

**APPLICATION FOR:
COMPREHENSIVE MAP AMENDMENT
and
ZONING MAP AMENDMENT**

Applicant: HOUSING AUTHORITY OF YAMHILL COUNTY



Property Address: 1103 N. Meridian Street
Newberg, Oregon

Date: August 17, 2010

By:



3105 NE Weidler
Portland OR 97232

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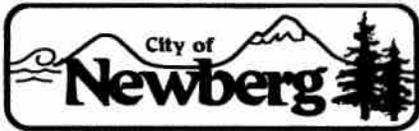
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TYPE III APPLICATION - 2010
(QUASI-JUDICIAL REVIEW)

File #: _____

TYPES - PLEASE CHECK ONE:

- Annexation
[X] Comprehensive Plan Amendment (site specific)
[X] Zoning Amendment (site specific)
Historic Landmark Modification/alteration
Conditional Use Permit
Type III Major Modification
Planned Unit Development
Other: (Explain)

APPLICANT INFORMATION:

APPLICANT: IDEA Architecture + Development, LLC
ADDRESS: 3105 NE Weidler Street, Portland, OR 97232
EMAIL ADDRESS: jim.walker@ideapdx.com
PHONE: 503-525-2679 MOBILE: 503-709-8383 FAX: 503-288-3096
OWNER (if different from above): Housing Authority of Yamhill County PHONE: 503-883-4314
ADDRESS: P.O. Box 865, McMinnville, OR 97128
ENGINEER/SURVEYOR: Leland MacDonald & Assoc., LLC PHONE: 503-472-7904
ADDRESS: 3765 Riverside Drive, McMinnville, OR 97128

GENERAL INFORMATION:

PROJECT NAME: Meridian Re-Zone PROJECT LOCATION: 1103 N. Meridian Street
PROJECT DESCRIPTION/USE: Re-zone from R-1 to R-3
MAP/TAX LOT NO. (i.e.3200AB-400): 3S 2W 19DA/2100 ZONE: R-1 SITE SIZE: 3.39 SQ. FT. [] ACRE [X]
COMP PLAN DESIGNATION: R-1 TOPOGRAPHY: Flat
CURRENT USE: Single family residence
SURROUNDING USES:
NORTH: Residential R-1 SOUTH: Residential R-1 and R-2
EAST: Residential R-3 and Meridian Street WEST: Residential R-1

SPECIFIC PROJECT CRITERIA AND REQUIREMENTS ARE ATTACHED

General Checklist: [X] Fees [X] Public Notice Information [X] Current Title Report [X] Written Criteria Response [X] Owner Signature

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

Annexationp. 16
Comprehensive Plan / Zoning Map Amendment (site specific)p. 19
Conditional Use Permitp. 21
Historic Landmark Modification/Alterationp. 23
Planned Unit Developmentp.26

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief. Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.

Applicant Signature: [Signature] Date: 8.17.10
Print Name: Jim Walker

Owner Signature: [Signature] Date: 8/17/10
Print Name: Elise Hui

Attachments: General Information, Fee Schedule, Noticing Procedures, Planning Commission Schedule, Criteria, Checklists

COMPREHENSIVE PLAN MAP/ZONING MAP AMENDMENT CHECKLIST

The following information shall be submitted with each application. Incomplete applications will not be processed. Incomplete or missing information may delay the review process. Check with the Planning Division staff regarding additional requirements for your project.

FEES

PUBLIC NOTICE INFORMATION – Draft of mailer notice and sign; mailing list to all properties within 500’.

Submit one original 8-1/2" x 11" or 11" x 17" reproducible document together with 17 copies of the following information.

WRITTEN CRITERIA RESPONSE – Address the criteria listed on page 19. The written response should detail how the proposed comprehensive plan map/zoning map amendment meets the goals and policies of the Newberg Comprehensive Plan. The written response should also address the location and size of existing public utilities to serve the site, or if none are currently available, detail how public utilities will be extended to serve the site.

CURRENT TITLE REPORT

MEASURE 49 WAIVER

MAP AND LEGAL DESCRIPTION OF THE PROPERTY – Provide a map and a corresponding written legal description of the area to be changed. The map and legal description must be capable of closure and be certified by a registered engineer or surveyor. If not certified, the map and description must be approved by the Department of Revenue per ORS 308.225.

Aerial + survey

GENERAL LAND USE PLAN – Indicate types and intensities of proposed development, transportation routes (for pedestrians and vehicles), watercourses, significant natural features, open space, significant stands of mature trees, wildlife travel corridors, and any development on adjacent properties.

TRAFFIC STUDY – A traffic study shall be submitted for any proposed change that would significantly affect a transportation facility, or that would allow uses that would increase trip generation in excess of 40 trips per p.m. peak hour. This requirement may be waived by the Director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed, which adequately mitigate any traffic impacts and/or the proposed use is not in a location, which is adjacent to an intersection which is functioning at a poor level of service. A traffic study may be required by the Director for changes in areas below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. If required, the traffic study shall be conducted according to the City of Newberg design standards.

Comprehensive Map Amendment Application and Zoning Map Amendment Application

Date: August 17, 2010

Property Location: 1103 N. Meridian Street, Newberg, Oregon
T/R/S: 3S 2W 18
Map No. 3S 2W 18DA
Tax Lot: 2100

Applicant/Owner: Housing Authority of Yamhill County
PO Box 865
135 NE Dunn Place
McMinnville, Oregon 97128-0865
Contact: Elise Hui, Executive Director
Ph: (503) 883-4300

Representative: IDEA Architecture + Development, LLC
3105 NE Weidler Street
Portland, Oregon 97232
Contact: Jim Walker
Ph: (503) 525-2679

Transportation Engineer: Lancaster Engineering
321 SW 4th Avenue, Suite 400
Portland, OR 97204
Contact: Michael Ard, PE
Ph: (503) 248-0313

Civil Engineer: Sisul Engineering
375 Portland Ave
Gladstone, OR 97027
Contact: Tom Sisul
Ph: (503) 657-0188

Surveyor: Leland MacDonald & Assoc., LLC
3765 Riverside Drive
McMinnville, OR 97128
Contact: Lee MacDonald
Ph. (503) 472-7904

Arborist: Tree-ific Arbor Care, Inc.
2664 NW Pinot Noir Drive
McMinnville, OR 97128
Contact: Andrew Feasel
Ph. (503) 474-9566

WRITTEN NARRATIVE - PROPOSED PROJECT

The Applicant, Housing Authority of Yamhill County (HAYC), respectfully submits an Application for a Comprehensive Map Amendment and Zoning Map Amendment for property located at 1103 N. Meridian Street, Newberg, Oregon, from R-1 Low Density Residential (LDR) to R-3 High Density Residential (HDR).

It is Applicant's intent to provide an affordable housing apartment community on this property. This parcel is within the city limits and urban growth boundary.

Per the *Comprehensive Plan Housing Element*, ". . . **Newberg has an affordable housing problem**" (p14). The proposed change would contribute significantly to the goal for an adequate supply of affordable housing units for residents within the City.

The Comprehensive Plan Housing Element states Oregon's Statewide Planning Goal 10 is, "To provide for the housing needs of citizens of the state" and **Newberg's housing goal is "To provide for a diversity in the type, density and location of housing within the City to ensure there is an adequate supply of affordable housing units to meet the needs of City residents of various income levels."** (p1).

Additionally, the City has recognized that in order to meet the housing needs, that they will need to "Implement the actions recommended in the Newberg Affordable Housing Action Plan as appropriate" (p19). The Newberg City Council approved Resolution No. 2008-2781, which established the . . . Affordable Housing Ad Hoc Committee." (*Affordable Housing Action Plan* (intro)).

Please note that there are two (2) General Land Use Plan options as part of the Application. See attached Exhibits A1 and A2. The Housing Authority of Yamhill County (HAYC) has elected to provide two General Land Use Plans as part of the Application solely for the purpose of exhibiting to the City what may or may not work on the site as it relates to the approval criteria. Over the coming months, HAYC intends to study the local affordable housing need in much greater detail in order to more precisely program the project. This future programming effort will greatly inform a more detailed design effort by our team upon its completion. One of the first steps of the refined design process will be to further engage the arborist in an integrated design approach. HAYC intends to work closely with the arborist to precisely place the buildings in a way that ensures the long-term health of the trees designated to be preserved.

It is important to HAYC that these attached site plans be viewed by Staff, the Planning Commission and the City Council as "reference documents" only, rather than a final site design response. Doing this will provide the team the most future flexibility from which to design the best project to serve Newberg's residents and the community to its fullest potential. A specific development proposal is not part of this Application. The Design Review Criteria per Development Code Section 151.192(B) and 151.195 will be addressed at the time of the Development Application.

In the General Land Use Plans provided, Applicant exhibits three important issues that were raised in conversations with the surrounding neighbors, issues which HAYC shares. 1.) HAYC explored the issues surrounding the location of the existing historic

house and whether or not it was feasible to effectively organize the site in a way that complements its current position on the site while also affording the opportunity to increase the density of the site as a whole, 2.) HAYC explored preservation of mature existing trees throughout the site. In this regard, HAYC shares the neighbors' affinity for these trees and wants to build within this asset, and 3.) HAYC heard from the neighbors that they strongly opposed vehicular connection of Evergreen Drive through the site to Meridian Street. In developing the plans, HAYC investigated the possibility of providing adequate on-site vehicular circulation such that a fire truck can adequately move around the site without having to back up at any time.

As you will see in the attached options, Applicant believes that these three objectives described above can be met while still providing for adequate opportunity to increase the density of the site to accommodate affordable housing. Please note there are only slight differences between the two plans. The most important difference that is exhibited between the options is the potential to connect to North Meridian Street once (Option 1) or twice (Option 2). During our coming design efforts, HAYC will be working with Chris Mayfield, City of Newberg Fire Marshal, in order to accommodate the concerns of the department as related to fire truck movement and finalize this important access issue.

Finally, HAYC believes that this site provides a special opportunity from which to develop affordable housing. Considering the combination of on-site characteristics noted above; the complementary and mixed residential zoning adjacent to the site; and the proximity within the City of Newberg to jobs, commercial, services and parks, we feel that this site has a strong capacity to serve Newberg's residents in a way that no other site can. HAYC plans to utilize sound green building and conservation techniques that can take advantage of the site capacity, enriching the lives of our residents and neighbors in the process. As this is the beginning of the development process, HAYC looks forward to a continuum of collaboration in further envisioning the future of this new community.

BACKGROUND INFORMATION

The site is approximately 3.39 acres or 147,667 square feet and is bounded by N. Meridian Street to the East. N. Evergreen Drive currently dead-ends at the property boundary on the North. See attached Exhibit L of photos of property and adjacent properties.

The property is improved with a 2-story house, shed, garage and mature trees. The house is listed on the City of Newberg's Inventory of Historic Properties. The property also is developed with landscaping, fences, utilities and a sidewalk along Meridian. The site is essentially flat with a 5.5' decline from East to West. See attached Aerial that was photographed in July 2010, Exhibit B and Survey prepared by Leland MacDonald & Assoc., LLC July 2010, Exhibit C. Additionally attached please find an arborist report and inventory of the trees on site dated July 16, 2010, Exhibit J.

Currently the site is zoned R-1 on the Zoning Map and LDR on the Comprehensive Map. The properties immediately to the north and west of subject property are zoned R-1. The properties to the south are a mix of R-1 and R-2. The property directly across Meridian is zoned R-3. See the attached Aerial photograph, Exhibit B; Newberg

Comprehensive Map, Exhibit D; and Newberg Zoning Map, Exhibit E. **The rezoning of this property is consistent with the existing pattern of the mixed residential zoning adjacent to the site.** Additionally, the size of the lot affords the ability to creatively organize the site that is complementary of its neighbors.

Development Standards:

The following development standards for R-1 and R-3 zones are from City of Newberg Development Code, July 2006.

	R-1	R-3
Maximum Dwelling Units Per Acre	4.4	21.8
Minimum Lot Size (square feet)	7,500 sf	5,000 sf
Minimum Lot Area per Unit (square feet)	7,500 sf	1,500 sf
Maximum Height (Feet)	30	45*
Minimum Front Yard (Feet)	15	12
Minimum Front Yard to Garage (Feet)	20	20
Minimum Interior Side Yard (Feet)	5	5
Minimum Rear Yard (Feet)	5	5
Coverage:		
Maximum Lot Coverage	30%	50%
Max. Parking Coverage	30%	30%
Maximum Combined Coverage	60%	70%
Parking		
Dwelling, multiple	2 per unit	2 per unit
Dwelling, single family or two Family	2 per unit on a single lot	2 per unit on a single lot
Continuing Care, Retirement		1 per unit
Rooming/Boarding Houses		1 per room

*See development code for exceptions. Section 151.536.2 Building Height Limitation. In the R-3 District, no main building shall exceed three stories or 45 feet in height, whichever is less, except where an R-3 District abuts upon an R-1 District, the maximum permitted building height shall be limited to two and one-half stories or 30 feet, whichever is the lesser, for a distance of 50 feet from the abutting boundary of the aforementioned district.

The following table illustrates the current zoning density under R-1 and proposed zoning density under R-3. Note that the total site area is 147,667sf/3.39 acres. The total site area after 10' dedication on Meridian is 145,212 sf/3.33 acres

Code Reference(s)	LDR R-1	Current Density Allowed	HDR R-3	Proposed Density
Comprehensive Plan Housing Element, Table IV-6 Target Density (du/gross ac.)	4.4	14.65 units	16.5*	54.95 units
Development Code, Section 151.310 (du/gross ac.)			21.8	72.59 units
Development Code Section 151.565	7,500 sf per dwelling unit	19.36 units	1,500 sf per dwelling unit	96.81 units

*includes a 25% allowance for streets

Note: A specific development proposal is not part of this Application. The Design Review Criteria per Development Code Section 151.192(B) and 151.195 will be addressed at the time of the Development Application.

Applicant has addressed Section 151.22 Type III Comprehensive Plan/Zoning Map Amendment CRITERIA below and demonstrates compliance with the following:

The proposed change is consistent with and promotes the goals and policies of the Newberg Comprehensive Plan and this Code.

Applicant Response: The proposed comprehensive plan change and zoning map amendment will promote the goals and policies of the Newberg Comprehensive Plan, originally adopted by City Council July 2, 1979 and as amended by Ordinance 2010-2724 on April 5, 2010 *and* City of Newberg Comprehensive Plan Housing Element, Section 13 of Newberg Inventory of Natural and Cultural Resources, originally adopted by City Council January 1978, revised April 5, 2010 by Ordinance 2010-2724. The proposed comprehensive plan change and zoning map amendment will also promote the goals and policies of the Newberg's Affordable Housing Action Plan, dated May 4, 2009. **See below for complete responses to Type III Comprehensive Plan/Zoning Map Amendment Criteria addressing Goals and Policies of the City of Newberg.**

Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change.

Applicant Response: Public facilities and service are or can be made reasonably available to support the uses allowed by the proposed change. Per the Pre-Application Meeting with the City on August 04, 2010, there are adequate fire and police services to support the uses allowed by the proposed change. See attached Exhibit F, Sanitary Sewer Calculations prepared by Sisul Engineering, dated July 28, 2010, exhibiting that the existing public sanitary sewer system has adequate capacity. Per the City, the existing water lines in Evergreen and Meridian are of adequate capacity to support the proposed rezone. Applicant, upon development of the site and upon City request, proposes to loop the existing water line from Evergreen to Meridian to support the uses allowed by the proposed change. Per City requirements, additional stormwater impacts to the site should be mitigated on-site with overflow directed to the existing stormwater line located in Meridian.

Compliance with the State Transportation Planning Rule (OAR 660-012-0060) for proposals that significantly affect transportation facilities.

Applicant Response: The proposed zone change will not change the functional classification of any existing or planned transportation facilities. See excerpt below from the attached Exhibit G, Traffic Impact Study prepared by Lancaster Engineering, dated August 10, 2010, page 26.

The primary test of the TPR is to determine if an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation will "significantly affect" an existing or planned transportation facility. The definition of significant affect is addressed in the following sections of this letter

OAR 660-012-0060

(1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in Section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:
(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan):

The proposed zone change will not change the functional classification of any existing or planned transportation facilities.

A. CITIZEN INVOLVEMENT

- 1) To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

Applicant Response: Applicant has supported this Goal by providing two (2) opportunities for citizen involvement of this project. HAYC hosted neighborhood meetings on July 21st and August 11th at the First Federal Meeting Room in Newberg. The original notice was sent out to property owners within 500 feet of the property. These meetings were not required as part of the Application Land Use Type III Process. See attached Meeting Notices, Exhibit K.

Additionally, Applicant, as part of the Type III Application requirements, will send notices to property owners within 500 feet of the site and post the site as required.

G. OPEN SPACE, SCENIC, NATURAL, HISTORIC AND RECREATIONAL RESOURCES

- 3a) The continued preservation of Newberg's designated historic sites and structures shall be encouraged.

Applicant Response: Applicant is proposing to maintain the existing house in its existing location which has been designated by City of Newberg as a historic resource as indicated on the Inventory of Historic Properties/Historic Resource Survey Form.

- 3d) The City will encourage the re-use of historic structures such as the establishment of bed and breakfast operations, specialty shops, restaurants and professional offices.

Applicant Response: Applicant intends to re-use the existing house as part of its program when the site is developed.

- 3e) The City will encourage identification and/or preservation of significant historic landmarks, archaeological or architectural sites which meet criteria established by the City.

Applicant Response: Applicant is proposing to maintain the existing house in its existing location which has been designated by City of Newberg as a historic resource as indicated on the Inventory of Historic Properties.

Note: A specific development proposal is not part of this Application. The Design Review Criteria per Development Code Section 151.192(B) and 151.195 will be addressed at the time of the Development Application.

H. THE ECONOMY

- 1m) The City shall collaborate with project developers to construct and maintain the best utility systems possible (e.g. water and sanitary sewer), both from a quality as well as quantity (capacity) standpoint.

Applicant Response: This project is within the City limits and has existing public utility infrastructure (i.e. water and sanitary sewer). A new water line will be required to connect the waterline in Evergreen with the waterline in Meridian as part of the future development applications. The waterline will be sized to meet the City standards and will be adequate to serve the planned density. The sanitary sewer lines are of adequate capacity to serve the project. See attached Exhibit F Sanitary Sewer Calculations prepared by Sisul Engineering, dated July 28, 2010, revised August 16, 2010. Per City requirements, additional stormwater impacts to the site should be mitigated on-site with overflow directed to the existing stormwater line located in Meridian.

I. HOUSING – Location Policies

- 2a) Medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas. High density areas should be easily accessible to arterial streets. They should also be located near commercial services and public open spaces.

Applicant Response: As exhibited in the attached General Land Use Plans, no vehicular connection of this development shall be made to N. Evergreen, an adjacent low density street. All connections shall be made via N. Meridian Street, a Minor Collector, which has adequate capacity as exhibited in the attached Traffic Impact Analysis, Exhibit G.

N. College Street/Highway 219 is classified by the City of Newberg as a Minor Arterial, which is approximately 1100 feet from subject property at N. Meridian. Additionally, commercial areas, employment centers and downtown are located on 99W which is less than ½ mile from the subject site.

I. HOUSING – Mix Policies

- 3b) Low and moderate income housing should not be concentrated within particular areas of the City.

Applicant Response: Applicant has created a map of Newberg that illustrates the known existing low-income housing locations. The attached Exhibit H shows that this project is not located in the areas of existing low-income housing, but rather supports dispersal of low-income housing throughout the City.

- 3i) The City shall encourage subsidized housing for low income people.

Applicant Response: There is a demonstrated need for affordable housing in Newberg. Per the *Comprehensive Plan Housing Element*, “little if any recent construction was available to low and very-low income families and individuals” (p16).

Per the City of Newberg *Comprehensive Plan Housing Element* (p2, 3) the median household income in Newberg in **2006-2008 was \$49,233** and the **average household size is 2.7**. It is worth noting that **29.6% of Newberg households made less than \$35,000 and 51.4% of households made less than \$50,000**.

Additionally, the *Affordable Housing Action Plan* states that “U.S. Census Bureau estimates the **median income** for all families in **Newberg to be \$53,417** (adjusted to 2009 dollars)” and the “**median family size is 3.17**” (p6). The Housing Authority of Yamhill County’s Income Limits for their affordable housing is listed below.

Housing Authority of Yamhill County Income Limits

Household Size	50% Median Income		60% Median Income		80% Median Income	
	Monthly	Annually	Monthly	Annually	Monthly	Annually
1	\$2,079	\$24,950	\$2,495	\$29,940	\$3,325	\$39,900
2	\$2,375	\$28,500	\$2,850	\$34,200	\$3,800	\$45,600
3	\$2,671	\$32,050	\$3,205	\$38,460	\$4,275	\$51,300
4	\$2,967	\$35,600	\$3,560	\$42,720	\$4,746	\$56,950
5	\$3,204	\$38,450	\$3,845	\$46,140	\$5,129	\$61,550
6	\$3,442	\$41,300	\$4,130	\$49,560	\$5,508	\$66,100
7	\$3,679	\$44,150	\$4,415	\$52,980	\$5,888	\$70,650
8	\$3,917	\$47,000	\$4,700	\$56,400	\$6,267	\$75,200

This data illustrates that there is an unmet need in the City of Newberg for affordable housing. The median household income in Newberg is approximately 80% of Median Income (with household size between 3 and 4) in the chart of above.

HAYC's mission is "To provide the opportunity for decent, safe, sanitary and affordable housing to lower-income families residing in our community including the opportunities to become self-sufficient."

- 3j) The City shall encourage innovation in housing types and design as a means of offering a greater variety of housing and reducing housing costs.

Applicant Response: Applicant has illustrated on the attached preliminary General Land Use Plans an innovative use of the site. By proposing to maintain the existing house and as many mature, healthy trees as possible, HAYC proposes that it is possible to develop an integrative and dynamic site that will benefit its future residents and surrounding community.

- 3k) The City shall encourage an adequate supply of rental housing dispersed throughout the City to meet the needs of renters.

Applicant Response: Applicant has created a map of Newberg that illustrates the known rental housing locations. The attached Exhibit H shows that this project supports the City's goal of dispersal of rental housing throughout Newberg.

J. URBAN DESIGN – Goal 1 - General Policies

- 1e) Developments should respect the natural ground cover of their sites to the extent possible and plans should be made to preserve existing mature, nonhazardous trees in healthy condition.

Applicant Response: According to the City of Newberg's Historic Resource Survey Form, at one time a "large walnut orchard stood in the front yard and the surrounding area [sic] was largely open fields and groves of Oak trees." This site now is uncharacteristically large and underdeveloped in the neighborhood context as varying residential developments and densities have occurred all around this site and the groves of Oak trees have disappeared on adjacent properties. HAYC, however, has illustrated that this large 3.39 acre site allows for design creativity in which the historic house can be maintained and large mature trees, reminiscent of the past, may be preserved.

HAYC contracted Tree-ific Arbor Care, Inc., to inventory and make recommendations for the existing trees on site that are 5" DBH or greater. See attached Exhibit J. HAYC has exhibited on the attached preliminary General Land Use Plans that tree preservation of existing mature, nonhazardous trees is feasible and indeed has the capacity to create a diverse and dynamic development using the existing site assets.

- 1n) The City shall encourage innovative design and ensure that developments consider site characteristics and the impact on surrounding areas.

Applicant Response: Applicant has illustrated on the attached preliminary General Land Use Plans an innovative use of the site. By proposing to maintain

the existing house and as many mature, healthy trees as possible, HAYC proposes that it is possible and desirable to develop an integrative and dynamic site that will benefit its future residents and surrounding community.

Note: A specific development proposal is not part of this Application. The Design Review Criteria per Development Code Section 151.192(B) and 151.195 will be addressed at the time of the Development Application.

J. URBAN DESIGN – Goal 2

- 2c) Neighborhoods should be designed to promote safety and interaction with neighbors, with items such as walking paths and neighborhood parks.

Applicant Response: Subject property is located approximately 700 feet, via pedestrian travel, from Jaquith Park which promotes interaction with neighbors. Additionally, as part of the Design Review process, which is not a part of this Application, Applicant shall carefully study and design the site plan for safe, internal walking paths.

K. TRANSPORTATION – Goal 1 - Establish cooperative agreements to address transportation based planning, development, operation and maintenance.

Applicant Response: The City of Newberg has satisfied this criterion. The proposed rezone will not have significant effects on State or County facilities, nor will it affect any cooperative agreements.

K. TRANSPORTATION – Goal 2 - Establish consistent policies which require concurrent consideration of transportation/land use system impacts.

Applicant Response: As described in the Traffic Impact Study, the existing transportation infrastructure is adequate to serve development under the proposed zoning. Meridian Street is currently improved with a sidewalk.

K. TRANSPORTATION – Goal 3 - Promote reliance on multiple modes of transportation and reduce reliance on the automobile.

- 3a1) The City shall plan for a network of transportation facilities and services including but not limited to air, water, rail, auto, pedestrian, bicycle and public transit.

Applicant Response: The proposed development is located on a transit line. The site will be well served by transit. Adequate facilities for pedestrians and bicycles, in addition to automobile traffic, are also available in the site vicinity.

- 3a2) The City shall encourage the continued operation of the existing public transit system.

Applicant Response: The proposed development is located on the Chehalem Transit Bus Route 5, Newberg North/Foothills Drive. The site will be well served

by transit as the bus runs every hour from 6:34 a.m. to 6:34 p.m. See attached Exhibit I.

- 3b2) Modifications should be made to the City's land use plan and development ordinances that will decrease trip length and encourage non-auto oriented development.

The City shall encourage higher density development in residential areas near transit corridors, commercial areas and employment centers, including the downtown.

Applicant Response: The proposed rezone would result in higher density development in a residential area on a transit corridor. The proposed development is located on the Chehalem Transit Bus Route 5, Newberg North/Foothills Drive. The site will be well served by transit as the bus runs every hour from 6:34 a.m. to 6:34 p.m. Additionally, commercial areas, employment centers and downtown are located on 99W which is less than ½ mile from the subject site.

K. TRANSPORTATION – Goal 4 - Minimize the impact of regional traffic on the transportation system.

Applicant Response: The proposed development will take access via N. Meridian Street, a minor collector. This roadway can support the additional traffic from development of the subject property while maintaining a safe and efficient local transportation system. Since vehicular access via N. Evergreen Drive is not proposed, traffic impacts on the local transportation system will be minimized. See the attached Traffic Impact Study, Exhibit G.

K. TRANSPORTATION – Goal 5 - Maximize pedestrian, bicycle and other non-motorized travel throughout the City.

- 5a) 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)

Applicant Response: Development under the proposed zoning would include pedestrian and bicycle accommodations including path connections to adjacent properties and community destinations. Jaquith Park, located on College Street, is approximately 700 feet from the site via pedestrian travel. The neighborhood commercial center and employment center on 99W is less than ½ mile from the site.

- 5c) All new and improved commercial, office, institutional, and multi-family development shall be conveniently and directly accessible from the public right-of-way by bicycle and on foot.

Applicant Response: Development under the proposed zoning would include on-site pedestrian and bicycle accommodations including path connections to adjacent properties and community destinations.

- 5d) Public sidewalks shall be provided along all public street frontages. Pedestrian traffic shall be separated from automobile traffic whenever possible.

Applicant Response: The street frontage at N. Meridian is currently improved with a sidewalk. Per the City, the existing sidewalk may need to be repaired.

Note: A specific development proposal is not part of this Application. The Design Review Criteria per Development Code Section 151.192(B) and 151.195 will be addressed at the time of the Development Application.

K. TRANSPORTATION – Goal 6 - Provide effective levels of non-auto oriented support facilities (e.g. bus shelters, bicycle racks, etc.).

- 6a) The City shall develop land use, density, and design standards to encourage development patterns that accommodate pedestrian, bicycle and transit uses.

Applicant Response: Subject property is located adjacent to an existing bus stop and will have pedestrian and bicycle access to Evergreen Drive and N. Meridian Street. Rezoning this property from R-1 to R-3 encourages and supports development patterns that support non-auto use for more residents.

- 6b) New development shall be designed to accommodate integrated multiple modes of transportation. (Ordinance 2005-2619, May 16, 2005)

Applicant Response: Addition of specific non-auto oriented support facilities will be a part of any future development proposal within the subject property.

K. TRANSPORTATION – Goal 7 - Minimize the capital improvement and community costs to implement the transportation plan.

Applicant Response: No new facilities are needed to support future development under the proposed zoning. The area intersections are projected to operate acceptably though the planning horizon either with or without development of the subject property. Since no additional improvements or mitigations are needed, there are no capital improvement and community costs.

K. TRANSPORTATION – Goal 8 – Maintain and enhance the City’s image, character and quality of life.

Applicant Response: The proposed rezone would facilitate development of needed affordable housing within the City of Newberg. In order to limit impacts to adjacent neighborhoods, future development would take access via N. Meridian Street, with no auto traffic on N. Evergreen Drive.

K. TRANSPORTATION – Goal 9 - Create effective circulation and access for the local transportation system.

Applicant Response: Future development of the subject property would include private driveways, but no public streets. In order to maximize connections to adjacent neighborhoods while avoiding the negative traffic impacts of routing high-density residential site trips through lower-density existing neighborhoods, vehicular access is proposed only to N. Meridian Street. However, on-site pedestrian and bicycle connections will be provided to connect to adjacent neighborhoods, enhancing convenient links to community destinations.

N. Meridian Street is classified as a minor collector, which “...serves the local access needs of neighborhoods by channeling traffic to the major collector and arterial street system. A minor collector is not intended to serve through traffic.”

Development of the subject property under the proposed zoning would result in utilization of N. Meridian Street in precisely the manner described, with site trips channeled to higher-classification streets and no additional through traffic.

The access spacing criteria for N. Meridian Street will be maintained upon development of the site.

K. TRANSPORTATION – Goal 11 - Establish fair and equitable distribution of transportation improvement costs.

Applicant Response: No specific transportation improvement costs are associated with future development of the subject property. Standard development fees will apply.

K. TRANSPORTATION – Goal 12 - Minimize the negative impact of a Highway 99W bypass on the Newberg community.

Applicant Response: The proposed rezone will not affect the design or operation of the future Highway 99W bypass.

L. PUBLIC FACILITIES AND SERVICES – 1. All Facilities & Services Policies

- 1a) 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.

Applicant Response: Existing public facilities are adjacent to the parcel and for the entire surrounding block of which the parcel is a part. Developing the subject parcel, would be considered infill development.

- 1c) New public facilities and services shall be designed at levels consistent with planned densities and designated land uses for the area.

Applicant Response: There is currently an 8” water line in Evergreen and a 6” water line in Meridian. A new water line will be required to connect the waterline in Evergreen with the waterline in Meridian as required by the City. The waterline will be sized to meet the City standards and will be adequate to serve the planned density.

There is currently an 8” sanitary sewer line in Evergreen and an 8” sanitary sewer line in Meridian. The existing sanitary sewer lines are adequate to serve the planned density. See attached Exhibit F, Sanitary Sewer Calculations prepared by Sisul Engineering, dated July 28, 2010, revised August 16, 2010.

Per the City, stormwater will be detained on-site with overflow to the existing 18” storm line in Meridian.

- 1f) Maximum efficiency for existing urban facilities and services will be encouraged through infill of vacant City land.

Applicant Response: The site is large with only one single family residence. By allowing the site to have increased density, better efficiency of existing facilities and services will be achieved with the infill development of the subject parcel.

L. PUBLIC FACILITIES AND SERVICES – 2. All Facilities & Services Policies

- 2b) Water systems within the planning area will be designed to provide an adequate peak flow for fire protection.

Applicant Response: The well-connected waterline system in the area has adequate peak flow for fire protection per the City of Newberg. The water system will be enhanced by connecting the dead end line in Evergreen Street to the waterline in Meridian.

- 2c) Developments with urban densities should be encouraged to locate within the area which can be serviced by Newberg’s present sanitary sewer system.

Applicant Response: The subject site is serviced by Newberg’s sanitary sewer system. There is an existing 8” line in Evergreen and an 8” line in Meridian. See attached Exhibit F, Sanitary Sewer Calculations prepared by Sisul Engineering, dated July 28, 2010, revised August 16, 2010, exhibiting that the existing public sanitary sewer system has adequate capacity.

L. PUBLIC FACILITIES AND SERVICES – 3. Street Lighting Policies

- 3a) Adequate street lighting shall be provided with priority given to arterial and collector streets, intersections, pedestrian paths and bikeways.

Applicant Response: A pedestrian pathway across the site may be a requirement of the proposed development. Adequate street lighting will be provided for pedestrian path if a part of the development.

M. ENERGY - Planning Policies

- 1a) The City will encourage energy-efficient development patterns. Such patterns shall include the mixture of compatible land uses and a compactness of urban development.

Applicant Response: As an affordable housing developer, HAYC intends to build affordable housing on this site. As stated in the City of Newberg’s Affordable Housing Action Plan – “If a local housing stock cannot accommodate the needs of a community’s employees, then those folks will live outside of Newberg and commute to work, thereby affecting our air quality and adding to our existing traffic congestion.” One can also infer that this increase in length of commute would generally increase the per resident energy consumption in Newberg, even if only considering energy as it relates to transit. More directly, Jonathan Rose notes in the Spring 2007 edition of *Developing Time* that “If we combine the energy used by a home and the energy used in the transportation getting to and from the home, we see that a green urban multifamily home consumes one quarter of the energy (62 million BTUs) used by a typical suburban home (250 million BTUs). So location and energy consumption are deeply causally related.”

Additionally, considering the density allowed in the proposed R-3 zone, many of the units will be attached in some way, with common (interior) demising walls. This building type fundamentally reduces the amount of exterior building envelop per square foot of occupied space. Since the building envelop is the venue where heat loss/gain occur, reducing the building envelop ratio helps to lower the overall per occupant energy demand in the City of Newberg. Also of note, as a rule of thumb, multi-family housing is smaller (in terms of gross occupied floor area) than a single family home. For instance, the average new home built in America in 2009 was 2,094 s.f. Compare that to the maximum area mandates (which HAYC intends to follow) that the Oregon Housing and Community Services (OHCS) “Architectural Standards for New Construction and Rehabilitation” states as follows:

Unit Type	1 Bed / 1 Bath	2 Bed / 1 Bath	3 Bed / 2 Bath	4 Bed / 2 Bath
Max. Unit Floor Area	690	900	1,200	1,400
Max. Unit Floor Area (Townhouses and Accessible Units)	740	950	1,250	1,450

A study by RLW Analytics for the Northwest Energy Efficiency Alliance dated October 11, 2007 entitled “Residential New Construction (Single and Multi-Family) Billing Analysis” suggests on average a new single family home uses 11,142 kWh of electricity per year. That compares to 9,392 kWh per year for the average new multi-family unit, meaning that multi-family units generally consume 84.3% of a single family home.

N. URBANIZATION- Urban Growth Boundary and Urban Reserve Area Policies

1c) The City shall encourage urban development within the City limits.

Applicant Response: As stated previously (1f above), this site is currently underutilized as it relates to the goals of the Comprehensive Plan for efficiency in utility usage and services. Creating greater density at this particular site offers the City of Newberg greater value for its previous investments in infrastructure.

The benefits of creating greater density at this urban infill lot are as follows:

1. Greater utilization of existing roads, utilities and transit: saves the city the cost of further extending and maintaining the utility and services networks
2. Reduced pressure to develop the "Urban Reserve" area, which serves to also preserve open space
3. Lowers residents' overall cost of commute
4. Lessens air pollution due to shorter car commutes and greater accessibility to public transit, biking and pedestrian modes of travel
5. Decreases energy consumption due to shortened commutes and more compact development style
6. Greater utilization of core commercial centers, employment centers and parks
7. Better quality of life for residents

NEWBERG HOUSING AND RESIDENTIAL LAND NEEDS

Per City of Newberg, Comprehensive Plan, Housing Element, the recent development in Newberg has been built at “densities less than those planned”. “This trend does not use land as efficiently as desired nor does it meet the needs for housing at the expected income levels” (p13).

The following data was extracted from *Comprehensive Plan Housing Element, Table 13-12: Buildable Residential Land Needs vs. Supply*. This information illustrates that though there is a deficit in both LDR and HDR land, the **land deficit for HDR is 58%** as compared to 15% in LDR zones. Rezoning this property to R-3 (HDR) will have a greater impact and fulfill a greater need for housing in Newberg.

Plan Designation	Buildable Acres Needed 2010-2030	Buildable Acres in UGB (2009)	Surplus (Deficit) for 2010-2030	% Surplus or Deficit
LDR	690	585	(105)	15% Deficit
HDR	106	45	(61)	58% Deficit

The following data (target density and dwelling units needed) was extracted from the *Comprehensive Plan Housing Element Table 13-11 Buildable Residential Land Needs*.

Rezoning subject property from R-1 (LDR) to R-3 (HDR) will have the greatest positive impact on meeting the housing needs of Newberg and furthering the housing goals. Rezoning the property will **further the goals by 3.2%** for HDR housing needs as opposed to only 0.5% in the LDR housing needs should the property remain R-1 and be developed with single family units.

Plan Designation	Target Density (du/gross ac.)	1103 N. Meridian 147,667 sf = 3.39 acres 145,212 sf = 3.33 acres (after 10' dedication)	Dwelling Units Needed (2010-2030)	Impact as % of Need
LDR	4.4	14.92 units	3,037	0.5%
MDR	9	29.97 units	2,733	1.1%
HDR	16.5 *	55.94 units	1,746	3.2%

*includes a 25% allowance for streets

SUMMARY

There is an identified need for affordable housing in Newberg. The rezone of this property would contribute significantly to the goal for an adequate supply of affordable housing units within the City of Newberg.

The Housing Authority of Yamhill County has other properties in Newberg. See attached Exhibit M – some photos of a few of its properties. HAYC takes pride in the maintenance, care and attentiveness of their properties and residents.

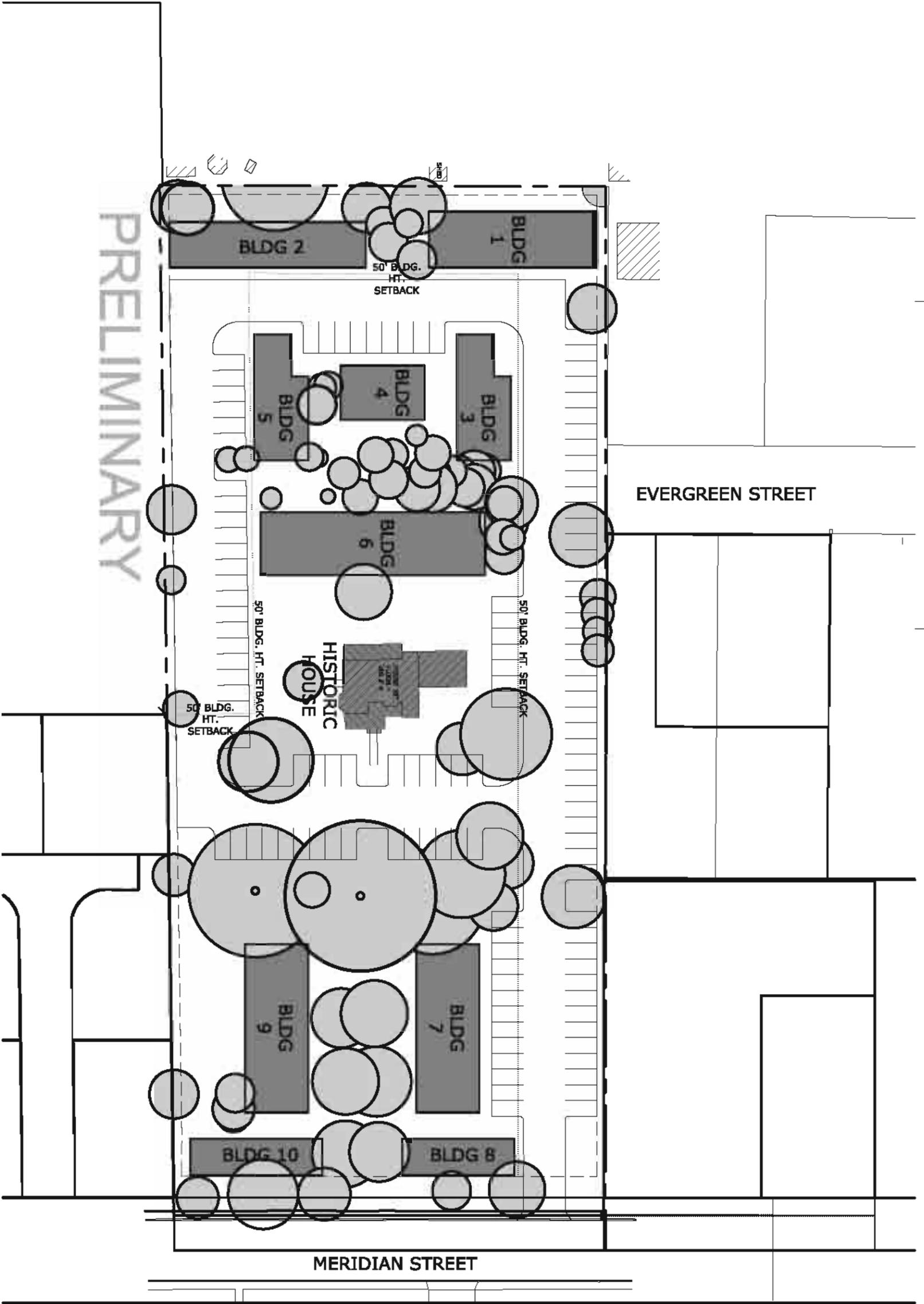
Rezoning subject property from R-1 (LDR) to R-3 (HDR) will have the greatest positive impact on meeting the housing needs of Newberg and furthering the housing goals. Rezoning the property will further the goals by 3.2% for HDR housing needs as opposed to only 0.5% in the LDR housing needs should the property remain R-1. Additionally, there is a large deficit in R-3 (HDR) land of 58% and rezoning this property will have a greater impact and fulfill a greater need for housing in Newberg.

The site is situated close to neighborhood parks and commercial centers. The site is also located on pedestrian, bike, transit and automobile systems. The existing utilities, police and fire services, and transportation systems have adequate capacity to support the zone change.

The rezoning of this property is consistent with the existing pattern of the mixed residential zoning adjacent to the site. Additionally, the large lot size affords HAYC the ability to creatively organize the site that is both complementary of its neighbors and also to preserve the existing historic house and mature trees.

