikes to get across I-90 to go to walmart. The bike path leading up to the four way intersection and off/on ramps is so nice and it is just a shame that the last little stretch has to be so dangerous. A bike lane in needed on the overpass and through those intersections. If a path could be built that was completely isolated from the overpass that would be best.	Jan 30, 2011 2:11 AM		
220	It would be nice if the crosswalks on Main Street allowed more time to cross the street, especially in the winter, when it is icey.	Jan 31, 2011 4:52 PM		
221	No	Feb 1, 2011 4:58 AM		
222	sidewalk on St. Joe street to Young Center	Feb 3, 2011 9:25 PM		
223	Yes, everywhere.	Feb 3, 2011 10:08 PM		
224	when in colorado all the streets have bike lanes in them on the main roads that would be nice	Feb 4, 2011 3:24 AM		
225	On Street bike paths	Feb 4, 2011 5:00 PM		
226	on street bike lanes on Jackson Blvd	Feb 7, 2011 5:52 PM		

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2. Ar	e there specific streets or intersections where you would	like to see
	Response Text	
1	monitoring of speed zones - people drive too fast in the neighborhoods	Jan 21, 2011 7:28 PM
2	Exit 14 and the country club intersection. The new elementary school may become a hazard in the future.	Jan 21, 2011 7:28 PM
3	Exit 14 as it intersects Colorado	Jan 21, 2011 7:29 PM
4	In my Zone (F), the streets are very rarely plowed. I know a lot of people who can barely make it uphill to get to their houses because the roads aren't plowed at all.	Jan 21, 2011 7:29 PM
5	yes, the speed limit does not need to be 25 on all roads, it is rediculous	Jan 21, 2011 7:29 PM
6	canyon/jackson - worst intersection EVER i lied, the worst is exit 17 -big fat cluster f!@#	Jan 21, 2011 7:30 PM
7	no	Jan 21, 2011 7:30 PM
8	Nash street (bridge west toward St Joe) has too many vehicles parked on both sides of the streetsometimes there can only be one way traffic on the street. No where for pedestrians to go if the sidewalk is blocked either. This is my walking route to Campus.	Jan 21, 2011 7:31 PM
9	Please put the 4 way stop back in at Hillsview/Utah and lower valley. Remove lights. Since the Passion Play is gone we need to remove the stop lights on Jackson and Ames.	Jan 21, 2011 7:33 PM
10	Yes, all the intersections that require a pedestrian to go about 20 steps out of the way to navigate the intersection.	Jan 21, 2011 7:33 PM
11	Downtown stoplights and turning lanes are chaotic during peak hours.	Jan 21, 2011 7:33 PM
12	The intersection at 10th and Jackson needs a stop light. Turning lanes and lane marks need to be painted.	Jan 21, 2011 7:34 PM
13	Exit 14 area including the bridge, the exits on and off and the service road traffic in that area.	Jan 21, 2011 7:35 PM
14	St. Joe and Nash street intersection used to access the stair walkup to campus is extremely dangerous. Cars traveling in either direction DO NOT respect the many pedestrians (students, faculty, and staff) that use those stairs to campus.	Jan 21, 2011 7:36 PM
15	anything in Green Acres	Jan 21, 2011 7:37 PM
16	Examine the 3-way stop and lanes at University & Jackson	Jan 21, 2011 7:37 PM
17	St. Joe and Jonas	Jan 21, 2011 7:37 PM
18	University and St. Joe intersection	Jan 21, 2011 7:41 PM
19	The road to the city park has gutters through the intersections, which are troublesome when I'm hauling a full load for my company.	Jan 21, 2011 7:44 PM
20	no suggestions	Jan 21, 2011 7:44 PM
21	Many streets are horrible during the winter because the roads are not plowed frequently enough.	Jan 21, 2011 7:44 PM
22	Corner of St. Joe and Jackson	Jan 21, 2011 7:44 PM
23	many of the lights and general layout of many intersections is basically nonsensical, the worst is the "walmart" exit where the light often will not turn green for a long time, often not at all which even one completes about	Jan 21, 2011 7:45 PM

for a long time, often not at all which everyone complains about

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I-90 and Exit 14

The area by Applebees/Wal-Mart. I would ride my bike more to these destinations if the sidewalks/bike lanes were put in.	Jan 21, 2011 7:45 PM
Exit 14; Intersection at the Spearfish Canyon Country Club	Jan 21, 2011 7:45 PM
Oh my god, plow and sand the streets. Please!!	Jan 21, 2011 7:48 PM

Jan 21, 2011 7:45 PM

2. Are there specific streets or intersections where you would like to see

	there specific streets of intersections where you would be	
	Response Text	
28	Since petroleum is going to only get more expensive while the economy continues to decline, we need to be working to support more efficient transportation that uses less or no petroleum, that people can afford. Cars and trucks will be used less and less in the medium term and most of them will go away in the long term. We need alternatives!	Jan 21, 2011 7:51 PM
29	sandstone and colorado	Jan 21, 2011 7:55 PM
30	intersection of Spearfish Canyon and Colorado Blvd - I believe a stoplight is needed.	Jan 21, 2011 7:57 PM
31	I question having logging trucks using the area around the campus and especially the elementary school.	Jan 21, 2011 8:00 PM
32	Maybe more traffic lights on Main Street (downtown)	Jan 21, 2011 8:00 PM
33	Exit 14 interchange, Hillsview and Evans Lane intersection.	Jan 21, 2011 8:01 PM
34	Stop light on the north end of BHSU. Too small and a lot of traffic. Hard to turn corners with a large vehicle	Jan 21, 2011 8:06 PM
35	I-90 on/off ramps are rarely plowed as well as the interstate.	Jan 21, 2011 8:08 PM
36	The exit 14 stoplight on the south side has bad timing. When exiting headed eastbound, (turning left to go to Walmart, or the Holiday Inn) the light stays red for way too long and traffic gets backed up.	Jan 21, 2011 8:09 PM
37	With Creekside elementary opening, the stop sign/intersection at Yankee and 5th St needs to be changed. And a stop light is desperately needed at 10th street and Jackson, a very dangeroud intersection.	Jan 21, 2011 8:10 PM
38	The intersection of University and Jackson Blvd needs a stop light to prevent accidents, this is a high traffic area with many pedestrians and children.	Jan 21, 2011 8:11 PM
39	Intersections crossing I90 at exit 14.	Jan 21, 2011 8:12 PM
40	All	Jan 21, 2011 8:13 PM
41	Yes the street that connects to st. joei believe it is evansit goes north to Valley Corner and the Brewery. That road is the worst but i like going that way.	Jan 21, 2011 8:16 PM
42	Yes, after coming of the stop light near Common Sense gas station, there is the 3 way stop where if you are going to school there is no stop. But there should be a stop light of some kind there. During winter months students, including myself, have a hard time getting their vehicles to go out fast enough to get out of the way of on coming traffic because of ice or snow. There has been many close calls over there and many accidents I am sure.	Jan 21, 2011 8:16 PM
43	no answer	Jan 21, 2011 8:16 PM
44	Keep South Canyon Street open year-round.	Jan 21, 2011 8:17 PM
45	anything on jackson	Jan 21, 2011 8:18 PM
46	Intersection of Colorado Blvd and Spearfish Canyonthe outside west-bound lane should be a through lane without stopping. It is real bottleneck there during high traffic times as currently setup with all-ways stopping. There is no logical reason why that lane should have to stop.	Jan 21, 2011 8:19 PM
47	St. Joe sidewalks and intersection onto Jackson, Jackson sidewalks compatible for bikes, sidewalk maintenance for homeowners to make walking easier and safer.	Jan 21, 2011 8:22 PM
48	The three way stop at the intersection of Jackson and University St. is dangerous and we try to avoid this intersection if possible. I understand there might valid reasons why traffic from the east does not stop, but it makes it difficult and hazardous to turn left off of University St since one has such limited visibility.	Jan 21, 2011 8:27 PM
49	SW corner of College Ln & Hillsview Rd - you have to pull into Hillsview to see west around the shrubs	Jan 21, 2011 8:28 PM
EΩ	I think the step light on leglesen by someone south in unpassence	lon 04 0044 0:00 DM

Jan 21, 2011 8:28 PM

I think the stop light on Jackson by common cents in unneccesary

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	Response Text	
51	Tinton Road and Colorado Blvd. Christenson Drive and Colorado Blvd	Jan 21, 2011 8:28 PM
52	A light at Jackson and University would be helpful. It's become a dangerous intersection. The corner at University and Jonas is confusing. Lanes need to be marked appropriately and perhaps a light installed.	Jan 21, 2011 8:34 PM
53	St. Joes Street and Hillsview road intersection can get very slippery in the winter. Also the intersection at St, joe and E jackson is very hard to get out of when it is slippery and there is alot of traffic such as during the day school hours.	Jan 21, 2011 8:35 PM
54	N/A	Jan 21, 2011 8:35 PM
55	Lower Valley, Evans lane, are terrible.	Jan 21, 2011 8:35 PM
56	The turn onto jackson from bhsu. It's hard to see people driving up the hill.	Jan 21, 2011 8:36 PM
57	Intersection going to walmart at the 3 way stop sign	Jan 21, 2011 8:39 PM
58	The corner of Jackson and University should be a light or four-way stop and the light at the corner or Ames and Jackson should be removed.	Jan 21, 2011 8:41 PM
59	A stop light at the top of the hill to turn on to campus	Jan 21, 2011 8:41 PM
60	traffic light at the first intersectin north of Jackson St should be veh. activated for the side street otherwise it only hinders traffic as it does now.	Jan 21, 2011 8:41 PM
61	At the corner of Jackson and University St.	Jan 21, 2011 8:42 PM
62	From Campbell to Sedivy St. there needs to be a bike path and a bus route	Jan 21, 2011 8:43 PM
63	I would like to see more snow cleared off the roads after snow storms. It gets packed down and driving conditions worsen.	Jan 21, 2011 8:43 PM
64	Exit 14 was under-designed. Widen and add a bike/walking lane on the overpass.	Jan 21, 2011 8:44 PM
65	Jackson-University intersection is very dangerous	Jan 21, 2011 8:46 PM
66	Hillsview and St Joe. That intersection is deplorable.	Jan 21, 2011 8:48 PM
67	Going east on Grant st. past Grant Street Liquor. Perpendicular 2-way stop. Cannot see vehicles come on Grant St. when facing south.	Jan 21, 2011 8:50 PM
68	The stop light for the off-ramp on Exit 14 is a poor excuse for traffic management. There are 3-4 minute delays at the light when there is no traffic in the other directions. The timing system that is on the light on the turn to Walmart (by First Interstate Bank) is what a smart light grid is all about. More of those please.	Jan 21, 2011 8:51 PM
69	Intersection at Colo. Blvd. and Spearfish Canyongets bottle-necked in summertime and rally time.	Jan 21, 2011 8:56 PM
70	The Colorado Blvd/27th St intersection and the intersection of Exit 14 and 27th St. The red lights are SO long and it just makes drivers agitated when the line is so long that they have to wait 2-3 lights to get through. It's not a safe situation.	Jan 21, 2011 8:56 PM
71	W. Jackson Blvd. and University Street and West Mason and Jonas Blvd.	Jan 21, 2011 8:57 PM
72	Intersection by Shoot the Bull and Juneks.	Jan 21, 2011 9:02 PM
73	MOST DEFINITELY, the entire intersections heading to BHSU from exit 12 off the I-90 are terrible. They should raise the speed limit up by at LEAST 15mph; not to mention, change the traffic lights to sensors. The lights are all screwy there!	Jan 21, 2011 9:05 PM
74	St. Joe/Hillsview intersection needs improvement	Jan 21, 2011 9:07 PM
75	The intersection where University curves around in front of the side entrance through campus is very dangerous.	Jan 21, 2011 9:14 PM
76	the overpass between exits 14 $\&$ 17 should have on/ off ramps for people going to walmart	Jan 21, 2011 9:18 PM

2. Are there specific streets or intersections where you would like to see

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	Response Text	
77	Improve Interstate 90 at exit #10. it is very confusing for people trying to get into town.	Jan 21, 2011 9:19 PM
	Exit 14 during high traffic times, like during the motorcycle rally, is extremely inefficient.	
78	The 3-way stop on Jackson and College lane is rediculous and makes no sense. Traffic on Jackson should be straight through from both directions.	Jan 21, 2011 9:20 PM
79	I would like to see the 3-way when coming out of the Student Union/Humbert parking lots where there aren't stop signs for all sides to be fixed. I have seen times when there have been close cases of accidents since the drivers don't stop all the time. Also during the winter, it can get horrible and many people end up getting stuck there.	Jan 21, 2011 9:24 PM
80	none	Jan 21, 2011 9:28 PM
81	The snow removal at the base of the hill on Jackson at the stoplight could be improved.	Jan 21, 2011 9:35 PM
82	EXIT 14!	Jan 21, 2011 9:41 PM
83	Hillsview/St. Joe ice/snow removal	Jan 21, 2011 9:50 PM
84	Evans Lane	Jan 21, 2011 9:53 PM
85	Actually doing a decent job of plowing would be great. When I come to school at the 4-way intersection where there is only 1 stop sign, I have had close calls at this spot a number of times and have never been at an intersection like that with only one stop sign before in my life, it is insane. Then when I leave school on turn onto Jackson, at the intersection where there is three stop signs and traffic can more from one direction without stopping, this isn't safe either because often times you can't actually see if a car is coming quickly up the hill and so you can't tell if it is safe to move out into the intersection.	Jan 21, 2011 9:56 PM
86	The intersection on Jackson and Ames has a big curve in it and then the added turning lanes. That intersection is very tight and with the added turning lanes and curve	Jan 21, 2011 9:58 PM
87	I avoid driving on Lower Valley because the road is so rough and narrow.	Jan 21, 2011 10:04 PM
88	No	Jan 21, 2011 10:07 PM
89	Hillsview, Evans Lane, St. Joe Jackson and University	Jan 21, 2011 10:08 PM
90	Main and Jacksom intersection the traffic lights are way too long and in the late evenings (10 pm and after) there isn't enough traffic to warrant not having them go to either flashing red, yellow/red or some other combination. Due to how long the red lights are, I find it easier (not safer) to run the red lights quite frequently (especiallly in the late evening). So if someone says going to flashing lights is a safety issue, keep in mind that it is even more of a safety issue when the lights are so long that they run them. Another intersection is Exit 14. It has the same issue as Main and Jackson. Additionally, there is nothing right with that intrersection period!! What a disaster and accidents waiting to happen. Poor city planning and engineering.	Jan 21, 2011 10:09 PM
91	At times, I wish there was a street that made campus more accessible if possible.	Jan 21, 2011 10:10 PM
92	No	Jan 21, 2011 10:14 PM
93	Jackson and St. Joe	Jan 21, 2011 10:26 PM
94	Synchronize the stop lights so that I can get through town quickly and efficiently.	Jan 21, 2011 10:29 PM
95	In the winter, intersection of University and Mason is extremely icy - to an unsafe degree for vehicles as well as pedestrians.	Jan 21, 2011 10:31 PM
96	Along Evans Lane from Hillsview to Highway 14	Jan 21, 2011 10:43 PM

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	Response Text	
97	The street from the campus apartments to the gas station north. That road is not very wide and needs some major improvements	Jan 21, 2011 10:45 PM
98	None	Jan 21, 2011 11:08 PM
9	main and jackson	Jan 21, 2011 11:12 PM
00	none	Jan 21, 2011 11:17 PM
01	exit 14	Jan 21, 2011 11:32 PM
02	I would like to see some of the streets around town with pot-holes be filled up more often. It makes it kinda rough on vehicles when they get to bad.	Jan 21, 2011 11:52 PM
103	Colorado Blvd meet Main St at Grant St there are two crosswalks but no flashing light to make vehicles stop. Many children/families take this route to school, the dog park, the Spearfish park and there needs to be something to make vehicles stop for pedestrians here	Jan 21, 2011 11:52 PM
104	college lane	Jan 22, 2011 12:15 AM
105	The intersection of Jackson and ? where there's only a three way stop, traffic turning left onto Jackson leaving campus can't see vehicles coming up the hill that doesn't have to stop there needs to be a four way stop or another solution.	Jan 22, 2011 12:19 AM
106	Would be nice if there was a traffic signal at the Colorado Blvd./U.S. 14 intersection coming out of the canyon.	Jan 22, 2011 12:47 AM
07	I think all streets in general could be cleared of snow better and have sand or salt put down for ice	Jan 22, 2011 12:52 AM
80	Traffic light at Jackson and ST Joe.	Jan 22, 2011 12:58 AM
09	West Utah Street inbetween BurgerKing and The college apartments.	Jan 22, 2011 1:10 AM
10	Main and Jackson intersection is usually a complete mess in the winter time, when ever there is snow. Spearfish has difficulty cleaning the snow up.	Jan 22, 2011 1:27 AM
111	Overpass at exit 14 has difficult lights. Spearfish Canyon Road and Colorado Blvd intersection often has lots of congestion.	Jan 22, 2011 1:31 AM
112	Yes, there is a spot on campus right outside of the student parking where there should be a stop light or stop sign.	Jan 22, 2011 1:33 AM
13	None	Jan 22, 2011 1:35 AM
14	i think there needs to be better snow removal.	Jan 22, 2011 1:48 AM
15	Well all the roads could use a little work when it snows. The city seems to have issues clearing the streets.	Jan 22, 2011 2:46 AM
16	the intersection off of exit 14 and S 27th st. (traveling east)	Jan 22, 2011 3:33 AM
17	exit 14/27th st	Jan 22, 2011 3:38 AM
18	The Jackson St.joe intersection A lot of students only have classes at the young center and there is a lot of traffic at the intersection plus visiblity is difficult due to the steep incline	Jan 22, 2011 3:53 AM
19	From Exit 14 all the way to BHSU the trafic is very heavy and there are a lot of accidents.	Jan 22, 2011 3:59 AM
20	The street where Jackson meets St. Joe, I believe needs a light because it's tricky getting out off of St. Joe.	Jan 22, 2011 4:33 AM
21	Jackson and University Ave. University ave and Mason. Both intersections are dangerous when classes are let out. Need full 4 way stops or lights.	Jan 22, 2011 4:39 AM
22	University St and Jackson there is a blind turn and there could be accidents there.	Jan 22, 2011 4:45 AM
23	not that I am aware	Jan 22, 2011 6:46 AM
124	A stop light at the intersection coming from the Young Center meeting at Jackson	Jan 22, 2011 7:29 AM
125	No	Jan 22, 2011 8:08 AM

	Response Text	
126	none.	Jan 22, 2011 8:58 AM
127	All the streets and intersections seem fine except where University St and W. Jackson Blvd intersect. Cars coming up the hill do not have a stop, but there is no way for a vehicle turning left onto W. Jackson to see that a car is coming until it's at the top of the hill.	Jan 22, 2011 12:36 PM
128	Jackson and University St. really needs a light!	Jan 22, 2011 2:46 PM
129	I don' t have a car.	Jan 22, 2011 3:47 PM
130	The three-way stop by the Spearfish Canyon turn off and Colorado Blvd (Little Ceaser's).	Jan 22, 2011 4:53 PM
131	Meier Street	Jan 22, 2011 4:54 PM
132	Yes, the light on I-90 exit 14 absolutely must be looked at. It has been the thorn in everyones side since I moved to this town. Also The only roads that should have a speed of 25mph are the down town area, and residential zones. But all of the rest of Main and Jackson being 25mph is crazy. I'm sure that if you live in Spearfish you feel the same way. Increase the general roadway speeds! Do it for the good of the people.	
133	The intersection by Jackson and St Joe street. Turning to go down the hill is very dangerous. I believe there needs to be a stop sign or something different for the oncoming cars going up the hill to turn or go straight.	Jan 22, 2011 6:40 PM
134	The 3-way stop at Jackson and University is a mess during peak traffic hours because two of the streets are 2-lanes, one of the streets is a 3-lane, and one of the streets is a 4-lane. It could benefit from a traffic light.	Jan 22, 2011 7:04 PM
135	Would like to see a better Mcguigan road/ Oliver st. connection to campus. Need to route students around the aging residents of Spearfish that appear to drive with no destination in mind at the times we need to get to class.	Jan 22, 2011 7:35 PM
136	Downtown area is very crampedWhen people drive big trucks and park along downtown it is hard to even drive a small car by them since they jut out so far into the lane that you have to dangerously drive in the middle to dodge them.	Jan 22, 2011 8:00 PM
137	The corner of Jackson Ave. and University St., where it's only a 3-way stop maybe either make it a 4-way stop or add a traffic light there? It's kind of hard to make a left turn onto Jackson from BH when there's that hill or whatever kind of blocking the view. ((Hope that makes sense))	Jan 22, 2011 8:09 PM
138	There should be a light to turn into McDonalds. I know there's one by Burger King, but it would be nice to have one by the McDonalds for people who want turn onto the busy main street.	Jan 22, 2011 9:01 PM
139	None.	Jan 22, 2011 9:09 PM
140	none	Jan 22, 2011 9:27 PM
141	NA	Jan 22, 2011 10:16 PM
142	I would just like them to plow the streets when it snows not wait 2 or 3 days.	Jan 22, 2011 11:10 PM
143	Jackson Blvd. I would like to see the road lines repainted and perhaps repositioned. The lines are fading and at one point in the road the passing white lines in the middle of the road are painted in a very strange direction that almost looks as if a kid did it. If you are traveling towards BHSU the lines swerve right and than quickly left. It's ridiculous.	Jan 23, 2011 12:39 AM
144	When traveling on University St. away from the college, it is very difficult to see when cars are coming up the hill when turning left.	Jan 23, 2011 12:45 AM

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	Response Text	
145	Yes, the intersection at exit-14 (coming off I-90 from the west) needs a different stop light system. The light system is not set to the traffic very well and it takes a long time to change. Exit-10 also needs a new set up. There are the two service roads that merge onto Hwy-85/North Ave from the west, along with turning traffic, traffic trying to make it across the lanes to get onto the interstate and the traffic coming off I-90. It makes it hazardous in poor weather.	Jan 23, 2011 12:56 AM
146	Michigan and Main street, both sides of the light, maitland road!	Jan 23, 2011 1:11 AM
147	St. Joe stop light is too narrow with the turning lanes. At the top of the hill on Jackson, its totally blind. And i understand its hard to keep up with the snow but stop plowing the snow into the middle its very hazardous.	Jan 23, 2011 1:50 AM
148	Evans Lane	Jan 23, 2011 3:19 AM
149	Evans Lane - bad road	Jan 23, 2011 4:35 AM
150	not that i know of	Jan 23, 2011 5:17 AM
151	Downtown lights from the highway to the school need to be sequenced because right now it takes forever to get through the lights.	Jan 23, 2011 6:40 AM
152	Make the speed limit on Jackson higher	Jan 23, 2011 6:45 AM
153	no	Jan 23, 2011 7:07 AM
154	St. Joe may need to be widened.	Jan 23, 2011 2:23 PM
155	E. Michigan and turning left on to N. Avenue	Jan 23, 2011 4:50 PM
156	I think it is College Lane that I take that seems like it isn't always cleaned very well after snow. I know a lot of people that take that route and it is always icy after snow and the snow isn't ideal when driving a car through it	Jan 23, 2011 6:42 PM
157	The intersection by the Dodge dealership and the Common Cents gas station, at W. Jackson Blvd and Ames Ave is terribly dangerous to both drivers and pedestrians. There are too many blind spots trying to exit the common cents parking lot during normal driving conditions. When the snow falls, the blind spots on the intersection more than doubles due to piles of snow from snow "removal" and other adverse driving conditions. The other intersection that causes concern is at University St. and W. Jackson Blvd. heading South. The hill coming from the East is a horrible blind spot when trying to turn left from the 3 way stop. And when the road is snow packed and icy this is worse.	Jan 23, 2011 7:19 PM
158	I would like to see the 3-way stop near Junek Dodge do something different. It is very dangerous when leaving the school as some traffic is not turning and approaches very fast up the hill. The question is what to do since it is not practical for that traffic to stop at the hill, but something different should be done.	Jan 23, 2011 7:29 PM
159	There needs to be a stoplight at the University and Jackson intersection. This area is very unorganized - a 3 way stop!? Nobody know when to go and it's always busy with speeders.	Jan 23, 2011 7:33 PM
160	The city needs to take the time to clean the streets during the winter. The winter road driving conditions in town are a JOKE	Jan 23, 2011 8:58 PM
161	Exit 14 needs a lot of work. To much congestion, long waits. The configuration doesn't seem to fit the amount of traffic flow.	Jan 23, 2011 9:19 PM
162	My only suggestion is at the intersection of W Jackson and Canyon St. There needs to be a left turn arrow at that stop light. There are too many instances where traffic is backed up in one lane because of one vehicle trying to turn off of Jackson Blvd. It's quite annoying and creates more than one type of hazard. Please look into this. It almost even worked better when the lights were down and they had a 4-way stop sign there. Personally, I think the left turn arrow would work better but anything is better than the situation at that intersection right now.	Jan 23, 2011 9:31 PM

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Lower Valley

Jan 23, 2011 10:48 PM

2. Are there specific streets or intersections where you would like to see

	Response Text	
164	Exit 14. Traffic Lights not well planed	Jan 24, 2011 12:02 AM
165	no	Jan 24, 2011 12:42 AM
166	the intersection by pizza ranch. also, it seems dangerous to take a congested intersection and have that be the start of a bike path.	Jan 24, 2011 1:31 AM
167	I live in Zone 7 as do lots of other poeple. The three stop lights between Pizza Ranch and the interstate to go west takes for EVER in the morning and at night durring rush hour.	Jan 24, 2011 1:33 AM
168	the main road from the interstae to BHSU can be a little congested with many different situations within a short space of road (school zones, traffic lights and turning lanes, hills and unclear signage for all the above situations)	Jan 24, 2011 1:40 AM
169	The intersection at Exit 10 may become an issue when East Elementary opens.	Jan 24, 2011 2:33 AM
170	The intersection of East Colorado Blvd. and Highway 14 needs a stop light. Many people do not use the 3-way stop correctly.	Jan 24, 2011 3:34 AM
171	Maitland and Colorado blvd is very slick and Maitland gets drifted over even when it is not snowing.	Jan 24, 2011 4:26 AM
172	right of the interstate during the winter needs to be plowed much better	Jan 24, 2011 4:38 AM
173	Near campus, leading to downtown.	Jan 24, 2011 4:39 AM
174	ALL OF THEMspearfish street conditions suck compared to lead or brookings where I went to college last semester. I can't even make it to my house sometimes!	Jan 24, 2011 4:42 AM
175	Walmart intersections need major improvement.	Jan 24, 2011 8:06 AM
176	Better timed stoplights at North/Michigan and St Joe/Hillsview.	Jan 24, 2011 3:30 PM
177	na	Jan 24, 2011 3:34 PM
178	Exit 14 is the major annoyance. Other interesections might be ones that have alot to do with school trafic. Any of the schools; east, west, middle, high, creekside, and college.	Jan 24, 2011 3:42 PM
179	The Intersection of University St. and Jackson St., with its 3-way stop, is dangerous due to heavy westbound traffic not visible from theinterestion on the hill. Place a stoplight, or have 4-way stop signs, at the intersection. A 4-way stop at Mason and University should be considered, due to heavy, fast traffic past the West Elementary School playgound. A stoplight, or 3-way stopsign, should be considered at Nash and St. Joe, to allow pedestrians to cross St. Joe to get to BHSU during periods of heavy traffic due to events at the Young Center.	Jan 24, 2011 3:49 PM
180	The intersection as you turn to go to the main campus has horrible visibility and is always congested. I also think the ped intersections around town need to be enforced!	Jan 24, 2011 3:52 PM

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Response Text

Yes -- please seriously fix the exit 14 lights -- come in from Rapid and from the West and you sit at the red light for how long to turn left -- I have friends who get home before I do. We usually turn right and go down and flip a U at the next light and STILL go through the light before it changes for the people coming off of the freeway. We need these lights once a year for rally and yet we have to waste all of this gas from all of the stopped cars on this overpass and time. AND why do we need to have lights running in the evening on the overpass when there is no traffic why can't you run flashing red/yellow lights every night after 7 or so. It is so ridiculous to be sitting there with not another car in sight waiting wasting gas and time. What a waste of gas for all of these cars sitting and waiting when there is not even any cross traffic. It is really frustrating to live less then 5 minutes away and have to take how long to get across the freeway.

