DLCD # 001-01

City of Athena

Transportation System Plan

Final Report

February 2001

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CHAPTER 1: INTRODUCTION

The City of Athena Transportation System Plan (TSP) guides the management of existing transportation facilities and the design and implementation of future facilities for the next 20 years. This Transportation System Plan constitutes the transportation element of the city's Comprehensive Plan and satisfies the requirements of the Oregon Transportation Planning Rule established by the Department of Land Conservation and Development. It identifies and prioritizes transportation projects for inclusion in the Oregon Department of Transportation's (ODOT's) Statewide Transportation Improvement Program (STIP).

PLANNING AREA

The City of Athena's Transportation System Plan planning area covers the entire area within the Athena Urban Growth Boundary (UGB). The planning area is shown on Figure 1-1. Roadways included in the Transportation System Plan fall under three jurisdictions: the city of Athena, Umatilla County, and the state of Oregon.

Athena is located in the northeastern portion of Umatilla County in the northeastern corner of Oregon. The City acts a retail center for local farms and nearby towns and has a growing population of more than 1,100 people. The City is divided into two distinct grids by the two railroad right-of-ways which feed into the town from the north. The grid to the west is occupied entirely by residential development. The larger eastern grid contains the majority of the city's services, the commercial district, and residential areas. Commercial development is concentrated along Main Street (Athena-Holdman Highway).

The Athena-Holdman Highway (ODOT Highway No. 334) runs through the center of the City connecting to OR 11 in the east, and to OR 37 in the west. OR 11 runs along the southern boundary of the UGB providing access to Pendleton to the south and Milton-Freewater and Walla Walla to the north. The highways are under the jurisdiction of ODOT.

Four county roads exist within the UGB: Waterman Road (No. 725) running northwest, Sherman Street (No. 676) running east-west near the northern boundary of the UGB, Pambrun Road (No. 737) running north-south in the southern portion of the UGB, and S. 3rd Street (No. 683) in the south-central quadrant of the City. The county roads and state highway function as arterials and collectors within Athena. The City has jurisdiction over the rest of the existing roadways. The Union Pacific Railroad right-of-way runs northwest to southeast through the middle of the City. The rights-of-way are abandoned and the railroads are removing rails and selling of the land. Some houses have been built within these areas. Therefore, it is unlikely that the companies will reactivate Athena's railways in the future.

Agriculture, food processing, wood products, tourism, manufacturing, and recreation serve as the principal industries within Umatilla County. Employment in agriculture and wood products is subject to seasonal variations, which tend to parallel growing and construction seasons.

Planning Process

The Athena Transportation System Plan was prepared as part of an overall effort in Umatilla County to prepare TSPs for Umatilla County and eight small municipalities: the cities of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston. Each plan was developed through a series of technical analyses combined with systematic input and review by the county, the cities, the management team, the Transportation Advisory Committee (TAC), ODOT, and the public. The TAC consisted of staff, elected and appointed officials, residents, and business people from Umatilla County, and the eight cities. Key elements of the process include:

- Involving the Athena community (Chapter 1)
- Defining goals and objectives (Chapter 2)
- Reviewing existing plans and transportation conditions (Chapters 3, 4; Appendices A and B)
- Developing population, employment, and travel forecasts (Chapter 5, and Appendix C)
- Developing and evaluating potential transportation system improvements (Chapter 6)
- Developing the Transportation System Plan and a capital improvement plan (Chapter 7)
- Evaluate funding options and develop financial plan (Chapter 8)
- Developing recommended policies and ordinances (Chapter 9)

Community Involvement

Community involvement is an integral component in the development of a TSP for the city of Athena, Umatilla County and each of the other seven cities covered under the Umatilla County TSP process. Since the communities faced many similar transportation and land use issues, a public involvement program involving all the jurisdictions was used. This process allowed for individual attention when needed, and general problem solving for all jurisdictions as appropriate. Several different techniques were utilized to involve each local jurisdiction, ODOT, and the general public.

A combined management team and transportation advisory committee (TAC) provided guidance on technical issues and direction regarding policy issues to the consultant team. Staff members from each local jurisdiction, from ODOT, and a local resident from each community served on the TAC. This group met several times during the course of the project.

The second part of the community involvement effort consisted of community meetings within Umatilla County. The first public meeting was held in June 1998. The Athena general public was invited to learn about the TSP planning process and provide input on transportation issues and concerns. A second public meeting was held in July 1998. The third and final public meeting was held in September 1998. The public was notified of the public meetings through public announcements in the local newspapers and on the local radio station.

Goals and Objectives

Based on input from the community, the county, and the management team/TAC, a set of goals and objectives were defined for the TSP. These goals and objectives were used to make decisions about various potential improvement projects. They are described in Chapter 2.

Review and Inventory of Existing Plans, Policies, and Public Facilities

To begin the planning process, all applicable Athena and Umatilla County transportation and land use plans and policies were reviewed and an inventory of public facilities was conducted. The purpose of these efforts was to understand the history of transportation planning in the Athena area, including the street system improvements planned and implemented in the past, and how the City is currently managing its ongoing development. Existing plans and policies are described in Appendix A of this report.

The inventory of existing facilities catalogs the current transportation system. The results of the inventory are described in Chapter 3, while Chapter 4 describes how the system operates. Appendix B summarizes the inventory of the existing arterial and collector street system.

Future Transportation System Demands

The Transportation Planning Rule requires the Transportation System Plan to address a 20-year forecasting period. Future traffic volumes for the existing and committed transportation systems were projected using ODOT's *Level 1 – Trending Analysis* methodology. The overall travel demand forecasting process is described in Chapter 5.

Transportation System Potential Improvements

Once the travel forecasts were developed, it was possible to evaluate a series of potential transportation system improvements. The evaluation of potential transportation improvements was based on a qualitative review of safety, environmental, socioeconomic, and land use impacts, as well as estimated cost. These improvements were developed with the help of the local working group, and they attempt to address the concerns specified in the goals and objectives (Chapter 2). After evaluating the results of the potential improvements analysis, a series of transportation system improvements were selected. These recommended improvements are described in Chapter 6.

Transportation System Plan

The Transportation System Plan addresses each mode of transportation and provides an overall implementation program. The street system plan was developed from the forecasting and potential improvements evaluation described above. The bicycle and pedestrian plans were developed based on current usage, land use patterns, and the requirements set forth by the Transportation Planning Rule. The public transportation, air, water, rail, and pipeline plans were developed based on discussions with the owners and operators of those facilities. Chapter 7 details the plan elements for each mode.

Funding Options

The city of Athena will need to work with Umatilla County and ODOT to finance new transportation projects over the 20-year planning period. An overview of funding and financing options that might be available to the community are described in Chapter 8.

Recommended Policies and Ordinances

Suggested Comprehensive Plan policies and implementing zoning and subdivision ordinances are included in Chapter 9. These policies and ordinances are intended to support the TSP and satisfy the requirements of the Transportation Planning Rule (TPR).

RELATED DOCUMENTS

The city of Athena TSP addresses the regional and rural transportation needs in the City. There are several other documents that address specific transportation elements or areas in Umatilla County that may directly or indirectly impact transportation elements in and around Athena.

Other Transportation System Plans Prepared Concurrently with the Athena TSP

In addition to the Athena TSP, seven small city TSPs were prepared in conjunction with the Umatilla County TSP project. These documents include:

- City of Adams TSP
- City of Echo TSP
- City of Helix TSP
- City of Pilot Rock TSP
- City of Stanfield TSP
- City of Ukiah TSP
- City of Weston TSP

~~**In-Process or Completed Transportation System Plans**~~

~~David Evans and Associates, Inc. (DEA) prepared a TSP for the city of Milton-Freewater. DEA also prepared a TSP for the city of Hermiston in May 1997, and TSPs were previously prepared for the cities of Umatilla and Pendleton, by Kittelson and Associates, Inc. The city TSPs address the needs of the community within each Urban Growth Boundary (UGB). They provide street standards, access management standards, and modal plans. In some cases, a project may be identified in a city TSP that extends beyond the city limits into or perhaps beyond the city's UGB. These projects then need to be addressed in the Umatilla County TSP as well.~~

~~**Other In-Process or Completed Plans**~~

The following references were reviewed for relevance to the city of Athena TSP: ~~process and to ensure the Athena TSP was compliant with existing applicable plans.~~

Athena Comprehensive Plan (1995)

The Athena Comprehensive Plan was adopted in 1995. The plan provides findings on the state of the City, a growth report, and a statement of the City's goals and policies for guiding the future growth and development of the City. Two of the City's 13 goals strongly impact the development of the Transportation System Plan – Goal 12: Transportation and Goal 11: Public Facilities and Services.

Goal 12: Transportation

To provide and encourage a safe, convenient and economic transportation system.

Goal 11: Public Facilities and Services

To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban development.

Athena Growth Report

The Athena Growth Report is an appendix to the Comprehensive Plan. The growth report was created 1979 to provide accurate base information to inform the planning process. There have been some updates to the section since that time, but much of the text is outdated. The Growth Report analyzes present and planned land use, housing stock, water and sewer problems, and buildable lands in the City. This information can be used to encourage economic diversification and a provision of more and varied housing within the area.

Athena Zoning Ordinance

It is unclear when the Athena Zoning Ordinance was adopted since no date is listed. The purported intent and purpose of the Zoning Ordinance is as follows:

> To promote a good quality of development within the community and provide an opportunity for citizens and city officials to review and comment on development plans. By governing the location of land uses and setting standards to guide the sitting of structures and provision of improvements on lots, the Zoning Ordinance is an attempt to insure that new development will enhance the community, fit into the landscape and neighborhood, and provide good living, working, and business environments.

The ordinance contains four sections – Introduction, Use Zones, Supplementary Development Standards and Administration. The only sections that apply directly to transportation are the sections on off-street parking and a section in the Flood Hazard Area that regulates construction of streets, driveways, and bridges.

Athena Subdivision Ordinance

The City of Athena Subdivision Ordinance was adopted in 1994. It regulates all subdivisions and partitions of lands, within the city limits. (Umatilla County is responsible for regulating subdivision and partitions outside of the city limits but within the Urban Growth Boundary. However, the City reviews and comments on all plans, plats, and maps for those areas.)

The ordinance lists general requirements and design standards for streets including the provision of sidewalks and bicycle facilities to support safe and efficient pedestrian and bicycle mode use. General requirements include the frontage requirements, grading, topography and arrangement of streets, road names, sign requirements, and street light requirements. Design standards include widths for rights-of-way, pavement, parking strips, landscape strips, curbs, and sidewalks as follows:

TABLE 1-1
ROAD DEVELOPMENT STANDARDS

Right-of-way	60 feet wide
Paved traffic land	24 feet wide
Graveled Parking Strip	8 feet wide on each side
Median strip with street trees between parking strip and sidewalk	6 feet wide on each side
Sidewalk	3 feet wide on each side

Umatilla County Comprehensive Plan

The Umatilla County Comprehensive Plan was written in 1983 to meet the statewide requirements for planning. It was last amended in 1987. The plan is broken into three sections: the Introduction; Plan Elements – Findings, Recommended Policies; and the Plan Map. The Plan Elements section is broken into sections dealing with the fourteen goals. This includes a Transportation Element with findings and recommended policies.

Umatilla County Development Code

The Umatilla County Development Ordinance was adopted in 1983, and last amended in November of 1991. In 1997 this ordinance was recodified and retitled as Chapter 1528 Development Code. The portions of the code most relevant to the Transportation System Plan include sections on off-street parking requirements, driveways, and road standards. Amendments to the development code include road standards for county roads.

Development Ordinance for the Confederated Tribes of Umatilla Indian Reservation

The Land Development Code for the Confederated Tribes of the Umatilla Indian Reservation was adopted in 1983. The Ordinance contains 19 chapters covering each land use zone, supplementary development standards, and administration. The only section that directly applies to the transportation system is the sections on off-street parking.

~~*Traffic Impact Analysis*~~

~~A Traffic Impact Analysis for the Wal-Mart Distribution Center, located on 220 acres in rural Umatilla County, approximately one and one-half miles north of Stanfield, and two miles south of Hermiston was prepared in October 1994, and revised in August 1995. The project includes a distribution center with approximately 1.2 million square feet of floor area and paved parking, receiving and shipping areas. Traffic generated is estimated at about 700 trucks per day and about 300 passenger vehicles per day. The purpose of the study was to assess the traffic impact of the proposed development on the nearby road system and to recommend any required mitigative measures. Primary roadways impacted by the development include: Feedville Road, US 395, US 730, I-82, and I-84. A more detailed summary of the report findings is available in Appendix A of this TSP.~~

~~***Stanfield Community Visioning and Buildable Land Inventory***~~

~~The Stanfield Community Visioning and Buildable Lands Inventory project addresses the following issues and community needs:~~

- ~~An influx, currently in progress, of numerous large industrial and institutional employers in western Umatilla County and northeastern Morrow County including: the Two Rivers Prison, a Wal-Mart distribution center north of Stanfield, the Hinkle Railyard expansion, and increased activity at the Umatilla Army Depot.~~

- ~~Anticipated rapid population growth will generate demand for residential and commercial land development as workers and their families migrate to the area. This growth, together with major increases in freight movement associated with the new employment centers, will produce significant travel demand increases and pattern changes.~~

- ~~The capacity of the existing town center to accommodate growth and redevelopment is severely constrained. The central business district and much of the residential area around it are within the 100-year floodplain boundary. In addition, Highway 395 through the center of town is expected to carry increasing freight movement between I-84 and the new Wal-Mart distribution center.~~

~~***US 395 North Corridor Plan***~~

~~The US 395 Corridor Plan being prepared by OTAK, Inc. and Kittelson and Associates, Inc., covers a section of US 395 extending from I-84 (including the city of Echo) to US 730 in the city of Umatilla. This plan addresses transportation system improvement projects and an access management plan for the entire US 395 north corridor.~~

OR 11 Corridor Plan

The OR 11 Corridor Plan is currently being prepared by David Evans and Associates, Inc. for the Oregon – Washington Highway (OR 11) which is the major north-south route through eastern Umatilla County. Corridor planning is a new approach to transportation planning in which ODOT and the communities bordering major transportation corridors work together to create plans for managing and improving transportation modes along entire corridors. The OR 11 Corridor Plan includes objectives that define the policy direction for all modes in the Corridor, as well as for several functional issues such as connectivity, congestion and environmental and energy impacts. The plan includes a list of projects prioritized by funding. The Corridor Plan projects are derived from the county and local TSPs, the Milton-Freewater to Stateline Land Use and Transportation Plan, the STIP, the Umatilla County Needs Assessment, as well as input from the project management team, technical advisory committees and the public. Projects and strategies focus on managing the highway to minimize congestion and improve connectivity while ensuring safety.

The Milton-Freewater Stateline Highway 11 Corridor Land Use and Transportation Plan was a cooperative effort of Umatilla County, the city of Milton-Freewater, and the Oregon Department of Transportation. It was developed by planning consultants at David Evans and Associates, Inc., with input from the local residents, Walla Walla County, and the Washington Department of Transportation. The plan was adopted in 1997, and evaluated existing and projected conditions within the northern portion of the US 11 corridor regarding basic layout and connectivity, conditions of transportation facilities, land use, and population and employment. It analyzed existing deficiencies and proposed strategies for addressing them. The primary deficiencies in the corridor were physical design of facilities, insufficient access control, and inadequate or

nonexistent facilities for pedestrians and bicyclists. Recommended actions to improve these conditions included policy and ordinance amendments and transportation system improvements.

Corridor Strategies

Corridor strategies have been prepared for both US 395 and OR 11.

The US 395 corridor is covered in two studies: *the US Highway 395 North (Umatilla-Stanfield) Draft Corridor Strategy* and the *US Highway 395 South (Pendleton-California Border) Corridor Strategy*. The Corridor Strategies were developed to identify projects for the Oregon State Transportation Improvement Program. Generally, the Corridor Strategies translate the policies of the Oregon Transportation Plan (OTP) into specific actions; describe the functions of each transportation mode, consider tradeoffs, and show how they will be managed; identify and prioritize improvements for all modes of travel; indicate where improvements should be made; resolve any conflicts with local land use ordinances and plans; and establish guidelines for how transportation plans will be implemented.

The US 395 Corridor Strategies contain a corridor overview, which includes population and employment forecasts, highway data such as traffic volumes and pavement conditions and descriptions of other modes of travel (air, rail, bicycle, etc.). The overall corridor strategy is to, "accommodate efficient movement of through travel, while maintaining environmental integrity, enhancing travel safety and supporting economic development." The reports set forth objectives which are intended to embody this overall strategy for the corridor, and to set direction and provide guidance for corridor-wide transportation plans and improvements.

Airport Master Plans

The *1986 Hermiston Municipal Airport Master Plan Update* provides a comprehensive analysis of the Hermiston Airport including an inventory of facilities, a discussion of use for a twenty year planning period (ending in 2006), and recommendations for facility improvements. The introduction of the plan also provides a good overview of all the major transportation facilities serving Hermiston and Northeast Oregon.

The primary objective of the *Master Plan Update for Eastern Oregon Regional Airport at Pendleton* was to re-evaluate the recommendations of previous airport planning studies, to determine the long-range requirements for airport development, to identify and assess development alternatives, and to produce an airport development/improvement plan that will yield a safe, efficient, economical, and environmentally acceptable public facility with capacity for future air transport needs of the Eastern Oregon area. When approved by the various local, regional, state, and federal agencies, the Airport Master Plan represents the long-term intentions of all agencies regarding the location and extent of airport improvements. This permits long-range programming and budgeting, reduces lengthy review periods for each project, and provides for orderly and timely development.

Other State Plans

In addition to the ODOT corridor strategy, coordination with the following state plans is required:

- Oregon Transportation Plan (1992)
- Oregon Highway Plan (~~1991~~1999)
- Oregon Bicycle and Pedestrian Plan (1995)
- Oregon Public Transportation Plan (1996)
- Oregon Rail Freight Plan (1994)
- Oregon Rail Passenger Policy and Plan (1992)
- Oregon Traffic Safety Action Plan (1995)
- Oregon Aviation System Plan (in development).

CHAPTER 2: GOALS AND OBJECTIVES

The purpose of the TSP is to provide a guide for Athena to meet its transportation goals and objectives. The following goals and objectives were developed from information contained in the city's Comprehensive Plan and reflect public concerns as expressed during public meetings. An overall goal was drawn from the plan, along with more specific goals and objectives. Throughout the planning process, each element of the plan was evaluated against these parameters.

OVERALL TRANSPORTATION GOAL

To provide and encourage a safe, convenient, and economic transportation system.

Goal 1

Preserve the function, capacity, level of service, and safety of nearby highways.

Objectives

A. Develop access management standards.

B. Develop alternative, parallel routes where practical.

C. Promote alternative modes of transportation.

D. Promote transportation demand management programs.

E. Promote transportation system management.

F. Develop procedures to minimize impacts to and protect transportation facilities, corridors, or sites during the development review process.

Goal 2

Ensure that the road system within the City is adequate to meet public needs, including those of the transportation disadvantaged.

Objectives

A. Meet identified maintenance level of service standards on the county and state highway systems.

B. Pave city streets and provide curbs and sidewalks as resources are available.

C. Develop and adhere to a five-year road program for maintenance and improvement of the existing city road system.

D. Review and revise, if necessary, street cross section standards for local, collector, and arterial streets to enhance safety and mobility.

E. Develop access management strategies where needed.

F. Evaluate the need for traffic control devices.

G. Evaluate the safety of the street system and develop plans to mitigate any safety hazards.

H. Encourage the provision of transportation alternatives for elderly and handicapped citizens.

I. Discourage the use of South 3rd Street by trucks, especially during evening hours.

Goal 3

Improve coordination among Athena and nearby cities, the Oregon Department of Transportation (ODOT), the US Forest Service (USFS), the Federal Highway Administration (FHWA), and the county.