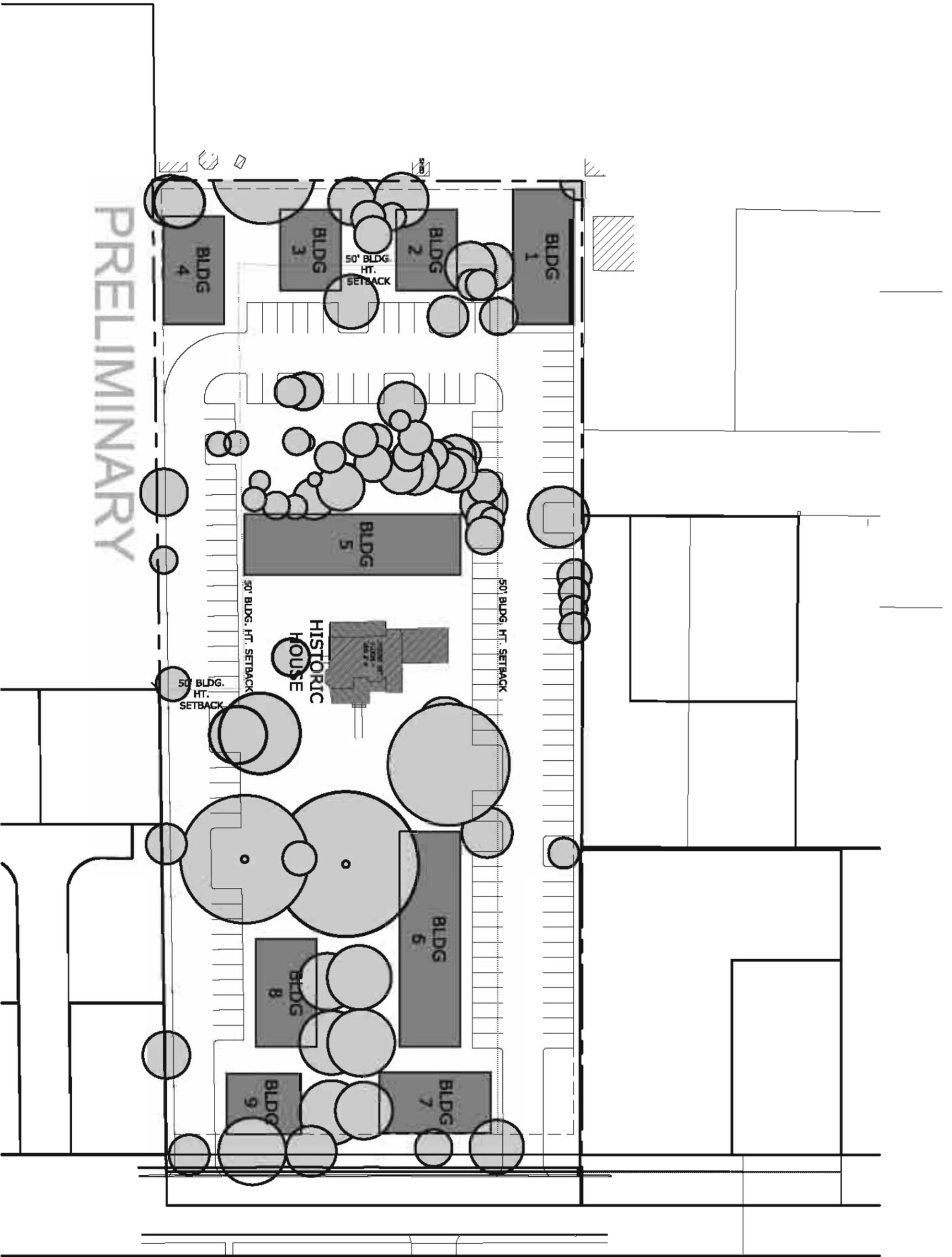
The Housing Authority of Yamhill County respectfully requests that the Application for Comprehensive Map Amendment and Zoning Map Amendment be granted.

PRELIMINARY



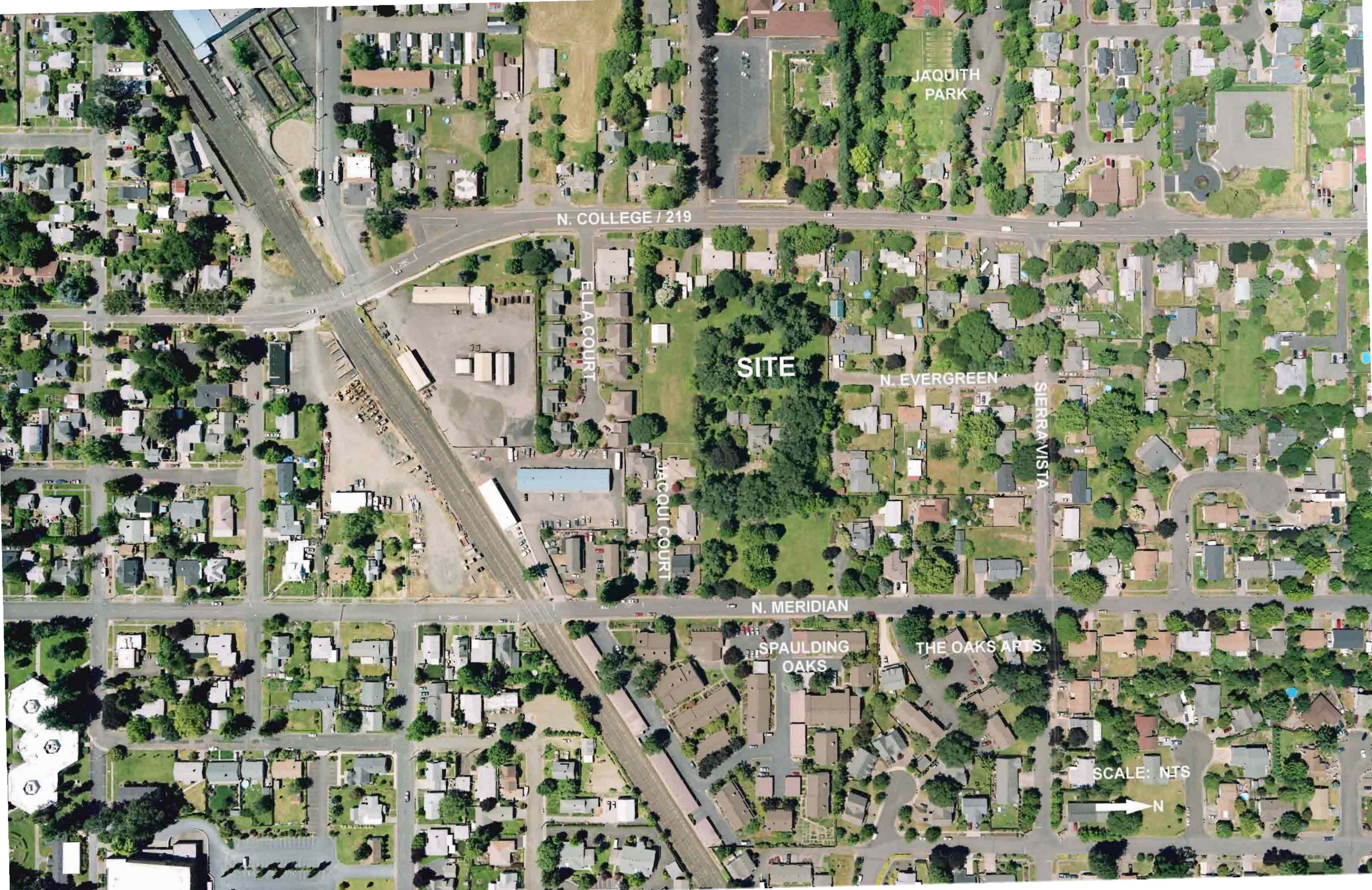
1 GENERAL LAND USE PLAN - OPTION 1
 SCALE: 1" = 60'

<p>EXHIBIT A1 AUGUST 17, 2010</p>	 <p>HAYC HOUSING AUTHORITY OF YAMHILL COUNTY</p> <p>P.O. Box 865 135 NE Dunn Place McMinnville, Oregon 97128-0865</p>	<p>ZONING MAP AMENDMENT AND COMPREHENSIVE MAP AMENDMENT 1103 NORTH MERIDIAN STREET NEWBERG, OR</p>	 <p>3105 NE Weidler Portland OR 97232 P: 503.525.3678 F: 503.288.1098</p>
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1 GENERAL LAND USE PLAN - OPTION 2
 SCALE: 1" = 60'

<p>EXHIBIT A2 AUGUST 17, 2010</p>	 <p>HAYC HOUSING AUTHORITY OF YAMHILL COUNTY</p> <p>P.O. Box 865 135 NE Dunn Place McMinnville, Oregon 97128-0865</p>	<p>ZONING MAP AMENDMENT AND COMPREHENSIVE MAP AMENDMENT 1103 NORTH MERIDIAN STREET NEWBERG, OR</p>	 <p>3105 NE Weidler Portland OR 97232 P: 503.525.3678 F: 503.288.1098</p>
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JACQUITH PARK

N. COLLEGE / 219

SITE

N. EVERGREEN

SIERRA VISTA

ELLA COURT

JACQUIE COURT

N. MERIDIAN

SPAULDING OAKS

THE OAKS ARTS

SCALE: NTS

N



SITE

N. COLLEGE / 219

MISSION

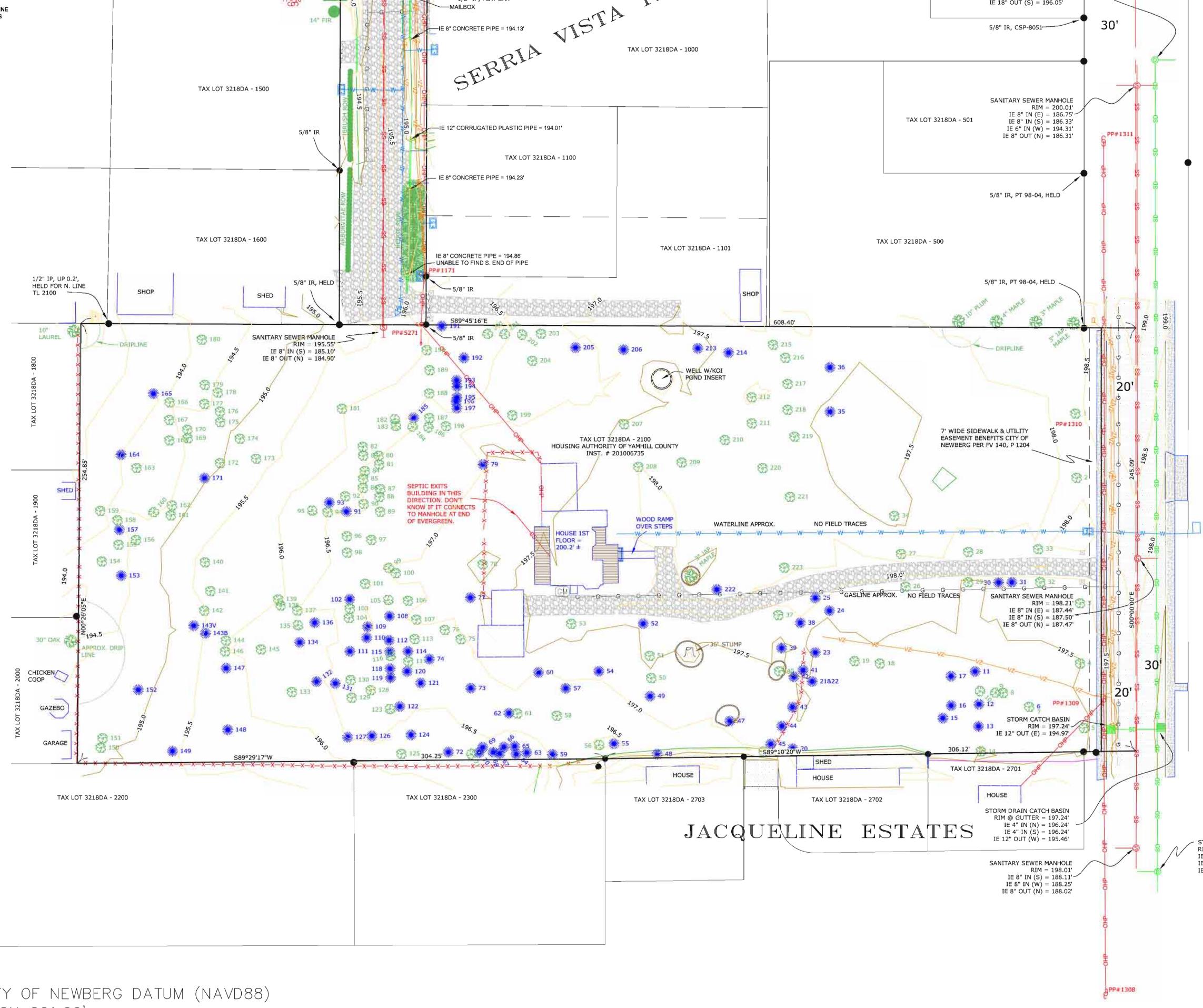
N. MERIDIAN

JACQUI COURT

ELLA COURT

SCALE: 1" = 60'

#	SPECIES	DBH	DRIP LINE RADIUS	TREE #	SPECIES	DBH	DRIP LINE RADIUS
1	Norway Maple	16"	16'	114	Grand Fir	7"	0
2	Norway Maple	10"	11'	115	Grand Fir	7 1/2"	0
3	Norway Maple	13"	15'	116	Grand Fir	7"	6"
4	Norway Maple	16"	20'	117	Grand Fir	10"	7"
5	Oregon White Oak	16"	12'	118	Grand Fir	6"	4"
6	Oregon White Oak	9"	0-20'	119	Grand Fir	7"	0
7	Douglas Fir	14"	12'	120	Grand Fir	9 1/2"	0
8	Douglas Fir	10"	0-9'	121	Grand Fir	9"	6"
9	Douglas Fir	14"	12'	122	Grand Fir	7"	5"
10	Douglas Fir	14"	11'	123	Grand Fir	7"	6"
11	English Hawthorn	7"	7'	124	Grand Fir	14"	8"
12	Douglas Fir	12"	9'	125	Pin Oak	18"	14"
13	English Hawthorn	8"	14'	126	Norway Maple	7"	8"
14	Oregon White Oak	16"	14'	127	Norway Maple	5 1/2"	6"
15	Douglas Fir	17"	16'	128	Oregon White Oak	41"	37"
16	Douglas Fir	16"	17"	129	Douglas Fir	9"	7"
17	Douglas Fir	13"	8'	130	Douglas Fir	8 1/2"	7"
18	English Walnut	5 1/2"	15'	131	Douglas Fir	10"	7"
19	Norway Maple	10"	12'	132	Douglas Fir	7 1/2"	8"
20	Oregon White Oak	9 1/2"	0-13'	133	Oregon White Oak	40"	40"
21	Black Locust	5 1/2"	0-20'	134	Douglas Fir	10"	8"
22	Black Locust	6"	0-20'	135	Douglas Fir	12"	9"
23	Norway Maple	5"	9"	136	English Laurel	6 1/2"	8"
24	Apple	8 1/2"	11'	137	Grand Fir	17"	11"
25	Plum	5 1/2"	5'	138	English Laurel	7"	8"
26	Red Maple	18"	17"	139	English Laurel	5 1/2"	8"
27	Red Maple	18"	19'	140	Douglas Fir	21"	16'
28	Red Maple	20"	20'	141	Douglas Fir	15"	12"
29	Red Maple	16"	19'	142	Douglas Fir	17"	13"
30	Douglas Fir	14"	8"	143	Douglas Fir	8 1/2"	9"
31	Douglas Fir	13 1/2"	12'	144	Douglas Fir	17"	13"
32	Red Maple	16"	19'	145	Norway Maple	9"	12"
33	Red Maple	17"	17'	146	Douglas Fir	16"	10"
34	Red Maple	8 1/2"	15'	147	Douglas Fir	9 1/2"	7"
35	English Walnut	8"	9"	148	Douglas Fir	10 1/2"	11"
36	English Walnut	9"	10"	149	Shore Pine	18"	16"
37	Blue Spruce	11"	10"	150	Douglas Fir	17"	15"
38	Red Oak	7 1/2"	10"	151	Douglas Fir	21"	15"
39	Grand Fir	10"	7"	152	Shore Pine	18"	14"
40	Oregon White Oak	51"	38'	153	Shore Pine	21"	17"
41	Red Oak	8"	16'	154	Douglas Fir	18"	14"
42	English Hawthorn	6"	11'	155	Douglas Fir	12"	10"
43	Ponderosa Pine	7"	6"	156	Douglas Fir	17"	11"
44	Ponderosa Pine	9"	9"	157	Shore Pine	14"	12"
45	Ponderosa Pine	11 1/2"	8"	158	Douglas Fir	10 1/2"	8"
46	Ponderosa Pine	23"	12'	159	Douglas Fir	21"	16"
47	Douglas Fir	30"	13'	160	Douglas Fir	17"	11"
48	Weeping Willow	21"	17'	161	Douglas Fir	18"	16"
49	Cherry	7"	0'	162	Douglas Fir	21"	14"
50	Norway Maple	20"	17'	163	Douglas Fir	21"	14"
51	Norway Maple	21"	24'	164	Douglas Fir	16"	14"
52	Vine Maple	6 1/2"	9"	165	Shore Pine	16"	15"
53	Japanese Maple	6 1/2"	11'	166	Douglas Fir	15"	11"
54	Norway Maple	11"	10"	167	Douglas Fir	14"	14"
55	Shore Pine	16"	12'	168	Douglas Fir	14"	15"
56	Ponderosa Pine	17"	10"	169	Douglas Fir	12"	9"
57	Grand Fir	15 1/2"	7"	170	Douglas Fir	10 1/2"	9"
58	Portugal Laurel	9"	7"	171	Douglas Fir	13"	9"
59	Shore Pine	12"	9"	172	Douglas Fir	16"	12"
60	Filbert	6 1/2"	8"	173	Douglas Fir	17"	18"
61	Grand Fir	16"	8"	174	Douglas Fir	18"	17"
62	Grand Fir	9 1/2"	10"	175	Douglas Fir	16"	14"
63	Shore Pine	18"	10"	176	Douglas Fir	21"	11"
64	Shore Pine	14 1/2"	7"	177	Shore Pine	18"	14"
65	Grand Fir	6"	5'	178	Douglas Fir	16"	13"
66	Shore Pine	9"	4'	179	Douglas Fir	21"	15"
67	Shore Pine	10"	10"	180	Plum	14"	14"
68	Shore Pine	10"	10"	181	Douglas Fir	17"	17"
69	Shore Pine	10 1/2"	5'	182	Douglas Fir	18"	15"
70	Shore Pine	12"	10"	183	Douglas Fir	14"	10"
71	Shore Pine	12 1/2"	8"	184	Douglas Fir	17"	14"
72	Plum	6 1/2"	7"	185	Douglas Fir	14"	12"
73	Pear	10 1/2"	9"	186	Douglas Fir	14"	10"
74	Apple	7 1/2"	9"	187	Douglas Fir	11"	7"
75	Plum	11 1/2"	11'	188	Douglas Fir	12 1/2"	9"
76	Pear	6"	6"	189	Douglas Fir	16"	14"
77	Apple	7 1/2"	6"	190	Douglas Fir	17"	18"
78	Big Leaf Maple	19 1/2"	16'	191	Hawthorn	8"	9"
79	Silka Spruce	16"	18'	192	Grand Fir	15"	11"
80	Douglas Fir	18 1/2"	13'	193	Douglas Fir	5 1/2"	7"
81	Grand Fir	15"	11'	194	Douglas Fir	6"	4"
82	Douglas Fir	10 1/2"	10'	195	Douglas Fir	7"	6"
83	Douglas Fir	16"	12'	196	Douglas Fir	5 1/2"	5"
84	Douglas Fir	11"	10"	197	Douglas Fir	8 1/2"	8"
85	Douglas Fir	12"	9"	198	Douglas Fir	12"	11"
86	Douglas Fir	9 1/2"	5'	199	Oregon White Oak	44"	36"
87	Douglas Fir	9 1/2"	9"	200	Sweetgum	10 1/2"	10"
88	Douglas Fir	14"	14'	201	Sweetgum	10"	9"
89	Douglas Fir	10 1/2"	13'	202	Sweetgum	9 1/2"	8"
90	Douglas Fir	12 1/2"	9"	203	Sweetgum	11"	9"
91	Douglas Fir	11"	6"	204	Grand Fir	11 1/2"	8"
92	Douglas Fir	14"	10"	205	Apple	8 1/2"	10"
93	Douglas Fir	7"	5'	206	Apple	8 1/2"	12"
94	Douglas Fir	8 1/2"	6"	207	Oregon White Oak	38 1/2"	26"
95	Douglas Fir	17"	14'	208	Douglas Fir	18"	15"
96	Douglas Fir	13 1/2"	9"	209	Oregon White Oak	46"	36"
97	Douglas Fir	18"	11'	210	European White Birch	20"	19"
98	Douglas Fir	18 1/2"	10'	211	Spruce	13 1/2"	15"
99	Grand Fir	15 1/2"	10'	212	Western White Pine	23 1/2"	14"
100	Grand Fir	22"	14'	213	Cherry	7 1/2"	9"
101	Douglas Fir	14"	9"	214	Apple	7 1/2"	10"
102	Douglas Fir	6"	4'	215	Blue Spruce	10 1/2"	8"
103	Douglas Fir	9"	5'	216	Sweetgum	20"	18"
104	Douglas Fir	13"	8"	217	Sweetgum	18"	18"
105	Grand Fir	6 1/2"	4'	218	Sweetgum	20"	20"
106	Grand Fir	16"	12'	219	Ponderosa Pine	19 1/2"	14"
107	Grand Fir	11 1/2"	7"	220	Red Oak	16 1/2"	25"
108	Grand Fir	11"	6"	221	Red Oak	20"	30"
109	Douglas Fir	7"	6"	222	Cherry	7 1/2"	9"
110	Douglas Fir	6 1/2"	6"	223	Oregon White Oak	50"	43"
111	Grand Fir	6"	6"				
112	Grand Fir	6"	6"				
113	Grand Fir	15 1/2"	8"				



Scale: 1" = 30'

North

EXHIBIT C

REVISIONS

REV	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Location: SE 1/4 Section 18, T. 3 S., R. 2 W., WM., in the City of Newberg, Yamhill County, Oregon.

Tax Lot: 3218DA - 2100
Date: 24 July 2010

By: Leland MacDonald & Assoc., LLC
Formerly dba Matt Dunckel & Assoc.
3765 Riverside Drive
McMinnville, Oregon 97128
Phone: 503-472-7904
Fax: 503-472-0367
Email: lee@macdonaldsurveying.com

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
January 16, 2002
LELAND A. MACDONALD
53226
Expires 31 December 2010

TOPOGRAPHIC SURVEY

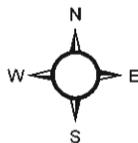
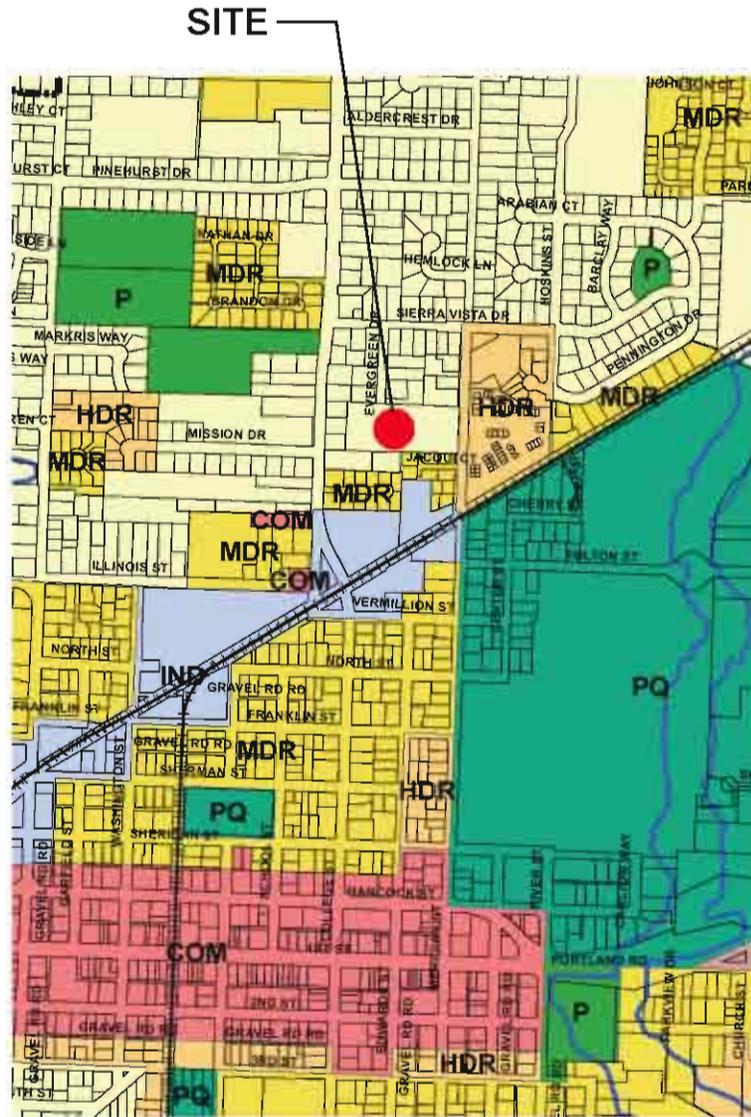
For: HOUSING AUTHORITY OF YAMHILL COUNTY, OREGON
1103 N. MERIDIAN STREET, NEWBERG, OR

SHEET 1 of 2

ELEVATIONS ARE BASED ON CITY OF NEWBERG DATUM (NAVD88) FROM BENCHMARK #71 ELEVATION 201.06'

EXHIBIT D COMPREHENSIVE MAP

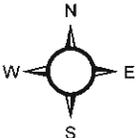
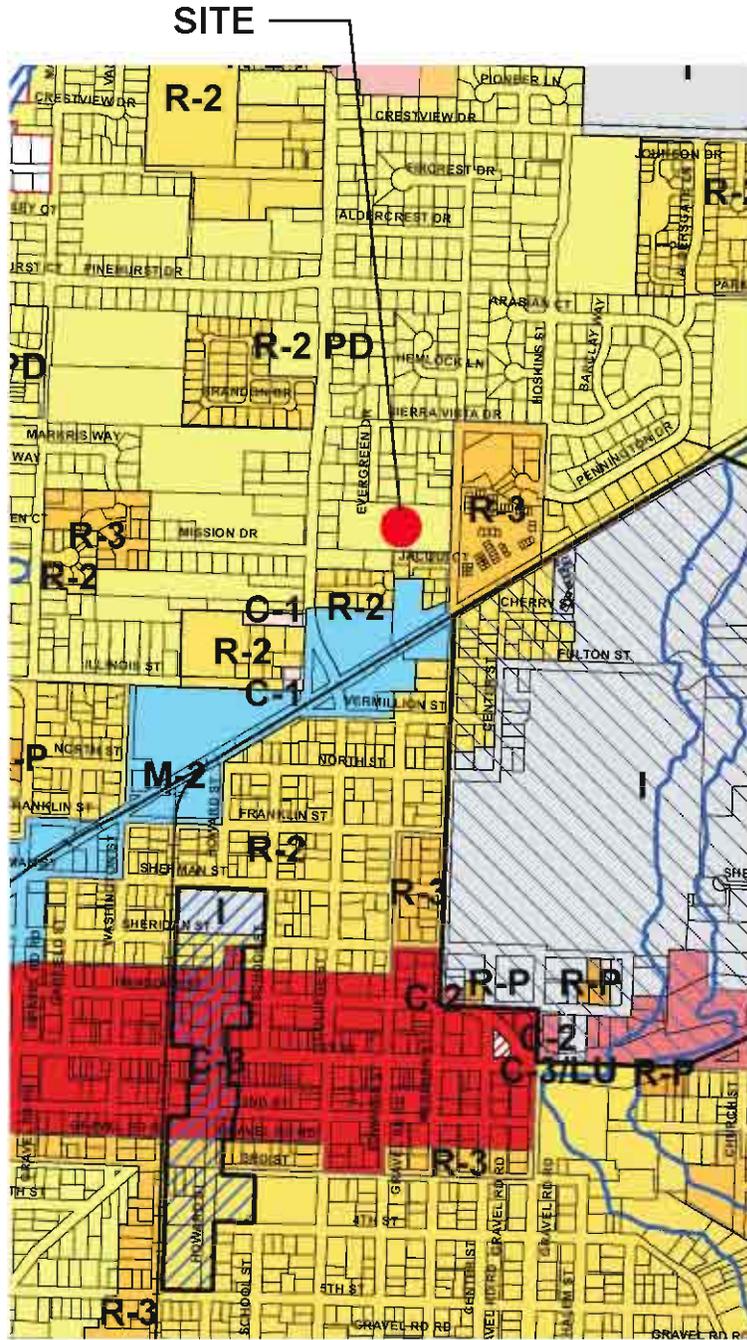
City of Newberg, Oregon



COMPREHENSIVE PLAN MAP Including the Urban Reserve Areas

- Future Park Site
- OS Open Space
- Stream Corridor
- City Limits
- COM Commercial
- SD/V Springbrook District - Village
- SD/NC Springbrook District - Neighborhood Commercial
- SD/H Springbrook District - Hospitality
- COM/RD Commercial Riverfront
- COM/SP Specific Plan
- IND Industrial
- IND/RD Industrial Riverfront
- IND/SP Specific Plan
- SD/E Springbrook District - Employment
- LDR Low Density Residential
- SD/LDR Springbrook District - Low Density Residential
- LDR/1A
- LDR-6.6 Low Density Residential 6.6 d.u./ac
- LDR/RD Low Density Residential Riverfront
- LDR/SP Specific Plan
- MDR Medium Density Residential
- MDR/RD Medium Density Residential Riverfront
- SD/MRR Springbrook District - Mid-Rise Residential
- MDR/SP Specific Plan
- HDR High Density Residential
- HDR/SP Specific Plan
- P Parks
- P/RD Parks Riverfront
- PQ Public-Quasi Public
- MIX Mixed Use
- MIX/SP Specific Plan
- Urban Reserve

EXHIBIT E ZONING PLAN MAP



City of Newberg, Oregon

NEWBERG ZONING MAP

Including the Urban Growth Boundary

- Limited Use Bypass Corridor Overlay
- Airport Industrial Overlay
- Airport Residential Overlay
- Institutional Overlay
- Urban Growth Boundary
- Stream Corridor
- City Limits
- Civic Corridor Overlay

ZONING

- C-1 Neighborhood Commercial
- SDIV Springbrook District - Village
- SDINC Springbrook District - Neighborhood Commercial
- SDIH Springbrook District - Hospitality
- C-1/SP Specific Plan
- C-2 Community Commercial
- C-2/LU Community Commercial/Limited Use
- C-2 PD Planned Unit Development
- C-2/SP Specific Plan
- C-3 Central Business District
- C-3/LU Central Business District - Limited Use
- CF Community Facility
- CF/RD Community Facility Riverfront District
- I Institutional
- M-1 Limited Industrial District
- M-1/SP Specific Plan
- AI Airport Industrial
- M-2 Light Industrial District
- SD/E Springbrook District - Employment
- M-3 Heavy Industrial District
- R-1 Low Density Residential
- SD/LDR Springbrook District - Low Density Residential
- R-1/PD Planned Unit Development
- R-1/0.1 Low Density 0.1 d.u./ac.
- R-1/0.4 Low Density 0.4 d.u./ac.
- R-1/5.6 Low Density 5.6 d.u./ac.
- R-1/SP Specific Plan
- R-2 Medium Density Residential
- R-2 PD Planned Unit Development
- R-2/RD Riverfront District
- R-2/SP Specific Plan
- SD/MRR Springbrook District - Mid-Rise Residential
- R-3 High Density Residential
- R-3 PD Planned Unit Development
- R-3/SP Specific Plan
- R-P Residential Professional
- R-P/SP Specific Plan
- R-P/LU Residential Profession - Limited Use Overlay
- AR Airport Residential

EXHIBIT F

ZONE CHANGE

AT

1103 MERIDIAN

NEWBERG, OREGON

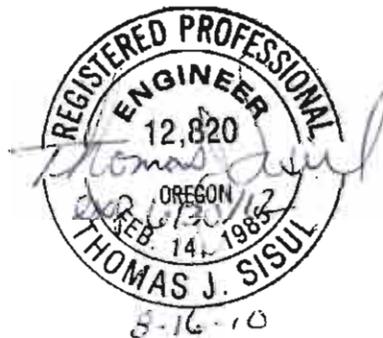
HOUSING AUTHORITY OF YAMHILL COUNTY

28-Jul-10

REV. 8-16-10

J.O. SGL 10-037

Sanitary Sewer Calculations



SISUL ENGINEERING

A Division of Sisul Enterprises, Inc.

375 Portland Avenue

Gladstone, OR 97027

phone: (503) 657-0188

fax: (503) 657-5779

IMPACT OF ZONE CHANGE FROM R-1 TO R-3 ON SANITARY SEWER FLOWS

PARCEL SIZE AT 1103 MERIDIAN (TL 2100) = 3.33 AC. (AFTER STREET DEDICATION)

FOR R-1 ZONING - MINIMUM LOT AREA \geq 7500 SF

FOR R-3 ZONING - MINIMUM AREA PER DWELLING UNIT \geq 1500/SF

FOR A DEVELOPMENT AT R-1 ZONING

TYPICAL LOSS DUE TO STREET RIGHT-OF-WAY CREATION IS 20%. THEREFORE
POSSIBLE NUMBER OF SINGLE FAMILY LOTS =

$$3.33 \text{ AC} * 43560 \text{ SF/AC} * 0.80 * (1 \text{ LOT}/7500 \text{ SF}) = 15.47$$

THEREFORE 15 SINGLE FAMILY HOMESITES ARE POSSIBLE WITH R-1 ZONING

APPROXIMATE NUMBER OF RESIDENTS PER HOUSEHOLD FOR NEWBERG IS 3.1

THEREFORE ESTIMATE NUMBER OF NEW RESIDENTS EXPECTED WITH R-1 ZONING =
15 HOMES * 3.1 RESIDENTS/HOME = 46 RESIDENTS

FOR A DEVELOPMENT AT R-3 ZONING

MAXIMUM DENSITY IS 1500 SF/DU, THEREFORE MAXIMUM # OF DU =
(3.33 AC * 43560 SF/AC) / 1500 SF/DU = 96.7 DWELLING UNITS

ASSUMING 2.8 RESIDENTS / DWELLING UNIT, ESTIMATE # OF RESIDENTS =
96 UNITS * 2.8 RESIDENTS/DU = 268 RESIDENTS

SEWAGE FLOW ASSUMPTIONS

ASSUMED SEWAGE FLOW PER CAPITA = 100 GAL/DAY

ASSUMED DAILY PEAKING FACTOR OVER DAILY AVERAGE = 4

THEREFORE THE ESTIMATE DAILY FLOWS FROM TL 1200 ARE

FOR R-1 ZONING

$$46 \text{ RESIDENTS} * 100 \text{ GPCD} = 4600 \text{ GAL/DAY} = 0.00712 \text{ CFS}$$

FOR R-3 ZONING

$$268 \text{ RESIDENTS} * 100 \text{ GPCD} = 26,800 \text{ GAL/DAY} = 0.0415 \text{ CFS}$$

ESTIMATED NUMBER EXISTING DWELLING UNITS CONNECTED TO, OR UPSTREAM OF 8"
SEWER IN SIERRA VISTA AND WEST OF EVERGREEN IS 167 DWELLING UNITS

THEREFORE ESTIMATED DAILY FLOW FROM EXISTING DU's =

$$167 \text{ DU} * 3.0 \text{ RESIDENTS/DU} * 100 \text{ GPCD} = 50,100 \text{ GPD} = 0.0775 \text{ CFS}$$

CALCULATING FOR PEAK FLOW RATES THE FOLLOWING IS DETERMINED

FOR PEAK FLOWS FOR EXISTING + R-1 ZONING TIMES THE PEAKING FACTOR
 $(0.0775 \text{ CFS} + 0.00712 \text{ CFS}) * 4 = 0.338 \text{ CFS}$

FOR PEAK FLOWS FOR EXISTING + R-3 ZONING TIMES THE PEAKING FACTOR
 $(0.0775 \text{ CFS} + 0.0415 \text{ CFS}) * 4 = 0.476 \text{ CFS}$

EXISTING SEWER LINE IS 8 INCH DIAMETER AT 0.4% SLOPE ACCORDING TO CITY RECORDS

WHERE CONVEYANCE LINE IS 8 INCH DIAMETER; AT 0.4% SLOPE; AND $n=0.013$
 $Q= 0.75 \text{ CFS}$

THEREFORE ESTIMATED PEAK FLOW FOR EXISTING + R-1 ZONING ON TL 2100 IS APPROXIMATELY 45% OF PIPE CAPACITY

THEREFORE ESTIMATED PEAK FLOW FOR EXISTING + R-3 ZONING ON TL 2100 IS APPROXIMATELY 63% OF PIPE CAPACITY

PIPE CAPACITY IS ADEQUATE AT CRITICAL PIPE SEGMENT FOR BOTH SCENARIOS WITHOUT CONSIDERATION FOR INFILTRATION

CALCULATION FOR INFILTRATION

THE CITY OF NEWBERG USES AN INFILTRATION ALLOWANCE OF 1000 GAL/ACRE/DAY.

THE APPROXIMATE DRAINAGE AREA FOR THE SEWER BASIN OF THE LINE THAT DRAINS DOWN SIERRA VISTA STREET IS 30 ACRES.

THEREFORE THE APPROXIMATE FLOW DUE TO GROUNDWATER INFILTRATION IS
 $(1000 \text{ GAL/AC/DAY})(30 \text{ ACRES}) = 30,000 \text{ GAL/DAY OR } 0.046 \text{ CFS}$

REVIEWING DESIGN INFILTRATION RATES FROM OTHER SOURCES A RANGE FOR INFILTRATION ALLOWANCES IS FROM 50 TO 1500 GPD/INCH DIAMETER/MILE WITH MOST INFILTRATION ALLOWANCES IN THE 100 TO 500 GPD/INCH DIAMETER/MILE RANGE

THE SIERRA VISTA SEWER BASIN CONTAINS JUST UNDER A MILE OF PIPING NEARLY ALL OF WHICH IS 8 INCH. IF THE 1500 GPD/INCH DIAMETER/MILE FIGURE WERE USED THE DAILY INFILTRATION AMOUNT WOULD BE 12,000 GAL/DAY FOR THE BASIN.

THEREFORE THE 30,000 GAL/DAY FIGURE USED BY THE CITY IS A CONSERVATIVE FIGURE

PEAKING FACTORS ARE NOT NORMALLY USED FOR INFILTRATION RATES AS I&I IMPACTS FLOW AND EBB IN TERMS OF DAYS RATHER THAN HOURS.

THEREFORE FOR ADDING INFILTRATION FLOWS TO THE PEAK FLOWS THE FOLLOWING RESULTS ARE FOUND.

FOR EXISTING FLOW (PEAK FLOW + R1 ZONING) + INFILTRATION IS
 $0.338 \text{ CFS} + 0.046 \text{ CFS} = 0.384 \text{ CFS}$

FOR EXISTING FLOW (PEAK FLOW + R3 ZONING) + INFILTRATION IS
 $0.476 \text{ CFS} + 0.046 \text{ CFS} = 0.522 \text{ CFS}$

PREVIOUSLY DETERMINED WAS THE APPROXIMATE CAPACITY OF THE SEWER LINE
 $Q \approx 0.75 \text{ CFS}$

THEREFORE ACCOUNTING FOR INFILTRATION, PEAK FLOW FOR R-1 WOULD BE APPROXIMATELY 51% OF CAPACITY

ACCOUNTING FOR INFILTRATION, PEAK FLOW FOR R-3 WOULD BE APPROXIMATELY 70% OF CAPACITY.

PIPE CAPACITY IS ADEQUATE AT CRITICAL PIPE SEGMENT FOR BOTH SCENARIOS EVEN WHEN INFILTRATION IS CONSIDERED

EXHIBIT G

MERIDIAN STREET ZONE CHANGE TRAFFIC IMPACT STUDY

NEWBERG, OREGON

DATE:
August 10, 2010

PREPARED FOR:
Housing Authority of Yamhill County

PREPARED BY:
Michael Ard, PE



EXPIRES: 12/31/11



LANCASTER
ENGINEERING



EXECUTIVE SUMMARY

1. A zone change from R1 (Low-Density Residential) to R3 (High-Density Residential) is proposed for a parcel located at 1103 N Meridian Street in Newberg, Oregon.
2. Development of the subject property with the maximum number of high-density residential units permitted under the zoning code would generate a net increase of 38 trips during the morning peak hour, 46 trips during the evening peak hour and 504 trips during an average day.
3. Development of the subject property under the likely development scenario with up to 71 residential dwelling units is projected to result in a net increase of 25 trips during the morning peak hour, 30 trips during the evening peak hour and 338 trips during an average day.
4. Adequate sight distance is available for a future driveway access serving the site on the N Meridian Street frontage.
5. A detailed review of the crash history in the site vicinity showed no significant existing hazards. No safety mitigations are recommended.
6. Based on the operational analysis, all study area intersections are projected to operate acceptably through the year 2025 planning horizon either with or without the addition of site trips from high-density residential development of the subject property. No mitigation is needed or recommended.
7. The Synchro/SimTraffic queuing analysis showed no significant queues at the study area intersections. No mitigation is needed or recommended.
8. The proposed zone change will not result in a “significant affect” as defined under Oregon’s Transportation Planning Rule. Therefore, no mitigations are recommended.



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PROJECT DESCRIPTION

INTRODUCTION

The Housing Authority of Yamhill County has proposed a zone change for a 3.27-acre parcel at 1103 N Meridian Street in Newberg, Oregon. The property is currently zoned R1 (Low-Density Residential) and is proposed for R3 (High-Density Residential) zoning.

The purpose of this study is to assess the potential traffic impacts of the proposed rezone on the nearby street system and to recommend any required mitigative measures. The proposed rezone is to be evaluated based on the reasonable worst-case development that could occur as a permitted use under the existing and proposed zonings. This requirement is typical of zone change applications, and is based on the application of the State of Oregon's Transportation Planning Rule.

In addition to the long-range (year 2025) analysis required for the proposed zone change, a build-out (year 2012) analysis is provided to identify short-term impacts expected from future development of the subject property.

Detailed information on traffic counts, trip generation calculations, and level of service calculations is included in the appendix to this report.

LOCATION DESCRIPTION

The subject property is located on the west side of N Meridian Street between Sierra Vista Street and Jacqueline Court in Newberg, Oregon. Site access is available via the frontage on N Meridian Street. It is currently developed with a single home that takes access to N Meridian Street.

The City of Newberg requires an operational and safety analysis of the potential traffic impacts to the intersections of N Meridian Street at Fulton Street, N Meridian Street at Sierra Vista Street, and N College Street/Highway 219 at Sierra Vista Street. In addition, analysis of potential site access on N Meridian Street is included.

North College Street forms a portion of the Hillsboro-Silverton Highway (OR 219) and is classified by the Oregon Department of Transportation as a District highway. It is also classified by the City of Newberg as a Minor Arterial. North College Street has a posted speed limit of 35 mph in the site vicinity. It has a two-lane cross-section with the centerline striped for passing. Fog line stripes are provided on both sides of the roadway, along with a mix of paved and gravel shoulders. Some on-street parking is available in the vicinity of Sierra Vista Street.

Sierra Vista Street is classified by the City of Newberg as a Local Residential street. It has a statutory speed limit of 25 mph. The roadway is approximately 18 feet wide with gravel shoulders and no centerline striping. There are no sidewalks on either side of the roadway.

North Evergreen Drive is classified by the City of Newberg as a Local Residential street and has a statutory speed limit of 25 mph. It has a gravel surface and is approximately 18 feet wide. There are no sidewalks on either side of the roadway. North Evergreen Drive terminates in a dead-end at the fence at the north property line of the subject property.

North Meridian Street is classified by the City of Newberg as a Minor Collector and has a statutory speed limit of 25 mph. In the vicinity of the project site, there are curbs, gutters, sidewalks and on-street parking on both sides of the roadway. One travel lane is provided in each direction, and the centerline is striped to allow passing.

Fulton Street is classified by the City of Newberg as a Major Collector and has a statutory speed of 25 mph. It has a two-lane cross-section with the centerline striped for passing. Curbs, gutters and on-street parking are provided on both sides of the roadway. A sidewalk is also provided on the north side of the roadway between N Meridian Street and N Center Street.

The intersection of College Street/Highway 219 at Sierra Vista Street is a T-intersection controlled by a stop sign on the westbound Sierra Vista Street approach. Through traffic travelling along Highway 219 does not stop. Each approach has a single, shared travel lane.

The intersection of Sierra Vista Street at N Evergreen Drive is an uncontrolled T-intersection. Each approach has a single, shared travel lane.

