



# Oregon

Theodore R. Kulongoski, Governor

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

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www.lcd.state.or.us

## NOTICE OF ADOPTED AMENDMENT

March 9, 2007

TO: Subscribers to Notice of Adopted Plan  
or Land Use Regulation Amendments

FROM: Mara Ulloa, Plan Amendment Program Specialist

SUBJECT: City of Newberg Plan Amendment  
DLCD File Number 013-06



The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures\*

### **DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: March 23, 2007**

This amendment was submitted to DLCD for review 45 days prior to adoption. Pursuant to ORS 197.830 (2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

**\*NOTE: THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAN IT WAS MAILED TO DLCD. AS A RESULT YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.**

Cc: Gloria Gardiner, DLCD Urban Planning Specialist  
Matthew Crall, DLCD Transportation Planner  
Jason Locke, DLCD Regional Representative  
Barton Brierley, City of Newberg

<paa> ya/

NR07

# 2 Notice of Adoption

THIS FORM MUST BE MAILED TO DLCD  
WITHIN 5 WORKING DAYS AFTER THE FINAL DECISION  
PER ORS 197.610, OAR CHAPTER 660 - DIVISION 18



Jurisdiction: City of Newberg Local file number: CPMA-06-02

Date of Adoption: 2/20/2007 Date Mailed: 3/2/2007

Date original Notice of Proposed Amendment was mailed to DLCD: 7/24/2006

- Comprehensive Plan Text Amendment
- Comprehensive Plan Map Amendment
- Land Use Regulation Amendment
- Zoning Map Amendment
- New Land Use Regulation
- Other: TSP Amendment

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

**Changes the classification of Crestview Drive east of Springbrook Road from a minor arterial to a major collector with traffic calming features**

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Describe how the adopted amendment differs from the proposed amendment. If it is the same, write "SAME". If you did not give Notice for the Proposed Amendment, write "N/A".

**The amendment specifies exact text of the plan.**

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Plan Map Changed from: \_\_\_\_\_ to: \_\_\_\_\_

Zone Map Changed from: \_\_\_\_\_ to: \_\_\_\_\_

Location: **Crestview Drive - Springbrook to 999W** Acres Involved: \_\_\_\_\_

Specify Density: Previous: \_\_\_\_\_ New: \_\_\_\_\_

Applicable Statewide Planning Goals: **12**

Was and Exception Adopted?  YES  NO

DLCD File No.: 013-06(15411)

Did the Department of Land Conservation and Development receive a Notice of Proposed Amendment.....

Forty-five (45) days prior to first evidentiary hearing?  Yes  No

If no, do the statewide planning goals apply?  Yes  No

If no, did Emergency Circumstances require immediate adoption?  Yes  No

Affected State or Federal Agencies, Local Governments or Special Districts:

Yamhill County, ODOT

Local Contact: Barton Brierley Phone: (503) 537-1212 Extension: \_\_\_\_\_

Address: P.O. Box 970 City: Newberg

Zip Code + 4: 97132- Email Address: nplan@ci.newberg.or.us

### ADOPTION SUBMITTAL REQUIREMENTS

This form **must be mailed** to DLCD **within 5 working days after the final decision**  
per ORS 197.610, OAR Chapter 660 - Division 18.

1. Send this Form and TWO (2) Copies of the Adopted Amendment to:

**ATTENTION: PLAN AMENDMENT SPECIALIST  
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT  
635 CAPITOL STREET NE, SUITE 150  
SALEM, OREGON 97301-2540**

2. Submit **TWO (2) copies** the adopted material, if copies are bounded please submit **TWO (2) complete copies** of documents and maps.

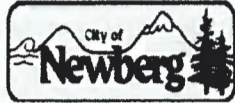
3. Please Note: Adopted materials must be sent to DLCD not later than **FIVE (5) working days** following the date of the final decision on the amendment.

4. Submittal of this Notice of Adoption must include the text of the amendment plus adopted findings and supplementary information.

5. The deadline to appeal will not be extended if you submit this notice of adoption within five working days of the final decision. Appeals to LUBA may be filed within **TWENTY-ONE (21) days** of the date, the Notice of Adoption is sent to DLCD.

6. In addition to sending the Notice of Adoption to DLCD, you must notify persons who participated in the local hearing and requested notice of the final decision.

7. **Need More Copies?** You can copy this form on to 8-1/2x11 green paper only; or call the DLCD Office at (503) 373-0050; or Fax your request to:(503) 378-5518; or Email your request to **mara.ulloa@state.or.us** - ATTENTION: PLAN AMENDMENT SPECIALIST.



## **ORDINANCE NO. 2007-2665**

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**AN ORDINANCE AMENDING THE NEWBERG TRANSPORTATION SYSTEM PLAN AND COMPREHENSIVE PLAN TO RECLASSIFY CRESTVIEW DRIVE FROM SPRINGBROOK ROAD TO HIGHWAY 99W AS A MAJOR COLLECTOR WITH CERTAIN TRAFFIC CALMING MEASURES, AND REDESIGNATING SPRINGBROOK ROAD AS THE NORTHERN ARTERIAL**

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### **RECITALS:**

1. The Newberg Transportation System Plan currently classifies Crestview Drive east of Springbrook Road, along with its anticipated extension to Highway 99W, as a minor arterial.
2. On July 17, 2007, the Newberg City Council adopted Resolution 2006-2661, initiating amendments to the Newberg Transportation Plan to reclassify the road as a major collector.
3. On January 11, 2007, the Newberg Planning Commission held a public hearing on the proposed amendments and unanimously recommended approval.
4. After proper notice, on February 20, 2007, the Newberg City Council held a hearing to consider the proposed amendment.
5. Adoption of the proposed amendment would allow efficient expansion of the City's road network while protecting neighboring properties to the extent practical.

### **THE CITY OF NEWBERG ORDAINS AS FOLLOWS:**

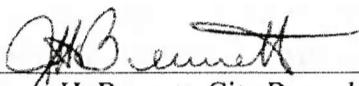
1. The findings shown in Exhibit "A" are hereby adopted.
2. The Newberg Transportation System Plan and Comprehensive Plan are hereby amended as shown in Exhibit "D".
3. Exhibits "B" and "C" (JRH Traffic Study entitled "The Effect on Springbrook Street of Converting the Newberg Northern Arterial (Crestview Drive) to a Major Collector") shall be added as Appendix R to the Newberg Transportation System Plan.

4. Exhibit "E" (Plans and Documents Relating to Traffic Calming/Design for Crestview Drive) shall be added as Appendix S of the Newberg Transportation System Plan.

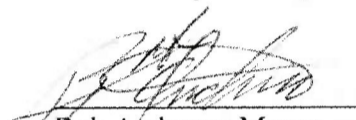
➤ **EFFECTIVE DATE** of this ordinance is 30 days after the adoption date, which is: March 22, 2007.

**ADOPTED** by the City Council of the City of Newberg, Oregon, this 20th day of February, 2007, by the following votes:

**AYE: 6    NAY: 1 (SOPPE)    ABSENT: 0    ABSTAIN: 0**

  
James H. Bennett, City Recorder

**ATTEST** by the Mayor this 22<sup>nd</sup> day of February, 2007.

  
Bob Andrews, Mayor

#### LEGISLATIVE HISTORY

By and through Newberg Planning Commission at 1/11/2007 meeting. Or,    None.  
(committee name) (date) (check if applicable)

- Exhibit "A": Findings
- Exhibit "B": Traffic Study
- Exhibit "C": Technical appendices
- Exhibit "D": TSP amendments
- Exhibit "E": Traffic calming designs

## **EXHIBIT "A" TO ORDINANCE 2007-2665 FINDINGS**

### **I. BACKGROUND**

Beginning in March 2002 the City of Newberg, in conjunction with the Oregon Department of Transportation (ODOT), began the process for updating the City's Transportation System Plan (TSP). This effort resulted in an updated Newberg TSP dated May 2005, by Ordinance 2006-2619. During the course of this TSP update study, the Oxberg Lake Homeowners Association strongly objected to any plans to make Crestview the Northern Arterial and testified that Crestview Drive was subject to prior agreements dating back to the 1980s restricting road upgrades (including a September 16, 1988 letter from Yamhill County to Will Spangler and a subsequent Yamhill County Board of Commissioners Order 88-661, October 26, 1988, which specifically allows Oxberg Lakes Estates to remonstrate against any local improvement district formed to upgrade Crestview Drive). Yamhill County wrote a letter to the Newberg Planning Commission (January 26, 2005), voicing objections to the Northern Arterial routing, stating concerns about the impacts of the route, and requesting an alternatives analysis be conducted.

The Oxberg Lake Homeowners Association grew concerned that these prior agreements may have been violated when the City proposed a large traffic circle at the intersection of Springbrook and Crestview which had a design feature of a large unconnected stub pointing at their community. They solicited legal advice and filed an appeal to the Newberg Planning Commission. The Planning Commission denied the appeal, not to minimize the appellants concerns, but simply stating that they should be addressed in a different forum.

In the latter part of 2005, with County and neighborhood concerns mounting and various actions to block road transfers being discussed, Newberg City Manager Jim Bennett proposed that a Newberg Northern Alliance Stakeholders Team (then called the 5-Party Team) be formed to develop road and development plans that all stakeholders could support. This stakeholders' team responsibility was to make a recommendation on this aspect of the project and JRH was retained to do a detailed traffic study. The Stakeholders Group developed language for a consensus agreement and all affected members signed the final document. Key sections of this agreement included recommendations, as follows: Springbrook Drive be designated the Northern Arterial, the Crestview Drive street classification be changed to a Major Collector, and the road design, sound walls, and traffic calming features for Crestview Drive in the referenced traffic study be adopted.

Based on the 5-Party Team Agreement and a letter signed by the City of Newberg to use best practices to protect the Oxberg Lake's State-Licensed Commercial Water system, the County and Oxberg Lakes agreed to transfer portions of Mountainview and Crestview to the City to facilitate construction during 2006. The JRH traffic study was essentially completed by June of 2006, and part of the 5-Party Team Agreement was that this was to be used to drive public process to update Newberg's TSP. Based on this Agreement property development applications submitted by signatories are now proceeding through public process.

### **II. SUMMARY OF KEY POLICY ISSUES**

The following summarizes the relevant Comprehensive Plan policies support for the proposed TSP amendment.

- Goal A – Citizen Involvement: The City’s formation of the Newberg Northern Alliance Stakeholders Team and the process used in their deliberations were consistent with the City’s citizen participation program.
- Goal B – Land Use Planning: The Newberg TSP is an adopted element of the City’s Comprehensive Plan. The recommendation of the Newberg Northern Alliance Stakeholders Team was done within the City’s established land use/ planning processes. The stakeholders’ TSP amendment recommendation (the attached ordinance) does not change any of the land use policies or Comprehensive Plan diagram land use designations. This amendment is consistent with the adopted and acknowledged Comprehensive Plan Policies as adopted by the City.
- Goal K – Transportation: This ordinance has considerable policy support, and is consistent with the City’s Comprehensive Plan transportation goals in terms of balancing transportation needs of the community and traffic impacts on existing land uses/ neighborhoods.

### III. FINDINGS OF FACT

The following provides findings for text and diagram amendments to the City of Newberg’s Transportation System Plan.

#### A. Consistency with Statewide Planning Goals

This proposed TSP amendment (text and figures) are consistent with all the applicable Statewide Planning Goals. This amendment implements the following Statewide Planning Goals.

***Statewide Goal 1: - CITIZEN PARTICIPATION***

*To develop a citizen involvement program that insures the opportunity to be involved in all phases of the planning process.*

**Finding:** The City’s establishment of the Newberg Northern Alliance Stakeholders Team and the public input used in reaching a recommendation is evidence of the City’s commitment to their citizen involvement program. This amendment therefore conforms to established land use planning public participation consistent with Statewide Planning Goal 1.

***Statewide Goal 2: Land Use Planning***

*To establish a land use planning process and framework as a basis for all decisions and actions related to the use of land and to assure an adequate factual base for such decisions and actions.*

**Finding:** The current TSP is consistent with planning processes required by Statewide Planning Goal 2. This TSP update used a phased process that moved from the identification of broad issues and collection of data to establish a factual basis for the Plan to specific alternatives and solutions

for dealing with identified problems and issues. This proposed amendment is an outgrowth of an unresolved but identified issue that was raised during the past TSP update.

This amendment process of deliberation and recommendation is being done within the City's established planning framework, as set forth in the City's adopted and acknowledged Comprehensive Plan. This amendment therefore conforms to the established land use planning and framework consistent with Statewide Planning Goal 2.

***Statewide Goal 3: Agricultural Lands***

*Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.*

**Finding:** The western portion of Crestview Drive is within Newberg's Urban Growth Boundary (UGB). Crestview Drive leaves Newberg at the Oxberg Lake Estates Subdivision. The eastern/south portion (to be built) from Oxberg Lake Estates to the Highway 99W was recently brought into the Urban Growth Boundary. It is noted that the Oxberg Lake Estates subdivision is an Exception Area. This TSP amendment converting Crestview Drive's classification from Minor Arterial to Major Collector does not change the previous findings related to location or alignment of the extension of Crestview Drive to Highway 99W. Thus, the Major Collector alignment as shown in the TSP Figure 6-1 continues to have the least impact on the vicinity devoted to farm use. Therefore, the amendment is consistent with Statewide Planning Goal 3.

***Statewide Goal 4: Forest Lands***

*To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leasing use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.*

**Finding:** None of the land where the extension of Crestview Drive is planned is designated forest resource land; therefore, the amendment is consistent with Statewide Planning Goal 4.

***Statewide Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources***

*To protect natural resources and conserve scenic and historic areas and open spaces.*

**Finding:** The treatment of such resources regulated under Statewide Planning Goal 5 will not change as a result of this amendment. This amendment does not result in any changes of street alignment; nevertheless, an amendment, in some minor degree, should have less environmental impact. Crestview Drive presently dead-ends at a tree-lined area approximately 300 feet in width. This amendment to a Major Collector, which specifies a narrower right-of-way width, will provide an opportunity to construct the future street in a manner that lessens the impact on this treed area. Based upon these findings, the amendment is consistent with Statewide Planning Goal 5.



***Statewide Goal 6: Air, Water and Land Resources Quality***

*To maintain and improve the quality of the air, water and land resources of the state.*

**Finding:** This amendment will not change any of the City's adopted land use environmental policies or environmental code standards, nor State or Federal environmental regulations. The City, in a letter from James Bennett to the Yamhill County Commissioners, is committed to best management practices for stormwater management in the area. Thus, the required protection and treatment of such resources under Statewide Planning Goal 6 will not change as a result of this amendment. Therefore, Goal 6 is otherwise not relevant to this amendment. Based upon these findings, the amendment is consistent with Statewide Planning Goal 6.

***Statewide Goal 7: Areas Subject to Natural Disasters and Hazards***

*To protect people and property from natural hazards.*

**Finding:** This amendment does not involve any street location or alignment changes. Thus this amendment is not relevant to the management of areas subject to natural disasters or hazards to any greater degree than the present TSP, including the general alignment of Crestview Drive Extension. Based upon these findings, the amendment is consistent with Statewide Planning Goal 7.

***Statewide Goal 8: Recreational Needs***

*To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.*

**Finding:** This amendment does not include any changes related to the management of any identified and adopted recreational resources. Thus, this goal is not relevant to this amendment.

***Statewide Goal 9: Economic Development***

*To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.*

**Finding:** This amendment does not involve any changes in the street location or realignment. Thus, the amendment will continue to provide for the orderly development of the City street system, which is vital to the City's, County's, and State's economic, health, and development. Based upon these findings, the amendment continues to be consistent with Statewide Planning Goal 9.

***Statewide Goal 10: Housing***

*To provide for the housing needs of citizens of the state.*

**Finding:** This amendment will not change any City requirements related to the City's housing needs or housing supply; therefore, this goal is not relevant to this amendment.

***Statewide Goal 11: Public Facilities and Services***

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

**Finding:** Transportation facilities are public facilities, as defined under Statewide Planning Goal 11. The amendment involves only the change of street classification and continues to provide for other public facility projects, for example, water, sewer, and public transit improvement identified in other planning documents adopted separately from the TSP. Further, the amendment will not result in any changes in the geometry or capacity of Crestview Drive intersection with Springbrook Street or at Oregon Highway 99 West. (See traffic impact study included as Exhibit B.) Based upon these findings, the amendment is consistent with Statewide Planning Goal 11.

***Statewide Goal 12: Transportation***

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

**Finding:** The present TSP made findings of consistency with Statewide Planning Goal 12, OAR 660 Division 12, and the City's Comprehensive Plan. In fact, the TSP is based upon the City's Comprehensive Plan. As documented in the traffic analysis (Exhibit B), the change in Crestview Drive's classification will not create any traffic problems or require additional traffic mitigation for Springbrook Street. Therefore, the amendment to change Crestview Drive from a Minor Arterial to a Major Collector does not diminish or affect these previous findings. As described in the findings above, the amendment is consistent with Statewide Planning Goal 12 and is in conformance with the requirements of Oregon Transportation Planning Rule OAR 660 Division 12.

***Statewide Goal 13: Energy Conservation***

*To conserve energy.*

**Finding:** The amendment will not change or affect any City requirement relating to energy use. This amendment continues to allow for the incremental improvement of the efficiency of City's transportation system, thereby indirectly reducing energy use. However, the lack of any direct implication for energy use means this Statewide Planning Goal is not relevant to this amendment.

***Statewide Goal 14: Urbanization***

*To provide for an orderly and efficient transition from rural to urban land use.*

**Finding:** In order to provide an orderly and efficient transition from rural to urban land use, the City is required to have an adopted and acknowledged Comprehensive Plan and Transportation System Plan. The study area for the City's adopted TSP included all the areas within the Newberg Urban Growth Boundary and Urban Reserve Areas. The current section through Oxberg Lake Estates is on rural lands which are not within the Newberg Urban Area. This proposed street is not planned to accommodate any urban uses outside the UGB.

Further, the street facility allowed by the amendment can be approved without an exception to Statewide Planning Goal 14, as set forth in the findings addressing Statewide Planning Goal 3 above (existing Exception Area). Thus, the amendment (downgrading a street classification) continues to be consistent with Statewide Planning Goal 14.

***Statewide Goal 15: Willamette River Greenway***

*To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.*

**Finding:** This amendment will not change any City policies or regulations related to the Willamette River Greenway; therefore, Statewide Planning Goal 15 is not relevant to this amendment.