Objectives

A. Work with Umatilla County to coordinate roadway maintenance and improvements and to develop joint policies concerning local roads and streets within the Urban Growth Boundary.

B. Cooperate with ODOT in the implementation of the Statewide Transportation Improvement Program (STIP).

C. Work with the county in establishing right-of-way needed for new roads identified in the Transportation System Plans.

D. Take advantage of federal and state highway funding programs.

E. Encourage the county and ODOT to improve the existing road systems to and within the City.

F. Consider pooling resources with other cities and the county to provide services that benefit areas both in and outside the City.

Goal 4

Increase the use of alternative modes of transportation (walking, bicycling, and public transportation) through improved access, safety, and service.

Objectives

A. Cooperate with other cities and the county to pursue inter-city transit service opportunities.

B. Provide sidewalks or shoulders and safe crossings on collectors and arterials.

C. Explore opportunities for bicycle facilities and coordinate with the county bicycle planning efforts.

D. Seek Transportation and Growth Management (TGM) and other funding for projects evaluating and improving the environment for alternative modes of transportation.

E. Utilize local improvement districts (LIDs) when possible to provide sidewalks and curbs for local neighborhoods.

Goal 5

Support efforts to maintain the airport facilities for small aircraft and possibility of future charter services.

Objectives

A. Encourage the provision of public use airport facilities at the Pea Growers' field south of the City or another location at least one half mile from planned city development.

B. Do not discourage the private use of Barrett Field northwest of the City as long as operations do not exceed an average of 60 flights per month.

C. Encourage the maintenance of the existing airport facilities.

CHAPTER 3: TRANSPORTATION SYSTEM INVENTORY

As part of the planning process, David Evans and Associates, Inc., conducted an inventory of the existing transportation system in Athena. This inventory covered the street system as well as the pedestrian, bikeway, public transportation, rail, air, water, and pipeline systems.

STREET SYSTEM

The most common understanding of transportation is of roadways carrying cars and trucks. Most transportation dollars are devoted to building, maintaining, or planning roads to carry automobiles and trucks. The mobility provided by the personal automobile has resulted in a great reliance on this form of transportation. Likewise, the ability of trucks to carry freight to nearly any destination has greatly increased their use.

Encouraging the use of cars and trucks must be balanced against costs, livability factors, the ability to accommodate other modes of transportation, and negative impacts on adjacent land uses; however, the basis of transportation in nearly all American cities is the roadway system. This trend is clearly seen in the existing Athena transportation system, which consists almost entirely of roadway facilities for cars and trucks. Because of the rural nature of the area, the street system will most likely continue to be the basis of the transportation system for at least the 20-year planning period; therefore, the emphasis of this plan is on improving the existing street system for all users.

The existing street system inventory was conducted for all highways, arterial roadways, and collector roadways within Athena, as well as those in Umatilla County that are included in the TSP planning area. Inventory elements include:

- Street classification and jurisdiction
- Street width
- Number of travel lanes
- Presence of on-street parking, sidewalks, or bikeways
- Speed limits
- General pavement conditions

Figure 3-1 shows the roadway functional classification and jurisdiction. Appendix B lists the complete inventory.

City Street Classification

The current Comprehensive Plan for the city of Athena does not provide functional classifications for the streets within the City. Typically, streets are classified as either arterials, collectors or local streets. Based on conditions observed during the field reconnaissance (traffic volumes, street widths, etc.), DEA classified all streets within the City. The classification system includes city, county, and state roadways.

It is worth noting that a principle arterial (OR 11) is just south of the Urban Growth Boundary. Although OR 11 is outside of the study area, it has a strong impact on the city's transportation system. Due to its location and contribution to the Athena system, it is reviewed below.

Arterials

Arterials form the primary roadway network within and through a region. They provide a continuous road system that distributes traffic between cities, neighborhoods and districts. Generally, arterials are high capacity roadways that carry high traffic volumes entering or leaving the City.

In Athena, two roadways function as an arterial: OR 11 (Oregon - Washington Highway) and the Athena - Holdman Highway. These roadways serve as the focus for most of the commercial development in and around the City.

Collectors

Collectors serve traffic within the commercial, industrial and residential neighborhood areas. They connect local neighborhoods or districts to the arterial network. Collectors help form part of the grid system; however, they are not intended to function as alternate routes to the arterial system.

Five streets in Athena were identified as functioning as collectors within the urban area: Waterman Rd., Sherman Street, ~~Labor Camp~~Panmbrun Rd., Third Street, and Wildhorse Road.

Local Streets

Local streets provide access to all parcels of land and serve travel over relatively short distances. They are designed to carry the very low traffic volumes associated with the local uses which abut them. Through traffic movements are discouraged on local streets.

The local streets in Athena are comprised of all streets not classified as either arterials or collectors. Local streets in Athena also form part of the grid system.

Street Layout

Athena's street system is divided into two distinct grids by the two railroads ~~right-of-ways~~ which feed into the town from the north and Waterman Gulch. Block sizes vary but are typically 300 feet square.

State Highways

Discussion of the Athena street system must include the state highway that traverses the planning area. Although Athena has no direct control over the state highway, adjacent development and local traffic patterns are heavily influenced by the highway. Athena is served by the Athena-Holdman Highway and by OR 11, the Oregon-Washington Highway. OR 11 serves as a major route on the southern edge of town connecting Athena to other population centers.

The ~~1991~~ *1999 Oregon Highway Plan* (OHP) classifies the state highway system into four ~~levels of importance~~ categories~~(I.O)~~: Interstate, Statewide, Regional, ~~and~~ District, and Local Interest. ODOT has established primary and secondary functions for each type of highway and objectives for managing the operations for each one.

OR 11 (Oregon-Washington Highway) is a Statewide ~~h~~Highway ~~of statewide importance~~. According to the OHP, the primary function of a statewide highway is to "provide connections and links to larger urban areas,

ports, and major recreation areas that are not directly served by interstate highways." A secondary function is to provide links and connections for intra-urban and intra-regional trips. The management objective for statewide highways is to provide for safe and efficient high-speed, continuous-flow operation in rural areas and high- to moderate-speed operations with limited interruptions of flow in urban and urbanizing areas.

The Athena-Holdman Highway is a District hHighway ~~of district importance~~. According to the OHP, the primary function of a district highway is to "serve local traffic and land access." For Dsitrict Hhighways ~~of district importance~~, emphasis is placed on preserving safe and efficient higher speed through travel in rural areas, and moderate- to low-speed operations in urban or urbanizing areas with a moderate to high level of interruptions to flow. This means that design factors such as controlling access and providing passing lanes are of primary importance. The management objective is to provide for safe and efficient moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment, and moderate to low-speed operation in urban and urbanizing areas with a moderate to high level of interruptions to flow.

OR 11

Although OR 11 is outside of the Athena Transportation System Plan study area, it is a significant route for the City and impacts the entire Athena transportation system. Therefore, OR 11 is reviewed in this section.

Oregon Highway 11 is a Statewide hHighway ~~of statewide importance~~, which connects Athena to numerous urban areas. The highway provides a high-speed link to Milton-Freewater and Walla-Walla to the north; and to Adams, Pendleton, and US 395 to the south.

The Highway extends east-west along the southern edge of Urban Growth Boundary. It is easily accessible from the Athena with five access points from the City. It is a three-lane roadway near the City with a speed limit of 50 mph.

In 1997, an ODOT study team and Corridor Management Team developed a Land Use and Transportation Plan for a section of the OR 11 Corridor between Milton-Freewater and the Washington border. This plan addressed issues of connectivity, operations, and safety for a growing segment of the corridor and proposed improvements for that area.

Currently, ODOT is working with local teams to develop a Corridor Management Plan, which will address issues along the entire length of the highway. This plan will create objectives for the functioning of the highway; and identify, evaluate, and recommend actions for corridor transportation management, capital improvements, and service improvements. A major part of this plan will be an access management program which may affect Athena's current access points to the highway.

Athena-Holdman Highway

The Athena-Holdman is a District hHighway ~~of district importance~~, connecting Athena to OR 11 in the east, and to OR 37 in the west. The highway runs east-west through the City acting as the commercial center of the Athena. Within the study area, the highway is called Main Street. It is a two-lane roadway with on-street parking and sidewalks between 2nd Street and 5th Street. The speed limit varies from 20 to 35 mph within the study area increasing to 55 mph beyond the city limits.

GENERAL PAVEMENT CONDITIONS

City Streets

The ODOT Pavements Unit published a 1994 report entitled, *Pavement Rating Workshop, Non-National Highway System*. This report thoroughly defines the characteristics that pavements must display to be categorized as Very Good and so on. The report also provides color photographs of roadways that display these characteristics, which aids in field investigation and rating of pavement condition. These established guidelines were employed by DEA in conducting a subjective evaluation of pavement condition for all collectors within the city of Athena.

An inventory of collector roadways was conducted in November 1997 by David Evans and Associates, Inc. (DEA). The collectors currently in fair condition included: Sherman Street, Wildhorse Road, and a portion of Third Street from ~~Center~~ Main Street to Sherman Street. Third Street from OR Hwy 11 to ~~Center~~ Main Street is in good condition. No collectors were rated below fair or above good.

State Highways

The Oregon Department of Transportation's (ODOT) Pavement Unit surveys the State Highway System on an annual basis. Observed severity levels of certain distress types are used to determine a pavement condition rating score. These scores are used to stratify pavement segments into five condition categories: (1) Very Good, (2) Good, (3) Fair, (4) Poor, and (5) Very Poor. *The Umatilla County Transportation System Plan* briefly defines these condition categories.

According to the 1997 ODOT Pavement Condition Report, the section of OR Hwy 11 which runs along Athena's southern UGB from Milepost 16.07 to ~~Labor Camp~~Pambrun Road is in poor pavement condition. However, in the summer of 1998, this section of highway was repaved and is now has a Very Good pavement rating. The segment of OR Hwy 11 between ~~Labor Camp~~Pambrun Road and Wildhorse Road is in good pavement condition. The Athena-Holdman Highway (Main Street within Athena's urban area) is in fair condition between Grandview Avenue and ~~Labor Camp~~Pambrun Road and in poor condition elsewhere within the city limits.

BRIDGES

The Oregon Department of Transportation maintains an up to date inventory and appraisal of Oregon bridges. Part of this inventory involves the evaluation of three mutually exclusive elements of bridges. One element identifies which bridges are structurally deficient. This is determined based on the condition rating for the deck, superstructure, substructure, or culvert and retaining walls. It may also be based on the appraisal rating of the structural condition or waterway adequacy. Another element identifies which bridges are functionally obsolete. This element is determined based on the appraisal rating for the deck geometry, under clearances, approach roadway alignment, structural condition, or waterway adequacy. The third element summarizes the sufficiency ratings for all bridges. The sufficiency rating is a complex formula which takes into account four separate factors to obtain a numeric value rating the ability of a bridge to service demand. The scale ranges from 0 to 100 with higher ratings indicating optimal conditions and lower ratings indicating insufficiency. Bridges with ratings under 55 may be nearing a structurally deficient condition.

There are a total of three bridges within the city of Athena that are included in ODOT's bridge inventory program. All three bridges are county owned and maintained and none are currently deficient. No bridge improvements are scheduled within Athena under the 2000-2003 ODOT STIP Update.

PEDESTRIAN SYSTEM

The most basic transportation option is walking. Walking is the most popular form of exercise in the United States and can be performed by people of all ages and all income levels. However, it is not often considered as a means of travel. Because pedestrian facilities are generally an afterthought, they are not planned as an essential component of the transportation system.

The relatively small size of Athena indicates that walking could be employed regularly, weather permitting, to reach a variety of destinations. Encouraging pedestrian activities may not only decrease the use of the personal automobile, but may also provide benefits for retail businesses. Where people find it safe, convenient, and pleasant to walk, they may linger and take notice of shops overlooked before. They may also feel inclined to return to renew the pleasant experience time and again.

As is typical of most towns the size of Athena, the sidewalk system in the older core of the City is the most complete. On Main Street, there are sidewalks on both sides between 2nd Street and 5th Street, and intermittent and poorer quality sidewalks further out. Main Street has crosswalks at the intersections with 3rd, 4th, and 5th Streets. There are also sidewalks on both sides of Third Street to Main Street. Small segments of sidewalks exist on College Street, Jefferson Street, and 4th Street. The existing pedestrian system is shown in Figure 3-2. Sidewalks and other pedestrian facilities are notably lacking outside of this area. Curb cuts for wheelchair access are largely lacking even where sidewalks exist. Furthermore, the majority of streets within the City are unpaved making walking very unpleasant in inclement weather.

BIKEWAY SYSTEM

Like pedestrians, bicyclists are often overlooked when considering transportation facilities. Bicycles are not often considered as a serious mode of transportation. However, cycling is a very efficient mode of travel. Bicycles take up little space on the road or parked, do not contribute to air or noise pollution, and offer relatively higher speeds than walking. Because of the small size of Athena, a cyclist can travel to any destination in town within a matter of minutes.

Bicycling should be encouraged for short trips in order to reduce some of the negative aspects of urban growth and automobile use. Noise, air pollution, and traffic congestion could be mitigated if more short trips were taken by bicycle or on foot. Typically, a short trip that would be taken by bicycle is around two miles; on foot, the distance commonly walked is around one half mile.

Athena currently has no designated bikeways; bicyclists must share the roadways with motorized vehicles. On low volume roadways, such as many of the local streets, bicyclists and automobiles can both safely and easily use the roadway. On higher volume roadways, particularly the arterial streets, safety for the bicyclists is an important issue.

An impediment to bicycle use is the lack of parking and storage facilities for bikes throughout the city of Athena.

PUBLIC TRANSPORTATION

The only intercity bus service in Umatilla County is provided by Greyhound bus lines which provides service along I-84, US 395, and Oregon 11 within Umatilla County. Greyhound has terminals located in Hermiston and Pendleton that connect these cities to each other and major population centers outside of the county. The Hermiston terminal has two departures heading southeast (with stops in Pendleton, La Grande, Boise, and Salt Lake City); three buses running west to Portland; and two buses heading north on US 395 to Pasco and Spokane daily. The Pendleton terminal has three departures southeast (with stops in La Grande, Boise and Salt Lake City); three departures west to Portland; and two departures north to Seattle via Walla Walla, Pasco, and Spokane daily. The line to Seattle could serve Milton-Freewater as it runs through the City along OR 11.

Although Pendleton, Hermiston, Pilot Rock, and the Umatilla Indian Reservation have dial-a-ride type transit service available for the transportation disadvantaged, Athena does not offer this service. Dial-a-ride service is defined as door-to-door service initiated by a user's request for transportation service from their origins to specific locations on an immediate or advance reservation basis. These services are provided by the Pendleton Senior Center in Pendleton, the Confederated Tribes of the Umatilla Indian Reservation on the Umatilla Indian Reservation, the Hermiston Senior Center in Hermiston, and the Pilot Rock Lions Club in Pilot Rock. A similar kind of service could be appropriate for Athena.

Athena has no local fixed-route transit service at this time. The small size and low traffic volumes on city streets indicate that mass transit is not necessary nor economically feasible at this time. The Transportation Planning Rule exempts cities with a population of less than 25,000 from developing a transit system plan or a transit feasibility study as part of their Transportation System Plans.

RAIL SERVICE

Athena has no passenger or freight rail service. Until recently there were two nearby passenger lines. AMTRAK service was available in Hermiston and Pendleton along the rail line which follows the I-84 corridor from Portland to Boise, Idaho and points east. Amtrak is currently experiencing a funding crisis. As a result, passenger service between Portland and Denver, including service to cities within Umatilla county, was discontinued in May 1997. This line serves only freight traffic now.

There are two inactive railway freight lines (Burlington Northern and Union Pacific branch lines) within the city of Athena. A large industrial area is located adjacent to the rail rights-of-way. According to the 1995 Athena Comprehensive Plan, rail service was provided daily through the City. However, railways to Athena have been abandoned and tracks removed. Both rail companies (Union Pacific and Burlington Northern) are selling their rights-of-way. Some houses have been located within the former rights-of-way making reinstatement of services unlikely.

AIR SERVICE

Athena is served by many airport facilities nearby. Walla Walla Airport is located in Walla Walla, Washington, which is approximately 20 miles north of Athena. Eastern Oregon Regional Airport is located in Pendleton, which is approximately 25 miles southwest of Athena. Hermiston Municipal Airport is located in Hermiston, which is approximately 50 miles west of Athena. Other small nearby airports in the county include: Barrett Field northwest of Athena, the Pea Growers' Field south of Athena, and Curtis Airfield northwest of Pendleton. These airports are small, private, uncontrolled airstrips mainly used for cropdusting operations.

Walla Walla Airport is owned and operated by the Port of Walla Walla. Located three miles from downtown Walla Walla, it is a tower-controlled airport with 25,000 annual enplanements. Passenger service includes ten scheduled flights per day to Seattle (five daily flights provided by Horizon Airlines and five daily flights provided by United Express). The airport is at an elevation of 1,205 feet above Mean Sea Level and has three runways varying in length from 6,450 feet to nearly 7,200 feet.

Eastern Oregon Regional Airport in Pendleton is a tower controlled airport with 40,600 annual operations. Passenger service includes 16 scheduled flights per day by Horizon Airlines, with flights to Portland and Seattle. The airfield is also home to 60 locally owned fixed-wing aircraft, 4 rotor, and 8 CH-47 Chinook helicopters with the Oregon Army Air Guard.

The city of Hermiston owns and operates a municipal airport. No commercial flights are available at the present time, but there is charter service available. The Hermiston Municipal Airport is located 1.5 miles from downtown Hermiston and had 12,380 annual operations in 1995. The airport is at an elevation of 641 feet above Mean Sea Level and has one runway which is 4,500 feet long and positioned in a northeast-southwest direction. The airport is often used by businesses such as Simplot, Gilroy Foods, Les Schwab Tires, UPS, and other large organizations such as PGE, Bonneville Power, and the Army Corps of Engineers. There is an agricultural spray operation based at the airport, and local residents also use the airport for recreational purposes.

The Athena Pea Growers field is located south of the City. It is used primarily by crop dusters and is available for public use. The Barrett Field is located in the northwest corner of the Athena UGB. The use of this airstrip has generated some controversy as it is adjacent to residentially-developed land. The Athena Comprehensive Plan states that the City should not discourage the use of the Barrett Field airstrip as long as operations do not exceed an average of 60 per month.

PIPELINE SERVICE

Although not often considered transportation facilities, pipelines carry liquids and gases very efficiently. The use of pipelines can greatly reduce the number of trucks and rail cars carrying fluids such as natural gas, oil, and gasoline. Cascade Natural Gas provides natural gas to consumers in Athena from the nearby Northwest Natural Gas pipeline. There is also an oil line within four miles of the City.

WATER TRANSPORTATION

Athena has no water transportation services. The nearest commercial port is the Port of Umatilla located in the northwest corner of the county along the Columbia River.

CHAPTER 4: CURRENT TRANSPORTATION CONDITIONS

As part of the planning process, the current operating conditions for the transportation system were evaluated. This evaluation focused primarily on street system operating conditions since the automobile is by far the dominant mode of transportation in Athena. Census data were examined to determine travel mode distributions. Traffic counts were used to determine how well traffic is currently flowing.

TRAFFIC VOLUMES

Historic traffic volume counts exist for OR 11 and the Athena-Holdman Highway in Athena as shown in Figure 4-1. The traffic volumes shown on Figure 4-1 and other volume figures are average volumes for the year, however summer is the season when volumes are highest. Data from ODOT's nearby permanent traffic volume recorder station along the Athena-Holdman Highway indicates summer season volumes are approximately 10 percent higher than average daily volumes. It is reasonable that OR 11 would experience summer increases in volume that meet or exceed this value. No other daily or hourly traffic data were available for the city streets in Athena, nor were any counts taken. Because the daily volumes on OR 11 in the City were so low (fewer than 2,700 vpd), traffic volumes on the other city streets were expected to be very low, and capacity deficiencies on city streets do not appear to be an issue in Athena.