The intersection of N Meridian Street at Sierra Vista Street is a 4-way intersection controlled by stop signs on the eastbound and westbound Sierra Vista Street approaches. Each approach has a single, shared travel lane.

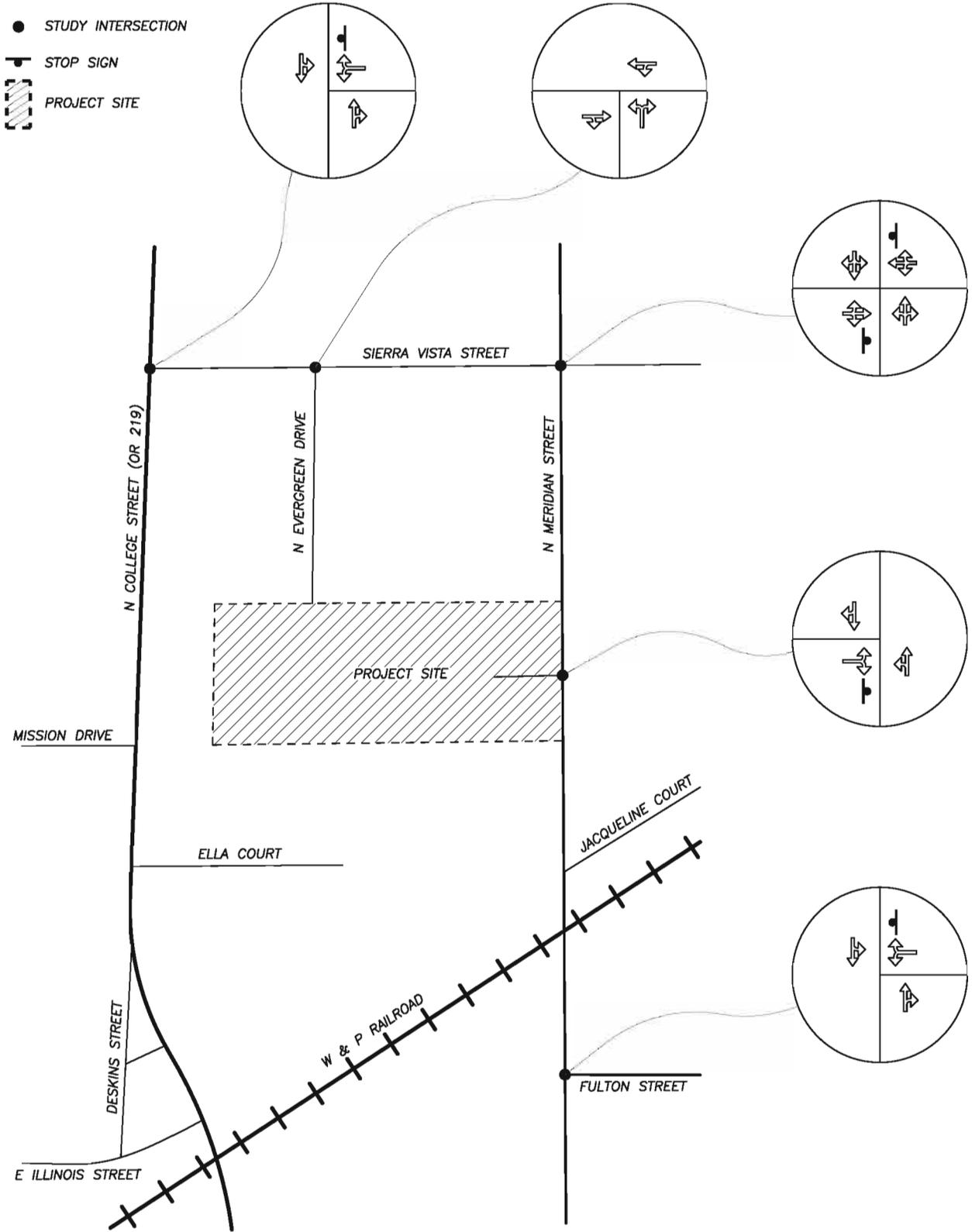
The intersection of N Meridian Street at Fulton Street is a T-intersection controlled by a stop sign on the westbound Fulton Street approach. Each approach has a single, shared travel lane.

Manual turning movement counts were made at the intersections of N Meridian Street at Fulton Street, N Meridian Street at Sierra Vista Street and College Street at Sierra Vista Street during July 2010 from 7:00 to 9:00 AM and from 4:00 to 6:00 PM. The peak hours typically occur from about 8:00 to 9:00 AM and from 4:55 to 5:55 PM. Detailed traffic count data is included in the appendix to this report.

Figure 1 on page six shows the location of the site and the existing lane configurations and traffic control devices at the study intersections. Figure 2 on page seven shows the existing traffic volumes at the intersections.

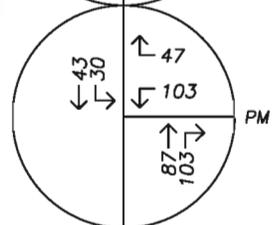
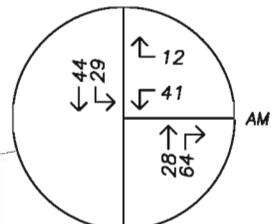
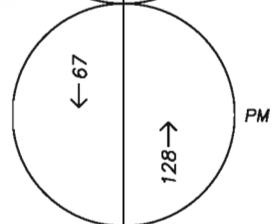
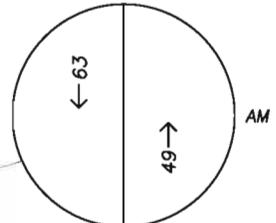
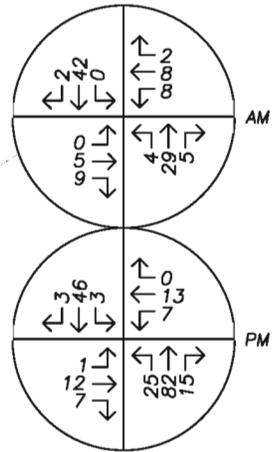
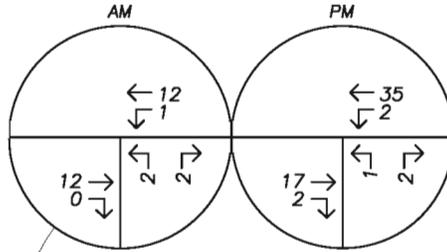
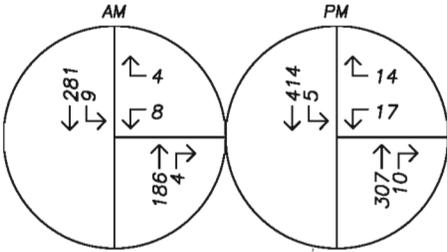
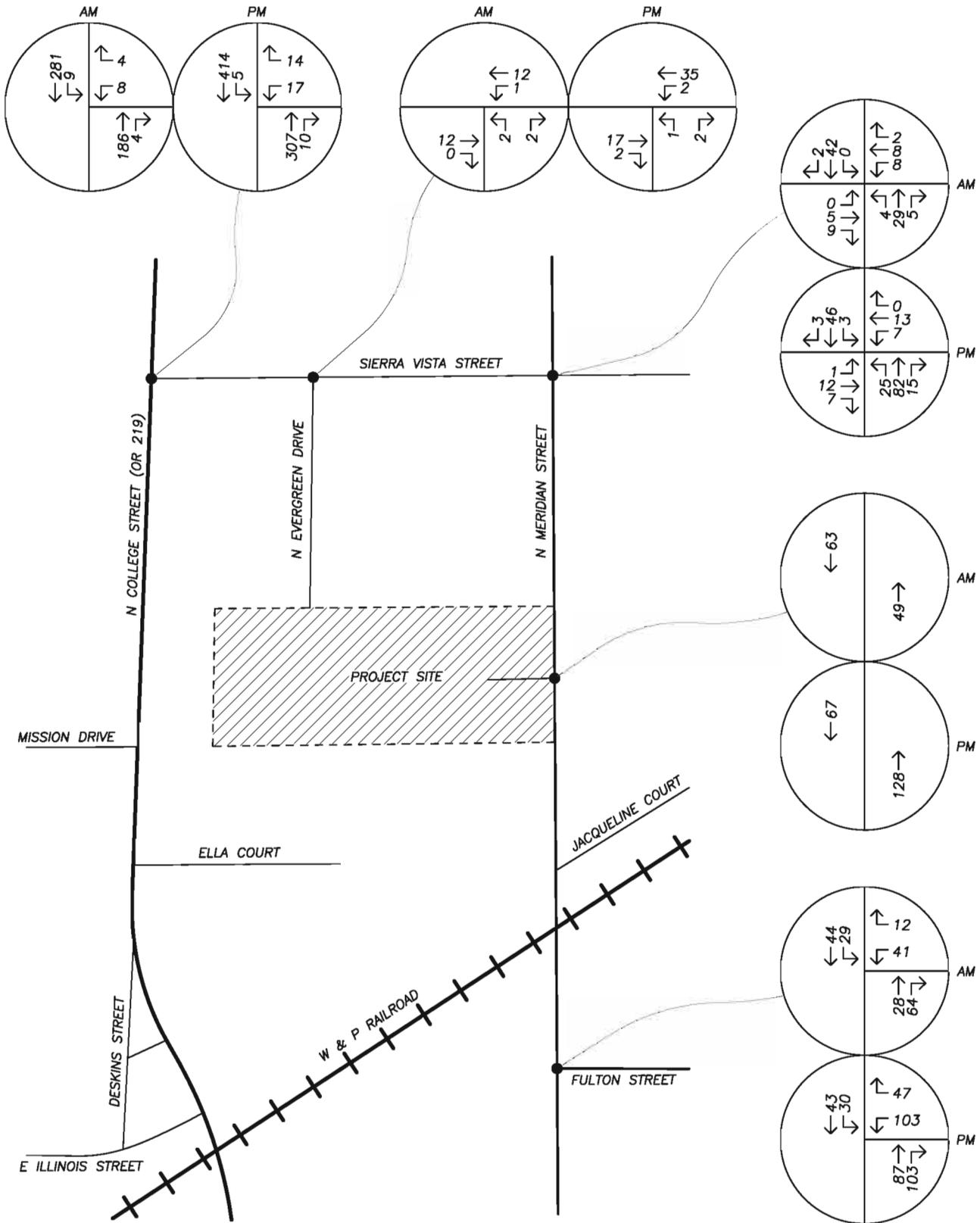
LEGEND

- STUDY INTERSECTION
- ⊥ STOP SIGN
- ▨ PROJECT SITE



VICINITY MAP
Existing Lane Configurations
and Traffic Control Devices







TRIP GENERATION & DISTRIBUTION

TRIP GENERATION

To estimate the number of trips that could reasonably be generated under the proposed zone change, allowable development under the existing and proposed zoning was compared.

Under existing conditions, the R1 zoning allows development of the subject property with up to 4.4 residential dwellings per acre. Accordingly, the 3.27-acre site could be partitioned and developed with up to 14 single-family dwellings.

Under the proposed R3 zoning, up to 96 multi-family dwelling units could be placed on the subject property with one unit for every 1,500 square feet. These calculations include a reduction in site acreage to account for a 10' right-of-way dedication the will be required along the Meridian Street frontage.

To estimate the number of trips that would be generated under each analysis scenario, trip rates from the manual *TRIP GENERATION*, Eighth Edition, published by the Institute of Transportation Engineers (ITE), were used. The trip rates used were for land-use codes 210, *Single-Family Detached Housing*, and 220, *Apartment*. The trip generation rates are based on the number of dwelling units.

The trip generation calculations show that the proposed rezone could result in a net increase of 38 trips during the morning peak hour with 7 entering and 31 exiting the site. 46 additional trips are expected during the evening peak hour with 30 entering and 16 exiting the site. A weekday increase of 504 trips is expected with half entering and half exiting.

A summary of the trip generation calculations for the reasonable worst-case zone change scenario is provided in the following table. Detailed calculations are included in the appendix to this report.

WEEKDAY TRIP GENERATION SUMMARY

Meridian Street Zone Change

Units	AM Peak Hour			PM Peak Hour			Weekday			
	In	Out	Total	In	Out	Total	In	Out	Total	
Apartment Units	96	10	39	49	39	21	60	319	319	638
Single Family Homes	14	3	8	11	9	5	14	67	67	134
Net Zone Change Trips		7	31	38	30	16	46	252	252	504

Since an existing historical home and significant site trees will limit the achievable density on the site, a second analysis scenario was prepared based on the maximum number of dwelling units likely to be constructed given the constraints of the site. This scenario includes up to 71 multi-family residential dwelling units.



The trip generation calculations show that the proposed rezone could result in a net increase of 25 trips during the morning peak hour with 6 entering and 30 exiting the site. 30 additional trips are expected during the evening peak hour with 20 entering and 10 exiting the site. A weekday increase of 338 trips is expected with half entering and half exiting.

A summary of the trip generation calculations for the likely development scenario is provided in the following table. Detailed calculations are included in the appendix to this report.

WEEKDAY TRIP GENERATION SUMMARY

Meridian Street Development Scenario

	Units	AM Peak Hour			PM Peak Hour			Weekday		
		In	Out	Total	In	Out	Total	In	Out	Total
Apartment Units	71	7	29	36	29	15	44	236	236	472
Single Family Homes	14	3	8	11	9	5	14	67	67	134
Net Zone Change Trips		4	21	25	20	10	30	169	169	338

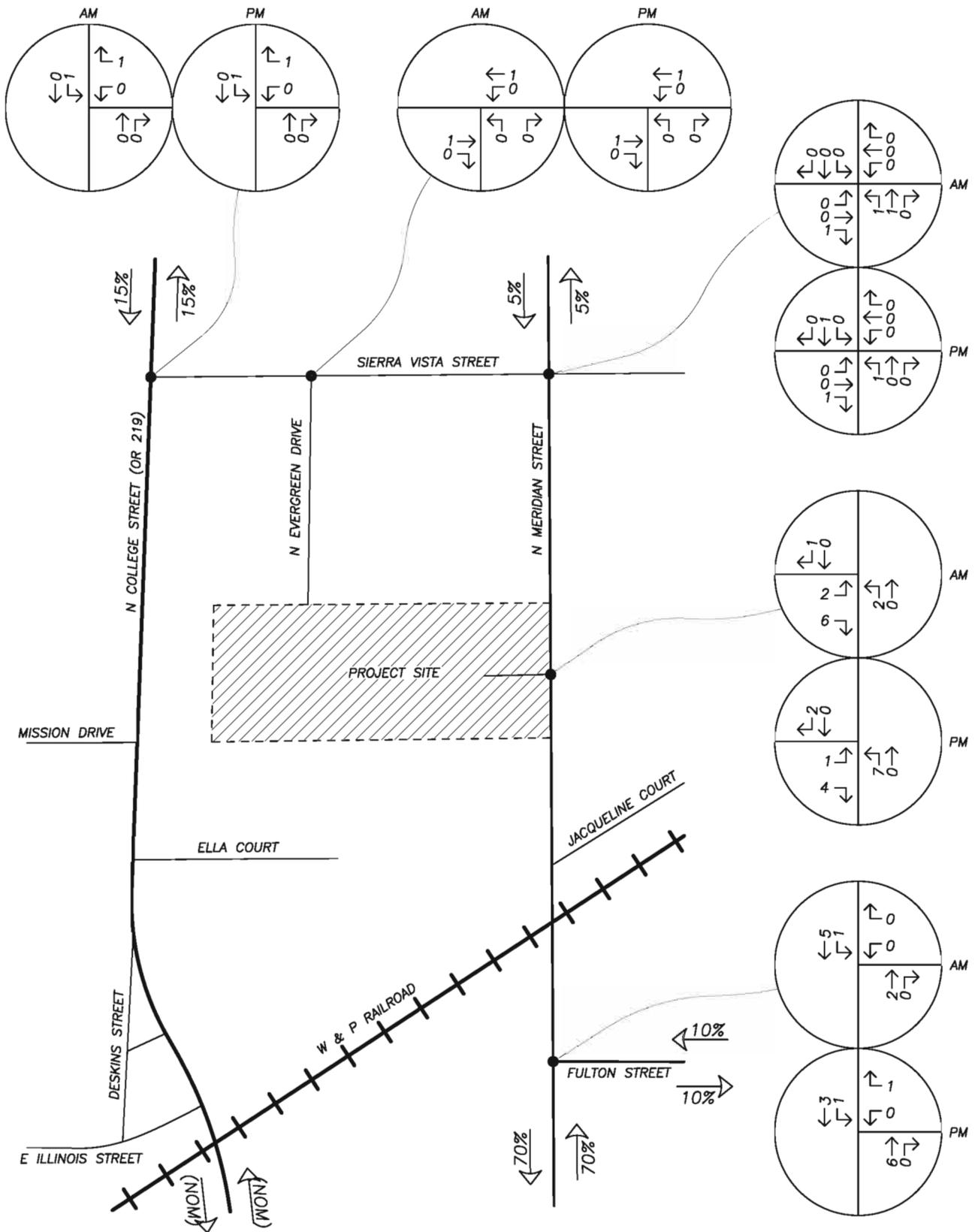
Based on the land use, no reductions were taken for pass-by trips. In order to provide a conservative analysis, no reductions were taken for transit use.

TRIP DISTRIBUTION

The assignment of site trips from potential development of the subject properties was determined based on existing traffic patterns, the locations of major transportation facilities, and the anticipated origin and destination points for potential residents.

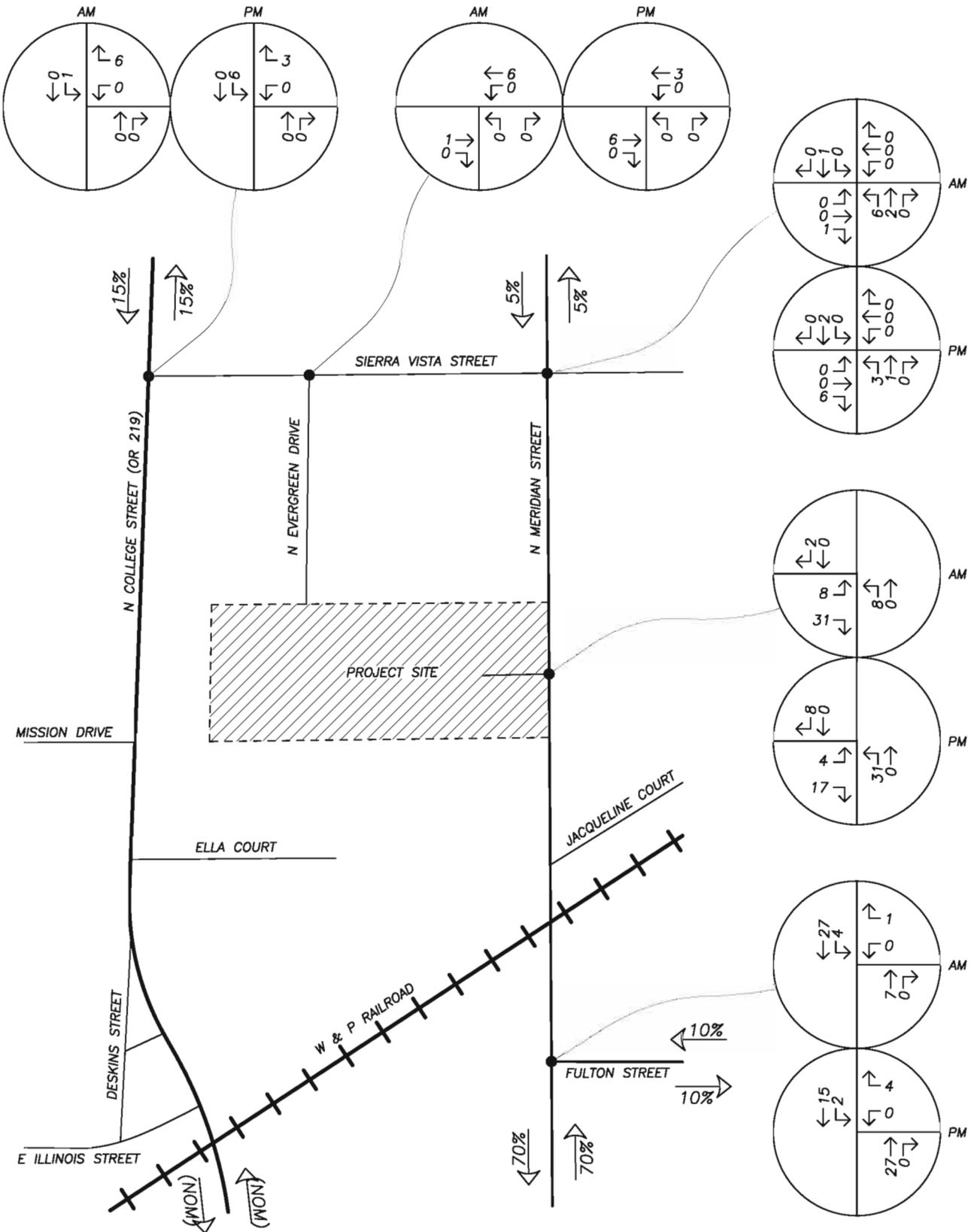
Seventy percent of site trips were projected to travel to and from the south on N Meridian Street. An additional ten percent were projected to travel to and from the east on Fulton Street. Twenty percent of site trips were projected to travel to and from the north. Most of these trips were assigned to N College Street, however some local trips to and from the north and northeast were assigned to N Meridian Street.

Figure 3 on page 11 shows the distribution and assignment of residential site trips from potential development of the subject property under the existing zoning. Figure 4 on page 12 shows the distribution and assignment of residential site trips from worst-case development of the subject property under the proposed zoning, as required to address Oregon's Transportation Planning Rule. Figure 5 on page 13 shows the distribution and assignment of residential site trips under the likely development scenario.



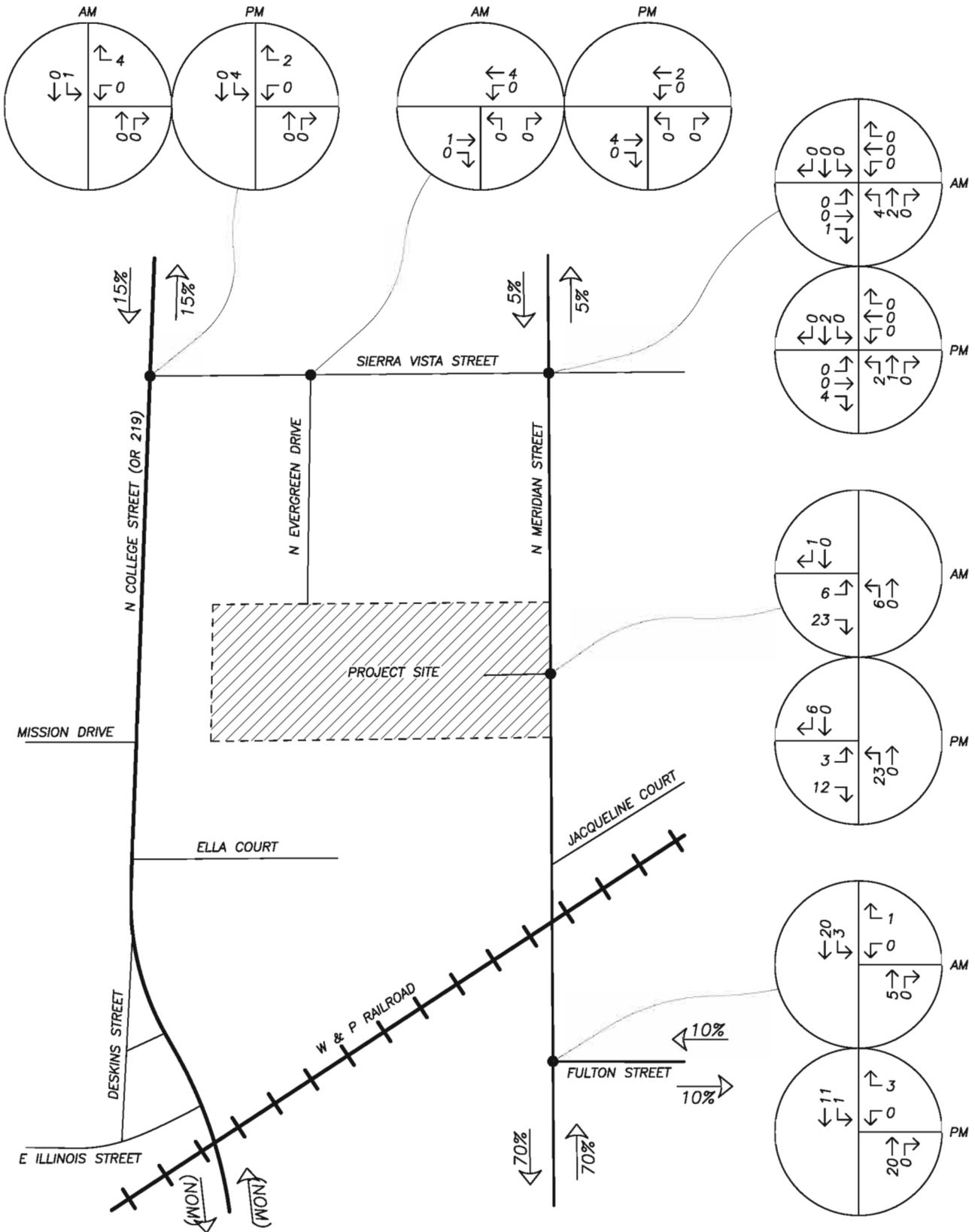
SITE TRIP DISTRIBUTION AND ASSIGNMENT
 Existing Zoning
 AM & PM Peak Hours





SITE TRIP DISTRIBUTION AND ASSIGNMENT
 Maximum Development Permitted Under Proposed Zoning
 AM & PM Peak Hours





SITE TRIP DISTRIBUTION AND ASSIGNMENT
 Likely Development Scenario
 AM and PM Peak Hours





SAFETY ANALYSIS

SIGHT DISTANCE

Sight distance was examined along the site frontage on N Meridian Street in order to determine where safe access to the highway could be established. Required intersection sight distance was calculated from the equations given in *A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS*, published in 2001 by the American Association of State Highway and Transportation Officials (AASHTO). The measurements are based on a driver's eye height of 3.5 feet above the roadway and an object height of 3.5 feet, with the driver's eye 15 feet behind the edge of the near side travel lane. Based on the statutory 25 mph speed limit, the required intersection sight distance is 280 feet in each direction.

There are no horizontal or vertical curvatures or obstructions limiting sight distance from locations along the property's frontage. Accordingly, access could be taken at any location along the site frontage.

CRASH HISTORY

The most recent three years of crash data for the area intersections was obtained from the Oregon Department of Transportation's Crash Analysis and Reporting Unit, in order to identify any existing safety deficiencies in the site vicinity. Generally, crashes are evaluated based on both the number of crashes and the relative frequency of crashes as compared to the volume of traffic. Crash rates lower than one crash per million entering vehicles are typically not associated with significant safety deficiencies. Crash rates of 1.0 or greater may be indicative of safety deficiencies and therefore merit a more detailed crash investigation.

The intersection of N College Street at Sierra Vista Street had one reported crash during the most recent three-year period for which crash data is available. It involved a northbound vehicle travelling along N College Street that collided at low speed with a southbound pedestrian walking on the east side of the roadway. No injuries were reported as a result of the collision. The incident occurred on a clear, dry day, and no factors contributing to the crash are detailed. The crash data indicates the cause of the collision only as "other – not improper driving". The crash rate for the intersection was calculated to be 0.12 crashes per million entering vehicles. Based on the crash analysis for this intersection, no significant concerns were noted and no mitigation is recommended.

The intersection of Sierra Vista Street at N Evergreen Drive had no reported crashes during the most recent three-year period for which crash data is available. No safety concerns are noted, and no mitigation is recommended.

The intersection of N Meridian Street at Sierra Vista Street had one reported crash during the most recent three-year period for which crash data is available. It involved a westbound vehicle travelling on Sierra Vista Street that failed to stop at the stop sign and collided with a southbound through vehicle travelling on N Meridian Street. The crash rate for the intersection was calculated to be 0.43



crashes per million entering vehicles. Based on the crash analysis for this intersection, no significant concerns were noted and no mitigation is recommended.

The intersection of N Meridian Street at Fulton Street had no reported crashes during the most recent three-year period for which crash data is available. No safety concerns are noted, and no mitigation is recommended.



OPERATIONAL ANALYSIS

BACKGROUND TRAFFIC

Prior to assigning site trips to the area intersections, the existing traffic volumes were increased in order to account for seasonal traffic variations, background traffic associated with operation of the nearby George Fox University campus, development of the Springbrook properties and other anticipated growth in the study area.

For streets operating under City of Newberg jurisdiction, an annual growth rate of two percent per year was included to account for increases in traffic volumes that can be expected as a result of additional development expected to occur in the future within Newberg and the surrounding areas. It is expected that this site could be developed and occupied by 2012, so the growth rate was applied over a two-year period to generate year 2012 background traffic volumes. The growth rate was also applied over a 15-year period to generate year 2025 background traffic volumes. This long-range analysis is required in order to address Oregon's Transportation Planning Rule requirements for the proposed Comprehensive Plan Amendment and Zone Change.

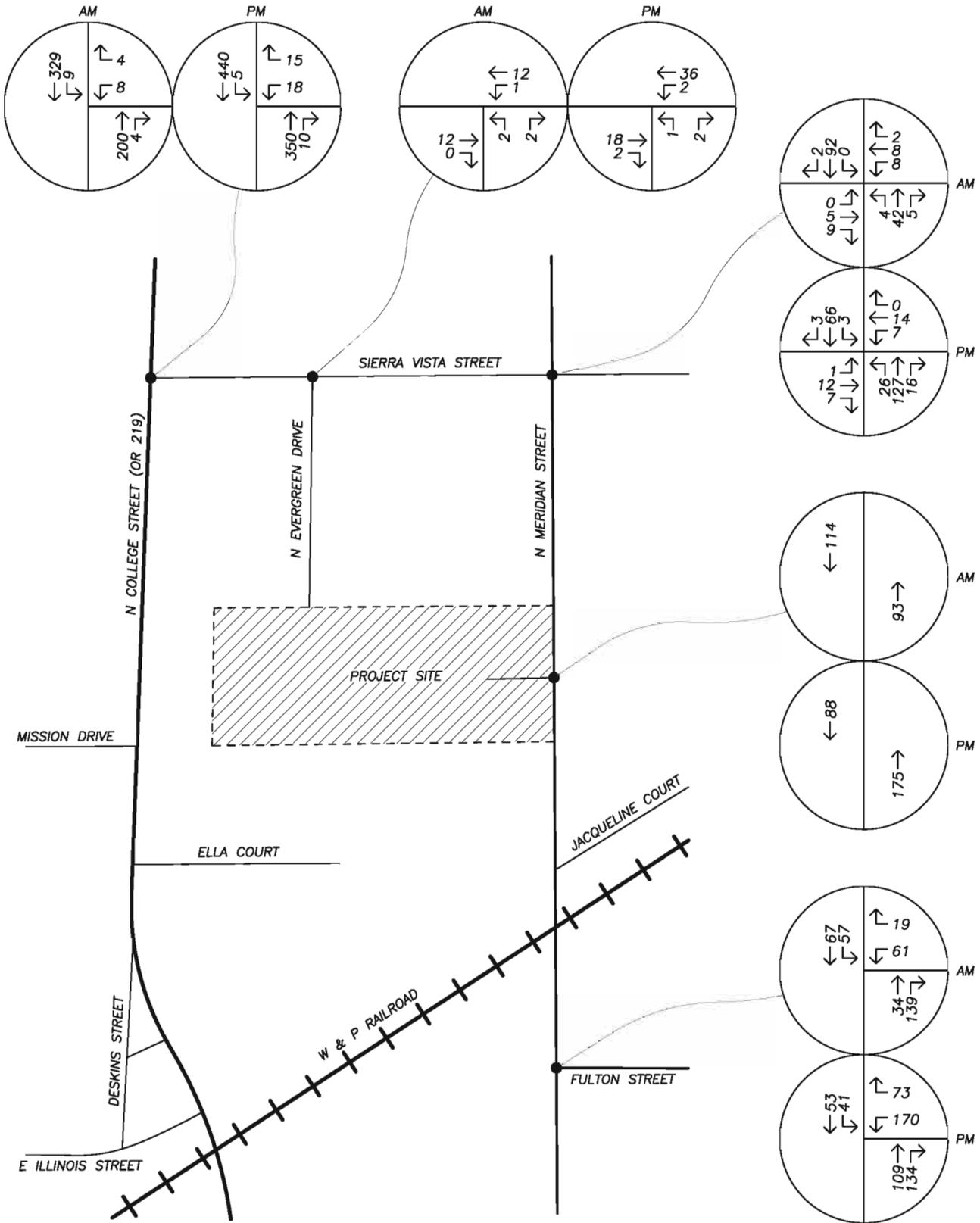
One of the analysis intersections is located on a District Highway. The Oregon Department of Transportation maintains detailed traffic information and resources for determining design hour volumes for current and future years. Using the methods described in ODOT's Analysis Procedures Manual for developing design hour volumes, the existing traffic counts were factored using a seasonal adjustment and model growth data to determine the projected year 2012 and year 2025 30th-highest-hour traffic volumes on N College Street/OR219. The seasonal adjustment factor was calculated to be 1.00 and the annual growth factor was calculated to be 1.16% per year (linear).

In addition to the nominal growth rates, in-process trips from George Fox University were added to the existing traffic volumes to account for the fact that traffic counts were conducted during the summer months when the school is not operating at capacity. Approved trips from the Springbrook Development were also added to the year 2025 background traffic volumes, since it is likely that development of this area will be completed by 2025. Figures illustrating the in-process trips from George Fox University and the Springbrook Development are included in the technical appendix to this report.

Figure 6 on page 17 shows the projected year 2012 background traffic volumes at the analysis intersections. Figure 7 on page 18 shows the year 2012 traffic volumes with the addition of site trips from high-density residential development of the subject property.

Figure 8 on page 19 shows the projected year 2025 background traffic volumes including development of the subject property with 14 single-family homes, as permitted under the existing R1 zoning. Figure 9 on page 20 shows the year 2025 traffic volumes with the addition of high-density residential development under the proposed R3 zoning designation.

A diagram showing the net increase in site trips from the existing to the proposed zoning is also included in the technical appendix.

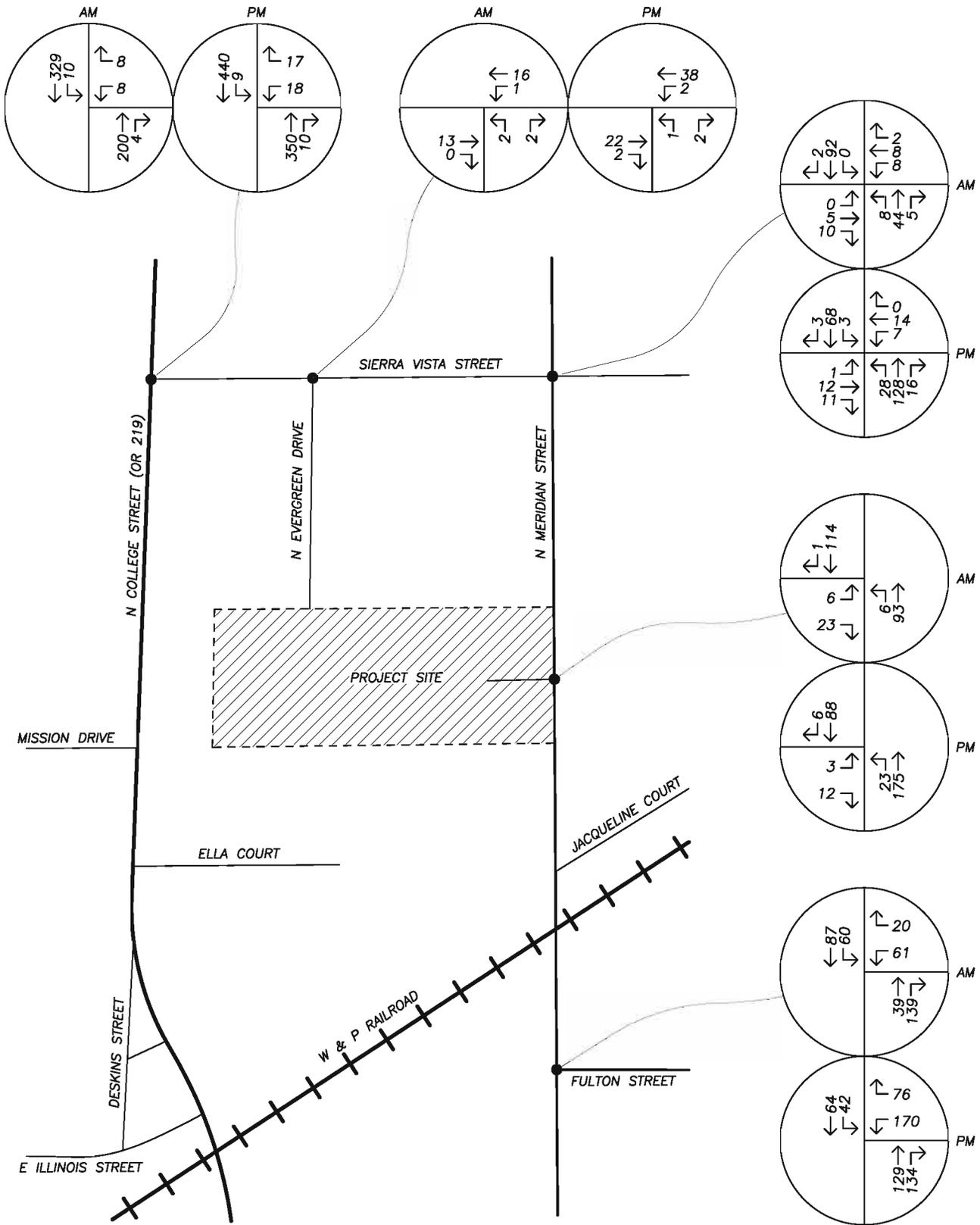


TRAFFIC VOLUMES
Year 2012 Background
AM and PM Peak Hours



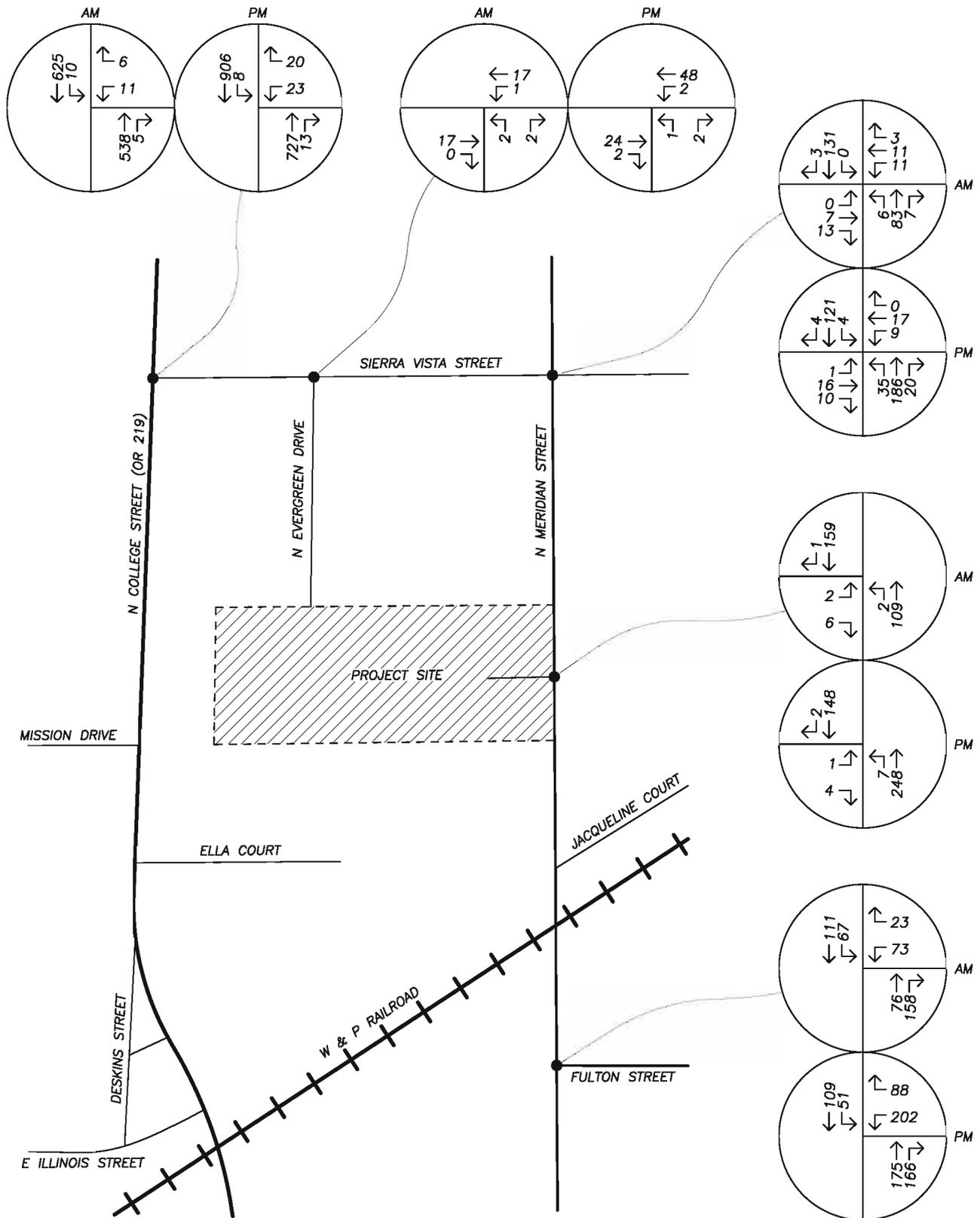
FIGURE
6

PAGE
17



TRAFFIC VOLUMES
 Year 2012 Background plus Site Development
 AM and PM Peak Hours



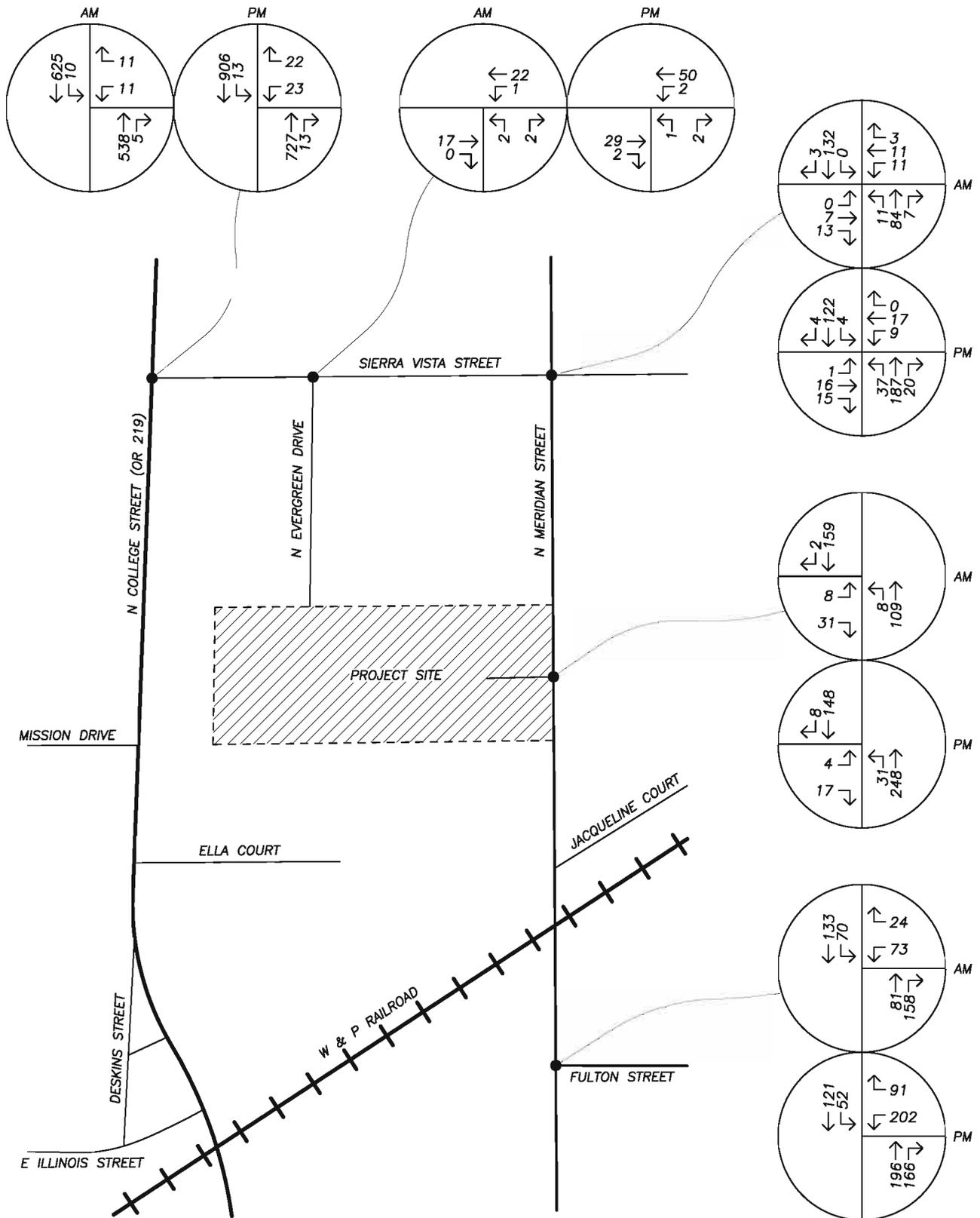


TRAFFIC VOLUMES
 Year 2025 Background (Existing Zoning)
 AM and PM Peak Hours



FIGURE 8

PAGE 19



TRAFFIC VOLUMES
 Year 2025 Background plus Zone Change
 AM and PM Peak Hours



FIGURE 9

PAGE 20



CAPACITY ANALYSIS

To determine the level of service at the study intersections, a capacity analysis was conducted. The analysis was conducted according to the signalized and unsignalized intersection analysis methodologies in the 2000 *HIGHWAY CAPACITY MANUAL* (HCM) published by the Transportation Research Board. The level of service can range from A, which indicates very little or no delay, to level F, which indicates a high degree of congestion and delay. For unsignalized intersections, level of service E is generally considered to be the minimum operational standard.