Jan 24, 2011 4:34 PM

Also the zone in front of Knechts is so dangerous -- how many accidents do you have there each year? Have someone sit and watch -- people do not look before pulling out of that parking lot and the residents in Rolling Hills and that area are constantly worried that we or our kids are going to be hit there - how many of us have lost our cars there-totalled from cars pulling out there!!

The intersection in front of Knecht's and Colorado needs help - it doesn't get sanded and we are constantly having to back up and then charge up the slope to keep a hold at the top of the hill there AND the snow wall at the intersection keeps you from seeing the traffic. Also crossing the street there in a vehicle when there is snow or ice or anything, the cars slide towards that walking path hill going down -- one of these days someone is going to roll down that hill. A guard rail would be a good idea.

There is so much traffic in the morning at the Colorado and Spearfish Canyon intersection -- it used to flow so smoothly. There are 2 lanes there why can't you make a lane that the side traffic turns into without every single car having to make at stop at that intersection. You used to do it only for rally but now we constantly have to stop.

Gravel the Jackson and Main intersection -- you now have a down ramp there and when it is icy or snowy people slide. I have slid through that light I don't know how many times even going very slowly.

Fix Canyon road it needs to be paved correctly -- it is a main road to the middle school and full of pot holes every season with snow you don't see the holes and it damages cars. Fix the big DIPS in the intersections on that same street all the way to the park.

Block parking on Jackson in front of the Shoot the Bull -- so hard to get around those when snowy etc.

If you decide to put up signs on streets that indicate no parking on this side of the street you should notify the residents. There is a sign past our house and we never drive in that direction to even see the sign, had no idea there was even a sign and yet our guests were ticketed for parking in front of our own home!

Fix the situation in front of Knect's it gets really old having to wait for vehicles to unload trucks in the middle of the roadway while we are trying to get to school and work. Either that or fix a time when they can unload which is after the busy morning commute.

Hillview/St Joe, Hillsview/Colo. 10th and Jackson, University/Mason, University/Jackson

Jan 24, 2011 4:42 PM

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2. Are there specific streets or intersections where you would like to see

	Response Text	
184	No. In fact, there is no reason for University/Mason to be four lanes. Young drivers are a menace sliding from lane to lane, and doubling the lanes makes the intersections (University and Mason) too complicated for them to handle. Half of the time it's a lane and a half from the snow anyway. The long-term plan should have pretty medians for University and Mason, both to simplify the driving and to let the schoolkids cross the street one half at a time.	Jan 24, 2011 4:45 PM
185	Jackson hill coming up to University Street. So hard to see.	Jan 24, 2011 5:54 PM
186	none	Jan 24, 2011 5:57 PM
187	Hillsview/Evans lane	Jan 24, 2011 6:35 PM
188	The Residential areas intersections are irregular when it comes to signs. (Yeild, stop, or none) Non-locals often mix the intersections up.	Jan 24, 2011 6:39 PM
189	Intersection of Hillsview and St. Joe is awful and accident prone people constantly sliding around the corner there are many accidents at this intersection. The high school and middle school streets need some work and safety reviews. Snow should be checked right away in the morning at the entrances and the McDonald's street intersection should always be gravelled all the way up and down so many problems. Create a drive through for the busses and another drop off lane for the high	Jan 24, 2011 7:07 PM
	school and middle school kids lots of safety concerns on this street especially when the streets are snowy and icy.	
190	St. Joe and Jackson	Jan 24, 2011 7:27 PM
191	no.	Jan 24, 2011 9:01 PM
192	Jackson and University is a dangerous intersection for the traffic travelling south on University away from campus. The hill at the corner of University and Jackson makes it impossible to see traffic coming from the east on Jackson. This should either be a 4-way stop or have a traffic light installed. The current 3-way stop is not a good idea. University carries a lot of traffic and I have seen many close collisions at this intersection.	Jan 24, 2011 9:36 PM
193	Where St. Joe and Hillsview meet the stop light seems to always stop me for far too long with seemingly no cars coming. Same for Main and Jackson in the evenings.	Jan 24, 2011 11:25 PM
194	The intersection of mason st. and campus blvd. I live right at this intersection and travel it often and the fact that it is only a 3 way stop and only a stop if your going straight and not turning is very dangerous and confusing! It is hard to determine who has the right of way when some one is turning because of the no stop.	Jan 24, 2011 11:41 PM
195	Main streets in town - Jackson particularly	Jan 25, 2011 12:04 AM
196	All of the streets could stand more snow removal.	Jan 25, 2011 1:30 AM
197	no	Jan 25, 2011 1:40 AM
198	Stop lights around Ext. 14 are awful. Stop lights should be pressure sensative and/or after 8:00 pm and before 7:00 am lights should blink yellow or red.	Jan 25, 2011 3:34 AM
199	The four-way stop light right next to the Young Center is narrow, but I'm sure widening the streets around that area would be a major project.	Jan 25, 2011 3:51 AM
200	All traffic lights should be smart lights	Jan 25, 2011 3:56 AM
201	Jakson	Jan 25, 2011 4:00 AM
202	The Jackson stop light area in front of Common Cents.	Jan 25, 2011 5:06 AM
203	Maitland road is narrow and has no shoulders. Also the network of traffic lights around exit 14 are ridiculous.	Jan 25, 2011 5:56 AM

	Response Text	
204	no, not so much.	Jan 25, 2011 7:46 AM
205	Exit 14, both the north and south side of I-90 & W Jackson from Main to University (lanes seem very narrow and sight distances for approaches seem questionable).	Jan 25, 2011 1:21 PM
206	Spearfish is easy to get around in but the speed limits are alittle low.	Jan 25, 2011 2:29 PM
207	Jackson and College Lane intersection	Jan 25, 2011 4:19 PM
208	I think the entire town just needs to be plowed better. Seems like the snow is on the road for quite sometime before anything is plowed. They always seem to be a mess and unsafe to travel on in the winter	Jan 25, 2011 5:26 PM
209	university and jackson	Jan 25, 2011 5:54 PM
210	no	Jan 25, 2011 6:17 PM
211	The corner of St. Joe and Jackson Boulevard could use a light and the intersection of Hudson and Main could use turn signals at the light.	Jan 25, 2011 6:40 PM
212	Right in front of Taco bell and Safeway.	Jan 25, 2011 6:52 PM
213	Exit 14 has bad snow removal and the traffic lights have really bad timing between turning green.	Jan 25, 2011 7:27 PM
214	College Lane and Hillsview College Lane and Oliver	Jan 25, 2011 7:32 PM
215	I live down Evans Lane and the street from the St.Joe/Evans Ln light to valley corner is absolutely terribe.	Jan 26, 2011 12:27 AM
216	A light at the 3 way stop on Jackson and University	Jan 26, 2011 12:58 AM
217	no	Jan 26, 2011 2:32 AM
218	Exit 14/Colorado Blvd intersection needs a right turning lane from the East so you don't have to wait for the people going into town.	Jan 26, 2011 3:25 AM
219	exit 14 is rediculous on the south side	Jan 26, 2011 3:34 AM
220	main street and colorado intersection, bhsu parking lot	Jan 26, 2011 4:23 AM
221	Evans Lane needs to be completely re-paved. The road surface is a nightmare in the winter.	Jan 26, 2011 5:20 PM
222	The stop light maze at 27th Street/Exit 14; a stoplight at Spearfish Canyon/Dairy Queen mall; possibly something at the Sandstone Hills entrance.	Jan 26, 2011 5:42 PM
223	Intersection of Jackson and 10th street	Jan 26, 2011 5:57 PM
224	St. Joe Street north of Hillsview Rd is very poor driving conditions, not to mention when riding a bike. Colorado Blvd is always very busy, it needs additional lanes. As well as St. Joe street, there is a lot of traffic due to the college	Jan 26, 2011 6:05 PM
225	The intersection of St. Joe onto Jackson Blvd is difficult at times with only the 2 way stop sign.	Jan 26, 2011 6:32 PM
226	Evans Lane	Jan 26, 2011 6:36 PM
227	27th st and exit 10 to many streets with too much cross trafic. Also It would be helpful to have a light at 10th and Jackson as anyone trying to turn left can back up the street and block others for many minutes at times.	Jan 26, 2011 6:52 PM
228	Evans Lane needs to be repaved	Jan 26, 2011 7:04 PM
229	Spearfish does not plow their roads very well in the winter time. The roads are never in good condition when the weather is bad, they could do a lot better job.	Jan 26, 2011 8:08 PM
230	That weird crooked intersection right near the school by the car dealership. People almost always smack me in the harsh turn. At least it's a 25mph, which means people go 35, though still.	Jan 26, 2011 8:12 PM
231	Yes, College Lane should have a stop light or at least a 4 way stop. I've almost been in a couple accidents.	Jan 26, 2011 8:23 PM

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2. Are there specific streets or intersections where you would like to see

z. Are	there specific streets or intersections where you would	like to see
	Response Text	
232	10th & Jackson during peak hours - heavy school traffic. Many people using 10 street. Difficult to cross Jackson. Difficult to see if people are parked on Main at this intersection. Main street by middle school before and after school. No place to park for pick up and drop off. Too much traffic from High school and parents. Kids crossing in the middle of the block - not with crossing guards. Hillsview Drive west of town (all the way to Higgins Gulch) has a lot of pedestrian/bike traffic and NO shoulder.	Jan 26, 2011 10:02 PM
233	No	Jan 27, 2011 12:01 AM
234	 1.Jackson and University blvd. it very busy doing peak school hours, and it makes travel slow and difficult. 2. The intersection of Jackson and the street by the Mr. Movies where the light is. That light switches was to often and is a very long light, I have gotten stopped by the light when no one is evening waiting to come from the other way. 3. The intersection of Jackson and Ames. That light is to long and I have gotten stuck at it when there are no cars coming from the other direction. 	Jan 27, 2011 12:18 AM
235	Yes, the intersection at University Lane and the campus where the curve is!!! Nobody knows how to follow the lines and now that they changed it this last summer, it's worse because MORE people don't use it correctly. Honestly I can't believe there hasn't been more accidents. I have seen a couple instances and one time a cop yelled at us for not stopping for a girl crossing in that area and there was no crosswalk or sign. Not by the Elem. school but that darn curve!	Jan 27, 2011 4:14 AM
236	exit 10, exit 14, colorado blvd out to 385	Jan 27, 2011 5:08 AM
237	Evans Lane - roads are filled with pot holes, lines are difficult to see	Jan 27, 2011 5:59 PM
238	the intersection of university and jackson is pretty strange, Why do cars coming up a blind hill not have to stop, were cars on the top of the hill have to guess that a car is not coming up it. im sure that you cant have cars stopping on that hill especially in the winter time but i think that it can be done better	Jan 27, 2011 6:19 PM
239	dna	Jan 27, 2011 10:00 PM
240	None that I can think of right now.	Jan 27, 2011 11:03 PM
241	Main St. has an unreasonable speed limit. It is okay when it nears Jackson St. but as it pulls away from the "city center" 25 mph seems completely unnecessary. 35 mph would be reasonable, but I would even settle for 30 mph. 25 mph makes inner-city travel much more of a hassle. Also, the stoplight at the corner next to the Campus Apartments is just plain ridiculous. Almost every time I come the intersection I hit a red light (which isn't a big deal) but I have to wait for the green arrow to turn left even though there is NO ONE in the left lane. ever. I know sometimes it gets busy where that is handy, but its unnecessary the majority of the time. It almost worries me because I've seen multiple and multiple people speeding up over the speed limit just to make it at the yellow light (some people even run the red light even though they know it would be "ticket-worthy") just so they don't have to sit for what seems like eternity for the cross traffic and, mainly, that completely unnecessary left turn signal.	Jan 28, 2011 2:40 PM
242	I beleive more strict policies should be set into play for the crossing of bicycles on West Jackson.	Jan 28, 2011 8:02 PM
243	Main/downtown	Jan 28, 2011 10:14 PM
244	the turn from jackson towards the college that passes through the school zone needs a stoplight. it's an accident waiting to happen because you can't see cars coming up over the hill	Jan 29, 2011 6:18 PM
245	the residential are behind the hospital needs roadwork. Some of those potholes are pretty nasty.	Jan 30, 2011 2:11 AM
246	the interstates	Feb 1, 2011 4:15 AM
247	27th Street/Colorado Blvd light is always a mess.	Feb 1, 2011 4:58 AM

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	Response Text	
248	all the Intersections	Feb 3, 2011 9:25 PM
249	Yes. Get rid of useless stop signs, should be yield signs. Clear street corners to avoid hazardous lack of visibility. Fix pot holes and repaint street lines. FIX Traffic light-times. Post more speed limit signs. Make safe cross walks. Re-educate the Spearfish in how to drive. Re-test drivers of senior citizen age. Replace legal officers and rangers who don't abide the law and overstep the Amendments. Don't pull people over just to reach a quota. Don't spend the people's money on unreasonable purchases like multiple charger vehicles to which there has yet to be an adequate justification. Spearfish has the worst driving of any city I have ever been to.	Feb 3, 2011 10:08 PM
250	In times of snowy weather all of the roads seem quite hazardous.	Feb 4, 2011 12:10 AM
251	Exit 14 going East. The light there will take anywhere from 3 to 8 minutes to cycle through so the off ramp traffic can finally move.	Feb 4, 2011 5:00 PM
252	The set up of the stop signs. I do not like the three way stop, Jackson gets the right-away on the corner of University and Jackson. It is difficult to see the cars coming up the hill and it is hard to avoid a car that you didn't see coming when it is icy out. I would prefer a four way stop just to make it easier on drivers coming from the campus to Jackson.	Feb 9, 2011 12:59 AM

3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

	Response Text	
1	more bike trails/paths and lanes	Jan 21, 2011 7:28 PM
2	better connection between Spearfish park pavillion area and the campus toward Jonas	Jan 21, 2011 7:29 PM
3	no	Jan 21, 2011 7:30 PM
4	The area in the south east part of town and around downtown need to be connected to the rest of the pathways as well as areas along the main roads Jackson and Colorado. Bikes currently are very dangerous in certain areas.	Jan 21, 2011 7:34 PM
5	Connections to the existing Spearfish trail to other areas of town would be most appreciated, especially those connections east and west.	Jan 21, 2011 7:36 PM
6	near Green Acres/Mountain Shadows, to path on Colorado	Jan 21, 2011 7:37 PM
7	Don't know	Jan 21, 2011 7:37 PM
8	no suggestions	Jan 21, 2011 7:44 PM
9	No, they need a reliable inexpensive bus system.	Jan 21, 2011 7:44 PM
10	yes, there should be sidewalks around walmart and colorado blvd leading up the hill in between little caesars and pizza ranch	Jan 21, 2011 7:45 PM
11	Link between Spearfish Canyon Road (picking up at the exiting bike path) to southern entrance to the City Campground (instead of going up on the road for part of the path)	Jan 21, 2011 7:45 PM
12	Colorado Blvd to Wal-Mart	Jan 21, 2011 7:45 PM

3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

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	Response Text	
13	There is a need to connect Spearfish east to west. How about a bike path on Mason street between Tulane and St. Joe?	Jan 21, 2011 7:51 PM
	For bikes, travel on Evans Lane and Utah St crossing the creek are both risky because of narrow pavement and lots of cars going by. These spots could be made safer by adding a more formal bike path or widening the roads and designating bike lanes.	
14	I think a traffic circle at Colorado and the entrance to Spearfish Canyon would be good to keep traffic moving. All a light is going to do is back up traffic and cause frustration.	Jan 21, 2011 8:00 PM
15	Spearfish does need some public transportation, similar to what Deadwood has (trolley)	Jan 21, 2011 8:00 PM
16	Exit 14- connection from house developments to bike path	Jan 21, 2011 8:00 PM
17	Bike paths to new developments on old Belle Road.	Jan 21, 2011 8:01 PM
18	couldn't tell ya	Jan 21, 2011 8:08 PM
19	As mentioned above, east/west bike lanes are needed, and a bike lane that heads up Spearfish Canyon.	Jan 21, 2011 8:10 PM
20	There needs to be crosswalks for bicycles and pedestrians at all major intersections.	Jan 21, 2011 8:11 PM
21	would do well to add capacity through service road from e12- e14; and speed limit increase to increase traffic flow.	Jan 21, 2011 8:12 PM
22	I think Spearfish needs more bike paths.	Jan 21, 2011 8:13 PM
23	bicycle to Walmart and bike lanes to rec center	Jan 21, 2011 8:15 PM
24	no	Jan 21, 2011 8:16 PM
25	No.	Jan 21, 2011 8:19 PM
26	I would really like to see a path up the canyon for walking & biking. It is highly used anyway, but very dangerous especially during tourist season. For long distance runners, the in town path is just not long enough.	Jan 21, 2011 8:22 PM
27	yes, but I cannot remember at this time	Jan 21, 2011 8:28 PM
28	jackson and st joe is not have a shoulder on the road to ride your bike so it gets dangerous when your in the road and the cars are speeding over the limit.	Jan 21, 2011 8:28 PM
29	Paths along Hillsview and north of Hillsview on Lower Valley/St. Joe. More clearly marked crosswalks/ped traffic areas at the bottom of the hill between university and downtown.	Jan 21, 2011 8:34 PM
30	I would be nice to have a path from safeway down towards destination health than towards the new recreation center and post office.	Jan 21, 2011 8:35 PM
31	N/A	Jan 21, 2011 8:35 PM
32	I really don't knowwhen I go for a jog, I usually run on the street.	Jan 21, 2011 8:35 PM
33	See above.	Jan 21, 2011 8:41 PM
34	nope	Jan 21, 2011 8:42 PM
35	Rapid City does	Jan 21, 2011 8:43 PM
36	I feel Spearfish needs to be more connected. There a lot of dead ends in this town.	Jan 21, 2011 8:43 PM
37	Yes, as above. The Exit 14 overpass needs pedestrian and bicycle access, plus more car lanes.	Jan 21, 2011 8:44 PM
38	Old Hwy 14, along Evans Ln and Upper Valley are beautiful rides on a bike but a person puts themselves a risk of being run over by vehicles to enjoy it.	Jan 21, 2011 8:51 PM
39	Extend Walmart road east to connect to airport access.	Jan 21, 2011 8:56 PM

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	Response Text	
40	Hillsview, Highway 14, Evans Lane	Jan 21, 2011 9:02 PM
41	I would say an entire overhaul. Look at maps of the city of San Francisco the world's most bicycle friendly place. Their entire city can be toured through on bicycle w/o any hitches; it is so intricate. I would suggest making Spearfish's Model after theirs.	Jan 21, 2011 9:05 PM
42	Yes.	Jan 21, 2011 9:14 PM
43	there needs to be access to falcon crest (behind kmart) off christensen drive, knechts loading and unloading trucks on the street is dangerous	Jan 21, 2011 9:18 PM
44	Maybe a bike lane	Jan 21, 2011 9:21 PM
45	none	Jan 21, 2011 9:28 PM
46	No thanks!	Jan 21, 2011 9:35 PM
47	A walkway that runs from Colorado Ave. to the city walkway in the city park and from the walkway to the univeristy, along Nash.	Jan 21, 2011 9:35 PM
48	We need a paved bike lane on Lower Valley because it is so narrow.	Jan 21, 2011 10:04 P
49	No	Jan 21, 2011 10:07 P
50	Between the West Elementary Alley and the campus water always builds up and it is hard to cross the street.	Jan 21, 2011 10:08 P
51	What good are bike and walking paths when people allow their dos to run loose on them. I have almost been bitten over a dozen times in about a 2 year period by loose dogs on the paths. I say enough paths when they aren't safe to walk on. So NO to this question!	Jan 21, 2011 10:09 P
52	No	Jan 21, 2011 10:14 P
53	Bike lane on Colorado (to KMart/WalMart area) would be helpful - to be totally safe would require riding through the park, back through the mouth of the canyon, and then east on the bike/pedestrian path to 27th Street.	Jan 21, 2011 10:31 P
54	Connections to FS areas for mountain biking	Jan 21, 2011 10:34 P
55	I would like to see sidewalk on Hillsview on the other side of College Lane going toward Upper Valley. I support making Spearfish more pedestrian and bike friendly.	Jan 21, 2011 10:38 P
56	Hillsview Road	Jan 21, 2011 10:39 P
57	Bicycle/Pedestrian Connections from the Rocket Park in Evans Addition to Hillsview via Evans Lane & a wider sidewalk from the corner of Evans & Hillsview going East to the bicycle path by the Creek.	Jan 21, 2011 10:43 P
58	Not off hand no.	Jan 21, 2011 10:45 P
59	No	Jan 21, 2011 11:08 P
60	yes,	Jan 21, 2011 11:12 P
61	Spearfish needs to develop sidewalks/trails along the east side of Main/North. There are not enough crosswalks north of the hospital to safely cross this busy street.	Jan 21, 2011 11:17 P
62	none that I can think of.	Jan 21, 2011 11:52 P
63	Yes! see #12 around West elementary (East Elem has needed it desparately, but that is solved with Creekside Elem safety in Canyon could be a 3rd priority	Jan 22, 2011 12:01 A
64	How about a cool bike path to Belle! :)	Jan 22, 2011 12:42 A
65	n/a	Jan 22, 2011 12:52 A
66	It would be neat if the bike path incorporated the BHSU campus	Jan 22, 2011 1:25 AM
		-3 <u>-</u> ,

East-West corridor near Jackson would be good. Some sort of perimeter loop

3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

	Response Text	
68	No	Jan 22, 2011 1:35 AM
69	It would be nice to have 3rd st go all the way to Utah st so we wouldn't have to go all the way around. Same situation with the connecting streets between Ames and 3rd.	Jan 22, 2011 3:33 AM
70	There are a lot of streets that seem to end abruptly or don't connect to the rest of the streets. 3rd street cuts off right before reaching to Utah street, and the connecting streets between Ames and 3rd are in the same situation. It'd be nice to not have to go all the way around.	Jan 22, 2011 3:38 AM
71	I think there needs to be a more direct rout to the young center from the interstate	Jan 22, 2011 3:53 AM
72	AllI the way down Evans Lane could benefit greatly from a paved sidewalk.	Jan 22, 2011 4:39 AM
73	not that I am aware	Jan 22, 2011 6:46 AM
74	No	Jan 22, 2011 8:08 AM
75	none	Jan 22, 2011 8:58 AM
76	I'd like to see a more direct connection between the University campus and the interstate, probably at exit 10. To get to campus from almost any direction you have to pass by either the high school/middle school, or by the elementary schools. Before 8am and just after 3pm, these streets become extremely congested, and many University students start and finish around these times, as well. Having another route to the interstate would help alleviate the University street and W. Jackson blvd congestion.	Jan 22, 2011 12:36 PM
77	Safe access to the University needs to be provided for those living on the south end of University St. This area will eventually expand to more residential area, yet crossing University at Jackson is completely dangerous. From BHSU on bicycle, there should be a path down to St. Joe so that the University/Jackson intersection can be avoided. Evens lane needs a bike path. In general, Spearfish has a N-S bike path, but nothing E-W.	Jan 22, 2011 3:01 PM
78	Alternate route to the Wal-Mart areaperhaps an easy access from exit 17	Jan 22, 2011 4:08 PM
79	There should be a crosswalk by the bridge on Jackson. Bicyclists and pedestrians are forces to either run across the street or travel under the bridge, which is closed off half the year anyways.	Jan 22, 2011 4:53 PM
80	no	Jan 22, 2011 4:54 PM
81	I think what we have is adequate .	Jan 22, 2011 6:21 PM
82	No, I don't believe so.	Jan 22, 2011 6:40 PM
83	Bike path out to city limits past exit 17. Coordinate with county and Whitewood to get something as far as Sturgis.	Jan 22, 2011 7:35 PM
84	Spearfish needs to update the paint they use on the roadsEven though they eventually get to repainting every year it is extremely hard to see lines which means cars driving all over the place.	Jan 22, 2011 8:00 PM
85	Unsure	Jan 22, 2011 8:09 PM
86	None.	Jan 22, 2011 9:09 PM
87	none	Jan 22, 2011 9:27 PM
88	Not at the moment.	Jan 23, 2011 12:39 AM
89	No.	Jan 23, 2011 1:50 AM
90	not that i know of	Jan 23, 2011 5:17 AM
91	no	Jan 23, 2011 7:07 AM
92	Any new connection would seem helpful.	Jan 23, 2011 2:23 PM

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Jan 22, 2011 1:31 AM

3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

	Response Text	
93	Yes, I think a route up Spearfish Canyon would be amazing and also to have routes that can bring you to the downtown district without having to go down the street.	Jan 23, 2011 7:29 PM
94	just more sidewalks and re -surface the old ones	Jan 23, 2011 7:33 PM
95	More bike paths would be awesome around town!	Jan 23, 2011 9:05 PM
96	More bike paths	Jan 23, 2011 9:10 PM
97	Not to my knowledge.	Jan 23, 2011 9:31 PM
98	Spearfish is not designed for walking, especially in the winter. Even when residents shovel their sidewalks, when you get to the corner there are mountains of snow from the plowing that you have to negotiate. Your other option is to walk in the street with cars. I have nearly been run over many times. The removal of snow on sidewalks and by businesses as you walk into the downtown area should be enforced. Numerous times cars do not yield for a pedestrian, even in a crosswalk.	Jan 23, 2011 10:57 PM
99	The Bike path is nice but we need safe paths in town. Just for Bike lanes	Jan 24, 2011 12:02 AM
100	nojust more encourage	Jan 24, 2011 12:42 AM
101	I feel that during times of snow Spearfish need to have better snow removal	Jan 24, 2011 2:53 AM
102	Easier to get to Walmart from downtown without the scariness of crossing the interstate and busy intersections	Jan 24, 2011 3:00 AM
103	Yes, bike lanes please.	Jan 24, 2011 4:39 AM
104	no	Jan 24, 2011 4:42 AM
105	They need to connect the bike path from sandstone to around taco johns going through the main street downtown area.	Jan 24, 2011 8:06 AM
106	Yes. Along Hillsview toward the HS/MS and new grade school. Once you can get to the bike path, it's fine, but	Jan 24, 2011 3:30 PM
107	na	Jan 24, 2011 3:34 PM
108	I do not know what you mean by this.	Jan 24, 2011 3:42 PM
109	Yes. It would be nice to be able to get from furthest west portion of Spearfish area (Higgins Gulch) to exit 17 on bike-safe path (w/o having to be in traffic). Even wider roadways with shoulders would be nicer.	Jan 24, 2011 4:42 PM
110	none	Jan 24, 2011 5:57 PM
111	Evans lane	Jan 24, 2011 6:35 PM
112	How about a low speed passenger train system for the Norther Black Hills?	Jan 24, 2011 7:17 PM
113	no.	Jan 24, 2011 9:01 PM
114	Evans Lane!!!	Jan 24, 2011 9:19 PM
115	YES! Walking and biking in Spearfish is dangerous business. Drivers don't yield to pedistrians, and on the way to school (Walking) home owners have not been shoveling snow which makes for some very dangerous sidewalk conditions.	Jan 24, 2011 10:46 PM
116	no	Jan 25, 2011 1:40 AM
117	Hillsview and St. Joe/Evans Lane	Jan 25, 2011 3:34 AM
118	I like the ample space for a bike path next to the golf course. I wish the bike/walk path around town was this spread out all throughout.	Jan 25, 2011 3:51 AM
119	yes, between campus and the apaertment complexes within a 2 mile radius.	Jan 25, 2011 4:00 AM
120	Yes, lookout mountain could be very much improved with pathways for pedestrains and pedal bikes, not to mention a lookout deck at the top.	Jan 25, 2011 5:06 AM
121	пп	Jan 25, 2011 7:46 AM
122	I am not sure what the street names are.	Jan 25, 2011 2:29 PM

