Casper Area Long Range Transportation Plan

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EXECUTIVE SUMMARY

Connecting Casper 2040 is a comprehensive planning document for moving people and goods safely and efficiently within the region through the horizon year of 2040. The 2040 Long Range Transportation Plan (LRTP) is an update to the 2030 LRTP that was published in 2007. The Casper Area Metropolitan Planning Organization (MPO) includes: the City of Casper, Towns of Mills, Evansville, and Bar Nunn, and portions of Natrona County. The LRTP addresses the region's future transportation system for all modes of transportation including: roadways, freight, active transportation (bicycles and pedestrians), transit, and aviation.

COMMUNITY INVOLVEMENT

This Plan update would not have been possible without the input from the community, stakeholders, and local officials. Over 200 people provided input on the transportation needs for the Casper Area. Community input, with the oversight of the MPO technical committee, provided the foundation for the Goals and Policies for the 2035 Plan. Public input received for this Plan update indicted that these Goals and Policies effectively guided transportation decisions for the Casper Area and were used to develop screening criteria for future projects recommended in this Plan.

INVENTORY AND REVIEW

Since the 2007 plan there have been federal, state, and local changes in transportation requirements and policies. Most notably, new federal transportation legislation, *Moving Ahead for Progress in the 21st Century Act* (MAP-21), was signed into law on July 2012. MAP-21 establishes a performance-based program and streamlines the federal highway transportation programs to accelerate project delivery and promote innovation. This Plan considers and incorporates MAP-21 changes such as the introduction of performance measures that affect this Plan.

Connecting Casper 2040 incorporates and builds upon the concepts and recommendations from previous planning efforts. Since the completion of the 2007 LRTP, numerous plans and studies have been completed that have informed this Plan. For example, the Bar Nunn/I-25 Interchange Feasibly Study produced a conclusive recommendation on the location for an interchange for the Town of Bar Nunn and the recently completed Casper Area Trails, Path and Bikeway Plan identified bicycle improvements and sidewalk gaps that were incorporated into this Plan.

MODEL DEVELOPMENT

Since the 2035 Plan Update, 2012 WYDOT discontinued providing travel demand forecasting (TDF) service to cities in Wyoming. As part of the LRTP effort, a new TDF model was created to assess future travel conditions within the region. The model is calibrated to 2010 weekday conditions and has been designed to forecast a 2040 horizon. The Casper TDF model estimates typical daily traffic conditions in response to inputs that include regional population and employment, household characteristics, and transportation facilities. The model identified roadways that will

be congested in 2040. These conditions were used to create recommendations for improvements to the roadway system such as capacity enhancements of existing roadways or the construction of new roadways.

Needs Assessment

An inventory of transportation system needs, or "Needs Assessment" was prepared based on the issues of growth, traffic, safety, economic activity, and other considerations. The project team evaluated existing transportation conditions in the Casper Area as a basis for recommending future facilities. The existing conditions analysis was based on a review of data made available through the Casper Area Geographic Information System, crash data, existing facility quality, existing local, regional, and state plans and policies, and public input. Needs were identified for all modes of transportation including: roadways, freight, active transportation (bicycles and pedestrians), transit, and aviation, as well as safety and informed the recommendations for this Plan.

Future Conditions

Future conditions were analyzed using growth scenarios developed from the 2010 population of the Casper area. These scenarios were derived from an employment-based population model, which applies an array of socio-economic variables, such as commuting patterns, proprietors, unemployment rate, etc., to derive population and ultimately households and housing units. The MPO policy committee and City Council decided that the high growth forecast, 1.05% annual growth was the most likely for Casper to realize by 2040. The high growth scenario was used to analyze future conditions for all modes and informed recommendations for this Plan.

Vision Plan

The Casper Area MPO Vision Plan is a needs-based plan to address existing and projected future traffic congestion. This plan was developed by considering the 2040 Transportation plan goals and objectives, needs identified through existing conditions analysis and input from the MPO Technical Committee, MPO Board, and Casper Area residents. The vision plan projects address existing and future congestion identified during the Existing + Committed 2040 High Growth Scenario and does *not* consider costs to build or implement improvement. Additionally, some projects were identified in response to meeting a need or goal such as improved safety or efficiency of the transportation system. More than 40 roadway projects were identified, including improvements to existing roads, new roadway construction, and non-highway investments.

Recommended Transportation Plan

The Recommended Transportation Plan prioritizes the projects identified through the visioning process based on goals-based screening criteria. The recommended projects are also fiscally constrained – meaning that the expected costs for the projects do not exceed the expected revenues for transportation investments. Anticipated costs and funding sources for the major transportation modes were inventoried to determine the amount of funding available for modal improvements. Expected revenue for roadway and transit was projected based on historical averages and projected to 2040. For other modes, such as bicycle and pedestrian, dedicated funding is

not traditionally available, so these projects (from the Casper Area Trails, Path and Bikeway Plan) were prioritized but not fiscally constrained.

Implementation Strategies

Strategies and actions were identified that will help implement the Recommended Transportation Plan projects and facilitate the Plan Goals. Implementation strategies were developed for each mode and include suggestions for policy revision, regional coordination, code and zoning revision, funding, and programmatic changes.

Performance Measures

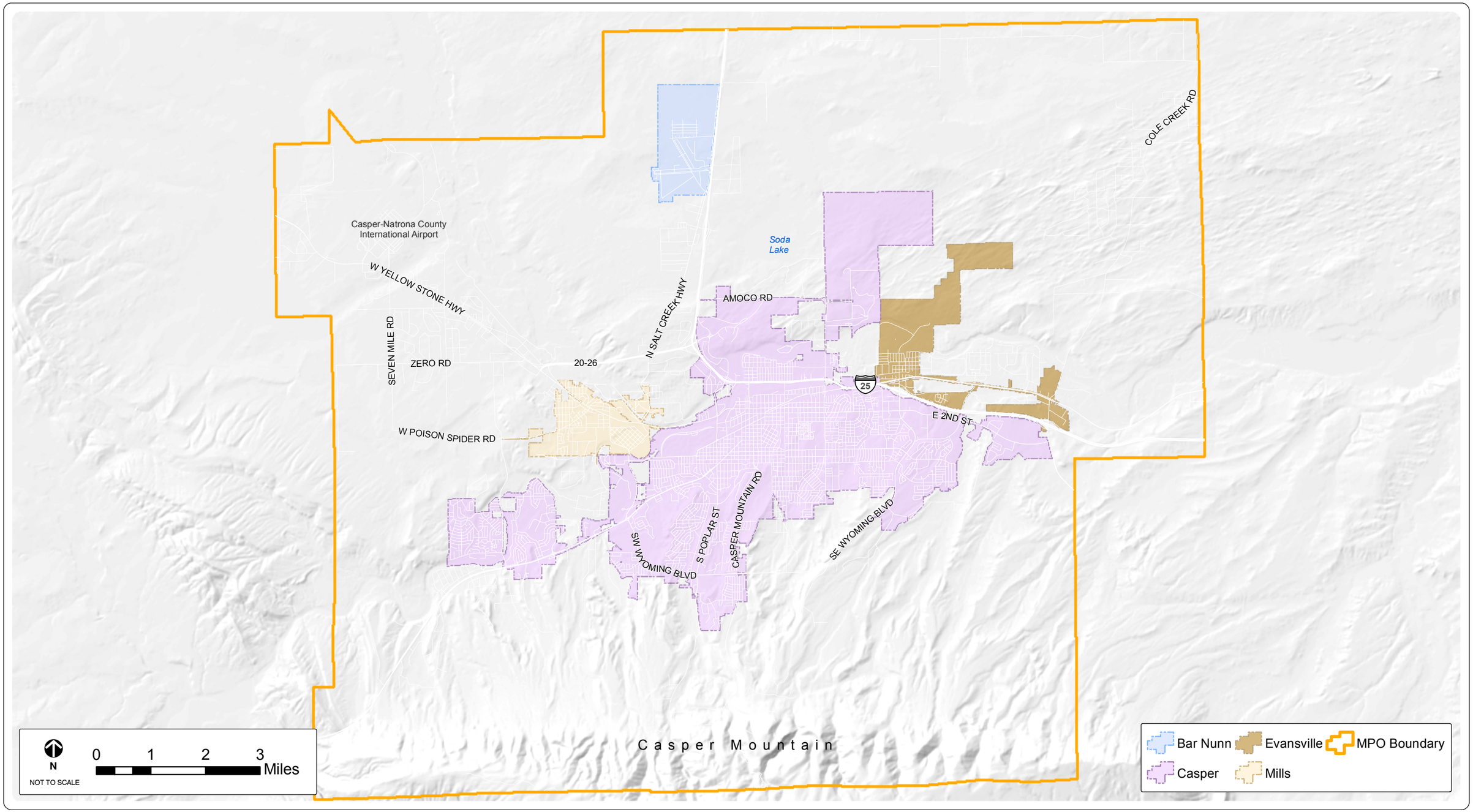
Performance Measures are one of the key requirements of MAP-21. Though MPOs will have until March 2015 to incorporate performance measures into their Long Range Transportation Plans, establishing these measures now will better position the Casper Area MPO to meet impending requirements. Performance measures also provide an effective means to monitor and evaluate the performance of the transportation system and are effective to guide transportation investments.

1 PROJECT INTRODUCTION

Connecting Casper 2040 is the 2040 Long Range Transportation Plan (LRTP) for the Casper Area Metropolitan Planning Organization (MPO). The plan is an update to the 2030 LRTP that was published in 2007. As shown in Figure 1-1, the Casper MPO includes the City of Casper, Towns of Mills, Evansville, and Bar Nunn, and portions of Natrona County.

Connecting Casper 2040 represents a comprehensive, cooperative, and continuing planning process for the Casper Metropolitan Planning Area (MPA). The LRTP analyzes existing and future year roadway conditions, transit operations, non-motorized facilities, rail facilities, and airport facilities. A number of specific recommendations to address transportation deficiencies though the year 2040 are identified in the LRTP, but more importantly, the plan is intended to be flexible and capable of responding to change. In a sense, *Connecting Casper 2040* is a continuation of the work completed in the 2030 LRTP and is still a work in progress. Over the next 25 years the area's demographics will shift, priorities will change, and new technologies will develop. This LRTP, along with future updates of the plan, will help the Casper Area MPO plan for the ever changing dynamics of the regional transportation system.

Connecting Casper 2040 analyzes individual transportation modes but also stresses the interrelationships between modes and encourages the integrations of the various transportation components into a comprehensive system to meet the mobility needs of the area's transportation users. Perhaps most importantly, the LRTP reflects the vision and direction of the Casper Area community, stakeholders, relevant agencies, and local officials. From the beginning of the LRTP process, a proactive public involvement process was undertaken to provide opportunities for the public and stakeholders to be involved. Finally, the LRTP is designed to be financially realistic. The recommendations are based on projections of available revenue and do not assume any significant increases in funding will be available beyond current levels.



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SOURCES: CASPER AREA MPO

Casper Area Metropolitan Planning Organization Boundary

FIGURE 1-1

2 COMMUNITY INVOLVEMENT

Completing a vision for the future of transportation in the Casper Area would not have been possible without the input from the community, stakeholders, and local officials.

2.1 PROJECT KICK-OFF

The project kick-off for the LRTP was two-fold. The project team met with the MPO Policy, Technical, and Citizens Advisory Committees on 20 February 2013. This meeting was intended to confirm the scope, budget, and schedule with participants as well as lay out project expectations. The meeting presentation is available in Appendix A.

The project team held a community wide kick-off for the project on 26 March 2013. Approximately 50 people attended the meeting. A short presentation provided information about the project and the remainder of the meeting was an open house style event with opportunities for meeting attendees to provide input regarding the goals from the 2007 Long Range Transportation Plan; transportation likes and dislikes in Casper, Bar Nunn, Mills, Evansville, and Natrona County; and desired modes of transportation. The meeting presentation and summary of public input can be found in Appendix B.

2.2 COMMUNITY LISTENING TOUR

The Long Range Transportation Plan team facilitated a Community Listening Tour on July 12-13, 2013 at numerous destinations in the Casper Area for residents to voice their concerns and opinions regarding the area's current transportation system and how transportation should look in the future. The team talked to nearly 75 area-residents, representing various populations during the 6-stop Tour that included: the Senior Center, Recreation Center, Bar Nunn Town Hall, Natrona County Fairgrounds, Westside Wal-Mart, and Eastridge Mall. Specific input on the transportation needs of mobility impaired individuals and senior citizens were gathered. In addition, residents of Barr Nunn provided pointed feedback about transportation needs for the Town. Lastly, Casper Area residents representing all modes: bus riders, walkers & recreationists, cyclists and drivers all provided input on their transportation needs and ideas for how transportation should look in the future. A summary and map of the input provided is provided in Appendix C.

2.3 NEEDS ASSESSMENT

The Listening Tour provided valuable insight into the Casper Area community's transportation needs and desires. In addition to compiling and incorporating comments from the Listening Tour, specific outreach meetings were held with the Wyoming Department of Transportation (WYDOT), the Wyoming Trucking Association (WTA), and the Natrona County International Airport. Through these one-on-one conversations, the project team was able to gain an understanding of mode specific needs for the future of transportation in the Casper Area.

2.4 Needs Summary and Findings

The final public meeting for *Connecting Casper 2040* was held on April 7th 2013. Twelve people attended the meeting. The meeting format was a public open house. Meeting attendees had the opportunity to review transportation needs identified through the planning process and findings for each mode of transportation. Results of preliminary model outputs for automobile travel in Casper in 2040 were also presented. A summary of the materials presented at this meeting and public input collected can be found in Appendix H.

2.5 Plan Adoption

Connecting Casper 2040 is scheduled for adoption on June 19, 2014. Prior to adoption, the plan will be posted to the website and a two week public review period will be provided to collect final input.

3 Inventory and Review

It is important to start the long range planning process with a strong understanding of what has changed since the previous plan was completed. Since the 2007 plan there have been federal, state, and local changes in transportation requirements and policies. This section highlights the key changes that will influence the direction of the 2040 update.

3.1 Federal Requirements

3.1.1 Moving Ahead for Progress in the 21st Century

In July 2012, the *Moving Ahead for Progress in the 21st Century Act* (MAP-21) was signed into law. This law provides federal funding for surface transportation programs, providing over $105 billion in funding for fiscal years 2013 and 2014. The law's key goals are to strengthen the National Highway System (NHS), establish a performance-based program, create jobs and support economic growth, support the U.S. Department of Transportation's (DOT) aggressive safety agenda, streamline the federal highway transportation programs, and to accelerate project delivery and promote innovation.

Prior to MAP-21, the *Intermodal Surface Transportation Efficiency Act of 1991* (ISTEA), the *Transportation Equity Act for the 21st Century* (TEA-21), and the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) established the direction for addressing transportation needs. MAP-21 builds upon and consolidates portions of these previous programs in an effort to grow and maintain the NHS. MAP-21 expands the scope of the NHS to include all principal arterials, highways that provide vehicle access between the NHS and all major intermodal transportation facilities, and the network of highways important to U.S. strategic defense and its connectors to major military installations.

3.1.2 FUNDING FLEXIBILITY

Many programs, such as the Highway Bridge Program (HBP), have now been consolidated into the Surface Transportation Plan (STP) and the National Highway Performance Plan (NHPP). In the case of the HBP, bridges that are part of the NHS will receive funding from the NHPP, while local and regional bridges receive funding from the STP. The program consolidation featured as part of MAP-21 will allow states increased funding flexibility.

MAP-21 also gives states the flexibility to transfer up to 50% of NHPP funds to the STP. This allows states to prioritize local and regional projects over NHS projects if the need is greater in those areas. Conversely, states could choose to invest primarily in the NHS or treat the funding categories as less flexible than they are.

3.1.3 TRANSIT PROJECTS

The size of the Casper region allows for increased flexibility for transit funding. Under MAP-21, transit systems in regions under 200,000 or systems with fewer than 100 buses during peak periods are authorized to utilize funding for both capital investments and operating expenses. Additionally, funding can be used for both existing and new transit projects and service. MAP-21 greatly reduced the number and type of discretionary awards through Federal Transit Administration (FTA) but greatly expands the use of Transportation Infrastructure Finance and Innovation Act (TIFIA) loans.

3.1.4 BICYCLE AND PEDESTRIAN PROJECTS

Prior to MAP-21, three federal programs provided dedicated funding for bicycle and pedestrian projects: Recreational Trails (RT); Safe Routes to Schools (SRTS); and Transportation Enhancements (TE). MAP-21 folds all three programs into a single, newly created program – Transportation Alternatives (TA). Activities eligible for funding under the new TA program include eligible projects from the previous three programs plus new eligibility for environmental mitigation and minor road construction.

Although the funding for this program has been reduced by a third, MAP-21 allows for the transfer of Highway Safety Improvement Program (HSIP) funding to the TA Program. Further, states are able to reallocate up to 50% of TA funding to other programs on an as-needed basis. Wyoming will continue to fund bike and pedestrian projects under TA.

Additionally, biking and walking infrastructure continues to be eligible under all highway programs, including the Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), and the Highway Safety and Infrastructure Program (HSIP).

3.1.5 PERFORMANCE MEASURES

One of the key requirements of MAP-21 is that metropolitan and statewide transportation planning processes incorporate performance goals, measures, and targets into certain transportation plans. As required in previous years, long-range transportation improvement plans are required; however, performance plans must now be incorporated into long-range plans. Long-range plans must describe the methodology and targets used when examining overall system performances and specify performance measures to track the progress towards achieving these goals.

The performance goals established as part of MAP-21 are intended to aid in realizing a national vision for a united transportation system across the entire nation. The national goals to be established as part of MAP-21 cover the following areas: safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays.

The Secretary of the DOT must establish factors for measuring the performance of states and MPOs by March 2014. States will then have until March 2015 to establish targets for future conditions of each of the measures. Finally, MPOs will have until March 2015 or no later than 180 days after the date that the relevant State or public transportation provider establishes performance targets to establish targets for metro regions. For selection of performance targets, MPOs must coordinate with their respective state department of transportation and public transportation providers. The Casper Area MPO will need to coordinate with WYDOT to develop performance targets that address MAP-21 surface transportation performance measures. Once the targets have been established, states and MPOs will be required to report their progress in achieving these targets to the U.S. DOT as well as include system performance reports in their long-range plans.

WYDOT's current LRTP was approved in July 2010. Revision to the plan will begin next year with an anticipated completion date of summer 2015. The department of transportation is working to develop performance measures for infrastructure condition, safety, and possibly freight. Table 3-1 presents a schedule comparing MAP-21 performance measures and the Casper Area MPO plan schedules.

TABLE 3-1 SCHEDULES FOR MAP-21 PERFORMANCE MEASURES COMPARED WITH CASPER MPO AND WYDOT SCHEDULES (FISCAL YEAR)

		FY2013				FY2014				FY2015				FY2016			
Action	**Effective/ Due Date**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
MAP-21 Effective	10/1/2012	X															
DOT Performance Measures	4/1/2014																
State Performance Targets	4/1/2015																
WYDOT LRTP Update	Summer 2015																
State Reports to DOT	10/1/2017																

MPO Performance Targets	10/1/2016															
Casper Area MPO 2040 LRTP	4/28/2014															

SOURCE: MAP-21 SUBTITLE B-PERFORMANCE MANAGEMENT, SEC. 1201 METROPOLITAN TRANSPORTATION PLANNING.

While not yet a federal requirement, Federal Highway Administration (FHWA) and FTA are encouraging MPOs to begin to incorporate system-wide performance measures, as well as more localized metrics into their LRTPs. As funding for transportation capacity projects becomes more limited, increasing emphasis will be placed on maximizing the efficiency and effectiveness of the current transportation system. Consequently, measures to assess the LRTP's effectiveness in increasing system performance will be needed.

The Connecting Casper 2040 plan expands upon performance measures offered in the 2030 long range plan. Performance metrics should be clear and measurable and include targets for achieving the goals. Further, the plan considers all new funding options when planning for infrastructure construction and improvements.

3.1.6 ASSET MANAGEMENT PLAN

States are required to develop risk and performance-based asset management plans for the NHS in an effort to improve to preserve asset condition and system performance. These plans must be reviewed and recertified at least every four years and carries a penalty of a reduction in the federal share of NHPP revenues in that year (65% instead of the standard 80%). Further, states are responsible for improving all NHS roadways and bridges to the minimum standards established by the Secretary of the DOT. WYDOT is currently in the process of creating an asset management plan. The plan will include pavement and bridge management recommendations, which will include state routes within the Casper MPO.

3.1.7 ENVIRONMENTAL REVIEW

MAP-21 streamlined the environmental review process in an effort to expedite the construction and of projects. According to the FHWA the National Environmental Protection Act (NEPA) environmental review process took, on average, between 2-6 years under SAFETEA-LU. In total, completing this process comprised approximately 27-28% of total project development time. The streamlined process introduced as part of MAP-21 establishes various ways that the time taken to complete the NEPA process will be reduced. Under MAP-21, environmental studies and Planning and Environmental Linkage (PEL) studies can used to fulfill the NEPA requirement. As a result, corridor studies or analyses that have been conducted within three years of the NEPA review can be accepted as satisfying NEPA. Further, many projects may be "categorically excluded" from the NEPA review process. Projects that are located within existing transportation right-of-way, receives less than $5 million in federal funding, or costs less than $30 million with no more than 15% federal funds are excluded from the NEPA process. Finally, MAP-21 expands the NEPA delegation pilot program to all states. This program allows states to take the role of FHWA in the NEPA process, effectively expediting the NEPA review process.

3.1.8 SUMMARY

Federal surface transportation legislation not only affects levels of funding to support roadways and transit, but also determines how the nation's metropolitan regions must plan for their long-term transportation needs.

Each MPO has the discretion to determine whether or not to address MAP-21 requirements in their LRTP at this time. Depending upon when FHWA issues MAP-21 implementing guidance, the new requirements may have to be addressed within a short timeframe. Beginning to address these issues early on may potentially minimize the level of effort needed to achieve future compliance.

3.1.9 METROPOLITAN TRANSPORTATION PLANNING REQUIREMENTS

Federal transportation legislation requires that a Metropolitan Planning Organization (MPO) be designated for each urbanized area with a population of 50,000 or more in order to carry out the metropolitan transportation planning process, as a condition of Federal aid.

The Casper Area MPO and the Wyoming Department of Transportation, serves as the administrative arm of the Casper Area Transportation Planning Process (CATPP). The CATPP provides a comprehensive, continuing, and cooperative process of review for the existing and future transportation system in the Casper urbanized area within the Metropolitan Planning Boundary.

The Casper Area MPO is responsible for three federally-required planning documents: Unified Planning Work Program (UPWP), Transportation Improvement Program (TIP), and Long Range Transportation Plan (LRTP) as well as a public involvement policy, sub-area plans and special studies.

3.1.9.1 Unified Planning Work Program

A Unified Planning Work Program (UPWP) is a federally-required document that contains transportation planning activities other than implementation activities such as design and construction. The FY14 UPWP for the Casper Metropolitan Area contains ongoing and future transportation planning activities within the Casper Metropolitan Area. It also provides a tool for the financial management of the programs undertaken by the MPO. The UPWP is prepared annually and provides guidance and structure for the development of planning projects in the Casper Area.

3.1.9.2 Transportation Improvement Program

The FHWA and the FTA require that all urbanized areas develop a Transportation Improvement Program (TIP) every four years, covering a period of no less than four years, in order to be eligible for federal funding. The TIP includes all surface transportation projects that use federal funding and all regionally significant transportation projects, regardless of funding source, within the boundaries of the metropolitan planning area.

The CATPP develops the TIP for the Casper Area MPO. The TIP includes capital, planning, and administration projects – providing a framework for the efficient expenditure of federal transportation funds in a manner consistent with regional needs and priorities.

The Fiscal Year (FY) 2012-2015 TIP was developed with input from a variety of stakeholders via the CATPP, which included local municipalities, the state of Wyoming, local organizations, and citizens. The input from these committee meetings helped develop a list of highway, Transportation System Management, transit, and pedestrian-related projects of great importance for the area. Though many projects are listed, three projects were approved for priority listing: Robertson Road reconstruction, Poison Spider Road reconstruction, and McKinley Street extension.

3.1.9.3 Long Range Transportation Plan

The Long-Range Transportation Plan (LRTP) is a federally-required planning document outlining the transportation improvements and policies to be implemented in the MPO study area. The LRTP must include plans for at least the next twenty years and be updated at least every five years. The Casper Area's LRTP was last updated in 2007 and establishes the region's long term vision for transportation. This Plan will address the many requirements of the LRTP.

3.2 LIVABILITY PRINCIPLES

3.2.1 HUD-DOT-EPA PARTNERSHIP FOR SUSTAINABLE COMMUNITIES

In June 2009, the U.S. Department of Housing and Urban Development (HUD), the U.S. DOT, and the Environmental Protection Agency formed a partnership to help communities nationwide improve their sustainability. To create sustainable communities, the partnership had created principles that aim to help communities improve access to affordable housing, increase transportation options, and lower transportation costs while addressing climate change. The livability principles are: Provide more transportation choices; Promote equitable, affordable housing; Enhance economic competitiveness; Support existing communities; Coordinate and leverage federal policies and investment; and Value communities and neighborhoods.

The Connecting Casper 2030 Long Range Transportation Plan addressed the importance of improving the availability of transportation options for residents of the Casper Metropolitan Statistical Area (MSA); ways in which to improve access to affordable, equitable housing via strategic transportation investments; and enhancing the economic competitiveness of the area by making key infrastructure investments. In an effort to improve compliance with the Livability Principles that have been issued by the partnership, the Connecting Casper 2040 Long Range Transportation Plan places an increased focus on supporting existing communities and leveraging governmental partnerships.

3.3 Previous Plan Review

The LRTP incorporates and builds upon the concepts and recommendations from previous planning efforts. Since the completion of the 2007 LRTP, numerous plans and studies have been completed. The plans, studies, and projects related to the development and implementation of the LRTP are summarized below and include:

- Salt Creek Highway/McMurry Boulevard Corridor Study, January 2008
- Casper Walkability Study, March 2008
- Town of Bar Nunn Community Development Plan, June 2008
- Casper Area "Boomer" Study, July 2008
- High Hazardous Intersections Study, November 2008
- Highway 20/26 Enhancement Study, December 2008
- Casper Streets Enhancement Study, August 2009
- Bar Nunn Traffic Study, January 2010
- Transit Development and Coordination Plan Update, March 2010
- Elkhorn Valley/Eastside Master Trail Plan, Spring 2010
- Casper Wyoming Safe Routes to School, March 2011
- Bar Nunn Salt Creek Intersection & Bar Nunn Subarea Planning Traffic Study, January 2012
- Community-Wide Strategic Planning Process, May 2012
- Bar Nunn I-25 Interchange Feasibility Study, June 2013
- Casper Area Trails, Path and Bikeway Plan, December 2013
- Casper/Natrona County International Airport Master Plan Update, February 2014

3.3.1 SALT CREEK HIGHWAY/MCMURRY BOULEVARD CORRIDOR STUDY, JANUARY 2008

The Town of Bar Nunn, located northwest of Casper, is experiencing significant growth due to energy development throughout the state of Wyoming. The town has been growing at an accelerated rate, leading the state in 2006. With the construction of over 450 homes in the area, the Casper Area Metropolitan Planning Organization authorized a study of Salt Creek Highway and McMurry Boulevard in an effort to facilitate access and efficient traffic flow to the Town of Bar Nunn and surrounding communities. The study objectives included:

- Conducting a feasibility study to examine an extension of McMurry Boulevard from Antelope Drive to Seven Mile Road/Highway 20-26
- Evaluating current road geometrics along Salt Creek highway between West Yellowstone and McMurry Boulevard with respect to current and forecasted vehicular traffic
- Evaluating potential transportation network alternatives to address forecasted traffic demands
- Conducting a feasibility study of an interchange on Intersate-25 near McMurry Boulevard

Following the study and evaluation of the town, numerous improvement alternatives were offered that would allow growth to occur safely and efficiently. The improvements, listed by priority, included the following:

- Improving the intersection of Howard Street and Salt Creek Highway based on specifications from 2003 Salt Creek Highway Intersection Study
- Creating a parallel arterial to Salt Creek Highway to reduce future traffic congestion
- Upgrading Salt Creek Highway to improve drainage issues and repair failing pavement

- Creating a new interchange on I-25 near Bar Nunn
- Creating a new arterial to connect I-25 to Hwy 20-26
- Expanding the roadway network on the west side of Bar Nunn including the creation of four east-west arterials and four north-south arterials spaced at approximately one mile intervals.

3.3.2 CASPER WALKABILITY STUDY, MARCH 2008

Recently there has been a growing sentiment among the public, elected officials, and planners to improve pedestrian facilities and legitimize walking as an alternative form of transportation and valuable fitness/recreational activity. The Casper Walkability Study addresses a wide-range of pedestrian issues and questions such as:

- The current demand for pedestrian facilities
- The current condition of the pedestrian system
- The recommended pedestrian improvements for the community
- How much should be invested in the pedestrian network
- What the priority for transit funds should be
- What policy changes should be made to address the pedestrian system

The study examined existing facilities and utilized various measurements and assessments to inventory existing conditions. Following the assessment, recommendations included:

- Developing land use and development standards that result in good pedestrian facilities that will not need future retrofitting
- Retrofitting pedestrian facilities in areas of inadequacy
- Educating the public on pedestrian laws and what it means to be a pedestrian
- Creating a minimum safety requirement for all local jurisdictions
- Prioritizing pedestrian funding and exploring alternative funding options
- Establishment of a maintenance plan for existing and future pedestrian infrastructure

3.3.3 TOWN OF BAR NUNN COMMUNITY DEVELOPMENT PLAN, JUNE 2008

The Town of Bar Nunn obtained a grant from the Wyoming Business Council to create a community development plan. The purpose of the plan is to address the rapid residential growth in the area; the lack of adequate access into the Town; the congestion along existing access points; the inadequate water system pressures and fire flows; the outdated subdivision, annexation, and zoning regulations; and the lack of commercial development in the Town.

In the initial states of plan development, the community performed a town survey to examine the current assets of the community. The survey data was utilized to form the Town's mission statement, goals, policies, and strategies for future development. The community then took an inventory of existing conditions including demographics, housing, public services, transportation facilities, and land use. Next, the community examined growth projections in an effort to develop an implementation plan.

Growth projections for Bar Nunn show a great increase in the number of residential dwelling units needed in the future. To accommodate this growth, the plan recommends that the community should annex lands surrounding the town. Annexation to the east has a primary goal of preserving open space to the east of Interstate-25. Annexation to the south has a primary goal preventing urban spillover from surrounding municipalities. The goal of annexation to the north and west of the community is to accommodate future residential development.

Growth projections anticipate that much of the development in the community will have started by 2020. The plan recommends that the community adopt a formal roadway plan to accommodate this future growth.

3.3.4 CASPER AREA "BOOMER" STUDY, JULY 2008

The coming demographic shifts will have profound impacts on the way that Casper Area residents travel. The Wyoming Department of Health reports that by 2020, Wyoming will have the highest proportion of people aged 65-74 in the United States. Within the next ten years, the population shift in Casper is estimated to move from 60% of residents under 55 to 60% over 55.

The study undertook a variety of phone interviews and surveys about a variety of topics. When asked about when they will stop driving, 50% said that "they would just know when"; 10% said they will stop if they have accidents; and 25% will require that someone else tell them to stop driving.

To allow individuals to remain independent, to continue to participate in community activities, and to access services which are already in place will require some changes to the environment of the community. Improvements to sidewalks, streets (signs), parks and recreational facilities, neighborhood commercial development, new housing designs, public health, and safety service delivery are recommended to be addressed in the plans for future investment.

3.3.5 HIGH HAZARDOUS INTERSECTION STUDY, NOVEMBER 2008

The *High Hazardous Intersection Study* sought to evaluate and rank hazardous intersections throughout Casper. To do this, safety, geometric, and operational characteristics of 25 intersections in Casper were examined. The report:

- Examines existing intersection deficiencies
- Reviews accident patterns
- Develops an intersection ranking system
- Recommends accident mitigation strategies
- Develops cost estimates for the accident mitigation strategies
- Recommends intersections improvement priorities based upon ranking

The intersection study found that four signalized intersections should be retrofitted to include pedestrian countdown heads to enhance the safety and efficiency of pedestrian movements. It was also recommended that all future traffic signal installations include specification for pedestrian countdown heads. Once more funds are

available, it was recommended that all signalized intersections should be retrofitted to include pedestrian countdown heads.

In addition to pedestrian safety recommendations, short-term recommendations to reduced traffic fatalities were recommended at each of the intersections. The recommendations were relatively inexpensive, with a total price tag of less than $100,000. More expensive long-term solutions included specific treatments at three intersections, ranging from the addition of right-turn lanes and raised center medians to the removal of unwarranted traffic signals.

3.3.6 HIGHWAY 20/26 ENHANCEMENT STUDY, DECEMBER 2008

The Highway 20/26 Enhancement Study was the development of a comprehensive enhancement plan for improving the appearance, character, and usability of the Highway 20/26 corridor. This study focuses on crafting a framework plan for improving the quality and appearance of the highway right-of-way through integrated landscape improvement plans and strategies including:

- Multi-seasonal planting designs for screening, framing views and thematically unifying the corridor
- Selection of drought tolerant, ecologically responsive plantings
- Identification of special gateway nodes and development of specific gateway elements, lighting, signage and plantings
- Energy-efficient and environmentally sensitive accent and roadway lighting
- Enhancements to roadway safety
- Integration of facilities for alternative travel modes

3.3.7 CASPER STREETS ENHANCEMENT STUDY, AUGUST 2009

The City of Casper experienced rapid growth in the 1970s, leading to the creation of a network of one-way streets in an effort to ease congestion and easily direct residents to the most populated downtown destinations. The rapid development of a one-way street grid created a number of intersections in which bidirectional traffic intersects with unidirectional traffic, leading to inefficient and confusing intersections for pedestrians and motorists alike. Further, little attention has been placed on pedestrian and bicycle access, creating many streets that are operationally under capacity, with few amenities for alternative forms of transportation.

The goal of the *Casper Streets Enhancement Study* was to explore opportunities to create a safer, more pleasant environment for pedestrians, bicyclists, and vehicles. To examine existing road conditions, the level of service was calculated for areas of concern within the study area. Based on these existing conditions, the plan recommends:

- The relocation of certain bike facilities
- Modification of street widths
- Modification of pedestrian crossings
- Reorientation of downtown parking spaces
- The addition of pedestrian enhancements

Recommendations were made based on a quantitative methodology examining level of service (LOS) improvements.

3.3.8 BAR NUNN TRAFFIC STUDY, JANUARY 2010

The *Bar Nunn Traffic Study* reviewed the operation of selected corridors, key intersections, and in the areas near Bar Nunn School. The purpose of the study was to review the existing traffic operations in the community, and address the potential traffic impacts when the school is expanded. The study analyzed traffic count data collected specifically for the project, accident data, field observations, and input from the town staff and town council. The study focused analysis on the converted runways in the community that comprise the main arterials for the town.

Recommendations of the study included correcting incorrect applications of Manual on Uniform Traffic Control Devices (MUTCD) guidelines, intersection guidelines for converted runways and local streets, intersection guidelines for converted runways and taxiways, intersection guidelines for two converted runways, short-term traffic calming measures near Bar Nunn school, and the creation of new access points near the school in an effort to reduce pedestrian/automobile conflicts. Finally, the study recommends the development of a transportation master plan.

3.3.9 TRANSIT DEVELOPMENT AND COORDINATION PLAN UPDATE, MARCH 2010

The Transit Development and Coordination Plan Update works to fulfill two key objectives: 1) to update the Transit System Plan (2005); and 2) to complete a Coordinated Public Transit Human Services Transportation Plan as required by federal legislation.

The purpose of the Transit System Plan is to evaluate the existing fixed-route and paratransit services operating the in Casper Area. The plan also identified unmet transportation needs and offers recommendations to improve the existing systems.

The list below contains a ranked list of unmet needs identified by the Transportation Steering Committee comprised of staff from various governmental organizations in the Casper Area, representatives from CATC and the CATC board. Results from the on-board passenger survey conducted on CATC and The Bus and feedback from CATC/The Bus drivers were influential in developing the list.

1. Weekend service for CATC and The Bus
2. Expansion of service beyond existing area
3. Employment related transportation
4. More frequent service/more direct service
5. Marketing and public awareness
6. Service earlier in the morning
7. Service later in the evening
8. Better coordination among social service providers
9. Development of transportation alternatives

The Plan also identified a range of potential transit and coordination strategies to address the unmet transportation needs identified.

3.3.10 ELKHORN VALLEY/EASTSIDE MASTER TRAIL PLAN, SPRING 2010

The City of Casper aims to create a pedestrian and bicycle friendly community. The Elkhorn Valley/Eastside Master Trail Plan was commissioned to guide the creation of a multi-use trail and greenway system. This system will provide citizens, businesses, and employees with new trail links that connect neighborhoods, schools, parks, activity and employment centers, and open spaces with a continuous pedestrian and bicycle trail. The intent of the plan is to create an implementable ten-year framework for the completion of this network.

In an effort to create a well-balanced plan, the study area was examined within the context of the larger, region-wide trail network. The planning process included seven major elements:

- An inventory of resources, challenges, and opportunities of the core site
- The formation of a plan working group (consisting of Casper, Evansville, Casper Area MPO, The Platte River Parkway Trust, WYDOT, and other stakeholders)
- Meetings with the property owner to review plans
- A public review process that consisted of open houses that were open to residents, property owners, businesses, and user groups
- One-on-one meetings and site visits with interested stakeholders
- Development of a preferred draft plan
- Presentation, approval, and adoption of the plan

Following the development of the plan, recommended improvements for the system included:

- A paved multi-use pathway north of E. 12th St. to the Rail Trail
- A new roadside path running along E. 2nd St. from Wyoming Blvd. to Ranch Rd.
- The creation of neighborhood gateway/access points
- A new gateway park/trailhead
- New at-grade trail crossings
- A new trail underpass
- A new trail wayfinding system, rest areas, shelters, and restrooms.

3.3.11 CASPER WYOMING SAFE ROUTES TO SCHOOL, MARCH 2011

The dramatic decrease in active living in the U.S. has had serious impacts on children. The Safe Routes to School program aims to facilitate conditions that support a safe walk or bike ride to school. Safe Routes to School is a national program that has been implemented in communities across the U.S. In an effort to create safe routes to school, the guide presents key concepts about the program which include:

- Ways to improve streets and parking
- Ways to improve the security of routes
- Best practices for street design

- Ideas for using trees as barriers
- Tools to minimize conflict points at school drop-off locations
- Best practices for sidewalk, trail, walkway, and ramp design.
- Accessibility best practices
- Using parks as community builders
- Traffic-calming treatments for intersections and crossings near schools

The guide outlines Casper's path to safe routes, analyzing the community's comprehensive plan and making engineering recommendations for high-traffic streets as well as the schools in the area. The plan concludes by suggesting beneficial partnerships as well as best-practices for community outreach.

3.3.12 BAR NUNN SALT CREEK INTERSECTION & SUBAREA PLANNING TRAFFIC STUDY, JANUARY 2012

Bar Nunn, located northwest of Casper, has experienced rapid growth in recent years due to energy development. The accelerated growth of the area led to the study of the Salt Creek Highway from Antelope Drive to McMurry Boulevard as well as the examination of interim and final street network configurations that could accommodate the growth of the area as it occurs. The intention of this study was to provide data to the MPO that would be useful when making decisions regarding roadway and intersection improvements and in defining areas that may need additional study.

