



FINAL REPORT
ONTARIO DOWNTOWN REVITALIZATION PLAN
JUNE 26, 2009

PREPARED FOR THE CITY OF ONTARIO BY
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IN ASSOCIATION WITH
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SERA ARCHITECTS

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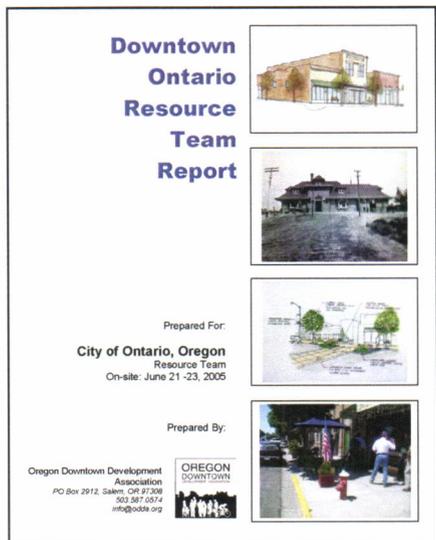
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1. EXECUTIVE SUMMARY

BACKGROUND AND PLANNING PROCESS

The Ontario Downtown Revitalization Plan is part of a multi-phase effort to strengthen Ontario's downtown. The goal of this project is to further enhance the area's identity and vitality, build on a strong set of existing "bones" and create an even more attractive and unique area that will continue to draw people to the area, strengthening the downtown and community as a whole. The overall goals of the planning process are to:

- Enhance the economic vitality of the downtown.
- Solidify an identity and vision for downtown.
- Determine appropriate land uses for specific sites within the downtown.
- Analyze the transportation impacts of land use alternatives or potential development projects in the downtown.
- Identify preliminary plans for streetscapes and other improvements in the downtown that will further the objectives above.
- Improve connections between local schools and campuses and the downtown, including new or enhanced bicycle and pedestrian facilities.



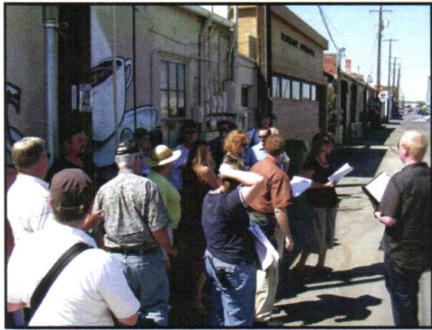
This report describes proposed downtown and other projects identified in the Ontario Downtown Revitalization Planning process. It is the result of a collaborative process that involved City and state staff, the project's Technical Advisory Committee and other Ontario business owners and residents. A multi-disciplinary consulting team supported the planning efforts. It was led by Cogan Owens Cogan, LLC (COC) with support from Angelo Planning Group, Alta Planning+Design, Kittelson & Associates, Johnson Reid (formerly Johnson Gardner) and SERA Architects.

The process builds on several previous planning efforts, including the following:

- Ontario Downtown Plan prepared in the 1970s.
- 2005 Oregon Downtown Development Association's Downtown Ontario Resource Team Report.
- Parks and Recreation Master Plan prepared in 2005.
- 2006 and 2007 Transportation and Growth Management (TGM) Downtown and School Siting Workshop and Recommendations conducted by Crandall Arambula.
- Update of the City's Transportation System Plan (TSP) in 2006.
- Region Transit Program prepared in conjunction with the State of Idaho.
- Economic Analysis Report and Urbanization Report completed in 2007.

1. EXECUTIVE SUMMARY

The planning process has been a collaborative effort with close coordination between the consulting team, project management team, TAC and citizens throughout the process, and included the following tasks and activities:



- Document conditions, opportunities and constraints downtown.
- Suggest possible improvements and alternatives.
- Analyze the impacts of potential improvements.
- Identify strategies to implement proposed improvement projects.
- Engage the community in reviewing and shaping the project's findings and recommendations throughout the planning process through meetings with the project management team (City and state agency staff), technical advisory committee (business owners, elected and appointed officials and others) and other Ontario business owners and residents.
- Adopt the Downtown Revitalization Plan and proposed amendments.

PROPOSED PRIORITY DOWNTOWN IMPROVEMENT PROJECTS

This plan focuses in large part on a targeted list of priority improvement projects for the downtown area. These recommended projects provide an innovative blend of land use planning, urban design, and transportation planning to encourage a vibrant downtown and promote both transportation-efficient land uses and multi-modal choice within Downtown Ontario. They include the following projects which are described in Chapter 4.



Gateway improvements at and near the intersection of Oregon Street and Idaho Avenue. Key aspects of this project include:

- Pedestrian improvements, including tighter curb radii that shorten crossing distances and calm vehicular turning movements, crosswalks with special paving and potential installation of public art, monuments, or entrance signage, or prominent architectural features or facade improvements.
- Creation of a boulevard along the first block of S Oregon Street with a landscaped median and an enhanced streetscape on either side of the street including street trees, human-scale street lights, benches, trash receptacles, bicycle parking and other amenities.
- Streetscape improvements along the first block of SW 1st Street south of Idaho Avenue and signage to encourage drivers to use this alternative entrance to the downtown from Idaho Avenue.
- Angled parking along S Oregon Street, as well as selected cross streets.



Streetscape and storefront improvements along Oregon Street and adjacent east-west streets. Key aspects of this project include:

- Street trees, awnings and possibly planter boxes or other landscaping
- Street furniture, including benches, trash receptacles and possibly drinking fountains

- Pedestrian-scaled lighting
- Bicycle parking and wayfinding signage
- Crosswalks with special paving at intersections and selected mid-block crossings

New Downtown Park located on the southwest corner of S Oregon Street and 1st Avenue. Potential aspects of this project include:

- Park Promenade, lined by a double row of trees
- Memorial element(s) such as traditional statuary or monuments, to symbolic art, to a memorial tree
- Entry feature, such as a fountain, landscape element, or memorial feature
- Splash fountain for kids
- Open space covering a sizable portion if not a majority of the park
- Amphitheater for watching summer movies, concerts or other events



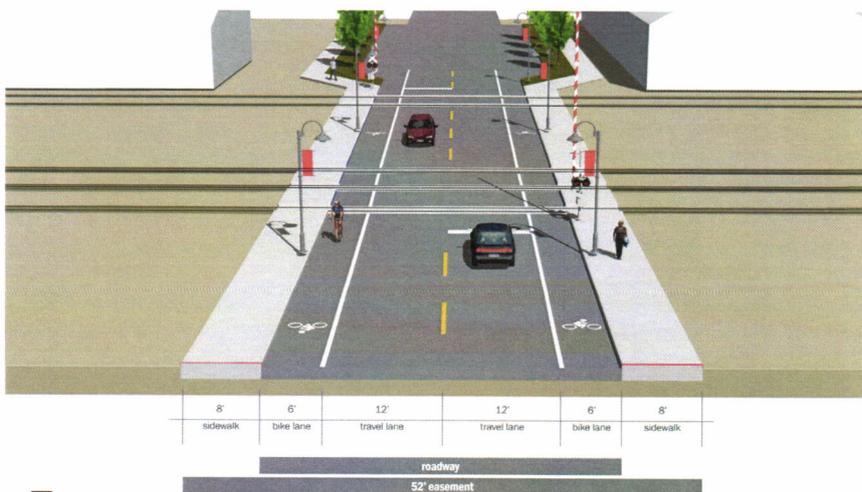
Depot Row mixed use development adjacent to the historic Depot building on SE 3rd Avenue. Key aspects of this project include:

- New plaza as a forecourt for the Depot, with additional greenspace flanking the plaza to the north and south
- New mixed use housing and/or commercial uses on either side of 3rd Avenue between the alley and Depot Lane with parking located behind or under buildings.
- Streetscape improvements along SE 3rd Avenue and Depot Lane similar to those described for Oregon Street



Improved railroad crossing along SE 5th Avenue between SE 1st Street and S Oregon Street. Key aspects of this project include:

- New sidewalks on both sides of 5th Avenue – lined with street trees both east and west of the railroad right-of-way



4 SE 5th Avenue railroad crossing street section (looking East)

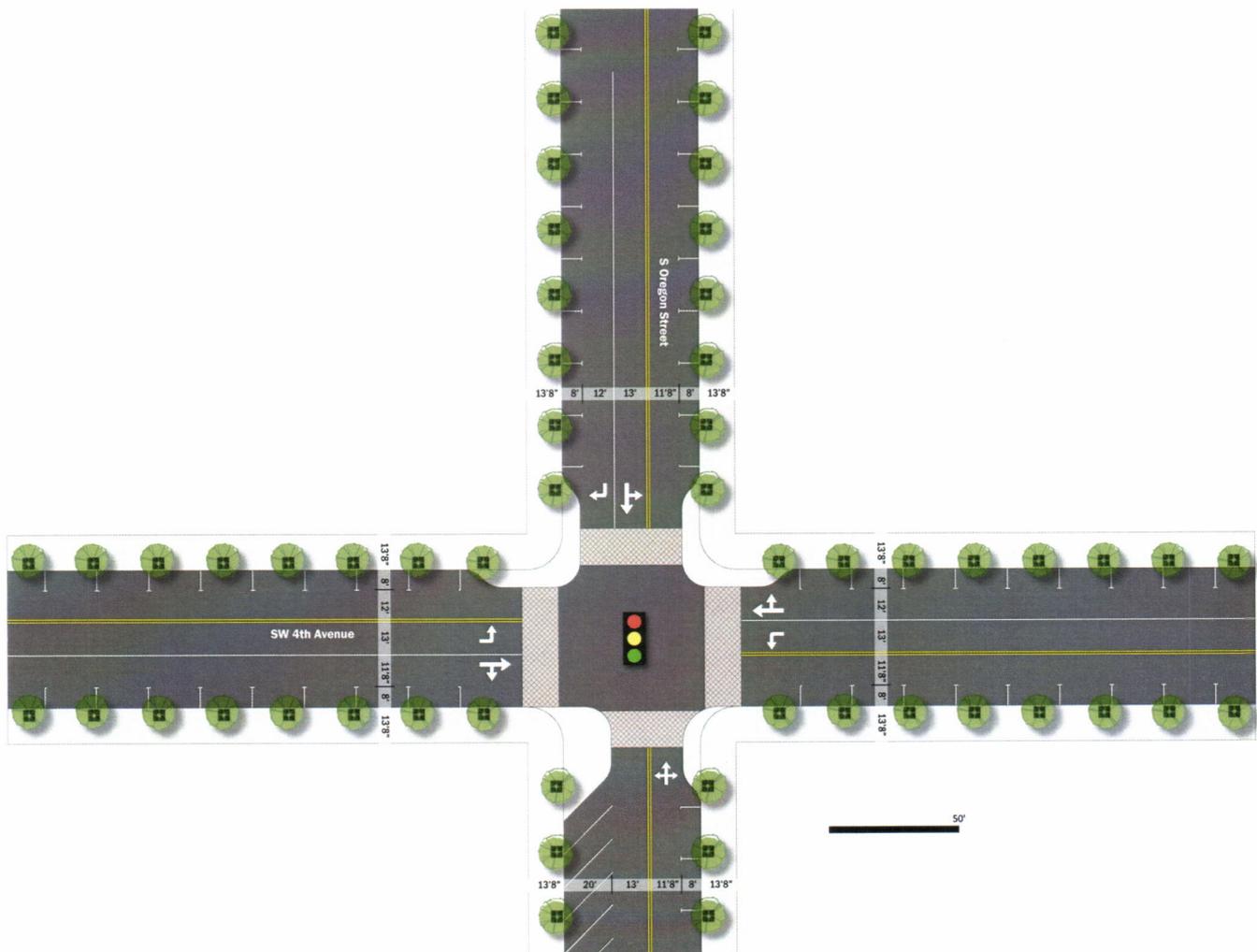
1. EXECUTIVE SUMMARY

- Bike lanes on both sides of the street
- Concrete track crossings to improve safety for cyclists

Two new traffic circulation improvements also are identified as priority projects:

- New traffic signal at the intersection of SW 4th Avenue and Oregon Street to accommodate future traffic volumes and improve traffic circulation and efficiency at this intersection and along Oregon Street
- Restriping at the intersection of East Idaho Avenue/SE 2nd Street intersection; to better accommodate existing and future traffic volumes the northbound SE 2nd Street approach should be re-striped to include an exclusive left-turn lane and a shared through/right-turn lane

A number of other downtown improvements projects were identified in this and other previous planning projects and are described in Chapter 4 of this report.



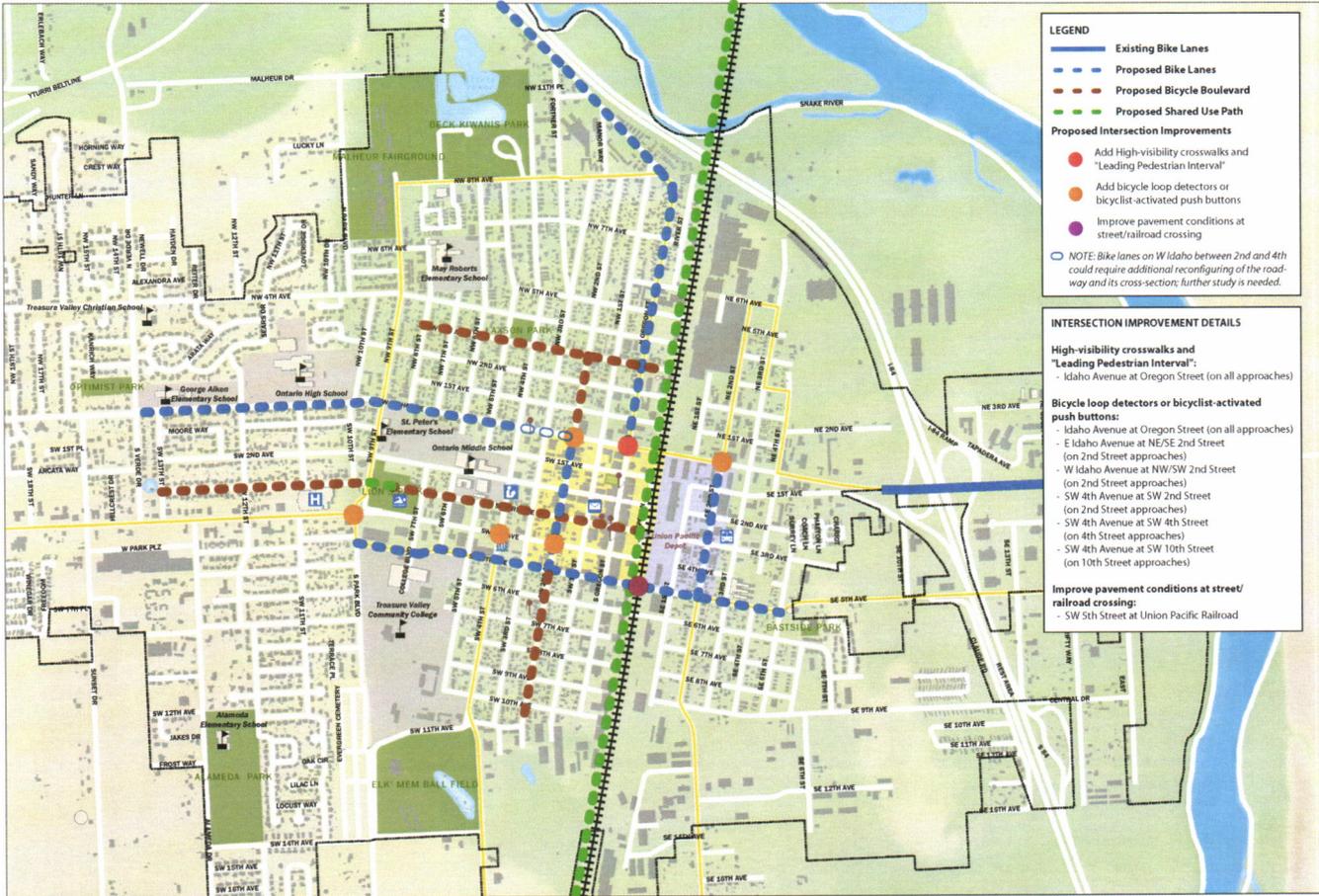
PROPOSED BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS

A second important objective of this project was to identifying strategies to enhance bicycle and pedestrian routes between local schools and campuses and the downtown. A number of specific bicycle and pedestrian improvements are recommended to meet these objectives, including the following types of improvements:

- Bicycle lanes (striped) in the following locations:
 - North Oregon Street, north of Idaho Avenue
 - West Idaho Avenue between Verde and Oregon Streets
 - SW 5th Avenue between SW Park Blvd and SE 5th Street
 - SE 2nd Avenue between SE 5th Avenue and Idaho Avenue
 - Bicycle Boulevards in the following locations:
 - NW 3rd Avenue between NW 8th Street and the Union Pacific Railroad right-of-way
 - SW 3rd Avenue between NW 13th Street and the Union Pacific Railroad right-of-way
 - NW 2nd Street between NW 3rd Avenue and Idaho Avenue
 - SW 2nd Street between SW 5th Avenue and SW 10th Avenue
- Multi-purpose bicycle path paralleling the Union Pacific Railroad right-of-way (see Other Potential Downtown Improvement Projects, page 62)
- A high-visibility cross-walk and a “leading pedestrian interval” to the signalized intersection of Idaho Avenue at Oregon Street (see Gateway Improvement described earlier in this chapter)
- Improvements to the railroad crossing at SE 5th Avenue (see previous section)
- Bicycle loop detectors or bicyclist-activated push buttons on the minor street approaches at the following intersections:
 - Idaho Avenue at Oregon Street (on all approaches)
 - E Idaho Avenue at NE/SE 2nd Street (on 2nd Street approaches)
 - SW 4th Avenue at SW 2nd Street (on 2nd Street approaches)
 - SW 4th Avenue at SW 4th Street (on 4th Street approaches)
 - SW 4th Avenue at SW 10th Street (on 10th Street approaches)
 - W Idaho Avenue at SW 2nd Street (on 2nd Street approaches)
- Americans with Disability Act (ADA) upgrades (e.g., construct/reconstruct curb ramps with detectable warning strips as necessary), at all intersections throughout the study area as needed



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Proposed Bicycle/Pedestrian Improvements

Ontario Downtown Revitalization Plan 18 February 2009



PRIORITIES

Following is a preliminary set of priorities for the projects described above. These priorities and potential phasing of specific projects are described in more detail in Chapter 4 of this report.

High Priority projects include:

Downtown Projects

- Oregon Street Streetscape
- Oregon/Idaho Gateway
- 5th Avenue Railroad Crossing

Bicycle/Pedestrian Improvements

- Bicycle lanes on Idaho Street and SW/SE 5th Avenue
- Bicycle boulevard on SW 3rd Avenue



Medium Priority projects include:

Downtown Projects

- New Downtown City Park

Bicycle/Pedestrian Improvements

- Bicycle lanes on SW 2nd Street, SE 2nd Street and N Oregon Street
- Bicycle boulevards on NW 3rd Avenue and 2nd Street
- Bicycle and pedestrian activated signals



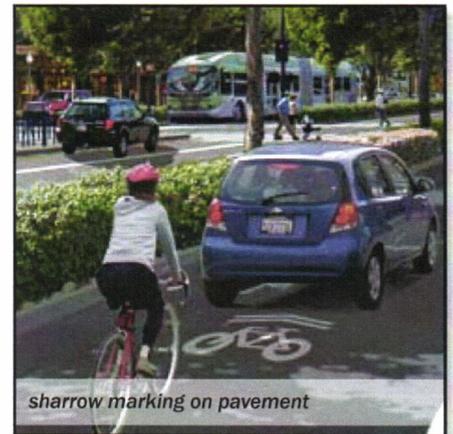
Lower Priority projects include:

Downtown Projects

- Depot Row
- Oregon/4th Traffic Signal

Bicycle/Pedestrian Improvements

- Union Pacific Multi-Purpose Trail



COST ESTIMATES AND FUNDING SOURCES

Preliminary rough cost estimates have been prepared for the priority downtown improvement projects and bicycle and pedestrian improvements described above.

Costs are based on a combination of unit cost estimates for similar projects designed by Kittelson & Associates and Alta Planning+Design and/or experience with similar projects in other jurisdictions. In some cases, a range of estimates is provided where costs could vary significantly based on a variety of factors.

For downtown improvement projects, costs have been estimated for the types of activities listed below. For bicycle and pedestrian projects, costs include overall capital costs, and those for mobilization and traffic control, contingency, design, engineering and construction management.

- Excavation and embankment (cut and fill)
- Paving, including new pavement, pavement rehabilitation, curb and sidewalk construction and new sidewalks
- Storm drainage improvements
- Landscaping
- Mobilization and traffic control
- Design and construction management
- Contingency

No right-of-way acquisition is anticipated for any of these projects. At this time, this report does not include an estimate of land acquisition costs for the park project but a subsequent draft of the report can include it, pending assistance from the City. Other assumptions are described in detail in Chapter 5. Cost estimates are listed in the following two tables.

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TABLE 1. PLANNING LEVEL COST ESTIMATES FOR DOWNTOWN IMPROVEMENT PROJECTS

Item	Capital Construction Costs	Mobilization and Traffic Control	Contingencies	Architectural/Engineering and Construction Management	Estimated Total Cost
Oregon/4th Traffic Signal	\$300,000	\$60,000	\$72,000	\$108,000	\$540,000
Oregon/Idaho Gateway	\$229,882	\$45,976	\$55,172	\$82,758	\$413,788
Oregon Street Streetscape	\$366,442	\$73,288	\$87,946	\$131,919	\$659,596
5th Avenue Railroad Crossing	\$248,744	\$49,749	\$59,699	\$89,548	\$447,739
Depot Lane	\$339,715	\$67,943	\$81,531	\$122,297	\$611,486
New Downtown Park	--	--	--		\$150,000 - \$850,000

TABLE 2. PLANNING LEVEL COST ESTIMATES FOR BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS

Project/Segment	Estimated Capital Construction Cost	Mobilization, traffic control	Contingencies	Design, Engineering, Construction Management	Estimated Total Cost
Bicycle Lanes					
W Idaho Avenue - S Verde Drive to NW 2nd Street	\$21,200	\$4,240	\$5,088	\$7,632	\$38,160
SW/SE 5th Avenue - SW Park Boulevard to SE 5th Street	\$20,000	\$4,000	\$4,800	\$7,200	\$36,000
N Oregon Street - Idaho Avenue to NW 8th Avenue	\$12,900	\$2,580	\$3,096	\$4,644	\$23,220
SE 2nd Avenue - SE 5th Avenue to E Idaho Avenue	\$6,100	\$1,220	\$1,464	\$2,196	\$10,980
Bicycle Boulevards					
NW/NE 3rd Avenue - NW 8th Street to future path along RR	\$3,500	\$700	\$840	\$1,260	\$6,300
SW/SE 3rd Avenue • SW 13th Street to Depot Lane • shared use path segment through Lion's Park	\$75,600	\$15,120	\$18,144	\$27,216	\$136,080
SW/NW 2nd Avenue • SW 10th Avenue to NW 3rd Avenue • Bike lanes (roadway restriping) between SW 5th Ave. and W Idaho	\$7,900	\$1,580	\$1,896	\$2,844	\$14,220
Intersection Improvements					
SW 4th Avenue at SW Park Boulevard	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
SW 4th Avenue at SW 4th Street	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
SW 4th Avenue at SW 2nd Street	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
W Idaho Avenue at 2nd Street	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
W Idaho Avenue at Oregon Street	\$19,600	\$3,920	\$4,704	\$7,056	\$35,280
E Idaho Avenue at 2nd Street	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
Shared Use Path					
Union Pacific Railroad Path - SE 6th Avenue to NE 6th Avenue	\$756,800	\$151,360	\$181,632	\$272,448	\$1,362,240

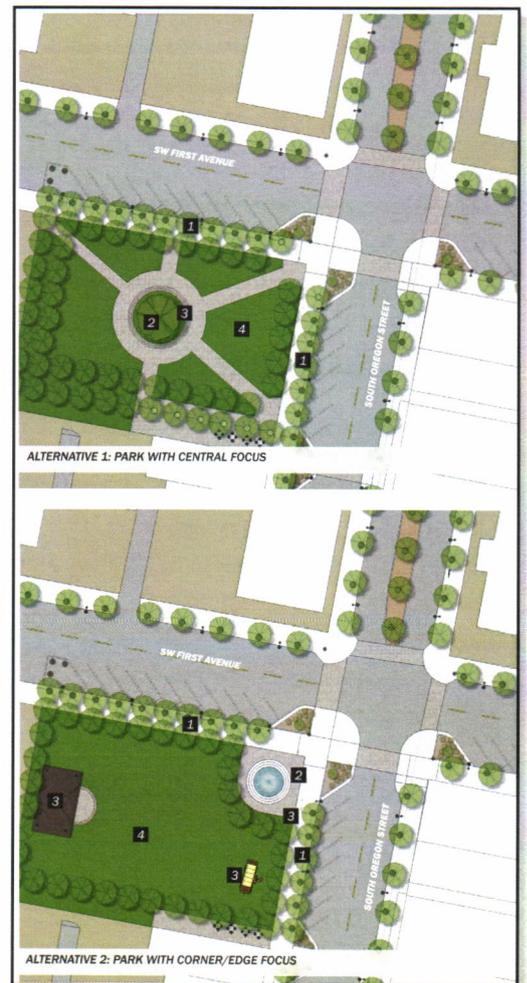
A variety of funding sources could potentially be used to pay for the improvements identified in this plan. They generally include the following types of programs:

- Federal transportation funding programs, including:
 - Surface Transportation Program (STP)
 - Highway Safety Improvement Program
 - Transportation Enhancements
 - Community Development Block Grants (CDBG)
 - Transportation, Community and System Preservation Program
 - Recreational Trails Program
 - Safe Routes to School (SR2S)
 - New Freedom Initiative
 - Rivers, Trails and Conservation Assistance Program (RTCA).
 - Land and Water Conservation Fund

- State transportation funding programs, including:
 - Statewide Transportation Improvement Program (STIP)
 - Oregon Transportation Infrastructure Bank
 - Oregon Revised Statute 366.514
 - Measure 66 Funds – Oregon State Lottery
 - Bicycle and Pedestrian Program Grants

- Local funding mechanisms, including:
 - Local Bond Measures
 - Tax Increment Financing/Urban Renewal Funds
 - System Development Charges (SDCs)/Developer Impact Fees
 - Street User Fees
 - General Fund Revenues
 - Local Improvement Districts (LIDs).
 - Business Improvement Districts
 - Other Local Sources

- Other or future funding measures, including:
 - American Greenways Program
 - Bikes Belong Grant Program
 - 2010 Campaign for Active Transportation
 - Complete Streets Act of 2008



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The programs and their applicability to different types of improvement projects are described in more detail in Chapter 5. In most cases, the level of funding available for projects identified in this plan is not known, particularly for many of the federal and state funding programs identified above. In addition, much more work would need to be done (beyond the scope of this planning effort) to identify potential funding available from local programs or initiatives such as System Development Charges, Tax Increment Financing, Bond Measures or Local Improvement Districts. However, Chapter 5 includes examples of the level of funding used in other communities in Oregon to pay for similar types of transportation improvement projects.

IMPLEMENTATION STRATEGIES

A variety of strategies will be needed to implement the projects described in this Plan. They will include the following types of actions which are described in more detail in Chapter 5 of this report.

- **Funding and phasing.** The City will need to confirm and refine phasing recommendations in this plan, further investigate and implement specific funding tools and annually update City budgets and capital improvement plans to pay for and construct specific projects or project elements.
- **Local partnerships.** The City will need to work closely with local business owners, organizations and residents to help cover or reduce the costs associated with downtown, bicycle and pedestrian improvement projects and ensure that residents continue to support their implementation. Specific activities may include establishing local funding mechanisms; obtaining donations of labor, materials or land; working with the private sector to partner on redevelopment projects; and provide incentives to encourage business and property owners to implement voluntary actions such as storefront improvements.
- **Operation and maintenance.** The City will need to develop and implement plans to maintain and operate new or enhanced facilities, including roadway, bicycle/pedestrian and streetscape improvements. The city will have primary responsibility for many of these activities but may work with property or business owners to maintain streetscape amenities and improvements such as street trees, other plantings and trash receptacles.
- **Access management.** The city will need to manage access to specific businesses or properties to balance the needs of multiple modes of transportation to access land development while maintaining the safety, efficiency, and intended functionality of the surrounding roadway network. In general, the city already has adequate code requirements to achieve these objectives but will need to continue to implement them consistently.
- **Freight mobility.** Ensuring adequate mobility for freight vehicles within the downtown area is important to supporting local businesses and to avoiding conflict between freight vehicles, automobiles, bicyclist and pedestrians. To help meet this objective, it is recommended that truck traffic and other forms of undesirable through traffic use the SW 2nd Street corridor when traveling east-west through the City between OR 201 and I-84. This can be accomplished through enhanced wayfinding and route signage along Idaho Avenue and SW 4th Avenue.
- **Code and Comprehensive Plan amendments.** A variety of Comprehensive Plan and Zoning Ordinance amendments are recommended to implement many of the improvements and land use planning objectives identified in this plan. They are summarized in Chapter 5 of this report and will be described in more detail in other project memoranda. The City also will need to update its Capital Improvement Plan and annual budgets to incorporate priorities and cost estimates identified in this Plan.

2. INTRODUCTION AND OVERVIEW

The Ontario Downtown Revitalization Plan is part of a multi-phase effort to strengthen Ontario's downtown. It recognizes that a number of activities and developments in the last ten years have drawn travelers and customers away from Ontario's Main Street (Oregon Street) and core downtown area. These have included closure of much of the Ontario Shopping Mall, development of new commercial areas in east Ontario adjacent to Highway 84, and increasing rail use and bifurcation of east and west areas of Downtown Ontario. At the same time, the downtown continues to support a strong collection of local businesses and provides an attractive, pedestrian friendly shopping environment for visitors and residents. The goal of this project is to further enhance the area's identity and vitality, build on a strong set of "bones" and create an even more attractive and unique area that will continue to draw people to the area.

This report describes proposed downtown and other projects identified in the Ontario Downtown Revitalization Planning process. It is the result of a collaborative process that involved Vity and state staff, the project's Technical Advisory Committee and other Ontario business owners and residents. A multi-disciplinary consulting team supported the planning efforts. It was led by Cogan Owens Cogan, LLC with support from Angelo Planning Group, Alta Planning+Design, Kittelson & Associates, Johnson Reid (formerly Johnson Gardner) and SERA Architects. The overall goals of the planning process were to:

- Enhance the economic vitality of the downtown.
- Solidify an identity and vision for downtown.
- Determine appropriate land uses for specific sites within the downtown.
- Analyze the transportation impacts of land use alternatives or potential development projects in the downtown.
- Identify preliminary plans for streetscapes and other improvements in the downtown that will further the objectives above.
- Improve connections between local schools and campuses and the downtown, including new or enhanced bicycle and pedestrian facilities.

The report describes the following:

- Project overview and objectives.
- Review of existing conditions related to land use, the economy, transportation and other aspects of the study area.
- Recommended priority streetscape and other improvement projects to further the project goals.
- Other potential future improvement projects identified in this and previous studies.
- Bicycle and pedestrian improvement projects to improve connections between schools and campuses and the downtown area.
- Funding and implementation strategies, including cost estimates, potential funding sources, recommended phasing of specific projects and other strategies to implement the Plan's recommendations.



PREVIOUS PLANNING EFFORTS AND CURRENT GOALS AND OBJECTIVES

The process builds on several previous planning efforts, including the following:

- Ontario Downtown Plan prepared in the 1970s that identified a variety of streetscape and other improvements for the downtown, focused along Oregon Street. A number of these improvements were made and many others are similar to those identified in subsequent planning efforts.
- 2005 Oregon Downtown Development Association's Downtown Ontario Resource Team Report which identified a variety of streetscape and other public facility improvements as well as opportunities for infill and redevelopment.

2. INTRODUCTION AND OVERVIEW

- Parks and Recreation Master Plan prepared in 2005 that identified a Greenbelt Trail around the community and a Safe School Route.
- 2006 and 2007 Transportation and Growth Management (TGM) Downtown and School Siting Workshop and Recommendations conducted by Crandall Arambula, which presented a downtown depot square concept as well as a campus circulation framework plan to integrate school destinations to downtown and the City as a whole.
- Update of the City's Transportation System Plan (TSP) in 2006.
- Regional Transit Program prepared and implemented in conjunction with the State of Idaho. The system, implemented in 2008/2009, established a public transit route system to increase access to shopping and other services, and connect the City with communities in Malheur and Payette Counties.
- Economic Analysis Report and Urbanization Report completed in 2007 by ECONorthwest which assessed the potential need to expand the City's Urban Growth Area and summarized demographic, economic and land supply conditions and needs in Ontario.

The current planning process represents an opportunity to review these previous efforts, confirm community support for specific improvement projects and identify refinements to them where appropriate, as well as more specific improvement projects in the downtown and strategies for implementing them. In addition to the primary project objectives described on page 1, this Plan is expected to further a number of other community planning goals.

- Firmly establish the Downtown District as the unique and notable heart of the community, and make getting there and back efficient, simple and safe.
- Provide for compact, transportation efficient commercial/retail and residential development.
- Better connect the community to the downtown, improve the balance of transportation modes in the City and ensure that existing and new development is accessible to public transit, pedestrians, cyclists and drivers.
- Enhance the appearance of the commercial area, including both public areas (the "streetscape") and private development (building facades and parking areas).
- Identify specific bike/pedestrian connections to outlying areas of the community.
- Prepare preliminary drawings for downtown streetscape and other improvements.
- Identify a retail strategy to strengthen and improve the livability and economic viability of the business districts.
- Identify strategies to reconnect the east and west historic downtown.
- Prepare a funding and implementation plan which includes cost estimates, potential funding sources, recommended phasing of specific projects and other strategies to achieve the Plan's recommendations.
- Adopt amendments to the City's Comprehensive Land Use Plan and Zoning Ordinance that will allow the city and property owners to achieve development and land use objectives.

PLANNING PROCESS AND OUTCOMES

Study Area

There are two primary study areas for this project – a downtown planning study area and a larger study area for identifying proposed bicycle and pedestrian improvements to better connect residents and schools to the downtown. The downtown area is divided into two districts: West Downtown and East Downtown. The downtown area is approximately defined by the boundaries of SW 3rd Street to the west, SE 2nd Street to the east, EW Idaho Avenue to the north, and SW/SE 5th Avenue to the south. The

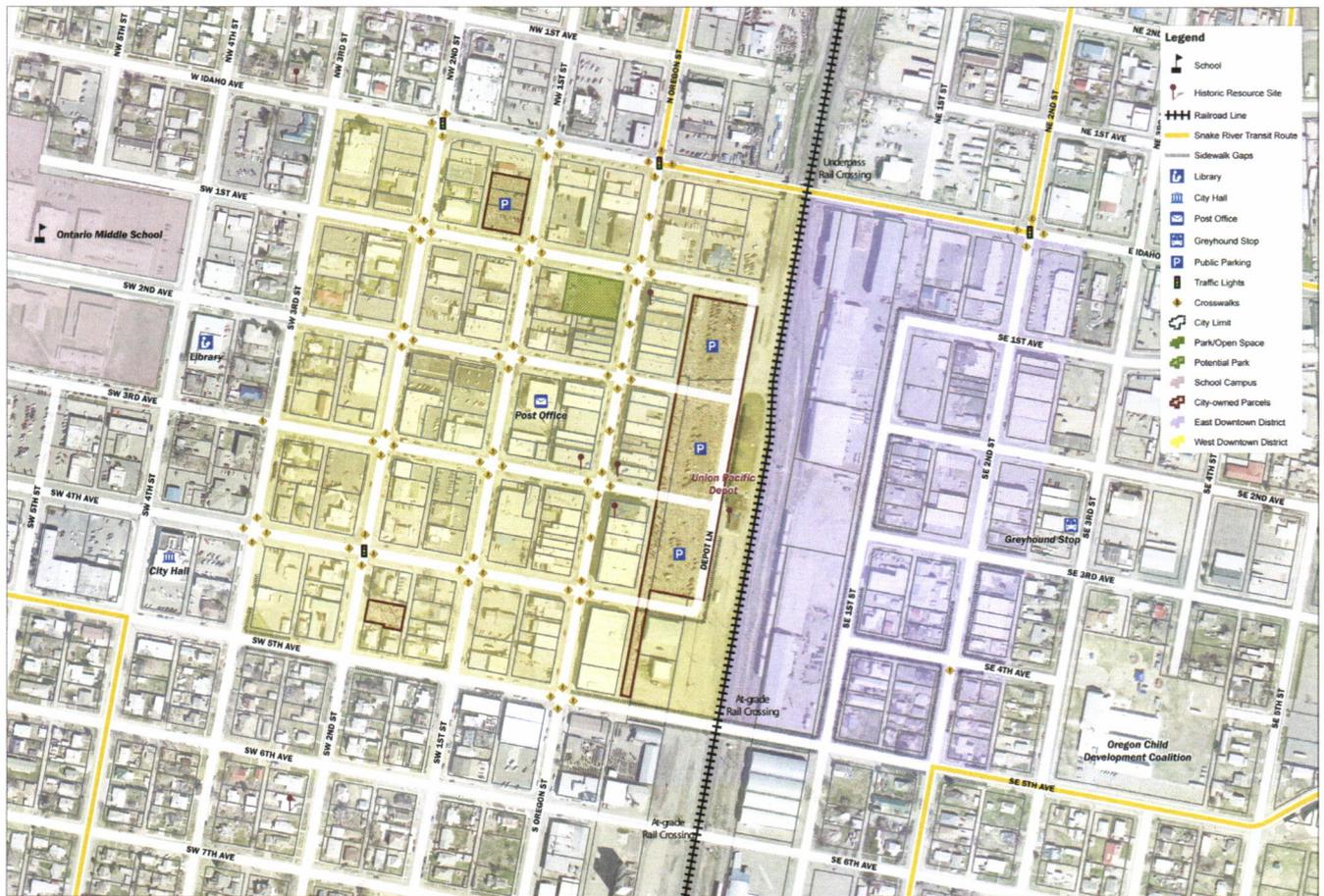


railroad line provides the separating line between the East and West districts. The downtown study area is graphically displayed in Figure 1. The larger study area for the bicycle and pedestrian improvements component is shown in Figure 2.

Planning Activities

The Downtown Revitalization planning process included the following tasks and activities:

- **Document conditions, opportunities and constraints** downtown, including those related to land use, street design, pedestrian and bicycle connectivity, traffic levels and circulation, economic and demographic factors and current regulatory requirements.
- **Suggest possible improvements and alternatives**, including streetscape improvements, other public facility projects, redevelopment opportunities and potential strategies to enhance bicycle and pedestrian connections between downtown and the community.
- **Analyze the impacts of potential improvements**, including effects on traffic levels and the need for additional transportation system improvements, consistency with project objectives, costs and impact on the economic conditions.
- **Identify strategies to implement proposed improvement projects**, including funding sources, public-private partnerships, maintenance and operational strategies, access management activities and Zoning Ordinance, Capital Improvement Plan and Comprehensive Plan amendments.



Downtown Ontario Base Map
Ontario Downtown Revitalization Plan 31 July 2008

Figure 1

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

This section of the report summarizes conditions, opportunities and constraints related to the following:

Existing Conditions

- Economic and Demographic factors
- Bicycle & Pedestrian System
- Roadway System
- Rail Line
- Traffic Conditions
 - Existing Traffic Conditions
 - Future Projected Conditions
 - Safety Issues

Opportunities & Constraints

- Economic and business opportunities
- Bicycle and Pedestrian System Evaluation
- Streetscape
- Transportation
- Redevelopment
- Summary of Site-Specific Opportunities and Constraints

EXISTING AND FUTURE CONDITIONS

ECONOMIC AND DEMOGRAPHIC CONDITIONS

The economic climate in Downtown Ontario is directly linked to the overall economic picture in Ontario, Malheur County, and beyond. However, the Downtown also fills an essential and unique niche in the retail and commercial service landscape in the city.

Two valuable studies have been recently completed which provide analysis of Ontario's current economic climate. The "Ontario Urbanization Study," completed in 2007 (ECONorthwest) provides an assessment of population, housing, employment, and land needs for the next 20 and 50 years. This report includes a detailed Economic Opportunities Analysis and assessment of commercial land needs. In 2005, a "Downtown Ontario Resource Team Report" was completed (Oregon Downtown Development Association). This report included an assessment of market conditions and business mix in the Downtown. These two reports inform the analysis presented below and are referred to in places.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Demographic Characteristics

The Ontario Urbanization Study projects steady population and household growth into the future. Ontario lies in the westward path of growth from the Boise/Nampa region, and is the key central employment and commercial hub in Malheur County. It is larger than the nearest cities on the Idaho side of the border and offers a sales-tax advantage for residents on that side.

TABLE 3: ONTARIO DEMOGRAPHIC DATA

Household Trends	2000 (Census)	2008 (Est.)	Growth Rate 00-08	2013 (Proj.)	Growth Rate 08-13
Population	10,985	11,137	0.2%	11,939	1.4%
Households	4,084	4,100	0.0%	4,395	1.4%
Families	2,633	2,649	0.1%	2,840	1.4%
Housing Units	4,436	4,533	0.3%	4,859	1.4%
Household Size	2.63	2.64	0.1%	2.66	0.1%

Sources: Claritas, ECONorthwest, Johnson Reid, LLC

The above table presents market research data showing that Ontario has had relatively slow growth in recent years measured in both the number of households and overall population. The projection looking five years into the future is based on the projected annual growth rate of 1.4% from the Urbanization Study.

Overall this projected level of growth is somewhat low compared to the State of Oregon average, or the Boise/Nampa region to the east. However, steady growth is projected, bringing new households and customers to the Ontario area.

Ontario residents' income levels tend to be lower than the State average and the Boise region, as one would expect from a city of this size in a largely rural county. Income has grown at a modest rate since 2000, and this trend is anticipated to continue.

TABLE 4: ONTARIO INCOME LEVELS

Income Trends	2000 (Census)	2008 (Est.)	Growth Rate 00-08	2013 (Proj.)	Growth Rate 08-13
Per Capita (\$)	\$14,873	\$16,937	1.6%	\$18,637	1.9%
Median HH (\$)	\$29,299	\$33,959	1.9%	\$37,685	2.1%
Average HH (\$)	\$38,615	\$45,185	2.0%	\$50,162	2.1%

Sources: Claritas, ECONorthwest, Johnson Reid, LLC

Income levels support significant retail and commercial service spending. Businesses in Ontario attract local, county and Idaho shoppers. Local retail spending levels will be discussed in more detail below.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Economic Characteristics

The following table presents employment trends in Malheur County over a five-year period. In general, the Oregon Employment Department reports slight growth, with some industries growing as others have lost some employment. Retail, Transportation/Warehousing/Utilities, Professional Services, and Hospitality have all seen growth. The Manufacturing and Information sectors have experienced substantial declines.

TABLE 5: MALHEUR COUNTY EMPLOYMENT TRENDS

Industry	2002		2007		5-Year Change
	Employment	% Share	Employment	% Share	
TOTAL NONFARM EMPLOYMENT	11,970	100%	11,990	100%	0.2%
Natural Resource/Construction	350	3%	350	3%	0.0%
Manufacturing	1,290	11%	1,140	10%	-11.6%
Wholesale Trade	750	6%	690	6%	-8.0%
Retail Trade	1,900	16%	2,030	17%	6.8%
T.W.U. ¹	350	3%	390	3%	11.4%
Information	120	1%	100	1%	-16.7%
Financial Activities	430	4%	440	4%	2.3%
Professional & Business Services	430	4%	460	4%	7.0%
Educational & Health Services	1,420	12%	1,490	12%	4.9%
Leisure & Hospitality	1,010	8%	1,120	9%	10.9%
Other Services	360	3%	320	3%	-11.1%
Government	3,560	30%	3,460	29%	-2.8%

¹ Transportation/Warehousing/Utilities

Sources: Oregon Employment Department, Johnson Reid, LLC

The sectors that are most relevant to the business climate in Downtown Ontario (retail and commercial services) have experienced overall gains.