The Oregon Highway Plan dictates that District Highway intersections within an Urban Growth Boundary on highways with a posted speed less than or equal to 35 mph operate with a volume-to-capacity (v/c) ratio of 0.90 or less. The v/c ratio is an indication of the portion of intersection capacity being used under the analyzed conditions, with a value of 1.0 indicating an intersection that is operating at capacity. This operational standard applies at the intersection of College Street and Sierra Vista Street since College Street is a District Highway.

Under existing conditions, the intersection of N College Street/OR 219 at Sierra Vista Street is operating with a v/c ratio of 0.13 during the morning peak hour and a v/c ratio of 0.23 during the evening peak hour. Under year 2012 traffic conditions, the intersection is projected to operate with a v/c ratio of 0.14 during the morning peak hour and a v/c ratio of 0.26 during the evening peak hour either with or without the addition of site trips from high-density residential development of the subject property. Under year 2025 traffic conditions, the intersection is projected to operate with a v/c ratio of 0.35 during the morning peak hour and a v/c ratio of 0.46 during the evening peak hour either with or without the addition of site trips from the proposed zone change. The intersection operates acceptably under all analysis scenarios. No operational mitigations are needed and none are proposed.

The intersection of Sierra Vista Street at N Evergreen Drive is projected to operate at level of service A during the morning and evening peak hours under all analysis scenarios. Intersection operation is acceptable and no mitigations are proposed.

The intersection of N Meridian Street at Sierra Vista Street is currently operating at level of service A during the morning peak hour and level of service B during the evening peak hour. Under all future analysis scenarios, the intersection is projected to operate at level of service B during the morning and evening peak hours. Intersection operation is acceptable and no mitigations are proposed.

The intersection of N Meridian Street at the site access is projected to operate at level of service A under all future analysis scenarios. No operational improvements are recommended to support the proposed site access driveway on N Meridian Street.

The intersection of N Meridian Street at Fulton Street is currently operating at level of service B during the morning and evening peak hours. Under year 2012 background conditions, the intersection is projected to continue to operate at level of service B during the morning and evening peak hours. With the addition of site trips from development of the subject property, the intersection is projected to operate at level of service B during the morning peak hour and level of service C during the evening peak hour. Under year 2025 background traffic conditions, the intersection is projected to operate at level of service B during the morning peak hour and level of service C during the evening peak



hour. With the addition of site trips under the proposed zone change, the intersection is projected to operate at level of service B during the morning peak hour and level of service D during the evening peak hour. Intersection operation is acceptable under all analysis scenarios, therefore no operational mitigation is recommended.

It should also be noted that in both analysis years, the addition of site trips results in a degradation of level of service by one letter grade at the intersection of N Meridian Street and Fulton Street during the evening peak hour. This is somewhat coincidental, since in each case, the intersection operation without the development is very near the threshold between level of service designations. In actuality, the increase in average delay resulting from development of the site is only one second per vehicle in the near term scenario and two seconds per vehicle in the long term scenario. The impacts of the site are minimal, and the gradual increase in delay is mostly a function of background traffic growth and other nearby developments.

The results of the capacity analysis, along with the Levels of Service (LOS) and delay are shown in the table on the following page. Detailed capacity analysis results are included in the appendix to this report.

As detailed in the summary table, all study intersections currently operate acceptably during the morning and evening peak hours and will continue to operate acceptably through 2025 with development under the proposed zone change. No operational mitigations are necessary or recommended.

LEVEL OF SERVICE SUMMARY

	AM Peak Hour			PM Peak Hour		
	<u>LOS</u>	<u>Delay</u>	<u>V/C</u>	<u>LOS</u>	<u>Delay</u>	<u>V/C</u>
<i>N College Street/OR 219 at Sierra Vista Street</i>						
Existing Conditions	B	12	0.13	B	15	0.23
2012 Background	B	13	0.14	C	16	0.26
2012 Background plus Site	B	12	0.14	C	16	0.26
2025 Background + EX Zoning	C	23	0.35	E	41	0.46
2025 Background + Zone Change	C	21	0.35	E	41	0.46
<i>Sierra Vista Street at N Evergreen Drive</i>						
Existing Conditions	A	9	0.01	A	9	0.01
2012 Background	A	9	0.01	A	9	0.02
2012 Background plus Site	A	9	0.01	A	9	0.02
2025 Background + EX Zoning	A	9	0.01	A	9	0.02
2025 Background + Zone Change	A	9	0.01	A	9	0.02
<i>N Meridian Street at Sierra Vista Street</i>						
Existing Conditions	A	10	0.03	B	10	0.04
2012 Background	B	10	0.03	B	12	0.05
2012 Background plus Site	B	10	0.03	B	12	0.05
2025 Background + EX Zoning	B	11	0.05	B	13	0.07
2025 Background + Zone Change	B	11	0.05	B	14	0.07
<i>N Meridian Street at Site Access</i>						
2012 Background plus Site	A	10	0.09	A	9	0.07
2025 Background + EX Zoning	A	10	0.11	A	10	0.10
2025 Background + Zone Change	A	10	0.11	A	10	0.11
<i>N Meridian Street at Fulton Street</i>						
Existing Conditions	B	10	0.09	B	12	0.25
2012 Background	B	12	0.17	B	15	0.45
2012 Background plus Site	B	12	0.18	C	16	0.47
2025 Background + EX Zoning	B	13	0.20	C	24	0.65
2025 Background + Zone Change	B	13	0.21	D	26	0.69

LOS = Level of Service

Delay = Average Delay per Vehicle in Seconds

V/C = Volume-to-Capacity ratio (Degree Utilization)



QUEUING ANALYSIS

An analysis of the queuing at the study intersection was conducted for existing, year 2012 and year 2025 traffic conditions. The 95th percentile queue lengths were determined based on a SimTraffic micro-simulation model. This means that 95-percent of the time, the queue length will be less than or equal to what is calculated.

The 95th percentile queue lengths for all analysis scenarios are presented in the table on the following page. More detailed queuing worksheets are included in the appendix to this report.

As shown in the table, no significant queues accumulate on any of the intersection approaches under any analysis scenarios. The maximum projected queues occur on the westbound Fulton Street approach to N Meridian Street and consist of six vehicles in queue. Based on the queuing analyses, no mitigations are recommended.

QUEUING SUMMARY

	Direction			
	<u>EB</u>	<u>WB</u>	<u>NB</u>	<u>SB</u>
<i>N College Street/OR 219 at Sierra Vista Street</i>				
Existing Conditions	N/A	47'	0'	26'
2012 Background	N/A	52'	7'	16'
2012 Background plus Site	N/A	47'	6'	18'
2025 Background + EX Zoning	N/A	58'	10'	82'
2025 Background + Zone Change	N/A	63'	22'	81'
<i>Sierra Vista Street at N Evergreen Drive</i>				
Existing Conditions	0'	0'	4'	N/A
2012 Background	0'	0'	6'	N/A
2012 Background plus Site	0'	0'	0'	N/A
2025 Background + EX Zoning	0'	0'	6'	N/A
2025 Background + Zone Change	0'	0'	0'	N/A
<i>N Meridian Street at Sierra Vista Street</i>				
Existing Conditions	43'	40'	15'	0'
2012 Background	43'	40'	22'	8'
2012 Background plus Site	43'	43'	19'	0'
2025 Background + EX Zoning	45'	44'	29'	6'
2025 Background + Zone Change	46'	46'	30'	13'
<i>N Meridian Street at Site Access</i>				
2012 Background plus Site	45'	N/A	23'	0'
2025 Background + EX Zoning	27'	N/A	11'	0'
2025 Background + Zone Change	43'	N/A	27'	0'
<i>N Meridian Street at Fulton Street</i>				
Existing Conditions	N/A	66'	6'	24'
2012 Background	N/A	84'	4'	41'
2012 Background plus Site	N/A	88'	7'	48'
2025 Background + EX Zoning	N/A	136'	10'	58'
2025 Background + Zone Change	N/A	143'	5'	60'

Note: The reported queues represent the 95th percentile queue lengths observed from the Synchro/SimTraffic simulation model. The greater of the AM and PM peak hour queues is reported for each approach direction and analysis scenario.



TRANSPORTATION PLANNING RULE ANALYSIS

The primary test of the TPR is to determine if an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation will “significantly affect” an existing or planned transportation facility. The definition of significant affect is addressed in the following sections of this letter.

OAR 660-012-0060

(1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

The proposed zone change will not change the functional classification of any existing or planned transportation facilities.

(b) Change standards implementing a functional classification system; or

The proposed zone change will not change the standards underlying the City’s functional classification system.

(c) As measured at the end of the planning period identified in the adopted transportation system plan:

(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

(B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or

(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

The types and levels of travel and access for this site are consistent with the functional classification of the area roadways under both the existing and proposed zoning. All existing and planned transportation facilities are projected to operate above the minimum acceptable performance standards identified in the City of Newberg’s Transportation System Plan and the Oregon Highway Plan either with or without the addition of traffic from the proposed zone change.

The proposed zone change will not result in a “significant affect” as defined under Oregon’s Transportation Planning Rule. Therefore, no mitigations are recommended.



CONCLUSIONS

Adequate sight distance is available for a future driveway access serving the site on the N Meridian Street frontage.

A detailed review of the crash history in the site vicinity showed no significant existing hazards. No safety mitigations are recommended.

Based on the operational analysis, all study area intersections are projected to operate acceptably through the year 2025 planning horizon either with or without the addition of site trips from high-density residential development of the subject property. No mitigation is needed or recommended.

The Synchro/SimTraffic queuing analysis showed no significant queues at the study area intersections. No mitigation is needed or recommended.

The proposed zone change will not result in a “significant affect” as defined under Oregon’s Transportation Planning Rule. Therefore, no mitigations are recommended.

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APPENDIX



LEVEL OF SERVICE

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

Level of service A: Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.

Level of service B: Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.

Level of service C: Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.

Level of service D: Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.

Level of service E: Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.

Level of service F: Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.

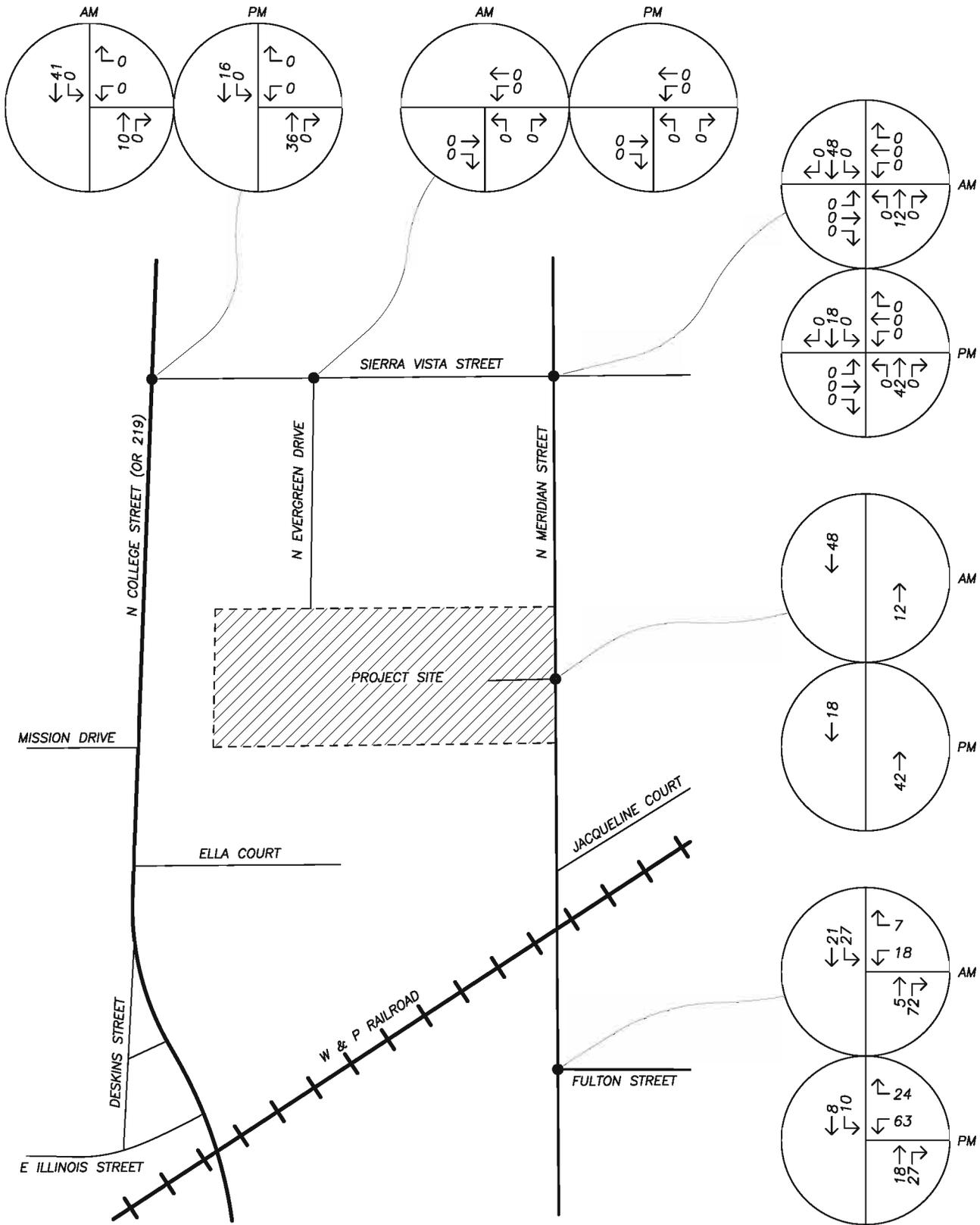


*LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS*

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	< 10
B	10-20
C	20-35
D	35-55
E	55-80
F	> 80

*LEVEL OF SERVICE CRITERIA
FOR UNSIGNALIZED INTERSECTIONS*

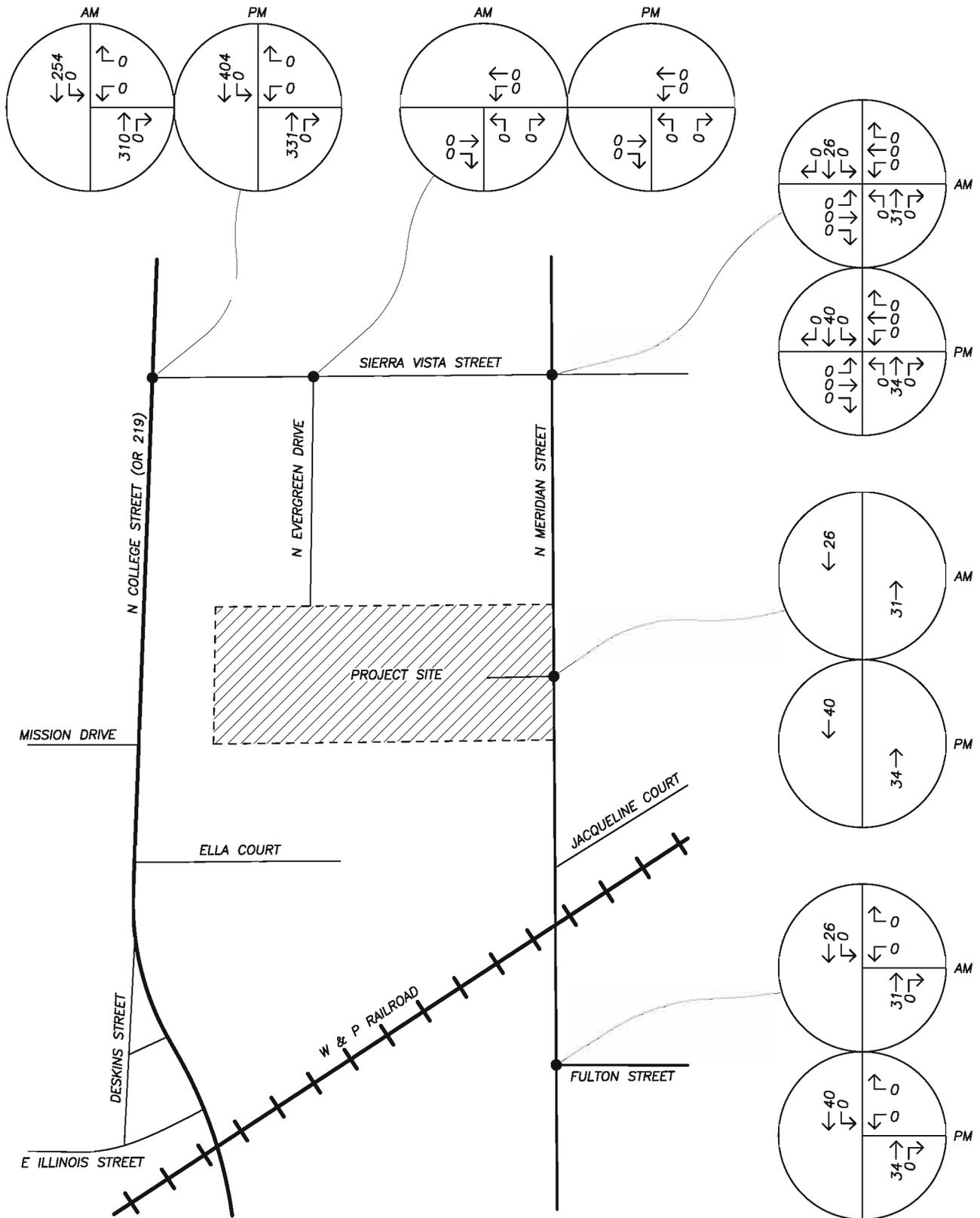
LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (Seconds)
A	< 10
B	10-15
C	15-25
D	25-35
E	35-50
F	> 50



IN PROCESS TRAFFIC VOLUMES
 Site Trips from George Fox University
 AM and PM Peak Hours



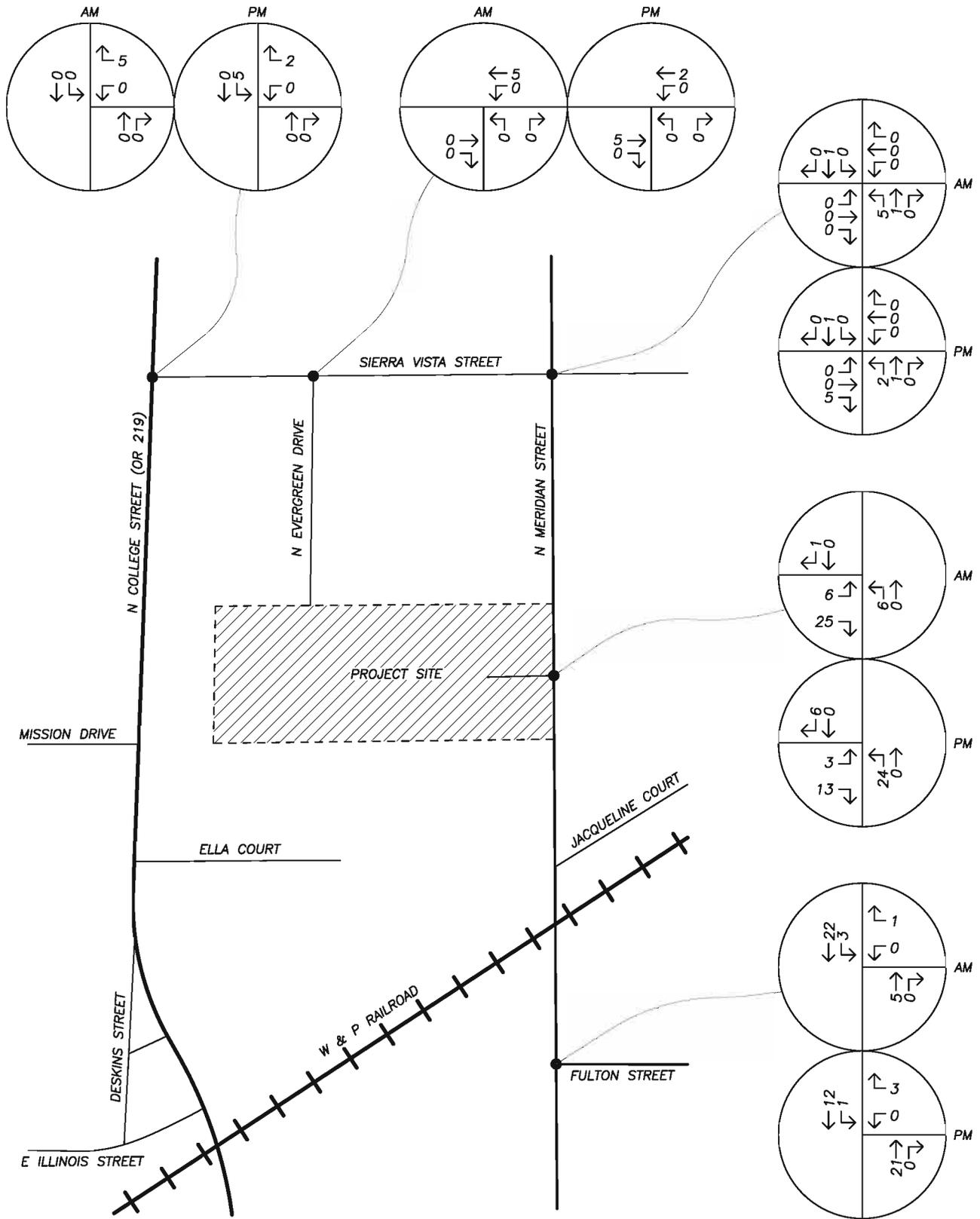
APPENDIX



IN PROCESS TRAFFIC VOLUMES
 Site Trips from Springbrook Development
 AM and PM Peak Hours



APPENDIX



ZONE CHANGE TRAFFIC
 Net Increase in Site Trips Due to Zone Change
 AM and PM Peak Hours



APPENDIX



TRIP GENERATION CALCULATIONS

Land Use: Apartment
Land Use Code: 220
Variable: Occupied Dwelling Units
Variable Value: 96

AM PEAK HOUR

Trip Rate: 0.51

	Enter	Exit	Total
Directional Distribution	20%	80%	
Trip Ends	10	39	49

PM PEAK HOUR

Trip Rate: 0.62

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	39	21	60

WEEKDAY

Trip Rate: 6.65

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	319	319	638

SATURDAY

Trip Rate: 6.39

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	307	307	614



TRIP GENERATION CALCULATIONS

Land Use: Apartment
Land Use Code: 220
Variable: Occupied Dwelling Units
Variable Value: 71

AM PEAK HOUR

Trip Rate: 0.51

	Enter	Exit	Total
Directional Distribution	20%	80%	
Trip Ends	7	29	36

PM PEAK HOUR

Trip Rate: 0.62

	Enter	Exit	Total
Directional Distribution	65%	35%	
Trip Ends	29	15	44

WEEKDAY

Trip Rate: 6.65

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	236	236	472

SATURDAY

Trip Rate: 6.39

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	227	227	454



TRIP GENERATION CALCULATIONS

Land Use: Single-Family Detached Housing
Land Use Code: 210
Variable: Dwelling Units
Variable Value: 14

AM PEAK HOUR

Trip Rate: 0.75

	Enter	Exit	Total
Directional Distribution	25%	75%	
Trip Ends	3	8	11

PM PEAK HOUR

Trip Rate: 1.01

	Enter	Exit	Total
Directional Distribution	63%	37%	
Trip Ends	9	5	14

WEEKDAY

Trip Rate: 9.57

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	67	67	134

SATURDAY

Trip Rate: 10.08

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	71	71	142

Total Vehicle Summary

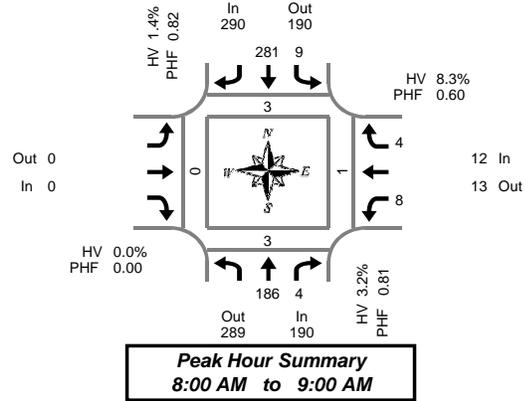


Clay Carney
(503) 833-2740

N College St & Sierra Vista St

Thursday, July 15, 2010

7:00 AM to 9:00 AM



**Peak Hour Summary
8:00 AM to 9:00 AM**

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North	South		East	West		
7:00 AM	17	2	0	1	20	0	0	0	0	0	0	0	40	0	0	0	0
7:05 AM	15	0	0	1	27	0	0	0	0	0	0	0	43	0	0	2	0
7:10 AM	10	0	0	1	23	0	0	0	1	0	0	0	35	0	1	0	0
7:15 AM	13	0	0	0	19	0	0	0	0	0	0	0	32	0	0	0	0
7:20 AM	10	0	0	1	12	0	0	1	2	0	0	0	26	1	0	0	0
7:25 AM	17	0	0	1	16	0	0	0	0	0	0	0	34	0	0	2	0
7:30 AM	10	0	0	0	29	0	0	0	0	0	0	0	39	0	1	0	0
7:35 AM	14	0	0	1	17	0	0	1	0	0	0	0	33	1	3	0	0
7:40 AM	14	0	0	0	27	0	0	0	0	0	0	0	41	0	0	0	0
7:45 AM	12	0	0	0	29	0	0	2	1	0	0	0	44	1	0	0	0
7:50 AM	15	0	0	0	22	0	0	0	0	0	0	0	37	0	0	0	2
7:55 AM	8	1	0	0	30	0	0	2	0	0	0	0	41	0	2	0	3
8:00 AM	12	0	0	1	18	0	0	0	1	0	0	0	32	0	0	0	0
8:05 AM	9	1	1	1	21	0	0	1	0	0	0	0	33	0	0	0	0
8:10 AM	20	0	0	1	15	0	0	1	0	0	0	0	37	0	0	0	0
8:15 AM	7	0	0	1	24	0	0	0	0	0	0	0	32	0	0	0	0
8:20 AM	12	0	0	0	24	0	0	1	1	0	0	0	38	0	0	0	0
8:25 AM	16	0	0	2	19	0	0	0	0	0	0	0	37	1	0	0	0
8:30 AM	19	0	0	0	32	0	0	0	0	0	0	0	51	0	1	0	0
8:35 AM	22	1	0	1	24	0	0	3	0	0	0	0	51	1	2	0	0
8:40 AM	17	0	0	0	18	0	0	0	0	0	0	0	35	0	0	0	0
8:45 AM	13	1	0	1	30	0	0	1	1	0	0	0	47	0	0	0	0
8:50 AM	18	1	0	0	31	0	0	1	0	0	0	0	51	0	0	0	0
8:55 AM	21	0	0	1	25	0	0	0	1	0	0	0	48	1	0	1	0
Total Survey	341	7	1	15	552	0	0	0	14	8	0	0	937	6	10	5	5

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North	South		East	West		
7:00 AM	42	2	0	3	70	0	0	0	0	1	0	0	118	0	1	2	0
7:15 AM	40	0	0	2	47	0	0	1	2	0	0	0	92	1	0	2	0
7:30 AM	38	0	0	1	73	0	0	1	0	0	0	0	113	1	4	0	0
7:45 AM	35	1	0	0	81	0	0	4	1	0	0	0	122	1	2	0	5
8:00 AM	41	1	1	3	54	0	0	2	1	0	0	0	102	0	0	0	0
8:15 AM	35	0	0	3	67	0	0	1	1	0	0	0	107	1	0	0	0
8:30 AM	58	1	0	1	74	0	0	3	0	0	0	0	137	1	3	0	0
8:45 AM	52	2	0	2	86	0	0	2	2	0	0	0	146	1	0	1	0
Total Survey	341	7	1	15	552	0	0	0	14	8	0	0	937	6	10	5	5

Peak Hour Summary

8:00 AM to 9:00 AM

By Approach	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total	Pedestrians Crosswalk						
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West			
Volume	190	289	479	1	290	190	480	0	0	0	0	12	13	25	0	492	3	3	1	0
%HV	3.2%			1.4%			0.0%			8.3%			2.2%							
PHF	0.81			0.82			0.00			0.60			0.84							

By Movement	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	T	R	Total	L	T	Total	Total	L	R	Total			
Volume	186	4	190	9	281	290	0	8	4	12	492		
%HV	NA	3.2%	0.0%	3.2%	0.0%	1.4%	NA	1.4%	NA	NA	8.3%	2.2%	
PHF	0.80	0.50	0.81	0.75	0.82	0.82	0.00	0.50	0.50	0.60	0.84		

Rolling Hour Summary

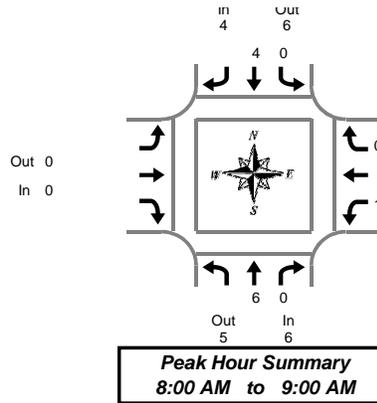
7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	North	South		East	West		
7:00 AM	155	3	0	6	271	0	0	6	4	0	0	445	3	7	4	5	
7:15 AM	154	2	1	6	255	0	0	8	4	0	0	429	3	6	2	5	
7:30 AM	149	2	1	7	275	0	0	8	3	0	0	444	3	6	0	5	
7:45 AM	169	3	1	7	276	0	0	10	3	0	0	468	3	5	0	5	
8:00 AM	186	4	1	9	281	0	0	8	4	0	0	492	3	3	1	0	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



N College St & Sierra Vista St

Thursday, July 15, 2010

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	2
7:10 AM	1	0	1	0	2	2	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1
7:25 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:40 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	1
7:50 AM	0	0	0	0	3	3	0	0	0	0	0	0	0	3
7:55 AM	1	0	1	0	1	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	1
8:20 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:25 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	2
8:35 AM	2	0	2	0	0	0	0	1	0	1	0	1	0	3
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	1
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Survey	12	0	12	0	12	12	0	2	1	3	27			

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	1	0	1	0	4	4	0	0	0	0	0	0	0	5
7:15 AM	2	0	2	0	0	0	0	0	0	1	1	0	0	3
7:30 AM	2	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	1	0	1	0	4	4	0	1	0	1	0	1	0	6
8:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	2	0	2	0	1	1	0	0	0	0	0	0	0	3
8:30 AM	2	0	2	0	2	2	0	1	0	1	0	1	0	5
8:45 AM	1	0	1	0	1	1	0	0	0	0	0	0	0	2
Total Survey	12	0	12	0	12	12	0	2	1	3	27			

Heavy Vehicle Peak Hour Summary 8:00 AM to 9:00 AM

By Approach	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	5	11	4	6	10	0	0	0	1	0	1	11
PHF	0.50			0.50			0.00			0.25			0.46

By Movement	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	T	R	Total	L	T	Total	Total	L	R	Total	L	R	
Volume	6	0	6	0	4	4	0	1	0	1	0	1	11
PHF	0.50	0.00	0.50	0.00	0.50	0.50	0.00	0.25	0.00	0.25	0.00	0.25	0.46

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	6	0	6	0	8	8	0	1	1	2	0	1	2	16
7:15 AM	6	0	6	0	4	4	0	1	1	2	0	1	2	12
7:30 AM	6	0	6	0	5	5	0	1	0	1	0	1	2	12
7:45 AM	6	0	6	0	7	7	0	2	0	2	0	2	2	15
8:00 AM	6	0	6	0	4	4	0	1	0	1	0	1	1	11

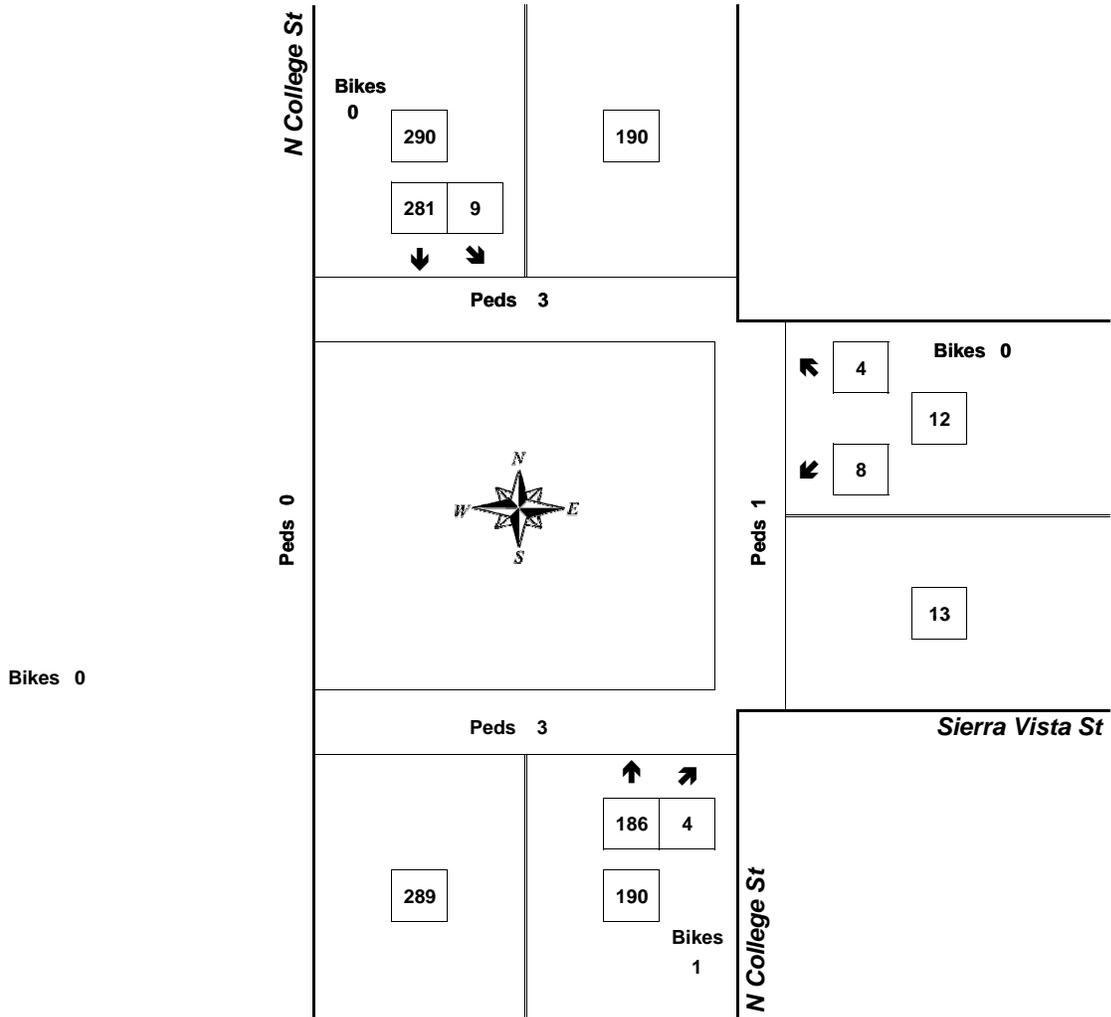
Peak Hour Summary



Clay Carney
(503) 833-2740

N College St & Sierra Vista St

8:00 AM to 9:00 AM
Thursday, July 15, 2010



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.60	8.3%	12
NB	0.81	3.2%	190
SB	0.82	1.4%	290
Intersection	0.84	2.2%	492

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

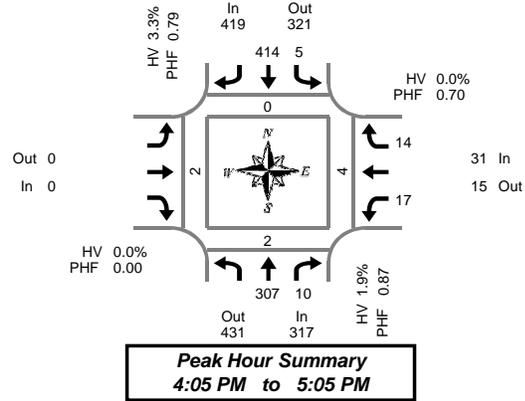


Clay Carney
(503) 833-2740

N College St & Sierra Vista St

Wednesday, July 14, 2010

4:00 PM to 6:00 PM



5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk				
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	L	R		West	North	South	East	
4:00 PM	19	3	0	1	36	0	0	1	0	0	1	0	0	61	0	2	0	0
4:05 PM	24	1	0	1	53	0	0	0	2	0	2	0	0	83	0	0	0	0
4:10 PM	29	1	0	0	38	0	0	0	2	0	2	0	0	72	0	0	0	0
4:15 PM	34	1	0	1	40	0	0	0	2	1	1	0	0	79	0	0	2	0
4:20 PM	25	1	0	0	18	0	0	0	2	0	0	0	0	46	0	2	1	0
4:25 PM	16	0	0	0	26	0	0	0	2	1	1	0	0	45	0	0	0	0
4:30 PM	31	0	0	0	33	0	0	0	1	1	1	0	0	66	0	0	1	0
4:35 PM	24	0	0	0	53	0	0	0	1	1	1	0	0	79	0	0	0	0
4:40 PM	20	3	0	1	27	0	0	0	1	1	1	0	0	53	0	0	0	0
4:45 PM	18	1	1	1	24	0	0	0	1	1	1	0	0	46	0	0	0	0
4:50 PM	27	1	0	0	41	0	0	0	0	0	0	0	0	69	0	0	0	0
4:55 PM	32	0	0	0	28	0	0	0	1	1	1	0	0	62	0	0	0	2
5:00 PM	27	1	0	1	33	0	0	0	2	3	3	0	0	67	0	0	0	0
5:05 PM	27	1	0	1	28	0	0	0	2	2	2	0	0	61	0	3	0	0
5:10 PM	31	2	0	1	22	0	0	0	3	1	1	0	0	60	0	0	0	0
5:15 PM	31	1	0	3	32	0	0	0	2	4	4	0	0	73	2	0	0	0
5:20 PM	30	1	0	1	25	0	0	0	0	1	1	0	0	58	1	1	0	0
5:25 PM	28	0	1	0	32	0	0	0	1	3	3	0	0	64	1	1	0	0
5:30 PM	24	0	0	0	25	0	0	0	2	2	2	0	0	53	0	0	2	0
5:35 PM	30	2	0	1	29	0	0	0	1	2	2	0	0	65	0	0	0	0
5:40 PM	27	1	1	1	25	0	0	0	3	0	0	0	0	57	1	1	0	0
5:45 PM	25	2	1	0	31	0	0	0	1	0	0	0	0	59	0	0	0	0
5:50 PM	29	2	0	2	33	0	0	0	1	1	1	0	0	68	0	0	0	0
5:55 PM	18	0	0	0	18	0	0	0	2	0	0	0	0	38	0	0	0	0
Total Survey	626	25	4	16	750	0	0	0	36	31	0	0	1,484	5	10	6	2	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk				
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	L	R		West	North	South	East	
4:00 PM	72	5	0	2	127	0	0	0	5	0	5	0	0	216	0	2	0	0
4:15 PM	75	2	0	1	84	0	0	0	6	2	2	0	0	170	0	2	3	0
4:30 PM	75	3	0	1	113	0	0	0	3	3	3	0	0	198	0	0	1	0
4:45 PM	77	2	1	1	93	0	0	0	2	2	2	0	0	177	0	0	0	2
5:00 PM	85	4	0	3	83	0	0	0	7	6	6	0	0	188	0	3	0	0
5:15 PM	89	2	1	4	89	0	0	0	3	8	8	0	0	195	4	2	0	0
5:30 PM	81	3	1	2	79	0	0	0	6	4	4	0	0	175	1	1	2	0
5:45 PM	72	4	1	2	82	0	0	0	4	1	1	0	0	165	0	1	0	0
Total Survey	626	25	4	16	750	0	0	0	36	31	0	0	1,484	5	10	6	2	

Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total	Pedestrians Crosswalk				
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total		North	South	East	West	
Volume	317	431	748	1	419	321	740	0	0	0	0	31	15	46	0	0	0	2
%HV	1.9%			3.3%			0.0%			0.0%			2.6%					
PHF	0.87			0.79			0.00			0.70			0.82					

By Movement	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	T	R	Total	L	T	Total	Total	L	R	Total			
Volume	307	10	317	5	414	419	0	17	14	31	767		
%HV	NA	2.0%	0.0%	1.9%	0.0%	3.4%	NA	3.3%	NA	NA	2.6%		
PHF	0.87	0.50	0.87	0.63	0.79	0.79	0.00	0.71	0.70	0.70	0.82		

Rolling Hour Summary

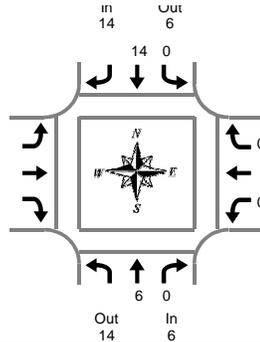
4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes	Bikes	L	R	Bikes	L	R		West	North	South	East
4:00 PM	299	12	1	5	417	0	0	0	16	12	0	0	761	0	4	4	2
4:15 PM	312	11	1	6	373	0	0	0	18	13	0	0	733	0	5	4	2
4:30 PM	326	11	2	9	378	0	0	0	15	19	0	0	758	4	5	1	2
4:45 PM	332	11	3	10	344	0	0	0	18	20	0	0	735	5	6	2	2
5:00 PM	327	13	3	11	333	0	0	0	20	19	0	0	723	5	6	2	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:05 PM to 5:05 PM