3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

	Response Text	
123	bike path north of interstate from sandstone to 10th street area	Jan 25, 2011 2:46 PM
124	no	Jan 25, 2011 6:17 PM
125	Street signs at the crosswalks on St. Joe to remind vehicles to yield to pedestrians.	Jan 25, 2011 6:40 PM
126	Look at number 13.	Jan 25, 2011 6:52 PM
127	Maybe surrounding the campus, especially on the west side (College Lane, Oliver, Jonas)	Jan 25, 2011 7:32 PM
128	It defiantly needs some bike lanes or wider sidewalks, especially through the parks. As a biker I tend to take the paths because of the ignorance and lack of safety applied by the drivers in the area when riding my bicycle on the streets.	Jan 26, 2011 12:27 AM
129	No, I think it is decent.	Jan 26, 2011 12:58 AM
130	no	Jan 26, 2011 2:32 AM
131	easier to walk to university from common cents area	Jan 26, 2011 3:34 AM
132	I would like to see a better enforcement of parking in the Young Center parking lot. It is rediculous to allow cars to park in spots where there are no parking spaces and knowingly block other vehicles.	Jan 26, 2011 7:59 AM
133	Extending the bike path, from it's current end point at Colorado and 27th Street, across the bridge with a sidewalk that is seperated from the road traffic would make bike/pedistrian travel to Wal-Mart much easier.	Jan 26, 2011 5:20 PM
134	Yes, around the downtown/main street area, to dog park area and along Jackson need walk/bike paths to meet up with existing ones	Jan 26, 2011 5:57 PM
135	The current path is great! It is always very busy on nice days. I would really like to see the path be extended outside on town more. It is great that there is something centrally located but having access to things outside of town where I can run with my dog would be great.	Jan 26, 2011 6:05 PM
136	west of Spearfish on Hillsview. Many people walk and ride on it and it is a very busy road, with little to no shoulders.	Jan 26, 2011 6:07 PM
137	Something on evans lane.	Jan 26, 2011 6:36 PM
138	More single track dirt trails. We don't need to spend millions on paving everything and could build many more miles of trails for the cost if we do not pave everything. There should be a conector built from town to the tinton trail and mikelson. The city also owns property on lookout mt and in the canyon that would be a good candidate for this.	Jan 26, 2011 6:52 PM
139	Yes, bike path from 27th St to 1st Ave and to Walmart; down Evans Lane, bike path down College Lane and Jonas; bike path down State St from Colorado to East School.	Jan 26, 2011 7:04 PM
140	If Spearfish were a much more pedestrian and bicycle friendly town, which it is very not right now, I think it would benefit greatly. I would spend more time spending my money here and enjoying the city instead of just leaving for Rapid for everything. I'd like to explore more of the city by bike or walking.	Jan 26, 2011 8:12 PM
141	yes on any streets w/o a sidewalk.	Jan 26, 2011 8:23 PM
142	The North/South bike path from the valley to exit 14 is coming along, but East/West - Jackson, Utah/Hillsview is lacking. It needs some connectors. If gas keeps rising, we will be biking and walking more and it would be nice for things to be a little safer.	Jan 26, 2011 10:02 PM
143	A new park!! More designated places to fly fish!	Jan 27, 2011 12:01 AM
144	N/A	Jan 27, 2011 12:18 AM
145	Evans Lane - road is frequently travelled by vehicles, bicycles, walkers, runners and children, but there is no curb or sidewalk.	Jan 27, 2011 5:59 PM

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3. Does Spearfish need any new roadway or bicycle/pedestrian connections? If

	Response Text						
146	Spearfish needs bike lanes.	Jan 27, 2011 6:19 PM					
147	dna	Jan 27, 2011 10:00 PM					
148	not sure. maybe connecting the rv park (Elk Ridge) to the spearfish town ship for bikes would be nice, cause right now you either would have to go onto 90 or travel on Colorado Blvd. which could be quite dangerous, cause I have personally been a victim of peoples crazy driving on there. ie: traveling faster than speed posted, taking more than just their side of the road.,etc You get the picture	Jan 27, 2011 11:03 PM					
149	Spearfish is a tough town when it comes to roadway connections. Each street appears to have a dead end after four blocks, but it's as good as it could be without putting in more bridges and such. One spot that really comes to mind is the very northern part of N. 3rd St. (west of the High School and East of the Campus Apartments/BHSU). I believe it should continue north and connect to W. Utah St. I just think it is unnecessary that if you are driving from (for example) the Campus Apartments to any of the houses within the neighborhood anywhere near W. 3rd St. You must drive at least to Main St. or Nash St. It just seems too big of a hassle considering there is such a short distance between the two streets (W. 3rd St. & W. Utah St.) and when there is a clear-cut path between the two roads. It's an easy fix.	Jan 28, 2011 2:40 PM					
150	I beleive an new bike path running parralell to West Jackson should be made.	Jan 28, 2011 8:02 PM					
151	?	Jan 28, 2011 10:14 PM					
152	The area I feel needs the most attention is the overpass at the walmart exit.	Jan 30, 2011 2:11 AM					
153	No	Feb 1, 2011 4:58 AM					
154	sidewalks leading to campus or Young Center on St. Joe	Feb 3, 2011 9:25 PM					
155	YES. Both bicycle and pedestrian. How about a bridge, or a few, that offer safe crossings over busy roads. Why not more paths, trails, bikeways, parks?	Feb 3, 2011 10:08 PM					
156	when in colorado all the streets have bike lanes in them on the main roads that would be nice	Feb 4, 2011 3:24 AM					
157	footpath and well marked crossing on Jackson Blvd near Taco John's	Feb 7, 2011 5:52 PM					

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APPENDIX C CURRENT TRANSPORTATION ISSUES

Roadway

- Need Exit 14 improvements
 - Consider logging trucks accessing the intersection from the west in new design
 - Extend the westbound left turn lane on Colorado Blvd at 27th St
 - Add a westbound right turn lane on Colorado Blvd at 27th St
 - Consider the realignment of 27th St south of the interchange so that there is a straight connection through the intersection
 - Consider eliminating the access from the Pizza Ranch onto Colorado Blvd
- Upgrade Evans Lane
- Widen Colorado Blvd between Exit 14 and Exit 17
- Provide consistent shoulder widths along Colorado Blvd
- Add shoulders to Colorado Blvd between Rainbow Rd & Exit 17
- Add an interchange along I-90 between Exit 14 and Exit 17
- Consider plans for future east-west corridors
- Auxiliary turn lanes are needed at 10th Street & Jackson Blvd (especially an eastbound left turn)
- Examine the intersection of 1st Ave & the West Walmart Access for safety concerns related to exiting traffic conflicting with eastbound through traffic
- Access onto Colorado Blvd from Country Club Village needs attention
- Consider the realignment of US 14A to align with Dahl Rd at Colorado Blvd
- Consider the removal of the traffic signal at Michigan & Main
- Examine the intersection of 5th St & Jackson St to determine if a traffic signal is warranted
- City traffic signals need better timing/coordination
- Consider the installation of actuated controllers at signalized intersections throughout town
- Seasonal traffic control at SH 14A & Colorado Blvd needs to be addressed
- Examine the intersection of US 14A & Colorado Blvd to determine if a traffic signal is warranted
- Examine Oliver St for problems with speeding
- Examine the intersection of Hillsview Rd & McGuigan Rd for safety concerns between heavy vehicles, passenger vehicles, and pedestrians
- Examine the intersection of Oliver St & McGuigan Rd for safety concerns between heavy vehicles, passenger vehicles, and pedestrians
- Nash & St Joe should be all way stop controlled to allow for pedestrian crossing
- Examine the intersection of 27th St & 1st Ave for safety concerns related to northbound pedestrians crossing the east leg of the intersection
- Review the intersection markings at Jackson Boulevard & University St
- Consider strategies for reducing cut through traffic along Sandstone Hills/Windmill Dr (to the Walmart)







Bicycle/Pedestrian

- Widen US 14A to allow for safer bicycle and pedestrian use
- Consider a bicycle/pedestrian underpass of I-90 at Exit 14
- ▶ Add a bicycle lane on the west side of Evans Lane
- Safe pedestrian crossing of Colorado Blvd at the Alternative School needs to be examined
- Focus on alternative modes of travel
 - Add on-street bike lanes
 - Add sidewalks
 - Add pathways
- Recreation paths need to be linked to regional paths
- Recreation paths need to be constructed to Exit 17
- ▶ Construct a recreational path connecting the Reserve and the sports complex
- Construct a pedestrian path south of Taco Bell connecting the High School with Safeway

Transit

- Consider improvements to Prairie Hills Transit off-hour and weekend service
- Re-consider the addition of a trolley in town
- Provide bus service to all new housing
- Provide financial assistance for the purchase of transit passes for disadvantaged members of the community







APPENDIX D COST ANALYSIS WORKSHEETS

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

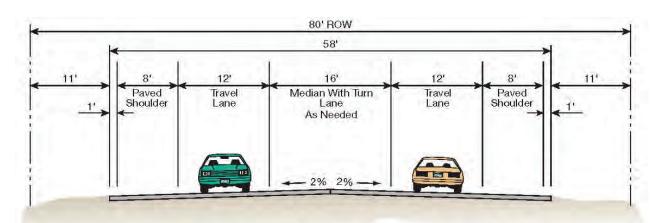


RURAL ARTERIAL (Paved)

Date Prepared:	June 8. 2011

ltem		Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
1 Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	43,761	\$656,415	3.17' cut to recondition soil & apply 6" ABC & HBP
³ Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	14,970	\$898,200	Assum 8"
5 Aggregate Base Course (Class 6)	CY	\$35	5,670	\$198,450	Assum 6"
⁶ Embankment Material (Special) (R-50)	CY	\$12	11,340	\$136,080	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	0	\$0	
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$1,889,145	

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$1,889,145	(A)
Contingencies	(15 - 30%) of A	30.0%	\$566,744	(B)
Utilities	(5 - 20%) of (A+B)	5.0%	\$122,794	(D)
Drainage	(4 - 10%) of (A+B)	4.0%	\$98,236	(E)
Signing and Striping	(1 - 5%) of (A+B)	3.0%	\$73,677	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	2.0%	\$49,118	(G)
Lighting	(1 - 5%) of (A+B)	3.0%	\$73,677	(H)
Landscaping	(1 - 5%) of (A+B)	1.0%	\$24,559	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	4.0%	\$115,918	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$3,014,000	



Rural Arterial (Paved)

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Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width		Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	58	Ft
Median Width	0	Ft
Sidewalk Width	0	Ft
HBP Full Depth	8	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	1	Ft

Project Limits Quantities Length of Project (LF) = 5,280 1 mile
Bridge Structure (SF) = 0
Proposed Pavement Limits (SF) = 306,240
Proposed Pavement Limits (SY) = 34,027
Aggregate Base Course (Class 6) (CY) = 5,671
Embankment (Special) R-50) (CY) = 11,342
Curb & Gutter (LF) = 10,560
Concrete Sidewalk (SY) = 11,733
Traffic Signals (EA) = 0

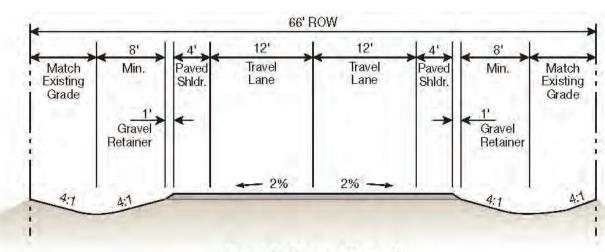
ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE





Item	Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT	
Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	26,987	\$404,800	3' cut to recondition soil & apply 6" ABC & HBP
³ Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	6,580	\$394,800	Assum 6"
5 Aggregate Base Course (Class 6)	CY	\$35	3,320	\$116,200	Assum 6"
⁶ Embankment Material (Special) (R-50)	CY	\$12	6,650	\$79,800	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	0	\$0	
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$995,600	

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$995,600	(A)
Contingencies	(15 - 30%) of A	30.0%	\$298,680	(B)
Utilities	(5 - 20%) of (A+B)	5.0%	\$64,714	(D)
Drainage	(4 - 10%) of (A+B)	4.0%	\$51,771	(E)
Signing and Striping	(1 - 5%) of (A+B)	3.0%	\$38,828	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	2.0%	\$25,886	(G)
Lighting	(1 - 5%) of (A+B)	3.0%	\$38,828	(H)
Landscaping	(1 - 5%) of (A+B)	1.0%	\$12,943	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	4.0%	\$61,090	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$1,588,000	



Rural Collector (Paved)

* Right-of-way may be increased to accommodate lanes (i.e. ATV/bike)

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Cost-per-Mile-Estimates.xlsx
Page 3
Cost-per-Mile-Estimates.xlsx

Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width	0	Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	34	Ft
Median Width	0	Ft
Sidewalk Width	0	Ft
HBP Full Depth	6	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	1	Ft

Project Limits Quantities			
Length of Project (LF)	=	5,280	1 mile
Bridge Structure (SF)	=	0	
Proposed Pavement Limits (SF)	=	179,520	
Proposed Pavement Limits (SY)	=	19,947	
Aggregate Base Course (Class 6) (CY)	=	3,324	
Embankment (Special) R-50) (CY)	=	6,649	
Curb & Gutter (LF)	=	10,560	
Concrete Sidewalk (SY)	=	11,733	
Traffic Signals (FA)	_	0	

Page 4

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

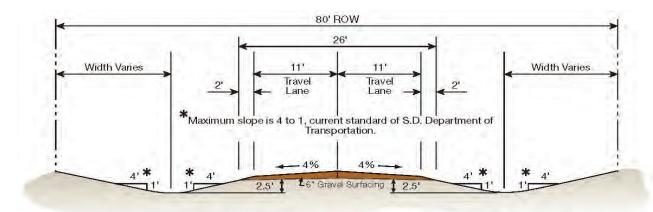


RURAL ARTERIAL (Gravel)

Date Prepared: June 8, 2011

Item		Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	9,387	\$140,800	1.5' cut to recondition soil & apply 6" gravel
3 Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	0	\$0	
⁵ Aggregate Base Course (Class 6)	CY	\$35	2,540	\$88,900	Assum 6"
⁶ Embankment Material (Special) (R-50)	CY	\$12	5,080	\$60,960	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	0	\$0	
9 Traffic Signals	Each	\$250,000	0	\$0	

	\$290,660			
	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$290,660	(A)
Contingencies	(15 - 30%) of A	30.0%	\$87,198	(B)
Utilities	(5 - 20%) of (A+B)	5.0%	\$18,893	(D)
Drainage	(4 - 10%) of (A+B)	4.0%	\$15,114	(E)
Signing and Striping	(1 - 5%) of (A+B)	3.0%	\$11,336	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	2.0%	\$7,557	(G)
Lighting	(1 - 5%) of (A+B)	3.0%	\$11,336	(H)
Landscaping	(1 - 5%) of (A+B)	1.0%	\$3,779	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	4.0%	\$17,835	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$464,000	



Rural Arterial (Gravel)*

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Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width		Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	26	Ft
Median Width	0	Ft
Sidewalk Width	0	Ft
HBP Full Depth	0	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	0	Ft

Project Limits Quantities			
Length of Project (LF)	=	5,280	1 mile
Bridge Structure (SF)	=	0	
Proposed Pavement Limits (SF)	=	137,280	
Proposed Pavement Limits (SY)	=	15,253	
Aggregate Base Course (Class 6) (CY)	=	2,542	
Embankment (Special) R-50) (CY)	=	5,084	
Curb & Gutter (LF)	=	10,560	
Concrete Sidewalk (SY)	=	11,733	
Troffic Signala (EA)	_	0	

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE



Date Prepared: June 8, 2011

RURAL COLLECTOR (Gravel)

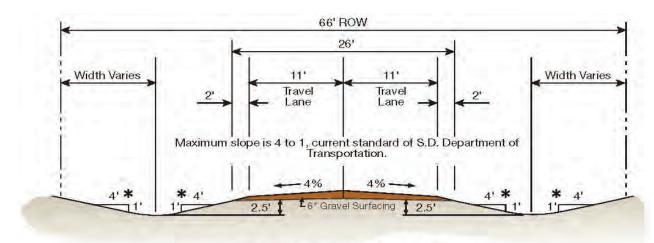
SY

Removal of Asphalt Material

Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
\$10	0	\$0	
\$15	9,387	\$140,800	1.5' cut to recondition soil & apply 6" ABC
\$120	0	\$0	
\$60	0	\$0	

² Unclassified Excavation (CIP)	CY	\$15	9,387	\$140,800	1.5' cut to recondition soil & apply 6" AB
³ Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	0	\$0	
5 Aggregate Base Course (Class 6)	CY	\$35	2,540	\$88,900	Assum 8"
⁶ Embankment Material (Special) (R-50)	CY	\$12	5,080	\$60,960	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	0	\$0	
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$290,660	_

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$290,660	(A)
Contingencies	(15 - 30%) of A	30.0%	\$87,198	(B)
Utilities	(5 - 20%) of (A+B)	5.0%	\$18,893	(D)
Drainage	(4 - 10%) of (A+B)	4.0%	\$15,114	(E)
Signing and Striping	(1 - 5%) of (A+B)	3.0%	\$11,336	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	2.0%	\$7,557	(G)
Lighting	(1 - 5%) of (A+B)	3.0%	\$11,336	(H)
Landscaping	(1 - 5%) of (A+B)	1.0%	\$3,779	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	4.0%	\$17,835	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$464,000	



Rural Collector (Gravel) *

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Cost-per-Mile-Estimates.xlsx

Cost-per-Mile-Estimates.xlsx

Cost-per-Mile-Estimates.xlsx

Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width	0	Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	26	Ft
Median Width	0	Ft
Sidewalk Width	0	Ft
HBP Full Depth	0	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	0	Ft

Project Limits Quantities			
Length of Project (LF)	=	5,280	1 mile
Bridge Structure (SF)	=	0	
Proposed Pavement Limits (SF)	=	137,280	
Proposed Pavement Limits (SY)	=	15,253	
Aggregate Base Course (Class 6) (CY)	=	2,542	
Embankment (Special) R-50) (CY)	=	5,084	
Curb & Gutter (LF)	=	10,560	
Concrete Sidewalk (SY)	=	11,733	
Troffic Cionale (EA)		0	

Page 8

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

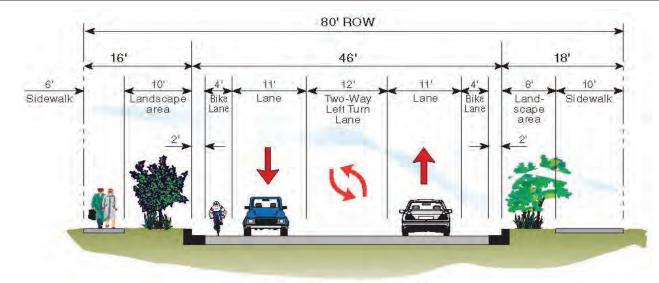


FELSBURG
HOLT &
ULLEVIG
engineering paths to transportation solutions

URBAN TWO-LANE ARTERIAL

Item		Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	29,105	\$436,578	3.17' cut to recondition soil & apply 6" ABC & HBP
³ Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	10,840	\$650,400	Assum 8"
5 Aggregate Base Course (Class 6)	CY	\$35	4,110	\$143,850	Assum 6"
⁶ Embankment Material (Special) (R-50)	CY	\$12	8,210	\$98,520	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
Concrete Sidewalk (6 Inch)	SY	\$45	18,773	\$844,800	
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$2,174,148	

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$2,174,148	(A)
Contingencies	(15 - 30%) of A	30.0%	\$652,244	(B)
Utilities	(5 - 20%) of (A+B)	10.0%	\$282,639	(D)
Drainage	(4 - 10%) of (A+B)	10.0%	\$282,639	(E)
Signing and Striping	(1 - 5%) of (A+B)	4.0%	\$113,056	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	8.0%	\$226,111	(G)
Lighting	(1 - 5%) of (A+B)	4.0%	\$113,056	(H)
Landscaping	(1 - 5%) of (A+B)	4.0%	\$113,056	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	6.0%	\$237,417	(J)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$4,194,000	



Two Lane Arterial

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Cost-per-Mile-Estimates.xlsx Page 9

Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width	0	Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	42	Ft
Median Width	0	Ft
Sidewalk Width	16	Ft
HBP Full Depth	8	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	1	Ft

Project Limits Quantities Length of Project (LF) = 5,280 1 mile Bridge Structure (SF) = 0 Proposed Pavement Limits (SF) = 221,760 Proposed Pavement Limits (SY) = 24,640 Aggregate Base Course (Class 6) (CY) = 4,107 Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733 Traffic Signals (EA) = 0				
Bridge Structure (SF) = 0 Proposed Pavement Limits (SF) = 221,760 Proposed Pavement Limits (SY) = 24,640 Aggregate Base Course (Class 6) (CY) = 4,107 Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Project Limits Quantities			
Proposed Pavement Limits (SF) = 221,760 Proposed Pavement Limits (SY) = 24,640 Aggregate Base Course (Class 6) (CY) = 4,107 Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Length of Project (LF)	=	5,280	1 mile
Proposed Pavement Limits (SY) = 24,640 Aggregate Base Course (Class 6) (CY) = 4,107 Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Bridge Structure (SF)	=	0	
Aggregate Base Course (Class 6) (CY) = 4,107 Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Proposed Pavement Limits (SF)	=	221,760	
Embankment (Special) R-50) (CY) = 8,213 Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Proposed Pavement Limits (SY)	=	24,640	
Curb & Gutter (LF) = 10,560 Concrete Sidewalk (SY) = 11,733	Aggregate Base Course (Class 6) (CY)	=	4,107	
Concrete Sidewalk (SY) = 11,733	Embankment (Special) R-50) (CY)	=	8,213	
	Curb & Gutter (LF)	=	10,560	
Traffic Signals (EA) = 0	Concrete Sidewalk (SY)	=	11,733	
	Traffic Signals (EA)	=	0	

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

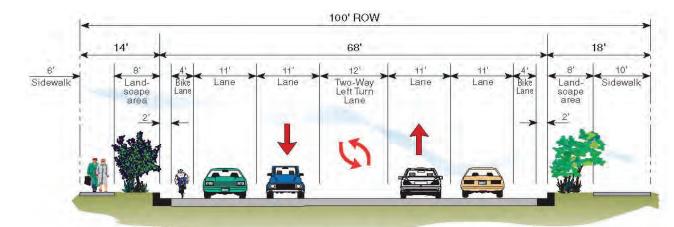


URBAN FOUR-LANE ARTERIAL

Date Prepared: June 8, 2011

Item		Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
1 Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	42,729	\$640,933	3.17' cut to recondition soil & apply 6" ABC & HBP
3 Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	16,520	\$991,200	Assum 8"
5 Aggregate Base Course (Class 6)	CY	\$35	6,260	\$219,100	Assum 6"
6 Embankment Material (Special) (R-50)	CY	\$12	12,520	\$150,240	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	9,387	\$422,400	16' total width
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$2,423,873	

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$2,423,873	(A)
Contingencies	(15 - 30%) of A	30.0%	\$727,162	(B)
Utilities	(5 - 20%) of (A+B)	10.0%	\$315,104	(D)
Drainage	(4 - 10%) of (A+B)	10.0%	\$315,104	(E)
Signing and Striping	(1 - 5%) of (A+B)	4.0%	\$126,041	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	8.0%	\$252,083	(G)
Lighting	(1 - 5%) of (A+B)	4.0%	\$126,041	(H)
Landscaping	(1 - 5%) of (A+B)	4.0%	\$126,041	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	6.0%	\$264,687	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$4,676,000	



Four Lane Arterial

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Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width	0	Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	64	Ft
Median Width	0	Ft
Sidewalk Width	16	Ft
HBP Full Depth	8	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	1	Ft

=	5,280	1 mile
=	0	
=	337,920	
=	37,547	
=	6,258	
=	12,516	
=	10,560	
=	11,733	
=	0	
	= = = = = =	= 0 = 337,920 = 37,547 = 6,258 = 12,516 = 10,560 = 11,733

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

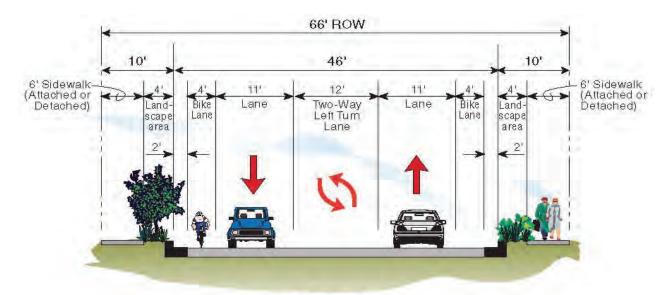


URBAN COLLECTOR

Date Prepared:	June 8 2011	
Jale Frebaieu.	Julie 6. ZU I I	

Item		Unit Cost	Quantity	Extended Cost	Shaded Fields are for INPUT
Removal of Asphalt Material	SY	\$10	0	\$0	
² Unclassified Excavation (CIP)	CY	\$15	27,573	\$413,600	3' cut to recondition soil & apply 6" ABC & HBP
3 Bridge Structure	SF	\$120	0	\$0	
⁴ HBP (Grading S) (100) (PG 76-28)	Ton	\$60	8,130	\$487,800	Assum 6"
5 Aggregate Base Course (Class 6)	CY	\$35	4,110	\$143,850	Assum 6"
6 Embankment Material (Special) (R-50)	CY	\$12	8,210	\$98,520	Assum 1'
⁷ Curb and Gutter (Type 2 (Section II-B)	LF	\$19	0	\$0	
8 Concrete Sidewalk (6 Inch)	SY	\$45	7,040	\$316,800	12' total width
9 Traffic Signals	Each	\$250,000	0	\$0	
				\$1,460,570	

	% Range	% Used	Cost	
Project Construction Bid Items	Project Dependent	N/A	\$1,460,570	(A)
Contingencies	(15 - 30%) of A	30.0%	\$438,171	(B)
Utilities	(5 - 20%) of (A+B)	10.0%	\$189,874	(D)
Drainage	(4 - 10%) of (A+B)	10.0%	\$189,874	(E)
Signing and Striping	(1 - 5%) of (A+B)	4.0%	\$75,950	(F)
Construction Signing & Traffic Control	(5 - 30%) of (A+B)	8.0%	\$151,899	(G)
Lighting	(1 - 5%) of (A+B)	4.0%	\$75,950	(H)
Landscaping	(1 - 5%) of (A+B)	4.0%	\$75,950	(1)
Mobilization	(4 - 7%) of (A+B+C+D+E+F+G+H+I)	6.0%	\$159,494	(1)
ROW	Lump Sum	N/A	\$0	(K)
Total of Construction Bid Items	(A+B+C+D+E+F+G+H+I+J+K)		\$2,818,000	



Collector

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Master Items Calculation Reference	Link	Unit
Bridge Structure Length	0	Ft
Bridge Structure Width	0	Ft
*Conversion for HBP=	110	lbs per sq yd per inch depth
Pavement Width	42	Ft
Median Width	0	Ft
Sidewalk Width	6	Ft
HBP Full Depth	6	Inch
Aggregate Base Course (Class 6)	6	Inch
Depth of Embankment (Special) (R-50)=	1	Ft
Avg (Cut) in Addition to pavement structure (Cut)	1	Ft

Project Limits Quantities			
Length of Project (LF)	=	5,280	1 mile
Bridge Structure (SF)	=	0	
Proposed Pavement Limits (SF)	=	221,760	
Proposed Pavement Limits (SY)	=	24,640	
Aggregate Base Course (Class 6) (CY)	=	4,107	
Embankment (Special) R-50) (CY)	=	8,213	
Curb & Gutter (LF)	=	10,560	
Concrete Sidewalk (SY)	=	11,733	
Traffic Signals (FA)	_	0	