The Ontario Urbanization Study projects employment growth of roughly 1.5% over the next 20 years, for a total of almost 4,000 new jobs. This employment growth will help support population growth and the business community in the City.

An analysis of spending by local households offers a snapshot of how much of their retail business is being conducted inside Ontario, and how much outside of the area. This is an indicator of the spending power that new local businesses can hope to tap into.

The following data on household spending is provided by Claritas Inc., a market research data provider. The data describes spending by the households who actually live within three consecutively larger market areas around the Downtown. This household spending is then compared to the overall spending done within these market areas to determine if overall, the spending of local households is going elsewhere, or if the area is in fact attracting even more spending from external households.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

TABLE 6: ANNUAL RETAIL SPENDING – LOCAL HOUSEHOLDS ONLY VS. TOTAL RETAIL SPENDING

Market Area	Demand (Consumer Expenditures)	Supply (Retail Sales)	Supply Surplus	Surplus as % of Local Demand
1 Mile Radius of Downtown Ontario	\$94,498,593	\$320,534,053	-\$226,035,460	-239%
2 Mile Radius	\$263,178,213	\$523,242,096	-\$260,063,883	-99%
3 Mile Radius	\$411,646,779	\$575,363,770	-\$163,716,991	-40%

Sources: Claritas, ECONorthwest, Johnson Reid, LLC

The first column represents all the spending done by households residing in the market area. The second column presents the amount of spending actually done within the market area itself. In all three market areas there is a spending “surplus.” This means that more spending is coming into the area than can be accounted for by local households alone.

While a “supply surplus” may sound like a negative thing for attracting new businesses, in fact it is a positive sign that Ontario serves as the major commercial hub for the surrounding area. A large share of business is coming into the city from the surrounding county and Idaho. This role as the central commercial node is likely to grow stronger as commercial concentrations become more established in Ontario.

(Note that overall spending within a two-mile radius of Downtown is over one half of a billion dollars per year. Smaller cities are sometimes surprised to see the significant spending power that exists in the local area.)

Future Conditions

At the time of this report, the economy is in a period of great uncertainty on a local, state, national and global level. Unemployment is on the rise, while tight credit markets constrain business expansion. A drop in consumer spending is expected to further depress the business atmosphere into 2009 and perhaps beyond.

“Uncertainty” is indeed the key descriptor for the current economic picture, making it difficult to project precisely what will happen to employment, population growth and housing demand in Ontario over the next few years.

However, taking a long term view, it is prudent to assume that economic growth over 10 to 20 years will revert to projected levels. If retail and other businesses experience dramatic negative impacts in the next one to two years from the overall national and regional economy, this should not deter planning for Downtown Ontario’s future as a thriving center of the community in the long run.

PEDESTRIAN FACILITIES

Pedestrian travel is accommodated and enhanced by sidewalks, shared use paths, crosswalks, curb ramps and other infrastructure. Various facility types comprise Downtown Ontario's pedestrian network, the most basic of which are described below.

Sidewalks

The most common type of walkway, sidewalks generally parallel roadways and have a hard, smooth surface (e.g., concrete), with separation from the roadway typically consisting of a curb and/or planter strip.

The presence and condition of sidewalks in Downtown Ontario varies by location. The West Downtown area benefits from a relatively complete sidewalk system with sidewalks on both sides of most streets. Streets lacking sidewalks include portions of SW 3rd Street between SW 2nd and 4th avenues; longer segments of SW 5th Avenue (particularly the south side) between SW 3rd Street and the Union Pacific Railroad; and the east side of Depot Lane near Depot Square. The West Downtown area's sidewalk environment includes a variety of complementary pedestrian facilities such as curb ramps and amenities like street banners, benches and trash receptacles. Sidewalk conditions vary, ranging from relatively smooth surfaces (e.g., along S Oregon Street and nearby side streets), to cracked sidewalks (e.g., along portions of SW 3rd Street). Sidewalk widths range from approximately four feet (e.g., on SE 3rd Avenue west of Depot Lane), to about 13 feet on portions of S Oregon Street.

Sidewalk conditions in the East Downtown area also vary by location. Although sidewalks exist on both sides of E Idaho Avenue and on portions of SE 2nd Street, most streets include sidewalks on one side only (e.g., SE 1st Street north of 2nd Avenue), while other streets lack sidewalks altogether (e.g., SE 1st Street south of SE 2nd Avenue). Similar to the West Downtown area, sidewalk conditions in the East Downtown area range from smooth surfaces to segments experiencing pavement cracking and heaving. Where sidewalks exist, widths range from about four feet (e.g., along SE 3rd Avenue east of SE 1st Street) to about nine feet (e.g., along SE 2nd Street between SE 1st and 2nd avenues).

Shared Use Paths

Downtown Ontario and surrounding areas currently lack shared use paths. These facilities (also referred to as "trails" and "multi use paths") are used by various non-motorized users, including pedestrians, bicyclists, in-line skaters, and runners. Shared use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards.

Although shared use paths currently do not exist in Downtown Ontario, the City's Parks and Recreation Master Plan depicts a proposed "Railroad Trail" along the Union Pacific Railroad. This trail would connect Downtown's Depot Square with the Snake River and other existing and proposed parks beyond the study area.



S Oregon Street includes a relatively complete sidewalk network



3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Intersections

The quality of intersections from a pedestrian perspective varies by location. The following sections describe general intersection conditions in the West and East Downtown areas.

CROSSWALKS

With the exception of SW 5th Avenue, marked crosswalks exist at nearly all intersections in the West Downtown area. Most crosswalks consist of transverse (also called “parallel bar”) markings, while some intersections include higher-visibility longitudinal (also called “ladder-style”) markings. Mid-block crosswalks also exist on the three-block segment of S Oregon Street between SW/SE 3rd and W/E Idaho avenues). Intersections in the East Downtown area do not include marked crosswalks, except for the intersection of E Idaho Avenue at SE 2nd Street.

CURB RAMPS

Curb ramps represent a fundamental element of an accessible public realm. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access. In the West Downtown area, curb ramps exist at intersections along most major streets (e.g., along S Oregon Street and along SW 4th Avenue), with some ramps including detectable warning strips to guide visually-impaired users. A more scattered system of ramps exists along lower-order streets such as SW 3rd Avenue. In several locations, marked crosswalks lead to corners lacking ramps.



Intersection curb ramps greatly enhance travel for mobility-impaired users in the West Downtown area

Most East Downtown area intersections lack curb ramps, partly due to a lack of sidewalks. The absence of this basic infrastructure complicates travel for all pedestrians, particularly for the mobility impaired. The segment of SE 2nd Street between SE 1st and E Idaho avenues represents an exception. Recent adjacent property development included a new sidewalk with curb ramps and detectable warning strips on the street’s east side.

SIGNALIZED CROSSINGS

All signalized intersections in the West and East Downtown areas include pedestrian-actuated signals. Visually-impaired users benefit from audible pedestrian signals at the intersections of Idaho Avenue at Oregon Street, SW 4th Avenue at SW 4th Street, and SW 4th Avenue at SW 2nd Street.

BICYCLE FACILITIES

Several types of “bikeways” exist, as defined by Federal and State bicycle planning and design guides and manuals. Bikeways generally are distinguished as preferential roadways accommodating bicycle travel, with accommodation taking the form of bicycle route designation, bicycle lane striping, or shared use paths to physically separate cyclists from motorists.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Dedicated bicycle facilities (e.g., bike lanes and shared use paths) do not exist in the West and East Downtown study areas. Rather, bicyclists share streets with motorists. Most lower-order streets in Downtown Ontario can be classified as “shared roadways.” Typically the most common type of bikeway, shared roadways accommodate vehicles and bicycles in the same travel lane. The most suitable roadways for shared vehicle/bicycle use are those with lower posted speeds (25 MPH or less) or lower traffic volumes (3,000 Average Daily Traffic or less). Most lower-order streets in Downtown Ontario have posted speeds of 20 to 25 MPH while serving less than 3,000 vehicles per day.

Although bicyclists and drivers can sufficiently share travel lanes on most streets, higher vehicle volumes and speeds on other corridors indicate a potential need for enhanced bicyclist accommodations (e.g., separation from motorists). These streets include W/E Idaho Avenue, S Oregon Street, and SW 4th Avenue. Other potential corridors include SW/SE 5th Avenue, SW 2nd Street, and SE 2nd Street. Improvements to these streets will also enhance connections between schools and the downtown (see more discussion of this issue on page 9). Additional information about specific facility needs is found in the Opportunities and Constraints section of this chapter.

Bike Parking

Bike parking is a critical component of a community’s bikeway network, and can strongly influence one’s decision whether to complete a trip via bicycle. Most of the West Downtown area’s bike parking exists along S Oregon Street, particularly near mid-block crosswalks along the four-block segment between W/E Idaho Avenue and SW/SE 4th Avenue. Bike racks also exist adjacent to several commercial and retail businesses on S Oregon Street, offering convenient parking opportunities for cyclists. Except for a few locations immediately outside the study area, the East Downtown area currently lacks bike parking facilities.

The quality of existing bike parking facilities in the West and East Downtown areas also varies, particularly due to the style of rack chosen and/or placement of the rack. Racks situated immediately adjacent to walls or shrubbery have reduced capacity by limiting user access to one side of the rack only. Some existing racks are also considered substandard because they do not provide sufficient points of contact to support a bicycle at two locations. In other words, they do not allow a bicycle frame and at least one wheel to be locked to the rack without the use of a long bicycle cable or unless the bicycle is mounted over the rack. The Project Team also noted several damaged racks in the West Downtown area. The shortage of quality bicycle racks in high-demand locations such as Downtown typically generates informal bicycle parking activities with cyclists securing their bikes to hand rails, street signs, light poles and other objects.



Bicyclists and motorists currently share the same space on SW/SE 5th Avenue



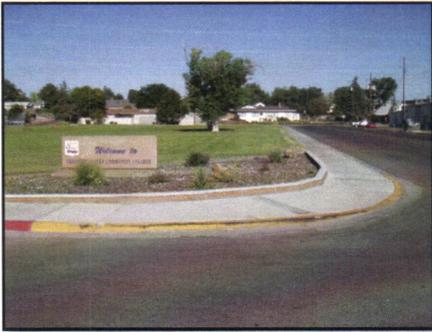
Typical bike rack on S Oregon Street

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

PEDESTRIAN AND BICYCLIST DESTINATIONS

Downtown Ontario benefits from relatively compact development located within close proximity of surrounding residential neighborhoods, making walking and bicycling convenient and attractive travel modes.

In the West Downtown area, major bicycle and pedestrian destinations include commercial and retail businesses along S Oregon Street, SW 1st and 2nd streets, and SW 4th Avenue. Completion of a future park and plaza at Depot Square will strengthen the area's attractiveness as a non-motorized destination. The East Downtown area's major walking and bicycling destinations include businesses along SE 2nd Street.



Sidewalks exist on streets immediately adjacent to the TVCC campus, including SW 5th Avenue

Beyond the Downtown core, major walking and bicycling destinations include:

- Schools along SW 2nd Avenue (Ontario Middle School and St. Peter Middle School)
- Schools along W Idaho Avenue (George Aiken Middle School and Ontario High School)
- May Roberts Elementary School
- Treasure Valley Community College (TVCC)
- Lions Park
- Laxson Park
- Greyhound Intercity Bus Depot

CONNECTIONS TO TRANSIT

Ontario has recently become part of a regional transit system provided by the Snake River Transit System, funded through several local jurisdictions in the region. Buses follow fixed routes, but passengers are able to “flag” a bus anywhere along the route.

Ensuring a strong pedestrian and bicycle link to transit is an important part of making non-motorized transportation a part of daily life in Ontario. There are several main components of bicycle/pedestrian-transit integration:

- Allowing bicycles on transit
- Providing benches, shelters, posted schedules, bicycle parking and other features at transit stops (if designated stops are established)
- Improving infrastructure connections between walkways, bikeways and transit (e.g., sidewalks)

CONNECTIONS TO SCHOOLS

Several schools and higher education institutions exist outside the West and East Downtown study areas, including:

- George Aiken Middle School and Ontario High School on W Idaho Avenue west of NW 10th Street

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

- Ontario Middle School and St. Peter Middle School on SW 2nd Avenue between SW 4th and SW 9th streets
- May Roberts Elementary School on NW 8th Street north of NW 4th Avenue
- TVCC on SW 5th Avenue between S Park Boulevard and SW 5th Street

Designated Routes to School

The City and 8C School District jointly developed a map depicting a preliminary network of designated “safe school routes” connecting Ontario neighborhoods and commercial areas with surrounding schools. The preliminary routes include:

- W/E Idaho Avenue west of NE/SE 4th Street
- SW 2nd Avenue between SW 10th and SW 4th streets
- SW/SE 5th Avenue between S Park Boulevard and Interstate 84
- SW 2nd Street between SW 5th and SW 11th avenues
- SW/NW 6th Street between SW 5th and NW 8th avenues

Worth noting is that the preliminary “safe school routes” network should not be interpreted as the only routes connecting schools with surrounding areas. Ontario’s street grid provides relatively good system connectivity, enabling students to use a variety of routes based on convenience and comfort.

Pedestrian Facilities

Similar to the West and East Downtown areas, the availability and condition of sidewalks near schools varies by location. A relatively complete sidewalk system exists on SW 2nd and SW 3rd avenues between the schools and the West Downtown area, with the exception of a few gaps on both streets near Lions Park. Walkers traveling along W Idaho Avenue between the High School and Downtown benefit from a complete sidewalk network on both sides of the street. Pedestrians using NW 4th Avenue and surrounding streets near May Roberts Elementary School encounter discontinuous sidewalks or no sidewalks altogether. Sidewalk conditions near TVCC range from relatively new sidewalks on SW 5th Avenue (immediately north of campus) to streets lacking sidewalks on one or both sides. The absence of sidewalks on SW 5th Avenue east of the campus forces pedestrians to walk in adjacent yards or share the road with motorists.

Bicycle Facilities

Dedicated bicycle facilities (e.g., bike lanes and shared use paths) do not exist within immediate vicinity of Ontario schools and TVCC. Rather, bicyclists share streets with motorists. Ontario’s 2001 TSP identifies several bikeway system improvement projects, including potential bike lane retrofit projects on SW 4th Avenue, N Oregon Street, W Idaho Avenue, NW 9th Street, and NW 4th Avenue. The City is also exploring “Bicycle Boulevard” opportunities on SW 2nd and/or SW 3rd avenues between schools and the Downtown core. Bicycle Boulevards accommodate bicyclists and motorists in the same travel lanes often with no specific vehicle or bicycle lane delineation. Traffic controls along a Bicycle Boulevard assign priority to through cyclists while encouraging through vehicle traffic to use alternate parallel routes. Traffic calming and other treatments along the corridor reduce vehicle speeds so that motorists and bicyclists generally travel at the same speed, creating a safer and more-comfortable environment for all users. These corridors also incorporate treatments to facilitate safe and convenient crossings where bicyclists must traverse major streets.

ROADWAY SYSTEM

With the exception of the notable division created by the rail line, the roadway system in Downtown is organized into a grid network. According to the 2006 Transportation System Plan (TSP) prepared by H. Lee and Associates, all of the roadways within Downtown are under the jurisdiction of the City of Ontario. Five roadways within Downtown are functionally classified. EAV

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

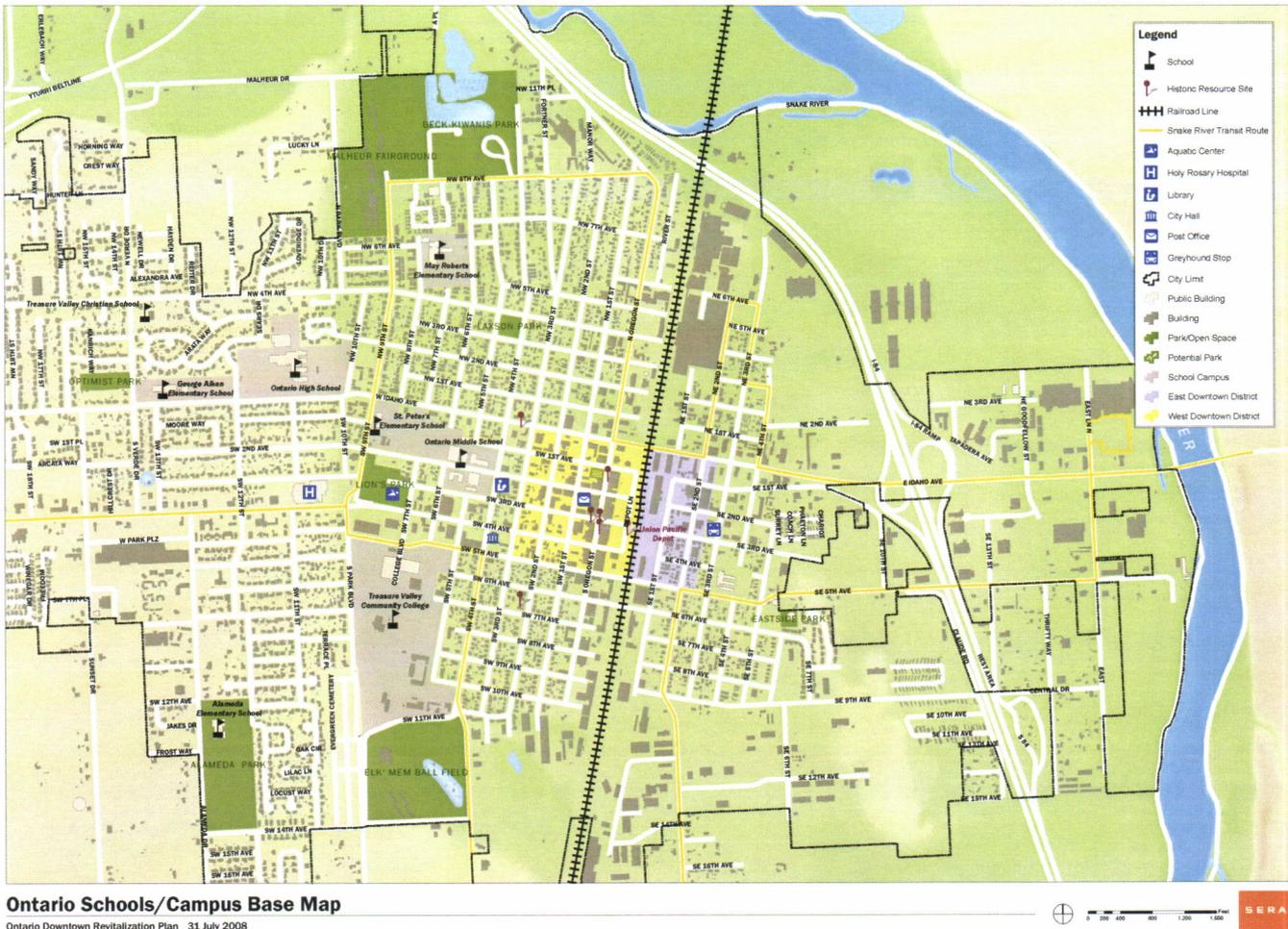


Figure 3: Schools / Campus Base Map

Idaho Avenue and SW 4th Avenue provide the primary east-west travel routes, while S Oregon Street, SW 2nd Street, and SE 2nd Street are the main north-south routes. Table 7 summarizes the existing functionally classified roadway facilities in Downtown.

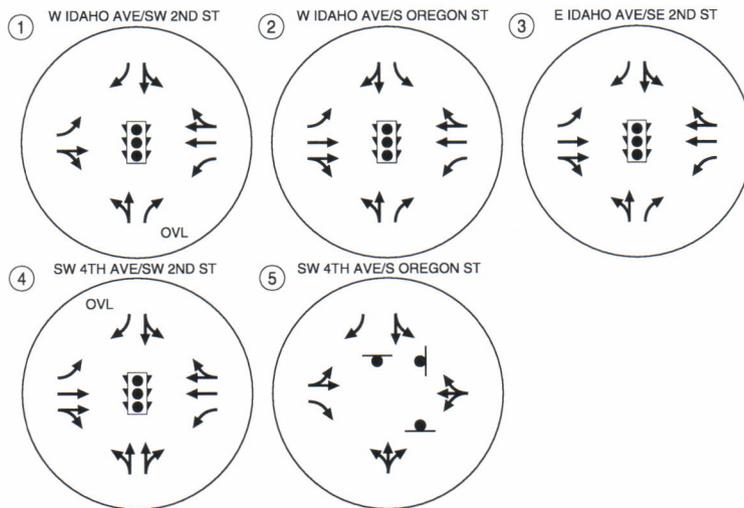
TABLE 7: EXISTING ROADWAY FACILITIES

Roadway	Functional Classification ¹	Cross-Section	Approximate Roadway Width (ft)	Posted Speed (mph)
E/W Idaho Avenue	Principal Arterial/ Major Collector ²	3-5 Lanes	40-60	25-30
SW 4th Avenue	Principal Arterial/ Major Collector ³	2-5 Lanes	45-60	20-30
SW 2nd Street	Principal Arterial	3 Lanes	45-50	20
S Oregon Street	Major Collector	2-3 Lanes	45-50	20
SE 2nd Street	Minor Collector	2-3 Lanes	50-60	20

¹According to the 2006 TSP

²Idaho Avenue is a principal arterial east of SW 2nd Street and a major collector west of SW 2nd Street

³SW 4th Avenue is a principal arterial west of SW 2nd Street and a major collector east of SW 2nd Street



LEGEND

- OVL - OVERLAP
- STOP SIGN
- TRAFFIC SIGNAL

EXISTING LANE CONFIGURATION & TRAFFIC CONTROL DEVICES ONTARIO, OR



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Figure 4: Existing lane configurations and traffic control devices

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

As Table 7 shows, the major roadways within Downtown are approximately 40 feet wide and can be as wide as 55 feet in some locations. The width of these streets allows for on-street parking to be provided along most downtown roadways, with one exception being EAW Idaho Avenue. The right-of-way (ROW) for these roadways typically extends approximately 10-20 feet beyond the width of the paved roadway and is primarily used for sidewalks, landscaping, and utilities. Figure 4 illustrates the existing lane configurations and traffic control devices at the five locations where the roads in Table 7 intersect.

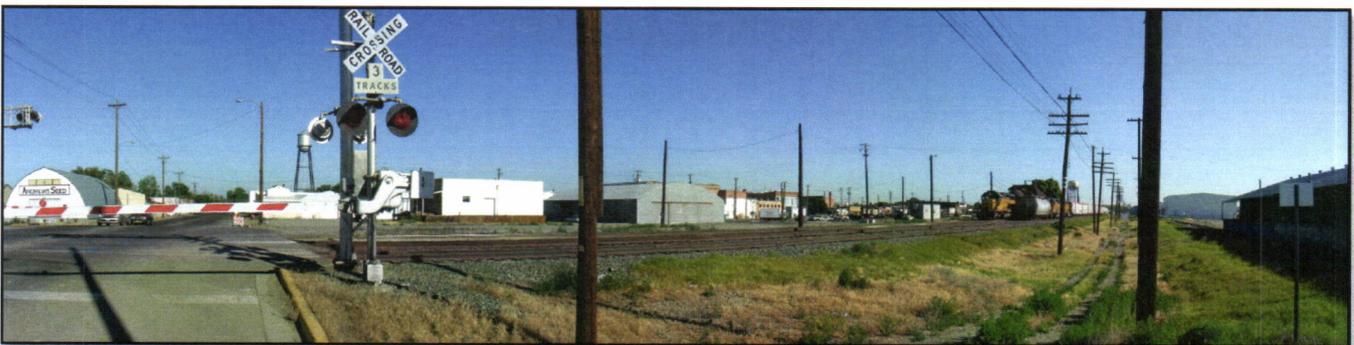
All roadways within Downtown not shown in Table 7 are classified as local roads. These roads generally have two-lane cross-sections with similar widths to those shown in Table 7. Posted speeds on these roads typically range from 20-25 mph. Intersections involving these roads are two-way stop controlled, with the east-west streets generally being the stop controlled approaches.

RAIL LINE

The rail line running through Downtown Ontario is a section of the Union Pacific Railroad's (UP) mainline. This line connects Oregon and Washington with much of the rest of the United States. It is one of two Class I, transcontinental railroads in Oregon, and the track through Ontario is rated as Class 5 track, which can accommodate speeds up to 80 mph (according to ODOT's 2001 Oregon Rail Plan).

This section of the UP mainline is one of the state's most significant rail lines. In 1999, the UP mainline carried over 59 million gross tons through eastern Oregon. Most of this is through traffic, as less than one million tons originated in Malheur County. Timber and other wood products and farm products are the two largest categories of freight shipped by rail (as reported by ODOT). According to the 2006 TSP, approximately 36 trains per day travel through Ontario on average.

There is a grade-separated crossing of the rail line at EAW Idaho Avenue, which allows traffic to continue to travel to and from Downtown under the rail line without interruption. Just south of Downtown are two at-grade crossings, located at SW 5th Avenue and SW 6th Avenue, which are controlled by automatic gates. However, these three crossings are the only ones located within the vicinity of Downtown, and when a train is passing through, the Idaho Avenue crossing is the only passable one.



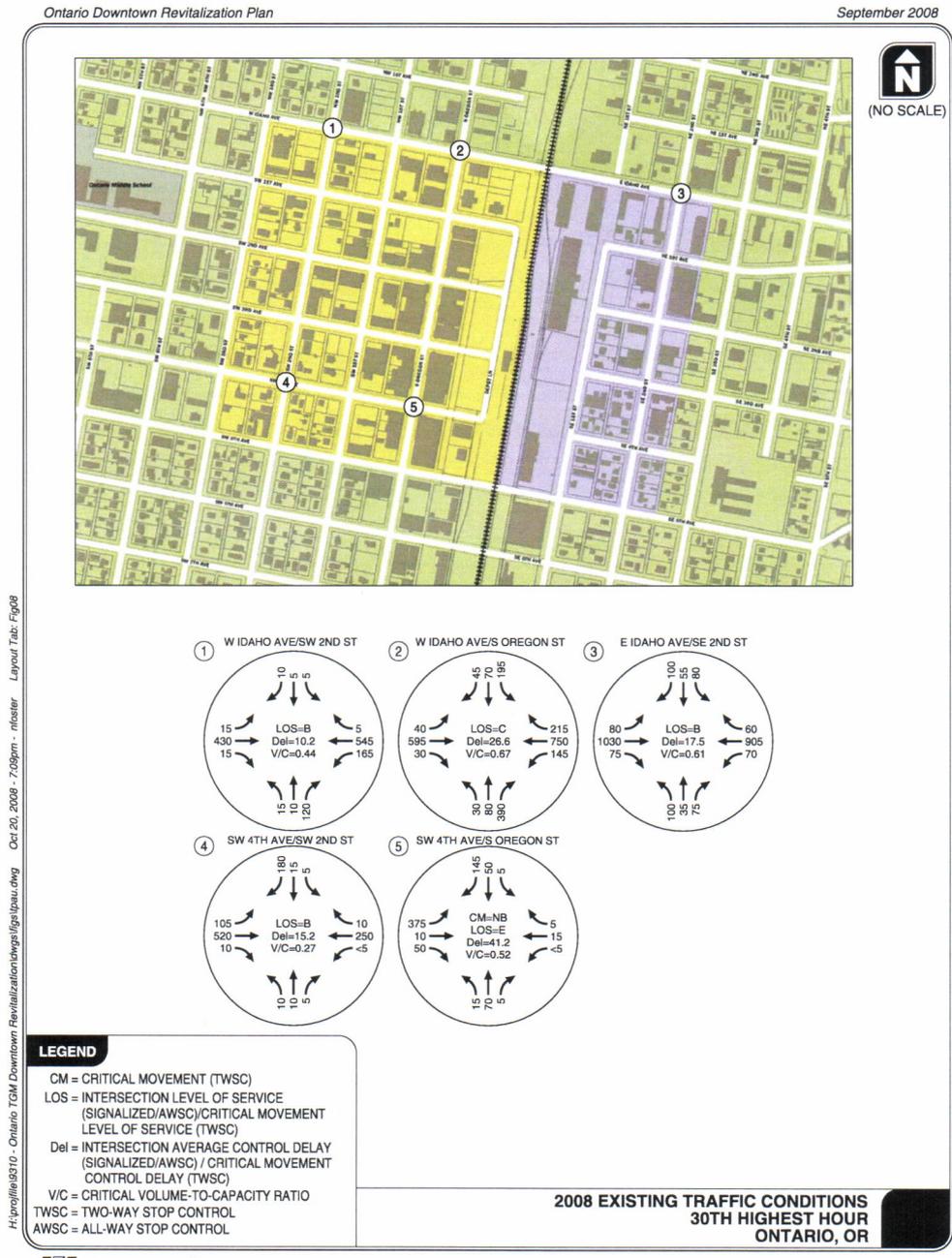
Rail crossing on SW 5th Avenue

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Furthermore, the two at-grade crossings also cross a second set of tracks on the east side of the main set of tracks. The pavement around these second set of tracks is badly rutted and forces drivers to slow down significantly when crossing them.

TRAFFIC VOLUMES AND 30TH HIGHEST HOUR OPERATIONS

Full classification counts were conducted for 16 hours on a typical mid-weekday in May 2008 while school was in session at the five intersections shown in Figure 4. These locations were selected based on feedback from the Oregon Department of



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KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

Figure 5: Existing Turning Movement Volumes

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Transportation's Transportation Planning and Analysis Unit (ODOT TPAU) and the City of Ontario.

The system-wide peak hour was found to occur between 3:30 to 4:30 p.m. The system peak hour volumes have been adjusted per ODOT guidelines to reflect the 30th highest hour. A memorandum was submitted to ODOT TPAU documenting this adjustment. Figure 5 summarizes the 30th highest-hour turning movement volumes at the Ontario study intersections (all numbers in Figure 4 have been rounded to the nearest five vehicles per hour).

Existing Traffic Conditions

Intersection operations were measured via two methodologies: level-of-service (LOS) and volume to capacity ratio. All level-of-service analyses described in this report were performed in accordance with the procedures stated in the 2000 Highway Capacity Manual published by the Transportation Research Board.

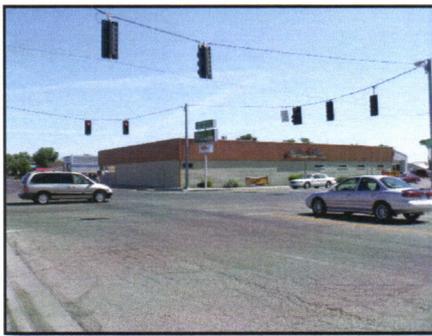
Ontario has adopted level-of-service standards for intersections within its jurisdiction. The City requires that a minimum of LOS "D" be maintained at signalized intersections and a minimum of LOS "E" be maintained for the critical movement at unsignalized intersections. The signalized intersection standard applies to the intersections of E Idaho Avenue/SE 2nd Street, W Idaho Avenue/S Oregon Street, W Idaho Avenue/SW 2nd Street, and SW 4th Avenue/SW 2nd Street, while the unsignalized intersection criteria applies to only the SW 4th Avenue/S Oregon Street intersection.

All intersection level-of-service evaluations used the peak 15-minute flow rate during the system peak hour. Using the peak 15-minute flow rate ensures that this analysis is based on a reasonable worst-case scenario. For this reason, the analysis reflects

conditions that are only likely to occur for 15 minutes out of each average peak hour. The transportation system will likely operate under conditions better than those described in this report during all other time periods.

The second operations methodology involves volume to capacity ratio. ODOT bases its traffic operation standards on this performance measure which is a measure of the percentage of used capacity on a roadway or intersection. The 1999 Oregon Highway Plan stipulates the applicable performance standards for different highways across the state. While none of the study intersections are currently on ODOT owned and maintained highways, a volume to capacity standard of 0.85 was used to assess the performance of the study intersections.

Figure 5 summarizes the traffic operations analysis for the study intersections under the 30th highest hour existing traffic conditions. As the figure shows, all of the study intersections currently operate at acceptable levels of service and volume to capacity ratios during the 30th highest hour, though the SW 4th Avenue/S Oregon Street intersection is operating at the LOS "E" threshold. Appendix "D" includes the level-of-service worksheets under year 2008 existing traffic conditions.



Intersection of E Idaho Ave and NE/SE 2nd Street

Future Baseline Levels of Service

The future baseline analysis projects traffic conditions 22 years into the future (year 2030). The purpose of this analysis is to establish a base set of future conditions, assuming currently projected growth in the region. This baseline will be used for comparison against design alternatives for Downtown that will be identified later on in this project.

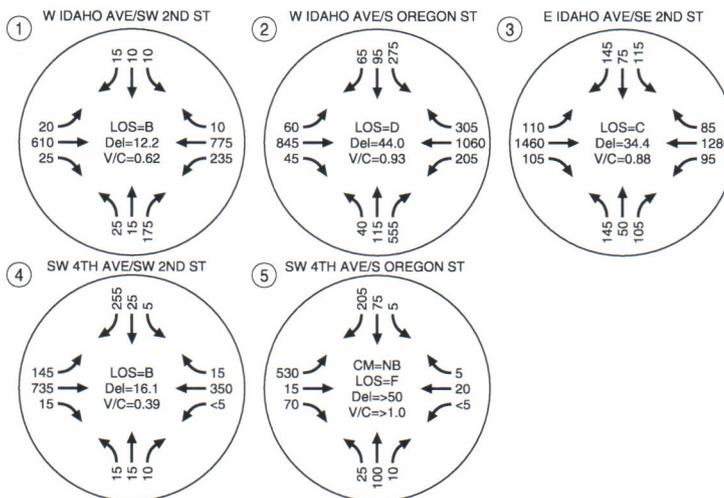
The year 2030 volumes were obtained by applying an annual growth rate of 1.6%. This growth rate was used based on a recommendation from ODOT TPAU, which calculated the rate from historical growth that occurred at three locations prior to the opening of the Yturri Beltline. This rate represents a 0.3% increase over the rate used in the 2006 TSP. The year 2030 volumes for the 30th highest hour are shown in Figure 6.

The volumes shown in Figure 6 were used to determine the year 2030 baseline levels-of-service. As the figure indicates, nearly all of the study intersections are forecast to operate at acceptable levels of service, with the exception of the unsignalized intersection of SW 4th Avenue/S Oregon Street. It should also be noted that the W Idaho Avenue/S Oregon Street and E Idaho Avenue/SE 2nd Street intersections are forecast to operate with a v/c ratio greater than 0.85, the ODOT standard. The v/c ratio could be brought down to 0.79 at the W Idaho Avenue/S Oregon Street intersection if overlap phasing were provided to northbound right-turns; however this may decrease pedestrian and bicyclist comfort levels and safety at this intersection. The v/c ratio at the E Idaho Avenue/SE 2nd Street intersection would be 0.85 if the northbound approach were restriped to provide an exclusive left-turn lane and a shared through/right-turn lane. Appendix "E" includes the level-of-service worksheets under year 2030 baseline traffic conditions.

SW 4th Avenue/S Oregon Street

The SW 4th Avenue/S Oregon Street intersection is forecast to have a critical movement that will operate at LOS "F" and over capacity under year 2030 baseline conditions. This is primarily due to the conflict between northbound through and left-turning traffic with eastbound left-turning vehicles, which represent the highest volume movement at the intersection. Per the 2003 edition of the Manual on Uniform Traffic Control Devices (MUTCD), one out of three signal warrants are projected to be met at this intersection under 2030 total traffic conditions. An analysis of this intersection with traffic signal control revealed that the intersection would operate acceptably (LOS "B" and v/c ratio of 0.69) with a traffic signal and permitted phasing on all approaches. An analysis conducted with ODOT's roundabout spreadsheet indicated that a single-lane roundabout would also be able to accommodate these forecast volumes with acceptable operations (LOS "A" and a maximum v/c ratio of 0.65 on all approaches). Appendix "F" contains the signalized intersection analysis and ODOT roundabout spreadsheet results. It is important to note that the right-of-way requirements of a roundabout would exceed those of a signalized intersection, which may be a limiting factor given that all four corners of the intersection are currently built-out. At the same time, it is likely that this northbound traffic is primarily commuters who are familiar with the area and who may adjust their travel patterns to avoid this delay (e.g. travel north on SW 2nd Street or SW 1st Street).

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS



LEGEND

- CM = CRITICAL MOVEMENT (TWSC)
- LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED/AWSC)/CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC)
- Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED/AWSC) / CRITICAL MOVEMENT CONTROL DELAY (TWSC)
- V/C = CRITICAL VOLUME-TO-CAPACITY RATIO
- TWSC = TWO-WAY STOP CONTROL
- AWSC = ALL-WAY STOP CONTROL

**2030 BASELINE TRAFFIC CONDITIONS
30TH HIGHEST HOUR
ONTARIO, OR**



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Figure 6: 2028 Baseline Traffic Conditions

CRASH DATA ANALYSIS

The crash history at the study intersections was reviewed to identify potential safety issues. ODOT provided crash records for the study intersections and for all of the S Oregon Street intersections between W Idaho Avenue and SW 4th Avenue for the most recent five-year period, from January 1, 2003, through December 31, 2007. Table 8 summarizes the crash data at these intersections over the past five years. Appendix “G” contains the crash data.

TABLE 8: INTERSECTION CRASH SUMMARY (2003-2007)

Intersection	Crash Type					Crash Severity		Total	Crash Rate (per MEV ²)
	Angle	Turning	Rear End	Side Swipe	Other	PDO ¹	Injury		
E Idaho Avenue/SE 2nd Street	5	1	4	1	0	8	3	11	0.22
W Idaho Avenue/N Oregon Street	3	5	5	0	1	5	9	14	0.28
W Idaho Avenue/NW 2nd Street	0	2	0	0	0	1	1	2	0.07
SW 4th Avenue/SW 2nd Street	2	0	2	0	0	3	1	4	0.17
SW 1st Avenue/S Oregon Street	0	0	0	0	0	0	0	None reported	N/A ³
SW 2nd Avenue/S Oregon Street	0	1	1	0	0	0	2	2	N/A ³
SW 3rd Avenue/S Oregon Street	0	1	1	0	0	1	1	2	N/A ³
SW 4th Avenue/S Oregon Street	1	0	2	0	0	3	0	3	0.21

¹PDO = property damage only

²MEV = million entering vehicles

³Crash rates were only calculated for intersections where traffic counts were obtained for this study.

Table 8 shows that the raw number of crashes, as well as the crash rates, at the study intersections are not noticeably high. However, injury crashes make up the majority of the crashes at the W Idaho Avenue/N Oregon Street intersection. These injury crashes include three rear-ends at the westbound approach, three turning crashes, two angle crashes, and one turning crash involving a bicyclist. All of these crashes were due to driver error, including following too close, failing to yield the right-of-way, and disregarding the traffic signal. Two of the turning crashes involved a southbound left-turning vehicle. Crashes such as these could likely be prevented in the future by switching to protected left-turn phasing on the north and south approaches. However, it should be noted that a switch to protected phasing would negatively impact operations at this intersection. Under existing conditions, a v/c ratio of 0.85 could be maintained at the intersection, but under future conditions, widening of the intersection or other intensive modifications would be required if protected phasing were in place.

The one crash that involved the bicyclist occurred when a northbound right-turning vehicle struck a bicyclist traveling northbound on the right side of the vehicle. Such an incident could have been possibly avoided if a bike lane were present between the northbound right-turn and shared through/left-turn lanes. This would have

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

provided an opportunity for the bicyclist to travel on the left side of the right-turning vehicle. No other crashes involving pedestrians or bicycles were reported at the five study intersections or the intersections along Oregon Street in the Downtown core during this time period. No other marked patterns were identified in the review of the crash data.

OPPORTUNITIES AND CONSTRAINTS

ECONOMIC AND BUSINESS OPPORTUNITIES AND CONSTRAINTS

Downtown Ontario currently has a strong foundation on which to entice future business activity and development to the area. While Oregon Street features some endemic commercial vacancy, the vacant storefronts are well outnumbered by unique local shops and services. The commercial space is housed in classic “main-street”-style storefronts and historic buildings, which offer an engaging pedestrian and shopping experience.

Oregon Street enjoys advantages over historic main streets in similarly-sized cities. Most importantly, the street still experiences significant traffic. It remains a major connector and through route between east and west parts of the city. While future pedestrian and streetscape improvements will be strong amenities, it is important to remember that vehicular traffic and visibility are critical to retail success and should be maintained and enhanced.

In addition to vehicular traffic through downtown, it is estimated that over 500 people work in or near Downtown Ontario. Local employees are a key sector of business for retail and commercial service businesses, as well as current and future residents.

The Downtown offers the historic “bones,” charm, and walkability that newer development cannot recreate. In most communities, residents desire a thriving Downtown, and root for its success. Proper design, development and land use choices can tap into this innate sentiment and the other advantages that a historic Downtown has to offer over strip malls and newer commercial forms.

Business Opportunities in Downtown Ontario

Despite the fact that overall spending is more than local households account for, there are some specific types of retail business in which area spending does not match the spending of local households. In other words, in these categories, local households are doing additional spending outside of the market area.

These categories represent opportunities for new businesses, where a “gap” exists between the amount of spending by local households and the limited options currently available to them.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

TABLE 9: RETAIL CATEGORIES – FOR WHICH LOCAL SPENDING IS LEAKING OUT OF THE LOCAL AREA (2 MILE RADIUS OF DOWNTOWN ONTARIO)

Retail Categories	Demand (Consumer Expenditures)	Supply (Retail Sales)	Opportunity Gap/Surplus
Electronics and Appliance Stores-443	\$5,889,200	\$4,014,000	\$1,875,200
Radio, Television, Electronics Stores-443112	\$3,590,000	\$1,468,000	\$2,122,000
Computer and Software Stores-44312	\$1,108,000	\$780,500	\$327,500
Camera and Photographic Equipment Stores-44313	\$202,500	\$85,200	\$117,300
Building Material, Garden Equip Stores-444	\$26,721,200	\$54,122,700	(\$27,401,500)
Home Centers-44411	\$9,831,000	\$5,160,900	\$4,670,200
Food and Beverage Stores-445	\$35,621,000	\$34,949,100	\$671,900
Convenience Stores-44512	\$1,574,800	\$638,500	\$936,300
Specialty Food Stores-4452	\$1,026,300	\$469,000	\$557,300
Beer, Wine and Liquor Stores-4453	\$2,112,500	\$404,700	\$1,707,800
Health and Personal Care Stores-446	\$13,219,300	\$24,495,900	(\$11,276,600)
Optical Goods Stores-44613	\$446,200	\$382,000	\$64,200
Clothing and Clothing Accessories Stores-448	\$10,854,700	\$14,129,100	(\$3,274,400)
Childrens, Infants Clothing Stores-44813	\$578,700	\$238,600	\$340,100
Family Clothing Stores-44814	\$4,305,600	\$0	\$4,305,600
Clothing Accessories Stores-44815	\$162,100	\$26,500	\$135,700
Other Clothing Stores-44819	\$494,000	\$266,000	\$228,000
Shoe Stores-4482	\$1,571,400	\$1,415,300	\$156,000
Luggage and Leather Goods Stores-44832	\$111,200	\$0	\$111,200
Sporting Goods, Hobby, Book, Music Stores-451	\$4,836,100	\$7,055,600	(\$2,219,500)
Hobby, Toys and Games Stores-45112	\$1,051,400	\$317,300	\$734,100
News Dealers and Newsstands-451212	\$53,900	\$0	\$53,900
Prerecorded Tapes, CDs, Record Stores-45122	\$530,000	\$86,400	\$443,600
Miscellaneous Store Retailers-453	\$6,418,700	\$7,998,300	(\$1,579,700)
Florists-4531	\$446,700	\$175,300	\$271,400
Gift, Novelty and Souvenir Stores-45322	\$1,094,800	\$104,000	\$990,800
Used Merchandise Stores-4533	\$531,800	\$239,500	\$292,300

Sources: Claritas, Johnson Reid, LLC

Many of the categories above are an excellent fit for the Downtown area, including a range of clothing categories, shoe stores, hobby shops, music shops, and smaller businesses such as florist, newsstand, eyeglass store, or gift and novelty shops. Downtown environments are best suited to smaller, specialty businesses which reflect the taste and perspective of their owners. These businesses are not particularly well-suited for large shopping centers, and thus they are a natural niche for a downtown main street.

