Woodland
Transportation Infrastructure
Strategic Plan

Final Report Summary

Prepared for
Cowlitz-Wahkiakum Council of Governments
November 2008

Prepared by
Parametrix

In Association with:
Transpo Group
Normandeau Associates
Economic and Financial Analysis
Based on the collaborative planning process undertaken to prepare the Woodland Transportation Infrastructure Strategic Plan, the following agencies agree to work cooperatively together to carry out implementation of the Plan's recommendations.

Mayor Chuck Blum, City of Woodland  
3/2/09  
Date

Erica Rainford, Port of Woodland  
3/11/09  
Date

George Raiter, Cowlitz County Commissioners Chairman  
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Date

Bart Gernhart, Washington State Department of Transportation

Steve Harvey, Cowlitz-Wahkiakum Council of Governments  
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Date
Woodland
Transportation Infrastructure
Strategic Plan

Final Report Summary

Prepared for

Cowlitz-Wahkiakum Council of Governments
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1. SUMMARY OF RECOMMENDED IMPROVEMENT PLAN

1.1 BACKGROUND AND NEED FOR IMPROVEMENTS

Incorporated in 1906, the City of Woodland has recently experienced significant growth in both population and employment. Between 1990 and 2004 the city’s population grew by approximately 65 percent (from 2,500 to nearly 4,100) or at an annualized rate of 3.7 percent, making it the fastest growing city in the Cowlitz-Wahkiakum area. The city’s employment includes a strong base in retail, service and industrial sectors and grew by roughly 32 percent between 1994 and 2004. As of 2004, total employment in the city is estimated at over 3,000 jobs. In addition to local employment, the city also has a strong retail employment base as the market area for these services covers a sizeable area of southern Cowlitz and northern Clark County, in addition to I-5-related retail demand.

Consistent with the growth in both population and employment, traffic volumes on major streets in Woodland have also grown over the past five to ten years (ranging from 2 to 4 percent per year in the eastern and northwestern portions of city). A significant share of this growth has occurred in the vicinity of the I-5 interchanges at both SR 503 and Dike Access Road. During peak periods, traffic congestion at the I-5 interchange with SR 503 results in growing vehicle backups that approach the freeway mainline. Additionally, there is a significant volume of truck traffic in the industrial sections of city and on other streets resulting from local industry and from logging and quarry operations outside of the urban growth area. In the northwestern portion of the city, truck traffic comprises more than 20 percent of existing volumes on certain streets. Along SR 503 trucks comprise as much as 5 percent of the traffic stream.

Related to the localized congestion is the high accident experience along several roadways in the city, particularly SR 503 to the east of I-5. Sections of this highway and at the intersections of the state highway with Gun Club Road and Pacific Avenue are experiencing a high incidence of rear end and angle collisions. Existing accident experience led to many of the improvement recommendations in the city’s adopted 2005 Transportation Plan which involve widening of SR 503 to provide for center turn lanes and other improvements.

By 2025, the number of residential households in Woodland is expected to grow by 82 percent, with eastern portions of the city more than doubling. Employment is expected to more than double to 6,238 jobs with the bulk of this growth occurring in the northwest portion of the city (over 1,500 new jobs) and the central city along the east side of I-5 (with over 1,000 new jobs). Coupled with this growth are significant increases in traffic volumes ranging from a 50 percent increase to a tripling over existing levels depending on location. Critical areas of future congestion are expected to be located along SR 503 and Dike Road in the vicinity of the I-5 interchanges. These problems are exacerbated by the lack of east/west connectivity across I-5 which forces local traffic to mix with freeway-destined traffic.

1.2 PURPOSE OF THIS STUDY

The primary purpose of this study was to build upon the foundation provided by the Woodland Transportation Plan by fleshing out improvement recommendations for the I-5 interchanges, and refining other major system improvement opportunities, particularly to serve the Woodland Industrial/Port area. This study was developed using a collaborative process and has culminated in a strategic infrastructure plan that addresses growing freeway and community traffic demand, increases arterial system connectivity including east/west
cross-freeway circulation, and provides enhanced and safer access to growing industrial and residential portions of the city, particularly along SR 503.