Average Daily Traffic

Traffic volumes are nearly identical on OR 11 near the east and west city limits at 3,900 and 4,000 vehicles per day (vpd) respectively. Traffic along the highway near Pambrun Road has been growing at an average annual compound growth rate of approximately four percent since 1990.

Traffic volumes on the Athena-Holdman Highway range from 510 vpd at the intersection with Grandview Avenue to 2,700 vpd between 3rd and 4th Streets. Average daily traffic volumes have been growing at an average annual compound rate of approximately four percent at the east city limits since 1990 whereas traffic has decreased by nearly two percent, compounded annually, just east of 3rd Street since 1990. Other locations within the urban area have averaged approximately one percent per year growth since 1990.

The traffic volumes shown in Figure 4-1 and other volume figures are average volumes for the year, however summer is the season when volumes are highest. Data from ODOT's nearby permanent traffic volume recorder station along the Athena-Holdman Highway indicates summer season volumes are approximately 10 percent higher than average daily volumes. It is reasonable that OR 11 would experience summer increases in volume that meet or exceed this value.

No other daily or hourly traffic data were available for the city streets in Athena, nor were any counts taken. Because the daily volumes on OR 11 in the City were so low (fewer than 2,700 vpd), traffic volumes on the other city streets were expected to be very low, and capacity deficiencies on city streets do not appear to be an issue in Athena.

Street Capacity

Transportation engineers have established various standards for measuring traffic capacity of roadways or intersections. Each standard is associated with a particular level of service (LOS). The LOS concept requires consideration of factors that include travel speed, delay, frequency of interruptions in traffic flow, relative freedom for traffic maneuvers, driving comfort and convenience, and operating cost. In the 1991 OHP, levels of service were defined by a letter grade from A-F, with each grade representing a range of

volume to capacity (v/c) ratios. A volume to capacity ratio (v/c) is the peak hour traffic volume on a highway divided by the maximum volume that the highway can handle. If traffic volume entering a highway section exceeds the section's capacity, then disruptions in traffic flow will occur, reducing the level of service. LOS A represents relatively free-flowing traffic and LOS F represents conditions where the street system is totally saturated with traffic and movement is very difficult. The 1999 OHP maintains a similar concept for measuring highway performance, but represents LOS by specific v/c ratios to improve clarity and ease of implementation. ~~Six standards have been established ranging from Level A where traffic flow is relatively free-flowing, to Level F, where the street system is totally saturated with traffic and movement is very difficult.~~ Table 4-1 presents the level of service criteria for arterial roadways.

TABLE 4-1
LEVEL OF SERVICE CRITERIA FOR ARTERIAL AND COLLECTOR STREETS

Service Level (v/c Ratio)[2]	Typical Traffic Flow Conditions
A (0.00-0.48)	Relatively free flow of traffic with some stops at signalized or stop sign controlled intersections. Average speeds would be at least 30 miles per hour.
B (0.49-0.59)	Stable traffic flow with slight delays at signalized or stop sign controlled intersections. Average speed would vary between 25 and 30 miles per hour.
C (0.60-0.69)	Stable traffic flow with delays at signalized or stop sign controlled intersections. Delays are greater than at level B but still acceptable to the motorist. The average speeds would vary between 20 and 25 miles per hour.
C-D (0.70-0.73)	
D (0.74-0.83)	Traffic flow would approach unstable operating conditions. Delays at signalized or stop sign controlled intersections would be tolerable and could include waiting through several signal cycles for some motorists. The average speed would vary between 15 and 20 miles per hour.
D-E (0.84-0.87)	
E (0.84-0.97)	Traffic flow would be unstable with congestion and intolerable delays to motorists. The average speed would be approximately 10 to 15 miles per hour.
E-F (0.98-0.99)	
F (>1.00)	Traffic flow would be forced and jammed with stop and go operating conditions and intolerable delays. The average speed would be less than 10 miles per hour.

Source: (1) Transportation Research Board, *Highway Capacity Manual*, Special Report 209. National Research Council, 1985.
(2) ODOT, SIGCAP Users Manual. ODOT, 1994.

The ~~1991~~ 1999 *Oregon Highway Plan* (OHP) establishes ~~operating level of service (LOS)~~mobility standards for the state highway system[1]. Highways of statewide importance, such as OR 11, should operate at ~~LOS C or better (i.e., average speeds between 20 and 25 mph) in urban and urbanizing areas. Highways of district~~v/c ratio ~~importance~~ of .60-.69, ~~such as t~~The Athena-Holdman Highway, should operate at ~~LOS D~~a v/c ratio of .74-. 83 or better ~~(i.e.,~~where thr average speeds are between 15 and 20 mph~~)~~ in urban and urbanizing areas.

Traffic operations were determined at one representative intersection along OR 11 (at 3rd Street) and at one representative intersection along the Athena-Holdman Highway (also at 3rd Street) using the 1985 Highway Capacity Software for unsignalized intersections. This software is based on the 1985 Highway Capacity Manual, Special Report 209, published by the Transportation Research Board. Since all intersecting streets

[1] ~~1991 *Oregon Highway Plan*, Appendix A, Table 1, Operating Level of Service Standards for the State Highway System.~~ 1999 *Oregon Highway Plan*, Table 6. MAXIMUM VOLUME TO CAPACITY RATIOS OUTSIDE METRO.

and driveways are controlled by stop signs in the City, the analysis was performed for an unsignalized intersection. The peak hour traffic on the highway was assumed to be 10 percent of the 24-hour ADT volume and the directional split was assumed to be 60/40. Because side street traffic volumes were unavailable, an assumed volume of 30 vph was used and unsignalized intersection level-of-service calculations were generated for the intersection. The peak hour operations at the intersections are shown in Table 4-2.

TABLE 4-2
SUMMARY OF OPERATIONS AT REPRESENTATIVE INTERSECTIONS

Intersection Location	Direction	Movement	1996 LOS (v/c)
OR 11 (N-S) and 3rd Street (E-W)	Northbound	Left	A (<.48)
		Through	A(<.48)
		Right	A(<.48)
	Southbound	Left	A(<.48)
		Through	A(<.48)
		Right	A(<.48)
	Eastbound	Left	A(<.48)
	Westbound	Right	A(<.48)
Athena-Holdman Highway (E-W) and 3rd St. (N-S)	Northbound	Left, Through, Right	A(<.48)
	Southbound	Left, Through, Right	A(<.48)
	Eastbound	Left	A(<.48)
	Westbound	Left	A(<.48)

Note: The level of service is shown for all evaluated movements of the unsignalized intersections.

The intersection of OR 11 and 3rd Street currently operates very well based on the traffic volume assumptions made. Traffic on the highway flows smoothly at LOS A(v/c ratio less than 0.48) as do right turning vehicles from the minor streets. Left turning traffic also operates very well as LOS A (v/c ratio less than 0.48) along 3rd Street. The intersection of 3rd Street with the Athena-Holdman Highway also currently operates very well at LOS A (v/c ratio less than 0.48) for all movements.

TRANSPORTATION DEMAND MANAGEMENT MEASURES

In addition to inventorying the transportation facilities in Athena, an inventory was performed of any Transportation Demand Management (TDM) strategies that may currently be in place. TDM strategies are designed to relieve congestion on the street system by spreading peak hour traffic over a longer period of time, encouraging the use of alternative modes of transportation (i.e. sidewalks, bike lanes, public transit), and encouraging the single car driver to ride with others through local carpool programs. Other than the sidewalk and bicycle facilities that exist in Athena, no formal TDM strategies exist in the City.

This following sections briefly describe two elements that may impact future transportation demand management decisions in the City: 1) distribution of departure time to work, and 2) distribution of travel modes.

Alternative Work Schedules

One way to maximize the use of the existing transportation system is to spread peak traffic demand over several hours instead of a single hour. Statistics from the 1990 Census show the spread of departure to work times over a 24-hour period (see Table 4-3). Approximately 39 percent of the total employees (those not

working at home) depart for work between 7:00 and 8:00 a.m. Another 42 percent depart in either the hour before or the hour after the peak. Therefore, nearly three-fourths of all morning commute trips occur between 6:00 a.m. and 9:00 a.m.

TABLE 4-3
DEPARTURE TO WORK DISTRIBUTION

	1990 Census	
Departure Time	**Trips**	**Percent**
12:00 a.m. to 4:59 a.m.	6	1.7%
5:00 a.m. to 5:59 a.m.	15	4.2%
6:00 a.m. to 6:59 a.m.	103	28.9%
7:00 a.m. to 7:59 a.m.	137	38.5%
8:00 a.m. to 8:59 a.m.	46	12.9%
9:00 a.m. to 9:59 a.m.	2	0.6%
10:00 a.m. to 10:59 a.m.	8	2.2%
11:00 a.m. to 11:59 a.m.	8	2.2%
12:00 p.m. to 3:59 p.m.	20	5.6%
4:00 p.m. to 11:59 p.m.	11	3.1%
Total	**356**	**100.0%**

Source: US Bureau of Census.

Assuming an average nine-hour workday, the corresponding afternoon peak can be determined for work trips. Using this methodology, the peak work travel hour would occur between 4:00 and 5:00 p.m. which, in many cases, corresponds with the peak hour of measured traffic volumes.

Travel Mode Distribution

Although the automobile is the primary mode of travel for most residents in the Athena area, some other modes are used as well. Modal split data is not available for all types of trips. The 1990 Census statistics that were reported for journey to work trips are shown in Table 4-4 and reflect the predominant use of the automobile in this area.

In 1990, 85.6 percent of all trips to work were in a private vehicle (auto, van, or truck). Trips in single-occupancy vehicles made-up 78.5 percent of these trips, and carpooling accounted for 21.5 percent.

Bicycle usage was relatively low (approximately 0.5 percent) in 1990. Since the census data do not include trips to school or other non-work activities, overall bicycle usage may be greater. None of the city of Athena roadways include dedicated bicycle lanes. Dedicated bicycle lanes can encourage bicycle commuting, as can other facilities such as bicycle parking, showers, and locker facilities.

Pedestrian activity was also relatively high (7.3 percent of trips to work) in 1990. Statewide, 4.2 percent of trips to work were made on foot. Again, the census data only report trips to work; trips to school or other non-work activities are not included.

TABLE 4-4
JOURNEY TO WORK TRIPS

	1990 Census	
Trip Type	**Trips**	**Percent**
Private Vehicle	326	85.6%
Drove Alone	*256*	*78.5%*
Carpooled	*70*	*21.5%*
Public Transportation	0	0%
Motorcycle	0	0.%
Bicycle	2	0.5%
Walk	28	7.3%
Other	0	0%
Work at Home	25	6.6%
Total	**381**	**100.0%**

Source: US Bureau of Census.

ACCIDENT ANALYSIS

The Oregon Department of Transportation (ODOT) collects detailed accident information on an annual basis along the Athena-Holdman Highway within the Athena city limits (MP 17.02 to MP 17.57). The accident information data show overall accident rates for the routes and accident locations. The accident rate for a stretch of roadway is typically calculated as the number of accidents per million vehicle miles traveled along that segment of roadway.

Historic

Table 4-5 shows the accident rates for the Athena-Holdman Highway in Athena as well as the Oregon statewide average for urban non-freeway secondary state highways from January 1, 1994 to December 31, 1996. The accident rates for the Highway during 1995 and 1996 are consistently lower than the statewide average for similar highways. No accident rate information was available for 1994.

TABLE 4-5
HISTORIC ACCIDENT RATES FOR HIGHWAYS
(ACCIDENTS PER MILLION VEHICLE MILES TRAVELED)

Highway	1996	1995	1994
Athena-Holdman Hwy in Athena	2.83	2.83	NA
Average for all Urban Non-freeway Secondary State Highways	3.10	3.27	2.79

Source: Oregon Department of Transportation Accident Rate Tables.

Table 4-6 contains detailed accident information along the Athena-Holdman Highway in Athena from January 1, 1994 to December 31, 1996. It shows the number of fatalities and injuries, property damage only accidents, the total number of accidents, and the overall accident frequencies and rates for the segments of these roadways in Athena.

TABLE 4-6
ACCIDENT SUMMARY FOR THE ATHENA-HOLDMAN HIGHWAY

Location	Fatalities	Injuries	Property Damage Only	Total Accidents	Accident Frequency (acc/mi/yr)	Accident Rate (acc/mvm)
MP 17.02 to MP 17.57	0	1	1	2	0.61	2.83

Source: Oregon Department of Transportation Accident Summary Database Investigative Report.

During the three-year period, there was a total of two accidents within the Athena city limits, one of which was reported as resulting in property damage only. There were no fatalities and one injury on this roadway segment during the period. One of the accidents occurred at an intersection and both occurred on dry pavement. The accidents occurred at or immediately near the intersection of the highway with 3rd Street. Overall, there were no definitive patterns in the accident locations, types or causes. There is no evidence to suggest that intersection operations (signals, signing, striping, etc.) were a contributing factor in either of the accidents. The accident rate along the Athena-Holdman Highway is well below the statewide average, indicating that this roadway segment does not have any significant safety concerns.

CHAPTER 5: TRAVEL FORECASTS

The traffic volume forecasts for Umatilla County and its municipalities are based on historic growth of the state highway system taking into account historic and projected population growth. Forecasts were only prepared for the state highway system in the county, since the volumes on these roadways are much higher than on any of the county roads.

LAND USE

Land use and population growth plays an important part in projecting future traffic volumes. Population forecasts were developed to help determine future transportation needs since the amount of growth and where it occurs will affect traffic and transportation facilities in the study area. The population analysis presented here is not intended to provide a complete economic forecast or housing analysis, and it should not be used for any purpose other than that for which it was designed.

The population projections for Umatilla County are based on historic growth rates, the original population and employment forecasts made by the State of Oregon Office of Economic Analysis (OEA), and a recent study [2] identifying new economically-driven factors that will result in a higher population total than what was initially ~~projected in the DEA forecast.~~

~~Both h~~Historic and projected population estimates for Umatilla County, Athena, and ~~eight~~seven other cities in the county are summarized in Table 5-1. Factors that will affect the future growth rates of the county and incorporated cities include employment opportunities, available land area for development, and community efforts to manage growth.

TABLE 5-1
UMATILLA COUNTY POPULATION TRENDS

	1970[1]	1980[1]	1990[1]	1996[1] Estimate	2017[2] Projected
Umatilla County	44,923	58,855	59,249	65,500	80,073
Incorporated Cities					
Athena	**872**	**965**	**997**	**1,105**	**1,360**
Adams	219	240	223	260	310
Echo	479	624	499	530	660
Helix	152	155	150	185	230
Pilot Rock	1,612	1,630	1,478	1,570	1,650
Stanfield	891	1,568	1,568	1,755	2,490
Ukiah	NA	249	250	280	340
Weston	660	719	606	680	730

Sources:
1) Portland State University Center for Population Research and Census.
2) The population forecast shown for the county has been officially adopted, however there is no official breakdown in population for the incorporated cities in the county. The projected population numbers shown for the eight cities are based on the initial OEA forecast, solely for the purpose of producing travel forecasts for these cities.

[2] *Umatilla County Population Analysis*, December 16, 1998, produced by David Evans and Associates, Inc.

Umatilla County recently worked with the OEA to increase the official population projections for the county. Even though higher estimates have been adopted for the county than were used for the forecasting in this document, the new estimates will not impact travel projections for the TSP. This is because travel forecasts are based primarily on historic traffic levels taking into account population and land use. The difference between the original estimates and new official estimates is not great enough to impact travel projections.

A detailed description of existing and future land use projections, including the methodology and data sources used, is contained in the Umatilla County Population Analysis located in Appendix C. This appendix contains both the original estimates of the OEA and the new official estimates for the county.

As mentioned, Umatilla County has adopted new population estimates for the county as a whole. The new estimates have ~~not yet~~ been disaggregated to determine how much growth is likely to occur in each city.

Historic Growth

The population of Umatilla County has grown since the 1970s, with significantly slower growth in the 1980s, reflecting a general slowdown in the state's economy. Helix, Pilot Rock, and Weston experienced a net population loss between 1970 and 1990. Athena has grown steadily since 1970, and did not see the population shifts like in the other cities mentioned, but Athena's consistent growth was not uncommon in the area. For example, the ~~The~~ number of people residing in Stanfield nearly doubled between 1970 and 1980. This population growth may have been fueled by some significant housing developments and the location of several food processing plants in Stanfield during this time.

Estimated at 65,500 in 1997, the population of Umatilla County has grown relatively rapidly since the 1990 Census, with an average annual growth rate of 1.44 percent. Most of the jurisdictions in Umatilla County have grown at a healthy rate, comparable to the annual growth rate of 1.44 percent for the county overall. ~~The smaller jurisdictions of Adams and Helix have grown at a slightly faster rate, starting from the smaller population bases of 223 (Adams) and 150 (Helix) in 1990.~~ Athena has kept pace with the county as a whole, with an average population growth rate of 1.7 percent per year since 1990.

Projected Growth

The State Office of Economic Analysis prepared long-term population projections by county, but since the county has not yet allocated adopted population numbers to incorporated cities, preliminary population forecasts for the jurisdictions of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston were developed in five-year increments based on the initial OEA population forecast. (See Umatilla County Population Discussion – Appendix C.) This was done only for the purpose of producing the future traffic forecast and should not be used for anything other then the intended purpose.

The population forecast for Athena projects continued growth, although at a slightly slower rate than it experienced in the 1990's. It should maintain an average growth rate of 1.1 percent over the next twenty years, wcich keeps pace with the county (Table 5-1).

Overall, Umatilla County is also expected to experience healthy rates of population growth, averaging nearly 1 percent annually over the next 20 years. The western portion of Umatilla County is expected to grow faster than the rest of Umatilla County,. However, like much of rural Oregon, the economy of Umatilla County remains largely seasonal, with nearly one-quarter of all employment agriculture-based. This makes population projections difficult, and is not likely to be as stable as the forecasts imply.

~~Umatilla County is expected to experience population gains for the next 20 years. Like much of rural Oregon, the economy of Umatilla County remains largely seasonal, with nearly one-quarter of all employment agriculture-based. Therefore, population increases are difficult to predict, and are not likely to be as stable as the forecasts appear to imply.~~

~~The State Office of Economic Analysis prepared long-term population projections by county. Based on these projections, preliminary population forecasts for the jurisdictions of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston were developed in five-year increments. (See Umatilla County Population Discussion – Appendix C.)~~

~~An *ad hoc* HUES (Hermiston, Umatilla, Echo, and Stanfield) Impact Planning Group was formed in early 1997 to lead cooperative efforts to address growth concerns in western Umatilla County arising from four major employers locating or expanding in the region. The HUES Growth Impact Study, conducted by the Benkendorf Associates Corporation, Hobson Johnson & Associates, and Martin Davis Consulting, quantifies the impact of the construction and operation of these four facilities. Employment impacts are translated into household and population impacts, and disaggregated across the four HUES communities, Pendleton, and rural Umatilla County.~~

~~Of these four employers (the Two Rivers Correctional Institution, the Umatilla Chemical Agent Disposal Facility, the Union Pacific Railroad Hinkle Locomotive Shop, and the Wal-Mart Distribution Center and Truck Maintenance Facility), only one (the Wal-Mart Distribution Center) had been announced and incorporated in the long-range population and employment forecast prepared by the Office of Economic Analysis. Because the Umatilla County site was selected as the location for the Wal-Mart Distribution Center in 1994, its impacts were already incorporated in the Office of Economic Analysis long-term population and employment forecast. Applying the HUES methodology, DEA subtracted out the impact of the Wal-Mart Distribution Center, in order to identify the population impacts resulting from the three "big four" employers otherwise not accounted for in the OEA forecast. These estimated impacts were then applied to the original population forecasts for Echo and Stanfield.~~

~~As mentioned earlier, Umatilla County has completed work with the OEA to revise the state's official population estimates for the county to account for the impact of the major employers. The new projections would be higher than those initially estimated by the OEA, but are not different enough to require any revisions to travel projections.~~

~~Overall, Umatilla County is expected to experience healthy rates of population growth, averaging nearly one percent annually over the planning horizon. The western portion of Umatilla County is expected to grow faster than the rest of Umatilla County, fueled by the four major employers.~~

~~Since the county has not yet allocated adopted population numbers to incorporated cities, preliminary population forecasts for the jurisdictions of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston were developed in five-year increments, based on the initial OEA population forecast. This was done only for the purpose of producing the future traffic forecast and should not be used for anything other than the intended purpose.~~

TRAFFIC VOLUMES

Traffic volume projections for the year 2018 are based on historic growth trends of highway volumes taking into account current and future land use projections.