N College St & Sierra Vista St

Wednesday, July 14, 2010

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total
	T	R	Total	L	T	Total	Total	Total	L	R	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:05 PM	0	0	0	0	3	3	0	0	0	0	0	3	
4:10 PM	1	0	1	0	1	1	0	0	0	0	0	2	
4:15 PM	1	0	1	0	2	2	0	0	0	0	0	3	
4:20 PM	1	0	1	0	0	0	0	0	0	0	0	1	
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	1	0	1	0	0	0	0	0	0	0	0	1	
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:40 PM	0	0	0	0	1	1	0	0	0	0	0	1	
4:45 PM	0	0	0	0	2	2	0	0	0	0	0	2	
4:50 PM	0	0	0	0	4	4	0	0	0	0	0	4	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	2	0	2	0	1	1	0	0	0	0	0	3	
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:10 PM	2	0	2	0	1	1	0	0	0	0	0	3	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:20 PM	0	0	0	0	1	1	0	0	0	0	0	1	
5:25 PM	1	0	1	0	1	1	0	0	0	0	0	2	
5:30 PM	0	0	0	0	1	1	0	0	0	0	0	1	
5:35 PM	0	0	0	0	1	1	0	0	0	0	0	1	
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	1	
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:55 PM	1	0	1	0	0	0	0	0	0	0	0	1	
Total Survey	10	0	10	0	20	20	0	0	0	0	0	30	

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total
	T	R	Total	L	T	Total	Total	Total	L	R	Total		
4:00 PM	1	0	1	0	4	4	0	0	0	0	0	5	
4:15 PM	2	0	2	0	2	2	0	0	0	0	0	4	
4:30 PM	1	0	1	0	1	1	0	0	0	0	0	2	
4:45 PM	0	0	0	0	6	6	0	0	0	0	0	6	
5:00 PM	4	0	4	0	2	2	0	0	0	0	0	6	
5:15 PM	1	0	1	0	2	2	0	0	0	0	0	3	
5:30 PM	0	0	0	0	2	2	0	0	0	0	0	2	
5:45 PM	1	0	1	0	1	1	0	0	0	0	0	2	
Total Survey	10	0	10	0	20	20	0	0	0	0	0	30	

Heavy Vehicle Peak Hour Summary

4:05 PM to 5:05 PM

By Approach	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	14	20	14	6	20	0	0	0	0	0	0	20
PHF	0.50			0.50			0.00			0.00			0.63

By Movement	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	T	R	Total	L	T	Total	Total	Total	L	R	Total		
Volume	6	0	6	0	14	14	0	0	0	0	0	0	20
PHF	0.50	0.00	0.50	0.00	0.50	0.50			0.00	0.00	0.00	0.00	0.63

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N College St			Southbound N College St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Interval Total
	T	R	Total	L	T	Total	Total	Total	L	R	Total		
4:00 PM	4	0	4	0	13	13	0	0	0	0	0	17	
4:15 PM	7	0	7	0	11	11	0	0	0	0	0	18	
4:30 PM	6	0	6	0	11	11	0	0	0	0	0	17	
4:45 PM	5	0	5	0	12	12	0	0	0	0	0	17	
5:00 PM	6	0	6	0	7	7	0	0	0	0	0	13	

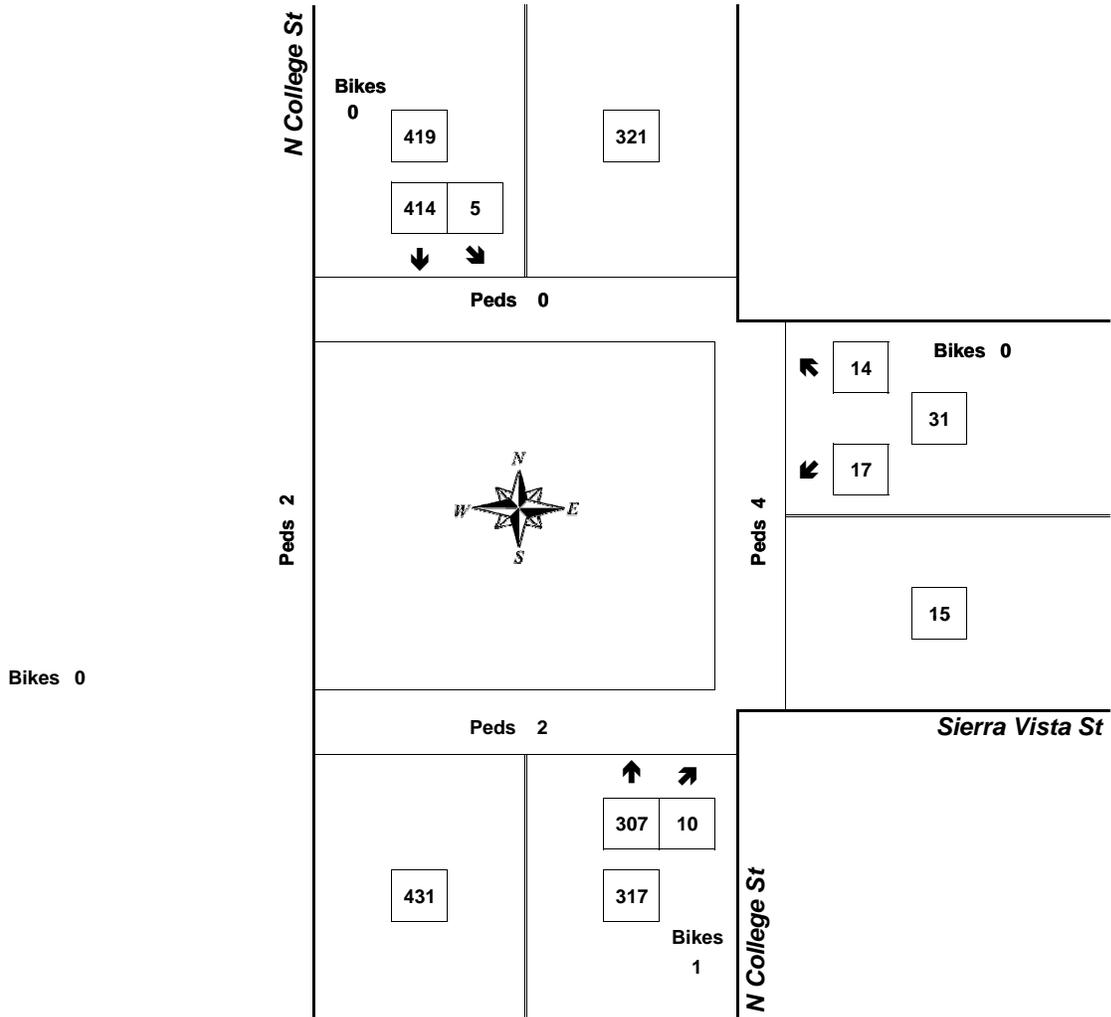
Peak Hour Summary



Clay Carney
(503) 833-2740

N College St & Sierra Vista St

4:05 PM to 5:05 PM
Wednesday, July 14, 2010



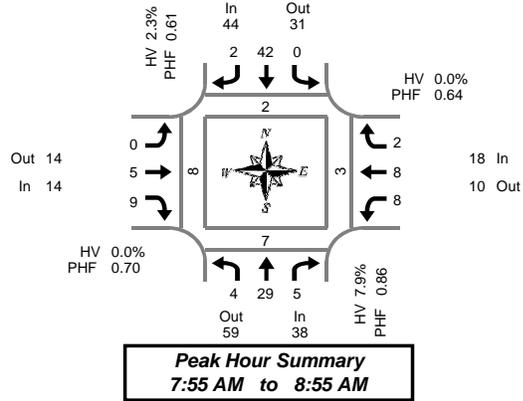
Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.70	0.0%	31
NB	0.87	1.9%	317
SB	0.79	3.3%	419
Intersection	0.82	2.6%	767

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Meridian St & Sierra Vista St

Thursday, July 15, 2010
7:00 AM to 9:00 AM

5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	1	0	0	0	4	0	0	0	1	2	0	1	1	0	0	0	0	0	0	
7:05 AM	0	3	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	2	
7:10 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	
7:15 AM	2	0	1	0	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	1	
7:20 AM	2	2	0	0	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
7:25 AM	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0	0	0	2	0	0	
7:30 AM	0	1	2	0	0	6	0	0	0	0	1	0	0	0	0	0	1	0	0	0	
7:35 AM	0	1	0	0	0	4	1	0	0	0	1	0	1	0	0	0	2	0	1	1	
7:40 AM	0	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
7:45 AM	1	1	0	0	0	5	0	0	0	0	0	0	0	2	0	0	0	2	1	1	
7:50 AM	0	2	0	0	0	7	0	0	0	0	0	0	2	0	0	0	0	2	0	0	
7:55 AM	0	2	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
8:00 AM	0	3	1	0	0	6	0	2	0	2	1	0	1	0	0	0	0	3	0	0	
8:05 AM	1	2	0	0	0	5	1	0	0	0	1	0	0	1	0	0	0	3	0	1	
8:10 AM	0	2	0	0	0	2	0	0	0	0	1	0	0	1	0	0	0	1	0	0	
8:15 AM	0	4	0	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	0	
8:20 AM	0	3	1	0	0	5	1	0	0	0	0	0	0	1	0	0	0	0	1	0	
8:25 AM	0	3	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	
8:30 AM	1	2	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	2	1	3	
8:35 AM	1	1	0	0	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
8:40 AM	0	3	0	0	0	4	0	0	0	0	1	0	0	0	0	1	0	0	1	0	
8:45 AM	0	0	1	0	0	2	0	0	0	0	0	0	1	3	0	0	0	1	0	1	
8:50 AM	1	4	2	0	0	3	0	0	0	2	2	0	1	1	1	0	0	2	0	0	
8:55 AM	0	2	1	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0	1	
Total Survey	9	43	11	1	0	85	3	2	0	8	18	0	16	11	2	1	206	4	15	6	15

15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	5	1	0	0	6	0	0	0	2	4	0	1	1	0	0	20	0	0	1	2
7:15 AM	4	2	1	0	0	10	0	0	0	0	3	0	2	0	0	0	22	0	2	0	2
7:30 AM	0	2	3	1	0	13	1	0	0	0	2	0	1	0	0	0	22	2	2	1	1
7:45 AM	1	5	0	0	0	18	0	0	0	0	0	0	2	3	0	0	29	0	4	1	2
8:00 AM	1	7	1	0	0	13	1	2	0	2	3	0	1	2	0	0	31	0	4	0	1
8:15 AM	0	10	1	0	0	8	1	0	0	1	1	0	3	1	0	0	26	0	0	1	0
8:30 AM	2	6	0	0	0	10	0	0	0	0	3	0	2	0	1	1	24	0	2	2	5
8:45 AM	1	6	4	0	0	7	0	0	0	3	2	0	4	4	1	0	32	2	1	0	2
Total Survey	9	43	11	1	0	85	3	2	0	8	18	0	16	11	2	1	206	4	15	6	15

Peak Hour Summary 7:55 AM to 8:55 AM

By Approach	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	38	59	97	0	44	31	75	2	14	14	28	0	18	10	28	1	114	2	7	3	8
%HV	7.9%				2.3%				0.0%				0.0%				3.5%				
PHF	0.86				0.61				0.70				0.64				0.84				

By Movement	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	4	29	5	38	0	42	2	44	0	5	9	14	8	8	2	18	114
%HV	25.0%	3.4%	20.0%	7.9%	0.0%	2.4%	0.0%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%
PHF	0.50	0.73	0.42	0.86	0.00	0.62	0.50	0.61	0.00	0.63	0.75	0.70	0.67	0.50	0.50	0.64	0.84

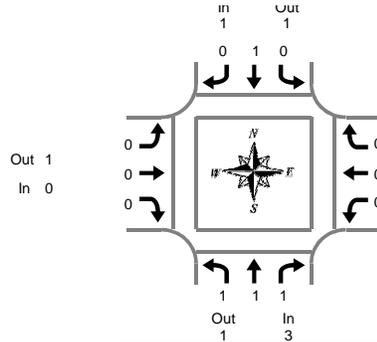
Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	5	14	5	1	0	47	1	0	0	2	9	0	6	4	0	0	93	2	8	3	7
7:15 AM	6	16	5	1	0	54	2	2	0	2	8	0	6	5	0	0	104	2	12	2	6
7:30 AM	2	24	5	1	0	52	3	2	0	3	6	0	7	6	0	0	108	2	10	3	4
7:45 AM	4	28	2	0	0	49	2	2	0	3	7	0	8	6	1	1	110	0	10	4	8
8:00 AM	4	29	6	0	0	38	2	2	0	6	9	0	10	7	2	1	113	2	7	3	8

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:55 AM to 8:55 AM

N Meridian St & Sierra Vista St

Thursday, July 15, 2010

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:20 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
7:50 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Survey	2	3	1	6	0	2	0	2	0	0	0	0	2	1	0	3	11

Heavy Vehicle 15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Survey	2	3	1	6	0	2	0	2	0	0	0	0	2	1	0	3	11

Heavy Vehicle Peak Hour Summary 7:55 AM to 8:55 AM

By Approach	Northbound N Meridian St			Southbound N Meridian St			Eastbound Sierra Vista St			Westbound Sierra Vista St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	3	1	4	1	1	2	0	1	1	0	1	1	4
PHF	0.38			0.25			0.00			0.00			0.33

By Movement	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Total				
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total					
Volume	1	1	1	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4
PHF	0.25	0.25	0.25	0.38	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	

Heavy Vehicle Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	1	2	0	3	0	1	0	1	0	0	0	0	1	1	0	2	6
7:15 AM	1	2	0	3	0	1	0	1	0	0	0	0	1	1	0	2	6
7:30 AM	0	2	1	3	0	2	0	2	0	0	0	0	0	1	0	1	6
7:45 AM	1	1	1	3	0	2	0	2	0	0	0	0	0	1	0	1	6
8:00 AM	1	1	1	3	0	1	0	1	0	0	0	0	1	0	0	1	5

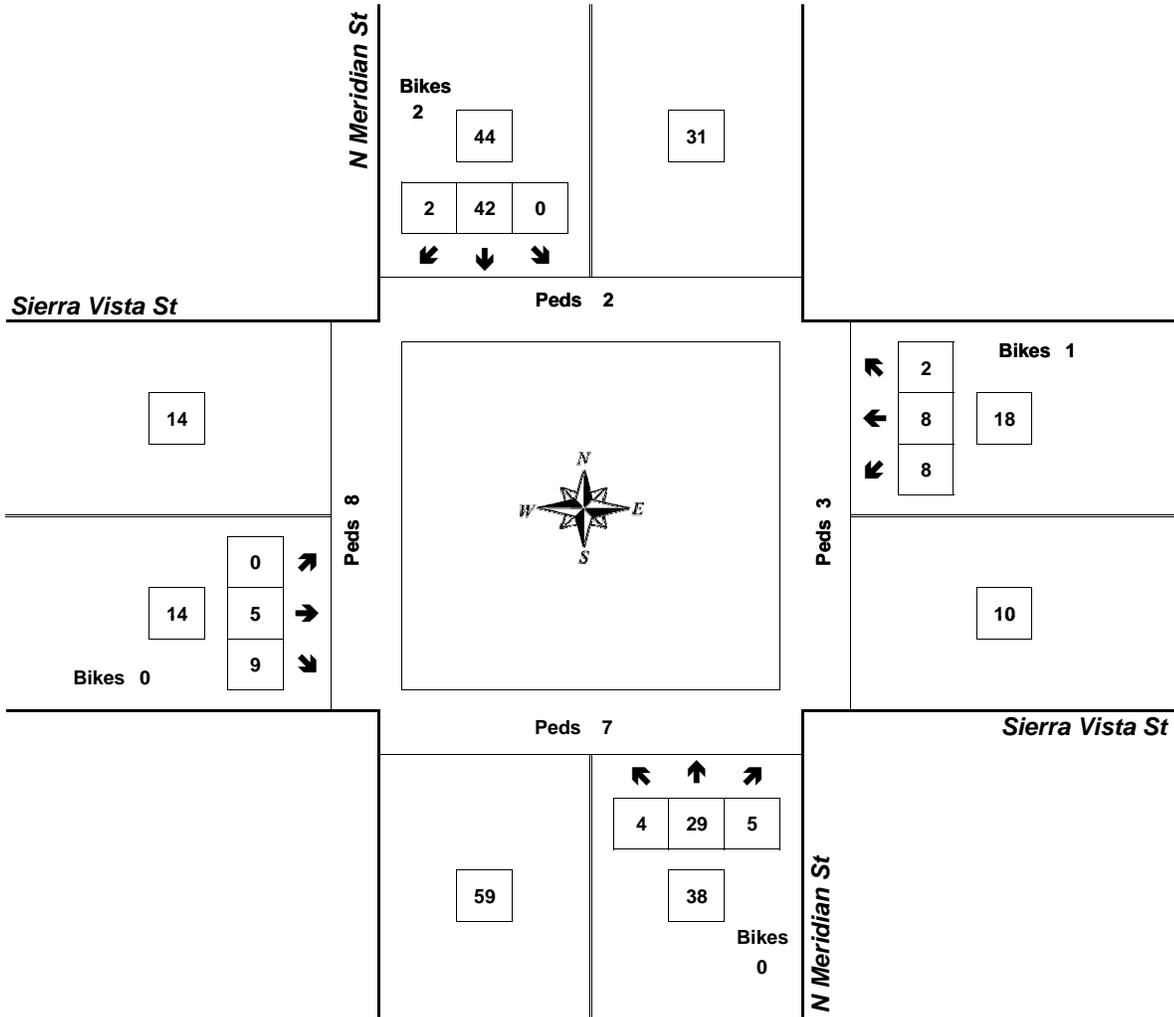
Peak Hour Summary



Clay Carney
(503) 833-2740

N Meridian St & Sierra Vista St

7:55 AM to 8:55 AM
Thursday, July 15, 2010



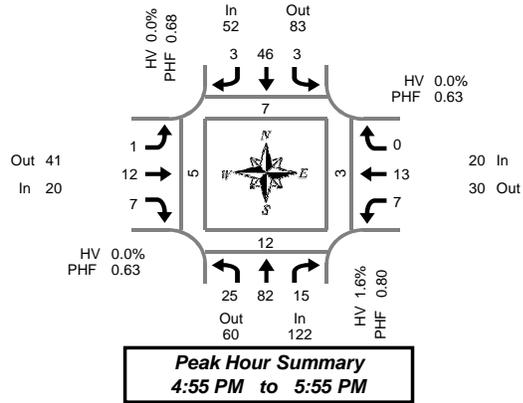
Approach	PHF	HV%	Volume
EB	0.70	0.0%	14
WB	0.64	0.0%	18
NB	0.86	7.9%	38
SB	0.61	2.3%	44
Intersection	0.84	3.5%	114

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Meridian St & Sierra Vista St

Wednesday, July 14, 2010

4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	9	3	0	0	3	0	0	0	2	1	0	1	1	0	0	21	0	4	0	1
4:05 PM	3	4	2	0	0	3	1	0	0	2	1	0	0	0	0	0	16	0	0	0	0
4:10 PM	3	6	3	0	0	6	0	0	0	1	0	0	1	2	0	0	22	0	0	2	0
4:15 PM	2	4	4	0	0	5	0	0	1	0	1	0	3	1	1	0	22	0	0	0	3
4:20 PM	3	5	1	0	0	2	0	0	0	1	0	0	2	2	0	0	16	0	0	0	0
4:25 PM	0	6	1	0	0	3	1	0	0	1	0	0	1	1	0	0	14	0	4	0	2
4:30 PM	1	3	1	0	0	6	0	0	0	0	1	0	0	1	0	0	13	0	0	1	1
4:35 PM	1	5	1	0	0	2	0	0	0	1	1	0	1	0	0	0	12	0	1	0	0
4:40 PM	2	3	0	0	0	3	0	0	0	3	1	0	1	1	0	0	14	0	3	0	0
4:45 PM	0	5	0	0	1	3	0	0	0	0	1	0	1	2	0	0	13	0	1	0	0
4:50 PM	0	6	0	0	1	3	0	0	1	0	1	0	1	0	0	0	13	0	0	0	1
4:55 PM	1	9	1	0	0	2	1	0	0	1	0	0	0	0	0	0	15	0	0	0	0
5:00 PM	5	9	1	0	1	4	0	0	1	1	0	0	1	1	0	0	24	0	1	0	0
5:05 PM	1	9	1	0	0	3	0	0	0	1	1	0	0	2	0	0	18	1	0	0	1
5:10 PM	3	9	0	0	0	5	0	0	0	1	2	0	1	1	0	0	22	0	0	0	0
5:15 PM	4	5	2	0	1	7	1	0	0	2	1	0	2	2	0	0	27	0	2	2	0
5:20 PM	1	11	3	0	0	5	0	0	0	1	0	0	1	0	0	0	22	2	2	0	3
5:25 PM	3	6	1	0	0	4	1	0	0	0	2	0	0	0	0	0	17	1	0	0	1
5:30 PM	4	3	2	0	0	2	0	0	0	0	0	0	0	1	0	0	12	2	2	0	0
5:35 PM	1	4	0	0	0	3	0	0	0	1	0	0	0	2	0	0	11	0	0	0	0
5:40 PM	1	4	1	0	0	2	0	0	0	1	1	0	1	3	0	0	14	1	1	0	0
5:45 PM	1	4	1	0	0	4	0	0	0	1	0	0	1	1	0	0	13	0	1	0	0
5:50 PM	0	9	2	0	1	5	0	0	0	2	0	0	0	0	0	0	19	0	3	1	0
5:55 PM	0	2	0	0	0	3	0	0	0	1	1	0	1	2	0	0	10	0	0	1	1
Total Survey	41	140	31	0	5	88	5	0	3	24	16	0	20	26	1	0	400	7	25	7	14

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	7	19	8	0	0	12	1	0	0	5	2	0	2	3	0	0	59	0	4	2	1
4:15 PM	5	15	6	0	0	10	1	0	1	2	1	0	6	4	1	0	52	0	4	0	5
4:30 PM	4	11	2	0	0	11	0	0	0	4	3	0	2	2	0	0	39	0	4	1	1
4:45 PM	1	20	1	0	2	8	1	0	1	1	2	0	2	2	0	0	41	0	1	0	1
5:00 PM	9	27	2	0	1	12	0	0	1	3	3	0	2	4	0	0	64	1	1	0	1
5:15 PM	8	22	6	0	1	16	2	0	0	3	3	0	3	2	0	0	66	3	4	2	4
5:30 PM	6	11	3	0	0	7	0	0	0	2	1	0	1	6	0	0	37	3	3	0	0
5:45 PM	1	15	3	0	1	12	0	0	0	4	1	0	2	3	0	0	42	0	4	2	1
Total Survey	41	140	31	0	5	88	5	0	3	24	16	0	20	26	1	0	400	7	25	7	14

Peak Hour Summary 4:55 PM to 5:55 PM

By Approach	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	122	60	182	0	52	83	135	0	20	41	61	0	20	30	50	0	214	7	12	3	5
%HV	1.6%				0.0%				0.0%				0.0%				0.9%				
PHF	0.80				0.68				0.63				0.63				0.75				

By Movement	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	25	82	15	122	3	46	3	52	1	12	7	20	7	13	0	20	214
%HV	0.0%	2.4%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
PHF	0.69	0.76	0.63	0.80	0.75	0.68	0.38	0.68	0.25	0.75	0.44	0.63	0.44	0.54	0.00	0.63	0.75

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St				Southbound N Meridian St				Eastbound Sierra Vista St				Westbound Sierra Vista St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	17	65	17	0	2	41	3	0	2	12	8	0	12	11	1	0	191	0	13	3	8
4:15 PM	19	73	11	0	3	41	2	0	3	10	9	0	12	12	1	0	196	1	10	1	8
4:30 PM	22	80	11	0	4	47	3	0	2	11	11	0	9	10	0	0	210	4	10	3	7
4:45 PM	24	80	12	0	4	43	3	0	2	9	9	0	8	14	0	0	208	7	9	2	6
5:00 PM	24	75	14	0	3	47	2	0	1	12	8	0	8	15	0	0	209	7	12	4	6

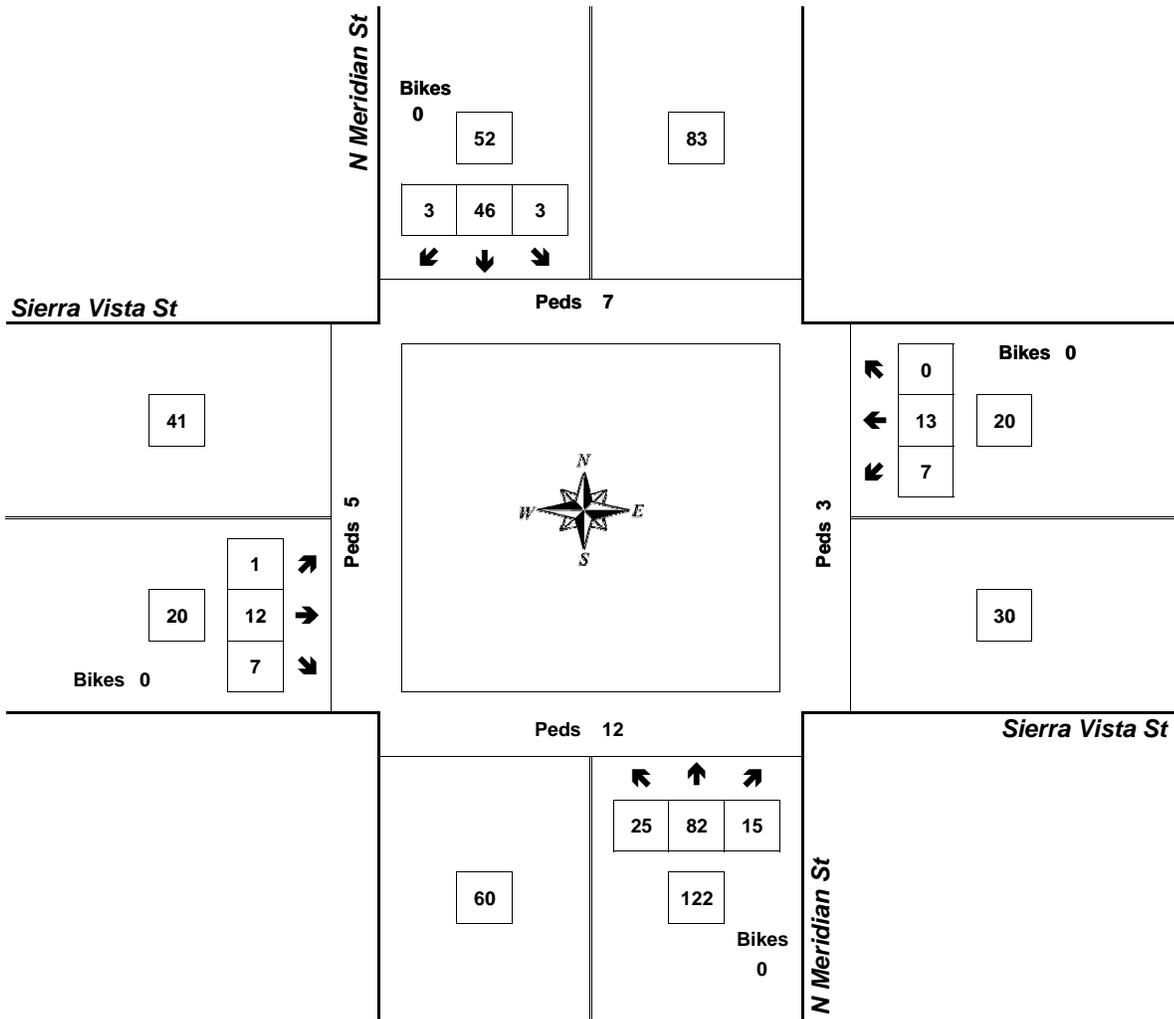
Peak Hour Summary



Clay Carney
(503) 833-2740

N Meridian St & Sierra Vista St

4:55 PM to 5:55 PM
Wednesday, July 14, 2010



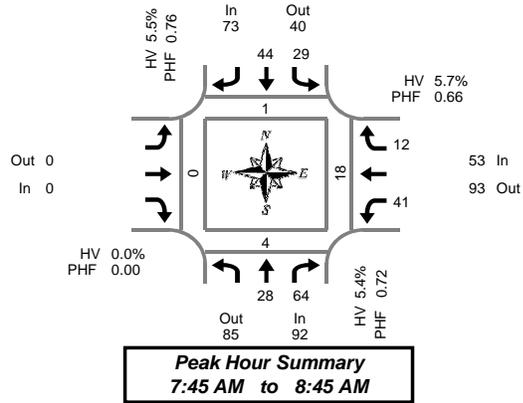
Approach	PHF	HV%	Volume
EB	0.63	0.0%	20
WB	0.63	0.0%	20
NB	0.80	1.6%	122
SB	0.68	0.0%	52
Intersection	0.75	0.9%	214

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



N Meridian St & Fulton St

Thursday, July 15, 2010

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk				
	T	R	Bikes	L	T	Bikes			Bikes	L		R		Bikes	North	South	East	West
7:00 AM	1	4	0	5	2	0			0	1		1	0	14	0	1	1	0
7:05 AM	1	9	0	2	1	0			0	2		2	0	17	0	1	0	0
7:10 AM	1	7	0	2	0	0			0	2		2	0	14	1	0	1	0
7:15 AM	1	5	0	0	2	0			0	1		1	0	10	0	0	0	0
7:20 AM	2	3	0	5	5	0			0	0		2	0	17	1	0	1	0
7:25 AM	0	7	0	3	1	0			0	5		0	0	16	0	0	2	0
7:30 AM	1	5	0	4	3	0			0	1		1	0	15	0	0	0	0
7:35 AM	3	4	0	3	4	0			0	2		0	0	16	1	0	1	0
7:40 AM	1	3	0	2	2	0			0	5		0	0	13	0	0	1	0
7:45 AM	4	5	0	3	4	0			0	1		0	0	17	0	1	1	0
7:50 AM	1	13	0	3	6	0			0	4		1	0	28	1	0	6	0
7:55 AM	2	7	0	3	4	0			0	7		0	0	23	0	0	2	0
8:00 AM	0	8	0	4	4	0			0	4		2	0	22	0	0	0	0
8:05 AM	4	3	0	2	4	0			0	5		2	0	20	0	0	0	0
8:10 AM	3	3	0	3	4	0			0	3		1	0	17	0	0	0	0
8:15 AM	1	5	0	3	3	0			0	0		1	0	13	0	1	2	0
8:20 AM	4	4	0	1	1	0			0	6		1	0	17	0	0	0	0
8:25 AM	1	3	0	2	4	0			0	3		2	0	15	0	0	0	0
8:30 AM	3	3	0	1	2	0			0	2		1	0	12	0	1	1	0
8:35 AM	3	3	0	0	6	0			0	5		0	0	17	0	0	4	0
8:40 AM	2	7	0	4	2	0			0	1		1	0	17	0	1	2	0
8:45 AM	0	3	0	2	1	0			0	5		0	0	11	1	0	0	0
8:50 AM	6	11	0	1	3	0			0	0		1	0	22	0	0	1	0
8:55 AM	4	9	0	4	3	0			0	2		2	0	24	0	1	4	0
Total Survey	49	134	0	62	71	0			0	67		24	0	407	5	7	30	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk				
	T	R	Bikes	L	T	Bikes			Bikes	L		R		Bikes	North	South	East	West
7:00 AM	3	20	0	9	3	0			0	5		5	0	45	1	2	2	0
7:15 AM	3	15	0	8	8	0			0	6		3	0	43	1	0	3	0
7:30 AM	5	12	0	9	9	0			0	8		1	0	44	1	0	2	0
7:45 AM	7	25	0	9	14	0			0	12		1	0	68	1	1	9	0
8:00 AM	7	14	0	9	12	0			0	12		5	0	59	0	0	0	0
8:15 AM	6	12	0	6	8	0			0	9		4	0	45	0	1	2	0
8:30 AM	8	13	0	5	10	0			0	8		2	0	46	0	2	7	0
8:45 AM	10	23	0	7	7	0			0	7		3	0	57	1	1	5	0
Total Survey	49	134	0	62	71	0			0	67		24	0	407	5	7	30	0

Peak Hour Summary

7:45 AM to 8:45 AM

By Approach	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	92	85	177	0	73	40	113	0	0	0	0	0	53	93	146	0	218
%HV	5.4%				5.5%				0.0%				5.7%			5.5%	
PHF	0.72				0.76				0.00				0.66			0.75	

By Movement	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total				
	T	R	Total	L	T	Total			Total	L	R	Total					
Volume	28	64	92	29	44	73			0	41	12	53	218				
%HV	NA	7.1%	4.7%	5.4%	3.4%	6.8%	NA	5.5%	NA	NA	NA	0.0%	4.9%	NA	8.3%	5.7%	5.5%
PHF	0.88	0.57	0.72	0.73	0.79	0.76			0.00	0.64	0.60	0.66	0.75				

Rolling Hour Summary

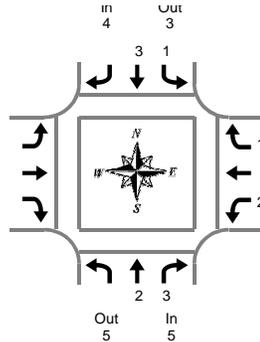
7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk				
	T	R	Bikes	L	T	Bikes			Bikes	L		R		Bikes	North	South	East	West
7:00 AM	18	72	0	35	34	0			0	31		10	0	200	4	3	16	0
7:15 AM	22	66	0	35	43	0			0	38		10	0	214	3	1	14	0
7:30 AM	25	63	0	33	43	0			0	41		11	0	216	2	2	13	0
7:45 AM	28	64	0	29	44	0			0	41		12	0	218	1	4	18	0
8:00 AM	31	62	0	27	37	0			0	36		14	0	207	1	4	14	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:45 AM to 8:45 AM

N Meridian St & Fulton St

Thursday, July 15, 2010

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1
7:05 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:20 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	1
7:25 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	1	0	1	0	0	0	0	0	0	1	1	0	0	2
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	1	1	0	1	0	0	0	0	0	0	0	2
7:50 AM	0	1	1	0	2	2	0	0	0	0	0	0	0	3
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:20 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1
8:25 AM	0	0	0	0	1	1	0	1	0	1	0	1	0	2
8:30 AM	1	0	1	0	0	0	0	0	1	0	1	0	1	2
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:55 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total Survey	5	8	13	1	4	5	0	2	0	2	2	4	22	

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	1	2	3	0	1	1	0	0	0	0	0	0	0	4
7:30 AM	1	0	1	0	0	0	0	0	0	1	1	0	0	2
7:45 AM	1	1	2	1	2	3	0	0	0	0	0	0	0	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	1	0	1	1	0	1	1	2	0	2	0	4
8:30 AM	1	1	2	0	0	0	0	1	0	1	0	1	0	3
8:45 AM	1	1	2	0	0	0	0	0	0	0	0	0	0	2
Total Survey	5	8	13	1	4	5	0	2	0	2	2	4	22	

Heavy Vehicle Peak Hour Summary

7:45 AM to 8:45 AM

By Approach	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	5	5	10	4	3	7	0	0	0	3	4	7	12
PHF	0.63			0.33			0.00			0.25			0.60

By Movement	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
Volume	2	3	5	1	3	4	0	2	0	1	3	1	3	12
PHF	0.50	0.75	0.63	0.25	0.38	0.33	0.00	0.25	0.00	0.25	0.25	0.25	0.60	

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	
	T	R	Total	L	T	Total	Total	L	R	Total	L	R		Total
7:00 AM	3	5	8	1	3	4	0	0	0	1	1	0	0	13
7:15 AM	3	3	6	1	3	4	0	0	0	1	1	0	0	11
7:30 AM	2	2	4	1	3	4	0	1	1	2	3	0	0	11
7:45 AM	2	3	5	1	3	4	0	2	2	1	3	0	0	12
8:00 AM	2	3	5	0	1	1	0	2	2	1	3	0	0	9

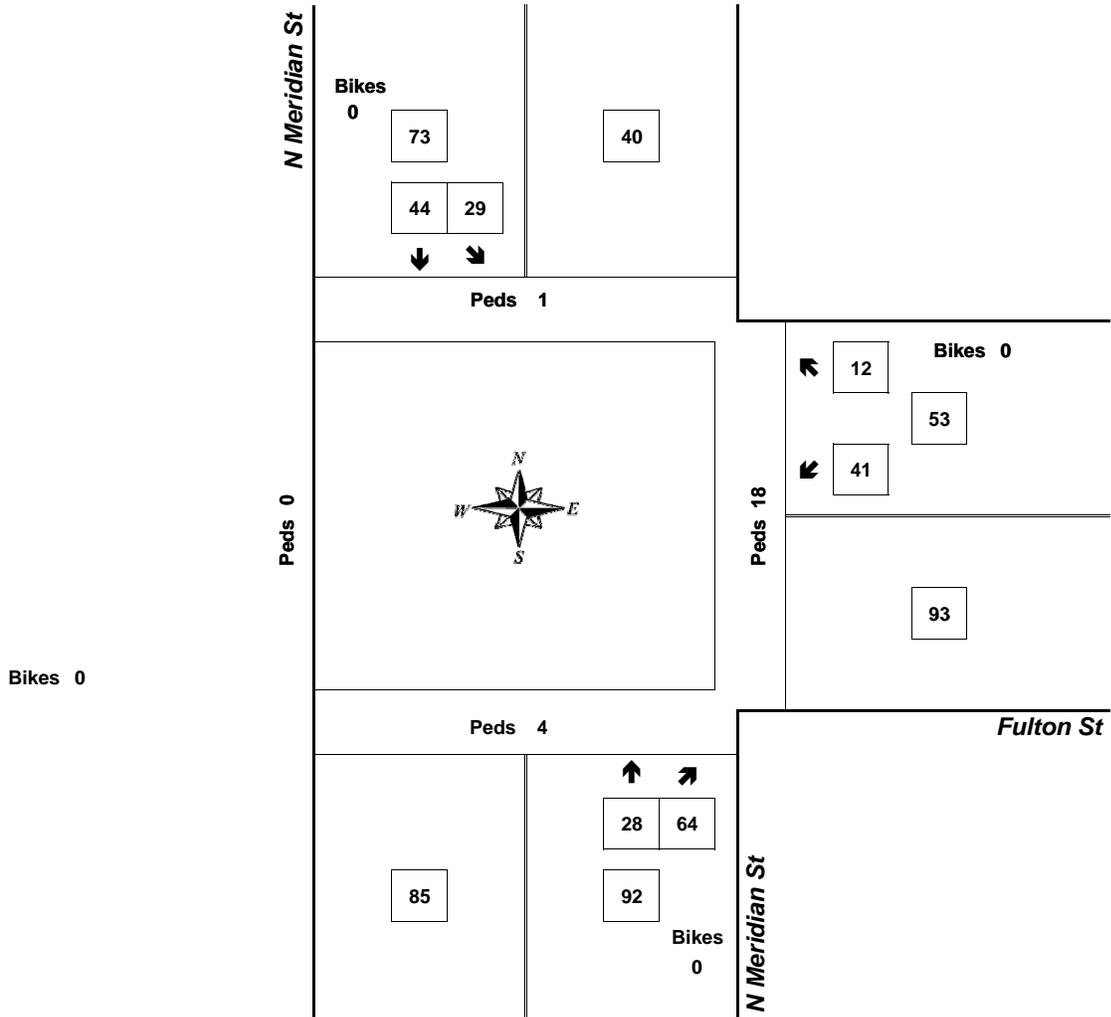
Peak Hour Summary



Clay Carney
(503) 833-2740

N Meridian St & Fulton St

7:45 AM to 8:45 AM
Thursday, July 15, 2010



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.66	5.7%	53
NB	0.72	5.4%	92
SB	0.76	5.5%	73
Intersection	0.75	5.5%	218

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

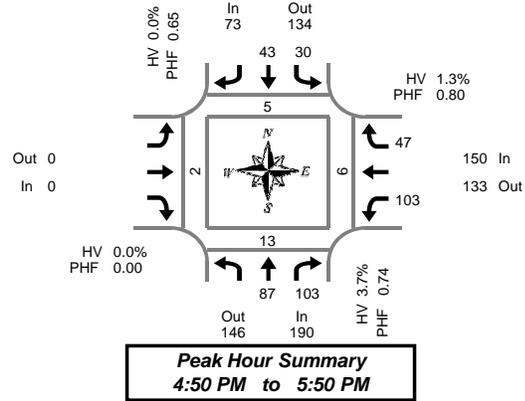


Clay Carney
(503) 833-2740

N Meridian St & Fulton St

Wednesday, July 14, 2010

4:00 PM to 6:00 PM



5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	9	9	0	5	6	0		0	4	7	0	40	0	3	0	0	
4:05 PM	4	5	0	3	2	0		0	12	7	0	33	2	0	0	0	
4:10 PM	5	8	0	1	2	0		0	8	5	0	29	0	0	0	0	
4:15 PM	9	9	0	4	4	0		0	18	4	0	48	1	1	0	1	
4:20 PM	5	8	0	3	3	0		0	7	2	0	28	0	0	1	0	
4:25 PM	2	11	0	1	3	0		0	13	6	0	36	1	0	2	0	
4:30 PM	6	4	1	4	3	0		0	8	3	0	28	0	0	0	0	
4:35 PM	2	8	0	2	2	0		0	5	1	0	20	1	0	1	0	
4:40 PM	4	7	0	1	4	0		0	4	6	0	26	0	0	4	2	
4:45 PM	3	6	0	2	3	0		0	7	4	0	25	0	3	0	0	
4:50 PM	4	10	0	3	3	0		0	13	0	0	33	1	0	1	0	
4:55 PM	9	13	0	0	2	0		0	7	6	0	37	0	0	0	0	
5:00 PM	12	14	0	2	2	0		0	10	8	0	48	0	0	1	0	
5:05 PM	8	8	0	3	4	0		0	12	4	0	39	0	1	0	0	
5:10 PM	7	9	0	1	8	0		0	8	3	0	36	0	1	0	0	
5:15 PM	8	3	0	4	7	0		0	12	5	0	39	0	3	0	2	
5:20 PM	11	8	0	4	4	0		0	4	4	0	35	3	0	2	0	
5:25 PM	9	7	0	3	4	0		0	6	4	0	33	0	1	0	0	
5:30 PM	7	9	0	4	3	0		0	8	3	0	34	0	0	1	0	
5:35 PM	3	5	0	2	1	0		0	10	4	0	25	0	1	0	0	
5:40 PM	5	12	0	1	1	0		0	6	2	0	27	1	3	1	0	
5:45 PM	4	5	2	3	4	0		0	7	4	0	27	0	3	0	0	
5:50 PM	7	6	0	5	3	0		0	6	3	0	30	0	0	0	0	
5:55 PM	1	2	0	1	1	0		0	9	0	0	14	0	0	2	0	
Total Survey	144	186	3	62	79	0		0	204	95	0	770	10	20	16	5	

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	18	22	0	9	10	0		0	19	0	0	102	2	3	0	0	
4:15 PM	16	28	0	8	10	0		0	38	12	0	112	2	1	3	1	
4:30 PM	12	19	1	7	9	0		0	17	10	0	74	1	0	5	2	
4:45 PM	16	29	0	5	8	0		0	27	10	0	95	1	3	1	0	
5:00 PM	27	31	0	6	14	0		0	30	15	0	123	0	2	1	0	
5:15 PM	28	18	0	11	15	0		0	22	13	0	107	3	4	2	2	
5:30 PM	15	26	0	7	5	0		0	24	9	0	86	1	4	2	0	
5:45 PM	12	13	2	9	8	0		0	22	7	0	71	0	3	2	0	
Total Survey	144	186	3	62	79	0		0	204	95	0	770	10	20	16	5	

