SECTION 12.5 PUBLIC TRANSPORTATION SYSTEM PLAN ELEMENT

12.5.100 EXISTING PUBLIC TRANSPORTATION SYSTEM

The City of Umatilla neither provides nor subsidizes public transportation services within its boundaries. Only para-transit services are available in the City of Umatilla and on a limited basis.

12.5.110 Para-Transit Service

Limited Dial-a-Ride services (pre-arranged taxi/van service) are provided in the area, though all operate from points outside the City of Umatilla and are primarily intended to service elderly and/or disabled persons. Some of the regional dial-a-ride providers include Foster Grandparent/Senior Companions, RSVP of Eastern Oregon, and the Umatilla County Mental Health Program. Foster Grandparent/Senior Companions is an operation based in Pendleton at the hospital. Their service is intended for low income seniors and seniors with children. Both RSVP of Eastern Oregon and the Umatilla County Mental Health Program provide service to the Umatilla area on a limited basis.

12.5.120 Intracity Bus

No intracity bus service is provided in the City of Umatilla.

12.5.130 Intercity Bus

Greyhound provides intercity bus service to the City of Umatilla, making daily stops at the intersection of Switzler Avenue and Highway 730. No shelter is provided at the bus stop and, while the bus travels through town daily, stops are made only on an as-needed basis (flag stop). This service provides connections to Hermiston, the Tri-Cities (Washington), and Portland, Oregon.

12.5.200 PUBLIC TRANSPORTATION SYSTEM PLAN

Public transportation within the City of Umatilla is limited to demand-responsive transit service and Greyhound Bus service. While increased usage of these services is desirable, there are no current or pending plans to expand public transportation services to the area.

Discussions with staff from the participating agencies and meetings with the public confirmed the adequacy of the current demand-responsive transit service facilitated by Umatilla County; although it was noted that the public's awareness of these services is lacking. No segment of the City's population was specifically identified as being without transportation service. Nonetheless, improvements can be made that will benefit the community as it grows.

The City of Umatilla should continue to monitor the adequacy of the transit service provided to the community and work with the County to extend service as necessary. Both the City and County should also promote a greater public awareness of the available public transit services. With the exception of available Greyhound Bus service, the population under the driving age is particularly under served and as the community grows in geographic size, their overall accessibility will be diminished.

Subsidized taxi transportation is an efficient method of public transportation for smaller communities such as the City of Umatilla, while still being cost effective. Such a service, while not currently available, can be provided at relatively low cost and supported by state grants and local funding.

12.5.300 PUBLC TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.5.400 PUBLIC TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES

12.5.401 The City will support efforts to secure a regional mass transit system.

SECTION 12.6 RAILROAD TRANSPORTATION SYSTEM PLAN ELEMENT

12.6.100 EXISTING RAILROAD TRANSPORTATION SYSTEM

Union Pacific Railroad operates a local freight rail line through portions of the City of Umatilla. The "Umatilla Turn" connects local manufacturers with Union Pacific's Hinkle Yard and main rail trackage to the south in Hermiston. From Umatilla, the rail line travels south roughly parallel to Umatilla River Road until reaching downtown Hermiston, where the line turns to the southwest and travels towards Union Pacific's main facilities at the Hinkle Rail Yard. Union Pacific operates an unloading ramp and truck-to-rail terminal at Hinkle Rail Yard.

Because the rail line terminates along the banks of the Columbia River at the Port of Umatilla, it is operated as a spur and the frequency of freight trains varies based upon demand. Currently, service is provided on Mondays, Wednesdays, and Fridays during the evening hours. Typically, trains depart Hermiston for Umatilla at approximately 2:30 p.m. and arrive in Umatilla between 5:00 p.m. and 8:00 p.m., depending on the number of local switching operations in route. The frequency of trains can be increased should shipping demand warrant additional service in the future.

12.6.200 RAILROAD TRANSPORTATION SYSTEM PLAN

Freight rail service will continue to be a prominent component of the City's transportation system. Union Pacific's Hinkle Railyard located to the south in Hermiston is expected to serve as a major western freight hub for the foreseeable future. Further, there is adequate rail capacity to increase the frequency of trains that travel north from Hinkle Railyard to the Port of Umatilla. It is recommended that future development in the Port of Umatilla's industrial area be planned to interface with the adjacent rail system to promote the safe and efficient transportation of freight.

12.6.300 RAILROAD TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.6.400 RAILROAD TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES (RESERVED FOR EXPANSION)

SECTION 12.7 MARINE TRANSPORTATION SYSTEM PLAN ELEMENT

12.7.100 EXISTING MARINE TRANSPORTATION SYSTEM

The Columbia River borders the City of Umatilla to the north and serves as a means of transportation for both commercial and recreational traffic. The McNary Dam, operated by the U.S. Army Corps of Engineers, is located approximately one mile east of Interstate 82 and serves both commercial barge traffic and recreational boats traveling along the Columbia River past the City of Umatilla. A lock located alongside the dam allows river traffic to bypass the dam.

The Port of Umatilla maintains two marine facilities along the Columbia River. The Umatilla Marina Park, located immediately west of Interstate 82, is located on property owned by the U.S. Army Corp of Engineers, though the marine facilities are operated and maintained by the Port. Approximately 124 slips are available at the marina as well as a boat launch ramp, a fueling dock, a 38-space recreational vehicle parking area, and restroom facilities.

The second marine facility operated by the Port is located on the east side of the McNary Dam and is used for commercial cargo handling purposes. A container terminal (shallow draft/barge dock) at this location is used to transfer containerized frozen potatoes using a 50-ton crane. Weekly barge service is provided to the area for potato shipments and electrical service is available at the docks to support up to 100 refrigerated containers. In addition, Pendleton Grain Growers operate a grain transfer facility and Tidewater Terminal Company operates a tank farm that provides for liquid fertilizer and fuel transfers. The port also serves as a terminal for transferring diesel fuel to a pipeline owned by Kaneb Pipeline Corporation, which in turn supplies Hinkle Rail Yard. The marine facilities at the port have access to rail service provided by Union Pacific, via the "Umatilla Turn."

Although recreational river traffic is generally limited to private vessels operating in the area, river cruise lines call at the Umatilla Marina Park for tourist related activities. Typically, the river cruise ships dock so that passengers can travel to Pendleton or Patterson to partake in regional tourist attractions. The Umatilla Marina Park is not considered a base of operations for the river cruise lines and does not serve as an origin for their trips.

12.7.200 MARINE TRANSPORTATION SYSTEM PLAN

The Port of Umatilla's two marine facilities are capable of accommodating future expansion and are expected to continue to grow with the surrounding community, though no formal expansion plans have been identified.

It is recommended that future development in the port's industrial area also be planned to interface with the Columbia River to allow for continued marine transportation service. In addition, the City of Umatilla should actively support the continued presence and operation of the Port as an effective means of transportation. Finally, the creation of multi-use paths and other facilities that promote the multi-modal use of marine recreational areas along the shore of the Columbia River should be encouraged.

12.7.300 MARINE TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.7.400 MARINE TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES (RESERVED FOR EXPANSION)

SECTION 12.8 AIR TRANSPORTATION SYSTEM PLAN ELEMENT

12.8.100 EXISTING AIR TRANSPORTATION SYSTEM

No commercial or private aviation facilities are located within the City of Umatilla. Regional freight cargo and air passenger services are provided at the Eastern Oregon Regional Airport at Pendleton, located approximately 35 miles southeast of Umatilla via I-84 and in Pasco, Washington, located approximately 30 miles to the north. Both the Eastern Oregon Regional Airport and the Tri-Cities Airport provide regional passenger air service, connecting to national and international air service at the Portland International Airport. In addition, the City of Hermiston owns and operates a general aviation municipal airport. Hermiston's airport does not offer commercial flights but charter service is available and several local businesses make use of the facility. This airport provides facilities for crop dusting aircraft that serve farmers/foresters in the area.

12.8.200 AIR TRANSPORTATION SYSTEM PLAN

Existing regional air service for passengers and freight is provided via a full service commercial airport in neighboring Pendleton and also at the Tri-Cities Airport located in Pasco, Washington. Air transport charter service is also available through the Hermiston Municipal Airport. The City of Umatilla should work with the County to achieve an intermodal connection to one or both airports, via demand-responsive transit service, subsidized taxi service, or other mutually agreeable means. The continued use of these facilities is recommended.

12.8.300 AIR TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.8.400 AIR TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES (RESERVED FOR EXPANSION)

SECTION 12.9 IRRIGATION CANALS/WATER TRANSPORTATION SYSTEM PLAN ELEMENT

12.9.100 EXISTING IRRIGATION CANALS/WATER TRANSPORTATION SYSTEM

The West Extension Irrigation District operates an irrigation canal that travels through western portions of the City of Umatilla. The canal carries water from the Three-Mile Dam on the Umatilla River north roughly paralleling Interstate 82. The canal then travels to the west (roughly parallel to Highway 730) to its ultimate destination in Boardman, Oregon. Lateral lines from the canal are available to some users within the City of Umatilla. The West Irrigation District has no expansion plans at this time.

The Hermiston Irrigation District operates several irrigation canals within the City of Umatilla's UGB. The "O" Canal transports water from the Umatilla River north through Echo, Stanfield, Hermiston, and ultimately up to the McNary Area of the City of Umatilla. The canal crosses under Highway 730 at two points east of Highway 395. The "OB" and "OA" laterals break off from the "O" canal to serve district customers south of Highway 730. Similarly, the "R" canal travels north to Umatilla providing irrigation service to the area. Minor expansion of lateral lines to serve new customers in the Umatilla area is possible, though the irrigation district tends to service customers needing irrigation for parcels encompassing two or more acres, as opposed to small homeowners.

12.9.200 IRRIGATION CANALS/WATER TRANSPORTATION SYSTEM PLAN

The irrigation canals operated by the West Extension Irrigation District and the Hermiston Irrigation District have adequate capacity to serve minor expansion of lateral lines to serve new customers. The continued use of these facilities is recommended.

12.9.300 IRRIGATION CANALS/WATER TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.9.400 IRRIGATION CANALS/WATER TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES (RESERVED FOR EXPANSION)

SECTION 12.10 PIPELINE TRANSPORTATION SYSTEM PLAN ELEMENT

12.10.100 EXISTING PIPELINE TRANSPORTATION SYSTEM

A four-inch diesel line owned and operated by the Kaneb Corporation and servicing Union Pacific Railroad's Hinkle Railyard originates at the Port of Umatilla and carries fuel south.

12.10.200 PIPELINE TRANSPORTATION SYSTEM PLAN

The four-inch diesel line owned and operated by the Kaneb Corporation and servicing Union Pacific Railroad's Hinkle Railyard is the only identified pipeline facility within the City's UGB. The continued use of this pipeline is recommended.

12.10.300 PIPELINE TRANSPORTATION SYSTEM PLAN ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.10.400 PIPELINE TRANSPORTATION SYSTEM PLAN ELEMENT POLICIES (RESERVED FOR EXPANSION)

SECTION 12.11 TRANSPORTATION SYSTEM PLAN FUNDING ELEMENT

12.11.010 INTRODUCTION

The Transportation Planning Rule (OAR 660-12-040) requires that the City of Umatilla Transportation System Plan (TSP) include a transportation financing program. These programs are to include:

- a list of planned transportation facilities and major improvements;
- a general estimate of the timing for planned transportation facilities and major improvements;
- determination of rough cost estimates for the transportation facilities and major investments identified in the TSP (intended to provide an estimate of the fiscal requirements to support the land uses in the acknowledged comprehensive plan(s) and allow jurisdictions to assess the adequacy of existing and possible alternative funding mechanisms); and,
- a discussion of existing and potential financing sources to fund the development of each transportation facility and major improvement (which can be described in terms of general guidelines or local policies).

The timing and financing provisions in the transportation financing program are not considered a land use decision as defined by the TPR and ORS 197.712(2)(e) and, therefore, cannot be the basis of appeal under State law. In addition, the transportation financing program is intended to implement the comprehensive plan policies, which provide for phasing of major improvements to encourage infill and redevelopment of urban lands, prior to facilities that would cause premature development of urbanizable areas or conversion of rural lands to urban uses.

12.11.100 CITY OF UMATILLA FUNDING HISTORY

12.11.110 Composition of the Street Fund

The Street Fund for the City of Umatilla provides an annual budget of approximately $250,000 that is dedicated entirely to the operation and maintenance of the City's transportation facilities. Maintenance and preservation are the major work activities performed on the local street system by the City's Public Works Department. Virtually all of the annual Street Fund budget is derived from the City's share of the state-wide gasoline tax and motor vehicle fees. This revenue sharing is based on population and distributed on a proportional share basis to all cities and counties.

Rarely have capital improvement projects been accomplished in the City and when realized, they have been funded by Local Improvement Districts or by the developer. The opportunity to make incremental improvements to the existing system is only facilitated by development/redevelopment. When a building permit is requested, the City examines the needs of the transportation facilities along the site frontage and identifies what should be improved/provided in association with the issuance of the permit.

On the expenditure side, a steady stream of about $250,000 per year is anticipated to be spent on City street capital projects. It is expected that for the foreseeable future whatever funding is made available to the City through state and county resources, is and will be applied to the maintenance and preservation of the existing street system. This practical approach has served

the community well; however, the recommendations and requirements of the Transportation Planning Rule will influence this approach. Should the City obtain funds in excess of the budget necessary to maintain the existing system, the TPR will seek to balance the application of these funds across all modes of travel. Therefore, the list of identified needs provided herein, should be the primary source for future projects to be implemented.

The City of Umatilla currently does not have a transportation system development charge, which would be assessed to developers. This charge could be implemented by the City, with both a "reimbursement fee" and an "improvement fee" element built into its structure. The reimbursement fee places a value on the amount of capacity on an existing street that is utilized by new site development traffic. The improvement fee is an assessment for the added traffic impact associated with new development that triggers new roadway improvements. As a follow up to the Umatilla TSP study, it is recommended that the City undertake a study to consider the appropriateness of a transportation SDC structure that would further facilitate the development of a multi-modal charge where funds could be spent on pedestrian, bicycle, transit improvements, and street improvements.

12.11.200 OREGON TRANSPORTATION FUNDING HISTORY

12.11.210 Road-Related Funding

In 1992, Oregon received $704 million, or 67 percent of its highway revenues, from the collection of user taxes and fees. The second largest source of these revenues is almost entirely comprised of fees resulting from National Forest timber sales. In 1992, these timber receipts raised roughly $115 million. The remaining revenue sources -- road and crossing tolls, general fund appropriations, property taxes, miscellaneous receipts, and bond receipts -- accounted for $223.5 million or roughly 21 percent of total transportation revenues.

The most significant portion of Oregon's highway user taxes and fees come from federal fuel and vehicle taxes, state taxes, and general motor vehicle fees. These categories account for 32 percent, 34 percent, and 25 percent, respectively, of all highway user taxes and fees collected in the State. During the 1980's, Oregon's transportation budget was bolstered by a series of two-cent annual gas tax increases. At the same time, the Federal Government was increasing investment in highways and public transportation. The situation is different today. The last three Oregon Legislatures failed to increase the gas tax and federal budget cuts are reducing transportation funding available to Oregon. The State Highway Fund is further losing buying power because the gas tax is not indexed to inflation, and increased fuel efficiency of vehicles reduces overall consumption.

Oregon Highway Trust Fund revenues are distributed among State (60.22 percent), County (24.38 percent) and City (15.40 percent) governments to fund their priority road needs. In 1995-96, the state estimated it would collect $575 million in state highway funds. Counties and cities would then receive about $140 and $90 million, respectively.

Oregon law allows local government, in addition to receiving state highway trust fund revenues, to levy local fuel taxes for street related improvements. Multnomah and Washington Counties, and some small cities (Tillamook, The Dalles, Woodburn) have used this authorization. Several

attempts have been made by other jurisdictions, but have not been supported by the local electorate. As few local governments have implemented this option, non-user road revenues tend to be relied upon, to supplement the funds received from state and federal user revenues. Other local funding sources have included property tax levies, local improvement district assessments, bonds, traffic impact fees, road user taxes, general fund transfers, receipts from other local governments, and other miscellaneous sources.

Oregon's basic vehicle registration fee is $15 per year, regardless of the type of private, personal-use vehicle being registered. Oregon law permits local governments (counties) and governmental entities to impose local option vehicle registration fees. To date, no county has implemented this tax.

Cities in Oregon have relied more on transfers from their general funds to support roadway improvements, than have counties. Ballot Measure 5, however, approved by the voters in 1990, reduced the range of funding and financing options available to both cities and counties. Measure 5 limited the property tax rate for purposes other than for payment of certain general obligation indebtedness to $15 per $1,000 of assessed value. The measure further divided the $15 per $1,000 property tax authority into two components: $5 per $1,000 dedicated to the public schools; the remaining $10 dedicated to other local government units, including cities, counties, special service districts, and other non-school entities. The tax rate limitation for cities and counties went into effect in 1992. The school portion of the measure was phased in over a five-year period beginning in FY 1992. In 1996, voters again approved a property tax limitation measure, Ballot Measure 47, which will further impact the ability of cities and counties to pay for needed infrastructure through historic or traditional means.

At the same time that increased growth and increased transportation demands are occurring, cities and counties have lost another traditional source of revenue for infrastructure construction and modernization -- timber harvest receipts. Under a 1993 negotiated mitigation plan, federal forest receipts to support county roads are decreasing 3 percent per year. In 1996, counties received 74 percent of their 1986-90 average receipts, and by 2003 they will receive 55 percent of the late 1980s average receipts.

Given this funding environment, current funding levels and sources are not adequate to meet the transportation needs of the State, counties, or cities, for the next 20 years. In response to this gap between needs and funding, Governor Kitzhaber organized the Oregon Transportation Initiative to look at statewide transportation needs and to develop a program to address how these needs will be met. Through a public process led by business and civic leaders across the State, findings and recommendations on the state of transportation needs and methods to address those needs was submitted to the Governor in July 1996.

A result of these recommendations was appointment of a committee to develop a legislative proposal to the 1997 Legislature regarding transportation funding. Part of that proposal included a process for identifying a "base" transportation system, with a priority of maintenance, preservation, and operation of a system of transportation facilities and services that ensures every Oregonian a basic level of mobility within and between communities. Other components included provisions for realizing efficiencies resulting from better intergovernmental cooperation

(shared resources and equipment, better communication on project needs and definition), and elimination of legislative barriers to more efficient and cost-effective methods of providing transportation services. Unfortunately, the State Legislature was unable to reach consensus on the means to collect and distribute the funds, and the package failed.

A part of future transportation funding will include identification of relationships and responsibilities relative to delivery of projects and services. In Oregon, the primary state role has been to construct and maintain the state highway system and to assist local government with funding of other modes. The State also has a role in intercity passenger services and airports. This has historically been minor but would grow significantly, if serious efforts were put into intercity transportation improvements. Local governments provide local transit and airport support, in addition to providing maintenance, preservation, and construction for local roads, streets, and bridges. The Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) began moving decision-making for federal programs to states and this program and other state policies incorporated in the Oregon Transportation Plan (OTP) encourage reassessment of responsibilities and obligations for funding. The Transportation Equity Act for the 21st Century (TEA21), passed in 1998, has continued the efforts first initiated by ISTEA.