The study evaluated existing traffic conditions, collaborated with stakeholders to understand their visions for the town, generated traffic models for the town, developed a street grid based on those models, and developed a prioritized list of facilities improvements. Recommended improvements included:

- Improving the intersection of Howard Street and Salt Creek Highway
- Providing a parallel route to Salt Creek Highway
- Reconstruction of Salt Creek Highway
- Construction of an additional Interstate-25 interchange
- Construction of an arterial to connect the new interchange to the community
- Build out of a more complete traffic network in Bar Nunn, including four east-west arterials and four north-south arterials

3.3.13 COMMUNITY-WIDE STRATEGIC PLANNING PROCESS, MAY 2012

In 2012, the City of Casper embarked on a Community-Wide Strategic Planning Process. The Process consisted of 17 focus groups and a community-wide public meeting to review the results of the planning process. The goal of the strategic planning process was to develop a community-wide strategic plan for implementation at the municipal government level. Through the Planning Process, participants were asked to select their top priorities that they would recommend for City action. The top 10 priorities listed by participants are listed below:

1. Convention Center Downtown
2. Improve technology; especially fiber-connectivity and power reliability

3. Downtown redevelopment and revitalization
4. Walkability focus for pedestrian and bicycle connectivity and safety
5. Construction of Civic Auditorium
6. Planned growth with a focus on the west and north sides of community
7. Better partnerships and collaborative efforts in community
8. Air transportation improvements (cost, scheduling)
9. Downtown Housing expansion
10. Indoor multi-sports complex with water park/play area

The fourth highest-ranked priority identified by participants was to create a focus on walkability, pedestrian and bicycle connectivity and safety. Additional highly-ranked, transportation-related priorities mentioned: included providing better options for air travel and improving parking options for Downtown.

3.3.14 BAR NUNN I-25 INTERCHANGE FEASIBILITY STUDY, JUNE 2013

The Wardwell Interchange and Salt Creek Highway currently serves as the only existing access to the Bar Nunn Area and cannot meet capacity and safety standards to adequately serve the Town.

The primary goal of the Bar Nunn/I-25 Interchange Feasibly Study was to provide a conclusive recommendation on whether an interchange is feasible for the Town of Bar Nunn based on FHWA's Eight Policy Criteria for interchange justification. Three alternatives were evaluated: Alternative A- No Build Option, Alternative B - McMurry Boulevard Interchange, and Alternative C-Westwinds Road Interchange. Based on several screening criteria, Alternative C-Westwinds Road Interchange ranked the highest. Additionally, four of the Eight Policy Criteria for interchange justification are currently met and the remaining four criteria are expected to be met based on projected development in Bar Nunn.

3.3.15 CASPER AREA TRAILS, PATH AND BIKEWAY PLAN, DECEMBER 2013

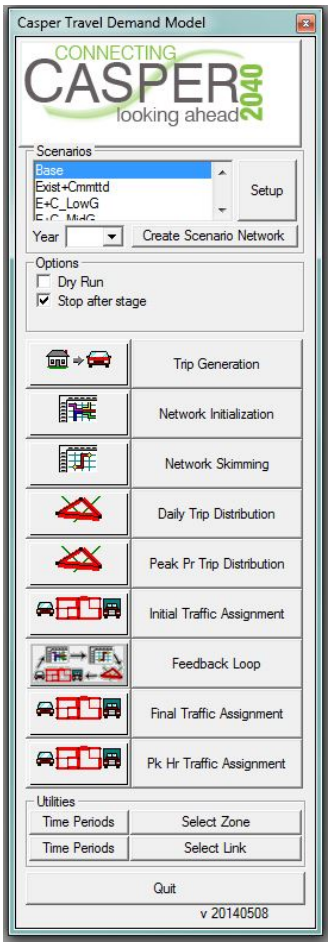
The *Casper Area Trails, Path and Bikeway Plan* provides a regional vision for a comprehensive and connected bicycle and pedestrian network. The primary goal of the plan is to increase the number of people walking and bicycling in the Casper area. An extensive public and stakeholder engagement process helped identify the objectives and recommendations below. The study objectives include:

- Make it safe for people of all ages and abilities to walk and bike
- Make it convenient to walk and bike by developing a connected network and removing barriers.
- Foster the development of a culture where walking and bicycling are accepted and viable travel mode choices.

The plan identifies deficiencies in the current bicycle and pedestrian infrastructure as well as the current state of policies and programs that support walking and biking. These gaps in the network and insufficient policies and programs were used to make recommendations to increase biking and walking in the Casper area.

3.3.16 CASPER/NATRONA COUNTY INTERNATIONAL AIRPORT MASTER PLAN UPDATE, FEBRUARY 2014

The Airport Master Plan Update provides an inventory of existing conditions and future demand. The plan discusses both cargo and passenger services as well as support facilities and environmental data and identifies the need to expand passenger carrier services in the future.



4 Model Development

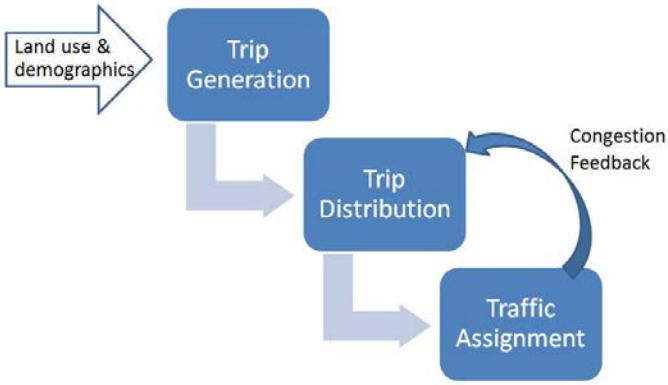
In 2012 WYDOT discontinued providing travel demand forecasting (TDF) service to cities in Wyoming. As part of the LRTP effort, a new TDF model was created to assess future travel conditions within the region. The Casper TDF model was developed in TransCAD 6.0 using standard modeling procedures and local data. The user-friendly custom interface is shown to the right. The model is calibrated to 2010 weekday conditions and has been designed to forecast a 2040 horizon.

The Casper TDF model estimates typical daily traffic conditions in response to inputs that include regional population and employment, household characteristics, and transportation facilities. The model provides a way to evaluate the effects of various land use scenarios on the transportation system.

The following section provides an overview of key elements of the Casper TDF model. The model documentation guide in Appendix D, offers a more comprehensive summary of the model.

4.1 Basic Model Framework

4.1.1 TRIP GENERATION



Trip generation is the first step in the transportation forecasting process. Trips are generated based on activities that occur in different land uses. Land use inputs including the number of dwelling units, population, and employment by type are entered into the model and trips are generated using trip generation rates from *ITE*. This model used trip rates from the *ITE Trip Generation Manual, 8th Edition*, supplemented by rates observed in Cheyenne, WY.

Various inputs are required for each land use. For residential land uses, household size and the number of vehicles per household are used to determine the number of trips households generate. The Census and American Community Survey were used to determine he residential characteristics throughout the region. To estimate the trips generated by commercial uses, the model uses nine unique employment categories, each with distinct trip generation rates.

Accurate estimates of existing population and employment are a key element of the transportation planning process and imperative to calibrate the base year model, which is then used to forecast future travel patterns.

4.1.2 TRIP DISTRIBUTION

Once the number of average daily trips has been determined, the trip distribution process determines the specific destination of each originating trip. The Casper model accounts for a range of trip types, including trips that start and end within a zone, trips between zones, trips that originate within but terminate outside of the model area (and vice versa), and trips passing completely through the model area.

The trip distribution model uses a gravity model equation to distribute trips to all zones. This equation estimates an accessibility index for each zone based on the number of attractions in each zone and a friction factor, which is a function of travel time between zones. The trip distribution is highly sensitive to travel time, so new roads or capacity enhancements can influence travel choices. Similarly, traffic congestion influences distribution through a feedback mechanism built into the model process.

4.1.3 TRAFFIC ASSIGNMENT

The trip assignment process determines the route that each vehicle trip takes from a particular origin to particular destination. The model selects these routes in a manner that is sensitive to congestion and the desire of drivers to minimize overall travel time. It uses an iterative, capacity-restrained assignment, and volume adjustments are made that progress towards equilibrium. This technique finds a travel path for each trip that minimizes travel time, while taking into account congestion delays caused by the other simulated trips in the model.

4.2 MODEL CALIBRATION AND VALIDATION

Model validation is the term used to describe model performance in terms of how closely the model's output matches existing travel data in the base year. Model calibration adjusts parameter values until the predicted travel matches the observed travel within the region for the base year. For the purposes of forecasting it is assumed these parameters will remain constant over time.

Traditionally, most model validation guidelines have focused on the performance of the trip assignment function in accurately assigning trips to the street network – essentially comparing observed vs. estimated traffic conditions. Although there are numerous forecasting guidelines, there are no formal requirements or thresholds mandated by Casper, the State of Wyoming, or the Federal Highway Administration. Instead, documents such as: *NCHRP Report*

716 – Travel Demand Forecasting: Parameters and Techniques (TRB, 2012) – can provide guidance on how to perform reasonableness checks within the model steps. The Casper model has been validated to daily traffic conditions and is intended to provide performance information for long range planning. More detail on model calibration can be found in Appendix D.

5 Needs Assessment

Using the information provided by the community and stakeholders as well as information from the plans completed since 2007, the goals and policies of the 2007 LRTP were updated to reflect the vision for transportation in the Casper Area.

Additionally, an inventory of transportation system needs, or "Needs Assessment" was prepared based on the issues of growth, traffic, safety, economic activity, and other considerations discussed in detail below. The project team evaluated existing transportation conditions in the Casper Area as a basis for recommending future facilities. The existing conditions analysis was based on a review of data made available through the Casper Area Geographic Information System, crash data, existing facility quality, existing local, regional, and state plans and policies, and public input.

The following topics are examined to understand and identify current transportation deficiencies: Roadways/Interchanges, Safety, Freight Planning, Non-Motorized Transportation, Transit, and Aviation.

5.1 Goals and Policies

Goals and policies set a vision for the area's transportation system and are an integral part of the planning process. The Goals and Policies adopted by the Casper Area MPO for the 2030 LRTP were developed through a public involvement process with the oversight of the MPO technical committee and help identify important issues for the area's transportation facilities. These goals and policies have guided MPO planning efforts that have taken place since 2007.

While the 2030 Goals and Policies continue to be relevant today, Federal regulations imposed after Plan adoption, particularly MAP-21, will influence the development of goals and policies for Connecting Casper 2040.

5.1.1 GOAL 1: SAFE & EFFICIENT TRANSPORTATION

Develop a safe and efficient transportation system that provides for the movement of persons and goods within and though the Casper Metropolitan Planning Area.

1A – Facilitate a high level of mobility for persons and goods within the MPA by providing connection to the regional transportation system.

1B – Provide a roadway system that includes functional hierarchy that appropriately accommodates access and mobility needs.

1C – Develop roadway geometric designs that improve the safety and operational character of the transportation system and meet accepted engineering standards.

1D – Identify transportation facilities that should function as an integrated (intermodal) metropolitan transportation system.

5.1.2 GOAL 2: MEET DEMANDS COST EFFECTIVELY

Develop plans that meet present and future travel demand and maintain a cost-effective transportation system in the Casper Metropolitan Planning Area.

2A – Provide sufficient capacity in the transportation system to accommodate existing and future travel demand.

2B – Develop policies, plans, and programs that take into consideration both existing and emerging technologies.

2C – Develop a transportation system improvement plan that is cost-feasible and for which each expenditure satisfies a public transportation priority.

2D – Develop only those projects for which funding has been identified.

2E – Identify additional funding sources to maintain the transportation system and develop new facilities.

2F – Ensure that the needs of the transportation system are adequately based on the Metropolitan Planning Area's most current comprehensive plan.

2G – Encourage and enlist private sector participation in service the travel needs of the Metropolitan Planning Area.

2H – Support the establishment of a commercial and residential impact fee.

5.1.3 GOAL 3: PROMOTE ALTERNATIVE TRAVEL MODES

Coordinate long range planning recommendations with efforts to promote alternative travel modes (ride-sharing, walking, public transit, rail, bicycles, air, etc.).

3A – Support the ongoing planning and development of the Casper Area Transportation Coalition (CATC) to address the travel needs of the area residents and to expand services throughout the Metropolitan Planning Area.

3B – Provide transportation alternatives in the form of transit, bicycle, and pedestrian facilities and services for persons who cannot or choose not to use automobiles.

5.1.4 GOAL 4: COORDINATE LAND USE AND TRANSPORTATION

Develop a transportation system which encourages coordination with land use planning.

4A – Consider the impacts of improvements to the existing transportation system and the impacts of new facilities on economic development, land use, environmental resources, and social and cultural resources.

4B – Establish procedures and guidelines, adopted by the metropolitan governments, to preserve adequate right-of-way, through appropriate planning and funding mechanisms, for future transportation construction.

4C – Emphasize the preservation of historical and cultural resources and the conservation of environmentally sensitive areas to minimize or eliminate potential conflicts related to transportation improvements.

5.1.5 GOAL 5: INVEST IN TRANSPORTATION TO PROMOTE GROWTH AND DIVERSIFICATION

Support the development of transportation systems by all levels of the government and private sector to promote community and regional economic growth and diversification.

5A – Assist in the transportation planning and development activities of member jurisdictions to promote optimal transportation services in the Metropolitan Planning Area.

5B – Encourage ongoing communication and coordination of activities between the member jurisdictions to ensure that all issues and needs are addressed as part of the transportation planning process.

5.2 ROADWAY/INTERCHANGES

The Casper MPA roadway network consists of interstate, freeway, arterial, collector, and local roadways. This roadway network consists of over 810 roadway miles, an increase of 110 miles from 2007. Most of these roadway miles, 91, were built within the City of Casper.

Interstate (I)-25 is the primary roadway in the area, connecting to U.S. Highways 20/26 and 87. State routes include Wyoming Boulevard (Wyoming 258) and Poplar Street (Wyoming 220) which connect to numerous county and local roads. WYDOT has jurisdiction over the interstate, freeways/expressways and the majority of other principal arterials within the MPA. The total WYDOT roadway mileage totals approximately 158 miles.

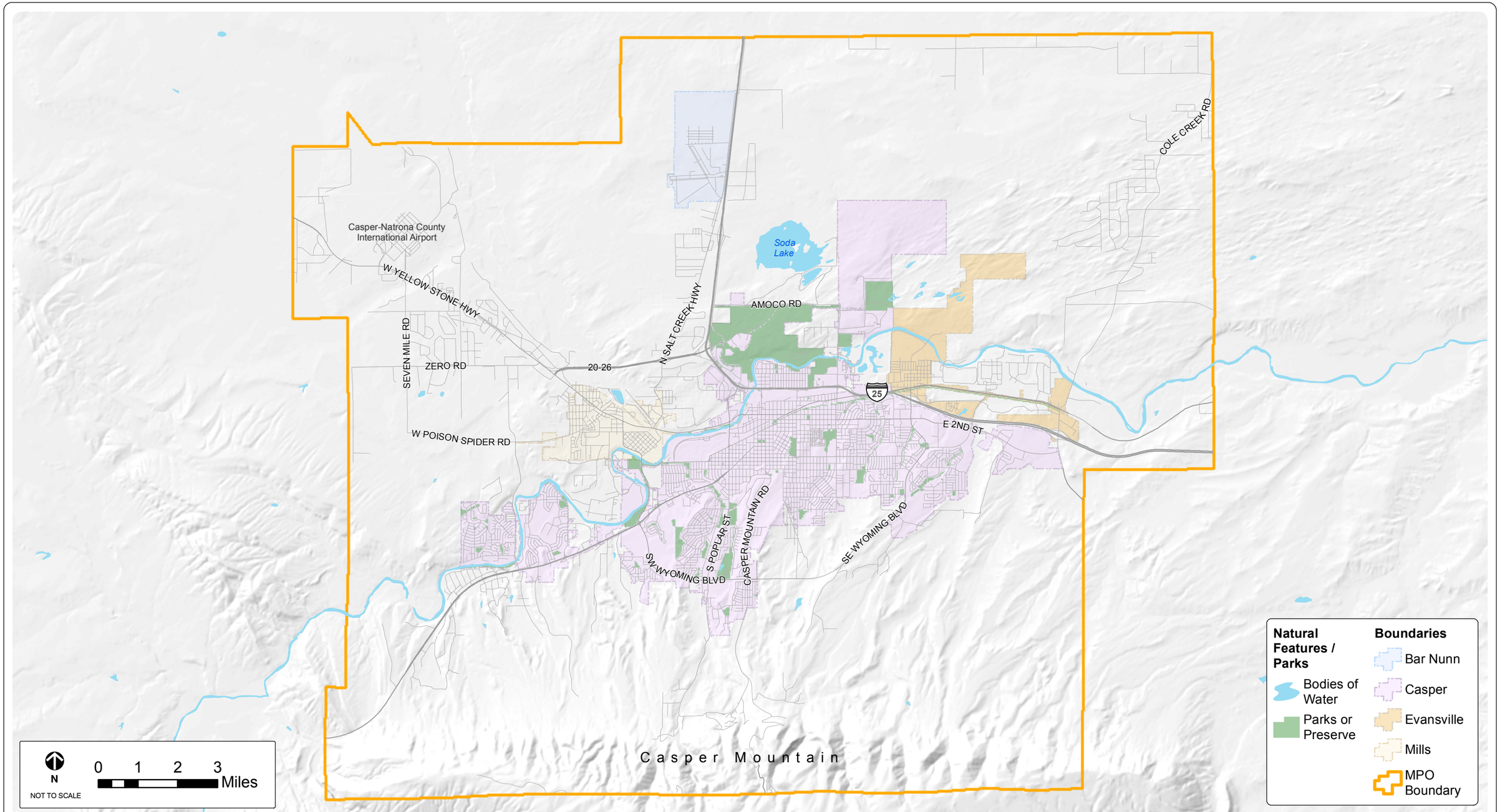
Municipalities within the Casper MPA, with the exception of Bar Nunn, are located along the Platte River. The river, and topography throughout the MPA, impacts the existing roadway network in terms of roadway alignment and steep grades. Topographic variation throughout the Casper MPA is approximately 1,000 feet with an average evaluation of 5,120 feet. The highest evaluation in the area is Casper Mountain at approximately 8,130 feet. Weather, particularly in winter months, can impact highway travel and sometimes results in road closures impacting area residents and the delivery of goods. Figure 5-1 shows the Casper Area topography.

5.2.1 CONNECTIVITY

The Casper Area roadway network provides good connectivity in some areas, while other areas are less well connected. 2nd Street, I-25, and 20/26/Yellowstone Highway provide east-west connectivity for the north Casper Area. South of 12th Street, limited east-west arterial connectivity exists. Wyoming Boulevard, a principal arterial, serves as an outer drive to connect the east and west sides of the area but many motorists still find 15th Street, a collector street, a preferred travel route given the direct connection between the east and west sides of the Casper Area.

East-west connectivity will likely continue to be a concern for the Casper Area. The 12th /13th couplet, 15th Street, and 12th Street travel through residential areas. Developing arterial connections south of 12th Street would be difficult due to topographic constrains and existing developments, including Casper College and existing residential communities.

North-south connectivity is also a concern. I-25 creates an east-west barrier and the railroad creates a barrier to north-south travel across the Casper Area. The McKinley Street corridor (a collector), for example, does not provide a continuous north-south connection. At Yellowstone Highway, McKinley Street traffic jogs over to Jackson Street in order to complete the north-south connection. To better facilitate north-south travel movements in the Casper Area, a continuous connection at Yellowstone Highway has been considered.



FEHR PEERS

SOURCES: CASPER AREA MPO

Casper Area Topograhy

FIGURE 5-1

5.2.2 AVERAGE DAILY TRAFFIC

Average daily traffic (ADT) counts are taken every year for the Casper MPA. Most recent counts were taken in March 2013. The full count summary is available on the Casper MPO website. The ten locations with the highest counts in 2013 are shown in Table 5-1. The ADT volumes represent normal conditions. ADT volumes on a number of the Casper MPA roadways may experience increased traffic during peak recreational and tourism times.

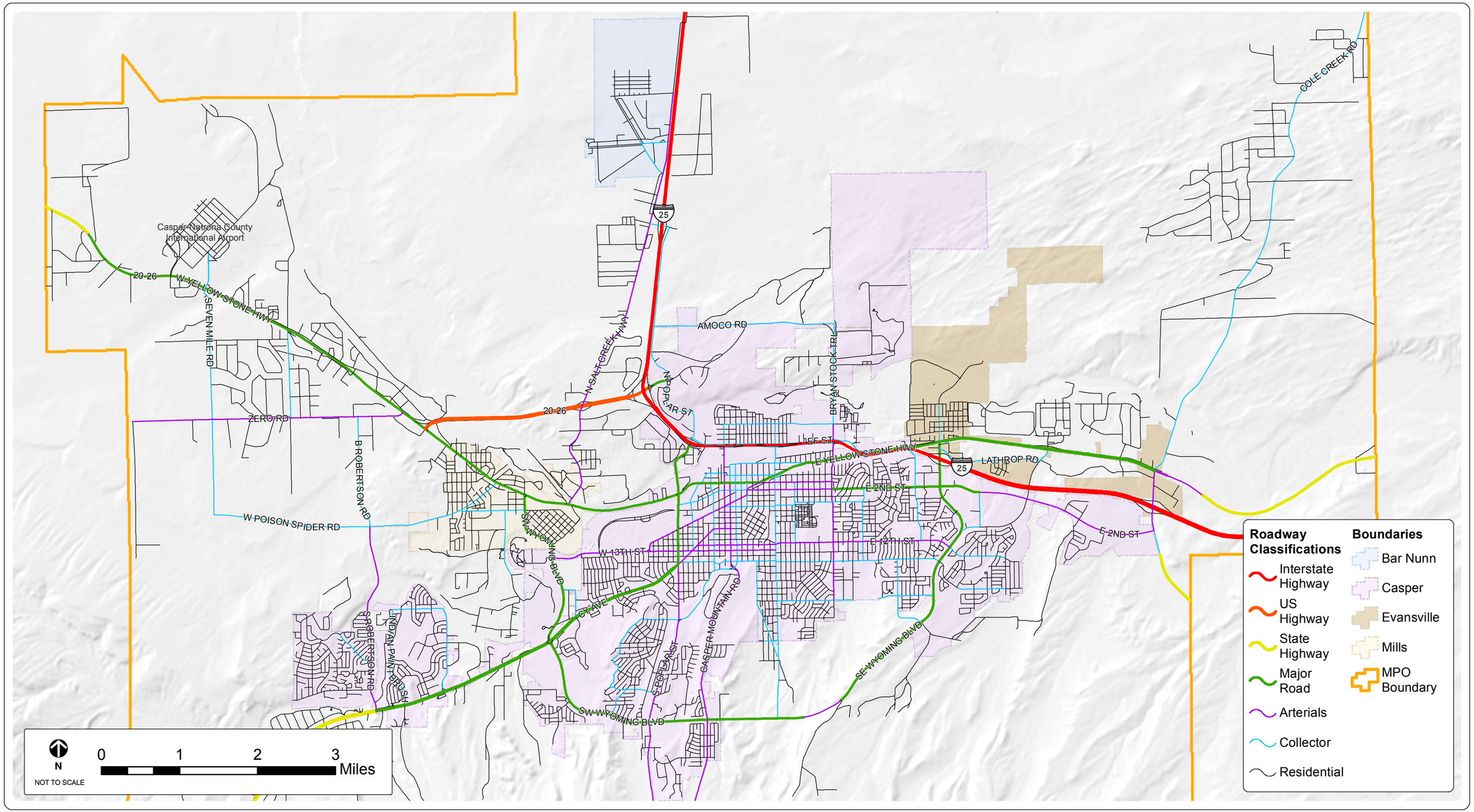
Traffic in the Casper Area has increased substantially since the 2005 counts reported in the last LRTP. The highest volume roadway identified in the 2007 Plan, 2nd Street east of Beverly, had a daily traffic count for just over 23,000. Today, the highest volume roadway in Casper, I-25 northbound, east of the McKinley St. interchange, carries nearly 32,000 vehicles per day. Wyoming Blvd, CY Avenue, and 2nd Street continue to be the busiest roadways in the Casper Area.

TABLE 5-1: TOP TEN AVERAGE DAILY TRAFFIC VOLUME LOCATIONS (2013)

Roadway	Approximate Location	Daily Traffic Count
I-25 Northbound	East of McKinley Street Interchange	31,470
Wyoming Boulevard	South of Legion Lane	30,218
CY Avenue	East of Energy Lane/Squaw Creek Road	30,141
CY Avenue	West of Energy Lane	29,325
2nd Street	East of Beverly Street	27,240
Wyoming Boulevard	North of Plaza Drive	26,828
2nd Street	East of Montana Street	26,752
2nd Street	East of Country Club Road	26,147
Wyoming Boulevard	Southwest of Blackmore Road	26,103
2nd Street	East of Forest Drive	24,839

5.2.3 FUNCTIONAL CLASSIFICATION

Functional classification is the process by which roadways are grouped into classes according to the service they provide. The classification uses a hierarchical structure to describe roadway operations within a transportation network. When the functional classification system works correctly, all portions of the hierarchy work to facilitate the safe and efficient movement of people and goods. Figure 5-2 contains a map of the existing road classifications in the Casper Area.



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SOURCES: CASPER AREA MPO

Existing Roadway Classification

FIGURE 5-2

5.2.4 CAPACITY ANALYSIS

A planning level capacity analysis was used to identify roadway segments approaching capacity, at-capacity, and over-capacity. A planning level capacity analysis compares average daily traffic volumes to capacity thresholds that are based on roadway functional classification and number of travel lanes. Table 5-2 displays the level of service categories, and a description of the associated traffic conditions and Table 5-3 contains LOS thresholds for each functional class along with corresponding volumes. LOS C is the desired minimum threshold for traffic operations in the Casper Area.

TABLE 5-2 LEVEL OF SERVICE CAPACITY ANALYSIS DESCRIPTIONS

	Level of Service	Traffic Flow	Description
Uncongested	A		• Light traffic • Free flow speeds
Uncongested	B		• Slightly increased traffic levels • Still free flow speeds
Uncongested	C		• Approaching moderate congestion levels • Speeds near free flow
Congesting	D		• Speeds reduced • Lane changes restricted due to traffic
Congested	E		• Congestion • Irregular traffic flow
Congested	F		• Road at capacity • Gridlock with frequent stops

TABLE 5-3 LOS THRESHOLDS BY FUNCTIONAL CLASSIFICATION

LOS Threshold	A-C	D	E	F
	Upper Limit V/C Cutpoints			
Freeways	0.70	0.80	0.98	>0.98
Arterials/Collectors	0.58	0.75	0.92	>0.92
Freeway/Interstate	*(Daily Capacity Per Lane - 20,000)*			
4 Lane	56,000	64,000	78,400	n/a
6 Lane	84,000	96,000	117,600	n/a
Principal Arterial	*(Daily Capacity Per Lane - 9,000)*			
2 Lane	10,440	13,500	16,560	n/a
3 Lane	14,094	18,225	22,356	n/a
4 Lane	20,880	27,000	33,120	n/a
6 Lane	31,320	40,500	49,680	n/a
Minor Arterial	*(Daily Capacity Per Lane - 7,000)*			
2 Lane	8,120	10,500	12,880	n/a
3 Lane	10,962	14,175	17,388	n/a
4 Lane	16,240	21,000	25,760	n/a
Collector	*(Daily Capacity Per Lane - 6,000)*			
2 Lane	6,960	9,000	11,040	n/a
3 Lane	9,396	12,150	14,904	n/a
4 Lane	13,920	18,000	22,080	n/a

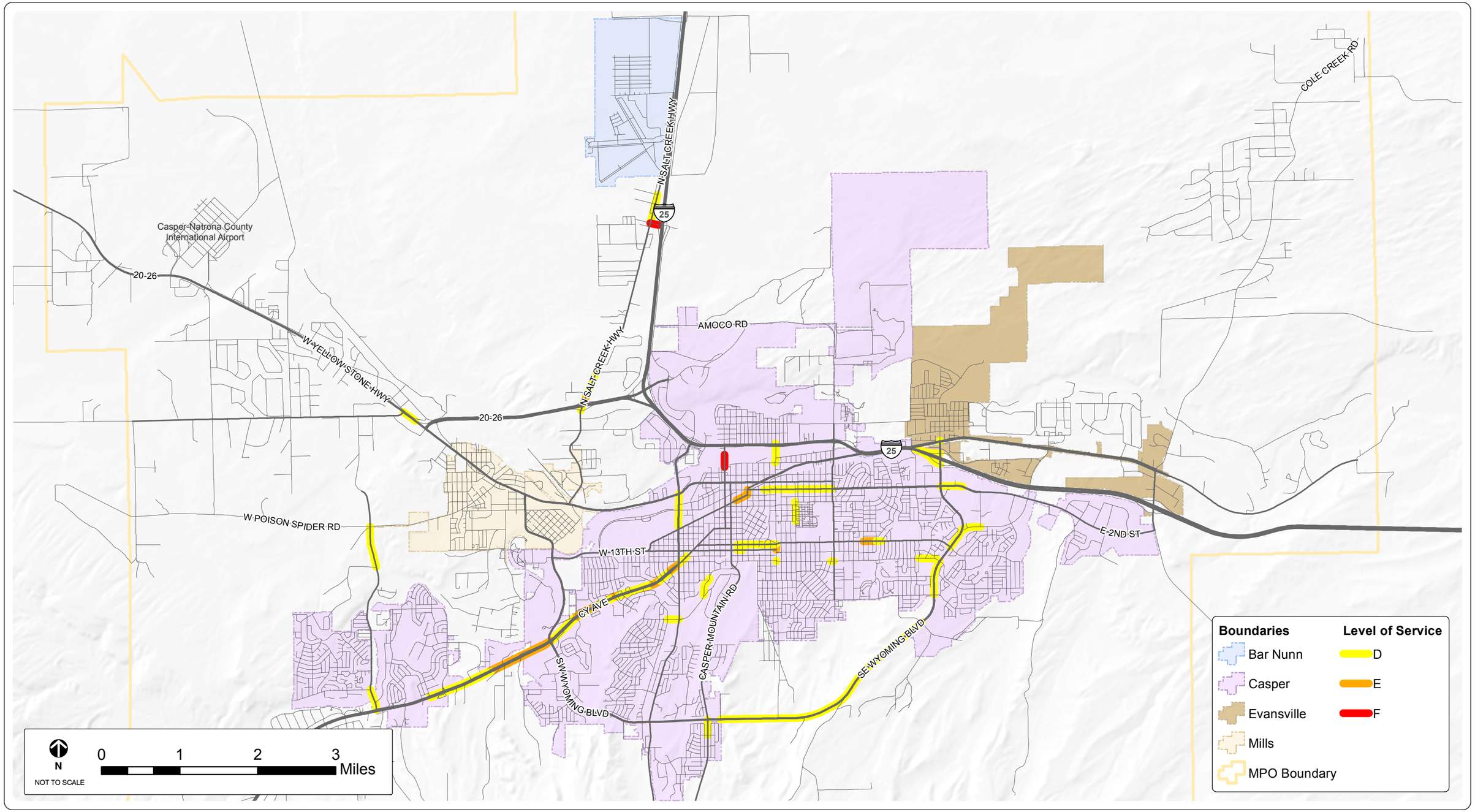
Much of the existing roadway system in the Casper Area handles current traffic demands quite well, functioning at a LOS C or above. Persistent traffic problems generally occur at intersections during peak commute times. Areas that currently experience some traffic congestion (LOS D – F) are presented in Table 5-4 and depicted in the map in Figure 5-3.

These roadways were evaluated and recommendations for potential modifications to existing intersections or roadway segments were identified, where appropriate. In several instances, a capacity enhancement conflicted with recommendations from other plans. For example, S. Conwell is a congested roadway, but expanding the roadway is in direct conflict with the CATPBP recommendation for a road diet (i.e. constricting throughput). As Casper develops, tradeoffs between modes will need to be discussed. The map in Figure 5-4 identifies congested roadways with recommended enhanced bicycle or pedestrian connections, as identified in the CATPBP.

In addition to considering the recommendations of previous plans and proposed bicycle and pedestrian enhancements, it is important to consider existing right-of-way and context of the roadway. For example, it would not be practical or safe to widen E. 2nd through downtown.

TABLE 5-4 EXISTING CONGESTED ROADWAY SEGMENTS

Roadway	From (S,W)	To (N,E)
SE Wyoming Blvd	Casper Mountain Rd. Intersection Approach	E 15th St.
SE Wyoming Blvd	E. 15th St.	Blackmore Rd.
E 15th St	Trojan Dr.	SE Wyoming Blvd.
E 12th St	Country Club Rd.	SE Wyoming Blvd.
E 2nd St	SE Wyoming Blvd.	Landmark Dr.
Landmark Dr	Blackmore Rd.	Caeda Dr.
Blackmore Rd	SE Wyoming Blvd.	Landmark Dr.
12th St	CY Ave.	S McKinley St.
E 2nd St	S Kimball St.	S Beverly St.
S Conwell St	E 12th St.	E 2nd St.
W 25th St/College Dr.	Hanway Ave.	S Ash St.
CY Ave	S Robertson Rd.	Divided CY Ave. near S. Poplar St.
N Salt Creek Hwy	Hwy 20-26 off-ramp	Revenue Blvd.
Robertson Rd	CY Ave.	W Poison Spider Rd.
N Salt Creek Hwy	Howard St.	Antelope Dr.
N Center St.	E BC St.	W D St.
Howard St.	Salt Creek Hwy.	I-25 On Ramp
E Collins Dr,	Durbin St.	E 2nd St.
I-25 WB/EB On/Off Ramp	Exit 185	Wyoming Blvd.
I-25 SB on Ramp	Howard St.	Exit 191
S Poplar St.	W Collins Dr.	Yellowstone Hwy.



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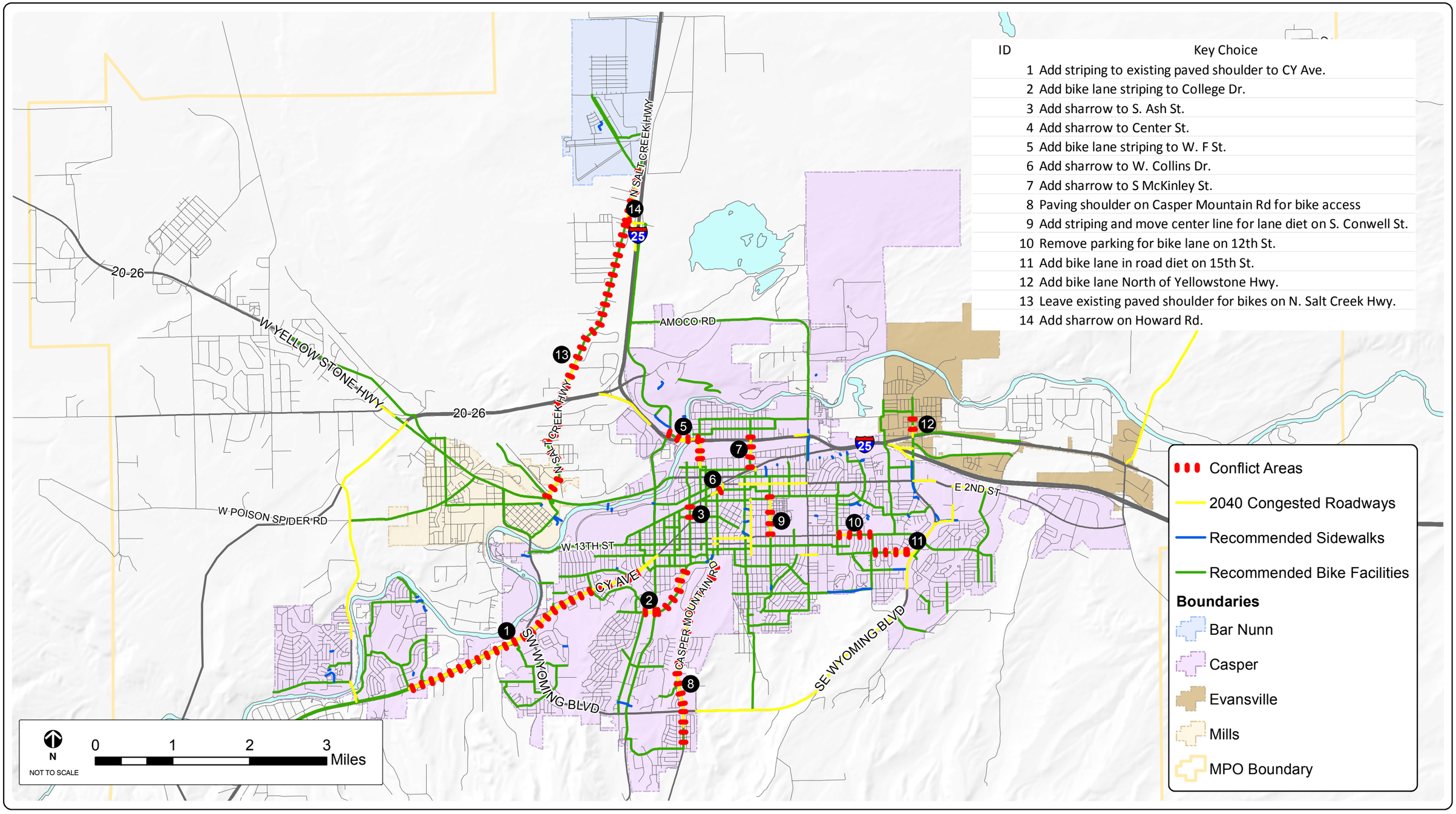
SOURCES: CASPER AREA MPO

Roadway Level of Service (2013)

FIGURE 5-3



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SOURCES: CASPER AREA MPO

Modal Conflicts

FIGURE 5-4

5.2.5 COMMUNITY INPUT

The project team talked to many automobile drivers and passengers throughout the Casper Area during the project's Listening Tour. Congestion across the City was the most commonly identified auto traffic concern. Residents also expressed general concern that the current roadway infrastructure will not be able to sustain projected population increases.

Residents also had many opinions on the future of the roadway system in the Casper Area. Residents gave their input, such as support for the extension of 13th Street to Robertson Road and completing the West Belt Loop during the Listening Tour. The community was also in favor of the Polaris Drive connection that is being planned on the west side of Bar Nunn. An east-west connection north of Evansville was also recommended to connect Cole Creek Road and Amoco Road. The community would also like to see east-west connections between Bar Nunn as the Casper Logistics Hub as well as between Bar Nunn and the Airport and a new I-25 interchange in Bar Nunn.

Additional community input can be found in Appendix C.

5.2.6 ROADWAY NEEDS

The capacity analysis revealed that much of the Casper roadway system is uncongested with only select areas that are congested or approaching congestion. The congested areas signify the need to improve mobility along congested corridors. Solutions to alleviate congestion of the roadway segments identified in Table 5-4 Existing Congested Roadway Segments should be explored.

5.3 SAFETY

Casper residents, whether in vehicles, on buses, riding bicycles or walking, expect to get to their destinations safely. This section provides an evaluation of automobile, pedestrian, and bicycle safety in the Casper Area and identifies areas of safety concern for these modes.

5.3.1 ROADWAY SAFETY

The Wyoming Department of Transportation tracks the number of crashes, the severity of injuries experienced and other factors related to crashes statewide.