***Statewide Goal 16: Estuarine Resources***

*To recognize and protect the unique environmental economic and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.*

***Statewide Goal 17: Coaster Shorelands***

*To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-depending uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coaster waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.*

***Statewide Goal 18: Beaches and Dunes***

*To conserve, protect, where appropriate develop and where appropriate restore the resources and benefits of coastal beach and dune areas; and to reduce the hazard to human life and property from natural or man-induced actions associated with these areas.*

***Statewide Goal 19: Ocean Resources***

*To conserve the long-term values, benefits, and natural resources of the nearshore ocean and the continental shelf., All local, state, and federal plans, policies, projects, and activities which affect the territorial sea shall be developed, managed and conducted to maintain, and where appropriate, enhance and restore the long-term benefits derived from the nearshore oceanic resources of Oregon. Since renewable ocean resources and uses, such as food production, water quality, navigation, recreation, and aesthetic enjoyment, will provide greater long-term benefits than will nonrenewable resources, such plans and activities shall give clear priority to the proper management and protection of renewable resources.*

**Finding:** Neither the project area of the amendment nor any portion of the City includes any estuarine resources, coastal shorelines, including beach and dune areas, or other coastal and ocean resources. Therefore, Statewide Planning Goals 16, 17, 18, and 19 do not apply.

**B. Findings of Consistency with the Newberg Comprehensive Plan (NCP)**

**Pursuant to OAR660-012-0025(2)**

Findings of compliance with applicable local policies, including the applicable Comprehensive Plan policies, are required to adopt this amendment.

Based on the foregoing analysis of Statewide Planning Goals (Section A above), this portion of this analysis includes only analysis relevant to the Newberg Comprehensive Plan or associated policies and standards. The following sections are not relevant to the proposed amendment.

- C. Agricultural Lands
- D. Wooded Areas
- E. Air, Water, and Land Resource Quality
- F. Areas Subject to Natural Disasters and Hazards
- G. Open Space, Scenic, Natural, Historic, and Recreational Resources
- H. The Economy
- I. Housing
- M. Energy
- N. Urbanization

Findings of consistency with the applicable goals and policies of the Newberg Comprehensive Plan follow.

**A. CITIZEN INVOLVEMENT**

**GOAL:** To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

**Finding:** Findings addressing Statewide Planning Goal 1 (above) demonstrate this amendment is consistent with the above Newberg Comprehensive Plan Goal, and are incorporated herein by reference. The Plan amendment is consistent with Section A, Citizen Involvement.

**B. LAND USE PLANING**

**GOAL:** To maintain an on-going land use planning program to implement statewide and local goals. The program shall be consistent with natural and cultural resources and needs.

**POLICIES:**

1. To implement the Comprehensive Plan, the following detailed plans shall be periodically updated by the City:
  - b. Six-Year Capital Improvements Program

c. **Bikeway and Pedestrian Plan**

d. **Streets Plan**

2. **The Comprehensive Plan and implementing ordinances shall be reviewed continually and revised as needed. Major reviews shall be conducted during the State periodic review process. . .**

**Finding:** Findings addressing Statewide Planning Goal 2 (above) demonstrate that this amendment is consistent with the above Newberg Comprehensive Plan Goal, and are incorporated herein by reference. The present TSP, of which the proposed Plan amendment is a part, continues to accomplish the purpose of implementing Newberg Comprehensive Plan by providing a street plan, a bikeway and pedestrian plan, and a CIP for transportation facilities. Therefore, the amendment is also consistent with NCP Policies 1 and 2 of Section B, Land Use Planning.

## **J. URBAN DESIGN**

**GOAL 1: To maintain and improve the natural beauty and visual character of the City.**

### **1. General Policies : . . .**

- g. **Community appearance should continue to be a major concern and subject of a major effort in the area. Street tree planting, landscaping, sign regulations and building improvements contribute to community appearance and should continue to be a major design concern and improvement effort.**
- h. **Landscaping shall be required along street frontage strips within the street right-of-way in order to soften the appearance of commercial and industrial developments.**
- j. **Curbs, gutters, and sidewalks are to be required in all new developments.**
- k. **Curb ramps will be required at intersections and pedestrian crosswalks wherever new curbs are installed. These ramps improve access for the elderly and handicapped, as well as for strollers, bicycles and other wheeled vehicles. . .**

**Finding:** The present TSP and this amendment continues to serve to supplement and support Urban Design Policies J (1)(g) and (k) above. The City street standards are shown in Figure 6-2 of the TSP. This amendment, not changing any of these standards, will continue to facilitate implementation of

the City's Urban Design standards (Policies). Therefore, the amendment is consistent with the above design policies.

**K. TRANSPORTATION**

**GOAL 1: Establish cooperative agreements to address transportation based planning, development, operation and maintenance.**

**POLICIES:**

- a. **The City shall coordinate with the State Department of Transportation to manage access to the state highway system and to implement the State Highway Improvement Program.**
- b. **The City shall work to ensure that the transportation system is developed in a manner consistent with state and federal standards for the protection of air, land and water quality, including the State Implementation Plan for complying with the Clean Air Act and the Clean Water Act. (Ordinance 2005-2619, May 16, 2005) . . .**

Note: Not all of the Comprehensive Plan Policies set forth in the NCP Transportation Goal (Section K) are applicable to this amendment. The following references only the most relevant transportation policies.

**Finding:** Throughout the development of the present TSP, the City's coordination with ODOT, and other regional partners, such as Yamhill County, on access and other matters were carefully considered.

The neighborhood concern that the Crestview Drive Extension was a Major Arterial was identified during the time leading up to the amendment of the current TSP. The Newberg Northern Alliance Stakeholders' Team was responsible for the recommendation changes proposed by this amendment. Because part of the subject area of this amendment is outside the Newberg UGB, future implementation will require the continued coordination with Yamhill County. In addition, because Crestview Drive Extension requires a new intersection with Oregon Highway 99W, the design of this intersection will require the continued coordination with ODOT. In conclusion, the amendment is consistent with the above relevant NCP Policies.

**GOAL 4: Minimize the impact of regional traffic on the local transportation system.**

**POLICIES:**

- a. **Enhance the efficiency of the existing collector/arterial street system to move local traffic off the regional system. (Ordinance 2005-2619, May 16, 2005)**
- b. **Provide for alternate routes for regional traffic. (Ordinance 2004-2602, September 20, 2004)**
- c. **Identify and analyze options for the re-routing of 219 in conjunction with ODOT, with the goal of minimizing through traffic, including truck traffic, in downtown. (Ordinance 2004-2602, September 20, 2004)**
- d. **Before choosing the 219 re-route to be included in the City's Capital Improvement program, hold public hearings to determine which re-route alternative is most satisfactory to the public. (Ordinance 2004-2602, September 20, 2004)**
- e. **Include re-route alternative most favorable to the public in the City's Capital Improvement Plan, Transportation Section. (Ordinance 2005-2619, May 16, 2005)**
- f. **A special design study shall be conducted prior to improving College Street from Hancock Street to the railroad. The purpose of this study will be to maintain and enhance the aesthetic and historic character of this area. Alternatives bike lane, street width and other configurations will be considered to preserve significant street trees, and additional street trees, and preserve and enhance historic features. (Ordinance 2005-2619, May 16, 2005)**
- g. **Minimize the use of local and minor collector streets for regional traffic through application of traffic calming measures as traffic operations and/or safety problems occur. (Adopted by Ord. 99-2513, approved by City Council 8-2-99) . . .**

**Finding:** The present TSP indicates that it is an important goal to minimize traffic through the downtown. A number of transportation facility improvements are identified in the TSP that help achieve lowering of traffic volumes through downtown Newberg. The designation of Springbrook Street from Wilsonville Road to Mountain View Drive as a Minor Arterial street is one such facility. The extension of Crestview Drive south to Highway 99W is another facility.

The re-designation of Crestview Drive from a Minor Arterial to a Major Collector will continue to achieve the above-listed policies, including:

- Without overloading Springbrook Street, Springbrook Street will continue to move local traffic off the regional transportation system.

- Allowing Crestview Drive to continue to provide an alternative for local traffic off the regional highway system.

Therefore, this amendment continues to comply with NCP Goal 4 policies.

- k. **For the purposes of compliance with the Transportation Planning Rule, OAR 660-12-0060 and in order to support the goal exception that Yamhill County must take to advance construction of the Bypass, the City of Newberg acknowledges that reliance upon the Bypass as a planned facility to support comprehensive plan amendments, zone changes or UGB expansions is premature.**

Accordingly, proposed changes to lands already planned and zoned for urban uses inside the Newberg UGB or annexations or UGB expansions outside of designated Urban Reserve Areas approved as of August 1, 2004 shall be subject to the analysis and mitigation requirements of OAR 660-12-0060. Upon adoption of a Bypass financing plan by the Oregon Transportation Commission, those portion of the Bypass identified to be constructed within the 20-year planning horizon by the financial plan can be considered planned transportation facilities pursuant to OR 660-12-0060. It is expected that the Oregon Transportation Commission will adopt a financing plan in approximately three years of adopting this plan policy.

Lands designated as Urban Reserve Areas as of August 1, 2004, and identified in Appendix A may or may not depend upon the transportation capacity of the future bypass or the improved capacity of Oregon 99W due to the future construction of the bypass. It is the policy of the City of Newberg to plan and zone those planned urban reserve areas that are outside the Interchange Area Management Plan Areas, as identified in Appendix A, to be compatible with the trip generation assumptions used to develop the Newberg 2025 Transportation Model when they are annexed into the City. For the purposes of this policy, compatibility means that trips estimated as attributable to planning and zoning in an Urban Reserve Area shall be no greater than 5 percent above the estimates used for that area in the Newberg 2025 Transportation Model. The trip generation assumptions for each Urban Reserve Area and a map illustrating these areas are provided in Appendix A and Table A-1. Annexation of the Urban Reserve Areas will not occur at a rate any greater than 30 percent of the total Urban Reserve Area in any five year period from the date of the adoption of this policy or until the adopted financing plan propose construction of the bypass or portions of the bypass relied upon for capacity by the development proposal within the planning horizon. This assumption addresses assumed capacity on Oregon 99W only; develop in these Urban Reserve Areas will continue to be subject to OAR 660-012-0060



for impacts to transportation facilities other than Oregon 99W.

Those planned Urban Reserve Areas located within the Bypass Interchange Overlay District shall be subject to the provisions of the Overlay District in the interim period before the City of Newberg and the Oregon Transportation Commission adopt Interchange Area Management Plans for the Oregon 219 and East Newberg Interchanges.

Upon adoption, the IAMPS will guide land use and capacity issues for purposes of complying with OAR 660-012-0060. (Ordinance 204-2602, September 20, 2004)

- l.** The City will coordinate with ODOT, Yamhill County and affected property owners to participate in preparation and adoption of Interchange Area Management Plans (IAMPs) for the East Newberg and Oregon 219 Interchanges, consistent with the requirements of the 1999 Oregon Highway Plan and OAR 734-051-0020 (the Access Management Rule). The IAMPs will address the following at a minimum: access management standards, road connections and local street circulation, compatible land uses and bypass termini protection. The IAMPs will be designed to protect the function and capacity of the interchanges for at least a 20-year planning period. (Ordinance 2004-2602, September 20, 2004)
- m.** To protect the function of the Bypass to serve primarily longer-distance through trips, the City of Newberg will apply an Interchange Overlay District to lands that are within the Newberg city limits and within approximately ¼ mile of the East Newberg and Oregon 219 interchange ramps. (Ordinance 2004-2602, September 20, 2004)
- n.** To enable the City and ODOT to adequately plan land uses and local circulation for the interchange areas, the City of Newberg will retain existing base zoning within the Interchange Overlay District in the interim period before IAMPs are prepared and adopted. Annexations will be allowed if the associated zone change is consistent with the acknowledged Newberg Comprehensive Plan designation for the property in effect at the date of adoption of the Interchange Overlay. Permitted and conditional uses that are authorized under existing base city zones will generally be allowed within the Interchange Overlay, with certain limitations on commercial uses in the industrial zones.
- o.** The Bypass location corridor was selected to avoid displacement of the Sportsman Airpark. The City supports the continued operation of the airport. The airport is located within the Newberg UGB, is within ¼ mile of the Oregon 219 interchange and is currently under Yamhill County jurisdiction. If the airport property is annexed, the City intends to apply an Airport Zone that maintains the ongoing use of the facility as

an airport. The City will not support conversion of the airport property to commercial zoning or uses. The Bypass itself should be designed to avoid conflicts with existing air transportation corridors.

- p. The City of Newberg will coordinate with ODOT on any development proposal within the Bypass location corridor and interchange management areas through the City's established Site Design Review process. Development planning should consider and complement the intended function of the bypass. Land use decisions should consider the planned corridor location and avoid conflicts where feasible.
- q. The City recognizes that the Oregon Highway Plan seeks to avoid UGB expansions along Statewide Highways and around interchanges unless ODOT and the appropriate local governments agree to an Interchange Area Management Plan to protect interchange operation or access management for segments along the highways. [OHP Action 1B.4]. Thus, the City will work with ODOT, property owners, and citizens to create IAMPs as soon as possible.
- r. The City agrees not to approve expansion of the Newberg UGB or Urban Reserve Areas around the East Newberg or Oregon 219 interchanges until IAMPs for the two interchanges are prepared and adopted by ODOT, Yamhill County and the City of Newberg. An exception to this policy will be allowed for a limited expansion of the Newberg UGB into the westerly portion of Urban Reserve Area C to accommodate construction of the Northern Arterial in the general location shown on the City of Newberg acknowledged Transportation System Plan.
- s. Special planning and efforts shall be made to replace affordable housing displaced by construction of the bypass within the community. ODOT shall be encouraged to provide relocation assistance to the maximum extent allowed under Federal law.

(Ordinance 2004-2602, September 20, 2004)

- t. Special planning and efforts shall be made to retain and create livable and desirable neighborhoods near the bypass. This shall include retaining or creating street connections, pedestrian paths, recreational areas, landscaping, noise attenuation, physical barriers to the bypass, and other community features.

**Finding:** The transportation policies listed above provide policy direction regarding the City's support of the Newberg-Dundee Bypass. The bypass is included as an element of the present TSP preferred future transportation system (which the State will fund). The policies under Goal 4 represent the most recent development in the Newberg-Dundee Transportation Improvement

Project, also known as NDTIP (at least at the time of the May 2006 TSP adoption). The amendment, redesignating Crestview Drive street classification from a Minor Arterial to a Major Collector, continues to maintain consistencies with NCP Policies k through t.

**GOAL 5: Maximize pedestrian, bicycle and other non-motorized travel throughout the City.**

**POLICIES:**

a. **The City shall provide safe, convenient and well-maintained bicycle and pedestrian transportation systems that connect neighborhoods with identified community destinations, such as schools, parks, neighborhood commercial centers, and employment centers. (Ordinance 2005-2619, May 16, 2005) . . .**

d. **Public sidewalks shall be provided along all public street frontages. Pedestrian traffic shall be separated from automobile traffic whenever possible.**

**(1) Sidewalks should be provided whenever there is development of abutting properties.**

**(2) Sidewalks should be constructed when any new road is constructed**

**(3) When existing roads are widened or improved, sidewalks should be provided.**

f. **All sidewalks, corner ramps, and other transportation improvements shall meet applicable standards of the Americans with Disabilities Act. (Ordinance 2005-2619, May 16, 2005)**

g. **The City shall encourage pedestrian access throughout commercially zoned areas.**

h. **On-street bike lanes or parallel bikeways will be provided on all designated major collector and arterial roadways, and on certain neighborhood collectors if warranted from a bicycle system connectivity standpoint.**

i. **A bicycle path shall be provided along or near the bypass. . .**

**Finding:** The policies contained in this section provide policy direction regarding City support for the development of pedestrian and bicycle infrastructure that supports the use of alternative modes of transportation. This amendment (changing only street classification) continues to comply with all the NCP Transportation Goal 5 policies.

**GOAL 6:** Provide effective levels of non-auto oriented support facilities (e.g. bus shelters, bicycle racks, etc.).

**POLICIES: . . .**

- b. New development shall be designed to accommodate integrated multiple modes of transportation. (Ordinance 2005-2619, May 16, 2005) . . .
- c. The City in cooperation with public transit agencies and commuter service providers shall develop park and ride facilities at the locations specified in the Transportation System Plan. (Ordinance 2005-2619, May 16, 2005) . . .

**Finding:** The policies contained in this section provide policy direction regarding the City's support for the use of alternative modes of transportation. This amendment (changing only street classification) continues to comply with all the NCP Transportation Goal 6 policies.

**GOAL 7:** Minimize the capital improvement and community costs to implement the transportation plan.

**POLICIES:**

- a. The Transportation System Plan shall identify short and long term improvements to the collector/arterial street system, the public transit system, the pedestrian/bicycle system and the air, rail, water, and pipeline systems.
- b. The list of improvement projects in the Transportation System Plan shall guide development of the city's capital improvement plan for transportation projects.
- c. The City will prioritize the list of transportation-related capital improvements to be included in the City's Capital Improvement Plan (CIP) including phasing for major transportation system improvements.
- d. For those priority transportation projects included in the City's (CIP), provide updated cost estimates, each time the project list is revised.
- e. Adverse economic, social, environmental, and energy impacts from transportation system improvements on adjacent properties shall be minimized as far as practical.
- f. Future public rights-of-way should be identified in undeveloped areas through a Future Street Plan or a specific area plan, to facilitate right-

of-way acquisition and dedication with minimal disruption and cost. A Future Street Plan is usually prepared by a private party to show street and bike/pedestrian connectivity for development projects when transportation connectivity is needed through adjoining private properties and neighborhoods. A Specific Area Plan is usually prepared by the City in collaboration with affected property owners to show street and bike/pedestrian connectivity for planned land uses in undeveloped or partially developed areas. Corridor plans are a type of specific area plan.

- g. The City may require preparation of a Future Streets Plan for all commercial and industrial developments and residential development projects greater than 1 acre to serve as a guide in the decision-making process on new development requests.
- h. Transportation facilities will be designed to minimize impacts on:

  - Present and Planned Land Use patterns;
  - Natural and Scenic Resources;
  - Air Resource Quality, including noise;
  - Water and Land Resource Quality; and
  - Existing and Planned Transportation Facilities.
- i. New development and existing development undergoing expansion or modification shall be designed to accommodate planned long-term transportation improvement projects in the vicinity of the development.

(Ordinance 2005-2619, May 16, 2005)

**Finding:** The policies contained in this section provide policy direction regarding the City's desire to develop a cost-effective transportation system. The present TSP includes a finance plan with a list of improvement projects divided into near-term, medium-term, and long-term priorities. The estimated cost for each project is presented in the plan, along with the major resources of revenue to finance the improvement (Chapter 7, Table 7.2). The effect of this amendment will not significantly change the estimated public cost of constructing the Crestview Drive Extension. The right-of-way of a Major Collector is less than for a Minor Arterial (a Major Collector has no continuous center turn lane); however, with street calming design elements, the cost to construct should be about the same; therefore, this amendment continues to comply with Goal 7 policies a through i above. The proposed amendment applies with applicable NCP Goal 7 policies.

**GOAL 8: Maintain and enhance the City's image, character and quality of life.**

**POLICIES:**

- a. **Adopt transportation and land use design standards that emphasize visual and aesthetic quality. . .**
  
- d. **The City will encourage development that protects the integrity of existing neighborhoods, commercial, and industrial areas using the following design techniques.**
  - 1) **New development and new transportation facilities shall be designed to meet the street classification, design, and access standards identified in the Transportation System Plan.**
  
  - 2) **City arterials should include sound walls and/or landscaping buffers between residential areas and the street.**
  
  - 3) **Make use of on-street parking and buildings that abut the street frontage in the central business district and designated neighborhood commercial areas to create pedestrian friendly retail and commercial service environments.**

**(Ordinance 2005-2619, May 16, 2005)**

**Finding:** The policies contained in this section provide policy direction regarding the City's desire to have the transportation system enhance livability and community character. This amendment carries out this goal while continuing to allow the City to achieve the community's transportation needs. This amendment continues to meet all applicable NCP Goal 8 policies.