These changing relationships have resulted in two significant issues for State and local governments. First, there is no clear definition of State responsibility. At one time, the State operated on an informal consensus that it should provide one-half the match on federally funded, local, and other projects that served statewide needs. No similar consensus seems to exist today. The State's responsibility for transit, airports, and other local transportation infrastructure and services is not clear. The question of regional equity is raised in considering especially high-cost project needs, such as the Bend Parkway or the Portland area light rail program. Regional equity will probably require consideration of all modes together, because different regions may have different modal needs and financial arrangements.

Given this dynamic transportation funding environment, it is clear that local governments need to reassess traditional methods of funding projects and look creatively at ways to meet public expectations of high quality transportation services.

12.11.220 Transit Funding

Transit service in Oregon has evolved from private development and reliance on user fees for operating revenue, to public ownership with public subsidy for operations. No clear philosophy of the State role in providing transit services is evident and the State is discussing how it should raise revenue in support of transit. The State has used general funds, lottery funds, stripper well funds, cigarette tax revenue, and other funds at various times to support transit service. These efforts have largely been targeted towards supplying half the required match to federal capital improvement grants. To date, the State has provided no operating funds for transit, other than the elderly and disabled program. The State role has been one of granting authority to local governments to raise locally-generated operating revenue.

12.11.230 Freight Rail Funding

The vast majority of rail freight spending is funded by privately-owned railroads. The Federal Local Rail Freight Assistance program is a small program that funds the rehabilitation of both

publicly- and privately-owned rail lines, primarily branch lines. Congress is considering proposals to eliminate the program. If this occurs, there will be no program to provide on-going railroad rehabilitation. Occasional support might be obtained through State lottery-funded economic development programs.

12.11.240 Potential Transportation Funding Sources

There are a variety of methods to generate revenue for transportation projects. Funding for transportation improvement projects are derived from three sources: federal, state, and local governments. Appendix A (Table A-1) provides a summary of federal, state, and local highway, bridge, sidewalk, and bicycle funding programs respectively, which have typically been used in the past. Although property tax is listed as a possible revenue source, the impacts of Ballot Measure 47 severely limit the opportunities for this funding source.

Appendix A (Table A-2) presents details of the revenue sources for streets, bridges, sidewalks, and bicycle facilities currently used by cities. The information is summarized by type of facility, and indicates the percent of revenue each funding source represents for all cities in Oregon, likely trends for the source, known constitutional or other limitations, and their respective rates.

A similar list of transportation funding sources for transit projects is included in Appendix A (Table A-3). This is summarized with the general status of each funding source in Table A-4.

(Note: As of July 2012, the appendix and associated tables referenced in this section could not be located in any of the draft or final TSP documents on file with the City of Umatilla).

12.11.300 PROPOSED TRANSPORTATION IMPROVEMENT PROGRAM

The required transportation improvements in the City of Umatilla over the next 20 years, to meet both short- and long-term needs, are listed below. Projects are divided into two time periods, 0-10 years and 11-20 years. For each of the time periods, projects are packaged into the following categories:

- Roadway Projects (includes widenings, extensions, and intersection improvements)
- Pedestrian Projects
- Multi-Use Pathway Projects

Nearly $15 million in transportation improvements is included in the 20-year improvement program. This total is comprised of approximately $3.69 million in roadway improvements, $9.35 million in pedestrian improvements, and $1.33 million in multi-use pathway improvements. On an average annual basis, this translates to approximately $185,000 for auto-related improvements and $535,000 for non-auto-related improvements. The following is a summary of the projects by type, in each of the transportation program intervals.

12.11.310 First Ten-Year Program

The first ten-year program totals approximately $1.45 million and consists of two roadway projects totaling approximately $0.29 million, and 13 sidewalk projects totaling approximately

$1.16 million (in 1998 dollars). Due to the safety aspects associated with the roadway projects, it is recommended that these two improvement projects receive priority over the remaining projects listed in the first ten-year program. The remaining projects are not listed in a priority, but rather, by general geographic area. The projects recommended for completion within the first ten-year program include:

12.11.310(1) Roadway Projects

1. Install a full traffic signal at the existing Powerline Road/Highway 730 intersection. *(Construction Cost Estimate: $150,000; Primary Funding Agency: ODOT)*

2. Install a "Fire Signal" at the "J" Street/Highway 730 intersection for the Fire Station. *(Construction Cost Estimate: $140,000; Primary Funding Agency: ODOT)* (NOTE*: The addition or modification of a traffic signal on any ODOT facility requires the approval of the State Traffic Engineer. Identification and documentation of the need in this TSP does not guarantee the provision or modification will occur*).

12.11.310(2) Pedestrian Projects

1. Install sidewalk on Highway 730, between Switzler Avenue and Brownell Boulevard. *(Construction Cost Estimate: $131,000; Primary Funding Agency: ODOT)*
2. Install sidewalk on "D" Street, between 5th Street and 8th Street. *(Construction Cost Estimate: $47,000; Primary Funding Agency: City of Umatilla)*
3. Install sidewalk on "F" Street, between 3rd Street and the park. *(Construction Cost Estimate: $117,000; Primary Funding Agency: City of Umatilla)*
4. Install sidewalk on "I" Street, between 5th Street and 8th Street. *(Construction Cost Estimate: $47,000; Primary Funding Agency: City of Umatilla)*
5. Install sidewalk on "L" Street, between 7th Street and 8th Street. *(Construction Cost Estimate: $8,000; Primary Funding Agency: City of Umatilla)*
6. Install sidewalk on 7th Street, between "B" Street and Umatilla River Road. *(Construction Cost Estimate: $72,000; Primary Funding Agency: City of Umatilla)*
7. Install sidewalk on Brownell Boulevard, between 3rd Street and Highway 730. *(Construction Cost Estimate: $134,000; Primary Funding Agency: City of Umatilla)*
8. Install sidewalk on Willamette Avenue, between Riverside Avenue and Highway 730. *(Construction Cost Estimate: $207,000; Primary Funding Agency: City of Umatilla)*
9. Install sidewalk on Columbia Street, between Highway 730 and Willamette Avenue. *(Construction Cost Estimate: $139,000; Primary Funding Agency: City of Umatilla)*
10. Install sidewalk on John Day Street, between Chenoweth Avenue and Willamette Avenue. *(Construction Cost Estimate: $137,000; Primary Funding Agency: City of Umatilla)*
11. Install sidewalk on Chinook Avenue, between John Day Street and Columbia Street. *(Construction Cost Estimate: $30,000; Primary Funding Agency: City of Umatilla)*

12. Install sidewalk on Lake Gordon Avenue, between John Day Street and Columbia Street. *(Construction Cost Estimate: $17,000; Primary Funding Agency: City of Umatilla)*

13. Install sidewalk on Chenoweth Avenue, between Rio Senda Drive and Willamette Avenue. *(Construction Cost Estimate: $70,000; Primary Funding Agency: City of Umatilla)*

The summary of planning-level, construction cost estimates by primary funding agency, reveals that ODOT would be responsible for approximately $0.42 million in improvements and the City of Umatilla would be responsible for approximately $1.03 million during the first ten-year program. This is an annual average expenditure of approximately $103,000 (in constant 1998 dollars) for the City of Umatilla, to accomplish the first ten-year program.

The entire first ten-year program of improvements, for which the City is identified as the primary funding agency, consists of pedestrian-related improvements. These improvements have been identified to improve pedestrian safety, provide access to key pedestrian generators within the City, and begin to complete a primary network of pedestrian facilities throughout the community.

12.11.320 Second Ten-Year Program

During the second ten-year program, a total of 39 projects totaling over $12.92 million are identified. This includes 24 sidewalk projects ($8.19 million), 8 multi-use pathway projects ($1.33 million), and 7 roadway-related projects ($3.40 million). Significant elements of the second program include replacing the Umatilla River bridge ($2 million), completing a continuous sidewalk on Highway 730 (two projects totaling $1.92 million), and building a new street connection from the McNary Housing Area to DeVore Road ($0.42 million).

Although the second ten-year program is not prioritized, emphasis is placed on the need to reconstruct the Umatilla River bridge, grade separate the Highway 730/Powerline Road intersection, and provide additional northbound left-turn capacity at the Highway 395/ Highway 730 intersection. The overall safety and capacity of the transportation system is most substantially impacted by the future deficiencies that will occur at these locations. The remaining street extensions, intersection improvements, and pedestrian/bicycle improvements will complete a transportation system that is safe, balanced, and less dependent on the state highway system for local trip-making activities. The projects recommended for completion within the second ten-year program include:

12.11.320(1) Roadway Projects

1. Reconstruct the Umatilla River bridge and grade separate the Highway 730/Powerline Road intersection. *(Construction Cost Estimate: $2,000,000; Primary Funding Agency: ODOT)*

2. Construct a second northbound left-turn lane at the Hwy 395/Hwy 730 intersection. *(Construction Cost Estimate: $270,000; Primary Funding Agency: ODOT)*

3. Signalize the Interstate 82 Northbound Ramp terminal/Highway 730 intersection. *(Construction Cost Estimate: $150,000; Primary Funding Agency: ODOT)* (NOTE*: The*

addition or modification of a traffic signal on any ODOT facility requires the approval of the State Traffic Engineer. Identification and documentation of the need in this TSP does not guarantee the provision or modification will occur).

4. Signalize the Umatilla River Road/Highway 730 intersection. *(Construction Cost Estimate: $130,000; Primary Funding Agency: ODOT)* (NOTE*: The addition or modification of a traffic signal on any ODOT facility requires the approval of the State Traffic Engineer. Identification and documentation of the need in this TSP does not guarantee the provision or modification will occur*).
5. Modify the ODOT Weigh Station internal circulation and relocate the Brownell Boulevard/Highway 730 intersection signal to the Eiselle Drive/Weigh Station entrance intersection. *(Construction Cost Estimate: $350,000; Primary Funding Agency: ODOT)*
6. Construct a street connection from the McNary Housing Area to DeVore Road. *(Construction Cost Estimate: $415,000; Primary Funding Agency: City of Umatilla)*
7. Extend Walla Walla Street to Bud Draper Drive. *(Construction Cost Estimate: $87,000; Primary Funding Agency: City of Umatilla)*

12.11.320(2) Pedestrian Projects

1. Install sidewalk on Highway 730, from the west Urban Growth Boundary to "D" Street. *(Construction Cost Estimate: $795,000; Primary Funding Agency: ODOT)*
2. Install sidewalk on Highway 730, between Brownell Boulevard and Beach Access Road. *(Construction Cost Estimate: $1,120,000; Primary Funding Agency: ODOT)*
3. Install sidewalk on Bensel Road, from Umatilla River Road to Highway 395. *(Construction Cost Estimate: $442,000; Primary Funding Agency: Umatilla County)*
4. Install sidewalk on Bud Draper Road, from Roxbury Road to Highway 730. *(Construction Cost Estimate: $67,000; Primary Funding Agency: Umatilla County)*
5. Install sidewalk on Roxbury Lane, from Bud Draper Road to Beach Access Road. *(Construction Cost Estimate: $181,000; Primary Funding Agency: Umatilla County)*
6. Install sidewalk on Beach Access Road, from McNary Beach Recreation Area to Highway 730. *(Construction Cost Estimate: $522,000; Primary Funding Agency: Umatilla County)*
7. Install sidewalk on Powerline Road, from Highway 730 to south Urban Growth Boundary. *(Construction Cost Estimate: $823,000; Primary Funding Agency: Umatilla County)*
8. Install sidewalk on Umatilla River Road, from Highway 730 to Bensel Road. *(Construction Cost Estimate: $642,000; Primary Funding Agency: Umatilla County)*
9. Install sidewalk on Ford Road, from "O" Canal to Bensel Road. *(Construction Cost Estimate: $522,000; Primary Funding Agency: Umatilla County)*
10. Install sidewalk on 3rd Street, between "A" Street and DeVore Road. *(Construction Cost Estimate: $963,000; Primary Funding Agency: City of Umatilla/Umatilla County)*

11. Install sidewalk on Scapelhorn Road, from 3rd Street to Highway 730. *(Construction Cost Estimate: $302,000; Primary Funding Agency: City of Umatilla/Umatilla County)*
12. Install sidewalk on Power City Road, from Highway 730 to Highway 395. *(Construction Cost Estimate: $415,000; Primary Funding Agency: Umatilla County/City of Umatilla)*
13. Install sidewalk on DeVore Road, from 3rd Street to Highway 730. *(Construction Cost Estimate: $335,000; Primary Funding Agency: City of Umatilla)*
14. Install sidewalk on Quincy Avenue, from Lake Umatilla to 3rd Street. *(Construction Cost Estimate: $94,000; Primary Funding Agency: City of Umatilla)*
15. Install sidewalk on Wildwood Lane, from Highway 730 to Margaret Avenue. *(Construction Cost Estimate: $147,000; Primary Funding Agency: City of Umatilla)*
16. Install sidewalk on Walla Walla Street, from Willamette Avenue to Pendleton Avenue. *(Construction Cost Estimate: $94,000; Primary Funding Agency: City of Umatilla)*
17. Install sidewalk on Riverside Avenue, from Willamette Avenue to Deschutes Avenue. *(Construction Cost Estimate: $70,000; Primary Funding Agency: City of Umatilla)*
18. Install sidewalk on Deschutes Avenue, from DeVore Road to Riverside Avenue. *(Construction Cost Estimate: $184,000; Primary Funding Agency: City of Umatilla)*
19. Install sidewalk on Dean Avenue, from Raymond Street to Powerline Road. *(Construction Cost Estimate: $30,000; Primary Funding Agency: City of Umatilla)*
20. Install sidewalk on Grant Street-Madison Street, west UGB to Powerline Road. *(Construction Cost Estimate: $132,000; Primary Funding Agency: City of Umatilla)*
21. Install sidewalk on Margaret Avenue, from Ford Road to Wildwood Lane. *(Construction Cost Estimate: $90,000; Primary Funding Agency: City of Umatilla)*
22. Install sidewalk on Carolina Road, from Martin Drive to Powerline Road. *(Construction Cost Estimate: $37,000; Primary Funding Agency: City of Umatilla)*
23. Install sidewalk on Martin Drive, from Carolina Road to Powerline Road. *(Construction Cost Estimate: $74,000; Primary Funding Agency: City of Umatilla)*
24. Install sidewalk on Cline Avenue, from 1st Street to 3rd Street. *(Construction Cost Estimate: $47,000; Primary Funding Agency: City of Umatilla)*

12.11.320(3) Multi-Use Pathway Projects

1. Highway 395 Pathway *(Construction Cost Estimate: $235,000; Primary Funding Agency: ODOT)*
2. Umatilla Refuge Pathway *(Construction Cost Estimate: $510,000; Primary Funding Agency: US Army Corps of Engineers)*
3. Bud Draper Pathway *(Construction Cost Estimate: $180,000; Primary Funding Agency: Umatilla County)*
4. McNary Beach Recreation Area Pathway *(Construction Cost Estimate: $200,000; Primary Funding Agency: Umatilla County)*

5. Powerline Road to "F" Street Pathway *(Construction Cost Estimate: $83,000; Primary Funding Agency: Umatilla County)*
6. Powerline Road Pathway *(Construction Cost Estimate: $50,000; Primary Funding Agency: Umatilla County)*
7. Riverfront/Park Pathway *(Construction Cost Estimate: $180,000; Primary Funding Agency: City of Umatilla)*
8. McNary Pathway *(Construction Cost Estimate: $180,000; Primary Funding Agency: City of Umatilla)*

The summary of planning-level, construction cost estimates by primary funding agency, reveals that ODOT would be responsible for approximately $2.90 million in roadway improvements, $1.92 million in pedestrian improvements, and has no obligation for multi-use pathway improvements; or a total of approximately $4.82 million during the second ten-year program. The City of Umatilla would be responsible for approximately $0.50 million in roadway improvements, $2.18 million in pedestrian improvements, and $0.36 million in multi-use pathway improvements; or a total of approximately $3.04 million during the second ten-year program. This is an annual average expenditure of approximately $304,000 (in constant 1998 dollars) for the City of Umatilla, to accomplish the second ten-year program.

12.11.400 POTENTIAL FUNDING SOURCES

Potential funding sources in the 20-year program are grouped into general categories. This includes potential federal, state, and local funding, where local funding will require institution of a major, new funding source to supplement funds from a potential transportation system development charge. This could include added street bonding, local improvement districts, a local gas tax, hotel/motel tax, and/or a street utility fee. A combination of these funding sources could very easily produce the revenue stream necessary to accommodate the 20-year capital improvement needs of the community.

12.11.500 TRANSPORTATION SYSTEM PLAN FUNDING ELEMENT FINDINGS (RESERVED FOR EXPANSION)

12.11.600 TRANSPORTATION SYSTEM PLAN FUNDING ELEMENT POLICIES (RESERVED FOR EXPANSION)

Access Management Spacing Standards for Interchanges

The following tables show the access spacing standards for interchanges as discussed in Goal 3, Policy 3C: Interchange Access Management Areas.

Table 16: Minimum Spacing Standards Applicable to Freeway Interchanges with Two-Lane Crossroads

Category of Mainline	Type of Area	Spacing Dimension			
		A	X	Y	Z
FREEWAY	Fully Developed Urban	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	750 ft. (230 m)
	Urban	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	990 ft. (300 m)
	Rural	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

Notes: 1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.

2) No four-legged intersections may be placed between ramp terminals and the first major intersection.

A = Distance between the start and end of tapers of adjacent interchanges

X = Distance to the first approach on the right; right in/right out only

Y = Distance to first major intersection; no left turns allowed in this roadway section

Z = Distance between the last right in/right out approach road and the start of the taper for the on-ramp

Figure 18: Measurement of Spacing Standards for Table 16

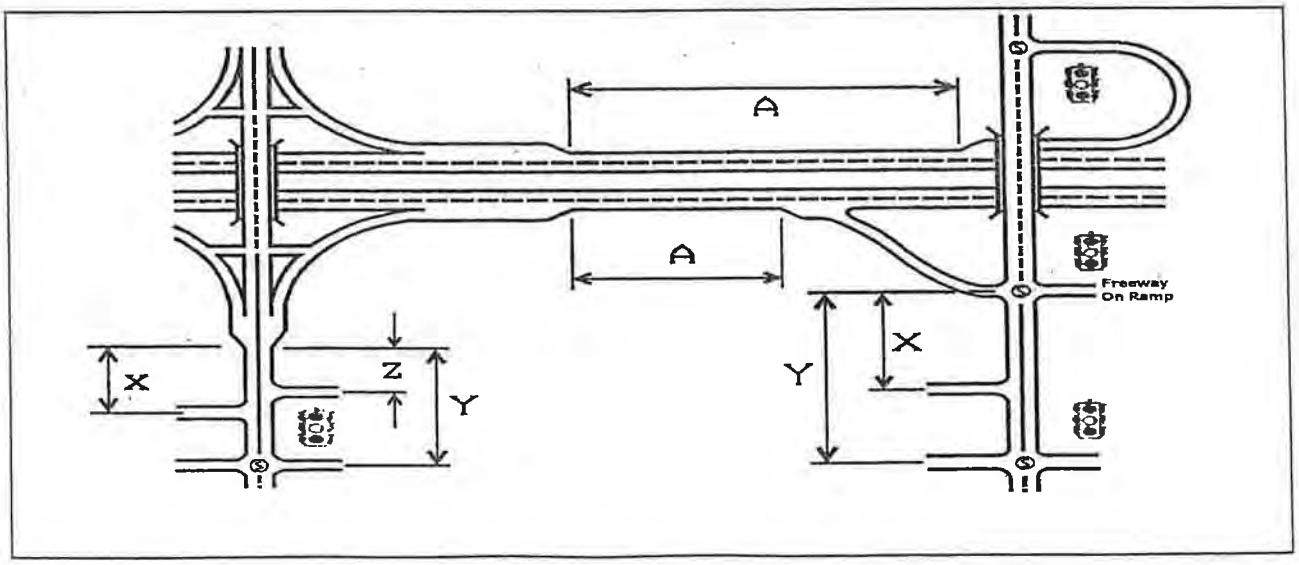


Table 17: Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads

Category of Mainline	Type of Area	Spacing Dimension				
		A	X	Y	Z	M
FREEWAY	Fully Developed Urban	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	990 ft. (300 m)	1320 ft. (400 m)
	Urban	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)
	Rural	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

Notes: 1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.