ESTIMATE OF PROBABLE CONSTRUCTION COST PER MILE

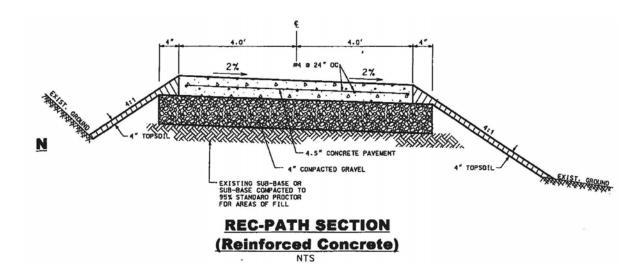
TYPICAL PATH



engineering paths to transportation solutions

Date Prepared: July 20, 2011

	Date Frepareu.	July 20, 2011					
Item		Unit Cost Quantity		Extended Cost	Shaded Fields are for INPUT		
Unclassified Excavation (CIP)	CY	\$15	3,667	\$55,002	1.83' cut to recondition soil & apply 6" ABC & HB		
² Aggregate Base Course (Class 6)	CY	\$35	780	\$27,300			
Bmbankment Material (Special) (R-50)	CY SY	\$12	1,560	\$18,720			
4 Concrete Sidewalk (4.5 Inch)	\$35 4,693 \$164,267 Assum 8' wide						
				\$265,289			
	% Range		% Used	Cost			
Project Construction Bid Items	Project Dependent		N/A	\$265,289	(A)		
Contingencies	(15 - 30%) of A		20.0%	\$53,058	(B)		
Utilities	(5 - 20%) of (A+B)		5.0%	\$15,917	(D)		
Drainage	(4 - 10%) of (A+B)		4.0%	\$12,734	(E)		
Signing and Striping	(1 - 5%) of (A+B)		1.0%	\$3,183	(F)		
Construction Signing & Traffic Control	(5 - 30%) of (A+B)		0.0%	\$0	(G)		
Lighting		(1 - 5%) of (A+B)		4.0%	\$12,734	(H)	
Landscaping	(1 - 5%) of (A+B)		5.0%	\$15,917	(1)		
Mobilization	(4 - 7%) of (A+B+C-	+D+E+F+G+H+I)	4.0%	\$15,153	(1)		
ROW		Lump Sum		N/A	\$0	(K)	
Total of Construction Bid Items		(A+B+C+D+E+F+G	+H+I+J+K)		\$394,000		



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Master Items Calculation Reference Link Un Bridge Structure Length 0 Ft

Bridge Structure Width 0 Ft

*Conversion for HBP= 110 lbs per sq yd per inch depth

Project Limits Quantities

ct Limits Quantities			
Length of Project (LF)	=	5,280	1 mile
Bridge Structure (SF)	=	0	
Proposed Pavement Limits (SF)	=	42,240	
Proposed Pavement Limits (SY)	=	4,693	
Aggregate Base Course (Class 6) (CY)	=	782	
Embankment (Special) R-50) (CY)	=	1,564	
Curb & Gutter (LF)	=	0	
Concrete Sidewalk (SY)	=	4,693	
Traffic Signals (EA)	=	0	

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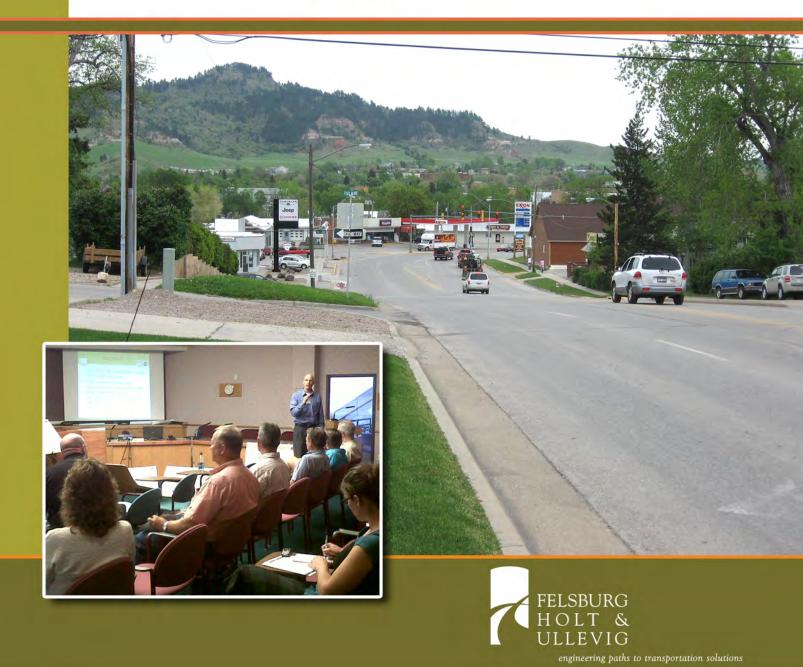
APPENDIX E PUBLIC MEETING SUMMARIES

July 2010
Community Input Open House
Summary















Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

List of Contents

Meeting Overview and Comment Summary

Comment Sheets

Personal Letters and emails

Meeting Handout

Sign-In Sheets

Advertisement / Communication

Open House Exhibits

Open House PowerPoint Presentation







Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Meeting Overview and Comment Summary







<u>Community Input Open House – Overview</u>

Date: July 22, 2010, 5:30 PM – 7:00 PM Location: Spearfish City Hall, Spearfish, SD

Attendance: 21 people, plus consultants, Project Advisory Group members,

and City representatives

Purpose: Provide overview of project and gather public input on critical

issues and alternatives

Meeting Graphics: Thirteen display boards and a PowerPoint presentation

Feedback: Conversations with attendees, comment sheets (2), personal

letters and e-mails (1), sketches and notes on display boards

Comment Summary

Comment Sheet Questions:

What concerns do you have regarding the current City of Spearfish Transportation Network?

- Exit 14 Area (Business District and Residential)
- Colorado Blvd Corridor from Spearfish Canyon Highway (14A) to Hwy 85
- Accessing Colorado Blvd from Country Club Village

Please rate the following transportation project types based on how important each is to you:

The transportation project types were ranked by both respondents in the same order, listed below in order of importance.

- 1. Existing Road Improvements
- 1. New Road Construction
- 1. Intersection Improvements
- 2. Bicycle (trails, bike lanes)
- 2. Pedestrian (walks, crossings)
- 3. Bus/Transit

What specific future projects are needed to improve the Spearfish Transportation Network to handle growth?

- Consider another exit from I-90 between Exit 14 and Exit 17
- Line up Exit 14 with 27th Street to the south
- Evaluate Exit 17 along I-90 with special consideration about the future impacts from the new science lab under development in Lead, SD





General Comments from Comment Sheets:

Great presentation

Conversational Comments:

During the Community Open House, residents had an opportunity to talk with SDDOT, Lawrence County, City staff, and the consultants to discuss recommendations and concerns about the transportation network. The following issues were raised during these discussions.

- Ensure bus service is provided to new housing
- Provide financial assistance for the purchase of transit passes for disadvantaged members of the community
- Hillsview Rd / McGuigan Rd Concern about traffic conflicts between heavy vehicles, passenger vehicles, and pedestrians at this intersection
- Oliver St / McGuigan Rd Concerns about traffic conflicts between heavy vehicles, passenger vehicles, and pedestrians at this intersection
- Speeding is a problem on Oliver Street
- I-90 / Exit 14
 - This intersection is difficult to navigate for log trucks accessing the intersection from the west due to close spacing
 - o Extend the westbound left turn lane at 27th St
 - Add a westbound right turn lane at 27th St
- Colorado Blvd / 27th St
 - Consider the realignment of 27th St so that there is a straight connection through the intersection
 - o Close the access to the Pizza Ranch from Colorado Blvd
- Add an interchange along I-90 between Exit 14 and Exit 17
- 5th St / Jackson St
 - The northbound approach is supposed to be a single-lane but is frequently used as a two-lane approach
 - o This intersection is congested and difficult for through traffic to cross
- Citywide the bicycle/pedestrian crossings need to be better marked
- Add a bicycle lane on the west side of Evans Lane
- Consider the realignment of US 14A / Spearfish Canyon to align with Dahl Rd at Colorado Blvd
- Consider the installation of a signal at US 14A / Colorado Blvd
- Likes the installed signal at 27th St / 1st Avenue
- 27th St / 1st Ave Difficult for northbound pedestrians to cross on east leg of intersection
- Consider a bicycle/pedestrian underpass of I-90 at Exit 14
- Congestion is a problem on Colorado Blvd west of 27th St
- Jackson St / University St This intersection needs better lane markings due to the irregular signage
- Main St / Jackson St Accidents are a problem at this intersection







- Colorado Blvd / 7th St The southbound direction has poor sight distance
- There is limited connectivity east-west
- 1st Ave / Walmart Access Safety is a problem for vehicles turning left leaving the store parking lot due to westbound through traffic which is unexpectedly moving through the intersection
- Add shoulders to Colorado Blvd between Rainbow Rd and Exit 17
- Provide consistent shoulder width along Colorado Blvd
- Cut through traffic along Windmill Rd to the Walmart is a problem
- Widen US 14A for safety and bicycle/pedestrian access
- Widen Colorado Blvd between Exit 14 and Exit 17

Post Meeting Correspondence:

In addition to comment sheets and conversational comments received at the meeting, one e-mail correspondence has been received from Craig Mickelson. This letter discussed the need for upgrades to the traffic signals in Spearfish. Mr. Mickelson observed that the majority of the traffic signals in town have no detection systems and are operated on a cycle timing which cannot take into account vehicle needs at the intersection causing driver irritation. As a related matter, he discussed safety concerns which occur as a result of residents anticipating a long red light time and a tendency to run red lights.







Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Comment Sheets



Comment Sheet





- COLORADO BLUD	CORRIDOR	FROM	SPEARFISH	CANYON	HIGHWAY (14)
HWY 85					
•					
	******		CHO 200 B 200 CO (100)		
ease rate the following transpor	tation project types	hasad on h	ow important ear	sh ie to vou	
	_	based on n		on is to you.	
rojects	Not Important		Neutral		Very Important
cycle (trails, bike lanes)				XI.	
edestrian (walks, crossings)				⊠	ū
us/Transit			×		۵
kisting Road Improvements					⊠.
ew Road Construction					Ø
tersection Improvements					A
at specific future projects are r TAKE A STRONG LOW NIEW SCIENCE LAB	OK AT THE	EXIT 17	AREA IN	RELATI	J
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engineering paths to transportation solutions

HOLT &

Felsburg Holt & Ullevig

6300 S. Syracuse Way, Suite 600

Centennial, CO 80111

P: 303.721.1440 F: 303.721.0832

E: lyle.devries@fhueng.com



Comment Sheet





What concerns do you have regard	ding the current Ci	ty of Spearfi	sh Transportatio	n Network?	1/2
Colored Se	DAY) The	ged l	mes of	Co :	on e
The selection of	ew pew) SPG	All la	Ceritor	O 10.
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so fler	<u>O O SIM</u>	2 file	M Col	eally (V	Sell Olla
Please rate the following transports	ation project types	based on h	ow important oa	ch is to you:	2
Projects	Not Important	based on n	Neutral		ery Important
Bicycle (trails, bike lanes)					
Pedestrian (walks, crossings)	a	Q	O.		
Bus/Transit	a	Q	1		
Existing Road Improvements	a		(0		1
New Road Construction				Q	
Intersection Improvements	Q				72
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neral Comments					
		v-10,			
ou may hand in this sheet before	you leave tonig	ht or mail	it to the addres	ss below by A	august 6, 2010.
OUR NAME:	Vice 4	TIKE	2		
DDRESS:	Reare	Lill	/		
HONE# (Optional):	122-1	7890	2/		
	_ "		1		

FELSBURG HOLT & ULLEVIG

engineering paths to transportation solutions

Return Comments to:

Lyle DeVries

Felsburg Holt & Ullevig

6300 S. Syracuse Way, Suite 600

Centennial, CO 80111

P: 303.721.1440

F: 303.721.0832

E: lyle.devries@fhueng.com







Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Personal Letters and E-Mails

Lyle.DeVries

From:

craig mickelson [craigmic@rushmore.com]

Sent:

Wednesday, July 28, 2010 11:39 AM

To:

Lyle.DeVries

Subject:

Spearfish traffic Study

Follow Up Flag: Flag Status:

Follow up Flagged

Lyle. My name is Craig Mickelson. I am a member of Lawrence Cty. P+Z (16 yrs).

One thing I have brought up at more than one Spearfish City Council meeting is the updating of traffic signals. My comments are always met with a cold shoulder and I am told that Main St. is the priority. The police and public complain about people running yellow (and red) lights. The worst lights for these offenders are Jackson Blvd. and Canyon, Jackson and Ames and Utah Blvd and St. Joe. All three of these lights are of the old timer type with no sensors. People have to sit and wait at all times of the day when no one is coming the other direction. Then they have to wait (at the last two mentioned) for the left turn signal as well when no one is present. I believe that there are so many disgruntled drivers who know that they will have this long unnecessary wait that they push the light to the absolute limit to avoid the wait. If there were sensors which would monitor the traffic and give a more appropriate time for each function the drivers would realize this and not push the lights. Look at how well the intersection of Utah and Main (Burger King) works with the sensors. I have suggested that the Council set aside funds to update one light a year and this has always been ignored. If this could be discussed in the planning I think it would make thigs much smoother in the overall traffic flow scenario.

Thanks Craig Mickelson



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

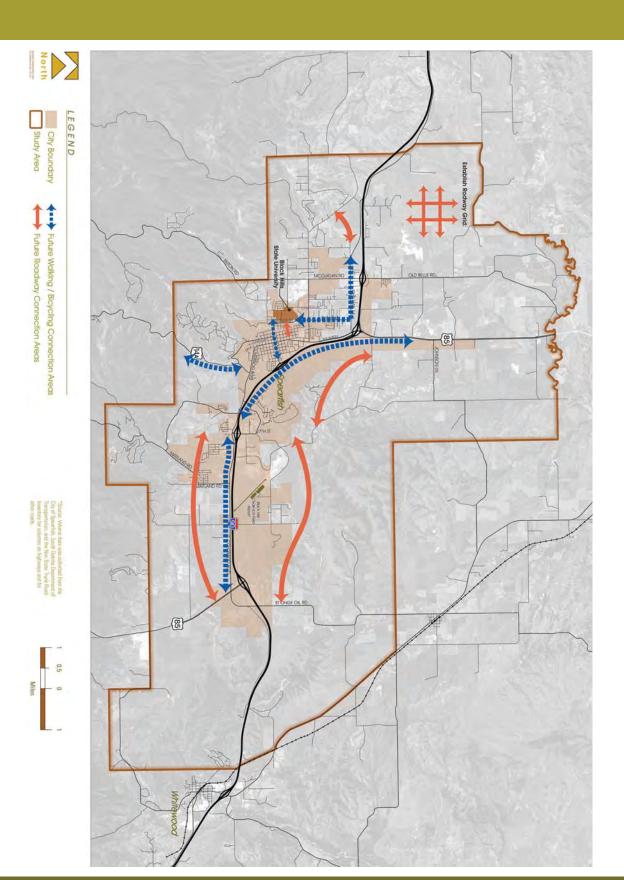
Meeting Handout



Potential

Future

Connections



Welcome to

PUBLIC MEETING #1 for the

Spearfish Area **Master Transportation Plan**

We look forward to hearing your ideas tonight and to your continued involvement in this project.

SDDOT Project Manager:

Steve Gramm, Data Analysis Engineer 605-773-6641 steve.gramm@state.sd.us

Consultant Team Project Manager:

Lyle DeVries 303-721-1440 lyle.devries@fhueng.com

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp







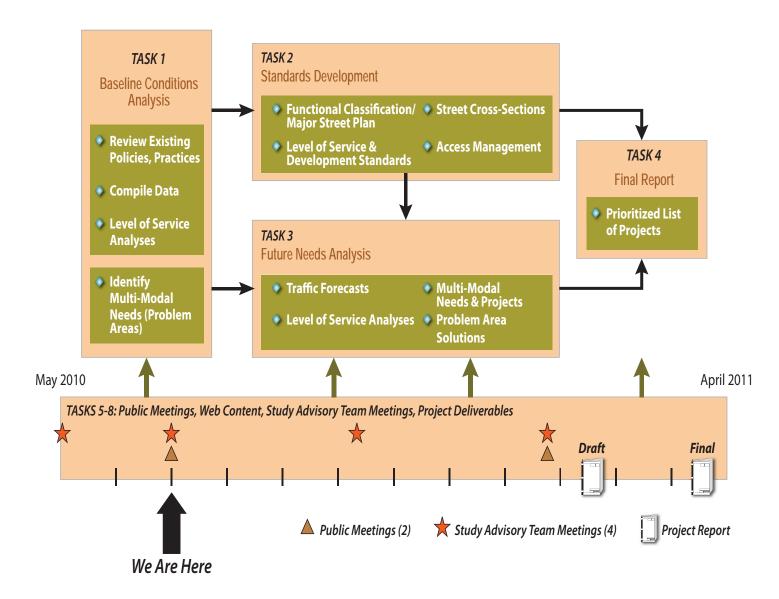
Project Goals

- 1. Complete a list of transportation issues and needs facing the Spearfish Area
- 2. Develop feasible solutions to address those issues and needs that meet current design standards and/or traffic level of service expectations under both the current and predicted future traffic conditions.
- 3. Create final products for use by the City of Spearfish, Lawrence County and the SDDOT which will provide guidance to implement recommended improvements and anticipate future development plans within the area.

This plan will also:

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- 2. Provide not a road map, but a <u>master street plan</u> that frames the existing system and identifies future improvements.
- **3.** <u>Coordinate</u> transportation planning efforts across multiple jurisdictions, including the City of Spearfish, Lawrence County, SDDOT and FHWA.
- **4.** Develop a plan that complements the <u>Engineering Standards</u> currently being developed by the City of Spearfish.
- 5. Identify <u>priorities</u> among future transportation improvement projects.

Project Work Process





Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Sign-In Sheets



Public Meeting #1





July 22, 2010

Name	Address	E-mail Address	Phone #
BOB MRYAN	1325 E, MICHIGAN SPEARFIST	spearfish bob for gmailicon	722-3849
Dalo	304 /4 (loustone)	donataspe. mideo.	722-6667
Kaijaswisher	19768 Hunter Rd	Kaija @ bhpioneer.	645-239
Larry Miller	1 1	dakotamillers@gmail.com	722-6018
Christian Lisa	1905 Stage Barn Circle	Chrisp@ Nehmore con	645-998
Langer	1426 Lookout Valley Ct. SpSh	directors	642-2126
Langer Toon CALLAUM	CITTOF SPEAMFISH	Spearfishchambering form. CALLAUNYE CITY of Sportish. com	
Dul Bul	Lawrence Co.	£	641-2489
BOYD DOWN	CITY OF SPEARFISH	boydedean@cityofspearfish.com	642-1305
Pat Rosses	SPD .	RATRICIE. ROTAT @ CITYOFS (SORFISH. CCM	642-1305
Dave Dutton	6 Cityfinance	Dave. Dutton e city of spearfish. com	642-1325
Monica HELLER	260 BOX 383 DEADWOOD SD	hellneau @ Earthlink net	578-20/()
Jeri Riemer	118 Vermont Splarfish		722-7914



engineering paths to transportation solutions



Public Meeting #1





July 22, 2010

Name	Address	E-mail Address	Phone #
Paul Young	145 N 7th Spending	Pyoung aprairiehills + mansit. com	722-5094
Barb Clin		bkcline@prairiehills transit. Com	642-66
Jak Gorgenser	1905 Stoy Barn Cir	Joeb @ rushmore.com	722-308]
Vic It Ke	210 Caddy	14 TTKE OKISHNORE.	can 727-8
Rich Spor	516 Custer St	rsperry @Spearfish fp.com	717-598
WE BRENNEISEN	1911 BROKDALÉ RD	dbrenneisenespeartishtp.com	642-7741×130
Bynn K. Walks	106 W. Komens St.	Spennfish derelopm on t B Rushmore.com	642-3832
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			- in
	g. i		



engineering paths to transportation solutions



Public Meeting #1





July 22, 2010

Name	Address	E-mail Address	Phone #
Rayh Roema	118 Vermonty	None	605722 391
,			
enstra			



engineering paths to transportation solutions



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Advertisement / Communication

Affidavit of Publication

STATE OF SOUTH DAKOTA: COUNTY OF LAWRENCE:

Letitia Lister of said County and State being first duly swom, on her oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Letitia Lister, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Letitia Lister, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice Of Public Meeting/

a printed copy of which is hereto attached, was printed and published in said newspaper for a successive and consecutive weeks, the first publication being made on the subject and consecutive weeks, the first publication on the subject and of subject and of subject and amount of fees charged for publishing same, to-wit: The sum of subject and insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

Subscribed and sworn to before me this 28 The day of Audy , 200 10

Notary Public, Lawrence County, South Dakota My commission expires: 10-24-2010

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION CITY OF SPEARFISH NOTICE OF PUBLIC MEETING / OPEN HOUSE

FOR THE SPEARFISH AREA MASTER TRANSPORTATION PLAN LAWRENCE COUNTY

Date: July 22, 2010

Time: 5:30 p.m. to 7:00 p.m.
Place: Spearfish Municipal Services Centre - Council Meeting Room

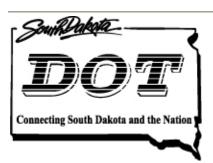
625 North Fifth Street Spearfish, SD 57783 The South Dakota Department of Transportation (SDDOT), in conjunction with the Cify of Spearfish, will hold an open house style public meeting for the Spearfish Area Master Transportation Plan Study. The Spearfish Area Master Transportation Plan Study. The Spearfish Area Master Transportation Plan Study will address a full range of transportation options and issues, including pedesritina, blocycle, transit, freight, and automobile. The purpose of this public meeting is to gather information on community needs and desires to develop a long-range, multi-modal plan that will provide a blueprint to address the future transportation needs of the Spearfish area. The open house will be informal, with one on one discussion available with SDDOT, City, and Consultant staff.

Between 5:30 p.m. and 7:00 p.m., SDDOT, City, and Consultant staff will be available with displays to discuss issues, answer your questions, and take your ideas and opinions regarding this study. A short presentation will be given at approximately 5:45 p.m. The opportunity to present written comments will be provided. Written comments will be accepted until August 6, 2010.

Notice is further given to individuals with disabilities that this open house/public meeting is being held in a physically accessible place. Please notify the SIDDOT ADA Coordinator at least 46 hours prior to the open house/public meeting if you have special needs for which this agency will need to make arrangements. The telephone number for making special arrangements is 605-773-3540 or 1-800-877-1113 (Telecommunications Device for the Death).

All persons interested in the future transportation system of the Spearlish Area are invited to attend this meeting / open house to share your views and concerns, any time between 5:30 p.m. and 7:00 p.m. Those who cannot attend the meeting or desire further information regarding the study may visit the study's webpage at Jattp://www.sdot.com/pe/projdev/planning_ss_spearlish_asp_or contact_Steve_Gramm_@state.sdus.

Notice published twice at the total approximate cost of \$468.00.



Department of TransportationOffice of the Secretary

700 E. Broadway Ave Pierre, SD 57501 Phone: 605-773-3265 FAX: 605-773-3921 Web site: www.sddot.com

For Immediate Release: Monday, July 19, 2010

Contact: Steve Gramm, 605-773-6641

Department of Transportation Seeks Public Input into Spearfish Area Master Transportation Plan Study

PIERRE, SD – The South Dakota Department of Transportation, in conjunction with the City of Spearfish, will hold a public open house on Thursday, July 22, to gather public input for the Spearfish Area Master Transportation Plan Study.

The Spearfish Area Master Transportation Plan Study will address a full range of transportation options and issues, including pedestrian, bicycle, transit, freight, and automobile. The purpose of this public meeting is to gather information on community needs and desires to develop a long-range, multi-modal plan that will provide a blueprint to address the future transportation needs of the Spearfish area.

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Notice is further given to individuals with disabilities that this public meeting is being held in a physically accessible place. Please notify the SDDOT ADA Coordinator within 48 hours of the public meeting if you have special needs for which this agency will need to make arrangements. The telephone number for making special arrangements is 605-773-3540 or 1-800-877-1113 (Telecommunication Device for the Deaf).

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http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp.

For more information, contact Steve Gramm, Data Analysis Engineer, at (605) 773-6641 or by email at steve.gramm@state.sd.us.



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Open House Exhibits









Welcomes you to

PUBLIC MEETING #1

for the

Spearfish Area Master Transportation Plan

We look forward to hearing your ideas tonight and to your continued involvement in this project.

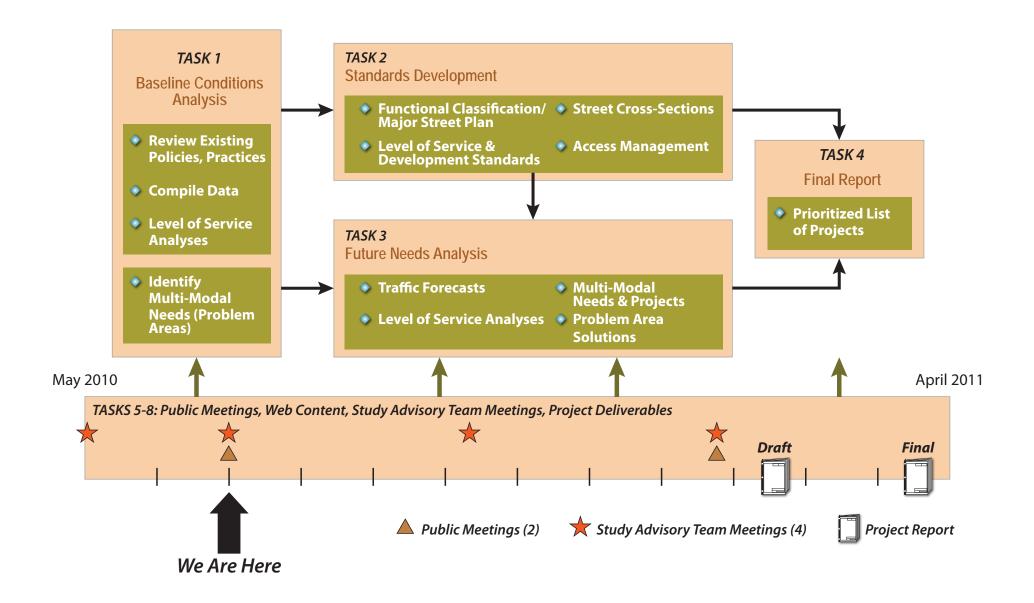




Project Work Process









Project Goals





Project Goals:

- 1. Complete a list of transportation issues and needs facing the Spearfish Area
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Previous & On-going Transportation Studies





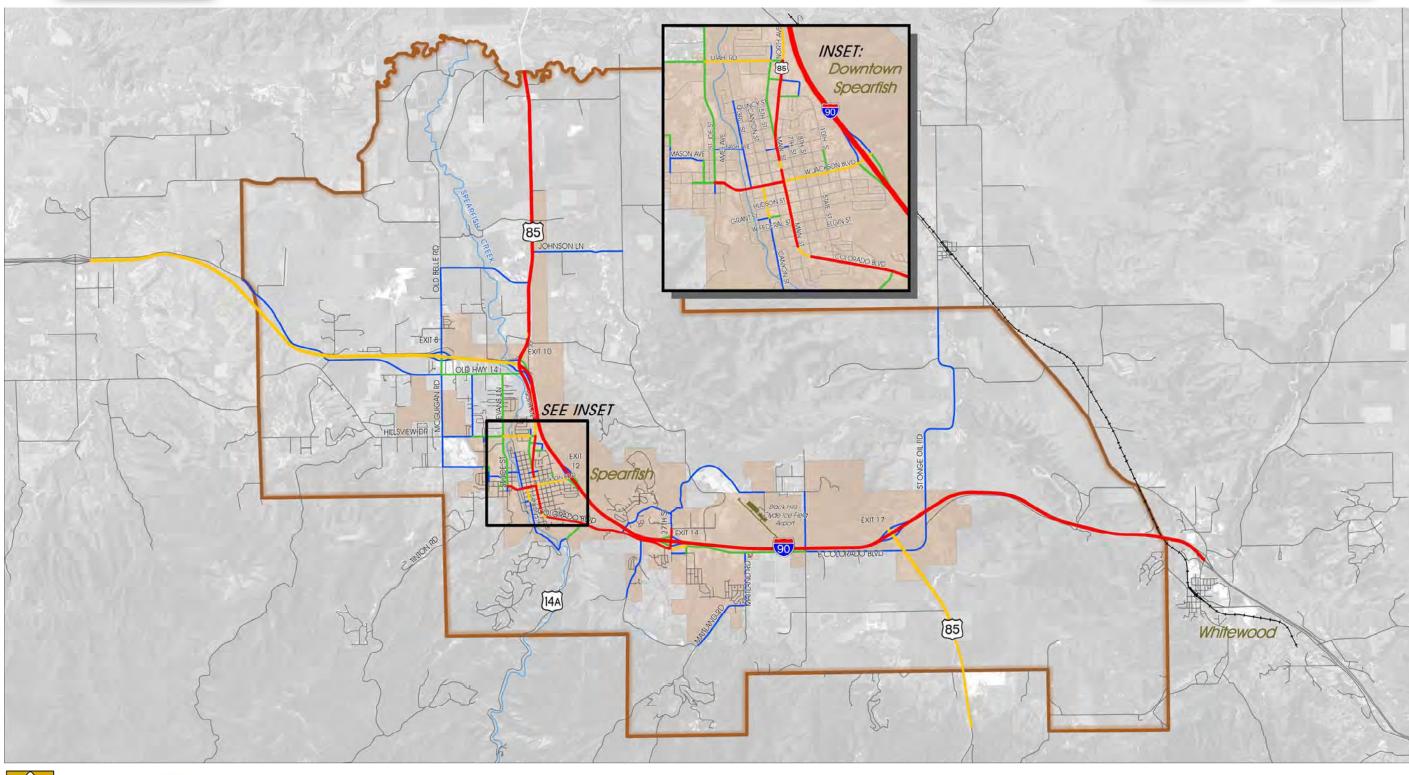
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- Land use studies for the Highway 85 Corridor, Old Belle Road corridor, and the Lookout Valley (2009)
- US14A Corridor Study (On-going)
- Spearfish Infrastructure Design Standards (Avail. 1/2011)