**GOAL 9: Create effective circulation and access for the local transportation system.**

**POLICIES:**

- a. **Analyze Alternative routes for the re-routing of 219 to facilitate both local and regional traffic.**
  
- b. **Enhance existing and add alternative routes for local travel.**
  - 1) **The City development code shall encourage the development of a continuous interconnected street pattern that connects adjacent developments and minimizes the use of cul-de-sacs. . .**

- 5) The City will support efforts to increase public transit options for area residents.  
(Ordinance 2005-2619, May 16, 2005)
- c. Develop a system of roads that provide for efficient movement of traffic, considering the general design guidelines below: . . .
- 3) **Minor Arterial.** Minor Arterials collect and distribute traffic from major arterials to collector and local streets; and, facilitate traffic movement between neighborhoods. General street design criteria shall be as follows:
- 60 to 80 feet of right-of-way.
  - 46 feet curb to curb.
  - Signalization at intersections with major arterials and collector streets as warranted.
  - A 5-foot bicycle lane in each direction adjacent to the curb.
  - Seven-foot curb sidewalks. In commercial areas sidewalks preferred from curb to property line. Sidewalks and curbs required on both sides of street. Five-foot sidewalks in non-commercial areas.
  - On-street parking is generally not allowed except in the downtown and other areas where special circumstances warrant. No parking will be allowed within 20 feet of curb return.
  - Sound buffering or landscape buffers may be required to protect existing and future residential property where deemed necessary.
- 4) **Major Collectors.** Major collectors serve multi-neighborhood areas. They are intended to channel traffic from local streets and/or minor collectors to the arterial street system. A major collector can also provide access to abutting properties.
- 60 to 80 feet of right-of-way with ten foot public utility easements.
  - 34 to 46 feet curb to curb cross section.
  - Five-foot bike lanes on both sides of the street.
  - On-street parking is generally not allowed except in the downtown and other areas where special circumstances warrant. No parking will be allowed within 20 feet of curb return.
  - A minimum six-foot planter strip and six-foot sidewalk on both sides of the street. . .

**Finding:** The policies contained in this section provide policy direction regarding the City's desire to have a transportation system that is cohesive and serves local residential areas and businesses. This amendment will allow these policies to be carried out pertaining to enhancing and the use of alternative routes for local travel, achieving a continuous interconnection of City street system, and application of adopted design standards. Therefore, this amendment continues to comply with NCP Goal 9 policies.

**GOAL 11:** Establish fair and equitable distribution of transportation improvement costs.

**POLICIES:**

- a. Define appropriate phasing and funding which relates to the benefits received.
- b. The City shall utilize the Transportation Improvement Funding policies outlined in the Transportation System Plan for determining responsibilities and costs for funding improvements.

(As amended by Ord. 94-2384, 8-1-94 and as amended by Ord. 98-2494, 4-6-98. Ord. 94-2384 also adopted the Newberg Transportation System Plan, a technical supplement to the Comprehensive Plan). . .

**Finding:** The policies contained in this section provide policy direction regarding the allocation of public cost of public and private interest that benefit from the development and use of the transportation system. The present TSP includes a financial plan that outlines the anticipated timing for building transportation system improvements and prospective sources for financing these improvements. This amendment creates no changes to plan policy under this goal. This amendment makes no changes affecting how costs are to be allocated to benefiting properties. Thus, this amendment continues to comply with Goal 11 policies.

In summary, this proposed amendment, as demonstrated above, continues to achieve NCP policy compliance as set forth in the Newberg Comprehensive Plan transportation element, Goal K.

**L. PUBLIC FACILITIES AND SERVICES**

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



**POLICIES:**

**1. All Facilities & Services Policies**

- a. The provision of public facilities and services shall be used as tools to implement the land use plan and encourage an orderly and efficient development pattern. . .**
- e. Owners of properties which are located on unimproved streets should be encouraged to develop their streets to City standards.**
- f. Maximum efficiency for existing urban facilities and services will be encouraged through infill of vacant City land. . .**
- h. New residential areas shall have: paved streets, curbs, pedestrian ways, water, sewer, storm drainage, street lights and underground utilities.**

**Finding:** The public facility section of the plan primarily deals with the provision of utility infrastructure, such as water, sewer, and drainage facilities, that enable new development. This amendment (changing Crestview Drive street classification from a Minor Arterial to a Major Collector) will have no effect on the City's ability to provide other public facilities and services within the narrower street right-of-way of a Major Collector. This amendment continues to maintain consistency with NCP Goal L policies.

In summary, the above Findings show the proposed Transportation System Plan amendments will have an insignificant effect on the City's transportation plan, while maintaining Statewide Planning Goals and Comprehensive Plan policy consistency.

# REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: 2007, February 20

Ordinance XX Resolution \_\_\_ Motion \_\_\_ Information  
No. 2007-2665 No.

Date Submitted: February 2, 2007

**SUBJECT:** Ordinance amending the Newberg Transportation System Plan and Comprehensive Plan to reclassify Crestview Drive from Springbrook Road to Highway 99W as a Major Collector with certain traffic calming measures, and redesignating Springbrook Road as the Northern Arterial

Contact Person (Preparer) for this Ordinance: Barton Brierley, AICP Planning and Building Director

Dept.: Planning and Building

File No.: CPMA-06-002  
(if applicable)

HEARING TYPE: (if applicable) \_\_\_ Quasi-Judicial \_\_\_ X Legislative

## RECOMMENDATION:

Adopt Ordinance No. 2007-2665, amending the Newberg Transportation System Plan. The ordinance would do the following:

1. Reclassify Crestview Drive from Springbrook Road to Highway 99W from a minor arterial to a major collector.
2. Specify certain traffic calming features on this section of Crestview Drive, including roundabouts, sound walls, and posting the road for no through trucks.
3. Reclassify Springbrook Road from Crestview Drive to Highway 99W as the northern arterial.

## BACKGROUND:

1. Newberg's Transportation System Plan designates Crestview Drive as a minor arterial. The plan calls for the extension of Crestview Drive from its current terminus to 99W at Providence Drive.
2. Residents along Crestview Drive have been very concerned about the impacts of this roadway. In order to address these concerns, a 5-party team met several times in early 2006. The 5-party team consisted of representatives from the City of Newberg, the Oxberg Lake Homeowners Association, Yamhill County, and nearby property owners Smith, Speakman and Austin.
3. The 5-party team identified several major concerns including the potential speed of traffic traveling the road, large trucks traveling the road, noise and environmental impacts, and the need the road to fulfill its primary purpose in carrying vehicles. The group focused on a potential solution to these issues of reclassifying Crestview Drive as a major collector street

and adding certain traffic calming features to the road.

4. Newberg and Yamhill County contracted with JRH Transportation Engineers to analyze the effects of this reclassification. Their report is Exhibit B.
5. After reviewing the study, the 5-party team agreed to pursue the proposed amendment. The agreement is in Attachment 2.
6. On July 17, 2006, the Newberg City Council initiated this amendment to the Newberg Transportation System Plan (See Attachment 1).
7. On January 11, 2007, the Newberg Planning Commission held a hearing to consider the proposed amendments. The Commission voted unanimously to recommend approval of the amendments. The Commission also moved that staff meet with residents along Springbrook Road to discuss the impacts of the classification on Springbrook Road.
8. On January 30, 2007, Newberg City Staff met with residents along Springbrook Road. A summary of this meeting is attached. The residents present requested the following:
  1. Posting Springbrook Road for no-through trucks.
  2. Some sound attenuation along Springbrook, potentially matching designs that could be in place on surrounding properties.
  3. Some traffic calming on Springbrook.

**FISCAL IMPACT:** The cost of construction of the road is generally estimated not to change with the reclassification. The reclassification will allow construction of a narrower road section, which should allow some cost savings. The traffic calming measures add expense to the construction, which generally offset the cost savings.

**STRATEGIC ASSESSMENT:** The extension of Crestview Drive has been a needed improvement to the transportation system for many years. It also has been a concern to residents in the area for many years. The 5-party team's recommended solution will allow the needed improvements to move forward, and address as well as practical the impacts of the road.

SUBMITTED BY:

APPROVED BY:

\_\_\_\_\_  
Barton Brierley, AICP  
Planning and Building Director

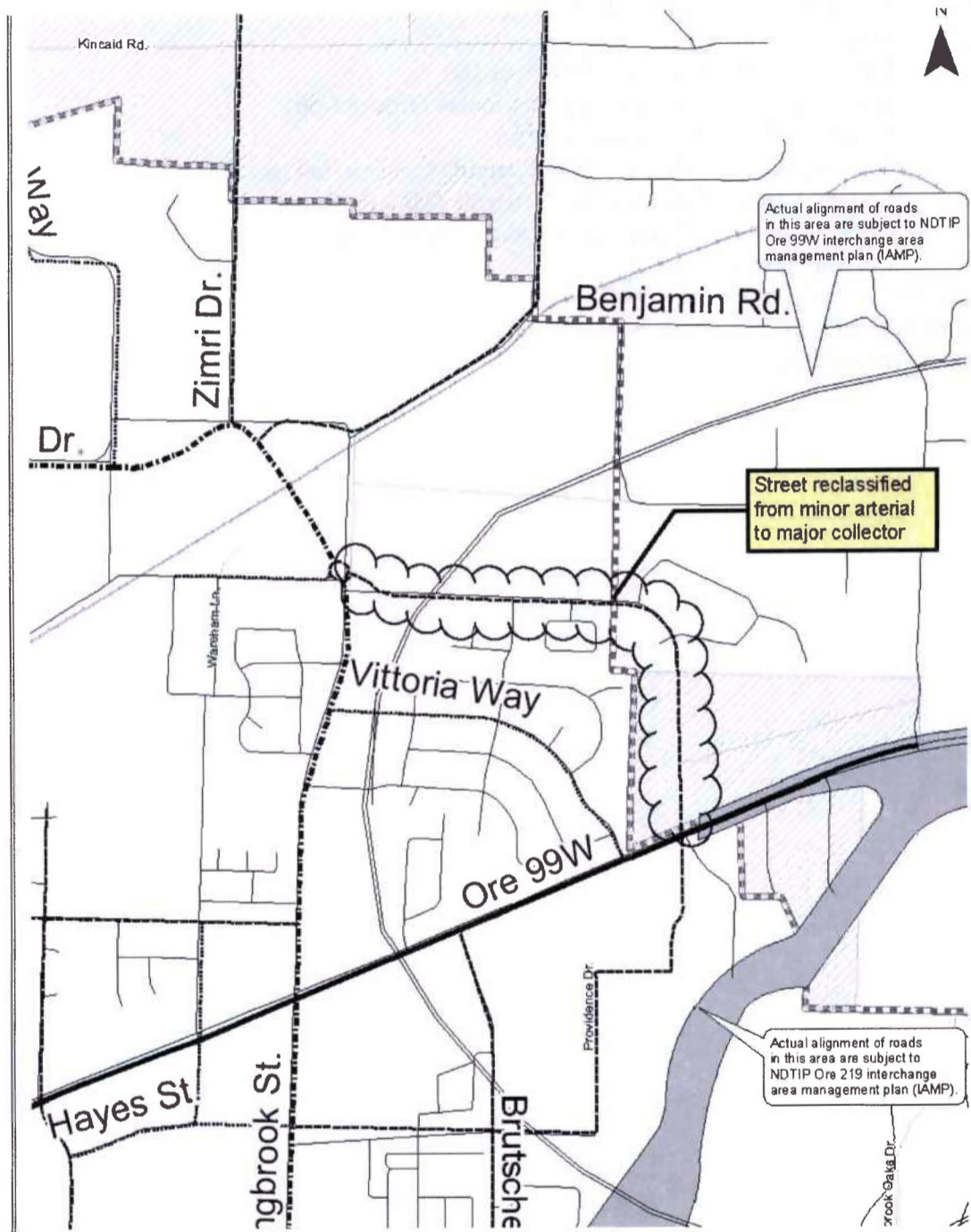
\_\_\_\_\_  
James H. Bennett  
City Manager

Attachments:  
Revised TSP Map  
Ordinance 2007-2665 with  
Exhibit A: Findings  
Exhibit B: Traffic Study  
Exhibit C: Technical appendices  
Exhibit D: TSP amendments

Exhibit E: Traffic calming designs  
Planning Commission Staff Report 1/11/2007 with attachments  
Resolution No. 2007-228 (as adopted) with exhibits by reference

1. City Council Resolution 2006-2661
2. Stakeholder agreement
3. Letter: Yamhill County to Will Spangler
4. Yamhill County Board of Commissioners Order 88-661
5. Oxberg Lake Estates Division 3 Plat
6. Map presented at May 17, 1993 Planning Commission meeting
7. Letter: Yamhill County to the Newberg Planning Commission
8. Letter from James Bennett to Yamhill County Commissioners
9. Correspondence received

Planning Commission Minutes 1/11/2007  
Summary of Springbrook Road neighborhood meeting 1/30/2007  
Additional correspondence



	Statewide Highway
	Major Arterial
	Minor Arterial
	Major Collector
	Minor Collector
	Interchange Area Management Plan Boundary
	Urban Growth Boundary
	Urban Reserve Area
	Railroad
	Streets
	River

**Notes:**

- Street located outside of Urban Growth Boundary are outside of Newberg's jurisdiction. If a proposed roadway alignment extends outside the UGB, than a plan amendment is required. Improvements recommended would need to be coordinated with Yamhill County.

Revisions  
February 2007

City of  
NEWBERG

**FUNCTIONAL CLASSIFICATION PLAN  
NEWBERG, OR.**

6-1

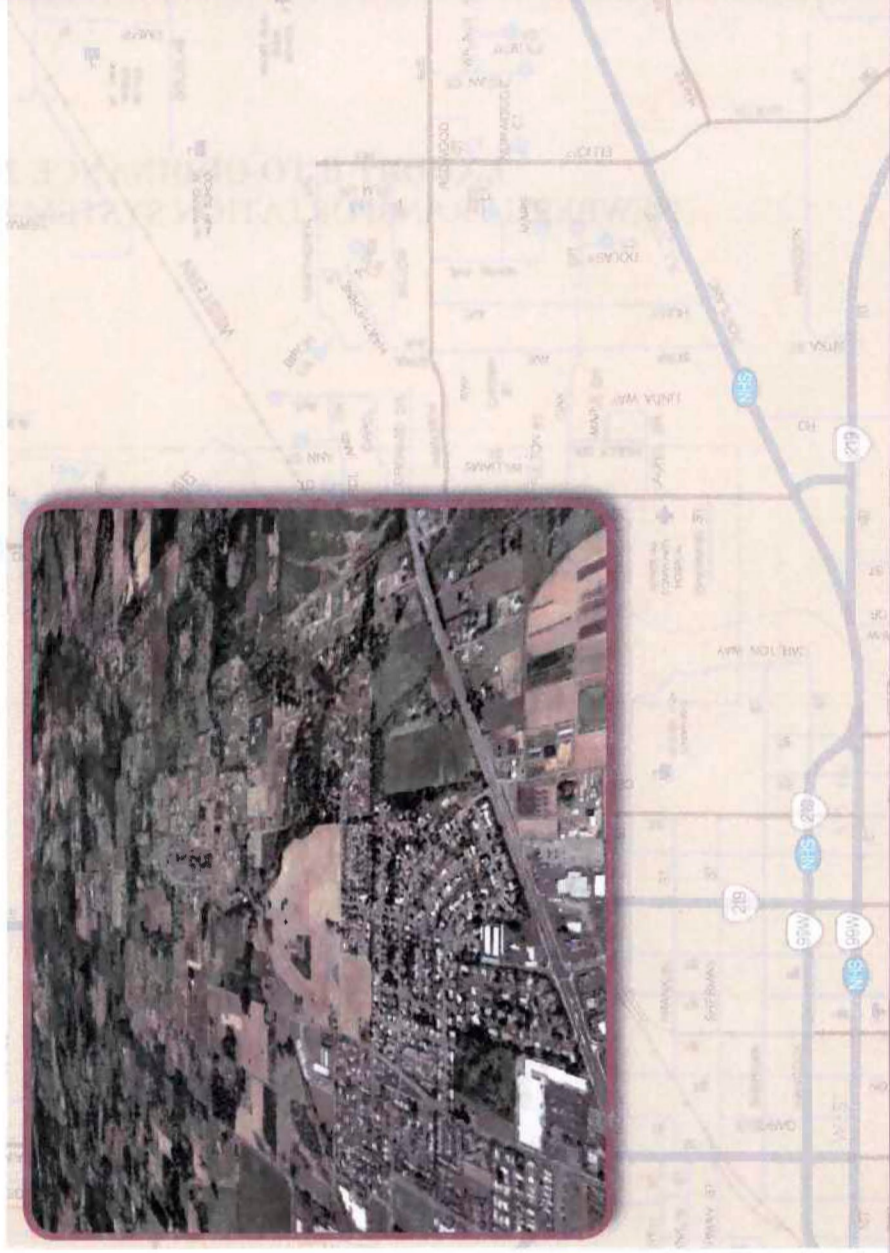
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PAGE 4

**EXHIBIT B TO ORDINANCE 2007-2665:  
NEWBERG TRANSPORTATION SYSTEM PLAN AMENDMENT**

Traffic study entitled "The Effect on Springbrook Street  
of Converting the Newberg Northern Arterial (Crestview Drive)  
to a Major Collector", dated March 31, 2006

THE EFFECT ON SPRINGBROOK STREET  
OF CONVERTING THE NEWBERG NORTHERN ARTERIAL  
(CRESTVIEW DRIVE) TO A MAJOR COLLECTOR



March 27, 2006



## THE EFFECT ON SPRINGBROOK STREET OF CONVERTING THE NEWBERG NORTHERN ARTERIAL (CRESTVIEW DRIVE) TO A MAJOR COLLECTOR

This memo outlines JRH Transportation Engineering's findings relating to the effect on Springbrook Street resulting from changing the Newberg Northern Arterial (Crestview Drive) from an arterial classification to a traffic-calmed major collector.

Briefly stated, the conclusions of the report are:

- 1) The physical capacity of Crestview Drive will not be materially reduced. Therefore, capacity restrictions will not divert traffic from Crestview Drive to Springbrook Street.
- 2) A ten mile per hour operating speed reduction on Crestview Drive (as might be expected from the reclassification of the street and the addition of traffic calming measures) would have virtually no effect on Springbrook Street operations.

The following contains the analysis used to develop these conclusions.