In addition to retail categories, the Downtown area is an excellent location for professional and medical services. These businesses include banking, insurance, brokerage firms and other financial businesses, as well as real estate, doctor, dental

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

and specialist offices. By offering sufficient real estate options, in an attractive atmosphere, the Downtown area should be able to out-compete other areas of town for these types of tenants.

Challenges to Business in Downtown Ontario

The greatest challenge facing Downtown is its competitive position vis-à-vis other commercial areas in town, in particular highway-based “big box” and strip-style retail. These types of retail centers can house bigger brand-name stores, and are often seen as more convenient for auto-centric shoppers.

Much of the new commercial development in Ontario has taken place just to the east of the junction of I-84 and Highway 30, where multiple shopping centers have located. These centers tend to be anchored by brand-name big box retailers, situated around large parking lots. Some smaller retail buildings are located on pads in the parking lot. This style of development has become common in communities of all sizes, and tends to be located on or very close to highways or major arterials for accessibility.

Aside from these newer shopping centers, other commercial activity in Ontario has located along major transportation routes, such as SW 4th Avenue. Over time, the transition to auto-centric commercial forms has led to a diminishment of the Downtown and the central role it has historically played in the City's commerce and community. This has been a common sequence of events in cities across the country.

However, as previously stated, a historic downtown features many innate advantages that can be used to overcome the challenges of shifting commercial location trends. For one, it has a strong pre-established identity for most residents. It has an appealing historic development form that is well-suited for window shopping, dining, facilitating social interaction, and other community activities that are not natural at a large auto-oriented shopping center.

The challenge is to establish a niche which differentiates the Downtown from other commercial options, and ensure that it is visible and accessible for shoppers.

PEDESTRIAN AND BICYCLE SYSTEM EVALUATION

SYSTEM STRENGTHS AND WEAKNESSES

SYSTEM STRENGTHS

Summarized below, various characteristics create a positive bicycling and walking environment in Downtown Ontario and surrounding areas.

Land Use Characteristics

Land use characteristics, particularly along S Oregon Street, contribute to a pedestrian- and bicycle-friendly environment. For instance, buildings fronting the sidewalk edge in the West Downtown area create a sense of tight urban form, and

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

an inviting pedestrian atmosphere. Walking and bicycling as a means for running errands are also encouraged through the grouping of diverse land uses in the Downtown core.

Streetscape Treatments

Streetscape treatments on S Oregon Street and surrounding areas also create an attractive walking and bicycling environment. Treatments along S Oregon Street include street trees, benches, trash receptacles, and ornamental banners celebrating Downtown Ontario. The presence of on-street parking also buffers foot traffic from adjacent motor vehicle traffic. Other nearby streets (e.g., segments of SW 3rd Avenue) include planter strips between the sidewalk and curb, providing an additional buffer between pedestrians and motorists.

System Connectivity

Ontario's street grid provides generally good system connectivity within the West and East Downtown areas, and between the West Downtown area and nearby schools. The relatively well-connected grid facilitates convenient and direct bicycle and pedestrian travel.

Pedestrian System Expansions

Newly-constructed sidewalks and curb ramps in conjunction with adjacent property developments continue to expand Ontario's pedestrian network while also filling system gaps.

Presence of Intersection Treatments for Pedestrian Crossings

Curb Extensions

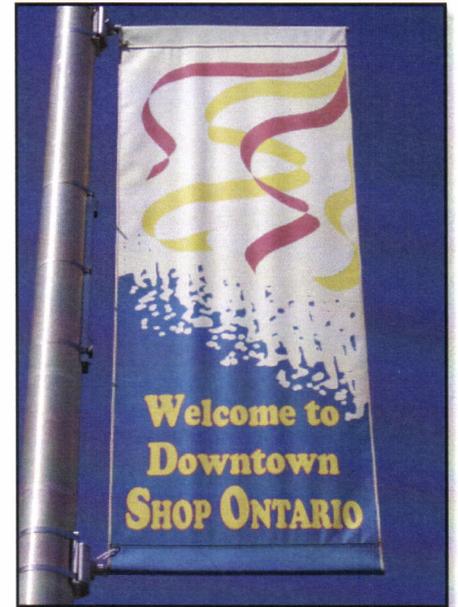
Curb extensions slow vehicle traffic by creating a visual "pinch point" for approaching motorists. Typically constructed within the on-street parking lane (e.g., along S Oregon Street), these devices can calm traffic passing through or turning at an intersection. Curb extensions reduce pedestrian crossing distances, and also increase motorists' visibility of pedestrians waiting to cross the street.

Mid-Block Crossings

Mid-block crossings meet pedestrian crossing needs where traditional street intersections do not exist. These crossings typically include marked crosswalks and/or other treatments. These crossings exist along the three-block section of S Oregon Street between W/E Idaho Avenue and SW/SE 3rd Avenue. Each crossing includes curb extensions and a marked crosswalk. Field observations indicate that these crossing treatments have been quite effective with driver compliance.

SYSTEM WEAKNESSES

Described below, pedestrians and bicyclists in and around Downtown Ontario face a variety of challenges.



Downtown street banners



3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Barriers

Several physical barriers limit direct pedestrian and bicycle travel between Downtown and other parts of the city. Examples include major streets such as W/E Idaho Avenue, characterized by higher vehicle speeds and volumes. The Union Pacific Railroad also represents a major barrier by limiting east-west travel to two at-grade crossings within the study area. Consequently, pedestrians and bicyclists traveling between the West and East Downtown areas must follow circuitous routing.



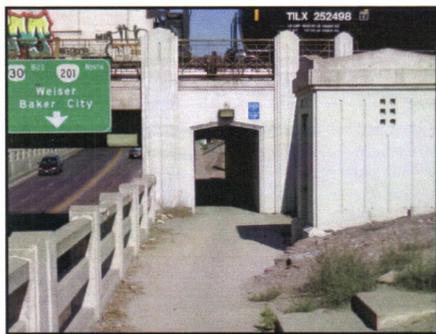
Bicyclists on E Idaho Avenue must either use vehicle travel lanes or share narrow sidewalks and tunnels with pedestrian

Lack of Wayfinding Tools

Ontario's pedestrian and bicycle system could benefit from signage and other wayfinding tools to orient users and direct them to and through major destinations like Downtown, surrounding schools, commercial areas, TVCC, and neighborhoods.

Poor Lighting in Some Areas

Some areas (e.g., the segments of E Idaho Avenue and SE 5th Avenue near the Union Pacific Railroad) have minimal or no street lighting. The absence of lighting can potentially decrease pedestrian and bicyclist comfort and safety.



Maintenance Issues

Several types of maintenance issues complicate pedestrian/bicycle travel in Downtown Ontario and surrounding areas. Existing sidewalks in some parts of the city suffer from cracking or heaving (e.g., the west side of SW 3rd Street north of SW 3rd Avenue). Uneven pavement joints (often caused by tree roots below the sidewalk) create tripping hazards and complicate travel for wheelchair users. Water ponding on sidewalk surfaces can further challenge walking and bicycling, especially when ponding water freezes in cold weather.

Underpasses Lacking Adequate Bicycle / Pedestrian Facilities

Bicyclists and pedestrians encounter "pinch points" on underpasses with narrow or no dedicated facilities for non-motorized users. In Downtown Ontario, these conditions exist on the E Idaho Avenue underpass crossing the Union Pacific Railroad. Bicyclists must either share travel lanes with motorists or share narrow sidewalks with pedestrians (which include tunnels with minimal lighting).



Existing railroad tracks that cross 5th Avenue present a hazard for cyclists

Difficult Railroad Crossings

Pedestrians and bicyclists encounter difficult railroad crossings in some locations. Discussed earlier, bicyclists on E Idaho Avenue must share the road with higher-speed motorists or share narrow sidewalks with pedestrians as they cross the Union Pacific Railroad. Farther south, the SE 5th Avenue railroad crossing lacks sidewalks, forcing pedestrians into the roadway or adjacent unpaved areas. Bicyclists at this crossing encounter deteriorated pavement conditions.

Fragmented Sidewalk Network in Some Areas

Discussed earlier, some parts of Downtown Ontario and surrounding areas benefit

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

from a fairly complete sidewalk network while the system is fragmented in other areas. A relatively complete system exists in the West Downtown area and nearby residential neighborhoods, while many street segments lack sidewalks in the East Downtown area. Beyond the Downtown core and immediate neighborhoods, sidewalk gaps exist along several streets leading to schools, although sidewalk infill projects have occurred as part of adjacent property development.

Sidewalk Obstructions

Although sidewalks exist on numerous streets, their use is occasionally hindered by obstructions like vegetation, utility poles, mailboxes and other items. For example, pedestrians on the east side of SW 1st Street (near SW 1st Avenue) encounter light poles in the sidewalk's center.



This light pole reduces the passable sidewalk width on SW 1st Street near SW 1st Avenue

Difficult Street Crossings

Non-motorized users face a variety of difficult street crossing conditions:

High-Volume Streets

Bicyclists and pedestrians face challenging crossing conditions on W/E Idaho Avenue. Several intersections have minimal crossing treatments to facilitate comfortable north-south crossing movements.

Difficulties for Disabled Pedestrians

Pedestrians with disabilities experience crossing difficulties in some areas. Curb ramps at some intersections are in poor condition or disrepair, while some intersections lack curb ramps altogether. In some cases, marked crosswalks lead to sidewalks with no curb ramps (e.g., on SW 3rd Avenue near Ontario Middle School). This can make traveling by wheelchair or motorized mobility device challenging, if not impossible. Visually- and mobility-impaired pedestrians also experience difficulty navigating through intersections with curb ramps oriented diagonally toward the intersection's center rather than toward a crosswalk. Curb ramps lacking detectable warning strips complicate travel for visually-impaired pedestrians unable to detect when they have transitioned from the sidewalk to the street.

Lack of Bicycle Detection at Signalized Intersections

Several signalized intersections lack bicycle detection devices (e.g., loop detectors or conveniently-placed push buttons). The lack of these devices creates challenging bicycle crossing conditions, forcing bicyclists to either dismount to reach a push button, or wait until a vehicle activates a loop detector. Cyclists would benefit from enhanced detection at the intersections of Idaho Avenue at Oregon Street, E Idaho Avenue at SE/NE 2nd Street, SW 4th Avenue at SW 2nd Street, and SW 4th Avenue at SW 10th Street near TVCC.

Faded Crosswalk Markings

Crosswalk markings have faded in some locations, particularly along major streets where higher volumes of auto traffic generate increased wear-and-tear on pavement markings. Example locations include intersections along W Idaho Avenue, and at some intersections along S Oregon Street (e.g., at SW/SE 3rd Avenue).



Faded crosswalk exist at several downtown intersections

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS



Inadequate Bike Parking in Some Areas

Described earlier, the quantity and quality of bike parking in Downtown and surrounding areas varies by location. Most schools provide on-campus bike parking, typically consisting of bike racks in uncovered locations near building entrances or playgrounds. Most racks are situated immediately adjacent to walls, shrubbery or fences, and have reduced capacity by limiting user access to one side of the rack only. Some existing racks are also considered substandard because they do not provide sufficient points of contact to support a bicycle at two locations (e.g., several racks adjacent to buildings in the West Downtown area).

The Project Team also observed informal bike parking occurring in the West Downtown area, with cyclists securing their bikes to hand rails, street signs, light poles and other objects. Informal bike parking suggests that not enough formalized parking is provided, existing bike racks are not sited in desirable locations, and/or existing racks are considered substandard by users.

Demonstrated Need for More Bicycle/Pedestrian Facilities

The presence of “demand paths” in some areas indicates a demand for pedestrian and bicycle facilities where they currently do not exist, or where formalized facilities require users to follow circuitous routes to overcome relatively short distances. This is particularly evident in Ontario’s Depot Square area, where non-motorized users have created short-cuts across the Union Pacific Railroad. These activities respond to the relatively long distances between formalized railroad crossings. Opportunities for improvements to routes between local schools and the downtown include the following:

- Intersection improvements at the intersections of Idaho Avenue and NW 2nd, N Oregon and NE 2nd Streets, as well as at 4th Avenue and S. Park, SW 4th and SW 2nd Street.
- Potential bicycle boulevards along portions of S 3rd Avenue, N 3rd Avenue and W 2nd Street.
- Potential bicycle lanes or marking along portions of Idaho Avenue (between S Verde and NW 3rd Street) and S 5th Avenue, 2nd Street and N Oregon (north of Idaho).

STREETSCAPE OPPORTUNITIES AND CONSTRAINTS

STREETSCAPE OPPORTUNITIES

Following is a list of potential opportunities for streetscape enhancements within the study area. (Constraints are described on the next page.) This should be seen as an initial set of ideas for improving the pedestrian environment and attracting residents and visitors to shop downtown. These ideas will be reviewed with the public and further prioritized.”

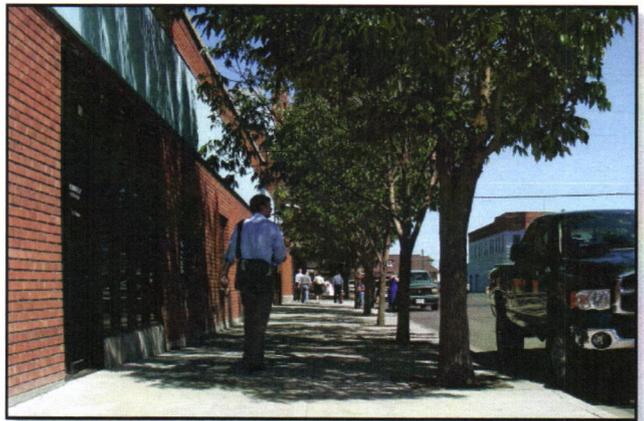
- Establish a streetscape hierarchy for the various streets within the downtown district to address varying street/sidewalk design needs.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

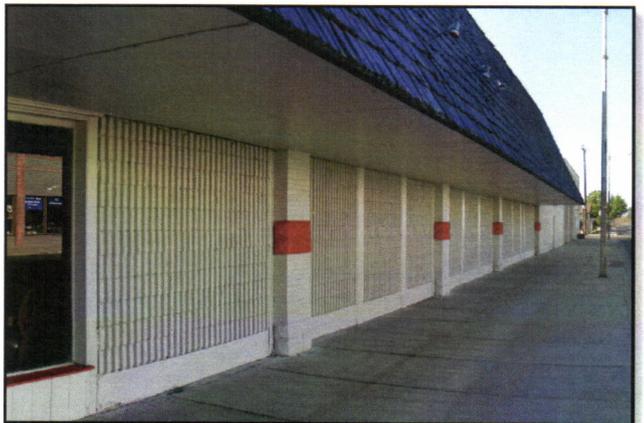
- Adopt and enforce street plan/streetscape design standards for the entire downtown district, with a strong focus on S Oregon Street.
- In order to prevent haphazard and dangerous placement of objects and street furniture on the sidewalk, establish defined zones (e.g. clear zone, building zone, furnishing zone) of the sidewalk that clearly defines where various elements (benches, trees, cafe tables, sandwich-board signs) etc. can be placed.
- In accordance with an adopted streetscape plan, install consistent street furnishings downtown (benches, garbage cans, etc.).
- Install additional, short-term bike parking throughout downtown, with a strong focus on S Oregon Street. (Bike racks generally should be of a consistent, proven, and easy-to-use design. Art racks should also be considered for select locations.
- Complement the existing cobra-head lights (oriented to automobiles and the roadway) with pedestrian-scale street lights that illuminate the sidewalk.
- Plant street trees to provide shade and downtown beautification. (See SW 3rd Avenue for a positive example.)
- Promote use of awnings to provide shade and weather protection along the sidewalk and building storefronts.
- Improve storefront facades along S Oregon Street and throughout the downtown district. Focus on paint, lighting, detailing, awnings, and windows. (This could include reinstating some windows currently covered over.)
- Adopt and enforce design standards for building and business signage.
- Adopt and enforce architectural design standards that recognize and support the character and history of Ontario's downtown, while allowing flexibility for business owners, property owners, and developers.



Awnings provide welcome shade along much of S Oregon St



Street trees along SW 3rd Avenue



There are opportunities for facade improvements, including the reinstatement of windows, in downtown

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS



Sidewalks are inconsistent or missing in some areas of downtown



STREETSCAPE CONSTRAINTS

- Depending on available right-of-way and sidewalk width, deep awnings may leave little room to plant street trees, especially larger shade trees.
- Street trees and high contrast caused by awnings can make it more difficult to see inside shops from the street on bright Eastern Oregon summer days.
- Street trees can suffer in the Eastern Oregon climate, and may require consistent watering and/or irrigation.
- Streetscape design and maintenance costs can be high; a balance of grants and long-term funding strategies should be explored.
- Existing sidewalks / streetscapes throughout the downtown district (save for S Oregon Street) are of an inconsistent design and construction, and are often not well-maintained; many sidewalk gaps exist.



Existing sidewalk widths and deep awnings make tree planting in some parts of downtown difficult

ROADWAY SYSTEM OPPORTUNITIES

The streets in Downtown Ontario are generally wider than most roadways with similar cross-sections. In some instances, this may allow for the conversion of parallel parking to standard or back-in angle parking. Standard angle parking is often less intimidating to elderly drivers and would allow for more on-street parking in the Downtown core, which would allow for the redevelopment of some of the existing surface parking lots. Back-in angle parking would also allow for more on-street parking and would also provide the additional advantage of being safer for bicyclists, as it eliminates the need for the driver to look backward over his or her shoulder when leaving the parking space. However, drivers who are not comfortable backing into a space may have similar issues with back-in angle parking as they would with parallel parking. The existing transportation system also has a fair amount of spare capacity and can accommodate a significant amount of growth without requiring extensive infrastructure improvements. Finally, there also exists the opportunity to create a couplet out of S Oregon Street and SW 2nd Street, in which S Oregon Street would accommodate northbound traffic, while SW 2nd Street would accommodate only southbound traffic. This would likely further improve traffic operations at the S Oregon Street and SW 2nd Street intersections of W Idaho Avenue.

- Providing angled parking in select locations (including S Oregon Street) could increase the supply of on-street parking downtown – especially adjacent to retail. (Doing so will require an examination of available right-of-way and street function / classification.)
- Pursue a district parking strategy to make parking more efficient, limit the amount parking that must be provided by individual businesses, and free up land for (re)development.
- Calm traffic throughout the pedestrian-oriented downtown, and especially on S Oregon Street. Specific measures may include the use of angles parking, traffic circles, chicanes, bulb-outs, tree planting, and bulb-outs / curb extensions.
- Relocate the Greyhound station to a more central location. This may be the Depot, especially if passenger train service is restored.
- Improve bicycle and pedestrian connections on SW 5th Avenue and SE 5th Avenue.
- Design SW 3rd Avenue as a primary pedestrian/bicycle connection from the Depot west.



Could SE 3rd Avenue be extended to connect to the Depot?

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

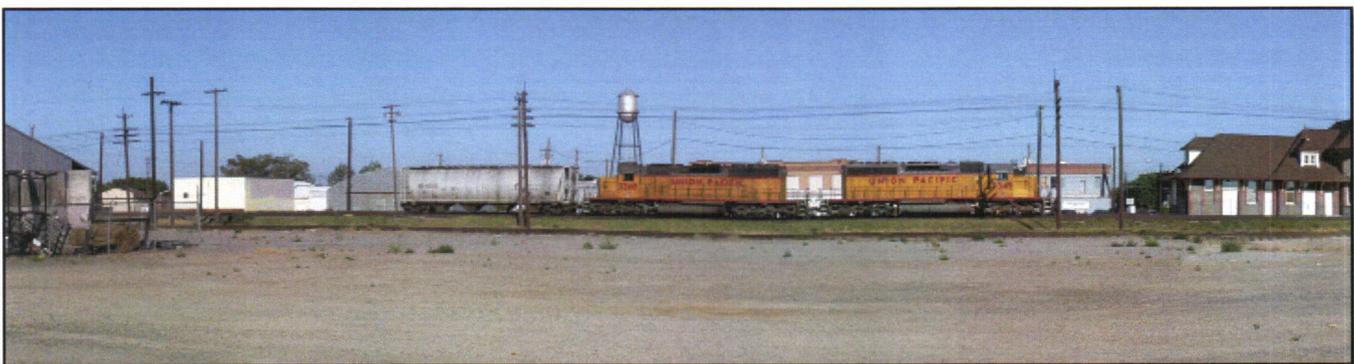
ROADWAY SYSTEM CONSTRAINTS

The westbound approach to the W Idaho Avenue/S Oregon Street intersection is constrained by the railroad overcrossing and accompanying retaining walls. Specifically, the westbound left-turn lane is only long enough to accommodate two or three vehicles at a time. The ability to lengthen the left-turn lane is constrained by the overall width of the roadway underpass which cannot be widened without completely rebuilding the underpass and rail structure. Therefore, the storage length of the westbound left-turn lane cannot be extended by any significant amount without incurring great cost.

Buildings in the Downtown core typically abut the sidewalk at the corners of intersections. This would make the widening of any of these intersections to accommodate either additional travel lanes or a roundabout a difficult task.

Finally, the rail line presents a major obstacle to east-west downtown connectivity. As was previously mentioned, only the W Idaho Avenue underpass provides an uninterrupted connection between the East and West Downtown districts.

- Automobiles travel on S Oregon Street at speeds too high for a downtown main street.
- The Snake River Transit route bypasses downtown almost entirely.
- Inconsistent curb locations make a uniform on-street parking strategy downtown more difficult to implement.



The existing rail line is a significant barrier to east-west connectivity in downtown

REDEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

SUMMARY OF REDEVELOPMENT POTENTIAL

Downtown Ontario currently has a strong foundation on which to entice future investment and development to the area. While S Oregon Street features some endemic commercial vacancy, the vacant storefronts are well outnumbered by unique local shops and services. The commercial space is housed in classic “main-street”-style storefronts and historic buildings, which offer an engaging pedestrian and shopping experience.

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

S Oregon Street enjoys advantages over historic main streets in similarly-sized cities. Most importantly, the street still experiences significant traffic. It remains a major connector and through route between various parts of the city. While future pedestrian and streetscape improvements will be strong amenities, it is important to remember that vehicular traffic and visibility are critical to retail success and should be maintained and enhanced.

Development is driven by achievable rents and sale prices. Development occurs when rents are strong enough to support the cost of new construction. The real estate market, not the developer, dictates what rent level can be achieved.

An assessment of current market rents in the downtown area, and the pace of recent development, indicates that in the current climate, development and redevelopment are somewhat challenging but not out of the question. The current planning process, if it results in public-sector infrastructure investments and incentives/partnerships for developers, can provide an important signal to private investors that downtown is growing.

The following section briefly summarizes the development/redevelopment opportunities identified on the accompanying map (Figure 7). The sites identified are generally those which are currently undeveloped, used for parking, or perhaps with one or more small structures.

REDEVELOPMENT OPPORTUNITY SITES

The disposition of these sites and any redevelopment (or lack thereof) is completely under the control of the property owners. The City can take steps to encourage redevelopment but ultimately property owners need to take the initiative to make it happen. The inclusion of specific sites here as "development opportunities" is completely hypothetical – individual sites may redevelop soon, in decades, or never.

General opportunities for redevelopment and include the following:

DEVELOPMENT OPPORTUNITIES

- Encourage mixed-use development (office and/or residential over retail) throughout downtown to support local businesses and provide vibrancy to downtown on evenings and weekends.
- Existing alleys can provide service and parking access for new development.



Large, vacant parcel adjacent to Brewsky's, as seen from E Idaho Ave



Potential public park space at the corner of S Oregon Street and SW 1st Avenue



Parking lots between S Oregon and the railroad tracks

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS



Existing alley off of SW 3rd Avenue

- Establish business improvement district (BID), local improvement district (LID), and/or urban renewal area to fund streetscape and facade improvements as well as maintenance. Pursue capital grants as well.

DEVELOPMENT CONSTRAINTS

- There may be low demand for housing generally in Ontario, and in downtown housing (apartments or condominiums) specifically.
- The existing development code may hinder redevelopment of long-vacant or underutilized properties.
- New uses in existing buildings may require provision of additional on-site parking – more than can be provided due to land constraints – according to the existing development code.
- An abundance of commercially-zoned lands in other parts of the may slow or prevent redevelopment within the downtown.

Specific redevelopment and opportunities sites are noted on Figure 7 and described below. The disposition of these sites and any redevelopment (or lack thereof) is completely under the control of the property owners. The City can take steps to encourage redevelopment but ultimately property owners need to take the initiative to make it happen. The inclusion of specific sites here as “development opportunities” is completely hypothetical – individual sites may redevelop soon, in decades, or never. Following is a summary of specific infill or redevelopment opportunities noted on Figure 7.

Sites with Short to Medium-Term Redevelopment Potential

1. Portions of the large City-owned parcels located on SE Third Avenue between S Oregon Street and the historic depot building could host future residential mixed-use redevelopment, as suggested in the “Depot Row” concept described in the following section of this report. Development along SE Third would leave a majority of the existing municipal parking lots in place. A portion of the displaced parking spaces could be replaced by adding angle parking along one side of SE Third Avenue and elsewhere in the downtown district.



Surface parking lots represent redevelopment potential while serving a necessary downtown function

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

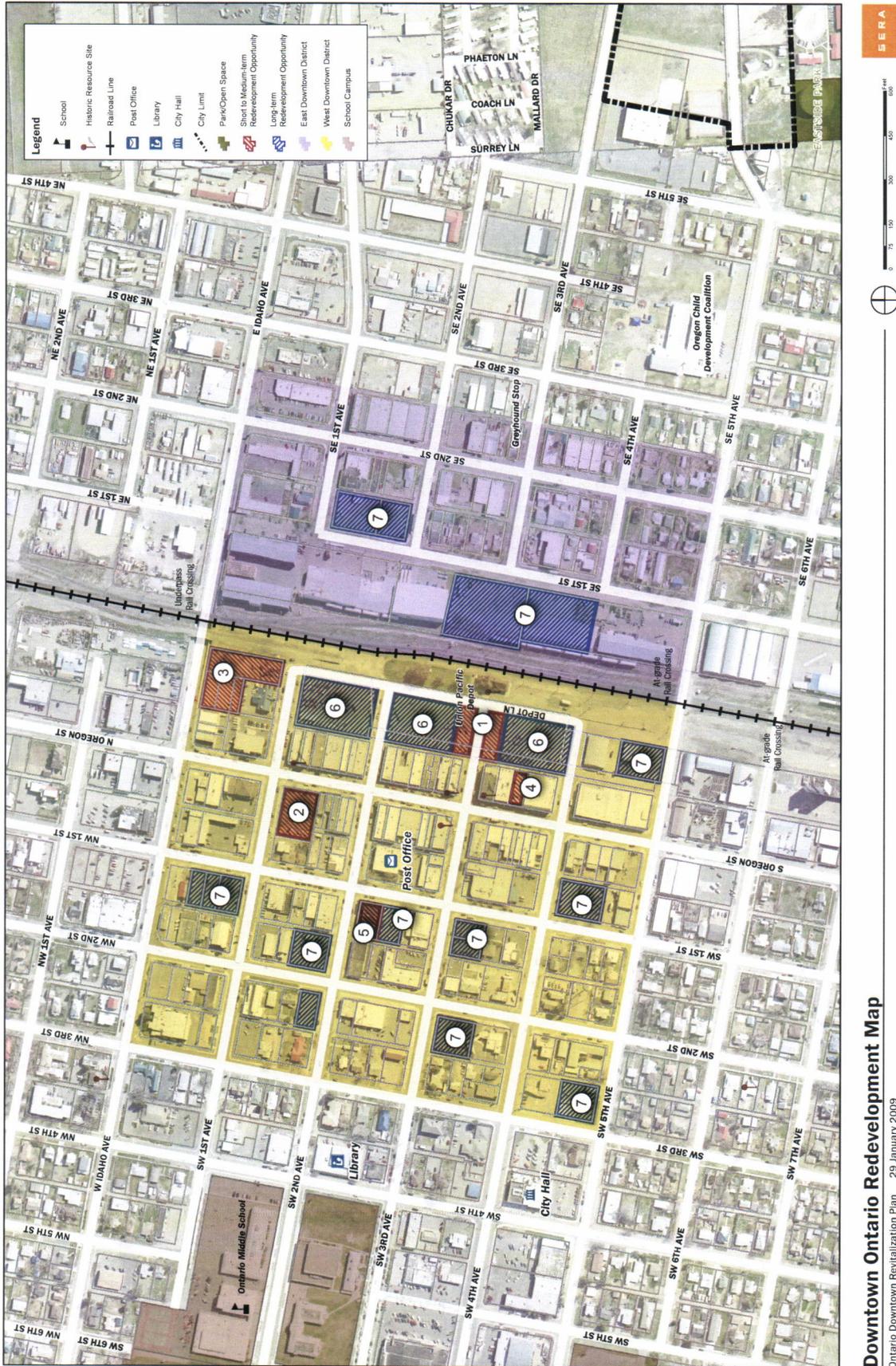


Figure 7: 2028 Baseline Traffic Conditions

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

Additionally, these parcels are under public ownership, giving the public control over how they are developed. As the City considers the eventual financing options of Downtown Plan elements, the land value of these parcels becomes a powerful tool in forming public/private partnerships. These parcels provide an excellent starting point for re-investment efforts.

2. Enhancement of the green space at the corner of S Oregon Street and SW 1st Ave into a downtown park provides another excellent short-term redevelopment opportunity. The park can be designed in such a way as to create an “entry moment” for vehicles travelling south on S Oregon Street. With additional trees and landscaping, a focal point (such as a veterans memorial or fountain), active edges and development focused towards the park, and programmed events and activities, this park space could become an increasingly important community space in downtown Ontario. This project also is described in more detail in the next chapter of this report.
3. In addition to the three parking lot parcels, the vacant parcels surrounding Brewsky’s restaurant to the north are also good candidates to include in early planning. They are currently vacant, provide a contiguous north/south flow with the parking lot parcels, have high visibility from E Idaho Avenue, and have been considered for development in the past
4. The Pix Theater building is located on S Oregon Street between Third and Fourth Avenues. Redevelopment of theater buildings for a different use poses a challenge as the space is highly specialized. However, along with the old movie theater on SW First Street near SW Second Avenue (site number “5”), these are unique buildings in strong downtown locations. One or both should experience creative reuse or redevelopment if a critical mass of other new downtown investment precedes it.
5. The movie theater on SW 1st Street near SW 2nd Ave is also identified. See note number “4” above for details.

Sites with Long-Term Redevelopment Potential

6. Remaining portions of the large city-owned parcels one block east of S Oregon Street, which currently serve as municipal parking lots, offer a significant advantage for long-term redevelopment efforts. These large parking lots provide ready-made redevelopment sites in the heart of the Downtown area. They are large enough to accommodate a range of uses, such as buildings, parks/plazas, and continued use a significant portion of the area for parking.

Furthermore, these parcels are under public ownership, giving the public control over how they are developed. As the City considers the eventual financing options of Downtown Plan elements, the land value of these parcels becomes a powerful tool in forming public/private partnerships. These parcels provide an excellent starting point for re-investment efforts.

It is important to note that a number of community members have expressed concern about the loss of parking that could come with redevelopment of these sites. Parking issues should be addressed as part of any specific redevelopment proposal; these issues could be resolved with joint development of structured parking as part of any significant redevelopment, with increased on-street angle parking, or a combination of the two.

7. Many sites were identified with parking or low-intensity uses which might provide infill sites in the future, if the first phases of reinvestment in downtown create economic incentive for more intense uses. Currently, these sites tend to be in use as parking for adjacent businesses, and any redevelopment, if it occurs, would likely be in well in the future.

In the long-term context of this planning process, sites currently used for parking purposes present the best development opportunities because the parcels are flat and not under more intensive use. However, parking is an essential component of any business/retail district. In very few environments can shops and services thrive without convenient auto access for customers and employees. The Downtown Plan and any specific development projects which arise from it must keep in mind the importance of preserving auto traffic and parking, both on-street and off.

Summary of Site Specific Opportunities and Constraints

Following is a summary list of site-specific opportunities and constraints, many of which were described in more detail in the preceding pages. The list is keyed to the Opportunities & Constraints diagram (Figure 8).

1. Improve experiential quality of E Idaho Avenue underpass: improve lighting for pedestrian tunnels; install pedestrian/bike and wayfinding signage; install welcome sign and/or other gateway elements; establish clean-up / maintenance program.
2. Enhance gateways identifying west downtown entrances at S Oregon Street & Idaho Avenue, and S Oregon Street & 5th Avenue.
3. Enhance gateways identifying east downtown entrances at SE 5th Avenue & 2nd Street, and E Idaho Avenue & SE 2nd Street.
4. Enhance 100% corner located at South Oregon Street and 3rd Avenue.
5. Improve the bicycle/pedestrian connection along 5th Avenue across the railroad tracks.
6. Create public park at southwest corner of S Oregon Street and 1st Avenue. Park improvements could include a veterans' memorial. (Re)development opportunities surrounding such a park should be explored, as should park programming.
7. Continue the strong green connection west from downtown by extending street tree plantings along SW 3rd Avenue. (Declare SW 3rd an "arbor street.")
8. Celebrate watertowers in and near downtown as landmarks/icons.
9. Redevelop the large, vacant parcel along East Idaho Avenue near the railroad tracks. (This site enjoys high visibility and proximity to the downtown core.)
10. Redevelop the vacant theater at corner of SW 1st Street and 2nd Avenue.
11. Explore opportunities to restore the Pix Theater building on S Oregon Street between 3rd and 4th Avenues.
12. Confirm and/or revisit the Depot Square Concept to determine which (if any) aspects still enjoy public support and which (if any) aspects require further study and/or modification. Specific items for consideration may include:
 - Creating a public plaza or square in front of the Depot;
 - Creating a "festival street" on SE 3rd Avenue between the Depot and S Oregon Street;
 - Developing the SE 3rd Avenue frontages adjacent to the Depot to frame and activate the Depot Square or festival street area;
 - Relocating the Greyound station to the Depot.
13. Provide bicycle/pedestrian railroad crossing adjacent to the Depot (as an extension of 3rd Avenue).



Downtown's 100% corner at S Oregon and SW 3rd Avenue

3. EXISTING AND FUTURE CONDITIONS, OPPORTUNITIES AND CONSTRAINTS

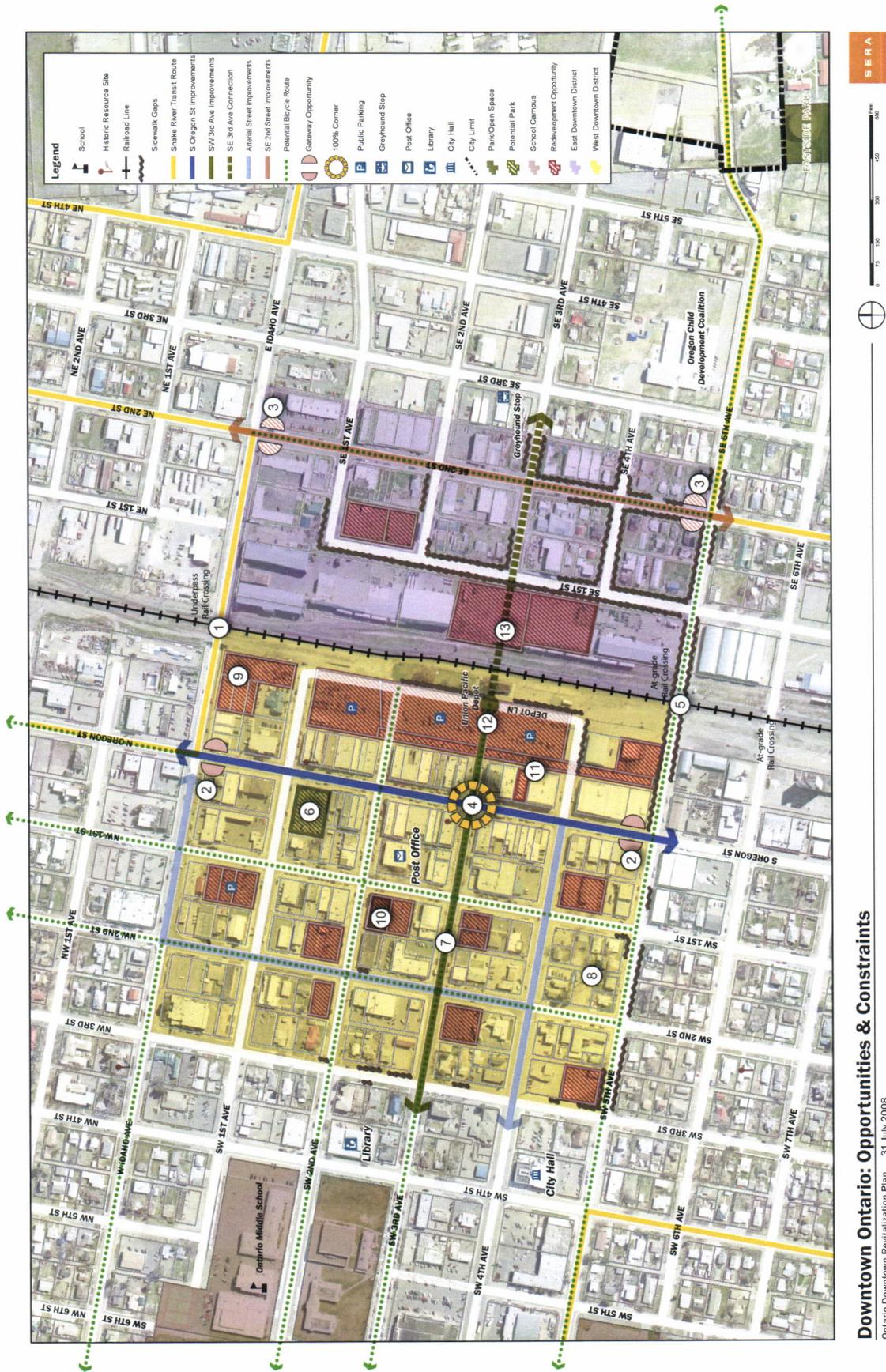


Figure 8: Opportunities & Constraints

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

This chapter describes recommended improvement projects identified, evaluated and refined during this planning process, including the following types of projects:

- Priority downtown improvement projects
- Other potential downtown improvement projects
- School/campus bicycle and pedestrian projects

DOWNTOWN IMPROVEMENT PROJECTS

Much of the work in preparing this plan focused on a targeted list of priority improvement projects for the downtown area. These concepts were identified in the “Conceptual Design Views” component of the process and built from the opportunities and constraints described in the previous chapter. They were subsequently refined through review with the Project Management Team (PMT), Technical Advisory Committee (TAC) and the general public (at two East/West Downtown Workshops).

These recommended projects provide an innovative blend of land use planning, urban design, and transportation planning to encourage a vibrant downtown and promote both transportation-efficient land uses and multi-modal choice within Downtown Ontario. They include the following projects which are indicated on Figure 9:

- Gateway improvements at and near the intersection of West Oregon Street and Idaho Avenue
- Streetscape and storefront improvements along Oregon Street
- New Downtown Park located on the southwest corner of S Oregon Street and SW 1st Avenue
- Depot Row mixed use development adjacent to the historic Depot on SE 3rd Avenue
- Improved railroad crossing along SE 5th Avenue between SE 1st Street and S Oregon Street

Also highlighted is a new traffic signal at the intersection of SW 4th Avenue and Oregon Street to accommodate future traffic volumes and improve traffic circulation and efficiency at this intersection and along Oregon Street. Many of these improvements are illustrated in Figure 9 (Circulation Map). This map summarizes the location of streetscape, traffic, bicycle and pedestrian improvements and how they will generally affect circulation in the downtown area.

The remainder of this section describes these proposed projects and includes a variety of drawings and images to illustrate them. They are described in the context of existing physical and other conditions within the downtown. A description of

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS



Figure 9: Opportunities & Constraints

how they would impact the transportation system and affect the economic vitality of the downtown area also is included. The following chapter describes a series of strategies for implementing these projects in more detail.

DOWNTOWN GATEWAY

The Downtown Gateway concept announces Downtown Ontario with a series of improvements that together create a gateway sequence that signal to drivers, cyclists, and pedestrians that they are entering a different and special zone within the city. The Gateway improvements represent a combination of features that go beyond higher visibility crosswalks to improve the visibility and safety of this intersection for bicyclists and pedestrians.



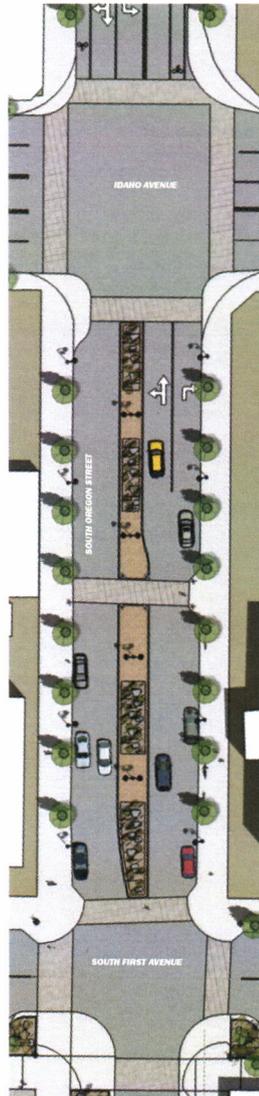
- The intersection of Oregon Street and Idaho Avenue is improved for pedestrians, with tighter curb radii that shorten crossing distances and calm vehicular turning movements. The intersection and/or crosswalks are treated with special paving that announce the presence of pedestrians. This gateway may be further enhanced by the installation of public art, monuments, or entrance signage, and by prominent architectural features or facade improvements. Intersection paving should be done in such away as to prevent, avoid or eliminate tripping hazards.

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

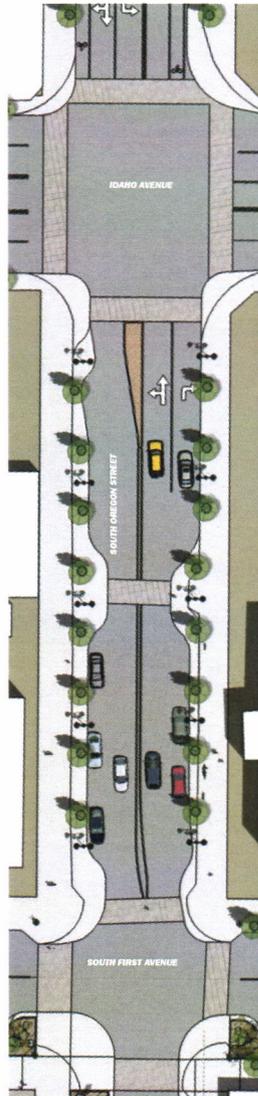
ONTARIO DOWNTOWN GATEWAY



South Oregon Street Gateway Option 1: Median with Trees



South Oregon Street Gateway Option 2: Median with Planters/Native Vegetation



South Oregon Street Gateway Option 3: Wide Sidewalks



SEPA
DOWNTOWN REVITALIZATION PLAN
City of Ontario | Transportation and Growth Management (TGM) Program
12 JUNE 2009

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS



- The first block of Oregon is enhanced with a possible median or widened sidewalks, as well as an enhanced streetscape on either side of the street. Streetscape improvements include additional street trees that provide needed summertime shade and decorative, human-scale street lights that present Downtown as an attractive pedestrian district for evening visitors. Alternative treatments for this block are illustrated on the following page and could include a median with trees, a median with a combination of lower profile landscaping and hanging banners, or no median but wider sidewalks.
- The first block of SW 1st Street south of Idaho Avenue incorporates streetscape improvements as well (street trees, pedestrian lighting and other amenities) and signage encourages drivers to use this alternative entrance to the downtown from Idaho Avenue.
- As a major civic feature, the Downtown Park is the final piece of the gateway sequence. Its northeast corner may contain a water feature or piece of public art, while its core may be activated by programmed uses. (The Downtown Park is described in more detail in the following section.) At this point, the streetscape improvements continue to the south and angled parking is introduced on the west side of Oregon to accommodate park-goers and visitors to Downtown. Angled parking is continued for the length of the S Oregon “Main Street.”