1.3 STUDY AREA

The geographical area which is included in the Woodland Transportation Infrastructure Strategic Plan (TISP) is presented in Figure 1. This area includes the entire corporate limits of the City, as well as immediately surrounding unincorporated areas in Cowlitz and Clark Counties. Figure 1 also identifies the key areas that were the focus of analysis and decision-making for the TISP.

1.4 DEVELOPMENT OF IMPROVEMENT RECOMMENDATIONS

A variety of improvement options were developed and evaluated to address the major transportation system issues within the City of Woodland including: existing and future congestion problems at the I-5 interchanges, the lack of east/west connectivity within the city for non-freeway traffic, lack of east/west accessibility over the BNSF mainline railroad, and safety issues along SR 503 in the eastern portion of the city.

The assessment of improvement options was based on a two-step, phased approach that became increasingly detailed as the analysis process progressed. The initial phase of analysis focused on brainstorming potential improvements which were screened against a series of evaluation criteria that had been developed through the technical and public involvement process. This screening identified a “short list” of feasible improvement options for which a more detailed evaluation was conducted and design concepts were developed.

From this short list of improvement options, recommended projects have been identified to address each of the major transportation system needs and issues described above. Priorities for implementation of improvement recommendations were established and an implementation strategy was developed. This implementation strategy includes conceptual design for each recommendation and a phased Capital Improvement Program that identifies the timing, cost, funding options, and general approach and responsibilities for developing each project. Plan recommendations and the implementation strategy are summarized in this report.

1.5 CAPITAL IMPROVEMENTS PROGRAM

Figure 1 on the following page, provides an overview of the major focus areas for which recommended improvements have been identified in the Woodland Transportation Infrastructure Strategic Plan. Projects of the magnitude identified in the TISP are typically constructed using a combination of funding and financing over several years or even decades, and they often require a combination of local, state, and federal funding participation. A deliberate phasing strategy is required to focus available local funding on portions of the study area that benefit travelers and commerce the most. The following pages identify specific projects and priorities that are recommended to be built over the next 20+ years to meet both the immediate traffic congestion and safety needs, and to achieve long-term improvement goals.

Priorities were developed based on several factors, including:

- Technical evaluation that addressed existing congestion, safety, and connectivity issues.
Figure 1. Overview of Improvement Recommendations

- A: I-5 / Dike Road Roundabouts
- B: I-5 and Railroad Grade Separation, Street Upgrade and Intersection Improvements
- C: I-5 / SR 503 Interchange Improvement
- D: SR 503 Widening

Legend:
- New roadway
- Roadway upgrade
- Signal and Intersection Improvement
• Public input on needs and priorities which emphasized the importance of addressing existing problems in the vicinity of the freeway interchanges, SR 503 on the east side of the city, and the lack of east/west connectivity.

• Costs of each high priority project in relation to available funding and the potential for securing additional funding through grants and other sources.

• Time required to secure funding, right-of-way acquisition, permitting and to address design or other implementation complexities.

Recommended Short-Term, Mid-Term and Long-Term priorities are presented on the following page in Table 1. Detailed illustrations of specific improvement recommendations are presented in Figures 2 through 8b.

1.6 PROJECT IMPLEMENTATION STRATEGY

The project implementation strategy focuses both on identifying funding sources to develop and build the phased project recommendations in the Capital Improvements Program, and on an approach for securing the necessary funding.

1.6.1 Funding Opportunities

The Implementation Strategy provides an overview of general funding conditions and forecasts (including applicability of various funding sources in relation to the recommended improvements), and identifies a general approach to securing funding from a variety of sources. Options for packaging projects to meet specific funding programs are also identified, as are relationships among project recommendations that could influence funding.

Potential funding sources for the recommended projects in the Woodland TISP include a variety of state resources (including federal pass-through funds), regional funding opportunities such as the creation of a Transportation Benefit District, and local sources including development fees, exactions, and Local Improvement Districts. State funding includes loans from the Public Works Board, and grants for a variety of specific project types or project elements from the Washington State Department of Transportation (WSDOT), the Transportation Improvement Board (TIB), and other sources. Railroad grade-separation improvements at existing gated crossings like Scott Avenue are also eligible for a percentile share of funding from the railroad company. Most of the recommended improvement projects included in the TISP meet eligibility criteria for multiple funding sources.