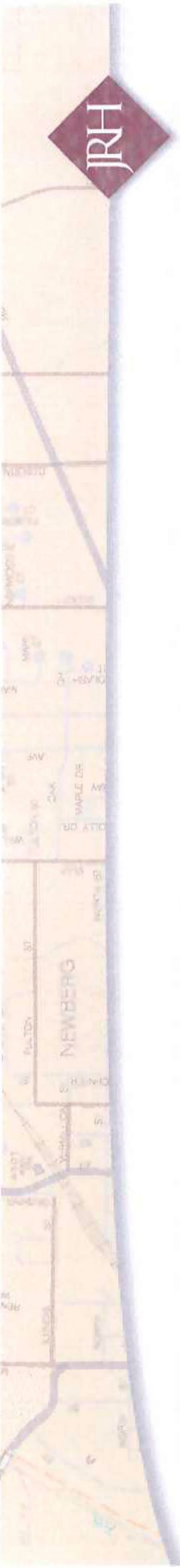
### BACKGROUND

The City of Newberg Transportation System Plan envisions a northern arterial connecting Mountain View Drive at the north, crossing the railroad tracks and continuing east from Springbrook Street along the alignment of Crestview Drive to the Oxburg neighborhood, and then south to an intersection with ORE 99W. Residents along the proposed arterial are concerned that this facility would have a negative effect on the livability of their neighborhood. They have proposed that this arterial be changed to a major collector with traffic calming to reduce operating speeds to 25 miles per hour to help mitigate traffic impacts.

There is concern by others that this downgrading of classification on Crestview Drive will produce traffic spill over onto Springbrook Street. This, in turn, would require additional transportation mitigation should vacant property be developed. Our challenge is to evaluate the relative traffic demand on Springbrook, resulting from the conversion of Crestview from an arterial to a major collector.

There are two ways that this conversion might impact Springbrook. The first would be the reduction in capacity on Crestview Drive to the extent that traffic would be forced to divert from Crestview to Springbrook. The second question is, would reducing speeds on Crestview Drive make Springbrook become relatively more attractive and, thus, increase traffic volumes? This memo analyzes both effects.





### EFFECT ON CRESTVIEW CAPACITY

A review of the projected traffic volumes along this collector shows that there will be adequate capacity along Crestview to meet the traffic demand. Under roadway design standards contained in the Newberg Transportation System Plan (TSP), the primary difference between a major collector and a minor arterial is that the arterial has a continuous two way left-turn lane, while the major collector has turn lanes, where appropriate, at intersections. Given the traffic volumes projected, both of these would have sufficient capacity to handle future traffic demands.

The two capacity constraints on both the original Northern Arterial as proposed in the Newberg TSP and the neighborhood proposed Crestview Drive major collector are at the intersections with Springbrook Street and at OR 99W. The geometry and thus the capacity at both intersections are not anticipated to change under either scenario. At the north end, the design of the roundabout between Springbrook and Crestview does not change with the proposed change in Crestview classification. At the south end, the design will be dictated by the needs of the commercial development along Crestview and will have more lanes than commonly associated with a major collector.

Future development may dictate that new intersections be constructed on Crestview between Springbrook and OR 99W. The design of these intersections will be subject to a traffic impact analysis to ensure the capacity is adequate to meet demands. Intersection turn lanes may be required; however, the low traffic volumes projected midway between Springbrook and OR 99W make it unlikely that even these minimal improvements will be required.

Traffic calming measures may also influence capacity; however, these impacts are more closely evaluated by examining speed reductions. This is the subject of the next portion of this report.

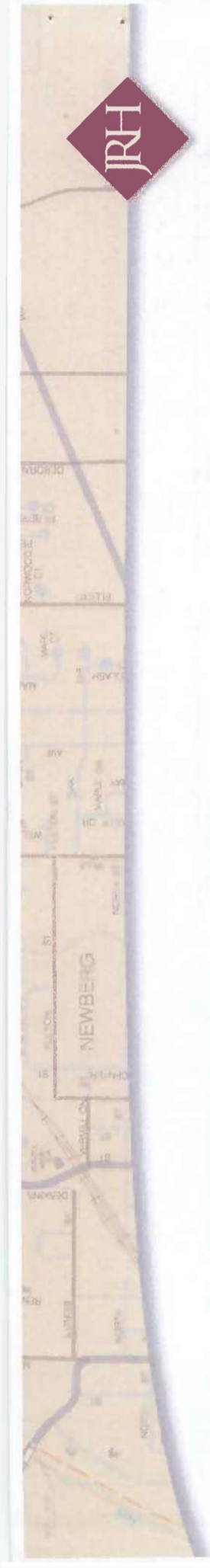
Because intersection geometry does not change, intersection capacity is not affected and, because capacity does not change, capacity constraints will not divert traffic from the Northern Arterial (Crestview Drive) to Springbrook Street.

### EFFECT OF SPEED REDUCTION

The second way the change of classification could impact Springbrook is the result of the change in travel speed between two classifications. If the relative speed on Springbrook between Crestview diminishes, then there may be additional trips induced onto Springbrook. This report is primarily focused on determining the impacts of these induced trips. In conducting this analysis, we looked effect on the traffic volumes using two separate methodologies.

For the first methodology, we reviewed the year 2025 projections for both Crestview and Springbrook as shown in Figure 2 of the Newberg Transportation System Plan. Appendix 1 contains this figure. The amount of through traffic on Crestview was determined by subtracting existing traffic and traffic from future development along Crestview from the projected 2025 turning movement volumes on Crestview, as shown in the Transportation System Plan.

After calculating southbound traffic, similar methodology was used to develop the northbound traffic on Crestview. The number of driveways, intersections, etc., along Springbrook, makes it difficult to determine the thru traffic on Springbrook. As a result, we developed



the thru traffic volumes on Springbrook using California Department of Transportation “Freeway Diversion” curves.<sup>1</sup> These calculations determine relative traffic volumes along parallel routes based on differentials in time and distance. We calculated the arterial travel times along Crestview assuming a 35 MPH speed for traffic driven on that route as well as a 35 MPH speed for Springbrook. To these travel times, we placed a delay factor on Springbrook for delay at signalized intersections along OR 99W, between Springbrook and the proposed intersection between Crestview and OR 99W.

Table 1 provides the Year 2025 projected through traffic volumes for Crestview and Springbrook with Crestview as an arterial and as a collector assuming a ten MPH reduction in speed.

A ten mile per hour speed differential was selected using information contained in Appendix A “Traffic Calming, State of the Proactive”, by ITE/ FHWA. This is available on the web at <http://ite.org/traffic/tcstate.htm#icsop>

A review of the data indicates that a ten MPH speed is a reasonable best case for effective traffic calming measures, and conservative for use in determining the impacts on Springbrook. If the speed reduction is less, then fewer cars will transfer from Crestview to Springbrook and the impacts will be less.

<sup>1</sup> Freeway Diversion curves, more properly, should be called parallel route diversion curves. They are using relative time and distance as variable. Appendix 4 provides the Freeway Diversion Curves.

Merely knowing the difference in numbers is not sufficient to determine the impact on Springbrook. To do this difference, we adjusted 2025 turning movements shown in the Transportation System Plan to reflect the increase in traffic on Springbrook. We then ran these adjusted traffic volumes using the SYNCHRO traffic evaluation model to determine the effect on level of service at both the Crestview intersection with ORE 99W, and the Springbrook intersection with ORE 99W. These volumes were compared with the traffic volumes in a SYNCHRO run using the unadjusted volumes representing the current classification. Both of these runs were for the year 2025. The results of this analysis are shown in Table 2. As can be seen, the traffic volumes change is so small that there is no effect in level of service or volume-to-capacity ratio at Springbrook and Highway 99 West. There is a 0.1 second increase in delay at Crestview and OR 99W due to a diversion of vehicles turning right onto Crestview changing to through traffic on OR 99W. Appendix 2 contains the outputs from the SYNCHRO runs.

**TABLE 1: Year 2025 Through Traffic Volumes Crestview/Springbrook Intersection to Crestview/OR 99W Intersection**

	CRESTVIEW SPEED			
	35 MPH		25 MPH	
	Northbound	Southbound	Northbound	Southbound
Crestview Drive	473	317	426	291
Springbrook Street	214	117	261	143



Analysis is based on 2025 traffic volumes in Newberg Transportation System Plan (Figure 2).

As a check to this methodology, we obtained a model run for the two alternatives for the year 2030 from ODOT's Transportation Planning Analysis Unit (TPAU). These analysis numbers allow us to directly calculate the difference in traffic volumes along the two, and furthermore, allow calculation of the volume to capacity ratios in levels of service at critical intersections potentially impacted by the reclassification. The TPAU model is based on a change in classification and roadway geometry, as well as a speed reduction. Appendix 3 contains the ODOT TPAU 2030 model runs.

Table 3 compares the entering and exiting volumes on Springbrook and Crestview at Highway 99 using the ODOT numbers with the volumes generated earlier in this report.

This table indicates that the regional model methodology used by ODOT and the "Freeway Diversion" curve methodology track very closely. The traffic volumes generated by JRH indicate a diversion in traffic volumes of 73 trips from Crestview to Springbrook. The TPAU Model indicates a diversion of 63 trips from Crestview and an increase in traffic to 16 trips to Springbrook. Both indicate that the traffic volumes diverted from Crestview to Springbrook as a result of the reclassification and reduction in speed is expected to not exceed more than a total of 75 trips for both the northbound and southbound movements. The methodology following the Freeway Diversion

**TABLE 2: Traffic Operational Effect of Changing Crestview From Minor Arterial to Major Collector.**

Functional Classification	Additional Trips To Springbrook At Highway 99		Springbrook at Highway 99		Crestview at Highway 99	
	SB Left	WB Right	Delay (seconds) (LOS)	Volume to Capacity	Delay (seconds) (LOS)	Volume to Capacity
Minor Arterial	N/A	N/A	34.4 (C)	0.83	46.4 (D)	0.85
Major Collector	26	47	34.4 (C)	0.83	46.3 (D)	0.85

**TABLE 3: Comparison of Entering and Exiting Volumes On Springbrook and Crestview at Highway 99.**

	Crestview as a Minor Arterial				Crestview as a Major Arterial			
	Springbrook at Highway 99		Crestview at Highway 99		Springbrook at Highway 99		Crestview at Highway 99	
	Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting
TPAU Model	719	702	396	445	719	718	370	402
TPAU Volumes	730	630	770	680				
Adjustment to TSP Volumes for Diverted Traffic					777	656	723	654
Total Diverted Traffic								
TPAU Model	N/A	N/A	N/A	N/A	16*		69**	
TPAU Volumes	N/A	N/A	N/A	N/A	73*		73**	



Curve indicates a higher traffic volume estimated to be diverted and, therefore, represents a more conservative analysis.

All of the analysis in this study assumes land development in accordance with the adopted Comprehensive Plan. In discussions with ODOT staff, they indicated that this development includes full development of the Austin Industries property. It should be noted, however, that property may develop with more or less intensity than anticipated in the Plan. This should not impact the conclusions of this study, as this study is focused on the relative impact on Springbrook due to changes in the functional classification of Crestview. It is not focused on the absolute impacts on Springbrook due to any specific land use.

**EXHIBIT C TO ORDINANCE 2007-2665**  
**TECHNICAL APPENDIX TO TRAFFIC STUDY**

APPENDIX 1 – Preferred Road Network Critical Intersection

APPENDIX 2 – SYNCHRO Runs for March 27, 2006 Study

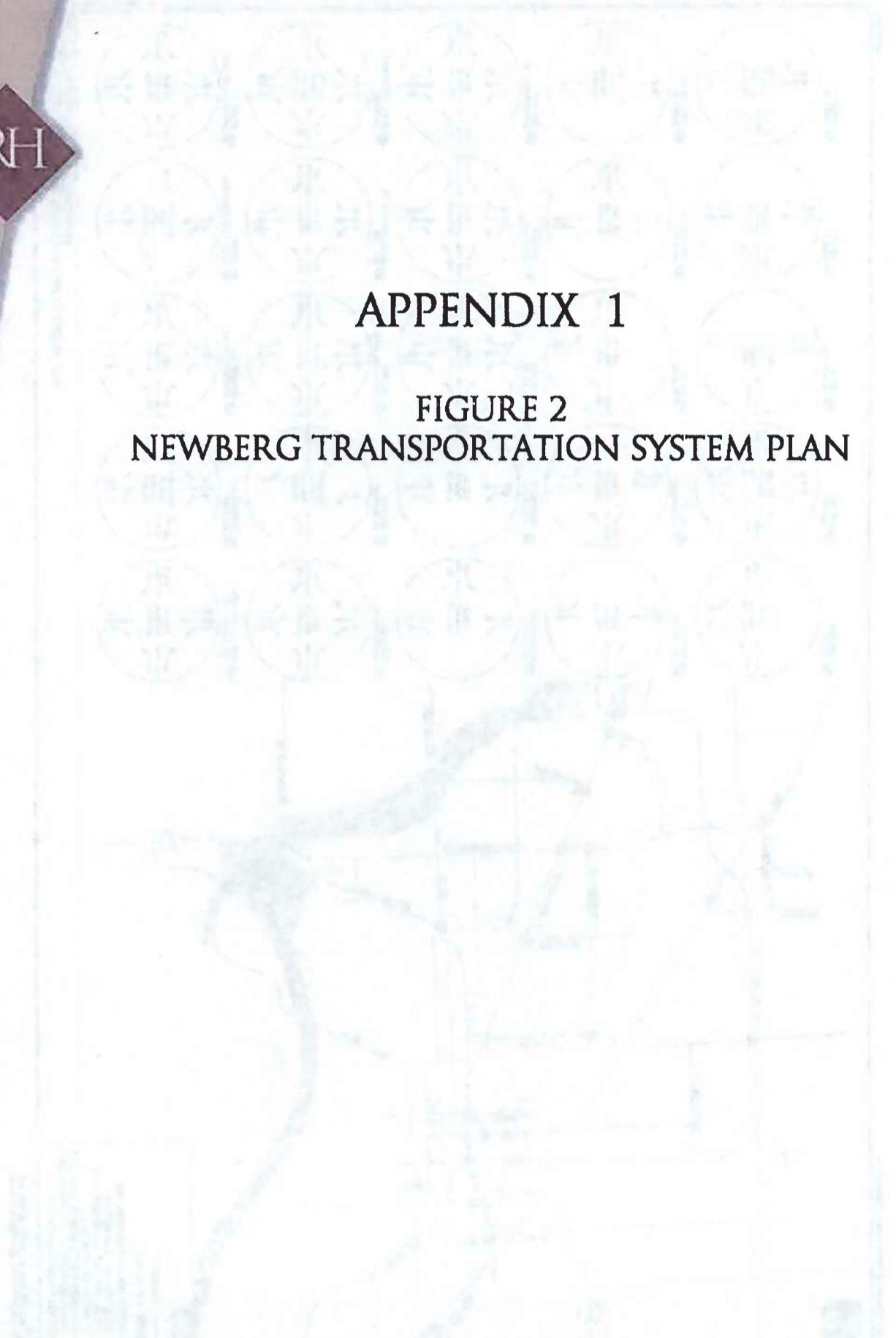
APPENDIX 3 – ODOT TPAU Year 2030 Model Runs

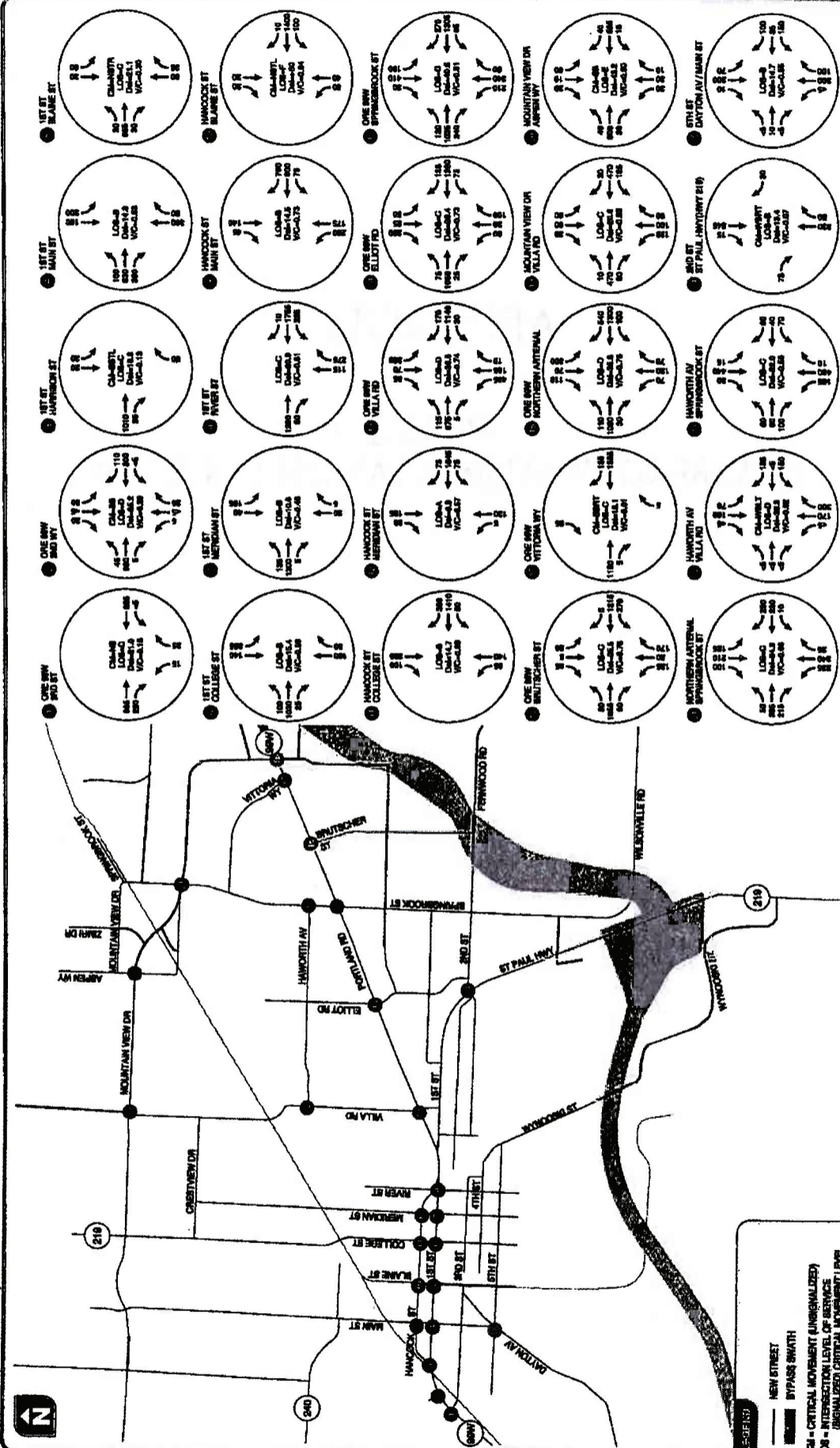
APPENDIX 4 – Freeway Diversion Curves (Modeling)