Historic

Before projecting future traffic growth, it is important to examine past growth trends on the Athena roadway system. Historic data is only available for the state highway system in Athena; however, these roadways carry far more traffic than any other roads in the City. The Oregon Department of Transportation (ODOT) collects traffic count data on the state highways (rural and urban sections) every year at the same locations. These counts have been conducted at five locations along the Athena-Holdman Highway in Athena.

Historical growth trends on the Athena-Holdman Highway in and around Athena were established using the average annual daily traffic (AADT) volume information presented in the ODOT Traffic Volume Tables for the years 1976 through 1996. The AADT volumes were obtained for each of these years at selected locations along the Athena-Holdman Highway. Using a linear regression analysis of the average AADT volumes between 1976 and 1996, an average annual growth rate was determined. Table 5-2 summarizes the historic average growth rate on each of these sections.

TABLE 5-2
HISTORIC TRAFFIC GROWTH RATES ON STATE HIGHWAYS

Highway Section	Average Annual Growth Rate 1976-1996	Total Growth 1976-1996
Athena-Holdman Highway		
Rural section- OR Hwy 37 to Athena	2.23%	55.6%
Urban section- Athena west city limits	0.30%	6.3%
Urban section- 0.01 mile west of 1st Street	0.99%	21.7%
Urban section- 0.01 mile east of 3rd Street	1.91%	46.0%
Rural section- Athena to OR Hwy 11	1.41%	32.4%

Source: ODOT 1976-1996 Transportation Volume Tables; information compiled by DEA.

Based on volumes from ODOT's annual count locations over the 20-year period from 1976 to 1996, the average annual growth rate on the Athena-Holdman Highway in Athena has ranged from approximately 0.3 to 1.9 percent per year. On the rural section of the highway west of Athena, traffic has been growing at a rate of 2.2 percent per year. East of Athena, traffic has been growing at a rate of 1.4 percent per year. The higher growth rate on the rural section from OR 37 to Athena is somewhat misleading because two of the three sections of highway in the City increased by more trips than this rural section; however, it was a smaller portion of its base year trips.

Traffic growth on Athena-Holdman Highway and OR 11 exceeded the population growth in Athena itself, which was 0.7 percent per year from 1970 to 1990. Traffic grew at an average annual rate of 2.23 percent on Athena-Holdman Highway and at a rate of 1.77 percent on OR 11 between 1976 and 1996. Athena experienced a growth spurt between 1990 and 1996 when population growth averaged 1.7 percent per year. During the same period, traffic growth on Athena-Holdman Highway remained flat; however, traffic growth on OR 11 increased at a rate of 2.0 percent per year. Typically, the rate of traffic growth exceeds that of population growth.

Future Traffic Volumes

Based on the official OEA estimates for the county, the population of Athena is forecast to grow at a rate of 1.1 percent per year over the next 20 years. This represents a slowdown in growth compared with the last few years; however, it is higher than Athena's long-term historic growth rate. It was decided that the most appropriate growth rate to project future traffic is a rate which was interpolated from the long-term and

short-term historic traffic growth rates and also accounted for the recent spike in the population growth rate and the projected slowdown in that rate. The resulting traffic growth rate calculated for Athena-Holdman Highway is 1.22 percent per year and for OR 11 the projected traffic growth rate is 1.86 percent per year. Traffic volumes are expected to increase by approximately 31 percent overall on Athena-Holdman Highway by the year 2018 to over 3,500 vpd just east of 3rd Street and increase by 50 percent overall on OR 11 by the year 2018 to 6,000 vpd immediately north of the Athena-Holdman Highway junction.

The forecast future traffic volumes and total growth from 1996 to 2018 are shown in Table 5-3

TABLE 5-3
FORECAST TRAFFIC VOLUMES AND TOTAL GROWTH ON STATE HIGHWAYS

Location	1996 ADT (vehicles/day)	2018 ADT (vehicles/day)	Total Growth 1996-2018
Athena-Holdman Highway			
	140	230	64.3%
Rural section- OR Hwy 37 to Havana-Helix Hwy			
Athena- west city limits	510	670	31.4%
Athena- 0.01 mile west of 1st Street	1,400	1,830	30.7%
Athena- 0.01 mile east of 3rd Street	2,700	3,530	30.7%

Source: ODOT 1976-1996 Transportation Volume Tables; information compiled by DEA.

HIGHWAY SYSTEM CAPACITY

For the year 2018, unsignalized intersection analyses were performed using the overall growth (30.7 and 50 percent, respectively) expected on the Athena-Holdman Highway and OR 11 at the same two intersections in Athena for which the existing conditions were analyzed. The analyses indicated that all three intersections are expected to exceed ODOT level of service standards over the 20-year forecast period. The results of the unsignalized intersection analyses are shown in Table 5-4. Traffic operations were determined at the intersection using the 1985 Highway Capacity Software for unsignalized intersections. This software is based on the 1985 *Highway Capacity Manual*, Special Report 209, published by the Transportation Research Board.

Analysis Results

Traffic movement volumes at the intersection of OR 11 and 3rd Street are forecast to increase by 50 percent over the 20-year forecast period. However, all traffic movements at the intersection are expected to continue to operate at LOS A (v/c ratio less than 0.48) throughout the 20-year forecast period except for southbound left-turns along the highway which are expected to diminish slightly, moving into the LOS B range (v/c ratio of 0.49-0.59)

Traffic movement volumes at the intersection of the Athena-Holdman Highway and 3rd Street are forecast to increase by nearly 31 percent over the 20-year forecast period. However, all traffic movements at the intersection are expected to continue to operate at LOS A (v/c ratio less than 0.48) throughout the 20-year forecast period.

TABLE 5-4
SUMMARY OF FUTURE OPERATIONS AT REPRESENTATIVE INTERSECTIONS

Intersection Location	Direction	Movement	1996 LOS (v/c ratio)	2018 LOS (v/c ratio)
OR 11 (N-S) and 3rd Street (E-W)	Northbound	Left	A (< 0.48)	A(< 0.48)
		Through	A(< 0.48)	A(< 0.48)
		Right	A(< 0.48)	A(< 0.48)
	Southbound	Left	A(< 0.48)	B(0.49-0.59)
		Through	A(< 0.48)	A(< 0.48)
		Right	A(< 0.48)	A(< 0.48)
	Eastbound	Left	A(< 0.48)	A(< 0.48)
	Westbound	Right	A(< 0.48)	A(< 0.48)
Athena-Holdman Highway (E-W) and 3rd St. (N-S)	Northbound	Left, Through, Right	A(< 0.48)	A(< 0.48)
	Southbound	Left, Through, Right	A(< 0.48)	A(< 0.48)
	Eastbound	Left	A(< 0.48)	A(< 0.48)
	Westbound	Left	A(< 0.48)	A(< 0.48)

Note: The level of service is shown for all movements of the unsignalized intersections.

CHAPTER 6: IMPROVEMENT OPTIONS ANALYSIS

As required by the Oregon Transportation Planning Rule (TPR), transportation alternatives were formulated and evaluated for the Athena Transportation System Plan (TSP). These potential improvements were developed with input from city officials, Management Team and the public. Each of the transportation system improvements options was developed to address specific deficiencies, access, or safety concerns and attempt to address the concerns specified in the goals and objectives (Chapter 2).

The following list includes all of the potential transportation system improvements considered. Improvement Options 2 through 4 are illustrated in Figure 6-1.

1. Revise zoning code to allow and encourage mixed-use development and redevelopment.

~~2.Extend Lincoln Street and Washington Street to the east from Hunt Avenue.~~

~~3.Extend Darwin Street to the west from 1st Street~~

~~1.~~2. Establish a roadway maintenance and improvement program.

~~4A. Pave 1st Street between Main Street and Darwin Street~~
~~4B. Pave Darwin Street between 1st Street and 3rd Street~~
~~4C. Pave Currant Street and 2nd Street between 1st Street and Darwin Street~~
~~4D~~2A. Pave Washington Street between dead end and 6th Street
~~4E~~2B. Pave High Street between 2nd Street and 6th Street
~~4F~~2C. Pave Van Buren Street between 2nd Street and 3rd Street
~~4G~~2D. Pave Jefferson Street between 2nd Street and 3rd Street

~~5.~~3. Implement transportation demand management strategies.

The proposed transportation system improvements evaluated for the Athena TSP include state highway, county, and local road projects. **It should be noted that not all of the transportation improvement options recommended along the county and state systems have identified funding. Therefore, recommended transportation improvements cannot be considered as committed projects, but are subject to the county's and ODOT's abilities to meet these current and future needs financially.**

EVALUATION CRITERIA

The evaluation of the potential transportation improvements in the city of Athena was based on a qualitative review of four factors: 1) safety; 2) access; 3) environmental factors, such as air quality, noise, and water quality; and 4) socioeconomic and land use impacts, such as community livability, right-of-way requirements and impacts on adjacent lands.

A fifth factor considered in the evaluation of the potential transportation improvements was cost. Costs were estimated in 1998 dollars based on preliminary alignments for each potential transportation system improvement.

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM PROJECTS

The Oregon Department of Transportation (ODOT) has a comprehensive transportation improvement and maintenance program that covers the entire state highway system. The Statewide Transportation Improvement Program (STIP) identifies all the highway improvement projects in Oregon. The STIP lists specific projects, the counties in which they are located, and their construction year.

The 2000 to 2003 STIP Update, recently released by ODOT Region 5, identifies a safety improvement project at the intersection of the Athena-Holdman Highway and OR 11. The type of work for this project includes reconstructing the intersection. This project is scheduled for construction in 2001 with a total cost estimated at $412,000. Although this intersection is located east of the City, it is a key access point to OR 11 north. .

IMPROVEMENT OPTIONS EVALUATION

Through the transportation analysis and input provided from the public involvement program, multiple improvement projects were identified. These options included constructing new and reconstructing existing roadways, and providing improved pedestrian and bicycle facilities.

Option 1. Revise Zoning And Development Codes

One of the goals of the Oregon TPR is to reduce the reliance on the automobile. One way city jurisdictions can do this is through amendments in zoning and development codes to permit mixed-use developments and increases in density in certain areas. Mixed-use refers to development that contains more than one type of land-use, e.g. residential and commercial. Specific amendments would allow small-scale commercial uses within residential zones or residential uses within commercial zones. Such code amendments can encourage residents to walk and bicycle throughout the community by providing shorter travel distances between land uses.

These code revisions are more effective in medium to large sized cities with populations of 25,000 and over, and in cities such as Athena, they may not be appropriate. Because of Athena's size, the decision of what mode of transportation to use when making a trip inside the City is not influenced by distance. The longest distance between city limit boundaries in Athena is a little over one mile, a distance short enough to walk, ride a bike, or drive. Distances between different land uses, such as residential and commercial, are even shorter. The city of Athena is also a bedroom community where the bulk of the city's workers commute to other larger cities such as Milton-Freewater, Walla Walla, and Pendleton. Because most of these workers travel outside the City in private vehicles, encouraging mixed use developments or increased densities will not affect their choice of travel mode for commuting. It could, however, encourage the use of alternative modes for other trips (e.g., to a local store).

Higher density zoning may also have some effect on development in Athena. Population is projected to increase by 23 percent (255 additional residents) in the next 20 years. Zoning for higher density would allow for less expensive housing to accommodate this growth.

No direct costs are associated with making the zoning code amendments.

Revisions to zoning and development codes to allow for mixed-use development and increased density is recommended.

~~Option 2. Extend Lincoln Street And Washington Street To The East From Hunt Avenue~~

~~This improvement option was identified in conjunction with a planned 27 unit subdivision to be located between Hunt Avenue and the Waterman Gulch. It involves extending Lincoln Street and Washington Street about 400 feet to the east from Hunt Avenue. Both extensions will terminate west of the Waterman Gulch as cul-de-sacs.~~

~~Both street extensions will have a total right-of-way width of 80 feet. They will be constructed as 40-foot-wide gravel roads with 20-foot grass or gravel shoulders for on-street parking.~~

~~Although an asphalt surface is preferred, the City does not have the funding at this time to pave these new roads. The funding for the construction of these roads using a gravel base will be provided by the private developer constructing the new subdivision. Assuming a cost of $25 per linear foot for a 40-foot-wide gravel roadway, both roadway extensions are estimated to cost $20,000.~~

~~Considering this project is planned for development and that the new housing will attract new residents and help improve the local economy, it is recommended.~~

~~**Option 3. Extend Darwin Street To The West From 1st Street**~~

~~This improvement option was identified in conjunction with plans for the construction of five new homes located west of Darwin Street. It would involve extending Darwin Street about 200 feet to the west from 1st Street, where it will terminate as a cul-de-sac.~~

~~This street extension will have a total right-of-way width of 80 feet. It will be constructed as a 40-foot-wide gravel road with 20-foot-wide grass or gravel shoulders for on-street parking.~~

~~Although an asphalt surface is preferred, the City does not have the funding at this time to pave this new road. The funding for the construction of this road using a gravel base will be provided by the private developer constructing the new homes. Assuming a cost of $25 per linear foot for a 40-foot-wide gravel roadway, this roadway extension is estimated to cost $5,000.~~

~~Considering this project is planned for development and that the new housing will attract new residents and help improve the local economy, it is recommended.~~

Option 42. Establish A Roadway Maintenance And Improvement Program

Many of the local streets in Athena are substandard gravel roads and are in need of paving. In response to this need, city officials have developed a six-year roadway maintenance and improvement plan to upgrade local city streets to paved roads. At this time, the plan includes a prioritized list of six projects. The following table describes the location of these projects along with each project's length and estimated total cost.

TABLE 6-1
ROADWAY MAINTENANCE AND IMPROVEMENT PROGRAM

Project #	Description/Location	Project Length	Total Cost
~~4A.~~	~~Pave 1st St. between Main St. and Darwin St.~~	~~650 feet~~	~~$18,400~~
~~4B.~~	~~Pave Darwin St. between 1st St. and 3rd St.~~	~~720 feet~~	~~$20,300~~
~~4C.~~	~~Pave Currant St. and 2nd St. between 1st St. and Darwin St.~~	~~680 feet~~	~~$19,200~~
~~4D~~2A.	Pave Washington St. between dead end and 6th St.	1,730 feet	$48,800
~~4E.~~2B.	Pave High St. between 2nd St. and 6th St.	1,500 feet	$42,300
~~4F.~~2C.	Pave Van Buren St. between 2nd St. and 3rd St.	360 feet	$10,200
~~4G.~~2D.	Pave Jefferson St. between 2nd St. and 3rd St.	360 feet	$10,200
Total			**$169,400**

The cost estimates for each project identified above assume a pavement width that is consistent with the street design standards recommended in Chapter 7. Since all roadways above are designated as local streets,

a pavement width was selected in conformance with the local street design standard. Officials from the city of Athena have indicated these roadways should be paved to a total width of 40 feet, but instead, a total pavement width of 34 feet was assumed in the cost estimate. This street width is consistent with the street design standards for Option 3, which does include pavement for two-lanes of travel and on-street parking on both sides of the road.

The estimates above also assume a total unit cost of $0.83 per square foot of asphalt. The unit cost estimate was obtained from Humbert Asphalt Inc., an asphalt laying company based in Milton-Freewater. This cost also includes cutting and cleaning the edges of streets, patching pot holes, tacking, preleveling the entire street with an average of 1-inch of asphalt, and then overlaying the entire street with 2-inches of asphalt, for a total asphalt overlay of around 3- inches.

Funding for these roadway projects will be provided by the City as funds become available.

Paving or repaving the city streets will improve the aesthetics of the local street system and community livability for the residents who reside on these streets. For these reasons, all street paving projects are recommended. However, it is also recommended that each of these projects include the addition of a pedestrian facility in correspondence with the recommended street design standards for a local street.

Option 53. Implement Transportation Demand Management Strategies

Transportation demand management (TDM) strategies change the demand on the transportation system by providing facilities for modes of transportation other than single occupant passenger vehicles, implementing carpooling programs, altering work shift schedules, and applying other transportation measures within the community. The TPR recommends that cities evaluate TDM measures as part of their TSPs.

TDM strategies are most effective in large, urban cities; however, some strategies can still be useful in small cities such as Athena. For example, staggering work shift schedules at local businesses may not be appropriate in Athena since there are no large employers in the area. However, provisions for alternative modes of transportation, such as sidewalks and bike lanes, and implementing a county-wide carpooling program can be beneficial for residents of the City.

Athena can implement TDM strategies by requiring all future street improvement projects to include the addition of some sort of pedestrian facility, such as new sidewalks or walkways, which will effectively separate pedestrians from motorized traffic. All new street improvement projects should also consider bicycle lanes as well.

Implementing a local carpool program which only serves Athena would not be effective due to the City's geographical size and people living and working in different locations. However, a county-wide carpool program is feasible. Residents who live in Athena and residents who live in other cities and rural areas should be encouraged to carpool with a fellow coworker or someone who works in the same area.

Although the primary goal of these measures is to reduce the number of vehicle trips made within the City, especially during peak periods, street capacity for automobiles and trucks is generally not an issue in Athena. At the same time, providing adequate facilities for pedestrians and bicyclists increases the livability of a city, and improves traffic and pedestrian safety. With more emphasis on walking or biking in the City, conditions such as air quality and noise levels would be improved as well. Therefore, this option is recommended.

Costs associated with implementing TDM strategies were not determined.

SUMMARY

Table 6-2 summarizes the recommendations of the street system modal plan based on the evaluation process described in this chapter. Chapter 7 discusses how these improvement options fit into the modal plans for the Athena area.

TABLE 6-2
TRANSPORTATION IMPROVEMENT OPTIONS:
RECOMMENDATION SUMMARY

Option	Recommendation
1. Revise Zoning And Development Codes	• Implement
2. ~~Extend Lincoln St. And Washington St. To The East From Hunt Ave.~~	• ~~Implement~~
3. ~~Extend Darwin St. To The West From 1st St.~~	• ~~Implement~~
4. Establish A Roadway Maintenance And Improvement Program	• Implement
5. Implement Transportation Demand Management Strategies	• Implement

CHAPTER 7: TRANSPORTATION SYSTEM PLAN

The purpose of this chapter is to provide detailed operational plans for each of the transportation systems within the community. The Athena Transportation System Plan (TSP) covers all the transportation modes that exist and are interconnected throughout the urban area. Components of the TSP include street classification standards, access management recommendations, transportation demand management measures, modal plans, and a system plan implementation program.

STREET DESIGN STANDARDS

Street design standards ensure the design of a roadway supports its intended function. The function is determined by operational characteristics such as traffic volume, operating speed, safety, and capacity. Street standards institute design parameters necessary to provide a community with roadways which are relatively safe, aesthetic, and easy to administer when new roadways are planned or constructed. They are based on experience, and policies and publications of the profession.