1.6.2 Implementation Activities

The Implementation Strategy also includes a discussion of specific activities to be undertaken to fund, develop and build each individual project recommendation. Included in this discussion is:

• A timeline for implementing projects based on the phasing of recommendations presented in the Capital Improvements Program.

• An Action Plan that outlines recommended actions for the first three years after Plan adoption. This Action Plan is a three-year renewable or rolling short-term strategy that can be regularly monitored for progress and updated as tasks are completed.

• A discussion of actions necessary to establish a Transportation Benefit District (TBD) to include projects in the study area.
### Table 1-1. Woodland Transportation Infrastructure Strategic Plan, Capital Improvements Program

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location/Limits</th>
<th>Description</th>
<th>Cost Estimate (2008 $)</th>
<th>Project Interdependence</th>
<th>Primary Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHORT-TERM PROJECTS</strong></td>
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</tr>
<tr>
<td>I-5 at Dike Road</td>
<td>At I-5 northbound and southbound amp intersections</td>
<td>Construct single lane roundabouts at ramp termini</td>
<td>Wal-Mart mitigation</td>
<td>None</td>
<td>• Addresses future intersection failure</td>
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<td></td>
<td></td>
<td>• Provides access to growth westside businesses including industrial property,</td>
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<td>Port access, and major commercial center of the community</td>
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<td></td>
<td>• Safety enhancement, particularly for proposed school</td>
</tr>
<tr>
<td>Dike Road at Schurman Way</td>
<td>At intersection</td>
<td>Construct single lane roundabout at Schurman (Option 3B)</td>
<td>$2,500,000</td>
<td>Must work in coordination with I-5 ramp roundabouts. Dependent on development and/or improvement of Schurman Way by City</td>
<td>• Addresses future intersection failure</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>• Provides access to growth westside businesses including industrial property, Port access, and major commercial center of the community</td>
</tr>
<tr>
<td>Scott Avenue Crossing - Segment 2</td>
<td>I-5 Undercrossing</td>
<td>Construct undercrossing of I-5 (raise I-5 profile) with one through lane in each direction sidewalks and bicycle lanes, signalize and provide turn lane channelization for interchange ramp terminal on Scott, (Option 4D)</td>
<td>$33,100,000</td>
<td>Independent project</td>
<td>• Congestion relief at I-5 interchanges</td>
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<td>• Provides access to growth westside businesses including industrial property, Port access, and major commercial center of the community</td>
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<td>• Major street connectivity</td>
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<td></td>
<td>• Emergency response times</td>
</tr>
<tr>
<td>Scott Avenue Crossing - Segment 3</td>
<td>Scott Ave / Old Pacific Hwy Intersection</td>
<td>Signalize intersection, realign east leg to meet Old Pacific Hwy at 90-degree, add eastbound left turn lane, and southbound and westbound right turn lanes</td>
<td>$2,000,000</td>
<td>Independent project</td>
<td>• Addresses future intersection failure, and sub-standard design</td>
</tr>
<tr>
<td>SR 503</td>
<td>Hillshire Drive to Gun Club Road</td>
<td>Interim improvement - two-way left turn lane (inlitzer to Gun Club) with 4-foot shoulder (compatible with longer-term improvement)</td>
<td>$1,140,000</td>
<td>Independent project</td>
<td>• Addresses most critical portion of existing High Accident Corridor condition</td>
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<td></td>
<td>• Provides improved bicycle and pedestrian circulation</td>
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<tr>
<td><strong>Total Short-Term Cost Estimate</strong></td>
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<td>• Congestion relief at I-5 interchanges</td>
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<td>• Provides access to growth westside businesses including industrial property, Port access, and major commercial center of the community</td>
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<td>• Major street connectivity</td>
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<td></td>
<td></td>
<td>• Safety of high speed, mainline rail crossing</td>
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<td></td>
<td>• Emergency response times</td>
</tr>
</tbody>
</table>

**MID-TERM PROJECTS**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location/Limits</th>
<th>Description</th>
<th>Cost Estimate (2008 $)</th>
<th>Project Interdependence</th>
<th>Primary Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Avenue Crossing - Segment 1</td>
<td>RR Overcrossing</td>
<td>Construct two lane overcrossing of railroad with sidewalks and bicycle lanes, and at-grade intersection with Down River Drive (Option 4D)</td>
<td>$16,500,000</td>
<td>This improvement must also include the extension of N Pekin Road to connect with Port Way as described below</td>
<td>• Congestion relief at I-5 interchanges</td>
</tr>
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<td>• Provides access to growth westside businesses including industrial property, Port access, and major commercial center of the community</td>
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<td>• Major street connectivity</td>
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<td>• Safety of high speed, mainline rail crossing</td>
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<td>• Emergency response times</td>
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</table>