# APPENDIX 1

## FIGURE 2 NEWBERG TRANSPORTATION SYSTEM PLAN





2025 WEEKDAY PM PEAK HOUR TRAFFIC CONDITIONS  
NEWBERG, OREGON

KUTTELSON & ASSOCIATES, INC.  
 TRANSPORTATION PLANNING & DESIGN  
 1000 NE 10TH ST, SUITE 200  
 NEWBERG, OR 97132  
 TEL: 503/538-1111  
 FAX: 503/538-1112  
 WWW.KUTTELSON.COM

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## APPENDIX 2

## SYNCHRO RUNS



HCM Signalized Intersection Capacity Analysis  
18: Highway 99 & SpringBrook

3/17/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.08	1.00	1.00	0.12	1.00	1.00	0.14	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)	151	3539	1583	218	3539	1583	495	1863	1583	776	1863	1583
Volume (vph)	120	1035	240	65	1305	270	240	340	50	190	410	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	1125	261	71	1418	293	261	370	54	207	446	33
RTOR Reduction (vph)	0	0	137	0	0	122	0	0	40	0	0	24
Lane Group Flow (vph)	130	1125	124	71	1418	171	261	370	14	207	446	9
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Actuated Green, G (s)	56.7	48.8	48.8	56.7	48.8	48.8	37.5	29.2	29.2	39.1	30.0	30.0
Effective Green, g (s)	57.2	49.3	49.3	57.2	49.3	49.3	37.5	29.2	29.2	39.1	30.0	30.0
Actuated g/C Ratio	0.51	0.44	0.44	0.51	0.44	0.44	0.34	0.26	0.26	0.35	0.27	0.27
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.3	4.2	4.2	2.5	4.2	4.2	2.3	2.3	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)	192	1565	700	222	1565	700	385	488	415	489	501	426
v/s Ratio Prot	c0.05	0.32		0.02	c0.40		c0.05	0.20		0.03	c0.24	
v/s Ratio Perm	0.30		0.08	0.14		0.11	0.18		0.01	0.11		0.01
v/c Ratio	0.68	0.72	0.18	0.32	0.91	0.24	0.68	0.76	0.03	0.42	0.89	0.02
Uniform Delay, d1	22.8	25.4	18.8	17.5	28.9	19.4	29.1	37.9	30.6	26.7	39.2	30.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	2.9	0.6	0.6	9.1	0.8	4.0	6.2	0.0	0.3	17.5	0.0
Delay (s)	30.7	28.3	19.4	18.1	38.1	20.3	33.1	44.1	30.7	27.0	56.7	30.0
Level of Service	C	C	B	B	D	C	C	D	C	C	E	C
Approach Delay (s)		27.0			34.3			38.8			46.4	
Approach LOS		C			C			D			D	

**Intersection Summary**

HCM Average Control Delay	34.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	111.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
 18: Highway 99 & SpringBrook

3/17/2006

	↖	→	↗	↖	←	↗	↖	↑	↗	↘	↓	↘
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖	↖	↖	↖↖	↖	↖↖	↑	↖	↖↖	↑	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.08	1.00	1.00	0.12	1.00	1.00	0.14	1.00	1.00	0.20	1.00	1.00
Satd. Flow (perm)	151	3539	1583	218	3539	1583	507	1863	1583	719	1863	1583
Volume (vph)	120	1035	240	65	1305	317	240	340	50	216	410	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	1125	261	71	1418	345	261	370	54	235	446	33
RTOR Reduction (vph)	0	0	137	0	0	144	0	0	40	0	0	24
Lane Group Flow (vph)	130	1125	124	71	1418	201	261	370	14	235	446	9
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Actuated Green, G (s)	56.7	48.8	48.8	56.7	48.8	48.8	36.8	28.5	28.5	39.8	30.0	30.0
Effective Green, g (s)	57.2	49.3	49.3	57.2	49.3	49.3	36.8	28.5	28.5	39.8	30.0	30.0
Actuated g/C Ratio	0.51	0.44	0.44	0.51	0.44	0.44	0.33	0.26	0.26	0.36	0.27	0.27
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	2.3	4.2	4.2	2.5	4.2	4.2	2.3	2.3	2.3	2.3	2.3	2.3
Lane Grp Cap (vph)	192	1565	700	222	1565	700	385	476	405	495	501	426
v/s Ratio Prot	c0.05	0.32		0.02	c0.40		c0.05	0.20		0.04	c0.24	
v/s Ratio Perm	0.30		0.08	0.14		0.13	0.17		0.01	0.13		0.01
v/c Ratio	0.68	0.72	0.18	0.32	0.91	0.29	0.68	0.78	0.03	0.47	0.89	0.02
Uniform Delay, d1	22.8	25.4	18.8	17.5	28.9	19.9	29.4	38.6	31.2	26.6	39.2	30.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	2.9	0.6	0.6	9.1	1.0	4.0	7.4	0.0	0.4	17.5	0.0
Delay (s)	30.7	28.3	19.4	18.1	38.1	20.9	33.5	45.9	31.2	27.0	56.7	30.0
Level of Service	C	C	B	B	D	C	C	D	C	C	E	C
Approach Delay (s)		27.0			34.1			40.0			45.7	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	34.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	111.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
24: Highway 99 & Crestview

3/17/2006

	↖		→		↗		↖		←		↗		↖		↘		↓		↙	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖	↖	↖↗	↖	↖								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.97	1.00								
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85								
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00								
Satd. Flow (prot)	1770	3524		1770	3539	1583	1770	1863	1583	3433	1863	1583								
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00								
Satd. Flow (perm)	1770	3524		1770	3539	1583	1770	1863	1583	3433	1863	1583								
Volume (vph)	110	1050	30	100	1300	540	70	120	70	500	70	110								
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92								
Adj. Flow (vph)	120	1141	33	109	1413	587	76	130	76	543	76	120								
RTOR Reduction (vph)	0	2	0	0	0	347	0	0	62	0	0	88								
Lane Group Flow (vph)	120	1172	0	109	1413	240	76	130	14	543	76	32								
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm								
Protected Phases	7	4		3	8		5	2		1	6									
Permitted Phases						8			2			6								
Actuated Green, G (s)	6.5	35.5		6.5	35.5	35.5	9.5	17.5	17.5	16.5	24.5	24.5								
Effective Green, g (s)	6.0	35.0		6.0	35.0	35.0	9.0	17.0	17.0	16.0	24.0	24.0								
Actuated g/C Ratio	0.07	0.39		0.07	0.39	0.39	0.10	0.19	0.19	0.18	0.27	0.27								
Clearance Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5								
Lane Grp Cap (vph)	118	1370		118	1376	616	177	352	299	610	497	422								
v/s Ratio Prot	c0.07	0.33		0.06	c0.40		0.04	c0.07		c0.16	0.04									
v/s Ratio Perm						0.15			0.01			0.02								
v/c Ratio	1.02	0.86		0.92	1.03	0.39	0.43	0.37	0.05	0.89	0.15	0.08								
Uniform Delay, d1	42.0	25.2		41.8	27.5	19.8	38.1	31.8	29.9	36.1	25.2	24.7								
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Incremental Delay, d2	87.5	7.0		64.3	31.4	1.9	7.4	3.0	0.3	17.6	0.7	0.3								
Delay (s)	129.5	32.2		106.1	58.9	21.7	45.5	34.8	30.2	53.8	25.9	25.0								
Level of Service	F	C		F	E	C	D	C	C	D	C	C								
Approach Delay (s)		41.2			51.0			36.4			46.2									
Approach LOS		D			D			D			D									

Intersection Summary

HCM Average Control Delay	46.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
 24: Highway 99 & Crestview

3/17/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↖	↗	↖↗	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3525		1770	3539	1583	1770	1863	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3525		1770	3539	1583	1770	1863	1583	3433	1863	1583
Volume (vph)	110	1076	30	100	1347	493	70	120	70	474	70	110
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	1170	33	109	1464	536	76	130	76	515	76	120
RTOR Reduction (vph)	0	2	0	0	0	306	0	0	62	0	0	89
Lane Group Flow (vph)	120	1201	0	109	1464	230	76	130	14	515	76	31
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	6.5	36.5		6.5	36.5	36.5	9.5	16.5	16.5	16.5	23.5	23.5
Effective Green, g (s)	6.0	36.0		6.0	36.0	36.0	9.0	16.0	16.0	16.0	23.0	23.0
Actuated g/C Ratio	0.07	0.40		0.07	0.40	0.40	0.10	0.18	0.18	0.18	0.26	0.26
Clearance Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Lane Grp Cap (vph)	118	1410		118	1416	633	177	331	281	610	476	405
v/s Ratio Prot	c0.07	0.34		0.06	c0.41		0.04	c0.07		c0.15	0.04	
v/s Ratio Perm						0.15			0.01			0.02
v/c Ratio	1.02	0.85		0.92	1.03	0.36	0.43	0.39	0.05	0.84	0.16	0.08
Uniform Delay, d1	42.0	24.6		41.8	27.0	19.0	38.1	32.7	30.7	35.8	26.0	25.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	87.5	6.7		64.3	33.1	1.6	7.4	3.5	0.3	13.4	0.7	0.4
Delay (s)	129.5	31.2		106.1	60.1	20.6	45.5	36.2	31.0	49.2	26.7	25.8
Level of Service	F	C		F	E	C	D	D	C	D	C	C
Approach Delay (s)		40.1			52.4			37.3			42.9	
Approach LOS		D			D			D			D	

**Intersection Summary**

HCM Average Control Delay	46.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

ENGINEERS

PROJECT MANAGERS

PLANNERS



## APPENDIX 3

### ODOT TPAU 2030 MODEL RUNS

VOICE 541.687.1081

FAX 541.345.6599

WEB JRHWEB.COM

4765 VILLAGE PLAZA LOOP SUITE 201 EUGENE OREGON 97401







# APPENDIX 4

## FREEWAY DIVERSION CURVES

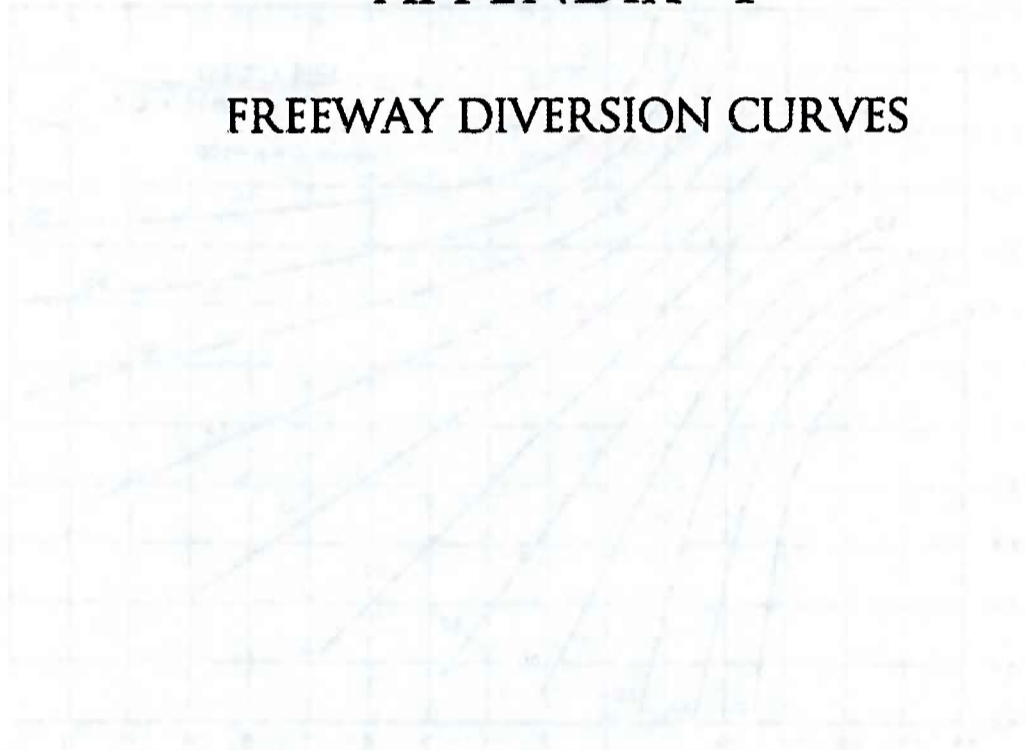
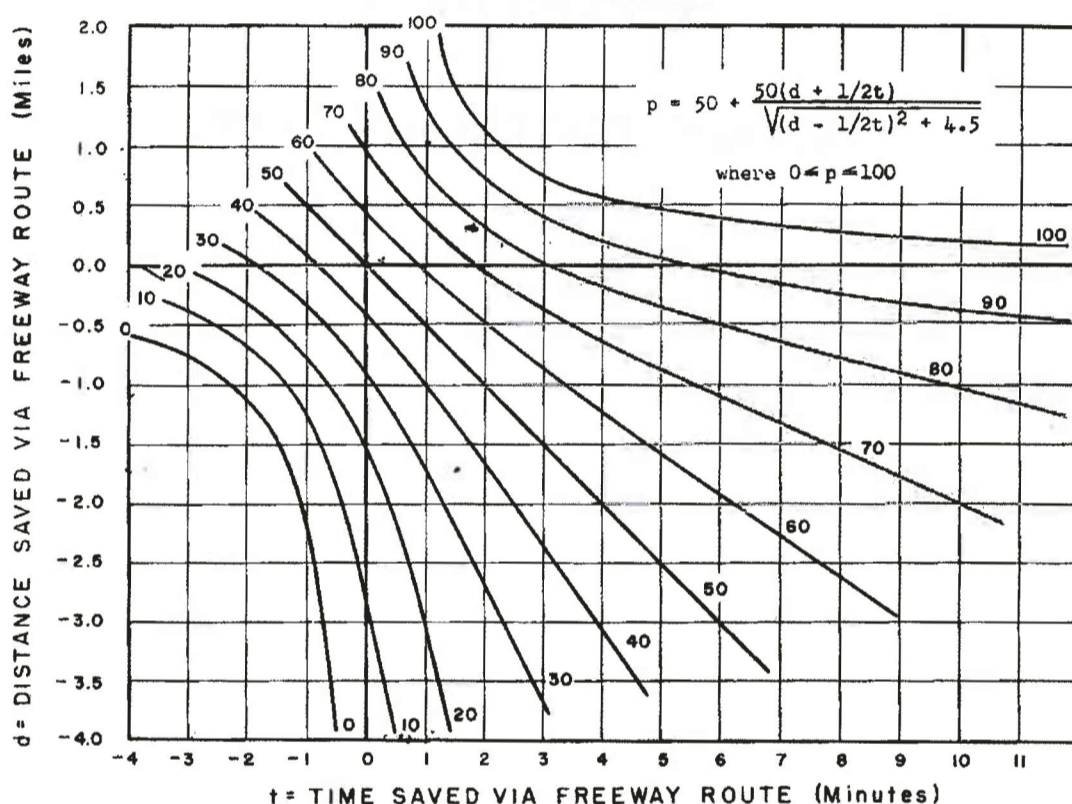




Figure 8-321.3  
January 1, 1958

PERCENT OF TRAFFIC DIVERSION TO FREEWAY

IN RELATION TO TIME AND DISTANCE SAVED



PROCEDURE FOR USE OF THE CHART

1. a. Determine distance between points by best available freeway route ( $d_f$ ) and by basic route ( $d_b$ ). The distance saved,  $d$ , is  $d_b$  minus  $d_f$ .  
 b. Determine travel time between points by best available freeway route ( $t_f$ ) and by basic route ( $t_b$ ). The time saved,  $t$ , is  $t_b$  minus  $t_f$ .  
 When determining  $d_b$  and  $t_b$ , do not overlook the fact that when the freeway obliterates part of the existing road net,  $d_b$  and  $t_b$  may include some freeway travel. In this case, the "non-users" will be users of the freeway for the portions of the trip where no alternate route is available.
2. Enter chart at appropriate values of  $d$  and  $t$  and read  $p$ , the percentage of trips between the given points which will use the freeway route.
3. Multiply  $p$  by the number of trips between the given points. Assign this number of trips to the appropriate portion of the freeway. Assign the balance to the basic route.
4. When  $p < 50$  and  $L < 2.0$  miles, the following modification should be applied.  
 where  $p_1 = p + (p - 50) \times (1.5 - 0.75L)$   
 $p_1$  = modified percent assignment  
 $p$  = original percent assignment  
 $L$  = Length of freeway travel on freeway route minus length of freeway travel on basic or existing route.
5. When both ends of a trip are on the freeway, as in the case of a through trip, then assign 100% to the freeway.