Existing Traffic Volumes









LEGEND

1 - 2,500 vpd

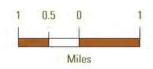


5,001 - 10,000 vpd No Data Available



City Boundary

*Source: Volume data was collected from the City of Spearfish, South Dakota Department of Transportation, and the Non State Trunk Road Inventory for volumes on highways and for



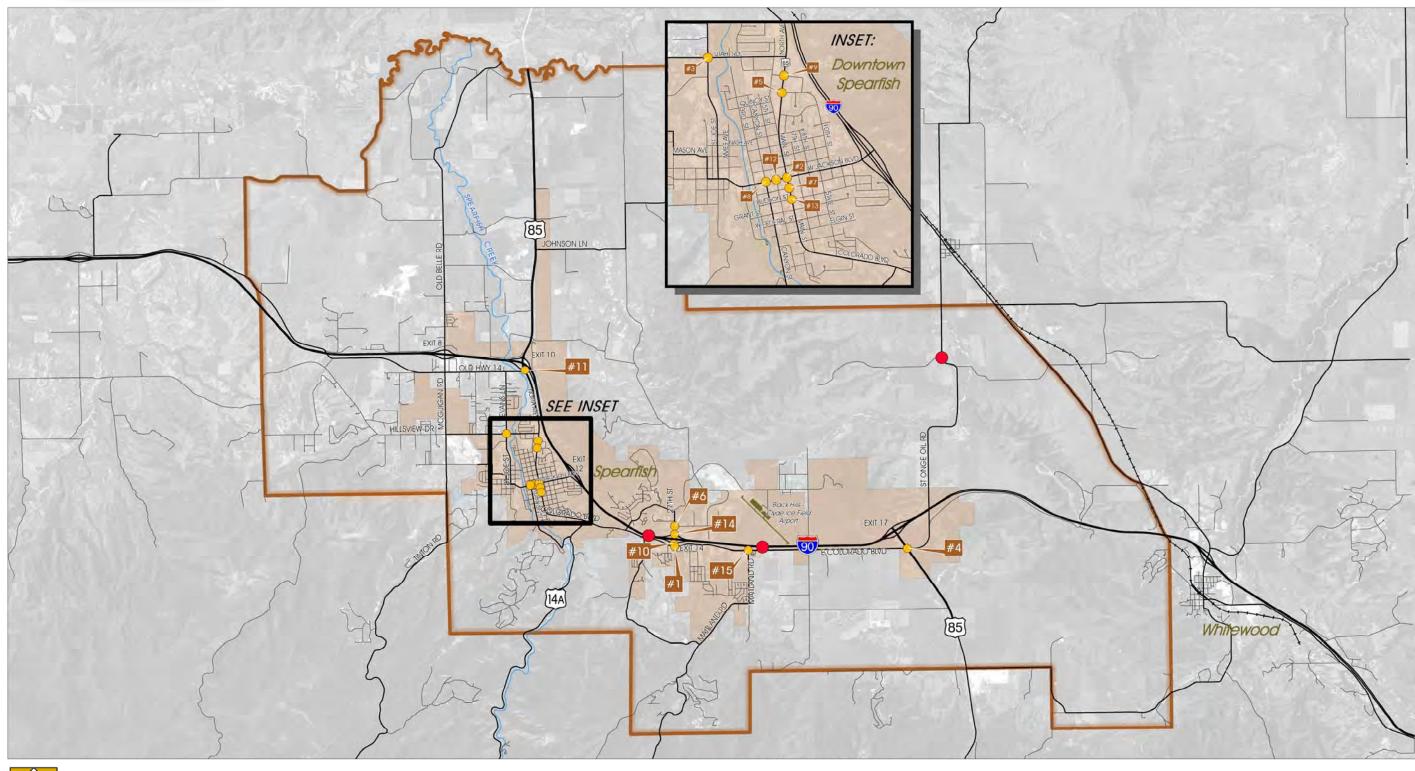
 \sim 2,501 - 5,000 vpd \sim > 10,000 vpd



Top 15 Crash Locations from 2006 to 2009









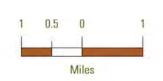
LEGEND

Fatal Crash Locations

Study Area

Top 15 Crash Intersections
 City Boundary

*Source: Accident data was collected from the South Dakota Department of

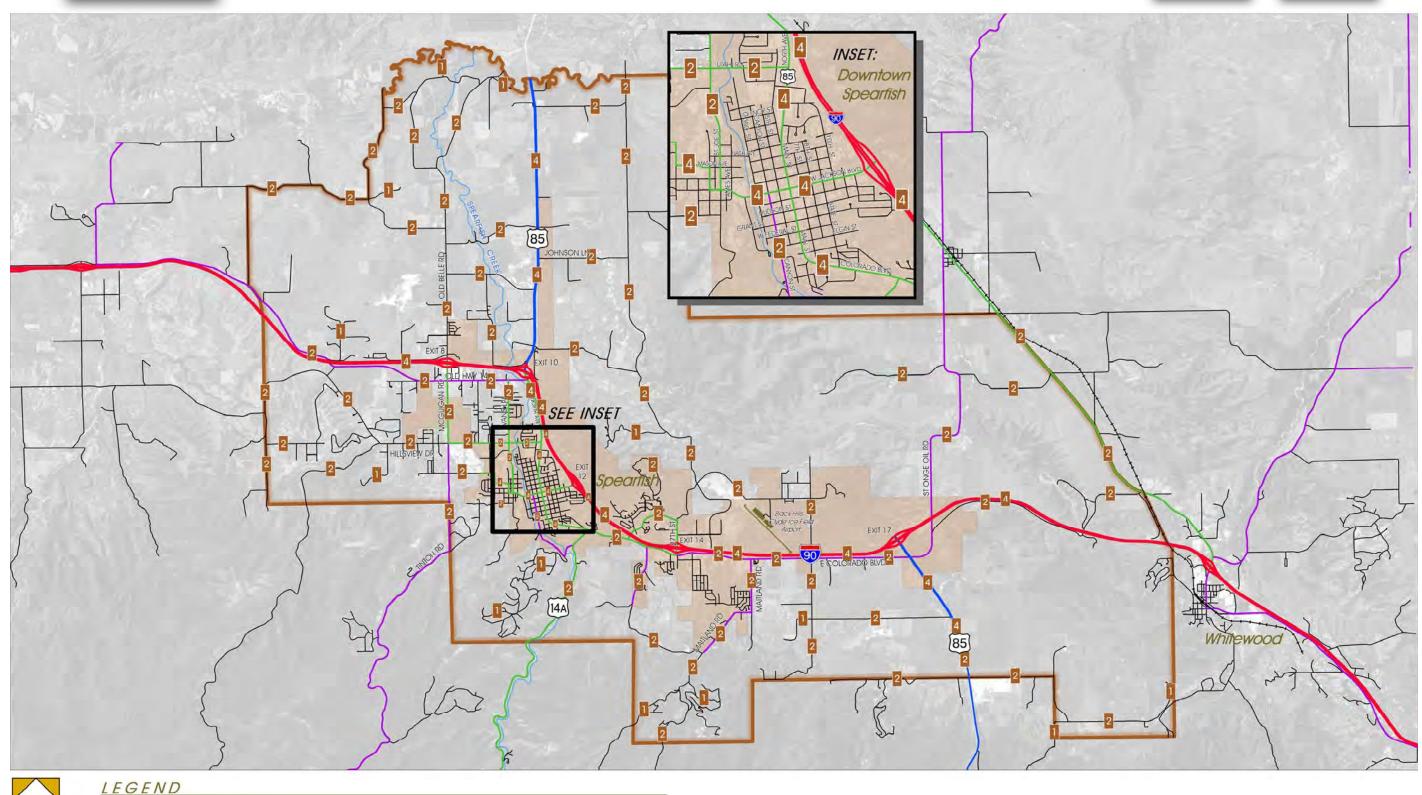




Existing Roadway Functional Classification







Study Area

City Boundary

Through Lanes

Principal Arterial Major Collector

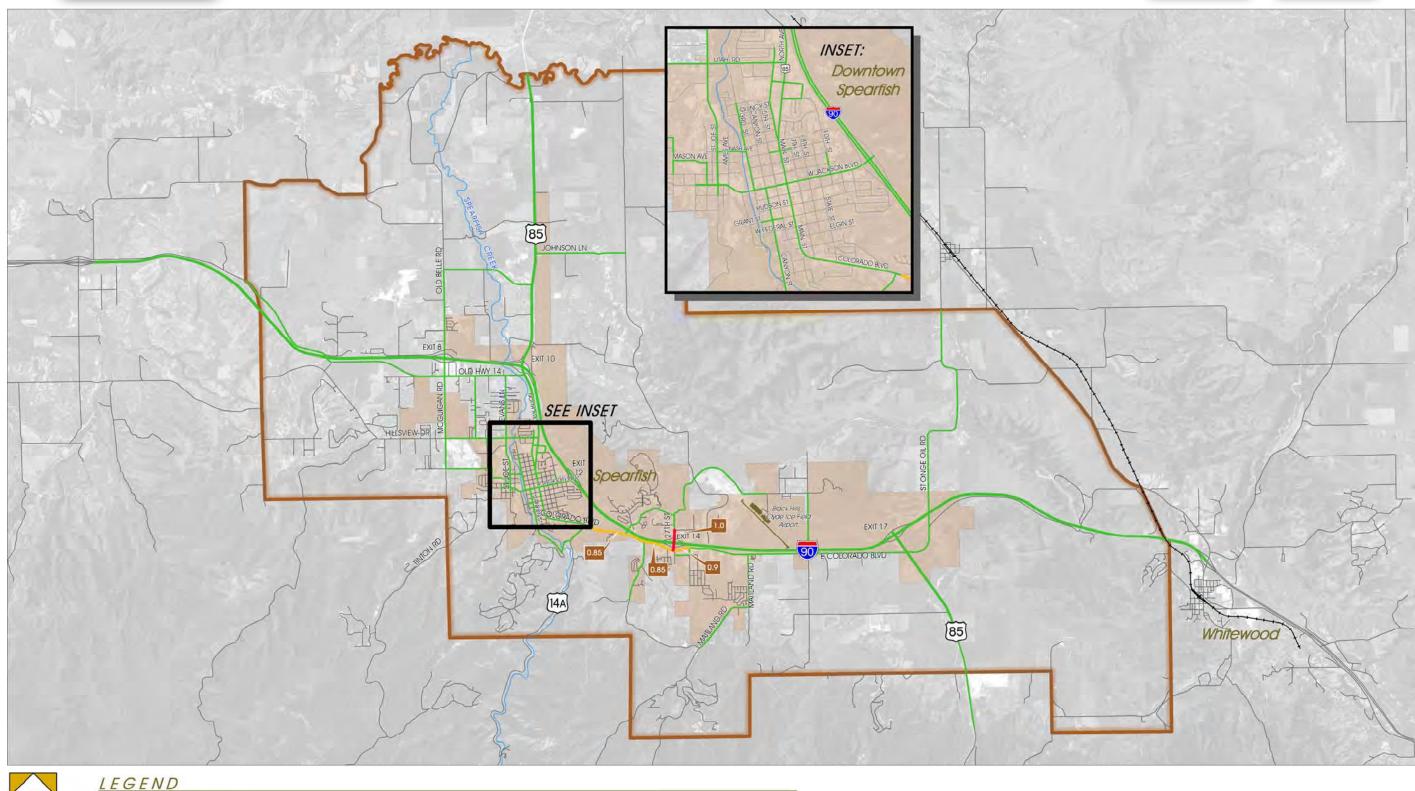
*Source: Functional Classification provided by Lawrence County and modified by FHU.



Existing Volume to Capacity Ratios - Roadway Segments







Study Area







Volume to Capacity Ratios



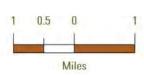
0.01 - 0.79 V/C Ratio > 1.00 V/C Ratio

0.80 - 0.99 V/C Ratio No Data Available



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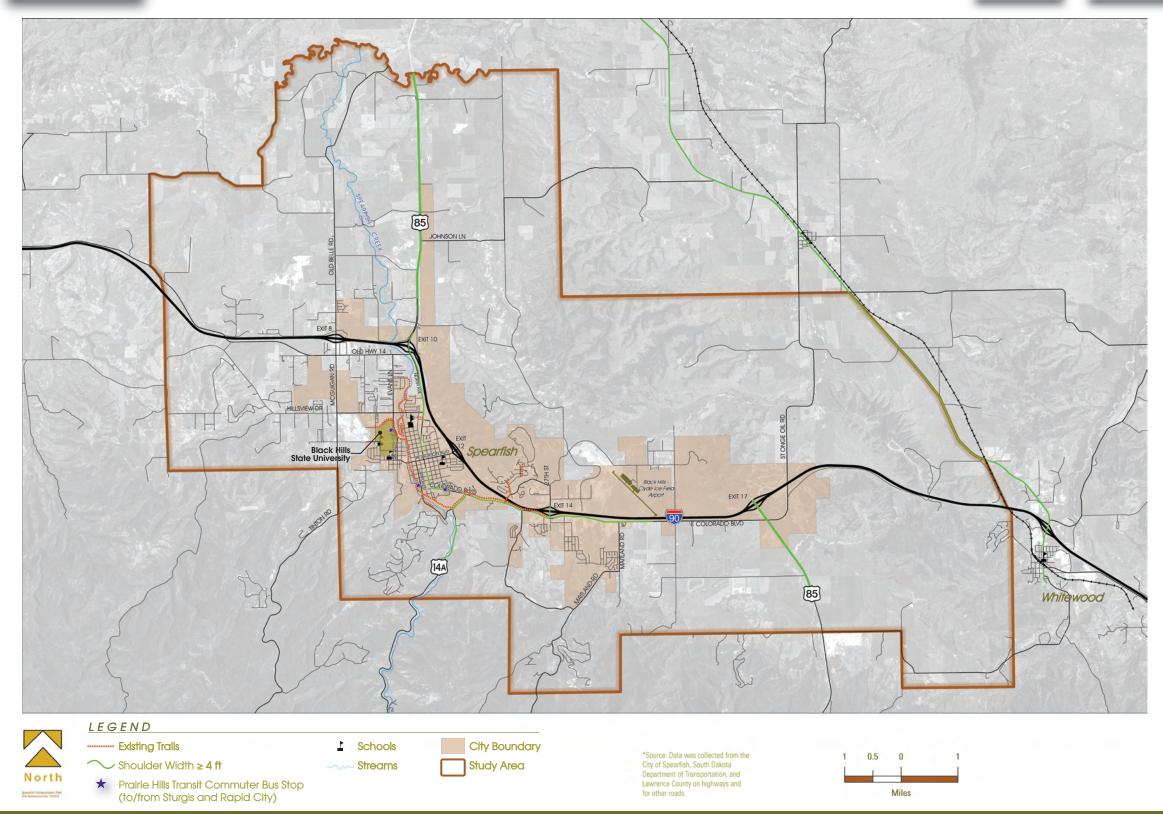




Pedestrian, Bicycle, and Transit Network





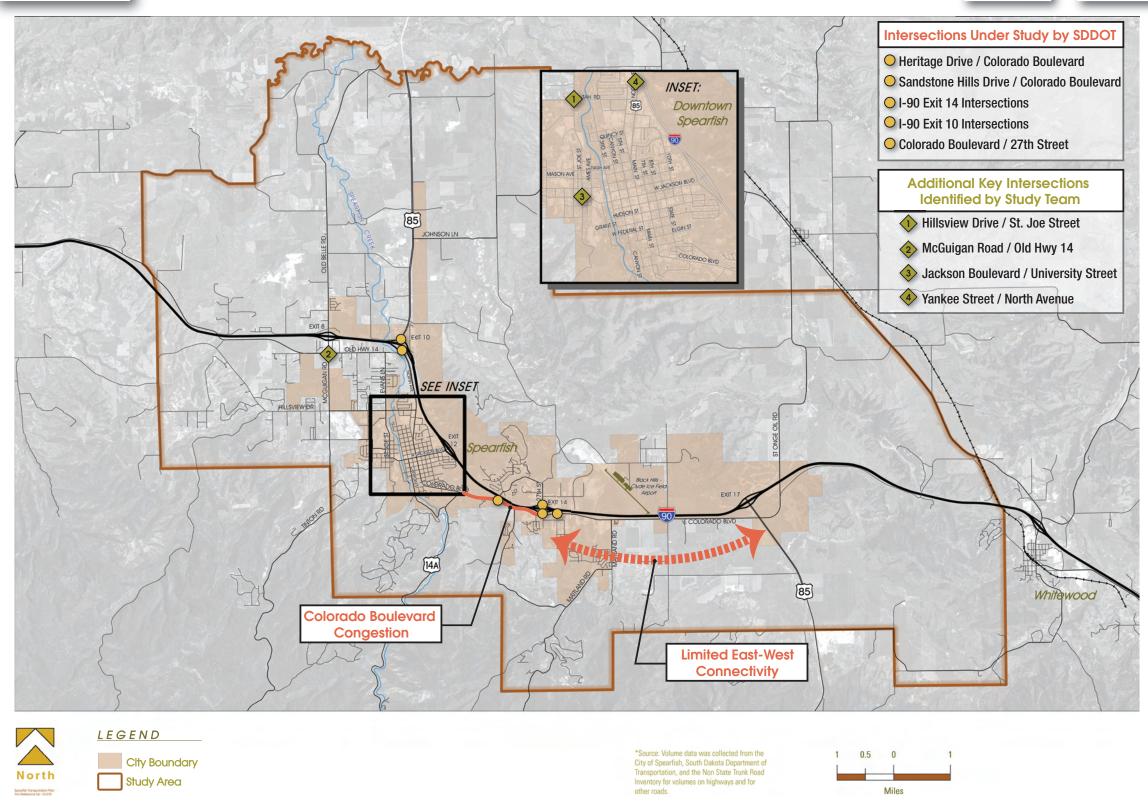




Identified Problem Areas









Standards Development





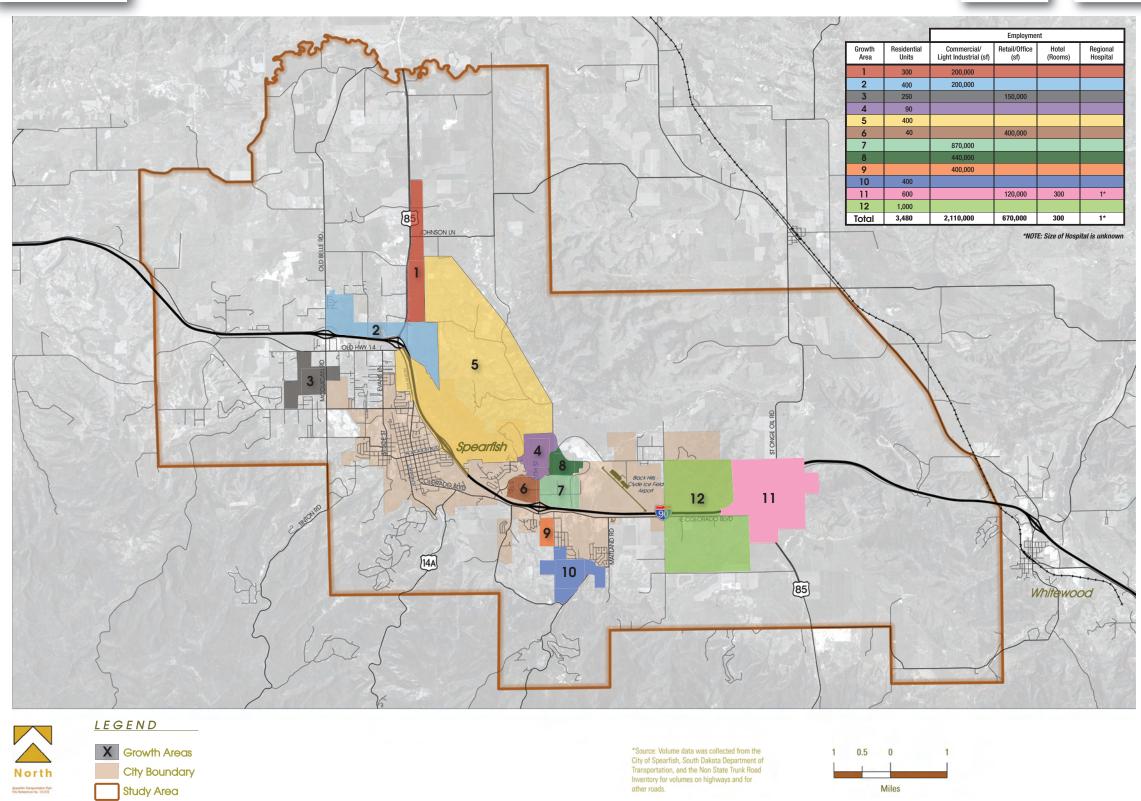
Standard	Description of Standard	Current Standard	Proposed Enhancements/Additions
Roadway Classification	Appropriate roadway classifications are defined by characteristics of the roadway including the roadway's continuity, connectivity, relative trip length of traffic utilizing the road, and the approximate spacing of parallel facilities	Federal Highway Administration Map (maintained by SDDOT)	 Confirm FHWA Standards are consistent with local perspective Develop Spearfish Major Street Plan based on functional classification Identify classifications of future roadway links
Typical Roadway Sections	For each functional classification, typical roadway cross-sections are defined, including number and width of lanes, right of way width, presence of sidewalks, bicycle lanes, parking, etc.	Spearfish Ordinance Sec. 15A-85 / Spearfish Design Standards (Expected Completion January 2011)	 Confirm current standards Supplement Infrastructure Design Standards currently being developed Establish standard for how future roadways of all classifications should look
Access Management	For each roadway classification, establishes where access may be located as well as how many accesses each dwelling unit or retail establishment should get	None	Write guidelines for access spacing along roadways of each functional classification
Level of Service & Development	Guidelines for addressing transportation needs created by new development. Defines what the acceptable average delay is at intersections and on roadway segments.	Case-by-case / Comprehensive & Sub-Area Plans / Zoning Regulations	 Write standard addressing need for traffic impact studies Address developer contributions to transportation needs Develop expectation for Level of Service to be maintained on Spearfish area roadways



Growth Areas





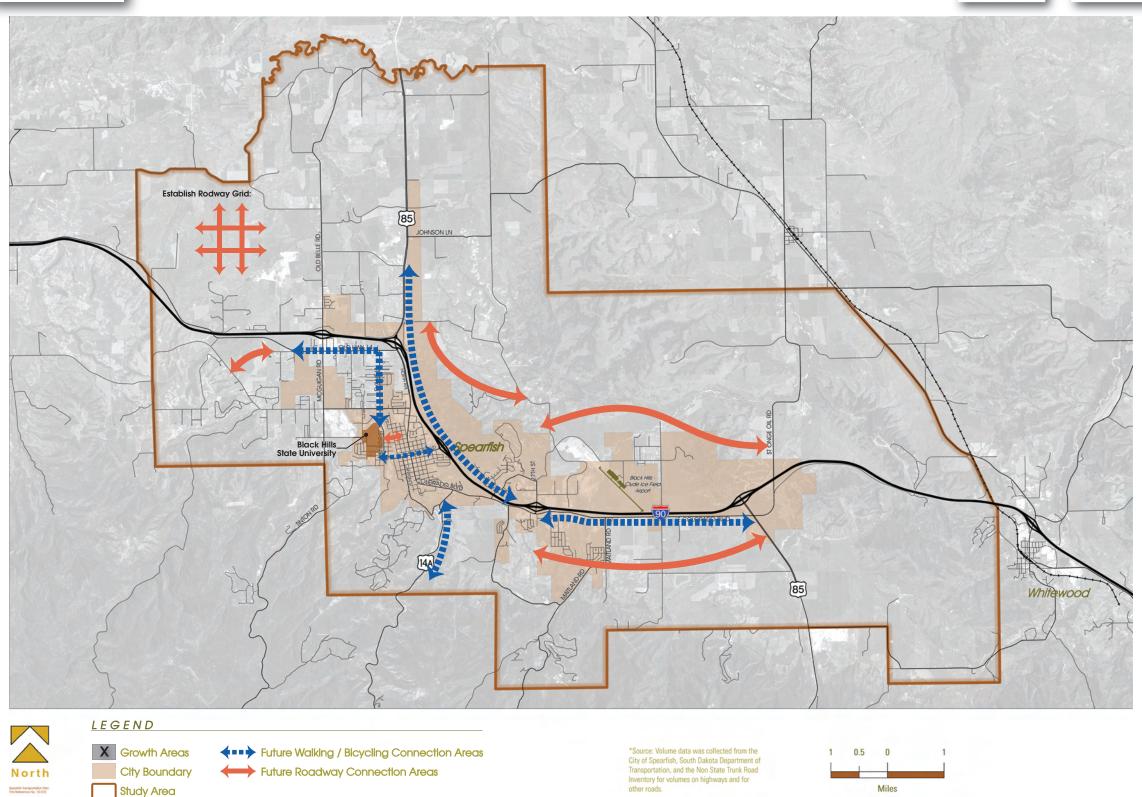




Potential Future Connections









Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

July 2010 Community Input Open House Summary

Open House PowerPoint Presentation

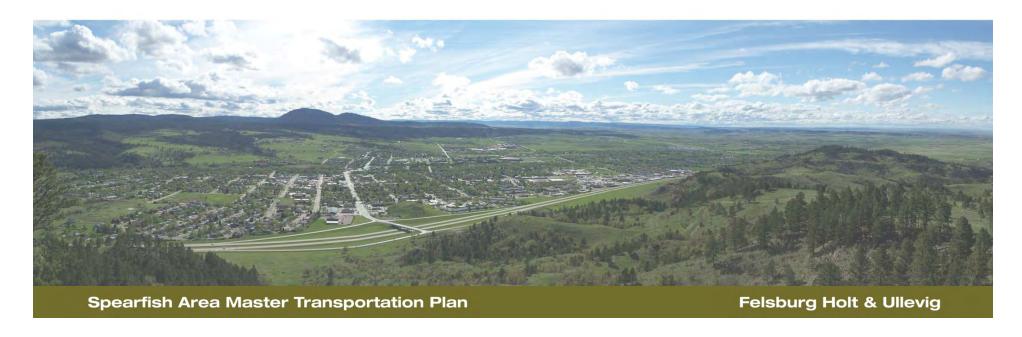






Spearfish Area Master Transportation Plan

"Keeping the Queen City Moving"



Background







- SDDOT's US 14A (Colorado Blvd.) Study revealed wider study need
- SDDOT provided planning funds, augmented by City funds to conduct Area Master Transportation Plan
- Plan will be supervised by Study Advisory Team of SDDOT, Spearfish, FHWA and Lawrence County Staff

Study Advisory Team (SAT)







SDDOT:

- Steve Gramm, Pierre
- Dan Staton, Rapid City Region
- FHWA:
 - Mark Hoines, Pierre
- City of Spearfish
 - Jayna Watson, City Planner
 - Kyle Mathis, City Engineer
 - George Martin, Street Superintendant
- Lawrence County
 - Dick Birk, Highway Superintendant
- Felsburg Holt & Ullevig
 - Lyle DeVries, Jenny Young

Project Contacts







SDDOT Project Manager:

Steve Gramm, PE Data Analysis Engineer

steve.gramm@state.sd.us

Ph: (605)773-6641

Consultant Team Project Manager:

Lyle DeVries, PE, PTOE Felsburg Holt & Ullevig

lyle.devries@fhueng.com

Ph: (303)721-1440

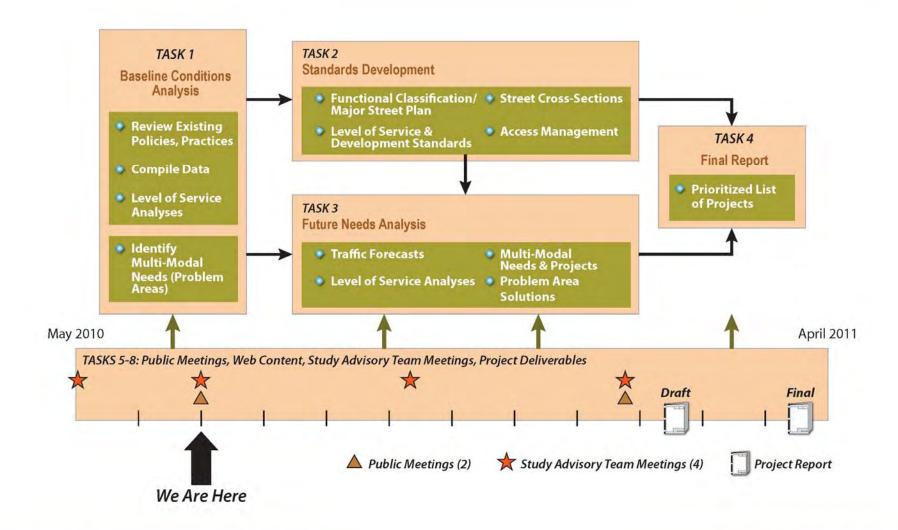
Project Website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp



Project Work Process







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- Address how the transportation system can enhance livability within the Spearfish community, particularly emphasizing travel by <u>transit</u>, <u>bicycle and walking</u>
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- Main Street Improvements Traffic Study (2006)
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- US14A Corridor Study (On-going)
- Spearfish Infrastructure Design Standards (Avail. 1/2011)

Task 1 – Baseline Conditions







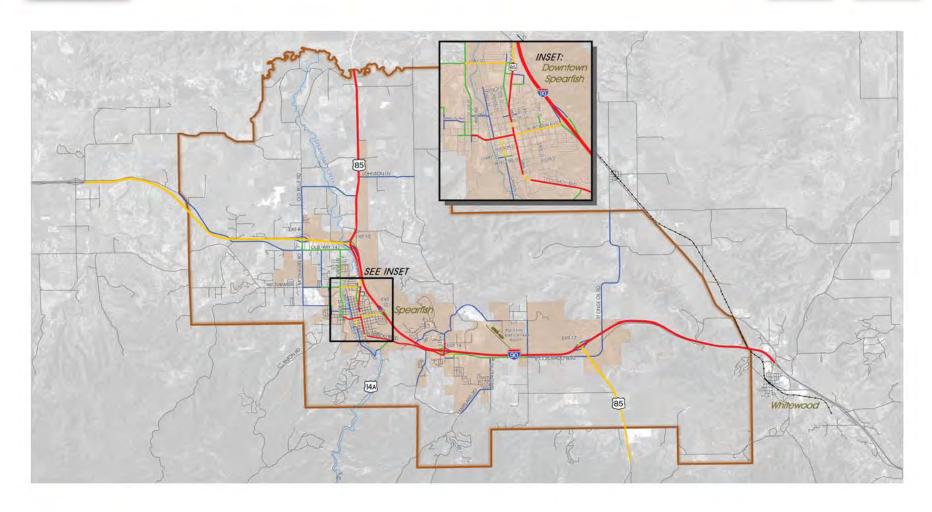
- Traffic Volumes
- Top Crash Locations
- Current Functional Classification Map
- Volume-to-Capacity Ratios
- Pedestrian, bicycle and transit network
- Current Problem Areas



Existing Traffic Volumes









LEGEND



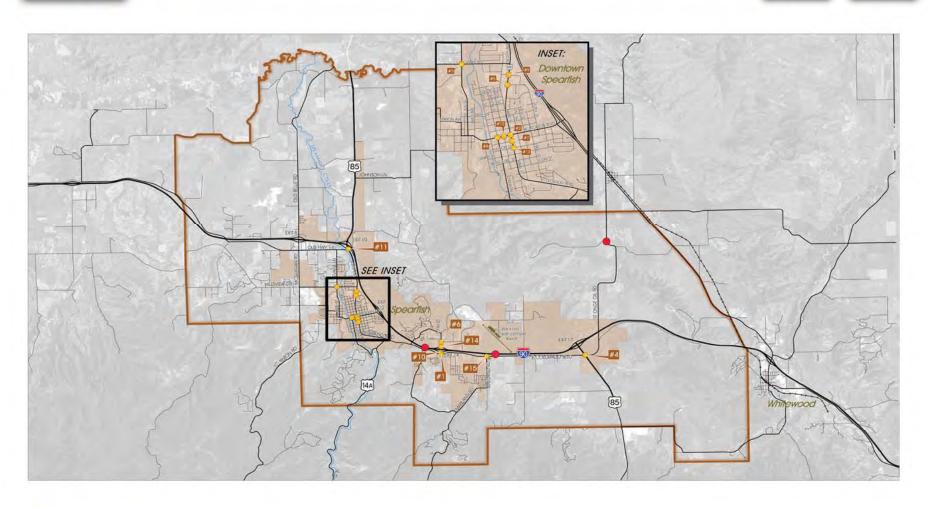
2,501 - 5,000 vpd > 10,000 vpd



Top 15 Crash Locations - 2006-2009











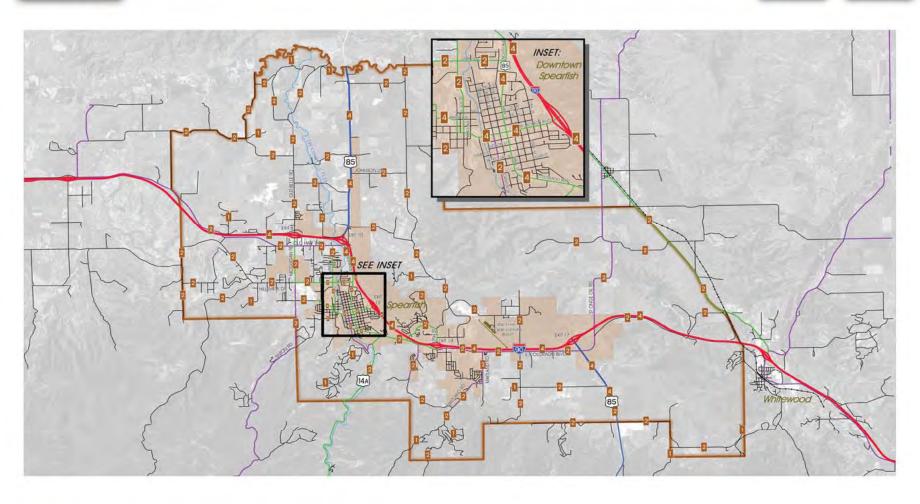




Existing Roadway Functional Classification















Principal Arterial ~ Ma

✓ Minor Arterial
✓ Local Roads







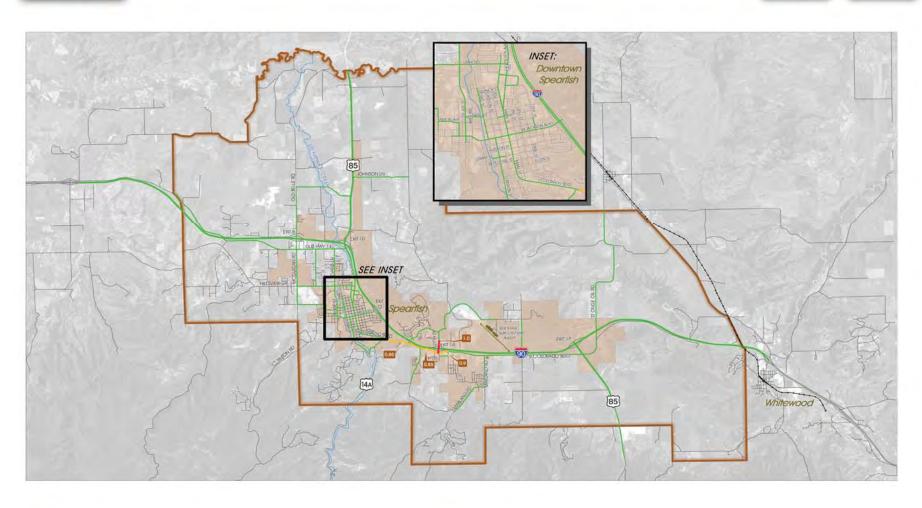




Existing Volume to Capacity Ratios - Roadway Segments















0.80 - 0.99 V/C Ratio



No Data Available



Study Area

 □ 0.01 - 0.79 V/C Ratio > 1.00 V/C Ratio City Boundary

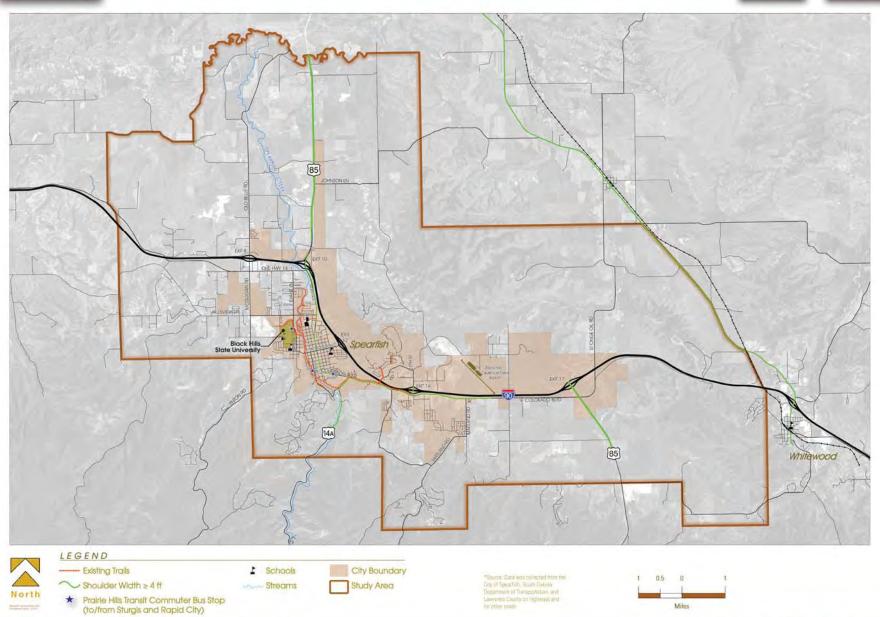




Pedestrian, Bicycle, and Transit Network





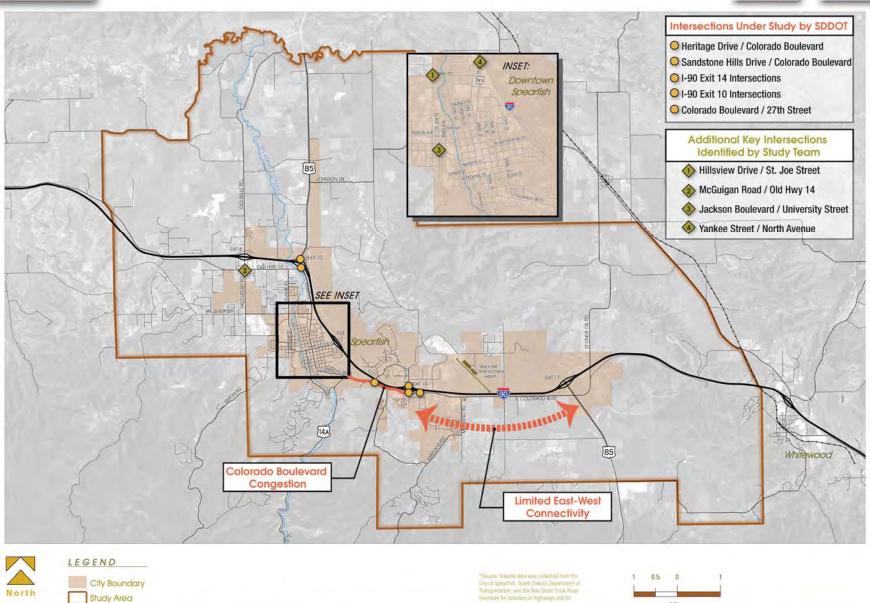




Identified Problem Areas















- Develop policies and guidelines to:
 - Supplement current agency standards,
 - provide new standards where needed, and
 - guide future planning



Standards Development





Standard	Description of Standard	Current Standard	Proposed Enhancements/Additions
Roadway Classification	Appropriate roadway classifications are defined by characteristics of the roadway including the roadway's continuity, connectivity, relative trip length of traffic utilizing the road, and the approximate spacing of parallel facilities	Federal Highway Administration Map (maintained by SDDOT)	 Confirm FHWA Standards are consistent with local perspective Develop Spearfish Major Street Plan based on functional classification Identify classifications of future roadway links
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Access Management	For each roadway classification, establishes where access may be located as well as how many accesses each dwelling unit or retail establishment should get	For State Highways, SDDOT Administrative Rule, Article 70:09 provides Standard. State Highways include I-90, US14A, and US85.	Write guidelines for access spacing along roadways of each functional classification
Level of Service & Development	Guidelines for addressing transportation needs created by new development. Defines what the acceptable average delay is at intersections and on roadway segments.	Case-by-case / Comprehensive & Sub-Area Plans / Zoning Regulations	 Write standard addressing need for traffic impact studies Address developer contributions to transportation needs Develop expectation for Level of Service to be maintained on Spearfish area roadways









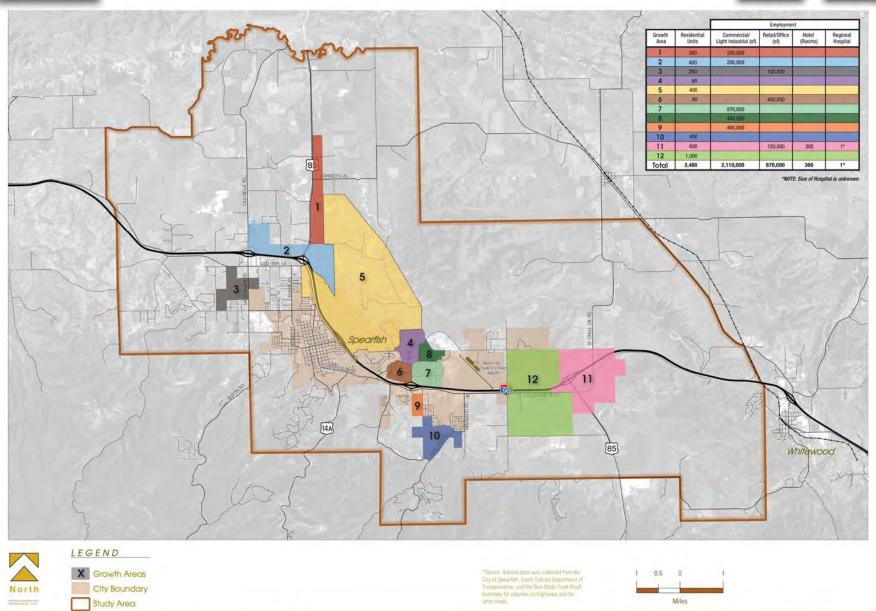
- Develop future growth scenarios and translate to traffic forecasts
- Analyze future needs based on traffic levels and important connections
- Add future links to major street plan



Growth Areas





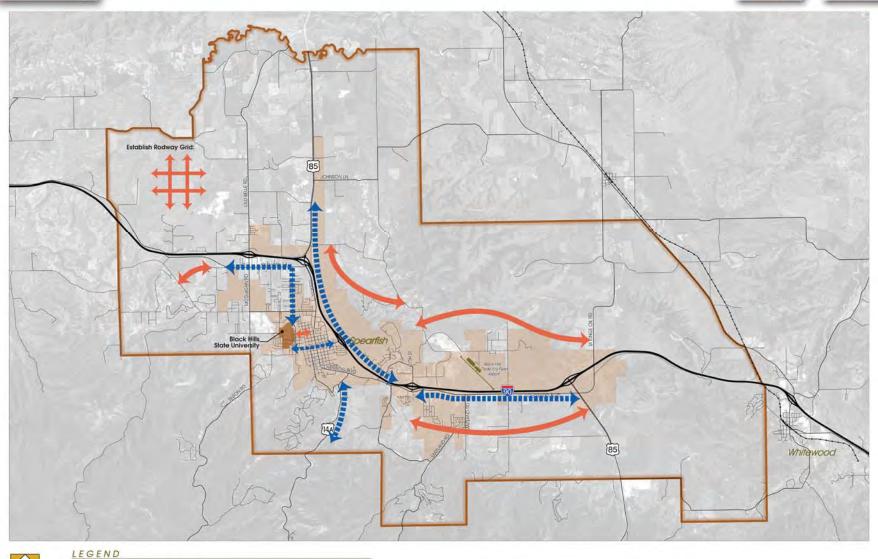




Potential Future Connections







Transportation, and the New State Trank Road

Growth Areas City Boundary

Study Area

North

Future Walking / Bicycling Connection Areas

Future Roadway Connection Areas

Task 4 – Final Report







- Develop a prioritized list of projects based on:
 - Estimated Project Costs
 - Ability to reduce traffic congestion and/or improve traffic safety
 - Enhancement to Multi-modal service
 - Environmental impacts
 - Right-of-way impacts
 - Other criteria of importance









- Incorporate public comments
 - Add problem areas, note particular needs and priorities
- Complete data collection
 - Conduct Exit 14 Wal-Mart Origin-Destination Study
 - Conduct BHSU travel survey
- Analyze project needs
- Develop standards
- Create project list



Make Your Thoughts Known!





- 1. Fill out a comment card
- Voice your comments to a Project Team at this meeting
- Write your comment on a post-it note and attach it to the appropriate board
- 4. Contact the Project Team

SDDOT Project Manager:

Steve Gramm, Data Analysis Engineer 605-773-6641 Steve.Gramm@state.sd.us

Consultant Team Project Manager:

Lyle DeVries 303-721-1440 Lyle.DeVries@fhueng.com



Thank you for your attendance here tonight!



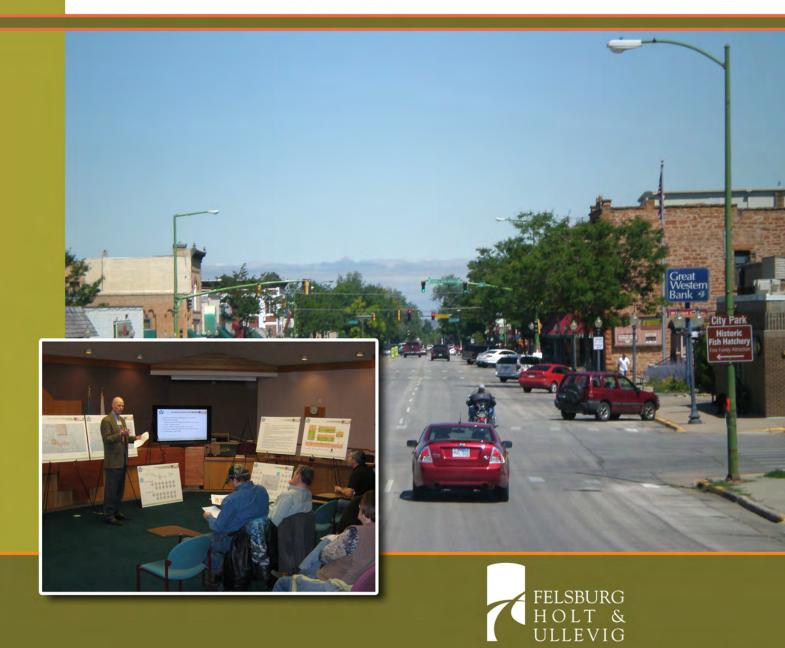
engineering paths to transportation solutions

April 2011
Community Input Open House
Summary















Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

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Meeting Overview and Comment Summary

Comment Sheets

Meeting Handout

Sign-In Sheets

Advertisement / Communication

Open House Exhibits

Open House PowerPoint Presentation







Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Meeting Overview and Comment Summary







<u>Community Input Open House – Overview</u>

Date: April 13, 2011, 5:30 PM – 7:00 PM Location: Spearfish City Hall, Spearfish, SD

Attendance: 20 people, plus consultants, Project Advisory Group members,

and City representatives

Purpose: Provide overview of project findings and gather public input on

recommendations

Meeting Graphics: Thirteen display boards and a PowerPoint presentation

Feedback: Conversations with attendees, comment sheets (4), sketches and

notes on display boards

Comment Summary

Comment Sheet Questions:

1.a. Do you agree with the list of projects shown? b. What projects have we missed? c. Would any of the proposed projects negatively affect the community?

- Eliminate or camera activate signal at Michigan & Main
- Eliminate or camera activate signal at Jackson & Ames
- Eliminate or camera activate signal at Hillsview & Evans
- Remove stop control on McGuigan at Old Highway 14
- Remove stop control on McGuigan at Hillsview
- Widen Colorado Blvd from Exit 14 to Exit 17
- Add an interchange at Rainbow Rd & I-90
- Provide a transit stop at Prairie Hills New Facility (McGuigan and Tumbleweed Trail)
- Provide improvements along Evans Ln
- Reroute 27th St between Windmill and Airport Rd
- Make use of roundabouts
- Make use of raised pedestrian crossings
- 2. Do you agree with the project priorities? What projects are most important to you?
 - Projects 30 & 31 Provides relief to Colorado Blvd
 - Project 70 Provides safe facilities for Pedestrians and Bicyclists
 - Project 60 Provides greatest convenience for commenter
 - Project 76 Important improvement for commenter
- 3. What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment?
 - Evans Ln
 - School Routes / Child Routes







- Off Road Trails
- Extend path from Evans Park to Old Highway 14
- Extend path from Exit 14 to Exit 17
- 4. Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why?
 - Improve convenience for motor vehicles, improve bicycle safety, improve bicycle recreation opportunities
 - Yes.

General Comments:

- Evans should be the first priority for reconstruction
- Project 58 Consider an underpass at sidewalk south of Taco Bell (Safeway to High School)
- Project 23 Make a shorter term objective

Notes on Display Boards:

- Project Improvement Plan Display Important project to improve Lookout Mountain Road connection with 27th Street and Airport Road
- Prioritized Publicly Funded Projects Display Consider moving project #76
 [Construct Bicycle and Pedestrian Facilities Along Colorado Blvd (27th St to St. Onge Oil Rd)] up on the priority list

Conversational Comments:

During the Community Open House, residents had an opportunity to talk with SDDOT, Lawrence County, City staff, and the consultants to discuss recommendations and concerns about the transportation network. The following issues were raised during these discussions.

- Questions were raised about Exit 14 and the recommended improvements, those individuals were invited to attend the May 5th, 2011, meeting to be held regarding the US 14A Corridor Study
- Questions were raised about Exit 10 and the currently under construction improvements
- Projects 30 and 31, 10th Avenue Connection Likes the idea of a connection between Heritage and Christensen so that he can avoid Colorado and 27th
- Project 20, Lookout Mountain Road and Rainbow Road Connection –
 Commented that there used to be a road/logging trail that made this connection
- Project 17 Likes the idea of this connection, but only after the City annexes his subdivision and the road district is dissolved so that he doesn't have to directly pay for any needed improvements within the existing subdivision
- Project 76 Questions regarding the time line for construction of this project, interest in completing this project faster that prioritized
- Consider vehicular improvements to Evans Lane







Post Meeting Correspondence:

Jeremy Smith of the Spearfish Bicycle Cooperative (spearfishbikecoop.blogspot.com) placed a call to Lyle DeVries of Felsburg Holt & Ullevig to provide feedback on plan materials posted online. The following points summarize feedback received from Mr. Smith:

- The bicycle component of the plan appears to be a positive step for multimodal transportation in Spearfish
- He suggested that the plan include a requirement for new subdivisions to provide connections to the existing network of trails. He mentioned the new development north of Exit 8 as a key location for this requirement to be met
- He suggested that the plan include a reference to 'complete streets' as a goal for Spearfish.
- Jeremy felt that a representative of the Spearfish bicycling community on the Study Advisory Team would be appropriate
- Jeremy highlighted the following locations needing attention to improve multimodal transportation around Spearfish:
 - 3rd Street is a major bicycle corridor, and crossing Jackson at 3rd is very difficult
 - At the north end of 3rd Street, the path extends to Hillsview but does not provide a direct crossing of Hillsview for path users. Users have to zigzag to cross Hillsview, creating hazardous conflicts with vehicles
 - Getting from downtown up to the BHSU campus is a challenge. Developing Mason Street as a bicycle connection to the campus would be one way to remove some cyclists from Jackson and the heavy traffic.
 - The existing trail through Spearfish needs to be widened in spots to provide width for users. He feels 8' is an appropriate minimum width.







Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Comment Sheets



Comment Sheet





	Future Projects Do you agree with the list of projects shown?
b. (What projects have we missed? EVANS LAWE MUST BE RESOLVED. SOON ITY CANNOT IGNORE THIS THAT EVANG LANG IS A CITY ROAD
	Would any of the proposed projects negatively affect the community? How:
2.	Do you agree with the project priorities? What projects are most important to you?
3.	What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment? Why?
4.	Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why?
Ge	neral Comments
	u may hand in this sheet before you leave tonight or mail it to the address below by April 28, 2011.
	UR NAME:
	DRESS:

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp Return Comments to:



Lyle DeVries
Felsburg Holt & Ullevig
6300 S. Syracuse Way, Suite 600
Centennial, CO 80111

F: 303.721.0832 E: lyle.devries@fhueng.com

engineering paths to transportation solutions

P: 303.721.1440



Moves PEARFISH Comment Sheet





1. a.	Future Projects Do you agree with the list of projects shown? Phioritize I Remove Midrigram that Signal on Camara action
2	
b.	What projects have we missed? Howhole of the Bluck Cham Front Huy 14 and Holls Well Cham Front Hills Well Cham Front Holls Well Cham Front Hills Well Cham Front Hills Well Cham Front Hills Well
	HI Widen Colorado Blur Cham Ent 111 to This Wiew
C.	Would any of the proposed projects negatively affect the community? How:
2.	Do you agree with the project priorities? What projects are most important to you? Retail Future Done See 1 a. Above and 1 b. Widen Colorado Sxit 14 & Sxit 17
3.	What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment? Why? Extend path From Evans Park to Huy 14 Extend fath From Ext 14 to Ext 17
4.	Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why?
Gei	neral Comments
V.	
	I may hand in this sheet before you leave tonight or mail it to the address below by April 28, 2011. JR NAME:
ADI	DRESS: 304 Yellowstone Pl
ΓΠ (ONE# (Optional):605

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp Return Comments to:

FELSBURG HOLT & ULLEVIG

Lyle DeVries

Felsburg Holt & Ullevig

6300 S. Syracuse Way, Suite 600

Centennial, CO 80111

P: 303.721.1440 F: 303.721.0832

E: lyle.devries@fhueng.com

engineering paths to transportation solutions



Comment Sheet





Future Projects a. Do you agree with the list of projects shown?	
b. What projects have we missed? Interchange at Painbow Rd+I-903 Translet Francis Hew Faculity (Incomigan + Tumbleweed Trail)	nsit Stop
c. Would any of the proposed projects negatively affect the community? How:	
2. Do you agree with the project priorities? What projects are most important to you? Rolley Road from 10th and west to Speartish Com	yn.
3. What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investigation. Why?	stment?
4. Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why	γ?
General Comments S Evans # I priority for reconstruction 2) Underpass at Sidewalk south of Taco Bell (Sykway)	to Hyb Sinoo
You may hand in this sheet before you leave tonight or mail it to the address below by April 28, 201	
YOUR NAME:	
ADDRESS:	
PHONE# (Optional):	

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp Return Comments to:



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Centennial, CO 80111

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E: lyle.devries@fhueng.com



Comment Sheet





1. a.	Do you agree with the list of projects shown? A LOT, But Some MISSES
b.	What projects have we missed? REPOUTE 275 ST Between WINDMELL + ATRPORT RD. MAKE PHAN LAND SAFER, MAKE USE of POUNDABOUTS + RAISE PED CROSSIMANS
c.	Would any of the proposed projects negatively affect the community? How:
2.	Do you agree with the project priorities? What projects are most important to you? For THE MOST PART. #70 greatest Sufety impact. 4560 impacts me on convaniance most
3.	What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment? Why? EUAN LANK - SAFFTY. GCHOOL POURS / KIDS ROWERS - SAFFTY OFF ROAD TRAILS - REC , TOURISM
4.	Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why? YES - IMPROVE CONVENCE For MOTOR VEHICLES, (MEROVE) BACYCLE SAFETY, EMPSOR BICYCLE REC Opportunities-
Ge	more remonte of #23 to chorter term objective.
YΩ	u may hand in this sheet before you leave tonight or mail it to the address below by April 28, 2011. UR NAME:
	orien (opionia).