2) No four-legged intersections may be placed between ramp terminals and the first major intersection.

A = Distance between the start and end of tapers of adjacent interchanges

X = Distance to first approach on the right; right in/right out only

Y = Distance to first major intersection

Z = Distance between the last approach road and the start of the taper for the on-ramp

M = Distance to first directional median opening. No full median openings are allowed in nontraversible medians to the first major intersection

Figure 19: Measurement of Spacing Standards for Table 17

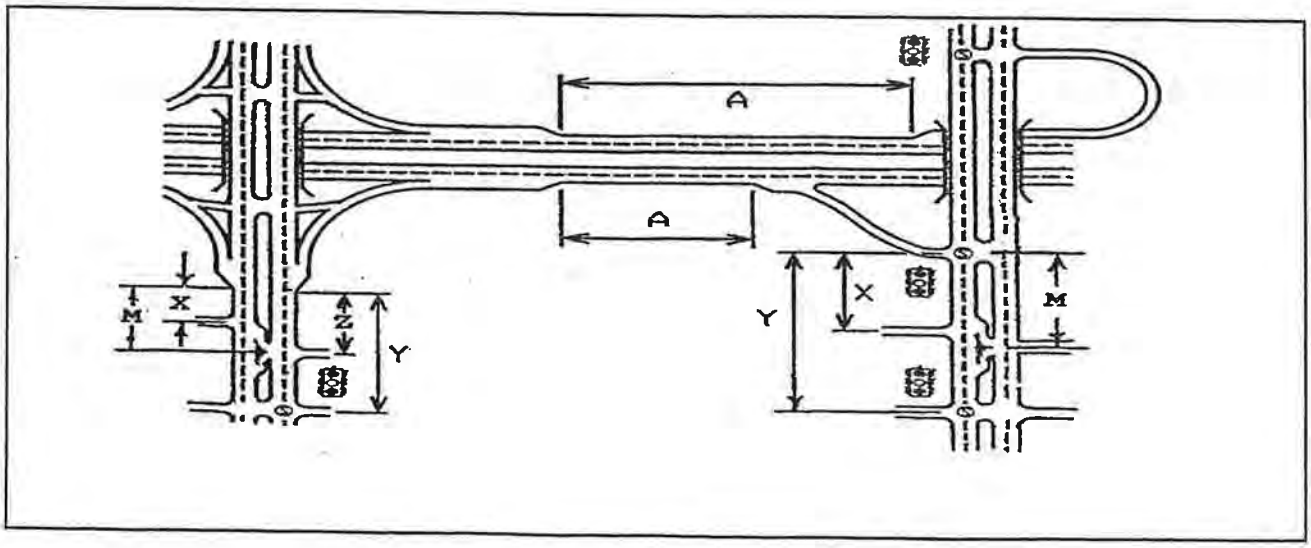


Table 18: Minimum Spacing Standards Applicable to Non-Freeway Interchanges with Two-Lane Crossroads

Category of Mainline	Type of Area	Speed of Mainline	Spacing Dimension				
			B	C	X	Y	Z
EXPRESSWAY	Fully Developed Urban	45 mph (70 kph)	2640 ft. (800 m)	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	750 ft. (230 m)
	Urban	45 mph (70 kph)	2640 ft. (800 m)	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	990 ft. (300 m)
	Rural	55 mph (90 kph)	1 mi. (1.6 km)	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

Notes: 1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.
2) No four-legged intersection may be placed between ramp terminals and the first major intersection.
3) Use four-lane crossroad standards for urban and suburban locations that are likely to be widened.
4) No at-grade intersections are permitted between interchanges less than 5 miles apart.

B = Distance between the start and end of tapers
C = Distance between nearest at-grade and ramp terminal intersections or the end/start of the taper section
X = Distance to first approach on the right; right in/right out only
Y = Distance to first major intersection
Z = Distance between the last right in/right out approach road and the start of the taper for the on-ramp

Figure 20: Measurement of Spacing Standards for Table 18

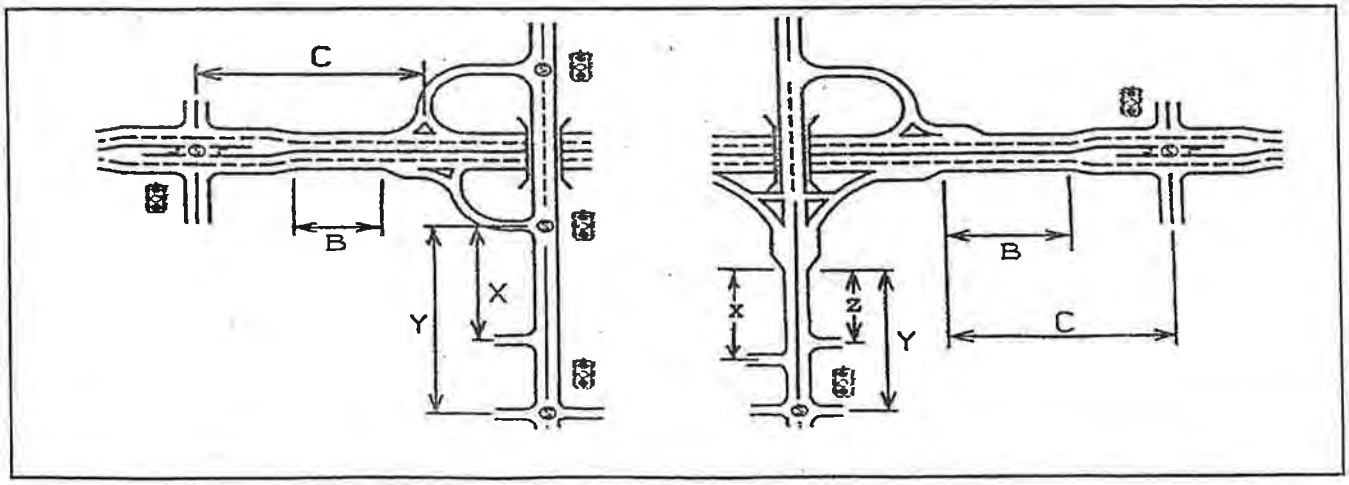


Table 19: Minimum Spacing Standards Applicable to Non-Freeway Interchanges with Multi-Lane Crossroads

Category of Mainline	Type of Area	Speed of Mainline	Spacing Dimension					
			B	C	X	Y	Z	M
EXPRESSWAY	Fully Developed Urban	45 mph (70 kph)	2640 ft. (800 m)	1 mi. (1.6 km)	750 ft. (230 m)	1320 ft. (400 m)	990 ft. (300 m)	1320 ft. (400 m)
	Urban	45 mph (70 kph)	2640 ft. (800 m)	1 mi. (1.6 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)
	Rural	55 mph (90 kph)	1 mi. (1.6 km)	2 mi. (3.2 km)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)	1320 ft. (400 m)

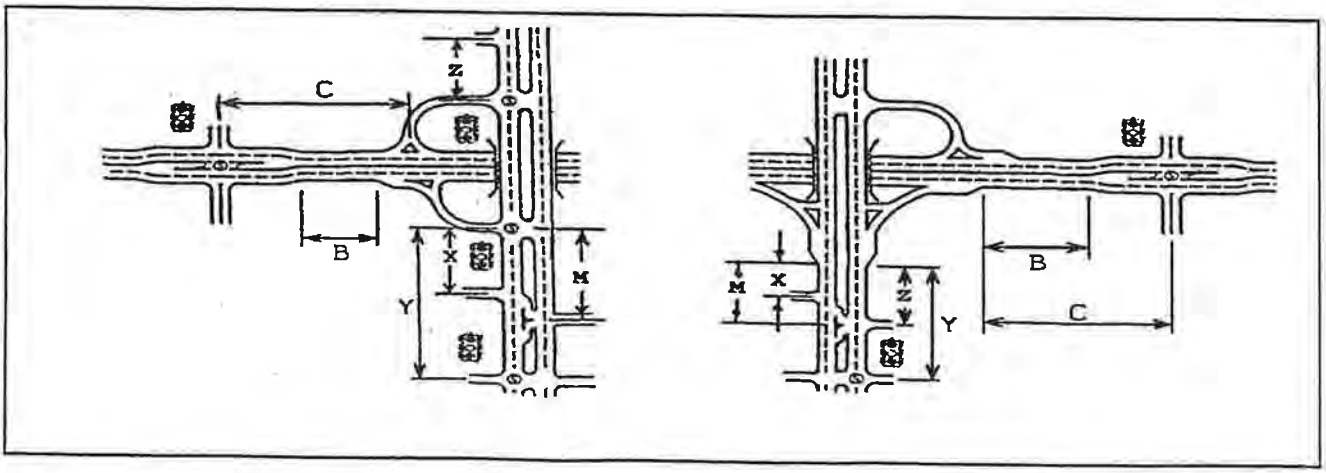
Notes: 1) If the crossroad is a state highway, these distances may be superseded by the Access Management Spacing Standards, providing the distances are greater than the distances listed in the above table.

2) No four-legged intersections may be placed between ramp terminals and the first major intersection.

3) No at-grade intersections are permitted between interchanges less than 5 miles apart.

B = Distance between the start and end of tapers
C = Distance between nearest at-grade and ramp terminal intersections or the end/start of the taper section
X = Distance to first approach on the right; right in/right out only
Y = Distance to first major intersection
Z = Distance between the last approach road and the start of the taper for the on-ramp
M = Distance to first directional median opening. No full median openings are allowed in nontraversible medians to the first major intersection

Figure 21: Measurement of Spacing Standards for Table 19



Appendix 12.2-B

Driveway Inventory Table

Street Segment	Location	Driveway Width	Block Length
US 730 - South Side			
A Street to B Street	No Driveways	-	222 feet
B Street to C Street			
driveway	135 to 159 feet from C Street	24	233 feet
driveway	85 to 115 feet west of C Street	30	233 feet
driveway	19 to 43 feet west of C Street	24	233 feet
C Street to D Street			
driveway	141 to 173 feet west of D Street	32	218 feet
D Street to E Street			
driveway	107 to 120 feet west of E Street	13	230 feet
driveway	143 to 164 feet west of E Street	21	230 feet
E Street to F Street	No Driveways	-	234 feet
F Street to G Street	No Driveways	-	236 feet
G Street to H Street			
driveway	84 to 136 feet west of H Street	52	230 feet
driveway	149 to 190 feet west of H Street	41	230 feet
H Street to I Street	No Driveways	-	230 feet
I Street to J Street			
driveway	107 to 120 feet west of J Street	13	243 feet
driveway	148 to 167 feet west of J Street	19	243 feet
J Street to K Street			
driveway	85 to 122 feet west of K Street	37	254 feet
driveway	192 to 228 feet west of K Street	36	254 feet

Driveway Inventory Table

Street Segment	Location	Driveway Width	Block Length
K Street to L Street			
driveway	94 to 175 feet west of L Street	81	240 feet
driveway	212 to 242 feet west of L Street	30	240 feet
L Street to Swizler Avenue			
driveway	81 to 115 feet west of Swizler Avenue	34	438 feet
Swizler Avenue to Yerxa Avenue			
driveway	140 to 158 feet west of Yerxa Avenue	18	466 feet
driveway	168 to 186 feet west of Yerxa Avenue	18	466 feet
driveway	211 to 230 feet west of Yerxa Avenue	19	466 feet
driveway	265 to 285 feet west of Yerxa Avenue	20	466 feet
Yerxa Avenue to Sloan Avenue			
driveway	57 to 130 feet west of Jane Avenue	73	421 feet
driveway	268 to 310 feet west of Jane Avenue	42	421 feet
Sloan Avenue to Umatilla River Road			
driveway	575 to 598 feet west of Umatilla River Rd	23	656 feet
driveway	461 to 487 feet west of Umatiila River Rd	26	656 feet
driveway	253 to 296 feet west of Umatilla River Rd	43	656 feet
Umatiila River Road to Eiselle Drive	No Driveway	-	1091 feet
Eiselle Drive to Brownell Boulevard			
driveway	176 to 196 feet east of Eiselle Drive	20	781 feet
driveway	270 to 314 feet east of Eiselle Drive	44	781 feet
driveway	520 to 590 feet east of Eiselle Drive	70	781 feet
US 730 North Side			
A Street to B Street			
driveway	18 to 49 feet east of A Street	31	222 feet
driveway	159 to 190 feet east of A Street	31	222 feet

Driveway Inventory Table

Street Segment	Location	Driveway Width	Block Length
B Street to C Street	No Driveway	-	233 feet
C Street to D Street			
driveway	73 to 94 feet east of C Street	21	218 feet
D Street to E Street			
driveway	65 to 85 feet east of D Street	20	230 feet
E Street to F Street	No Driveway	-	234 feet
F Street to G Street			
driveway	49 to 76 feet east of F Street	27	236 feet
G Street to H Street			
driveway	43 to 75 feet east of G Street	32	230 feet
driveway	96 to 121 feet east of G Street	25	230 feet
driveway	135 to 156 feet east of G Street	21	230 feet
H Street to I Street	No Driveway	-	230 feet
I Street to J Street	No Driveway		243 feet
J Street to K Street			
driveway	118 to 142 feet east of J Street	24	254 feet
driveway	182 to 199 feet east of J Street	17	254 feet
K Street to L Street	No Driveway	-	240 feet
L Street to Swizler Avenue			
driveway	178 to 240 feet east of L Street	62	438 feet
driveway	350 to 390 feet east of L Street	40	438 feet

Driveway Inventory Table

Street Segment	Location	Driveway Width	Block Length
Swizler Avenue to Yerxa Avenue			
driveway	23 to 53 feet east of Swizler Avenue	30	466 feet
driveway	103 to 134 feet east of Swizler Avenue	31	466 feet
Yerxa Avenue to Sloan Avenue			
driveway	25 to 60 feet east of Yerxa Avenue	35	421 feet
driveway	87 to 148 feet east of Yerxa Avenue	61	421 feet
driveway	198 to 226 feet east of Yerxa Avenue	28	421 feet
driveway	317 to 338 feet east of Yerxa Avenue	21	421 feet
Sloan Avenue to Umatilla River Road			
driveway	78 to 125 feet east of Sloan Avenue	47	656 feet
Umatila River Road to Eiselle Drive	No Driveway	-	1091 feet
Eiselle Drive to Brownell Boulevard			
Port of Entry Driveway	immediately west of Brownell Boulevard		781 feet

City of Umatilla
Downtown Revitalization and
Circulaton Study

Figure 12.2-C-1 Existing Driveway Locations

LEGEND

Wheelchair Ramp
No Wheelchair Ramp
Missing Sidewalk

Bulbouts
Street Trees
Median

City of Umatilla
Downtown Revitalization and
Circulaton Study

Figure 12.2-C-2 Existing Driveway Locations

LEGEND

Wheelchair Ramp
No Wheelchair Ramp
Missing Sidewalk

Bulbouts
Street Trees
Median

City of Umatilla
Downtown Revitalization and
Circulaton Study

Figure 12.2-C-3 Existing Driveway Locations

Appendix 12.3

I-82/US 730 IAMP

Technical Appendix

The Technical Appendix for the I-82/US 730 Interchange Area Management Plan (IAMP), prepared by Kittelson & Associates, Inc. in association with Angelo Planning Group and Anderson-Perry & Associates, Inc., is included as part of the City of Umatilla Comprehensive Land Use Plan and is contained in a separate 3-ring binder and located in the City of Umatilla Planning Department.

A

Appendix 12.4-A

Glossary

AASHTO – American Association of State Highway and Transportation Officials. They publish national road and bicycle facility design guidelines which have been used by the State with modifications.

ADA – The Americans with Disabilities Act. Civil rights legislation passed in 1990, became effective July 1992.

ADAAG – Americans with Disabilities Act Accessibility Guide.

ADT – Average daily traffic. The average traffic volume in both directions of travel at a given point on a road.

Arterial street – A higher classification of street designated to carry traffic, mostly uninterrupted, through an urban area, or to different neighborhoods within an urban area. Arterial streets may be further broken down into major and minor categories, major often referring to State highways.

Bicycle – A vehicle having two tandem wheels, a minimum of 14 inches in diameter, propelled solely by human power, upon which any person or persons may ride. Three-wheeled adult tricycles and four-wheeled quadracycles are considered bicycles; tricycles for children are not.

Bicycle facilities – A general term denoting improvements and provisions made to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically designated for bicycle use.

Bicycle lane (or bike lane) – A portion of the roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bikeway – A generic term for a facility that is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds; shared roadway, shoulder bikeway and bike are the most common. Another type of facility is separated from the roadway: multi-use path.

BPAC – Bicycle and Pedestrian Advisory Committee.

BID – Business Improvement District.

CBD – Central business district. A traditional downtown area usually characterized by established businesses fronting the street, sidewalks, slow traffic speeds on-street parking and a compact grid system.

CDBG – Community Development Block Grant

CENWP – Corps of Engineers, Portland District

CENWW – Corps of Engineers, Walla Walla District

CIP – Capital Improvement Program

Collector street – A street designated to carry traffic between local streets and arterials, or from local street to local street.

CPTED – Crime Prevention Through Environmental Design.

Cross-slope – Lateral slope across a road or path, typically designed for drainage.

Crosswalk – Portion of a roadway designated for pedestrian crossing, marked or unmarked. Unmarked crosswalks are the natural extension of the shoulder, curb line or sidewalk.

EID – Economic Improvement District

Enhancement funds – Set aside funds for certain transportation projects including bicycle and pedestrian facilities and paths.

DLCD – Department of Land Conservation and Development.