For the five year period of 2008 to 2012, the Casper Area experienced 10,247 crashes, an increase of approximately 10% from the five year period analyzed in the 2007 Plan (2000 to 2004). Of those crashes (where the crash type was known) 3,772 were property-damage only crashes; 1,153 crashes involved a non-severe injury; 75 crashes involved an incapacitating injury; and 21 crashes involved at least one fatal injury. Altogether, 3,106 persons were injured in auto accidents from 2008 to 2012 and 33 persons were killed. The map in Figure 5-6 displays the density of automobile accidents during this time period.

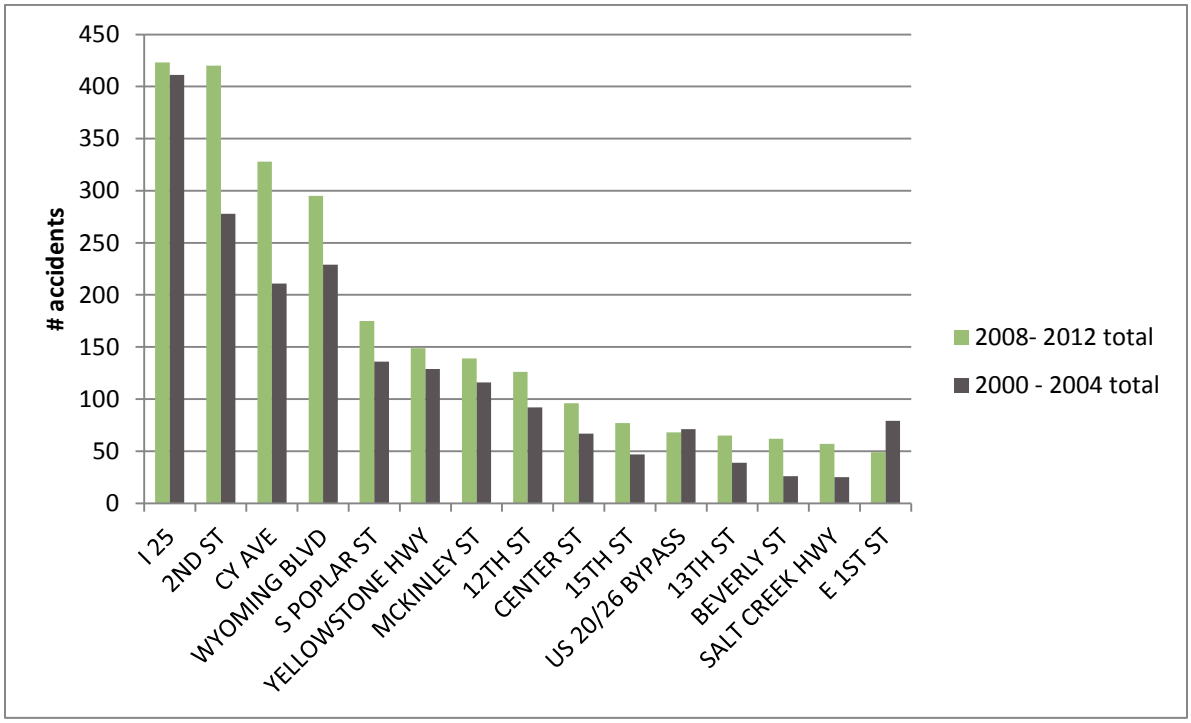
Roadway crash statistics are commonly reported as either intersection or non-intersection related crashes. It is valuable to analyze these types of crashes separately because the circumstances and mitigation recommendations are unique to each crash type.

Roadway Segment Crashes

While the total number of accidents increased by 10% between 2008 to 2012 and 2000 to 2004, the increases in roadway segment accidents were much greater for roadways previously identified as high segment crash locations in the 2007 Plan. Figure 5-5 compares the five-year total crashes for roadways with the greatest number of crashes. With the exception of E. 1st St., the 5-year accident total increased for all high-accident roadway segments.

As population increases and more cars are on the road in the Casper Area, more accidents are likely to occur. In order to identify unsafe roadways, Casper may consider performing an in-depth crash rate analysis to identify roadway segments with crash rates above state or national averages for VMT per roadway type.

FIGURE 5-5 SEGMENT CRASH LOCATION TRENDS



SOURCE: WYDOT ACCIDENT DATA

Intersection-Related Crashes

Crashes often occur at intersections because of the potential for conflicts that results from two intersecting roadways. WYDOT crash data specifies the junction relation of the accident. Crashes identified as intersection or intersection-related were used for this analysis.

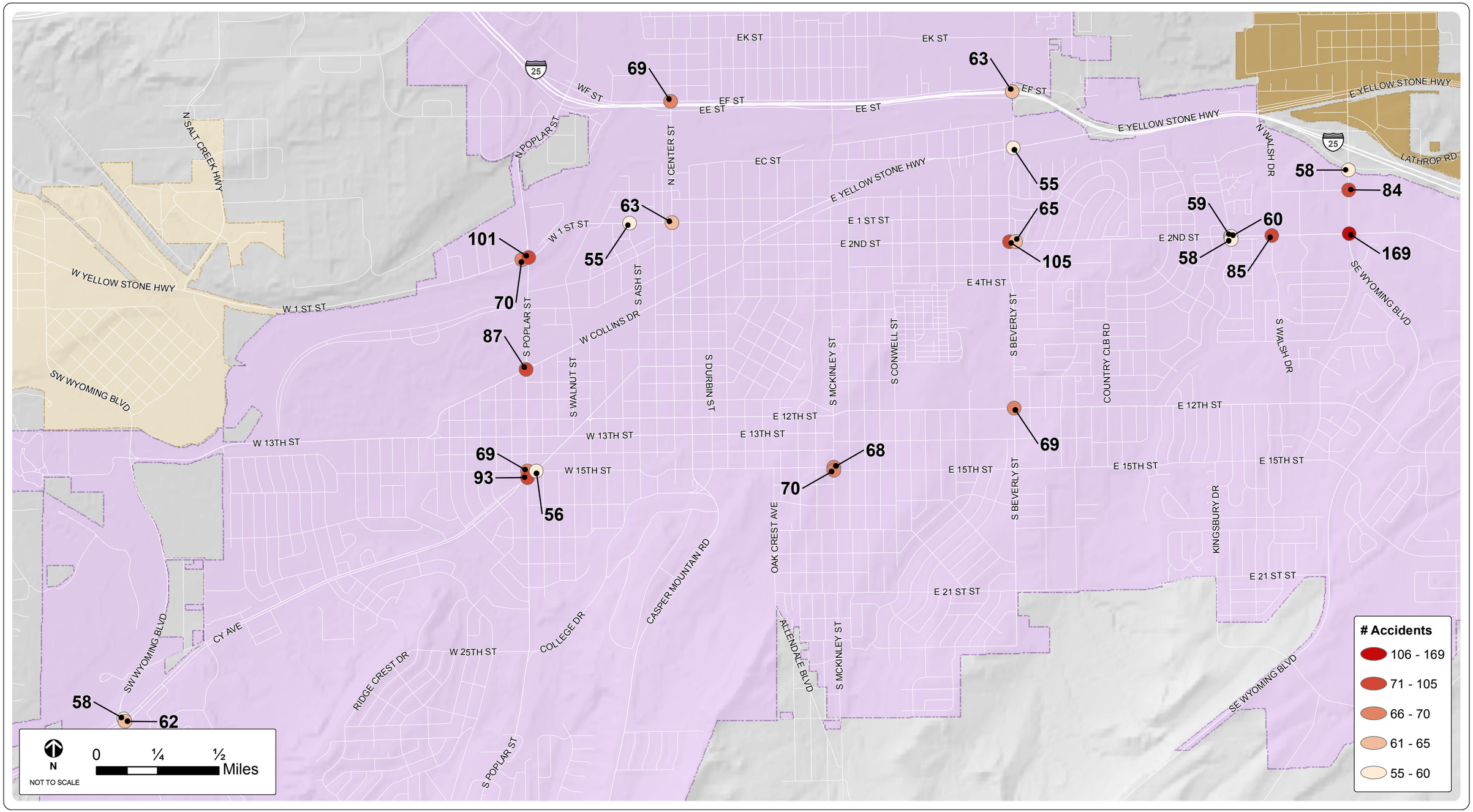
While total accidents increased in the Casper Area between 2008 and 2012, accidents occurring at intersections identified in the 2007 LRTP appear to be decreasing, perhaps due to intersection improvements that have occurred since 2004. Exceptions include 2nd St. at Beverly St. and 2nd St. at McKinley; these two intersections realized a 21% and 28% increase in accidents. These intersections were also identified as priority numbers 1 and 2 in the 2008 High Hazard Intersection Study.

Improvements have been made to several intersections since 2005 accident data was reported in the 2007 plan. WYDOT completed improvements at 2nd St. and Wyoming Blvd. in 2006. As a result, 52% less crashes were reported between 2008 and 2012 than those reported between 2000 and 2004. Improvements were also made to the intersection at S. Poplar St. & W. 1st St. which resulted in 14% fewer crashes between the two five-year periods.

TABLE 5-5 TOP TEN INTERSECTION CRASH LOCATIONS BETWEEN 2008 AND 2012

Intersection	2008	2009	2010	2011	2012	Grand Total
CY AVE & WYOMING BLVD	18	17	15	16	13	79
WYOMING BLVD & I 25 RAMP	11	12	14	13	8	58
2ND ST & WYOMING BLVD	15	18	10	8	8	59
2ND ST & WALSH DR	3	16	8	12	7	46
WYOMING BLVD & LEGION LN	13	9	7	5	6	40
WYOMING BLVD & CY AVE	8	7	7	9	7	38
2ND ST & BEVERLY ST	6	9	9	8	3	35
2ND ST & FOREST DR	5	9	6	7	6	33
2ND ST & MCKINLEY ST	2	6	4	11	9	32
I 25 RAMP & WYOMING BLVD	5	8	8	6	5	32

SOURCE: WYDOT ACCIDENT DATA



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SOURCES: CASPER AREA MPO

Top 25 Intersection Crash Locations

FIGURE 5-6

Roadway Safety Areas of Concern

The roadways and intersections with the greatest number of crashes are those with high roadway volumes. It is important to consider this correlation when interpreting accident data. The following roadways and intersections have been identified as roadway safety areas of concern due to high crash rates.

I-25

I-25 had the highest number of reported crashes in the area with 423 between 2008 and 2012. Additionally, several onramps experienced a high number of accidents. These include: Wyoming Blvd., Poplar St. and Bryan Stock Trail. WYDOT is making improvements to I-25 and continues to evaluate potential improvements that will be needed to safely accommodate the traveling public. 2014 TIP Funds have been allocated to Intelligent Travel Systems (ITS) on I-25 in Casper that will include Road Weather Information System (RWIS), Ice Detection, and DMS warning messages. These systems will be used to monitor pavement conditions, aid in the deployment of maintenance equipment and crews, and display roadway condition information to the travelling public.

2ND STREET

As a corridor, 2nd Street has the highest number of non-interstate crashes of any roadway in the Casper Area. The heat map in Figure 5-6 depicts the concentration of crashes on 2nd Street from Center Street to just east of Wyoming Boulevard, with the greatest number of incidents on both ends of the corridor. The intersections on 2nd St. with the highest number of crashes include: Beverly St., Forest Dr., and McKinley St.

CY AVENUE

CY Avenue has the 2nd highest number of non-interstate crashes in the Casper Area. Roadway segment crashes on CY Avenue from 2008 to 2012 have increased 55% from the five year period ending in 2004. The intersection at CY Avenue and Wyoming Blvd. had 79 crashes, the highest number of intersection crashes between 2008 and 2012. CY Avenue at Valley Dr. and S. Poplar are also high accident intersections.

WYOMING BLVD.

With 295 incidents, Wyoming Blvd. has the 3rd highest number of non-interstate crashes. The intersection of Wyoming Blvd. and 2nd Street was a top intersection crash location between 2000 and 2004, but has realized a 35% decrease between 2008 and 2012. The reduction in accidents is likely due to intersection improvements completed by WYDOT in 2005 to address safety concerns and to provide additional capacity to better accommodate existing and future traffic levels.

POPLAR STREET

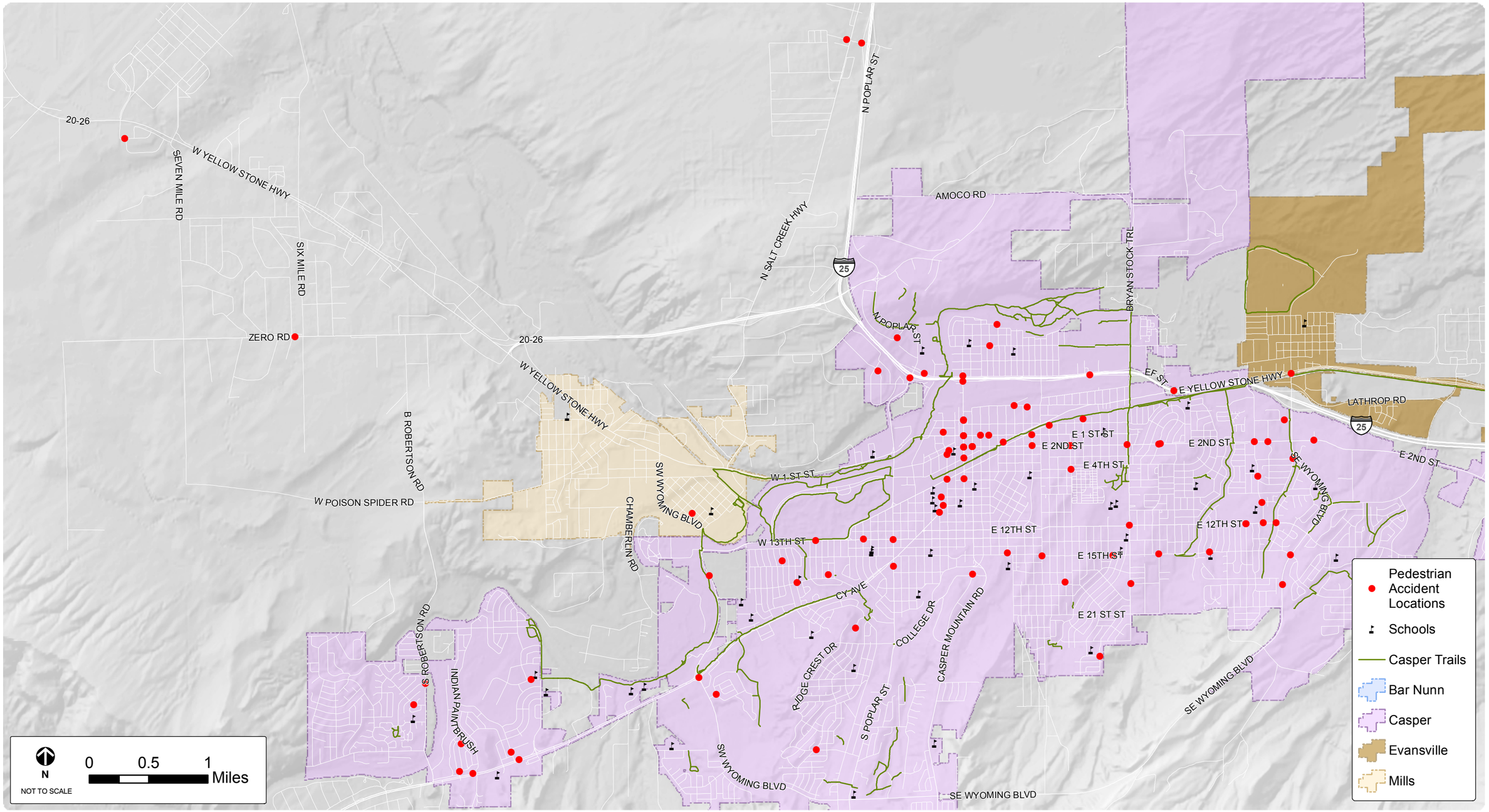
As a corridor, Poplar Street had the 4th greatest number of accidents in the Casper Area between 2008 and 2012. Additionally, the intersections of Poplar with 1st, 13th, and CY are all high incident intersections. WYDOT has plans to install a signal on Poplar at Midwest, the midway point between 1st Street and Collins Drive and reconstruct the intersection at CY Avenue, which has the greatest number of intersection crashes on the Street. These improvements should help traffic flow and improve traffic safety.

5.3.2 PEDESTRIAN SAFETY

The project team evaluated pedestrian safety in Casper by examining crash data, existing pedestrian facilities, findings from the Casper Walkability Study and public input. This existing conditions analysis provided a framework to identify pedestrian facility needs.

Pedestrian Crash Analysis

There were 93 reported crashes involving pedestrians during a five-year period from 2008 to 2012 accounting for 0.9% of all traffic accidents and 12% of all traffic related fatalities. Only three of these incidents did not involve injuries, four crashes resulted in fatalities, and 10 crashes resulted in incapacitating injuries. Thirteen of the 93 pedestrian crashes involved alcohol, resulting in one fatality and three incapacitating injuries. The areas with the highest number of pedestrian crashes include: Downtown Casper, Central Casper, Eastridge Mall, and the Fairgrounds/Westwood area. Nearly half of the accidents were reported to have occurred at intersections or were intersection-related. Corridors within these areas with the most incidents include: Center St., 2nd St., 12th St., E 1st St., and S. Poplar St. Incidents were reported in all months of the year and were most prevalent from 3:00 PM to 6:00 PM. The map in Figure 5-7 shows the locations of accidents involving pedestrians from 2008 to 2012.



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SOURCES: CASPER AREA MPO

Pedestrian Accident Locations, 2008-2012

FIGURE 5-7

5.3.3 BICYCLE SAFETY

The project team evaluated existing conditions for bicycling in the Casper Area to understand future facility needs that can improve safety. The existing conditions analysis was based on a review of crash data, existing facility assessment, Casper Area Trails, Paths + Bikeways Plan (CATPBP) and public input. It provides an assessment of needs to improve bicycle safety.

Bicycle Crash Analysis

There were 62 reported crashes between bicyclists and automobiles from 2008 to 2012 accounting for 0.6% of all traffic accidents. Only four of these incidents did not involve injuries and 8 crashes resulted in incapacitating injuries. No fatalities occurred during this five-year period. Three of the crashes involved alcohol, one of which resulted in an incapacitating injury. Similar to the findings in the pedestrian crash analysis, the bicycle crash analysis identified Downtown, central Casper and Fairgrounds/Westwood as high-incident areas. High accidents areas unique to bicycle crashes include E. 2nd St. at and north of Wyoming Blvd., Beverly St. between E. 2nd St. and E. 12th St., and E. 15th St. between Missouri Ave. and Melrose St. Nearly 80% of the accidents were reported to have occurred at intersections or were intersection-related. Corridors within these areas with the greatest number incidents include: 2nd St., 12th St., 15th St., and Beverly St. Incidents were reported between March and December. The greatest number of crashes was reported during the summer months between June and September. Bicyclist crashes were reported most frequently between 3:00 PM to 6:00 PM. The map in Figure 5-8 shows the locations of accidents between automobiles and bicyclists from 2008 to 2012.

5.3.4 COMMUNITY INPUT

Casper Area residents expressed safety concerns for drivers, pedestrians and cyclists and their potential for interaction during the Community Listening Tour.

Roadway

As part of the Community Listening Tour, residents identified problem intersections and high accident areas on the aerial map and suggested areas where signals might be needed. A summary of the input received can be found in the map in Appendix C.

Additionally, concerns over emergency vehicle access were expressed at numerous destinations on the tour. Specific requests for improvement included:

- Construct Bar Nunn I-25/Interchange and Polaris Drive to shorten the time needed for emergency services to access the Town.
- Install a signal at the intersection of CY Ave. and Prospector Dr. in order to accommodate large numbers of out of area emergency responder vehicles reporting to the Bureau of Land Management office during fire season.

- Heavily used rail lines separate Evansville from Casper and the only access is at-grade crossings. During emergencies, access may be blocked to emergency vehicles. Building an overpass or underpass at one crossing would help with this issue.

Pedestrian

In addition to pedestrian accident data, public input received as a part of this plan update identified areas of concern for pedestrians. Residents identified specific areas where pedestrian improvements, such as trail connections and overpasses, are needed. In many instances, the areas perceived to be dangerous to pedestrians correspond with pedestrian accident data. The Eastridge Mall area is one example. The crosswalk at the 2nd St. entrance to the mall was identified as a safety concern, particularly for mobility or visually impaired persons who cannot access the walk signal because of the surrounding rock bed. Additionally, safety in the Mall area is compromised due to the lack of pedestrian connectivity between amenities such as accessing the Walmart/Sam's Club area from the north side of the Mall.

Appendix C contains additional public input and a map depicting perceived areas of safety concern for pedestrians and areas with high pedestrian traffic.

Bicycle

Public input collected as a part of this plan identified some areas of concern for cyclists including routes heading into and out of Casper: Cole Creek Rd. and CY Ave. and areas within Central Casper. Additionally, E. 12th St. corridor between S. McKinley St. and Country Club Rd. and Beverly St. between E. 2nd St. and E. 12th St. were identified as areas with a high number of vehicle/cyclist conflicts. These roadway segments rank 2nd and 4th in greatest number of bicycle accident reports. Some drivers that frequently encountered road bicyclists expressed concerns over potential conflicts between bicyclists and vehicles on roadways with high-speed auto traffic such as 220 to Alcova Reservoir and 20-26 to Edness Kimball Wilkins State Park. The Listening Tour Map in Appendix C identifies the community's perceived areas of safety concern for bicyclists.

Several people expressed concern during the CATPBP planning process over personal safety due to inattentive or reckless motorists and the need for better enforcement of regulations and education of motorists. Since the accident data revealed that bike crashes most commonly occurred during the summer months, Casper might need to promote driver awareness of cyclists and better enforcement of traffic regulations during this period.

5.3.5 TRANSIT SAFETY

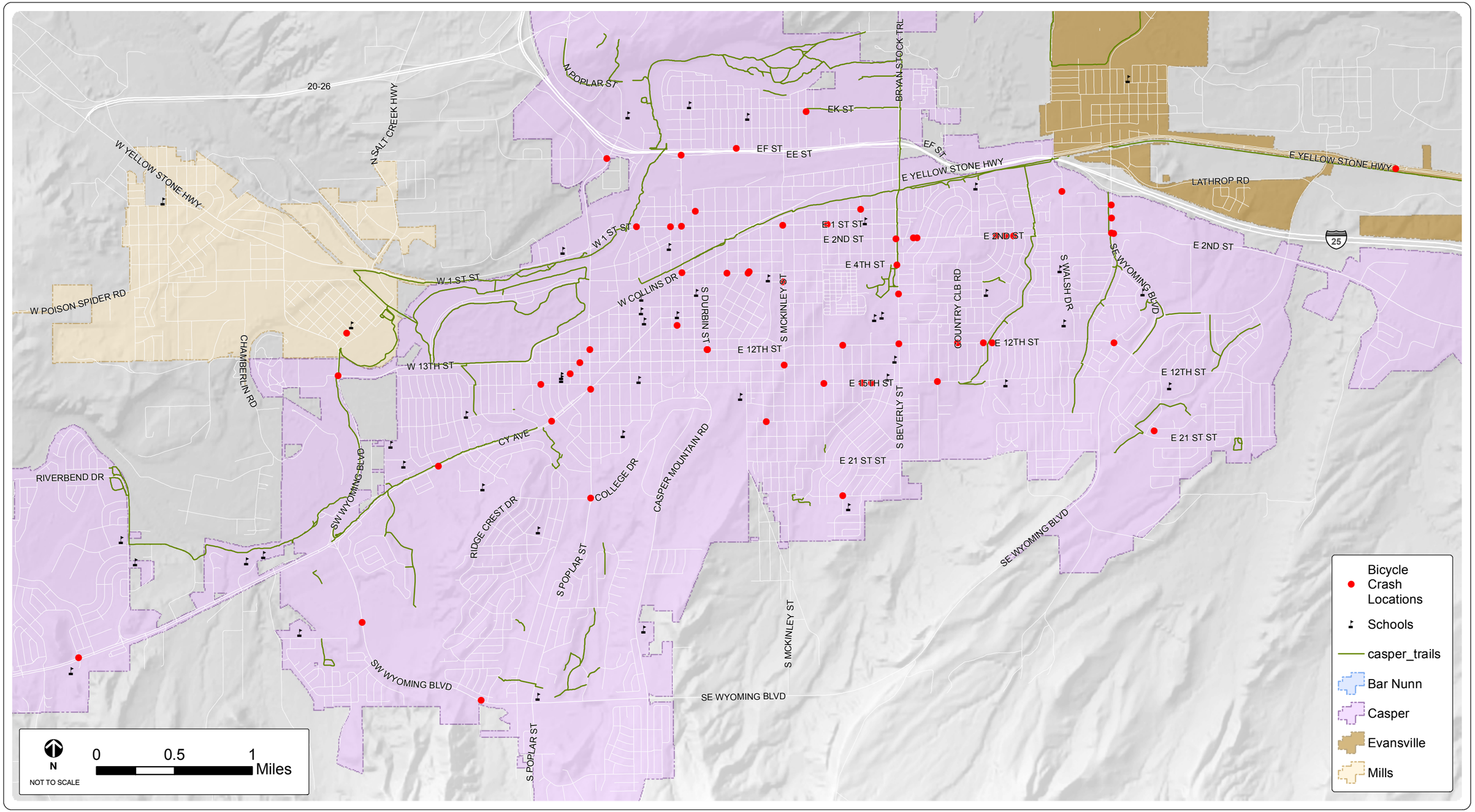
Drivers of all CATC and The Bus vehicles conduct daily basic safety inspections and all with the exception of one Bus are in good or excellent condition. Additionally, respondents to a survey conducted as part of the Casper Transit Development Plan highly rated driver skill and safety at the stops.

5.3.6 FREIGHT SAFETY

Truck and rail comprise the Casper area's freight industry. Accident data collected from the Federal Railroad Administration's Accident Prediction Report for Public at-Grade Highway-Rail Crossings indicates that the last collision between a train and a highway vehicle occurred in 2003. While accident data specific to freight trucks is not available, it is to the advantage of the community for caution to be taken to prevent collisions between automobiles and heavy trucks, as they are often fatal.

5.3.7 SAFETY NEEDS

After review of auto, bicycle, and pedestrian accident data, and existing plans, it is evident that there is a need to improve the safety and operational character of the transportation system for all modes. Recommendations are explored in section 8.2 Safety Recommendations.



FEHR & PEERS

SOURCES: CASPER AREA MPO

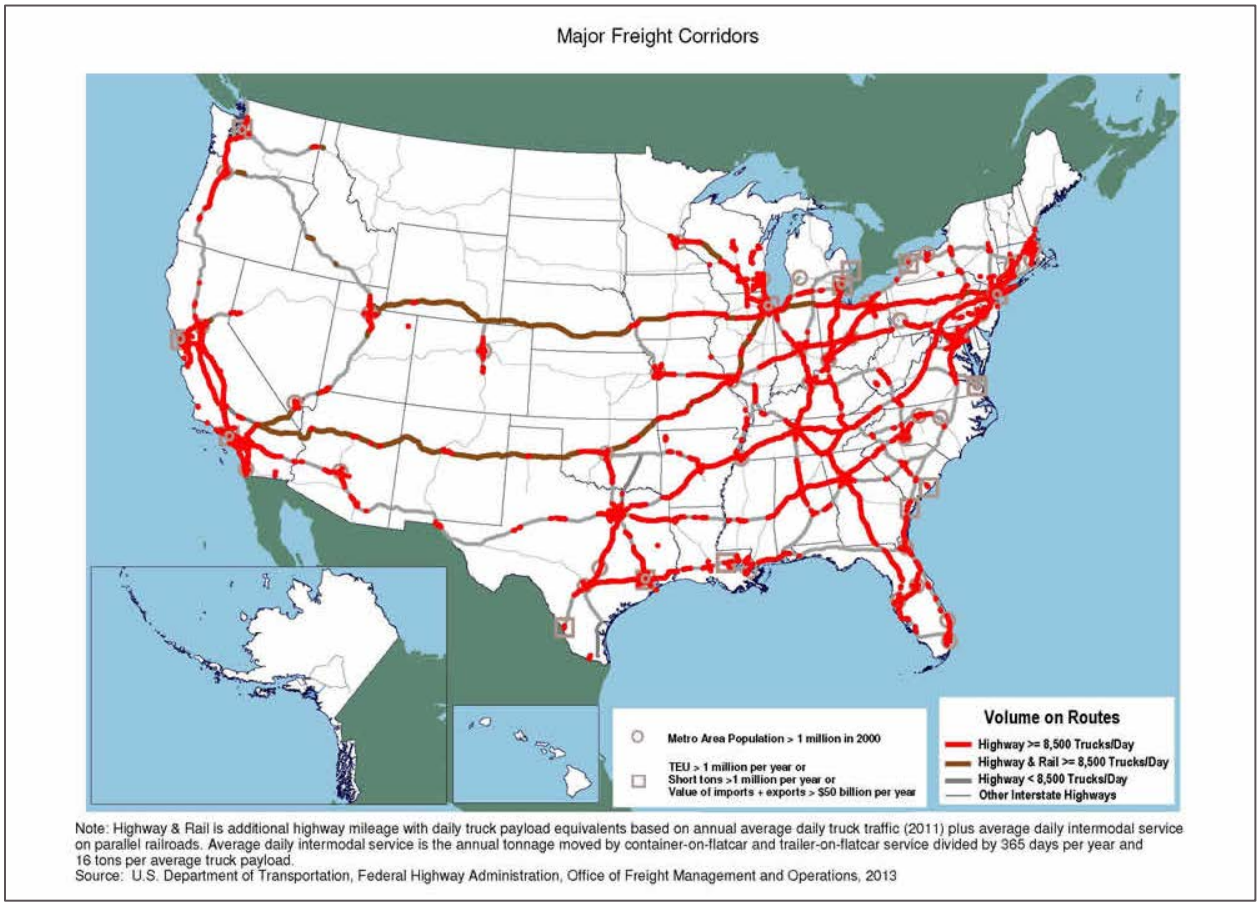
Bicycle Accident Locations, 2008-2012

FIGURE 5-8

5.4 FREIGHT PLANNING

The movement of freight in the State of Wyoming is critical to Wyoming's economy and the national economy. A major highway and rail freight corridor traverses southern Wyoming via I-80 and the Union Pacific rail road, as illustrated in Figure 5-9, providing an integral link for freight movement across the U.S. Additionally, I-25 and the BNSF rail lines provide important north south freight conduits.

FIGURE 5-9 MAJOR FREIGHT CORRIDORS IN THE U.S.



SOURCE: FHWA FREIGHT ANALYSIS FRAMEWORK VERSION 3.4

The major components of the freight transportation system are the highway, rail, and pipeline networks. A breakdown of Wyoming's domestic freight shipments by mode is in Table 5-6 below. This Plan focuses on rail and highway freight movement.

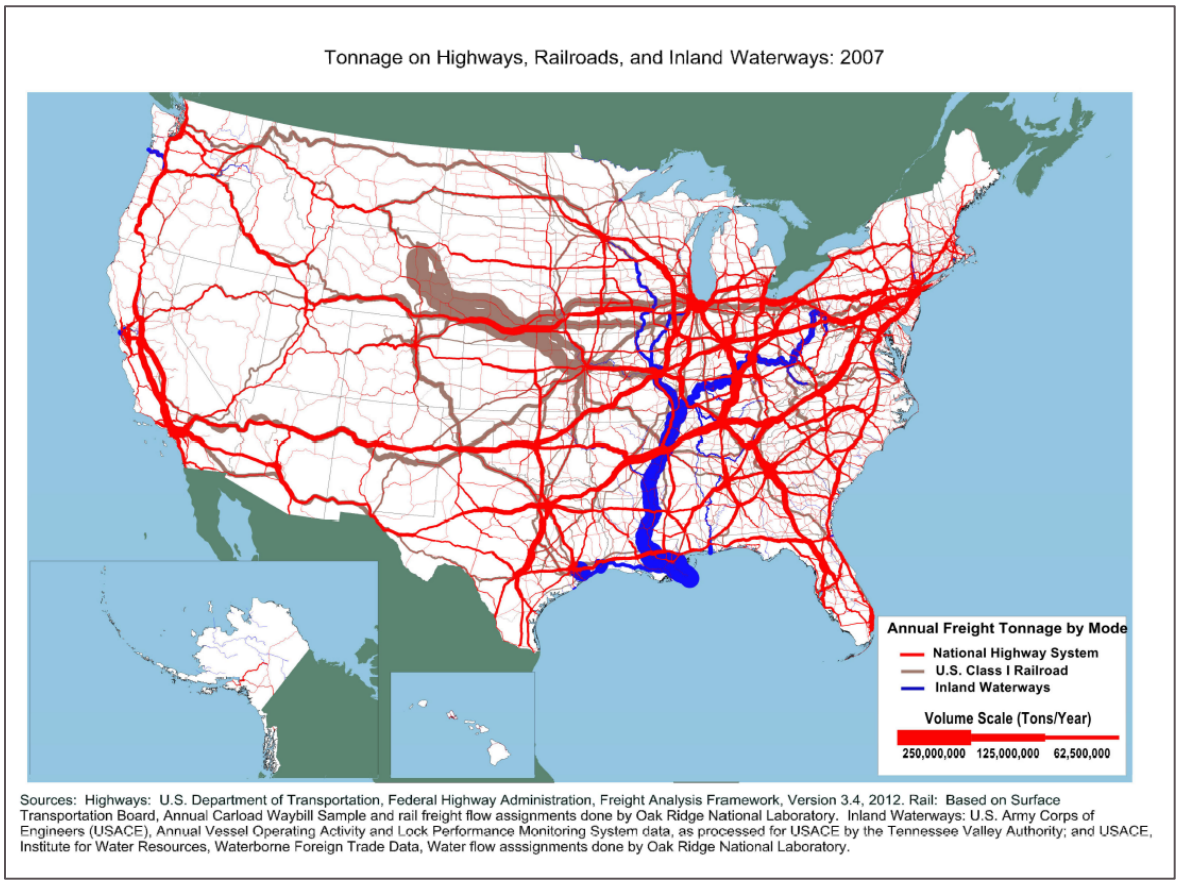
TABLE 5-6 SHIPMENTS WITHIN, FROM, AND TO WYOMING – VALUE BY DOMESTIC MODE: 2011

	Within		From		To	
Mode	**Current $ (in millions)**	**Percent**	**Current $ (in millions)**	**Percent**	**Current $ (in millions)**	**Percent**
Truck	18,101	80%	7,493	15%	12,961	64%
Rail	329	1%	9,579	20%	741	4%
Air (include truck-air)		0%	35	0%	138	1%
Multiple modes & mail	416	2%	3,587	7%	2,708	13%
Pipeline	2,798	12%	28,212	58%	2,678	13%
Other and unknown	1,102	5%	101	0%	1,105	5%
Total	**22,746**	**100%**	**49,007**	**100%**	**20,330**	**100%**

SOURCE: FHWA FREIGHT ANALYSIS FRAMEWORK VERSION 3.4

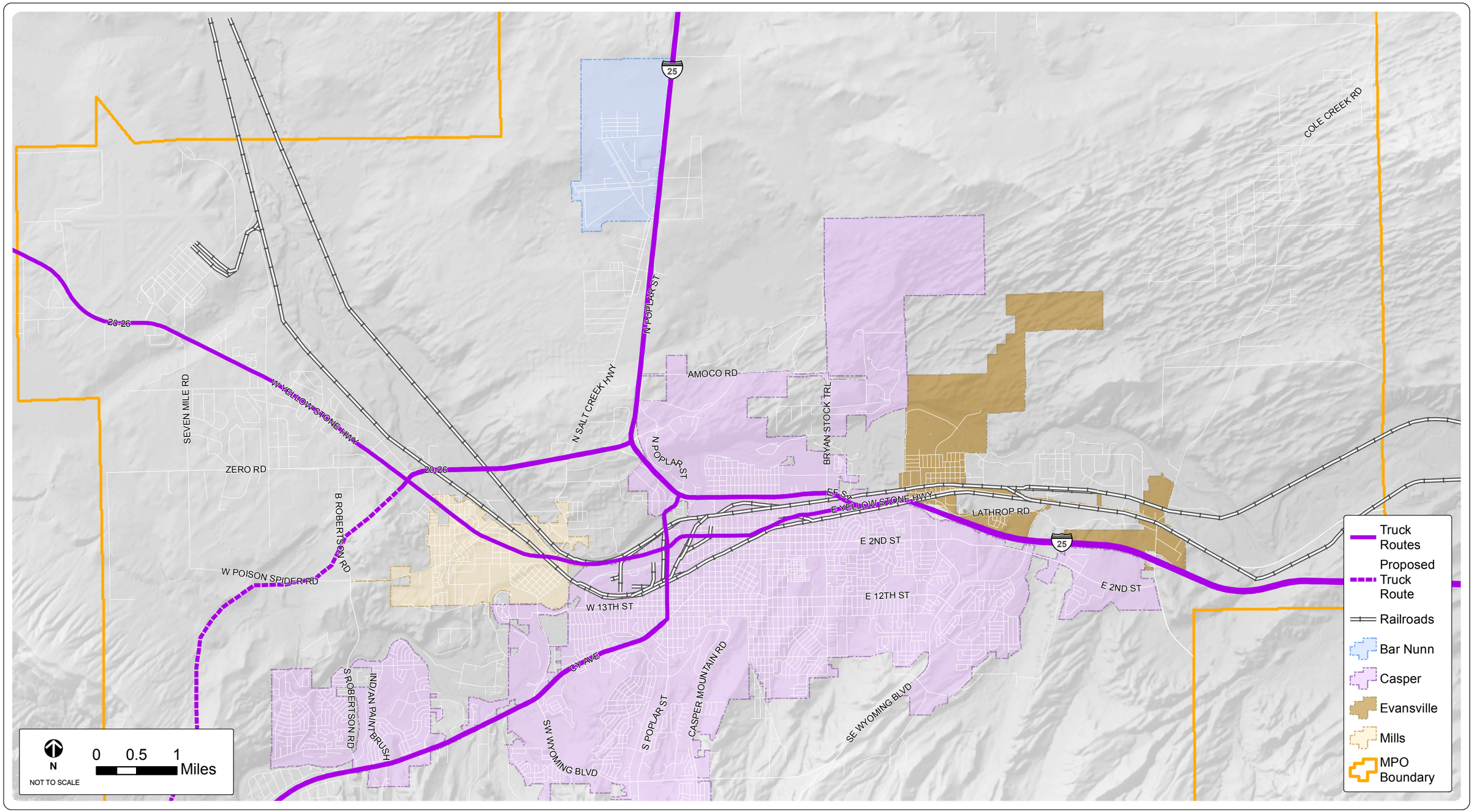
Figure 5-10 shows the volume of freight on highways and Class I railways in the U.S. and Wyoming's interconnectivity to the national freight network. This map reflects the large amount of rail freight being generated from the coal mines in the Powder River Basin northeast of Casper.

FIGURE 5-10 TONNAGE ON HIGHWAYS, RAILROADS, AND INLAND WATERWAYS IN THE U.S. (2007)



SOURCE: FHWA FREIGHT ANALYSIS FRAMEWORK VERSION 3.4

> Freight is a national priority in MAP-21, which provides incentives for states that fund projects to improve freight movement.