Existing Street Standards

- All City Streets – Existing development standards for the city of Athena require a basic minimum right-of-way of 60 feet for all city streets. The ordinances also require a minimum pavement width of 24 feet, 8-foot wide graveled parking strips to be placed on both sides of the road, a 6-foot wide median strip with street trees to be placed between the parking strip and sidewalk, and, at least, 3-foot wide sidewalks on both sides of the road.
- Cul-de-sac Streets – Current standards specify a maximum street length of 400 feet with a turnaround. Minimum street width is not specified.
- No width specifications are given for alleys or roadways located in commercial or industrial districts.
- There are no designated bikeway requirements.

Recommended Street Standards

The development of the Athena Transportation System Plan provides the City with an opportunity to review and revise street design standards to more closely fit with the functional street classification, and the goals and objectives of the Transportation System Plan. The recommended street standards for all types of functional classifications are shown graphically in Figure 7-1, and are summarized in Table 7-1. Further discussion of each type of street standard follows below.

Since the Athena Transportation System Plan includes all land within the Urban Growth Boundary (UGB), the recommended street standards should be applied in the outlying areas outside the city limits as well as within the UGB. Although these outlying areas may presently have a rural appearance, these lands will ultimately be part of the urban area. Retrofitting rural streets in these areas, as well as all rural streets within the city limits to urban standards in the future is expensive and controversial; it is more efficient to build them to an acceptable urban standard.

TABLE 7-1
RECOMMENDED STREET DESIGN STANDARDS

Classification	Pavement Width	Right-of-Way Width	Min. Posted Speed
Residential – Option 1	20 ft.	42 to 48ft.	15-25 mph
Residential – Option 2	23 to 24 ft.	47 to 52 ft.	15-25 mph
Residential – Option 3	28 ft.	52 to 56 ft.	15-25 mph
Alley	10 to 12 ft.	16 to 20 ft.	15 mph
Collector	32 to 34 ft.	57 to 63 ft.	25-35 mph
Arterial	50 to 52 ft.	80 ft.	-45 mph

Sidewalks shall be provided on arterial streets and should be included on all urban streets as an important component of the pedestrian system. Ideally, sidewalks should be buffered from the street by a planting strip to eliminate obstructions in the walkway, provide a more pleasing design, and provide a buffer from traffic. When sidewalks are located directly adjacent to the curb, they can include such impediments as mailboxes, street light, and sign poles, which reduce the effective width of the walk. To maintain a safe and convenient walkway for at least two adults, a 5 foot sidewalk should be used in residential areas. Residential Streets

The design of a residential street affects its traffic operation, safety, and livability. The residential street should be designed to enhance the livability of the neighborhood while accommodating less than 1,200 vehicles per day. Design speeds should be 15 to 25 mph. When traffic volumes exceed approximately 1,000 to 1,200 vehicles per day, the residents on that street will perceive the traffic as a noise and safety problem. To maintain neighborhoods, local residential streets should be designed to encourage low speed travel and to discourage through traffic. Narrower streets discourage speeding and through traffic as well as improve neighborhood aesthetics. They also reduce right-of-way needs, construction costs, stormwater run-off, and the need to clear vegetation.

Three recommended street standard options are provided for residential streets, as shown in Figure 7-1. Each option provides a minimum of 20 feet of pavement and provides varying degrees of on-street parking. The City should choose one of these options for each residential street based on the existing right-of-way and neighborhood character.

Option 1

This first option for a local residential street is a 20 foot paved roadway surface within a 42 to 48 foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction. Five to six foot sidewalks and seven to eight foot planting strips should be provided on each side of the roadway. The planting strips may be graded to accommodate parking in appropriate locations.

Option 2

This option provides a 23 to 24 foot paved roadway surface within a 47 to 52 foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction, with an eight foot paved parking strip on one side. Five to six foot sidewalks and seven to eight foot planting strips should be provided on each side of the roadway.

Option 3

A third option for a residential street provides a 28 foot paved roadway within a 52 to 56 foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction, with paved parking present along both sides of the road. Five to six foot sidewalks should be provided on both sides of the roadway in addition to seven to eight foot planting strips.

Alleys

Alleys can be a useful way to diminish street width by providing rear access and parking to residential, commercial, and industrial areas. Including alleys in a residential subdivision allows homes to be placed closer to the street and eliminates the need for garages to be the dominant architectural feature. This pattern, once common, has been recently revived as a way to build better neighborhoods. In addition, alleys can be useful in commercial and industrial areas, allowing access by delivery trucks off the main streets. Alleys should be encouraged in the urban area of Weston. Alleys should be 10 to 12 feet wide, with a 16 to 20 foot right-of-way (see Figure 7-1).

Cul-de-Sac Streets

Cul-de-sac, or "dead-end" residential streets are intended to serve only the adjacent land in residential neighborhoods. These streets should be short (less than 400 feet long) and serve a maximum of 20 single-family houses. Because the streets are short and the traffic volumes relatively low, the street width can be narrower than a standard residential street, allowing for the passage of two lanes of traffic when no vehicles are parked at the curb and one lane of traffic when vehicles are parked at the curb.

Because cul-de-sac streets limit street and neighborhood connectivity, they should only be used where topographical or other environmental constraints prevent street connections. Where cul-de-sacs must be used, pedestrian and bicycle connections to adjacent cul-de-sacs or through-streets should be included.

Collector Streets

Collectors are intended to carry between 1,200 and 10,000 vehicles per day, including limited through-traffic, at a design speed of 25 to 35 mph. A collector can serve residential, commercial, industrial, or mixed land uses. Collectors are primarily intended to serve local access needs of residential neighborhoods by connecting local streets to arterials. Bike lanes are typically not needed in smaller cities like Weston due to slower traffic speeds and low traffic volumes. The recommended street standard provided for collectors, is shown in Figure 7.2. This recommended standard provides one lane of moving traffic in each direction plus parking on both sides and can also be striped to provide two travel lanes plus left-turn lanes at intersections or driveways by removing parking for short distances. Five to six-foot sidewalks should be provided on each side of the roadway. A planting strip has been included with a width of seven to eight feet, which may be used as parking.

Arterial Streets

Arterial streets form the primary roadway network within and through a region. They provide a continuous roadway system that distributes traffic between different neighborhoods and districts. Generally, arterial streets are high capacity roadways that carry high traffic volumes with minimal localized activity. Design speeds should be between 25 and 45 mph (see Figure 7-3). The recommended design standard for arterial streets provides a 50-52-foot paved surface within an 80-foot right-of-way to allow for two 11 to 12-foot travel lanes, two six-foot bike lanes, and two eight-foot parking lanes. The bike lanes should be striped between the parking lane and the travel lane.

Sidewalks should be included on all urban streets as an important component of the pedestrian system. Ideally, sidewalks should be buffered from the street by a planting strip to eliminate obstructions in the walkway, provide a more pleasing design, provide a buffer from traffic. When sidewalks are located directly adjacent to the curb, they can include such impediments as mailboxes, street lights, and sign poles, which reduce the effective width of the walk. To maintain a safe and convenient walkway for at least two adults, a 5-foot sidewalk should be used in residential areas.

Residential Streets

The design of a residential street affects its traffic operation, safety, and livability. The residential street should be designed to enhance the livability of the neighborhood while accommodating less than 1,200 vehicles per day. Design speeds should be 15 to 25 mph. When traffic volumes exceed approximately 1,000 to 1,200 vehicles per day, the residents on that street will perceive the traffic as a noise and safety problem. To maintain neighborhoods, local residential streets should be designed to encourage low speed travel and to discourage through traffic. Narrower streets discourage speeding and through traffic as well as improve neighborhood aesthetics. They also reduce right-of-way needs, construction costs, storm water run-off, and the need to clear vegetation.

Three recommended street standard options are provided for residential streets, as shown in Figure 7-1. Each option provides a minimum of 20 feet of pavement and provides varying degrees of on-street parking. The City should choose one of these options for each residential street based on the existing right-of-way and neighborhood character.

Option 1

This first option for a local residential street is a 20-foot paved roadway surface within a 50-foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction, with 8-foot wide gravel shoulders on both sides of the street for parking. Five-foot sidewalks should also be provided on each side of the roadway.

Option 2

This option provides a 28-foot paved roadway surface within a 50-foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction, with curbside parking on one side. Five-foot sidewalks should be provided on each side of the roadway, adjacent to the curb.

Option 3

A third option for a residential street provides a 34-foot paved roadway within a 50-foot right-of-way. This standard will accommodate passage of one lane of moving traffic in each direction, with curbside

parking present along both sides of the road. Five-foot wide sidewalks should be provided on the roadway, adjacent to the curb.

Alleys

Alleys can be a useful way to diminish street width by providing rear access and parking to residential, commercial, and industrial areas. Including alleys in a residential subdivision allows homes to be placed closer to the street and eliminates the need for garages to be the dominant architectural feature. This pattern, once common, has been recently revived as a way to build better neighborhoods. In addition, alleys can be useful in commercial and industrial areas, allowing access by delivery trucks off the main streets. Alleys should be encouraged in the urban area of Athena. Alleys should be ~~20~~ 12 - 16 feet wide, with a 20-foot right-of-way (see Figure 7-1).

Cul-de-Sac Streets

Cul-de-sac, or "dead-end" residential streets are intended to serve only the adjacent land in residential neighborhoods. These streets should be short (less than 400 feet long) and serve a maximum of 20 single-family houses. Because the streets are short and the traffic volumes relatively low, the street width can be narrower than a standard residential street, allowing for the passage of two lanes of traffic when no vehicles are parked at the curb and one lane of traffic when vehicles are parked at the curb.

Because cul-de-sac streets limit street and neighborhood connectivity, they should only be used where topographical or other environmental constraints prevent street connections. Where cul-de-sacs must be used, pedestrian and bicycle connections to adjacent cul-de-sacs or through-streets should be included.

Collector Streets

Collectors are intended to carry between 1,200 and 10,000 vehicles per day, including limited through-traffic, at a design speed of 25 to 35 mph. A collector can serve residential, commercial, industrial, or mixed land uses. Collectors are primarily intended to serve local access needs of residential neighborhoods by connecting local streets to arterials. Bike lanes are typically not needed in smaller cities like Athena due to slower traffic speeds and low traffic volumes.

Two recommended street standard options are provided for collectors, as shown in Figure 7-2. Both options provide one lane of moving traffic in each direction and can also be striped to provide two travel lanes plus left-turn lanes at intersections or driveways by removing parking for short distances. The City should choose one of these options for each collector based on the existing right-of-way and neighborhood character.

Option 1

This option provides a 38-foot paved roadway surface within a 60-foot right-of-way. This standard will accommodate one lane of moving traffic in each direction, with curbside parking on both sides of the street. Five-foot sidewalks should be provided on each side of the roadway. An optional planting strip has been included with a width up to 5 feet.

Option 2

This option provides a 30-foot roadway surface within a 60-foot right-of-way. This standard will accommodate one lane of moving traffic in each direction, with curbside parking on one side. Five-foot sidewalks should be provided on each side of the roadway, adjacent to the curb.

Arterial Streets

Arterial streets form the primary roadway network within and through a region. They provide a continuous roadway system that distributes traffic between different neighborhoods and districts. Generally, arterial streets are high capacity roadways that carry high traffic volumes with minimal localized activity. Design speeds should be between 25 and 45 mph (see Figure 7-3).

Option 1

This option consists of an 80-foot right-of-way and a 62-foot paved width. This standard allows for two 12-foot travel lanes, a 12-foot center turn lane, two 6-foot bike lanes, and curbside parking along both sides of the roadway at 7-feet wide. Sidewalks, at least 5-feet in width, should also be provided on each side of the roadway.

Option 2

This option is similar to Option 1, but without the center turn lane. This standard provides a 50-foot paved surface within an 80-foot right-of-way to allow for two 12-foot travel lanes, two 6-foot bike lanes, and curbside parking along both sides of the roadway at 7-feet wide. Sidewalks, at least 5-feet in width, should also be provided on each side of the roadway.

Bike Lanes

In cases where a bikeway is proposed within the street right-of-way, 5 to 6-feet of roadway pavement should be striped on each side of the street and reserved for bike lanes. The striping should be done in conformance with the *State Bicycle and Pedestrian Plan* (1995). In cases where curb parking will exist with a bike lane, the bike lane will be located between the parking and travel lanes. In some situations, curb parking may have to be removed to permit a bike lane.

Bikeways should be added when a new street is built or improvements are made to existing streets.

On arterial and collector streets that are not scheduled to be improved as part of the street system plan, bike lanes may be added to the existing roadway to encourage cycling, or when forecast traffic volumes exceed 2,500 to 3,000 vehicles per day. The striping of bike lanes on streets that lead directly to schools should be high priority.

Sidewalks

A complete pedestrian system should be implemented in the urban portion of Athena. Every urban street should have sidewalks on both sides of the roadway as shown on the cross sections in Figure 7-1 through Figure 7-3. Sidewalks on residential streets should be at least 5-feet wide. In addition, pedestrian and bicycle connections should be provided between any cul-de-sac or other dead-end streets.

Another essential component of the sidewalk system is street crossings. Intersections must be designed to provide safe and comfortable crossing opportunities. Tools to accomplish this include crosswalks, signal timing (to ensure adequate crossing time) when traffic signals are present, and other enhancements such as curb extensions, which are used to decrease pedestrian crossing distance and act as traffic calming measures.

Curb Parking Restrictions

Curb parking should be prohibited at least 25 feet from the end of an intersection curb return to provide adequate sight distance at street crossings.

Street Connectivity

Street connectivity is important because a well-connected street system provides more capacity and better traffic circulation than a disconnected one. Developing a grid system of relatively short blocks can minimize excessive volumes of motor vehicles along roads by providing a series of equally attractive or restrictive travel options. Short block sizes also benefit pedestrians and bicyclists by shortening travel distances and making travel more convenient. The average block size within the City's grid system is around 375 feet square, which is an ideal block size. To ensure that this pattern of development continues into the future, a maximum block perimeter of 1,200 feet is recommended. This feature is critical to Athena's continued livability.

ACCESS MANAGEMENT

Access management is an important tool for maintaining a transportation system. Too many access points along arterial streets lead to an increased number of potential conflict points between vehicles entering and exiting driveways, and through vehicles on the arterial streets. This leads to not only increased vehicle delay and a deterioration in the level of service on the arterial, but also a reduction in safety. Research has shown a direct correlation between the number of access points and collision rates. Experience throughout the United States has also shown that a well-developed access plan for a street system can minimize local cost for additional capacity and/or access improvements along unmanaged roadways. Therefore, it is essential that all levels of government maintain the efficiency of existing arterial streets through better access management.

The Transportation Planning Rule (TPR) defines access management as measures regulating access to streets, roads and highways from public roads and private driveways and requires that new connections to arterials and state highways be consistent with designated access management categories. As the city of Athena continues to develop, the arterial/collector/local street system will become more heavily used and relied upon for a variety of travel needs. As such, it will become increasingly important to manage access on the existing and future arterial/collector street system as new development occurs.

One objective of the Athena TSP is to develop an access management policy that maintains and enhances the integrity (capacity, safety, and level-of-service) of the city's streets. Too many access points along a street can contribute to a deterioration of its safety, and on some streets, can interfere with efficient traffic flow.

Access Management Techniques

The number of access points to an arterial can be restricted through the following techniques:

- Restrictions on spacing between access points (driveways) based on the type of development and the speed along the arterial.
- Sharing of access points between adjacent properties.
- Providing access via collector or local streets where possible.
- Constructing frontage roads to separate local traffic from through-traffic.
- Providing service drives to prevent spill-over of vehicle queues onto the adjoining roadways.
- Providing acceleration, deceleration, and right-turn only lanes.
- Offsetting driveways to produce T-intersections to minimize the number of conflict points between traffic using the driveways and through traffic.
- Installing median barriers to control conflicts associated with left-turn movements.
- Installing barriers to the property along the arterial to restrict access width to a minimum.

Recommended Access Management Standards

Access management is hierarchical, ranging from complete access control on freeways to increasing use of streets for access purposes, to including parking and loading at the local and minor collector level. Table 7-2 describes recommended general access management guidelines by roadway functional classification.

TABLE 7-2
RECOMMENDED ACCESS MANAGEMENT STANDARDS

	Intersections			
	Public Road		Private Drive[2]	
Functional Classification	**Type[1]**	**Spacing**	**Type**	**Spacing**
Arterial				
OR 11	See Access Management Spacing Standards, Appendix C of the 1999 Oregon Highway Plan			
Athena-Holdman Highway (334)				
Other Arterials within UGB	at-grade	250 ft.	L/R Turns	100 ft.
Collector[3]				
Sherman St., Hunt Ave., ~~Labor Camp~~Pambrun Rd., 3rd Ave., Wildhorse Rd.	at-grade	250 ft.	L/R Turns	100 ft.
Residential Street	at-grade	250 ft.	L/R Turns	Access to Each Lot
Alley (Urban)	at-grade	100 ft.	L/R Turns	Access to Each Lot

Notes:
(1) For most roadways, at-grade crossings are appropriate.
(2) Allowed moves and spacing requirements may be more restrictive than those shown to optimize capacity and safety. Also, see section below on "Access Control Rights" along state highways.
(3) Some sections of these roads are designated as residential streets, where the residential access management standard applies.

Application

The access management ~~guidelines~~ standards above apply mainly to new development accesses. They are not intended to eliminate existing intersections or driveways. It is important to note, however, that existing developments and legal accesses on the transportation network will not be affected by the recommended

access management techniques until either a land use action is proposed, a safety or capacity deficiency is identified that requires specific mitigation, a specific access management strategy/plan is developed, existing properties along the highway are redeveloped, or a major construction project is initiated on the street.

To summarize, access management strategies consist of managing the number of access points and providing traffic and facility improvements. The solution is a balanced, comprehensive ~~program~~ system that provides reasonable access while maintaining the safety and efficiency of traffic movement.

State Highways

Access management is important to promoting safe and efficient travel for both local and long distance users along OR 11 and the Athena-Holdman Highway in Athena. The ~~*1991*~~ *1999 Oregon Highway Plan* specifies an access management ~~classification system~~ spacing standards and policies for state facilities. The OHP establishes guidelines to be applied when making access management decisions. Future developments on state highways (zone changes, Comprehensive Plan amendments, redevelopment, and/or new development) will be required to meet the ~~1991~~ Access Management Spacing Standards of the 1999 OHP ~~level of importance (LOI) and access management policies, which will remain in effect for all TSPs adopted before January 2000. For all TSPs adopted after that time, the policies ordained in the adopted draft of the *1999 Oregon Highway Plan* will apply.~~

Although Athena may designate state highways as arterial roadways within their transportation system, the access management categories for these facilities should ~~generally~~ follow the ~~guidelines~~ Access Management Spacing Standards of the 1999 Oregon Highway Plan. These spacing standards are based on highway classification, type of area and speed, which are shown in the appendix to this document. This section of the TSP describes the state highway access ~~categories~~ management objectives and specific ~~roadway~~ highway segments where special access spacing standards ~~areas may~~ apply.