Grade – A measure of the steepness of a roadway, bikeway or walkway, expressed as a ratio of vertical rise per horizontal distance, usually in%. For example, a 5% grade equals a 5 unit rise over a 100 unit horizontal distance.

Grade separation – The vertical separation of conflicting travelways with a structure. Overpasses and tunnels are examples of common grade separations used to avoid conflicts.

IGA – Intergovernmental Agreement.

Interchange – A system of interconnecting roadways providing for traffic movement between two or more highways that are grade separated.

LID – Local Improvement District.

Local street – A street designated to provide access to and from residences and businesses.

MOA – Memorandum of Agreement.

MOU – Memorandum of Understanding.

Multi-use path – A path physically separated from motor vehicle traffic by an open space or barrier and either within a highway right-of-way or within an independent right-of-way, used by bicyclists, pedestrians, joggers, skaters and other non-motorized travelers. Sometimes called a shared-use path.

MUTCD – Manual on Uniform Traffic Control Devices. The national standard, approved by the Federal Highway Administration, for selection and placement of all traffic control devices on or adjacent to all highways open to public travel.

O&C – Opportunities and constraints.

ODOT – Oregon Department of Transportation.

OECDD – Oregon Economic and Community Development Department

ORS – Oregon Revised Statute, the laws that govern the state of Oregon, as proposed by the legislature and signed by the Governor.

OTC – Oregon Transportation Commission, a five-member, Governor-appointed commission, whose primary duty is to develop and maintain a state transportation policy and a comprehensive, long-term plan for a multimodal transportation system.

OTIB – Oregon Transportation Infrastructure Bank

OTP – Oregon Transportation Plan.

Path (or pathway) – a sidewalk, trail or shared-use path.

Paved shoulder – The portion of a shoulder which is paved.

Pavement markings – Painted or applied lines or legends placed on a roadway surface for regulating, guiding or warning traffic.

Pedestrian – A person on foot, in a wheelchair, or walking a bicycle.

Pedestrian facilities – A general term denoting improvements and provisions made by public agencies to accommodate or encourage walking, including walkways, crosswalks, signs, signals, illumination and benches. -

Rail trail – A shared use path, either paved or unpaved, built within the right-of-way of an existing or former railroad.

Rail with trail – A shared-use path, either paved or unpaved, built within the right-of-way of an active railroad.

Right-of-way – A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

Roadway – The paved portion of the road.

Shared roadway – A type of bikeway where bicyclists and motor vehicles share a travel lane.

SDC – System Development Charge.

SHPO – State Historic Preservation Office.

Shoulder – The portion of a road that is contiguous to the travel lanes and provided for pedestrians, bicyclists, emergency use by vehicles and for lateral support of base and surface courses.

Shoulder bikeway – A type of bikeway where bicyclists travel on a paved shoulder.

Sidewalk – A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

STIP – State Transportation Improvement Program

TEA-21 – Transportation Efficiency Act for the 21st Century. Federal legislation that guides the expenditure of federal highway funds from 1998 through 2002, replaced ISTEA.

TPR – Transportation Planning Rule 12 (OAR 660-12).

Traffic – Pedestrians, ridden or herded animals, vehicles, streetcars and other conveyances either singly or together while using any highway for purposes of travel.

Traffic volume (see ADT) – The given number of vehicles that pass a given point for a given amount of time (hour, day, year).

Trail – a path of travel within a park, natural environment or designated corridor.

Travelway (also traveled way) – The portion of a roadway provided for the movement of vehicles, exclusive of shoulders.

TSP – Transportation System Plan, the overall plan for all transportation modes for the City

UGB – Urban Growth Boundary, the area surrounding an incorporated city in which the city may legally expand its city limits.

URD – Urban Renewal District.

USACE – US Army Corps of Engineers.

USGS – United States Geological Survey.

Vehicle – Every device in, upon or by which any person or property is or may be transported or drawn upon a highway, including vehicles that are self-propelled or powered by any means.

Walkway – A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths and paved shoulders.

Wide curb lane (also wide outside lane) – A wide travel lane adjacent to a curb, parking lane or shoulder provided for ease of bicycle operation where there is insufficient room for a bike lane or shoulder bikeway.

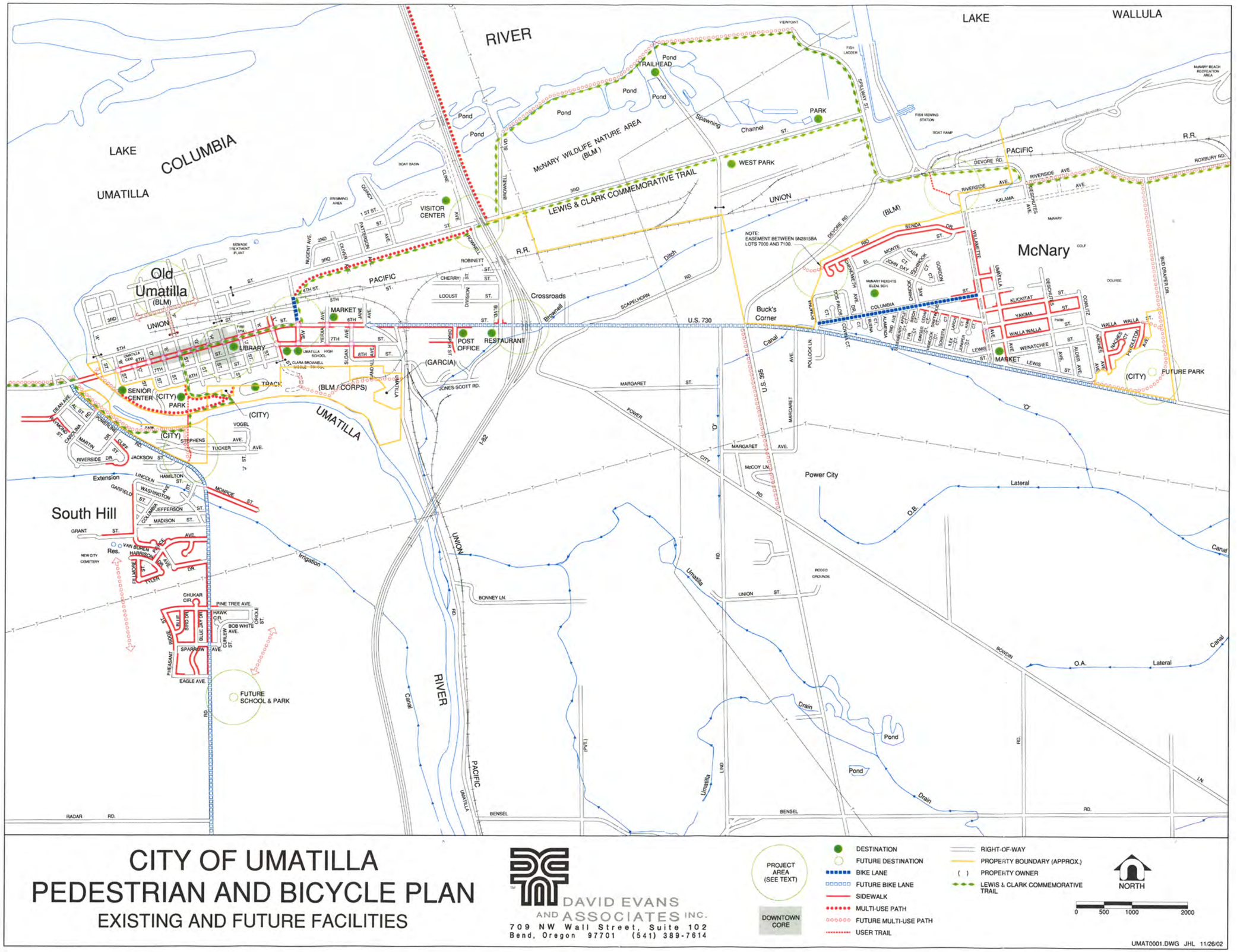
B

Appendix 12.4-B

Pedestrian & Bicycle System Maps

Figure B-1 is the full map of the city showing existing and planned facilities. Projects areas are noted. Future sidewalks are not shown because they are largely dependent on development and on street construction or reconstruction. This figure has also been provided in color as a separate foldout for readability.

Figures B-2 through B-5 zoom in on four neighborhood areas. Property lines and ownerships relevant to projects are shown. Roads are shown at right-of-way width.



CITY OF UMATILLA
PEDESTRIAN AND BICYCLE PLAN
EXISTING AND FUTURE FACILITIES

DAVID EVANS AND ASSOCIATES INC.
709 NW Wall Street, Suite 102
Bend, Oregon 97701 (541) 389-7614

PROJECT AREA (SEE TEXT)

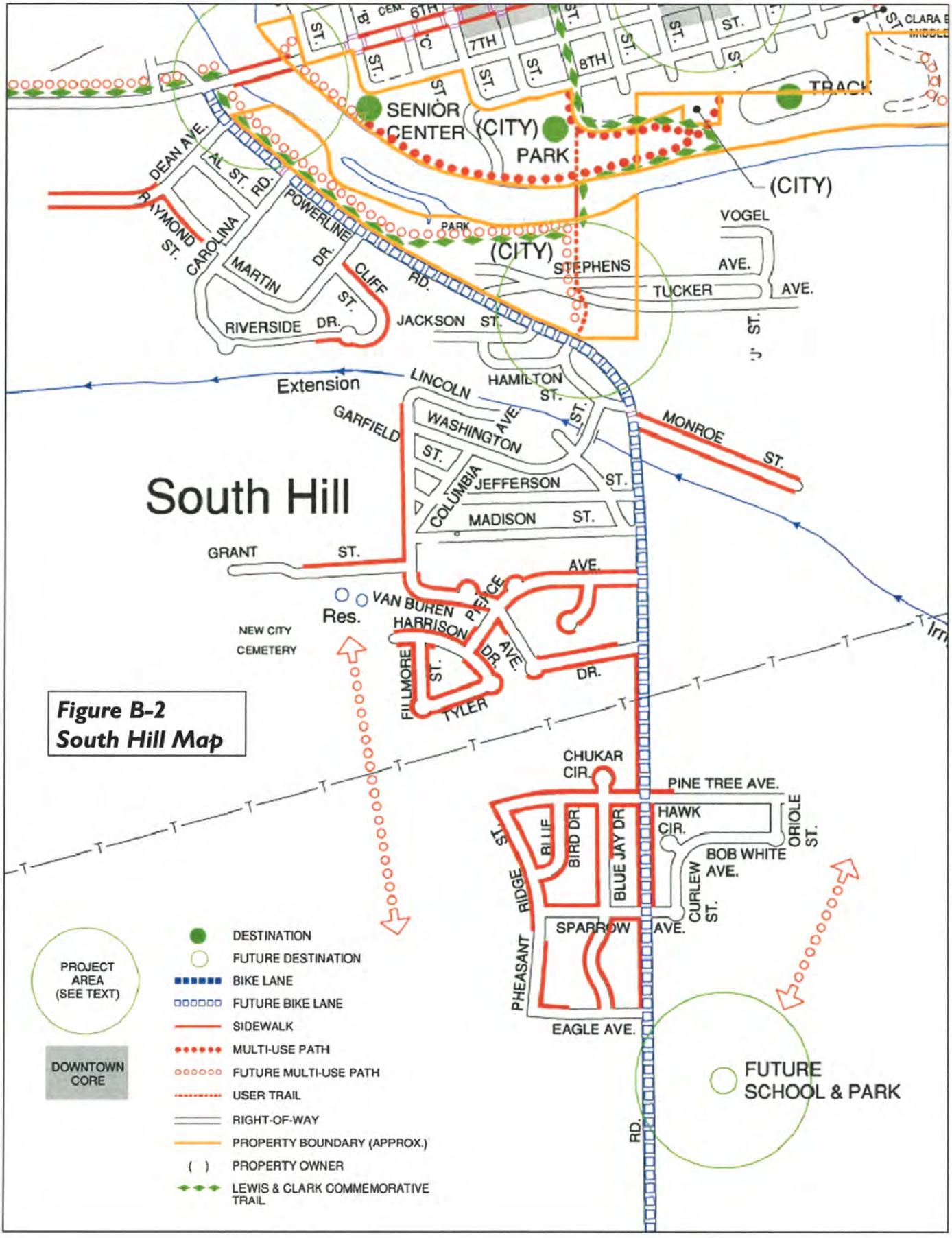
DOWNTOWN CORE

- DESTINATION
- FUTURE DESTINATION
- BIKE LANE
- FUTURE BIKE LANE
- SIDEWALK
- MULTI-USE PATH
- FUTURE MULTI-USE PATH
- USER TRAIL
- RIGHT-OF-WAY
- PROPERTY BOUNDARY (APPROX.)
- ( ) PROPERTY OWNER
- LEWIS & CLARK COMMEMORATIVE TRAIL

NORTH

0 500 1000 2000

UMAT0001.DWG JHL 11/26/02


South Hill
SENIOR CENTER
(CITY) PARK
TRACK
(CITY)
(CITY)
PARK
DEAN AVE.
RAYMOND ST.
CAROLINA
AL ST. RD.
POWERLINE
DR.
MARTIN
CLIFF
RD.
ST.
RIVERSIDE DR.
JACKSON ST.
STEPHENS
VOGEL
AVE.
TUCKER
AVE.
'J' ST.
Extension
LINCOLN
HAMILTON ST.
GARFIELD
WASHINGTON AVE.
ST.
MONROE ST.
COLUMBIA
JEFFERSON ST.
MADISON ST.
GRANT ST.
AVE.
VAN BUREN
PIERCE
Res.
HARRISON
NEW CITY CEMETERY
FILLMORE ST.
DR.
AVE.
DR.
TYLER
CHUKAR CIR.
PINE TREE AVE.
HAWK CIR.
ORIOLE ST.
BLUE BIRD DR.
BLUE JAY DR.
RIDGE ST.
BOB WHITE AVE.
CURLEW ST.
SPARROW AVE.
PHEASANT
EAGLE AVE.
FUTURE SCHOOL & PARK
RD.
Figure B-2
South Hill Map
PROJECT AREA (SEE TEXT)
DOWNTOWN CORE
DESTINATION
FUTURE DESTINATION
BIKE LANE
FUTURE BIKE LANE
SIDEWALK
MULTI-USE PATH
FUTURE MULTI-USE PATH
USER TRAIL
RIGHT-OF-WAY
PROPERTY BOUNDARY (APPROX.)
( ) PROPERTY OWNER
LEWIS & CLARK COMMEMORATIVE TRAIL