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SOURCES: CASPER AREA MPO

Casper Area Rail and Truck Freight Transportation Network

FIGURE 5-11

SOURCE: CASPER LOGISTICS HUB

5.4.1 RAIL

Rail freight accounted for 86% of all freight tonnage shipped from Wyoming in 2011. The majority of freight tonnage shipped within and from Wyoming is coal. In fact, Wyoming is the nation's leading producer of coal and shipped more than 538 million tons of coal in 2011, primarily by rail.

TABLE 5-7 WYOMING FREIGHT SHIPMENTS BY TONNAGE: 2011 & 2040

	Within		From		To	
Mode	**2011**	**2040**	**2011**	**2040**	**2011**	**2040**
Truck	35%	48%	2%	4%	51%	51%
Rail	31%	23%	86%	85%	15%	14%
Air (include truck-air)	0%	0%	0%	0%	0%	0%
Multiple modes & mail	0%	0%	1%	1%	8%	7%
Pipeline	14%	14%	11%	10%	19%	20%
Other and unknown	20%	15%	0%	0%	8%	9%
Total	100%	100%	100%	100%	100%	100%

SOURCE: FHWA FREIGHT ANALYSIS FRAMEWORK VERSION 3.4

The main freight rail service within the Casper MPA is provided by Burlington Northern Santa Fe (BNSF). The BNSF line currently carries as high as ten trains per day through the Casper MPA. The following describes rail service in the Casper MPA.

Crossings

The Casper Area has numerous streets that intersect the railroad with at-grade crossings. At-grade rail crossings are a major safety concern and can result in significant vehicular traffic delays. The Public Utilities Commission (PUC) is responsible for evaluating general railroad and crossing safety. This includes determining whether railroad crossings must be grade-separated, evaluating railroad signal requirements, and reviewing any proposed changes adjacent to railroad land and facilities.

Major at-grade rail crossings within the Casper MPA were identified using the Federal Railroad Administration (FRA) crossing inventory database. Table 5-8 below details at-grade rail crossing locations along with current traffic control warning devices, number of highway lanes with AADT, and daily train operations. No new crossings have been added since the 2007 plan.

TABLE 5-8 CASPER MPA AT-GRADE RAIL CROSSINGS

Crossing ID	Roadway	Warning Device	Hwy. Lanes	Daily Trains	AADT
089345U	Bryan Stock Trail	Gates	4	8	10,071
064979U	Salt Creek Highway	Gates	2	9	5,768
089341S	Curtis St.	Gates	2	8	5,768
089342Y	Western Avenue	Flashing Lights	2	8	2,020
089337C	Mystery Bridge Road	Gates	2	8	2,017
089336V	State Highway 256	Gates	2	8	1,646
095105B	E. "C" Street	Cross Bucks	2	0	1,527
095107P	Hereford Lane	Flashing Lights	1	8	1,348
089340K	Evans St.	Gates	2	8	1,105

SOURCES: FEDERAL RAILROAD ADMINISTRATION (FRA) OFFICE OF SAFETY ANALYSIS, PUBLIC AT-GRADE MOTOR VEHICLE CROSSINGS & FRA 2013 WEB ACCIDENT PREDICTION SYSTEM: *ACCIDENT PREDICTION REPORT FOR PUBLIC AT-GRADE HIGHWAY-RAIL CROSSINGS*

FIGURE 5-12 AT-GRADE RAIL CROSSINGS IN THE CASPER MPA

Accident History

The last rail accidents in the Casper Area MPO occurred in 2003. The Federal Railroad Administration's 2013 Accident Prediction Report for Public at-Grade Highway-Rail Crossings report includes the accident prediction value, the probability that a collision between a train and a highway vehicle will occur at the crossing in a year, for each of the highway-rail crossings in the Casper Area MPO for 2013. The location with the highest prediction value is Bryan Stock Trail, pictured in the left-side of Figure 5-12. This road is a 4-lane highway with an AADT of 10,071 and is the most heavily traveled at-grade crossing in the area. Pictured to the right of the figure is Curtis St., a

gated at-grade crossing with the third highest ADT and an accident prediction value of 0.015017. The accident prediction value is the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.

Grade Separation

Economics plays a primary role in the decision to grade separate a highway-rail crossing because investments in grade separation structures are long-term investments which impact many users. FHWA recommends basing such important decisions on long term, fully allocated life cycle costs likely to be incurred by the highway and railroad users, rather than on initial construction costs. The components that should be considered in such an analysis include:

- Eliminating train/vehicle collisions including the resultant property damage, medical costs, and liability.
- Savings in highway-rail grade crossing surface and crossing signal installation and maintenance costs.
- Driver delay cost savings associated with time saved.
- Costs associated with providing increased highway storage capacity to accommodate queues as a result of a train crossing a roadway.
- Fuel and pollution mitigation cost savings due to idling by queued vehicles.
- Effects of upstream propagation of queuing resulting in congestion on rest of the roadways.
- The benefits of improved emergency access.
- The potential for closing one or more additional adjacent crossings.
- Possible train derailment costs.

In general, the at-grade crossings in the Casper Area have relatively low traffic volumes. Fewer than 10 trains travel through the Casper MPA per day. While this is not a large number, traffic delays can be significant. Residents of Evansville, in particular, noted that the railroad is a dividing force, blocking every access point into and out of the Town while trains are moving through. Currently, only at-grade crossings are in place in the Town causing delays, congestion, and concerns over emergency vehicle response.

Quality of Life

In addition to delays and access issues, sounding the train horn is another potential quality of life impact. The Federal Railroad Administration has addressed this concern in 49 CFR Parts 222 and 229 entitled “Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule”. The rule sets conditions requiring sounding a horn while approaching a grade crossing.

The Final Rule permits implementation of quiet zones in low-risk locales without requiring the addition of safety improvements. Local public authorities may designate or request approval of quiet zones in which train horns may not be routinely sounded. The details for establishment of quiet zones differ depending on the type of quiet zone

to be created and the type of safety improvements implemented. Once a quiet zone is established the railroad is barred from routine sounding of the horn at the affected highway-rail grade crossings.

In 2009 WYDOT conducted the Wyoming Quiet Zone Study which produced recommendations for Casper and Evansville. The Study examined the two public crossings in Casper: Bryan Stock Trail and Hereford Lane and found a feasible quiet zone with the installation of medians or the installation of wayside horns at both crossings. A wayside horn is used in place of the locomotive's horn in quiet zones to reduce ambient noise. Additionally, 5 public crossings in Evansville were assessed. It was recommended that medians be installed at four of the locations: Curtis St., Evans St., Mystery Bridge Rd., and SH 253 and a wayside horn installed at Western Avenue. WYDOT recommended that Casper and Evansville work together to establish one quiet zone for both communities.

Funding Sources

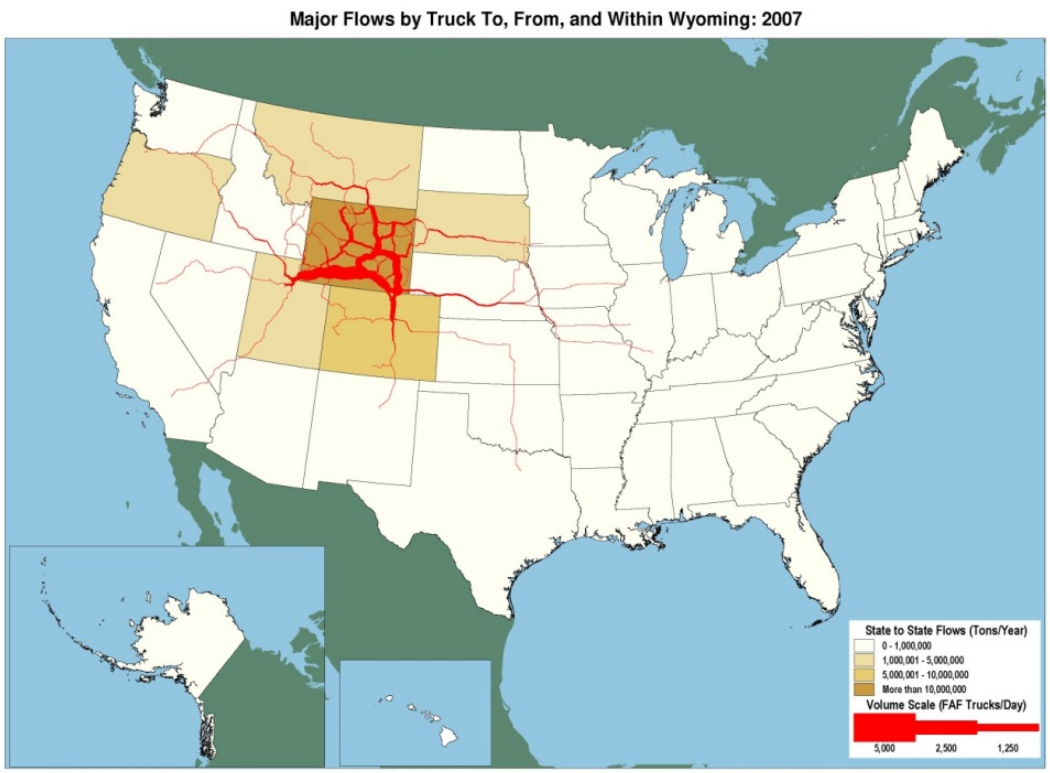
Funding required to eliminate at-grade crossings can be obtained from various sources including State Legislature, Federal highway programs, railroad companies and even third party private entities like land developers. Wyoming Legislative Statute 370-10-103(b) mandates railroad companies to construct grade separated crossings at all new rail crossings at public roads or State Highways. Federal-Aid highway funds have also been made available for eligible projects including those involving elimination of at-grade crossings. Title 23, United States Code (23 U.S.C) provides the statutes establishing the Federal-Aid Highway program.

5.4.2 HIGHWAY

The highway system is a critical component in freight movement as the majority of products and goods today are transported by truck (the one exception is coal which is the primary commodity shipped from Wyoming and is predominately shipped via rail). Increasing freight shipments throughout Wyoming, and the United States, have placed increased demand on the nation's highway system. Now more than ever, it is critical to local and state economies that the highway system is well maintained to help facilitate the safe and efficient movement of goods.

Figure 5-13 below displays Wyoming truck flows. A vast majority of freight movement within Wyoming currently uses and will continue to use I-80 in southern portion of the State. I-25 through the Casper MPA also carries high levels of freight and will continue to see increasing levels of freight movement. It is important for the Casper MPA to continue to maintain a regional and local transportation system that improves freight movements.

FIGURE 5-13 TRUCK FLOWS TO, FROM, AND WITHIN WYOMING: 2007



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.1.2, 2011.

SOURCE: FHWA, FREIGHT ANALYSIS FRAMEWORK VERSION 3.1.2

Designated Truck Routes

Designated truck routes are located to facilitate the efficient movement of goods while minimizing the potential negative impacts on other motorists, other roadway users (i.e., bicyclists and pedestrians), and area residents. A map of state-designated truck routes is featured in Figure 5-11.

The Casper Area designates three types of truck routes:

1. Bypass Truck Routes – Primary truck routes generally located on the perimeter roadways
2. Intracity Truck Routes – Secondary truck routes generally located in the downtown Casper Area intended to provide access to local businesses

3. Weight Restricted Truck Routes – Secondary truck routes intended to provide access to local businesses with weight restrictions to reduce pavement damage to roads. Trucks on weight restricted routes shall not exceed 16,000 pounds.

The approximate locations of all truck route types for the Casper MPA are summarized in Table 5-9.

TABLE 5-9 CASPER MPA DESIGNATED TRUCK ROUTES

Bypass Truck Routes	Intracity Truck Routes	Weight Restricted Truck Routes
I-25	CY Avenue – between Wyoming Blvd. & 12th St.	12th St. – between CY Avenue and Wyoming Blvd.
Wyoming Blvd.	Collins Drive – between Kimball St. and 13th St.	13th St. – between CY Ave. & McKinley St.
CY Avenue – extending west from Wyoming Blvd.	13th St. – between Wyoming Blvd. & CY Ave.	Poplar Street – between Wyoming Blvd. and CY Ave.
20/26, Zero Road	Poplar Street – between CY Ave. and Yellowstone Hwy.	
Salt Creek Highway	1st St. – between Poplar St. & E. Yellowstone Hwy.	
Amoco Rd.	2nd St. – between Hat Six Rd. & Durbin St.	
Bryan Stock Trail	Beverly St. – between Yellowstone Hwy. and 12th St.	
Yellowstone Highway		

SOURCE: CASPER MPO

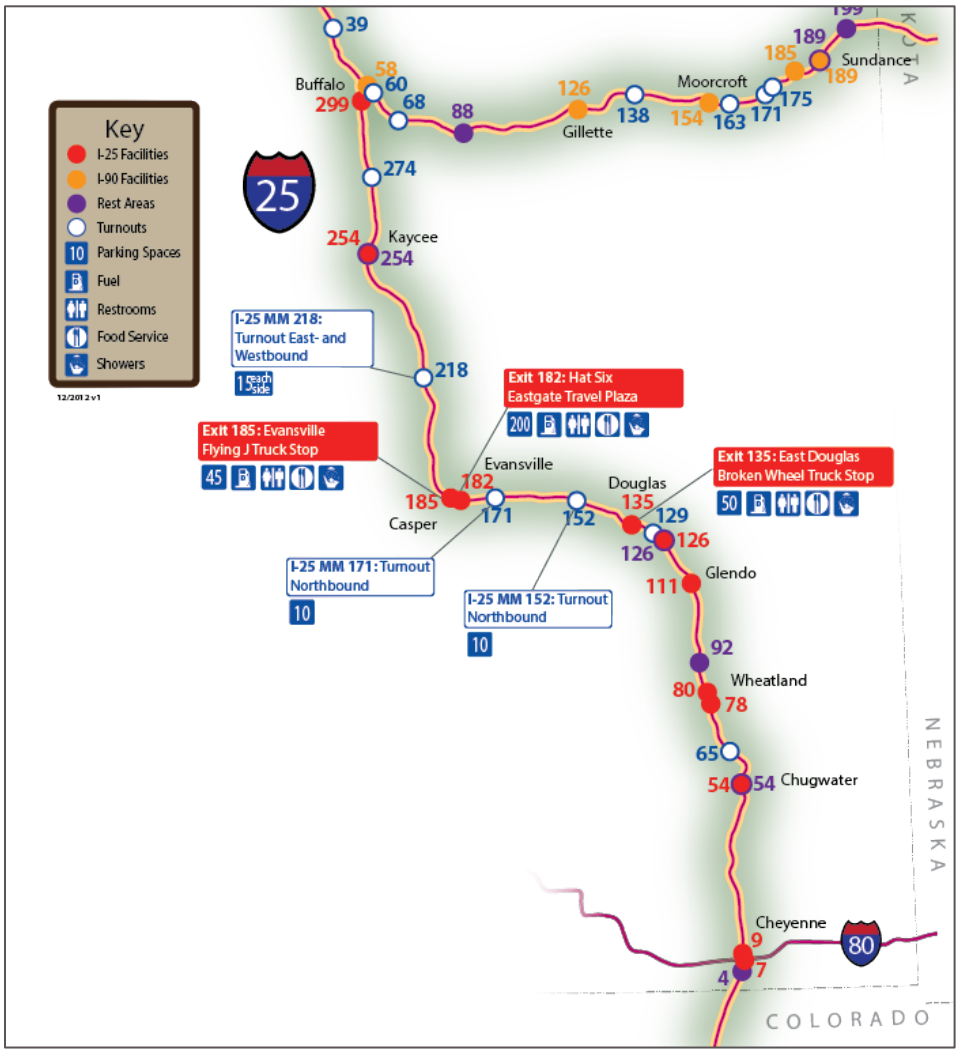
Truck Parking

The Casper Area offers 270 parking spaces in two truck parking facilities and two turnouts along I-25:

- Exit 185: Evansville Flying J Truck Stop – 45 spaces
- Exit 182: Hat Six Eastgate Travel Plaza – 200 spaces
- I-25 MM 171: Turnout Northbound – 10 spaces
- I-25 MM 218: Turnout East and Westbound – 15 spaces each side

Figure 5-14 depicts truck parking in the Casper Area.

FIGURE 5-14 CASPER AREA TRUCK PARKING



SOURCE: ADAPTED FROM WYDOT'S TRUCK PARKING MAP

5.4.3 CASPER LOGISTICS HUB (CLH)

The Casper Logistics Hub is a 700 acre industrial rail park located adjacent to the Casper/Natrona County International Airport (Foreign Trade Zone) and BNSF railway intended for distribution, warehouse or manufacturing needs. The site opened in 2010 and is expanding to include a crude oil unit train loading facility in early 2014. With access to I-25, Hwy. 20/26, and Hwy. 220, the airport, and BNSF railway, the CLH is a confluence of transportation modes and serves as a transloading facility whereby shipments are transferred from one mode of transportation to another.

While the traffic impacts of the CLH are still being studied, it is evident that 6 Mile Road should be designated as a new truck route. 6 Mile Road connects Hwy. 20/26 to the CLH and is currently the only roadway that accesses the Hub. Further recommendations for connections from the CLH to I-25 and Hwy. 220 should be considered as the CLH builds out and the area develops.

5.4.4 COMMUNITY INPUT

As part of this plan update, the consulting team reached out to the Wyoming Trucking Association (WTA) to determine truck freight needs. WTA members have expressed concern that new subdivisions have been built, seemingly, without the consideration of turning radii and access for trucks. This issue is especially problematic given the increased popularity of online retailing which has increased freight trucks and use of residential streets by delivery vehicles. Lastly, WTA members expressed concern that the presence of traffic calming devices on residential streets can inhibit trucks' maneuverability. Conversations with the WTA indicate a need for increased consideration of truck access needs during the development plan review.

5.4.5 FREIGHT NEEDS

The following freight needs were identified through community input, WTA representation, data collection and plan review.

1. Need for adequate connections to major freight corridors: I-25.
2. Need to reduce ambient noise from wayside horns.
3. Need to provide a grade-separated crossing into Evansville.
4. Need to accommodate trucks during interstate closures.
5. Need to consider truck access needs in development plan review.
6. Need for a comprehensive truck parking plan to accommodate trucks during roadway closures.
7. Need to designate new truck routes to connect CLH to I-25, Hwy 20/26, and Hwy 220.

5.5 ACTIVE TRANSPORTATION

Active living is a critical component to the future of Casper's transportation system. By providing a complete network of transit, bicycle, and pedestrian facilities to connect destinations, real transportation choices will be available for the community. This will not only create a complete transportation system in the community, but also create healthy transportation alternatives.

Physical inactivity contributes to obesity, and both physical inactivity and obesity are risk factors for type II diabetes -- the fifth most common cause of death for Americans. Some of the benefits of physical activity include: weight control, reduced chance of heart disease, improved mood, increased energy, and better sleep.

Despite the known benefits, most people in the United States do not engage in regular physical activity. Only 25% of U.S. adults report engaging in recommended levels of physical activity (either 30 minutes of moderate-intensity activity 5 or more days per week or 20 minutes of vigorous-intensity physical activity 3 or more days per week). While Wyoming residents report much higher physical activity rates, 51.9 percent in 2011 according to data from Wyoming's Behavioral Risk Factor Surveillance System (BRFSS)[1], over 48 percent of Wyoming adults do not meet recommendations. More concerning is that nearly 30% of Wyoming adults reported getting no physical activity, leisure or otherwise, in the past month.

Unsurprisingly, obesity rates have skyrocketed in the U.S. increasing by 30 percent in the last three decades. BRFSS data for 2011 indicates that 61.3 percent of Wyoming adults are overweight[2] or obese[3], and Casper Area residents are no exception. Wyoming Department of Health 2007-2011 county estimates indicate that 63.3 percent of Natrona County adults are overweight or obese, with 27.1 percent obese, and 10.1 percent very obese.

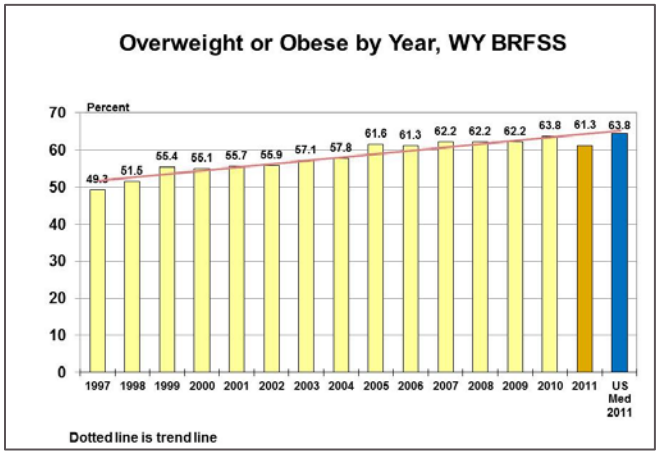
[1] The Behavioral Risk Factor Surveillance System (BRFSS) collects data from randomly selected adults age 18 and older, through monthly telephone surveys. The purpose of the survey is to gather information on the prevalence of health behaviors and conditions which are known to contribute to or increase the risk of chronic disease, acute illness, injury, disability and premature death. http://www.health.wyo.gov/brfss/brfssdata.aspx

[2] Body mass index (weight in kg/height in meters squared) >= 25.0.

[3] Body mass index (weight in kg/height in meters squared) >= 30.0.

As the bar graph in Figure 5-15 illustrates, the percentage of Wyoming residents with unhealthy BMIs is steadily increasing.

FIGURE 5-15 WYOMING ADULTS REPORTING BODY MASS INDEX (WEIGHT IN KG/HEIGHT IN METERS SQUARED) >= 25.0.



SOURCE: WYOMING DEPARTMENT OF HEALTH: BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

Active transportation options such as walking, biking, and taking transit can impact the level of physical activity an individual obtains. Walking and bicycling for daily transportation can be significant sources of physical activity and greatly reduce an individual's likelihood of being overweight or obese. Transit users are also more likely to meet physical activity recommendations and are less likely to be obese. In the U.S. nearly 30 percent of transit users meet physical activity recommendations of 30 minutes or more each day just by walking to and from transit stops.

The Casper Area's extensive trail system provides opportunities for walking and biking within the area as illustrated in Figure 5-16. The MPO just completed the *Casper Area Trails, Path and Bikeways Plan* (CATPBP) to identify needs, opportunities, and constraints related to improving conditions for walking and bicycling throughout the Casper Area.

Although the CATPBP is the first plan that addresses both bicycle and pedestrian needs for the Casper Area in its entirety, a number of other plans have addressed more specific components of the topics covered in this plan. These previous plans include the *Casper Metropolitan Area Multi Use Trail System Plan*, *Casper Walkability Study*, *Casper Safe Routes to School*, and specific trail plans. The CATPBP allows for a more systematic and holistic approach to analyzing the needs of bicyclists and pedestrians for the Casper Area in its entirety.

5.5.1 WALKABILITY

As stated in the *Casper Walkability Study*, there is a growing sentiment among the public, elected officials, and transportation planners to improve the provisions for walking as a viable form of transportation, health/fitness benefits, and recreation opportunities. And, Casper residents are no exception to this trend.

The City of Casper conducted a *Community-Wide Strategic Planning Process* in 2012 that facilitated a series of focus groups with key community leaders and stakeholders in order to develop a community-wide strategic plan. Walkability was identified as a need throughout the community in order to provide safety and community connectivity. In a survey from the strategic plan planning process, most respondents reported that they walked for recreation and exercise (88%), but a significant number also walked for transportation to work (32%) or shopping, entertainment or dining (38%).

Existing Pathway System

The Casper Area has an extensive pathway system to accommodate recreational needs and continues to explore opportunities to expand and enhance local and regional facilities and connections.

The primary bicycle and pedestrian facilities within the Casper Area are the Platte River Parkway and the Casper Rail Trail. Other facilities, including multi-use pathways through local parks and along drainage ways, exist throughout the Casper Area. The existing pathway system is displayed in Figure 5-16.

PLATTE RIVER PARKWAY

The Platte River Parkway, approximately ten miles in length, is a non-motorized trail running east to west through the Casper Area from the East Casper Soccer Complex to Paradise Valley Park. The Parkway runs along the North Platte River and connects to community parks and recreational areas.

The Platte River Parkway is maintained by the Parkway Trust. The Parkway Trust is a nonprofit 501(c)3 organization, created in 1982, with a goal of conserving and developing the river corridor while preserving and protecting the scenic, natural and historic value of the North Platte River environment.

CASPER RAIL TRAIL

The Casper Rail Trail runs along the abandoned Chicago and Northwestern Rail line from downtown Casper to Edness Kimball Wilkins State Park. It was acquired through the Railbanking provision of the National Trails System Act and like the Platte River Parkway, is maintained by the Platte River Parkway Trust.

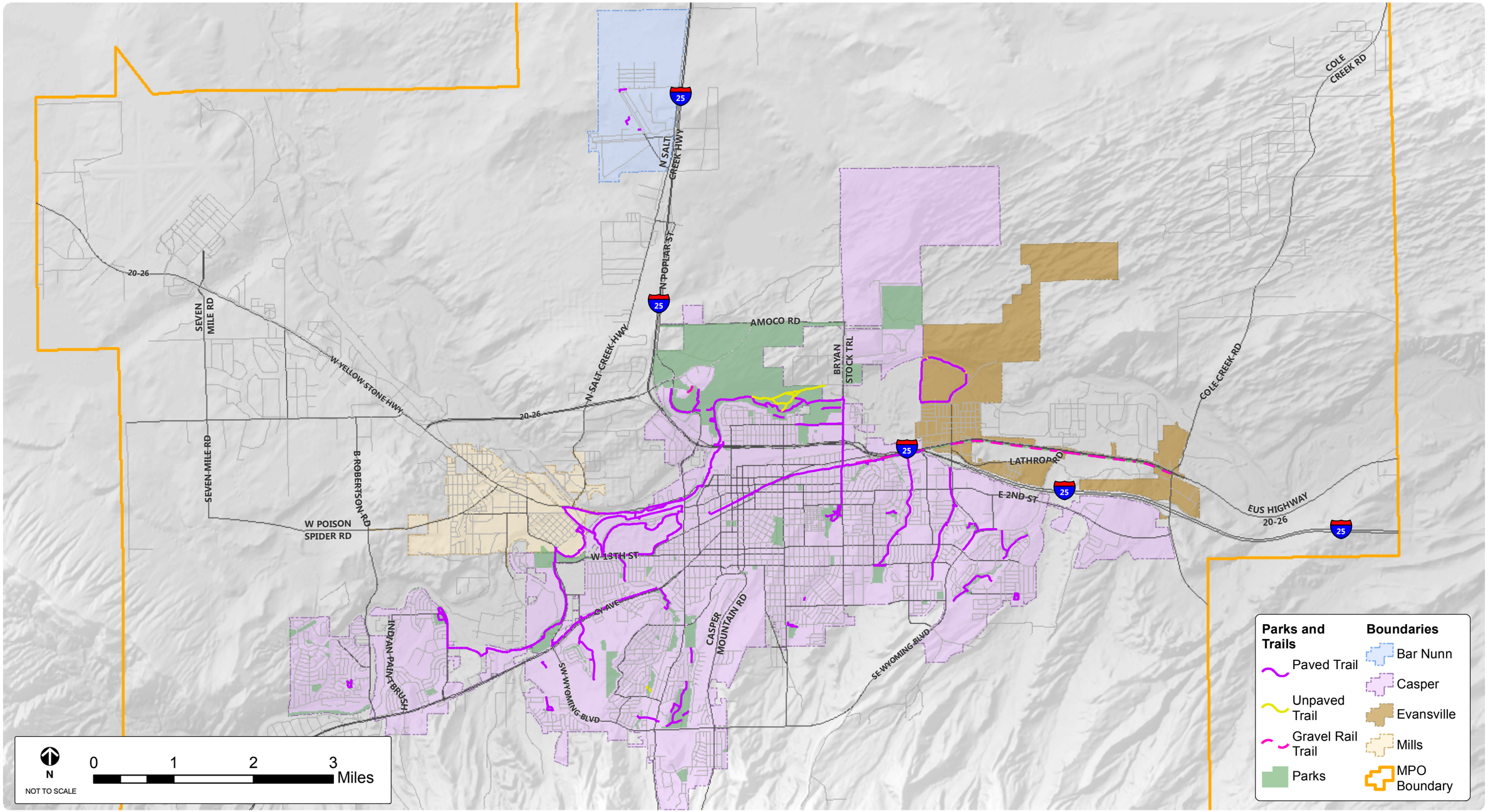
Several improvements to the Rail Trail have taken place since the 2007 Plan. Approximately 1-mile of the trail, from Beverly Street to Walsh Drive was paved, nearly completing the paved portion of the Trail. The section from Walsh Drive to Curtis Street is currently crushed aggregate and is the last remaining unpaved portion of the planned 10-foot concrete path. The extension of the trail from Beverly Street included the construction of the Beverly Street Underpass, which was officially dedicated in 2010. An additional trail west to Lennox Street and an eastward trail connection to Eastdale Park were also built with this extension.

LOCAL/REGIONAL FACILITIES

In addition to the Platte River Parkway and Casper Rail Trail, the Casper Area has several local trails, some of which connect to the Platte River Pathway and Casper Rail Trail.

Sidewalks

The presence of a complete sidewalk network can influence a person's decision to walk to local destinations. In particular, sidewalks that are properly planned, constructed, and maintained are likely to encourage pedestrian activity. Most residential roadways and arterials within the Casper Area currently have sidewalks. "Attached" sidewalks, or sidewalks that are adjacent to the roadway/curb, are common throughout the Casper Area. In recent years, Casper has prioritized pedestrian activity by increasing sidewalk space and slowing vehicular traffic in downtown Casper.



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SOURCES: CASPER AREA MPO

Existing Park and Trail Network

FIGURE 5-16

> A walkable community is one where it is easy and safe to walk to goods and services (i.e., grocery stores, post offices, health clinics, etc.). Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting streets that serve people with different ranges of mobility. -FHWA

5.5.2 BIKEABILITY

Biking for both recreation and transportation has gained momentum over the years, as well as interest to provide better bike facilities. The recent completion of the CATPBP attests to the increase in popularity – the last such plan: Casper Metropolitan Area Multi Use Trail System Plan was completed in 1993.

Currently, the majority of bicycle facilities in the Casper MPA are separate or dedicated trails, which were discussed in the *Walkability* section. Many roadways within the Casper MPA are adequate for on-road bicycling but lack sufficient signage or other accommodations to clearly define appropriate bicycle corridors.

The Casper Area has increased the number of bike lanes on roadways since the 2007 Plan when Blackmore Road was the only roadway in the Area with a marked on-street bike lane. Bike lanes have been installed on: Center St., Centennial Village Dr., and Centennial Blvd. However, it is important to note that these bike lanes do not meet the minimum width requirement per AASHTO guidelines due to the presence of on-street parking.

5.5.3 SAFE ROUTES TO SCHOOL

Through the SRTS planning process, the following issues were identified as affecting safe routes to school in the Casper Area: policy, schools of choice, vehicle speed, weather, darkness, wide roads and intersections, disconnected sidewalk networks, school siting, and the perception of safety. The plan also includes specific needs for each school. These needs should be addressed to increase walking and biking to school.

5.5.4 COMMUNITY INPUT

As part of the Listening Tour, the project team talked to walkers about their experiences on Casper's trails, paths and sidewalks and the pedestrian environment they would like to see in the future. Residents that used Casper Area paths and trails to walk for recreation were very happy with the trail system but wanted better connections to amenities and neighborhoods. Several people expressed concern with walking to common destinations in the Casper Area and identified specific areas where pedestrian improvements, such as trail connections and overpasses, are needed. Several people expressed that the trail-system would benefit from additional east-west routes that connect to trails in Evansville and Mills. The majority of existing paths travel north to south because they are parallel to water drainage areas such as Garden Creek, Sage Park and Long Park (Byer, 2013).

Additionally, input collected during numerous public outreach efforts for the CATPBP planning process determined the following walking and biking needs to be most critical to the public:

- Improving the safety and comfort of walking and biking
- Improving connections to trails, creating a more comprehensive biking and walking network
- Integrating bicycling and walking considerations into all roadway planning, design, construction, and maintenance
- Improving accessibility for bicyclists and pedestrians around/through barriers such as intersections, freeways, discontinuous streets, and flood prone areas
- Improving roadway crossings
- Providing more bicycle parking
- Improving access to Casper College and Downtown
- Educating all road users to respectfully share the road and interact safely

5.5.5 ACTIVE TRANSPORTATION NEEDS

The CATPBP identifies bicycle and pedestrian needs based on roadway classification. The plan provides guidelines for bike and pedestrian facilities on: arterials, collectors, and local roads in the Casper Area.

In addition to functional classification, the CATPBP suggests mitigations for natural and constructed barriers such as the Platte River and railroads and interstates which decrease connectivity of the roadway network.

Bicycle Needs

While the CATPBP addresses both bicycle and pedestrian needs for the Casper Area, the plan addresses needs specific to each mode. The Plan recommends near-term bicycle improvements -- ranked highest based on safety -- connectivity and demand that provide the highest return on investment in terms of contributing to a connected and safe bicycle network that attracts the greatest numbers of users.

Pedestrian Needs

The CATPBP identified a number of gaps in the sidewalk network which impede pedestrian travel and prioritized the list based on demand and safety. Many of these gaps are short, but represent true barriers to walking safely and comfortably.

Additionally, the City of Casper conducted a Walkability Study in 2008 that recommended specific strategies for increasing walkability. Residents identified completing missing sidewalk segments and providing direct pedestrian connections as the top amenities that would improve walking conditions.

5.6 TRANSIT

There are two primary public transportation services: the fixed route service, known as "The Bus," and the demand response service, CATC, that is primarily designed for seniors, people with disabilities or other transportation challenged individuals. Both services are owned by the City of Casper and operated by the Casper Area Transportation Coalition (CATC). CATC began as a demand response service and expanded operations to include fixed route service, The Bus, in 2005 that started with four fixed-routes serving the City in Casper. The following describes the demand response and fixed-route transit services within the Casper MPA.

5.6.1 DEMAND RESPONSE SERVICE

Demand response service initially began in 1982 when three separate transportation programs combined to form CATC. These agencies included Project Mobility, Natrona County Senior Citizens, and Community Recreation. Resources, including personnel and vehicles, were combined together to provide a comprehensive demand response service to the urbanized area of Natrona County. Initially, CATC focused on serving the disabled and elderly as a dial-a-ride program. Over the years the service expanded to include the transportation-disadvantaged and the general public.

CATC PATRONS EXITING THE BUS

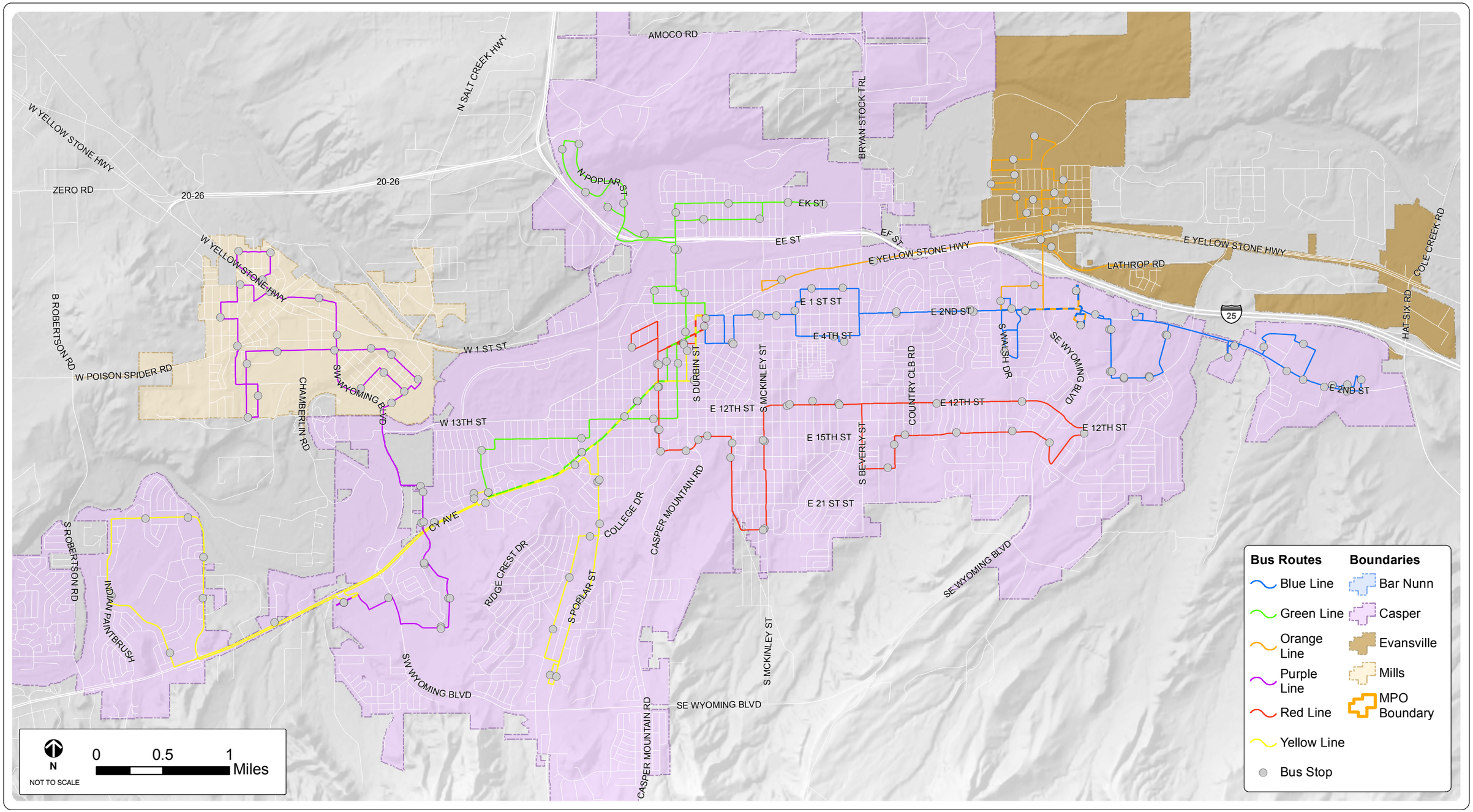
5.6.2 FIXED ROUTE SERVICE

Fixed-route/route deviation transit service (The Bus) was implemented in April 2005 for the City of Casper. The Bus system began with four routes operating within on a pulse system[4] with buses departing every hour from a centrally located transfer point located just south of 2nd Street along Beech Street. Two additional fixed routes

[4] A pulse system is most often used by small transit systems with infrequent service of 30 minutes or more. Routes are located and designed so that the cycle time for each route is the same and equal to some multiple of the pulse interval. Coordinating service at a centrally located transfer point minimizes wait time for transfers.

were introduced in Mills and Evansville in 2007 that do not connect to the 2nd Street transfer Station. The route deviation provides an on-demand service to customers located off the fixed-route. This is accomplished by allowing transit vehicles to "deviate" from their fixed-routes and stops within the time constraints imposed by the schedule. An additional feature of the fixed-route system is that the buses are now equipped with bicycle racks allowing bicyclists to ride The Bus for certain segments of their trips.

The 2007 LRTP included a number of proposed improvements to expand service coverage and improve transit amenities. Several of the proposed improvements, including expanding fixed-route service to Mills and Evansville and providing weekend service for The Bus, have been implemented since the development of the 2007 LRTP. As previously mentioned, new services were added in the Towns of Mills and Evansville in 2007, and in 2011, Saturday service was added to the Casper lines. The map in Figure 5-17 shows current routes and stops.