OR 11 along the southern fringes of Athena is a Statewide ~~h~~Highway ~~of statewide level of importance~~. The primary function of these highways is to provide connections to larger urban areas, ports, and major recreation areas of the state not served by freeways. Access Management to statewide urban highways is to provide high to moderate speed operations with limited interruptions in traffic flow ~~Within the Athena UGB, Oregon Highway Plan Category 4, "Limited Control"[1] applies. This classification permits at-grade intersections or interchanges at a minimum spacing of one-quarter mile and traffic signals permitted at a minimum of one-half mile spacing. Driveways to new developments will need to maintain a 500-foot spacing from the centerline of the proposed driveway to the centerline of other existing private or public accesses on both sides of the road. This applies to accesses located to either side of the proposed access point.~~

The Athena-Holdman Highway is a state District ~~h~~Highway ~~of district level of importance~~. According to the OHP, the primary function of a district highway is to "serve local traffic and land access." For highways of district significance, emphasis is placed on preserving safe and efficient higher speed through travel in rural areas, and moderate- to low-speed operations in urban or urbanizing areas with a moderate to high level of interruptions to flow. Access management to district highways is to provide for safe and efficient medium speed and medium to high volume traffic movements. ~~Within the Athena UGB, Oregon Highway Plan Category 6, "Partial Control"[2] applies. This classification permits at-grade intersections at a minimum~~

~~[1] *1991 Oregon Highway Plan*, Appendix B, Table 1, Access Management Classification System.~~

~~spacing of 500 feet, and traffic signals at a minimum of one-quarter mile spacing. Driveways to new developments will need to maintain a 150-foot spacing from the centerline of the proposed driveway to the centerline to other existing private or public accesses on both sides of the road. This applies to accesses located to either side of the proposed access point.~~

Additional property frontage along a state highway does not guarantee that additional approach roads will be allowed. Proposed land use actions that do not comply with the designated access spacing ~~policy~~ standards will be required to apply for an access variance from the city of Athena and/or ODOT. In addition, according to the ~~1991~~ 1999 OHP, the impact in traffic generation from a proposed change in land use or new development must allow for a ~~level of service (LOS) "C"~~ v/c ratio of .60-.69 to be maintained along statewide level highways such as OR 11 and ~~LOS "D"~~ v/c ratios of .74-.83 along district level highways such as the Athena-Holdman Highway, within the development's influence area along the highway. The influence area is defined as the area in which the average daily traffic is increased by 10 percent or more by a single development, or 500 feet in each direction from the property-line of the development, whichever is greater.

A conditional access permit may be issued by ODOT and the city of Athena for a single connection to a property that cannot be accessed in a manner that is consistent with the spacing standards. These conditions typically apply to properties that either have no reasonable access or cannot obtain reasonable alternative access to the public road system. The permit should carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. In addition, approval of a conditional permit might require ODOT-approved turning movement design standards to ensure safety and managed access. Under special circumstances, ODOT may be required to purchase property in order to prevent safety conflicts.

ACCESS CONTROL RIGHTS

Historically, owners of property abutting public roadways have enjoyed a common law abutter's right of access to the roadway. However, in order to provide for a transportation system that would accommodate changing public needs, legislation has been passed to modify the rights of access. Oregon Revised Statutes specify among other property rights, the right of access can be purchased or condemned as deemed necessary for rights-of-way. The Oregon Department of Transportation has purchased access control rights from many properties along state highways.

Once the state has acquired the access rights to a property, road approach permits can only be issued at locations on the property where the right of access has been reserved. These "reservations of access" give the property owner the common law right of access to the state highway only at specific locations and they are clearly identified in the deed where the property owner sold the right of way to the State. If the owner wants to gain additional access rights to the highway, they must apply for a "grant" of access.

There may be local street connections shown in this Transportation System Plan that will require modifying the existing access rights or gaining additional access rights to the state highway system. Review of this TSP by ODOT does not imply tacit approval to modify or grant additional access rights. This must be accomplished by applying to ODOT for such modification or grant.

An "indenture of access" is used to modify existing access rights such as moving or widening the reservation or lifting other restrictions that may have been placed on it. A "grant of access" is required to gain an additional access point to the highway and, depending on the circumstances, may require payment to the State for the market value of the grant. Application for both the Indenture and grant of access is made to local ODOT district office.

Special Transportation Areas

The Athena-Holdman Highway is categorized as a District Highway in the 1999 Oregon Highway Plan. The primary function of of a district highway is to "serve local traffic and land access." For District Highways, emphasis is placed on preserving safe and efficient higher speed through travel in rural areas, and moderate- to low-speed operations in urban or urbanizing areas with a moderate to high level of interruptions to flow.ODOT has designated the Athena-Holdman Highway between milepost 17.20 and 17.49 in Athena as a STA.

To assist in implementing state access management standards and policies, the 1999 Oregon Highway Plan also recognizes that state highways serve as main streets of many communities, such as downtown Stanfield. Shorter block lengths and a well-developed grid system are important to a downtown area, along with convenient and safe pedestrian facilities. In general, downtown commercial arterial streets typically have blocks 200 to 400 feet long, driveway access sometimes as close as 100-foot intervals and occasionally, signals may be spaced as close as every 400 feet. The streets in downtown areas must have sidewalks and crosswalks, along with on-street parking. The need to maintain these typical downtown characteristics must be carefully considered along with the need to maintain the safe and efficient movement of through traffic. The Oregon Highway Plan recognizes the main street function through the designation of Special Transportation Areas (STAs).

A Special Transportation Area (STA) is a designation that may be applied to a state highway, when a downtown, business district or community center straddles the state highway within a community's urban growth boundary. The primary objective of an STA is to provide access to community activities, businesses and residences, and to accommodate pedestrian, and bicycle movements along and across the highway in a compact central business district. An STA designation will allow reduced mobility standards, accommodate existing public street spacing and compact development patterns, and enhance opportunities to provide improvements for pedestrians and bicyclists in the downtown area.

Access management in STAs corresponds to the existing city block for public road connections and discourages private driveways. However, where driveways are allowed and land use patterns permit, the minimum spacing for driveways is 175 feet or mid-block if the current city block spacing is less than 350 feet. In addition, the need for local access outweighs the consideration of maintaining highway mobility within a STA. The maximum volume to capacity ratio for state highways increases in a STA.

If desired, ODOT and the City will work together with the business community and citizens of Stanfield to discuss plans for the designated STA along Highway 395. Specific access management conditions for designating an STA in Stanfield may include:

- The minimum spacing for public road approaches in the STA is the current city block spacing. Public road connections are preferred over private driveways, and in STAs, driveways are discouraged.

- Where a right to access exists, access will be allowed to property at less than the designated spacing standard only if that property does not have reasonable alternative access, and the designated spacing cannot be accomplished. Where possible, other options should be considered, such as joint access.

- Where the right to access exists, the number of approach roads (driveways) to a single property shall be limited to one. More than one approach road may be considered if, in the judgement of the ODOT District Manager, additional approach roads are necessary to accommodate and service projected traffic volumes, and do not create a safety hazard to the traveling public.

- Approach roads shall be located where they do not create undue interference or hazard to the free movement of normal highway or pedestrian traffic. Minimum sight distance to achieve safe stopping on wet pavements, as defined by AASHTO, is required for all approach roads. Additionally, approach roads are not allowed at points that interfere with the placement and proper function of traffic control signs, signals, lighting or other devices that affect traffic operations.

For a landlocked property (no reasonable alternative access exists) where an approach road cannot be safely constructed and operated, and if no other alternatives are feasible, ODOT would acquire the property. However, if an access hardship is self-inflicted, such as by partitioning or subdividing a property, ODOT would not be responsible for purchasing the property.

MODAL PLANS

The Athena modal plans have been formulated using information collected and analyzed through a physical inventory, forecasts, goals and objectives, and input from area residents. The plans consider transportation system needs for Athena during the next 20 years assuming the growth projections discussed in Chapter 5. The timing for individual improvements will be guided by the changes in land use patterns, growth of the population in future years, and available funds. Specific projects and improvement schedules may need to be adjusted depending on when and where growth occurs in Athena.

Street System Plan

The street system plan recommends any changes necessary to the current street classification system and outlines a series of improvements that are recommended for construction within the city of Athena during the next 20 years. These options have been discussed in Chapter 6 (Improvement Options Analysis). Projects which make up the proposed street system plan are summarized in Table 7-3.

Street System Functional Classification

Street system functional classifications relate the design of a roadway to its function. The function is determined by operational characteristics such as travel demand, street capacity, and the operating speed of the roadway. The city of Athena currently classifies all streets within the Urban Growth Boundary as either arterial, collector, or local streets. A review of the existing street system inventory, the recommended street design standards, and all new projects recommended in the street system plan indicates no changes are necessary at this time to the existing roadway functional classification. Therefore, the existing street classification will be maintained as shown in Figure 3-1 and described as follows:

- OR 11 (Just south of the UGB) – classified as an arterial roadway, as it is a highway of Statewide level of importance, it carries the highest traffic volumes past the City, and it is the primary route to other cities in the county and state.
- Athena-Holdman Highway (Main Street within the city limits) – classified as an arterial roadway, as it is a district level highway providing access between OR 11 and other cities to the west, such as Umatilla, Holdman, and Helix.
- Sherman Street (County Road # 676) – classified as a collector street, as its function is to connect local neighborhoods and the county roads of Waterman Road and La Marr Gulch Road to the collector streets of Hunt Avenue and 3rd Street which access the downtown area and the highways.

- Hunt Avenue (Sherman Street to Main Street) – classified as a collector street, as its function is to connect local neighborhoods to the Athena-Holdman Highway (Main Street).
- ~~Labor Camp~~ Pambrun Road (County Road # 737) – classified as a collector street, as its function is to connect the Athena-Holdman Highway, or Main Street, to OR 11.
- 3rd Avenue (Sherman Street to OR 11) – classified as a collector street, as its function is to connect local neighborhoods with the Athena-Holdman Highway and OR 11.
- Wildhorse Road (County Road # 685) – classified as a collector street, as its function is to connect the Athena-Holdman Highway, or Main Street, to OR 11.
- All other roads – classified as local streets.

Street Improvement Projects

Table 7-3 presents all street improvement projects within the urban area that compose the street system plan. Prioritization of these projects is at the discretion of the city and/or county, depending upon jurisdiction over the project.

It should be noted that the inclusion of a project in the TSP does not constitute a commitment by ODOT or the county that either agency will participate in the funding of the project. ODOT's participation will be determined via the biennial updates of the multi-year STIP process, and the construction of any project is contingent upon the availability of future revenues. The county's participation will be according to project prioritization as indicated in the Capital Improvement Plan, and contingent upon available funding.

TABLE 7-3
RECOMMENDED STREET SYSTEM PROJECTS

Project Number	Location /Description	Cost
~~1.~~	~~Extend Lincoln St. and Washington St. to the east from Hunt Ave.~~	~~$20,000~~
~~2.~~	~~Extend Darwin St. to the west from 1st St.~~	~~$10,000~~
~~3.~~	~~Pave 1st St. between Main St. and Darwin St.~~	~~$18,400~~
~~4.~~	~~Pave Darwin St. between 1st St. and 3rd St.~~	~~$20,300~~
~~5.~~	~~Pave Currant St. and 2nd St. between 1st St. and Darwin St.~~	~~$19,200~~
16.	Pave Washington St. between dead end and 6th St.	$48,800
~~7~~2.	Pave High St. between 2nd St. and 6th St.	$42,300
~~8~~3.	Pave Van Buren St. between 2nd St. and 3rd St.	$10,200
~~4~~9.	Pave Jefferson St. between 2nd St. and 3rd St.	$10,200
Total		**$199,400**

Pedestrian System Plan

A complete, interconnected pedestrian system should be implemented in the City when feasible. A sidewalk inventory revealed that sidewalks are present mostly in the central section of downtown, mainly where 3rd Street and Main Street intersect. Just outside of this area, the existing sidewalk system becomes somewhat discontinuous as some sidewalks are in need of replacement or become intermittent. Pedestrian access via sidewalks to the city park and public schools is provided along 3rd Street and 5th Street, but discontinuities need to be remedied. The presence of sidewalks becomes more rare proceeding away from the downtown area and into the bordering neighborhoods to the north and northwest.

Every paved street should have sidewalks on both sides of the roadway, to meeting the recommended street standards, except in extenuating circumstances. Continuous pedestrian access on walkways should be provided between businesses, parks, and adjacent neighborhoods. (Ordinances specifying these requirements are included in Chapter 9.)

Because of the small size of Athena and the limited public resources available for transportation system improvements, sidewalk construction on a large scale may not be feasible. However, the City should require sidewalks to be constructed as part of any major roadway improvements, or as adjacent land is developed.

The primary goal of establishing a pedestrian system is to improve pedestrian safety; however, an effective sidewalk system has several qualitative benefits as well. Providing adequate pedestrian facilities increases the livability of a city. When pedestrians can walk on a sidewalk, separated from vehicular street traffic, it makes the walking experience more enjoyable and may encourage walking, rather than driving, for short trips. Sidewalks enliven a downtown and encourage leisurely strolling and window shopping in commercial areas. This "main street" effect improves business for downtown merchants and provides opportunities for friendly interaction among residents. It may also have an appeal to tourists as an inviting place to stop and walk around.

The cost to construct a concrete sidewalk facility is approximately ~~$25~~ 30 per linear foot. This assumes a sidewalk width of 5 feet with curbing. The cost estimate also assumes the sidewalks are composed of 4 inches of concrete and 6-inches of aggregate. As an alternative, asphalt walkways could be provided instead of a concrete sidewalk at a lower initial cost. Construction costs for this type of facility are typically about 40 percent of the costs for concrete sidewalks; however, maintenance, such as sealing and resurfacing the asphalt, must occur more frequently.

All new sidewalk construction in the City should include curb cuts for wheelchairs at every street corner to comply with the Americans with Disabilities Act (ADA). The addition of crosswalks should also be considered at all major intersections. As improvements are made to the existing street system, projects involving the construction of new sidewalks may require implementation of on-street parking in place of parking on grass or gravel shoulders.

In Chapter 6, no pedestrian related projects were identified. However, there were several street improvement projects identified. The City should consider adding sidewalks as part of these projects to plan for an integrated pedestrian system.

Bicycle System Plan

On the collector and local streets in Athena, bicyclists share normal vehicle lanes with motorists. Due to low travel speeds and traffic volumes observed in the City, shared usage of the roadway between bicyclists and automobiles is appropriate. However, on highways such as OR 11, where travel speeds and traffic volumes are much higher, the need to separate bicyclists from highway traffic becomes an issue. OR 11 functions as a rural arterial, bordering the south side of Athena. The *Oregon Bicycle and Pedestrian Plan* recommends that for a facility such as this, a shoulder bikeway should be present. A typical shoulder width is around 8-feet. Existing shoulder widths along the highway in the vicinity of Athena range between four and over 6- feet. Shoulder widths of this magnitude should be sufficient for bicyclists on the highway.

At the present time, conditions along the Athena-Holdman Highway and where the highway becomes Main Street through Athena, allow bicyclists to safely share the roadway with auto traffic. The posted speed limit along Main Street is 25 mph and traffic volumes are low at around 1,400-2,700 vehicles per day (vpd). The City should consider, however, striping Main Street for bike lanes in the future, particularly between 2nd

Street and 5th Street, where traffic volumes are projected to reach up to 3,530 vpd by the year 2018. The existing street width along this section of road is already wide enough to allow for bike lanes in conjunction with the two lanes of travel and on-street parking present along both sides of the road. The timing for this project may fall outside the 20-year planning period depending on future increases in traffic.

Bicycle parking is lacking in Athena. Bike racks should be installed in front of downtown businesses and all public facilities (schools, post office, library, city hall, and parks). Typical rack designs cost approximately $50 per bike plus installation. An annual budget of approximately $1,500 to $2,000 should be established so that Athena can begin to place racks where needs are identified and to respond to requests for racks at specific locations. Bicycle parking requirements are further addressed in Chapter 9 (Policies and Ordinances).

Transportation Demand Management Plan

Through transportation demand management (TDM), peak travel demands can be reduced or spread over time to more efficiently use the existing transportation system, rather than building new or wider roadways. Techniques that have been successful and could be initiated to help alleviate some traffic congestion include carpooling and vanpooling, alternative work schedules, bicycle and pedestrian facilities, and programs focused on high density employment areas.

In Athena, because traffic volumes are low, capacity of the local street system is not an issue. Therefore, implementing TDM strategies may not be practical in most cases. However, the sidewalk and bicycle improvements recommended earlier in this chapter are also considered TDM strategies. By providing these facilities, the city of Athena is encouraging people to travel by modes other than the automobile.

Because intercity commuting is a factor in Umatilla County, residents who live in Athena and work in other cities should be encouraged to carpool with a coworker or someone who works in the same area. Implementing a local carpool program in Athena alone is not practical because of the City's small size; however, a county-wide carpool program is feasible. The city of Athena should support state and county carpooling and vanpooling programs that could further boost carpooling ridership.

No costs have been estimated for the TDM plan. Grants may be available to set up programs; other aspects of transportation demand management can be encouraged through ordinances and policy.

Public Transportation Plan

As described in Chapter 3, the only intercity bus service in Umatilla County is provided by Greyhound bus lines which provides service along I-84, US 395, and OR 11 within Umatilla County. Greyhound has terminals located in Hermiston and Pendleton that connect these cities to each other and major population centers outside of the county. The Hermiston terminal has two departures heading southeast (with stops in Pendleton, La Grande, Boise, and Salt Lake City); three buses running west to Portland; and two buses heading north on US 395 to Pasco and Spokane daily. The Pendleton terminal has three departures southeast (with stops in La Grande, Boise and Salt Lake City); three departures west to Portland; and two departures north to Seattle via Walla Walla, Pasco, and Spokane daily.

Because of the small size of Athena, ridership demand is not high enough for Greyhound bus lines to feasibly provide service to the City. Bus service may be provided in the future to the city of Milton-Freewater, but Athena is located almost equidistant to Milton-Freewater as it is to the city of Pendleton, where service is already provided.

Although Pendleton, Hermiston, Pilot Rock, and the Umatilla Indian Reservation have dial-a-ride type service available for the transportation disadvantaged, Athena does not offer this service. Dial-a-ride service is defined as door-to-door service initiated by a user's request for transportation service from his/her origin to specific locations on an immediate or advance reservation basis. These services are provided by the Pendleton Senior Center in Pendleton, the Confederated Tribes of the Umatilla Indian Reservation on the Umatilla Indian Reservation, the Hermiston Senior Center in Hermiston, and the Pilot Rock Lions Club in Pilot Rock. A similar kind of service could be appropriate for Athena.

Athena has no local fixed-route transit service at this time. The small size and low traffic volumes on city streets indicate that mass transit is not necessary or economically feasible at this time. The Transportation Planning Rule exempts cities with a population of less than 25,000 from developing a transit system plan or a transit feasibility study as part of their Transportation System Plans.

Rail Service Plan

Athena has no passenger or freight rail service. Until recently, Amtrak service was available in Hermiston and Pendleton along the rail line that follows the I-84 corridor from Portland to Boise, Idaho and points east. Amtrak is currently experiencing a funding crisis. As a result, passenger service between Portland and Denver, including service to cities within Umatilla County, was discontinued in May 1997. This line now serves only freight traffic.

There are two inactive railway freight lines (Burlington Northern and Union Pacific branch lines) within the city of Athena. A large industrial area is located adjacent to the rail rights-of-way. According to the 1995 Athena Comprehensive Plan, rail service was provided daily through the City. However, railways to Athena have been removed. Both rail companies (Union Pacific and Burlington Northern) are selling their rights-of-way. Some houses have been located within the former rights-of-way making reinstatement of services unlikely.

The nearest active freight lines to Athena is the Union Pacific main line which runs through Pendleton. There is also a major freight line owned and operated by Union Pacific Railroad, a Class I line-haul freight railroad, which stops in Hermiston. In addition, there is a switch line out of Pendleton which hauls freight from Pilot Rock two to three days per week, and a line between Milton-Freewater and Weston on the Blue Mountain Railroad consisting of one freight train per day (maximum) or some local switching.

Air Service Plan

Athena does not have its own air service within the City, but there is a private airstrip located just outside the UGB to the northwest at Barrett Field. The use of this airstrip has generated some controversy as it is adjacent to residentially-developed land. The Athena Comprehensive Plan states that the City should not discourage the use of the Barrett Field airstrip as long as operations do not exceed an average of 60 per month.

There are many public airport facilities nearby. Eastern Oregon Regional Airport is located in Pendleton, approximately 25 miles southwest of Athena, and provides commercial air service. Hermiston Municipal Airport is located in Hermiston, approximately 50 miles west of Athena, and provides chartered flights. Other small nearby airports in the county include:, the Pea Growers' Field south of Athena, and Curtis Airfield northwest of Pendleton. These airports are small, private, uncontrolled airstrips mainly used for crop dusting operations.