Existing Volumes

5	Left	1	113	1
2	Thru			
156	Right			
Springbrook at Crestview				
166	Left	177	5	
	Thru			
	Right			
	Left			5
	Thru			
	Right			
	Left			1
	Thru			
	Right			
	Left			5

150	Left	115	92	285
1137	Thru			
61	Right			
Springbrook at Highway 99				
222	Left	182	137	
	Thru			
	Right			
	Left			137
	Thru			
	Right			
	Left			370
	Thru			1425
	Right			115

	Left			
	Thru			
	Right			
Crestview at Highway 99				
	Left			
	Thru			
	Right			
	Left			
	Thru			
	Right			

Trip Distribution of 300 Unit Division  
 Outbound trips= 112  
 Inbound Trips= 192

0	Left	0	0	27
63	Thru			
0	Right			
Springbrook at Crestview				
0	Left	0	0	5
	Thru			
	Right			
	Left			29
	Thru			25
	Right			2

0	Left	0	0	0
0	Thru			
0	Right			
Springbrook at Highway 99				
0	Left	0	0	0
	Thru			
	Right			
	Left			0
	Thru			0
	Right			0

14	Left	9	6	41
	Thru			
	Right			
Crestview at Highway 99				
	Left			15
	Thru			
	Right			
	Left			67
	Thru			
	Right			

Total Internal Trips

0	Left	0	0	28
65	Thru	0	0	34
0	Right	0	0	26
				7
Springbrook at Crestview				
0	Left	0	0	10
	Thru			
	Right			

0	Left	0	0	0
0	Thru	0	0	0
0	Right	0	0	0
Springbrook at Highway 99				
0	Left	0	0	0
	Thru			
	Right			

14	Left	9	6	41
	Thru			67
	Right			
Crestview at Highway 99				
	Left		15	
	Thru			
	Right			

Total Thru Volumes  
TSP volumes - internal trips

0	Left	0	0	97
220	Thru	0	0	34
0	Right	0	0	26
				7
Springbrook at Crestview				
0	Left	0	0	
	Thru			
	Right			

0	Left	0	0	0
0	Thru	0	0	0
0	Right	0	0	0
Springbrook at Highway 99				
0	Left	0	0	0
	Thru			
	Right			

0	Left	0	0	0
	Thru			473
	Right			0
Crestview at Highway 99				
0	Left			
	Thru			473
	Right			

**Distance and Time to Travel Crestview from Springbrook Street to Highway 99**

Travel Distance on Crestview (feet)	4172
-------------------------------------	------

<b>Minor Arterial</b>	
Speed (mph) =	35
Speed (ft/s)	51.33

Time To Travel (seconds) = Distance/Speed	81.28
Additional time needed for right turn (seconds)	30
<b>Total Travel Time</b>	<b>111.28</b>

<b>Major Collector</b>	
Speed (mph) =	25
Speed (ft/sec)	36.666

Time To Travel (seconds) = Distance/Speed	113.78
Additional time needed for right turn (seconds)	30
<b>Total Travel Time</b>	<b>143.78</b>

**Distance and Time to Travel Springbrook Street from Crestview to Crestview at Highway 99**

Travel Distance on Springbrook (feet)			3170
Travel Distance on Highway 99 from Springbrook to Brutcher (feet)			1311
Travel Distance on Highway 99 from Brutcher to Crestview			1843

Travel Speed on Springbrook (mph)	35
Travel Speed on Springbrook (ft/sec)	51.33

Travel Speed on Highway 99 (mph)	40
Travel Speed on Highway 99 (ft/sec)	58.66

<b>Springbrook from Crestview to Highway 99</b>		Total Travel Time
Travel Time (sec) =distance/speed	61.76	61.76
delay at intersection (sec)	41.8	103.56
<b>Highway 99 from Springbrook to Brutcher</b>		
Travel Time (sec) =distance/speed	22.35	125.91
delay at intersection (sec)	25.5	151.41
<b>Highway 99 from Brutcher to Crestview</b>		
Travel Time (sec) =distance/speed	31.42	<b>182.82</b>

Path 1 = Springbrook to 99 to 99/Crestview  
 path 2 = Crestview

Major Collector( with delays at intersections) Crestview at 25 MPH

	Time(sec)	Distance (Feet)
Path 1	182.45	6324
Path 2	143.8	4172
Change	-38.65	-2152

\*Percentage using Springbrook = 33  
 Percentage using Crestview = 67

Time (min) -0.644167      -0.407 Dist (miles)

Minor Arterial ( with delays at intersections) Crestview at 35 MPH

	Time (sec)	Distance (Feet)
Path 1	182.45	6324
Path 2	111.27	4172
Change	-71.18	-2152

\*Percentage using Springbrook = 27  
 Percentage using Crestview = 73

Time (min) -1.186333      -0.407 Dist (miles)

\* Calculation based on equation found on the "Freeway Diversion Curve" worksheet located in the appendix

Springbrook at Crestview

**Minor Arterial 35 mph**

Total thru volume on Crestview SB 317  
Total thru Volume on Springbrook SB 117

Total thru volume on Crestview NB 473  
Total thru Volume on Springbrook NB 214

**Major Collector**

Total thru volume on Crestview SB 291  
Total Thru volume on Springbrook SB 143

Total thru volume on Crestview NB 426  
Total thru Volume on Springbrook NB 261

**Change in Volume**

Crestview SB 26  
Springbrook SB 26

Crestview NB 47  
Springbrook NB 47

**EXHIBIT D TO ORDINANCE 2007-2665:  
TRANSPORTATION SYSTEM PLAN AND COMPREHENSIVE  
TEXT AMENDMENTS**

Revisions to the present TSP text are presented with deletions shown as ~~strike through~~. Any additions are shown as underlined. Revisions to figures are explained below and are included at the end of this document.

**Section 1: Amend Section 5.3.5, *Northern Arterial*, as follows:**

**Northern Arterial**

The Northern Arterial is considered in three different configurations by the various roadway system alternatives. Descriptions of these approaches, as well as discussion of the strengths and weaknesses of the approaches are contained in Table 5-11.

**TABLE 5-11  
COMPARISON OF NORTHERN ARTERIAL OPTIONS**

Alternative	Description of Option	Strengths of Option	Weaknesses of Option
1	No build (includes Mountainview and Crestview as currently constructed)	No additional traffic on Mountainview Drive, thereby retaining this facility for local, non-regional travel.	No ability to provide a reroute of downtown for through traffic between Ore 99W and Ore 219 and between Ore 99W and Ore 240.
2 and 3	Ore 99W to Main Street (includes facilities 1 and 7).	Provides complete alternative route of downtown Newberg for traffic between Ore 99W and Ore 240 as well as between Ore 99W and Ore 219.  Provides a continuous east-west arterial that performs an important network function of linking existing and proposed arterial streets together.  Proposed facilities are within the Newberg UGB.  Allows for connections to potential frontage road links to Vittoria Way and Benjamin Road that may be required in the event that accesses to Ore 99W are closed for these streets.	Additional traffic on Mountainview Drive.  Existing Crestview Drive cul-de-sac becomes through road.
4	Ore 99W to Ore 240 (includes facilities 1, 7, and 25).	Provides complete alternative route of downtown Newberg for traffic between Ore 99W and Ore 240 as well as between Ore 99W and Ore 219.  Provides a continuous east-west arterial that performs an important network function of linking existing and proposed collector streets together.  Allows for connections to potential frontage road links to Vittoria Way and Benjamin Road that may be required in the event that accesses to Ore 99W are closed for these streets.	Extends beyond the Newberg UGB and so requires a goal exception (Facility 25).  Additional traffic on Mountainview Drive.  Existing Crestview Drive cul-de-sac becomes through road.  Marginal increase in traffic does not warrant extending Northern Arterial westward to Ore 240.

*General Issues for the Northern Arterial*

Based on conversations with City staff, the Northern Arterial/Ore 99W intersection has been established. In addition, all east-west frontage roads that connect into the Northern Arterial north of Ore 99W should do so at least 500 feet away from Ore 99W to minimize interference with the operation of the Northern Arterial/Ore 99W intersection.

The Northern Arterial has been a part of Newberg's Transportation Plans for many years. The adopted route shown in the 1994 and 2005 Transportation Plans used the existing Crestview Drive to its present terminus near Robin Court, and then extended it to Ore 99W connecting at the Providence Drive intersection.

Residents along Crestview Drive have been very concerned about the impacts of this road. In order to address these concerns, a Newberg Northern Alliance Stakeholders Group was formed. The group consisted of representatives from the City of Newberg, the Oxberg Lake Homeowners Association, Yamhill County, and abutting property owners (Smith, Speakman and Austin). The group met several times in 2006.

Major concerns were the potential speed of traffic traveling the road, large trucks traveling the road, noise and environmental impacts, and the need the road to fulfill its primary purpose in carrying vehicles. The stakeholders group had discussions about several possible solutions. The group focused on the possibility of reclassifying Crestview Drive as a major collector street and adding certain traffic calming features, including roundabouts and soundwalls, to the road.

To analyze the effects of this reclassification, the City and Yamhill County contracted with JRH Transportation Engineers. Their report is contained in Appendix R. Their analysis of this change was:

1. The physical capacity of Crestview Drive will not be materially reduced. Therefore, capacity restrictions will not divert traffic from Crestview Drive to Springbrook Street.
2. A ten mile per hour operating speed reduction on Crestview Drive (as might be expected from the reclassification of the street and the addition of traffic calming measures) would have virtually no effect on Springbrook Street operations.

Based on this analysis, the stakeholders group agreed to support changing the routing of the Northern Arterial from Crestview Drive (Springbrook to Ore 99W) to Springbrook Road (Crestview to Ore 99W), and to change Crestview Drive from Springbrook Road to Ore 99W to a major collector street with traffic calming features. The traffic calming features are described in Appendix S.

The consolidation of two at-grade railway crossings into one due to the construction of the segment of the proposed Northern Arterial between Mountainview Drive and Crestview Drive is assumed for Alternatives 2, 3, and 4. This section of the Northern Arterial is proposed to be perpendicular to the railway at the crossing and so should offer



enhanced safety compared to the two existing crossings, which cross the railway at less favorable angles. The alignment of the section between Aspen Way and Springbrook Road was established in August 2005 through the major street alignment location review process as outlined in the development code.

*Recommendation for the Northern Arterial*

Based on the analysis summarized in Table 5-11 and the discussion above, the Northern Arterial configuration shown in Alternatives 2 and 3 comprised of Facilities 1 and 7, is recommended for incorporation into Preferred Road Network. Based on the information above, the Northern Arterial should be from Chehalem Drive to Aspen Way following the Mountainview Drive alignment, from Aspen Way to a new roundabout at Springbrook Road/Crestview Drive following the alignment established in the major street alignment review process, and from the Springbrook Road/Crestview Drive roundabout to Ore 99W along Springbrook. Crestview Drive from Springbrook Road to Ore 99W should be classified as a major collector, and should include the traffic calming features generally as described in Appendix S. Any changes to the routing or layout are to be done only through the public TSP amendment process. Street and driveway access along the Crestview Drive extension should be restricted within 500 feet of Ore 99W so as not to interfere with operations at the intersection. Improvements to the Crestview Drive major collector will be paid for as a capital improvement subject to the City's SDC program. Property owners in the area currently outside the UGB through Oxberg Lake Estates will not be asked to pay for the improvements.

**Section 2: Amend Page 93 and 94, *Vittoria Way*, as follows:**

***Vittoria Way***

Vittoria Way is currently configured as a stop-controlled intersection with Ore 99W. This intersection is located less than ODOT's minimum access spacing standard from the future Northern Arterial access on Ore 99W. Moreover, the year 2025 traffic analysis reveals that motorists exiting Vittoria Way and attempting to turn southbound left onto Ore 99W experience unacceptable delays (greater than 50 seconds at LOS = F). Hence, some modification of the Vittoria Way/Ore 99W intersection will be required to ensure that the ~~Northern Arterial~~Providence Drive/Ore 99W intersection can operate adequately. ~~While the exact location of the Northern Arterial is not yet known, its location is known enough at this time to conclude that Vittoria Way will be too close.~~

Alternatives 2, 3, and 4, which featured a Bypass dealt two different methods of modifying the Vittoria Way/Ore 99W intersection to support adequate operations of the proposed ~~Northern Arterial~~Providence Drive/Ore 99W intersection. The strengths and weaknesses of these options are summarized in Table 5-13.

**TABLE 5-13  
COMPARISON OF OPTIONS FOR THE VITTORIA WAY/ORE 99W INTERSECTION**

Alternative	Description of Option	Strengths of Option	Weaknesses of Option
2 and 4	Facility 9 Right-In/Right-Out Only	A right-in/right-out intersection permits some direct access between Ore 99W and Vittoria Way.	Direct access to Ore 99W is not possible for left-in/left-out movements. Permitting any access between Ore 99W and Vittoria Way so close to the proposed <del>Northern Arterial</del> <u>Providence Drive</u> /Ore 99W intersection may interfere with the operation of this major intersection.
3	Facilities 20 and 21 Close Vittoria Way and Provide Connection to <del>Northern Arterial</del> <u>Crestview Drive extension</u>	Full and relatively direct access between Ore 99W and Vittoria Way via signalized intersections is permitted via the connection between the east-west frontage road (Facility 21) and the proposed <del>Northern Arterial</del> <u>Crestview Drive Extension</u> . Access between Benjamin Road and Vittoria Way without the use of Ore 99W is also possible with this option. So long as Facility 21 is spaced at least 300-feet north of Ore 99W, this option will not interfere with the operation of the proposed <del>Northern Providence Drive</del> /Ore 99W intersection.	There is no direct access between Ore 99W and Vittoria Way. Some parkland or residential property acquisition may be required to construct the frontage road connection (facility 21).

**Section 3: Amend Page 98, Benjamin Road, as follows:**

***Benjamin Road***

The Benjamin Road/Ore 99W intersection must be closed if the Bypass is constructed. To maintain access to Ore 99W for properties along Benjamin Road, an east-west frontage road parallel to the Bypass (Facility 8) should be constructed to intersect with the proposed ~~Northern Arterial~~ Crestview Drive extension. This improvement appears to be feasible and would provide accessibility benefits and so is recommended for inclusion in the Preferred Road Network.

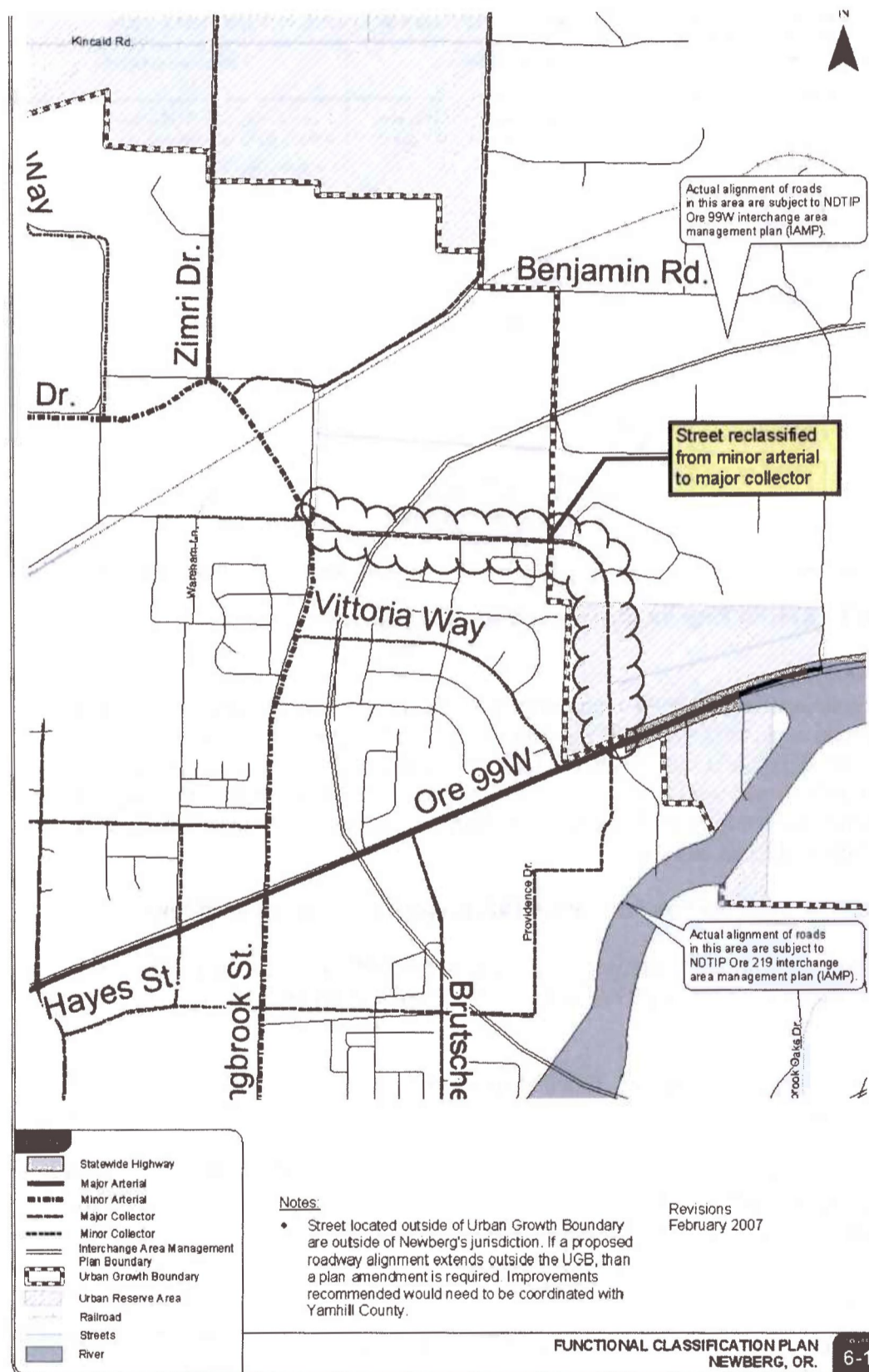
**Section 4: Amend Section 5.3.6, Page 102, projects 8, 9, and 10 as follows:**

8. Benjamin Road: Close Benjamin Road at Ore 99W and construct a new east-west frontage road parallel to Ore 99W to connect Benjamin Road to the ~~Northern Arterial~~ Crestview Drive Extension.

9. Hayes Street Extension: Extend Hayes Street east to connect with the southern street extension of the ~~Northern Arterial~~ Crestview Drive Extension (south of Ore 99W).

10. New North-South Minor Collector: Construct a new north-south connection from the intersection of Ore 99W/~~Northern Arterial~~ Crestview Drive Extension to the Hayes Street extension (#9 above).

**Section 5: Modify Figure 6-1 as shown on the attached map.**



**Section 6: Amend Page 125, Section 6.2.2 Project 15 “Mountainview Drive – Northern Arterial” and add a new Project 15.1 “Crestview Drive Extension” as follows:**

15. *Mountainview Drive-Northern Arterial:* Construct approximately 0.13 miles of new Mountainview Drive between Chehalem Drive and Crater Lane to major collector street standards. Project includes bicycle lanes and sidewalks on each side of Mountainview Drive and is estimated to cost \$ 0.4 million.

Improve approximately 0.10 miles of new Mountainview Drive between Crater Lane and Main Street to major collector street standards. Project includes bicycle lanes and sidewalks on each side of Mountainview Drive and is estimated to cost \$ 0.3 million. Project is included in City’s 2004-2005 Capital Improvement Program for construction in 2004-2005.

Reconstruct existing collector street to full, minor arterial standards between Villa and Aspen Way, to include sidewalks and bicycle lanes on each side of Mountainview Drive. Total length of this improvement is approximately 0.53 miles and is estimated to cost approximately \$1.8 million.

The 0.4 mile section of new Mountainview Drive between Aspen Way and Springbrook Street is included on the City’s 2004-2005 Capital Improvement Program to be constructed in 2005-2006 for an estimated \$3.4 million.

~~Reconstruct Mountainview Drive to minor arterial standards between Springbrook Street and Crestview Drive to include sidewalks and bicycle lanes on each side of the street. Total length of this improvement is approximately 0.57 miles and is estimated to cost approximately \$1.9 million.~~

~~Construct approximately 0.23 miles of new Mountainview Drive between Crestview Drive and Ore 99W to minor arterial street standards. Project includes bicycle lanes and sidewalks on each side of Mountainview Drive and is estimated to cost \$ 0.90 million.~~

A traffic signal will be needed at the Mountainview/Villa intersection, at an estimated cost of \$0.2 million. In addition, a qualitative assessment indicated that a traffic signal will not be warranted at the Mountainview Drive/Aspen Way intersection.

In conjunction with the construction of the Northern Arterial between Aspen Way and Springbrook Street, the following local street modifications will be required:

- Close Crestview and Aspen Way across rail tracks
- ~~Extend Wareham Lane northeasterly to intersect Northern Arterial as stop-controlled approach. Total length of this improvement is approximately 0.08 miles and is estimated to cost approximately \$0.2 million.~~

- Extend Zimri Drive southwesterly to intersect Northern Arterial as stop-controlled approach. Total length of this improvement is approximately 0.12 miles and is estimated to cost approximately \$0.4 million.

Mountainview Drive improvements will provide north Newberg with needed local vehicle access to the Newberg collector/arterial system, and provide full access for pedestrians and bicyclists.

15.1 Crestview Drive: Reconstruct Crestview Drive to major collector standards between Springbrook Street and Robin Court to include sidewalks and bicycle lanes on each side of the street. Include traffic calming and sound walls as described in Appendix S. Total length of this improvement is approximately 0.57 miles and is estimated to cost approximately \$1.4 million.