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<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location/Limits</th>
<th>Description</th>
<th>Cost Estimate (2008 $)</th>
<th>Project Interdependence</th>
<th>Primary Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Avenue - Complete</td>
<td>Schurman to Old Pacific Highway</td>
<td>• Construct overcrossing of railroad and undercrossing of I-5 (raise I-5</td>
<td>$53,400,000*</td>
<td>Required as part of railroad overcrossing project</td>
<td>• Congestion relief at I-5 interchanges</td>
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<tr>
<td>Project (if earlier phases</td>
<td></td>
<td>profile), signalize ramp termini on Scott, at-grade intersection with</td>
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<td>• Provides access to growth westside businesses</td>
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<tr>
<td>are not completed in</td>
<td></td>
<td>Down River (Option 4D)</td>
<td></td>
<td></td>
<td>• Including industrial property, Port access, and major</td>
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<td>short-term)</td>
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<td>commercial center of the community</td>
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<td>• Major street connectivity</td>
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<td>• Safety of high speed, mainline rail crossing</td>
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<td></td>
<td>• Emergency response times</td>
</tr>
<tr>
<td>Scott Avenue at Pekin Road</td>
<td>Relocation of existing</td>
<td>• Grade-separate Scott Avenue and N Pekin, connect N Pekin to Schurman via</td>
<td>$8,600,000</td>
<td>Independent project</td>
<td>• Replaces connectivity between Pekin Road and</td>
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<td></td>
<td>connection</td>
<td>Port Way (Option 1)</td>
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<td>Scott Avenue that would be lost when railroad overcrossing structure is built</td>
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<td>• Provides northbound south backbone</td>
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<td>transportation network for Westside of city</td>
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<tr>
<td>SR-503</td>
<td>Hillshire Drive to Evergreen</td>
<td>• Widen to 3-lane cross-section, install bicycle and pedestrian facilities</td>
<td>$7,100,000</td>
<td>Independent project</td>
<td>• Addresses existing High Accident Corridor</td>
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<td></td>
<td>Lane</td>
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<td>• Improves traffic operations at intersections</td>
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<tr>
<td>SR 503</td>
<td>at Goerig and Scott</td>
<td>• Signalize Scott, smooth curve and add left turn channelization on SR 503,</td>
<td>$4,200,000</td>
<td>Independent project, but should occur as part of SR 503 full widening project</td>
<td>• Addresses stormwater treatment</td>
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<td>restrict NB left movement at Goerig (Option 3B) Note: cost for signal at</td>
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<td>• Can enhance street appearance</td>
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<td>Goerig not included ++</td>
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<td></td>
<td>Total Mid-Term Cost Estimate</td>
<td></td>
<td>$84,000,000</td>
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<td>TOTAL PROJECT COSTS* ++</td>
<td></td>
<td>$84,040,000</td>
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</tbody>
</table>

* Cost estimate not included in total to avoid double counting with project as presented and constructed in segments.
+ Cost of traffic signal installation at intersection of SR 503 and Goerig is not included as this intersection may not meet signal warrants during the planning period. An optional signal is identified for installation if needed.
- Highlights of an on-going public involvement strategy to provide public input on the Action Plan and on-going project development activities, and to maintain public support for and interest in the recommendations of the TISP.

- Contingency plan for circumstances where projects are not funded as anticipated.

Highlights of the Three-Year Action Plan are presented in Table 1-2 below.

<table>
<thead>
<tr>
<th>Table 1-2. Three-Year Action Plan, Major Activities to Be Accomplished</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timeline by Year</strong></td>
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<td>Year 1</td>
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<td>Year 3</td>
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<tr>
<td>Outlying Years</td>
</tr>
</tbody>
</table>

Note: See Woodland Transportation Infrastructure Strategic Plan, Implementation Strategy Technical Memorandum, dated August 2008 for further details on actions to be taken during each year after Plan adoption (included in Appendix F to the Final Project Report).
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