Pipeline Service

Cascade Natural Gas provides natural gas to consumers in Athena from the nearby Northwest Natural Gas pipeline. There is also an oil line within four miles of the City. There are no plans at this time to expand either the natural gas or oil pipelines.

Water Transportation

Athena has no water transportation services.

TRANSPORTATION SYSTEM PLAN IMPLEMENTATION PROGRAM

Implementation of the Athena Transportation System Plan will require changes both to the city Comprehensive Plan and the zoning code and preparation of a 20-year Capital Improvement Plan (CIP). These actions will enable Athena to address both existing and emerging transportation issues throughout the urban area in a timely and cost effective manner.

One part of the implementation program is the formulation of a 20-year CIP. The purpose of the CIP is to detail what transportation system improvements will be needed as Athena grows and provide a process to fund and schedule the identified transportation system improvements. It is expected that the Transportation System Plan Capital Improvement Plan can be integrated into the existing city and county CIP and the ODOT STIP. This integration is important since the Transportation System Plan proposes that city, county, and state governmental agencies fund all or some of the transportation improvement projects.

Model policy and ordinance language that conforms with the requirements of the Transportation Planning Rule is included in Chapter 9. The proposed ordinance amendments will require approval by the Athena City Council and those that affect the unincorporated urban area will also require approval by the Umatilla Board of County Commissioners.

20-Year Capital Improvement Program

Table 7-4 summarizes the CIP and provides cost information. The cost estimates for all the projects listed in the CIP were prepared on the basis of 1998 dollars. These costs include design, construction, and some contingency costs. They are preliminary estimates and generally do not include right-of-way acquisition, water or sewer facilities, or adding or relocating public utilities. The following schedule is not a prioritized list and scheduled implementation of these projects is at the discretion of the City and/or county, depending upon jurisdiction of the project.

Athena has identified a total of nine projects in its CIP with a cost of $199,400.

TABLE 7-4
CAPITAL IMPROVEMENT PROGRAM

		Costs ($ X 1,000)				
Project #	**Location /Description**	**City**	**County**	**State**	**Private**	**Total**
~~1.~~	~~Extend Lincoln St. and Washington St. to the east from Hunt Ave.~~				~~$20.0~~	~~$20.0~~
~~2.~~	~~Extend Darwin St. to the west from 1st St.~~				~~$10.0~~	~~$10.0~~
~~3.~~	~~Pave 1st St. between Main St. and Darwin St.~~	~~$18.4~~				~~$18.4~~
~~4.~~	~~Pave Darwin St. between 1st St. and 3rd St.~~	~~$20.3~~				~~$20.3~~
~~5.~~	~~Pave Currant St. and 2nd St. between 1st St. and Darwin St.~~	~~$19.2~~				~~$19.2~~
16.	Pave Washington St. between dead end and 6th St.	$48.8				$48.8
27.	Pave High St. between 2nd St. and 6th St.	$42.3				$42.3
38.	Pave Van Buren St. between 2nd St. and 3rd St.	$10.2				$10.2
49.	Pave Jefferson St. between 2nd St. and 3rd St.	$10.2				$10.2
Total		**$169.4**			**$30.0**	**$199.4**

Note: Costs are expressed in terms of 1998 Dollars.

CHAPTER 8: FUNDING OPTIONS AND FINANCIAL PLAN

The Transportation Planning Rule requires Transportation System Plans to evaluate the funding environment for recommended improvements. This evaluation must include a listing of all recommended improvements, estimated costs to implement those improvements, a review of potential funding mechanisms, and an analysis of existing sources' ability to fund proposed transportation improvement projects. Athena's TSP identifies nearly $200,000 in nine specific projects over the next 20 years. This section of the TSP provides an overview of Athena's revenue outlook and a review of some funding and financing options that may be available to the city of Athena to fund the improvements.

Pressures from increasing growth throughout much of Oregon have created an environment of estimated improvements that remain unfunded. Athena will need to work with Umatilla County and ODOT to finance the potential new transportation projects over the 20-year planning horizon. The actual timing of these projects will be determined by the rate of population and employment growth actually experienced by the community. This TSP assumes Athena will grow at a rate comparable to past growth, consistent with the county-wide growth forecast. If population growth exceeds this rate, the improvements may need to be accelerated. Slower than expected growth will relax the improvement schedule.

HISTORICAL STREET IMPROVEMENT FUNDING SOURCES

In Oregon, state, county, and city jurisdictions work together to coordinate transportation improvements. Table 8-1 shows the distribution of road revenues for the different levels of government within the state by jurisdiction level. Although these numbers were collected and tallied in 1991, ODOT estimates that these figures accurately represent the current revenue structure for transportation-related needs.

TABLE 8-1 SOURCES OF ROAD REVENUES BY JURISDICTION LEVEL

	Jurisdiction Level			All
Revenue Source	State	County	City	Funds
State Road Trust	58%	38%	41%	48%
Local	0%	22%	55%	17%
Federal Road	34%	40%	4%	30%
Other	9%	0%	0%	4%
Total	101%	100%	100%	99%

Source: ODOT 1993 Oregon Road Finance Study.

At the state level, nearly half (48 percent in Fiscal Year 1991) of all road-related revenues are attributable to the state highway fund, whose sources of revenue include fuel taxes, weight-mile taxes on trucks, and vehicle registration fees. As shown in the table, the state road trust is a considerable source of revenue for all levels of government. Federal sources (generally the federal highway trust account and federal forest revenues) comprise another 30 percent of all road-related revenue. The remaining sources of road-related revenues are generated locally, including property taxes, LIDs, bonds, traffic impact fees, road user taxes, general fund transfers, receipts from other local governments, and other sources.

As a state, Oregon generates 94 percent of its highway revenues from user fees, compared to an average of 78 percent among all states. This fee system, including fuel taxes, weight distance charges, and registration fees, is regarded as equitable because it places the greatest financial burden upon those who create the greatest need for road maintenance and improvements. Unlike many states that have indexed user fees to inflation, Oregon has static road-revenue sources. For example, rather than assessing fuel taxes as a ***percentage*** of price per gallon, Oregon's fuel tax is a fixed amount (currently 24 cents) per gallon.

Transportation Funding in Umatilla County

Historically, sources of road revenues for Umatilla County have included federal grants, state revenues, intergovernmental transfers, interest from the working fund balance, and other sources. Transportation revenues and expenditures for Umatilla County are shown in Table 8-2 and Table 8-3.

TABLE 8-2
UMATILLA COUNTY TRANSPORTATION-RELATED REVENUES

	1992-1993 Actual	1993-1994 Actual	1994-1995 Actual	1995-1996 Actual	1996-1997 Budget	1997-1998 Budget
Beginning Balance	$1,187,957	$992,044	$903,997	$1,762,230	$1,600,000	$1,300,000
DMV License & Gas Tax Fees	$2,956,777	$3,145,649	$3,258,762	$3,356,616	$3,400,000	$3,400,000
Misc. State Receipts			$635,655	$222,990	$209,000	$219,000
National Forest Rental	$1,061,341	$589,248	$534,150	$189,902	$180,000	$180,000
Mineral Leasing 75%				$125		
Misc. Federal Receipts	$1,968	$1,670	$1,208	$77,681		
Interest on Invested Funds	$72,834	$38,672	$77,885	$92,220	$75,000	$75,000
Refunds & Reimbursements		$75		$338		
Sale of Public Lands	$20,144	$14,363	$5,443	$102	$15,000	$5,000
Rentals/Sale of Supplies	$15,318	$16,565	$51,748	$74,498	$45,000	$27,000
BLM Maintenance Agreement		$2,000				
Misc. Receipts-Local	$26,662	$102,916	$143,691	$48,997		
Service Center	$46,996	$55,961	$53,361	$61,189	$58,500	$64,000
Rural Address fund					$30,000	
	$5,389,996	$4,959,163	$5,665,900	$5,886,887	$5,612,500	$5,270,000

Source: Umatilla County.

As shown in Table 8-2, revenues remained relatively stable (between a low of just under $5 million in 1993-1994 to a high of nearly $5.9 million in 1995-1996). Approximately $3 million of the annual revenues come from the state highway fund, rising slightly from $3 million in 1992-1993 to an estimated $3.4 million in 1996-1997. A declining amount has come from federal apportionment (mostly federal forest receipts). Twenty-five percent of federal forest revenue (the 25-percent fund) is returned to the counties based on their share of the total acreage of federal forests. Westside national forests in Oregon and Washington are subject to the Spotted Owl Guarantee, which limits the decline of revenues from these forests to three percent annually. Oregon Forests under the Owl Guarantee include the Deschutes, Mount Hood, Rogue River, Siskiyou, Siuslaw, Umpqua, and Willamette National Forests. Forest revenues distributed to Umatilla County are from the Umatilla and Whitman forests, not subject to the Owl Guarantee and, therefore, are more difficult to predict. With a healthy working capital balance, the county has also been able to generate between $40,000 and $90,000 annually in interest on its invested funds.

TABLE 8-3
UMATILLA COUNTY TRANSPORTATION-RELATED EXPENDITURES

	1992-1993 Actual	1993-1994 Actual	1994-1995 Actual	1995-1996 Actual	1996-1997 Budget	1997-1998 Budget
Personal Services	$1,908,211	$1,878,969	$1,956,968	$2,077,603	$2,260,676	$2,304,704
Materials and Services	$1,897,273	$1,961,106	$1,564,591	$1,735,853	$2,131,925	$1,972,800
Capital Outlay	$601,846	$225,074	$385,176	$404,357	$400,000	$400,000
Contingency					$568,840	$334,224
Transfer to Road Improvement Fund					$11,555	
Transfer to General Fund						$58,272
	4,407,330	$4,065,149	$3,906,735	$4,217,813	$5,372,996	$5,070,000

Source: Umatilla County.

As shown in Table 8-3, Umatilla County has spent between $225,000 and $600,000 annually in capital improvements. The county also transfers money to a road improvement fund for larger-scale capital improvements. The bulk of expenditures in the road fund are for personal services and materials and services relating to maintenance.

In addition to the road department fund, Umatilla County has a separate bicycle path fund. Its revenues and expenditure history are shown below in Table 8-4. Like the road fund, the bicycle path fund is developing a healthy working capital balance, supporting additional interest income, thereby reducing its dependence on the gas taxes collected through the state highway fund.

TABLE 8-4
UMATILLA COUNTY BICYCLE PATH FUND REVENUES AND EXPENDITURES

	1994-1995 Actual	1995-1996 Actual	1996-1997 Budget	1997-1998 Budget
Beginning Fund Balance	$230,059	$260,652	$299,775	$349,775
Resources				
DMV License & Gas Tax Fees	$32,917	$32,946	$34,000	$34,000
Interest	$13,073	$16,251	$16,000	$18,000
	$45,989	$49,197	$50,000	$52,000
Expenditures				
Materials & Services	$15,396		$150,000	$100,000
Capital Outlay				
	$15,396	$-	$150,000	$100,000

Source: Umatilla County.

Revenues and Expenditures in the City of Athena

Like most jurisdictions in Oregon, the city of Athena funds street operations, maintenance, and improvements through revenue from the state highway funds, interest from its working capital balance, and grants for specific projects. Generally, the state highway fund provides a large proportion of the revenues available for local jurisdiction's roadway moneys. Spending is typically disaggregated in the following categories: personal services, materials and equipment, and capital improvements, with the bulk of the expenditures used for maintenance and operations.

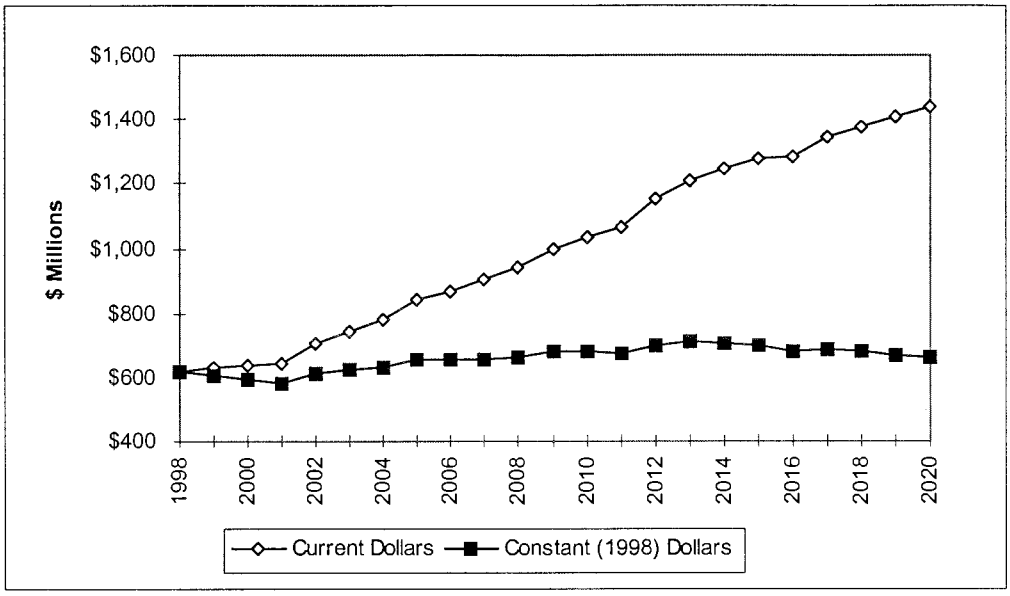
Transportation Revenue Outlook in the City of Athena

ODOT's policy section recommends certain assumptions in the preparation of transportation plans. In its *Financial Assumptions* document prepared in May 1998, ODOT projected the revenue of the state highway fund through year 2020. The estimates are based on not only the political climate, but also the economic structure and conditions, population and demographics, and patterns of land use. The latter is particularly important for state-imposed fees because of the goals in place under Oregon's Transportation Planning Rule (TPR) requiring a 10-percent reduction in per-capita vehicle miles of travel (VMT) in Metropolitan Planning Organization (MPO) areas by year 2015, and a 20-percent reduction by year 2025. This requirement will affect the 20-year revenue forecast from the fuel tax. ODOT recommends the following assumptions:

- Fuel tax increases of one cent per gallon per year (beginning in year 2002), with an additional one cent per gallon every fourth year;
- Vehicle registration fees would be increased by $10 per year in 2002, and by $15 per year in year 2012;
- Revenues will fall halfway between the revenue-level generated without TPR and the revenue level if TPR goals were fully met;
- Revenues will be shared among the state, counties, and cities on a "50-30-20 percent" basis rather than the previous "60.05-24.38-15.17 percent" basis; and
- Inflation occurs at an average annual rate of 3.6 percent (as assumed by ODOT).

Figure 8-1 shows the forecast in both current-dollar and inflation-deflated constant (1998) dollars. As highlighted by the constant-dollar data, the highway fund is expected to grow slower than inflation early in the planning horizon until fuel-tax and vehicle-registration fee increases occur in year 2002, increase to a rate somewhat faster than inflation through year 2015, and continue a slight decline through the remainder of the planning horizon.

FIGURE 8-1
STATE HIGHWAY FUND (IN MILLIONS OF DOLLARS)



Source: ODOT Financial Assumptions.

As the state highway fund is expected to be a significant source of funding for Athena, the City is highly susceptible to changes in the state highway fund. In order to analyze the City's ability to fund the recommended improvements from current sources, DEA applied the following assumptions:

- ODOT state highway fund assumptions as outlined above;
- The state highway fund will account for the majority of the city's street fund;
- Interest and other local sources continue to provide stable revenue streams; and
- The proportion of revenues available for capital expenditures for street improvements is estimated to have averaged $1,000 annually.

Communities of similar size to Athena tend to have between $1,000 and $5,000 available annually to fund capital improvements from existing sources. To be conservative, this analysis will assume that the city of Athena has had approximately $1,000 annually from existing sources to fund capital improvements. Applying this and the assumptions about the state highway fund as recommended by ODOT yields total resources between $900 and $1,200 as shown in Table 8-5.

TABLE 8-5
ESTIMATED RESOURCES AVAILABLE TO CITY OF ATHENA FROM STATE HIGHWAY FUND, 1998 DOLLARS

Year	Estimated Funds Available for Capital Outlay
1999	$1,000
2000	$1,000
2001	$1,000
2002	$900
2003	$1,000
2004	$1,000
2005	$1,000
2006	$1,100
2007	$1,100
2008	$1,100
2009	$1,100
2010	$1,100
2011	$1,100
2012	$1,100
2013	$1,100
2014	$1,200
2015	$1,100
2016	$1,100
2017	$1,100
2018	$1,100
2019	$1,100
2020	$1,100

The amount actually received from the state highway fund will depend on a number of factors, including the actual revenue generated by state gasoline taxes, vehicle registration fees, and other sources, and the population growth in Athena (since the distribution of state highway funds is based on an allocation formula which includes population).

REVENUE SOURCES

In order to finance the recommended transportation system improvements requiring expenditure of capital resources, it will be important to consider a range of funding sources. Although the property tax has traditionally served as the primary revenue source for local governments, property tax revenue goes into general fund operations, and is typically not available for road improvements or maintenance. Despite this limitation, the use of alternative revenue funding has been a trend throughout Oregon as the full implementation of Measures 5 and 47 have significantly reduced property tax revenues (see below). The alternative revenue sources described in this section may not all be appropriate in Athena; however, this overview is being provided to illustrate the range of options currently available to finance transportation improvements during the next 20 years.

Property Taxes

Property taxes have historically been the primary revenue source for local governments. However, property tax revenue goes into general fund operations, and is not typically available for road improvements or maintenance. The dependence of local governments on this revenue source is due, in large part, to the fact that

property taxes are easy to implement and enforce. Property taxes are based on real property (i.e., land and buildings) which has a predictable value and appreciation to base taxes upon. This is as opposed to income or sales taxes, which can fluctuate with economic trends or unforeseen events.

Property taxes can be levied through: 1) tax base levies, 2) serial levies, and 3) bond levies. The most common method uses tax base levies, which do not expire and are allowed to increase by six percent per annum. Serial levies are limited by amounts and times they can be imposed. Bond levies are for specific projects and are limited by time based on the debt load of the local government or the project.

The historic dependence on property taxes is changing with the passage of Ballot Measure 5 in the early 1990s. Ballot Measure 5 limits the property tax rate for purposes other than payment of certain voter-approved general obligation indebtedness. Under full implementation, the tax rate for all local taxing authorities is limited to $15 per $1,000 of assessed valuation. As a group, all non-school taxing authorities are limited to $10 per $1,000 of assessed valuation. All tax base, serial, and special levies are subject to the tax rate limitation. Ballot Measure 5 requires that all non-school taxing districts' property tax rate be reduced if together they exceed $10 per $1,000 per assessed valuation by the county. If the non-debt tax rate exceeds the constitutional limit of $10 per $1,000 of assessed valuation, then all of the taxing districts' tax rates are reduced on a proportional basis. The proportional reduction in the tax rate is commonly referred to as compression of the tax rate.

Measure 47, an initiative petition, was passed by Oregon voters in November 1996. It is a constitutional amendment that reduces and limits property taxes and limits local revenues and replacement fees. The measure limits 1997-98 property taxes to the lesser of the 1995-96 tax minus 10 percent, or the 1994-95 tax. It limits future annual property tax increases to three percent, with exceptions. Local governments' lost revenue may be replaced only with state income tax, unless voters approve replacement fees or charges. Tax levy approvals in certain elections require 50 percent voter participation.

The state legislature created Measure 50, which retains the tax relief of Measure 47 but clarifies some legal issues. This revised tax measure was approved by voters in May 1997.

The League of Oregon Cities (LOC) estimated that direct revenue losses to local governments, including school districts, will total $467 million in fiscal year 1998, $553 million in 1999, and increase thereafter. The actual revenue losses to local governments will depend on actions of the Oregon Legislature. LOC also estimates that the state will have revenue gains of $23 million in 1998, $27 million in 1999, and increase thereafter because of increased personal and corporate tax receipts due to lower property tax deduction.