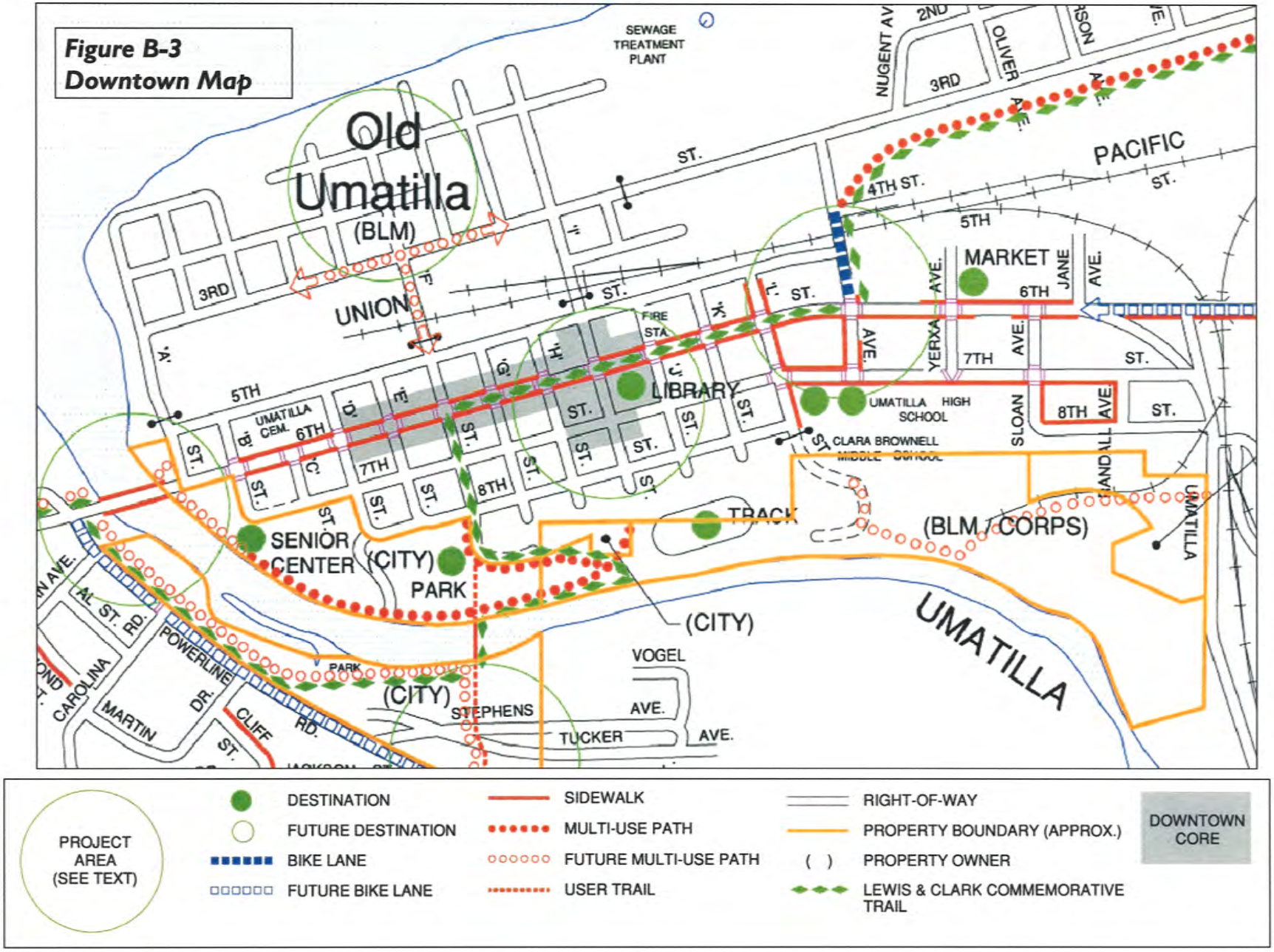
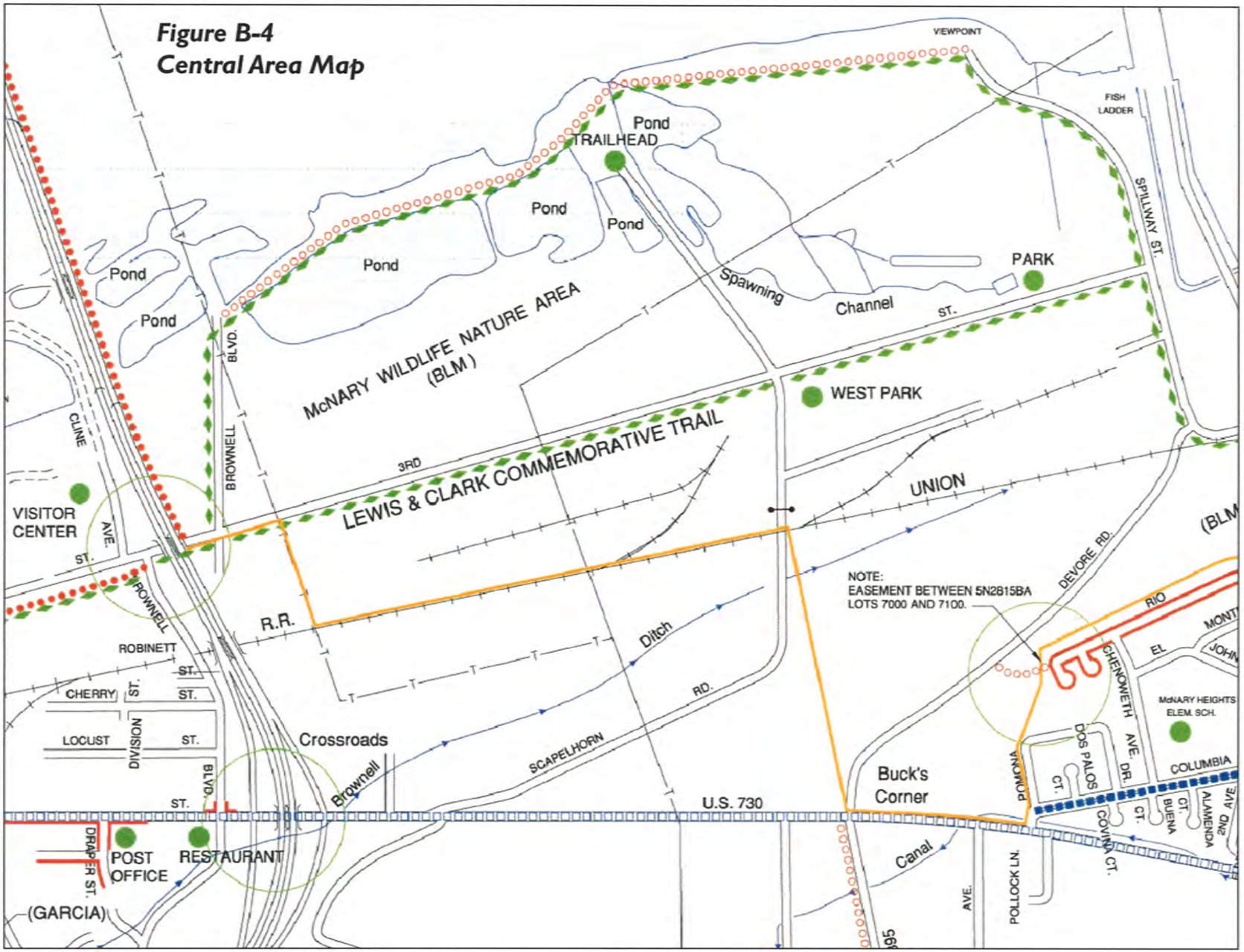
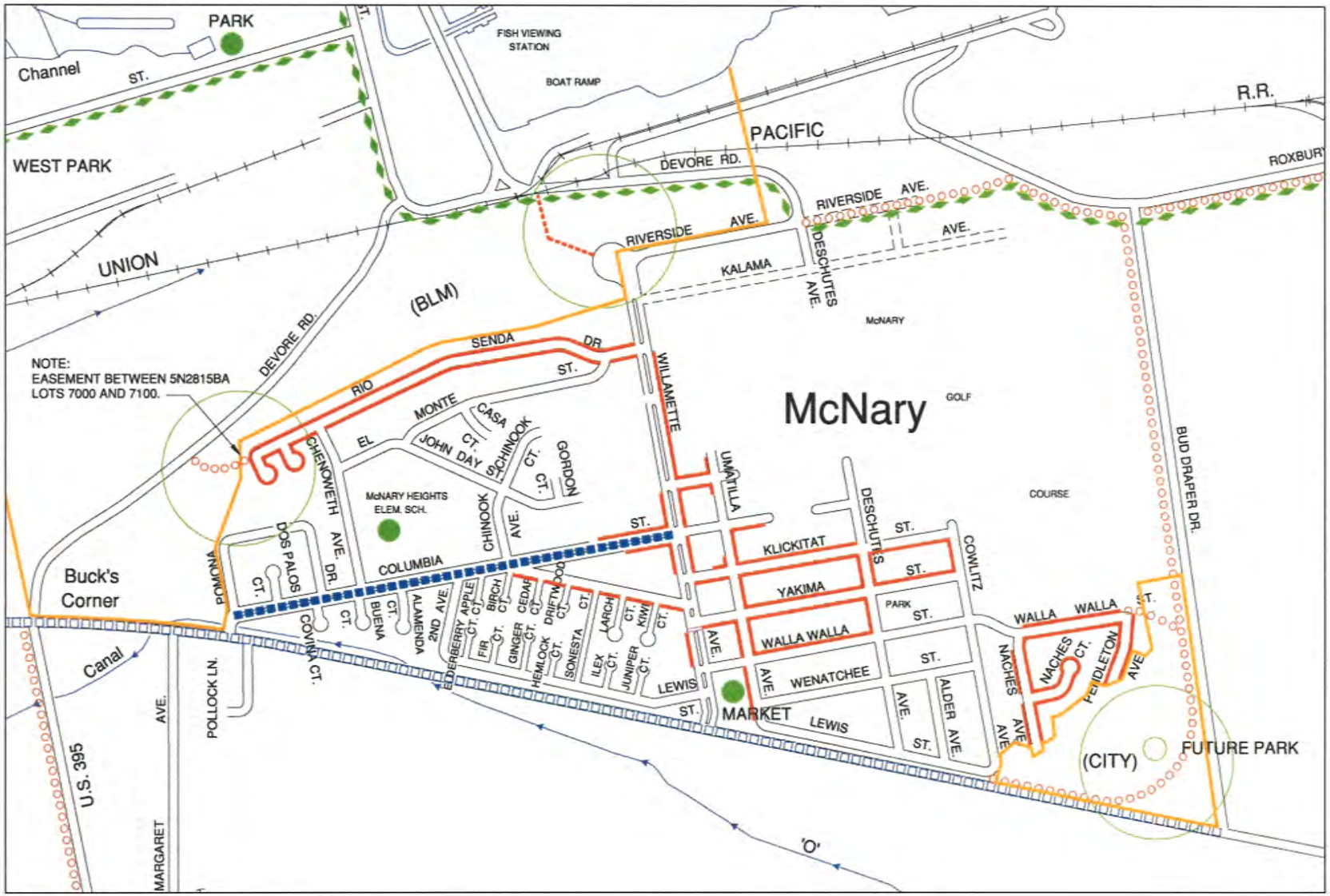


Figure B-3
Downtown Map
Old
Umatilla
(BLM)
SEWAGE
TREATMENT
PLANT
NUGENT AV
2ND
3RD
OLIVER
AVE.
PACIFIC
ST.
4TH ST.
5TH
MARKET
6TH
JANE
AVE.
UNION
FIRE
STA.
LIBRARY
YERXA
7TH
8TH
UMATILLA HIGH
SCHOOL
SLOAN
CLARA BROWNELL
MIDDLE SCHOOL
UMATILLA
CEM.
TRACK
(BLM / CORPS)
SENIOR
CENTER
(CITY)
PARK
(CITY)
VOGEL
AVE.
STEPHENS
TUCKER
AVE.
UMATILLA
POWERLINE
DR.
CLIFF
RD.
MARTIN
CAROLINA
PROJECT
AREA
(SEE TEXT)
DESTINATION
FUTURE DESTINATION
BIKE LANE
FUTURE BIKE LANE
SIDEWALK
MULTI-USE PATH
FUTURE MULTI-USE PATH
USER TRAIL
RIGHT-OF-WAY
PROPERTY BOUNDARY (APPROX.)
( ) PROPERTY OWNER
LEWIS & CLARK COMMEMORATIVE
TRAIL
DOWNTOWN
CORE



Appendix 12.4-B-4

Figure B-5
McNary Map



C

Appendix 12.4-C

Transportation SDC Example

* If your city did not enact the previous SDC model ordinance, please be aware of the additions and deletions.

Sample System Development Charge Ordinance
(suggested **additions**, or [deletions] from previous SDC sample ordinance)

League of Oregon Cities
May, 2002

{City's Ordaining Clause}

Section 1. Purpose. The purpose of the system development charge is to impose a portion of the cost of capital improvements for water, wastewater drainage, streets, flood control, and parks upon those developments **and redevelopments** that create the need for or increase the demands on _____*(specify capital improvement for which the SDC is being enacted)*.

Section 2. Definitions. For purposes of this ordinance, the following mean:

NOTE: if a separate ordinance is used to establish each SDC, one of the following capital improvements should be specified – See accompanying commentary.

1) Capital improvements. **Public** Facilities or assets used for *(specify one of the following)*:

   a) Water supply, treatment **[**and**]** **or** distribution, **or any combination**;

   b) Waste water collection, transmission, treatment **[**and**]** **or** disposal **or any combination**;

   c) Drainage **[**and**]** **or** flood control;

   d) Transportation; or

   e) Parks and recreation.

2) **Development means all improvements on a site, including buildings, other structures, parking and loading areas, landscaping, paved or graveled areas, and areas devoted to exterior display, storage or activities *(optional: "which have the effect of _____" specific to the ordinance or SDCs being enacted)*. Development includes redevelopment of property. Development includes improved open areas such as plazas and walkways, but does not include natural geologic forms or unimproved lands.**

3) Improvement fee. A fee for costs associated with capital improvements to be constructed after the date the fee is adopted pursuant to section 4 of this ordinance.

4) Land area. The area of a parcel of land as measured by projection of the parcel boundaries upon a horizontal plane with the exception of a portion of the parcel within a recorded right-of-way or easement subject to a servitude for a public street or **for a public** scenic or preservation purpose.

5) Owner. The owner or owners of record title or the purchaser or purchasers under a recorded **land** sales agreement, and other persons having an interest of record in the described real property.

6) Parcel of land. A lot, parcel, block or other tract of land that **in accordance with city regulations** is occupied or may be occupied by a structure or structures or other use, and that includes the yards and other open spaces required under the zoning, subdivision, or other development ordinances.

7) Permittee means the person to whom a building permit, development permit, a permit or plan approval to connect to the sewer or water system, or right-of-way access permit is issued.

8) Qualified public improvements. A capital improvement that is:

   a) Required as a condition of [residential] development approval;

   b) Identified in the plan adopted pursuant to section 8 of this ordinance; and either:

   1) Not located on or contiguous to a parcel of land that is the subject of the development approval; or

   2) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

   3) For purposes of this definition, contiguous means in a public way which abuts the parcel.

9) Reimbursement fee. A fee for costs associated with capital improvements constructed or under construction on the date the fee is adopted pursuant to section 4 of this ordinance

10) System development charge. A reimbursement fee, an improvement fee or a combination thereof assessed or collected at the time of increased usage of capital improvement *(specify)*, at the time of issuance of a development permit or building permit, or at the time of connection to the capital improvement *(specify)*.

   a) *(If applicable)* A system development charge includes that portion of a

sewer or water system connection charge that is greater than the amount necessary to reimburse the city for its average cost of inspecting and stalling connections with water and sewer facilities.

b) A system development charge does not include fees assessed or collected as part of a local improvement district or a charge in lieu of a local improvement district assessment, or the cost of complying with requirements or conditions imposed by a land use decision.

Section 4. System Development Charge Established.

1) System development charges shall be established and may be revised by resolution of the council. The resolution shall set the amount of the charge, the type of permit to which the charge applies, and, if the charge applies to a geographic area smaller than the entire city, the geographic area subject to the charge.

2) Unless otherwise exempted by the provisions of this ordinance or the other local or state law, a system development charge is hereby imposed upon all development within the city, upon the act of making a connection to the city water or sewer system within the city, and upon all development outside the boundary of the city that connects to or otherwise uses the sewer facilities, storm sewers, or water facilities of the city.

Section 5. Methodology

1) The methodology used to establish **or modify** the reimbursement fee shall consider the cost of then-existing facilities **including without limitation design, financing and construction costs**, prior contributions by then-existing users, **gifts or grants from federal or state government or private persons,** the value of unused capacity **available to future system users**, rate-making principals employed to finance publicly owned capital improvements, and other relevant factors identified by the council. The methodology shall promote the objective that future systems users shall contribute no more than an equitable share of the cost of then-existing facilities.

2) The methodology used to establish **or modify** the improvement fee shall consider the **estimated** cost of projected capital improvements needed to increase the capacity of the systems to which the fee is related. **The methodology shall be calculated to obtain the cost of capital improvements for the projected need for available system capacity for future system users**.

3) The methodology used to establish **or modify** the improvement fee or the reimbursement fee, or both, shall be contained in a[n ordinance] **resolution** adopted by the council.

Section 6 Authorized Expenditures

(1) Reimbursement fees shall be applied only to capital improvements associated with the system for which the fees are assessed, including expenditures relating to repayment

of indebtedness.

[(a)] **(2)** Improvement fees shall be spent only on capacity increasing capital improvements **associated with the system for which the fee is assessed,** including expenditures relating to repayment of future debt for the improvements. An increase in system capacity occurs if a capital improvement increases the level of performance or service provided by existing facilities or providing new facilities.

a) The portion of the capital improvements funded by improvement fees must be related to demands created by current or projected development. A capital improvement being funded wholly or in part from revenues derived from the improvement fee shall be included in the plan adopted by the city pursuant to section 8 of this ordinance.

(3) Notwithstanding subsections (1) and (2) of this section, system development charge revenues may be expended on the direct costs of complying with the provisions of this ordinance, including the costs of developing system development charge methodologies and providing an annual accounting of system development expenditures.

Note: See accompanying commentary. Municipalities should consider including specific uses of SDC revenues and reference to specific planning documents in their ordinances. The following is an example taken from a Transportation SDC Context:

A. There is created a dedicated account entitled the "Transportation SDC Account." All monies derived from the transportation SDC shall be placed in the Transportation SDC Account. Funds in the Transportation SDC Account shall be used solely to provide the SDC-Capital Improvement Plan (CIP) listed capacity increasing improvements according to the SDC-CIP as it currently exists or as herinafter amended, and eligible administrative costs. In this regard, transportation SDC revenues may be used for purposes which include:

1) Design and construction plan preparation;
2) Permitting;
3) Right-of-way acquisition, including any costs of acquisition and condemnation;
4) Construction of new through lanes for vehicular transit, or bicycle use;
5) Construction of turn lanes;
6) Construction of bridges;
7) Etc.
8) Demolition that is part of the construction of any of the improvements on this list;
9) Payment of principal and interest, necessary reserves and costs of issuance under any bonds or other indebtedness issued by the City to provide money to construct or acquire transportation

facilities;

10) Direct costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing SDC methodologies and providing an annual accounting of SDC expenditures.

Section 7. Expenditure Restrictions.

1) Systems development charges shall not be expended for costs associated with the construction of administrative office facilities that are more than an incidental part of other capital improvements.

2) System development charges shall not be expended for costs of the operation or routine maintenance of capital improvements.

NOTE: See accompanying commentary - If the municipality wishes to be more specific, consider more specific language such as follows:

1) Money on deposit in the SDC account shall not be used for:

a) Any expenditure that would be classified as a maintenance or repair expense; or

b) Costs associated with the construction of administrative office facilities that are more than an incidental part of other capital improvements; or

c) Costs associated with acquisition or maintenance or rolling stock.

Section 8. Improvement Plan.

(1) Prior to the establishment of a system development charge, the council shall adopt a plan that **includes a list of**:

a) The capital improvements that may be funded with improvement fee revenues;

b) The estimated cost and time of construction of each improvement; and

c) **[**Describes**] A description of** the process for modifying the plan.

(2) In adopting this plan, the council may incorporate by reference all or a portion of any public facilities plan, master plan, capital improvements plan or similar plan that contains the information required by this section. **The council may modify such plan and list at any time.**

(3) A change in the amount of a reimbursement fee or an improvement fee is not a modification of the system development charge if the change in amount is based on the periodic application of an adopted specific cost index or a modification to any of the factors related to the rate that are incorporated in the established

methodology.

Section 9. Collection of Charge.

NOTE: This section would be revised if a separate ordinance is used to establish each SDC – See accompanying commentary.

(1) The system development charge is payable upon the issuance of:

a) A building permit;

b) A development permit;

c) A development permit for development not requiring the issuance of a building permit;

d) A permit or approval to connect to the water system;

e) A permit or approval to connect to the sewer system; or

f) A right-of-way access permit.

(2) If no building, development, or connection permit is required, the system development charge is payable at the time the usage of the capital improvement is increased based on changes in the use of the property unrelated to seasonal or ordinary fluctuations in usage.

(3) If development is commenced or connection is made to the water or sewer systems without an appropriate permit, the system development charge is immediately payable upon the earliest date that a permit was required.

(4) The (appropriate city official) shall collect the applicable system development charge from the permittee when a permit that allows building or development of a parcel is issued or when a connection to the water or sewer system of the city is made.

(5) The (appropriate city official) shall not issue such permit or allow such connection until the charge has been paid in full, or until provision for installment payments has been made pursuant to section 11 of this ordinance, or unless an exemption is granted pursuant to section 12 of this ordinance.

(optional) Section 10. Installment Payment.

(1) When a system development charge of $(_) or more is due and collectible, the owner of the parcel of land subject to the development charge may apply for payment in 20 semi-annual installments, to include interest on the unpaid balance, in accordance with ORS 223.208.

(2) The (appropriate city official) shall provide application forms for installment payments, which shall include a waiver of all rights to contest validity of the lien, except for the correction of computational errors.

(3) An applicant for installment payments shall have the burden of demonstrating the applicant's authority to assent to the imposition of a lien on the parcel and that the **property** interest of the applicant is adequate to secure payment of the lien.

(4) The (appropriate city official) shall report to the (appropriate city official) the amount of the system development charge, the dates on which payments are due, the name of the owner, and the description of the parcel.

(5) The (appropriate city official) shall docket the lien in the lien docket. From that time the city shall have a lien upon the described parcel for the amount of the system development charge, together with interest on the unpaid balance at the rate established by the council. The lien shall be enforceable in the manner provided in ORS Chapter 223.

(6) Upon written request of the (appropriate city department), the (appropriate city official) is authorized to cancel assessments of SDCs, without further Council action, where the new development approved by the building permit is not constructed and the building permit is cancelled.

(7) For property that has been subject to a cancellation of assessment of SDCs, a new installment payment contract shall be subject to the code provisions applicable to SDCs and installment payment contracts on file on the date the new contract is received by the city.

Section 11. Exemptions

(1) Structures and uses established and **legally** existing on or before (effective date of ordinance) are exempt from a system development charge, except water and sewer charges, to the extent of the structure or use then existing and to the extent of the parcel of land as it is constituted on that date. Structures and uses affected by this subsection shall pay the water or sewer charges pursuant to the terms of this ordinance upon the receipt of a permit to connect to the water or sewer system.

(2) Additions to single-family dwellings that do not constitute the addition of a dwelling unit, as defined by the State Uniform Building Code, are exempt from all portions of the system development charge.