Impacts

Streetscape improvements such as street trees, pedestrian and intersection improvements have more potential to directly affect the aesthetic quality of the Downtown, and attract and keep customers of area businesses. These types of improvements should enhance the customer experience, and help create a new visual identity for the Downtown. Ideally, they will draw additional traffic through the downtown along Oregon and SW 1st Streets.

The proposed improvements are not expected to have any adverse impacts on the transportation system. In concert with other improvements along Oregon Street and a proposed new traffic signal at the intersection of SW 4th Avenue and Oregon Street, the improvements are expected to reduce the speed and volume of traffic along Oregon Street by approximately 15% in comparison to future projections without these improvements. While this will represent a reduction in drive-by automobile traffic, the diverted traffic is primarily expected to be people traveling through downtown (without stopping) who currently use Oregon Street because it is the fastest route through downtown. This will primarily affect northbound traffic and is not expected to substantially affect southbound traffic on Oregon Street. Other impacts would include:

- Moderate impacts on freight vehicles due to tighter curb radii at the Oregon/Idaho intersection. These impacts would be mitigated by encouraging trucks to use SW 2nd Street rather than Oregon Street which most trucks currently do. Relatively slower travel times on Oregon Street also will encourage truck traffic to use alternate routes.
- Improvements to pedestrian and bicycle safety related to streetscape and other improvements near the gateway and along Oregon Street to the south (see below).

STREETSCAPE AND STOREFRONT IMPROVEMENTS

General streetscape and storefront improvements are recommended to help enliven the S Oregon “Main Street,” improve pedestrian comfort and safety, and attract customers and visitors to Ontario’s Downtown.

It is often useful to think of the sidewalk as being divided into three distinct zones, each of which may have its own dimensions, materials, and furnishings.

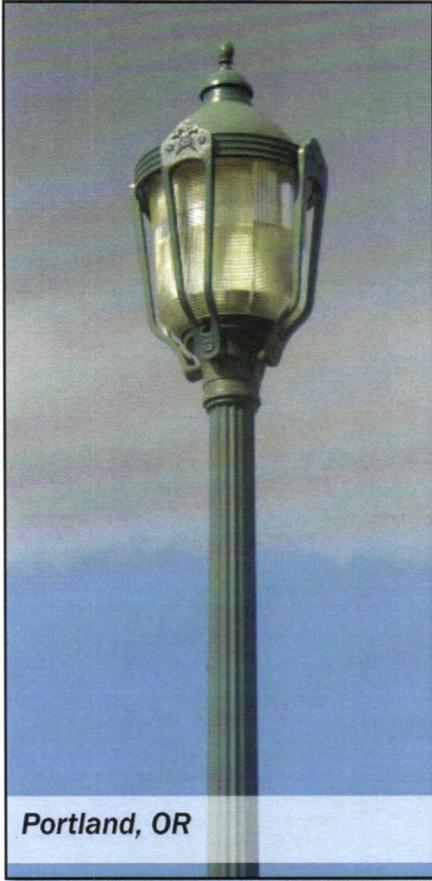
- **The building frontage zone** is the area directly adjacent and parallel to the building face. This area serves as a buffer between the clear zone (or primary pedestrian way) and the building facade, and may contain business signage and outdoor dining (when wide enough).
- **The clear zone** is the through zone of the sidewalk where the majority of pedestrian movement occurs. Because this is the walking zone of the sidewalk, it should be kept clear of furnishings and signage at all times.
- **The furnishing zone** is that area of the sidewalk directly adjacent to the curb, and is the area where street trees, vegetation beds, and street furniture (such as pedestrian-scale lighting, benches, and bike racks) are located. Business signage (such as A-frame or sandwich boards) may also be located in the furnishing zone in accordance with local regulations.

Various streetscape improvements for these zones are described below.

Street Trees and Awnings

Increasing the number of street trees and awnings is recommended for the length of the S Oregon Main Street in order to both beautify the streetscape and provide needed shade during Ontario’s hot summer months. Existing basement vaults may preclude the planting of street trees in some areas. In some of these areas, it may be possible to plant trees in mid-block pedestrian crossing areas as an alternative as long as any potential vision or safety issues can be addressed.

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS



Portland, OR

Decorative Street Lighting

Decorative, pedestrian-scale street lights will add distinction to the S Oregon streetscape, and provide opportunities for additional banners and/or hanging flower baskets. They will also provide appropriately-scaled lighting for improving the level of comfort for pedestrians at night. It is generally recommended that specific, “dark-sky” fixtures are chosen so as to prevent light pollution. Additionally, given Ontario’s climate, the City should consider installing solar-powered fixtures or connecting fixtures to a solar array.

Street Furniture

Consistent street furniture, including benches, bike racks, seasonal planters, and even public art, can help unify a district and provide visual interest and functional amenities for shoppers, employees, visitors, and areas residents.

Storefront Improvements

Facade improvements can improve the look and feel of a downtown, enhance the pedestrian experience, and attract retail customers. Recommended storefront improvements include creating pedestrian-scale store signage on windows and blade signs, revealing transom windows to allow daylighting within stores, installing awnings at a consistent height / projection to protect pedestrians from the elements, recessing entries to provide visual interest and shelter from the weather, and large, highly-transparent storefront windows to allow for both window-shopping and “eyes on the street.” These types of improvements would be entirely voluntary; however, the City could support them and possibly help cover their cost through a matching grant or low-interest loan program if resources are available. Many cities use urban renewal funding for such programs.





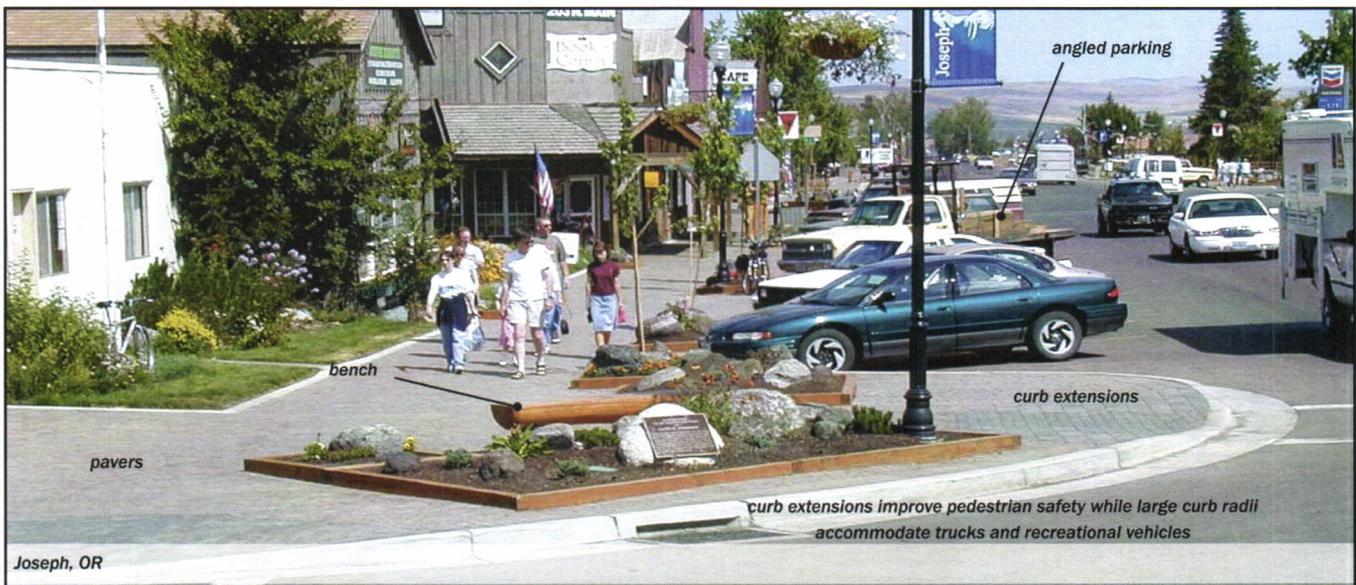
4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

Diagonal parking

Diagonal parking is proposed along the west side of Oregon Street. Diagonal parking will improve the efficiency of land use and enhance the supply of on-street parking spaces. Diagonal parking also is proposed on the south side of SW 1st Avenue adjacent to the proposed new City Park (see following section), along SW 3rd Street in the Depot Row area and could be implemented on a number of other east/west streets in the downtown.

Intersection Paving and Curb Extensions

Intersections along Oregon Street would be improved to include paved crosswalk areas (either using decorative pavers or stamped concrete) and curb extensions, similar to those already found at the intersection of SW 3rd Avenue and Oregon. Intersection paving should be done in such away as to prevent, avoid or eliminate tripping hazards. Selected mid-block crossings along Oregon also would benefit from curb extensions and decorative paving. If designed correctly to minimize impacts on visibility and site distance, mid-block curb extensions also could include street trees or other landscaping elements.



Wayfinding Signage

Signs should be used to direct people to key community facilities (e.g., city park, Depot and new plaza, City Hall and others). These signs will help visitors navigate the downtown and may encourage them to visit areas and shops they may otherwise not have seen. They may be integrated with wayfinding signage proposed for bicycle boulevards in terms of their general design and content.



Pedestrian Passageways and/or Courtyards

While there are currently limited opportunities for these types of amenities along Oregon Street, they can help add variety and visual interest in a downtown area and create opportunities for pedestrians and business customers to gather, rest and eat or drink. They could be encouraged through future redevelopment of properties along Oregon Street and/or other downtown streets. Some infill or redevelopment sites also may represent future opportunities for these types of features, as well as public art and/or other ways to enliven the downtown.

Impacts

As noted above, streetscape improvements such as street trees, pedestrian and intersection improvements have more potential to directly affect the aesthetic quality of the Downtown, and attract and keep customers of area businesses. They should enhance the customer experience, and help create a new visual identity for the Downtown. Street trees in particular enhance a retail environment over time, beautifying and creating shade for pedestrians and cyclists. New pedestrian and cycling connections in the neighborhood bring additional customers to the area, and enhance the “pedestrian-scale” niche that can differentiate the Downtown business district.

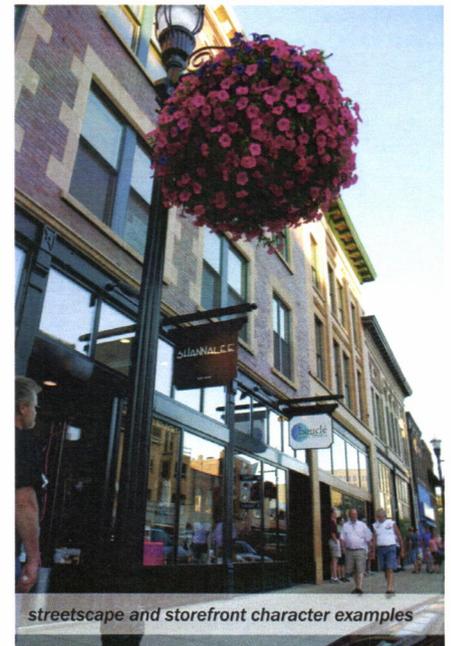
The types of small, specialty retailers and restaurants which do well in historic downtowns should be attracted to these improvements. Once they are established they will likely be seen as investments which improve the Downtown business environment and accrue value to the business tenants. Such improvements also draw office tenants, who often have more flexibility in where they locate than retail tenants do, and therefore have more leeway to seek out the most pleasant business environment in which they would like to work.

Storefront improvements are a net positive for commercial tenants. In the short term, they can be disruptive as construction is underway, and business levels can fall. However, significant improvements can be made very simply, with new paint, stucco, or awnings. These improvements can convey a sense of recent investment and on-going vitality in a district, as opposed to storefronts which show their age and lack of investment. The look of new vitality will attract businesses and customers alike.

Storefront improvement programs always should be voluntary. Public agencies can offer incentives such as subsidized design services, facilitated permitting, or cash grants. One challenge for public agencies is to not make the process onerous on property owners by drawing out approval and making the process overly reliant on subjective design review processes. Resource spent on meeting additional process requirements will quickly negate any gains from incentive programs for property owners.

Implementing diagonal parking downtown is expected to benefit the area by increasing the supply of conveniently located parking and slowing traffic to a degree that improves visibility without causing delays to shoppers. These changes also can become part of the district’s unique identity, as the streets and parking configuration would be distinct from other parts of the city.

As noted in previous and following sections, improvements on S Oregon Street (narrower roadway cross section, parallel and back-in angled street parking, and a more pedestrian-oriented environment) will likely lead to increased travel time along the S Oregon Street corridor. As a result, it is anticipated that there will be a subtle shift in travel patterns where more eastbound traffic would divert from S Oregon Street to SW 2nd Street. Specifically, it is assumed that 15% of eastbound through vehicles on S Oregon Street would shift to SW 2nd Street. This assumption is based



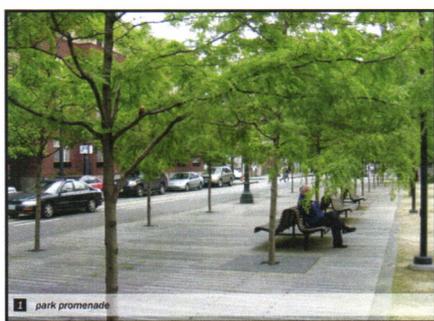
4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

on the combination of reduced travel speeds due to the improvements along S Oregon Street and the additional delay imposed on eastbound left-turning vehicles by the proposed new signal at the SW 4th Ave/S Oregon Street intersection. These impacts are described in more detail in the description of the proposed new traffic signal. As noted previously, most diverted traffic is expected to be drivers who would not otherwise have stopped to patronize businesses along Oregon Street.

DOWNTOWN PARK

The property at the southwest corner of S Oregon Street and SW First Avenue is re-envisioned as a Downtown Park – a significant public amenity for residents and visitors alike. (It should be noted that, at present, this piece of property is entirely within private ownership.) Although there are many, many ways to design a public park of this scale, there are several design principles which should at least be considered for any design within an urban, downtown context such as Ontario's:

- **Create an entry moment.** The northeast corner of the park is part of the gateway sequence into Downtown Ontario, but is also the leading edge of a park that is bounded by a building to the south and an alley / parking lot to the west. This entry moment, then, becomes both a symbol for Downtown and an organizing element for the park.
- **Provide eyes on the park.** New development on, or renovations of, surrounding properties should include active entrances and storefront windows that are oriented to the park, thereby providing a higher level of comfort and perceived safety for this important civic space. There may even be opportunities for future uses – such as restaurants – to spill out onto the park from adjacent buildings.
- **Establish a focal point.** A veterans' memorial, band-shell, public art, or fountain can provide a needed focal point for a park of this scale in this type of location.
- **Program events and activities.** Programming is an important piece in keeping parks active. Concerts, craft fairs, farmers markets, summer movies, and kids' events are all ways to help activate a park and draw people Downtown.
- **Sun and shade.** In a climate like Ontario's, balancing out sun and shade within a public park is important for creating a comfortable environment for park-users year-round.



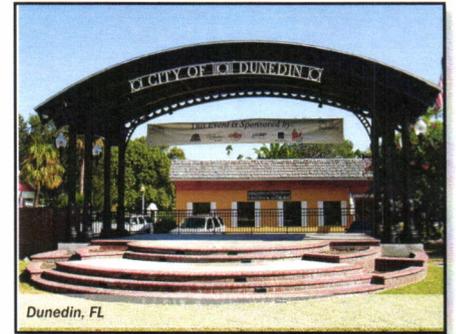
Two alternatives for the Downtown Park are presented here – not as the only two ways to design such a facility, but rather as illustrative examples for how the above principles could be put into practice. These two alternatives each contain several of the same elements, described here:

- **Park Promenade.** The edges of the park are shown as promenades, with specially-treated sidewalks (pavers, boardwalk, etc.) lined by a double row of trees.
- **Memorial Element(s).** There has been a stated interest in paying homage to the City's (and our nation's) veterans at this park. There are many ways to

4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

incorporate memorial elements – from traditional statuary or monuments, to symbolic art, to a memorial tree.

- **Entry Feature.** As discussed above, an entry feature can be quite powerful for this park. This could be a fountain, landscape element, or memorial feature.
- **Splash Fountain.** Fountains – especially kid-friendly ones – are a popular draw, especially where summers can be hot.
- **Open Space.** A sizable portion if not a majority of the park should be open space, available for picnics, games, or programmed events.
- **Amphitheater.** Residents have suggested inclusion of an amphitheater or other space to watch summer movies, concerts or other events. This could be located along the west or south edges of the park and could incorporate a wall or more temporary surface (e.g., a large fabric “screen” anchored to an archway) to view movies or serve as a backdrop for a stage area.



Impacts

Creation of a pleasant, attractive and well-programmed park could have significant benefits in drawing residents and visitors to the downtown, particularly families and children, depending on the design of the park and mix of programmed activities. This would have positive spillover effects on downtown businesses, creating more shopping and other downtown opportunities. Similar to the streetscape improvements described above, increased use of the area would help slow traffic with related safety and economic benefits.

DEPOT ROW MIXED USE DEVELOPMENT AND PLAZA

The area of SE Third Avenue immediately adjacent to the historic train depot is presented here as Depot Row, a collection of residential and/or live/work units. Presented here as townhome-style buildings, conceptually these could be apartments



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

or condominium buildings, potentially with ground-floor retail or office uses. This concept has several features worth noting:

- It connects the Depot – an historic building that is much-beloved by area residents – to the S Oregon “Main Street” with built urban fabric.
- Depot Row vertically frames the view of the Depot, which is currently surrounded largely by wide-open surface parking lots.
- It creates a reasonably-sized plaza as a forecourt for the Depot, raising the symbolic importance of this building and providing programmable space for public events or markets.
- The Depot Row housing and/or commercial uses would provide “eyes on the street” in an area that is currently given over entirely to parked vehicles and asphalt. To the extent that this concept includes successful live-work units, it will also help provide more daytime activity in the area.
- Supplying a range of housing types in Downtown Ontario will help provide housing options for residents as well as nearby customers for Downtown merchants. This livable, urban model of housing would likely appeal to a market sector that is not currently well served in Ontario.



While the Depot Row concept does remove some of the surface parking that is currently available, it removes significantly less than the previously-proposed Depot Square concept (2007). Also, this loss in parking can be more than made up for by reconfiguring on-street parking on downtown streets to allow for angled parking. From the point of view of overall improvement to downtown, the benefits described above will more than offset the minor reduction in parking within the immediate station area.



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

If the plaza/gathering space in front of the Depot is constructed before the mixed use development occurs, interim measures could be taken to enhance the area as a public gathering space. For example, as a transitional measure, the area proposed for the live-work units could be landscaped with berms or other features to provide a gathering space near the proposed public plaza. Implementation of this concept will require a public private sector partnership and a market for the type of development that is ultimately proposed. This plan shows once concept for the development but this concept may evolve depending on private sector interest and market conditions.

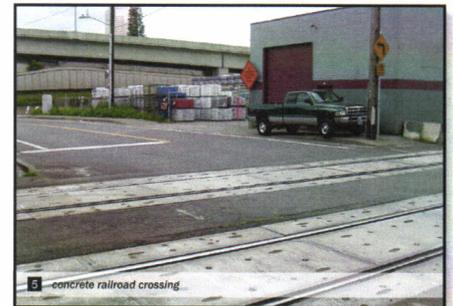
Impacts

The type of redevelopment suggested here can help to reinforce the Downtown's identity as a unique place in Ontario, offering a different type of shopping, dining, working or living experience. Both the community and private sectors can take additional steps to create this identity, including scheduling frequent events in the Downtown. There are no expected traffic impacts of this concept beyond limited impacts on the supply of public parking. However, these impacts would be more than offset by provision of diagonal parking in this and other areas of the downtown.

FIFTH AVENUE RAILROAD CROSSING

The Fifth Avenue railroad crossing at the south end of Downtown lacks bike and pedestrian facilities and is in need of improvement.

A conceptual design view prepared for these improvements shows new sidewalks on both sides of Fifth – lined with street trees both east and west of the railroad right-of-way. Bike lanes are shown on both sides of the street, and concrete track crossings are shown as a needed safety improvement for cyclists.



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

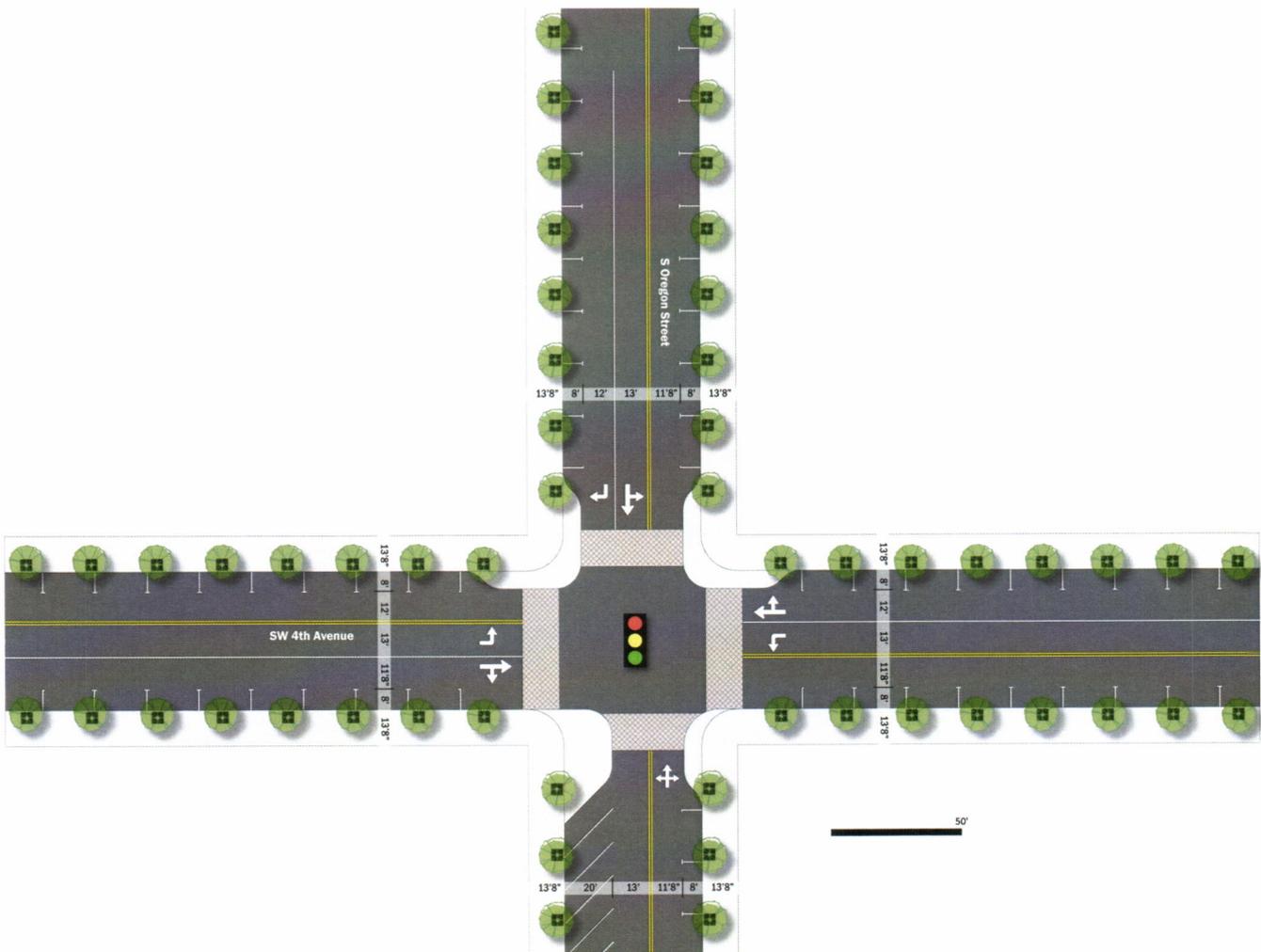
Impacts

This project would have positive impacts on pedestrian and bicycle safety in this area. It also would enhance the appearance of SE 5th Avenue and would generally enhance the connection between east and west downtown.

SW 4TH AVENUE AND OREGON STREET TRAFFIC SIGNAL

S Oregon Street is the primary business and shopping corridor in the downtown Ontario study area. In addition to the traffic generated by these businesses, S Oregon Street from SW 4th Avenue to W Idaho Avenue also is a primary travel route for vehicles traveling east through the City. Heavy eastbound traffic at the SW 4th Avenue/SW 2nd St intersection are followed by heavy eastbound left-turn volumes from SW 4th Avenue onto S Oregon Street, in combination with a high number of right-turning vehicles from northbound S Oregon Street onto eastbound W Idaho Avenue. At the same time, a much smaller number of vehicles are making eastbound left-turns from SW 4th Avenue onto SW 2nd Street. This indicates that the majority of eastbound through trips are traveling on S Oregon Street, as opposed to SW 2nd Street, which is the route that is signed as the through route.

The attractiveness of the S Oregon Street corridor over the SW 2nd Street corridor can be primarily attributed to travel time differences. Motorists have determined that S Oregon Street is a faster travel route than the SW 2nd Street corridor. Traffic analysis shows that the S Oregon Street route is approximately 23 seconds faster on average during peak travel times. This travel time advantage is primarily due to the free eastbound left-turn movement at the SW 4th Avenue/S Oregon Street intersection.



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

The SW 4th Avenue/S Oregon Street intersection is currently unsignalized with stop-control on the northbound, southbound, and westbound approaches and a free-flowing eastbound approach. As Oregon Street transitions to more of a pure downtown commercial corridor that better accommodates on-street parking and pedestrian travel, it is anticipated that long-term travel patterns in the downtown area are going to change. To better accommodate these shifting travel patterns, the SW 4th Avenue/S Oregon Street intersection will ultimately need to be signalized. Signalization can be integrated with the ultimate streetscape improvements envisioned for S Oregon Street. However, Oregon Street from SW 4th Avenue to SW 3rd Avenue will require parallel on-street parking on both sides of the street in order to accommodate a separate southbound shared through/left and right-turn lane at SW 4th Avenue.

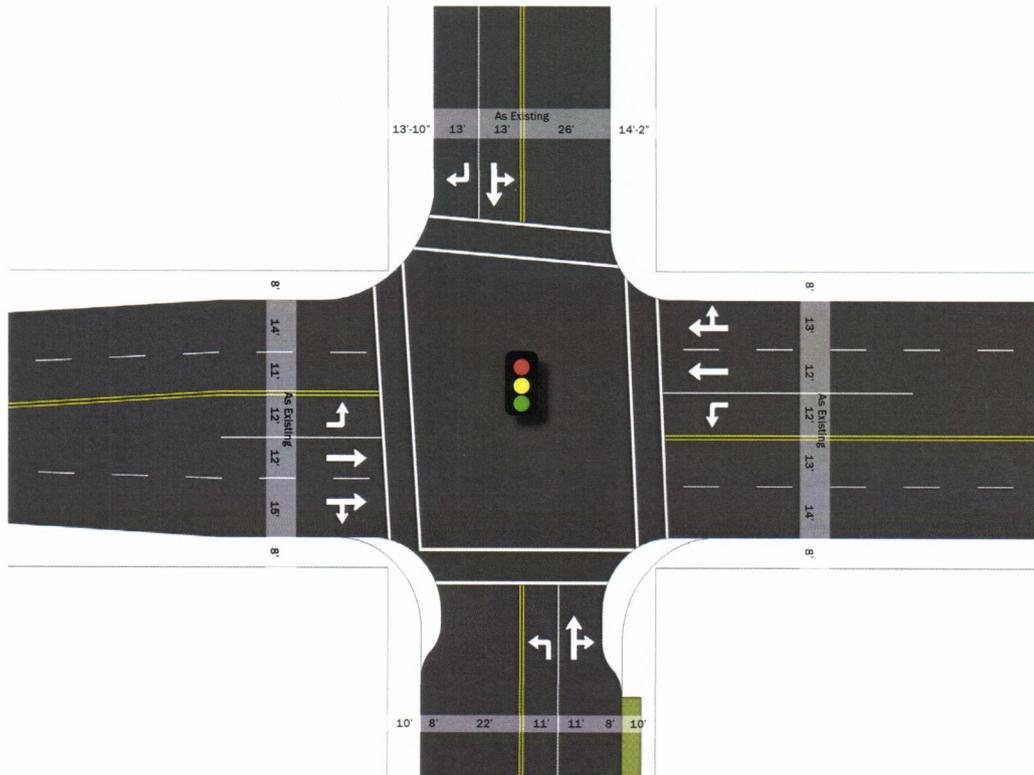
Impacts

Then the intersection is signalized, the free eastbound left-turn movement will be eliminated. In addition, the improvements on S Oregon Street (narrower roadway cross section, parallel and back-in angled street parking, and a more pedestrian-oriented environment) will likely lead to increased travel time along the S Oregon Street corridor. As a result, it is anticipated that there will be a subtle shift in travel patterns where more eastbound traffic would divert from S Oregon Street to SW 2nd Street. Specifically, it is assumed that 15% of eastbound through vehicles on S Oregon Street would shift to SW 2nd Street.

With the signal and other improvements in place, and with the subsequent shift in traffic patterns, traffic conditions at the E Idaho Avenue/S Oregon St intersection also will improve in the future though there will still be congestion at this intersection. Any improvements to further enhance operations at this intersection would require extensive efforts, such as costly right-of-way acquisition and unique construction challenges (i.e. the railroad overpass). Therefore, no improvements to this intersection are recommended.

E IDAHO AVENUE/SE 2ND STREET

The East Idaho Avenue/SE 2nd Street intersection is an important portal between the east downtown study area and the E Idaho Avenue corridor. To better accommodate existing and future traffic volumes, the northbound SE 2nd Street approach should be re-stripped to include an exclusive left-turn lane and a shared through/right-turn lane.



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

Impacts

Restriping this intersection will improve traffic operations in this location and allow the intersection to operate at an acceptable level of service.

OTHER POTENTIAL DOWNTOWN PLANNING PROJECTS

Several other improvement projects have been discussed as part of this project, including the following. They should be incorporated in future planning efforts and in some cases studied in more detail in terms of their potential feasibility and cost.

- **East gateway entry signage.** Signage along Idaho Avenue should signal to drivers that they are approaching downtown as they enter the eastern portion of downtown. Signage could direct people to both “west Downtown” (via Oregon or SW 1st Streets) and “east downtown” (e.g., via SE 2nd Street). In either case, signage should give drivers adequate notice that they are approaching these areas several blocks before they reach them.
- **Future east and west downtown streetscape improvements.** Many of the streetscape improvements proposed for SW Oregon and 1st Streets and for SW 1st and SE 3rd Avenues (associated with the proposed new City park and Depot Row improvements) can ultimately be implemented on other streets in the downtown area as uses in those areas intensify, redevelopment occurs and additional public funds are available. New streetscape standards may specify the conditions under which such improvements would be made.
- **SW 3rd Avenue railroad crossing.** Previous planning efforts identified the need for a new pedestrian/bicycle railroad crossing at SE 3rd Avenue to better connect east and west downtowns. Given the significant expense of building either an undercrossing or overcrossing at this location and challenges in working with railroad officials to do so, this improvement was not identified as a high priority as part of this project. However, it should continue to be considered in the future in the event that they challenges can be overcome.
- **Downtown transit hub facility.** A regional transit system has recently been established with the objective of increasing access to shopping and other services and connecting the City of Ontario with communities in Malheur and Payette Counties. The system currently serves the downtown via a route that follows the periphery of the downtown area. However, it does not include stops along Oregon Street or other north-south streets between Idaho and SE 5th Avenue. The City should encourage provision of transit stops within the core downtown area, particularly as it implements the projects identified in this study (such as the proposed new City Park and Depot Row concepts).
- **Bicycle pedestrian pathway paralleling railroad right of way.** The City’s recently completed Park and Recreation Plan and the City’s Transportation System Plan identify a future trail parallel to the Union Pacific Railroad right-of-way. This trail was not identified as a priority project in this study in part because it goes beyond the downtown and is not a primary route between school facilities and the downtown. However, it should continue to be studied and would provide a connection to and through the downtown for people in surrounding residential neighborhoods and beyond.

BICYCLE AND PEDESTRIAN CONNECTIONS AND FACILITIES

One of the primary elements of this project is to identifying strategies to enhance bicycle and pedestrian routes between local schools and campuses and the downtown. A number of specific bicycle and pedestrian improvements are recommended to meet these objectives, including the following types of improvements:

- Bicycle lanes (striped) in the following locations:
 - North Oregon Street, north of Idaho Avenue
 - West Idaho Avenue between Verde and Oregon Streets
 - SW 5th Avenue between SW Park Blvd. and SE 5th Street
 - SE 2nd Avenue between SE 5th Avenue and Idaho Avenue

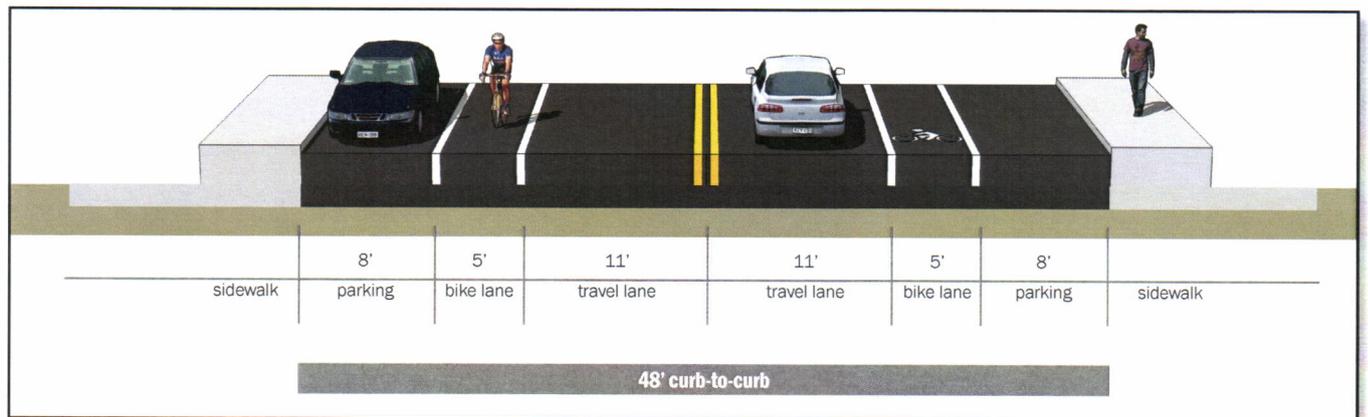
4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

- Bicycle Boulevards in the following locations:
 - NW 3rd Avenue between NW 8th Street and the Union Pacific Railroad right-of-way
 - SW 3rd Avenue between NW 13th Street and the Union Pacific Railroad right-of-way
 - NW 2nd Street between NW 3rd Avenue and Idaho Avenue
 - SW 2nd Street between SW 5th Avenue and SW 10th Avenue
- Multi-purpose bicycle path paralleling the Union Pacific Railroad right-of-way (see Other Potential Downtown Improvement Projects, page 62)
- A high-visibility cross-walk and a “leading pedestrian interval” to the signalized intersection of Idaho Avenue at Oregon Street (see Gateway Improvement described earlier in this chapter)
- Improvements to the railroad crossing at SW/SE 5th Avenue (see previous section)
- Bicycle loop detectors or bicyclist-activated push buttons on the minor street approaches at the following intersections:
 - Idaho Avenue at Oregon Street (on all approaches)
 - E Idaho Avenue at NE/SE 2nd Street (on 2nd Street approaches)
 - SW 4th Avenue at SW 2nd Street (on 2nd Street approaches)
 - SW 4th Avenue at SW 4th Street (on 4th Street approaches)
 - SW 4th Avenue at SW 10th Street (on 10th Street approaches)
 - W Idaho Avenue at SW 2nd Street (on 2nd Street approaches)
- Americans with Disability Act upgrades (e.g., construct/reconstruct curb ramps with detectable warning strips as necessary), actions throughout the study area as needed

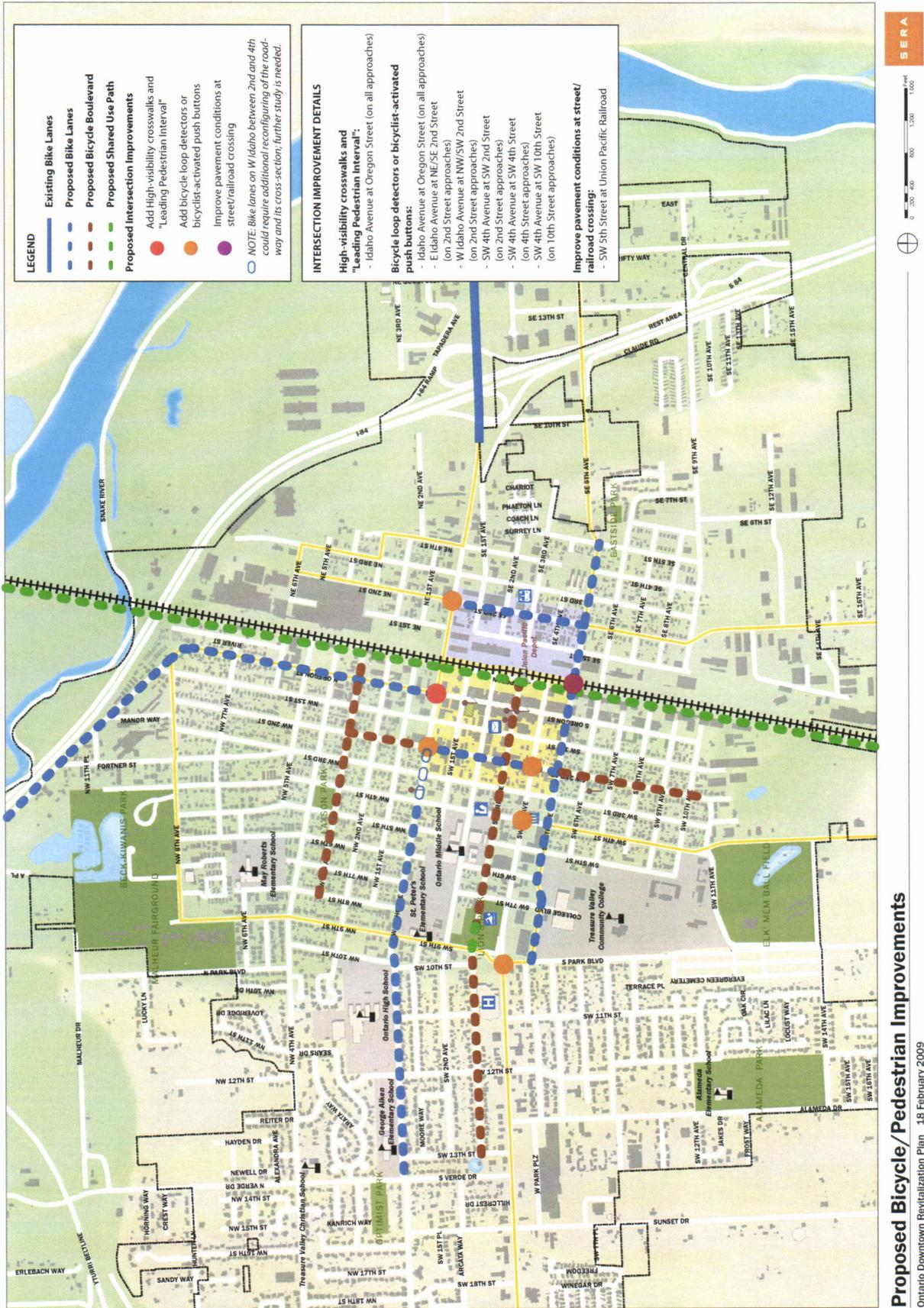
These proposed improvements are illustrated in Figure 10 and the Bicycle Lane and Bicycle Boulevard improvement projects are described in more detail on the following pages. Other improvements are illustrated in previous sections of this report and/or in the graphics on the following pages.

BICYCLE LANE IMPROVEMENTS

Most of the bicycle lane improvements identified in the preceding map and text can be accommodated through modest reductions to the width of travel lanes but would not require eliminating any travel lanes or on-street parking. Cross-section drawings illustrate proposed configurations for bike lanes on West Idaho Avenue between Verde and W 2nd Street and on SW 5th Avenue between SW Park Blvd. and SE 5th Street. Depending on the location of on-street parking areas, lane configurations on North Oregon Street, NW 2nd Avenue and SW 2nd Avenue could utilize a similar configuration or the configuration identified in Figure 7-12 of the City’s Transportation System Plan (bike lane adjacent to curb).



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS



Proposed Bicycle/Pedestrian Improvements
 Ontario Revitalization Plan 18 February 2009

Figure 10: Proposed Bicycle/Pedestrian Improvements

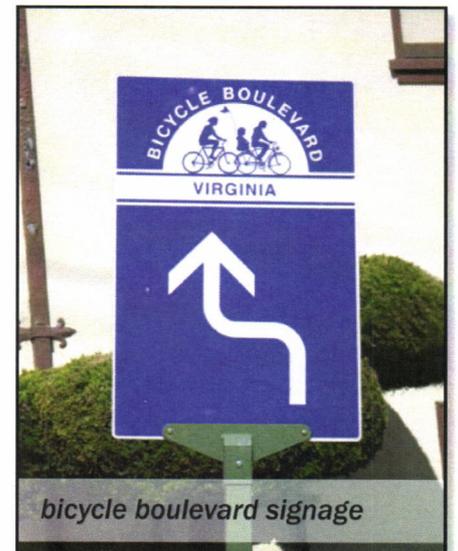
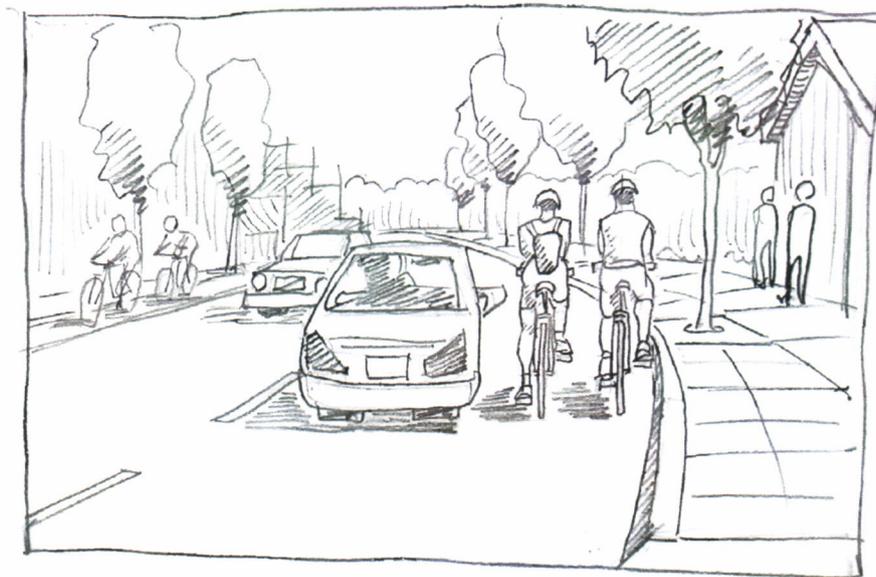
4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

On W Idaho between SW 2nd and Oregon Streets, implementing striped bicycle lanes would result in loss of one westbound travel lane and reworking the transition across the Idaho / 2nd intersection (see the accompanying figure). While these adjustments could impact this intersection's vehicle capacity, particularly on the westbound approach, analysis of future traffic conditions indicates that there would be adequate current and future capacity to make these changes while maintaining acceptable levels of service on this section of Idaho Avenue.