Construct approximately 0.23 miles of major collector street to extend Crestview Drive from near Robin Court to Ore 99W at Providence Drive. Include traffic calming as described in Appendix S and a roundabout at E-W frontage road intersection. Project includes bicycle lanes and sidewalks on each side of Crestview Drive and is estimated to cost \$ 1.4 million.

**Section 7: Amend Page 129, Section 6.2.3, Project 8 “Benjamin Loop” as follows:**

8. *Benjamin Loop*: Concurrent with the construction of the new Ore 99W interchange with the NDTIP Bypass, Benjamin Road to be closed at Ore 99W. A new east-west frontage road parallel to Ore 99W will be constructed to connect Benjamin to the ~~Northern Arterial~~ Crestview Drive Extension. The project is approximately 0.36 miles and includes sidewalks and on-street parking on each side of the street and is estimated to cost \$ 1.1 million. This segment is outside of the City’s UGB and within its designated Urban Reserve Area, and therefore is currently within the jurisdiction of Yamhill County. Hence, at this time the construction of this street would be conducted under the authority of Yamhill County. At such time when Newberg annexes these Urban Reserves into its UGB, this portion of the project would become the City’s responsibility.

**Section 8: Amend Page 130, Section 6.2.3, Project 11 “Providence Drive” as follows:**

11. *Providence Drive*: Construct new north-south connection from the intersection of Ore 99W/~~Northern Arterial~~ Crestview Drive Extension to the Hayes Street extension. This street will be constructed to major collector street standards, will be built concurrent with development of adjacent parcels, and will be funded by development and system development charges. The route alignment of Providence Drive has been determined through the development review process. The speed shall be limited to 25 mph, and shall include appropriate traffic calming, as approved by City staff in conjunction with Providence Hospital. The length of this improvement is 0.54 miles, with an estimated cost of \$1.7 million.

**Section 9: Amend Table 7-2, Project 15, as follows**

Project	Improvement	Cost	Jurisdiction					Yamhill County	ODOT	Anticipated Timing
			City of Newberg							
			Abutting Properties	New Development	SDC	City				
15	Mountainview Drive (Crater to Main)	0.3	0.2	-	0.1	-	-	-	S	
	Mountainview Drive (Villa to Aspen)	1.8	0.2	0.6	0.9	-	0.1	-	S	
	Mountainview Drive (Aspen to Springbrook)	3.4	-	-	2.0	0.9	-	0.5	S	
	Mountainview Drive (Springbrook to Robin Court)	1.9	-	1.1	0.8	-	-	-	M	
	Mountainview Drive (Robin Court to Ore 99W)	0.9	-	0.6	0.3	-	-	-	M	
	Zimri Drive (Old Mountainview to Mountainview) Springbrook (new road Mountainview to old Springbrook)	0.4	-	-	0.4	-	-	-	S	
	Wareham Lane (Crestview to Mountainview) Crestview/Springbrook intersection	0.2	-	-	0.2	-	-	-	S	
	Mountainview Drive/Villa Road	0.2	-	-	0.2	-	-	-	L	
15.1	Crestview Drive (Springbrook to Robin Court)	1.4	=	1.1	0.3	=	=	=	M	
	Crestview Drive (Robin Court to Ore 99W)	1.4	=	0.6	0.8	=	=	=	M	
	Intersection improvements at 99W, Benjamin Connector	0.5		0.2	0.3				M	

**Section 10: Amend Page 177, Section 8.3, Project 11 “Transportation Improvement Outside of Newberg” as follows:**

**8.3 Transportation Improvements Outside Of Newberg**

The following is a list of transportation improvements recommended in the TSP that fall outside of the City of Newberg’s city limits and within Yamhill County’s jurisdiction.

- Chehalem Drive
- Villa Road
- Fernwood Road
- Benjamin Loop
- Greens Drive
- Columbia Street
- Wynooski Street
- Camelia Drive
- New E-W Bypass Connection
- Crestview Drive Extension
- Kincaid Road
- New N-S Local Street between Bell and Kincaid
- Ore 240
- Wilsonville Road

**Section 11: Amend Newberg Comprehensive Plan Policy K, Transportation, Goal 4, Policy r as follows:**

The City agrees not to approve expansion of the Newberg UGB or Urban Reserve Areas around the East Newberg or Oregon 219 interchanges until IAMPs for the two interchanges are prepared and adopted by ODOT, Yamhill County and the City of Newberg. An exception to this policy will be allowed for a limited expansion of the Newberg UGB into the westerly portion of Urban Reserve Area C to accommodate construction of the Northern Arterial-Crestview Drive extension in the general location shown on the City of Newberg acknowledged Transportation System Plan.

## **EXHIBIT E TO ORDINANCE 2007-2665**

### **Plans and Documents Relating To Traffic Calming / Design for Crestview Drive**

#### **I. Background**

The Transportation System Plan (TSP) for the City of Newberg has identified a need for an east/west minor arterial roadway in Northern Newberg. The initial design, called the Crestview/Mountainview Extension, required a minor arterial classification along Crestview Drive and an extension of Crestview Drive to connect with Highway 99W. A vicinity map with an overlay of the Crestview extension is provided in Figure 1. The proposed classification of Crestview Drive as a minor arterial by the city of Newberg, however, has raised a number of public concerns regarding the livability of this neighborhood. The Oxberg Lake Homeowners Association has requested that alternatives to the current TSP implementation be considered.

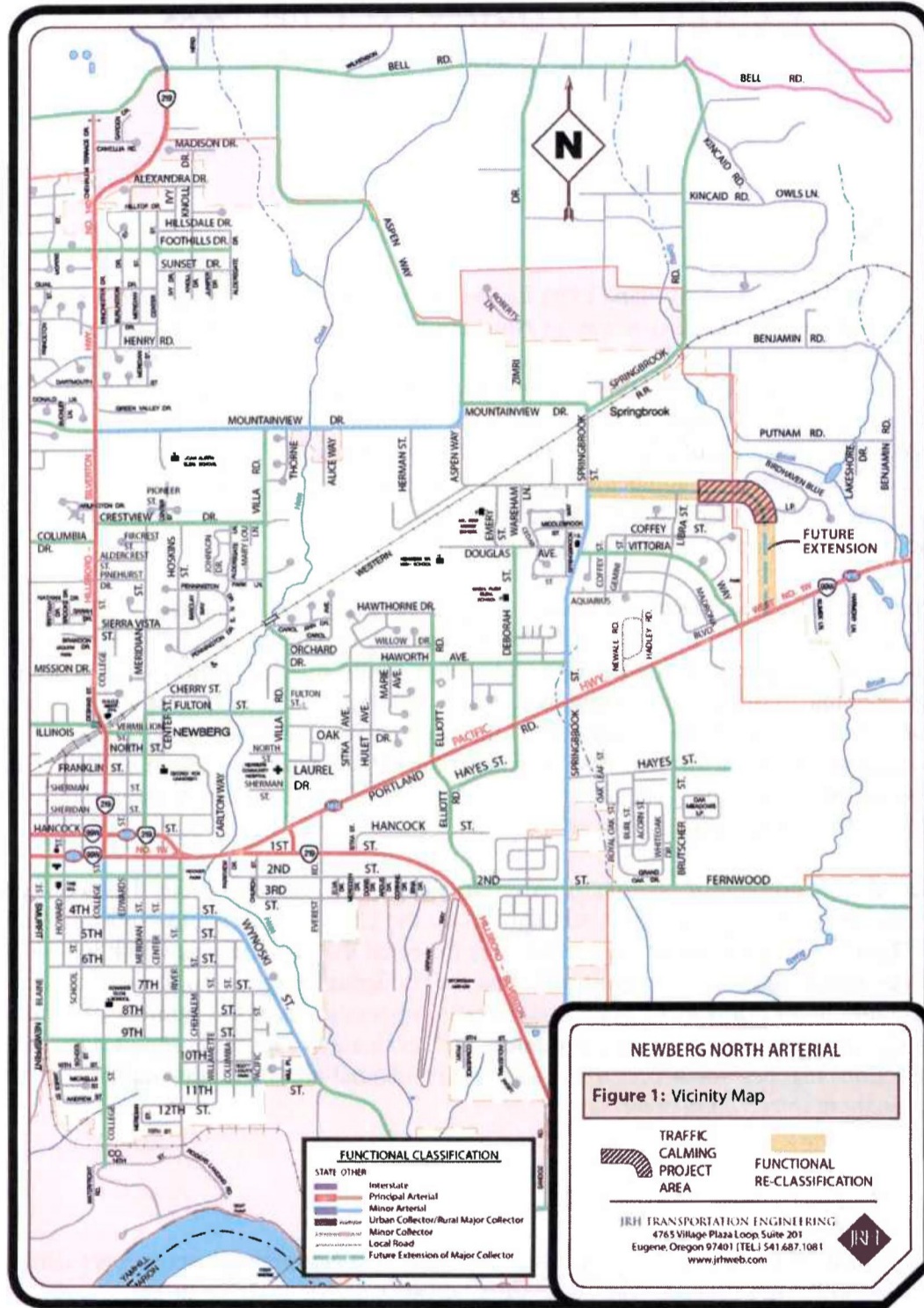
A commercial development by Austin Industries along the contested extension of Crestview Drive would benefit from the traffic capacity that the extension would provide. As such, a compromise has been formulated that would provide primary access to the east/west minor arterial via Springbrook Road, which would consequentially obtain a minor arterial classification between Highway 99W and Crestview Drive. This "Springbrook Northern Arterial Plan" also stipulates that Crestview, which will still join Highway 99W, will be designated as a major collector between Springbrook and Highway 99W rather than a minor arterial.

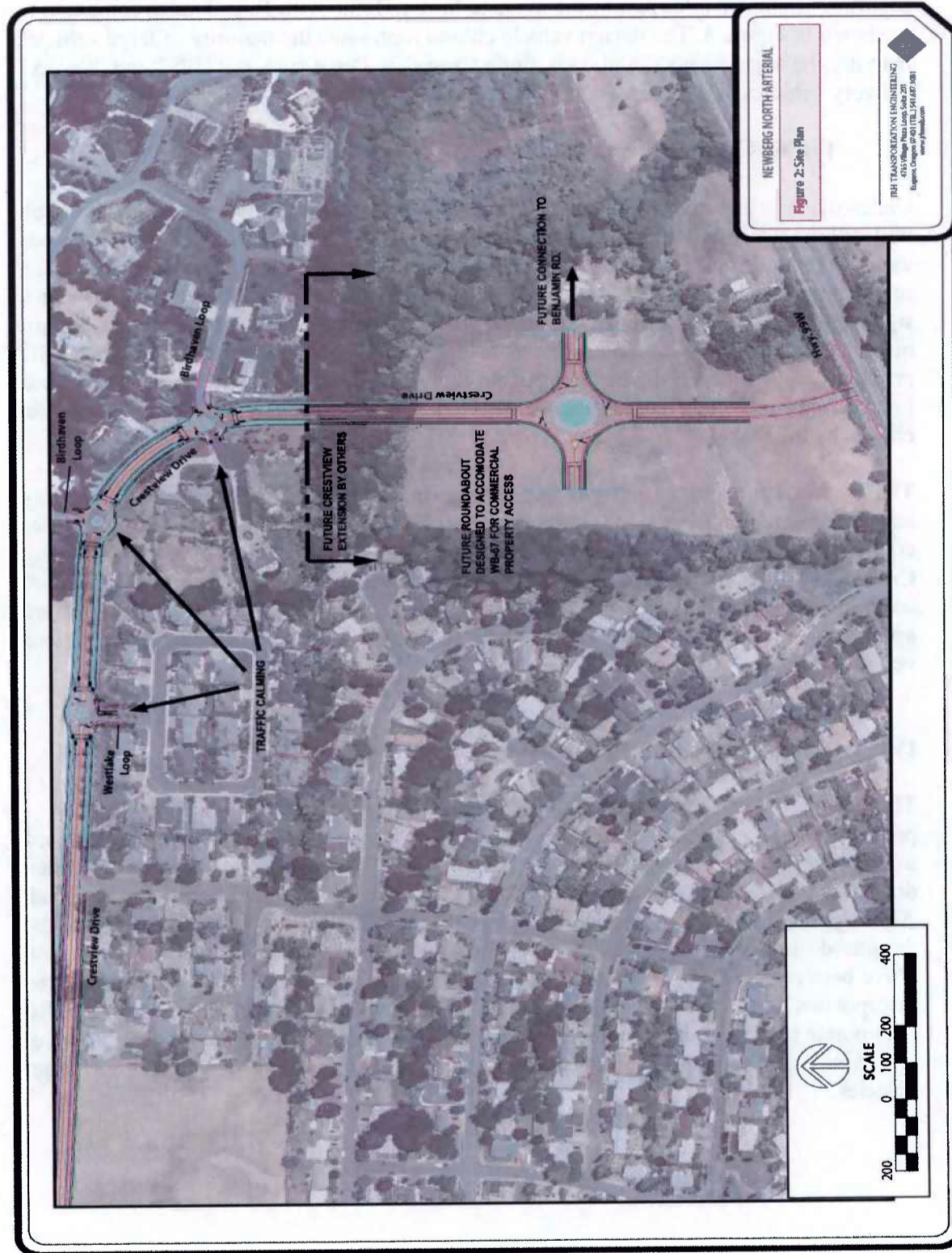
Under the "Springbrook Northern Arterial Plan," the Oxberg Lake Homeowners Association has requested certain stipulations on the Crestview Drive to Highway 99W link. Despite the Springbrook alternative, it is expected that the Crestview link will draw an undesirable volume of through-traffic that the residential neighborhoods would like to discourage. In an effort to reduce through-traffic operating speeds, a number of "traffic calming" measures have been considered and evaluated. Figure 2 shows the three intersections that provide access to the adjacent residential areas with the implementation of roundabout intersection controls.

#### **II. Design Criteria**

The segment of Crestview between Highway 99W and Springbrook must meet certain agreed upon design criteria. The reclassification of Crestview Drive to major collector would be accompanied by a 10 mph reduction in the operating speed resulting in a design speed of 25 mph. As a major collector, the roadway will include bike lanes and sidewalks. Crestview must also accommodate vehicles of a given maximum size. Based on the recommendation of the stakeholders, the selected design vehicle is characterized







as a single-unit (SU) truck with a 20 foot wheel base and an overall length of 30 feet. The SU truck is similar in design to the average Motor Home with Boat Trailer combination as shown in Figure 3. The design vehicle chosen represents the majority of large vehicles entering the adjacent neighborhoods along Crestview Drive such as “UPS” and “FedEx” delivery vehicles as well as trash collection trucks.

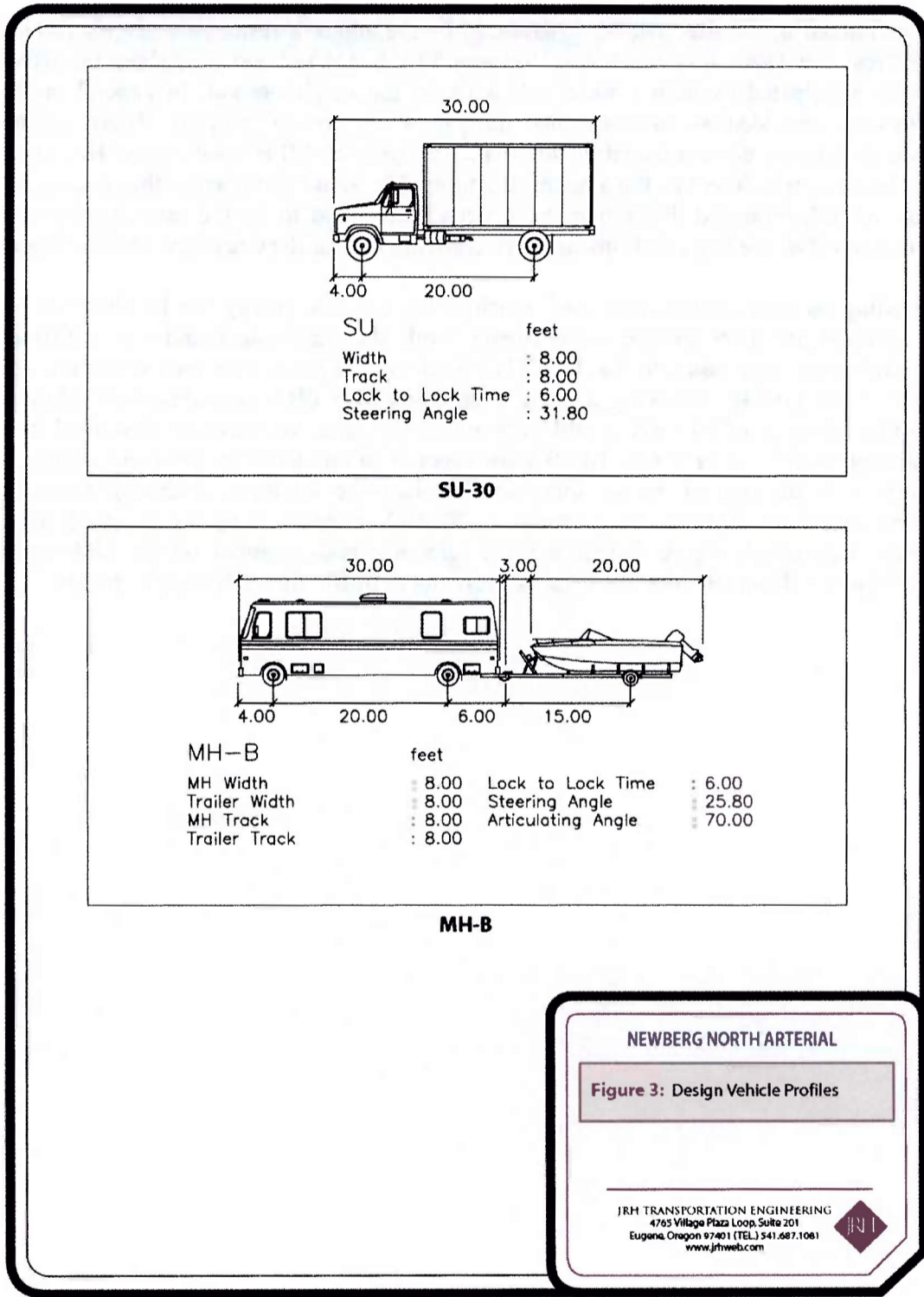
### **III. Traffic Calming Elements**

Under the “Springbrook Northern Arterial Plan,” it is expected that the Crestview link will still draw a considerable volume of through-traffic that the residential neighborhoods would like to discourage. “Traffic calming” techniques can be employed to make this route somewhat less appealing for through-traffic. Traffic control devices such as signs, signals/markings, and traffic management tools including curbs, circles, speed humps, medians and diverters are some of the methods used to manage neighborhood traffic problems and influence the behavior of drivers. Installation of roundabouts at the three intersections providing access to the affected neighborhoods is the primary solution chosen by the Stakeholders Group.

The proposed roundabout designs meet the design vehicle criteria and provide all-way access at each intersection. Larger vehicles such as WB-62 truck and trailer combinations, which is a common interstate transport vehicle, will be able to drive along Crestview Drive, but turning into or out of the adjacent residential streets may require wrong-way travel or “jockey” turns to complete these movements. The software application, AutoTurn, was used to simulate the available turning maneuvers for various vehicles.