FEHR PEERS

SOURCES: CASPER AREA MPO

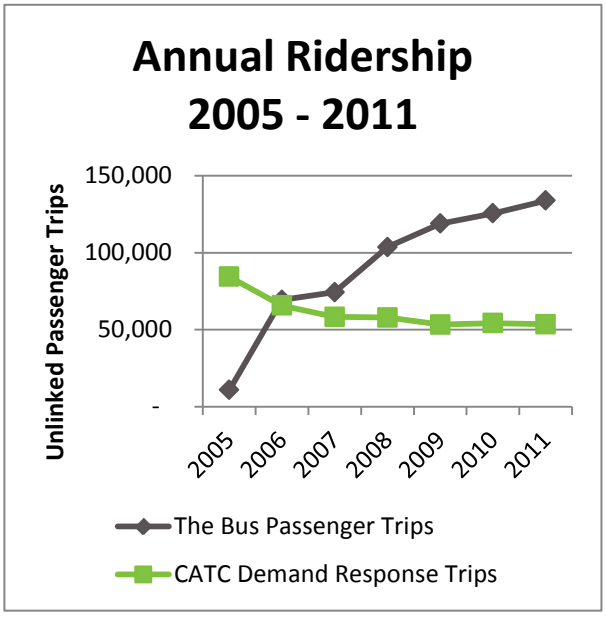
The Bus Routes and Stops

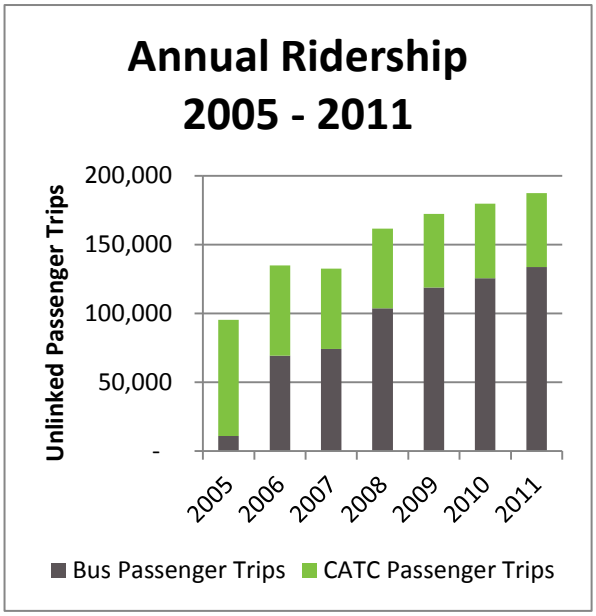
FIGURE 5-17

5.6.3 RIDERSHIP TRENDS

The graphs in Figure 5-18 compare the fixed route, The Bus, ridership and CATC demand response ridership between 2005 and 2011. Since the implementation of The Bus in April 2005, the number of riders using the demand response service has gradually declined while the fixed-route service has increased.

FIGURE 5-18 ANNUAL CATC RIDERSHIP, 2005 - 2011



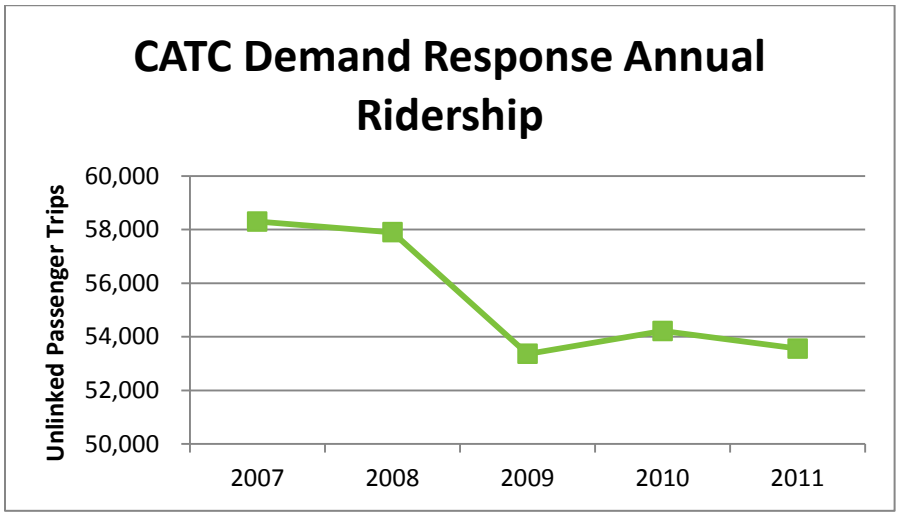


SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CASPER AREA METROPOLITAN PLANNING ORGANIZATION'S TRANSIT DEVELOPMENT AND COORDINATION UPDATE (2010)

CATC

CATC ridership has declined since the implementation of fixed-route service in 2005, suggesting that some individuals who previously used the demand response service have shifted to the fixed-route service. Another contributing factor is that in 2011, Sunday CATC service was discontinued both due to low ridership and the need for additional revenue for expanded Bus service.

FIGURE 5-19 CATC, DEMAND-RESPONSE SERVICE, RIDERSHIP 2007-2011

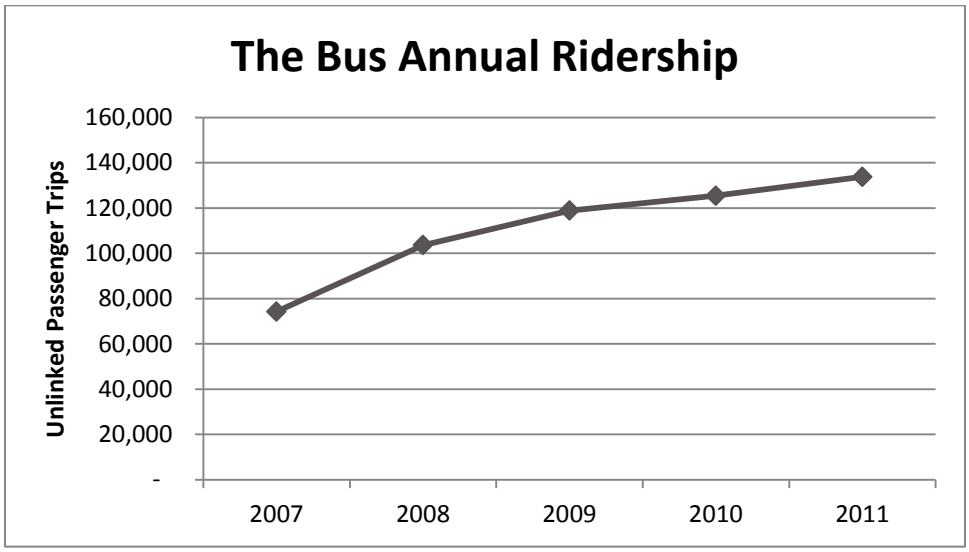


SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CASPER AREA METROPOLITAN PLANNING ORGANIZATION'S TRANSIT DEVELOPMENT AND COORDINATION UPDATE (2010)

The Bus

Ridership on the Bus has been increasing steadily since service began in 2005. Figure 5-20 shows annual ridership from 2005 to 2011. New services such as the addition of the Mills and Evansville lines in 2007 and the addition of Saturday service for the Casper lines have helped increase ridership.

FIGURE 5-20 THE BUS, FIXED-ROUTE SERVICE, RIDERSHIP 2007-2011



SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CASPER AREA METROPOLITAN PLANNING ORGANIZATION'S TRANSIT DEVELOPMENT AND COORDINATION UPDATE (2010)

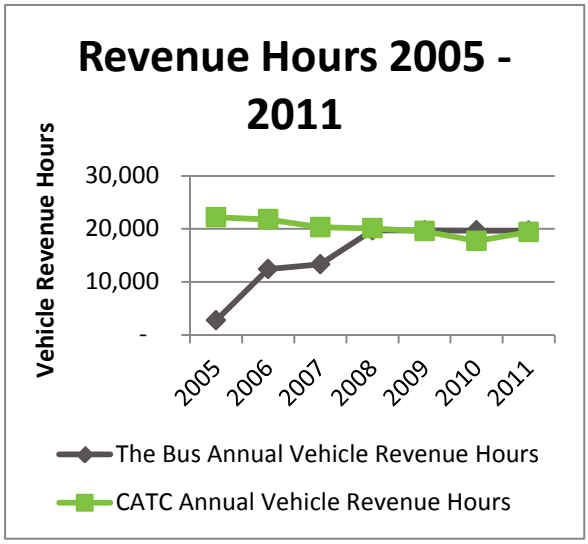
5.6.4 SERVICE HOURS AND MILES

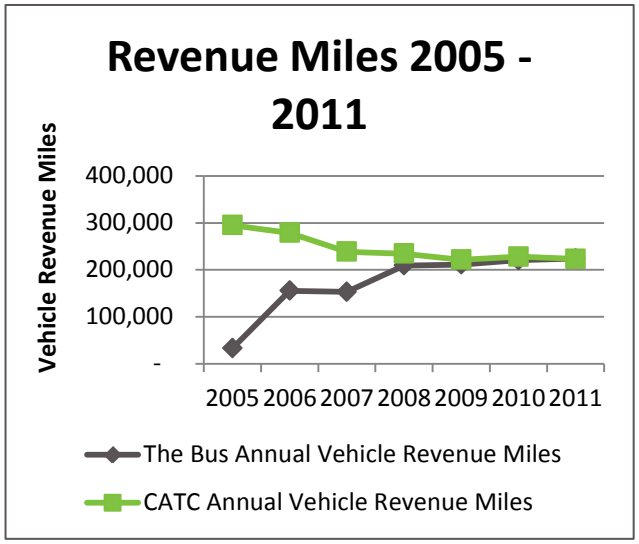
The trends in service hours and miles for The Bus and CATC do not reflect the ridership trends. While CATC passenger trips are decreasing each year, total service revenue hours[5] and revenue miles[6] have remained relatively stable, as Figure 5-21 depicts. The Bus service hours and miles spiked in 2007 when the Evansville and Mills routes were added and have remained relatively stable since then.

[5] Vehicle Revenue Hours are the hours traveled when the vehicle is in revenue service (i.e., the time when a vehicle is available to the general public and there is an expectation of carrying passengers). -American Public Transportation Association (APTA).

[6] Vehicle Revenue Miles are the miles traveled when the vehicle is in revenue service (i.e., the time when a vehicle is available to the general public and there is an expectation of carrying passengers).-APTA

FIGURE 5-21 CATC AND THE BUS REVENUE HOURS AND MILES 2005-2011





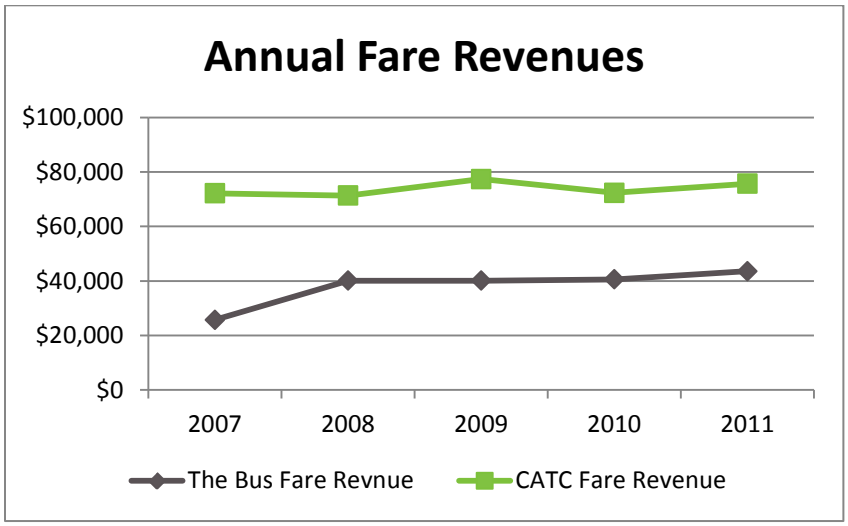
SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CASPER AREA METROPOLITAN PLANNING ORGANIZATION'S TRANSIT DEVELOPMENT AND COORDINATION UPDATE (2010)

5.6.5 OPERATING COSTS & REVENUES

While annual revenues are generally going up, as Figure 5-22 indicates, the operating costs per revenue hour are also increasing – as Figure 5-23 shows. The fare box recovery ratios[7] trended upwards slightly during the period from 2007-2011, while the same measure has trended toward for The Bus during this period. The fare box recovery ratio for The Bus began to decline after 2007, when the Mills and Evansville lines were introduced and has not recovered. The cost to ride The Bus has remained the same since the 2007 plan: adults can ride for $1, seniors and persons with disabilities ride for $0.50, students are $0.75 per one-way ride and children under five are free.

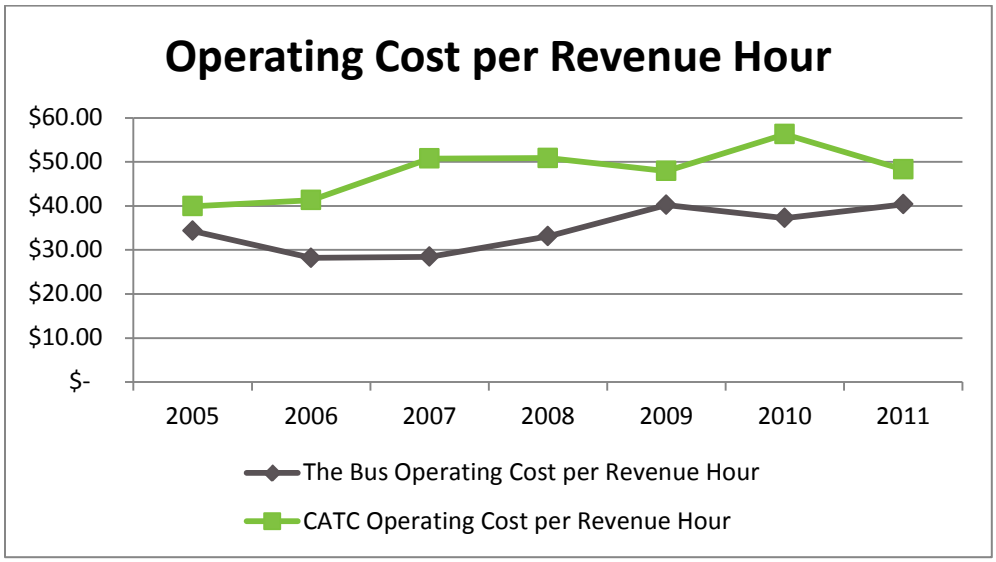
[7] This indicator measures cost effectiveness and is the ratio of fare revenue to total operating costs.

FIGURE 5-22 ANNUAL FARE REVENUES 2007-2011



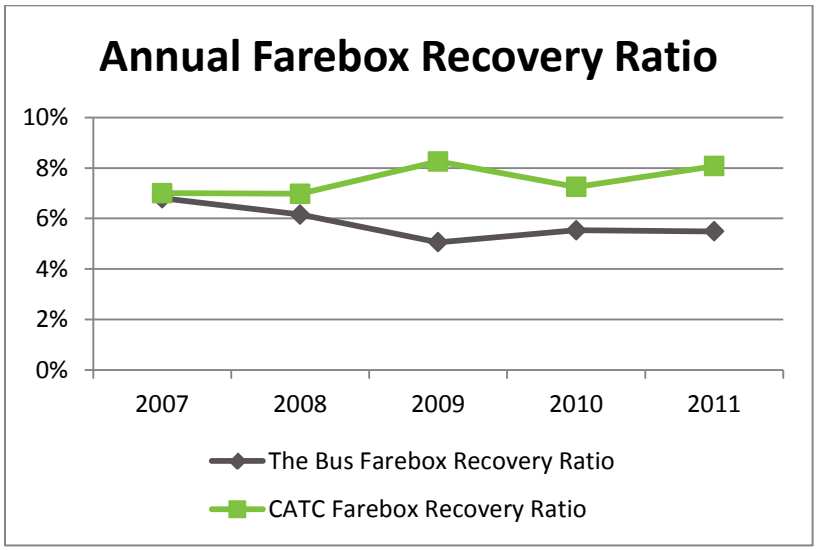
SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CATC ANNUAL RIDERSHIP SUMMARY 2010-2011.

FIGURE 5-23 OPERATING COST PER REVENUE HOUR 2005-2011



SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CATC ANNUAL RIDERSHIP SUMMARY 2010-2011.

FIGURE 5-24 ANNUAL FARE BOX RECOVERY RATIOS 2007-2011



SOURCE: AMERICAN PUBLIC TRANSPORTATION ASSOCIATION, NATIONAL TRANSIT DATABASE (NTD) – URBANIZED AREA DATA (2009-2011) & CATC ANNUAL RIDERSHIP SUMMARY 2010-2011.

5.6.6 SERVICE COVERAGE

Service coverage has expanded since the 2007 LRTP. The 2007 plan reported that 51.4% of the Casper Area population lived within a quarter mile of a transit stop. Since the addition of the Mills and Evansville lines in 2007, seventy-two percent of the MPO-area population now lives within 1/4th mile of a bus stop. The map in Figure 5-25 displays the relationship between service coverage and population density and the map in Figure 5-26 shows employment density.

5.6.7 COMMUNITY INPUT

As part of this Plan update, the consulting team talked with both frequent and occasional Bus riders about their experiences and what they would like to see in the future. The team also received valuable input from representatives of the mobility impaired population on transit services.

The Bus

Generally, bus riders were happy with Bus service but wanted increased frequency and expanded service hours after 6:30 p.m. Route expansion to Bar Nunn and the airport, as well as regional connectivity to Cheyenne was also a common request.

Additionally, adding amenities to Bus stops such as benches and shelters was requested and well as ensuring that stops accommodate the mobility impaired population. The team reached out to Wyoming Independent Living

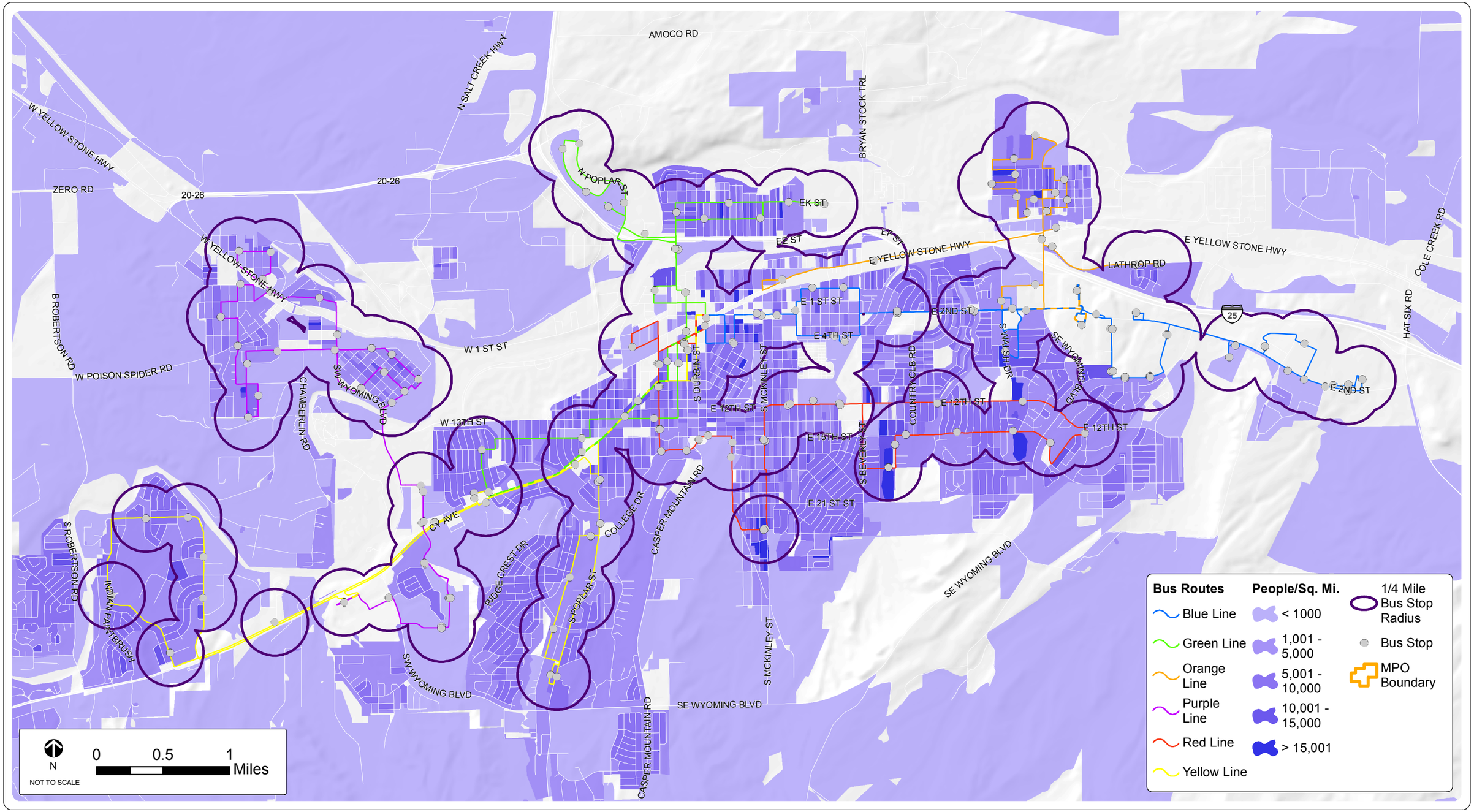
Rehabilitation (WILR), an organization that provides assistance to Wyoming residents with disabilities, to get additional input from the mobility impaired population. The list following summarizes transit needs identified by WILR:

- Adequate and safe curb cuts with appropriate grade and slope to ensure smooth transitions
- Sidewalks wide enough to accommodate power wheelchairs
- Bus stops accessible to mobility impaired
- Accessible crosswalk signals
- Ensure snow is not plowed to restrict access to a sidewalk

Additional concerns brought forth by the WILR can be found in Appendix E and further comments from the Bus riders can be found in the Listening Tour Write-Up in Appendix E.

CATC

The team spoke to several individuals that were dependent on CATC (demand response bus service) for transportation. Nearly everyone was very pleased with CATC service but expressed a need for Sunday and evening service. Due to federal funding regulations CATC must operate on the same schedule as The Bus.

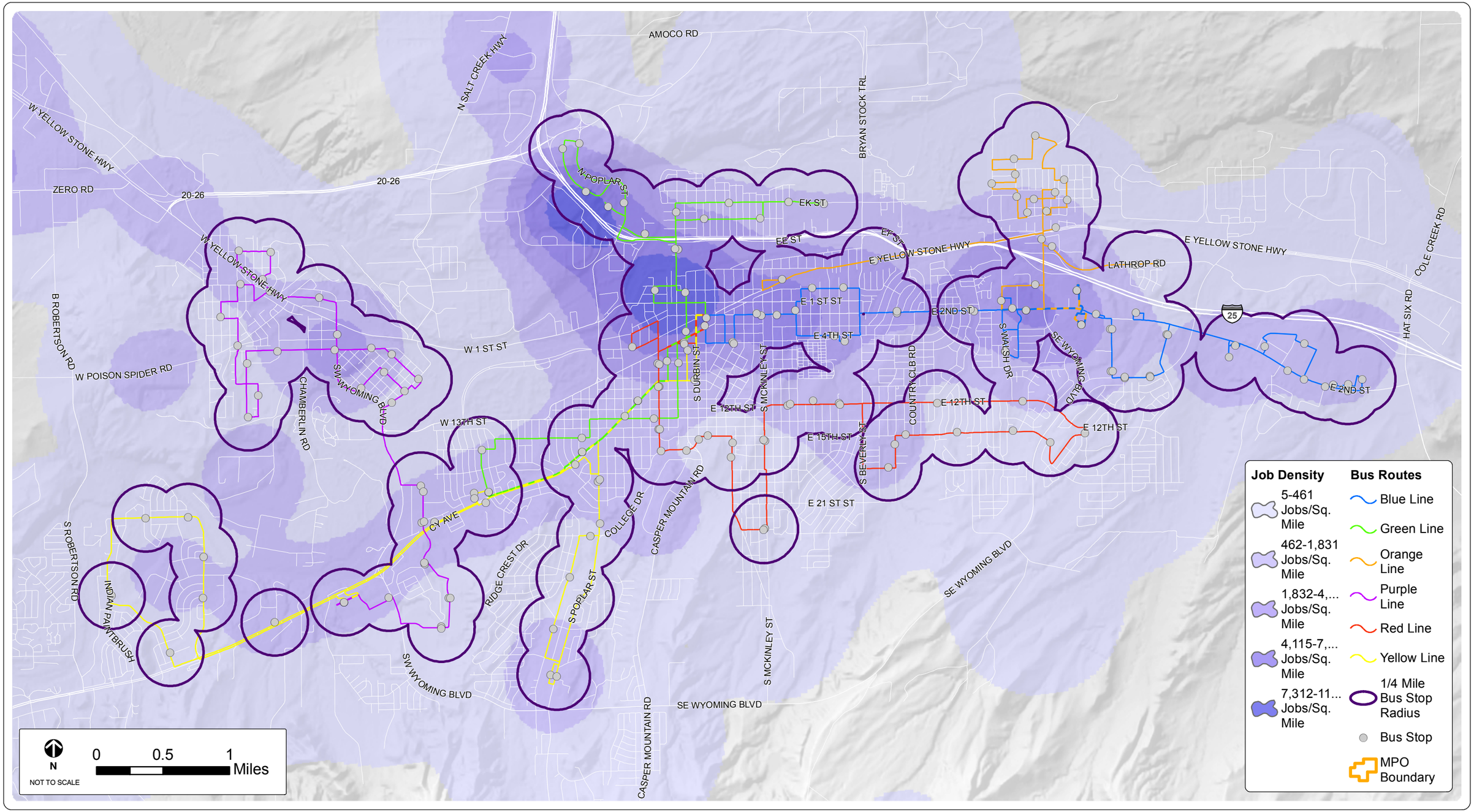


FEHR & PEERS

SOURCES: CASPER AREA MPO

Fixed-Route Service Coverage: Residential

FIGURE 5-26



FEHR PEERS

SOURCES: CASPER AREA MPO

Fixed-Route Service Coverage: Employment

FIGURE 5-26

5.6.8 TRANSIT NEEDS

The Transit Development and Coordination Plan Update identified several unmet transit needs that included:

1. Need for Service Expansion
2. Need to Improve Existing Services
3. Need to Promote and Implement Multimodal Transportation
4. Need to Expand Awareness and Comfort of Existing Services

The Plan also identified strategies and solutions to overcome unmet needs.

Need for Service Expansion

1. *Expand Geographic Coverage for The Bus* - Expanding route coverage was a primary need identified through stakeholder consultations and the on-board passenger survey. Suggested areas for expansion include: 1) expand along East 2nd Street; 2) expand West of Robertson Road; expand to Airport; and expand to Bar Nunn.
2. *Expand existing service area* by adding fixed route service to Bar Nunn and the airport.
3. *Weekend Service on The Bus* - Among existing passengers, 37% said that expanding Saturday service was important for improving the system.
4. *Earlier and later service hours* - About 25% of existing passengers said that later service – even as late as 9:30 PM – would encourage them to ride The Bus more often.
5. *Service beyond Casper* – More regional service to communities outside Casper and service for people to come into Casper from adjoining or nearby communities, particularly for medical services and shopping.

Need to Improve Existing Services

1. *More direct service* – Increase directness of existing services to accommodate travel across town.
2. *More frequent and timely service* - Increase frequency of existing services. Between 10 and 30 percent of trips begin or end with a transfer, indicating that maintaining timed connections between routes is crucial for making the total system work.
3. *Update CATC policies to better support existing riders* – Ensure CATC meets the needs of elderly and disabled passengers.
4. *Coordinate human service transportation and public transit services* – Increase coordination to create a more efficient and effective transportation system.

Need to Promote and Implement Multimodal Transportation

1. *Access to the bus is important* – Since most passengers walk to bus stops*, p*edestrian access to and from the bus is an important consideration.

2. *Recognition of access to transit for all users* – Ensure all persons can safely and adequately access transit stops.

Need to Expand Awareness and Comfort of Existing Services

1. *Marketing information* – provide marketing materials to promote better awareness of The Bus and CATC.
2. *Availability of service* – better convey transit service options and provide resources or training to teach people how to use available services.

5.7 AVIATION

The Casper/Natrona County International Airport (C/NCIA) is the primary aviation facility within the Casper Area. The Airport is located approximately seven miles northwest of downtown Casper and encompasses 5,131 acres. It is accessed on the south by U.S. Highway 20-26 using two entry points: Commerce Drive and Airport Parkway. The Airport is designated as a Non-hub Primary Commercial Service airport and is currently served by three passenger airlines: 1) United Express operates 33 flights per week with 50 seat regional jets to Denver; 2) Delta Connection operates 14 flights per week with 50 seat regional jets to Salt Lake City; and 3) Allegiant Airlines operates two flights per week to Las Vegas with 166 seat aircraft.

Since the 2007 Plan, a few changes to carriers have occurred. Northwest Airlines was acquired by Delta Airlines in 2009 and Allegiant Airlines started service from Casper to Las Vegas in the fall of 2008. The Casper-Las Vegas market quickly became the largest market in terms of local passengers, more than three times the passengers compared to the number two local market. Allegiant also initiated nonstop service to Phoenix-Mesa Airport in December of 2012, but terminated the service in the spring of 2013.

5.7.1 AIRPORT FACILITIES

The C/NCIA consists of two active runways (Runway 03/21 and Runway 08/26), two decommissioned runways – (Runway 12/30 and Runway 17/35), a flight line with 75 T-hangars and 13 corporate hangars (14 corporate units). Additionally, the Airport contains the C/NCIA Business Park, the Airport's Historic District, and leased buildings, ground, and pasture land. The Airport leases land or buildings to more than 300 tenants.

C/NCIA Business Park

The C/NCIA Business Park is located east and northeast of the terminal building and lies within Airport property. The C/NCIA Business Park consists of almost 200 acres of land with typical business park and industrial facilities. Two hundred additional acres are adjacent to the C/NCIA Business Park for future development.

Figure 5-28 shows the location of the C/NCIA Business Park within Airport property. The Foreign Trade Zone is also located within the C/NCIA Business Park. The C/NCIA Business Park contains 38 businesses, an increase of 3 businesses since 2007, and 136 buildings. A majority of the businesses within the park are non-aeronautical representing sectors as diverse as manufacturing, retail, and aviation. The Airport's Historic District is also part of the C/NCIA Business Park. The C/NCIA Business Park provides vital income to financially sustain the Airport.

Air Cargo

Two air cargo operations are located on the Airport: FedEx and UPS. FedEx's 13,427 square foot sorting center, leased from the Airport, is adjacent to Atlantic Aviation at 8094 Fuller Street. Daily flights from Memphis, served by a Boeing 757-200 or Airbus A300/310 aircraft, provide packages to the facility where they are then sorted and sent via Cessna Caravans to other airports across the State of Wyoming, Colorado, Nebraska, or locally by truck. UPS packages are brought by truck to the Airport for loading onto aircraft. Key Lime Air is contracted by UPS to fly their packages from Casper to Denver and Steamboat Springs, Colorado. The FedEx cargo facilities are in fair to poor condition.

Aircraft Hangars

The Airport leases 64 T-hangars to Atlantic Aviation. Another 10 T-hangars, located northeast of the Public Safety Building, and two T-hangars located on the north end of the airfield are owned by the Airport and leased directly to tenants. Currently a 26-person waiting list exists for these T-hangars. Additionally, the Airport owns and leases 11 corporate hangars or land for three privately developed hangars along Fuller Street to tenants such as Atlantic Aviation and FedEx.

5.7.2 C/NCIA BASED AIRCRAFT

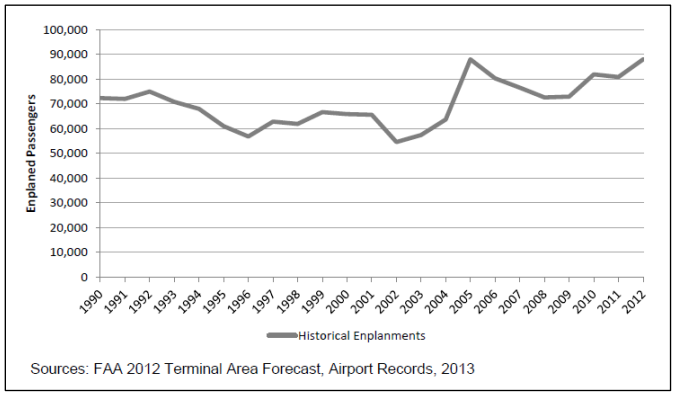
Based aircraft represent the total number of active, civil aircraft permanently located at an airport. Categories of based aircraft include; single-engine piston, multi-engine piston, turboprop, jet, and helicopter. As of December 2013, an independent based count conducted by airport staff and a consulting team found 123 aircraft based at the Airport. This amounts to an increase of 53 aircraft from the 2002 count of 70 based aircraft reported in the 2007 Plan. The Casper/Natrona County International Airport Master Plan (2010) reported that based aircraft grew at 1.86 percent annually since 1993. The Airport Master Plan projected 2013 counts to 2032 and estimate that the Airport will have 175 based aircraft by 2032. Single-engines are the most common aircraft based at C/NCIA.

5.7.3 HISTORICAL ENPLANEMENTS

According to the FAA Terminal Area Forecast (TAF) published in January 2012, enplaned passengers declined by 9 percent from 1990 to 2000. Between 2000 and 2010, enplaned passengers increased by 24.3 percent (*C/NCIA Master Plan*, *2014*). Combining both time periods, there was an overall increase of 13 percent from 1990 to 2010.

This equates to an average annual increase of 0.7 percent. Figure 5-27 shows the trend in historical enplaned passengers from 1990 to 2013. Overall, there has been little growth in passengers over the twenty year period.

FIGURE 5-27 HISTORICAL ENPLANED PASSENGERS



SOURCE: CASPER/NATRONA COUNTY INTERNATIONAL AIRPORT MASTER PLAN (2014)

The C/NCIA Master Plan pointed out that historic data from the past 22 years suggests that airline capacity drives the amount of passengers for each year. When the airlines reduce capacity, reduce frequency, or drop service to a route, the enplaned passengers are reduced. The opposite occurs when the airlines add larger aircraft, add frequency, or add a new route.

The Casper/Natrona County International Airport has experienced strong growth in enplaned revenue passengers from 2008 to 2013. This is due primarily to the strong marketing programs implemented by the Airport and the recruitment of new service to Las Vegas and an upgrade to all regional jet service to Salt Lake City and Denver.

5.7.4 COMMUNITY INPUT

While aviation conditions in the Casper Area were not specifically inquired about during the Community Listening Tour, connections to the airport were a common concern. There were many requests for a connection from Bar Nunn to the airport and also for a new bus route that services the airport.

Several people mentioned that it is worth the 4-hour drive to Denver to avoid the high fares at C/NCIA compared to Denver International Airport (DIA) fares. DIA is the closest major-hub airport to Casper. The recently completed C/NCIA Master Plan found that the Casper-Denver service, provided by United Express, is one of the highest fares in the country because this service is not subsidized. Regional air service at seven of eight airports closest to Casper is subsidized through state and federal air service enhancement programs. A leakage study performed as part of the Master Plan Update found that 42.3 percent of passengers in the Casper Area were using Denver International Airport, a considerable increase over the 31 percent of the passengers using DIA in 2010.

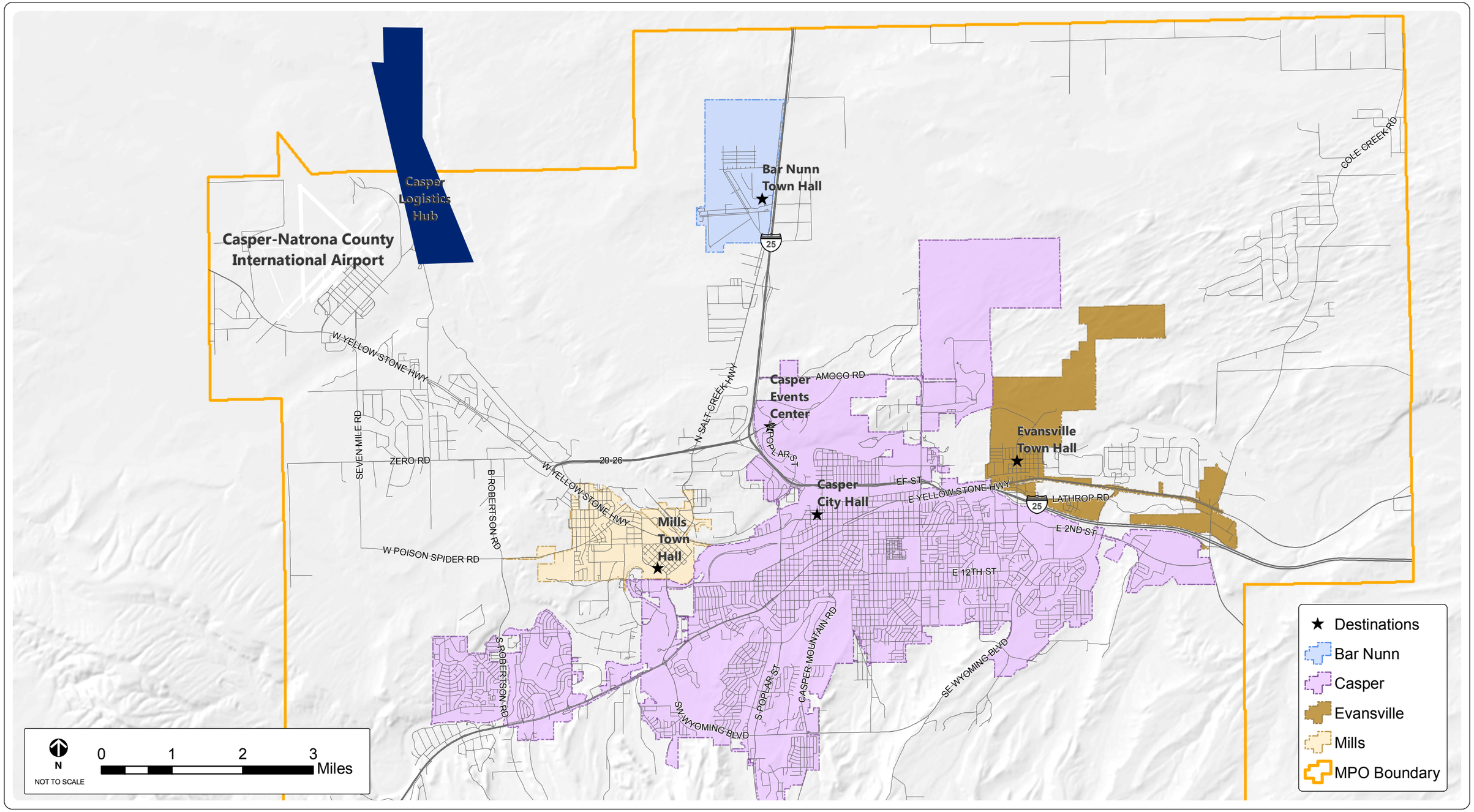
5.7.5 AVIATION NEEDS

Though the Casper/Natrona County International Airport Master Plan is still in draft form, a number of needs have been brought up in the Plan, and include:

1. The need to capture potential business for the Airport.
2. The need to recruitment air carriers to provide new and expanded air service.

Additionally, the following needs were identified by the Community during the Listening Tour:

3. The need for a connection from Bar Nunn to C/NCIA.
4. The need for The Bus service to C/NCIA.



FEHR PEERS

SOURCES: CASPER AREA MPO, GOOGLE

Casper/Natrona County International Airport: Distance to Key Destinations

FIGURE 5-28

6 Future Conditions

This chapter identifies year 2040 conditions including socioeconomic projections, growth scenarios, no build transportation conditions, and committed transportation improvements.