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Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Meeting Handout







MOVESPEARFISH

Selected Displays from: Public Meeting #2 Wednesday, April 13



Spearfish Area Master Transportation Plan

Felsburg Holt & Ullevig

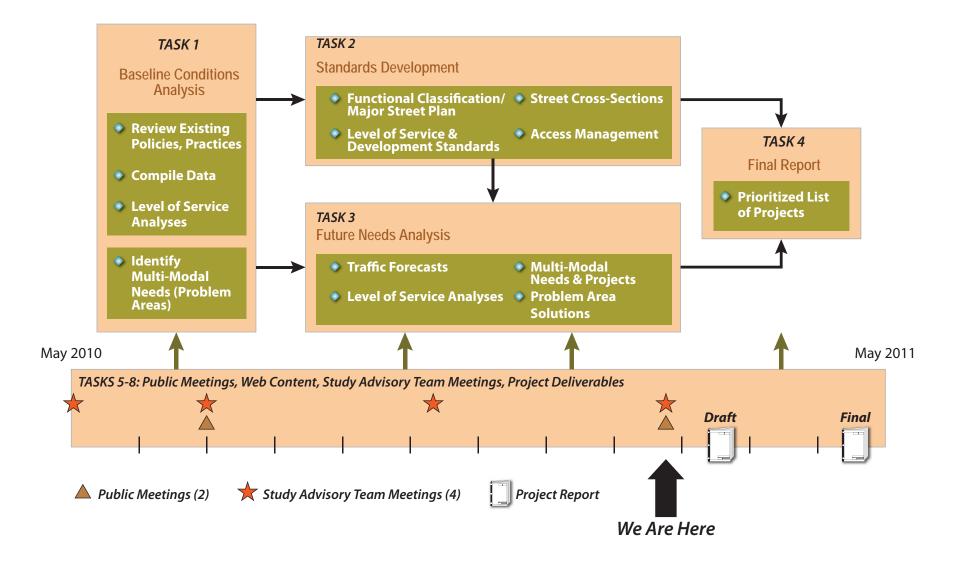




Project Work Process









Project Contacts





SDDOT Project Manager:

Steve Gramm, PE Data Analysis Engineer

steve.gramm@state.sd.us

Ph: (605)773-6641

Consultant Team Project Manager:

Lyle DeVries, PE, PTOE Felsburg Holt & Ullevig

<u>lyle.devries@fhueng.com</u>

Ph: (303)721-1440

Project Website:

http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp

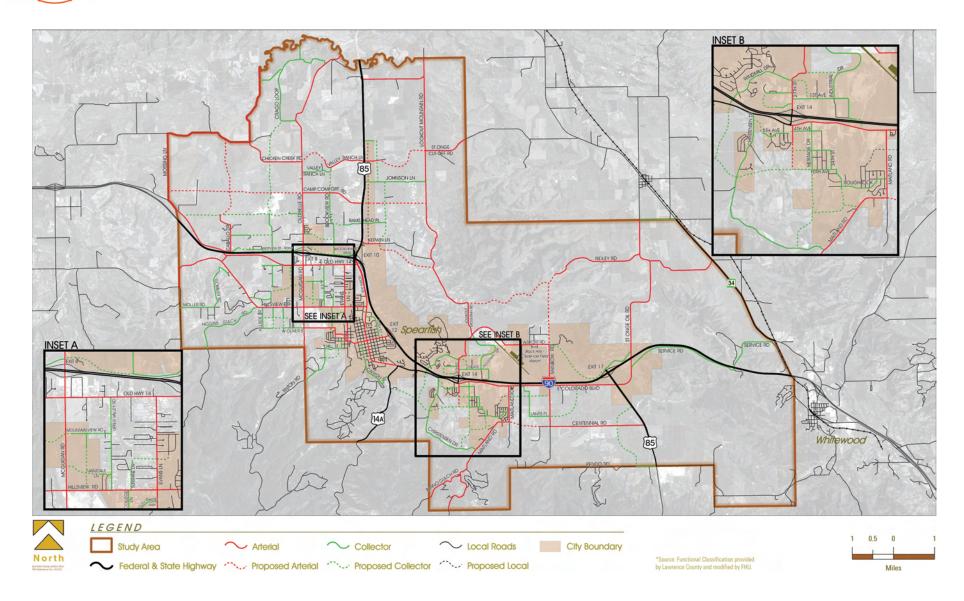




Major Street Plan







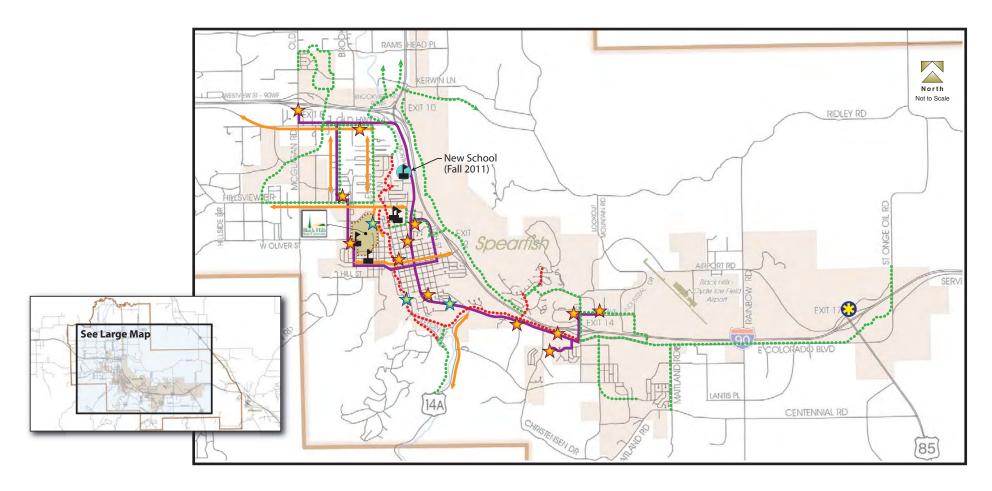




Pedestrian, Bicycle, and Transit Master Plan







LEGEND

Current Prairie Hills Transit Commuter Bus Stop (to/from Sturgis and Rapid City)

★ Future Prairie Hills Transit Bus Stop

Future Transit Park-n-Ride Location

Existing Trails
Future Trail
Future Transit Fixed-Route
Future On-Street Bicycle Facility

Schools
Streams
City Boundary
Study Area





Prioritized Publicly Funded Projects - DRAFT





Prioritized Roadway / Intersection Projects

ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
58	Construct Intersection Improvements Connecting the Pedestrian Trail from the High School to the Safeway	Intersection	NA	Short Range
55	Restripe the pedestrian crossing markings at St. Joe S and Nash St	Intersection	\$5,000	Short Range
56	Construct Geometric Improvements at the University S. and Jackson Blvd Intersection	Intersection	\$15,000	Short Range
54	Construct Geometric Improvements at the Hillsview Rd and St. Joe St/Evans Ln Intersection	Intersection	\$150,000	Short Range
60	Interchange Improvements at Exit 14 (I-90)	Interchange	N/A	Mid-Range
61	Interchange Improvements at Exit 17 (I-90)	Interchange	N/A	Mid-Range
17	Build New Mountain Viev Rd Connection (McGuigan Fd to Mountain View Rd)	Colector Roadway	\$338,000	Mid-Range
63	Capacity Improvements Along 27th St (Exit 14 to 1st S)	Capacity	N/A	Mid-Range
25	Build New Collector (27th St to Industrial Dr)	Colector Roadway	\$1,240,000	Mid-Range
23	Improve Airport Rd to Arerial Standard (Lookout Mountain Rd to Existing Pavement)	Arterial Roadway	\$692,000	Long Range
62	Capacity Improvements Along Colorado Blvd (Spearfish Canyon to 27th St)	Capacity	N/A	Long Range
64	Capacity Improvements Along Colorado Blvd (27th St b Maitland Dr)	Capacity	\$937,000	Long Range
44	Pave Lookout Mountain Rd (27th St to St. Onge Cut-Of Rd)	Arterial Roadway	\$21,599,000	Long Range
15	Pave Hillsview Rd (End of Pavement to Old US 14)	Arterial Roadway	\$3,873,000	Long Range

Prioritized Pedestrian, Bicycle, and Transit Projects

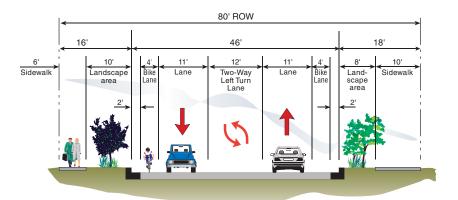
ID	Improvement	Facility Type	Planning Level Cost Estimate	Priority
70	Construct Pedestrian Facilities Along Evans Ln (Hillsview Rd to Old US 14) and Construct On Street Bicycle Facilities along St. Joe St/Evans Ln (Jackson Blvd to Old Highway 14)	Pedestrian/Bicycle	\$2,523,000	Short Range
75	Construct Bicycle and Pedestrian Facilities At the Exit 14 Interchange to Connect to the Walmart	Trail	\$166,000	Short Range
72	Construct On Street Bicycle Lanes Along Jackson Blvd (Jonas Blvd to 12th St)	Bicycle	\$4,132,000	Mid-Range
68	Construct Pedestrian Facilities Along Hillsview Rd (Upper Valley Rd to St. Joe St) and Construct On Street Bicycle Facilities along Hillsview Rd (McGuigan Rd to North Ave)	Pedestrian/Bicycle	\$3,479,000	Mid-Range
69	Construct Bicycle and Pedestrian Facilities Along Upper Valley Rd (Hillsview Rd to Od Highway 14)	Pedestrian/Bicycle	\$1,484,000	Mid-Range
67	Construct Bicycle and Pedestrian Facilities Along Old Highway 14 (Diamond Dr to Evans Ln)	Pedestrian/Bicycle	\$2,5{5,000	Mid-Range
65	Construct Bicycle and Pedestrian Trail tetween Hillsview Rd and Old Highway 14	Trail	\$293,000	Long Range
66	Construct Bicycle and Pedestrian Trail rorth from Old Highway 14 North of I-90	Trail	\$437,000	Long Range
76	Construct Bicycle and Pedestrian Facilities Along Colorado Blvd (27th St to St. OngeOil Rd)	Trail	\$962,000	Long Range
71	Construct Bicycle and Pedestrian Trail rorth from Existing Trail North of I-90 and East of US 85	Trail	\$423,000	Long Range
73	Construct Bicycle and Pedestrian Trail between Kerwin Ln and Sandstone Dr	Trail	\$686,000	Long Range
74	Construct Bicycle and Pedestrian Facilities Connecting the Trail from the High School to the New Trail East of I-90	Trail	\$112,000	Long Range
77	Develop a Transit Route Connecting Exit 14 Commercial Area with Exit 8; Including, Stops at Black Hills State University	Transit	N/A	TBD



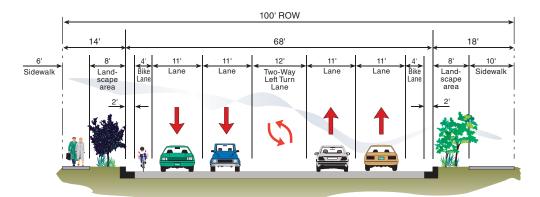
Roadway Typical Sections



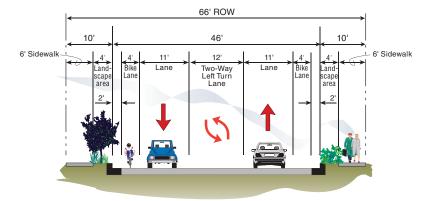




Two Lane Arterial



Four Lane Arterial



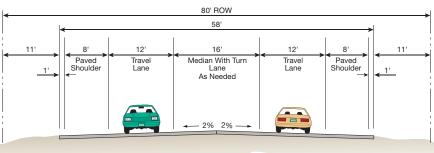
Collector



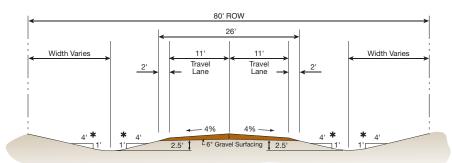
Rural Roadway Typical Sections



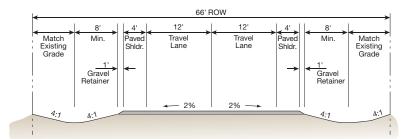




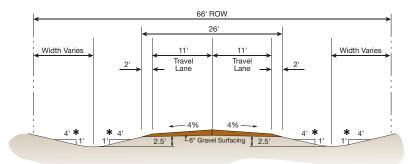
Rural Arterial (Paved)



Rural Arterial (Gravel)*



Rural Collector (Paved) **



Rural Collector (Gravel)*

- * Maximum slope is 4 to 1, current standard of S.D. Department of Transportation
- ** Right-of-way may be increased to accommodate lanes (i.e. ATV/bike)



Draft List of Spearfish Transportation Issues

Roadway

- Need Exit 14 improvements
 - o Consider logging trucks accessing the intersection from the west in new design
 - o Extend the westbound left turn lane on Colorado Blvd at 27th St
 - o Add a westbound right turn lane on Colorado Blvd at 27th St
 - o Consider the realignment of 27th St south of the interchange so that there is a straight connection through the intersection
 - o Consider eliminating the access from the Pizza Ranch onto Colorado Blvd
- Upgrade Evans Lane
- Widen Colorado Blvd between Exit 14 and Exit 17
- Provide consistent shoulder widths along Colorado Blvd
- Add shoulders to Colorado Blvd between Rainbow Rd & Exit 17
- Add an interchange along I-90 between Exit 14 and Exit 17
- Consider plans for future east-west corridors
- Auxiliary turn lanes are needed at 10th Street & Jackson Blvd (especially an eastbound left turn)
- Examine the intersection of 1st Ave & the West Walmart Access for safety concerns related to exiting traffic conflicting with eastbound through traffic
- Access onto Colorado Blvd from Country Club Village needs attention
- Consider the realignment of US 14A to align with Dahl Rd at Colorado Blvd
- Consider the removal of the traffic signal at Michigan & Main
- Examine the intersection of 5th St & Jackson St to determine if a traffic signal is warranted
- City traffic signals need better timing/coordination
- Consider the installation of actuated controllers at signalized intersections throughout town
- Seasonal traffic control at SH 14A & Colorado Blvd needs to be addressed
- Examine the intersection of US 14A & Colorado Blvd to determine if a traffic signal is warranted
- Examine Oliver St for problems with speeding
- Examine the intersection of Hillsview Rd & McGuigan Rd for safety concerns between heavy vehicles, passenger vehicles, and pedestrians
- Examine the intersection of Oliver St & McGuigan Rd for safety concerns between heavy vehicles, passenger vehicles, and pedestrians
- Nash & St Joe should be all way stop controlled to allow for pedestrian crossing
- Examine the intersection of 27th St & 1st Ave for safety concerns related to northbound pedestrians crossing the east leg of the intersection
- Review the intersection markings at Jackson St & University St



 Consider strategies for reducing cut through traffic along Sandstone Hills/Windmill Dr (to the Walmart)

Bicycle/Pedestrian

- Widen US 14A to allow for safer bicycle and pedestrian use
- Consider a bicycle/pedestrian underpass of I-90 at Exit 14
- Add a bicycle lane on the west side of Evans Lane
- Safe pedestrian crossing of Colorado Blvd at the Alternative School needs to be examined
- Focus on alternative modes of travel
 - Add on-street bike lanes
 - o Add sidewalks
 - Add pathways
- Recreation paths need to be linked to regional trails
- Recreation paths need to be constructed to Exit 17
- Construct a recreational path connecting the Reserve and the sports complex
- Construct a pedestrian path south of Taco Bell connecting the High School with Safeway

Transit

- Consider improvements to Prairie Hills Transit off-hour and weekend service
- Re-consider the addition of a trolley in town
- Provide bus service to all new housing
- Provide financial assistance for the purchase of transit passes for disadvantaged members of the community



Comment Sheet





	Do you agree with the list of projects shown?
b.	What projects have we missed?
С.	Would any of the proposed projects negatively affect the community? How:
2.	Do you agree with the project priorities? What projects are most important to you?
3.	What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment? Why?
4.	Do you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why?
Ge	neral Comments
YC	u may hand in this sheet before you leave tonight or mail it to the address below by April 28, 2011. UR NAME: DRESS:
PH	ONE# (Optional):

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp Return Comments to:

Lyle DeVries



Felsburg Holt & Ullevig 6300 S. Syracuse Way, Suite 600 Centennial, CO 80111 P: 303.721.1440 F: 303.721.0832

E: lyle.devries@fhueng.com

Spearfish Area Master Transportation Plan



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Sign-In Sheets



Sign-In Sheet





Public Meeting #2 - April 13, 2011

Name	Address	E-mail Address	Phone #
Jama Watson	625 N. STAST. KAPPSH	Jayra. Wakme cityaspentish.	605-647-1333
Gwel Grans	1905 LlogeBorn Jol		722-3081
Churl Johnson			
Doug Kasten	Speur Logh		
Dale World	Specific 8h		645-666
BOB MORECOM	SPRANFISH		34.269-2136
Fight Math	SPE		
San Ma	SPT	MFORLUBTERNHERITAGE	642-9378 ENTER
The Cramo	Pierre		
Dave Dutton	Spearfish		
BRAD Pennid	SDOST	Pierre	605-773-309
Joe Neeb	spear fish	Joe. Nee bacity of spe	actish.com
Transfresport	City of Syla		W5 722723



Sign-In Sheet





Public Meeting #2 - April 13, 2011

Name	Address	E-mail Address	Phone #
Alan CAAGE	1.0.Box 943 Sp.		
Barb Clin	4368 Col	prairie hills bkcline@transitcom	1
Joe Cas	e 9155,321d.		722-5845
Land Shee	J 1412 Gafeway G	dk green@spe.mia	co.net 640
Dan Green		1.0	1.6
JERRY KRAT	nbeck Mayor	SPF	
Faul young	Council 1325 E WOODLA	Spearfish	
BOB MEYER	1325 F. WOODLA	Spearfishbob @ gmail	722-3849 com
		· ·	
- All Market Control			



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Advertisement / Communication

SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION CITY OF SPEARFISH NOTICE OF PUBLIC MEETING / OPEN HOUSE FOR THE SPEARFISH AREA MASTER TRANSPORTATION PLAN LAWRENCE COUNTY

Date: April 13, 2011 Time: 5:30 p.m. to 7:00 p.m.

Place: Spearfish Municipal Services Centre - Council Meeting Room

625 North Fifth Street Spearfish, SD 57783

The South Dakota Department of Transportation (SDDOT), in conjunction with the City of Spearfish, will hold an open house style public meeting for the Spearfish Area Master Transportation Plan Study, entitled 'moveSpearfish'. The moveSpearfish Plan will address a full range of transportation options and issues, including pedestrian, bicycle, transit, freight, and automobile. The purpose of this public meeting is to inform area residents of the preliminary findings of the study and gather feedback as to the potential projects that have been identified based on the analysis completed and public comments received. The open house will be informal, with one on one discussion available with SDDOT, City, and Consultant staff. Between 5:30 p.m. and 7:00 p.m., SDDOT, City, and Consultant staff will be available with displays to discuss issues, answer your questions, and take your ideas and opinions regarding this study. A short presentation will be given at approximately 5:45 p.m. The opportunity to present written comments will be provided. Written comments will be accepted until April 27, 2011.

Notice is further given to individuals with disabilities that this open house/public meeting is being held in a physically accessible place. Please notify the SDDOT ADA Coordinator at least 48 hours prior to the open house/public meeting if you have special needs for which this agency will need to make arrangements. The telephone number for making special arrangements is 605-773-3540 or 1-800-877-1113 (Telecommunications Device for the Deaf).

All persons interested in the future transportation system of the Spearfish Area are invited to attend this meeting / open house to share your views and concerns, any time between 5:30 p.m. and 7:00 p.m. Those who cannot attend the meeting or desire further information regarding the study may visit the study's webpage at http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp or contact Steve Gramm at (605) 773-6641 / email steve.gramm@state.sd.us.

Notice published twice at the total approximate cost of \$486.00.



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Open House Exhibits







Welcome to

PUBLIC MEETING #2

for the

Spearfish Area Master Transportation Plan

We look forward to hearing your thoughts tonight.

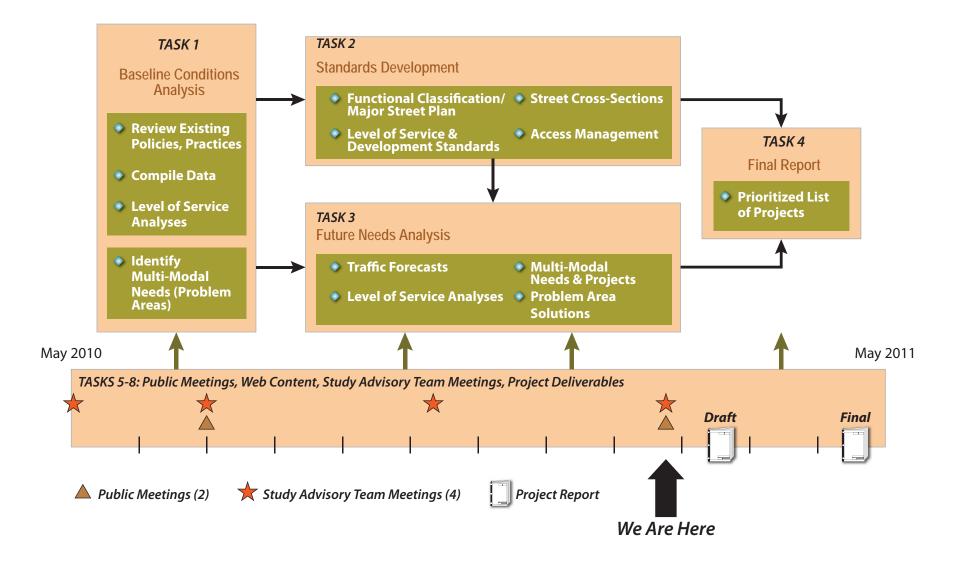




Project Work Process







Project Goals





Project Goals:

- 1. Complete a list of transportation issues and needs facing the Spearfish Area
- 2. Develop feasible solutions to address those issues and needs that meet current design standards and/or traffic level of service expectations under both the current and predicted future traffic conditions.
- 3. Create final products for use by the City of Spearfish, Lawrence County and the SDDOT which will provide guidance to implement recommended improvements and anticipate future development plans within the area.

This plan will also:

- 1. Address how the transportation system can enhance livability within the Spearfish community, particularly emphasizing travel by <u>transit</u>, <u>bicycle and walking</u>.
- 2. Provide not a road map, but a <u>master street plan</u> that frames the existing system and identifies future improvements.
- 3. <u>Coordinate</u> transportation planning efforts across multiple jurisdictions, including the City of Spearfish, Lawrence County, SDDOT and FHWA.
- **4.** Develop a plan that complements the <u>Engineering Standards</u> currently being developed by the City of Spearfish.
- 5. Identify <u>priorities</u> among future transportation improvement projects.

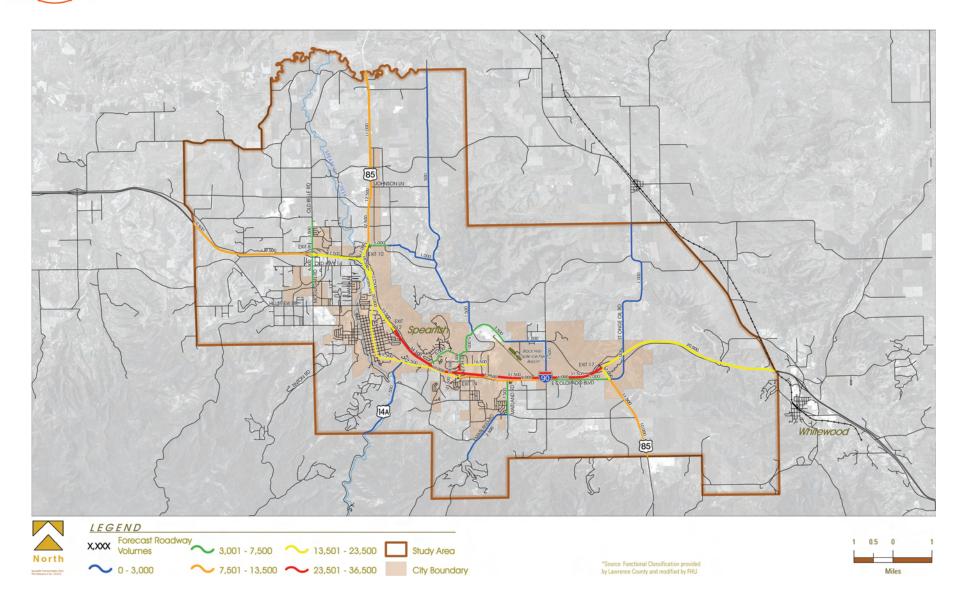




Year 2035 Traffic Forecasts







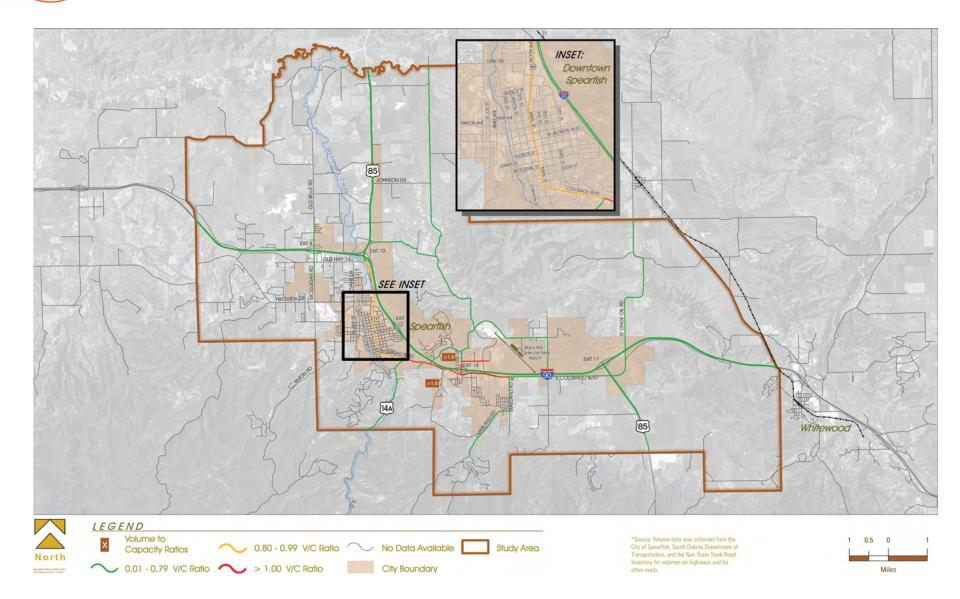




Forecast Volume to Capacity Ratios - Year 2035









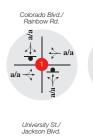


Levels of Service





Existing LOS



Colorado Blvd./ Maitland Rd.

St. Joe St./ Hillsview Rd.



Evans Ln./ Old Highway 14





North Ave./ Yankee St.



Ames Ave./ Jackson Blvd.

North Ave./ Main St./ Nevada St.







North Not to Scale

= Intersections Analyzed as Part of Ongoing US 14a Corridor Study (See Display)

Future LOS

Colorado Blvd./







St. Joe St./ Hillsview Rd.



North Ave./ Main St./ Nevada St.





Evans Ln./ Old Highway 14







North Ave./ Yankee St.