### **IV. Design Features of Roundabout**

The installation of roundabouts along with posting appropriate truck signage is the preferred “traffic calming” measure for Crestview Drive. The roundabouts are designed to comply with the aforementioned design criteria while creating roadway features that discourage high-speed cut-through traffic from Highway 99W to Springbrook Road. Although high speed cut-through traffic is discouraged by the proposed designs, the designs do not preclude vehicles larger than the design vehicle from using Crestview Drive between Highway 99W and Springbrook Road. The proposed roundabout designs incorporate a truck apron around the central island, which is typical, but the designs also incorporate truck aprons or mountable areas on the outside areas of the roadway in order to minimize their overall footprints while accommodating turning movements for larger vehicles.



## V. Sound Wall

The additional traffic that will be experienced by the adjacent residential neighborhoods once Crestview Drive is connected to Highway 99W has raised concerns about the affect that the anticipated excessive noise will have on the neighborhood. In general, noise barriers are provided as environmental mitigation on freeway projects. There are no known studies on noise attenuation for roadways with 25 MPH sped zones. However, noise barriers, which reduce the amount of undesirable sound that reaches the receiver by means of reflection and diffraction, have been determined to be the most appropriate solution to offset the impact of this negative consequence for the Crestview Drive design.

Depending on the design factors used, much of the acoustic energy can be absorbed by and reflected off of the surface of the barrier, while the remaining sound waves diffract over the barrier. According to the AASHTO *Guide on the Evaluation and Attenuation of Traffic Noise* (1974), achieving a noise attenuation of 5 dBA is rudimentary while a reduction upwards of 10 dBA is still very attainable. Since decibels are described in a logarithmic scale, a decrease of 10 dBA corresponds to one-tenth the intensity, which is perceived by the human ear as approximately half the loudness. Although roadside barriers can diminish noise by as much as 20 dBA, reductions in excess of 15 dBA become impractical. Figure 4 depicts some reference noise sources on the dBA scale while Figure 5 illustrates how some factors relating to traffic flow affect noise levels.

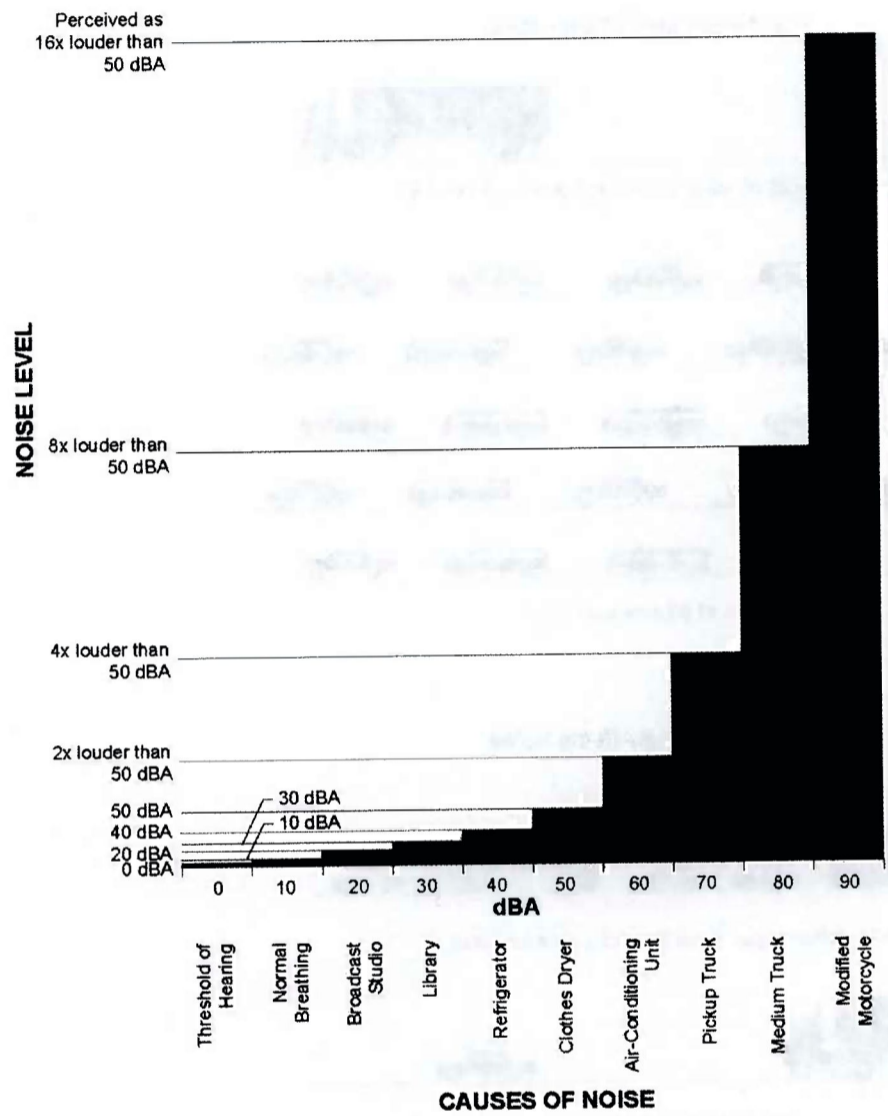
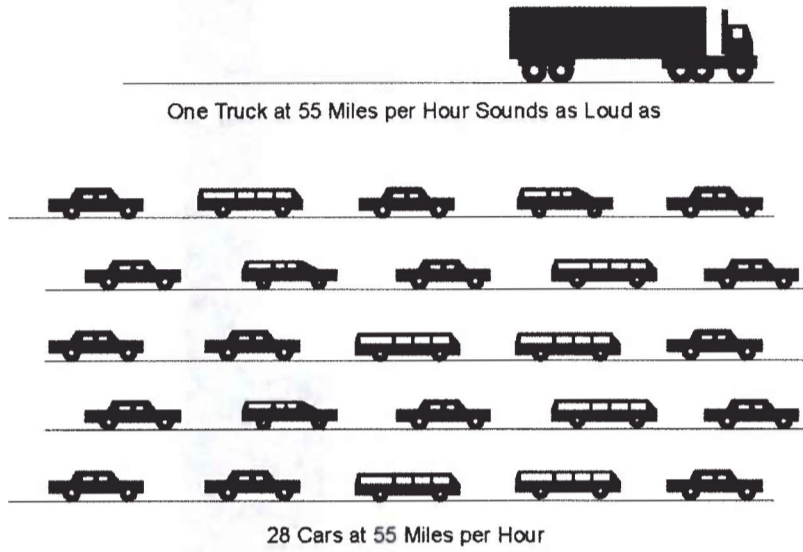
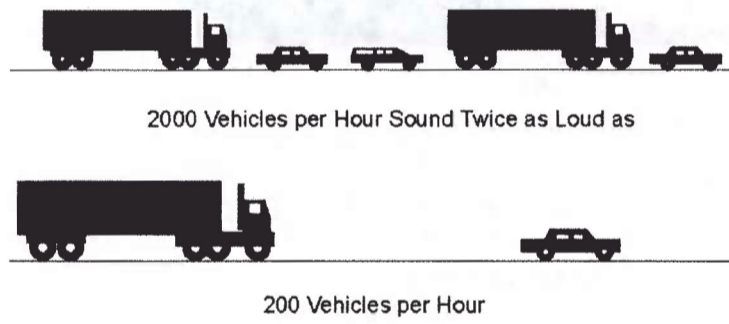


Figure 4

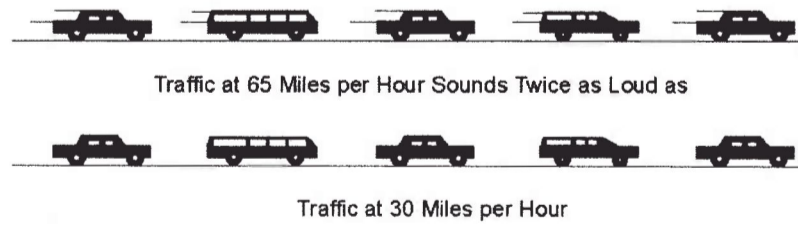
**How Trucks Affect Traffic Noise**



**How Traffic Volume Affects Noise**

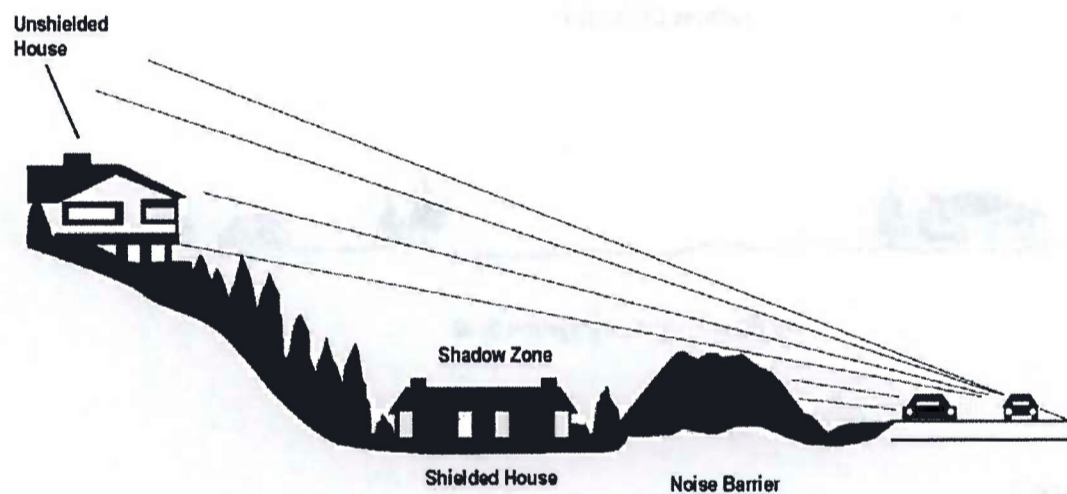


**How Speed Affects Traffic Noise**



**Figure 5**

Noise barrier options include earthen mounds, walls, plantings and combinations therein. Basic guidelines regarding the construction of noise barriers, whether it be of the earthen mound type or of the wall type, suggest construction of a solid, acoustically opaque structure with no apertures. Additionally, use of dense materials (greater than or equal to 4 lb./sq. ft.) such as concrete or brick in a barrier of sufficient height, span, and thickness will provide maximum effectiveness. By breaking the line-of-sight between the source of the sound (engine, exhaust, tire/roadway interface, etc.) and the receiver, it is possible to reduce the transmitted sound intensity by 5 decibels (dB). A further reduction in transmitted sound intensity can be achieved by increasing the height of the wall beyond that required to block the direct path. Figure 6 represents vertical line-of-sight and the acoustic "shadow" zone that can be created. A height of approximately 5 feet is recommended for this purpose, which offers the added benefit of obstructing headlight glare created by passing vehicles without creating unsightly visual obstructions. A porous textured surface will also help to absorb more sound than a smooth surface. It is recommended that noise barriers be placed as close to the source or the receiver as practical, which usually means adjacent to the right-of-way line.

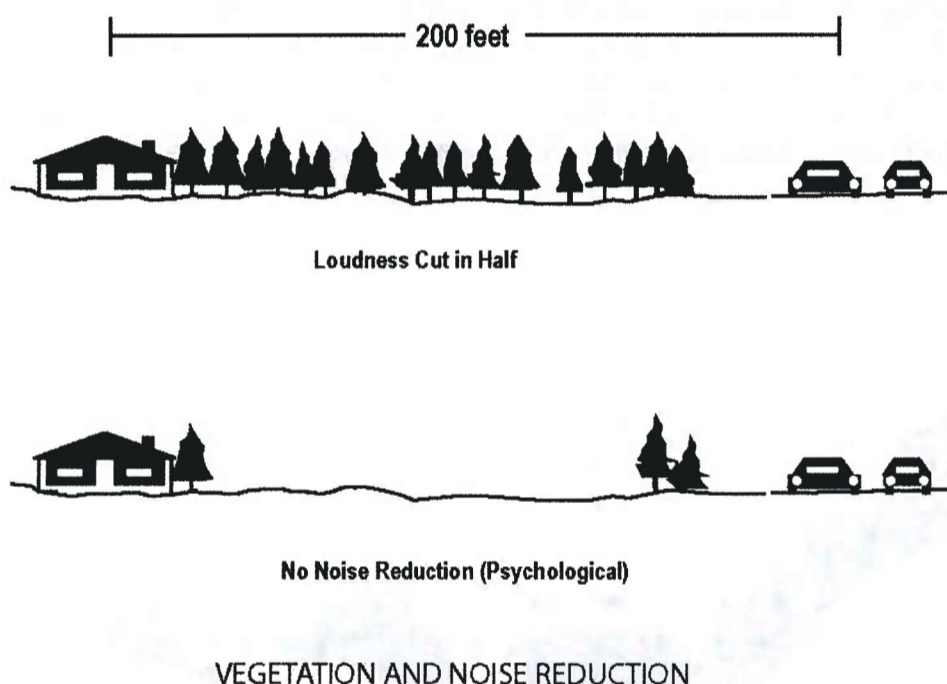


**Figure 6**

A wall constructed of brick or cement would be the most effective choice to achieve maximum noise attenuation given the limited right of way condition. As shown in Figure 7, vegetation can provide reasonable noise shielding in situations where significant distance exists between the receiver and the transmitter. Use of vegetation alone will not



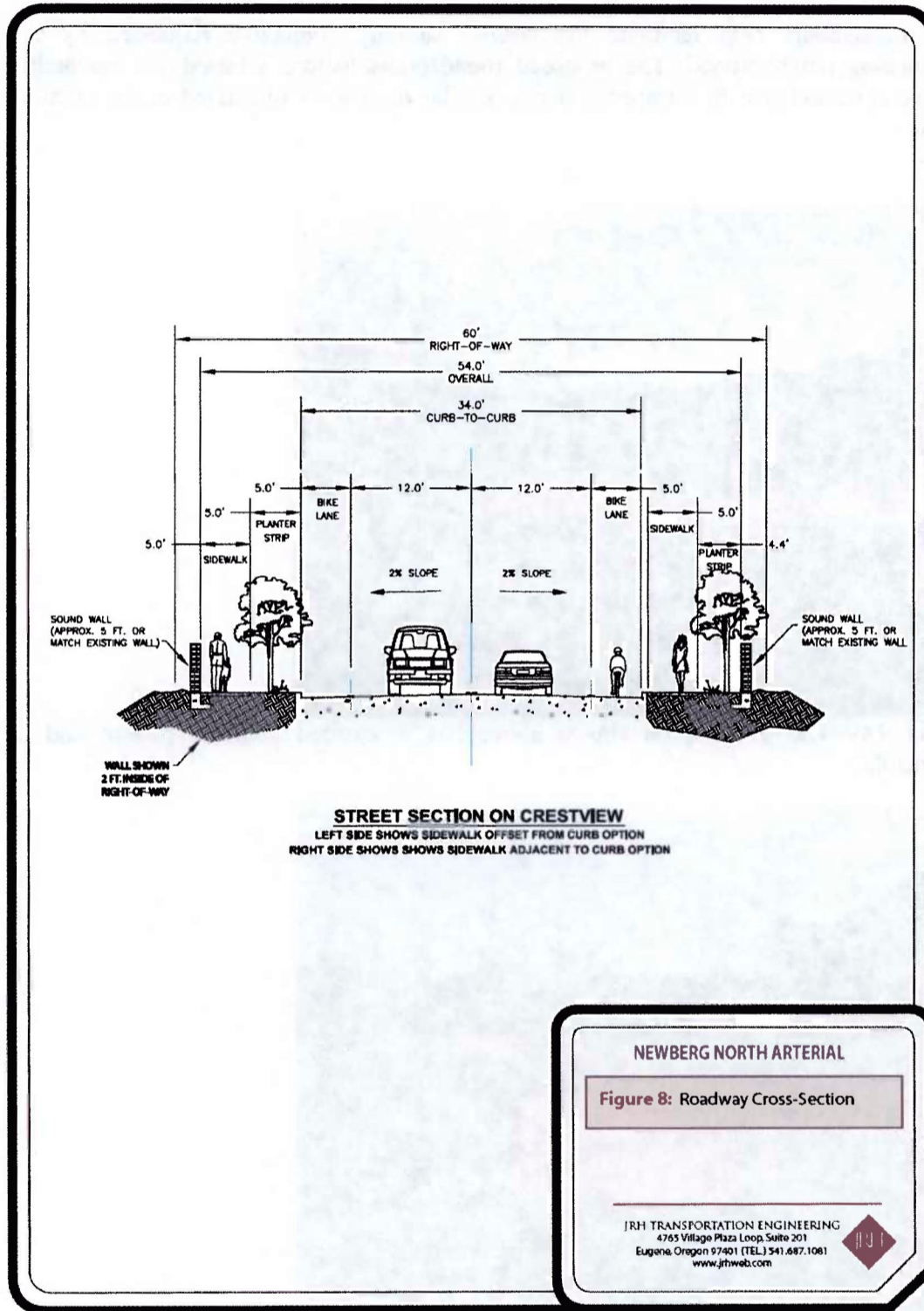
provide substantial shielding in this residential setting; however, enhancement of another shielding type with vegetation can help to facilitate beautification of the structure. Earthen mounds, or berms, require a significant width, thereby rendering them infeasible in most suburban settings. A brick wall that is approximately five-feet in height currently exists along Crestview Drive on either side of West Lake Road. This design provides a reasonable template that can be mimicked along unshielded segments of Crestview Drive located further to the east. The Oxberg Home Owners Association expressed a desire to coordinate the design of any soundwalls within their development to compliment similar walls in the proposed adjacent Springbrook Properties development. This will be taken into consideration when the improvements are designed.



**Figure 7**

## **VI. Final Design Recommendations**

The recommended design scenario for the extended Crestview Drive consists of roundabouts at the three intersections with Westlake Loop and Birdhaven Loop. A typical cross-section is depicted in Figure 8. Two different curbside options exist, which are both illustrated in the figure. On the left side, a planter strip separates the sidewalk from the roadway. Alternatively, the scenario on the right positions the sidewalk adjacent to the roadway and a planter strip is separating the sidewalk from the noise barrier. Either condition meets City standards.



**NEWBERG NORTH ARTERIAL**

**Figure 8: Roadway Cross-Section**

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The roundabouts help facilitate the “traffic calming” objective requested by the surrounding neighborhood. The proposed roundabouts feature a raised yet mountable surface constructed with stamped concrete similar to what is illustrated in the pictures below.



Figure 9A—The truck apron shown above has a textured concrete pattern and is mountable.



Figure 9B—The splitter island shown above has a textured concrete pattern but is not mountable. The proposed design includes mountable splitter islands.



Figure 9C—The color, pattern, and height create a distinct visual cue that is aesthetically pleasing.

Having a distinct color and pattern, this design will serve to distinguish the roundabout from the roadway, thereby serving as a visual cue to drivers, as well as to provide aesthetic appeal. The following figures and standard drawings clarify design elements and details for the proposed roundabouts.