(3) An alteration, addition, replacement or change in use that does not increase the parcels or structures use of the public improvement facility are exempt from all portions of the system development charge.

Section 12. Credits

(1) When a development occurs that is subject to a system development charge, the system development charge for the existing use, if applicable, shall be calculated and

if it is less than the system development charge for the use that will result from the development, the difference between the system development charge for the existing use and the system development charge for the proposed use shall be the system development charge. If the change in the use results in the system development charge for the proposed use being less than the system development charge for the existing use, no system development charge shall be required. No refund or credit shall be given unless provided for by another subsection of this Section.

(2) A credit shall be given to the permittee for the cost of a qualified public improvement upon acceptance by the city of the public improvement. The credit shall not exceed the improvement fee even if the cost of the capital improvement exceeds the applicable improvement fee and shall only be for the improvement fee charged for the type of improvement being constructed.

(3) If a qualified public improvement is located in whole or in part on or contiguous to the property that is the subject of the development approval and is required to be built larger or with greater capacity than is necessary for the particular development project, a credit shall be given for the cost of the portion of the improvement that exceeds the city's minimum standard facility size or capacity needed to serve the particular development project or property. The applicant shall have the burden of demonstrating that a particular improvement qualifies for credit under this subsection. The request for credit shall be filed in writing no later than 60 days after acceptance of the improvement by the city.

(4) When the construction of a qualified public improvement located in whole or in part or contiguous to the property that is the subject of development approval gives rise to a credit amount greater than the improvement fee that would otherwise be levied against the project, the credit in excess of the improvement fee for the original development project may be applied against improvement fees that accrue in subsequent phases of the original development project.

(5) Notwithstanding subsections 1-4, when establishing a methodology for a system development charge, the city may provide for a credit against the improvement fee, the reimbursement fee, or both, for capital improvements constructed as part of the development which reduce the development's demand upon existing capital improvements and/or the need for future capital improvements, or a credit based upon any other rationale the council finds reasonable.

(6) Credits shall not be transferable from one development to another.

(7) Credits shall not be transferable from type of system development charge to another.

(8) Credits shall be used within 10 years from the date the credit is given.

Section 13. Notice.

(1) The city shall maintain a list of persons who have made a written request for notification prior to adoption or [amendment] **modification** of a methodology for any

system development charge. Written notice shall be mailed to persons on the list at least [45] **90** days prior to the first hearing to [adopt or amend] **establish or modify** a system development charge. The methodology supporting the [adoption or amendment] **system development charge** shall be available at least [30] **60** days prior to the first hearing to adopt or amend a system development charge. The failure of a person on the list to receive a notice that was mailed [shall] **does** not invalidate the action of the city.

(2) The city may periodically delete names from the list, but at least 30 days prior to removing a name from the list, the city must notify the person whose name is to be deleted that a new written request for notification is required if the person wishes to remain on the notification list.

Section 14. Segregation and Use of Revenue.

(1) All funds derived from a particular type of system development charge are to be segregated by accounting practices from all funds of the city. That portion of the system development charge calculated and collected on account of a specific facility system shall be used for no purpose other than set forth in section 6 of this ordinance.

(2) The appropriate city official shall provide the city council with an annual accounting, **by January 1 of each year,** [based on the city's fiscal year,] for system development charges showing the total amount of system development charge revenues collected for each type of facility and the projects funded from each account [.] **in the previous fiscal year. A list of the amount spent on each project funded in whole or in part, with system development charge revenues shall be included in the annual accounting.**

Section 15. Refunds.

(1) Refunds may be given by the Administrator upon finding that there was a clerical error in the calculation of the SDC.

(2) Refunds shall not be allowed for failure to timely claim credit or for failure to timely seek an alternative SDC rate calculation at the time of submission of an application for a building permit.

(3) The city shall refund to the applicant any SDC revenues not expended within ten (10) years of receipt.

Section 16. Implementing Regulations; Amendments.

1) The city council delegates authority to the (department administering the SDC program) to adopt necessary procedures to implement provisions of this ordinance including the appointment of an SDC program administrator. All rules pursuant to this delegated authority shall be filed with the office of (the appropriate city official) and be available for public inspection.

Section 17. Appeal Procedure.

(1) A person challenging the propriety of an expenditure of system development charge revenues may appeal the decision or the expenditure to the city council by filing a written request with the (appropriate city official) describing with particularity the decision of the (appropriate city official) and the expenditure from which the person appeals. An appeal of an expenditure must be filed within two years of the date of the alleged improper expenditure.

(optional) (2) Appeals of any other decision required or permitted to be made by the (appropriate city official) under this ordinance must be filed **in writing with (the appropriate city official)** within 10 days of the decision.

(3) After providing notice to the appellant, the council shall determine whether the (appropriate city official's) decision or the expenditure is in accordance with this ordinance and the provisions of ORS 223.297 to 223.214 and may affirm, modify, or overrule the decisions. If the council determines that there has been an improper expenditure of system development charge revenues, the council shall direct that a sum equal to the misspent amount shall be deposited within one year to the credit of the account or fund from which it was spent. The decision of the council shall be reviewed only as provided in ORS 34.010 to 34.100, and not otherwise.

(4) A legal action challenging the methodology adopted by the council pursuant to section 5 shall not be filed later than 60 days after adoption. A person shall contest the methodology used for calculating a system development charge only as provided in ORS 34.010 to ORS 34.100, and not otherwise.

(optional) **(5) A person who wishes to challenge the calculation of a system development charge must make a written challenge to the calculation of the system development charge and file the challenge with the (appropriate city official) within X days of receiving the calculation. The written challenge must describe with particularity the calculation which the person appeals.**

(a) The written challenge shall state:

1) **The name and address of the appellant;**

2) **The nature of the calculation being appealed;**

3) **The reason the calculation is incorrect; and**

4) **What the correct determination of the appeal should be or how the correct calculation should be derived.**

A person who fails to file such a written challenge within the time permitted waives his/her objections, and his/her objections shall be dismissed.

(b) After providing timely notice to the challenger, the (appropriate city official or council) shall determine whether the calculation is in accordance with the

resolution containing the methodology used to establish or modify the system development charge adopted by the city council. *And/Or:*

(c) Unless the challenger and the city agree to a longer period, a written challenge to the calculation of the system development charge shall be heard by a hearings officer within X working days of the receipt of the written challenge. At least X working days prior to the hearing, the city shall mail notice of the time and location thereof to the person who made the written challenge.

(d) The hearings officer shall hear and determine the challenge on the basis of the person's written challenge and any additional evidence he/she deems appropriate. At the hearing the challenger may present testimony and oral argument personally or by counsel. The rules of evidence as used by courts of law do not apply.

(e) The person challenging the calculation shall carry the burden of proving that the calculation being appealed is incorrect and what the correct calculation should be or how a correct calculation should be derived.

(6) After exhausting the city's administrative review procedure pursuant to section 17 (5) of this ordinance, the person challenging the calculation of the system development charge may then petition for review of the (appropriate city official's/hearings officer or council's) determination pursuant to ORS 34.010 to 34.100.

Section **18**. Prohibited Connection. No person may connect to the water or sewer systems of the city unless the appropriate system development charge has been paid or the lien or installment payment method has been applied for and approved.

Section **19**. Penalty. Violation of section 18 of this ordinance is punishable by a fine not to exceed $_____.

Section **20**. Construction. [The rules of statutory construction contained in ORS Chapter 174 are adopted and by this reference made a part of this ordinance.] **For the purposes of administration and enforcement of this ordinance, unless otherwise stated in this ordinance, the following rules of construction shall apply:**

A. In case of any difference of meaning or implication between the text of this ordinance and any caption, illustration, summary table, or illustrative table, the text shall control.

B. The word "shall" is always mandatory and not discretionary; the word "may" is permissive.

C. Words used in the present tense shall include the future; and words used in the singular number shall include the plural and the plural the singular, unless the context clearly indicates the contrary.

D. The phrase "used for" includes "arranged for," "designed for," "maintained for," or "occupied for."

E. Where a regulation involves two or more connected items, conditions, provisions, or events:

1) "And" indicates that all the connected terms, conditions, provisions or events shall apply;

2) "Or" indicates that the connected items, conditions, provisions or events may apply singly or in any combination.

F. The word "includes" shall not limit a term to the specific example, but is intended to extend its meaning to all other instances of like kind or character.

Section **21**. Severability. [The invalidity of a section or subsection of this ordinance shall not affect the validity of the remaining sections or subsections.] **The provisions of this ordinance are severable, and it is the intention to confer the whole or any part of the powers herein provided for. If any clause, section or provision of this ordinance shall be declared unconstitutional or invalid for any reason or cause, the remaining portion of this ordinance shall be in full force and effect and be valid as if such invalid portion thereof had not been incorporated herein. It is hereby declared to be the council's intent that this ordinance would have been adopted had such an unconstitutional provision not been included herein.**

(optional) Section **22**. Classification. The city council determines that any fee, rates or charges imposed by this ordinance are not a tax subject to the property tax limitations of Article XI, section 11(b) of the Oregon Constitution.

(optional) Section ___. Repeal. Ordinance No. _____, enacted _____, is repealed.

(optional) Section ___. Saving Clause. Ordinance No. _____, repealed by this ordinance, shall remain in force for prosecution, conviction, and punishment of persons who violate Ordinance No. _____, before the effective date of this ordinance.

(optional) Section ___. Effective Date. This ordinance shall become effective __ days after its passage by the council and approval by the mayor.

Appendix 12.4-C-2

CITY ORDINANCE NO. 1086
CITY OF PRINEVILLE

AN ORDINANCE ESTABLISHING SYSTEMS DEVELOPMENT CHARGES (SDC's), PROCEDURES, AND POLICIES FOR SEWER, WATER AND TRANSPORTATION WITHIN THE CITY OF PRINEVILLE

THE PEOPLE OF THE CITY OF PRINEVILLE, OREGON, DO ORDAIN AS FOLLOWS:

SECTION 1.0. GENERAL PROVISIONS

1.1. TITLE. This Ordinance shall be known as the Systems Development Charge Ordinance of 2000 for the City of Prineville, Oregon.

1.2 AUTHORIZATION. Systems Development Charges (SDC's) are authorized by Oregon Revised Statutes (ORS) Chapters 223.297 to 223.314 and by Sections 4 and 39 of the Prineville City Charter.

1.3. PURPOSE. It is the purpose of this Ordinance to provide for the basic framework for the imposition of System Development Charges for the recovery of certain capital improvement costs deemed necessary for the City to provide sewer, water and transportation services.

1.4. DEFINITIONS. As used in this Ordinance, the following words and phrases, unless the context of this Ordinance requires or provides otherwise, shall have the meaning set forth herein:

1.4.1. "Capital Improvement" means facilities or assets used for the following:
(a) Water supply, treatment, storage and distribution;
(b) Waste water collection, transmission, treatment, storage and disposal;
(c) Drainage and flood control; or
(d) Transportation.

1.4.2. "Capital Improvement" does not include costs of the operation or routine maintenance of capital improvements.

1.4.3. "Improvement fee" means a fee for costs associated with capital improvements to be constructed.

1.4.4. "Reimbursement fee" means a fee for costs associated with capital improvements associated with capital improvements already constructed or under construction.

1.4.5. "System Development Charge" or "SDC" means a reimbursement fee, an improvement fee or a combination thereof assessed or collected at the time of increased usage of a capital improvement or issuance of a development permit, building permit or connection to the capital improvement.

Section 1.0. General Provisions; 1.4. Definitions; Contd.

1.4.6. "System Development Charge" or "SDC" does not include any fees assessed or collected as part of a Local Improvement District (LID), Reimbursement District, or a charge in lieu of an LID assessment, or the cost of complying with requirements or conditions imposed upon a land use decision, expedited land division or limited land use decision as provided for in this Ordinance or the implementing Resolution No. 875.

1.4.7. Terminology: The word "City" shall mean the City of Prineville, Oregon. The words "City Council" and "Council" shall mean the City Council of Prineville. The words "City Planning Commission" and "Commission" shall mean the City Planning Commission for the City of Prineville as duly appointed by the City Council. The words "City Recorder," "City Manager," "City Planning Official or Director," "Fire Chief," "City Legal Counsel, City Counsel or City Attorney," and "City Public Works, Sewer, Water or Street Superintendent," shall mean such respective positions for the City of Prineville as applicable.

SECTION 2.0. CAPITAL IMPROVEMENT PLANS REQUIRED

2.1. As required by ORS Chapter 223.309, the City has prepared and adopted the following Public Facility Master Plans. Said Plans, as may be amended, are hereby adopted by reference as though set forth in full herein. Said Plans are available for public inspection at the office of the City Manager of the City of Prineville, 400 NE 3rd Street, Prineville, Oregon.

(a) Transportation System Plan of 1999 as prepared for the City of Prineville by W&H Pacific Consulting Engineers, Inc.;
(b) Water Facility Plan of 2000 as prepared for the City of Prineville by ACE Consultants, Inc.; and
(c) Wastewater Facility Plan of 2000 as prepared for the City of Prineville by ACE Consultants, Inc.

2.2. Plans identified in Subsection 2.1 of this Section may be modified, revised, amended and/or updated by the City only on an annual basis except in the case of emergencies. The City shall conduct one or more public hearings on all Plan modifications, revisions, amendments and/or updates. At least one(1) such hearing shall be conducted by the City Council prior to adoption of such Plan modifications, revisions, amendments and/or updates.

2.3. Copies of all such proposed modifications, revisions, amendments and/or updates to such Plans shall be available for public inspection not less than ten(10) days prior to any public hearing thereon.

SECTION 3.0. DETERMINATION OF AMOUNT OF SDC's

3.1. Reimbursement fees shall be established by City Council Resolution setting forth a methodology that considers the cost of the existing facility or facilities, prior contributions by existing users, the value of unused capacity, rate-making principles employed to finance publicly owned capital improvements and other relevant factors identified by the City. The methodology shall promote the objective of the future system users contributing to no more than an equitable share to the cost of existing facilities. The methodology for establishing such fees shall be available for public inspection.

3.2. Improvement fees shall established by City Council Resolution setting forth a methodology that considers the cost of projected capital improvements needed to increase the capacity of the systems to which the fee is related. The methodology for establishing such fees shall be available for public inspection.

SECTION 4.0. CERTAIN SDC's AND METHODOLOGIES ARE PROHIBITED.

4.1. As used in this Section, "employer" means any person who contracts to pay remuneration for, and secures the right to direct and control the services of, any person.

4.2. The City may not establish or impose a SDC that requires an employer to pay a reimbursement fee or an improvement fee based on:

(a) The number of individuals hired by the employer after a specified date; or,

(b) A methodology that assumes that costs are necessarily incurred for capital improvements when an employer hires an additional employee.

4.3. A methodology set forth in a Resolution that establishes an improvement fee or a reimbursement fee shall not include or incorporate any method or system under which the payment of the fee is determined by the number of employees of an employer without regard to new construction, new development or new use of an existing structure by the employer.

SECTION 5.0. CREDITS AGAINST SDC's

5.1. The City Council Resolution that establishes an improvement fee shall also provide for a credit against said SDC fees for the construction of a qualified public improvement as provided for by ORS Chapters 223.297 to 223.314.

Section 5.1; Contd.

A "qualified public improvement" means a capital improvement that is required as a condition of development approval in a Public Facility Plan adopted by the City as referenced by Section 2.0. of his Ordinance and either:

(a) Not located on or contiguous to property that is the subject of development approval; or

(b) Located in whole or in part on or contiguous property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

5.2. (a) The credit provided for in Subsection 5.1 of this Section shall be only for the improvement fee charged for the type of improvement being constructed, and credit for qualified public improvements under Subsection 5.1 of this Section may be granted only for the cost of that portion of such improvement that exceeds the City's minimum standard facility size or capacity needed to serve the particular development project or property. The applicant shall have the burden of demonstrating that a particular improvement qualifies for credit under Subsection 5.2(b) of this Section.

(b) When the construction of a qualified public improvement as defined in Subsection 5.1 of this Section gives rise to a credit amount greater than the improvement fee that would otherwise be levied against the project receiving development approval, the excess credit may be applied against improvement fees that accrue in subsequent phases of the original development project, subject to City approval.

(c) Credits shall be used in the time specified by the City but not later than 5-years from the date the credit is given.

5.3. The Resolution that establishes an improvement fee shall also provide for a credit against said SDC fees for qualifying local improvement districts. A "qualified local improvement district" means a local improvement district ("LID") that has been approved by the City prior to 2000 and:

(a) Applies for and receives building permits to complete planned LID and/or development construction within five(5) years of the date of original LID and/or development approval unless otherwise approved by the City; and

(b) Pays all required LID fees on schedule in compliance with the original LID conditions.

(c) The credit provided for in this Subsection shall only be for the LID fee charged, but shall not exceed the applicable SDC fee that would otherwise by levied against properties in the LID project, in part of in

Section 5.3(c); Contd.

whole, accruing in subsequent phases or the original LID project, subject to City approval.

(d) Credits shall be used in the time specified by the City but not later than 5 years from the date the credit is given unless otherwise approved by the City.

SECTION 6.0. EXEMPTIONS TO SDC CHARGES.

The SDC charges imposed by this Ordinance or the implementing Resolution shall not apply to the following:

(a) Developments for which applications and fees for building permits, sewer and water connections, and/or manufactured home park use permits have been filed and paid prior to the effective dates of this Ordinance and the implementing Resolution, providing the information accompanying such applications was sufficiently complete to meet the requirements of issuance of permits and connections for said developments.

(b) Reconstruction or repair of a building or structure, or portion thereof, which was damaged or destroyed by earthquake, fire, flood, or other natural causes over which the owner had no control, but only if:

(1) Such reconstruction or repair is done pursuant to a building permit issued within one year after such damage or destruction unless such has been delayed by applicable regulations beyond the control of the owner; and

(2) There is no change in water meter or development size.

(c) Replacement structures for any forced acquisition wherein a building or Structure is acquired for public purposes through eminent domain provided that:

(1) The owner obtains a building permit for the replacement structure within two(2) years of the acquisition, and

(2) There is no change in water meter or development size.

(d) Any public use or development which is or by agreement will be undertaken by the City of Prineville. Such an exemption for any other public entity shall be subject to City approval on a case-by-case basis.

(e) Any housing unit which is located in a housing project of one or more housing units, if the project receives federal housing funds or tax credits and is affordable to families at or below the City's 80% median family income level as defined by the US Department of Housing and Urban Development, provided such unit or units were duly approved by the City prior to the effective date of this Ordinance and the implementing Resolution and construction commences within 3 years of approval.

Section 6.0. Exemptions; Contd.

(f) Replacement units within a duly approved manufactured home park on spaces which have previously been occupied and for which sewer and water connections have previously been installed and in use prior to the effective date of this Ordinance and the implementing Resolution.
(g) Original placement units within a duly approved manufactured home Park for which sewer and water connection fees have been paid in full to the City prior to the effective dates of this Ordinance and the implementing Resolution provided such units are placed within 3 years of the effective dates of this Ordinance and the implementing Resolution.
(h) New units within duly approved and platted subdivisions or other developments provided that sewer and water connection fees have been paid in full to the City prior to the effective dates of this Ordinance and the implementing Resolution and that the construction of such units commences within 3 years of the effective dates of this Ordinance and the implementing Resolution.