Peak Hour Summary 4:50 PM to 5:50 PM

By Approach	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	190	146	336	2	73	134	207	0	0	0	0	0	150	133	283	0	413
%HV	3.7%				0.0%				0.0%				1.3%				2.2%
PHF	0.74				0.65				0.00				0.80				0.83

By Movement	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total				
	T	R	Total	L	T	Total		Total	L	R	Total						
Volume	87	103	190	30	43	73		0	103	47	150	413					
%HV	NA	2.3%	4.9%	3.7%	0.0%	0.0%	NA	0.0%	NA	NA	NA	0.0%	1.9%	NA	0.0%	1.3%	2.2%
PHF	0.75	0.70	0.74	0.68	0.57	0.65		0.00	0.80	0.65	0.80	0.83					

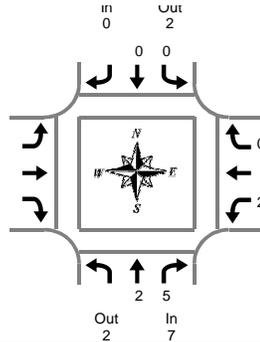
Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	Pedestrians Crosswalk			
	T	R	Bikes	L	T	Bikes		Bikes	L	R	Bikes	North		South	East	West	
4:00 PM	62	98	1	29	37	0		0	106	51	0	383	6	7	9	3	
4:15 PM	71	107	1	26	41	0		0	112	47	0	404	4	6	10	3	
4:30 PM	83	97	1	29	46	0		0	96	48	0	399	5	9	9	4	
4:45 PM	86	104	0	29	42	0		0	103	47	0	411	5	13	6	2	
5:00 PM	82	88	2	33	42	0		0	98	44	0	387	4	13	7	2	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:50 PM to 5:50 PM

N Meridian St & Fulton St

Wednesday, July 14, 2010

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	
	T	R	Total	L	T	Total			Total	L	R	Total		
4:00 PM	0	0	0	0	0	1	1			0	1	1	2	
4:05 PM	0	0	0	0	0	0	0			0	0	1	1	
4:10 PM	0	0	0	0	0	0	0			0	0	0	0	
4:15 PM	0	3	3	0	0	0	0			0	0	0	3	
4:20 PM	0	0	0	0	0	0	0			0	0	0	0	
4:25 PM	0	0	0	0	0	0	0			0	0	0	0	
4:30 PM	0	0	0	0	0	0	0			0	0	0	0	
4:35 PM	1	1	2	0	0	0	0			0	0	0	2	
4:40 PM	0	0	0	0	0	0	0			0	0	0	0	
4:45 PM	0	0	0	0	0	0	0			0	0	0	0	
4:50 PM	0	0	0	0	0	0	0			0	0	0	0	
4:55 PM	0	0	0	0	0	0	0			0	1	0	1	
5:00 PM	1	0	1	0	0	0	0			0	0	0	1	
5:05 PM	0	1	1	0	0	0	0			0	0	0	1	
5:10 PM	0	2	2	0	0	0	0			0	0	0	2	
5:15 PM	0	0	0	0	0	0	0			0	0	0	0	
5:20 PM	0	1	1	0	0	0	0			0	0	0	1	
5:25 PM	0	0	0	0	0	0	0			0	0	0	0	
5:30 PM	0	0	0	0	0	0	0			0	0	0	0	
5:35 PM	0	1	1	0	0	0	0			0	0	0	1	
5:40 PM	1	0	1	0	0	0	0			0	0	0	1	
5:45 PM	0	0	0	0	0	0	0			0	1	0	1	
5:50 PM	0	0	0	0	0	0	0			0	0	0	0	
5:55 PM	0	0	0	0	0	0	0			0	1	0	1	
Total Survey	3	9	12	0	1	1	1			0	4	1	5	18

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total	
	T	R	Total	L	T	Total			Total	L	R	Total		
4:00 PM	0	0	0	0	1	1			0	1	2	3		
4:15 PM	0	3	3	0	0	0			0	0	0	3		
4:30 PM	1	1	2	0	0	0			0	0	0	2		
4:45 PM	0	0	0	0	0	0			0	1	0	1		
5:00 PM	1	3	4	0	0	0			0	0	0	4		
5:15 PM	0	1	1	0	0	0			0	0	0	1		
5:30 PM	1	1	2	0	0	0			0	0	0	2		
5:45 PM	0	0	0	0	0	0			0	2	0	2		
Total Survey	3	9	12	0	1	1	1			0	4	1	5	18

Heavy Vehicle Peak Hour Summary

4:50 PM to 5:50 PM

By Approach	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	7	2	9	0	2	2	0	0	0	2	5	7	9
PHF	0.44			0.00			0.00			0.50			0.56

By Movement	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Total
	T	R	Total	L	T	Total			Total	L	R	Total	
Volume	2	5	7	0	0	0			0	2	0	2	9
PHF	0.50	0.42	0.44	0.00	0.00	0.00			0.00	0.50	0.00	0.50	0.56

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound N Meridian St			Southbound N Meridian St			Eastbound Fulton St			Westbound Fulton St			Interval Total
	T	R	Total	L	T	Total			Total	L	R	Total	
4:00 PM	1	4	5	0	1	1			0	2	1	3	9
4:15 PM	2	7	9	0	0	0			0	1	0	1	10
4:30 PM	2	5	7	0	0	0			0	1	0	1	8
4:45 PM	2	5	7	0	0	0			0	1	0	1	8
5:00 PM	2	5	7	0	0	0			0	2	0	2	9

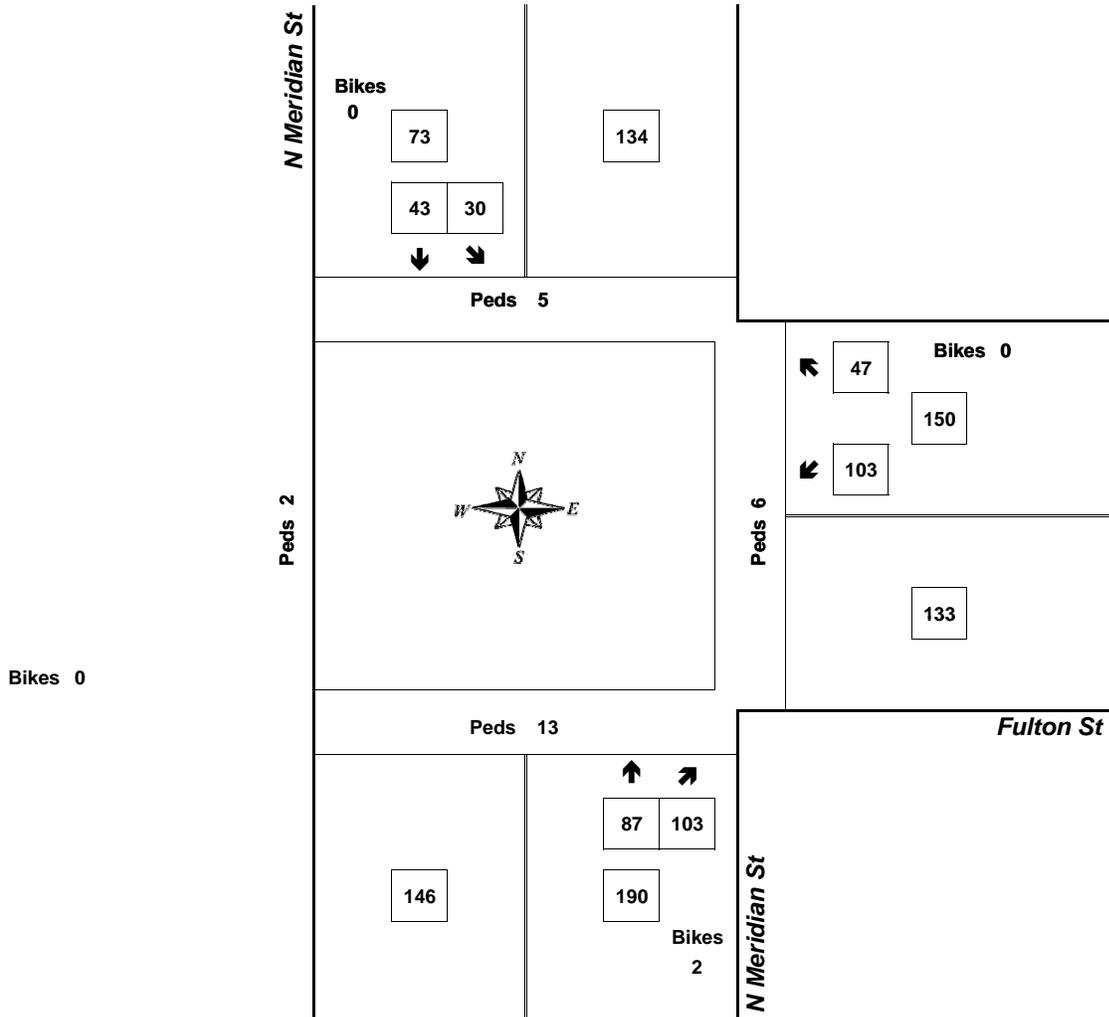
Peak Hour Summary



Clay Carney
(503) 833-2740

N Meridian St & Fulton St

4:50 PM to 5:50 PM
Wednesday, July 14, 2010



Approach	PHF	HV%	Volume
EB	0.00	0.0%	0
WB	0.80	1.3%	150
NB	0.74	3.7%	190
SB	0.65	0.0%	73
Intersection	0.83	2.2%	413

Count Period: 4:00 PM to 6:00 PM

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	8	4	186	4	9	281
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	5	221	5	11	335
Pedestrians	1		3			3
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	584	228			227	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584	228			227	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	459	794			1340	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	14	226	345
Volume Left	10	0	11
Volume Right	5	5	0
cSH	534	1700	1340
Volume to Capacity	0.03	0.13	0.01
Queue Length 95th (ft)	2	0	1
Control Delay (s)	11.9	0.0	0.3
Lane LOS	B		A
Approach Delay (s)	11.9	0.0	0.3
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

7/21/2010



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	12	0	1	12	2	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	14	0	1	14	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			14		31	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			14		31	14
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1604		982	1066
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	14	15	5			
Volume Left	0	1	2			
Volume Right	0	0	2			
cSH	1700	1604	1022			
Volume to Capacity	0.01	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.6	8.5			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.6	8.5			
Approach LOS			A			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		13.3%		ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

7/21/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	5	9	8	8	2	4	29	5	0	42	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	6	11	10	10	2	5	35	6	0	50	2
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	115	112	66	122	110	42	60			43		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115	112	66	122	110	42	60			43		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	99	99	99	99	100	100			100		
cM capacity (veh/h)	836	768	985	824	770	1024	1496			1561		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	17	21	45	52
Volume Left	0	10	5	0
Volume Right	11	2	6	2
cSH	895	816	1496	1561
Volume to Capacity	0.02	0.03	0.00	0.00
Queue Length 95th (ft)	1	2	0	0
Control Delay (s)	9.1	9.5	0.8	0.0
Lane LOS	A	A	A	
Approach Delay (s)	9.1	9.5	0.8	0.0
Approach LOS	A	A		

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Site Access & N Meridian Street

7/21/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	49	63	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	65	84	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	149	84	84			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	149	84	84			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	843	975	1513			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	0	65	84			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1513	1700			
Volume to Capacity	0.00	0.00	0.05			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization		6.9%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 5: Fulton Street & N Meridian Street

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	41	12	28	64	29	44
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	55	16	37	85	39	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	216	80			123	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	216	80			123	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	93	98			97	
cM capacity (veh/h)	743	969			1440	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	123	97
Volume Left	55	0	39
Volume Right	16	85	0
cSH	784	1700	1440
Volume to Capacity	0.09	0.07	0.03
Queue Length 95th (ft)	7	0	2
Control Delay (s)	10.0	0.0	3.1
Lane LOS	B		A
Approach Delay (s)	10.0	0.0	3.1
Approach LOS	B		

Intersection Summary			
Average Delay		3.5	
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	17	14	307	10	5	414
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	21	17	374	12	6	505
Pedestrians	1		3		3	
Lane Width (ft)	12.0		12.0		12.0	
Walking Speed (ft/s)	4.0		4.0		4.0	
Percent Blockage	0		0		0	
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	902	384			388	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	902	384			388	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	97			99	
cM capacity (veh/h)	306	661			1164	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	38	387	511
Volume Left	21	0	6
Volume Right	17	12	0
cSH	404	1700	1164
Volume to Capacity	0.09	0.23	0.01
Queue Length 95th (ft)	8	0	0
Control Delay (s)	14.8	0.0	0.2
Lane LOS	B		A
Approach Delay (s)	14.8	0.0	0.2
Approach LOS	B		

Intersection Summary			
Average Delay			0.7
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

7/21/2010



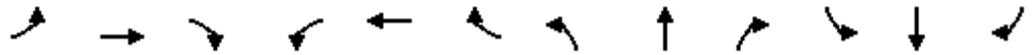
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	17	2	2	35	1	2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	23	3	3	47	1	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			25		76	24
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			25		76	24
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1589		926	1052

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	25	49	4
Volume Left	0	3	1
Volume Right	3	0	3
cSH	1700	1589	1007
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	8.6
Approach LOS			A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

7/21/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	12	7	7	13	0	25	82	15	3	46	3
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	16	9	9	17	0	33	109	20	4	61	4
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	276	278	78	285	270	124	73			132		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276	278	78	285	270	124	73			132		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	99	99	97	100	98			100		
cM capacity (veh/h)	640	608	970	626	615	922	1516			1449		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	27	163	69
Volume Left	1	9	33	4
Volume Right	9	0	20	4
cSH	702	619	1516	1449
Volume to Capacity	0.04	0.04	0.02	0.00
Queue Length 95th (ft)	3	3	2	0
Control Delay (s)	10.3	11.1	1.7	0.5
Lane LOS	B	B	A	A
Approach Delay (s)	10.3	11.1	1.7	0.5
Approach LOS	B	B		

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 4: Site Access & N Meridian Street

7/21/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T	T	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	128	67	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	171	89	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	260	89	89			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	260	89	89			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	729	969	1506			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	0	171	89			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1506	1700			
Volume to Capacity	0.00	0.00	0.05			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			10.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
5: Fulton Street & N Meridian Street

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	103	47	87	103	30	43
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	124	57	105	124	36	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	291	167			229	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	291	167			229	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	94			97	
cM capacity (veh/h)	681	877			1339	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	181	229	88
Volume Left	124	0	36
Volume Right	57	124	0
cSH	732	1700	1339
Volume to Capacity	0.25	0.13	0.03
Queue Length 95th (ft)	24	0	2
Control Delay (s)	11.5	0.0	3.3
Lane LOS	B		A
Approach Delay (s)	11.5	0.0	3.3
Approach LOS	B		

Intersection Summary			
Average Delay			4.8
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	8	4	200	4	9	329
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	5	238	5	11	392
Pedestrians	1		3		3	
Lane Width (ft)	12.0		12.0		12.0	
Walking Speed (ft/s)	4.0		4.0		4.0	
Percent Blockage	0		0		0	
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	658	244			244	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	658	244			244	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	415	777			1321	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	14	243	402
Volume Left	10	0	11
Volume Right	5	5	0
cSH	492	1700	1321
Volume to Capacity	0.03	0.14	0.01
Queue Length 95th (ft)	2	0	1
Control Delay (s)	12.5	0.0	0.3
Lane LOS	B		A
Approach Delay (s)	12.5	0.0	0.3
Approach LOS	B		

Intersection Summary			
Average Delay			0.4
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

7/21/2010



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	12	0	1	12	2	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	14	0	1	14	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			14		31	14
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			14		31	14
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1604		982	1066

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	14	15	5
Volume Left	0	1	2
Volume Right	0	0	2
cSH	1700	1604	1022
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.6	8.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	8.5
Approach LOS			A

Intersection Summary			
Average Delay		1.4	
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

7/21/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	5	9	8	8	2	4	42	5	0	92	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	6	11	10	10	2	5	50	6	0	110	2
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	190	187	126	197	185	58	120			59		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	190	187	126	197	185	58	120			59		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	99	99	99	99	100	100			100		
cM capacity (veh/h)	746	699	913	735	700	1004	1422			1541		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	17	21	61	112
Volume Left	0	10	5	0
Volume Right	11	2	6	2
cSH	823	741	1422	1541
Volume to Capacity	0.02	0.03	0.00	0.00
Queue Length 95th (ft)	2	2	0	0
Control Delay (s)	9.5	10.0	0.6	0.0
Lane LOS	A	B	A	
Approach Delay (s)	9.5	10.0	0.6	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 4: Site Access & N Meridian Street

7/21/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	93	114	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	124	152	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	276	152	152			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	276	152	152			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	714	894	1429			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	0	124	152			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1429	1700			
Volume to Capacity	0.00	0.00	0.09			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization		9.8%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 5: Fulton Street & N Meridian Street

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	61	19	34	139	57	67
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	81	25	45	185	76	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	379	138			231	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	379	138			231	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	86	97			94	
cM capacity (veh/h)	579	900			1314	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	107	231	165
Volume Left	81	0	76
Volume Right	25	185	0
cSH	633	1700	1314
Volume to Capacity	0.17	0.14	0.06
Queue Length 95th (ft)	15	0	5
Control Delay (s)	11.8	0.0	3.9
Lane LOS	B		A
Approach Delay (s)	11.8	0.0	3.9
Approach LOS	B		

Intersection Summary			
Average Delay		3.8	
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	15	350	10	5	440
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	22	18	427	12	6	537
Pedestrians	1		3			3
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	986	437			440	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	986	437			440	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	97			99	
cM capacity (veh/h)	272	618			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	40	439	543
Volume Left	22	0	6
Volume Right	18	12	0
cSH	365	1700	1114
Volume to Capacity	0.11	0.26	0.01
Queue Length 95th (ft)	9	0	0
Control Delay (s)	16.1	0.0	0.2
Lane LOS	C		A
Approach Delay (s)	16.1	0.0	0.2
Approach LOS	C		

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

7/21/2010



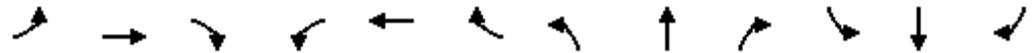
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	18	2	2	36	1	2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	24	3	3	48	1	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			27		79	25
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			27		79	25
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1587		922	1051

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	27	51	4
Volume Left	0	3	1
Volume Right	3	0	3
cSH	1700	1587	1004
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	8.6
Approach LOS			A

Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization	13.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

7/21/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	12	7	7	14	0	26	127	16	3	66	3
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	16	9	9	19	0	35	169	21	4	88	4
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	367	369	105	375	360	185	100			194		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	367	369	105	375	360	185	100			194		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	99	98	97	100	98			100		
cM capacity (veh/h)	554	541	938	544	547	854	1483			1376		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	27	28	225	96								
Volume Left	1	9	35	4								
Volume Right	9	0	21	4								
cSH	636	546	1483	1376								
Volume to Capacity	0.04	0.05	0.02	0.00								
Queue Length 95th (ft)	3	4	2	0								
Control Delay (s)	10.9	12.0	1.3	0.3								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.9	12.0	1.3	0.3								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			28.7%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 4: Site Access & N Meridian Street

7/21/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	175	88	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	233	117	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	351	117	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	351	117	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	647	935	1471			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	0	233	117			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1471	1700			
Volume to Capacity	0.00	0.00	0.07			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization		13.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
5: Fulton Street & N Meridian Street

7/21/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	170	73	109	134	41	53
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	205	88	131	161	49	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	375	212			293	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	375	212			293	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	66	89			96	
cM capacity (veh/h)	602	828			1269	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	293	293	113			
Volume Left	205	0	49			
Volume Right	88	161	0			
cSH	656	1700	1269			
Volume to Capacity	0.45	0.17	0.04			
Queue Length 95th (ft)	58	0	3			
Control Delay (s)	14.8	0.0	3.6			
Lane LOS	B		A			
Approach Delay (s)	14.8	0.0	3.6			
Approach LOS	B					
Intersection Summary						
Average Delay			6.8			
Intersection Capacity Utilization			45.7%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	8	8	200	4	10	329
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	10	238	5	12	392
Pedestrians	1		3		3	
Lane Width (ft)	12.0		12.0		12.0	
Walking Speed (ft/s)	4.0		4.0		4.0	
Percent Blockage	0		0		0	
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	660	244			244	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	660	244			244	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	414	777			1321	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	19	243	404
Volume Left	10	0	12
Volume Right	10	5	0
cSH	540	1700	1321
Volume to Capacity	0.04	0.14	0.01
Queue Length 95th (ft)	3	0	1
Control Delay (s)	11.9	0.0	0.3
Lane LOS	B		A
Approach Delay (s)	11.9	0.0	0.3
Approach LOS	B		

Intersection Summary			
Average Delay			0.5
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

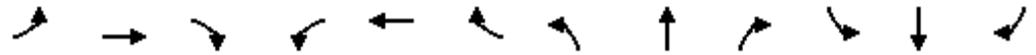
8/5/2010



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↷			↶	↶	↷
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	13	0	1	16	2	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	15	0	1	19	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			15		37	15
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			15		37	15
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1602		975	1064
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	15	20	5			
Volume Left	0	1	2			
Volume Right	0	0	2			
cSH	1700	1602	1017			
Volume to Capacity	0.01	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.4	8.6			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.4	8.6			
Approach LOS			A			
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			13.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/5/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	5	10	8	8	2	8	44	5	0	92	2
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	6	12	10	10	2	10	52	6	0	110	2
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	202	199	126	210	197	60	120			61		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	202	199	126	210	197	60	120			61		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	99	99	99	99	100	99			100		
cM capacity (veh/h)	731	686	913	718	687	1001	1422			1538		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	19	21	68	112
Volume Left	1	10	10	0
Volume Right	12	2	6	2
cSH	816	726	1422	1538
Volume to Capacity	0.02	0.03	0.01	0.00
Queue Length 95th (ft)	2	2	1	0
Control Delay (s)	9.5	10.1	1.1	0.0
Lane LOS	A	B	A	
Approach Delay (s)	9.5	10.1	1.1	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay		2.1	
Intersection Capacity Utilization	22.4%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Site Access & N Meridian Street

8/5/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	6	23	6	93	114	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	8	31	8	124	152	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293	153	153			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293	153	153			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	97	99			
cM capacity (veh/h)	694	893	1427			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	39	132	153			
Volume Left	8	8	0			
Volume Right	31	0	1			
cSH	843	1427	1700			
Volume to Capacity	0.05	0.01	0.09			
Queue Length 95th (ft)	4	0	0			
Control Delay (s)	9.5	0.5	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.5	0.5	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization		20.7%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 5: Fulton Street & N Meridian Street

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	61	20	39	139	60	87
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	81	27	52	185	80	116
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	421	145			237	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	421	145			237	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	85	97			94	
cM capacity (veh/h)	546	892			1307	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	108	237	196			
Volume Left	81	0	80			
Volume Right	27	185	0			
cSH	604	1700	1307			
Volume to Capacity	0.18	0.14	0.06			
Queue Length 95th (ft)	16	0	5			
Control Delay (s)	12.3	0.0	3.5			
Lane LOS	B		A			
Approach Delay (s)	12.3	0.0	3.5			
Approach LOS	B					
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			35.1%		ICU Level of Service	A
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/5/2010



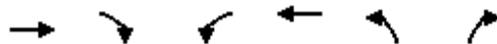
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	18	17	350	10	9	440
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	22	21	427	12	11	537
Pedestrians	1		3			3
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	995	437			440	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	995	437			440	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	97			99	
cM capacity (veh/h)	268	618			1114	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	43	439	548
Volume Left	22	0	11
Volume Right	21	12	0
cSH	369	1700	1114
Volume to Capacity	0.12	0.26	0.01
Queue Length 95th (ft)	10	0	1
Control Delay (s)	16.0	0.0	0.3
Lane LOS	C		A
Approach Delay (s)	16.0	0.0	0.3
Approach LOS	C		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

8/5/2010



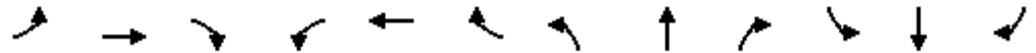
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	22	2	2	38	1	2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	29	3	3	51	1	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			32		87	31
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			32		87	31
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1580		913	1044

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	32	53	4
Volume Left	0	3	1
Volume Right	3	0	3
cSH	1700	1580	996
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	8.6
Approach LOS			A

Intersection Summary			
Average Delay		0.6	
Intersection Capacity Utilization	13.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/5/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	12	11	7	14	0	28	128	16	3	68	3
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	16	15	9	19	0	37	171	21	4	91	4
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	376	378	108	389	370	186	103			195		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	376	378	108	389	370	186	103			195		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	98	98	97	100	97			100		
cM capacity (veh/h)	545	533	934	528	539	852	1479			1375		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	32	28	229	99
Volume Left	1	9	37	4
Volume Right	15	0	21	4
cSH	665	535	1479	1375
Volume to Capacity	0.05	0.05	0.03	0.00
Queue Length 95th (ft)	4	4	2	0
Control Delay (s)	10.7	12.1	1.4	0.3
Lane LOS	B	B	A	A
Approach Delay (s)	10.7	12.1	1.4	0.3
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.7	
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Site Access & N Meridian Street

8/5/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	3	12	23	175	88	6
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	4	16	31	233	117	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	416	121	125			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	416	121	125			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	98			
cM capacity (veh/h)	581	930	1461			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	20	264	125			
Volume Left	4	31	0			
Volume Right	16	0	8			
cSH	830	1461	1700			
Volume to Capacity	0.02	0.02	0.07			
Queue Length 95th (ft)	2	2	0			
Control Delay (s)	9.4	1.0	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.4	1.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization		28.0%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
5: Fulton Street & N Meridian Street

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↘		↕	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	170	76	129	134	42	64
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	205	92	155	161	51	77
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	414	236			317	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	414	236			317	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	64	89			96	
cM capacity (veh/h)	570	803			1243	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	296	317	128
Volume Left	205	0	51
Volume Right	92	161	0
cSH	626	1700	1243
Volume to Capacity	0.47	0.19	0.04
Queue Length 95th (ft)	63	0	3
Control Delay (s)	15.8	0.0	3.4
Lane LOS	C		A
Approach Delay (s)	15.8	0.0	3.4
Approach LOS	C		

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↕			↘
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	11	6	538	5	10	625
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	7	598	6	11	694
Pedestrians	1		3			3
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1321	605			604	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321	605			604	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	93	99			99	
cM capacity (veh/h)	165	485			973	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	19	603	706
Volume Left	12	0	11
Volume Right	7	6	0
cSH	215	1700	973
Volume to Capacity	0.09	0.35	0.01
Queue Length 95th (ft)	7	0	1
Control Delay (s)	23.3	0.0	0.3
Lane LOS	C		A
Approach Delay (s)	23.3	0.0	0.3
Approach LOS	C		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

8/5/2010



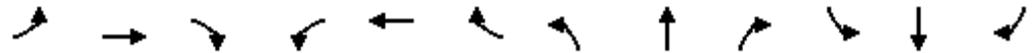
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	17	0	1	17	2	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	20	0	1	20	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			20		42	20
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			20		42	20
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1596		968	1058

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	20	21	5
Volume Left	0	1	2
Volume Right	0	0	2
cSH	1700	1596	1011
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.4	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	8.6
Approach LOS			A

Intersection Summary			
Average Delay		1.1	
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/5/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	7	13	11	11	3	6	83	7	0	131	3
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	8	15	13	13	4	7	98	8	0	154	4
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	292	287	171	301	285	107	166			109		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	292	287	171	301	285	107	166			109		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	99	98	98	98	100	99			100		
cM capacity (veh/h)	635	614	862	621	616	943	1368			1478		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	24	29	113	158
Volume Left	0	13	7	0
Volume Right	15	4	8	4
cSH	755	645	1368	1478
Volume to Capacity	0.03	0.05	0.01	0.00
Queue Length 95th (ft)	2	4	0	0
Control Delay (s)	9.9	10.8	0.5	0.0
Lane LOS	A	B	A	
Approach Delay (s)	9.9	10.8	0.5	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

4: Site Access & N Meridian Street

8/5/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	2	6	2	109	159	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	7	2	128	187	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	321	188	188			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	321	188	188			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	672	854	1386			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	9	131	188			
Volume Left	2	2	0			
Volume Right	7	0	1			
cSH	800	1386	1700			
Volume to Capacity	0.01	0.00	0.11			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.6	0.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.6	0.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization		19.2%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
5: Fulton Street & N Meridian Street

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	73	23	76	158	67	111
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	86	27	89	186	79	131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	471	182			275	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471	182			275	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	83	97			94	
cM capacity (veh/h)	510	850			1265	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	113	275	209
Volume Left	86	0	79
Volume Right	27	186	0
cSH	564	1700	1265
Volume to Capacity	0.20	0.16	0.06
Queue Length 95th (ft)	19	0	5
Control Delay (s)	13.0	0.0	3.4
Lane LOS	B		A
Approach Delay (s)	13.0	0.0	3.4
Approach LOS	B		

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/5/2010



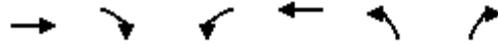
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	23	20	727	13	8	906
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	24	21	765	14	8	954
Pedestrians	1		3		3	
Lane Width (ft)	12.0		12.0		12.0	
Walking Speed (ft/s)	4.0		4.0		4.0	
Percent Blockage	0		0		0	
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1747	776			780	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1747	776			780	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	95			99	
cM capacity (veh/h)	93	396			832	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	45	779	962
Volume Left	24	0	8
Volume Right	21	14	0
cSH	145	1700	832
Volume to Capacity	0.31	0.46	0.01
Queue Length 95th (ft)	31	0	1
Control Delay (s)	40.7	0.0	0.3
Lane LOS	E		A
Approach Delay (s)	40.7	0.0	0.3
Approach LOS	E		

Intersection Summary			
Average Delay		1.2	
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

8/5/2010



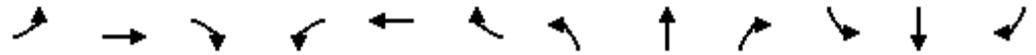
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	24	2	2	48	1	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	28	2	2	56	1	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			31		91	29
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			31		91	29
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1582		908	1045

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	31	59	4
Volume Left	0	2	1
Volume Right	2	0	2
cSH	1700	1582	995
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.3	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	8.6
Approach LOS			A

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	14.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/5/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	16	10	9	17	0	35	186	20	4	121	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	19	12	11	20	0	41	219	24	5	142	5
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	487	490	160	498	480	236	155			245		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	487	490	160	498	480	236	155			245		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	98	96	100	97			100		
cM capacity (veh/h)	456	459	874	443	465	800	1416			1317		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	32	31	284	152
Volume Left	1	11	41	5
Volume Right	12	0	24	5
cSH	557	457	1416	1317
Volume to Capacity	0.06	0.07	0.03	0.00
Queue Length 95th (ft)	5	5	2	0
Control Delay (s)	11.9	13.4	1.3	0.3
Lane LOS	B	B	A	A
Approach Delay (s)	11.9	13.4	1.3	0.3
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.4	
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 4: Site Access & N Meridian Street

8/5/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	1	4	7	248	148	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	5	8	292	174	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	484	175	176			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	484	175	176			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	539	868	1400			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	6	300	176			
Volume Left	1	8	0			
Volume Right	5	0	2			
cSH	774	1400	1700			
Volume to Capacity	0.01	0.01	0.10			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	9.7	0.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	0.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization		30.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 5: Fulton Street & N Meridian Street

8/5/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	202	88	175	166	51	109
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	238	104	206	195	60	128
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	552	304			401	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	552	304			401	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	49	86			95	
cM capacity (veh/h)	469	736			1157	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	341	401	188
Volume Left	238	0	60
Volume Right	104	195	0
cSH	527	1700	1157
Volume to Capacity	0.65	0.24	0.05
Queue Length 95th (ft)	115	0	4
Control Delay (s)	23.5	0.0	3.0
Lane LOS	C		A
Approach Delay (s)	23.5	0.0	3.0
Approach LOS	C		

Intersection Summary			
Average Delay		9.2	
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/10/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	11	11	538	5	10	625
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	12	598	6	11	694
Pedestrians	1		3		3	
Lane Width (ft)	12.0		12.0		12.0	
Walking Speed (ft/s)	4.0		4.0		4.0	
Percent Blockage	0		0		0	
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1321	605			604	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321	605			604	
tC, single (s)	6.5	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.2	
p0 queue free %	93	97			99	
cM capacity (veh/h)	165	485			973	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	603	706
Volume Left	12	0	11
Volume Right	12	6	0
cSH	247	1700	973
Volume to Capacity	0.10	0.35	0.01
Queue Length 95th (ft)	8	0	1
Control Delay (s)	21.2	0.0	0.3
Lane LOS	C		A
Approach Delay (s)	21.2	0.0	0.3
Approach LOS	C		

Intersection Summary			
Average Delay			0.5
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)			15

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

8/10/2010



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	17	0	1	22	2	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	20	0	1	26	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			20		48	20
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			20		48	20
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1596		961	1058

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	20	27	5
Volume Left	0	1	2
Volume Right	0	0	2
cSH	1700	1596	1007
Volume to Capacity	0.01	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.3	8.6
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	8.6
Approach LOS			A

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/10/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	7	13	11	11	3	11	84	7	0	132	3
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	8	15	13	13	4	13	99	8	0	155	4
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	306	301	172	315	299	108	167			110		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	306	301	172	315	299	108	167			110		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	100	99	98	98	98	100	99			100		
cM capacity (veh/h)	619	600	861	606	602	942	1366			1476		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	24	29	120	159
Volume Left	0	13	13	0
Volume Right	15	4	8	4
cSH	747	631	1366	1476
Volume to Capacity	0.03	0.05	0.01	0.00
Queue Length 95th (ft)	2	4	1	0
Control Delay (s)	10.0	11.0	0.9	0.0
Lane LOS	A	B	A	
Approach Delay (s)	10.0	11.0	0.9	0.0
Approach LOS	A	B		

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis

4: Site Access & N Meridian Street

8/10/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	31	8	109	159	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	36	9	128	187	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	335	188	189			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	335	188	189			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	99			
cM capacity (veh/h)	655	854	1384			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	46	138	189			
Volume Left	9	9	0			
Volume Right	36	0	2			
cSH	804	1384	1700			
Volume to Capacity	0.06	0.01	0.11			
Queue Length 95th (ft)	5	1	0			
Control Delay (s)	9.7	0.6	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	0.6	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		23.4%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
5: Fulton Street & N Meridian Street

8/10/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	73	24	81	158	70	133
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	86	28	95	186	82	156
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	509	188			281	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	509	188			281	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	82	97			93	
cM capacity (veh/h)	483	844			1259	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	114	281	239
Volume Left	86	0	82
Volume Right	28	186	0
cSH	540	1700	1259
Volume to Capacity	0.21	0.17	0.07
Queue Length 95th (ft)	20	0	5
Control Delay (s)	13.4	0.0	3.2
Lane LOS	B		A
Approach Delay (s)	13.4	0.0	3.2
Approach LOS	B		

Intersection Summary			
Average Delay		3.6	
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 1: Sierra Vista Street & N College Street/OR 219

8/10/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	22	727	13	13	906
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	24	23	765	14	14	954
Pedestrians	1		3			3
Lane Width (ft)	12.0		12.0			12.0
Walking Speed (ft/s)	4.0		4.0			4.0
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1757	776			780	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1757	776			780	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	94			98	
cM capacity (veh/h)	91	396			832	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	47	779	967
Volume Left	24	0	14
Volume Right	23	14	0
cSH	147	1700	832
Volume to Capacity	0.32	0.46	0.02
Queue Length 95th (ft)	32	0	1
Control Delay (s)	40.9	0.0	0.5
Lane LOS	E		A
Approach Delay (s)	40.9	0.0	0.5
Approach LOS	E		

Intersection Summary			
Average Delay		1.3	
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 2: Sierra Vista Street & N Evergreen Drive

8/10/2010



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Sign Control	Free			Free	Yield	
Grade	0%			0%	0%	
Volume (veh/h)	29	2	2	50	1	2
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	34	2	2	59	1	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			36		99	35
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			36		99	35
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1574		899	1037

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	36	61	4
Volume Left	0	2	1
Volume Right	2	0	2
cSH	1700	1574	987
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.3	8.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	8.7
Approach LOS			A

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	14.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 3: Sierra Vista Street & N Meridian Street

8/10/2010



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	16	15	9	17	0	37	187	20	4	122	4
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	19	18	11	20	0	44	220	24	5	144	5
Pedestrians		8			3			7			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	494	497	161	511	487	237	156			247		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	494	497	161	511	487	237	156			247		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	98	98	96	100	97			100		
cM capacity (veh/h)	450	454	873	431	460	799	1414			1316		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	38	31	287	153
Volume Left	1	11	44	5
Volume Right	18	0	24	5
cSH	586	449	1414	1316
Volume to Capacity	0.06	0.07	0.03	0.00
Queue Length 95th (ft)	5	5	2	0
Control Delay (s)	11.6	13.6	1.4	0.3
Lane LOS	B	B	A	A
Approach Delay (s)	11.6	13.6	1.4	0.3
Approach LOS	B	B		

Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 4: Site Access & N Meridian Street

8/10/2010



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	4	17	31	248	148	8
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	20	36	292	174	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	544	179	184			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	544	179	184			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	97			
cM capacity (veh/h)	487	864	1391			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	25	328	184			
Volume Left	5	36	0			
Volume Right	20	0	9			
cSH	753	1391	1700			
Volume to Capacity	0.03	0.03	0.11			
Queue Length 95th (ft)	3	2	0			
Control Delay (s)	9.9	1.1	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	1.1	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization		38.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 5: Fulton Street & N Meridian Street

8/10/2010



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	202	91	196	166	52	121
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	238	107	231	195	61	142
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	593	328			426	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	593	328			426	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	46	85			95	
cM capacity (veh/h)	443	713			1133	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	345	426	204
Volume Left	238	0	61
Volume Right	107	195	0
cSH	502	1700	1133
Volume to Capacity	0.69	0.25	0.05
Queue Length 95th (ft)	130	0	4
Control Delay (s)	26.4	0.0	2.9
Lane LOS	D		A
Approach Delay (s)	26.4	0.0	2.9
Approach LOS	D		

Intersection Summary			
Average Delay		9.9	
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)		15	

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	48	24
Average Queue (ft)	11	3
95th Queue (ft)	37	17
Link Distance (ft)	246	323
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	388
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	31	32	6
Average Queue (ft)	12	14	0
95th Queue (ft)	36	40	4
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
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Directions Served	LR	TR	LT
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Maximum Queue (ft)	61	4	40
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Average Queue (ft)	29	0	3
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95th Queue (ft)	54	3	20
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Link Distance (ft)	655	345	636
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Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	49	64
Average Queue (ft)	20	3
95th Queue (ft)	47	26
Link Distance (ft)	246	323
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	40	31	29
Average Queue (ft)	17	15	2
95th Queue (ft)	43	40	15
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
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Directions Served	LR	TR	LT
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Maximum Queue (ft)	72	13	36
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Average Queue (ft)	43	1	5
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95th Queue (ft)	66	6	24
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Link Distance (ft)	655	345	636
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Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	54	28
Average Queue (ft)	11	1
95th Queue (ft)	38	12
Link Distance (ft)	246	323
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	12
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	388
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	40	35	13
Average Queue (ft)	10	13	0
95th Queue (ft)	34	39	6
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
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Directions Served	LR	TR	LT
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Maximum Queue (ft)	66	8	57
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Average Queue (ft)	37	0	12
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95th Queue (ft)	56	4	41
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Link Distance (ft)	655	345	636
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Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	61	17	34
Average Queue (ft)	22	1	2
95th Queue (ft)	52	7	16
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	44	36	48	13
Average Queue (ft)	17	15	3	1
95th Queue (ft)	43	40	22	8
Link Distance (ft)	372	429	485	268
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Site Access & N Meridian Street

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Fulton Street & N Meridian Street

Movement WB SB

Directions Served LR LT

Maximum Queue (ft) 97 53

Average Queue (ft) 53 12

95th Queue (ft) 84 41

Link Distance (ft) 655 636

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	55	34
Average Queue (ft)	14	2
95th Queue (ft)	43	15
Link Distance (ft)	246	323
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	36	36	16
Average Queue (ft)	12	16	1
95th Queue (ft)	37	43	11
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	46	12
Average Queue (ft)	19	0
95th Queue (ft)	45	6
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	66	8	62
Average Queue (ft)	35	1	15
95th Queue (ft)	59	7	48
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	49	13	39
Average Queue (ft)	21	0	3
95th Queue (ft)	47	6	18
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	36	40	40
Average Queue (ft)	18	16	2
95th Queue (ft)	43	42	19
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	32	45
Average Queue (ft)	12	4
95th Queue (ft)	37	23
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	114	4	40
Average Queue (ft)	54	0	12
95th Queue (ft)	88	3	37
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	47	17	54
Average Queue (ft)	13	1	6
95th Queue (ft)	41	9	32
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	6
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	388
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	40	36
Average Queue (ft)	14	17
95th Queue (ft)	39	43
Link Distance (ft)	372	429
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	32	6
Average Queue (ft)	6	0
95th Queue (ft)	26	4
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	74	20	82
Average Queue (ft)	39	1	20
95th Queue (ft)	65	10	58
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	74	19	150
Average Queue (ft)	26	1	16
95th Queue (ft)	58	10	82
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	40	45	54	10
Average Queue (ft)	20	17	6	0
95th Queue (ft)	45	44	29	6
Link Distance (ft)	372	429	485	268
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	25
Average Queue (ft)	6	1
95th Queue (ft)	27	11
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	183	4	58
Average Queue (ft)	80	0	17
95th Queue (ft)	136	4	51
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	55	46	100
Average Queue (ft)	20	3	9
95th Queue (ft)	50	22	52
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	31	40	6
Average Queue (ft)	17	18	0
95th Queue (ft)	42	44	4
Link Distance (ft)	372	429	485
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	18
Average Queue (ft)	22	1
95th Queue (ft)	48	9
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	84	4	69
Average Queue (ft)	39	0	19
95th Queue (ft)	67	4	54
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Sierra Vista Street & N College Street/OR 219

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	83	30	140
Average Queue (ft)	30	2	15
95th Queue (ft)	63	16	81
Link Distance (ft)	246	724	323
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Sierra Vista Street & N Evergreen Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 3: Sierra Vista Street & N Meridian Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	45	57	50	29
Average Queue (ft)	21	18	6	1
95th Queue (ft)	46	46	30	13
Link Distance (ft)	372	429	485	268
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Site Access & N Meridian Street

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	41	41
Average Queue (ft)	17	6
95th Queue (ft)	43	27
Link Distance (ft)	293	636
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Fulton Street & N Meridian Street

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	188	6	88
Average Queue (ft)	77	0	19
95th Queue (ft)	143	5	60
Link Distance (ft)	655	345	636
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

N. College Street OR 219 (Hwy 140) @ Sierra Vista Street
 January 1, 2007 through December 31, 2009

COLLISION TYPE	FATAL CRASHES		NON- PROPERTY DAMAGE		TOTAL CRASHES	TOTAL PEOPLE KILLED	TOTAL PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER- SECTION RELATED	INTER- SECTION OFF- ROAD	
	FATAL CRASHES	FATAL CRASHES	ONLY	PROPERTY DAMAGE											
YEAR: 2009															
PEDESTRIAN	0	0	1	1	1	0	0	0	1	0	1	0	1	0	0
2009 TOTAL	0	0	1	1	1	0	0	0	1	0	1	0	1	0	0
FINAL TOTAL	0	0	1	1	1	0	0	0	1	0	1	0	1	0	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