LEGEND

- X/X = Existing AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = Existing AM/PM Peak Hour Unsignalized Intersection Level of Service
- X/X = Future AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = Future AM/PM Peak Hour Unsignalized Intersection Level of Service
- = Stop Sign
- = Traffic Signal

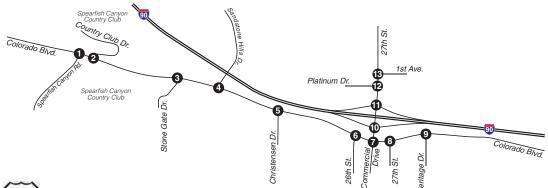




Intersection Levels of Service US 14a Corridor Study







LEGEND

- X(X) = AM/PM Peak Hour Signalized Intersection Level of Service
- x(x) = AM/PM Peak Hour Unsignalized Intersection Level of Service
- = Stop Sign
 = Traffic Signal



Existing LOS





























Future LOS



























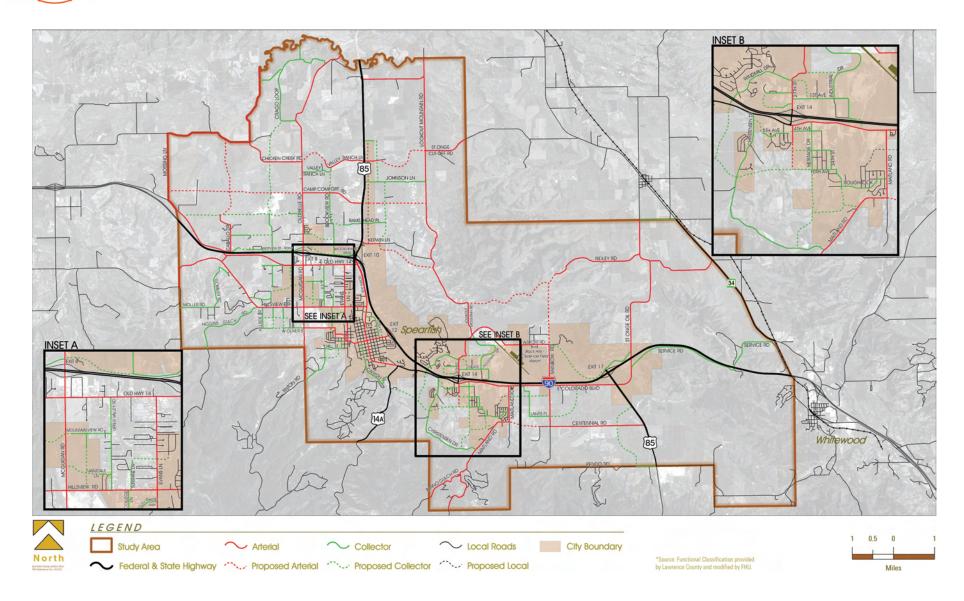




Major Street Plan





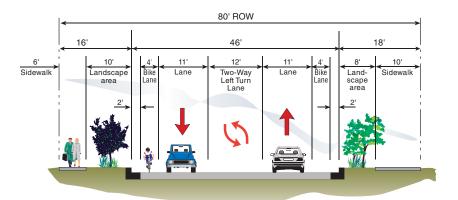




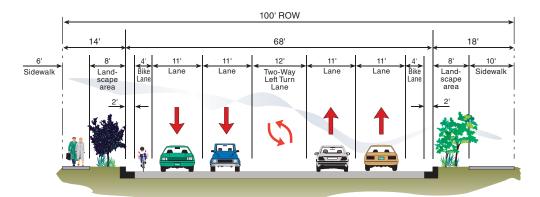
Roadway Typical Sections



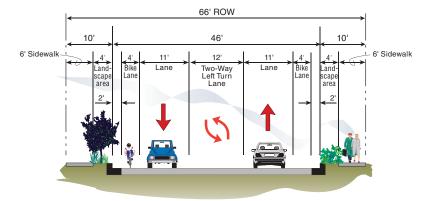




Two Lane Arterial



Four Lane Arterial



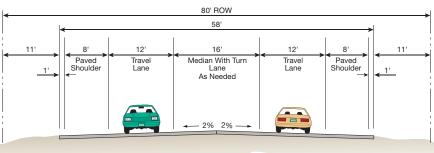
Collector



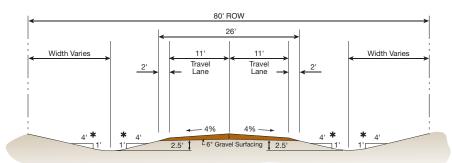
Rural Roadway Typical Sections



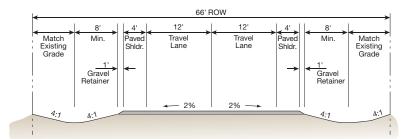




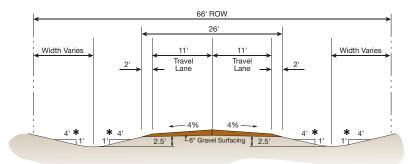
Rural Arterial (Paved)



Rural Arterial (Gravel)*



Rural Collector (Paved) **



Rural Collector (Gravel)*

- * Maximum slope is 4 to 1, current standard of S.D. Department of Transportation
- ** Right-of-way may be increased to accommodate lanes (i.e. ATV/bike)

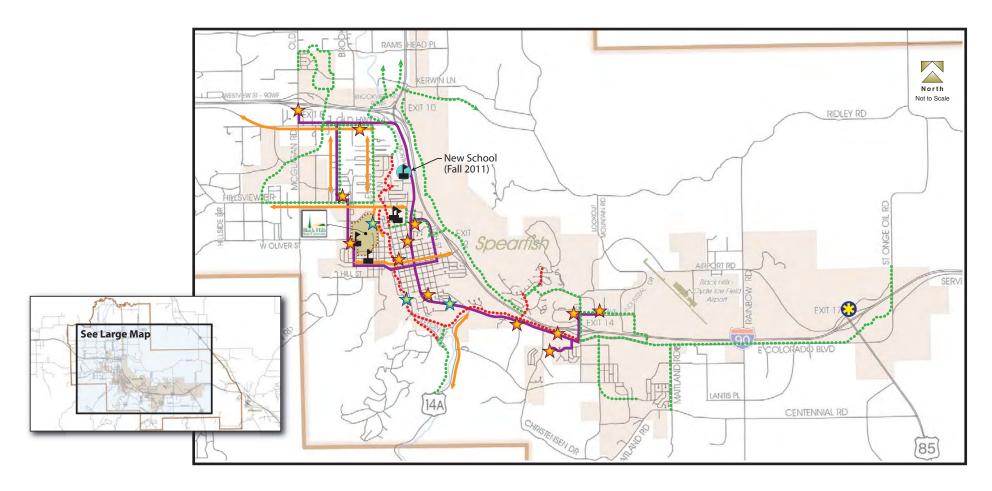




Pedestrian, Bicycle, and Transit Master Plan







LEGEND

Current Prairie Hills Transit Commuter Bus Stop (to/from Sturgis and Rapid City)

★ Future Prairie Hills Transit Bus Stop

Future Transit Park-n-Ride Location

Existing Trails
Future Trail
Future Transit Fixed-Route
Future On-Street Bicycle Facility

Schools
Streams
City Boundary
Study Area





Prioritized Publicly Funded Projects - DRAFT





Prioritized Roadway / Intersection Projects

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Prioritized Pedestrian, Bicycle, and Transit Projects

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75	Construct Bicycle and Pedestrian Facilities At the Exit 14 Interchange to Connect to the Walmart	Trail	\$166,000	Short Range
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74	Construct Bicycle and Pedestrian Facilities Connecting the Trail from the High School to the New Trail East of I-90	Trail	\$112,000	Long Range
77	Develop a Transit Route Connecting Exit 14 Commercial Area with Exit 8; Including, Stops at Black Hills State University	Transit	N/A	TBD

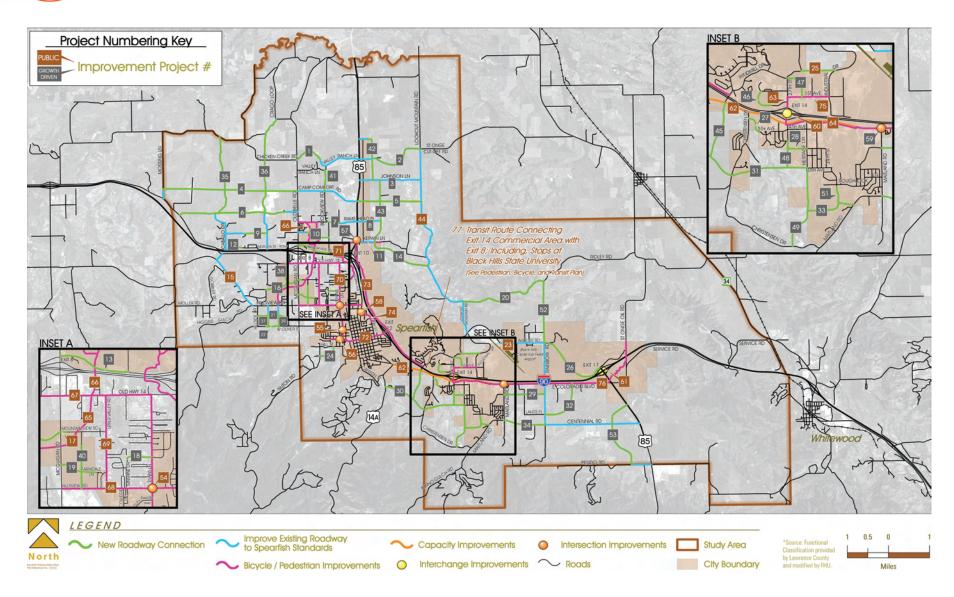




Project Improvement Plan









Comment Sheet





	o you agree with the list of projects shown?
b. W	/hat projects have we missed?
c. W	ould any of the proposed projects negatively affect the community? How:
2. C	Oo you agree with the project priorities? What projects are most important to you?
	What mode(s): road, bicycle, pedestrian, transit) do you think should be the primary focus of Spearfish's investment? Why?
4. C	Oo you feel that implementation of this plan would improve your drive/walk/ride in and around Spearfish? Why?
Gene	eral Comments
YOUI	may hand in this sheet before you leave tonight or mail it to the address below by April 28, 2011. R NAME:
PHOI	NE# (Optional):

Project website: http://www.sddot.com/pe/projdev/planning_ss_spearfish.asp Return Comments to:

Lyle DeVries



Felsburg Holt & Ullevig 6300 S. Syracuse Way, Suite 600 Centennial, CO 80111 P: 303.721.1440 F: 303.721.0832

E: lyle.devries@fhueng.com

Spearfish Area Master Transportation Plan



Spearfish Area Master Transportation Plan





Spearfish Area Master Transportation Plan

April 2011 Community Input Open House Summary

Open House PowerPoint Presentation







MOVESPEARFISH

Public Meeting #2 Wednesday, April 13



Spearfish Area Master Transportation Plan

Felsburg Holt & Ullevig



Presentation





- Background
- Project Update
- Transportation Plan Elements
- Next Steps



- SDDOT provided planning funds, augmented by City funds to conduct Area Master Transportation Plan
- Plan supervised by Study Advisory Team of SDDOT, Spearfish, FHWA and Lawrence County Staff



Study Advisory Team (





SDDOT:

- Steve Gramm, Pierre
- Dan Staton, Rapid City Region
- FHWA:
 - Mark Hoines, Pierre
- City of Spearfish
 - Jayna Watson, City Planner
 - Kyle Mathis, City Engineer
- Lawrence County
 - Dick Birk, Highway Superintendant
- Felsburg Holt & Ullevig
 - Lyle DeVries, Steven Marfitano, Jenny Young



Project Contacts





SDDOT Project Manager:

Steve Gramm, PE Data Analysis Engineer

steve.gramm@state.sd.us

Ph: (605)773-6641

Consultant Team Project Manager:

Lyle DeVries, PE, PTOE Felsburg Holt & Ullevig

<u>lyle.devries@fhueng.com</u>

Ph: (303)721-1440

Project Website:

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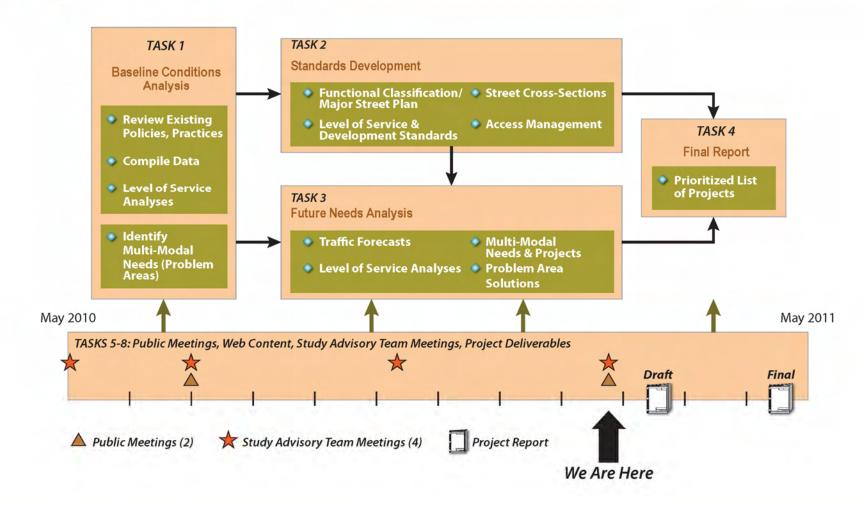




Project Work Process









Project Goals (2)

- Complete a list of <u>transportation issues and needs</u> facing the Spearfish Area
- Develop <u>feasible solutions</u> to address those issues and needs that meet current design standards and/or traffic level of service expectations under both the current and predicted future traffic conditions
- 3. Create final products for use by the City of Spearfish, Lawrence County and the SDDOT which will provide guidance to implement recommended improvements and anticipate future development plans within the area



Transportation Plan Elements





- Issues and Needs
- Major Street Plan
- Bicycle/Pedestrian/Transit Master Plan
- Project Improvement Plan
- Project Prioritization



Identifying Issues and Needs





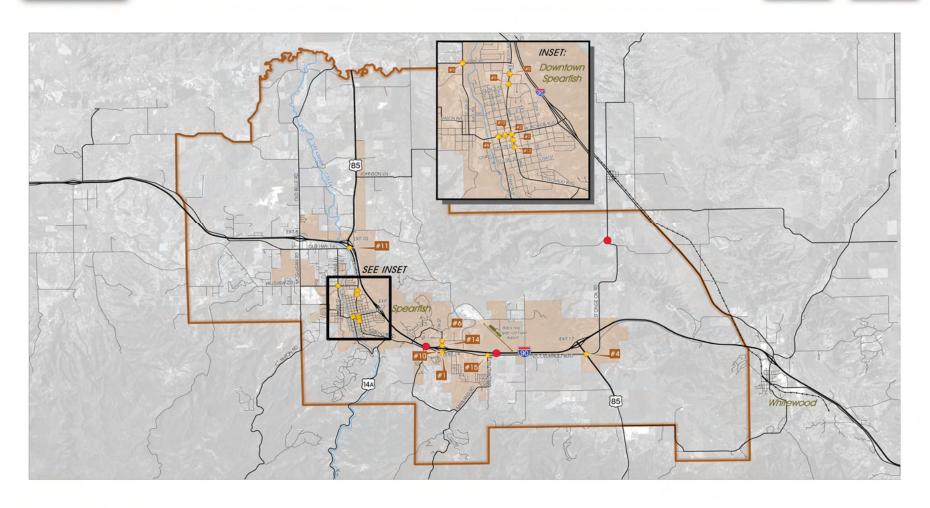
- Existing Conditions Analyses (July 2010)
- Public Comments
 - Meeting #1, Wal-Mart and BHSU Surveys
- 10 Key Intersections
- Future Traffic Forecasts & V/C ratios
- Phone Conference with Prairie Hills Transit
- Coordination with SAT



Top 15 Crash Locations - 2006-2009











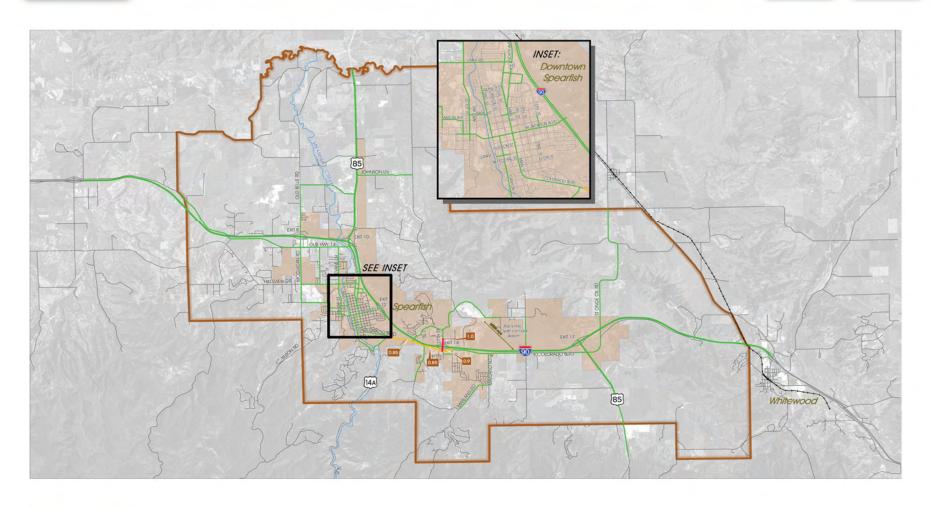




Existing Volume to Capacity Ratios - Roadway Segments













0.80 - 0.99 V/C Ratio



No Data Available

City Boundary



Study Area





Public Involvement





- July 2010 Meeting #1
 - 21 attendees, Open House
- Wal-Mart Storefront
 - 3 days, 50 respondents
- BHSU Community Survey
 - 600+ Student and Staff Response





Levels of Service



Future LOS

St. Joe St./ Hillsview Rd.



Existing LOS











Kerwin Ln./ US 85



Intersections Analyzed as Part of Ongoing US 14a Corridor Study (See Display)







LEGEND

- X/X = Existing AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = Existing AM/PM Peak Hour Unsignalized Intersection Level of Service
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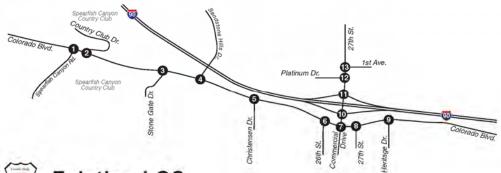




Intersection Levels of Service US 14a Corridor Study







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Existing LOS





















Future LOS



























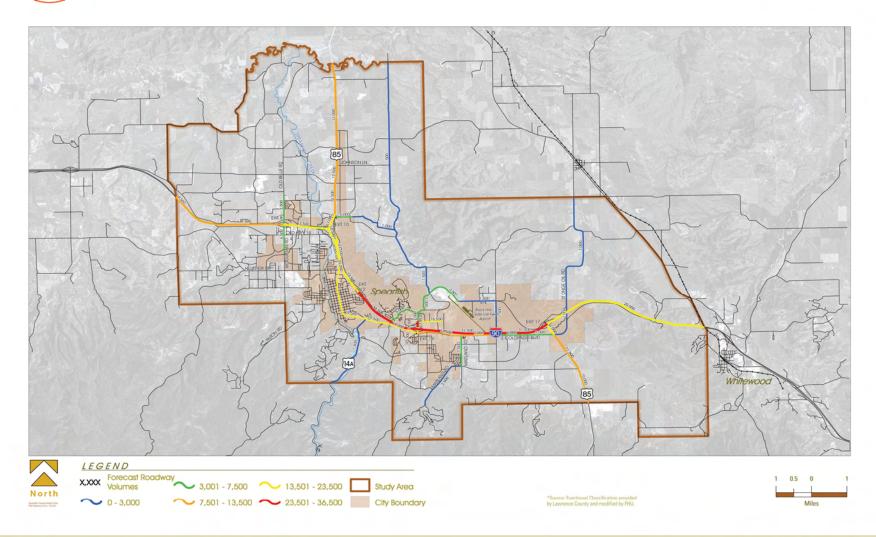




Year 2035 Traffic Forecasts







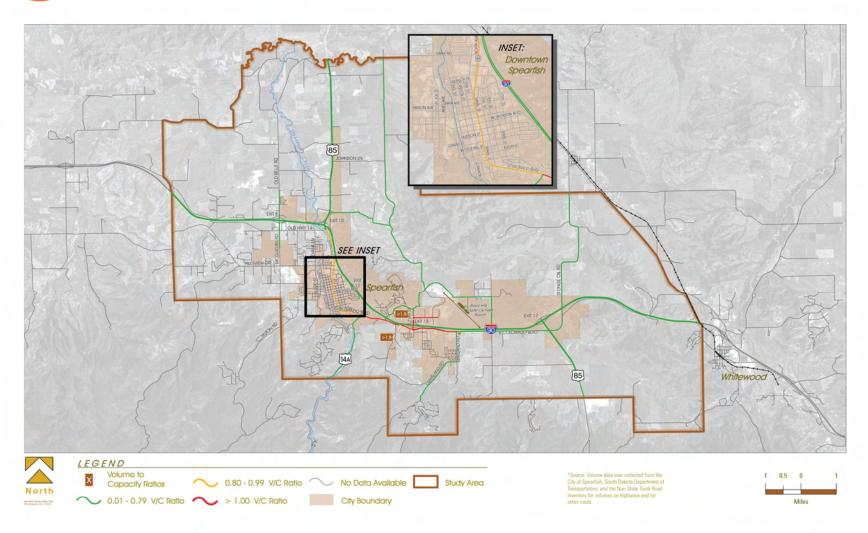




Forecast Volume to Capacity Ratios - Year 2035









Transit Needs (2)

- Potential for Future Fixed-route service
- Bus Stop Locations
- Consider improvements to Prairie Hills Transit off-hour and weekend service
- Re-consider the addition of a trolley in town
- Provide bus service to all new housing
- Provide financial assistance for the purchase of transit passes for disadvantaged members of the community



Bicycle/Pedestrian Needs





- Additional On-Street and Off-Street Bicycle Infrastructure
- Intersection Safety Enhancements
- Multimodal crossings of major roadways/drainages, etc.

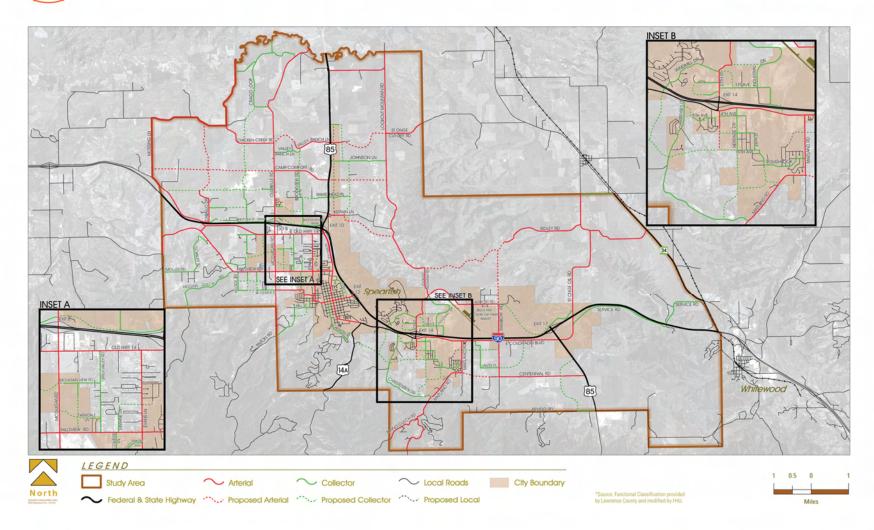




Major Street Plan





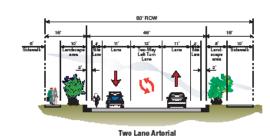




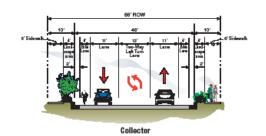
Typical Street Sections

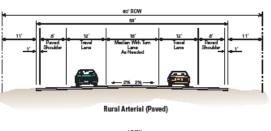


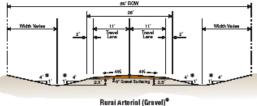


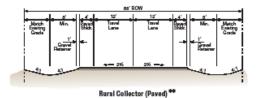


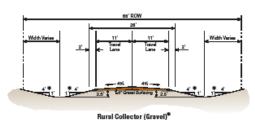
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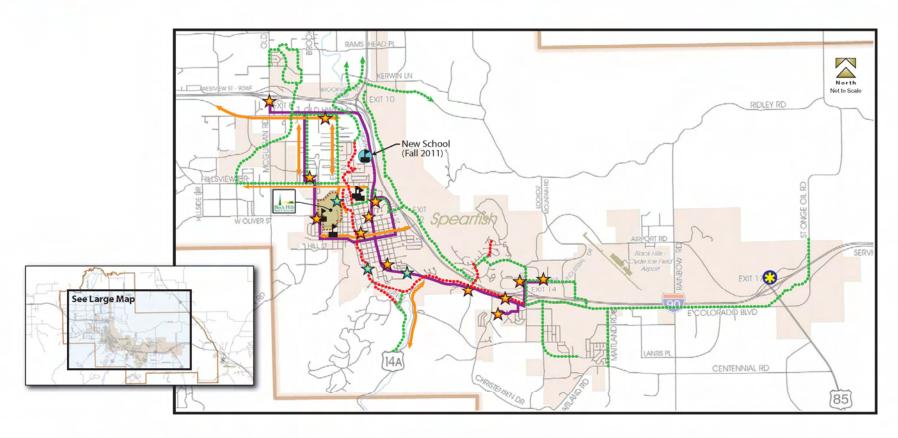




Pedestrian, Bicycle, and Transit Master Plan







LEGEND

- ☆ Current Prairie Hills Transit Commuter Bus Stop (to/from Sturgis and Rapid City)
- ★ Future Prairie Hills Transit Bus Stop
- Future Transit Park-n-Ride Location
- Existing Trails
 Future Trail
 Future Transit Fixed-Route
 Future On-Street Bicycle Facility



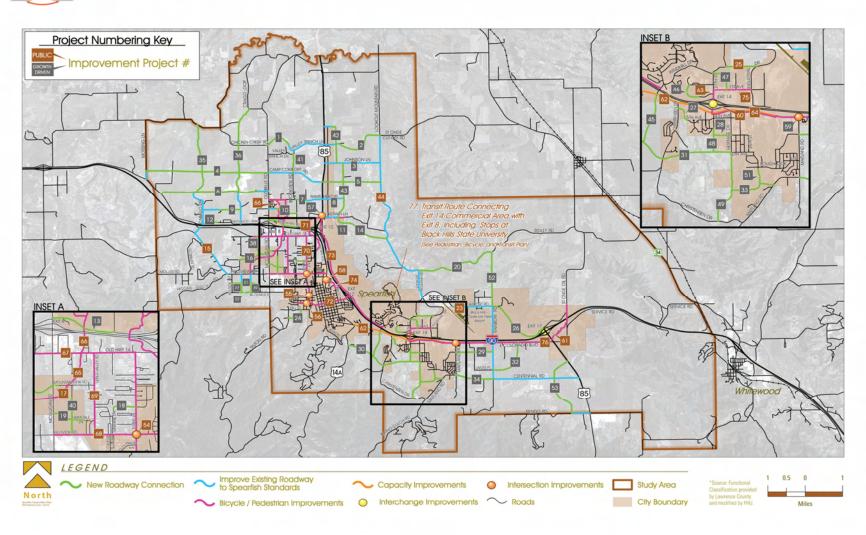




Project Improvement Plan











Prioritized Publicly Funded Projects - DRAFT





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- Receive Public Comments
- Complete & Review Draft Report
- Final Report



Make Your Thoughts Known!





- 1. Fill out a comment sheet
- 2. Voice your comments to the Project Team
- 3. Write your comment on a post-it note and attach it to the appropriate board
- 4. Contact the Project Team:

SDDOT Project Manager:
Steve Gramm, PE
Data Analysis Engineer
steve.gramm@state.sd.us

Ph: (605)773-6641

Consultant Team Project Manager: Lyle DeVries, PE, PTOE

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engineering paths to transportation solutions



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