SECTION 7.0. AUTHORIZED EXPENDITURE OF SDC's

7.1. Reimbursement fees shall be spent only on capital improvements associated with the systems for which the fees are assessed including expenditures relating to repayment of indebtedness.

7.2. Improvement fees shall be spent only on capacity increasing capital improvements, including expenditures relating to repayment of debt for such improvements. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or provides new facilities. The portion of such improvements funded by improvement fees must be related to current or projected development.

7.3. System development charges shall not be expended for costs associated with the construction of administrative office facilities that are more than an incidental part of other capital improvements.

7.4. Any capital improvement being funded wholly or in part with SDC revenues shall be included in the Capital Improvement Plans adopted by the City as set forth in Section 2.0 of this Ordinance as may be modified, revised, amended or updated .

Section 7.0. Authorized Expenditures; Contd.

7.5. Notwithstanding Subsections 7.1 and 7.2 of this Section, SDC revenues may be expended on the direct costs of complying with the provisions of ORS Chapters 223.297 to 223.314, including the costs of developing SDC methodologies and providing an annual accounting of SDC expenditures.

SECTION 8.0. DEPOSIT AND ACCOUNTING OF SDC REVENUES

8.1. SDC revenues shall be deposited only in accounts designated for such moneys.

8.2. The City shall provide an annual accounting for SDC's showing the total amount of SDC revenues collected for each system and the projects that were funded thereby.

8.3. Copies of the annual accounting reports for SDC's shall be available for public inspection at the offices of the City Manager, City Hall, 400 NE 3rd Street, Prineville, Oregon.

SECTION 9.0. CONTESTING SDC's METHODOLOGIES OR EXPENDITURES

9.1. Any legal action intended to contest the adoption of System Development Charges and the methodologies used for calculation the SDC's shall be filed within sixty (60) days following City Council adoption of a Resolution adopting SDC's and the methodologies therefor and shall be by Writ of Review as provided in ORS Chapters 34.010 to 34.100 and not otherwise.

9.2. No legal action intended to contest the methodology used for calculating a SDC shall be filed after 60 days following adoption or modification of the SDC Resolution or methodologies therefor by the City Council.

9.3. The City shall, by City Council Resolution, adopt administrative review procedures by which any citizen or other interested person may challenge an expenditure of SDC revenues. Such procedures shall provide that such a challenge must be filed within two years of the expenditure of the SDC revenues. The decision of the City Council shall be reviewed only as provided in ORS Chapters 34.010 to 34.100 and not otherwise. Such administrative review procedures shall be adopted prior to the expenditure of any SDC revenues.

SECTION 10.0. ENACTMENT

This Ordinance shall be in full force and effect thirty (30) days from and after its approval by the City Council and the Mayor.

APPROVED BY THE CITY COUNCIL ON THE 28th DAY OF December, 2000.

APPROVED BY THE MAYOR ON THE 28th DAY OF DECEMBER, 2000.

Ann Graf, Mayor

ATTEST:

City Manager

12-28-00
Date

D

Appendix **12.4-D** (Omitted - previously adopted)

Code Amendments

Recommended Revisions to Title 10, Umatilla Zoning Code

Recommended Revisions to Title 11, Umatilla Land Development Code

E

Appendix **12.4-E**

Inter-Jurisdictional Agreements

Background Information

Recommendations for the Umatilla Pedestrian and Bicycle Plan

Background Information

One of the most common methods for neighboring jurisdictions use to cooperate is entering into agreements. These agreements may take a variety of forms, ranging from the informal understood contract, most commonly called a Memorandum of Understanding (MOU), to more formal Memorandum of Agreement (MOA), to the most formal intergovernmental agreement (IGA). The three basic types of agreements are be described as follows:

- Understood Contract: Its most common use occurs between two smaller neighboring towns or an town and the county or special district. This usually takes the form of a MOU. Typically, a MOU has no definite contract but is a statement of an informal understanding. For example, an informal arrangement might be set up between a city and county under which the city agrees to remove snow or sweep county roads that are within the city. An example of a MOU (Lewis and Clark Commemorative Trail) is attached to this memorandum.

- Service Contract: Under this arrangement, one jurisdiction contracts with another to provide one or more services for a stated amount. The terms of the contract are negotiated and formalized in a written agreement. One city or other entity is the supplier of the service and the other pays for the service. This is the most common method of intergovernmental contracting. Using the previous example, the county would pay the city an agreed-upon fee for sweeping its streets. An example of a MOA (City of Bend & COCAAN) is attached to this memorandum.

- Joint Agreement: This method is distinguished from the service contract in that responsibility for the performance of a particular function or the operation and construction of a facility would be shared through the creation of an administrative vehicle to handle service responsibilities; e.g., a board consisting of representatives of each participating governmental unit (this can be the existing City Council or similar body). An example IGA (City of Bend & Bend Metro Park and Recreation) is attached to this memorandum.

  The joint agreement may be spelled out through a contract, generally authorized by ordinance, following procedures established in the Oregon Administrative Rules, which spell out the details of local discretion. This approach leaves a good deal of flexibility so that local officials can tailor the program to reflect their own needs and sensitivities. IGAs are most often used for real construction projects or provision of long-term services. In Oregon, cities and counties may have an IGA to determine which jurisdiction governs the Urban Growth Boundary area. Projects shared by ODOT and a city will also typically have a formal IGA,

Projects to improve conditions for pedestrians and bicyclists often cross jurisdictional boundaries and have one of the types of agreements outlined above. Coordination between jurisdictions is a key component for successful projects. The issue of intergovernmental coordination takes on greater significance in areas, such as Umatilla, that have one or more agencies that could potentially participate in projects, each with its own policies and budgets. In Umatilla, the major affected agencies include the City, Umatilla County, and the Army Corps of Engineers. Other jurisdictions include the Port of Umatilla, Umatilla Tribes, Bonneville Power Administration, Umatilla School District, and West Extension Irrigation District.

Recommendations for the Umatilla Pedestrian and Bicycle Plan

The Umatilla Pedestrian and Bicycle Plan includes several projects that have multi-jurisdictional ownership. The following are recommendations for formalizing the relationships between these agencies as pertains to projects identified in the Umatilla Pedestrian and Bicycle Plan.

- The City and County should consider formalizing the existing verbal agreement to participate in improving the 1.2 miles at the north end of Powerline Road with curbs, sidewalks and bikelanes.
- Also related to Powerline Road improvements, the City should consider formalizing the agreement between the private land developers and the City for contributions to improvements along the southern portion of Powerline Road. It may be beneficial to connect the timing of improvements or contributions to improvements to the number of units developed in each phase of development or similar method. Because of the effect of the planned development on South Hill on Powerline Road, it may be appropriate to involve the County in this process.
- The City should maintain its existing MOU to establish the Lewis and Clark Commemorative Trail.
- The City should develop an IGA with ODOT to bring the pedestrian crossing facilities at the Crossroads Intersection to ODOT's basic standards. The City may contribute such items as removal of concrete barriers in exchange for ODOT providing correct access (curbs, sidewalk, ADA ramp) to the pedestrian push buttons.
- The City should establish an IGA with the Army Corps of Engineers to provide and maintain an unpaved hard surface path between Brownell Blvd. and Spillway St. along Third St.
- The City and the Army Corps of Engineers should establish a MOU to provide right-of-way or easement, development of a surface, and maintenance for the two trails in the McNary area (Devore extension and Riverside trail).
- The City should set up a Stakeholder Committee to develop plans and, eventually, an IGA between the City, Army Corps of Engineers, and the Umatilla Tribes to provide public access to the Old Town area. The stake holder committee should include a representative of the Umatilla Tribes, Army Corps of Engineers, City of Umatilla, and Chamber of Commerce.

F

Appendix 12.4-F

Traffic Analysis

Traffic Count Update (Preliminary)

TRAFFIC COUNT UPDATE

During the course of the Umatilla Pedestrian and Bicycle Plan development, ODOT requested that traffic counts be updated at several intersections along Highway 730 to determine if changes in traffic could potentially affect the outcome of the Plan. ODOT conducted the counts at US 730 and Umatilla River Road, US 730 and Brownell Blvd., and US 730 and Powerline Road in the Spring of 2003. This data was provided to David Evans and Associates, Inc. (DEA), where it was analyzed. The results are shown in Table 1.

Table 1 - Intersection Performance Summary

Intersection	Traffic Control	Critical Approach	LOS	V/C
US 730 and Umatilla River Road	Unsignalized	Northbound Left	F	1.42
US 730 and Brownell Blvd.	Signalized	Westbound Left	E	0.58
US 730 and Powerline Road	Unsignalized	Northbound	E	0.74

Abbreviations: LOS = Level-of-Service, V/C = Volume-to-Capacity Ratio

The results of this survey show a significant increase in traffic over previous traffic counts done in 1998 by Kittelson and Associates, Inc. (KAI), as shown in Table 2. It is unclear whether these increases reflect an actual increase in traffic or are an artifact of different analysis techniques, or some combination of these.

Table 2 - Comparison of 1997 and 2003 Traffic Counts

Intersection	Traffic Control	Critical Approach	1997[1]		2003[2]	
			LOS	V/C	LOS	V/C
US 730 & Umatilla River Rd	Unsignalized	Northbound	C	0.35	F	1.62
US 730 & Brownell Blvd.	Signalized	Westbound Left	C	0.3	E	0.58
US 730 & Powerline Rd	Unsignalized	Northbound	B	0.12	E	0.74

1. Kittelson Assoc., Umatilla
2.. Counts taken by ODOT in February 2003, analyzed by David Evans and Associates, Inc.

Abbreviations: LOS = Level-of-Service, V/C = Volume-to-Capacity Ratio

There are several reasons why the analyses conducted by DEA and KAI result in significantly different volume-to-capacity (V/C) ratios and levels of service (LOS) for the three intersections in the City of Umatilla. These are explained below:

1. Traffic Volumes

The traffic volumes used by DEA for the capacity analysis are significantly higher than those used by KAI. The traffic volumes on US 730 that were used by DEA are roughly 20% to 100% higher than those that were used by KAI. The traffic volumes on the

sidestreets that were used by DEA are roughly 35% to 300% higher than those that were used by KAI.

The most likely reason for the discrepancy in the traffic volumes is that DEA used a 30th highest hour analysis and KAI did not. ODOT now requires that capacity analysis on state highways be performed for the 30th highest hour (also known as the Design Hour Volume).

For this analysis, ODOT provided 24-hour manual turning movement counts that were conducted in January 2003. DEA converted the 24-hour January count to a 30th highest hour count using data from ODOT's permanent Automatic Traffic Recorder (ATR) number 30-002, which is located on US 730, 0.2 miles east of US 395.

First, the 24-hour January count was converted to a 2003 Average Daily Traffic (ADT) volume by applying a seasonal adjustment factor. According to the ATR data, January traffic volumes represent 76 percent of ADT volumes. Therefore, the 24-hour January traffic volumes were divided by 0.76 to convert them to 2003 ADT volumes.

Then, the 2003 ADT volumes were converted to 2003 30th highest hour volumes. According to the ATR data, the 30th highest hour volumes represent 10.3 percent of ADT volumes. Therefore, the 2003 ADT volumes were multiplied by 0.103 to convert them to 2003 30th highest hour volumes. KAI used PM peak hour traffic counts from May 1997, which were not seasonally adjusted and were not converted to 30th highest hour volumes in their analysis.

A second reason for the discrepancy in the traffic volumes is the different analysis years. DEA analyzed conditions for the year 2003. KAI analyzed conditions for the year 1997. According to the City of Umatilla TSP (Table 6 on page 37), traffic volumes in the study area were predicted to increase at 5% per year between the years 1997 and 2002, and at 3% per year between the years 2002 and 2007. Applying those growth rates to year 1997 traffic volumes would result in year 2003 traffic volumes that would be roughly 30% higher than those in the year 1997.

A third reason for the discrepancy in the traffic volumes is the truck factor. According to the ATR data, roughly 40% of the traffic on US 730 is comprised of trucks. Therefore, DEA used a truck factor of 40% in the capacity analysis. KAI provided no explanation of what (if any) truck factor was applied in the capacity analysis.

2. Lane Configurations

The lane configurations used by DEA at two of the intersections are slightly different than those used by KAI.

At the intersection of US 730 and Umatilla River Road, DEA used a one-lane approach (shared left/right turn lane) on the northbound approach (the critical approach). KAI used a two-lane approach (separate left and right turn lanes) on the northbound approach. Substituting a two-lane approach into DEA's analysis returns a slightly better V/C ratio and LOS; however, the intersection still operates with a V/C ratio over 1.00 and LOS F.

At the intersection of US 730 and Brownell Road, DEA used a one-lane approach (shared left/through/right lane) on the northbound approach. KAI used a two-lane approach (separate left and through/right lanes) on the northbound approach. Substituting a two-lane approach into DEA's analysis has no effect on the V/C ratio and LOS because the critical turn movement at this intersection is the westbound left turn.

3. Signal Phasing

KAI provided no explanation of what traffic signal phasing at the intersection of US 730 and Brownell Road was used in the TSP. DEA assumed that the signal phasing consisted of a 90-second, three phase cycle consisting of: protected east-west left turns, east-west through and right, and north-south left, through, and right. DEA optimized the signal timing based on the existing traffic volumes.

CONCLUSIONS

ODOT is currently evaluating the data and analyses for this study. If the DEA analysis is accurate, this means that traffic has significantly increased along Highway 730 and its side streets since the Umatilla TSP was completed. However, the TSP identified improvement projects for all three of these intersections. No additional projects are proposed in the Umatilla Pedestrian and Bicycle Plan that would alter the recommendations of the TSP.

G

Appendix 12.4-G

Engineering Design Standards

G.1 Pedestrian Facilities

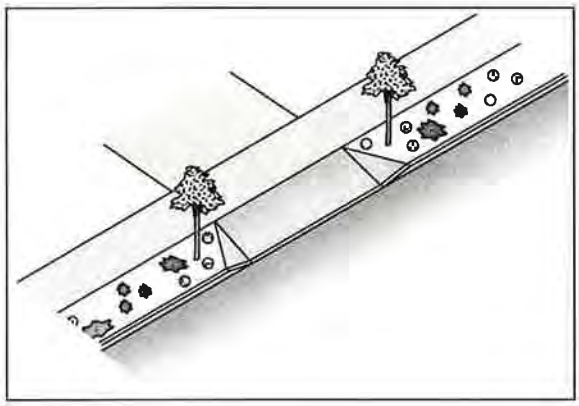
G.1.1 Sidewalks

Location

Commercial centers and downtowns: both sides of all streets.
Major residential streets: both sides.
Local residential streets: preferably both sides, but at least one side.
Low-density residential (1-4 units/ac): preferably both sides, but at least one side with shoulder on other side.
Rural residential (less than 1 unit/ac): preferably one side with shoulder on other side, but at least a shoulder on both sides.

Width

Local streets outside central business district:
1.8 to 2.4 m (6 to 8 ft) [1.5 m (5 ft) minimum].
Commercial areas outside central business district:
2.4 to 3.0 m (8 to 10 ft) [1.5 m (6 ft) minimum].
Central business areas including downtowns and commercial centers:
3.0 m (10 ft) [2.4 m (8 ft) minimum];
More width in areas of high pedestrian activity; sidewalk cafes and transit stops.
Buffer zone (aka landscape strip) between sidewalk and roadway:
0.6 to 1.2 m (2 to 4 ft) on local and collector streets;
1.5 to 1.8 m (5 to 6 ft) on arterial and major streets;
1.5 to 2.4 m (5 to 8 ft) with street trees, high speeds, high truck use, or where space exists;
1.5 m (5 ft) minimum for uncurbed sidewalk including 0.9 m (3 ft) minimum green strip.



Buffer zone enhances the walking environment and allows the sidewalk to remain level at driveways.

Standard Sidewalk Dimensions

Width (varies by type of street, larger number preferred):

- Local = 5 to 6 ft
- Commercial area outside downtown = 8 to 10 ft
- Downtown = 10 to 12 ft

Horizontal Clear Space = 3 to 5 ft

Vertical Clear Space = 7 to 8 ft

Planting Strip (buffer zone) Between sidewalk and street = 4 to 8 ft

Surface vertical change (abrupt, such as sidewalk cracks) = 1/4 in. maximum

Surface gap = 1/2 in. maximum

Slope in direction of travel = 5 percent maximum (1:20)

Cross-slope across direction of travel = 2 percent maximum (1:50)

Standard Bikeway Width

(One-way travel; recommended width depends on motor vehicle speed and volume.)

Bike Lane = 4 to 6 ft

Paved Shoulder = 4 to 6 ft

Wide Curb Lane (shared by cars and bikes) ≥ 14 to 16 ft

Horizontal Clearance

Accessibility:

1.5 m (5 ft) [0.9 m (3 ft) minimum] unobstructed width.

Additional 0.6 to 0.9 m (2 to 3 ft) for shoulder-high barriers such as walls, railings and fences.

On-street parking:

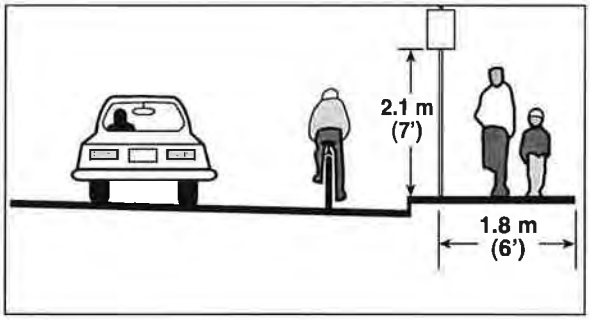
0.6 m (2 ft) for parallel parking stalls;

0.9 m (3 ft) for angled or perpendicular parking stalls.

Ditch or swale:

0.6 m (2 ft) minimum.

Ditch side slope should not exceed a 3:1.



Sidewalk clearances. Add an additional 2' horizontal clearance to shoulder-high barriers such as walls and fences.

Vertical Clearance

2.4 m (8 ft) to continuous structures such as undercrossings and permanent canopies.

2.1 m (7 ft) to spot items such as traffic signs and tree branches.

Surface

Minimum slope consistent with roadway.

5% (1:20) running slope.

2% maximum cross-slope including driveways.

Stable, firm, and slip-resistant.

6 mm (0.25 in.) maximum vertical change in level; 13 mm (0.5 in.) if beveled.

13 mm (0.5 in.) maximum gratings/gaps in direction of travel.

65 mm (2.5 in.) maximum gap at rail flangeway.

Continuity across driveways.