Evergreen Drive @ Sierra Vista Street
January 1, 2007 through December 31, 2009

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION RELATED	OFF-ROAD
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TOTAL

FINAL TOTAL

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

Meridian Street @ Sierra Vista Street
 January 1, 2007 through December 31, 2009

COLLISION TYPE	FATAL CRASHES		NON-PROPERTY DAMAGE		TOTAL CRASHES	TOTAL PEOPLE KILLED	TOTAL PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION RELATED	INTER-SECTION ROAD
	FATAL CRASHES	CRASHES	ONLY	PROPERTY DAMAGE										
YEAR: 2008	0	0	1	1	1	0	0	0	0	1	1	0	1	0
ANGLE	0	0	1	1	1	0	0	0	0	1	1	0	1	0
2008 TOTAL	0	0	1	1	1	0	0	0	0	1	1	0	1	0
FINAL TOTAL	0	0	1	1	1	0	0	0	0	1	1	0	1	0

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF NEWBERG, YAMHILL COUNTY

URBAN NON-SYSTEM CRASH LISTING

Meridian Street @ Sierra Vista Street
January 1, 2007 through December 31, 2009

SER#	INVEST	CITY STREET	CLASS	DATE	TIME	RD CHAR	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH	COLL	SVRY	V#	VEH	TYPE	MOVE	FROM	TO	P#	PRTC	INI	SVRTY	E	X	RES	PED	LOC	ERROR	ACTN	EVENT	CAUSE
		FIRST STREET	DIST	DAY		DIRECT	LEGS	TRAF-	RNDBT	SURF	CRASH	COLL	SVRY		OWNER		OWNER				TYPE	SVRTY										
		SECOND STREET	FROM			LOCN	(#LANES)	CONTL	DRVMY	LIGHT	TYP	COLL	SVRY		VEH	TYPE	VEH	TYPE			TYPE	SVRTY										
01014		MERIDIAN ST	19	11/05/2008	Wed	INTER	CROSS	N	STOP	SIGN	N	RAIN	ANGL-OTH	01	NONE	0	STRGHT	E	W	01	DRVR	NONE	17	M	OR-Y			021		000	00	03
		SIERRA VISTA ST	0	8A		CN	0		N	WET	ANGL	PDO		PSNGR	CAR																	
														02	NONE	0	STRGHT	N	S	01	DRVR	NONE	45	F	OR-Y	OR<25		000	000	00	00	00

Meridian Street @ Fulton Street
January 1, 2007 through December 31, 2009

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION RELATED	OFF-ROAD
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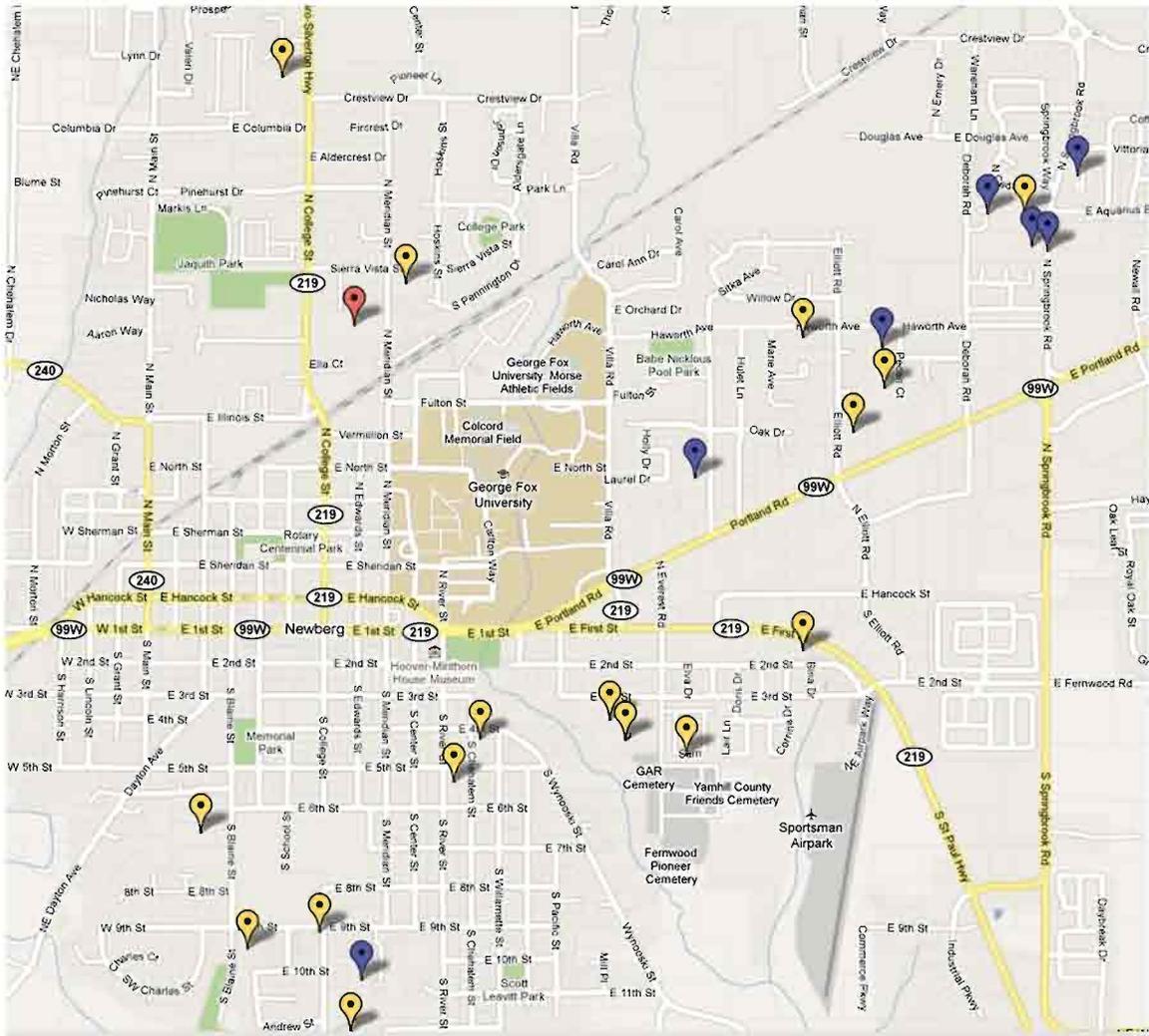
TOTAL

FINAL TOTAL

Note: Legislative changes to DMV's vehicle crash reporting requirements, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

EXHIBIT H

City Of Newberg Apartment Locations



See Attached List of Addresses, Size and Unit Counts

Legend

-  1103 N. Meridian
-  Apartment Complexes - all income levels
-  Apartment Complexes - low income

Note: This map was created by HAYC & IDEA with resources available to HAYC at the time of creation.

EXHIBIT H

APARTMENTS IN NEWBERG

Code	Size	Complex Name	Income levels and client types served (if known)	Address	Contact	Units
	1	Ambassador Apts		1200 E 4 th St, Newberg		17
*	2-3	Camellia Court Apts	Low-income - family	601 N Sitka, Newberg	503-537-1182	24
	2	Canyon Ridge Apts	Standard-multi family	401 S Everest Rd., Newberg	503-537-3066	60
	1-3	Cedar Terrace Apts	Multi-family	704 Elliott Rd, Newberg	503-538-9049	27
H	1-2	Chehalem Cr Apts	Standard-multi family	611 S Blaine, Newberg	503-538-8618	32
	2-3	Cherry Hill Apts	Standard-multi family	1536 E 3 rd St., Newberg	503-472-2604	26
H	1-2	Colonial Village Apts	Standard-multi family	2401 E 2 nd St., Newberg	503-538-8164	63
*H	1-3	Deborah Court Apts	Low-income - family	1412 Deborah Rd., Newberg	503-538-8825	40
*	1-2	Haworth Terrace Apts	Low-income - family	2700 Haworth Ave., Newberg	503-538-2922	38
	1-3	East 9 th Street Apts		406 E. 9 th St., Newberg	503-931-7473	26
		K&M Apartments LLC		300 S. Everest Rd., Newberg	503-538-9670	
	2-4	Mountain View Duplex		1907 N College, Newberg	503-537-0800	16
	2	Oaks Canyon Prop		1200 N Meridian St, Newberg	503-487-6372	
*SD	1-2	Newberg Village	Low-income – elderly/disabled	1209 N Springbrook Rd., Newberg	503-538-8825	32
	1-2	Rivercrest Apts	Standard-multi family	500 River St., Newberg	503-472-2604	20
	2	Springbrook Apts		1401 N Springbrook, Newberg	503-537-9383	55
*HD	1	Springbrook Place	Low-income - disabled	1201 N Springbrook Rd., Newberg	503-487-6227	15
	2-4	Townhouse Village		606 E 9 th St., Newberg	866-317-2452	32
	1-3	Typres Gardens	Standard-multi family	2400 Haworth Ave, Newberg	971 832-8213	20
H	2	Trillium Square Apts	Standard-multi family	901 Pecan Ct., Newberg	503-538-6699	52
*HSD	1-2	Vittoria Square Apts	Low-income - elderly/disabled	3300 Vittoria Way, Newberg	503-538-3698	43
	2	Woodside Park	Low-income - family	802 E 9 th , Newberg	503-538-5326	84
H	1-2	Woodview Village	Standard-multi family	1210 S College, Newberg	503-538-1616	82

(* Subsidized, (H) Handicap accessible, (S) Senior, (D) Disabled, (F) Farm-worker

CHEHALEM TRANSIT BUS ROUTES

City of Newberg
Yamhill County, Oregon



Legend

Chehalum Transit Routes

- 4 Newberg/DuDee
- 5 Foothills
- 6 Springbrook
- 7 Chehalum Glenn

City Boundary

- DuDee
- Newberg

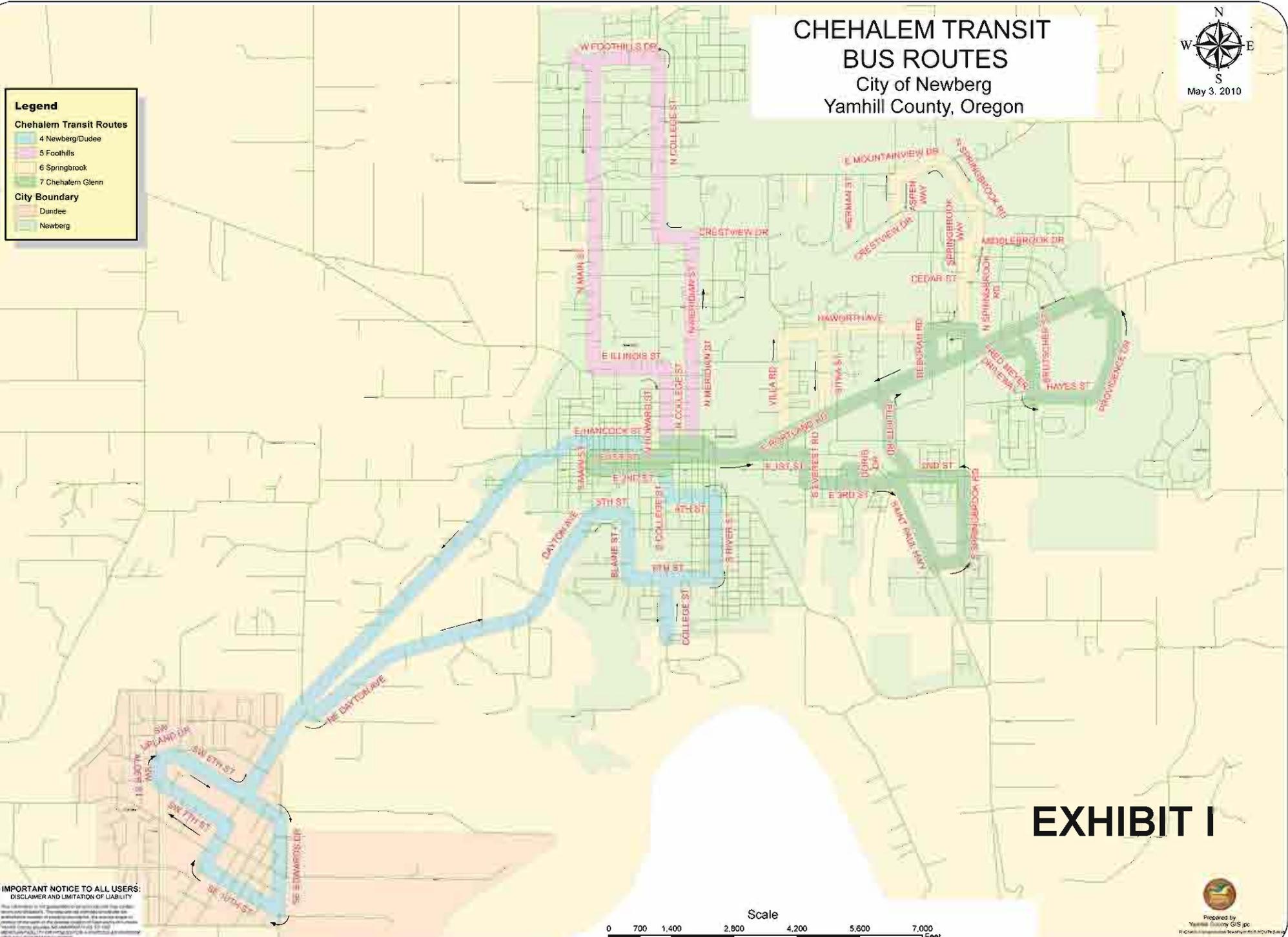


EXHIBIT I

**IMPORTANT NOTICE TO ALL USERS:
DISCLAIMER AND LIMITATION OF LIABILITY**

This document is for general informational purposes only. It does not constitute a contract or any other legal instrument. The information contained herein is subject to change without notice. The City of Newberg and Yamhill County assume no liability for any errors or omissions in this document. For more information, please contact the City of Newberg or Yamhill County.

Newberg/Dundee Route #4, Newberg Routes #5, 6, 7

	Monday to Friday Services												
Route 4: Newberg South/Dundee													
Naps Thriftway	6:30	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30
5th and Edwards (Dundee)	6:35	7:35	8:35	9:35	10:35	11:35	12:35	1:35	2:35	3:35	4:35	5:35	6:35
9th and Hwy 99W (Dundee)	6:38	7:38	8:38	9:38	10:38	11:38	12:38	1:38	2:38	3:38	4:38	5:38	6:38
Post Office (Dundee)	6:42	7:42	8:42	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:42
Dayton Ave/5th (Newberg)	6:46	7:46	8:46	9:46	10:46	11:46	12:46	1:46	2:46	3:46	4:46	5:46	6:46
Woodview Village	6:49	7:49	8:49	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:49	6:49
Naps Thriftway	6:54	7:54	8:54	9:54	10:54	11:54	12:54	1:54	2:54	3:54	4:54	5:54	6:54

Route 5: Newberg North/Foothills Drive													
Naps Thriftway	6:30	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30
George Fox	6:33	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	6:33
The Oaks Apartments	6:34	7:34	8:34	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:34
Newberg Senior Center	6:39	7:39	8:39	9:39	10:39	11:39	12:39	1:39	2:39	3:39	4:39	5:39	6:39
Main/Columbia	6:42	7:42	8:42	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:42
Main/Illinois	6:44	7:44	8:44	9:44	10:44	11:44	12:44	1:44	2:44	3:44	4:44	5:44	6:44
Naps Thriftway	6:48	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48	6:48

Route 6: Newberg/Springbrook													
Naps Thriftway	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	
Villa Medical Center	7:02	8:02	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02	
CPRD Pool	7:04	8:04	9:04	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04	
A-DEC	7:09	8:09	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:09	5:09	6:09	
Springbrook/Hayworth	7:13	8:13	9:13	10:13	11:13	12:13	1:13	2:13	3:13	4:13	5:13	6:13	
George Fox	7:17	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	6:17	
Naps Thriftway	7:22	8:22	9:22	10:22	11:22	12:22	1:22	2:22	3:22	4:22	5:22	6:22	

Route 7: Newberg East/Chehalem Glenn													
Naps Thriftway	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	
Colonial Village	7:03	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	
FISH	7:07	8:07	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:07	6:07	
Fred Meyer	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	
Providence Hospital	7:13	8:13	9:13	10:13	11:13	12:13	1:13	2:13	3:13	4:13	5:13	6:13	
Safeway	7:17	8:17	9:17	10:17	11:17	12:17	1:17	2:17	3:17	4:17	5:17	6:17	
Naps Thriftway	7:23	8:23	9:23	10:23	11:23	12:23	1:23	2:23	3:23	4:23	5:23	6:23	

EXHIBIT J



TREE-IFIC ARBOR CARE, INC
2664 NW PINOT NOIR DRIVE
MCMINNVILLE OREGON 97128
(503) 474-9566
(503) 508-4085 - Andrew

July 16, 2010

Housing Authority of Yamhill County
Mark C Davis
135 NE Dunn Place
P O Box 865
McMinnville OR 97128

RE: TREE INVENTORY FOR MERIDIAN STREET PROJECT – NEWBERG
OREGON

Dear Mr. Davis

We completed a tree inventory at 1103 Meridian Street, Newberg Oregon on Monday, July 12, 2010. As agreed we tagged all trees greater than 5" DBH. The tree inventory catalogs the species, general health based on a visual assessment only & Drip Line Radius. We marked for removal only those trees that have severe health issues, dead trees, or safety issues (based again on visual assessment). We realize other trees will have to be removed to allow for the development. Hopefully, the tree list will aid in choosing the trees best suited for preservation based on their health and location in the site. The surveyor will supply the site map with trees plotted and numbered.

There were a few very desirable trees that we marked on the list for possible preservation. If you decide to fit these into your development, it may be advantageous to have a root crown excavation done to verify the relative health of the root crown (primarily the large Oregon White Oak trees).

Following are a few general guidelines regarding tree protection recommendations for preservation trees before & during the development process.

- ❖ Establishing a critical root zone for each preservation tree
- ❖ Install fencing around the critical root zone for each tree, which shall remain in place for the duration of the project to ensure protection.

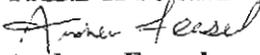
- ❖ **Avoid the following activity inside the tree protection zone**
 - **Operation equipment**
 - **Stock piling of construction material**
 - **Placing debris, soil or waste inside the tree protect zone**
 - **Change soil grade**
 - **Contaminating soil from washing out equipment or vehicle maintenance**

- ❖ **Larger roots (3” and greater) outside the critical root zone that are severed, should have a clean cut made to encourage wound closure**

- ❖ **It would be beneficial to apply mulch inside the tree protection zone, this will assist in water retention during dry summer months**

If you have any questions on this report or the tree inventory, please feel free to call us. We would be happy to assist you in the development stage of your project. We can supply an arborist to oversee critical work around tree protection zone(s); also we are fully equipped to remove and or prune trees, grind stumps, and other tree related services. Please let us know if we may be of further assistance. Thank you!

Sincerely,

TREE-IFIC, ARBOR CARE INC

Andrew Feasel
Certified Arborist PN-2025A

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
1	Norway Maple Acer platanoides	16"	16'	Balanced Symmetrical crown, general health good, leaf count & color, good, minor dead wood, some surface rooting.	
2	Norway Maple Acer platanoides	10"	11'	Symmetrical crown, fair, leaf count and color, minor dead wood, some surface rooting, possible girdling roots	
3	Norway Maple Acer platanoides	13"	15'	Minor dead wood, symmetrical crown, fair leaf count and color. surface roots.	
4	Norway Maple Acer Platanoides	16"	20'	Symmetrical crown, leaf count good, color good, minor dead wood, some surface roots	
5	Oregon White Oak Quercas Garryana	16"	12'	Tree health fair, leaf count & color fair, symmetrical crown	
6	Oregon White Oak Quercas Garryana	9"	0-20'	Severe Asymmetrical crown, health fair, competition with adjacent tree, common trunk bond with Fir	X
7	Douglas Fir Pseudotsuga Menziessii	14"	12'	Symmetrical crown, health fair, needle count & color fair minor dead wood	
8	Douglas Fir Pseudotsuga Menziessii	10"	0-9'	Asymmetrical, health fair, needle count & color fair	
9	Douglas Fir Pseudotsuga Menziessii	14"	12'	Intermediate tree, poor to fair, color good, & needle count good poor, surface rooting	
10	Douglas Fir Pseudotsuga Menziessii	14"	11'	General health fair, color and needle count fair, minor dead wood	
11	English Hawthorn Crataegus oxycantha c=laevigata	7"	15'	Co-dominant - health fair, asymmetrical crown, leaf count and color fair, minor dead wood	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
12	Douglas Fir Pseudotsuga Menziessii	12"	9'	Asymmetrical crown, fair needle count and color, minor dead wood	X
13	English Hawthorn Crataegus oxycantha c=laevigata	8"	14'	Asymmetrical crown, fair needle count & color , health fair	X
14	Oregon White Oak Quercas Garryana	16"	14'	Asymmetrical crown, fair health, leaf count & color fair, adjacent to property and fence line (east side)	
15	Douglas Fir Pseudotsuga Menziessii	17"	16'	General health fair, needle count & color fair, minor dead wood severe surface rooting, stag headed dead top	X
16	Douglas Fir Pseudotsuga Menziessii	16"	17'	Asymmetrical crown, fair needle count & color, dead wood distorted trunk	X
17	Douglas Fir Pseudotsuga Menziessii	13"	8'	Symmetrical crown, needle count and color fair, surface rooting, dead wood	X
18	English Walnut Juglans regia	5 1/2"	15'	Symmetrical crown, good health, good leaf count & color	
19	Norway Maple Acer Platanoides	10"	12'	Symmetrical crown, good health, good leaf count and color	
20	Oregon White Oak Quercas Garryana	9 1/2"	0-13'	Severe asymmetrical crown, fair health, fair leaf count & color over hangs property line and adjacent house	X
21	Black Locust Robinia pseudoacacia	5 1/2"	0-20'	Severely asymmetrical crown fair health fair leaf count & color	X
22	Black Locust Robinia pseudoacacia	6"	0-20'	Severely asymmetrical crown Fair health, leaf count & color good	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
23	Norway Maple Acer Platanoides	5"	9'	Symmetrical crown, health poor, good leaf count and color poor taper, under storage tree	X
24	Apple	8 1/2"	11'	Poor health, asymmetrical crown, leaf count and color poor	X
25	Plum Prunus cerasifera	5 1/2"	5'	poor health, leaf count and color poor, under storage tree	X
26	Red Maple Acer rubrum	18"	17'	Health good, Asymmetrical crown, good leaf count and color Co-dominant, poor attachment at 6' above ground, dead wood	
27	Red Maple Acer rubrum	18"	19'	Co-dominant, good health, some surface roots, dead wood, leaf count and color good	
28	Red Maple Acer rubrum	29"	20'	Good health, good color and leaf count, minor dead wood some surface rooting - co-dominant	
29	Red Maple Acer rubrum	16"	19'	Asymmetrical crown, good health, leaf count and color good minor dead wood, some surface roots	
30	Douglas Fir Pseudotsuga Menziessii	14"	8'	Asymmetrical crown, poor health, needle count and color poor high percentage of dead wood	X
31	Douglas Fir Pseudotsuga Menziessii	13 1/2"	12'	Asymmetrical crown, poor health, needle count and color poor high percentage of dead wood	X
32	Red Maple Acer rubrum	16"	19'	Good health, leaf count and color good, minor dead wood	
33	Red Maple Acer rubrum	17"	17'	Surface roots, health good, leaf count and color good minor dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
34	Willow Salix discolor	8 1/2	15'	Health good, leaf count and color good, co-dominant stems, poor attachments at ground level. Some surface rooting	
35	English Walnut Juglans regia	8"	9'	Asymmetrical crown, health poor, leaf count low, color fair	X
36	English Walnut Juglans regia	9"	10'	Health poor, high percentage of dead wood, leaf and color bad, decay in trunk	X
N/A	Plum Prunus cerasifera	10"	12'	tree adjacent property (west) 50' from Meridian street 5' off property line, ornamental Plum tree	
37	Blue Spruce Picea pungens	11"	10'	Health good, needle count and color good, some dead wood under storage tree	
38	Red Oak Quercus rubra	7 1/2"	10'	Asymmetrical, leaning trunk health fair, leaf count and color fair	X
39	Grand Fir Abies grandis	10"	7'	Poor health, needle count and color poor declining, large dead wood	X
40	Oregon White Oak Quercus Garryana	51"	38'	Fair health, symmetrical crown. Leaf count and color fair, mature Oak, possible preservation tree	
41	Red Oak Quercus rubra	8"	16'	Severe asymmetrical crown, leaning trunk, under storage tree, grown around existing fence.	X
42	English Hawthorn Crataegus oxycantha c=laevigata	6"	11'	Growth fair, leaf count and color fair, under storage tree	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
43	Ponderosa Pine Pinus ponderosa	7"	6'	Poor health, engulfed in Ivy, poor needle count and color	X
44	Ponderosa Pine Pinus ponderosa	9"	9'	Poor health, poor needle count and color, high percentag of dead wood	X
45	Ponderosa Pine Pinus ponderosa	11 1/2"	6'	Poor health, engulfed with Ivy, poor needle count and color dead wood	X
46	Ponderosa Pine Pinus ponderosa	23"	12'	Engulfed with Ivy 30' up tree, health fair, close to east property line and 3' from fence	
47	Douglas Fir Pseudotsuga Menziessii	30"	13'	Health poor, needle count and color fair, co-dominant top, dead wood, storm damage	X
48	Weeping Willow Salix babylonica	21"	17'	Asymmetrical crown, poor health, leaf count and color poor bad branch attachments, heavy lean over property line and adjacent house	X
49	Cherry Prunus cerasus	7"	0'	Dead	X
50	Norway Maple Acer platanoides	20"	17'	Good health, good leaf count and color , slightly asymmetrical crown (possible preservation tree)	
51	Norway Maple Acer platanoides	21"	24'	Asymmetrical crown, good health, good leaf count and color (Possible Preservation tree)	
52	Vine Maple Acer circinatum	6 1/2"	9'	Asymmetrical crown, poor health, declining, under storage tree	X
53	Japanese Maple Acer Palmatum	6 1/2"	11'	5 stems, fair health, leaf count and color good, mature Japanese Maple (Preservation tree)	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
54	Norway Maple Acer platanoides	11"	10'	Asymmetrical crown, fair health, leaf count and color fair, some decay in trunk, potential disease, surface rooting	X
55	Shore Pine Pinus contorta	16"	12'	Poor health, declining, dead wood, co-dominant leaning trunk	X
56	Ponderosa Pine Pinus ponderosa	17"	10'	Fair health, needle count and color fair, dead wood	
57	Grand Fir Abies grandis	15 1/2"	7'	Poor health, declining, dead wood	X
58	Portugal Laurel Prunus lusitonica	9"	7'	Good health, leaf count and color good	
59	Shore Pine Pinus contorta	12"	9'	Asymmetrical crown, poor health, severe lean over property line and fence, dead wood	X
60	Filbert	6 1/2"	8'	Declining tree, dead top, poor health	X
61	Grand Fir Abies grandis	16"	8'	Health fair, needle count and color fair, some dead wood	
62	Grand Fir Abies grandis	9 1/2"	5'	Poor health, declining, poor taper, dead wood	X
63	Shore Pine Pinus contorta	16"	10'	Severe Asymmetrical crown, health poor, leans over property line and fence, decay in lower trunk	X
64	Shore Pine Pinus contorta	14 1/2"	7'	Health poor, needle count and color poor, high percentage of dead wood	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
65	Grand Fir Abies grandis	6"	5'	Dead	X
66	Shore Pine Pinus contorta	9"	4'	Poor health, needle count and color poor, poor taper	X
67	Shore Pine Pinus contorta	10"	10'	Severe asymmetrical crown, heavy lean over property line fair health, fair needle count and color	X
68	Shore Pine Pinus contorta	10"	6'	Poor health, poor needle count and color poor, poor taper, dead wood	X
69	Shore Pine Pinus contorta	10 1/2"	5'	Poor health, poor taper, co-dominant stem poor branch attachment	X
70	Shore Pine Pinus contorta	12"	10'	Severe asymmetrical crown, poor branch attachment lean over property line	X
71	Shore Pine Pinus contorta	12 1/2"	8'	Fair health, needle count and color fair, storm damage evidence of insect infestation	
72	Plum Prunus cerasifera	6 1/2"	7'	Heavy lean, canopy fair, small under storage tree fair color and leaf count	X
73	Pear	10 1/2"	9'	Co-dominant at 4' - poor health, poor leaf color, dead wood	X
74	Apple	7 1/2"	9'	Poor health, heavy leaning trunk asymmetrical	X
75	Plum Prunus cerasifera	11 1/2"	11'	fair health, fair canopy fair leaf count and color, split trunk dead wood	
76	Pear	6"	6'	Fair health, fair leaf count and color, dead wood	
77	Apple	7 1/2"	6'	Poor health, decay in trunk , poor leaf count and color	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
78	Big Leaf Maple Acer macrophyllum	19 1/2"	16'	Good health, leaf count and color good, leaning trunk, dead wood, tree growing into existing fence	
79	Sitka Spruce Picea sitchensis	16"	18'	Good health, good needle count and color, under growth tree dead wood, tree grown into existing fence	X
80	Douglas Fir Pseudotsuga Menziessii	16 1/2"	13'	Fair health, needle count and color fair, dead wood	
81	Grand Fir Abies grandis	15"	11'	fair health, fair, needle count and color, dead wood	
82	Douglas Fir Pseudotsuga Menziessii	10 1/2"	10'	Fair health, fair needle count and color, dead wood	
83	Douglas Fir Pseudotsuga Menziessii	16"	12'	Fair health, fair needle count and color, dead wood	
84	Douglas Fir Pseudotsuga Menziessii	11"	10'	Fair health, fair needle count and color, trunk distorted dead wood	
85	Douglas Fir Pseudotsuga Menziessii	12"	9'	Poor health, poor needle count and color, dead wood	
86	Douglas Fir Pseudotsuga Menziessii	9 1/2"	5'	Poor health, poor needle count and color, dead wood	
87	Douglas Fir Pseudotsuga Menziessii	9 1/2"	9'	Poor health, poor needle count and color, dead wood	
88	Douglas Fir Pseudotsuga Menziessii	14"	14'	Fair health, fair needle count color, dead wood	
89	Douglas Fir Pseudotsuga Menziessii	10 1/2"	13'	Poor health, poor needle count and color, asymmetrical crown leaning trunk	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
90	Douglas Fir Pseudotsuga Menziessii	12 1/2"	9'	Fair health, fair needle count and color, dead wood	X
91	Douglas Fir Pseudotsuga Menziessii	11"	6'	Poor health, poor needle count and color, dead wood	
92	Douglas Fir Pseudotsuga Menziessii	14"	10'	Fair health, fair needle count and color, dead wood	
93	Douglas Fir Pseudotsuga Menziessii	7"	5'	Poor health, poor needle count and color, dead wood	X
94	Douglas Fir Pseudotsuga Menziessii	8 1/2"	6'	Poor health, poor needle count and color, distorted trunk dead wood	
95	Douglas Fir Pseudotsuga Menziessii	17"	14'	Fair health, fair needle count and color, dead wood, storm damage	
96	Douglas Fir Pseudotsuga Menziessii	13 1/2"	9'	Fair health, fair needle and color count, dead wood	
97	Douglas Fir Pseudotsuga Menziessii	18"	11'	Fair health, fair needle count and color, dead wood distorted trunk	
98	Douglas Fir Pseudotsuga Menziessii	18 1/2"	10'	Fair health, fair needle count and color, dead wood	
99	Grand Fir Abies grandis	15 1/2"	10'	Fair health, fair needle count and color, dead wood	
100	Grand Fir Abies grandis	22"	14'	Fair health, fair needle count and color, dead wood	
101	Douglas Fir Pseudotsuga Menziessii	14"	9'	Fair health, fair needle count and color, dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
102	Douglas Fir Pseudotsuga Menziessii	6"	4'	Poor health, poor needle count and color, dead wood	X
103	Douglas Fir Pseudotsuga Menziessii	9"	5'	Poor health, poor needle count and color, dead wood	
104	Douglas Fir Pseudotsuga Menziessii	13"	8'	Fair health, fair needle count and color, dead wood	
105	Grand Fir Abies grandis	6 1/2"	4'	Poor health, poor needle count and color, dead wood	
106	Grand Fir Abies grandis	16"	12'	Fair health, fair needle count and color, dead wood	
107	Grand Fir Abies grandis	11 1/2"	7'	Fair health, fair needle count and color, dead wood	
108	Grand Fir Abies grandis	11"	6'	Poor health, poor needle count and color, dead wood heavy lean, possible root sprung	X
109	Douglas Fir Pseudotsuga Menziessii	7"	6'	Poor health, poor needle count and color, dead wood	X
110	Douglas Fir Pseudotsuga Menziessii	6 1/2"	6'	Poor health, poor needle count and color, dead wood	X
111	Douglas Fir Pseudotsuga Menziessii	15"	9'	Fair health, fair needle count and color, dead wood wire fence embedded into tree, bulging trunk at 5' above ground	X
112	Grand Fir Abies grandis	6"	6'	Poor health, poor needle count and color, dead wood	X
113	Grand Fir Abies grandis	15 1/2"	8'	Fair health, fair needle count and color, dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
114	Grand Fir Abies grandis	7"	0	Dead	X
115	Grand Fir Abies grandis	7 1/2"	0	Dead	X
116	Grand Fir Abies grandis	7"	6'	Fair health, fair needle count and color, dead wood	
117	Grand Fir Abies grandis	10"	7'	Asymmetrical crown, lean, fair health, fair needle count and color	
118	Grand Fir Abies grandis	6"	4'	Poor health, poor needle count and color, dead wood	X
119	Grand Fir Abies grandis	7"	0	Dead	X
120	Grand Fir Abies grandis	9 1/2"	0	Dead	X
121	Grand Fir Abies grandis	9"	6'	Declining tree, poor health	X
122	Grand Fir Abies grandis	7"	5'	Declining tree, under storage tree, poor health	X
123	Grand Fir Abies grandis	7"	6'	Fair health, fair needle count and color, dead wood	
124	Grand Fir Abies grandis	14"	8'	Fair health, fair needle count and color, wounding and scaring lower trunk	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
125	Pin Oak Quercus palustris	18"	14'	Severe asymmetrical crown, lean in trunk, leaning over adjacent fence and property line	
126	Norway Maple Acer platanoides	7"	8'	Fair color and leaf count, wounding lower trunk	X
127	Norway Maple Acer platanoides	5 1/2"	6'	Severe wounding in trunk 4' up, foliage fair	X
128	Oregon White Oak Quercus Garryana	41"	37'	Large mature tree, some decay in trunk from old pruning cuts, heavy branching, fair color and leaf count - advanced decay in scaffold branches (probably not the best for a preservation tree)	
129	Douglas Fir Pseudotsuga Menziessii	9"	7'	Fair health, fair needle count and color, dead wood	
130	Douglas Fir Pseudotsuga Menziessii	9 1/2"	7'	Poor health, poor needle count and color, dead wood	
131	Douglas Fir Pseudotsuga Menziessii	10"	7'	Poor health, poor needle count and color, dead wood surface rooting	X
132	Douglas Fir Pseudotsuga Menziessii	7 1/2"	8'	Poor health, poor needle count and color, dead wood Asymmetrical crown, distorted trunk	X
133	Oregon White Oak Quercus Garryana	40"	40'	Asymmetrical crown, heavy lateral branching, decay around old pruning cuts and wounds	
134	Douglas Fir Pseudotsuga Menziessii	10"	8'	Fair color and leaf count, wounding lower trunk	X
135	Douglas Fir Pseudotsuga Menziessii	12"	9'	Fair health, fair needle count and color, dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
136	English Laurel Prunus laurocerasus	6 1/2"	8'	Understorage tree	X
137	Grand Fir Abies grandis	17"	11'	Good healthy tree, good needle count and color good taper (Possible Preservation Tree)	
138	English Laurel Prunus laurocerasus	7"	8'	Health fair, fair color and leaf count, under storage tree	
139	English Laurel Prunus laurocerasus	5 1/2"	8'	Health fair, fair color and leaf count, under storage tree	
140	Douglas Fir Pseudotsuga Menziessii	21"	16'	Good health, good needle count and color, dead wood	
141	Douglas Fir Pseudotsuga Menziessii	15"	12'	Fair health, fair needle count and color, dead wood distorted lower trunk	
142	Douglas Fir Pseudotsuga Menziessii	17"	13'	Fair health, fair needle count and color, dead wood	
143	Douglas Fir Pseudotsuga Menziessii	8 1/2"	9'	Severe asymmetrical crown, decay in trunk, distorted	X
144	Douglas Fir Pseudotsuga Menziessii	17"	13'	Fair health, fair needle count and color, dead wood	
145	Norway Maple Acer Platenoides	9"	12'	Good health, good color and leaf count, good scaffold branching	
TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
146	Douglas Fir	16"	10'	Fair health, fair needle count and color, dead wood	

	Pseudotsuga Menziessii			some declining in canopy	
147	Douglas Fir Pseudotsuga Menziessii	9 1/2"	8'	Poor health, poor needle count and color, decline in tips of laterals	X
148	Douglas Fir Pseudotsuga Menziessii	10 1/2"	11'	Fair health, fair needle count and color, dead wood No vertical leader, stunted growth, surface roots	X
149	Shore Pine Pinus contorta	18"	16'	Severe asymmetrical crown, lean over adjacent property line and fence	X
150	Douglas Fir Pseudotsuga Menziessii	17"	15'	Asymmetrical crown, fair needle count and color, on SE property line.	
151	Douglas Fir Pseudotsuga Menziessii	21"	15'	Good health, good needle color, good needle count, some dead wood	
152	Shore Pine Pinus contorta	18"	14'	Asymmetrical crown, heavy weighted, lean, broken top	X
N/A	Oregon White Oak Quercus Garryana			Adjacent property south side, large Oregon White Oak, approximate DBH 30" and DL Radius 20' - trunk is 4' from property line, canopy over hangs property line	
153	Shore Pine Pinus contorta	21"	17'	Asymmetrical crown, heavy lean, broken top	X
154	Douglas Fir Pseudotsuga Menziessii	18"	14'	Good health, good needle count, good color, surface roots	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
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155	Douglas Fir Pseudotsuga Menziessii	12"	10'	Fair health, fair needle count and color, dead wood	
156	Douglas Fir Pseudotsuga Menziessii	17"	11'	Fair health, fair needle count and color, dead wood	
157	Shore Pine Pinus contorta	14"	12'	Severe asymmetrical crown, leaning trunk, heavily weighted	X
158	Douglas Fir Pseudotsuga Menziessii	10 1/2"	8'	Fair health, fair needle count and color, dead wood	
159	Douglas Fir Pseudotsuga Menziessii	21"	16'	Good health, fair needle count and color, dead wood	
160	Douglas Fir Pseudotsuga Menziessii	17"	11'	Fair health, fair needle count and color, dead wood	
161	Douglas Fir Pseudotsuga Menziessii	18"	16'	Fair health, fair needle count and color, dead wood lean in trunk	
162	Douglas Fir Pseudotsuga Menziessii	21"	14'	Good health, fair needle count and color, dead wood	
163	Douglas Fir Pseudotsuga Menziessii	21"	14'	Good health, fair needle count and color, dead wood surface roots	
164	Douglas Fir Pseudotsuga Menziessii	16"	14'	Distorted trunk, root sprung, Asymmetrical crown	X
165	Shore Pine Pinus contorta	16"	15'	Decay, broken top, dead wood, distorted upper trunk, storm damage	X
166	Douglas Fir Pseudotsuga Menziessii	15"	11'	Fair health, discoloration of needles, needle count fair	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
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167	Douglas Fir Pseudotsuga Menziessii	14"	14'	Fair health, fair needle count and color, dead wood	
168	Douglas Fir Pseudotsuga Menziessii	14"	15'	Fair health, fair needle count and color, dead wood Co-dominant upper stems	
169	Douglas Fir Pseudotsuga Menziessii	12"	9'	Fair health, needle count fair	
170	Douglas Fir Pseudotsuga Menziessii	10 1/2"	9'	Fair health, needle count fair	
171	Douglas Fir Pseudotsuga Menziessii	13"	9'	Poor health, poor needle count, dead wood	X
172	Douglas Fir Pseudotsuga Menziessii	16"	12'	Fair health, needle count fair	
173	Douglas Fir Pseudotsuga Menziessii	17"	18'	Good health, some surface rooting, good needle count & color	
174	Douglas Fir Pseudotsuga Menziessii	18"	17'	Good health, slightly asymmetrical crown, good needle count and color	
175	Douglas Fir Pseudotsuga Menziessii	16"	14'	Fair canopy, distortion in upper stem	
176	Douglas Fir Pseudotsuga Menziessii	11 1/2"	11'	Fair health, fair needle count and color, dead wood	
177	Shore Pine Pinus contorta	18"	14'	Fair health, fair needle count and color, dead wood	
178	Douglas Fir Pseudotsuga Menziessii	16"	13'	Good health, fair needle count and color, dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
179	Douglas Fir Pseudotsuga Menziessii	21"	15'	Good health, fair needle count and color, dead wood	
180	Plum Prunus cerasifera	14"	14'	Good health, good foliage color, over hangs property line and fence	
181	Douglas Fir Pseudotsuga Menziessii	25"	17'	Good canopy, good needle count and color, slightly distorted trunk	
182	Douglas Fir Pseudotsuga Menziessii	18"	15'	Good health, good needle count and color, slight distortion in trunk @ 15'	
183	Douglas Fir Pseudotsuga Menziessii	14"	10'	Fair health, fair needle count and color, dead wood distortion trunk @ 15'	
184	Douglas Fir Pseudotsuga Menziessii	17"	14'	Fair health, fair needle count and color, dead wood	
185	Douglas Fir Pseudotsuga Menziessii	14"	12'	Poor health, poor needle count and color, distortion in trunk poor attachment point	X
186	Douglas Fir Pseudotsuga Menziessii	14"	10'	Fair health, fair needle and color count, dead wood	
187	Douglas Fir Pseudotsuga Menziessii	11"	7'	Poor health, distortion in trunk, poor foliage, dead wood	
188	Douglas Fir Pseudotsuga Menziessii	12 1/2"	9'	Poor health, distortion in trunk, poor foliage, dead wood	
189	Douglas Fir Pseudotsuga Menziessii	16"	14'	Fair health, fair needle count and color, dead wood	
190	Douglas Fir Pseudotsuga Menziessii	17"	18'	Fair health, fair needle count and color, dead wood	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
191	Hawthorn Crataegus pinatifida	8"	9'	Good foilage, sits on property line, grown into fence	X
192	Grand Fir Abies grandis	15"	7'	Poor health, poor needle count and color, dead wood	X
193	Douglas Fir Pseudotsuga Menziessii	5 1/2"	7'	Poor health, poor needle count and color, dead wood	X
194	Douglas Fir Pseudotsuga Menziessii	6"	4'	Poor health, poor needle count and color, dead wood	X
195	Douglas Fir Pseudotsuga Menziessii	7"	6'	Poor health, poor needle count and color, dead wood	X
196	Douglas Fir Pseudotsuga Menziessii	5 1/2"	5'	Poor health, poor needle count and color, dead wood	X
197	Douglas Fir Pseudotsuga Menziessii	8 1/2"	8'	Poor health, poor needle count and color, dead wood	X
198	Douglas Fir Pseudotsuga Menziessii	12"	11'	Fair health, fair needle count and color, dead wood	
199	Oregon White Oak Quercus Garryana	44"	36'	Fair health, fair color and leaf count, large and heavily weighted branches, utility hard ware and piping embedded into tree, decay in scaffold branches at old pruning wounds, large dead wood	
200	Sweetgum Liquidambar styraciflua	10 1/2"	10'	Good health, good leaf count and color,	
201	Sweetgum Liquidambar styraciflua	10"	9'	Good health, good leaf count and color,	

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
202	Sweetgum Liquidambar styraciflua	9 1/2"	8'	Good health, good leaf count and color, poor branch attachment in upper canopy	
203	Sweetgum Liquidambar styraciflua	11"	9'	Good health, good leaf count and color	
204	Grand Fir Abies grandis	11 1/2"	8'	Fair health, dead wood in upper canopy, fair needle count & color	
205	Apple	8 1/2"	10'	Poor health, poor leaf count and color, dead wood	X
206	Apple	8 1/2"	12'	Fair health, leaf count & color	X
207	Oregon White Oak Quercus Garryana	38 1/2"	26'	Foliage fair, fair color, density, large dead wood, electric box and pole embedded into tree, heavily lateral branches	
208	Douglas Fir Pseudotsuga Menziessii	18"	15'	Fair health, fair needle count and color, dead wood	
209	Oregon White Oak Quercus Garryana	46"	36'	Fair health, fair leaf count & color, heavily weighted lateral branches some decay in scaffold branches due to canker, large dead wood	
210	European white Birch Betula pendula	20"	19'	Good health, good color and leaf count, good taper	
211	Spruce	13 1/2"	15'	Fair health, fair needle count and color, dead wood	
212	Western White Pine Pinus monticola	23 1/2"	14'	Good health, good color and leaf count, good taper	
213	Cherry	7 1/2"	9'	Fair health, good leaf count and color, minor dead wood	X
214	Apple	7 1/2"	10'	Poor tree, decay in lower trunk, poor color and leaf count	X

TREE #	SPECIES	DBH	DRIP LINE RADIUS	VISUAL ASSMT, HEALTH & SAFETY - RECOMMENDATIONS	REMOVE
215	Blue Spruce Picea pungens	10 1/2"	9'	Fair health, fair needle count and color, dead wood	
216	Sweetgum Liquidambar styraciflua	20"	18'	Good health, good leaf count and color, dead wood	
217	Sweetgum Liquidambar styraciflua	18"	18'	Good health, heavily weighted lateral branches, narrow stem attachments	
218	Sweetgum Liquidambar styraciflua	20"	20'	Good health, heavy lateral branches, good leaf count & color	
219	Ponderosa Pine Pinus ponderosa	19 1/2"	14'	Fair health, fair needle count and color, co-dominant stems in upper canopy	
220	Red Oak Quercus rubra	16 1/2"	25'	Fair health, heavy lateral branching, large dead wood, good color & leaf count	
221	Red Oak Quercus rubra	20"	30'	Good health, good leaf count & color, scaffold branching good, heavy lateral branches and dead wood.	
222	Cherry	7 1/2"	9'	Fair health, decay at old pruning cuts and trunk wood	X
223	Oregon White Oak Quercus Garryana	50"	43'	Fair health, fair leaf count and color, good scaffold branching heavily weighted lateral branches, large dead wood. (Possible preservation tree)	



HOUSING AUTHORITY OF YAMHILL COUNTY
NEIGHBORHOOD MEETING NOTICE

EXHIBIT K
Notice Mailed to Property
Owners within 500' of
1103 N. Meridian

Re: Zone Change at 1103 North Meridian Street, Newberg, Oregon

Dear Resident:

I am writing on behalf of Housing Authority of Yamhill County, who will be going to the City of Newberg to rezone the property we own at 1103 North Meridian Street in Newberg. This site is currently zoned R-1 (low density residential). The Housing Authority of Yamhill County is seeking to rezone this property to R-3 (high density residential).