6.1 Socioeconomic Scenario Development

The purpose of this socioeconomic component of the LRTP is to forecast population, household, and employment growth to 2040 and to provide the MPO with TAZ (Traffic Analysis Zone) specific forecasts of these projections. These projections are grounded in analysis of socioeconomic and demographic growth patterns and trends, as well as an assessment of land use opportunities and constraints throughout the MPO's planning area.

Three socioeconomic scenarios were developed – high, medium and low-growth. These scenarios were used with the future year 2040 model to understand the impacts of each growth scenario to the transportation infrastructure in the Casper Area.

6.1.1 2040 Growth Scenarios

Growth scenarios were developed from the 2010 population of the Casper area. These scenarios were derived from an employment-based population model, which applies an array of socio-economic variables, such as commuting patterns, proprietors, unemployment rate, etc., to derive population and ultimately households and housing units. Details of the projections and calibration of the variables can be found in Appendix F.

Three growth scenarios, presented in the table below, were prepared for the LRTP. The low growth scenario assumes a 0.77% increase in population per year while the high growth assumes a 1.05% increase in population per year. These scenarios were presented to the MPO policy committee and City Council and it was decided that the high growth forecast was the most likely for Casper to realize by 2040. The high growth scenario was used for further analysis described in the subsequent sections.

Table 6-1 2040 Socioeconomic Projections

Scenario	Population	% Growth	% Increase per year
Existing (2010)	70,306	N/A	N/A
Low Growth	88,494	26%	0.77%
Medium Growth	92,398	31%	0.91%
High Growth	96,260	37%	1.05%

Source: Economic & Planning Systems, Inc., 2014

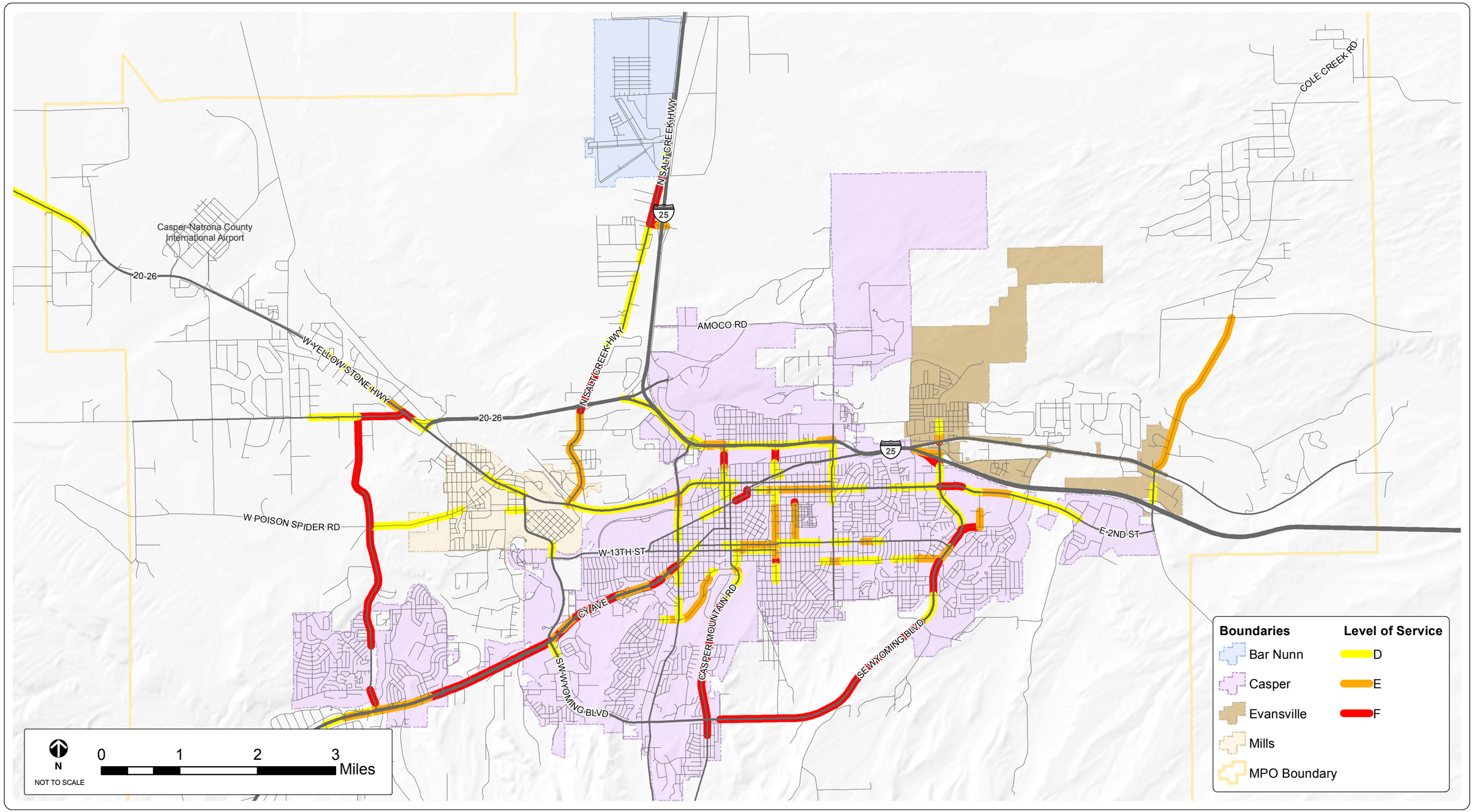
6.2 FUTURE ROADWAY CONDITIONS

The ability of the existing and committed roadway to accommodate traffic resulting from 2040 population and land use was evaluated to determine future roadway conditions. High growth and future land use was applied to two future scenarios: 1) no-build; and 2) existing + committed roadways.

The no-build analysis only includes existing roadways and assumes that no further roadway improvements would be made from now until 2040. The second analysis also includes existing roadways and assumes that projects for which funding has already been identified in the TIP and STIP are built. These projects are referred to as "committed" projects. Since funding is already dedicated for committed projects, the bulk of the analysis below focuses on future roadway conditions of existing + committed roadways.

6.2.1 2040 NO-BUILD TRANSPORTATION NETWORK

The 2040 no-build transportation network represents future year traffic conditions if no transportation improvements are made between the current year and 2040. This model scenario serves as a baseline from which alternative transportation improvement scenarios are compared. The map in Figure 6-1 illustrates the projected roadway level of service for the Casper Area under the 2040 no-build scenario. Basic planning-level capacity thresholds were used to determine roadway LOS.



FEHR PEERS

SOURCES: CASPER AREA MPO

2040 Level of Service: No-Build Network - High Growth Scenario

FIGURE 6-1

6.2.2 EXISTING + COMMITTED TRANSPORTATION NETWORK

The 2040 Existing + Committed (E+C) transportation network represents the future year traffic conditions that will result from building only the projects with dedicated funding. Since funding has already been identified for these projects, and many of them are already being constructed, this scenario is more realistic than the no-build scenario and provides a better baseline to compare alternative transportation scenarios.

Table 6-2 summarizes committed roadway improvements from the FY 2014 – 2017 Casper MPO Transportation Improvement Plan (TIP) and the FY 2014 – 2019 WYDOT State Transportation Improvement Plan (STIP) that will result in additional capacity to the system.

The most significant new capacity project is the continued construction of the West Belt Loop. Figure 6-2 illustrates roadway conditions under the 2040 E + C transportation network illustrating minor improvements to the 2040 no-build scenario.

The MPO policy committee and City Council decided that the high growth forecast was the most likely for Casper to realize by 2040. Therefore, the discussion below analyzes the ability of the existing and committed roadway to accommodate traffic resulting from the high growth scenario, a 37% increase in population, and future land use in Casper. The discussion is focused on roadways that will function at a LOS D or worse in 2040 based on the high growth scenario.

Wyoming Boulevard

Currently, the portion of Wyoming Blvd. east of Casper Mountain Road functions at a LOS D. By 2040, under the high growth scenario, much of this segment of the roadway will function at LOS F. Volumes on the roadway will more than double in some segments. For example, current traffic volumes on Wyoming Blvd. at Country Club Rd. average 12,000 vehicles per day (vpd). By 2040, under the high growth scenario, traffic is projected to be nearly 27,400 vpd due to the high density residential and mixed use commercial planned in this area. Also contributing to increases in traffic volumes on SE Wyoming Blvd. is the continued residential development in southeast Casper. Another segment of Wyoming with significant increases is the segment between I-25 and Blackmore Road. Traffic volumes currently average 21,200 vpd on this segment. By 2040, commercial development south of I-25 between Wyoming Blvd. and Blackmore Rd. is expected to be completed causing traffic volumes on this portion of Wyoming to increase to approximately 35,600 vpd.

West Belt Loop

The West Belt Loop road, currently under construction, will provide north-south connectivity between Highways 220 and 20-26. The West Belt Loop is expected to be open to traffic in 2016. Model results indicate that this facility could carry as high as 22,000 vpd under the high-growth scenario and will function at a LOS F between Robertson Rd. and Yellowstone Hwy 20-26.

TABLE 6-2 COMMITTED ROADWAY IMPROVEMENTS (2014 TO 2019 AND FUTURE YEAR PROJECTS)

ID	Project	From	To	Activity	Length (mi)	Total Cost ($1,000)
Fiscal Year 2014 (Construction/Reconstruction)						
26	Robertson Road	Casper City Limits	Poison Spider Road	Reconstruction	0	$4,851
33	CY/Poplar Interchange Reconstruction	Poplar St.	CY	Interchange reconstruction	0.22	$3,153
28	US 20/26 Shoshoni Bypass East Section	I-25	WYO 254 (Salt Creek Highway) & Salt Creek Highway Interchange	Reconstruction	1.65	$21,966
21	Collins Drive			Reconstruction		$4,100
20	Fairgrounds Road			Reconstruction		$1,500
22	Midwest Avenue Reconstruction			Reconstruction		$200
Fiscal Year 2015 (Construction/Reconstruction)						
29	West Belt Loop (Sect 2)			New Construction	7.3	$16,615
*	I-25 Casper marg north section	MP 188.89	MP 192.50	Grade/Overlay	7.22	$11,266
Fiscal Year 2016 (Construction/Reconstruction)						
31	US 20/26 Spur West	Shoshoni Connector West		Reconstruction	1.25	$7,258
*	CY Ave/Robertson - WYO Blvd.	MP 110.9	MP 113.25	Mill and Overlay		
Fiscal Year 2017 (Construction/Reconstruction)						
37	Wyo. Blvd/12th St. Intersection			Reconstruct intersection	0	$2,340
27	Wolf Creek Road				1	$5,700
*	Casper Poplar Structure/NPlatte Bridge			CSA/Reconstruction /Turn Lane		
*	Casper Poplar Structure/Collins - King			Mill/Overlay/Rehabilitation		
Fiscal Year 2018 (Construction/Reconstruction/Preliminary Engineering)						
36	CASP/POPLAR STR/N PLATTE BRDG			CSA/Reconstruction/Turn Lane	0.64	$231
*	CASP MARG SOUTH SECTION	MP 185.67	MP 188.89	CSA/DWL Bar/Guard Rail/Surface	3.22	$510
Fiscal Year 2019						

ID	Project	From	To	Activity	Length (mi)	Total Cost ($1,000)
	N/A					
Fiscal Year Future Year[1] (Construction/Reconstruction/Preliminary Engineering)						
*	Casper/Poplar Street North Platte Bridge			BRIDGE REHAB/SIDEWALK	0.64	$231
34	WYO 220			Widen/Overlay	7.1	$4,639
35	WY 253/HAT SIX RD			Widen/Overlay	10.1	$4,639
38	Salt Creek Hwy. & I-25 recon	Salt Creek Hwy	I-25	Rehab & ISO RECON	2.3	$6,556

SOURCE: WYDOT STIP FY 2014 to FY 2019; Casper Area MPO TIP FY 2014 to 2017

TOTAL 2014 to 2019 Capacity Projects **$67,914**

[1] Future year projects beyond 2019 identified in WYDOT STIP

TOTAL 2014 to 2019 Projects and Future Year Projects **$83,748**

* Non-capacity project, not included in total cost

The West Belt loop will serve as a bypass diverting trips away from other major roadways including CY Avenue and Poplar Street. This roadway will also support the ongoing development in the western portion of the Casper Area.

Casper Mountain Road

By 2040, it is anticipated that much of the undeveloped portion of south Casper will become medium density residential housing. Development in this area will add significant traffic volumes to the surrounding roadway network. The majority of Casper Mountain Road, currently functions at LOS C or above. However, by 2040, under the high growth scenario, some segments of this roadway will function at LOS F. Current traffic volumes on Casper Mountain Road average 7,000 vpd just north of Wyoming Blvd. By 2040, volumes are expected to reach over 13,000 vpd.

Poplar Street

Poplar Street, just north of Wyoming Blvd. currently carries approximately 7900 vpd and is projected to carry approximately 3300 vpd by 2040 under the high growth scenario. Traffic volumes are expected to decrease on Poplar St. because the model indicates that Casper Mountain Road will be a more highly used north-south route into the city.

While not represented in the model, WYDOT has plans to install a signal on Poplar at Midwest, the midway point between 1st Street and Collins Drive and reconstruct the intersection at CY Avenue, which has the greatest number of intersection crashes on the Street. These improvements should help traffic flow and improve traffic safety.

Robertson Road

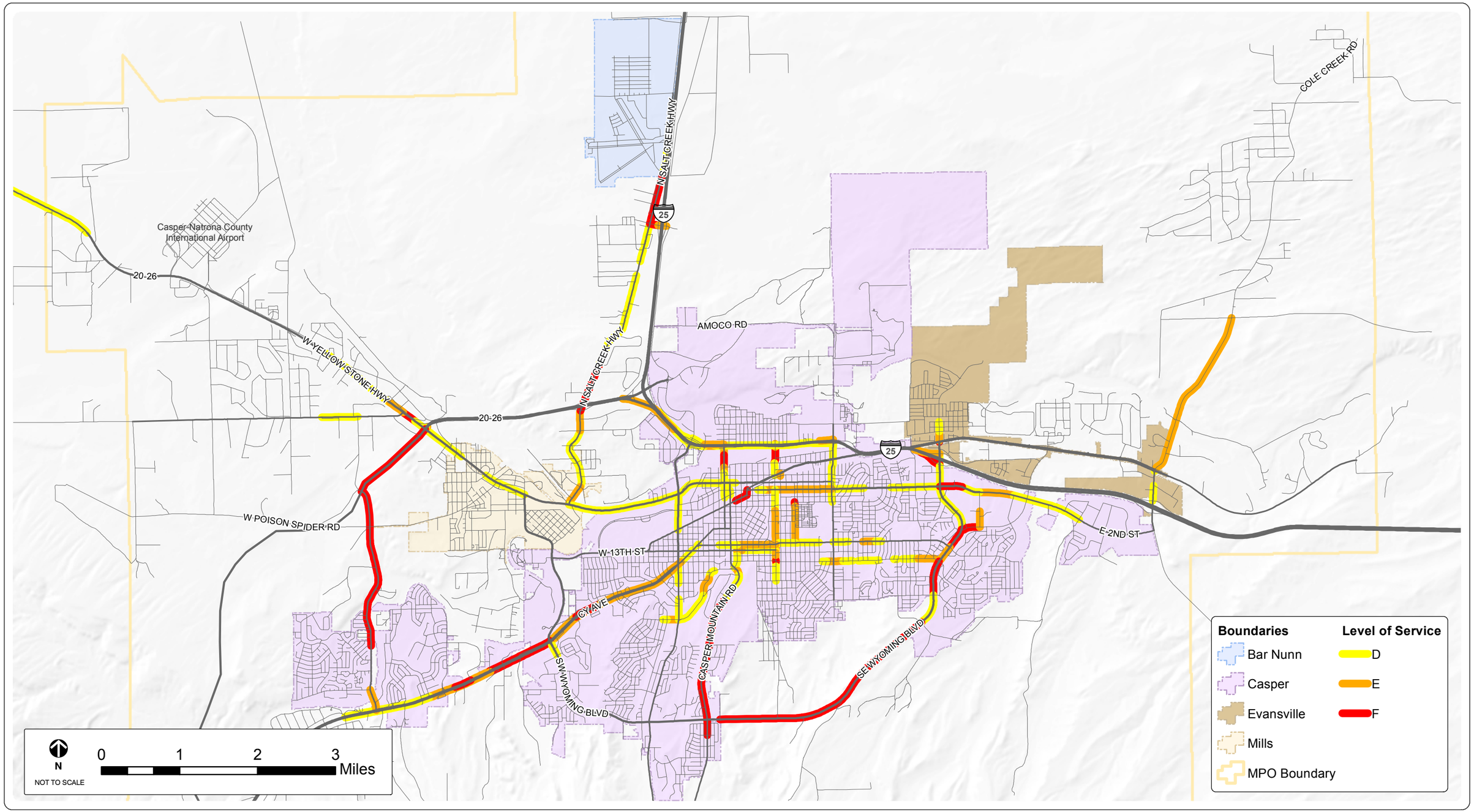
With the exception of the segment of Robertson Rd. just south of Poison Spider Road, which currently functions at LOS D, Robertson Rd. adequately services existing capacity. However, the completion of the West Belt Loop will dramatically alter travel patterns on this road. Current traffic volumes on Robertson Rd. just south of Poison Spider Rd. average 8,500 vehicles per day. By 2040 under a high growth scenario, this roadway will carry approximately 18,500 vehicles each day. Many of these vehicles will use Robertson Road to access the West Belt Loop.

Salt Creek Highway

The Salt Creek Highway currently adequately services capacity with the exception of the segment just north of 20-26. This segment carries 8,100 vehicles per day and functions at LOS E. In 2040, this segment will become more congested functioning at LOS F with 23,500 vehicles per day. Salt Creek Highway will provide access to the West Belt Loop via 20-26.

CY Avenue

Current daily traffic volumes on CY Avenue north east of Wyoming Blvd average 13,000 vpd. Under the high growth scenario daily volumes will increase to 15,900 vpd primarily due to infill residential development south of CY. Compared to other roadways in Casper, the traffic volumes on CY will not increase as much because some traffic will be diverted to the West Belt Loop.



FEHR PEERS

SOURCES: CASPER AREA MPO

2040 Level of Service: Existing + Committed - High Growth Scenario

FIGURE 6-2

6.2.3 FUTURE YEAR ROADWAY ISSUES

Year 2040 traffic projections were used to identify potential capacity concerns and other transportation deficiencies.

General findings include the following:

- Ongoing development in the western and southeastern portions of the Casper Area will require additional construction/improvement of collector and local roadways to support the overall development of the transportation system.
- Need development of the arterial roadway system in SE, N, & NW portions of Casper Area
- A new interchange off I-25 is being studied at Westwinds that will provide Bar Nunn with direct connectivity from I-25.
- Growth in Bar Nunn has raised the need for additional connections to/from the community. Polaris Drive will provide north-south connectivity on the west side of the community and an additional access into and out of Bar Nunn.

Roadway segments that will have a LOS E or F under the 2040 existing + committed, high growth scenario are presented in Table 6-3, below.

TABLE 6-3 CONGESTED ROADWAY SEGMENTS

Project	From (S, W)	To (N, E)	Weighted LOS
SE Wyoming Blvd.	Casper Mountain Rd. Intersection Approach	E 15th St.	F
SE Wyoming Blvd.	E. 15th St.	Blackmore Rd.	F
Landmark Dr.	Blackmore Rd.	CAEDA Dr.	E
Blackmore Rd.	SE Wyoming Blvd.	Landmark Dr.	F
E 2nd St.	S Kimball St.	S Beverly St.	E
S McKinley St.	E 15th St.	E 2nd St.	E
S Conwell St.	E 12th St.	E 2nd St.	E
N Center St.	E BC St.	W D St.	F
Casper Mountain Rd.	Goodstein Dr.	T-Bird Dr.	F
W 25th St./College Dr.	Hanway Ave.	S Ash St.	E
S Ash St.	W 9th St. / CY Ave.	W Collins Dr.	E
CY Ave.	Divided CY Ave. near S. Poplar St.	W 13th St.	E
CY Ave.	S Robertson Rd.	Divided CY Ave. near S. Poplar St.	E
N Salt Creek Hwy.	Hwy 20-26 off-ramp	Polaris Dr.	F
West Belt Loop	N Robertson Rd.	W Yellowstone Hwy	F
Robertson Rd.	CY Ave.	West Belt Loop	F
N Salt Creek Hwy.	Howard St.	Antelope Dr.	E
Cole Creek Rd.	Old Glenrock Hwy / E.Yellowstone Hwy	E. Geary Dome Rd	E
Howard St.	Salt Creek Hwy.	I-25 On Ramp	F
E Collins Dr.	Durbin St.	E 2nd St.	F
I-25 WB/EB On/Off Ramp	Exit 185	Wyoming Blvd.	F

6.3 FUTURE YEAR FREIGHT CONDITIONS

Both truck and rail freight movement in the Casper Area is expected to increase over the next twenty-five years. It will be important that the Casper Area maintain a regional and local transportation system that improves freight movements. One area of focus will be on improving connections to CLH by upgrading current facilities to access the CLH and constructing new roadways, such as a western connection to the Hub. Planned improvements include a traffic signal and intersection improvements at 6 Mile and US20/26. Additionally, as the northern portion of Casper and Evansville build out, it will be important to consider grade separation and quality of life improvements, such as quiet zones.

6.4 FUTURE YEAR ACTIVE TRANSPORTATION CONDITIONS

The projected growth within the Casper Area places greater emphasis on developing a non-motorized system that serves existing and future Casper Area residents. Though the Platte River Parkway and the Casper Rail Trail will continue to be the primary non-motorized facilities in the Casper Area, it is important that the Casper Area continues to plan, construct and maintain additional non-motorized facilities over the next twenty-five years. The CATPBP identified numerous improvements to the bicycle and pedestrian network in the Casper Area. Committed active transportation project improvements are discussed below.

6.4.1 COMMITTED PROJECTS

Several projects have been selected for funding in the TIP and STIP. Many of these improvements are enhancements to or connections to the Platte River Parkway and Casper Rail Trail.

PLATTE RIVER PARKWAY

Plans are in the works for several enhancements and connections to the Platte River Parkway. The Morad Park Pathway is one of these enhancements and will be constructed in 2014 using TEAL funds. The Morad Park Pathway will connect to the Platte River Parkway trail head at Morad Park and serve as a bypass that will divert some pedestrian and bike traffic from the riverfront trail. The Morad Park Pathway will travel along the base of the ridge in Morad Park, creating a loop trail through the Park that will increase safety and community walkability, decrease user density and set the stage for an eventual trail connection across Hwy. 220 to the Mt. View/Wal-Mart shopping areas and the Wolf Creek residential subdivision.

Also underway is the Ft. Caspar Underpass. The Parkway Trust received a grant award from the Wyoming Department of Transportation's Transportation Alternatives Program (TAP) to build an underpass at Wyoming Blvd. and 13th Street, adjacent to Ft. Caspar. The Underpass will relieve the current at-grade intersection.

CASPER RAIL TRAIL

The long term goal of the Platte River Parkway Trust and the City of Casper is to develop the trail all the way to Edness Kimball Wilkins state park. The section from Center Street to Curtis Street will consist of a 10-foot concrete path with an adjacent running trail and amenities and the trail from Curtis Street to Edness Kimball Wilkins will be a groomed gravel path that will fit into the natural landscape.

The Platte River Parkway Trust, in cooperation with the City of Casper, is currently working on design and construction documents for further trail extension from Eastdale Park to Walsh Drive.

LOCAL / REGIONAL FACILITIES

The 2014 to 2017 TIP contains funding to improve trails and pathways and other pedestrian projects, including:

- Robertson Rd. Pathway
- Fort Casper Area Pathway
- Pathway on Evans from 5th to 20/26
- Sidewalk improvements on Western to 20/26

6.4.2 FUTURE YEAR ACTIVE TRANSPORTATION ISSUES

The need to improve walking and biking infrastructure for safety and comfort will become even more important as the Casper Area grows. While the region currently has many well established trails, it is important over the next twenty-five years that the Casper Area continues to plan, construct, and maintain active transportation facilities.

6.5 FUTURE YEAR TRANSIT CONDITIONS

6.5.1 COMMITTED IMPROVEMENTS

CATC funding listed in both the STIP and TIP is dedicated primarily to operating costs, with the remaining funds programmed for capital, such as replacing vehicles and installing new bus shelters.

6.5.2 FUTURE TRANSIT ISSUES

Many of the future transit issues identified in the 2007 Plan and 2010 Transit Development and Coordination Plan Update still apply. The demand for service expansion continues to grow with development, but funding levels remain relatively constant. Destinations such as Bar Nunn and the Casper Natrona County International Airport have been identified as a transit needs, but funding has not been identified to secure these improvements.

The Casper Transit Development Plan proposed modifications to both The Bus and CATC services to increase funding alternatives. These include adopting ADA compliance for the CATC in order to restrict the demand

response service to individuals that are unable to use the fixed-route service due to a physical disability. It is estimated that 40% of CATC riders do not have a disability that prevents them from using The Bus, but prefer the convenience of the demand response service. Eliminating ineligible riders from CATC would reduce operating costs and ensure physically disabled persons receive better service. Another suggestion intended to improve efficiency is to eliminate route deviation.

6.6 Future Year Aviation Conditions

In the coming years, in order for the Casper/Natrona County International Airport to remain competitive, it will be important for Airport officials to continue to be involved in air service development and recruitment to provide new and expanded air service. It is estimated that service frequency and expanded services will be provided. At this time it is anticipated that either American Airlines or United Airlines will add one flight per day with 64 seat aircraft between Casper and Chicago/O'Hare. Service to Minneapolis/St. Paul by Delta Air Lines could be an alternative possibility.

7 Vision Plan

The MPO Vision Plan is a needs-based plan to address existing and projected future traffic congestion. This plan was developed by considering the 2040 Transportation plan goals and objectives, needs identified through existing conditions analysis and input from the MPO Technical Committee, MPO Board, and Casper Area residents. Projects included in the vision plan address existing and future congestion identified during the Existing + Committed 2040 High Growth Scenario. Additionally, some projects were identified in response to meeting a need or goal such as improved safety or efficiency of the transportation system.

7.1 Vision Plan Development

A vision plan does not begin and end with the current transportation plan, but rather it is a product of the "three-C" (comprehensive, continuous and coordinated) planning process. As a result, many of the projects that were identified in the 2040 Vision Plan are projects that have been under consideration for years. Other projects were recommendations to relieve projected congestion identified through the Existing + Committed scenario analysis. The purpose of developing a vision plan is to determine the extent to which the projects identified contribute to reducing congestion and meeting the goals and objectives of the 2040 Transportation Plan.

7.1.1 VISION PLAN PROJECTS

A detailed listing of potential transportation improvements was developed during the Vision Planning process. More than 40 projects were identified, including improvements to existing roads, new roadway construction, and non-highway investments.

These projects are listed in Table 7-1 and depicted in the map in Figure 7-1. The LOS map in Figure 7-2, illustrates the 2040 congestion levels on the roadway network that would result if all vision projects are constructed.

TABLE 7-1 VISION PLAN PROJECTS

ID	Project	From	To	Length (miles)	Activity	Total Cost*
1	East Belt Loop	Wyoming Boulevard	Hat Six Road	5.50	New major arterial	$22,100
3	McKinley Street Realignment	McKinley Street	new Beverly St. Connection	0.20	Realign intersection	$700
4	Westwinds	US 20/26 near NCI Airport	Bryan Stock Trail Extension	8.50	New minor arterial	$22,400
5	Queen Street	Shoshoni Connector	McMurry Street	4.20	New minor arterial	$11,200
6	East-West Arterial	Morgan Street	I-25 Interchange**	8.00	New major collector	$20,900
7	Cy Avenue / Wyoming Boulevard	CY Avenue	Wyoming Boulevard	0.00	Intersection Improvements	$2,000
8	New I-25 Interchange	at Westwind Rd	N/A	0.00	New Interchange	$5,100
9	Bryan Stock Trail Extension	Platte River	Proposed McMurry Drive	4.00	New minor collector	$9,900
11	Amoco Road	Beverly Street	Cole Road	5.00	Extension of major collector	$13,900
14	12th Street Extension	12th Street	East Belt Loop	1.50	Extension of major collector	$4,300
15	21st Street Extension	21st Street	East Belt Loop	1.00	Extension of major collector	$3,000
16	2nd Street / 21st Street Connector	East of Blackmore Road	2nd Street to 21st Street connector	1.00	New minor collector	$2,700
17	CY Avenue / Wyoming Blvd. Connector	CY Avenue near Paradise Dr.	Wyoming Blvd. near Arroyo Drive	2.50	New major collector	$6,700

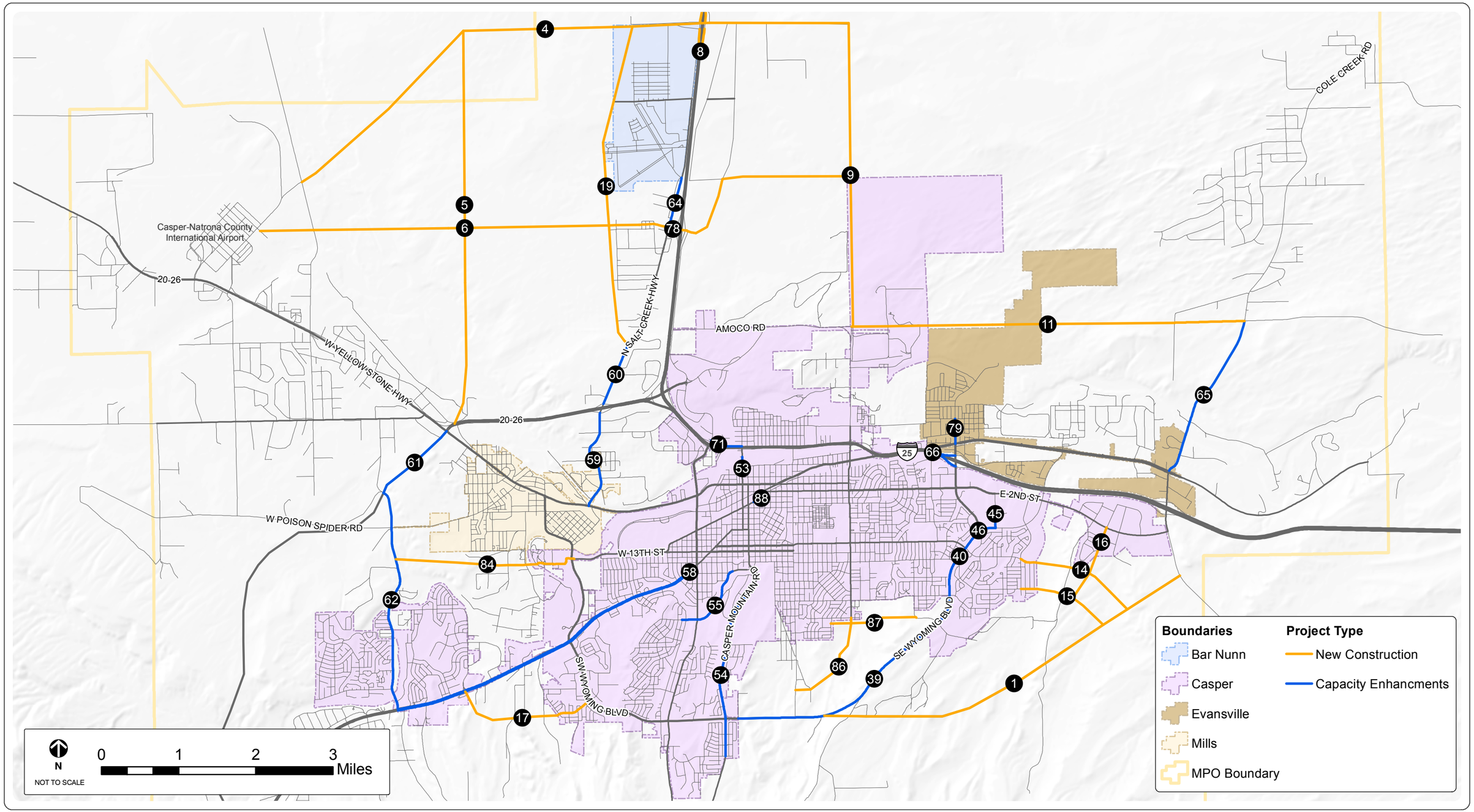
ID	Project	From	To	Length (miles)	Activity	Total Cost*
19	Polaris Drive	Westwind Rd	Salt Creek Highway	4.13	New minor arterial	$20,500
39	SE WYOMING BLVD	Casper Mountain Rd. Intersection Approach	E 15th St.	3.90	Expand principal arterial from 2 to 4-lanes	$7,600
40	SE WYOMING BLVD	E. 15th St.	Blackmore Rd	0.50	Expand principal arterial from 4 to 5 (+1 NB)-lanes	$1,300
45	LANDMARK DR	Blackmore Rd.	Caseda Dr	0.20	Expand collector from 2 to 4-lanes	$500
46	BLACKMORE RD	SE Wyoming Blvd.	Landmark Dr.	0.24	Upgrade collector to minor arterial; add center lane and remove parking	$1,100
53	N CENTER ST RR Underpass Expansion	E BC Street	W D Street	0.16	Expand minor arterial from 2 to 4-lanes	$9,000
54	CASPER MOUNTAIN RD	Goodstein Dr.	T-Bird Dr.	2.14	Expand minor arterial from 2 to 4-lanes	$4,200
55	W 25TH ST/College Dr.	Hanway Ave.	S Ash St.	1.03	Upgrade collector to minor arterial; expand from 2 to 4-lanes	$1,900
58	CY AVE	S Robertson Rd.	Divided CY Ave. near S. Poplar	8.63	Expand principal arterial from 4 to 6-	$16,700

ID	Project	From	To	Length (miles)	Activity	Total Cost*
			St.		lanes	
59	N SALT CREEK HWY	W Yellowstone Hwy.	Hwy 20-26 off-ramp	1.33	Expand minor arterial from 2 to 3 (+1 NB)- lanes	$2,600
60	N SALT CREEK HWY	Hwy 20-26 off-ramp	Polaris Dr.	0.96	Expand minor arterial from 2 to 3 (+1SB)-lanes	$1,200
61	West Belt Loop	N Robertson Rd.	W Yellowstone Hwy	1.15	Expand principal arterial from 2 to 4-lanes	$2,100
62	ROBERTSON RD	CY Ave.	West Belt Loop	2.89	Upgrade collector to minor arterial; expand from 2 to 4-lanes	$4,900
64	N SALT CREEK HWY	Howard St.	Antelope Dr.	0.67	Expand minor arterial from 2 to 4-lanes	$1,400
65	COLE CREEK RD	Old Glenrock Hwy / E.Yellowstone Hwy	E. Geary Dome Rd	2.21	Upgrade collector to minor arterial; add left and right turn bays, widen shoulders	$1,900
66	I-25 EB Off Ramp at Exit 185	I-25	Wyoming Blvd	0.62	Expand EB and WB Off/On ramps (2 total) from 1 to 2-lanes	$1,300

ID	Project	From	To	Length (miles)	Activity	Total Cost*
71	W F ST	N Poplar St.	N Center St.	0.42	Expand 2-lane collector; add an additional west-bound lane	$2,900
78	Howard St	Salt Creek Hwy	I-25 On Ramp	0.11	Expand EB lane from 1 to 2 lanes	$400
79	Curtis St.	E. Yellowstone Hwy.	3rd St.	0.33	Expand minor arterial from 2 to 4-lanes	$900
83	RR Underpass	Curtis St.	N/A	N/A	New Construction	$7,500
86	S. Beverly St.	S McKinley St.	24th St.	1.35	Extension of minor arterial	$2,800
87	26th St.	Sagewood Ave	Casper Country Club Rd	1.13	Extension of collector	$1,900
88	E Collins / S Kimball / E Yellowstone Hwy connection	Durbin St	E 2nd St	0.22	Expand minor arterial from 2 & turn lane to 4-lanes	$700
					Total	**$220,200**

*Includes design, construction, and 30% contingency

**Previous extents included segment between I-25 and the potential Bryan Stock Trail Extension

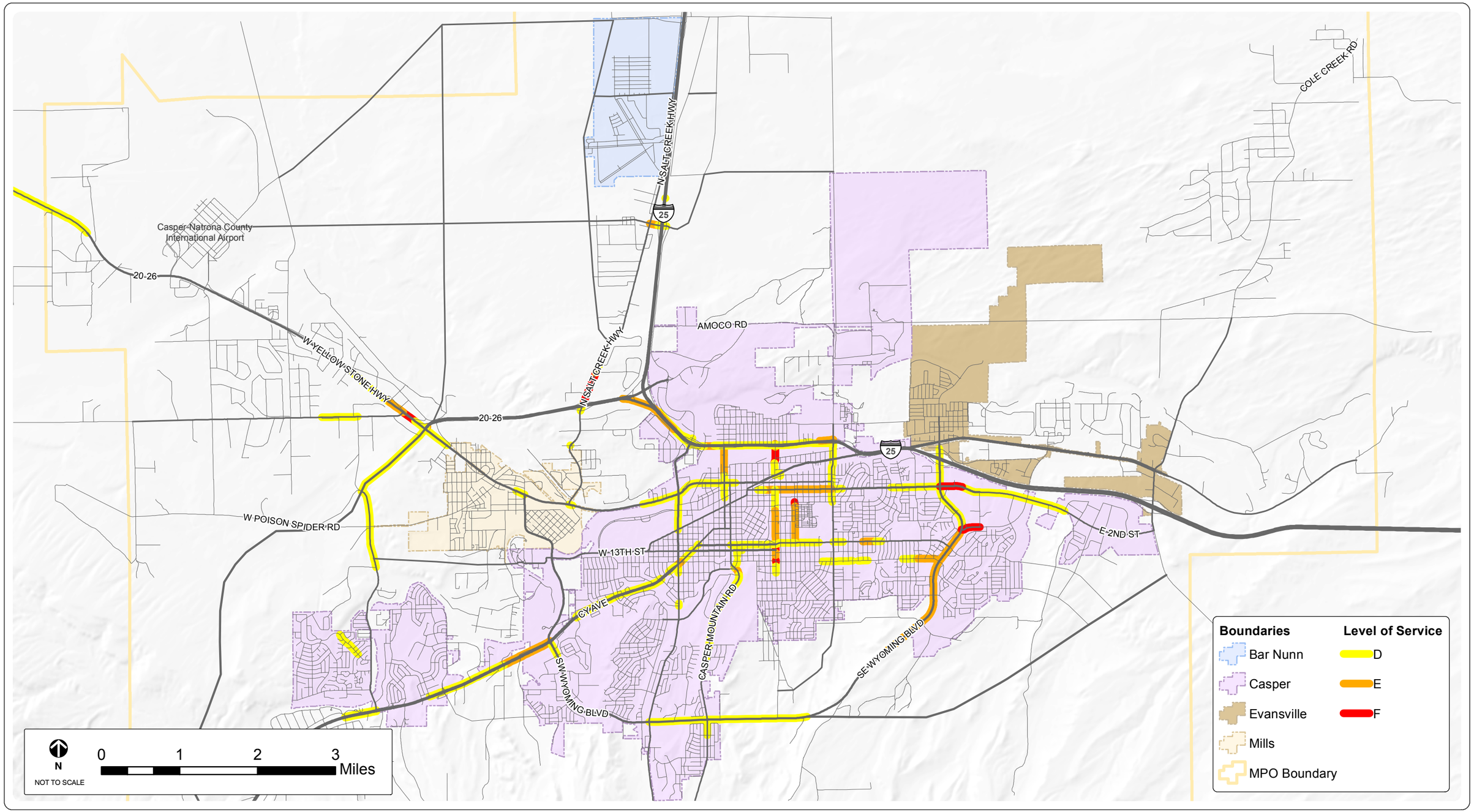


FEHR PEERS

SOURCES: CASPER AREA MPO

Roadway Vision Plan Projects

FIGURE 7-1



FEHR PEERS

SOURCES: CASPER AREA MPO

2040 Level of Service: Vision Network - High Growth Scenario

FIGURE 7-2

7.2 Screening Criteria

In order to prioritize the projects identified in the Vision Plan, screening criteria were developed based on the goals identified for this Plan in Section 5.1. The screening criteria includes at least one measure of each of the five Plan goals. Table 7-2 lists the project goal and the measure used to screen for each goal.