Sidewalk Buffer

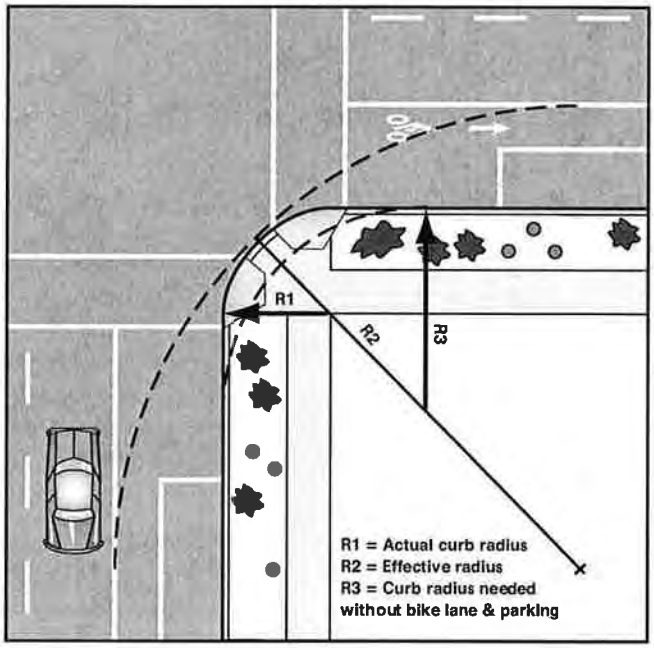
Local or collector streets: 0.6 to 1.2 m (2 to 4 ft).

Arterial or major streets: 1.5 to 1.8 m (5 to 6 ft).

Street trees or high speeds: 1.5 to 2.4 m (5 to 8 ft).

G.1.2 *Corner Radius*

No turning movements: 1.2 m (4 ft).
On-street parking or bike lanes: 1.5 m (5 ft).
Minor street with minimal truck and bus turning: 4.5 to 7.5 m (15 to 25 ft).
Major street with occasional trucks: 9.0 m (30 ft).

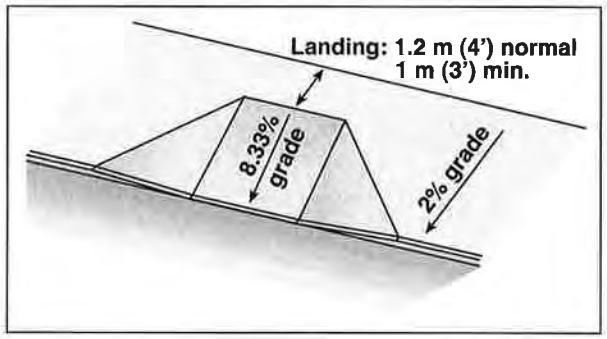


Sharp corners shorten and align crosswalks, improve pedestrian visibility, and reduce vehicle turning speed.

On-street parking and bike lanes permit a tighter corner, often as little as a 25 ft radius.

G.1.3 *Curb Ramps*

One at each crossing perpendicular to curb line.
Within crosswalk at foot of ramp.
No exposure to moving traffic lane.
Maximum running slope:
1:12 (8.33%) in new construction.
1:10 (10%) for 15 cm (6 in.) rise in existing retrofit.
1:8 (16.67%) for 75 mm (3 in.) rise in historic retrofit.
1:48 (2%) maximum cross-slope.
1:20 (5%) maximum counter-slope at gutter.
1:10 (10%) side flare slope.
0.9 m (3 ft) minimum width.



Curb ramp clearance, grade and crossslope.

Length:

0.9 m (3 ft) long if toe room available.

1.2 m (4 ft) long if constrained.

1.5 m (5 ft) long if between ranges.

Level landing at top and bottom:

1.5 m (5 ft) [1.2 m (4 ft) minimum] landing length at perpendicular curb ramp.

1.5 m (5 ft) minimum landing length at parallel curb ramp.

1:48 (2%) maximum slope in the two perpendicular directions of travel.

Flush (no lip) connection at street.

0.6 m (2 ft) detectable warning full width of the curb ramp.

G.1.4 *Crosswalks*

Location (Marked)

All open legs of a signalized intersection.

Across a roadway approach controlled by a STOP or a YIELD sign if there is a sidewalk or a shoulder on both sides of the approach.

At intersections on roadway approaches not regulated by signals, STOP signs or YIELD signs if the speed limit is 60 km/h (40 mph) or less, and there are sidewalks or shoulders on both sides of the approach.

Mid-block as needed.

Unmarked crosswalks at other intersections.

Striping

2.4 m (8 ft) [1.8 m (6 ft) minimum] width.

Extra width for high pedestrian volumes or to increase conspicuity of crossing.

Zebra-type patterns:

300 to 600 mm (12 to 24 in.) wide stripes.

300 to 600 mm (12 to 24 in.) stripe spacing.

Stop lines (when used) 3.0 m (10 ft) [1.2 m (4 ft) minimum] in advance.

Use curb extensions with on-street parking.

No parking within 6 m (20 ft) from crosswalk without curb extension.

Zebra crosswalks are more visible to drivers than standard double lines.

G.2 *On-Road Bicycle Facilities*

G.2.1 *Bicycle Lanes*

Location

General: one-way facilities not physically separated from travel lanes.

Urban areas: both sides of most highways, arterial streets and collector streets (generically referred to as "streets" below).

Rural areas: typically not used (paved shoulders or shared lanes preferred).

Width

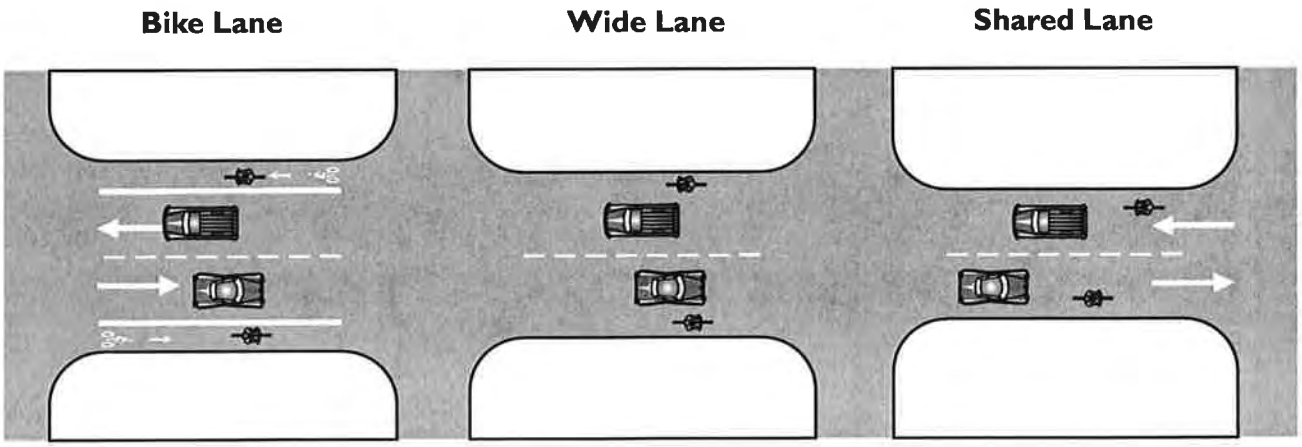
Curbed street without on-street parking:
1.8 m (6 ft) [1.2 m (4 ft) minimum];
1.8 m (6 ft) where use is high, in-line skaters are expected, or grades exceed 5%.

Curbed street with on-street parking:
1.8 m (6 ft) [1.5 m (5 ft) minimum];
1.8 m (6 ft) where use is high, in-line skaters are expected, or grades exceed 5%.

Uncurbed street without parking:
1.8 m (6 ft) where use is high, in-line skaters are expected, or grades exceed 5%.
1.8 m (6 ft) where speeds exceed 55 km/h (35 mph).
1.5 m (5 ft) where speeds are 55 km/h (35 mph) or less.
1.2 m (4 ft) minimum.

Uncurbed street with parking:
2.1 m (7 ft) where use is high, in-line skaters are expected, or grades exceed 5%.
2.1 m (7 ft) where speeds exceed 55 km/h (35 mph).
1.8 m (6 ft) where speeds are 55 km/h (35 mph) or less.
1.5 m (5 ft) minimum.

Add 0.3 m (1 ft):
on bridges, or
where there are 30 or more heavy vehicles per hour in the outside lane.



Striping

150 mm (6 in.) solid white stripe standard; or (optional) 200 mm (8 in.) solid white stripe.

On-street parking (right side of lane) marked with 100 mm (4 in.) solid white stripe or tick marks.

Do not extend striping through intersections (except across from T-intersection) and crosswalks.

Dotted guidelines [0.6 m (2 ft) dots and 1.8 m (6 ft) spaces] may be extended through complex intersections.

At intersections controlled by signals or stop signs and where right-turn lanes exist, use a dotted line with 0.6 m (2 ft) dots and 1.8 m (6 ft) spaces for the approach in lieu of solid striping for 15 to 60 m (50 to 200 ft).

Where sufficient width exists, place a separate through bicycle lane between the right-turn lane and the through travel lane.

At ramps and dedicated right-turn slip lanes, use a minimal turning radius or a compound curve to reduce entry speed.

Marking

Bicycle symbol with directional arrow on pavement; or (optional) word legend "BIKE ONLY" with directional arrow.

Symbol with arrow on far side of each intersection no closer than 20 m (65 ft) from intersection; additional symbols placed periodically along uninterrupted sections.

Signing

MUTCD signs R3-16 and R3-17 designate the presence of a bike lane.

Many other signs are available for special situations; refer to MUTCD Part 9 and the Oregon Bicycle and Pedestrian Plan.

G.2.2 *Wide Curb Lanes*

Urban streets with insufficient width for bike lanes.

4.0 m (13 ft) wide without on-street parking and 4.3 m (14 ft) wide with on-street parking.

Where 4.6 m (15 ft) or more width is available, consider striping bicycle lanes or shoulders.

G.2.3 *Paved Shoulders*

Location

Rural: most roads and highways.

Urban areas: both sides of lower volume major streets where bike lanes are not appropriate.

Width

1.5 m (5 ft):

on steep up-grades where bicyclists require maneuvering room or where downgrades exceed 5% for 1 km (0.6 mi);

where there are 30 or more heavy vehicles per hour in the outside lane; or

where motor vehicle posted speeds exceed 80 km/h (50 mph).
1.2 m (4 ft) against guardrail, curb or other roadside barrier.
1.0 m (3 ft) minimum.

Striping

100 mm (4 in.) solid white edge line.

G.2.4 *Shared Lanes*

Roads are as they exist with no special provisions for bicyclists.
Common on neighborhood streets, low-volume (< 500 ADT) rural roads and highways, and commercial and downtown centers with constrained right-of-way.

G.2.5 *Marginal Improvements*

Add usable riding surface to right of roadway edge stripe by:
paving extra width—as little as 0.6 m (2 ft) extra width is beneficial,
reducing travel lane width,
eliminating unneeded travel lanes, or
eliminating parking on one or both sides.
Bicycle-safe drainage grates.
Bicycle-friendly railroad crossings.
Pavement surfaces free of irregularities.
Bicycle-oriented signs and bicycle-sensitive traffic detection devices.
Roadway maintenance including removal of accumulated dirt, broken glass and other debris.
Reducing and enforcing posted speed limits.

G.3 *Multi-Use Paths*

G.3.1 *Location*

Within highway right-of-way or within an independent right-of-way.
Physically separated from motorized traffic by open space or barrier.
Shortcuts between neighborhoods, parks, schools, and business areas.
Access to areas served only by controlled-access highways where pedestrians and bicycles are prohibited; otherwise, not a substitute for on-road facilities.
Access to areas not well served by roads such as streams, lakes, rivers, greenways, abandoned or active railroad and utility rights of way, school campuses, and planned unit developments and community trail systems.

G.3.2 *Path Design*

Width

Paved shared use:
3.0 to 4.3 m (10 to 14 ft) [2.4 m (8 ft) minimum (rare)];
4.3 m (14 ft) or more with separated bicycle, horse or running lanes.
Unpaved shared use: 2.4 to 3.0 m (8 to 10 ft) [2.4 m (8 ft) minimum].
One-way shared use (rare): 1.8 m (6 ft) [1.5 m (5 ft) minimum].
Paved pedestrian only: 1.8 m (6 ft) [1.5 m (5 ft) minimum].

Shoulders

Width on both sides: 0.6 m (2 ft).
Side slope: 4%.

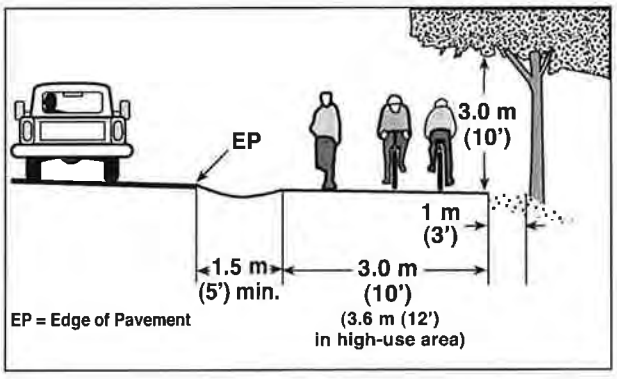
Recovery Area

If side slope greater than 1:4:
1.5 m (5 ft) recovery area at maximum 1:6 slope from edge of path; or barrier.

Clearance

Lateral: 1.8 m (6 ft) [1.5 m (5 ft) minimum].
Vertical 3.0 m (10 ft) [2.5 m (8 ft) minimum, 3.6 m (12 ft) minimum for equestrians].

Standard multi-use path dimensions.



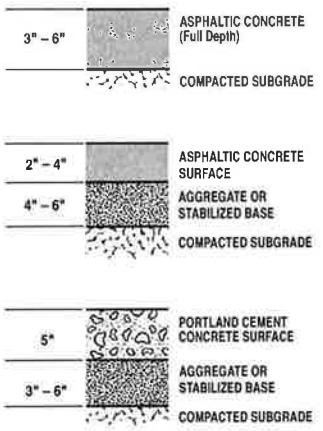
Separation from Roadway

Curbed section: 1.2 m (4 ft) minimum.
Uncurbed section: 1.5 m (5 ft) minimum, at least 0.9 m (3 ft) of which is a buffer zone or landscape strip.

Surface

Stable, firm, and slip-resistant.

Multi-Use Path Pavement Alternatives



Source: Oregon Bicycle and Pedestrian Plan

At unpaved roadway or driveway crossings of paved paths, pave the roadway or driveway at least 3.0 m (10 ft) on each side of crossing.

Unpaved surface: 10 cm (4 in.) layer of granular stone no larger than 8 mm (3/8 in.) in diameter over prepared subgrade of at least 15 cm (6 in.) of crushed gravel (top layer) and 20 cm (8 in.) of gravel (bottom layer), roller compacted.

Grade

5% for up to 240 m (800 ft).
8% for up to 90 m (300 ft).
11% or more for up to 15 m (50 ft).
Running grade over 8.33% less than 30% of the total path length.

Cross Slope

Slopping in one direction instead of crowning preferred.
Paved: 2% maximum.
Unpaved: 5% maximum.
Superelevation: 2% maximum.

Summary of Surface Materials for Multi-Use Paths

Surface Material	Firmness	Stability	Slip Resistance (dry)
Asphalt	firm	stable	slip resistant
Concrete	firm	stable	slip resistant*
Soil with Stabilizer	firm	stable	Slip resistant
Soil with High Organic Content	soft	unstable	Not slip resistant
Crushed rock (3/4" minus) with Stabilizer	firm	Stable	Slip resistant
Crushed Rock w/o Stabilizer	firm	stable	Not slip resistant
Wood Planks	firm	stable	Slip resistant
Engineered Wood Fibers – that comply with ASTM F1951	Moderately firm	Moderately stable	Not slip resistant
Grass or Vegetative Ground Cover	Moderately firm	Moderately stable	Not slip resistant
Engineered Wood Fibers that do not comply with ASTM F1951	soft	unstable	Not slip resistant
Wood Chips (bark, cedar, generic)	Moderately firm to soft	Moderately stable to unstable	Not slip resistant
Pea Stone or 1-1/2" minus Aggregate	soft	unstable	Not slip resistant
Sand	soft	unstable	Not slip resistant

Source: Adapted from Federal Highway Administration Designing Sidewalks and Trails for Access, Part II, Best Practices Design Guide.

Design Speed

Paved: 30 km/h (20 mph); 50 km/h (30 mph) for downgrades over 4% for 245 m (800 ft).
Unpaved: 25 km/h (15 mph).

G.3.3 *Barriers*

Purpose: Safety and security, protection from falls, screening of adjacent uses, separation from adjacent roadway or other uses, vertical or grade separation, or enhanced aesthetics.
Need: Protective barrier use based on clear area, side slope steepness and material, and type of hazard.
Types: Fences, walls, vegetation, guardrails, jersey barrier, and railing.
Retaining walls no closer than 0.6 m (2 ft) from path edge.
Railings should be at least 1.1 m (3.5 ft) high.

G.3.4 *Crossings*

Marking: Either none, crosswalk stripes, or dotted guidelines.
At-grade:
Mid-block: Not near intersection, angled 75 degrees maximum.
Parallel path: Near intersection
Complex intersection: highly skewed or multiple-leg, often with two-step crossing.
Refuge island:
Necessary with marked crossing of more than 2 lanes.
3.7 m (12 ft) [2.4 m (8 ft) minimum] wide.
Cut-through angled 30 degrees towards oncoming traffic.

G.3.5 *Bridges*

Width: approach width plus 0.6 m (2 ft) on each side.
Vertical clearance: same as for path.
Loading: H10 or a 10-ton load for a two-axle vehicle.
Approach railing: Extend 4.5 m (15 ft) from end of bridge and flared.
Decking: Transverse (90 degrees to the direction of travel).

G.4 *Signs, Pavement Markings And Signals*

G.4.1 *General Application*

Warranted by use and need per latest Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

All signs and markings retroreflective or illuminated.

G.4.2 *Pedestrian Facilities*

Signs

Intended for motorists: warning signs for pedestrian crossings.

Intended for pedestrians: regulatory signs for pedestrian signals; special wayfinding signs.

Intended for all users: most guide signs.

Markings

Crosswalks, detectable warnings and vertical markers per Oregon Bicycle and Pedestrian Plan.

Signals

Timing:

Adult pedestrian clearance interval of 1.2 m/s (4 fps) measured from the curb-to-curb or edge-of-roadway to edge-of-roadway distance.

Child or elderly pedestrian clearance interval of 0.9 m/s (3 fps) measured from the curb-to-curb or edge-of-roadway to edge-of-roadway distance.

Options to address slower walking speeds include:

increase crossing time,

decrease crossing distance,

subdivide crossing distance (medians or refuge islands, with separate pedestrian controls), or

provide a pedestrian-actuated control that permits extended-time crossing on demand.

Midblock Pedestrian Activated:

Based on MUTCD Warrants 4 (Pedestrian Volume), 5 (School Crossing), or 7 (Crash Experience).

Note if any potential users not reflected in the data because the lack of a signal discourages them from crossing.

Accessibility:

Refer to Section 4G.06 of the MUTCD and U.S. Access Board guidelines.

G.4.3 *On-Road Bicycle Facilities*

Most signs, pavement markings, signals, and delineators for motorists apply to bicycles.

Part 9 of the MUTCD covers specific traffic controls for bicycles.