Prior to preparing site plans and making application to the City of Newberg for the necessary review and approvals, we would like to discuss the proposal in more detail with the surrounding property owners and residents. Therefore, you are cordially invited to attend a meeting on:

Date: Wednesday, July 21st, 2010
Location: First Federal Meeting Room
121 N. Edwards Street
Newberg, Oregon
Time: 7:00 p.m.

*A follow-up meeting will be held on Wednesday, August 11, 2010 at 7:00 p.m. at the First Federal Meeting Room located at 121 N. Edwards Street in Newberg.

Please note that this will be an informational meeting with the owner and representative only and is not intended to take the place of a public hearing before the Planning Commission or City Council expected to be held later in the fall. You will have an opportunity to present formal testimony to the Planning Commission or City Council when an application is submitted to the City for review.

I look forward to seeing you at the meeting and hearing your thoughts on the proposed project.

Respectfully,

Elise Hui
Executive Director



HOUSING AUTHORITY OF YAMHILL COUNTY

August 2, 2010

«ResidentName»
«Address1»
«City», «State» «PostalCode»

Dear Neighbors,

Thank you for taking the time to attend the meeting on Wednesday, July 21st, to share your concerns, comments and ideas. The following is a recap of the topics that were discussed.

- Ideas for the type of housing that the neighborhood would like to see, if the property was rezoned to R-3, was development that related to the elderly housing across the street on Meridian. Residents expressed that the environment that they would like to see would be quiet, safe, lower traffic density and development that respects their privacy (i.e. fences, buffers along the property lines and one-level units).
- Some residents were concerned about this development and what impact it would have to their personal property values.
- Different types of potential tenant base were discussed such as elderly, special needs and family. There was a preference for elderly housing, followed by special needs.
- There was support for retaining the historic house that currently exists on the property.
- Concern was expressed for the hazardous trees on site and impacts on neighboring property.
- There was interest in understanding the upgrades that may be required for Evergreen, Sierra Vista and Meridian and how that will impact the property owners in terms of financial responsibility, increased automobile and pedestrian traffic, and the characteristics of their physical property. Residents currently work as a community for upkeep on Evergreen (pick up trash and unplug stormwater culverts).
- There was concern about current traffic speeds on Sierra Vista and Meridian, and current overflow on-street parking on Meridian. The on-street parking seems to be an issue as apartment residents park on both sides of the street thereby decreasing travel width which is an issue at peak travel hours in the morning and early evening.

- The residents along Meridian, specifically Spaulding Oaks residents, are concerned about their safety as they are pulling onto Meridian, as there are cars that are blocking their vision. Slowing down traffic on Meridian was a suggestion for safety of the pedestrians and bicyclists.
- The connectivity between Evergreen and Meridian or other streets was a concern because of the potential of increased traffic. Some residents on Evergreen would like to see the dead-end street not developed and not connected to any other streets. Additionally, there was a concern about the dead-end street and the potential of trucks and construction activities blocking access for services to their properties (i.e. garbage service).
- There was a concern about current stormwater ponding issues on the property and neighboring properties and how development would potentially further impact the problem.

We understand that most people in attendance at the meeting would prefer that the property not be rezoned. We clearly stated in our invitation to the meeting our intention to rezone the property. We would like to work with the neighbors to minimize the impact of our proposed rezoning and ultimate development of the property. We expect that the public process for this re-zone will be held in the fall and you will receive formal notification by mail. If you are interested in working with us as a community, please visit with us on August 11th at 7:00 p.m. for another Neighborhood Meeting at the First Federal Meeting Room.

We will be meeting with the City this week to understand what their requirements are for this process. We would like to share with you additional information that we have discovered in our meeting with the City and our consultant studies. We will not be able to satisfy all the concerns raised at the last meeting, but we will address those that we can.

Again, thank you for your interest and participation in this process. Together, we can make this a successful project of which the neighborhood can be proud.

Sincerely,

Elise Hui
Executive Director

Resident Name	Address1	City	State	Postal Code
John Shaw	1107 Evergreen	Newberg	OR	97132
Katherine Baugh	1100 N Meridian St #28	Newberg	OR	97132
Von Stevens	912 E Vermillion	Newberg	OR	97132
Don Urban	1100 N Meridian #3	Newberg	OR	97132
Charles Scott	1100 N Meridian #19	Newberg	OR	97132
Mark & Rhonda Scialpi	1104 N College St	Newberg	OR	97132
Kurt & Cyndi Ziegenbein	1018 N College St	Newberg	OR	97132
Susan Baird	810 Jacqui Ct	Newberg	OR	97132
Lorna Kilmer	1106 Evergreen Dr	Newberg	OR	97132
Barb & Tony Roberto	1100 N Meridian #35	Newberg	OR	97132
Joe & Roxy Proffer	1108 Evergreen Dr	Newberg	OR	97132
Cindy & Gary Brunk	1109 Evergreen	Newberg	OR	97132
Lois & Bob Hutchinson	1112 Evergreen Dr	Newberg	OR	97132
Howard Harmon	1100 N Meridian #4	Newberg	OR	97132
Daniel & Gail Shepherd	1117 N Meridian St	Newberg	OR	97132
Jason & Heidi Myers	1020 N College St	Newberg	OR	97132

*NOTE: The Second (2nd) Neighborhood Meeting Notice dated August 2, 2010 was sent to the above-listed residents. The above-listed residents attended the first (1st) Neighborhood Meeting on July 21, 2010.

**PHOTOS of 1103 N. MERIDIAN &
ADJACENT MERIDIAN PROPERTIES
EXHIBIT L**



1103 N. Meridian—View from Meridian



1103 N. Meridian – Existing House



Meridian - Adjacent Property to North



Meridian – Adjacent Property to South



Meridian – View to South



Meridian – View to North



Spaulding Oaks – East View across Meridian



Spaulding Oaks – East View across Meridian



Spaulding Oaks – East View across Meridian



Spaulding Oaks – East View across Meridian



Meridian - View to East



The Oaks – East View across Meridian

EXHIBIT M

Housing Authority of Yamhill County

Images of Current Property

Vittoria Square Apartments



Vittoria Square Apartments



Vittoria Square Apartments



EXHIBIT M
Housing Authority of Yamhill County
Images of Current Property

Haworth Terrace Apartments



Woodside Park

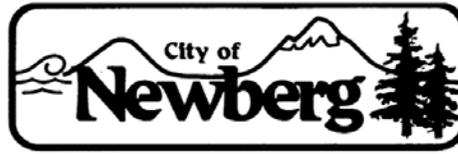


Woodside Community Room Building



CITY OF NEWBERG TYPE III – EXHIBIT N SAMPLE MAILED NOTICE (PLANNING COMMISSION)

City of Newberg
414 E. First Street
P.O. Box 970
Newberg, OR 97132



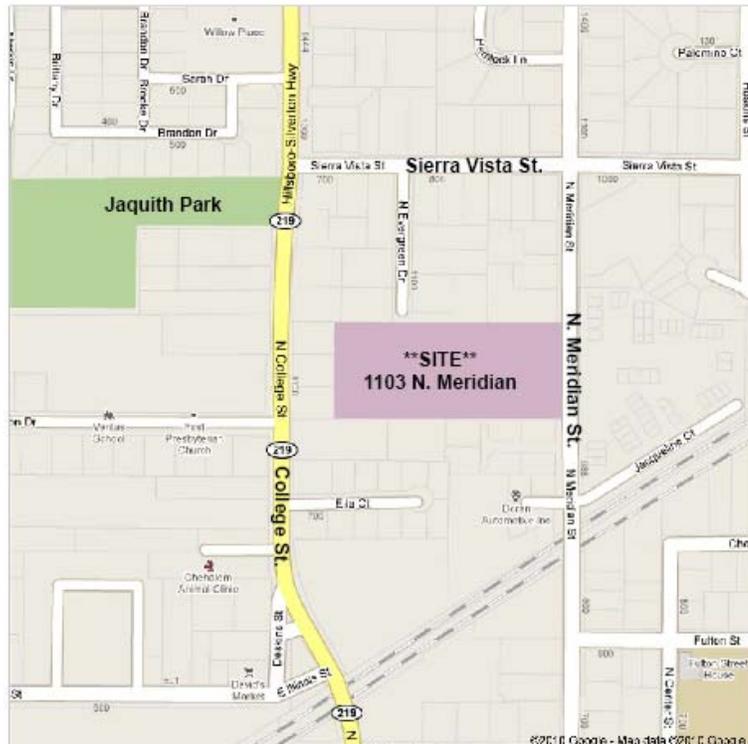
City Manager
(503) 538-9421
(503) 538-5013 FAX

WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood submitted application to the City of Newberg for a Comprehensive Map Amendment and Zoning Map Amendment from R-1 (low density residential) to R-3 (high density residential). The Newberg Planning Commission will hold a public hearing on October 14, 2010 at 7:00 p.m. at the Newberg Public Safety Building, 401 E. Third Street, Newberg, Oregon, to evaluate the proposal. You are invited to take part in the City's review of this project by sending in your written comments or by testifying before the Planning Commission. For more details about giving comments, please see the back of this sheet.

The application would rezone the property from R-1 (low density residential) to R-3 (high density residential).

Applicant: IDEA Architecture + Development, LLC
Telephone: (503) 525-2679
Property Owner: Housing Authority of Yamhill County
Location: 1103 N. Meridian Street, Newberg, Oregon
Tax Lot Number: R3218DA 02100



We are mailing you information about this project because you own land within 500 feet of the subject site. We invite you to participate in the land use hearing scheduled before the Planning Commission. If you wish to participate in the hearing, you may do so in person or be represented by someone else.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No.
City of Newberg
Planning & Building Department
P.O. Box 970
Newberg, OR 97132

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. A staff report relating to the proposal will be available for inspection at City Hall and on the city website (www.newbergoregon.gov) at no cost seven days prior to the public hearing. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1240.

All written comments must be turned in by 5:00 p.m. on October 7, 2010. Written testimony received after this date or at the hearing will be considered late, and will be accepted only by motion of the Planning Commission.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for comprehensive plan map amendment and zoning map amendment approval is found in Newberg Development Code Section 151.122.

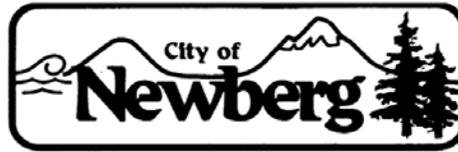
Prior to the conclusion of the initial evidentiary hearing, any participant may request an opportunity to present additional evidence, arguments or testimony regarding the application through a continuance or extension of the record. Failure of an issue to be raised in the hearing, in person or by letter, or failure to provide statements or evidence sufficient to afford the decision maker an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals based on that issue.

A recommendation will be made the City Planning Commission to the City Council at the end of the initial hearing. A new evidentiary hearing will then be scheduled before the City Council. If you participate in the public hearing process, either by testifying at the public hearing, or by sending in written comments, you will be sent information about any decision made by the City relating to this project.

Date Mailed:

CITY OF NEWBERG TYPE III – EXHIBIT N SAMPLE MAILED NOTICE (CITY COUNCIL)

City of Newberg
414 E. First Street
P.O. Box 970
Newberg, OR 97132



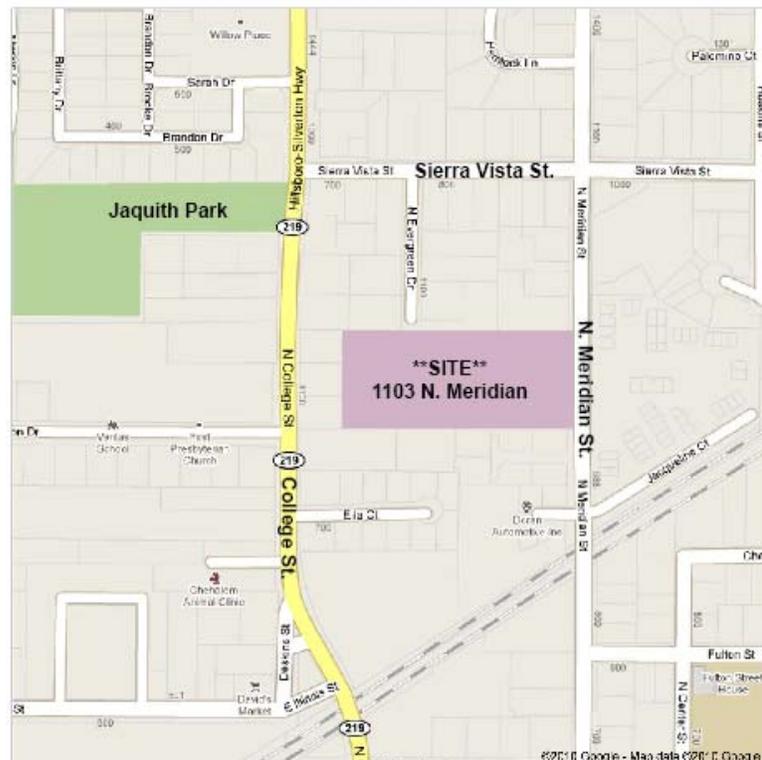
City Manager
(503) 538-9421
(503) 538-5013 FAX

WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood submitted an application to the City of Newberg for a Comprehensive Map Amendment and Zoning Map Amendment from R-1 (low density residential) to R-3 (high density residential). The Newberg City Council will hold a public hearing on _____, 2010 at 7:00 p.m. at the Newberg Public Safety Building, 401 E. Third Street, Newberg, Oregon, to evaluate the proposal. You are invited to take part in the City's review of this project by sending in your written comments or by testifying before the City Council. For more details about giving comments, please see the back of this sheet.

The application would rezone the property from R-1 (low density residential) to R-3 (high density residential).

Applicant: IDEA Architecture + Development, LLC
Telephone: (503) 525-2679
Property Owner: Housing Authority of Yamhill County
Location: 1103 N. Meridian Street, Newberg, Oregon
Tax Lot Number: R3218DA 02100



We are mailing you information about this project because you own land within 500 feet of the subject site. We invite you to participate in the land use hearing scheduled before the City Council. If you wish to participate in the hearing, you may do so in person or be represented by someone else.

If you mail your comments to the City, please put the following information on the outside of the envelope.

Written Comments: File No.
City of Newberg
Planning & Building Department
P.O. Box 970
Newberg, OR 97132

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. A staff report relating to the proposal will be available for inspection at City Hall and on the city website (www.newbergoregon.gov) at no cost seven days prior to the public hearing. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1240.

All interested persons may appear and provide testimony. Speakers are encouraged to submit information in writing at least **ten days** prior to the Council meeting for the Council's review. Speakers may also submit information at the meeting, but it may or may not be read and considered by the Mayor and Council.

Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for comprehensive plan map amendment and zoning map amendment approval is found in Newberg Development Code Section 151.122.

Failure of an issue to be raised in the hearing, in person or by letter, or failure to provide statements or evidence sufficient to afford the decision maker an opportunity to respond to the issue precludes appeal to the State Land Use Board of Appeals based on that issue.

If you participate in the public hearing process, either by testifying at the public hearing, or by sending in written comments, you will be sent information about any decision made by the City relating to this project.

Date Mailed:

EXHIBIT O

Form No. 1402.06
ALTA Owner's Policy (6-17-06)
1100302P050600

Policy No.: 1032-1564264

OWNER'S POLICY OF TITLE INSURANCE

ISSUED BY

First American Title Insurance Company of Oregon

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at the address shown in Section 18 of the Conditions.

COVERED RISKS

SUBJECT TO THE EXCLUSIONS FROM COVERAGE, THE EXCEPTIONS FROM COVERAGE CONTAINED IN SCHEDULE B AND THE CONDITIONS, Title Insurance Company of Oregon dba FIRST AMERICAN TITLE INSURANCE COMPANY OF OREGON (the "Company") insures, as of Date of Policy and, to the extent stated in Covered Risks 9 and 10, after Date of Policy, against loss or damage, not exceeding the Amount of Insurance, sustained or incurred by the Insured by reason of:

1. Title being vested other than as stated in Schedule A.
2. Any defect in or lien or encumbrance on the Title. This Covered Risk includes but is not limited to insurance against loss from
 - (a) A defect in the Title caused by
 - (i) forgery, fraud, undue influence, duress, incompetency, incapacity, or impersonation;
 - (ii) failure of any person or Entity to have authorized a transfer or conveyance;
 - (iii) a document affecting Title not properly created, executed, witnessed, sealed, acknowledged, notarized, or delivered;
 - (iv) failure to perform those acts necessary to create a document by electronic means authorized by law;
 - (v) a document executed under a falsified, expired, or otherwise invalid power of attorney;
 - (vi) a document not properly filed, recorded, or indexed in the Public Records including failure to perform those acts by electronic means authorized by law; or
 - (vii) a defective judicial or administrative proceeding.
 - (b) The lien of real estate taxes or assessments imposed on the Title by a governmental authority due or payable, but unpaid.
 - (c) Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land. The term "encroachment" includes encroachments of existing improvements located on the Land onto adjoining land, and encroachments onto the Land of existing improvements located on adjoining land.
3. Unmarketable Title.
4. No right of access to and from the Land.
5. The violation or enforcement of any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (a) the occupancy, use, or enjoyment of the Land;
 - (b) the character, dimensions, or location of any improvement erected on the Land;

- (c) the subdivision of land; or
- (d) environmental protection

if a notice, describing any part of the Land, is recorded in the Public Records setting forth the violation or intention to enforce, but only to the extent of the violation or enforcement referred to in that notice.

6. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 5 if a notice of the enforcement action, describing any part of the Land, is recorded in the Public Records, but only to the extent of the enforcement referred to in that notice.
7. The exercise of the rights of eminent domain if a notice of the exercise, describing any part of the Land, is recorded in the Public Records.
8. Any taking by a governmental body that has occurred and is binding on the rights of a purchaser for value without Knowledge.
9. Title being vested other than as stated in Schedule A or being defective
 - (a) as a result of the avoidance in whole or in part, or from a court order providing an alternative remedy, of a transfer of all or any part of the title to or any interest in the Land occurring prior to the transaction vesting Title as shown in Schedule A because that prior transfer constituted a fraudulent or preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws; or
 - (b) because the instrument of transfer vesting Title as shown in Schedule A constitutes a preferential transfer under federal bankruptcy, state insolvency, or similar creditors' rights laws by reason of the failure of its recording in the Public Records
 - (i) to be timely, or
 - (ii) to impart notice of its existence to a purchaser for value or to a judgment or lien creditor.
10. Any defect in or lien or encumbrance on the Title or other matter included in Covered Risks 1 through 9 that has been created or attached or has been filed or recorded in the Public Records subsequent to Date of Policy and prior to the recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The Company will also pay the costs, attorneys' fees, and expenses incurred in defense of any matter insured against by this policy, but only to the extent provided in the Conditions.

Title Insurance Company of Oregon

dba FIRST AMERICAN TITLE INSURANCE COMPANY OF OREGON

By:



President

Attest:

Secretary

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risks 9 and 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

CONDITIONS

1. DEFINITION OF TERMS

The following terms when used in this policy mean:

- (a) "Amount of Insurance": The amount stated in Schedule A, as may be increased or decreased by endorsement to this policy, increased by Section 8(b), or decreased by Sections 10 and 11 of these Conditions.
- (b) "Date of Policy": The date designated as "Date of Policy" in Schedule A.
- (c) "Entity": A corporation, partnership, trust, limited liability company, or other similar legal entity.
- (d) "Insured": The Insured named in Schedule A.
 - (i) The term "Insured" also includes
 - (A) successors to the Title of the Insured by operation of law as distinguished from purchase, including heirs, devisees, survivors, personal representatives, or next of kin;
 - (B) successors to an Insured by dissolution, merger, consolidation, distribution, or reorganization;
 - (C) successors to an Insured by its conversion to another kind of Entity;
 - (D) a grantee of an Insured under a deed delivered without payment of actual valuable consideration conveying the Title
 - (1) if the stock, shares, memberships, or other equity interests of the grantee are wholly-owned by the named Insured,
 - (2) if the grantee wholly owns the named Insured,
 - (3) if the grantee is wholly-owned by an affiliated Entity of the named Insured, provided the affiliated Entity and the named Insured are both wholly-owned by the same person or Entity, or
 - (4) if the grantee is a trustee or beneficiary of a trust created by a written instrument established by the Insured named in Schedule A for estate planning purposes.

- (ii) With regard to (A), (B), (C), and (D) reserving, however, all rights and defenses as to any successor that the Company would have had against any predecessor Insured.
- (e) "Insured Claimant": An Insured claiming loss or damage.
- (f) "Knowledge" or "Known": Actual knowledge, not constructive knowledge or notice that may be imputed to an Insured by reason of the Public Records or any other records that impart constructive notice of matters affecting the Title.
- (g) "Land": The land described in Schedule A, and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is insured by this policy.
- (h) "Mortgage": Mortgage, deed of trust, trust deed, or other security instrument, including one evidenced by electronic means authorized by law.
- (i) "Public Records": Records established under state statutes at Date of Policy for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge. With respect to Covered Risk 5(d), "Public Records" shall also include environmental protection liens filed in the records of the clerk of the United States District Court for the district where the Land is located.
- (j) "Title": The estate or interest described in Schedule A.
- (k) "Unmarketable Title": Title affected by an alleged or apparent matter that would permit a prospective purchaser or lessee of the Title or lender on the Title to be released from the obligation to purchase, lease, or lend if there is a contractual condition requiring the delivery of marketable title.

2. CONTINUATION OF INSURANCE

The coverage of this policy shall continue in force as of Date of Policy in favor of an Insured, but only so long as the Insured retains an estate or interest in the Land, or holds an obligation secured by a purchase money Mortgage given by a purchaser from the Insured, or only so long as the Insured shall have liability by reason of warranties in any transfer or conveyance of the Title. This policy shall not continue in force in favor of any purchaser from the Insured of either (i) an estate or interest in the Land, or (ii) an obligation secured by a purchase money Mortgage given to the Insured.

3. NOTICE OF CLAIM TO BE GIVEN BY INSURED CLAIMANT

The Insured shall notify the Company promptly in writing (i) in case of any litigation as set forth in Section 5(a) of these Conditions, (ii) in case Knowledge shall come to an Insured hereunder of any claim of title or interest that is adverse to the Title, as insured, and that might cause loss or damage for which the Company may be liable by virtue of this policy, or (iii) if the Title, as insured, is rejected as Unmarketable Title. If the Company is prejudiced by the failure of the Insured Claimant to provide prompt notice, the Company's liability to the Insured Claimant under the policy shall be reduced to the extent of the prejudice.

4. PROOF OF LOSS

In the event the Company is unable to determine the amount of loss or damage, the Company may, at its option, require as a condition of payment that the Insured Claimant furnish a signed proof of loss. The proof of loss must describe the defect, lien, encumbrance, or other matter insured against by this policy that constitutes the basis of loss or damage and shall state, to the extent possible, the basis of calculating the amount of the loss or damage.

5. DEFENSE AND PROSECUTION OF ACTIONS

- (a) Upon written request by the Insured, and subject to the options contained in Section 7 of these Conditions, the Company, at its own cost and without unreasonable delay, shall provide for the defense of an Insured in litigation in which any third party asserts a claim covered by this policy adverse to the Insured. This obligation is limited to only those stated causes of action alleging matters insured against by this policy. The Company shall have the right to select counsel of its choice (subject to the right of the Insured to object for reasonable cause) to represent the Insured as to those stated causes of action. It shall not be liable for and will not pay the fees of any other counsel. The Company will not pay any fees, costs, or expenses incurred by the Insured in the defense of those causes of action that allege matters not insured against by this policy.
- (b) The Company shall have the right, in addition to the options contained in

Section 7 of these Conditions, at its own cost, to institute and prosecute any action or proceeding or to do any other act that in its opinion may be necessary or desirable to establish the Title, as insured, or to prevent or reduce loss or damage to the Insured. The Company may take any appropriate action under the terms of this policy, whether or not it shall be liable to the Insured. The exercise of these rights shall not be an admission of liability or waiver of any provision of this policy. If the Company exercises its rights under this subsection, it must do so diligently.

- (c) Whenever the Company brings an action or asserts a defense as required or permitted by this policy, the Company may pursue the litigation to a final determination by a court of competent jurisdiction, and it expressly reserves the right, in its sole discretion, to appeal any adverse judgment or order.

6. DUTY OF INSURED CLAIMANT TO COOPERATE

- (a) In all cases where this policy permits or requires the Company to prosecute or provide for the defense of any action or proceeding and any appeals, the Insured shall secure to the Company the right to so prosecute or provide defense in the action or proceeding, including the right to use, at its option, the name of the Insured for this purpose. Whenever requested by the Company, the Insured, at the Company's expense, shall give the Company all reasonable aid (i) in securing evidence, obtaining witnesses, prosecuting or defending the action or proceeding, or effecting settlement, and (ii) in any other lawful act that in the opinion of the Company may be necessary or desirable to establish the Title or any other matter as insured. If the Company is prejudiced by the failure of the Insured to furnish the required cooperation, the Company's obligations to the Insured under the policy shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation, with regard to the matter or matters requiring such cooperation.
- (b) The Company may reasonably require the Insured Claimant to submit to examination under oath by any authorized representative of the Company and to produce for examination, inspection, and copying, at such reasonable times and places as may be designated by the authorized representative of the Company, all records, in whatever medium maintained, including books, ledgers, checks, memoranda, correspondence, reports, e-mails, disks, tapes, and videos whether bearing a date before or after Date of Policy, that reasonably pertain to the loss or damage. Further, if requested by any authorized representative of the Company, the Insured Claimant shall grant its permission, in writing, for any authorized representative of the Company to examine, inspect, and copy all of these records in the custody or control of a third party that reasonably pertain to the loss or damage. All information designated as confidential by the Insured Claimant provided to the Company pursuant to this Section shall not be disclosed to others unless, in the reasonable judgment of the Company, it is necessary in the administration of the claim. Failure of the Insured Claimant to submit for examination under oath, produce any reasonably requested information, or grant permission to secure reasonably necessary information from third parties as required in this subsection, unless prohibited by law or governmental regulation, shall terminate any liability of the Company under this policy as to that claim.

7. OPTIONS TO PAY OR OTHERWISE SETTLE CLAIMS; TERMINATION OF LIABILITY

In case of a claim under this policy, the Company shall have the following additional options:

- (a) To Pay or Tender Payment of the Amount of Insurance.
To pay or tender payment of the Amount of Insurance under this policy together with any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment or tender of payment and that the Company is obligated to pay. Upon the exercise by the Company of this option, all liability and obligations of the Company to the Insured under this policy, other than to make the payment required in this subsection, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.
- (b) To Pay or Otherwise Settle With Parties Other Than the Insured or With the Insured Claimant.
- (i) To pay or otherwise settle with other parties for or in the name of an Insured Claimant any claim insured against under this policy. In addition, the Company will pay any costs, attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay; or
- (ii) To pay or otherwise settle with the Insured Claimant the loss or damage provided for under this policy, together with any costs,

attorneys' fees, and expenses incurred by the Insured Claimant that were authorized by the Company up to the time of payment and that the Company is obligated to pay.

Upon the exercise by the Company of either of the options provided for in subsections (b)(i) or (ii), the Company's obligations to the Insured under this policy for the claimed loss or damage, other than the payments required to be made, shall terminate, including any liability or obligation to defend, prosecute, or continue any litigation.

8. DETERMINATION AND EXTENT OF LIABILITY

This policy is a contract of indemnity against actual monetary loss or damage sustained or incurred by the Insured Claimant who has suffered loss or damage by reason of matters insured against by this policy.

- (a) The extent of liability of the Company for loss or damage under this policy shall not exceed the lesser of
- the Amount of Insurance; or
 - the difference between the value of the Title as insured and the value of the Title subject to the risk insured against by this policy.
- (b) If the Company pursues its rights under Section 5 of these Conditions and is unsuccessful in establishing the Title, as insured,
- the Amount of Insurance shall be increased by 10%, and
 - the Insured Claimant shall have the right to have the loss or damage determined either as of the date the claim was made by the Insured Claimant or as of the date it is settled and paid.
- (c) In addition to the extent of liability under (a) and (b), the Company will also pay those costs, attorneys' fees, and expenses incurred in accordance with Sections 5 and 7 of these Conditions.

9. LIMITATION OF LIABILITY

- (a) If the Company establishes the Title, or removes the alleged defect, lien, or encumbrance, or cures the lack of a right of access to or from the Land, or cures the claim of Unmarketable Title, all as insured, in a reasonably diligent manner by any method, including litigation and the completion of any appeals, it shall have fully performed its obligations with respect to that matter and shall not be liable for any loss or damage caused to the Insured.
- (b) In the event of any litigation, including litigation by the Company or with the Company's consent, the Company shall have no liability for loss or damage until there has been a final determination by a court of competent jurisdiction, and disposition of all appeals, adverse to the Title, as insured.
- (c) The Company shall not be liable for loss or damage to the Insured for liability voluntarily assumed by the Insured in settling any claim or suit without the prior written consent of the Company.

10. REDUCTION OF INSURANCE; REDUCTION OR TERMINATION OF LIABILITY

All payments under this policy, except payments made for costs, attorneys' fees, and expenses, shall reduce the Amount of Insurance by the amount of the payment.

11. LIABILITY NONCUMULATIVE

The Amount of Insurance shall be reduced by any amount the Company pays under any policy insuring a Mortgage to which exception is taken in Schedule B or to which the Insured has agreed, assumed, or taken subject, or which is executed by an Insured after Date of Policy and which is a charge or lien on the Title, and the amount so paid shall be deemed a payment to the Insured under this policy.

12. PAYMENT OF LOSS

When liability and the extent of loss or damage have been definitely fixed in accordance with these Conditions, the payment shall be made within 30 days.

13. RIGHTS OF RECOVERY UPON PAYMENT OR SETTLEMENT

- (a) Whenever the Company shall have settled and paid a claim under this policy, it shall be subrogated and entitled to the rights of the Insured Claimant in the Title and all other rights and remedies in respect to the claim that the Insured Claimant has against any person or property, to the extent of the amount of any loss, costs, attorneys' fees, and expenses paid by the Company. If requested by the Company, the Insured Claimant shall execute documents to evidence the transfer to the Company of these rights and remedies. The Insured Claimant shall permit the Company to sue, compromise, or settle in the name of the Insured Claimant and to use the name of the Insured Claimant in any transaction or litigation involving these rights and remedies.

If a payment on account of a claim does not fully cover the loss of the Insured Claimant, the Company shall defer the exercise of its right to recover until after the Insured Claimant shall have recovered its loss.

- (b) The Company's right of subrogation includes the rights of the Insured to indemnities, guaranties, other policies of insurance, or bonds, notwithstanding any terms or conditions contained in those instruments that address subrogation rights.

14. ARBITRATION

Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Insured. All arbitrable matters when the Amount of Insurance is in excess of \$2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction.

15. LIABILITY LIMITED TO THIS POLICY; POLICY ENTIRE CONTRACT

- (a) This policy together with all endorsements, if any, attached to it by the Company is the entire policy and contract between the Insured and the Company. In interpreting any provision of this policy, this policy shall be construed as a whole.
- (b) Any claim of loss or damage that arises out of the status of the Title or by any action asserting such claim shall be restricted to this policy.
- (c) Any amendment of or endorsement to this policy must be in writing and authenticated by an authorized person, or expressly incorporated by Schedule A of this policy.

- (d) Each endorsement to this policy issued at any time is made a part of this policy and is subject to all of its terms and provisions. Except as the endorsement expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsement, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance.

16. SEVERABILITY

In the event any provision of this policy, in whole or in part, is held invalid or unenforceable under applicable law, the policy shall be deemed not to include that provision or such part held to be invalid, but all other provisions shall remain in full force and effect.

17. CHOICE OF LAW; FORUM

- (a) Choice of Law: The Insured acknowledges the Company has underwritten the risks covered by this policy and determined the premium charged therefore in reliance upon the law affecting interests in real property and applicable to the interpretation, rights, remedies, or enforcement of policies of title insurance of the jurisdiction where the Land is located. Therefore, the court or an arbitrator shall apply the law of the jurisdiction where the Land is located to determine the validity of claims against the Title that are adverse to the Insured and to interpret and enforce the terms of this policy. In neither case shall the court or arbitrator apply its conflicts of law principles to determine the applicable law.
- (b) Choice of Forum: Any litigation or other proceeding brought by the Insured against the Company must be filed only in a state or federal court within the United States of America or its territories having appropriate jurisdiction.

18. NOTICES, WHERE SENT

Any notice of claim and any other notice or statement in writing required to be given to the Company under this policy must be given to the Company at 1 First American Way, Santa Ana, CA 92707, Attn: Claims Department.

POLICY OF TITLE INSURANCE



SCHEDULE A

First American Title Insurance Company of Oregon

Name and Address of Title Insurance Company:
First American Title Insurance Company of Oregon
775 NE Evans Street
McMinnville, OR 97128

File No.: **1032-1564264**

Policy No.: **1564264**

Address Reference: 1103 N Meridian Street, Newberg, OR 97132

Amount of Insurance: \$900,000.00

Premium: \$1,950.00

Date of Policy: May 26, 2010 at 1:35 p.m.

1. Name of Insured:

Housing Authority of Yamhill County, Oregon a Public Body
2. The estate or interest in the Land that is insured by this policy is:

Fee Simple
3. Title is vested in:

Housing Authority of Yamhill County, Oregon a Public Body
4. The Land referred to in this policy is described as follows:

See Exhibit "A" attached hereto and made a part hereof

SCHEDULE B

File No.: **1032-1564264**

Policy No.: **1564264**

EXCEPTIONS FROM COVERAGE

This Policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records; proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, or claims or easement, not shown by the public records; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
4. Any encroachment (of existing improvements located on the subject land onto adjoining land or of existing improvements located on adjoining land onto the subject land), encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the subject land.
5. Any lien, or right to a lien, for services, labor, material, equipment rental or workers compensation heretofore or hereafter furnished, imposed by law and not shown by the public records.
6. The rights of the public in and to that portion of the premises herein described lying within the limits of streets, roads and highways.
7. Easement, including terms and conditions contained therein:
Granted to: Portland General Electric Company, a corporation of Oregon
For: Easement and/or right-of-way
Recorded: September 10, 1953
Recording Information: Book 171, Page 99, Deed Records
8. Easement, including terms and conditions contained therein:
Granted to: City of Newberg, Oregon, a municipal corporation
For: Sidewalk and utility easement
Recorded: June 5, 1979
Recording Information: Film Volume 140, Page 1204, Deed and Mortgage Records
9. In order to insure a transaction involving the herein named trust, we will need to be provided a Certification of Trust pursuant to ORS 130.800 through ORS 130.910.

EXHIBIT "A"

File No.: **1032-1564264**

Policy No.: **1564264**

Real property in the City of Newberg, County of Yamhill, State of Oregon, described as follows:

A part of the D. D. Deskens Donation Land Claim No. 54 in Township 3 South, Range 2 West, of the Willamette Meridian in Yamhill County, Oregon, bounded and described as follows, to-wit:

BEGINNING at a point on the Section line between Sections 17 and 18 in said Township and Range, said point being 723 feet South of the Quarter Post between said Sections and being also 396 feet South of the intersection of the North boundary line of said Donation Land Claim with said Section line; thence South along said Section line 245 feet; thence South 89°11' West 609 feet to the Southeast corner of tract conveyed to Dale D. Voss, et ux. by deed recorded February 24, 1954 in Book 172, Page 417, Deed Records; thence North 00°11' East 254.6 feet to the South line of land conveyed to George W. Constable by deed recorded August 2, 1949 in Book 153, Page 771, Deed Records, and thence East 608.4 feet to the place of beginning.

APN: R3218DA-2100

AFTER RECORDING RETURN TO:
City of Newberg
Planning and Building Department
PO Box 970 – (414 E. First Street)
Newberg, OR 97132

EXHIBIT P

COVENANT OF WAIVER OF RIGHTS AND REMEDIES

Recitals

- 1) The undersigned, Housing Authority of Clatsop County and _____ (hereinafter referred to as "Owner" or "Owners") has/have petitioned the City of Newberg (hereinafter referred to as "City") to commence certain proceedings, relating to Comprehensive Map Amendment and Zoning Map Amendment, for the real property described in **Exhibit A** which is attached hereto and incorporated herein.
- 2) Pursuant to the enactment of **Ballot Measure 49** (adopted November 6, 2007), if a public entity enacts one or more land use regulations that restrict the residential use of private real property or a farming or forest practice and that reduce the fair market value of the property, then the owner of the property shall be entitled to just compensation from the public entity that enacted the land use regulation or regulations as provided in Measure 49.
- 3) There is the potential that the Oregon electors or the Oregon Legislature may, in the future, enact further statutory or constitutional amendments relating to compensation for the impact of local regulations upon real property, under certain circumstances.
- 4) City does not wish to approve the Owner's/Owners' requested proceedings if the result would or could arguably give rise to a later claim by the Owner or Owners, or the Owner's/Owners' successors or assigns for compensation for the land use regulations in effect upon the effective date of the proceedings, or would or could arguably require the City to waive the City's land use regulations in effect upon the effective date of the proceedings, which are being newly imposed upon the property by reason and result of the proceedings.
- 5) Owner(s) seek(s) to induce the City to proceed with the proceedings and therefore Owner(s) agree(s) to eliminate the potential of claim for compensation or the right to seek waiver from the City's land use regulations existing as of the effective date of the proceedings.

NOW THEREFORE, the undersigned Owner(s) warrant(s) that the Owner(s) executing this covenant hold(s) the full and complete present ownership or any interest therein in the property, and hereby agree(s) and covenant(s) as follows:

- 1) As inducement to the City to proceed with the following proceeding(s) affecting the subject real property: 1103 N. Meridian Street, which may include designation of the property as subject to additional applicable overlay zones and districts, e.g., Limited Use Overlay District, (all inclusively referred to herein as "proceedings"), the undersigned Owner(s), on behalf of Owner(s), Owner's/Owners' heirs, devisees, executors, administrators, successors and assigns, agree(s) and covenant(s) to the City of Newberg, its officers, agents, employees and assigns that the undersigned hereby remises, waives, releases and forever discharges, and agrees that Owner(s) shall be estopped from asserting any rights and remedies, actions, causes of action, suits, claims, liabilities, demands, and rights to waivers arising under or granted by any statutory or constitutional regulatory compensation or waiver provisions, including but not limited to Ballot Measure 49 (2007) or otherwise enacted after the date of this proceeding which would create a right of claim for compensation or waiver from City land use regulations that exist upon the effective date of the proceeding and which, by the approval of the proceeding, are then applicable to the property.

- 2) This waiver and release shall bind the undersigned's heirs, devisees, executors and administrators, successors in interests, and assigns. This covenant, waiver, release and discharge shall run with the land, and this instrument, or a memorandum hereof, may be recorded in the official records of the County in which the subject real property is located. This instrument may be terminated upon the filing of a Notice of Termination of Covenant filed by the City of Newberg.
- 3) If this instrument is given contemporaneous with a consent to future proceedings to be initiated by the City, Owner(s) acknowledge(s) that the proceedings may be initiated by the City of Newberg at any time in the discretion of the City of Newberg, and that this waiver and release is applicable to any ordinances adopted prior to the effective date of the proceeding.
- 4) This document is executed of my/our own free will and without duress. I, or if more than one, each of us respectively acknowledge that I/we have been advised to obtain legal advice prior to the execution of this document, and that either I, or each of us respectively, have either obtained legal advice or have independently elected not to seek legal advice prior to the execution of this document, recognizing that this document may affect my/our legal rights and remedies.

OWNER

OWNER

*Alise Hui, Executive Director
Housing Authority of Yamhill County*

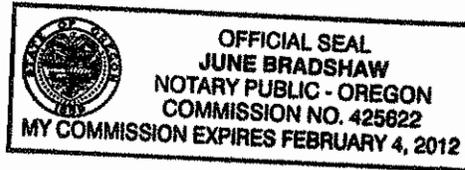
STATE OF OREGON)

County of Yamhill)

) ss.
)

This instrument was acknowledged before me on this 12 day of August, 2010, by Housing Authority of Yamhill County and _____.

June Bradshaw
Notary Public for Oregon
My Commission expires: 02/04/12



CITY OF NEWBERG

APPROVED AS TO FORM:

Norma I. Alley, City Recorder

Terrence D. Mahr, City Attorney

Dated: _____

Dated: _____