BICYCLE BOULEVARDS

Bicycle boulevards are streets where bicycle share the roadway with vehicles but a number of changes are made to enhance the visibility, safety and convenience of bicycling, including the following types of improvements:

- Pavement markings ("sharrows") indicating that bicycles and cars share the roadway
- Wayfinding signage oriented to bicyclists indicating how far they are in distance of minutes from specific destinations
- Traffic calming devices such as islands, speed humps or chicanes to slow traffic and improve safety for bicyclists and pedestrians
- Bicycle or pedestrian activated signals at signalized intersections



4. PRIORITY RECOMMENDATIONS FOR IMPROVEMENT PROJECTS

Figure 11 illustrates how these and other pedestrian-oriented improvements could be implemented on the bicycle boulevard proposed for SW 3rd Avenue.

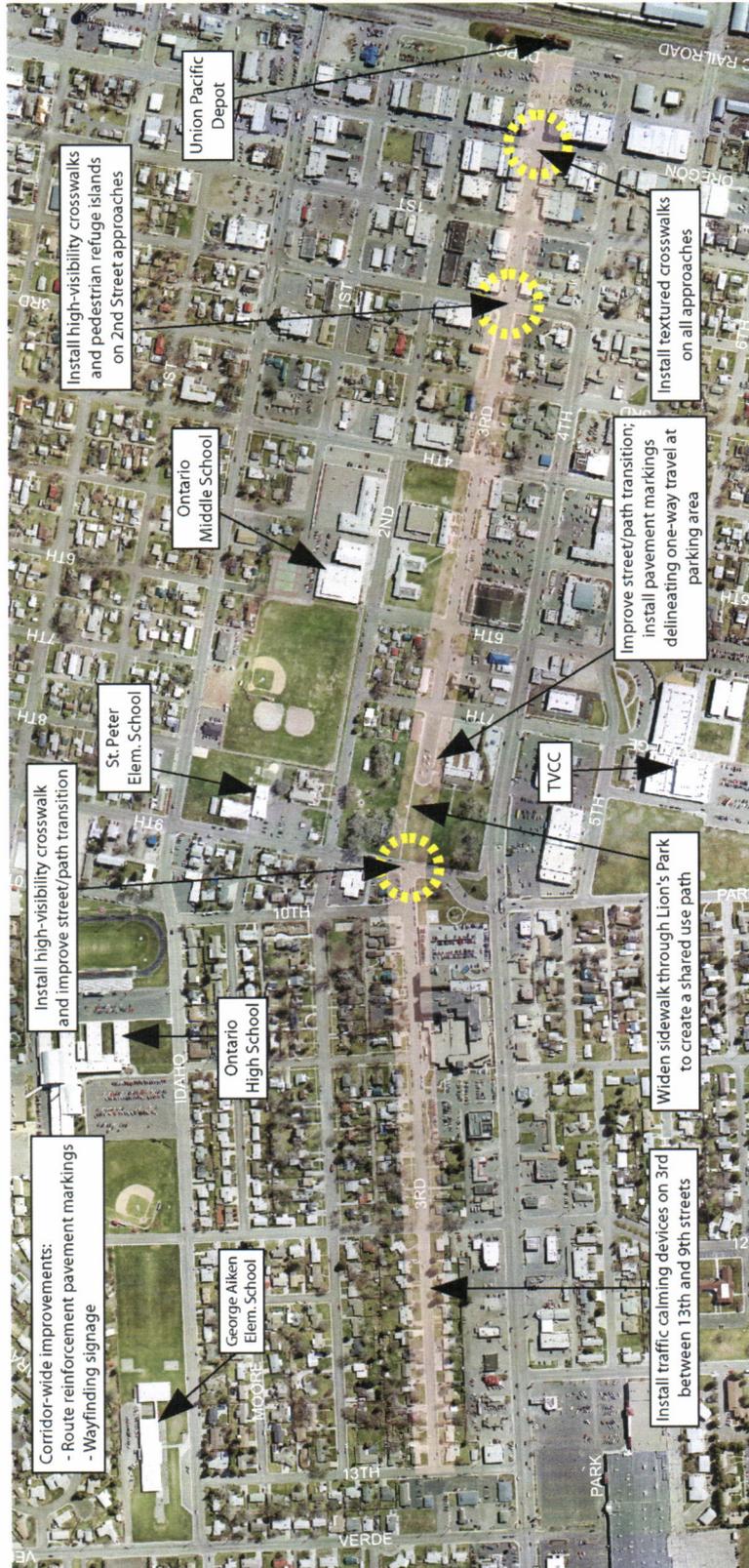


Figure 11: 3rd Bike Boulevard

5. FUNDING AND IMPLEMENTATION PLAN

This section of the report addresses the following key issues associated with paying for and implementing the improvements projects described in the preceding pages of the report, including information about the following:

- Priorities
- Cost Estimates
- Funding Sources
- Comparison of costs and funding
- Implementation strategies
 - Funding and phasing
 - Local partnerships
 - Operation and maintenance
 - Access management
 - Freight mobility
 - Zoning Ordinance and Comprehensive Plan amendments

PRIORITIES

Prioritizing improvements is an essential step for implementing this plan. Too often communities are unable to move forward on such projects because they become overwhelmed by the scope and cost of implementing a full set of recommendations and have not identified a set of priorities and phasing process to implement projects over time and as resources become available.

In this case priorities have been identified in two ways – both overall priorities among the specific downtown planning projects identified in this report and priorities for specific elements of specific projects. Overall projects are identified as high, medium or low priorities. Project elements are prioritized in terms of how soon they should be implemented – short, medium or long-term. The following factors were used to identify these priorities.

- Input from community members who participated in the January 29 Downtown Planning Workshop
- Relative ease and cost of implementation
- Visibility and the anticipated degree of impact to area residents and visitors
- Impact on achieving other project goals or implementing other project elements (i.e., “critical path” items)
- Ability to achieve multiple project objectives
- Discussion with City Planning Commission and Council members

5. FUNDING AND IMPLEMENTATION PLAN

DOWNTOWN IMPROVEMENT PROJECTS

The following table summarizes proposed priorities for downtown improvement projects.

TABLE 10. DOWNTOWN IMPROVEMENT PROJECT PRIORITIES

Item	Timing		
	Short-term	Medium-term	Long-term
High Priority Projects			
Oregon Street Streetscape Improvements			
Diagonal parking conversion	■		
Benches, bicycle parking and planter boxes	■		
Street trees		■	
Intersection improvements		■	
Pedestrian lighting			■
Oregon/Idaho Gateway			
Intersection and median improvements	■		
Street trees		■	
Pedestrian lighting			■
5th Avenue Railroad Crossing			
New sidewalks, bicycle lanes	■		
Street trees		■	
Paving improvements (concrete adjacent to rails)	■		
Medium Priority Project			
New City Park			
Land acquisition	■		
Detailed design process	■		
Surrounding streetscape improvements		■	
Park construction		■	
Lower Priority Projects			
Depot Row			
Plaza design	■		
Diagonal parking conversion	■		
Street trees, other amenities		■	
Plaza construction		■	
Street lighting		■	
Mixed use development			■
Oregon/4th Traffic Signal			
Monitor capacity, operation	■		
Design intersection		■	
Install new signal			■

In addition to these priorities, the following phasing plan is recommended for the Oregon Street streetscape improvements in the event that they are undertaken in phases:

1. Along Oregon Street at Oregon/Idaho gateway.
2. Improvements along SW 1st Street between Idaho and SW 1st Avenue and along SW 1st Avenue adjacent to the proposed new city park.
3. Along SE 3rd Avenue between Oregon Street and Depot Lane.
4. Along other blocks on S Oregon Street.
5. Along cross-streets to Oregon Street on the blocks immediately to the east and west.
6. On other blocks in west and east downtown as funding allows and/or redevelopment projects are undertaken.

Another high priority project should be to implement a diagonal pilot parking conversion project on a side street to Oregon Street.

OTHER BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS

The following table summarizes proposed priorities for bicycle and pedestrian school and campus improvement projects.

TABLE 11. BICYCLE AND PEDESTRIAN PROJECT PRIORITIES

Project	Low	Medium	High
Bicycle Lanes			
Idaho Street			■
SW/SE 5th Avenue			■
SW 2nd Street		■	
SE 2nd Street		■	
N Oregon Street		■	
Bicycle Boulevards			
NW 3rd Avenue		■	
SW 3rd Avenue			■
2nd Street		■	
Oregon/Idaho Intersection Improvements			■
Bicycle or pedestrian activated signals		■	
Union Pacific Multi-Purpose Trail	■		

These priorities will be refined based on feedback from the Project Management Team, Planning Commission and City Council.

COST ESTIMATES

Preliminary rough cost estimates have been prepared for the priority downtown improvement projects and bicycle and pedestrian improvements described above. Costs are based on a combination of unit cost estimates for similar projects designed by Kittelson & Associates and Alta Planning+Design and/or experience with similar projects in other jurisdictions. In some cases, a range of estimates is provided where costs could vary significantly based on a variety of factors. Costs are included for the following discrete projects:

- Oregon Street/4th Avenue intersection signalization
- Oregon Street/Idaho Avenue median, intersection and streetscape improvements (covers Oregon between Idaho and 1st) the Idaho median and between Oregon and SW 1st Avenue

5. FUNDING AND IMPLEMENTATION PLAN

- Other Oregon Street streetscape improvements
- 5th Avenue railroad crossing and streetscape improvements
- Depot Lane/3rd Avenue streetscape and plaza improvements
- Downtown park improvements
- Bicycle improvement projects (included in a separate table)

For downtown improvement projects, costs have been estimated for the types of activities listed below. For bicycle and pedestrian projects, costs include overall capital costs, and those associated with mobilization and traffic control, contingency, design, engineering and construction management:

- Excavation and embankment (cut and fill)
- Paving, including new pavement, pavement rehabilitation, curb and sidewalk construction and new sidewalks
- Storm drainage improvements
- Landscaping
- Mobilization and traffic control
- Design and construction management
- Contingency

No right-of-way acquisition is anticipated for any of these projects. At this time, this report does not include an estimate of land acquisition costs for the park project but a subsequent draft of the report can include it, pending assistance from the City. Other assumptions include the following:

- Gateway medians along sections of Oregon Street and Idaho Avenue would include street trees and paved surfaces. Plantings/landscaping would be minimized to reduce irrigation needs.
- Intersection crosswalks would be stamped concrete.
- Existing water and sewer lines will generally be retained on Oregon, Idaho and 5th Avenue.
- Streetscape improvements along Depot Lane would extend from 3rd Avenue north to SW 2nd and south to SW 4th (i.e., the next intersecting streets).
- Storm drainage and landscaping improvements (excluding street trees) have been calculated as a percentage of total base road improvement costs.
- Street tree cost estimates vary from \$250-\$500 per tree, including installation in tree wells; we have assumed the higher estimate to be conservative. However, these costs could be reduced through volunteer labor and/or donation of trees through organizations such as “Friends of Trees” or the National Arbor Society. Similarly other costs could be reduced through volunteer labor or other efforts.
- Downtown park cost estimates are based on a range of unit costs (cost per square foot) for park projects in other communities. These costs can vary widely depending on design and special features (e.g., water features).

Estimates for Downtown Improvement Projects are summarized in the following table. A more detailed breakdown for some items can be provided separately along with unit cost assumptions.

TABLE 12. PLANNING LEVEL COST ESTIMATES FOR DOWNTOWN IMPROVEMENT PROJECTS

Item	Oregon/4th Traffic Signal	Oregon/Idaho Gateway	Oregon Street Streetscape	5th Avenue Crossing	Depot Lane	New Downtown Park
Excavation (Cut)	\$0	\$5,624	\$0	\$0	\$0	--
New Pavement	\$0	\$15,952	\$63,808	\$0	\$20,250	--
New Curb/median	\$0	\$35,537	\$0	\$24,960	\$33,072	--
New Sidewalk/raised median	\$0	\$50,670	\$0	\$112,000	\$70,800	--
Pavement Removal	\$0	\$4,895	\$8,222	\$0	\$4,531	--
Subtotal	\$0	\$112,678	\$72,030	\$136,960	\$128,653	--
Storm Drainage System	\$0	\$11,268	\$14,406	\$27,392	\$25,731	--
Landscape Improvement	\$0	\$22,536	\$14,406	\$27,392	\$25,731	-
Street trees	\$0	\$15,000	\$40,000	\$15,000	\$19,000	--
Pedestrian lighting	\$0	\$40,000	\$160,000	\$30,000	\$60,000	--
Benches and trash receptacles	\$0	\$3,200	\$12,800	\$0	\$4,800	--
Bicycle parking	\$0	\$1,200	\$4,800	\$0	\$1,800	--
Drinking fountains, planter boxes	\$0	\$24,000	\$48,000	\$12,000	\$24,000	
New Traffic Signal	\$300,000	\$0	\$0	\$0	\$0	--
Other Costs (Depot Lane greenspace)	\$0	\$0	\$0	\$0	\$50,000	
Subtotal	\$300,000	\$117,204	\$294,412	\$111,784	\$211,061	--
Subtotal 1 (Subtotals A + B)	\$300,000	\$229,882	\$366,442	\$248,744	\$339,715	--
Mobilization	\$30,000	\$22,988	\$36,644	\$24,874	\$33,971	--
Traffic Control	\$30,000	\$22,988	\$36,644	\$24,874	\$33,971	--
Subtotal 2 (Mobilization & Traffic Control)	\$60,000	\$45,976	\$73,288	\$49,749	\$67,943	--
Total (Subtotals 1 + 2)	\$360,000	\$275,858	\$439,731	\$298,493	\$407,657	--
Plus Contingencies	\$72,000	\$55,172	\$87,946	\$59,699	\$81,531	--
Estimated Construction Cost	\$432,000	\$331,030	\$527,677	\$358,191	\$489,189	--
Architectural/Engineering	\$64,800	\$49,655	\$79,152	\$53,729	\$73,378	--
Construction Management	\$43,200	\$33,103	\$52,768	\$35,819	\$48,919	--
Estimated Professional Fees	\$108,000	\$82,758	\$131,919	\$89,548	\$122,297	--
Estimated Project Cost	\$540,000	\$413,788	\$659,596	\$447,739	\$611,486	\$150,000 - \$850,000

5. FUNDING AND IMPLEMENTATION PLAN

Estimates for Bicycle and Pedestrian Improvement Projects are summarized in the following table.

TABLE 13. PLANNING LEVEL COST ESTIMATES FOR DOWNTOWN IMPROVEMENT PROJECTS

Project	Segment	Description	Estimated Capital Construction Cost	Mobilization, traffic control (20%)	Contingencies (20%)	Design, Engineering, Construction Management (25%)	Total Cost
NW/NE 3rd Avenue	NW 8th Street to future path along RR	Bicycle Boulevard	\$3,500	\$700	\$840	\$1,260	\$6,300
W Idaho Avenue	S Verde Drive to NW 2nd Street	Bike Lanes (roadway restriping)	\$21,200	\$4,240	\$5,088	\$7,632	\$38,160
SW/SE 3rd Avenue	SW 13th Street to Depot Lane	Bicycle Boulevard (and shared use path segment through Lion's Park)	\$75,600	\$15,120	\$18,144	\$27,216	\$136,080
SW/SE 5th Avenue	SW Park Boulevard to SE 5th Street	Bike Lanes (roadway restriping)	\$20,000	\$4,000	\$4,800	\$7,200	\$36,000
N Oregon Street	Idaho Avenue to NW 8th Avenue	Bike Lanes (roadway restriping)	\$12,900	\$2,580	\$3,096	\$4,644	\$23,220
SW/NW 2nd Avenue	SW 10th Avenue to NW 3rd Avenue	Bicycle Boulevard (SW 10th Ave. to SW 5th Ave, and W Idaho Ave. to NW 3rd Ave.); Bike lanes (roadway restriping) between SW 5th Ave. and W Idaho Ave.	\$7,900	\$1,580	\$1,896	\$2,844	\$14,220
SE 2nd Avenue	SE 5th Avenue to E Idaho Avenue	Bike Lanes (roadway restriping)	\$6,100	\$1,220	\$1,464	\$2,196	\$10,980
Union Pacific Railroad Path	SE 6th Avenue to NE 6th Avenue	Shared use path	\$756,800	\$151,360	\$181,632	\$272,448	
SW 4th Avenue at SW Park Boulevard	Intersection	Intersection improvements	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
SW 4th Avenue at SW 4th Street	Intersection	Intersection improvements	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
SW 4th Avenue at SW 2nd Street	Intersection	Intersection improvements	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
W Idaho Avenue at 2nd Street	Intersection	Intersection improvements	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240
W Idaho Avenue at Oregon Street	Intersection	Intersection improvements	\$19,600	\$3,920	\$4,704	\$7,056	\$35,280
E Idaho Avenue at 2nd Street	Intersection	Intersection improvements	\$11,800	\$2,360	\$2,832	\$4,248	\$21,240

Assumptions for these cost estimates include the following:

Project	Assumptions/elements
NW/NE 3rd Avenue	2 warning signs at 3rd Ave/Oregon St. intersection; 10 Boulevard "dots"; 8 wayfinding signs
W Idaho Avenue	
SW/SE 3rd Avenue	2 speed humps on SW 3rd Ave. between 13th and 10th streets; high-visibility crosswalk and signs at 3rd Ave/10th St. intersection; 350' shared use path through Lion's Park; 2 ped refuge islands, crosswalks and signs at 3rd Ave/2nd St. intersection; 18 Boulevard "dots"; 14 wayfinding signs
SW/SE 5th Avenue	
N Oregon Street	
SW/NW 2nd Avenue	Bicycle Boulevard segments include a total of 10 Boulevard "dots" and 6 wayfinding signs
SE 2nd Avenue	
Union Pacific Railroad Path	Includes \$500,000 for grade-separated crossing over Idaho Ave.
SW 4th Avenue at SW Park Boulevard	2 bike loop detectors (one on each minor street approach); 8 ped countdown signals (2 per corner)
SW 4th Avenue at SW 4th Street	2 bike loop detectors (one on each minor street approach); 8 ped countdown signals (2 per corner)
SW 4th Avenue at SW 2nd Street	2 bike loop detectors (one on each minor street approach); 8 ped countdown signals (2 per corner)
W Idaho Avenue at 2nd Street	2 bike loop detectors (one on each minor street approach); 8 ped countdown signals (2 per corner)
W Idaho Avenue at Oregon Street	4 bike loop detectors; 8 ped countdown signals (2 per corner); re-time signal phasing to include Leading Pedestrian Interval
E Idaho Avenue at 2nd Street	2 bike loop detectors (one on each minor street approach); 8 ped countdown signals (2 per corner)

FUNDING SOURCES

A variety of potential funding sources could be used to pay for design and construction of the improvement projects identified in this Plan. They generally included the following:

DOWNTOWN IMPROVEMENT PROJECTS

Federal Funding Sources

Surface Transportation Program (STP). This program provides states with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds. ODOT estimates that they will receive an average of \$84 million annually for this program through the lifetime of SAFETEA-LU.

Highway Safety Improvement Program. This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program. ODOT estimates that they will receive an average of \$14 million annually for this program through the lifetime of SAFETEA-LU. This program replaces the Hazard Elimination Program from TEA-21.

5. FUNDING AND IMPLEMENTATION PLAN

Transportation Enhancements. Administered by ODOT, this program is funded by a set-aside of STP funds. Ten percent of STP funds are designated for Transportation Enhancement Activities (TEAs), which include “provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists,” and the “preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails.” 23 USC Section 190 (a)(35). Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. The statewide grant process is competitive.

Community Development Block Grants (CDBG). The CDBG program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal Community Development Block Grant grantees may “use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”

Transportation, Community and System Preservation Program. This program provides federal funding for transit-oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The Transportation, Community and System Preservation Program funds require a 20 percent match.

State Funding Sources

Statewide Transportation Improvement Program (STIP). This program is ODOT’s short-term capital improvement program, providing project funding and scheduling information for the department and Oregon’s metropolitan planning organizations. It is a four-year program developed through the coordinated efforts of ODOT, federal and local governments, Area Commissions on Transportation, tribal governments and the public.

In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan (OTP), ODOT Modal Plans, Corridor Plans, local comprehensive plans, and SAFETEA-LU planning requirements. The STIP must fulfill Federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on Federal planning requirements and the different State plans. ODOT consults with local jurisdictions before highway-related projects are added to the STIP.

Oregon Transportation Infrastructure Bank. This is a statewide revolving loan fund designed to promote innovative transportation funding solutions. Oregon’s program was started in 1996 as part of a ten-state Federal pilot program. Additional legislation passed in 1997 by the Oregon Legislature establishes the program in State law and includes expanded authority. Eligible borrowers include cities, counties, transit districts, other special districts, port authorities, tribal governments, State agencies, and private for-profit and non-profit entities. Eligible projects include:

- Highway projects, such as roads, signals, intersection improvements and bridges
- Transit capital projects, such as buses, equipment, and maintenance or passenger facilities
- Bikeway or pedestrian access projects on highway right-of-way

Eligible project costs include preliminary engineering, environmental studies, right-of-way acquisition, construction (including project management and engineering), inspections, financing costs, and contingencies.

Local Funding Sources

Local Bond Measures. Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities.

Tax Increment Financing/Urban Renewal Funds. This is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

System Development Charges (SDCs)/Developer Impact Fees. These fees, also known as Developer Impact Fees, represent another potential local funding source. SDCs are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

Street User Fees. The revenue generated by a street user fee is used for operations and maintenance of the street system, and priorities are established by the Public Works Department. Revenue from this fund should be used to maintain on-street bicycle and pedestrian facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.

General Fund Revenues. Cities and counties typically use a portion of their general fund revenues received via the gas tax and/or property taxes to fund a portion of their transportation maintenance and improvement projects. Typically these are only adequate to pay for routine maintenance and programmed improvements to existing roads or expansion of roads in growing areas.

Local Improvement Districts (LIDs). These are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation.

Business Improvement Districts. Pedestrian improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Districts collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, such as wider sidewalks, landscaping, and ADA compliance.

Other Local Sources. Residents and other community members are excellent resources for garnering support and enthusiasm for bicycle and pedestrian facilities, parks, trails and elements of streetscape improvements such as tree planting. The City should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a project for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The City should look to its residents for additional funding ideas to expedite completion of many of the projects identified here.

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ADDITIONAL SOURCES FOR BICYCLE AND PEDESTRIAN PROJECTS

Federal Funding Sources

Recreational Trails Program. This program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails
- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

Safe Routes to School (SR2S). Under this program, Federal funds are administered by ODOT. Under the Oregon Safe Routes to School Program, approximately \$3.7 million will be available for grants between 2006 and 2010. The grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school. ODOT estimates that they will receive an average of \$1.37 million annually for this program through the lifetime of SAFETEA-LU.

New Freedom Initiative. SAFETEA-LU creates a new formula grant program that provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act.

Rivers, Trails and Conservation Assistance Program (RTCA). This program is a National Parks Service program which provides technical assistance via direct staff involvement to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

Land and Water Conservation Fund. This is a Federally-funded program, providing grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Oregon Parks and Recreation Department.

State Funding Sources

Oregon Revised Statute 366.514. Often referred to as the "Oregon Bike Bill," this law applies equally to bicycle and pedestrian facilities. The statute's intent is to ensure that future roads be built to accommodate bicycle and pedestrian travel. The statute requires the provision of bicycle and pedestrian facilities on all Major Arterial and Collector roadway construction, reconstruction or relocation projects where conditions permit. The statute also requires that in any fiscal year, at least one percent of highway funds allocated to a jurisdiction must be used for bicycle/pedestrian projects.

Measure 66 Funds – Oregon State Lottery. Ballot Measure 66 amends the Oregon Constitution to allow money from the State Lottery to be used for restoring and protecting Oregon’s parks, beaches, watersheds and critical fish and wildlife habitat. Funds are coordinated by Oregon State Parks, and may be used for trail-related right-of-way acquisition and construction.

Bicycle and Pedestrian Program Grants. This is a competitive grant program providing approximately \$5 million every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee.

Other Funding Sources

American Greenways Program. Administered by The Conservation Fund, this program provides funding for the planning and design of greenways. Applications for funds can be made by local, regional or statewide non-profit organizations and public agencies. The maximum award is \$2,500, but most awards range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.

Bikes Belong Grant Program. The Bikes Belong Coalition of bicycle suppliers and retailers has awarded \$1.2 million and leveraged an additional \$470 million since its inception in 1999. The program funds corridor improvements, mountain bike trails, BMX parks, trails, and park access. It is funded by the Bikes Belong Employee Pro Purchase Program.

Future Potential Funding Sources

2010 Campaign for Active Transportation. Organized by the Rails-to-Trails Conservancy, this program aims to double the Federal Funding for trails, walking and biking in the upcoming Federal transportation reauthorization. They are encouraging communities to gather a campaign team and develop an active transportation case statement, considering what the community could achieve with a \$50 million Federal investment in bicycling and walking.

Complete Streets Act of 2008. This Act was proposed to the U.S. Senate on March 3, 2008, and would ensure that “future transportation investments made by State Departments of Transportation and Metropolitan Planning Organizations create appropriate and safe transportation facilities for all those using the road – motorists, transit vehicles and riders, bicyclists, and pedestrians of all ages and abilities.”

The following tables summarize which funding sources or strategies potentially could be applicable to specific projects identified in this report. Additional research will need to be done by the city to confirm applicability of funding programs to individual projects, pending a review of specific program criteria.

5. FUNDING AND IMPLEMENTATION PLAN

TABLE 14. POTENTIAL APPLICABLE FUNDING SOURCES FOR DOWNTOWN IMPROVEMENT PROJECTS

Project	Oregon St. Streetscape	Oregon/ Idaho Gateway	5th Ave RR Crossing	New City Park	Depot Row	Oregon/4th Traffic Signal
Surface Transportation Program (STP)	■		■			
Highway Safety Improvement Program		■				
Transportation Enhancements	■	■	■		■	
Community Development Block Grants (CDBG)	■	■	■	■	■	
Transportation, Community and System Preservation Program		■				■
Statewide Transportation Improvement Program (STIP)		■				
Oregon Transportation Infrastructure Bank		■				■
Local Bond Measures	■	■	■	■	■	■
Tax Increment Financing/Urban Renewal Funds	■	■	■	■	■	■
System Development Charges (SDCs)/Developer Impact Fees						
Street User Fees	■	■	■		■	■
General Fund Revenues	■	■	■	■	■	■
Local Improvement Districts (LIDs)	■	■	■	■	■	■
Business Improvement Districts	■	■	■	■	■	■
Other Local Sources	■	■	■	■	■	■

TABLE 15. POTENTIAL APPLICABLE FUNDING SOURCES FOR BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS

Project	Bicycle Lanes	Bicycle Boulevards	Bike/ped activated signals	ADA improvements	Union Pacific RR Multi-Purpose Trail
Surface Transportation Program (STP).		■	■	■	
Highway Safety Improvement Program					
Transportation Enhancements	■	■	■	■	■
Community Development Block Grants (CDBG).	■	■	■	■	■
Transportation, Community and System Preservation Program		■	■		
Recreational Trails Program					■
Safe Routes to School (SR2S).	■	■	■		
New Freedom Initiative				■	
Rivers, Trails and Conservation Assistance Program (RTCA).					■
Land and Water Conservation Fund					■
Statewide Transportation Improvement Program (STIP).	■		■	■	
Oregon Transportation Infrastructure Bank	■		■	■	

Oregon Revised Statute 366.514	■		■	■	
Measure 66 Funds – Oregon State Lottery					■
Bicycle and Pedestrian Program Grants	■	■	■	■	■
Local Bond Measures	■	■	■	■	■
Tax Increment Financing/Urban Renewal Funds	■	■	■	■	■
System Development Charges (SDCs)/Developer Impact Fees	■	■	■	■	■
Street User Fees	■	■	■	■	
General Fund Revenues	■	■	■	■	■
Local Improvement Districts (LIDs).	■	■	■	■	■
Business Improvement Districts	■	■	■	■	
Other Local Sources	■	■	■	■	■
American Greenways Program					■
Bikes Belong Grant Program		■	■		■
2010 Campaign for Active Transportation	■	■	■	■	■
Complete Streets Act of 2008	■		■	■	

Available Funding Levels

In most cases, the level of funding available for projects identified in this plan is not known, particularly for many of the federal and state funding programs identified above. In addition, much more work would need to be done (beyond the scope of this planning effort) to identify potential funding available from local programs or initiatives such as System Development Charges, Tax Increment Financing, Bond Measures or Local Improvement Districts. That said, following is a summary of information from other communities related to funding measures that have been used successfully to pay for public improvement projects similar to those identified here:

The **City of Canby** (population 15,165) has successfully implemented an urban renewal district and used it to help fund a substantial number of public improvements. The City’s URD program originally was intended to finance public improvements and spur private sector development within a proposed new industrial park. The City financed approximately \$4 million worth of public infrastructure improvements in the industrial park through loans which are being repaid through URD revenues. These investments have resulted in increased development and tax revenues within the industrial park which are now being used to pay for investments in the City’s downtown and other parts of the community. Urban renewal fund revenues have grown from \$650,000 in 2005/2006 to \$2.6 million in 2007/2008 and are projected to be approximately \$5.7 million for 2008/2009. Proceeds in 2008/2009 will continue to be used to finance debt service on the industrial park improvements, along with the following projects, among others:

- Beautification projects: \$35,000
- Gateway enhancement: \$75,000
- Façade improvements (matching grant program): \$75,000
- Walnut Street public infrastructure improvements: \$1.5 million
- Downtown Cinema project (public streetscape and other improvements): \$1.7 million

The **City of Astoria** (population 10,080) implemented an urban renewal district in 1980 covering its downtown and waterfront core. At 55 acres, the district is one of the smallest in the state, but is widely considered to be a success at revitalizing key parts

5. FUNDING AND IMPLEMENTATION PLAN

of central Astoria as well as public infrastructure, and spurring further development outside of the district itself. Astoria has used modest Urban Renewal revenue and patience to bring about changes in its downtown.

Annual urban renewal revenues have grown to roughly \$400,000 per year, amounting to an estimated \$4 million in revenue over the life of the district. The total private investment in the district since its formation is estimated at 15 to 20 times this amount.

Major projects have included:

- Assisting in construction of the riverwalk
- Preservation and refurbishment of the historic liberty theater
- Assisting in expansion and improvements to the Maritime Museum
- Relocation of County Fairgrounds to allow new development and other land acquisition efforts

The **City of Milton-Freewater** (population 6,450) implemented a 239-acre urban renewal district in 1989 to help revitalize downtown and spur economic development. This eastern Oregon community previously had experienced vacancies and deterioration of its commercial core, as well as underemployment. Revenue in this urban renewal area grew slowly, but after 10 years the town was able to commit significant investment towards building a facility for Sykes Enterprises, a call center business that has been a key source of employment in the area ever since. The recruitment of Sykes and its roughly 400 jobs is seen as a major factor in improving business conditions in Milton-Freewater.

Since that time, urban renewal revenue has grown, allowing additional projects. The district has raised an estimated \$2.3 million in revenue over its life.

- Construction of a new agricultural cold-storage facility
- Street lighting and streetscape improvements
- Storefront improvement grants
- Water and sewer line projects

The **City of Monmouth** (population 9,565) implemented a 307-acre urban renewal district in 2005 that consists largely of the properties fronting the two major commercial and industrial arterials through the city (Main Street and Highway 99). The district covers almost 25% of the city's acreage and much of its commercial property. The goals of the district are to provide adequate infrastructure including sidewalk, street and water infrastructure where it is currently inadequate, as well as spur the use of underutilized parcels for growing employment and commerce. The plan calls for \$11.4 million in urban renewal projects over the 20 year life of the district.

This district's revenue has grown over the last few years. It has established a façade improvement grant program as well as a general assistance grant program which is a flexible program meant to facilitate redevelopment. Aside from street improvements, the Monmouth plan sets aside significant funds for assistance programs like these, as well as incentives for private developers and public/private partnership.

In addition, City staff have indicated that at least some of these projects appear to be achievable given the range of the cost estimates identified in this report.

IMPLEMENTATION STRATEGIES

A variety of activities will need to be undertaken to implement the projects identified in this plan. Following is a summary of a number of specific types of strategies, including those related to funding, partnering with local businesses and residents, operation and maintenance of improvements, managing access to transportation facilities, ensuring freight mobility, and updating guiding city documents, including the city's Zoning Ordinance, Capital Improvement Plan and Comprehensive Plan.

FUNDING AND PHASING

Cost estimates, funding sources, relative priorities and proposed phasing of projects were described in the previous section of this chapter. Implementation actions related to these activities are expected to include:

- Confirm priorities, phasing and the approximate schedule for specific projects as part of this project and during annual work planning and budgeting.
- Identify revenues available to pay for high priority, short-term projects.
- Apply for and obtain state, federal or other grants as needed and appropriate to fund specific projects.
- Explore and implement local funding initiatives, as needed to fund specific projects or a portion of them (e.g., urban renewal/ tax increment financing, local improvement or business improvement districts, etc.).
- Obtain commitments from local community members or organizations related to in-kind donations or labor, materials or money to help implement specific projects (see following section for more detail).
- Update the City's Capital Improvement Program for the coming year and future five-year and annual cycles to incorporate short and medium-term projects.
- Use a phased approach to implement projects both in terms of time and location. For example, diagonal parking could be implemented on a block-by-block basis along Oregon Street and east-west cross streets. Other streetscape improvements could be implemented in a similar manner or implemented by specific type or element.

Local Partnerships

As identified in previous sections, working with local business owners, organizations and residents can be a powerful way to help cover or reduce the costs associated with downtown, bicycle and pedestrian improvement projects. Specific strategies towards this end may include:

- Work with local property owners to secure any needed property or easements (e.g., for the proposed new City park).
- Establish community volunteer efforts to implement specific projects or project components (e.g., planting trees, clearing land for park or trail improvements, assisting with design activities and ultimately helping operate and/or maintain specific types of facilities (e.g., street trees, planter boxes, etc.).
- Seek donations of goods or services to construct improvements (e.g., donations of labor or materials from local contractors for the proposed new City park or the plaza at the Depot); seek donations of trees or landscaping materials from groups such as "Friends of Trees" or the "National Arbor Society."
- Work closely with local business and property owners in exploring and potentially adopting new local financing mechanisms such as an urban renew district, tax increment financing or a local improvement district; enlist their help in informing other residents about and supporting these efforts.
- Involve business owners, property owners and other citizens in the detailed design of future improvements.
- Work with the private development sector to encourage implementation of the mixed use Depot Row concept. This project will be designed, developed and built by the private sector. However, given that the project is proposed on city-owned property, the city will have a significant degree of control over the project. By providing a major incentive (land at a

5. FUNDING AND IMPLEMENTATION PLAN

potentially relatively low cost), the city can control the initiation and management of the development process. The City also can use this incentive to impose conditions on the development.

- Establish programs and strategies to mitigate impacts of construction on local businesses (e.g., temporary parking, enhanced signage to direct visitors to businesses, traffic control to reduce congestion and conflicts among motorists, pedestrians and bicyclists, etc.).
- Encourage and provide incentives to local business owners to implement voluntary activities such as storefront improvements; a number of local communities use urban renew funds to provide grants to business owners to cover a portion of the cost of such programs.
- Work with downtown business and property owners to establish and implement operation and maintenance strategies (see following section for more detail).
- Work with the local Artists Guild and/or local artists to create and implement opportunities for future public art. This is an excellent local resource that many communities don't have access to.

Operations and Maintenance

As noted above, the city will need to work with local businesses and property owners to help operate and maintain some of the improvements identified in this plan. Roadway improvements, including bicycle and pedestrian improvements will be operated or maintained entirely by the City or maintenance will be contracted to private companies under the direction of City staff. Operation and maintenance issues and strategies associated with streetscape improvements and amenities are described in more detail below.

Several alternative arrangements can be used to maintain new streetscape amenities, particularly street trees, planter boxes (or other vegetation) and trash receptacles. Options include:

- Property owners are required to maintain trees, other vegetation and trash receptacles (empty them) adjacent to their businesses or properties consistent with standards prescribed by the City.
- Property owners collectively maintain selected amenities by contributing to a local maintenance fund and contracting for maintenance.
- The City maintains trees, vegetation and trash receptacles as part of its annual maintenance budget.

Different communities use one or the other of these approaches successfully. The City will need to work closely with business and property owners to agree on the most equitable and cost-effective approach. Factors to consider in doing so include:

- **Consistency with current approach.** Currently, the City maintains all streetscape amenities (street trees, trash receptacles, etc.). The level of support for the current approach, how well it is working now, and whether it will continue to be appropriate with a higher level of streetscape amenities will have a bearing on whether the City continues to use this approach or changes direction. Depending on the level of support for the current approach, how well it is working now, and whether it will continue to be appropriate with a higher level of streetscape amenities will bear on whether the City continues to use this approach or changes direction.
- **Equity for business and property owners.** Business and property owners gain benefits from having street trees, benches, lighting and other amenities adjacent to their properties or businesses, in terms of cooler temperatures, amenities for their customers, enhanced safety, etc. At the same time, residents and the community as a whole also benefit in similar ways. The City will need to consider the proper balance between individual and community benefits in determining how to best pay for maintaining new streetscape amenities.

- **Consistency.** No matter who actually maintains trees, landscaping and other amenities, it should be done consistently in terms of its quality, character and frequency. It will be easier for the City to ensure a certain level of consistency if it provides the maintenance or works with a local business association to contract it. If it does choose to have property or business owners do the maintenance, the city should establish specific standards and guidelines for how and when amenities are maintained.

Access Management Plan

As the downtown continues to develop and redevelop, the City will need to manage access from streets to specific properties to balance traffic mobility and access in the downtown. To do this, it should implement a consistent access management program. The purpose of access management is to balance the needs of multiple modes of transportation to access land development while maintaining the safety, efficiency, and intended functionality of the surrounding roadway network. The benefits of an effective access management plan can include:

- Increased public safety (minimizing the number of conflict points)
- Reduced traffic congestion (minimizing the number of points where traffic flow may be disrupted by traffic entering and exiting the roadway)
- Improved appearance of the built environment (among other things, the lack of driveways allows for a wall of development abutting the sidewalk to be created)

The goal of access management in the downtown Ontario study area is to create an environment that is safe and efficient for vehicular traffic flow while also providing an environment that is safe and comfortable for pedestrian and bicycle traffic. The City of Ontario has developed specific access management standards for all roadway types within the city. These standards as outlined in Section 10C-25 of the Ontario City Code are sufficient for addressing the needs of the Ontario Downtown Revitalization Plan. Where roadways are owned/maintained by ODOT or Malheur County, the City should coordinate with the appropriate agencies about whether or how access will be provided. In our estimation, the City's current access management policies are generally adequate to provide a sufficient level of access management in the downtown area.

Freight Mobility

Ensuring adequate mobility for freight vehicles within the downtown area is important to supporting local businesses and to avoiding conflict between freight vehicles, automobiles, bicyclist and pedestrians. The section of S Oregon Street between W Idaho Avenue and SW 4th Avenue is the city's primary downtown core, with a number of restaurant, retail, and service businesses located along the corridor. The vision for this segment of Oregon Street supports an enhanced business/retail core through slower travel speeds, plentiful parallel and angled on-street parking, and bicycle/pedestrian amenities. To ensure this vision takes shape, it is recommended that truck traffic and other forms of undesirable through traffic use the SW 2nd Street corridor when traveling east-west through the City between OR 201 and I-84. This can be accomplished through enhanced wayfinding and route signage along Idaho Avenue and SW 4th Avenue. Most trucks currently avoid Oregon Street and/or use adjacent streets or alleys for local deliveries to businesses along Oregon Street. Providing enhanced wayfinding and route signage will help encourage continued use of these practices.

Code and Comprehensive Plan amendments

A variety of amendments to the City's Zoning Ordinance, Comprehensive Plan and Capital Improvement Plan will be needed to implement a number of the proposed projects and overall objectives of this Plan. Following is a brief summary of expected plan and ordinance amendments.

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PROPOSED COMPREHENSIVE PLAN AMENDMENTS

- Policies
 - Creating a unique identity and character for the Downtown
 - Establishing the Downtown as a transit hub

PROPOSED DEVELOPMENT CODE AMENDMENTS

- Uses
 - Allow mixed use/residential uses in conjunction with commercial uses in C-3 zone.
 - Allow ground floor residential/“live/work” units in C-3 zone to generally encourage more residential use downtown.
 - Allow rowhouses/single-family attached units (to implement the Depot Row proposal) in C-3 zone.
 - Prohibit uses incompatible with Downtown (field crop production, recreational vehicle parks, automotive service establishment and related/accessory uses) in C-3 zone.
- Development and Design Standards
 - Establish maximum front setbacks and exceptions for pedestrian amenities.
 - Identify guidelines or requirements for building design (window coverage, entrance orientation, detailing between stories and at roofline, weather protection over entrances and building materials) that will be required or encouraged in new development or major redevelopment projects. Most of these elements will be required under certain circumstances, except use of specific building materials which will be voluntary.
- Streetscape Standards or Guidelines
 - Define frontage zone, through/travel zone, and furnishing/utility zone (no existing definitions or provisions for zones).
 - Establish requirements for street trees, trash receptacles, seating; identify how they will apply in different areas to ensure equitable application while enhancing the character of the downtown specifically.
- Parking
 - Consider relaxing parking requirements Downtown using one or more of the following three approaches:
 - Expand C-3 zoning to some land currently zoned C-2.
 - Apply C-3 zone parking exemption to C-2 zone.
 - Increase development threshold for providing parking in C-2 and C-3 zones.
 - Increase number of parking spaces eligible for waiver/exemption.
 - Allow for on-street parking to count towards off-street parking requirements.
 - Resolve bicycle parking requirement inconsistencies (clustering vs. in front of every storefront) Downtown.

New requirements for building design are illustrated in the photo on the following page.



APPENDIX A:

STREET LIGHTING AND FURNITURE SPECIFICATIONS AND GRAPHICS

Appendix A - Street Lighting and Furniture Specifications and Graphics

This appendix includes manufacturers' specifications and options for various types of street furniture, including street lights, trash receptacles, planter boxes, and bike racks, and groupings of street furniture types by style "families". Street lights specifications are included from Hadco (<http://www.hadco.com/hadco/home.aspx>), Holophane (<http://www.holophane.com/default.asp>), and SELUX (<http://www.selux.com/cms/products/exterior/solar.php>). Specifications are organized by manufacturer. Trash receptacles and planters are shown from Victor Stanley (<http://www.victorstanley.com/>). Information on bike racks includes a compilation of options, costs, and suppliers put together by Alta Planning + Design, and specifications from Palmer Group (<http://www.bikeparking.com/>). In addition, groupings of street furniture by style family provided by SERA Architects are shown at the end, including contemporary, stylized historic, traditional, and traditional wood styles.