Prioritizing projects will inform the recommendations of this Plan and can help decision-makers prioritize diminishing funds. Additionally, the prioritized list was used to develop the fiscally constrained roadway plan in the next section.

The screening criteria measures were developed with the intent of uniformly ranking both new projects and capacity enhancements to existing roadways. While other measures can be used to quantify the efficiency of the transportation system, such as congestion reduction measured by LOS, using this as a measure would unfairly prioritize capacity enhancements to existing roadways. Other measures that could be effective, such as measuring the efficiency of freight movement, were not used due to limitations of available data.

Table 7-2 Screening Criteria

Goal/Criteria	Measure
Goal 1: *Safe* & Efficient Transportation	A safety need was identified for a project through public input or currently experiences a significant number of accidents.
Goal 1: Safe & *Efficient* Transportation	Efficiency was measured by the number of new trips generated from a project.
Goal 2: Meet Demands Cost Effectively	Cost effectiveness was measured by dividing the composite score by the planning level cost estimate.
Goal 3: Promotes Alternative Travel Modes	Project was evaluated for consistency with recommendations for bicycle and pedestrian improvements in the CATPBP.
Goal 4: Coordinates Land Use and Transportation	Population and employment within ¼ mile of project.
Goal 5: Invests in Transportation Promoting Economic Growth	Employment within ¼ mile of project.

7.3 Vision Plan Evaluation

Vision Plan Projects in Table 7-1 were prioritized using the screening criteria outlined in Table 7-2 above. Appendix F contains a more detailed methodology of the ranking system and individual and composite scores for each project.

Some projects scored high on efficiency, but did not promote safety or alternative modes. Using a multipronged screening system took into account all project goals. Generally, the projects that ranked the highest addressed a safety need, were able to facilitate a large throughput of vehicles and were located in densely populated residential areas or along employment centers. The high scoring projects from this evaluation are presented in the next section.

8 Recommended Transportation Plan

The Recommended Transportation Plan prioritizes the projects identified through the visioning process based on goal-based screening criteria. The recommended projects are also fiscally constrained – meaning that the expected costs for the projects do not exceed the expected revenues for transportation investments. Anticipated costs and funding sources for each mode were inventoried to determine the amount of funding available for modal improvements. Expected revenue for roadway and transit was projected, based on historical averages, to 2040. For other modes, such as bicycle and pedestrian travel, a consistent level of dedicated funding is not available. Funding for bicycle and pedestrian projects is provided through discretionary grants such as TAP. Therefore, active transportation projects (from the Casper Area Trails, Path and Bikeway Plan) were prioritized but not fiscally constrained. Unless additional funding sources are identified, not all of the projects identified in the vision plan can be built and it is necessary to identify projects from the 2040 Vision Plan that would best serve the community.

The following recommendations have been developed for the Casper Area Long Range Transportation Plan. Individual recommendations for each major mode: roadway, transit, and active transportation are discussed and a financial analysis of the potential transportation improvements is provided.

8.1 Roadway Recommendations

The recommended roadway plan includes committed projects identified in the Casper MPO FY 2014 to FY 2017 TIP and the WYDOT FY 2014 – 2017 STIP. Additional projects, or future projects beyond 2017, have also been identified to address future year transportation needs throughout the Casper Area. The following summarizes projected revenues and estimated project costs to the year 2040 and outlines the fiscally constrained roadway improvements.

8.1.1 Roadway Funding Projections

The long range transportation plan must include a financial plan that estimates how much funding will be needed to implement recommended improvements, as well as operate and maintain the system as a whole, over the life of the Plan. The financial plan must demonstrate that there is a balance between the expected revenues for transportation investments and the estimated costs of the projects and programs described in the Plan – a concept referred to as fiscal constraint. Additionally, the financial analysis should be thorough and comprehensible, including all categories of systems costs, reasonably expected available revenues, forecasting methods, and supporting assumptions. To satisfy this federal requirement, the Casper Area MPO produces a Fiscally Constrained Transportation Plan that accounts for all available funding sources and anticipated costs.

Anticipated Funding Sources

Funding for the transportation maintenance and improvement projects in the Casper Area comes from a variety of Federal, State, local and private sources. The Federal government is the primary funding source for transportation systems in the United States. These funds come from federally assessed user fees and motor fuel taxes which are

apportioned back to the states on a formula basis. The primary source of revenue at the Federal and State levels includes motor fuel taxes, vehicle registration fees, and special motor carrier fees. Finance at the county and municipal levels are primarily based on property taxes, sales taxes, and special assessments. The private sector, including developers, often supports transportation improvements through impact fees, right-of-way donations, and cost sharing arrangements.

Table 8-1 displays roadway revenues for 2014 – 2019 and estimated roadway revenues for the years 2020 through 2040 for the Casper MPA. The future year revenues are based on recent funding levels and WYDOT projections. The fuel revenue projections for the City of Casper, Towns of Mills, Evansville, and Bar Nunn, and Natrona County were provided by WYDOT for FY 2014 through FY 2017 and projected for the years following. Additional details about funding sources and forecasting methods are detailed below. All funding discussions are presented in 2014 dollars.

STP-U FUNDING

The Casper MPO is responsible for distributing federal highway and transit funds under the Surface Transportation Program (STP) so that projects align with regional priorities. The Surface Transportation Program – Urban Systems (STP-U) is a federally-funded road construction program to assist Wyoming urban cities with road and street needs. An urban municipality is defined as one with a census population greater than 5,000. The annual apportionment of STP-U funding is distributed to the participating urban cities on a population formula for each of the state's seventeen urban communities. STP-U funds may be used for projects within the urban limits of the community on roadways functionally classified as collectors or higher. A 10-year average of $930,000/year was used to forecast $19,530,000 in STP-U funds through 2040.

STIP FUNDING

The State Transportation Improvement Plan, or STIP, is not a funding source, per se, but an allocation of state-levied transportation taxes and funds apportioned to WYDOT by the Federal Highway Administration along with state revenues from state-levied transportation taxes. WYDOT STIP funds will be a combination of National Highway Performance Program, Surface Transportation Program, Highway Safety Improvement Program, Transportation Alternatives, and State Construction. The majority of the funding (about 67%) will be NHPP, which can only be used on the National Highway System – Interstate and principal arterials

The STIP consists of a comprehensive list of planned capital improvement projects in Wyoming and identifies anticipated funding sources and project schedules. The Wyoming STIP is a six-year program that is fiscally constrained based on projected federal and state funding.

Approximately $102 million in the 2014 – 2017 STIP is programmed to roadway capital improvement projects within the Casper MPO[8], an average of approximately $17 million a year. This average was used to estimate total STIP funds at $357 million through 2040.

ONE CENT FUNDING

The One Cent Optional Tax is a "General Purpose" optional sales tax that can be used for any local government function, including large infrastructure projects, "special" projects, or general operating expenses under Wyoming State Statute W.S. 39-15-203 and W.S. 39-15-204. The Optional One Cent must be re-approved by the voters every four years. The current authorization of the Optional One Cent was approved by the voters in 2010 and will be collected from 2011 through 2015. One Cent funds are collected and distributed to each of the local governments in Natrona County based on their respective populations and spent based on surveys to determine priorities. While no portion of this tax has been dedicated to street projects, some portion of this funding is *usually* spent on roadway projects. In particular, Casper and Natrona County both have capital improvement programs from which One Cent tax funds were projected based on average FY12-14 spending on transportation projects (in Casper and Natrona County) was used to project funds through 2040. The 2007 Plan assumed 10% of the 1 Cent tax is used for capital improvements. In 2014, that percentage was much higher: 53%. To project One Cent Funds available for capacity improvements, 50% of average annual spending on transportation projects was assumed amounting to approximately $68 million for the City of Casper and $14 million for Natrona County.

FUEL REVENUE

The state of Wyoming increased its tax on motor and diesel fuel by 10-cents from 14 to 24-cents a gallon, in July 2013. WYDOT estimates that the increase will generate $72.4 million a year for the state. About $42 million of that amount will go to highway projects, and the rest will be distributed to counties and municipalities within the state[9]. WDOT estimates that the Casper-area will receive approximately $3.3 million in 2014, increasing exponentially with population. Total anticipated revenue from the gasoline tax is expected to amount to $82 million for the Casper area by 2040. This amount was calculated based on current fuel consumption and does not take into account vehicle fleets becoming increasingly fuel efficient.

NATURAL GAS AND COAL REVENUE

Wyoming imposes severance tax on crude oil and minerals. These funds are distributed based on W.S. 39-14-801 and include 4.33% to the highway fund, and 2.9% to road construction and maintenance provided by W.S. 24-2-

[8] 2013-2017 TIP funds exclude aviation, transit and STP-U.

[9] Gasoline license tax revenues are distributed by the State Treasurer under WSS § 39-17-111(d)(ii) to the Highway Fund for distribution to the various counties and placed in the County's Road Construction and Maintenance Fund. The distribution of gasoline tax is as follows: WYDOT, 57.5%; Counties, 27.5%; and Municipalities, 15%. Diesel tax revenues are distributed under WSS § 39-17-211 and are as follows: WYDOT, 75%; Counties, 20%; and Municipalities, 5%.
http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title39/T39CH14.htm

110. In 2014, WYDOT estimated that Natrona Country would receive approximately $880,000 of the mineral severance tax. Costs were projected from the 2019 estimate and amount to a total of $19.3 through 2040.

Projected Funding

While it is likely that these funding levels will continue to increase beyond 2017, for the purpose of the LRTP financial analysis all projected funding levels beyond the year 2017 are kept at current levels. Keeping these funding levels constant through the year 2040 allows the projected revenues to be compared to the roadway improvements costs that are presented in year 2014 dollars.

With these assumptions, it is estimated that approximately $642 million would be available for the Casper MPA for roadway maintenance and improvements from the years 2020 to 2040. Of this total, nearly 80% will be dedicated to the maintenance of the existing transportation infrastructure including pavement resurfacing (maintenance and rehabilitation), bridge repair, safety improvements, emergency repairs, nonmotorized, intersection signalization, traffic control devices, railroad crossing improvements and other improvements that do not add additional travel lanes.

Table 8-1 displays the estimated percentage of each funding source that would be available for new construction with the remaining percentage generally assumed to be used for the on-going maintenance and preservation of the existing roadway system. In total, it is estimated that approximately $157 million would be available between 2020 and 2040 for new roadway construction.

Roadway Improvement Costs

Specific roadway improvements, along with estimated project costs, are included in the TIP (FY 20014 to FY 2017) and STIP (FY 2014 to FY 2019) for the Casper Area. The STIP also identifies future year roadway projects that are needed beyond 2019. These projects do not have funding sources identified and are generally included in the STIP because they address a transportation need and so local agencies can pursue funding for a specific project.

Including future year projects in the STIP also positions the MPO and local communities to be ready to proceed with a project should additional revenue sources become available. Additional projects, or planned projects, beyond those included in the TIP and STIP have been identified for the Casper Area. These projects generally accommodate future year development and/or address transportation deficiencies identified in the LRTP. General planning cost estimates for these additional projects were presented in Table 7-1 and amount to over $220 million.

8.1.2 FISCALLY CONTRAINED ROADWAY PROJECTS

The roadway projects identified in the vision plan would cost about $220 million in 2014 dollars to construct, and only $157 million in capacity funds has been identified. Without additional funding sources, the vision plan cannot be completed.

As presented in the maps in Figure 6-2 2040 Level of Service: Existing + Committed – High Growth Scenario the roadway network in the Casper Area will have experience significant congestion without further improvements. However, unless additional funding sources are identified, not all of the projects identified in the vision plan can be built and it is necessary to identify projects from the 2040 Vision Plan that would best serve the community. These projects are presented in Table 8-2.

TABLE 8-1 PROJECTED REVENUES 2015 TO 2040

			One Cent Funds		Fuel Revenue						
Year	STPU	STIP	Casper	Natrona County	Casper	Mills	Evansville	Bar Nunn	Natrona County	Natrona County Gas/Coal	Total
2014	$954,860	$28,190,000	$6,527,899	$1,500,000	$1,691,211	$150,966	$103,026	$37,317	$1,346,018	$830,771	$41,332,068
2015	$931,554	$35,953,000	$6,627,899	$1,350,000	$1,852,641	$164,946	$112,619	$41,169	$1,485,893	$876,530	$49,396,251
2016	$931,554	$8,048,000	$6,470,000	$1,350,000	$1,912,219	$170,381	$116,314	$42,405	$1,530,221	$896,672	$21,467,766
2017	$931,554	$7,938,000	$6,470,000	$1,350,000	$1,932,782	$171,807	$117,338	$43,134	$1,557,416	$898,317	$21,410,348
2018	$931,554	$6,752,000	$6,470,000	$1,350,000	$1,952,110	$173,525	$118,511	$43,565	$1,572,990	$907,300	$20,271,556
2019	$931,554	$15,341,000	$6,470,000	$1,350,000	$1,971,631	$175,260	$119,696	$44,001	$1,588,720	$916,373	$28,908,236
2020	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2021	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2022	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2023	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2024	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2025	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2026	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2027	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2028	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2029	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2030	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2031	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2032	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000

			One Cent Funds		Fuel Revenue						
Year	**STPU**	**STIP**	**Casper**	**Natrona County**	**Casper**	**Mills**	**Evansville**	**Bar Nunn**	**Natrona County**	**Natrona County Gas/Coal**	**Total**
2033	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2034	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2035	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2036	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2037	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2038	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2039	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
2040	$930,000	$17,000,000	$6,470,000	$1,350,000	$1,970,000	$180,000	$120,000	$44,000	$1,590,000	$920,000	$30,574,000
Total (2020 to 2040)	$19,530,000	$357,000,000	$135,870,000	$28,350,000	$41,370,000	$3,780,000	$2,520,000	$924,000	$33,390,000	$19,320,000	$642,054,000
% of Funding Source Available for Capital Construction											
	100%	10%	50%	50%	20%	20%	20%	20%	20%	20%	Total
	$19,530,000	$35,700,000	$67,935,000	$14,175,000	$8,274,000	$756,000	$504,000	$184,800	$6,678,000	$3,864,000	$157,600,000

Notes and Assumptions

1. STIP Funding for Natrona County from the 2014-2019 STIP less STPU funds. For this analysis, total funding for roadway improvements from the 2014-2019 STIP was calculated at $102,222,000. STIP funding during this time averaged approximately $17 million per year which was used to project funding levels between 2020 and 2040.
2. 2014 STPU funding provided by Joe Mikesell, WYDOT 3/6/2014.
3. STPU funds 2018 – 2040 based on 10-year average provided by Joe Mikesell, WYDOT 3/6/2014.
4. Fuel revenue projections for the City of Casper, Towns of Mills, Evansville, and Bar Nunn, and Natrona County from 2014 to 2017 were provided by WYDOT and projected to 2040.
5. Gas/Coal Severance Tax projections were provided by WYDOT for FY 2014 to FY 2017 and projected to 2040 for Natrona County.
6. The One Cent Optional Tax was projected based on 50% of 2012 – 2014 average spending on transportation projects for Natrona County and the City of Casper.

TABLE 8-2 PRIORITY ROADWAY IMPROVEMENTS IN FISCALLY CONSTRAINED PLAN

ID	Project	From	To	Length (miles)	Activity	Composite Score	Total Cost*	To Include in Fiscally Constrained Plan
19	Polaris Drive	Westwind Rd	Salt Creek Highway	4.13	New minor arterial	16.23	$20,500	$20,500
8	New I-25 Interchange	at Westwind Rd	N/A	0.00	New Interchange	13.82	$5,100	$5,100
7	Cy Avenue / Wyoming Boulevard	CY Avenue	Wyoming Boulevard	0.00	Intersection Improvements	9.75	$2,000	$2,000
83	RR Underpass	Curtis St.	N/A	N/A	New Construction	9.31	$7,500	$7,500
1	East Belt Loop	Wyoming Boulevard	Hat Six Road	5.50	New major arterial	9.16	$22,100	$22,100
53	N CENTER ST RR Underpass Expansion	E BC Street	W D Street	0.16	Expand minor arterial from 2 to 4-lanes	8.52	$9,000	$9,000
39	SE WYOMING BLVD	Casper Mountain Rd. Intersection Approach	E 15th St.	3.90	Expand principal arterial from 2 to 4-lanes	8.11	$7,600	$7,600
58	CY AVE	S Robertson Rd.	Divided CY Ave. near S. Poplar St.	8.63	Expand principal arterial from 4 to 6-lanes	7.52	$16,700	$16,700
66	I-25 EB Off Ramp at Exit 185	I-25	Wyoming Blvd	0.62	Expand EB and WB Off/On ramps (2 total) from 1 to 2-lanes	7.11	$1,300	$1,300
88	E Collins / S Kimball / E Yellowstone Hwy connection	Durbin St	E 2nd St	0.22	Expand minor arterial from 2 & turn lane to 4-lanes	5.96	$700	$700
17	CY Avenue / Wyoming	CY Avenue near	Wyoming	2.50	New major collector	5.18	$6,700	$6,700

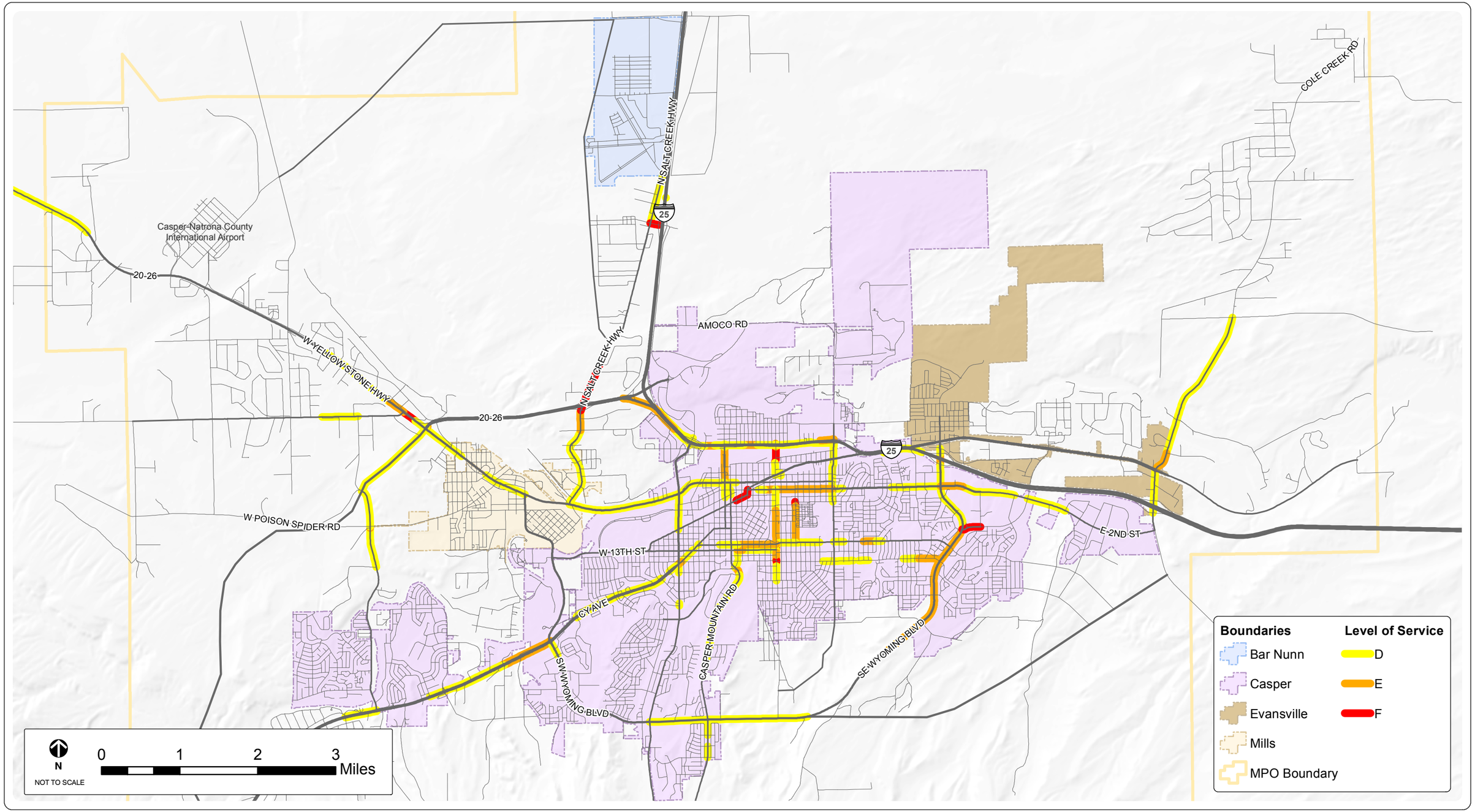
ID	Project	From	To	Length (miles)	Activity	Composite Score	Total Cost*	To Include in Fiscally Constrained Plan
		Rd.						
17	CY Avenue / Wyoming Blvd. Connector	CY Avenue near Paradise Dr.	Wyoming Blvd. near Arroyo Drive	2.50	New major collector	5.18	$6,700	$6,700
62	ROBERTSON RD	CY Ave.	West Belt Loop	2.89	Upgrade collector to minor arterial; expand from 2 to 4-lanes	4.61	$4,900	$4,900
54	CASPER MOUNTAIN RD	Goodstein Dr.	T-Bird Dr.	2.14	Expand minor arterial from 2 to 4-lanes	4.46	$4,200	$4,200
46	BLACKMORE RD	SE Wyoming Blvd.	Landmark Dr.	0.24	Upgrade collector to minor arterial; add center lane and remove parking	4.11	$1,100	$1,100
79	Curtis St.	E. Yellowstone Hwy.	3rd St.	0.33	Expand minor arterial from 2 to 4-lanes	4.11	$900	$900
16	2nd Street / 21st Street Connector	East of Blackmore Road	2nd Street to 21st Street connector	1.00	New minor collector	4.03	$2,700	$2,700
5	Queen Street[1]	Shoshoni Connector	McMurry Street	4.20	New minor arterial	4.02	$11,200	$0
40	SE WYOMING BLVD	E. 15th St.	Blackmore Rd	0.50	Expand principal arterial from 4 to 5 (+1 NB)-lanes	3.97	$1,300	$1,300
87	26th St.	Sagewood Ave	Casper Country Club Rd	1.13	Extension of collector	3.97	$1,900	$1,900

ID	Project	From	To	Length (miles)	Activity	Composite Score	Total Cost*	To Include in Fiscally Constrained Plan
					bound lane			
55	W 25TH ST/College Dr.	Hanway Ave.	S Ash St.	1.03	Upgrade collector to minor arterial; expand from 2 to 4-lanes	3.82	$1,900	$1,900
86	S. Beverly St.	S McKinley St.	24th St.	1.35	Extension of minor arterial	3.75	$2,800	$2,800
45	LANDMARK DR	Blackmore Rd.	Caseda Dr	0.20	Expand collector from 2 to 4-lanes	3.25	$500	$500
61	West Belt Loop	N Robertson Rd.	W Yellowstone Hwy	1.15	Expand principal arterial from 2 to 4-lanes	3.25	$2,100	$2,100
65	COLE CREEK RD	Old Glenrock Hwy / E.Yellowstone Hwy	E. Geary Dome Rd	2.21	Upgrade collector to minor arterial; add left and right turn bays, widen shoulders	3.25	$1,900	$1,900
14	12th Street Extension	12th Street	East Belt Loop	1.50	Extension of major collector	2.89	$4,300	$4,300
15	21st Street Extension	21st Street	East Belt Loop	1.00	Extension of major collector	2.89	$3,000	$3,000
3	McKinley Street Realignment	McKinley Street	new Beverly St. Connection	0.20	Realign intersection	2.25	$700	$700
4	Westwinds	US 20/26 near NCI Airport	Bryan Stock Trail Extension	8.50	New minor arterial	2.01	$22,400	$21,300
6	East-West Arterial	Morgan Street	I-25 Interchange**	8.00	New major collector	2.15	$20,900	$0

ID	Project	From	To	Length (miles)	Activity	Composite Score	Total Cost*	To Include in Fiscally Constrained Plan
		NCI Airport	Trail Extension					
59	N SALT CREEK HWY	W Yellowstone Hwy.	Hwy 20-26 off-ramp	1.33	Expand minor arterial from 2 to 3 (+1 NB)- lanes	1.88	$2,600	$0
9	Bryan Stock Trail Extension	Platte River	Proposed McMurry Drive	4.00	New minor collector	1.81	$9,900	$0
11	Amoco Road	Beverly Street	Cole Road	5.00	Extension of major collector	1.59	$13,900	$0
64	N SALT CREEK HWY	Howard St.	Antelope Dr.	0.67	Expand minor arterial from 2 to 4-lanes	1.10	$1,400	$0
78	Howard St	Salt Creek Hwy	I-25 On Ramp	0.11	Expand EB lane from 1 to 2 lanes	1.10	$400	$0
							$220,200	$157,600

*Includes design, construction and 30% contingency

[1] Though Queen Street scored high as an individual project, it was not recommended for the Priority Roadway Improvements in Fiscally Constrained Plan due to lack of connection to proposed future roadway network.



FEHR PEERS

SOURCES: CASPER AREA MPO

2040 Level of Service: Fiscally Constrained Roadway Network

FIGURE 8-1

8.2 Safety Recommendations

8.2.1 ROADWAY SAFETY RECOMMENDATIONS

In order to improve roadway safety, the Casper MPO should consider performing an in-depth crash rate analysis to identify roadway segments with crash rates above state or national averages for VMT per roadway type. The MPO should take action to improve the intersections prioritized in the 2007 High Hazard Intersection Study.

In addition, the MPO should consider the ability of emergency response to reach distressed persons.

8.2.2 PEDESTRIAN SAFETY RECOMMENDATIONS

Since nearly half of all pedestrian accidents occurred at or involved intersections it is important to evaluate the presence of street crossings or difficult street crossings in the Casper Area that could adversely affect pedestrian activity. Intersections where pedestrian crashes occurred can be assessed to understand contributing factors, such as:

- Missing crosswalk signals, or insufficient time to cross the street
- Long crossing distances on wide streets with multiple lanes
- Uneven curbs or missing curb ramps
- Ineffective or missing pavement markings
- Heavy turning volume (especially heavy right-turn movements that can occur on red lights)
- Discontinuous walking route through intersection (curb cuts that occur at different locations within an intersection)

Additionally, the pedestrian crash analysis found that alcohol use was involved in 14% of all pedestrian and auto conflicts and resulted in one fatality, indicating a need to take measures that prevent alcohol-related pedestrian accidents.

8.2.3 BICYCLE SAFETY RECOMMENDATIONS

It is recommended that the following strategies identified in the CATPBP be implemented in order to promote safe conditions for bicyclists.

1. Improve walking and biking infrastructure for safety and comfort.
2. Educate the population about how to be safe while walking and biking.
3. Better accommodate bicycles at Intersections:
    a. Review the City's signal timing policy and revise as necessary to accommodate bicyclists at all intersections located on the bicycle network.
    b. Develop a protocol for assessing concerns from bicyclists regarding detection or additional time to cross at other locations.

4. Make infrastructure safety improvements near schools.
5. Educate students on the rules of the road and safe walking and biking practices.
6. Promote Safety through additional Local Ordinances such as:
    a. helmet requirements;
    b. establishing a minimum passing distance between motor vehicles and bicycles (i.e. a "3-foot law");
    c. opening a vehicle door in front of ("dooring") a cyclist; and
    d. driving or parking in bicycle lanes.
7. Educate police officers on the laws pertaining to bicyclists and bicycle facilities.
8. Continue to collect data and analyze bicycle and pedestrian crashes.

8.3 Freight Recommendations

Through the plan review, existing conditions analysis, and dialogue with the WTA, the following freight needs were identified:

8. Provide adequate connections to major freight corridors: I-80 & I-25.
9. Implement Wyoming Quiet Zone Study recommendations:
    a. New medians at four rail crossing locations: Curtis St., Evans St., Mystery Bridge Rd., and SH 253.
    b. Wayside horn at Western Avenue.
10. Grade-separate an at-grade crossing in Evansville.
11. Determine need to accommodate trucks during interstate closures.
12. Consider truck access needs in development plan review.
13. Develop a comprehensive truck parking plan to accommodate trucks during roadway closures.
14. Designate new truck routes to connect CLH to I-25, Hwy 20/26, and Hwy 220.
15. Develop western connection from Bar Nunn to CLH and airport.

8.5 Active Transportation Recommendations

Active transportation facilities are important component of Casper's overall regional transportation system. Most trips involve some walking and it is important that the Casper Area support the on-going maintenance of existing active transportation facilities and identify opportunities to expand the system.

The development of multi-use paths also supports pedestrian travel, recreational activities, and encourages bicycle usage. Good walking conditions and safe, convenient bicycle facilities also support the use of public transportation. Together, these transportation modes, services, and facilities support each other and are critical in achieving a pedestrian-friendly, walkable community.

8.5.1 Active Transportation Conceptual Improvements

The Casper Area Trails, Path and Bikeway Plan (CATPBP) recommended infrastructure improvements for bicycle facilities, sidewalks, and intersections. These recommendations were prioritized based on screening criteria developed in the CATPBP. The prioritized recommendations for constructing bicycle facilities, filling sidewalk gaps, and improving safety at intersections are included in the tables below as well as planning-level cost estimates for recommended bicycle facilities. These improvements should be considered and implemented as funding becomes available. The sections that follow provide more detail on active transportation recommendations.

Table 8-3 Prioritized List of Recommended Bicycle Projects with Associated Cost Estimates

Project	Facility Type	Weighted Score	Mileage	Estimated Project Cost
Lowell from Highland path to Farnum St.	Shared Lane Markings	82.08	0.21	$9,378
Trail from Poplar/17th to Cy/Boxelder	Path	80.00	0.08	$23,990
E 14th St./Farnum from Wolcott to Sage Path	Bike Boulevard	74.05	1.88	$250,074
Fairside from Wyoming Blvd. to Fairgrounds	Bike Lane	78.50	0.17	$18,261
Durbin from College Dr. to E 14th St.	Buffered Bike Lane	77.50	0.15	$28,186
Cherry/14th/Willow/Boxelder from Collins to Cy	Bike Boulevard	77.43	0.64	$84,489
Midwest Ave. from Poplar to Durbin	Bike Lane	76.80	0.79	$85,896
Eagle Dr. from Talon to Wyoming Blvd.	Bike Lane	76.52	0.41	$44,620
Poplar from 19th to 1st	Further Study	76.18	1.14	N/A
Beech from E A St. to E 15th St.	Mixed	76.16	1.10	$85,199
S Chestnut/W 10th Shared Lanes	Shared Lane Markings	76.13	0.53	$24,380
13th from Collins to CY	Bike Lane	75.89	0.51	$55,195
McKinley from E K St to E A St.	Shared Lane Markings	75.81	0.66	$30,560
Talon/Aspen from Plaza to W 38th	Bike Lane	75.80	0.43	$47,730
Aspen/W38th from Wolf Creek to Eagle Dr.	Shared Lane Markings	75.75	0.74	$33,665

Project	Facility Type	Weighted Score	Mileage	Estimated Project Cost
Glendale Ave. from 15th to Conwell	Shared Road	75.15	0.62	$3,715
Talon from CY Ave. to Plaza	Shared Lane Markings	75.00	0.32	$14,967
W 8th from Oak to Beech	Shared Lane Markings	75.00	0.49	$22,644
E 5th/Sun Dr./Bruhn/Huber from County Club to Rail Trail	Shared Road	74.91	1.08	$6,473
N Center from W B Street to W K Street	Shared Lane Markings	74.82	0.51	$23,197
W 17th St. from Poplar to College Dr.	Shared Lane Markings	74.50	0.42	$19,203
E 1st St. from Yellowstone to Beverly	Bike Lane	74.49	0.90	$98,423
E 3rd/Collins/Kimball from Durbin to Jefferson	Shared Lane Markings	74.35	0.57	$26,003
E 3rd from Jefferson to Conwell	Shared Lane Markings	73.91	0.41	$18,782
E A from Wolcott to Yellowstone	Bike Lane	73.90	0.58	$63,070
W 15th St. from Sheridan to Wolcott	Shared Lane Markings	73.65	1.47	$67,161
Walnut/Spruce/Oak Shared Lanes from Collins to 17th	Shared Lane Markings	73.54	1.37	$62,644
Wolcott from E B St. to E 15th St.	Bike Lane	73.13	1.14	$124,473
Talon from Aspen to Central	Bike Lane	73.08	0.46	$50,542
Divine Ave. from Beech to Bonnie Brae Ave	Shared Road	73.06	0.31	$1,876
W F Street from Poplar to Center	Mixed	72.88	0.42	$32,533
E 5th from Collins to Conwell	Shared Lane Markings	72.74	0.90	$41,225
Collins from 13th to Wolcott	Bike Lane	72.68	1.27	$138,772
Ash from W B St to College Drive	Shared Lane Markings	72.34	1.26	$57,599
Kingbury from 15th St. to 21st St.	Bike Lane	72.23	0.47	$51,395
W 1st St. from Star to Pronghorn	Bike Lane	72.00	0.27	$29,661
Poplar from 19th to 25th	Bike Lane	71.54	0.47	$50,704
Bellaire from Brigham Young to CY Ave	Shared Lane Markings	71.23	0.94	$42,993
Casper from Fairgrounds to Brigham Young	Shared Lane Markings	71.18	0.17	$7,952
Blue Spruce/E 18th from end to Long Path	Shared Road	71.03	0.57	$3,441
Center from Midwest to W B St.	Mixed	70.88	0.43	$33,574
Durbin St. from E A St to Midwest Ave	Bike Lane	70.85	0.22	$24,299
Collins from King to 13th	Bike Lane	70.56	0.64	$69,284
Hickory from CY to Coffman	Bike Lane	70.42	0.22	$24,327
Jefferson from E 1st to E 14th	Bike Boulevard	70.29	0.95	$126,450
Odell from 25th to Coffman	Bike Boulevard	70.00	0.20	$26,456
E 13th/Center Shared Lane Marking	Shared Lane Markings	70.00	0.14	$6,476
Elk from Rail Trail to E 4th St.	Shared Lane Markings	70.00	0.44	$2,629
Kit Carson from Bellaire to CY Ave	Shared Lane Markings	69.45	0.21	$9,540
E 4th from Conwell to Beverly	Bike Lane	69.44	0.48	$52,655
Poplar W F Street to W 1st Street	Further Study	68.82	0.80	N/A

Project	Facility Type	Weighted Score	Mileage	Estimated Project Cost
Bonnie Brae/E 17th/Amherst from E 14th to Beverly	Shared Road	68.77	1.27	$7,636
College Drive from Poplar to Wolcott	Bike Lane	68.65	0.68	$74,016
25th from Poplar to Ridgecrest	Mixed	68.32	0.49	$37,938
G St/Durbin St/H St/Jane St Shared Road from end to E K Street	Shared Road	68.31	1.25	$7,523
E 21st from Beverly to Kingsbury	Bike Lane	67.70	0.82	$89,887
College Drive from Wolcott to W 18th	Buffered Bike Lane	67.52	0.41	$74,918
Legion from Walsh to Wyoming	Bike Lane	67.17	0.31	$34,306
Casper Mountain Road from existing paved shoulder to Durbin	Bike Lane	67.02	0.22	$23,521
E 15th/Centennial Hills Blvd from Country Club to Centennial Ct.	Bike Lane	66.80	1.06	$116,063
Conwell from E 1st to E 12th	Mixed	66.79	0.78	$60,102
W A St/W B St. Shared Lanes and Bike Lanes from Nichols to Wolcott	Mixed	66.78	0.37	$28,763
Walsh from Yellowstone to E 12th	Mixed	66.58	1.23	$94,913
E 3rd/Wanton/E 8th from Beverly to Wyoming	Mixed	66.42	1.79	$138,701
Conwell from E 12th to Alta Vista Park	Shared Lane Markings	66.14	1.05	$48,169
Country Club Road from E 2nd to E 15th	Shared Lane Markings	65.78	0.93	$42,536
Paradise from CY to Magnolia	Mixed	65.28	0.77	$59,734
Valley/Marigold from Indian Paintbrush to Paradise	Shared Road	64.97	1.12	$6,691
Aster from Daffodil to Robertson	Shared Road	64.12	1.36	$8,171
First/Van Horn from W 1st Street to Wyoming Blvd.	Shared Lane Markings	63.84	0.69	$31,564
Beverly from Amherst to E24th St.	Bike Lane	61.89	0.34	$37,232
Curtis from interstate to Gannett	Path	61.54	0.42	$127,575
Kingbury from 12th to 15th	Shared Lane Markings	61.29	0.23	$10,641
Coffman from Wyoming to Skyridge	Bike Boulevard	61.00	2.14	$284,299
Fox/Eagle Dr from Wyoming to 38th	Shared Lane Markings	60.87	0.84	$38,560
Curtis from Yellowstone to interstate	Path	60.29	0.29	$88,279
E 12th from Country Club to Wyoming	Bike Lane	59.16	1.14	$124,297
Robertson from CY to Trevett	Path	59.06	0.27	$82,345
E 21st from Oakcrest to Beverly	Mixed	59.02	0.98	$76,199
E K St from Center to Beverly ST	Bike Lane	58.54	1.40	$153,090
Valley from Amrigold to CY	Mixed	58.53	0.30	$23,567
Wyoming E 12th to E 15th	Path	58.00	0.23	$71,230

Project	Facility Type	Weighted Score	Mileage	Estimated Project Cost
E 12th form Wyoming to Elkhorn Valley	Bike Lane	58.00	0.94	$102,681
Fairwood Common from 21st to end	Shared Road	55.14	0.38	$2,279
Newport from E 12th to E 21st	Shared Road	55.05	0.39	$2,330
Poplar from Wyoming to College Dr.	Bike Lane	54.62	1.43	$156,243