Measure 50 adds another layer of restrictions to those which govern the adoption of tax bases and levies outside the tax base, as well as Measure 5's tax rate limits for schools and non-schools and tax rate exceptions for voter approved debt. Each new levy and the imposition of a property tax must be tested against a longer series of criteria before the collectible tax amount on a parcel of property can be determined.

System Development Charges

System Development Charges (SDCs) are becoming increasingly popular in funding public works infrastructure needed for new local development. Generally, the objective of systems development charges is to allocate portions of the costs associated with capital improvements upon the developments, which increase demand on transportation, sewer or other infrastructure systems.

Local governments have the legal authority to charge property owners and/or developers fees for improving the local public works infrastructure based on projected demand resulting from their development. The charges are most often targeted towards improving community water, sewer, or transportation systems. Cities and counties must have specific infrastructure plans in place which comply with state guidelines in order to collect SDCs.

SDCs are collected when new building permits are issued. Transportation SDCs are based on trip generation of the proposed development. Residential calculations would be based on the assumption that a typical household will generate a given number of vehicle trips per day. Nonresidential use calculations are based on employee ratios for the type of business or industrial uses. The SDC revenues would help fund the construction of transportation facilities necessitated by new development.

State Highway Fund

Gas tax revenues received from the state of Oregon are used by all counties and cities to fund road and road construction and maintenance. In Oregon, the state collects gas taxes, vehicle registration fees, overweight/overheight fines and weight/mile taxes and returns a portion of the revenues to cities and counties through an allocation formula. Like other Oregon cities, the city of Athena uses its state gas tax allocation to fund street construction and maintenance.

Local Gas Taxes

The Oregon Constitution permits counties and incorporated cities to levy additional local gas taxes with the stipulation that the moneys generated from the taxes will be dedicated to road-related improvements and maintenance within the jurisdiction. At present, only a few local governments (including the cities of Woodburn and The Dalles and Multnomah and Washington counties) levy a local gas tax. The city of Athena may consider raising its local gas tax as a way to generate additional road improvement funds. However, with relatively few jurisdictions exercising this tax, an increase in the cost differential between gas purchased in Athena and gas purchased in neighboring communities may encourage drivers to seek less expensive fuel elsewhere. Any action will need to be supported by careful analysis to minimize the unintended consequences of such an action.

Vehicle Registration Fees

The Oregon vehicle registration fee is allocated to the state, counties and cities for road funding. Oregon counties are granted authority to impose a vehicle registration fee covering the entire county. The Oregon Revised Statutes would allow Umatilla County to impose a biannual registration fee for all passenger cars licensed within the county. Although both counties and special districts have this legal authority, vehicle registration fees have not been imposed by local jurisdictions. In order for a local vehicle registration fee program to be viable in Umatilla County, all the incorporated cities and the county would need to formulate an agreement which would detail how the fees would be spent on future road construction and maintenance.

Local Improvement Districts

The Oregon Revised Statutes allow local governments to form Local Improvement Districts (LIDs) to construct public improvements. LIDs are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. The statutes allow formation of a district by either the city government or property owners. Cities that use LIDs are required to have a local LID ordinance that provides a process for district formation and payback provisions. Through the LID process, the cost of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation. The types of allocation methods are only limited by the Local Improvement Ordinance. The cost of LID participation is considered an assessment against the property which is a lien equivalent to a tax lien. Individual property owners typically have the option of paying the assessment in cash or applying for assessment financing through the City. Since

the passage of Ballot Measure 5, cities have most often funded local improvement districts through the sale of special assessment bonds.

GRANTS AND LOANS

There are a variety of grant and loan programs available, most with specific requirements relating to economic development or specific transportation issues, rather than for the general construction of new streets. Many programs require a match from the local jurisdiction as a condition of approval. Because grant and loan programs are subject to change and statewide competition, they should not be considered a secure long-term funding source. Most of the programs available for transportation projects are funded and administered through ODOT and/or the Oregon Economic Development Department (OEDD). Some programs that may be appropriate for the city of Athena are described below. The primary contact for information on the following programs is ODOT Region 5, which can be reached at (541) 963-3177.

Bike-Pedestrian Grants

By law (ORS 366.514), all road, street or highway construction or reconstruction projects must include facilities for pedestrians and bicyclists, with some exceptions. ODOT's Bike and Pedestrian Program administers two programs to assist in the development of walking and bicycling improvements: local grants, and Small-Scale Urban Projects. Cities and counties with projects on local streets are eligible for local grant funds. An 80 percent state/20 percent local match ratio is required. Eligible projects include curb extensions, pedestrian crossings and intersection improvements, shoulder widening and restriping for bike lanes. Projects on urban state highways with little or no right of way taking and few environmental impacts are eligible for Small-Scale Urban Project Funds. Both programs are limited to projects costing up to $100,000. Projects that cost more than $100,000, require the acquisition of ROW, or have environmental impacts should be submitted to ODOT for inclusion in the STIP.

Access Management

The Access Management Program sets aside approximately $500,000 a year to address access management issues. One primary component of this program is an evaluation of existing approach roads to state highways. These funds are not committed to specific projects, and priorities and projects are established by an evaluation process.

Enhancement Program

This federally-funded program earmarks $8 million annually for projects in Oregon. Projects must demonstrate a link to the intermodal transportation system, compatibility with approved plans, and local financial support. A 10.27 percent local match is required for eligibility. Each proposed project is evaluated against all other proposed projects in its region. Within the five Oregon regions, the funds are distributed on a formula based on population, vehicle miles traveled, number of vehicles registered and other transportation-related criteria. The solicitation for applications was mailed to cities and counties the last week of October 1998. Local jurisdictions have until January 1999 to complete and file their applications for funding available during the 2000-2003 fiscal years which begin October 1999.

Highway Bridge Rehabilitation or Replacement Program

The Highway Bridge Rehabilitation or Replacement Program (HBRR) provides federal funding for the replacement and rehabilitation of bridges of all functional classifications. A portion of the HBRR funding is allocated for the improvement of bridges under local jurisdiction. A quantitative ranking system is applied to the proposed projects based on sufficiency rating, cost factor, and load capacity. They are ranked against other projects statewide, and require state and local matches of 10 percent each. It includes the Local Bridge Inspection Program and the Bridge Load Rating Program.

Transportation Safety Grant Program

Managed by ODOT's Transportation Safety Section (TSS), this program's objective is to reduce the number of transportation-related accidents and fatalities by coordination a number of statewide programs. These funds are intended to be used as seed money, funding a program for three years. Eligible programs include programs in impaired driving, occupant protection, youth, pedestrian, speed, enforcement, bicycle and motorcycle safety. Every year, TSS produces a Highway Safety Plan that identifies the major safety programs, suggests countermeasures to existing safety problems, and lists successful projects selected for funding, rather than granting funds through an application process.

Federal Transit Administration (FTA) Section 5311-Non-urbanized Area Formula Program

Section 5311 is a federally sponsored program for general public transit services in small urban and rural areas. It supports both capital and operation needs. The ODOT Public Transit Division distributes these funds. In FY00, the cities of Pendleton and Milton-Freewater received these funds to support transportation programs for the general public. The city of Athena would be eligible for these funds if it implemented intercity service or intracity services open to the general public. The recipient of these funds must provide matching funds of up to 50 percent for operating uses and up to 20 percent for capital expenses.

Section 5311(f) – Part of 5311 funds is allocated to intercity services. Intercity transit services connect communities to rail, bus and air hubs. These funds can be used for both capital and operating expenses. Local revenues must match these funds. Match requirements are the same as those for 5311 funds.

Surface Transportation Program (STP) Funds

TEA-21, the Federal Transportation Efficiency Act for the 21st Century, that funds programs for highways and transit, permits surface transportation program funding flexibility between modes. This gives the state more latitude in selecting the modal alternatives that would best address local congestion problems. STP funds are generally limited to capital projects with a few exceptions. In non-urbanized areas ODOT has the responsibility of allocating these funds. In Athena, ODOT Region 5 makes funding decisions with public input.

Department of Labor Welfare-to-Work Program

The US Department of Labor provides grants to communities to give transitional assistance to move welfare recipients into unsubsidized employment. One of the areas applicants are encouraged to consider is the development of responsive transportation systems to move people to work or to career training. These grants must serve at least 100 welfare recipients. The Department of Labor expects the grants to range from one million to five million dollars over a period of three years. Applications must be a coordinated effort between

transportation providers and Oregon Adult and Family Services. The funding can be used for capital and operating expenses and will cover up to 50 percent of the cost of a program.

ODOT has submitted a grant application for funding for Oregon programs. ODOT identified the Bend/Redmond area as the first demonstration program. Other areas of the state may be eligible after that. To be eligible for this funding, it is essential that communities bring together local ODOT staff, transit providers and AFS staff to begin the coordination process.

FTA Section 5310 Discretionary Grants

This program funds vehicles and other capital projects for programs that serve elderly and disabled people. In FY99 the city of Pendleton received $36,000 to purchase a new vehicle.

Special Transportation Fund

The Special Transportation Fund (STF) awards funds to maintain, develop, and improve transportation services for people with disabilities and people over 60 years of age. Financed by a two-cent tax on each pack of cigarettes sold in the state, the annual distribution is approximately $5 million. Three-quarters of these funds are distributed on a per-capita formula to mass transit districts, transportation districts, where such districts do not exist, and counties. The remaining funds are distributed on a discretionary basis.

County Allotment Program

The County Allotment Program distributes funds to counties on an annual basis; the funds distributed in this program are in addition to the regular disbursement of state highway fund resources. The program determines the amount of total revenue available for roads in each county and the number of road miles (but not lane miles) of collectors and arterials under each county's jurisdiction. Using these two benchmarks, a "resource-per-equivalent" ratio is calculated for each county. Resources from the $750,000 program are provided to the county with the lowest resource-per-equivalent road-mile ratio until they are funded to the level of the next-lowest county. The next-lowest county is then provided resources until they are funded to the level of the third-lowest county, and so on, until the fund is exhausted.

Immediate Opportunity Grant Program

The Oregon Economic Development Department (OEDD) and ODOT collaborate to administer a grant program designed to assist local and regional economic development efforts. The program is funded to a level of approximately $7 million per year through state gas tax revenues. The following are primary factors in determining eligible projects:

- Improvement of public roads.
- Inclusion of an economic development-related project of regional significance.
- Creation or retention of primary employment.
- Ability to provide local funds (50/50) to match grant.
- Improvement to the quality of the community.

The maximum amount of any grant under the program is $500,000. Local governments that have received grants under the program include Washington County, Multnomah County, Douglas County, the city of Hermiston, port of St. Helens, and the city of Newport.

Oregon Special Public Works Fund

The Special Public Works Fund (SPWF) program was created by the 1995 State Legislature as one of several programs for the distribution of funds from the Oregon Lottery to economic development projects in communities throughout the state. The program provides grant and loan assistance to eligible municipalities primarily for the construction of public infrastructure which support commercial and industrial development that result in permanent job creation or job retention. To be awarded funds, each infrastructure project must support businesses wishing to locate, expand, or remain in Oregon. SPWF awards can be used for improvement, expansion, and new construction of public sewage treatment plants, water supply works, public roads, and transportation facilities.

While SPWF program assistance is provided in the form of both loans and grants, the program emphasizes loans in order to assure that funds will return to the state over time for reinvestment in local economic development infrastructure projects. Jurisdictions that have received SPWF funding for projects that include some type of transportation-related improvement include the cities of Baker City, Bend, Cornelius, Forest Grove, Madras, Portland, Redmond, Reedsport, Toledo, Wilsonville, Woodburn, and Douglas County.

Oregon Transportation Infrastructure Bank

The Oregon Transportation Infrastructure Bank (OTIB) program is a revolving loan fund administered by ODOT to provide loans to local jurisdictions (including cities, counties, special districts, transit districts, tribal governments, ports, and state agencies). Eligible projects include construction of federal-aid highways, bridges, roads, streets, bikeways, pedestrian accesses, and right of way costs. Capital Outlays such as buses, light-rail cars and lines, maintenance years and passenger facilities are also eligible.

ODOT FUNDING OPTIONS

The state of Oregon provides funding for all highway related transportation projects through the Statewide Transportation Improvement Program (STIP) administered by the Oregon Department of Transportation. The STIP outlines the schedule for ODOT projects throughout the State. The STIP, which identifies projects for a three-year funding cycle, is updated on an annual basis. In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan (OTP), ODOT Modal Plans, Corridor Plans, local Comprehensive Plans, and federal planning requirements. The STIP must fulfill federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on a review of the TEA-21 planning requirements and the different state plans. ODOT consults with local jurisdictions before highway related projects are added to the STIP.

The highway-related projects identified in Athena's TSP will be considered for future inclusion on the STIP. The timing of including specific projects will be determined by ODOT based on an analysis of all the project needs within Region 5. The city of Athena, Umatilla County, and ODOT will need to communicate on an annual basis to review the status of the STIP and the prioritization of individual projects within the project area. Ongoing communication will be important for the city, county, and ODOT to coordinate the construction of both local and state transportation projects.

ODOT also has the option of making some highway improvements as part of their ongoing highway maintenance program. Types of road construction projects that can be included within the ODOT maintenance programs are intersection realignments, additional turn lanes, and striping for bike lanes. Maintenance related construction projects are usually done by ODOT field crews using state equipment. The maintenance crews do not have the staff or specialized road equipment needed for large construction projects.

An ODOT funding technique that will likely have future application to Athena's TSP is the use of state and federal transportation dollars for off-system improvements. Until the passage and implementation of ISTEA, state and federal funds were limited to transportation improvements within highway corridors. ODOT now has the authority and ability to fund transportation projects that are located outside the boundaries of the highway corridors. The criteria for determining what off-system improvements can be funded has not yet been clearly established. It is expected that this new funding technique will be used to finance local system improvements that reduce traffic on state highways or reduce the number of access points for future development along state highways.

FINANCING TOOLS

In addition to funding options, the recommended improvements listed in this plan may benefit from a variety of financing options. Although often used interchangeably, the words financing and funding are not the same. Funding is the actual generation of revenue by which a jurisdiction pays for improvements, some examples include the sources discussed above: property taxes, SDCs, fuel taxes, vehicle registration fees, LIDs, and various grant programs. In contrast, financing refers to the collecting of funds through debt obligations.

There are a number of debt financing options available to the city of Athena. The use of debt to finance capital improvements must be balanced with the ability to make future debt service payments and to deal with the impact on its overall debt capacity and underlying credit rating. Again, debt financing should be viewed not as a source of funding, but as a time shifting of funds. The use of debt to finance these transportation-system improvements is appropriate since the benefits from the transportation improvements will extend over a period of years. If such improvements were to be tax financed immediately, a large short-term increase in the tax rate would be required. By utilizing debt financing, local governments are essentially spreading the burden of the costs of these improvements to more of the people who are likely to benefit from the improvements and lowering immediate payments.

General Obligation Bonds

General obligation (GO) bonds are voter-approved bond issues, which represent the least expensive borrowing mechanism available to municipalities. GO bonds are typically supported by a separate property tax levy specifically approved for the purposes of retiring debt. The levy does not terminate until all debt is paid off. The property tax levy is distributed equally throughout the taxing jurisdiction according to the assessed value of property. GO debts are typically used to make public improvement projects that will benefit the entire community.

State statutes require that the GO indebtedness of a city not exceed three percent of the real market value of all taxable property in the city. Since GO bonds would be issued subsequent to voter approval, they would not be restricted to the limitations set forth in Ballot Measures 5, 47, and 50. Although new bonds must be specifically voter approved, Measure 47 and 50 provisions are not applicable to outstanding bonds, unissued voter-approved bonds, or refunding bonds.

Limited Tax Bonds

Limited tax general obligation (LTGO) bonds are similar to GO bonds in that they represent an obligation of the municipality. However, a municipality's obligation is limited to its current revenue sources and is not secured by the public entity's ability to raise taxes. As a result, LTGO bonds do not require voter approval. However, since the LTGO bonds are not secured by the full taxing power of the issuer, the limited tax bond represents a higher borrowing cost than GO bonds. The municipality must pledge to levy the maximum amount under constitutional and statutory limits, but not the unlimited taxing authority pledged with GO bonds. Because LTGO bonds are not voter approved, they are subject to the limitations of Ballot Measures 5, 47, and 50.

Bancroft Bonds

Under Oregon Statute, municipalities are allowed to issue Bancroft bonds which pledge the City's full faith and credit to assessment bonds. As a result, the bonds become general obligations of the City but are paid with assessments. Historically, these bonds provided a city with the ability to pledge its full faith and credit in order to obtain a lower borrowing cost without requiring voter approval. However, since Bancroft bonds are not voter approved, taxes levied to pay debt service on them are subject to the limitations of Ballot Measures 5, 47, and 50. As a result, since 1991, Bancroft bonds have not been used by municipalities that were required to compress their tax rates.

FUNDING REQUIREMENTS

Athena's TSP identifies both capital improvements and strategic efforts recommended during the next 20 years to address safety and access problems and to expand the transportation system to support a growing population and economy. The TSP identifies 9 projects estimated to cost nearly $200,000 over the 20-year planning horizon. Seven of these nine projects are paving projects which will require funding from the City, including paving First, Darwin, Currant, Washington, High, Van Buren, and Jefferson streets. These paving projects, estimated to cost an estimated $169,400 (in 1998 dollars), will require the City's financial lead. Estimated costs by project are shown in Table 8-6.

TABLE 8-6
RECOMMENDED PROJECTS AND FINANCIAL RESPONSIBILITY

		Costs ($ X 1,000)				
Project #	Location /Description	City	County	State	Private	Total
~~1.~~	~~Extend Lincoln St. and Washington St. to the east from Hunt Ave.~~				~~$20.0~~	~~$20.0~~
~~2.~~	~~Extend Darwin St. to the west from 1st St.~~				~~$10.0~~	~~$10.0~~
~~3.~~	~~Pave 1st St. between Main St. and Darwin St.~~	~~$18.4~~				~~$18.4~~
~~4.~~	~~Pave Darwin St. between 1st St. and 3rd St.~~	~~$20.3~~				~~$20.3~~
~~5.~~	~~Pave Currant St. and 2nd St. between 1st St. and Darwin St.~~	~~$19.2~~				~~$19.2~~

Project #	Location /Description	Costs ($ X 1,000) City	County	State	Private	Total
~~6~~1.	Pave Washington St. between dead end and 6th St.	$48.8				$48.8
~~7~~2.	Pave High St. between 2nd St. and 6th St.	$42.3				$42.3
~~8~~3.	Pave Van Buren St. between 2nd St. and 3rd St.	$10.2				$10.2
~~9~~4.	Pave Jefferson St. between 2nd St. and 3rd St.	$10.2				$10.2
Total		**$169.4**			**$30.0**	**$199.4**

As these projects will serve to enhance the overall transportation network, they may be eligible for enhancement or other ODOT or OEDD grants, as described earlier in this Chapter. Based on current revenue sources for the city of Athena as estimated in Table 8-5 and the improvements identified in this Transportation System Plan, the City is expected to experience a budget deficit of nearly $147,000 as shown in Table 8-7.

TABLE 8-7
ESTIMATED CAPITAL FUNDING BALANCE

	Amount
Capital Available from Existing Revenue Sources	$22,500
Capital Needed to Fund Projects Identified as City-Funded Projects	$169,400
Surplus (Deficit)	($146,900)

This Transportation System Plan recommends nine projects, estimated to cost nearly $200,000 for the Athena area. Based on estimates of existing funding sources, and the estimates of capital outlay required to implement the recommended projects, the city of Athena is expected to experience a budget deficit with regard to implementing the recommended projects. The city of Athena will need to continue to work with Umatilla County and ODOT in order to fully implement the projects identified in this TSP.