The following websites provide additional information and options for street lighting (Kim Lighting and Lumec) and street furniture generally (Landscape Forms and Maglin):

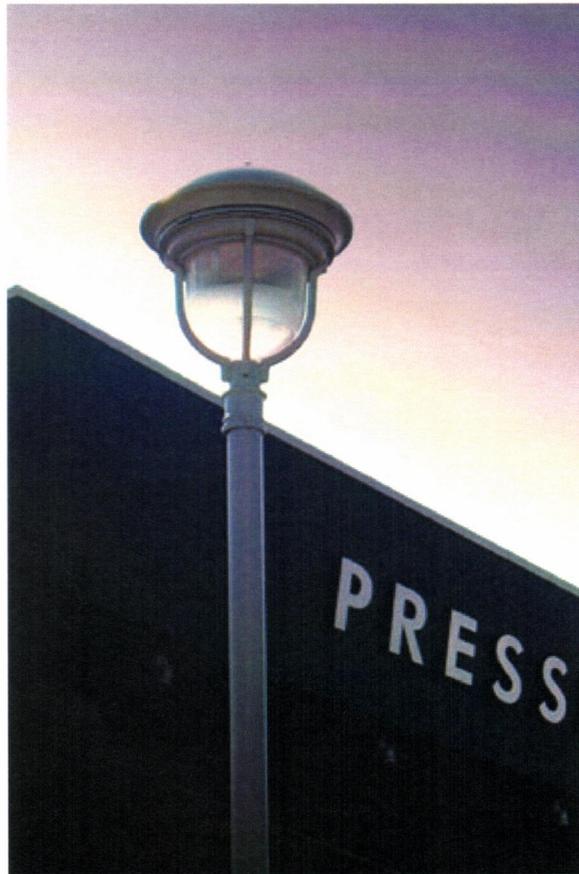
Kim Lighting: <http://www.kimlighting.com/>

Lumec: <http://www.lumec.com/>

Landscape Forms: <http://www.landscapeforms.com/en-US/Pages/default.aspx>

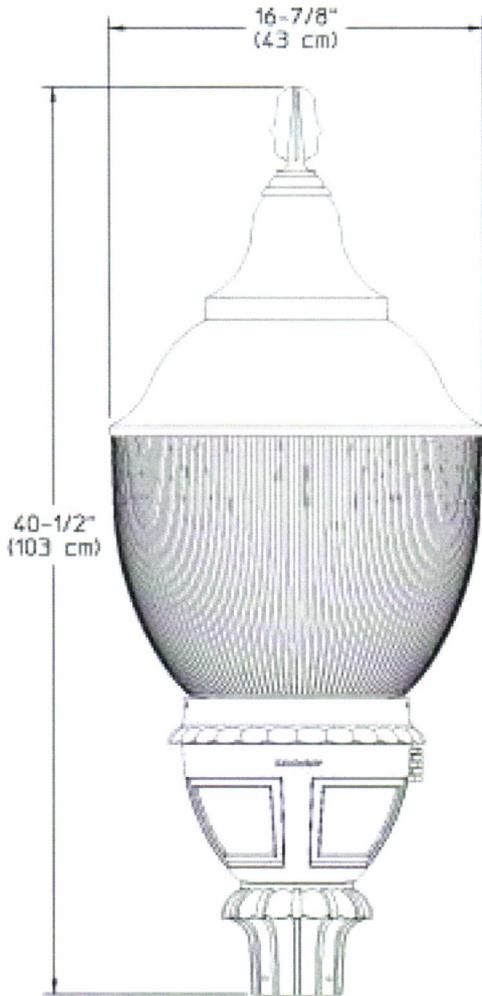
Maglin: <http://www.maglin.com/>

Street Lights



Type III Wide Optical Rib Globe (TW3) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:



Ordering Guide

Example: TW3 A A B A 1 A N N D 70H E

Product Code	TW3	Type III Wide Optical Rib Globe
Fitter/Pod	A B C D E F G H J L T	Octagonal Style Round fitter w/ scalloped petals Fluted tapered hourglass Smooth tapered hourglass Tapered fluted w/ scalloped petals Short round fluted Tall round fluted Round contemporary Tapered Fluted w/ round stepped fitter Round fluted long Decorative Leaf w/ scalloped petals
Roof	A B C D G	Victorian Acorn Tall Short Adams
Cage / Band	B E F G I J N	Cage for Wide Body Globe *1 Band for Wide Body Globe Band for Wide Body Globe Cage for Wide Body Globe *1 Cage for Wide Body Globe *1 Cage for Wide Body Globe *1 None
Finial	A B C D E F G H N	A Finial B Finial C Finial *2 D Finial *2 E Finial *2 F Finial G Finial H Finial None
Fasteners	1 2	Hex Head Allen Head
Finish	A B G H I J	Black White Verde Bronze Gray Green
Reflector	N	None
Photo Control	N	None

Type III Wide Optical Rib Globe (TW3) Specification Sheet

Project Name:

Location:

MFG: Hadco

Fixture Type:

Catalog No.:

Qty:

	B	Button Eye Photo Control	
	R	Twist-lock Receptacle	*3
Socket	D	Medium	*4
	G	Mogul	*4
Wattage	70H	70W MH	
	100H	100W MH	
	150H	150W PMH	
	250H	250W PMH	*5
	50S	50W HPS	
	70S	70W HPS	
	100S	100W HPS	
	150S	150W HPS	
	200S	200W HPS	*5
	250S	250W HPS	*5
Voltage	E	120V	
	F	208V	
	G	240V	
	H	277V	
	K	347V	*6

- *1 Not available with (A) pod.
- *2 Cannot be used with (B) roof.
- *3 Twistlock photocell receptacle (R) is available in (A), (G), (H), and (J) pod up to 150W HPS and 200W MH. Pods (B), (L), and (T) available in all wattages. Not available in other pods.
- *4 Medium base (D) socket available for 70W-175W MH, 50W-150W HPS. Mogul base (G) socket available for 150W-250W MH, 50W-250W HPS.
- *5 Available in (A), (B), (E), (G), (H), (L), and (T) pods.
- *6 347V (K) not available for (200S).

Specifications

HOUSING:

OPTIONAL PODS:

A: Octagonal style fitter is constructed of die-cast 360 aluminum alloy with bottom-hinged door providing 135o entry into the fitter assembly for easy access to the electrical components. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle (available for 200W MH max or 150W HPS max) or optional button eye photocell. Easy access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 10-3/4" and width is 10-1/4". Finish is polyester thermoset powdercoat.

B: Round fitter with scalloped petals is constructed of die-cast 360 aluminum alloy with side-hinged door providing 180o entry into the fitter assembly for easy access to the electrical components. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle or optional button eye photocell. Easy access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 12-1/4" and width is 11-1/2". Finish is polyester thermoset powdercoat.

C: Fluted tapered hourglass fitter is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Accepts standard HADCO Twistlock ballast assemblies up to 150W HPS or 200W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal button eye photocell. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 8" and width is 8-3/4". Finish is polyester thermoset powdercoat.

D: Smooth tapered hourglass fitter is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Accepts standard HADCO Twistlock ballast assemblies up to 150W HPS or 200W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal button eye photocell. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 8" and width is 9-1/4". Finish is polyester thermoset powdercoat.

E: Tapered fluted fitter with scalloped flower petals is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal button eye photocell. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 10" and width is 11-1/2". Finish is polyester thermoset powdercoat.

Type III Wide Optical Rib Globe (TW3) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

F: Short Round fluted fitter is constructed of die-cast 360 aluminum alloy. Accepts standard HADCO Twistlock ballast assemblies up to 150W HPS or 200W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal button eye photocell. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 7-1/2" and width is 9-1/4". Finish is polyester thermoset powdercoat.

G: Tall Round fluted fitter is constructed of die-cast 360 aluminum alloy with removable door providing entry into the fitter assembly for easy access to the electrical components. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal button eye photocell. Easy access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 9" and width is 9". Finish is polyester thermoset powdercoat.

H: Round contemporary fitter is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle (available for 200W MH max or 150W HPS max) or optional internal button eye photocell. Easy access to photocell through tool-less door on pod. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 10" and width is 10". Finish is polyester thermoset powdercoat.

J: Tapered fluted fitter with round stepped fitter is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle. Tool-less access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes six 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 14" and width is 10". Finish is polyester thermoset powdercoat.

L: Round fluted long fitter is constructed of 356 HM High-Strength, Low-Copper cast aluminum with a side-hinged door providing entry into the fitter assembly for easy access to the electrical components. Accepts standard Hadco Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle or button eye photocell. Tool-less access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes three 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering the ballast compartment. Globe is attached using four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). Pod height is 12-1/2" and width is 10-3/4". Finish is polyester thermoset powdercoat.

T: Decorative Leaf fitter with scalloped petals is constructed of 356 HM High-Strength, Low-Copper cast aluminum with side-hinged door providing 180° entry into the fitter assembly for easy access to the electrical components. Accepts standard HADCO Twistlock ballast assemblies up to 250W HPS or 250W MH. Wiring block to accept three #8 solid or stranded wires. Optional internal twist-lock photo eye receptacle or optional button eye photocell. Easy access to photo eye through the door on the pod. Heavy cast aluminum post fitter utilizes four 5/16-18 black cadmium stainless steel set screws (Hex head or Allen head as specified) for mounting to 3" O.D. post tenon. Globe holder has an internal water trap to prevent water from entering ballast compartment. Globe is held by utilizing four 5/16-18 black cadmium stainless steel fasteners (Hex head or Allen head as specified). All hardware to be stainless steel and captive. Pod height is 15-1/4" and width is 11-1/2". Finish is polyester thermoset powdercoat.

ROOF:

A: Victorian style roof is clear injection molded U.V. stabilized acrylic with 99 horizontal prisms for a soft, even glow. 13" height and 16-1/2" width. The roof and bottom globe sections are secured in a slip-fit, 1/2" overlap design and use four #10-24 stainless steel pan head screws with four aluminum nutserts providing a mechanical lock and enabling easy future replacement of either the roof or bottom globe section if required.

B: Acorn style roof is clear injection molded U.V. stabilized acrylic with 74 horizontal prisms for a soft, even glow. 9-1/2" height and 16-3/4" width. The roof and bottom globe sections are secured in a slip-fit, 1/2" overlap design and use four #10-24 stainless steel pan head screws with four aluminum nutserts providing a mechanical lock and enabling easy future replacement of either the roof or bottom globe section if required.

C: Roof is 0.060" thick spun aluminum. 12" height and 17" width. The roof and bottom globe sections are secured in a slip-fit, 1/2" overlap design and use four #10-24 stainless steel pan head screws with four aluminum nutserts providing a mechanical lock and enabling easy future replacement of either the roof or bottom globe section if required. Finish is polyester thermoset powdercoat.

D: Roof is 0.090" thick spun aluminum. 8-1/2" height and 16-1/2" width. The roof and bottom globe sections are secured in a slip-fit, 1/2" overlap design and use four #10-24 stainless steel pan head screws with four aluminum nutserts providing a mechanical lock and enabling easy future replacement of either the roof or bottom globe section if required. Finish is polyester thermoset powdercoat.

G: Roof is 0.080" thick spun aluminum. 10-1/2" height and 16-3/4" width. The roof and bottom globe sections are secured in a slip-fit, 1/2" overlap design and use four #10-24 stainless steel pan head screws with four aluminum nutserts providing a mechanical lock and enabling easy future replacement of either the roof or bottom globe section if required. Finish is polyester thermoset powdercoat.

CAGES AND BANDS:

B: Cage for Wide body globes (16-1/2" dia.) is constructed of die-cast 360 aluminum alloy. Cage has 4 legs each with square decorative flower block. Solid rectangular band around top of cage. Height of cage is 15" and width of cage is 20". Finish is polyester thermoset powdercoat. (NOTE: Cannot be used with "A" Pod.)

E: Band for Wide body globes (16-1/2" dia.) is architectural slotted aluminum. Supported at 4 points by cast aluminum square flower blocks. Finish is polyester thermoset powdercoat.

F: Band for Wide body globes (16-1/2" dia.) is architectural slotted aluminum supported at 4 points by cast aluminum round flower blocks. Finish is polyester thermoset powdercoat.

G: Cage for Wide body globes (16-1/2" dia.) is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Arched, decorative legs are welded to form a one-piece unit. Height of cage is 13" and width of cage is 18-1/2". Finish is polyester thermoset powdercoat. (NOTE: Cannot be used with "A" Pod.)

I: Cage for Wide body globes (16-1/2" dia.) is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Cage has 2 curved legs. Solid fluted band around top of cage.

Type III Wide Optical Rib Globe (TW3) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Height of cage is 14-1/2" and width of cage is 19-3/4". Finish is polyester thermoset powdercoat. (NOTE: Cannot be used with "A" Pod.)

J: Cage for Wide body globes (16-1/2" dia.) is constructed of 356 HM High-Strength, Low-Copper cast aluminum. Cage has 4 curved legs. Solid fluted band around top of cage. Height of cage is 14-1/2" and width of cage is 19-3/4". Finish is polyester thermoset powdercoat. (NOTE: Cannot be used with "A" Pod.)

FINIALS:

All finials are cast aluminum mounted with 1/4-20 stainless steel threaded studs. Standard finial finish will match fixture finish as specified. Finish is thermoset powdercoat. (NOTE: C, D, and E finials are not available with "B" Roof.)

FASTENERS: Used to secure post fitter to post tenon and globe to globe holder.

1: Hex Head Bolts: Black cadmium stainless steel.

2: Allen Head Bolts: Black cadmium stainless steel.

FINISH:

Thermoset polyester powdercoat is electrostatically applied after a five-stage conversion cleaning process and bonded by heat fusion thermosetting. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

OPTICAL ASSEMBLY:

GLOBE AND OPTICAL ASSEMBLY:

Wide body globe is constructed of clear injection-molded U.V. stabilized acrylic with optical rib technology. A two-piece (Globe and Roof) slip-fit, 1/2" overlap, design utilizes nutserts and stainless steel fasteners, which eliminates a "butt-glue" seam appearance. The optical section of the globe has a neck opening of 7-3/8" and an outside neck diameter of 8". Globe (less the roof) has a 12-7/8" height and 16-3/4" width at the top with 240 highly polished optical ribs. Hydroformed aluminum reflector is polished, etched, and clear anodized with semi-specular finish. Internal lens holder is 1100-0 spun aluminum. Internal frosted glass lens is pressed, fluted optical grade soda lime glass. Meets IES Type III cutoff criteria.

ELECTRICAL ASSEMBLY:

Twistlock Ballast Assembly with Quick Disconnects for easy maintenance. Ballasts are HPF core and coil. 4kv rated mogul base porcelain socket. Nickel-plated screw shell with center contact. 4kv rated medium base porcelain socket. Nickel-plated screw shell with center contact. Consult factory if ordering Induction Lamping and Power Coupler.

BALLAST:

All HID ballasts are core and coil and regulated with power factors better than 90% (HPF). Ballast provides +/- 5% lamp power regulation with +/- 10% input voltage regulation. Ballasts are factory pre-wired and tested. Metal halide ballasts are capable of starting at -20° F or -30° C and HPS at -40°F or -40°C. NOTE: All ballasts are EISA / Title 20 / Title 24 compliant where applicable.

CERTIFICATIONS:

UL Listed to U.S. safety standards for wet locations. cUL Listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2000 Standards.

WARRANTY:

Three-year limited warranty.

Max. EPA:

2.20 sq. Ft. (Varies depending on options selected)

Max. Weight:

50 lbs

IESNA Classifications:

Cutoff



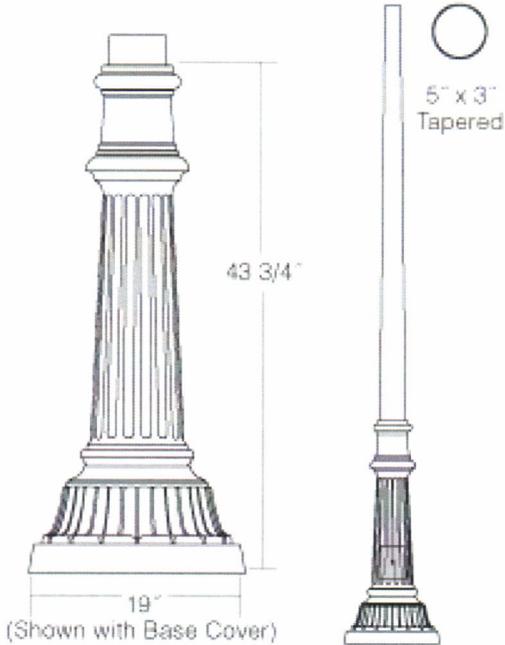
P2500 Series (P2525) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Ordering Guide

Example: P2525 10 A

Product Code	P2525	P2500 Series
Pole Height	10	10'
	12	12'
	14	14'
	16	16'
Finish	A	Black
	B	White
	G	Verde
	H	Bronze
	J	Green



Specifications

HOUSING:

356 HM high-strength, low-copper, proprietary cast aluminum alloy . 6063-T6 Extruded aluminum . Anchor rods are hot dipped galvanized steel .

FINISH:

A durable polyurethane enamel finish is applied after assemblies are shot blasted to create a surface profile which allows for the highest level of paint adhesion. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

WARRANTY:

Three-year limited warranty.

Tenon/Top:

3" OD

Bolt Circle:

14"

Anchor Rods:

(4) 3/4" dia. x 19"

Base Dimensions:

12 3/4 sq. x 43 3/4"

Base Cover:

(Included) 19" dia. x 9 1/4"

Hand Hole :

4 3/8" x 5 3/4"

Shaft:

5" to 3" Tapered

Wall Thickness:

ISO 9001:2000 Registered

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P2500 Series (P2525) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

0.125 Aluminum

Height :
10', 12', 14', 16'

Pole EPA Values

Windspeed(mph)	Height			
	10'	12'	14'	16'
80	27.8000	22.8900	15.2900	12.7600
100	17.2700	14.0200	9.1900	7.4600

Architectural (V600) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:



Ordering Guide

Example: V600 A B3 N D 70S E

Product Code	V600	Architectural
Finish	A B G H J	Black White Verde Bronze Green
Optics	B3 B5 T3 T5	Type III Refractive Panels Type V Refractive Panels Type III Cutoff *1 Type V Cutoff *1
Photo Control	N B R	None Button Eye Photo Control Twist-lock Receptacle
Socket	D G	Medium Mogul
Wattage	70S 100S 150S 250S 70H 100H 150H 250H	70W HPS 100W HPS 150W HPS 250W HPS *2 70W MH *3 100W MH *3 150W PMH 250W PMH *2
Voltage	E F G H K	120V 208V 240V 277V 347V

- *1 Cutoff optics available with Medium base (D) socket only.
- *2 Available with Mogul base (G) socket only.
- *3 Available with Medium base (D) socket only.

Specifications

HOUSING:

356 HM high-strength, low-copper, proprietary cast aluminum alloy. Tool-less lamp access. Hinged roof with stainless steel thumb screw. Tool-less ballast access. Twistlock ballast assembly with quick disconnects for easy maintenance. A weatherproof ballast assembly isolates the ballast from water and heat for longer life. The optional photo control eye or twist-lock receptacle is located in the ballast enclosure for easy access via a removable door. All non-ferrous fasteners prevent corrosion and ensure longer life. Slip Fitter Dimensions: 3" I.D. x 3" deep.

FINISH:

Thermoset polyester powdercoat is electrostatically applied after a five-stage conversion cleaning process and bonded by heat fusion thermosetting. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

OPTICAL ASSEMBLY:

Type III Refractive Panels. Type V Refractive Panels. Optically designed, U.V. stabilized, injection molded, acrylic refractive panels. Type III Cutoff. Type V Cutoff. Precision formed, segmented specular aluminum internal cutoff reflector with horizontal lamp mounting. U.V. stabilized, injection molded, clear acrylic panels. Tool-less removal panels for ease of cleaning.

LAMPING:

MH and HPS Medium base: E17. 70W-150W HPS Mogul base: ED23.5. MH and 250W HPS Mogul base: ED28.

ELECTRICAL ASSEMBLY:

ISO 9001:2000 Registered

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Architectural (V600) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Twistlock Ballast Assembly with Quick Disconnects for easy maintenance. Ballasts are HPF core and coil. 4kv rated medium base porcelain socket. Nickel-plated screw shell with center contact. 4kv rated mogul base porcelain socket. Nickel-plated screw shell with center contact.

BALLAST:

All HID ballasts are core and coil and regulated with power factors better than 90% (HPF). Ballast provides +/- 5% lamp power regulation with +/- 10% input voltage regulation. Ballasts are factory pre-wired and tested. Metal halide ballasts are capable of starting at -20° F or -30° C and HPS at -40°F or -40°C. NOTE: All ballasts are EISA / Title 20 / Title 24 compliant where applicable.

CERTIFICATIONS:

UL Listed to U.S. safety standards for wet locations. cUL Listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2000 Standards.

WARRANTY:

Three-year limited warranty.

Height :

44 1/4" (113cm)

Width:

18 1/2" (47cm)

Max. EPA:

2.8 sq. ft.

Max. Weight:

60 lbs

IESNA Classifications:

Semi Cutoff: Refractive Panels

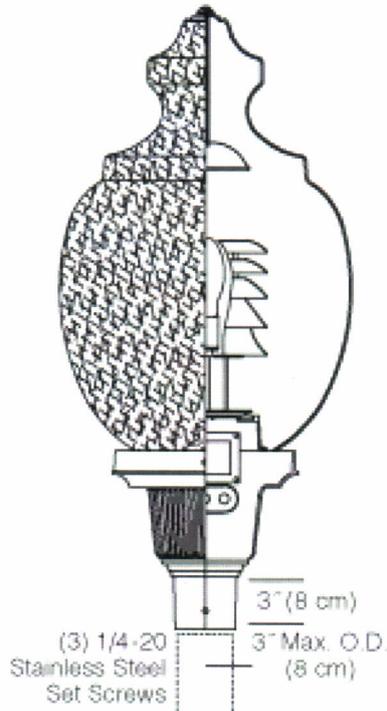
IESNA Classifications:

Cutoff: Cutoff Optics



Victorian (V72) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:



Ordering Guide

Example: V72 A T0 N D 70S E

Product Code	V72	Victorian
Finish	A B G H J	Black White Verde Bronze Green
Optics	T0 T3 T5 TL	Symmetric Type III Refractor Bowl Type V Refractor Bowl Type V Louvers *1
Photo Control	N B	None Button Eye Photo Control
Socket	D G	Medium Mogul
Wattage	70S 100S 150S 250S 70H 100H 150H 250H	70W HPS 100W HPS 150W HPS 250W HPS *3 70W MH *2 100W MH *2 150W PMH 250W PMH *3
Voltage	E F G H K	120V 208V 240V 277V 347V

- *1 TL optics available with Medium base (D) socket only
- *2 Available with Medium base (D) socket only
- *3 Available with Mogul base (G) socket only

Specifications

HOUSING:

360 low-copper die-cast aluminum alloy . Easy access to lamp. A weatherproof ballast assembly isolates the ballast from water and heat for longer life. The optional photo control eye is located in the ballast enclosure for easy access via a hinged door. All non-ferrous fasteners prevent corrosion and ensure longer life. Slip Fitter Dimensions: 3" I.D. x 3" deep .

FINISH:

Thermoset polyester powdercoat is electrostatically applied after a five-stage conversion cleaning process and bonded by heat fusion thermosetting. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

OPTICAL ASSEMBLY:

Type III Refractor Bowl. Type V Refractor Bowl. Heat-resistant, low expansion borosilicate glass refractor bowl. Type V Specular Louvers. Optically designed, highly polished ALZAK® aluminum, internal louver assembly. Symmetric. U.V. stabilized clear acrylic textured globe.

LAMPING:

MH and HPS Medium base: E17. MH Mogul base: ED28. HPS Mogul base: E23.5.

ELECTRICAL ASSEMBLY:

Twistlock Ballast Assembly with Quick Disconnects for easy maintenance. Ballasts are HPF core and coil. For V72 with T3, T5 and TL optics, or 250W H.I.D. Ballast assemblies are mounted to an aluminum plate or spinning, which is mounted inside the ballast pod. For V72 with T0 optics up to 175W H.I.D. 4kv rated medium base porcelain socket. Nickel-plated screw shell with center contact. 4kv rated mogul base porcelain socket. Nickel-plated screw shell with center contact.

BALLAST:

All HID ballasts are core and coil and regulated with power factors better than 90% (HPF). Ballast provides +/- 5% lamp power regulation with +/- 10% input voltage regulation.

ISO 9001:2000 Registered

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Victorian (V72) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Ballasts are factory pre-wired and tested. Metal halide ballasts are capable of starting at -20° F or -30° C and HPS at -40°F or -40°C. NOTE: All ballasts are EISA / Title 20 / Title 24 compliant where applicable.

CERTIFICATIONS:

UL Listed to U.S. safety standards for wet locations. cUL Listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2000 Standards.

WARRANTY:

Three-year limited warranty.

Height :

34 7/8" (89cm)

Width:

16 1/2" (42cm)

Max. EPA:

1.17 sq. ft.

Max. Weight:

32 lbs

IESNA Classifications:

Non Cutoff: Refractor Bowl

IESNA Classifications:

Non Cutoff: Specular Louvers

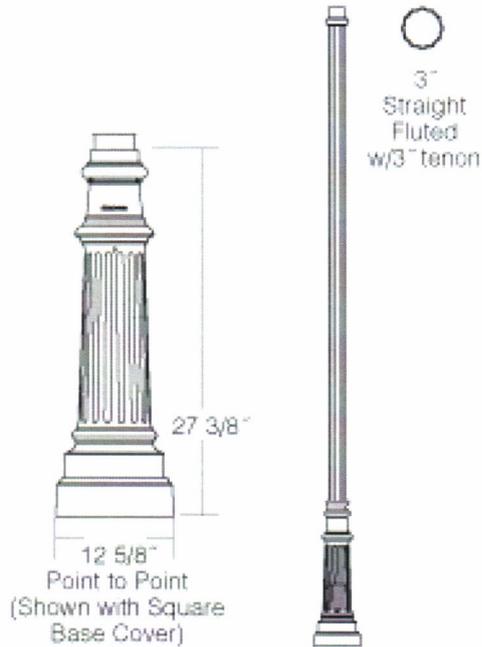
IESNA Classifications:

Non Cutoff: Symmetric



P1500 Series (P1561) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:



Ordering Guide

Example: P1561 8 A

Product Code	P1561	P1500 Series
Pole Height	8 10 12	8' 10' 12'
Finish	A B G H J	Black White Verde Bronze Green

*1 Base covers are composite material.

Specifications

HOUSING:

356 HM high-strength, low-copper, proprietary cast aluminum alloy . 360 Die-cast marine grade aluminum. 6005-T5 extruded aluminum. Anchor rods are hot dipped galvanized steel . Tenon is 356 HM sand cast aluminum.

FINISH:

A durable polyurethane enamel finish is applied after assemblies are shot blasted to create a surface profile which allows for the highest level of paint adhesion. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

WARRANTY:

Three-year limited warranty.

Tenon/Top:

3" OD

Bolt Circle:

9 3/8"

Anchor Rods:

(4) 1/2" dia. x 15 1/2"

Base Dimensions:

8 1/4" sq. x 27 3/8"

Base Cover:

(Included) 9" sq. x 3"

Hand Hole :

3" x 5"

Shaft:

3" Straight Fluted

ISO 9001:2000 Registered

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P1500 Series (P1561) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Wall Thickness:
0.125 Aluminum

Height :
8', 10', 12'

Pole EPA Values

Windspeed(mph)	Height		
	8'	10'	12'
80	9.7700	7.8500	6.5000
100	5.7200	4.5100	3.6500



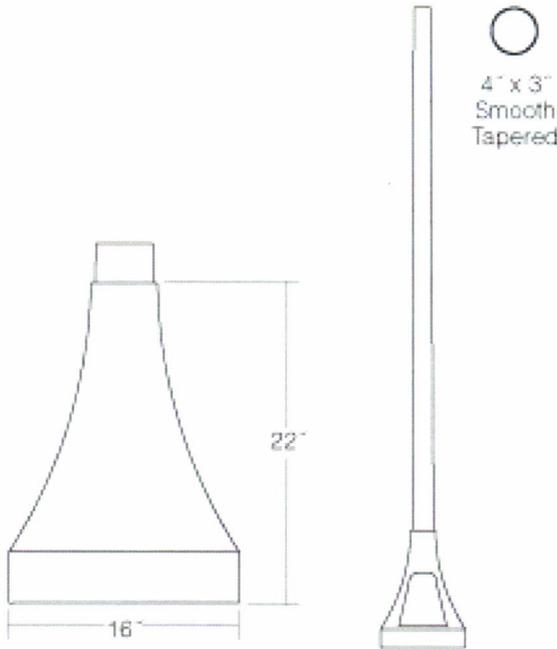
P1600 Series (P1600) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

Ordering Guide

Example: P1600 10 A

Product Code	P1600	P1600 Series
Pole Height	10	10'
	12	12'
	14	14'
	16	16'
Finish	A	Black
	B	White
	G	Verde
	H	Bronze
	I	Gray
	J	Green



Specifications

HOUSING:

356 HM high-strength, low-copper, proprietary cast aluminum alloy . 6063-T6 Extruded aluminum . Anchor rods are hot dipped galvanized steel .

FINISH:

A durable polyurethane enamel finish is applied after assemblies are shot blasted to create a surface profile which allows for the highest level of paint adhesion. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

WARRANTY:

Three-year limited warranty.

Tenon/Top:

3" OD

Bolt Circle:

8" - 13"

Anchor Rods:

(4) 3/4" dia. x 19"

Base Dimensions:

16" dia. x 22"

Hand Hole :

9" x 10"

Shaft:

4" to 3" Tapered

Wall Thickness:

0.125 Aluminum

Height :

ISO 9001:2000 Registered

Page 1 of 2

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100 Craftway Littlestown, PA 17340 tel(717) 359-7131 fax (717) 359-9289 www.hadco.com Copyright 2008 Philips

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PHILIPS

P1600 Series (P1600) Specification Sheet

Project Name:

Location:

MFG: Hadco

Fixture Type:

Catalog No.:

Qty:

10', 12', 14', 16'

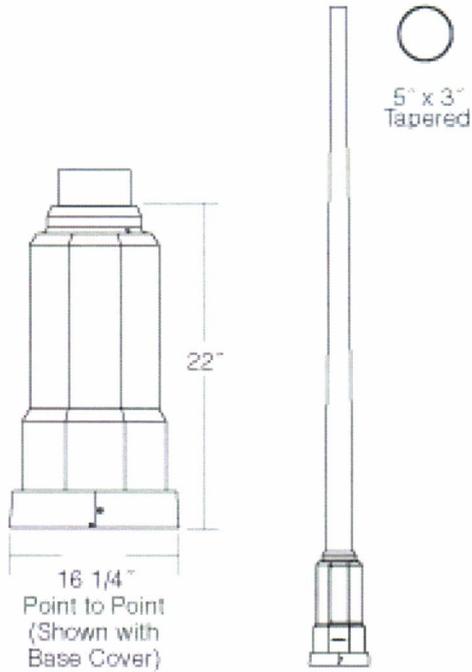
Pole EPA Values

Windspeed(mph)	Height			
	10'	12'	14'	16'
80	12.5300	10.0800	6.5300	5.2100
100	7.5200	5.8400	3.6000	2.6400



P1700 Series (P1711) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:



Ordering Guide

Example: P1711 108 A

Product Code	P1711	P1700 Series
Pole Height	108	10' 8"
	128	12' 8"
	148	14' 8"
	168	16' 8"
Finish	A	Black
	B	White
	G	Verde
	H	Bronze
	J	Green

Specifications

HOUSING:

319 Permanent mold aluminum . 413F, Low-Copper cast aluminum. 6005-T5 extruded aluminum. Anchor rods are hot dipped galvanized steel .

FINISH:

A durable polyurethane enamel finish is applied after assemblies are shot blasted to create a surface profile which allows for the highest level of paint adhesion. Laboratory tested for superior weatherability and fade resistance in accordance with ASTM B-117-64 and ANSI/ASTM G53-77 specifications. For larger projects where a custom color is required, contact the factory for more information.

WARRANTY:

Three-year limited warranty.

Tenon/Top:

3" OD

Bolt Circle:

(min) 11 3/8" (max) 12 3/4"

Anchor Rods:

(4) 5/8" dia. x 15 3/8"

Base Dimensions:

10 1/2" sq. x 22"

Base Cover:

(Included) 11 1/2" sq. x 2 1/2"

Hand Hole :

7 1/2" x 4"

Shaft:

5" to 3" Tapered

Wall Thickness:

ISO 9001:2000 Registered

Page 1 of 2

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PHILIPS

P1700 Series (P1711) Specification Sheet

Project Name:	Location:	MFG: Hadco
Fixture Type:	Catalog No.:	Qty:

0.125 Aluminum

Height :
10' 8", 12' 8", 14' 8", 16' 8"

Pole EPA Values

Windspeed(mph)	Height			
	10'	12'	14'	16'
80	24.7500	16.2800	13.7400	11.6500
100	15.3900	9.8800	8.1600	6.7100

PRODUCT APPROVALS

HAOCO

CUST.

CONFIDENTIAL:
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NOTE: DRAWING IS FOR REFERENCE ONLY. CHECK FOR LATEST REVISION PRIOR TO ORDERING.

Full

Specification

(Complete Assembly)

Drawing

HAOCO
a Genlyte company
ISO 9000:2000 Certified
Over 30 Years of Excellence.

100 Crithway P.O. Box 28
Littlesstown, Pennsylvania 17340-0728
Phone 717-359-7131
Fax 717-359-9515
www.hadco.com

JOB NAME:
Portland General Electric

REP. TERRITORY: DRAWN BY:
45 TAG

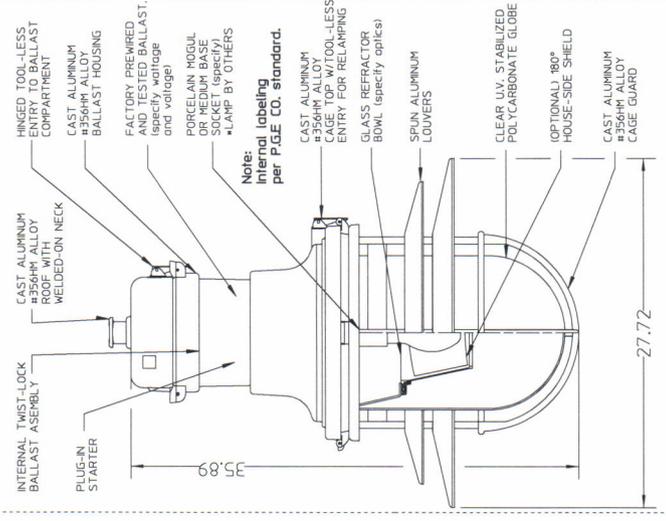
SCALE: DATE:
1:30 11.13.06

DRAWING NUMBER:
C0606-DWG07

REP:
The Hy-Light Group

REV: C POC: 07-085
BY: TAG DATE: 08.18.07

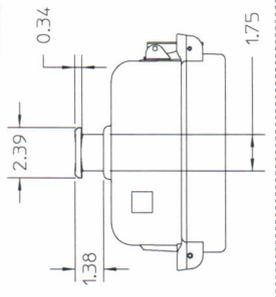
Luminaire Detail
Scale 1:10



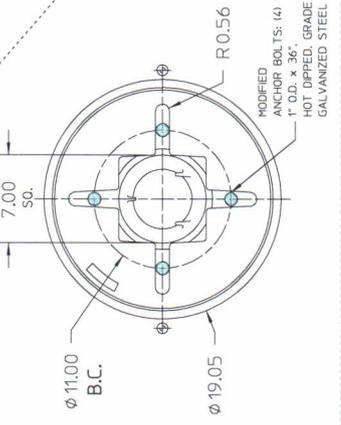
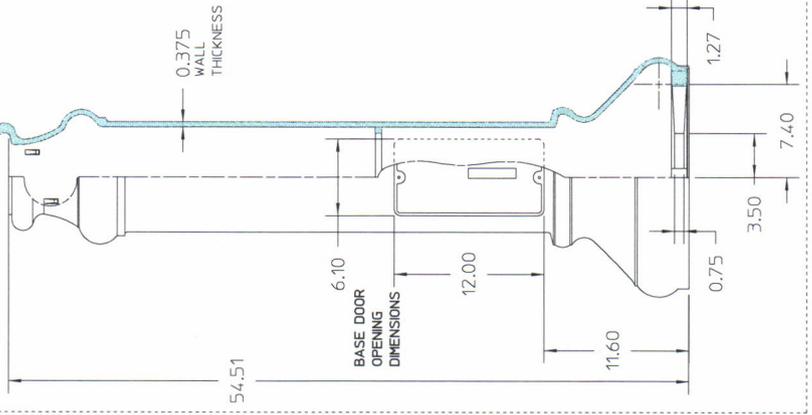
LUMINAIRE SPECS
WEIGHT:
55 LBS.
WIND LOAD:
EPA - 2.25 SQ. FT.

Note:
Specify options at time of order placement.

Luminaire Neck Attachment Detail
Scale 1:6

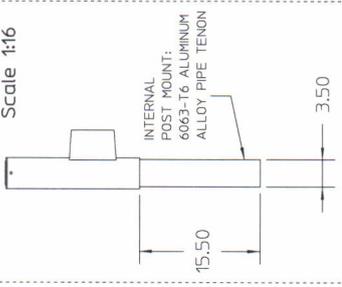


Base Detail
Scale 1:10

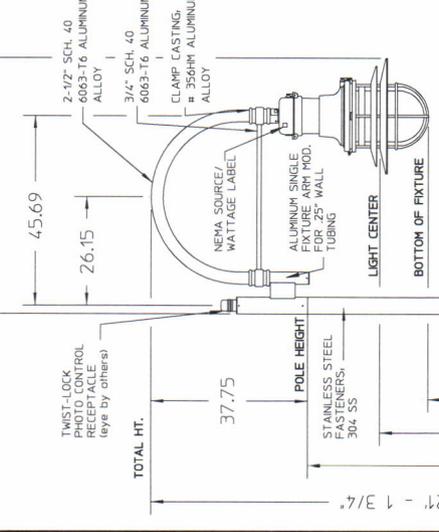


HARDWARE:
ANCHOR BOLT
GRADE 2 GALVANIZED
STEEL
2.50\"/>

Arm Bracket Slip Filter Detail
Scale 1:16



ARM BRACKET WIND LOAD
EPA - 3.05 SQ. FT.



Color: Black

POLE:
5\"/>

NOTE:
SHAFT WELDED TO BASE W/1/4\"/>

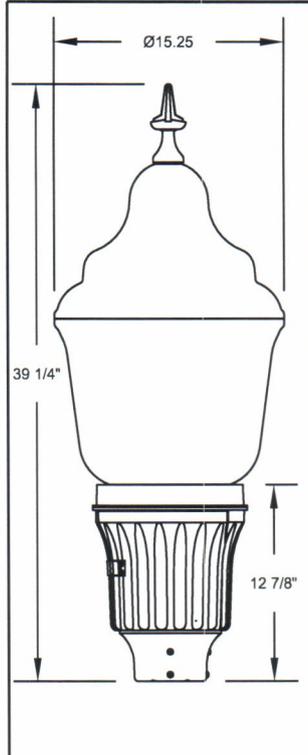
Ordering Guide:
C0606A-AR3NG100SR TYPE III - 100W HPS
C0606A-AR3NG150SR TYPE II - 150W HPS
C0606A-AT5NR45SR TYPE V - 45W HPS
C0606A-310-P4APM: ARM W/O OUTLET
CP0606A-8A-HFF3: POLE

BASE:
CAST ALUMINUM, #356HM ALLOY, W/ACCESS DOOR & GROUND LUG SUPPLIED IN BASE

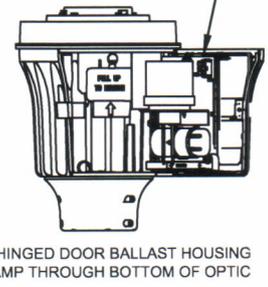
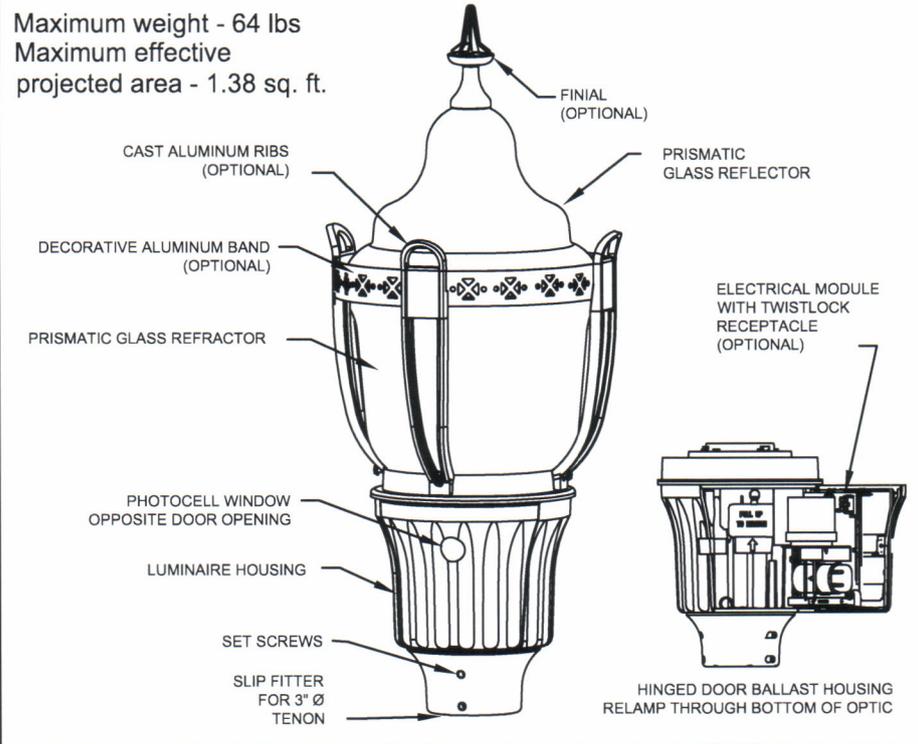
BASE DETAIL: REFERENCE TEMPLATE #107/00914

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ORDER #:	
TYPE:	
DRAWN:	JCH
DATE:	10/27/08
DWG #:	LUM_GVP



Maximum weight - 64 lbs
Maximum effective projected area - 1.38 sq. ft.