SOURCE: CATPBP, APPENDIX C – PRIORITIZED PROJECTS AND BICYCLE NETWORK COST ESTIMATES

TABLE 8-4 PRIORITIZED SIDEWALK PROJECTS

Project Name	Score	Feet
Path from Casper Rail Trail to Fenway Street	80.00	49
Wyoming Boulevard from Wyoming/CY Avenue to Outer Road	78.55	1359
Northwest crossing of Wyoming Boulevard and Cy Avenue	78.10	192
Thelma Drive from 2nd to Gannett St	75.50	952
15th from Carriage Ln to Wyoming Blvd	71.00	488
Legion Lane from N Walsh Drive to Wyoming Blvd and 150 feet south of Legion on Thelma Drive	68.67	1936
Connector Path from Birch Street to Meadow Park	68.00	49
Crossing of Cy Avenue at Talon Drive	65.00	125
E 12th St from Jefferson St to McKinley St	60.00	209
Paradise Valley Parks Path Improvements	58.00	337
Medicine Bow St/S Walsh Dr from Wind River Ave to Gannett St	58.00	489
Melrose St sidewalks from E A St to E 1st St (upgrade to sidepath)	55.00	435
E 3rd St, Lenox St, E 4th St from 100 ft W of Lenox to Kenwood and E 4th	55.00	902
Beverly from 750 Feet south of Bryan Evansville to Casper Rail Trail (upgrade to sidepath)	53.98	2123
7th Street Connector from Jefferson St to McKinley St	53.50	432
2nd Street Sidewalks Near Mall/Walmart	53.00	1342
Path from Casper Rail Trail to E A/Melrose St	52.27	154
College Drive from W 15th St through intersection with Casper Mountain Drive	49.00	682
Meadowlark Link trail from Pheasant Drive to Central Drive (upgrade to sidepath)	48.00	268
E 4th from 100 ft east of Pennsylvania to 100 ft east of Illinois St	47.20	776
Path from Camellia Street end to Paradise Valley Pool	47.00	208
15th from Beverly to Nebraska	45.00	375
Casper St from Fairgrounds Rd to 500 feet east of Fairgrounds Rd	45.00	445
Bruhn Way from N Sun Drive to Provence Court	44.55	506
E 18th Street Improvements from Long Creek Path to Outer Drive	43.83	805
Werner Court from Poplar to Wilkins Circle	43.75	1323

Project Name	Score	Feet
Sidewalk improvements from Northwestern Drive/1st Street south to existing trail	43.00	230
Path from Northeastern Ave 200 feet northwest of 4th street to existing path	43.00	90
11th Street Connector from S Mitchell St to McKinley St	42.20	515
Bruhn Way from N Sun Drive to Provence Court Alternate Configuration	41.00	147
N Poplar St from 500 ft north of Werner Ct to 100 feet south of Werner Ct	40.00	636
Missouri from E 18th St to Lynn Ln	38.00	596
Path South of Sunrise Shopping Center from Coffman Street to Poplar Street (upgrade to sidepath)	35.40	610
Centennial Park Path from Centennial Park to Wyoming Boulevard Path	35.00	526
Frog Pond Connector (Washington Park 400 feet North of E 10th St) from Jefferson St to McKinley St	32.00	435
8th Street Connector from Nebraska Ave to 8th Street end east of Beverly Streets	30.00	144
Lillian Lane Path from Trigood Drive to Sage Creek Path	29.20	145
Trail from Casper Events Center to National Historic Trails Center (upgrade to sidepath)	27.80	634
Buckboard Walk from Whispering Springs Lane to Buckboard Park	26.40	425
Kelly Walsh High School Connector Trail from Sage Creek Path to High School	25.00	104
Buckboard Walk from Trevett Lane to Buckboard Park	23.20	630
Whispering Springs Walk from Cold Springs Road to Herrington Drive	23.00	208
Path from Cottonwood Estates to Buckboard Park	23.00	160
Beverly from Sagewood Ave to Amherst Ave	23.00	243
Long Lake Path Improvements	17.00	58

SOURCE: CATPBP, APPENDIX C – PRIORITIZED PROJECTS AND BICYCLE NETWORK COST ESTIMATES

TABLE 8-5 RECOMMENDED INTERSECTION IMPROVEMENTS TO ADDRESS BICYCLE AND PEDESTRIAN SAFETY

Intersection Location	Comment/Recommendation
Fairside and Wyoming	Further study needed for constructing pedestrian crossing
Farnum and Beverly	Restrict left turns, add crossing island
E 1st and Yellowstone	Assess/adjust pedestrian signal phase
15th and Beech	Connects to YMCA. Already striped E/S. Need curb ramps at crossing. Could add crossing island on west side of intersection
Westridge/Boxelder and CY	Add sidewalk and ramps or refuge area to nose of median on each side
15th and Poplar	Needs further study
McKinley and Yellowstone	Widen sidewalk on south side. Improve crossing on west side by installing stop bar, marked cross walk
Eagle and Wyoming	Assess/adjust pedestrian signal phase for children walking to CY Middle School
McKinley and I-25	Add lighting to underpass
Midwest and Poplar	Assess/adjust pedestrian signal phase
Oak and CY	Lots of children crossing at this location, add crossing island on west approach where marked crosswalk is
E 2nd and Park	Encourage pedestrians to cross E 2nd at Kimball St. Consider restricting left turns at Grant and installing crossing island with RRFB
W F and Center	Upgrade crosswalks and curb ramps
Walsh and Yellowstone	Signalize
W 1st and Poplar	Narrow travel lanes to extend bike facility to intersection
Poplar at Rail Crossing	Add ped/bike accommodation
Jefferson and 5th	Advanced warning signs, high visibility crosswalk. SLM centered in lane to make north bound cyclists more visible to east bond motorists
Cherry and Collins	Add crossing island with road diet
13th and Collins	Add crossing and connection to trail
Beverly and E 4th	Enlarge curb ramps and queuing space on east side of intersection to better accommodate side path users
CY and W 12th	Move vehicle stop bar on east approach back. Realign curb ramps and create pedestrian cut through on splitter islands to direct pedestrians crossing 12th to use islands
A and Center	Extend center lane; create median island at existing crossing
College and Wolcott	Need to accommodate left-turning bikes onto Wolcott either with left-turn pocket or direct bicyclists to two-stage turn (i.e. cross to SE corner of intersection, then proceed north on Wolcott)
Poplar and I-25	Upgrade crosswalks and curb ramps. BIKES MAY USE FULL LANE signs
Bryan Stock and I-25	Improve slip lane crossing for trail on east side
Curtis and Rail Trail	Improve transitions, crossings
	Move crosswalk to crest of hill. Double side signs. Put signs at crosswalk

Intersection Location	Comment/Recommendation
12th and Carriage	
Blackmore and Wyoming	Bike lane ends in curb, continue bike lane to intersection
Yellowstone and Salt Creek	High visibility crosswalk (east). Restrict right turns onto Salt Creek. Pave shoulder south of Yellowstone. Add wayfinding to trail.

SOURCE: CATPBP, APPENDIX C – PRIORITIZED PROJECTS AND BICYCLE NETWORK COST ESTIMATES

8.5.2 ACTIVE TRANSPORTATION FUNDING PROJECTIONS

Under SAFETEA-LU, WYDOT distributed Transportation Enhancement Activities-Local (TEAL) funds. Historically, the Casper Area MPO applied to WYDOT for TEAL funds to pay for bicycle and pedestrian enhancements. MAP-21 eliminated Transportation Enhancement (TE) funding and replaced it, along with funding for Recreational Trails (RT) and Safe Routes to Schools (SRTS) with a newly created program – Transportation Alternatives (TA). The Transportation Alternatives program is a competitive application program that is allocated nearly $2 million annually throughout the state of Wyoming. Due to the competitive nature of this funding source, it is not possible to project future funding for bicycle and pedestrians enhancements.

8.5.3 FISCALLY CONSTRAINED ACTIVE TRANSPORTATION PLAN

Without identifying alternative funding sources, it will be difficult to implement the recommendations for active transportation identified in the CATPBP. As funding is obtained from local sources, TAP grants, WYDOT set-aside as part of roadway projects and intersection safety projects, priority should be given to the prioritized improvements identified in the CATPBP.

8.6 TRANSIT RECOMMENDATIONS

In the years to come, the Casper Area Transit Coalition will face increasing demand for service and diminished revenue sources. It will be important to consider funding alternatives and ways to increase efficiency in order to meet current and future demands.

8.6.1 TRANSIT CONCEPTUAL IMPROVEMENTS

The Casper Area Metropolitan Planning Organization Transit Development and Coordination Plan Update suggests numerous transit alternatives to improve transit service. The alternative presented below is from the increased funding alternatives scenario.

Table 8-6 Conceptual Transit Improvements with Estimated Costs

Service Change	Estimated Cost/Savings
New flex-route service on The Bus on E 2nd St.*	$124,000
Saturday Service on The Bus*	$131,000

Extend weekday service hours on The Bus	$143,000
Extend The Bus west of Robertson Road	$0 to $163,000
Eliminate Sunday Service on CATC	($45,000)
Sunday Taxi Voucher Program	$19,000
Reduce Saturday service on CATC	($58,000)
Total	$314,000 to $477,000
Estimated Increased Funding Operating Costs	$2,049,000 to $2,212,000

SOURCE: CASPER AREA MPO TRANSIT DEVELOPMENT AND COORDINATION PLAN UPDATE (2010) *NOTE: THESE PROPOSED CHANGES HAVE BEEN IMPLEMENTED.

8.6.2 TRANSIT FUNDING PROJECTIONS

Over half of the funds available for operation and expansion of the transit system in the Casper Area are FTA 5307 funds. These funds provide 80% of CATC's capital and administrative costs and 50% of operating costs.

The amount of funding that CATC receives is based on the population in the most recent Census, with adjustment for inflation. The Casper Area does not dedicate additional funding to transit beyond the required FTA 5307 local match: 20% match for capital costs and 50% match for operating costs.

In order to project estimated funding through 2040, 2017 funding provided in the Casper Area MPO 2014 – 2017 TIP of $2.7 million was used to project transit funding from 2018 through 2040 at approximately $70 million.

TABLE 8-7 FY 2014 TO FY 2017 CATC TIP FUNDING IN $1,000S

	2014			2015			2016			2017		
Capital Costs	Federal	State / Local	Total	Federal	State / Local	Total	Federal	State / Local	Total	Federal	State / Local	Total
Replacement Vans	112	28	**140**	216	54	**270**	232	58	**290**	248	62	**310**
Vehicles - On-Board Cameras			**0**	40	10	**50**			**0**			**0**
Office Facility Expenses	67	17	**84**			**0**			**0**			**0**
Shelters, Benches, Signs			**0**	22	6	**28**	26	6	**32**	29	7	**36**
Automatic Fare Collectors			**0**			**0**	64	16	**80**			**0**
Preventative Maintenance	152	38	**190**	159	40	**199**	168	42	**210**	176	44	**220**
Operations Costs	946	946	**1,892**	980	980	**1,960**	1,013	1,015	**2,028**	1,056	1,056	**2,112**
Total	1,277	1,029	**2,306**	1,417	1,090	2,507	1,503	1,137	**2,640**	1,509	1,169	**2,678**
operations cost as a % of total			82%			78%			77%			79%
Available Funds												
FTA 5307 - Urbanized	964	716	**1,680**	1,102	775	**1,877**	1,187	820	**2,007**	1,186	845	**2,031**
FTA 5307 - State Rural	235	235	**470**	235	235	**470**	235	235	**470**	235	235	**470**
FTA 5316 - JARC[1]	78	78	**156**	80	80	**160**	81	82	**163**	85	85	**170**
Total Funds	1,277	1,029	**2,306**	1,417	1,090	**2,507**	1,503	1,137	**2,640**	1,506	1,165	**2,671**

[1] MAP-21 eliminated JARC funding. WYDOT will continue to fund 5316 projects through FY2014.

SOURCE: CASPER AREA MPO 2014 – 2017 TIP

The 2040 funding estimate is based on a growth rate of 1.05% percent per year and assumes funding increases commensurate with population growth. Funds available for operation of the transit system must be split among three primary categories: administration, demand response (CATC) and The Bus.

8.6.3 FISCALLY CONSTRAINED TRANSIT PLAN

Approximately 80% of funding is currently spent on operations and as

Table 8-7 illustrates, this precedent is expected to continue. Remaining funds are typically allocated to capital costs such as the replacement of aging busses as well as upkeep and maintenance of vehicles, and bus shelters.

The Casper Transit Development Plan presented a preferred transit and coordination service plan that was developed based upon constraining the Transit Service Alternatives to existing and projected revenues. These fiscally constrained recommendations are presented below.

CATC Modifications

The following recommendations to modify CATC service were identified in the Transit Development and Coordination Plan Update and are summarized below. Collectively, these recommendations would streamline services and save approximately $307,200 annually and should be implemented.

ADA CERTIFICATION

According to the passenger survey completed for the Casper Transit Development Plan, 40% of CATC riders do not have a disability that prevents them from using fixed-route service. The American's with Disabilities Act (ADA) specifies that paratransit service only needs to be available to passengers that are unable to use the fixed-route system because of a disability. Becoming ADA certified would ensure access for those who need paratransit most and make the best use of limited transit resources. It is estimated that a half-time staff person would be required to certify passengers, this would cost $30,000 annually.

ALIGN SERVICE HOURS WITH THE BUS

Another important requirement of the ADA is that the complementary paratransit and fixed route services be available during the exact same hours. Therefore, it is assumed that CATC would be available from approximately 6:30 AM – 6:30 PM, Monday through Friday, and from 7:30 AM – 3:30 PM on Saturday.

REDUCED SUNDAY SERVICE

Sunday service on CATC is less productive than any other day and does not warrant the level of service it is currently allocated. A minimal level of service should be maintained on Sunday. It is recommended that one vehicle be made available from approximately 8:00 AM to 1:00 PM. Trips should be available as space allows and require advanced reservations.

EXPAND SERVICE COVERAGE

Expanding CATC's span of service to ¼ mile of The Bus routes would allow The Bus to eliminate route deviations.

The Bus Modifications

Recommendations for modifications to The Bus are summarized below. These recommendations provide for expanded service, increased service hours, and improved efficiency. Costs associated with these changes include an increase of $256,000 in annual operating costs and $142,425 capital or one-time costs.

DISCONTINUE ROUTE DEVIATION

Assuming that CATC becomes ADA certified and operates as a complementary par transit service, it is recommended to discontinue the route deviation service on The Bus. This change would not affect capital costs, but would increase overall efficiency of the system.

REDISTRIBUTE SERVICE

Casper Area Transit development and Coordination Plan Update recommends realigning some of the routes. This strategy does not have an impact on operating costs and makes service faster and more direct. Suggestions included pairing the Red and Blue routes as well as Green and Yellow routes to redistribute demand and help drivers stay on schedule.

WEB-BASED TRANSIT INFORMATION

Making scheduling and system route information easily and readily available is likely to increase transit ridership. It is recommended that The Bus services be made available through Google Transit. The cost to establish this service is approximately $7,000 with $1,000 in annual maintenance costs thereafter.

8.7 AVIATION RECOMMENDATIONS

Relevant recommendations from the Casper/Natrona County International Airport Master Plan include:

1. Implement Strategic Business Plan and Air Cargo Study to capture potential business for the Airport.

2. Continue to be involved in air service development and recruitment to provide new and expanded air service. The Leakage Study identified a strong demand for air service from Casper to markets to the east including major business centers in Chicago, Minneapolis, Boston, New York City area, Detroit, Washington DC, and Philadelphia, as well as the south including Houston, Dallas, Midland, Oklahoma City, San Antonio, and Tulsa. Capturing the leaked passenger traffic will support new nonstop flights to new markets.

9 Implementation Strategies

Strategies and actions were identified that will help implement the Recommended Transportation Plan projects and facilitate the Goals of this Plan. Implementation strategies were developed for each mode and include suggestions for policy revision, regional coordination, code and zoning revision, funding, and programmatic changes. Some strategies address actions that can be taken to build the fiscally constrained transportation plans, while others focus on actions necessary to increase funding to implement additional policies or improvements.

9.1 Roadway Implementation Strategies

Travel by automobile, transit, and bicycle all rely on the roadway system, making roadways a key element of Casper's multi-modal transportation system. Roadway Design Standards were developed as a part of Casper's Unified Development Code that will help to facilitate the efficient use of the roadway system. Other strategies that can help facilitate the efficient use of the roadway system are listed below:

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
R1. Emphasize the on-going maintenance and preservation of existing roadway facilities.	●	R	Local governments, Natrona County, Casper MPO & WYDOT	1
R2. Consider adopting a Complete Streets Policy to promote all transportation modes on roadways.	◖	D/Z	Local governments, Natrona County & Casper MPO	2
R3. Support the implementation of the priority roadway projects identified in 8.1.2.	○	R	Local governments, Natrona County, Casper MPO & WYDOT	2
R4. Support policies and design standards that maximize the potential benefits of future year roadway improvements such as implementing design standards that can have cost savings.[10]	◖	D	Local governments, Natrona County & Casper MPO	2

Key to Symbols

Ease to Accomplish		Type of Action		Priority	
●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		

[10] The WYDOT Road Design Manual (2014) identifies narrow lanes and shoulders on low speed roads to save costs.

◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.2 Safety Implementation Strategies

It is vital that the Casper Area builds and maintains a transportation system that provides safe, secure means of travel by all modes. The following strategies will facilitate a safer transportation system.

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
S1. Emphasize roadway improvements that enhance and improve overall traffic safety for all transportation users.	●	R	Local governments, Natrona County, Casper MPO & WYDOT	1
S2. Conduct an in-depth crash rate analysis to identify roadway segments with crash rates above state or national averages for VMT per roadway type.	◖	R/D	Local governments, Natrona County & Casper MPO	2
S3. Evaluate intersections with high pedestrian crashes.	●	R	Local governments, Natrona County & Casper MPO	1
S4. Integrate accident and safety data collection and enforcement efforts.	●	R	Local governments, Natrona County & Casper MPO	1
S5. Promote safety through local ordinances such as helmet requirements and establishing a minimum passing distance between motor vehicles and bikes.	○	R/L	Local governments, Natrona County & WYDOT	2
S6. Make infrastructure safety improvements near schools.	◖	R/D	Local governments, Natrona County & Casper MPO	1
S7. Identify alternative funding sources	●	F	Local governments, Natrona County & Casper MPO	1

Key to Symbols

Ease to Accomplish **Type of Action** **Priority**

●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		
◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.3 Freight Implementation Strategies

Freight movement to, from, and within the Casper Area is vital to the success of commercial and industrial growth. The following strategies should be pursued to enhance freight connections in the Casper Area.

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
F1. Emphasize roadway improvements that enhance the movement of freight in the Casper Area.	●	R	Local governments, Natrona County, Casper MPO & WYDOT	1
F2. Provide safe at-grade rail crossing within the Casper Area.	◖	D/R	Local governments, Casper MPO & WYDOT	1
F3. Minimize at-grade rail crossing delays within the Casper Area.	◖	D/R	Local governments, Natrona County, Casper MPO & WYDOT	1
F4. Update designated truck routes.	◖	D	Local governments, Natrona County, Casper MPO & WYDOT	2
F5. Develop a comprehensive truck parking plan.	◖	D	Local governments, Natrona County, Casper MPO & WYDOT	2
F6. Consider truck access needs in development review.	◖	D/Z	Local governments, Natrona County, Casper MPO & WYDOT	2
F7. Determine Need to accommodate trucks during interstate closures.	●	R	Local governments, Natrona County, Casper MPO & WYDOT	2

Key to Symbols

Ease to Accomplish		Type of Action		Priority	
●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		
◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.4 Active Transportation Implementation Strategies

The CATPBP identified recommended strategies for improving biking and walking. These strategies and others that encourage active transportation in the Casper Area are identified below.

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
A1. Continue to maintain, develop, and expand the Casper Area regional active transportation network.	●	R	Local governments, Natrona County & Casper MPO	1
A2. Complete high-priority bike facility, intersection improvements, and sidewalk connections identified in the CATPBP.	◖	R	Local governments, Natrona County & Casper MPO	1
A3. Support land use policy decisions that prioritize the use of active transportation in the Casper Area.	◖	D	Local governments, Natrona County & Casper MPO	1
A4. Establish Bicycle Facility Design Guidelines.	◖	D	Local governments, Natrona County & Casper MPO	2
A5. Develop and adopt a Complete Streets Policy/Checklist.	◖	D	Local governments, Natrona County & Casper MPO	2
A6. Pursue a multi-pronged implementation and funding strategy.	○	F	Local governments, Natrona County & Casper MPO	2
A7. Establish a Bicycle and Pedestrian Advisory Committee.	●	D	Local governments, Natrona County & Casper MPO	1
A8. Establish performance measures	◖	D/P	Local governments, Natrona County & Casper MPO	1

A9. Incorporate bicycle and pedestrian facilities into existing maintenance policies and programs.	●	D	Local governments, Natrona County & Casper MPO	1
A10. Provide wayfinding signage on the recommended bicycle network and regional trails.	◖	R	Local governments, Natrona County & Casper MPO	2
A11. Develop a bicycle and pedestrian educational program for schools and adult education.	◖	P	Local governments, Natrona County & Casper MPO	1

Key to Symbols

Ease to Accomplish		Type of Action		Priority	
●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		
◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.5 Transit Implementation Strategies

Short and long-term transit improvements are identified in the Casper MPO Transit Development Plan. In order to ensure all recommended improvements can be met, long-term funding options to support the transit system should be identified.

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
T1. Pursue modifications to The Bus and CATC identified in section 8.6.3.	◖	R	Local governments, Natrona County & Casper MPO	1
T2. Identify additional long-term funding options.	◖	D/R	Local governments, Natrona County	1
T3. Support transportation improvements that integrate transit operations with non-motorized facilities.	◖	D/R	Local governments, Natrona County	1
T4. Encourage transit oriented development principles throughout the Casper Area to help support the use of public	◖	D/R	Local governments, Natrona County	2

transportation.

Key to Symbols

Ease to Accomplish		Type of Action		Priority	
●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		
◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.6 Aviation Implementation Strategies

Strategies to improve business and transportation needs at the C/NCIA are outlined below.

Strategies/Actions	Ease to Accomplish	Type of Action	Responsible Parties	Priority
AV1. Implement Strategic Business Plan and Air Cargo Study to capture potential business for the Airport.	◖	R	C/NCIA	2
AV2. Recruit new airlines to provide for expanded air service.	◖	R	C/NCIA	2

Ease to Accomplish		Type of Action		Priority	
●	Less than one year to accomplish, low cost, minimal challenges	**D**	Policy Decision	**1**	High, immediately following plan
		P	Program		
◖	Moderate time (6 months to 1 year), cost and challenges to implement	**Z**	Code and Zoning Revision	**2**	Medium, within a year following plan adoption
		R	Regional/Agency Coordination		
○	Takes more than one year, higher cost, more challenging to implement	**F**	Funding Mechanisms	**3**	Low, within 5 years of plan adoption
		L	State Legislation		

9.7 STRATEGIES TO FUND TRANSPORTATION IMPROVEMENTS

The Casper Area has experienced substantial growth and development pressure in the recent past owing to the energy boom of the last five years. As the area's economy is highly dependent upon the energy industry, new commercial areas are being developed, which are creating increasing demands on the area's transportation infrastructure. The prospect of continued growth necessitates not only an identification of public facilities and infrastructure to meet growing demand, but also the ability to fund it.

The LRTP identifies a total of $220 million in roadway projects that are needed throughout the Casper Area to meet demands of a growing population and employment base. Of this total, approximately $157 million of funding is projected to be available, leaving a financing gap of $65 million. The discussion that follows summarizes how the $65 million in financing gap could be covered. Additional details are provided in Appendix I.

9.7.1 FINANCING MECHANISMS

The two most commonly-adopted public financing mechanisms used are dedicated taxes and fees. In Wyoming, the 5th through 7th cent sales taxes can be very effective strategies to comprehensively funding public infrastructure, particularly the 6th and 7th cent sales taxes. Fees, such as development impact fees, which have been explored in Casper, are also common but less comprehensive tools for financing incremental new capital facilities.

Sales Tax

The 1st through the 4th cents of sales tax are established at the state level for funding the state and local general funds. Only sales taxes approved through a vote beyond that are eligible as additional funding mechanisms. As a majority of governmental revenues are typically generated by sales taxes for Wyoming municipalities, this is a powerful and important consideration for the financing of public infrastructure, such as transportation.

- 1st through 4th Cent Sales Tax – Sales tax throughout the state is statutorily set at 4 percent, with 69 percent to the state general fund and 31 percent to local governments. The portion allocated to local government is distributed on a per capita basis.
- 5th Cent General Purpose Optional Tax - Used for general funding for city and county governments, the 5th cent general purpose tax can be renewed through a voter-approval process every four years and is distributed on a per capita basis. Most local governments have renewed this as a matter of course since it was first established. By itself, this tax is limited to 2 percent.
- 6th Cent Sale Optional Tax – Sometimes referred to as the SPET (Special Purpose Excise Tax) or 6th cent tax, it is an additional sales tax available to local governments that can be applied to capital improvements. The tax requires voter approval for a specific improvement or set of improvements, and when the improvements are paid off, the tax expires. By itself, this tax is limited to 2 percent.

5th Cent Tax

The 5th cent tax is levied on retail sales of tangible personal property, admissions and services, sales and storage, and upon use and consumption of tangible personal property. By statute, this tax must be imposed at a rate in increments of ½ percent (0.5%), not to exceed a rate of two percent, and the tax must be renewed by voters every four years. As mentioned above, this general purpose tax is used for general governmental project funding, and not specifically limited to a dollar amount, as the 6th and 7th cent sales taxes are.

Voters in the City of Casper have approved a 5th cent tax 14 times to fund a wide variety of public purpose projects including, infrastructure and equipment, as well as to support local non- profits. Since its first adoption in 1975, numerous capital facilities, and civic and cultural facilities have been funded, of which 52 percent of revenues have gone to funding streets, water, and sewer projects. Regionally, Bar Nunn, Edgerton, Evansville, Mills, and Midwest, as well as Natrona County have also used a 5th cent tax to fund mainly infrastructure projects.

The City of Casper has elevated the importance of the issue by engaging the community in a public campaign designed to educate its residents about the positive benefits of the 5th cent tax. In a survey of its residents, it found that fire protection, water line replacement, police, and streets were residents' highest priorities for use of these funds. As an example, the City of Casper will have raised an anticipated $63 million over the four-year period of its most recent 5th cent sales tax adoption to fund street repairs, improvements to its Youth Crisis Center, water system improvements, fire station replacement, capital equipment purchases, park improvements and new park construction, improvements to recreation facilities, among others.

6th & 7th Cent Tax

The SPET (Special Purpose Excise Tax) is an additional sales tax available to jurisdictions that can be used for specifically-identified capital improvements and specified dollar amounts. When the improvements are paid off, the tax expires. By itself, this tax is limited to 2 percent, commonly referred to as the 6th or 7th cent (although the 7th cent has rarely been used). The following provides a basis and estimate of future taxable sales, as well as a forecast of the revenue that could be generated by such a tax.

Much like Casper's current efforts to generate support for the upcoming renewal request for the 5th cent sales tax, the 6th cent can be a powerful and effective funding mechanism, but it would have to be introduced to the area's residents through a similar educational and public engagement process to be success, given reticence to adopt an additional tax beyond the 5th cent. As a cautionary example, Casper's recent experience with the 6th cent tax indicates a near polarization of advocates and opponents. In 2012, a 6th cent was proposed, and defeated by a very small margin, to fund a new $29.7 million public library downtown. In a similar defeat 6 years earlier, voters rejected the 6th cent tax to fund the new public library in a $43 million previous iteration.

While opposition to funding a new public library via the 6th cent is not in itself an obstacle for major transportation projects, there is a greater fear and "wide-spread belief" among the public that, according to the Star Tribune, "the statutorily temporary sales tax would, somehow, not be temporary." As such, it will be critical

for the Casper Area jurisdictions to pursue this option strategically with effective messaging of its economic benefits.

Sales Tax Funding Potential

EPS based its analysis on City of Casper sales tax trends because its records of revenues are provide sufficient detail from which projections can be made. Also because the City's sales activity represents a majority of the area's activity, they represent a fairly accurate, if not conservative estimate of funding potentials.

TAXABLE SALES TRENDS

Since 2003, taxable sales in the City of Casper have increased from approximately $218 million to an estimated $460 million or more in 2014. Between 2003 and 2008, during which time the local, regional, and national markets were experiencing a boom in economic activity, the growth rate of the City's sales tax averaged 12.8 percent per year. By 2012, taxable sales had reached their pre-recession peak of approximately $400 million. Growth between 2012 and 2013 was approximately 9.3 percent, and early indications of growth between 2013 and 2014 (reported by the Star Tribune) show annualized growth of 1.9 percent. Overall, however, taxable sales have grown at an annualized rate of 7.1 percent since 2003, or by approximately $22 million in taxable sales per year since 2003.

SALES TAX REVENUE PROJECTION

Because economic activity in the Casper Area has been strong in spite of the national recession, and because the regional economy includes a strong presence of industries that are projected to experience high growth over the next 10 years, EPS believes that projecting sales tax growth using the 10-year average (approximately $22 million) is reasonable.

Due to Casper's success in funding civic and public amenities through the 5th cent tax, it is recommended that a 6th cent sales tax be established to fund the $77 million in unfunded roadway projects with the addition of a 1-cent sales tax.

Development Impact Fees

Impact fees are another method local governments can use to ensure that adequate public facilities are provided concurrent with new development. Impact fee programs are an outgrowth of the development approval process that enables local governments to ensure that the cost of needed facilities is borne proportionately by each new development proposal. Thus, an impact fee program can be viewed as a comprehensive system that reduces but does not necessarily eliminates the need to develop exactions for individual projects.

Most communities require developers to provide all on-site public infrastructure (or bonds to ensure future construction) as part of subdivision approvals. These can include roads, parks, school sites, drainage facilities, sidewalks, wet and dry utilities, and other types of infrastructure. Since, however, most development also

generates off-site impacts, such as impacts to roads, utility infrastructure, demand for parks, and general governmental facilities, for example, development impact fees are scaled by the nexus between the impact of a development and the demands and impacts placed on public services. Depending on the size and nature, the associated improvements can, in some cases, provide benefits to the new development as well as the existing community.

While the City of Casper has studied the feasibility and possible adoption of impact fees for roads, fire, and parks and recreation, it has not implemented them. Currently, no development impact fees have been adopted by the municipalities in the Casper Area. One of the common concerns over impact fees for municipalities is their potential to deter development. Because they do add to development costs, if only one of several municipalities in a regional planning area, such as the Casper Area, adopts them, there is the fear that they will push development elsewhere. As such, development impact fees should be adopted by all of the regional jurisdictions to maintain a balance of costs to develop.

10 Performance Measures

One of the key requirements of MAP-21 is that MPOs must incorporate performance measures and targets into their long-range plans[11]. While implementing regulations have not yet been adopted, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) are encouraging MPOs to begin to incorporate system-wide performance measures and localized metrics into their LRTPs.

At the time this report was written, WYDOT was working on developing performance measures. Even so, the Casper Area MPO should consider developing a means to monitor and evaluate the performance of the transportation system. Establishing a monitoring program can help decision-makers prioritize diminishing funds and will better position the MPO to meet impending federal requirements.

The tables on the following pages contain suggested performance measures and targets for some measures, for each Transportation mode. These measures should be monitored annually, although most targets are set to a time period of 5 years. It will be important to review and amend these metrics in coordination with WYDOT's MAP-21 performance measures. Once WYDOT establishes performance measures and targets, the TIP will need to include a discussion of the anticipated effect of the program toward achieving the performance targets established in the MPO transportation plan. This will be required after performance targets are set in 2015. It will be important for system performance to be considered in identifying priorities and selection of projects for the TIP.

10.1 Roadway Performance Measures

Roadways are the core of Casper's transportation system and their performance should be monitored. Casper already collects some data on roadways including congestion and Level of Service (LOS). Adding additional measures, such as those presented below, may be valuable in guiding investment decisions.

Measure	Data Source	Target
Traffic volume	WYDOT/Casper MPO	TBD
Traffic flow on major streets	WYDOT/Casper MPO	LOS C; LOS D for urban areas
Congestion reduction (annual vehicle hours of delay)	WYDOT/City of Casper/MPO	TBD
System reliability (buffer index[12])	WYDOT/MPO	TBD

[11] MAP-21 stipulates that the DOT must establish factors for measuring the performance of states by March 2014. States will then have until March 2015 to establish targets for these measures and MPOs will have until March 2015. MPOs will have until March 2015 or no later than 180 days after the date that the relevant State or public transportation provider establishes performance targets to establish targets for metro regions. For selection of performance targets, MPOs must coordinate with their respective state department of transportation and public transportation providers. Once the targets have been established, states and MPOs will be required to report their progress in achieving these targets to the U.S. DOT as well as include system performance reports in their long-range plans.

[12] The buffer index is the additional time that must be added to a trip, to ensure that travelers making the trip will arrive at their destination at, or before, the intended time, 95% of the time.

10.2 Infrastructure Performance Measures

Maintaining current infrastructure will be increasing important in the future in the face of diminished funds.

Measure	Data Source	Target
Condition of pavement on NHS good or excellent	WYDOT	61%
Condition of pavement on NHS good or excellent	WYDOT	61% (IRI < 100)
Pavement Condition Index (PCI)	WYDOT	Increase 0.5% to 1% every four years
Condition of bridges on NHS good or excellent	WYDOT	No more than 10% of total deck area on NHS as structurally deficient
Percentage of traffic signals past design life	WYDOT	TBD
Percentage of measured striping meeting MUTC retroreflectivity requirements	WYDOT	TBD
Percentage of measured signs meeting MUTCD retroreflectivity requirements	WYDOT	TBD
Percentage of I-25 meeting WYDOT standards	WYDOT	TBD

10.3 Safety Performance Measures

It is recommended that the Casper Area develop an enhanced set of safety performance measures and begin tracking transportation safety annually.

The Governor's Highway Safety Association (GHSA) and the National Highway Traffic Safety Administration (NHTSA) established performance measures required to be tracked by all states. The MPO should consider tracking as many of these measures as possible (as data permits).

Measure	Data Source	Target
Number of traffic fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce fatal crashes by 10% by 2020
Number of serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce serious injury crashes by 10% by 2020
Number of total crashes	Natrona County, City of Casper, WYDOT	Reduce crashes by 10% by 2020
Fatality rate (fatalities/VMT) on a 5 year moving average	Natrona County, City of Casper, WYDOT	Reduce fatality crash rate by 10% by 2020
Serious injury rate (number of serious injuries in traffic	Natrona County, City of Casper, WYDOT	Reduce serious injury crash rate by 10% by 2020

crashes/VMT) on a 5 year moving average		
Crash rate (number of crashes/VMT)	Natrona County, City of Casper, WYDOT	Reduce crash rate by 10% by 2020
Number of unrestrained passenger vehicle occupant fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of unrestrained passenger vehicle occupant serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of unrestrained passenger vehicle occupant crashes	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of fatalities in crashes involving a driver or motorcycle operator with a blood alcohol concentration of.08 g/dL or higher on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of serious injuries in crashes involving a driver or motorcycle operator with a blood alcohol concentration of.08 g/dL or higher on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of crashes involving a driver or motorcycle operator with a blood alcohol concentration of.08 g/dL or higher on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of speeding-related fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of speeding-related serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of speeding-related crashes	Natrona County, City of Casper, WYDOT	TBD
Number of motorcyclist fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of motorcyclist serious injuries on a five year moving	Natrona County, City of Casper, WYDOT	TBD

average		
Number of motorcyclist crashes	Natrona County, City of Casper, WYDOT	TBD
Number of drivers 20 or younger involved in fatal crashes on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of drivers 20 or younger involved in crashes resulting in serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	TBD
Number of drivers 20 or younger involved in crashes	Natrona County, City of Casper, WYDOT	TBD
Number of pedestrian fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Number of older driver fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of older driver serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of older driver crashes	Natrona County, City of Casper, WYDOT	Reduce by 10% by 2020
Number of pedestrian serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Number of pedestrian crashes	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Number of bicycle fatalities on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Number of bicycle serious injuries on a five year moving average	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Number of bicycle crashes	Natrona County, City of Casper, WYDOT	Reduce by 20% by 2020
Observed seat belt use for passenger vehicles, front seat outboard occupants	Natrona County, City of Casper, WYDOT	TBD

10.4 Truck & Freight Performance Measures

Performance measures on truck and freights are more difficult due to lack of data. FHWA has acquired a national data set of average travel times for use in freight performance measurement. This data set is being made available to States and Metropolitan Planning Organizations (MPOs) as a tool for performance measurement. Additionally, WYDOT is developing performance measures for freight. Below is a list of potential performance measures associated with truck and freight. However, the MPO may want to wait until FHWA and WYDOT have established fright performance measures and targets before adopting.

Measure	Data Source	Target
Number of commercial vehicle weighings	WYDOT	TBD
Rail Crossing Incidents	WYDOT/FRA	TBD
Annual hours of truck delay on Interstates	WYDOT	TBD
Truck travel time reliability (freight buffer index[13])	WYDOT/MPO	TBD

10.5 Bicycle Performance Measures

The recently completed Casper Area Trails, Path and Bikeway Plan recommends that the MPO establish performance measures in order to monitor the effectiveness of bicycle and pedestrian facilities and policies. Developing these measures will permit annual tracking that can inform periodic adjustments to the Plan. Establishing such a reporting mechanism is also a way of communicating with stakeholders to show the impact of their public investment. Performance measures identified in the CATPBP plan as well as other standard active transportation metrics are listed below.

Measure	Data Source	Target
Number of people bicycling on on-street bicycle facilities	City of Casper/MPO	Begin a formal process of data collection by 2020
Number of people bicycling on off-street bicycle facilities	City of Casper/MPO	Increase by 10% by 2020
Mileage of on-street bicycle facilities	City of Casper/MPO	Install a minimum of 15 miles of bicycle network annually, completing recommended network by 2023
Mileage of off-street /greenway facilities	City of Casper/MPO	Increase 15% by 2020
Number of cyclist-involved collisions/capita	City of Casper/MPO	Reduce by 20% by 2020
Fatality & Serious injury rate (number of serious injuries or fatalities to bicyclists/1,000 people)	City of Casper	TBD
Percentage of households within ¼ mile of bike facility	City of Casper	TBD
Percentage of K-8 students biking to school	City of Casper	Increase an average of 2% per year
Bike parking racks installed in the	City of Casper	40 to 50 racks per year

[13] The buffer index is the additional time that must be added to a trip to ensure that travelers making the trip will arrive at their destination at, or before, the intended time, 95% of the time.

public right-of-way and with new development		
Number of pedestrians	City of Casper/MPO	Begin a formal process of data collection by 2020
Add or improve sidewalk connections to CTP bus stops		5 to 10 stops per year
Percentage of K-8 students walking to school	City/County School Districts	20% (increase 4%) by 2020

10.6 Transit Performance Measures

As part of the update for the Five-Year Development Plan for the Casper Area, the Casper MPO administered an on-board survey to collect information about general opinions, levels of awareness of the system, and barriers to using transit, that provides a good base for data collection. The Plan also identifies performance data and indicators and compares The Bus and CATC to peer systems. The data to effectively monitor and report the following performance standards is for the most part already being collected.

Measure	Data Source	Target
Ridership	CATC	2.5 trips per capita by 2020 (92% increase)
Households within ¼ mile of transit stop	CATC	TBD
Farebox recovery	CATC	14% The Bus (5% increase) 10% CATC (3% increase)
Productivity – The Bus	CATC	10 passengers/hour (69% increase)
Productivity – CATC	CATC	2.0 passengers/hour (100% increase)
Trip transfers	On-board survey	15-20% (10-15% reduction) by 2020
On-time performance	CATC	95% of all vehicle trips are completed on time by 2020

10.7 Environmental Performance Measures

In addition to the performance measures established above, an environmental measure such as on-road mobile source emissions of criteria air pollutants will be established. Since the Casper MPO is not a nonattainment area, this measure may not apply to the Casper Area.