ORDERING INFORMATION:

<p>GVP</p> <p>BALLAST TYPE (MOGUL BASE) 50H = 50W HPS (not available with 347 V) 70H = 70W HPS 10H = 100W HPS 15H = 150W 55V HPS 15M = 150W MH (not available with 480V) **17M = 175W MH 25M = 250W MH</p> <p>(MEDIUM BASE) H50 = 50W HPS (not available with 347 V) H70 = 70W HPS H10 = 100W HPS H15 = 150W 55V HPS M70 = 70W MH (not available with 480V) M10 = 100W MH (not available with 480V) M15 = 150W MH (not available with 480V) **M17 = 175W MH (OTHER) 42F = 42W COMPACT FL 57F = 57W COMPACT FL 70F = 70W COMPACT FL 55Q = 55W INDUCTION 85Q = 85W INDUCTION I20 = 200W INCANDESCENT</p>	<p>25M</p>	<p>12</p> <p>VOLTAGE 08 = 208 VOLT (C.U.L.) (Not available with M70, M10, M15, 42F, 57F, 70F, 55Q, 85Q and I20- Contact TSG) 12 = 120 VOLT (UL & C.U.L.) 20 = 208 VOLT 24 = 240 VOLT 27 = 277 VOLT (UL & C.U.L.) 34 = 347 VOLT (C.U.L.) 40 = 240 VOLT (C.U.L.) (Not available with M70, M10, M15, 42F, 57F, 70F, 55Q, 85Q and I20- Contact TSG) 48 = 480 VOLT MA = MULTITAP (factory 120V) (120, 208, 240, 277 VOLT) MB = MULTITAP (factory 208V) (120, 208, 240, 277 VOLT) MC = MULTITAP (factory 240V) (120, 208, 240, 277 VOLT) MD = MULTITAP (factory 277V) (120, 208, 240, 277 VOLT)</p>	<p>M</p> <p>HOUSING COLOR A = AS SPECIFIED B = BLACK D = DARK GREEN E = GREEN F = DARK GREEN H = DARK GREEN N = GREEN Z = BRONZE</p>	<p>B</p>	<p>3</p> <p>OPTICS 3 = ASYMMETRIC DISTRIBUTION 5 = SYMMETRIC DISTRIBUTION 6 = ASYMMETRIC DISTRIBUTION W/CUTOFF 8 = SYMMETRIC DISTRIBUTION W/CUTOFF</p>	<p>N</p>	<p>S</p> <p>FINIAL B = BALL C = CLEAR E = EAGLE F = FLOWER N = NONE P = PAWN R = CROSS S = STANDARD</p>	<p>B</p> <p>TRIM COLOR A = AS SPECIFIED B = BLACK D = DARK GREEN E = GREEN F = DARK GREEN G = GOLD H = DARK GREEN N = GREEN U = NO TRIM AND CLEAR OR NO FINIAL Z = BRONZE</p>
---	-------------------	--	---	-----------------	---	-----------------	--	--

HOUSING CHOICE
M = MODERN FLUTED SWING OPEN DESIGN
L = LEAF STYLE SWING OPEN DESIGN

TRIM
N = NO TRIM
R = RIBS & BAND
B = BAND ONLY

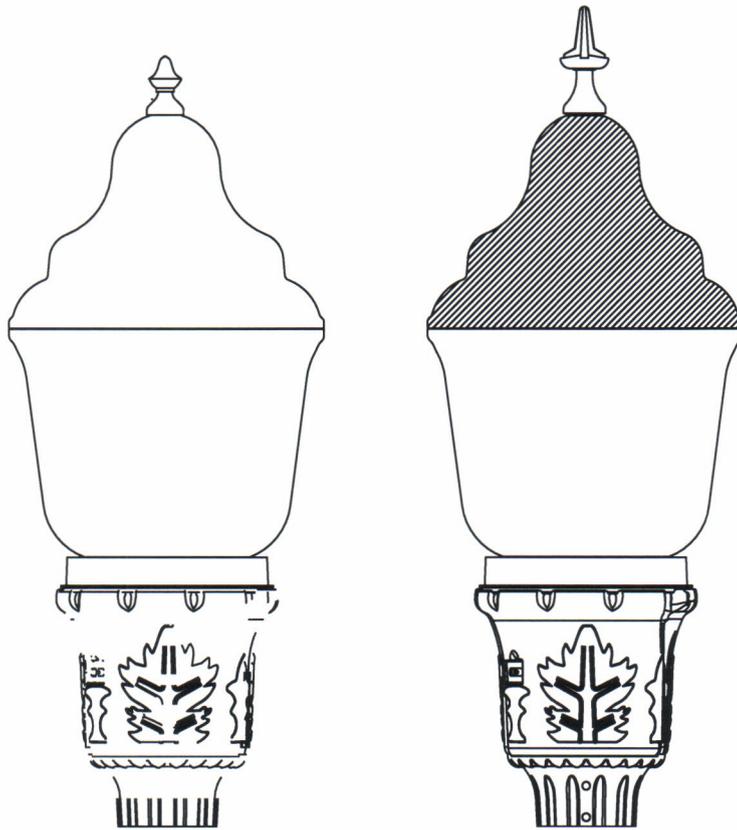
**NOT AVAILABLE FOR SHIPMENT IN US AFTER 12/31/08 DUE TO EISA 2007 LEGISLATION.

OPTIONS

- H = NEMA TWISTLOCK PHOTOCONTROL RECEPTACLE ONLY
- P = PROTECTED STARTER FOR HPS UNITS ONLY
- T = NEMA TWISTLOCK AND PROTECTED STARTER FOR HPS UNITS ONLY.
- C = FULL COVER (SAME AS TRIM COLOR X. MUST ALSO HAVE FINIAL)
- S = ORIENT HOUSING DOOR WITH STREET.
- NEMA050HP = NEMA LABEL 50 HPS
- NEMA070HP = NEMA LABEL 70 HPS
- NEMA100HP = NEMA LABEL 100 HPS
- NEMA150HP = NEMA LABEL 150 HPS
- NEMA070MH = NEMA LABEL 70 MH
- NEMA100MH = NEMA LABEL 100 MH
- NEMA150MH = NEMA LABEL 150 MH
- NEMA175MH = NEMA LABEL 175 MH
- NEMA100MV = NEMA LABEL 100 MV
- NEMA175MV = NEMA LABEL 175 MV
- PCTWSTL120 = DTL TWISTLOCK PHOTOCONTROL 120 VOLT
- PCTWSTL12202427 = DTL TWISTLOCK PHOTOCONTROL 120-277 VOLT
- PCTWSTL480 = DTL TWISTLOCK PHOTOCONTROL 480 VOLT
- PCTWSTSHRTCAP = SHORTING CAP
- LEADS1.5FT10GA = 1.5 FEET OF PREWIRED LEADS
- LEADS3FT10GA = 3 FEET OF PREWIRED LEADS
- LEADS10FT10GA = 10 FEET OF PREWIRED LEADS
- LEADS20FT10GA = 20 FEET OF PREWIRED LEADS
- LEADS25FT10GA = 25 FEET OF PREWIRED LEADS
- LEADS30FT10GA = 30 FEET OF PREWIRED LEADS

ACCESSORIES

- LAMP = SHIP APPROPRIATE LAMP AS LINE ITEM. SEE LAMP SHEET
- IG-5 = PLUG-IN REPLACEMENT STARTER FOR HPS UNITS
- IG-6 = PLUG-IN REPLACEMENT PROTECTED STARTER FOR HPS UNITS
- IG-7 = PLUG-IN REPLACEMENT STARTER FOR 70, 100, 150 MH UNITS
- GVPHOUSE90 = HOUSE SIDE SHIELD (90 DEGREE)
- GVPHOUSE12 = HOUSE SIDE SHIELD (120 DEGREE)
- GVPHOUSE18 = HOUSE SIDE SHIELD (180 DEGREE)



CLEAR FINIAL
NO TRIM OPTIONS

FULL COVER
NO TRIM

FINIALS



BALL



CLEAR



EAGLE



FLOWER



PAWN



CROSS



STANDARD

Granville® Premier Series

**DECORATIVE
OUTDOOR**

HOLOPHANE®
An **Acuity Brands Company**
LEADER IN LIGHTING SOLUTIONS

Specifications

GENERAL DESCRIPTION

The Granville Premier is designed for ease of maintenance with the plug-in electrical module common to each of the luminaires in Holophane's Utility Luminaire Series. This unit also utilizes a latched, swing open door to allow relamping through the housing without the need to remove the glass assembly. The traditional acorn shaped luminaire, while reminiscent of the 1920's, contains a precision optical system that maximizes post spacings while maintaining uniform illumination.

OPTICAL SYSTEM

The optical system consists of a precisely molded three-piece thermal resistant borosilicate glass refractor and top reflector mounted within decorative aluminum ribs and banding. The glass top reflector redirects over 50% of the upward light into the controlling refractor while allowing a soft uplight component to define the traditional acorn shape of the luminaire. A decorative aluminum cover is available. The lower refractor uses precisely molded prisms to maximize pole spacings while maintaining uniform illuminance. Two refractors are available, symmetric distribution and asymmetric distribution. The cutoff optic option replaces inner glass reflector with segmented miro-metal reflector which is designed for less than 5% uplight

LUMINAIRE HOUSING

The luminaire housing, cast of aluminum, provides an enclosure for the plug-in electrical module. Glass optical assembly is secured in the factory to this housing using stainless steel 1/4-20 bolts. 1/4-20 bolts also support the decorative rib and banding assembly. The nickel plated lamp grip socket and three station incoming line terminal block are prewired to a five conductor receptacle for ease in connection the electrical module. The slipfitter will accept a 3" by 2-7/8" to 3-1/8" O.D. tenon.

LUMINAIRE HOUSING / DOOR

Cast of aluminum, the housing / door is removable without the use of tools and is retained by a nonconductive lanyard. For units with an E.E.I.-N.E.M.A. twist lock photocell receptacle, the housing contains a "window" to allow light to reach the cell.

ELECTRICAL MODULE

The ballast components are mounted on a steel plate that is removable without the use of tools. A matching five conductor plug connects to the receptacle in the luminaire housing to complete the wiring. Where a starting aid is required, it is provided with a separate plug-in connector and can be replaced without the use of tools. For photoelectric operation, the electrical module is provided with an E.E.I.-N.E.M.A. twist lock photocell receptacle.

BALLASTS

(Refer to Ballast Data Sheet for specific operation characteristics)

50 watt 120 volt High Pressure Sodium (HPS) ballasts are High Power Factor Reactor type. All other HPS ballast are High Power Factor Autotransformer type.

175 watt Metal Halide (MH) ballasts are Peak Lead Autotransformer type. 70 and 100 watt MH units are available only with High Power Factor High Reactance type ballast.

FINISH

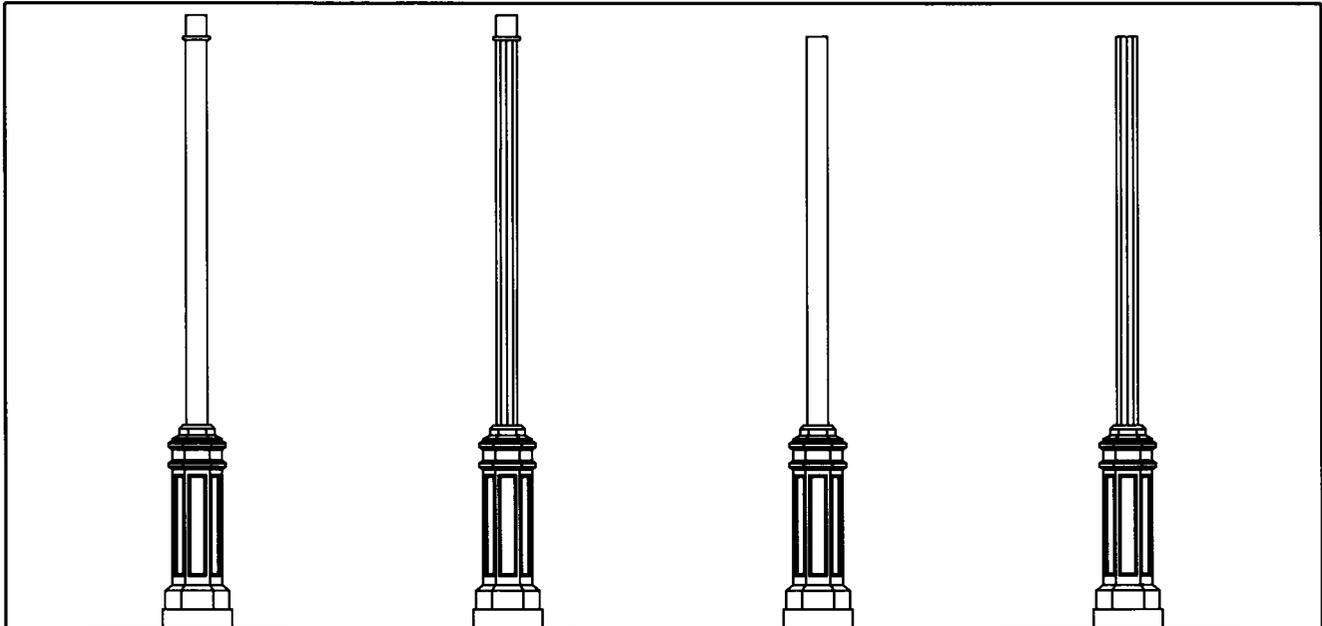
The luminaire is finished with polyester powder paint applied after a seven stage pretreatment process to insure maximum durability.

UL LISTING

The luminaire is UL listed as suitable for wet locations at a maximum 40 degrees C ambient temperature.

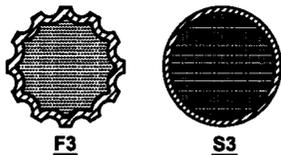
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ORDER #:	
TYPE:	
DRAWN:	JCH
DATE:	3/28/08
DWG #:	LUM_GVP

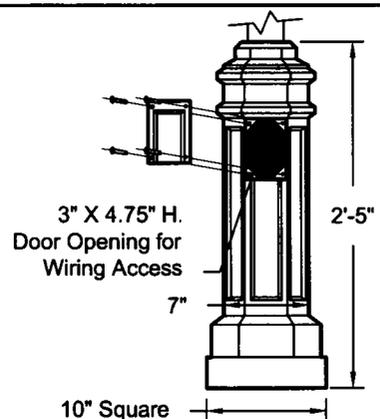
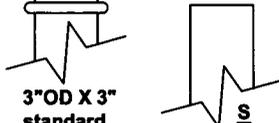


P7S3/10-CA(finish) 3" dia. smooth shaft, 3"OD tenon std. pole heights - 6', 7', 8'
P7F3/10-CA(finish) 3" dia. fluted shaft, 3" OD tenon std. pole heights - 6', 7', 8'
P7S3/10-CA(finish)S 3" dia. smooth shaft, slip fit option pole heights - 6', 7', 8'
P7F3/10-CA(finish)S 3" dia. fluted shaft, slip fit option pole heights - 6', 7', 8'

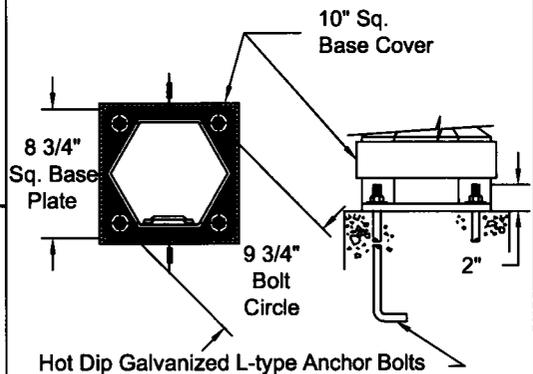
Shaft Style Ø3" Fluted and Smooth



Mounting Option



ANCHORAGE GUIDE



ORDERING INFORMATION:

POST
P = Plymouth

Shaft Options
S3 = Ø3" Smooth
F3 = Ø3" Fluted

Color Options
BK = Black
DG = Dark Green
DB = Dark Bronze
PP = Prime Painted
CM = Custom Color
CS = RAL Color

Pole Height
6 = 6'
7 = 7'
8 = 8'

Post Base & Material
10-CA = 10" Square Base Cast Aluminum

Mounting Option
S = Slip-fit (Fixture slips over post)

Ordering Code: P 7 F3 / 10-CA / BK S

Plymouth Series Post
Cast Aluminum Post

Plymouth Series Post #:

P _____ /10-CA/ _____

Luminaire Series - GranVille(mini)



Plymouth III Series
Cast Aluminum Post, Extruded Shaft

ORDER #:	TYPE:	DRAWING #:
REVISION:	REVISION DATE:	POL_ PLYMOUTH III
DRAWN: ACH	ORIGIN DATE: 11-08-05	PAGE: 1 of 2

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Specifications

DESCRIPTION The lighting post shall be all aluminum, one-piece construction, with a hexagonal fluted and tapered base design. The shaft shall be _____.(insert shaft options from back page) The post shall be Holophanes' catalog number PXXXX/10-CA/finish.

MATERIALS The base shall be heavy wall, cast aluminum produced from certified ASTM 356.1 ingot per ASTM B-179-95a or ASTM B26-95. The straight shafts shall be extruded from aluminum, ASTM 6061 alloy, heat treated to a T6 temper. All hardware shall be tamper resistant stainless steel. Anchor bolts to be completely hot dip galvanized.

CONSTRUCTION The shaft shall be double welded to the base casting and shipped as one piece for maximum structural integrity. The shaft shall be circumferentially welded inside the base casting at the top of the access door, and externally where the shaft exits the base. All exposed welds below 8' shall be ground smooth. All welding shall be per ANSI/AWS D1.2-90. All welders shall be certified per Section 5 of ANSI/AWS D1.2-90.

DIMENSIONS The post shall be X'- XX" in height with a 10" square base. The shaft diameter shall be XX". (see back page) At the top of the post, an integral 3" O.D. tenon with a transitional donut or the slip-fit mounting style shall be provided for luminaire mounting.

INSTALLATION The post shall be provided with four, hot dip galvanized L-type anchor bolts to be installed on a 9.75" bolt circle. A door shall be provided in the base for anchorage and wiring access. A grounding screw shall be provided inside the base opposite the door.

For finish specifications and color options, see "**Finish**" section in catalog.



Plymouth III Series Cast Aluminum Post, Extruded Shaft

ORDER #:	TYPE:	DRAWING# POL_
REVISION:	REVISION DATE:	PLYMOUTH III
DRAWN: ACH	ORIGIN DATE: 11-08-05	PAGE: 2

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Discera Solar

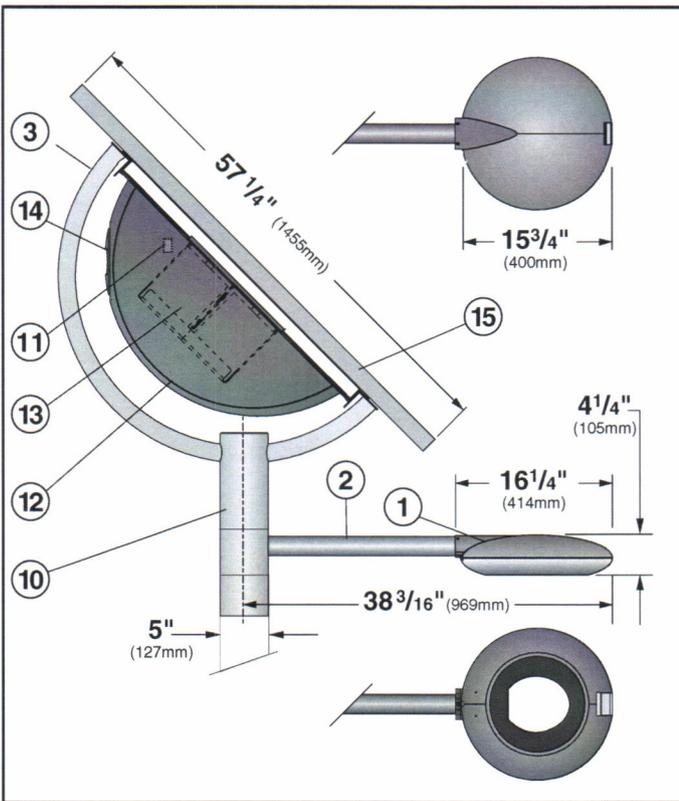


Project: _____

Type: _____ **Qty:** _____

DSCS - H039T6 - R3 - _____ - _____ - _____ - _____ - _____
 Series Lamping Reflector Batteries Panel Hours of Operation Finish Option Option
 S50 - _____ - _____
 Pole Series Finish Height

Series	Lamping	Reflector	Batteries*	Panel*	Hrs. of Operation	Finish	Options
DSCS Discera Solar	H039T6 39W T6 MH G12 Base	R3 Type III Aluminum Reflector	B2 Two 12V, 82 Amp/H B4 Two 12V, 100 Amp/H	P3 160W (Double) P4 250W (Double)	2H 2 hours on after sunset 4H 4 hours on after sunset 6H 6 hours on after sunset 8H 8 hours on after sunset 10H 10 hrs. on after sunset 3/1H 3 hrs. on/ off / 1 hr. on 4/2H 4 hrs. on/ off / 2 hrs. on 6/2H 6 hrs. on/ off / 2 hrs. on DTD Dusk to dawn	WH White BK Black BZ Bronze SV Silver GV Galvanized SP Specify RAL#	PANEL MOUNTING ANGLE* PM0 0° *standard panel PM1 15° mounting PM3 30° angle = 45° PM6 60° BP Back Panel (covering back of solar panel)
*Batteries and Panel requirements to be determined by SELUX engineering for every project, please consult factory.							



**Union Made
 Affiliated with
 IBEW Local 363**

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 PO Box 1060, 5 Lumen Lane
 Highland, NY 12528
 TEL: (845) 691-7723
 FAX: (845) 691-6749
 E-mail: seluxus@selux.com
 Web Site: www.selux.com/usa
 DSCS-1108-01 (ss-V1.31)

In a continuing effort to offer the best product possible, we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Specification sheets found at www.selux.com/usa are the most recent versions and supercede all other printed or electronic versions.

- 1. Fixture Housing** - High pressure die-cast aluminum fixture housing.
- 2. Mounting Arm** - Extruded aluminum with powder coat finish.
- 3. Panel Support Frame** - Steel frame supports solar panels and storage batteries. Integrated pole fitter allows independent orientation to fixture.
- 4. Gasketing** - (not shown) Molded silicone gasket provides seal at door and glass opening.
- 5. Reflector** - (not shown) Precision formed aluminum reflector with Type III distribution.
- 6. Lamp** - (not shown) 39 Watt T6 metal halide with G12 base. Lamp supplied with fixture.
- 7. Socket** - (not shown) G12 base.
- 8. Ballast** - (not shown) 24 V DC Electronic ballast for Metal halide lamp, mounted to removable tray for ease of maintenance. All electrical connections are prewired. Electrical harness is equipped with quick disconnects to the fixture, batteries and solar panels.
- 9. Access Latch** - One hand operated flush latch releases lower section of fixture housing with integral die cast hinges for easy access to lamp and removable ballast tray.
- 10. Pole fitter** - Fitter for upper assembly and light fixture secured with six stainless steel, Allen head set screws. Fitters are 5"(127mm) I.D. external fitter for 5"(127mm) O.D. poles.
- 11. Smart Controller** - Monitors and regulates charging and discharging of batteries (preventing

- over charging). Programmable to control hours of operation (in relation to dusk and dawn). Accessible through access hatch. Warranted (limited) by controller manufacturer for 5 years.
- 12. Battery Covers** - Battery compartment is enclosed with molded recycled ABS with integrated UV protective outer shell. Covers are removable without tools, locked in place with controller access hatch.
 - 13. Batteries** - (2) 12 Volt, 82 or 100 Amp Hour. Maintenance free, non-spillable, sealed gel electrolyte batteries. Mounted to hinged battery tray for ease of maintenance.
 - 14. Battery Compartment Access Hatch** - Integrated access hatch locks battery covers in place and provides access to smart controller. Hatch locks in place with captive hardware.
 - 15. Solar Panels** - Multi-crystalline photovoltaic modules, in 80W and 125W double panels. Panel wattages are nominal. Power output warranted (limited) by solar panel manufacturer for 20 years.

Exterior Luminaire Finish - SELUX utilizes a high quality Polyester Powder Coating. All SELUX luminaires and poles undergo a five stage intensive pre-treatment process where product is thoroughly cleaned, phosphated and sealed. SELUX powder coated products provide excellent salt and humidity resistance as well as ultra violet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

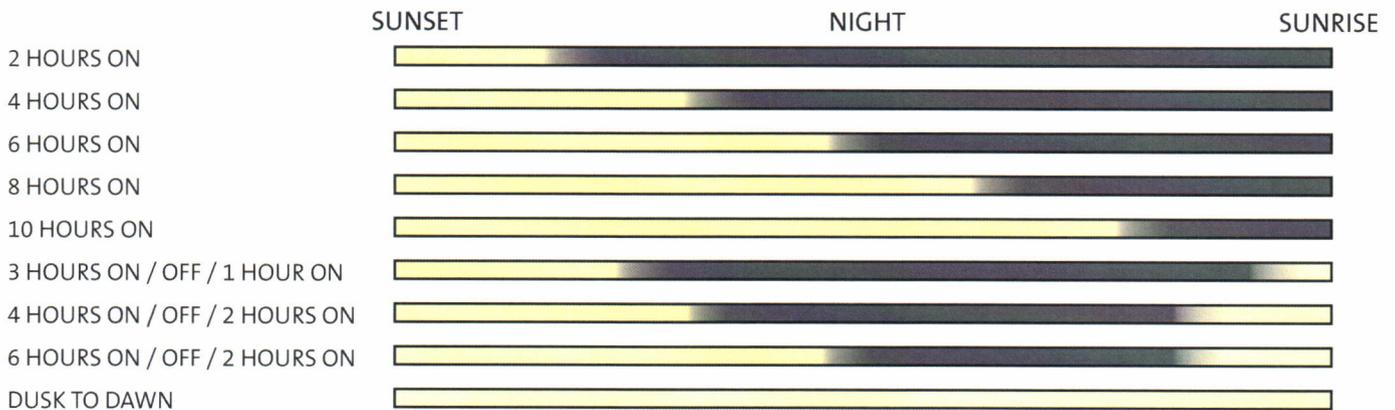
Standard exterior colors are White (WH), Black (BK), Bronze (BZ), and Silver (SV). RAL colors (SP) are available, please specify RAL#. Hot Dip Galvanized finish (GV) on all steel parts also available. ABS parts supplied in Grey.

T6 Metal Halide Lamp Prorate Table		
Wattage	Factor	Initial Lumens
39	1.00	3400

Conversion Chart		
Values based on 12' (3.7M) mounting height.		
Mounting Height		Multiply
10'	(3.0M)	1.44
12'	(3.7M)	1.00
14'	(4.3M)	0.73
16'	(4.9M)	0.56
18'	(5.5M)	0.44

Hours of Operation

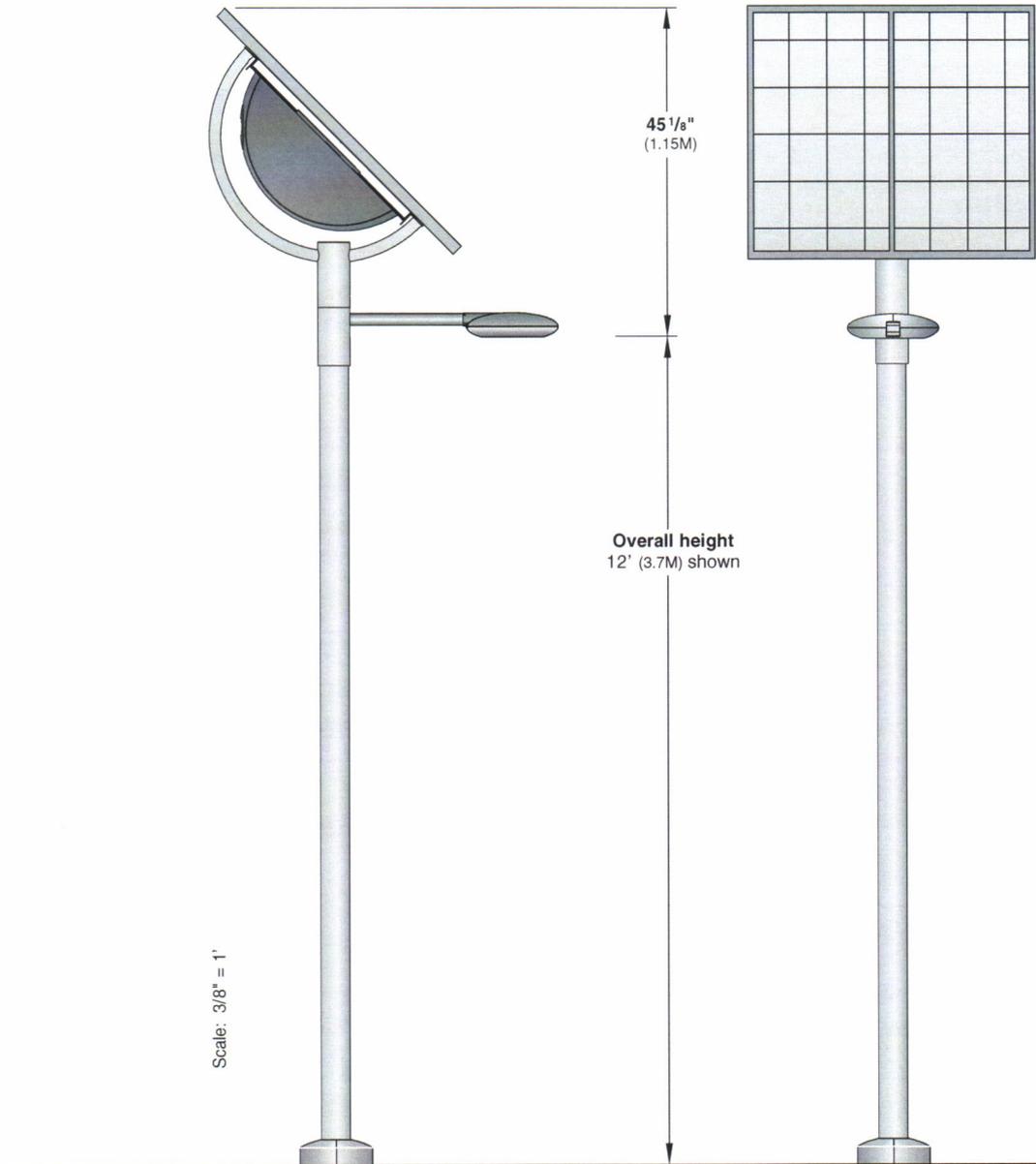
Luminaire is preset at factory to operate at pre-determined hours of operation as in chart below. "2 Hours On" signifies that the lamp will turn on at sunset and stay on for two hours at which time it will shut off until sunset of the following day. Progressively longer periods of operation after sunset are achieved with selections 4, 6, 8 and 10 Hours On. "3 Hours On / Off / 1 Hour On" selection gives three hours of operation directly after sunset and one hour before sunrise, for a total of four hours operation. Please consult SELUX engineering for required Panel and Batteries configuration for each job specific application.



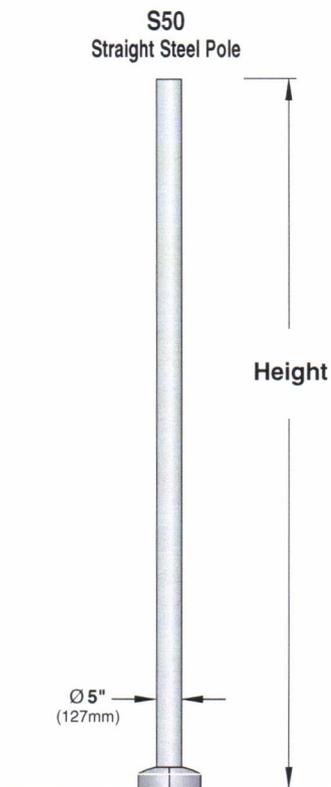
EPA / Weight Chart for Discera Solar configurations

Fixture Assemblies EPA's & Weights						
Panel Size	Panel	Batteries	EPA		Weight	
			Ft ²	M ²	lbs.	kg
160 Watt	2 x 80W Panel	2 x 82 Amp Hour	13.02	1.21	312.5	142.1
160 Watt	2 x 80W Panel	2 x 100 Amp Hour	13.02	1.21	332.5	131.2
250 Watt	2 x 125W Panel	2 x 82 Amp Hour	22.02	2.05	330.5	150.3
250 Watt	2 x 125W Panel	2 x 100 Amp Hour	22.02	2.05	357.5	162.5

Mounting



Pole Information



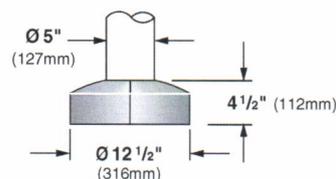
Please consult SELUX engineering to determine wind load requirements for your specific project.

Pole Series	Height	Finish
S50 5" Diameter Straight Steel Pole	12 12 ft.	WH White
S50 5" Diameter Straight Steel Pole	14 14 ft.	BK Black
S50 5" Diameter Straight Steel Pole	16 16 ft.	BZ Bronze
S50 5" Diameter Straight Steel Pole	18 18 ft.	SV Silver
		GV Galvanized
		SP Specify RAL#

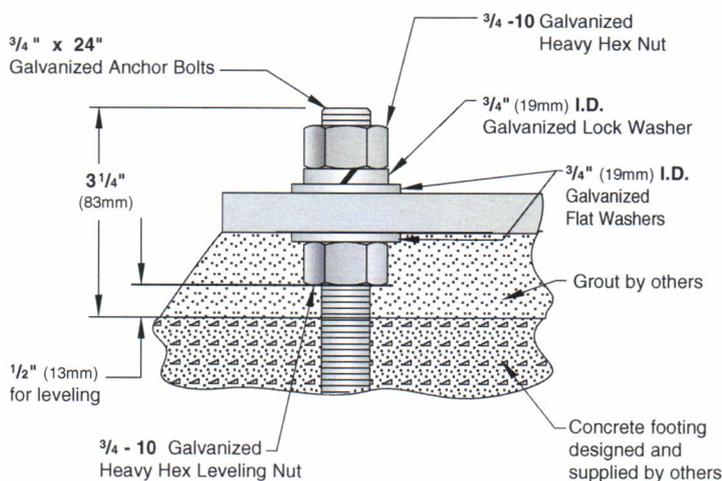
Other pole configurations available, consult factory.

BC3 Standard Base Cover

Die cast aluminum, two-piece field installable base cover.

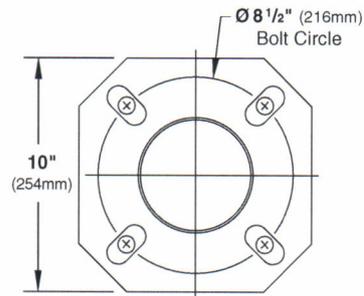


Anchor Bolt Detail



Bolt Circle

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



Trash Receptacles





Concourse Series | RS-12

[print](#) [close window](#)



Model RS-12: Concourse Series Litter Receptacle

Model RS-12: Vertical steel slats with open lattice-work and bold circular detailing make this Concourse litter receptacle truly distinctive in design and concept.

Standard Capacities:

FC-10: 24-gallon (90 liter)

FC-12: 36-gallon (136 liter)

RS-10: 24-gallon (90 liter)

RS-12: 36-gallon (136 liter)

RS-6: Ash urn with stainless steel ashtray

FC-6: Ash urn with stainless steel ashtray

Standard:

All fabricated metal components are steel shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings. Other standard features include a formed lid attached to the frame with two vinyl-coated steel aircraft cables, a high-density plastic liner, and rubber-tipped leveling feet on the base.

Interior plastic liners for our litter receptacles offer substantial value and are produced on molds that we designed and own. These plastic cans are reinforced, ribbed, and molded for durability, ease of use, and greater capacity.

Coordinating Products



Steelsites™ RB Series
RMFC-24



Homestead Series
Model 32

Custom Decals & Plaques

Custom Decals & Plaques

Custom decals are available for many Victor Stanley products.

Promote recycling, advertise or identify special installations.

Custom designed decals are available for the lids, plaques and top steel bands of our receptacles. We have a complete art and graphics department to help you with regard to the design and implementation of custom decals and plaques. Plaques are heavy 20-gauge galvanized steel sheets cut to the appropriate size. Plaques are then powder coated and secured to the receptacles. Premium decals produced by our art department are then affixed.

Custom bronze plaques for our benches provide a handsome display for messages, advertising or memorials. Engrave with your personal message on a choice of black, bronze or dark green backgrounds.

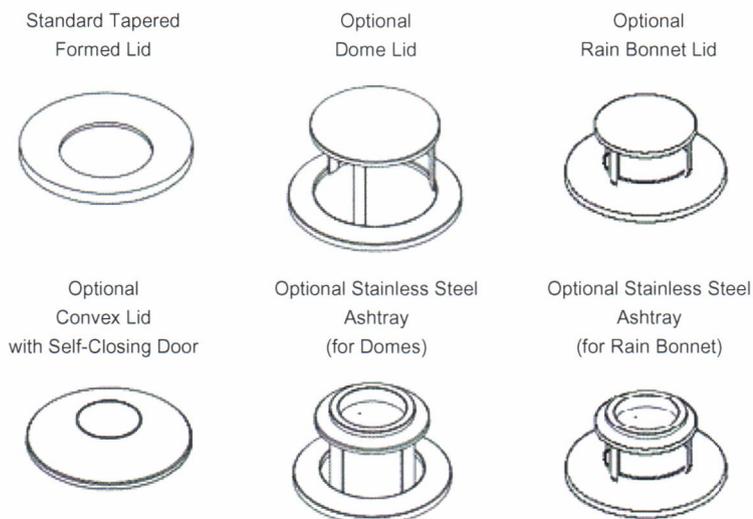
Choose from:

- Formed steel plaques with lettering or logos in many sizes
- Fitted outdoor decals carefully installed
- Cast bronze plaques

Lid Options

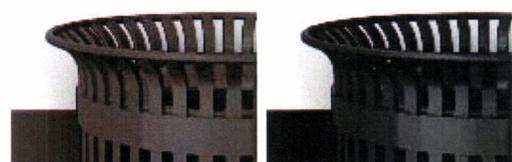
Lid Options:

These litter receptacles are shipped with standard formed lids. Please specify lid type when order is placed.



Powder Coating Color Options

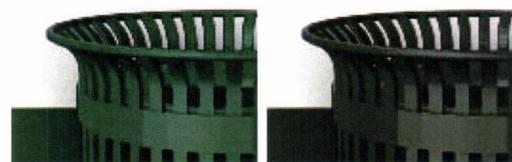
Powder Coating Colors



VS Bronze

VS Black

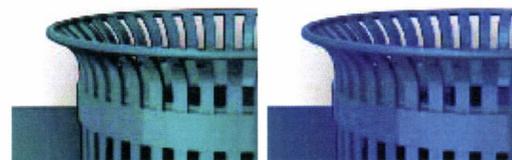
All of our steel products are available in eleven standard powder coating colors. We also offer other colors (including the RAL range) at a small additional cost. Contact us for details.



VS Green

VS Tavern Square Green

Publicote™ is our name for an elaborate powder coating process that provides a baked resin coating on all exposed steel frames, bench legs, table assemblies, mounting pipe brackets and on all finished steel products. This process includes steel shotblasting, thorough cleaning and surface preparation, and a final coating of nontoxic sealer that makes the subsequent powder coating dramatically more effective. The entire process utilizes no toxic solvents and represents our ongoing commitment to operating a modern, effective manufacturing process in a responsible and environmentally sound manner.



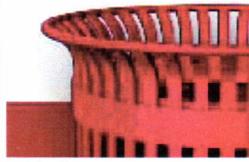
VS Teal

VS Blue

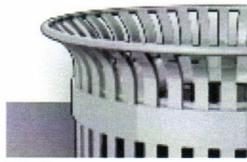
Standard Colors: Sample images may not be accurate representations of actual colors. Color representations vary from monitor to monitor.



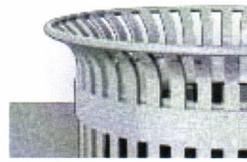
VS Burgundy



VS Red



VS Gray



VS Silver



VS White

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H Series | HF-24

[print](#) [close window](#)



Model HF-24: H Series Litter Receptacle

Model HF-24: A popular surface-mount litter receptacle that fits naturally into outdoor settings and almost any site design. The HF-24 has twenty-four 2 x 3 (38.1 x 63.5 mm) slats in a cylindrical configuration. Shown with optional formed lid.

Standard Capacities:

- HF-24: 24-gallon (90 liter)
- HF-324: 36-gallon (136 liter)

See the GreenSites Series™ [RHF-24](#) Litter Receptacle for Recycled Plastic Slats.

Standard:

All fabricated steel components are steel shotblasted, etched, phosphatized, preheated, and electrostatically powder coated with TGIC polyester powder coatings.

Note:

All H Series litter receptacles include a high-density plastic liner.

Interior plastic liners for our litter receptacles offer substantial value and are produced on molds that we designed and own. These plastic cans are reinforced, ribbed, and molded for durability, ease of use, and greater capacity.

Coordinating Products



Classic Series
C-7

Lid Options

Lid Options:

Optional
Tapered Formed Lid



Optional
Convex Lid with
Self-Closing Door



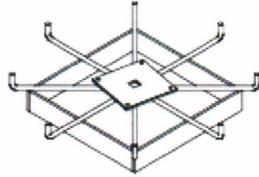
Mounting Options

Mounting Options:

Permanent
In-ground Mount



Portable or Surface-Mount
(F-Series)



Powder Coating Color Options

Powder Coating Colors



VS Bronze



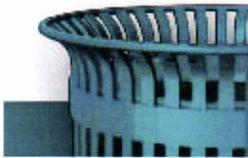
VS Black



VS Green



VS Tavern Square Green



VS Teal



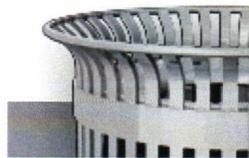
VS Blue



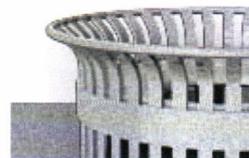
VS Burgundy



VS Red



VS Gray



VS Silver



VS White

All of our steel products are available in eleven standard powder coating colors. We also offer other colors (including the RAL range) at a small additional cost. Contact us for details.

Publicote™ is our name for an elaborate powder coating process that provides a baked resin coating on all exposed steel frames, bench legs, table assemblies, mounting pipe brackets and on all finished steel products. This process includes steel shotblasting, thorough cleaning and surface preparation, and a final coating of nontoxic sealer that makes the subsequent powder coating dramatically more effective. The entire process utilizes no toxic solvents and represents our ongoing commitment to operating a modern, effective manufacturing process in a responsible and environmentally sound manner.

Standard Colors: Sample images may not be accurate representations of actual colors. Color representations vary from monitor to monitor.

Wood Slat Options

Our Woods



Philippine Mahogany

Our genuine **Philippine mahogany** is a medium hardwood that ultimately weathers to a bright silver-gray patina. It offers great beauty, longevity and superb weathering characteristics in virtually all climates and resists rot and insect infestation. The magnificent "boatbuilder's grade" mahogany we use for our products comes with a factory-applied coat of clear sealer to bring out the richness of the wood's hues and highlights.



Ipe

Ipe (pronounced ee-pay) is a light brown South American hardwood. Often thought of as South American teak, ipe is one of the strongest and hardest woods we have encountered. Weathering to a bright silver color, this remarkable wood resists rot and insect infestation. Products made with ipe are far less vulnerable to vandalism and are well able to withstand the normal wear and tear that public site furnishings receive.

Note: Color representations vary from monitor to monitor. Natural wood colors will vary. Weathering may occur on site which will alter the color of the wood over time.

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Production Series™ | PRS-36

[print](#) [close window](#)



Model PRS-36: Production Series™ Litter Receptacle

Model PRS-36: This beautifully tapered receptacle is a picturesque addition to any outdoor setting. The PRS-36 is shown here in 36-gallon (136 liters).

Standard Capacities:

- PRS-24: 24-gallon (90 liter)
- PRS-36: 36-gallon (136 liter)
- PRS-45: 45-gallon (170 liter)

Standard:

All fabricated metal components are steel shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings.

Other standard features include a formed lid attached to the frame with two vinyl-coated steel aircraft cables, a high-density plastic liner, and rubber-tipped leveling feet on the base.

Interior plastic liners for our litter receptacles offer substantial value and are produced on molds that we designed and own. These plastic cans are reinforced, ribbed, and molded for durability, ease of use, and greater capacity.

Coordinating Products



Steelsites™ RB Series
RMFC-24



Production Series™
PRSS-124



Production Series™
PRS-112

Custom Decals & Plaques

Custom Decals & Plaques

Custom decals are available for many Victor Stanley products.

Promote recycling, advertise or identify special installations.

Custom designed decals are available for the lids, plaques and top steel bands of our receptacles. We have a complete art and graphics department to help you with regard to the design and implementation of custom decals and plaques. Plaques are heavy 20-gauge galvanized steel sheets cut to the appropriate size. Plaques are then powder coated and secured to the receptacles. Premium decals produced by our art department are then affixed.

Custom bronze plaques for our benches provide a handsome display for messages, advertising or memorials. Engrave with your personal message on a choice of black, bronze or dark green backgrounds.

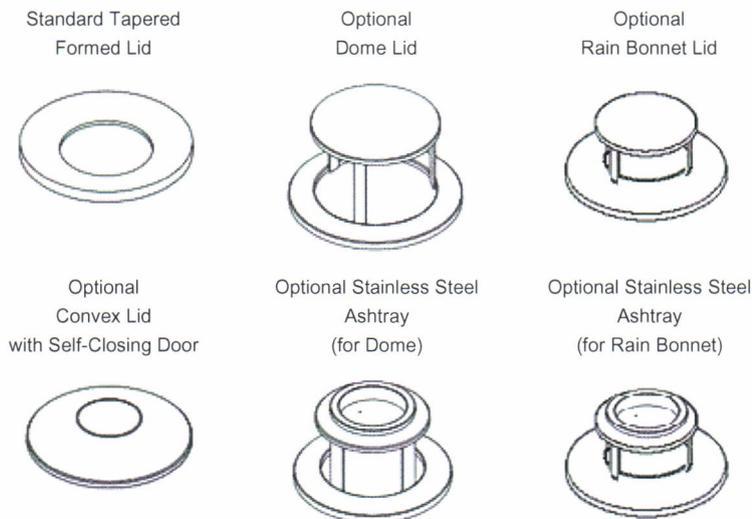
Choose from:

- Formed steel plaques with lettering or logos in many sizes
- Fitted outdoor decals carefully installed
- Cast bronze plaques

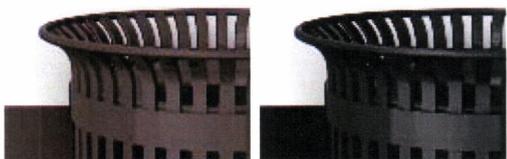
Lid Options

Lid Options:

These litter receptacles are shipped with standard formed lids. Please specify lid type when order is placed.

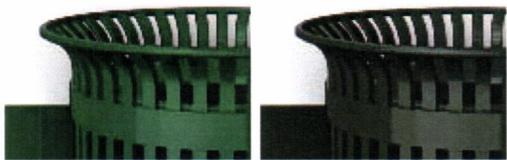


Powder Coating Color Options
Powder Coating Colors



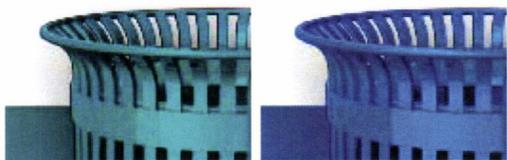
VS Bronze

VS Black



VS Green

VS Tavern Square Green



VS Teal

VS Blue

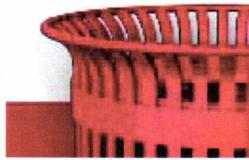
All of our steel products are available in eleven standard powder coating colors. We also offer other colors (including the RAL range) at a small additional cost. Contact us for details.

Publicote™ is our name for an elaborate powder coating process that provides a baked resin coating on all exposed steel frames, bench legs, table assemblies, mounting pipe brackets and on all finished steel products. This process includes steel shotblasting, thorough cleaning and surface preparation, and a final coating of nontoxic sealer that makes the subsequent powder coating dramatically more effective. The entire process utilizes no toxic solvents and represents our ongoing commitment to operating a modern, effective manufacturing process in a responsible and environmentally sound manner.

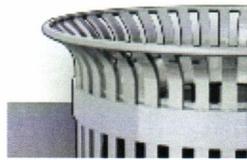
Standard Colors: Sample images may not be accurate representations of actual colors. Color representations vary from monitor to monitor.



VS Burgundy



VS Red



VS Gray



VS Silver



VS White

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Planters





T Series™ | TP-36

print close window



Model TP-36: The T Series™ planter with vertical steel bars flared at the top.

Standard:

All fabricated metal components are steel shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings.

Model TP-36: T Series™ Planter

Coordinating Products



T Series™
T-24 w/ Dome lid



T Series™
BKR-35

Powder Coating Color Options
Powder Coating Colors



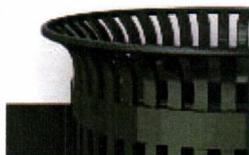
VS Bronze



VS Black



VS Green



VS Tavern Square Green

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VS Teal

VS Blue

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VS Burgundy

VS Red



VS Gray



VS Silver



VS White

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Ironsites® Series | S-24

[print](#) [close window](#)



Model S-24: The elegant Ironsites® planter matches the rest of the products in this series but can be used alone as a beautiful and durable accessory that will fit into any site design.

Standard:

All fabricated metal components are steel shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIC polyester powder coatings.

Model S-24: Ironsites® Series Planter

Coordinating Products

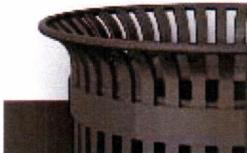


Ironsites® Series
S-6

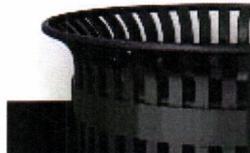


Ironsites® Series
S-20

Powder Coating Color Options
Powder Coating Colors



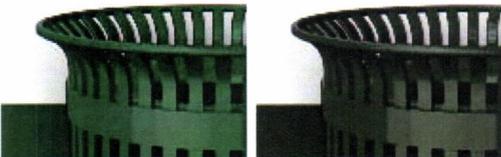
VS Bronze



VS Black

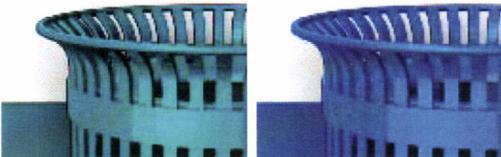
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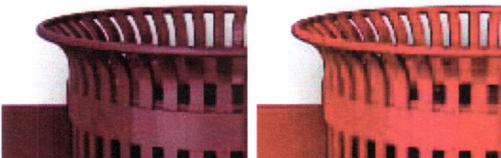
VS Green

VS Tavern Square Green



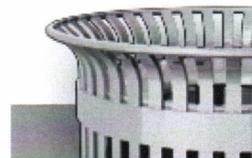
VS Teal

VS Blue



VS Burgundy

VS Red



VS Gray



VS Silver



VS White

responsible and environmentally sound manner.

Standard Colors: Sample images may not be accurate representations of actual colors. Color representations vary from monitor to monitor.

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Bike Racks



BICYCLE RACKS



Standard Staple Rack - \$100 + freight



Standard Wave Rack - \$200 + freight



Custom Letter Rack - \$280 + freight



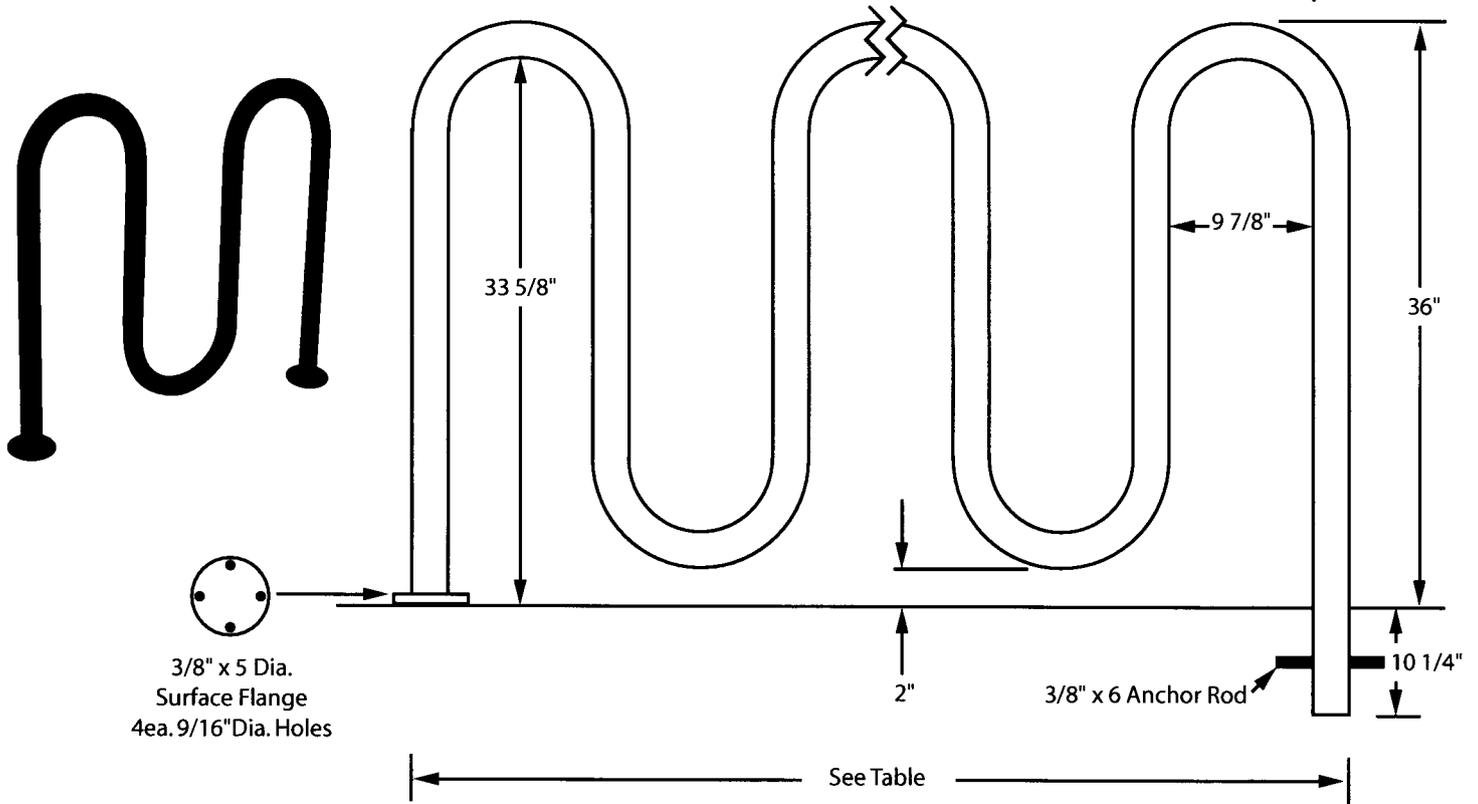
Custom Cowboy Rack - \$3200 + freight

Bike Rack Suppliers:

Dero Bike Rack Co.
www.dero.com
888-337-6729

Creative Metalworks
P.O. Box 565
Dayton OR 97114
Phone Toll Free: 888 - BIKE RAX

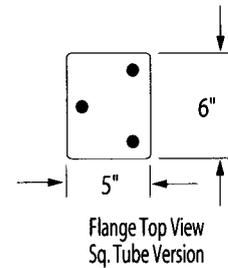
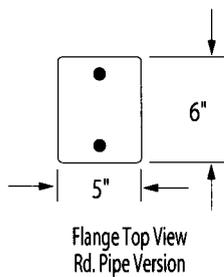
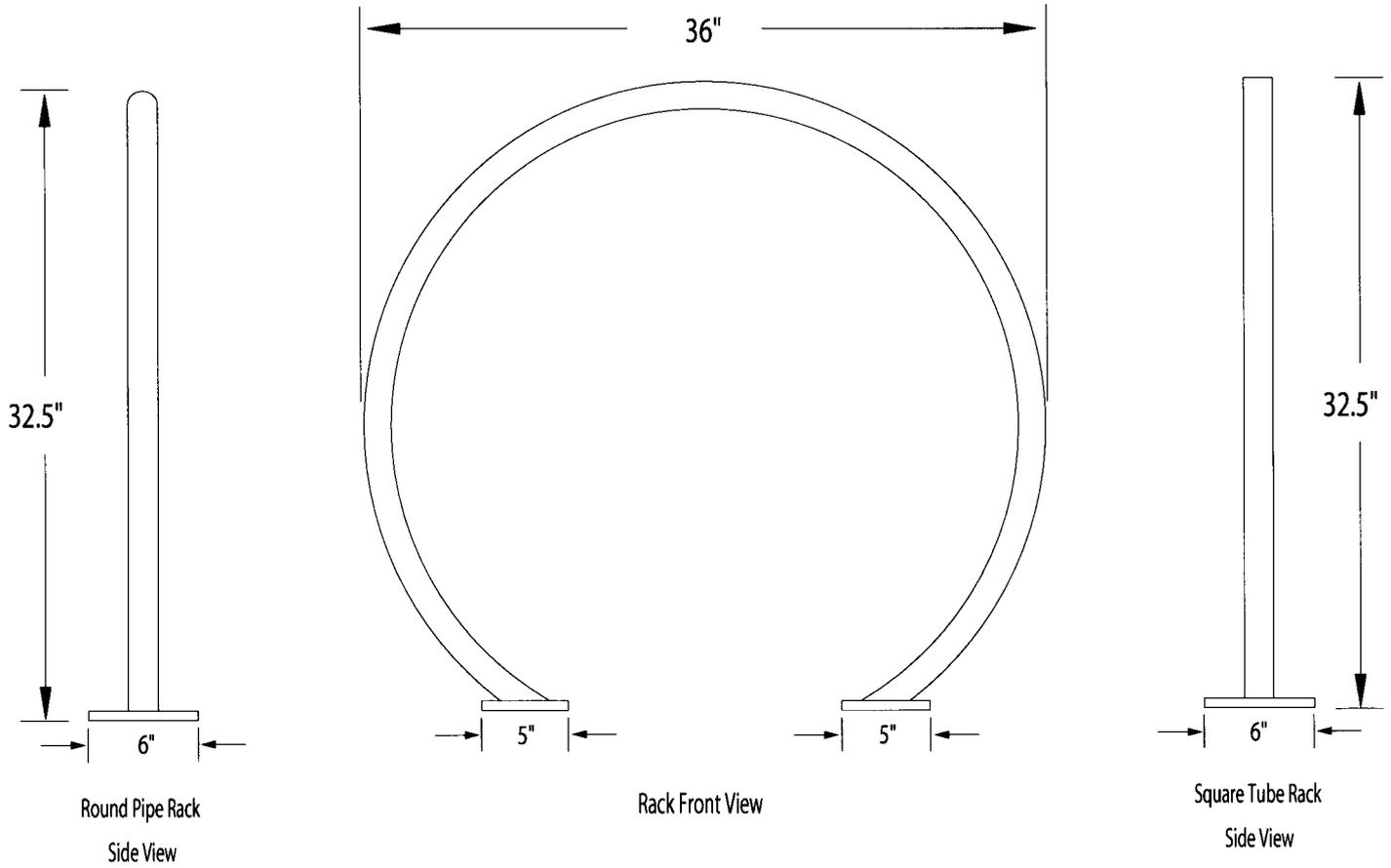
Columbia Cascade
1975 SW Fifth Ave
Portland, OR 97201
Phone: 1-800-547-1940, ext. 850



WELLE™ MULTI BEND ROUND PIPE RACKS						
Item	Mount	# of Bends	Bike Capacity	Rack Length		Model
				Common	Wide loop	
H3605	-SF (Surface Flange)	3	5	38"	59"	
H3607	-IG (Inground)	5	7	62"	97"	
H3609		7	9	86"	135"	
H3611		9	11	110"	173"	
H3613	-G (Galvanized)	11	13	134"	211"	
H3615	-P (Powder Coated)	13	15	158"	249"	
H3617	-SS (Stainless Steel)	15	17	182"	287"	

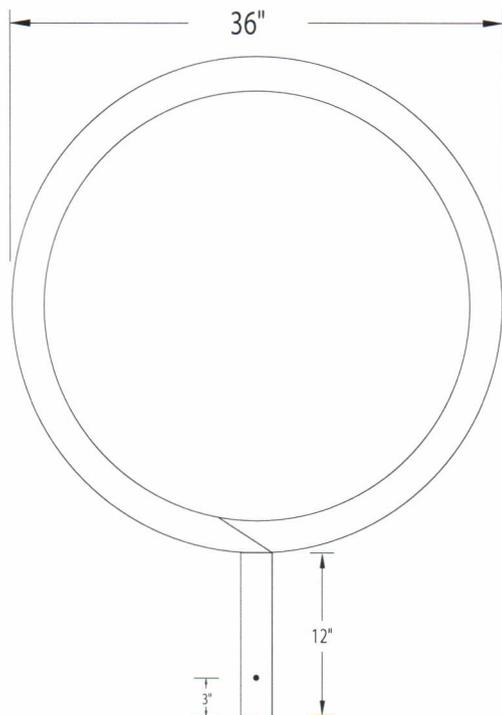
MATERIAL
2 3/8" O.D. Pipe
Schedule 40 Pipe
.154" Wall Thickness
Mandrel - Bent

OPTIONAL
1 5/8" O.D.
Pipe Available
Stainless 304
Alloy Available

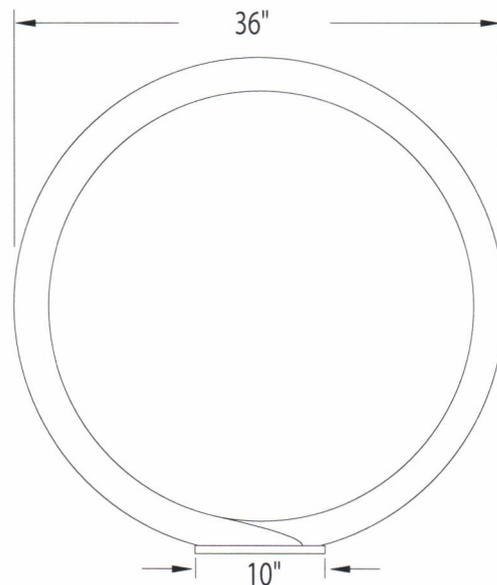


Welle™ Circular Rack Round Pipe WCR02-SF		
Materials		Finish
Hoop 2.375" O.D. x 0.154" Wall, Schedule 40 Pipe 2.375" O.D. x 0.154" Wall, SS 304 Sched. 40 Pipe	Two Surface Mount Flanges 5" x 6" x 3/8" Plate with (4) 9/16" Holes Mounted with Four 1/2" x 3.5" Anchor Rawl Spike or 1/2" x 3.75" Wedge Anchor Bolt	Hot Dipped Galvanized (-G) Powder Coated (-P) Stainless #4 Brush Finish (-SS)

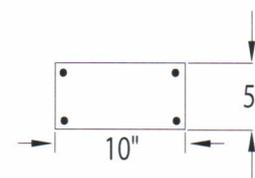
Welle™ Circular Rack Square Tube WCR02-SQ-SF		
Materials		Finish
Hoop 2" x 2" x 0.188" Square Tube 2" x 2" x 0.188" SS Square Tube	Two Surface Mount Flanges 5" x 6" x 3/8" Plate with (3) 9/16" Holes Mounted with Six 1/2" x 3.5" Anchor Rawl Spike or 1/2" x 3.75" Wedge Anchor Bolt	Hot Dipped Galvanized (-G) Powder Coated (-P) Stainless #4 Brush Finish (-SS)



Inground Rack Side View



Rack Front View



Flange Top View

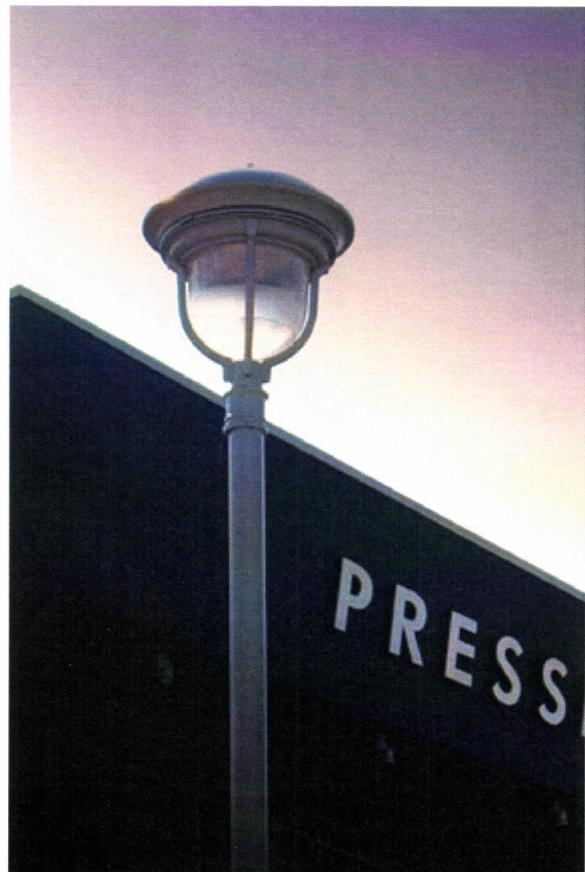
WELLE™ SPIRAL RACK

Model	Mount	#Of Loops	Bike Capacity	Length IG	Front View	Length SF	Front View
WSR04	-SF Surface Flange	2	4	56"		58"	
	-IG Inground						
WSR06	Finish	3	6	82"		84"	
	-G Galvanized						
WSR08	-P Powder Coated	4	8	108"		110"	

MATERIAL	INGROUND	FLANGE	FINISH
Hoop 2.375" O.D. X 0.154" Wall Mild Steel Schedule 40 Pipe	12" Schedule 40 Pipe Extensions 3/8" x 6" Solid Rod Cross Members	5" x 10 x 3/8" Steel Plate with (4) 9/16" Hole Mounted with Four 1/2" x 3.5" Steel Anchor Rawl Spike	Galvanized Powder Coated

Street Furniture Families

Contemporary Street Furniture



Stylized Historic Street Furniture



Traditional Street Furniture



Traditional Wood Street Furniture



DOWNTOWN GATEWAY

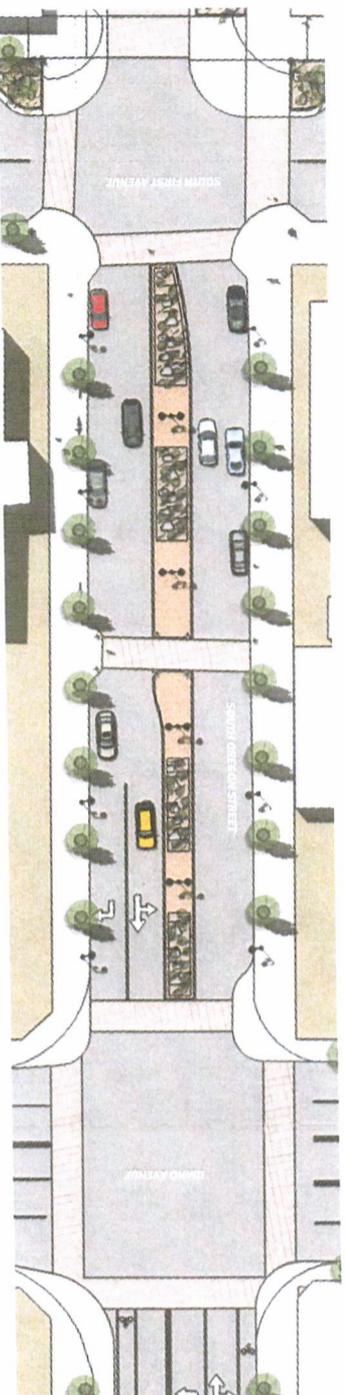


South Oregon Street Gateway Option 1: Median with Trees



Table 76.8: Typical Lane Widths

Section	Width					
13.8' Typical sidewalk	5' Typical parking	11' Typical travel lane	13' Typical median/turn lane	12'-0" Typical travel lane	8' Typical parking	12'-4" Typical sidewalk

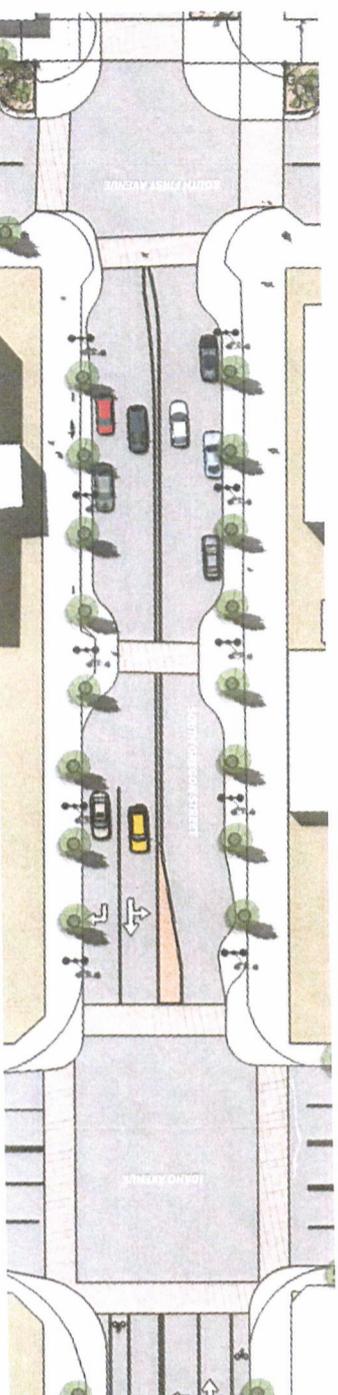


South Oregon Street Gateway Option 2: Median with Planters/Native Vegetation



Table 76.8: Typical Lane Widths

Section	Width					
13.8' Typical sidewalk	5' Typical parking	11' Typical travel lane	13' Typical median/turn lane	12'-0" Typical travel lane	8' Typical parking	12'-4" Typical sidewalk



South Oregon Street Gateway Option 3: Wide Sidewalks



Table 76.8: Typical Lane Widths

Section	Width				
23'-5" Typical sidewalk	5' Typical parking	12' Typical travel lane	11' Typical travel lane	8' Typical parking	15'-2" Typical sidewalk

DOWNTOWN GATEWAY



Gateway sequence from east

- A** signage at railroad underpass announcing arrival to downtown
- B** Oregon Street and Idaho Avenue intersection improved for pedestrians and marked with special paving and landscape treatments
- C** use signage to encourage drivers to enter downtown at Oregon Street or 1st Street
- D** boulevard with landscaped median along first block of South Oregon Street
- E** park gateway and Oregon Street "main street" with angled parking

a similar sequence may occur from the west or north



1 buildings and signage can be used to announce a new district



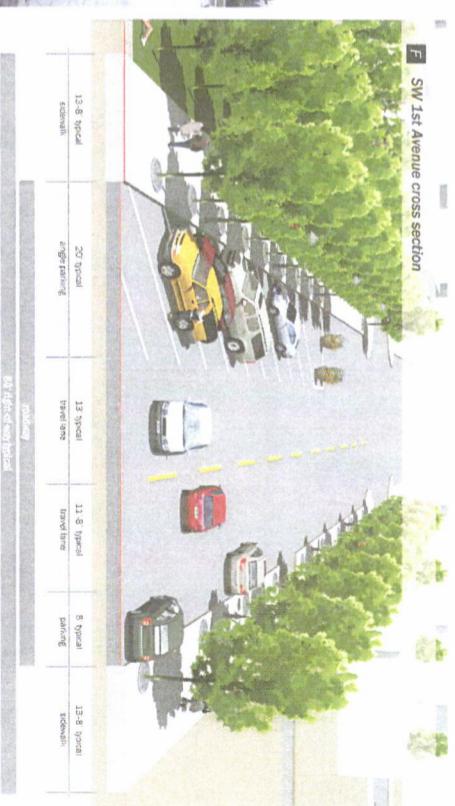
2 stamped and colored concrete intersection



3 landscaped medians, textured concrete, signs, and street lights calm traffic and announce transitions

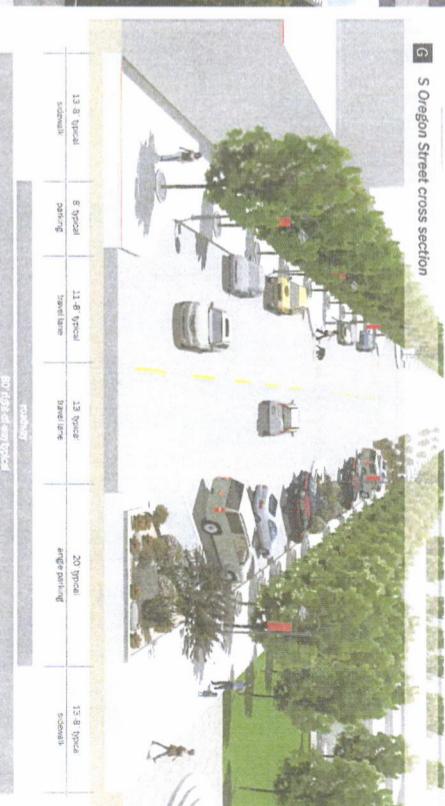


4 special paving textures, landscaping, street signage, and gateway monuments at entrance to a main street



7 SW 1st Avenue cross section

13-8' typical sidewalk	20' typical angled parking	13' typical travel lane	11-8' typical travel lane	8' typical parking	13-8' typical sidewalk
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8 S Oregon Street cross section

13-8' typical sidewalk	8' typical parking	11-8' typical travel lane	13' typical travel lane	20' typical angled parking	13-8' typical sidewalk
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11 S Oregon Street cross section

13-8' typical sidewalk	8' typical parking	11' typical travel lane	13' typical median turn slip	12-8' typical travel lane	8' typical parking	12-4' typical sidewalk
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DOWNTOWN PARK



ALTERNATIVE 1: PARK WITH CENTRAL FOCUS



ALTERNATIVE 2: PARK WITH CORNER/EDGE FOCUS



- Greenspace Principles**
- create an entry moment at the NE corner of the park
 - new development should orient to the park to encourage "eyes on the park" and improve safety
 - develop a focal point for potential veterans memorial or other primary feature
 - activate edges to place "eyes" on the park
 - program events and activities to encourage use of the park
 - diagonal parking along both edges of park

NOTE: The park concept shown here builds off of ideas for this currently-vacant property discussed during initial meetings with technical advisors and interested stakeholders. It should be understood that the underlying property is entirely in private ownership.



1 park promenade



2 memorial elements



memorial tree



3 focal point



4 open space for activities

DOWNTOWN PARK



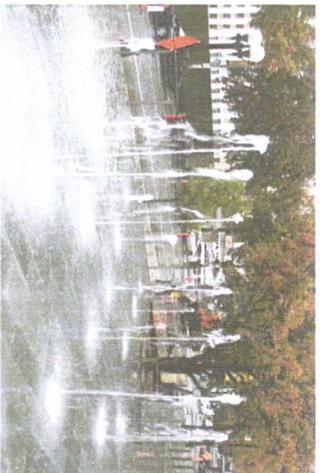
Tualatin, OR



Portland, OR



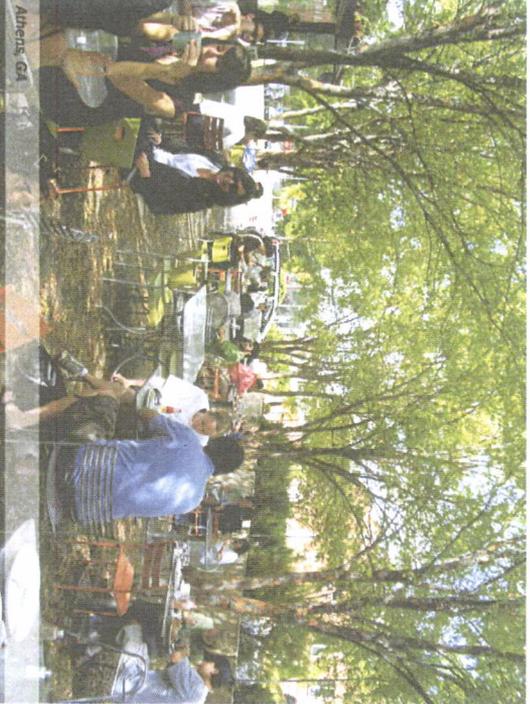
Vancouver, BC



Seattle, WA



Switzerland



Athens, GA



Salem, OR



Dunedin, FL



Hillsboro, OR



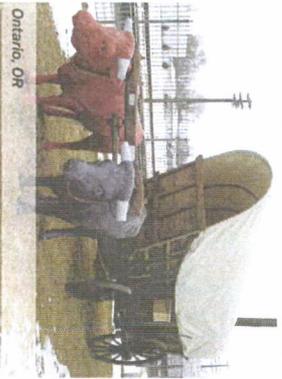
Portland, OR



Switzerland



Chesteron, IN



Ontario, OR



Grays Lake, IL

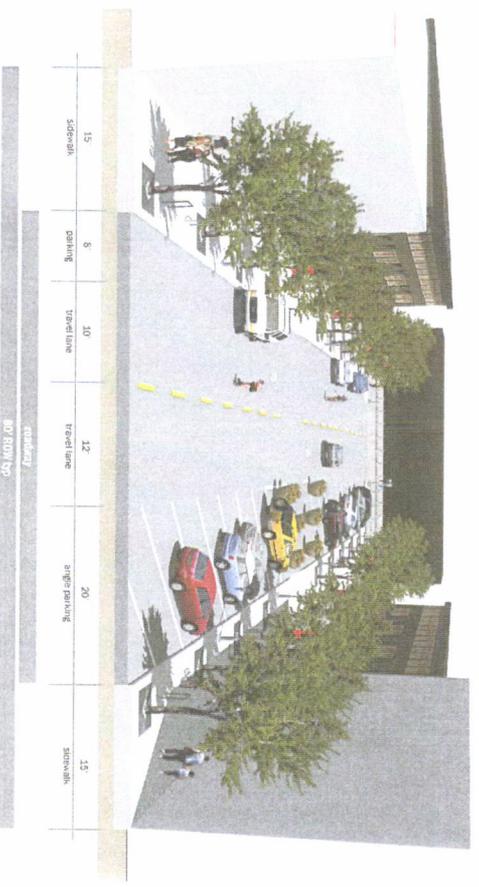
DEPOT ROW



- Depot Row Design Principles**
- connects the historic Depot to Main Street
 - frames the view of the Depot
 - creates a plaza adjacent to the Depot
 - provides "eyes on the street"
 - Preserves significantly more parking than the 2007 Depot Square Concept
 - Some loss of parking spaces made up in potential for angled parking in other locations



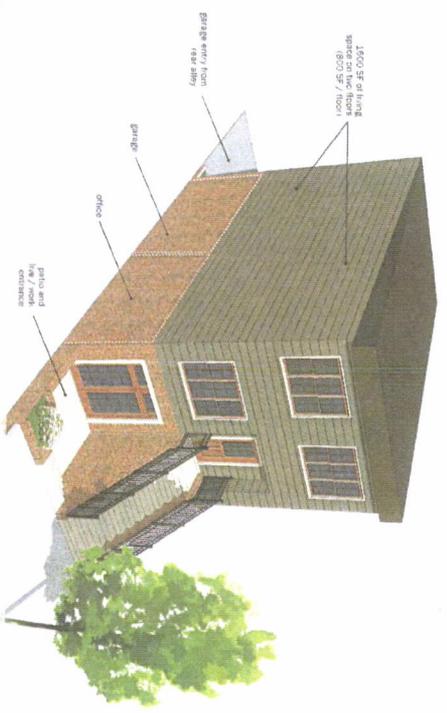
1 view of historic train station and proposed townhomes along SE 3rd Avenue



2 SE 3rd Avenue street section



3 similar townhouse style



4 live/work townhouse concept

STOREFRONT & STREETSCAPE IMPROVEMENTS



existing storefronts on south Oregon street



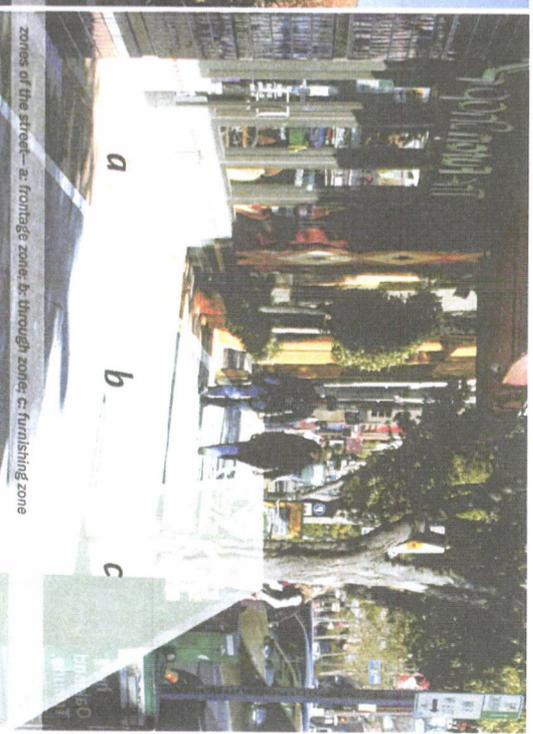
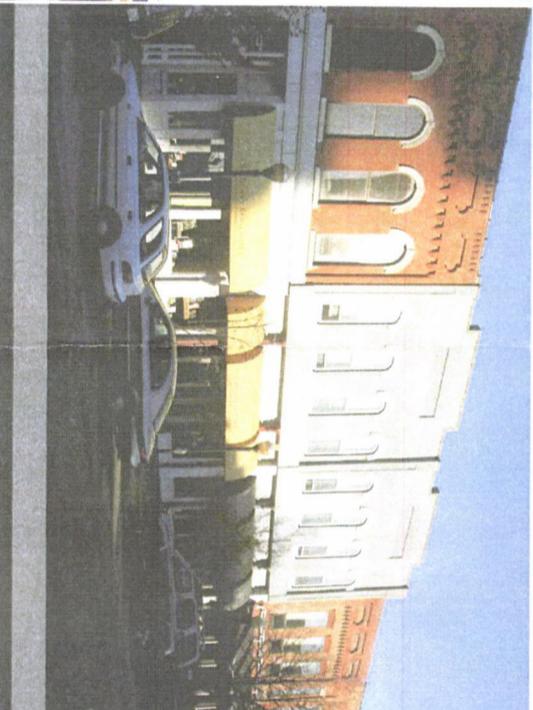
proposed streetscape and potential storefront upgrades

Streetscape and Storefront Elements

- Street trees where possible
- Decorative, pedestrian-scale street lighting
- Sidewalk sign boards, bicycle parking, benches, trash cans, and other street furnishings in the "furnishing zone" adjacent to the curb
- Public art
- Indoor uses, such as restaurant seating and small retail display, to spill outside into the "building frontage zone"
- Signage sized to the pedestrian-scale on windows and blade signs
- Consistent awning heights and projections
- Transom windows to allow daylighting within stores
- Highly transparent storefronts (large windows)
- Recessed entryways



streetscape and storefront character examples



zones of the street— a: frontage zone; b: through zone; c: furnishing zone

a

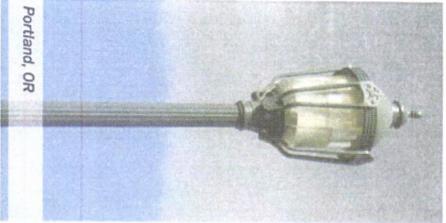
b

c

STREETSCAPE IMPROVEMENTS



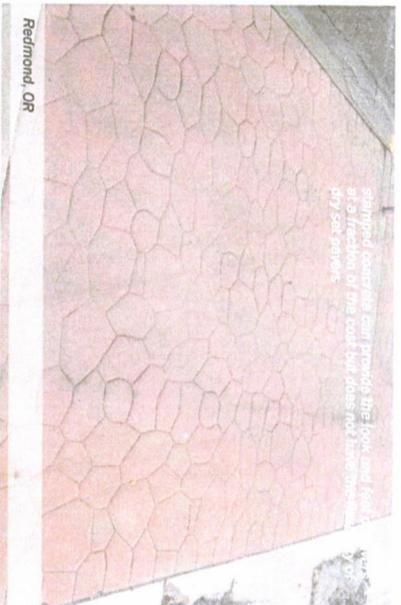
Vancouver, BC



Portland, OR



Ocean Lake, OR



Redmond, OR



Vancouver, BC



Walla Walla, WA



Lake Oswego, OR



Joseph, OR



Seattle, WA



Bend, OR



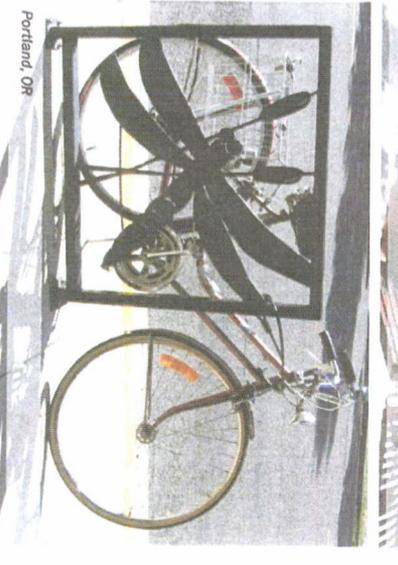
Bend, OR



Joseph, OR

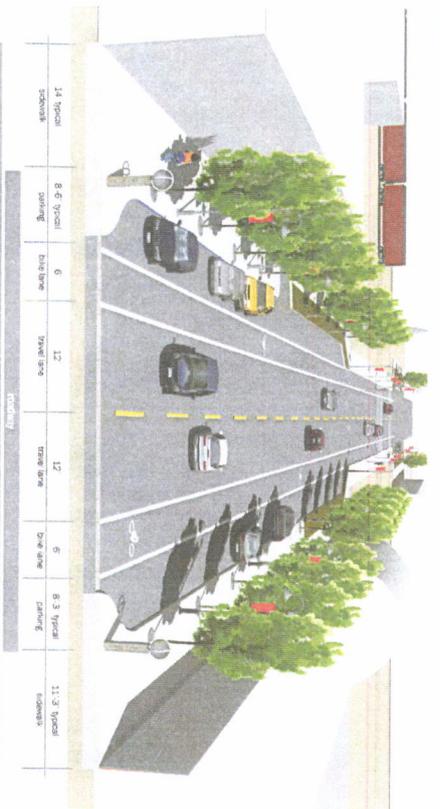


Fargo, ND



Portland, OR

RAILROAD CROSSING



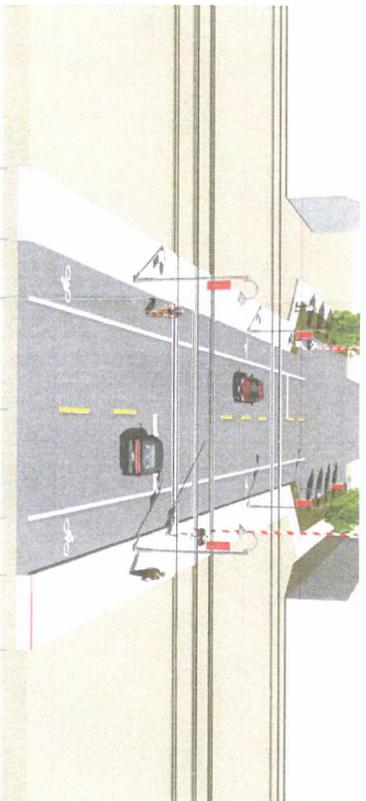
14	Special sidewalk	8-6	Special sidewalk	6	bus lane	12	travel lane	12	turn lane	6	on-street parking	6-3	Special sidewalk	11-3	Special sidewalk
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25'

3 SE 5th Avenue street section

DOWNTOWN REVITALIZATION PLAN

SEPA City of Ontario | Transportation and Growth Management (TGM) Program
29 JANUARY 2009



8	sidewalk	6	bus lane	12	travel lane	12	travel lane	6	bus lane	8	sidewalk
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6'

4 SE 5th Avenue railroad crossing street section



1 enhanced railroad crossing



2 on-street bicycle lane & sidewalk separated by planted landscape strip



5 concrete railroad crossing



Legend	
	School
	Historic Resource Site
	Railroad Line
	Post Office
	Library
	City Hall
	City Limit
	Park/Open Space
	Short to Medium-term Redevelopment Opportunity
	Long-term Redevelopment Opportunity
	East Downtown District
	West Downtown District
	School Campus



Downtown Ontario Redevelopment Map

Ontario Downtown Revitalization Plan 29 January 2009